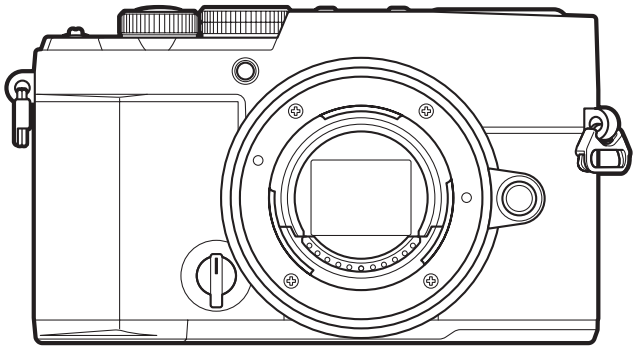
DIGITAL CAMERA

OM SYSTEM PEN

Instruction Manual



EN

Model No. : IM042

- Thank you for purchasing our digital camera. Before you start to use your new camera, please read these instructions carefully to enjoy optimum performance and a longer service life.
- **Be sure you have read and understood the contents of "SAFETY PRECAUTIONS", before using this product. Keep these instructions available for future reference.**
- We recommend that you take test shots to get accustomed to your camera before taking important photographs.
- The screen and camera illustrations shown in this manual were produced during the development stages and may differ from the actual product.
- If there are additions and/or modifications of functions due to firmware update for the camera, the contents will differ. For the latest information, please visit our website.

Table of Contents

Introduction. 18

Before You Begin. 18

User Registration. 18

Installing PC Software/Apps. 19

About This Manual. 20

How to find what you want to know. 20

How to read this manual. 21

Names of parts. 23

Preparation. 25

Unpacking the box contents. 25

Attaching the Strap. 26

Inserting and removing the battery. 27

Inserting the battery. 27

Removing the battery. 28

Charging the battery. 29

Charging the battery using an optional USB-AC adapter (F-5AC). 29

Charging the battery using a USB device. 30

Precautions for charging. 30

Using the charger (BCS-7). 32

Inserting and removing the card. 33

Inserting the card. 33

Removing the card. 34

Usable cards. 34

Attaching and removing lenses. 35

Attaching a lens to the camera. 35

Removing Lenses. 36

Using the monitor. 37

Turning the camera on. 38

Sleep Mode. 39

Initial setup. 40

What to Do If You Can't Read the Display. . . . 42
Shooting. . . . 43
Information displays while shooting. . . . 43
Switching between displays. . . . 46
Switching the information display. . . . 48
Rotate the lever (📷/🎞/S&Q) to switch modes. . . . 50
Using Shooting Modes. . . . 51
Types of shooting modes. . . . 51
Choosing shooting modes. . . . 52
Shooting still pictures. . . . 52
Shooting with touch screen operations. . . . 54
Photo Review (Image Review). . . . 56
Letting the camera choose aperture and shutter speed (**P**: Program AE). . . . 58
Program Shift. . . . 60
Choosing aperture (**A**: Aperture-Priority AE). . . . 61
Choosing shutter speed (**S**: Shutter-Priority AE). . . . 63
Choosing aperture and shutter speed (**M**: Manual Exposure). . . . 65
Using Exposure Compensation in Mode **M**. . . . 67
Long Exposures (**B**: Bulb/Time). . . . 68
Lighten Blending (**B**: Live Composite Photography). . . . 72
Letting the camera choose the settings (AUTO Mode). . . . 75
Shooting in scene mode (**SCN** Mode). . . . 78
Types of scene modes. . . . 79
Shooting a Starry Scene or a Starry Sky. . . . 83
Shooting a Panorama. . . . 84
Using art filters (**ART** Mode). . . . 85
Types of art filters. . . . 86
Adjust the level of the art filter (Fine-Tune). . . . 88
Using [Partial Color]. . . . 89
Recording Movies. . . . 90
Recording movies in 🎞/S&Q modes. . . . 90

Recording movies in photo shooting modes. 93
Touch Controls (Silent Controls). 94
Saving Custom Settings to the Mode Dial (**C1** and **C2** Custom Modes). 95
Saving Settings (Assign). 95
Using Custom Modes (**C1**/**C2**). 97
Setting custom mode names (Custom Mode Name). 100
Shooting Settings. 102
How to change the shooting settings. 102
Direct Buttons. 103
Functions and Direct Buttons. 103
Setting with Direct Buttons. 105
LV Super Control Panel/Super Control Panel. 107
On LV Super Control Panel/Super Control Panel. 107
Setting with LV Super Control Panel/Super Control Panel. 109
Functions Available with the LV Super Control/Super Control Panel. 111
Using the menu. 113
What you can do with menus. 113
How to operate the menus. 114
Displaying the description of a menu item. 116
Items shown in gray. 117
Basic functions for focusing. 118
Choosing a focus mode (AF Mode / AF Mode). 118
Using Starry Sky AF. 120
Setting a focus position for Preset MF. 121
Adjusting Focus Manually During Autofocus. 122
Choosing a Focus Target (AF Target Point). 123
Choosing an AF Target Mode (AF Target Mode). 124
Types of AF Target Modes. 124
Setting the options for AF target modes (AF Target Mode Settings). 127
Zoom frame AF/Zoom AF (Super Spot AF). 129
Functions for configuring how to focus. 131
Combined Auto and Manual Focus (AF+MF). 131

Configuring the AF operation when the shutter button is pressed (AF by half-pressing). 133
Autofocus using the **AF-ON** button. 134
Using Autofocus in Manual Focus Mode (AF-ON in MF mode). 135
Configuring camera operation when it cannot focus on the subject (Release Priority). 136
Changing the settings of Starry Sky AF (Starry Sky AF Setting). 137
Functions for customizing AF operation to fit the subject. 138
Tracking Focus on Selected Subjects (Subject Detection). 138
Taking Pictures Using [Subject Detection]. 138
Assigning focus priority to buttons (AF Button). 140
Tracking Focus on Faces or Eyes of Subjects (Face & Eye Detection). 141
Taking Pictures Using [Face & Eye Detection]. 141
Configuring the C-AF operation when a face is not detected (C-AF when). 143
Configuring the frame displays for detected eyes (Eye Detection Frame). 144
C-AF Center Target Priority (C-AF Center Priority). 145
C-AF Tracking Sensitivity (C-AF Sensitivity / C-AF Sensitivity). 146
C-AF Focus Speed (C-AF Speed). 147
Functions for changing camera operation regarding focus. 148
Lens Focus Range (AF Limiter). 148
Using the settings saved in [AF Limiter]. 148
Configuring [AF Limiter]. 149
C-AF Lens Scanning (AF Scanner). 150
Fine-Tuning Autofocus (AF Focus Adjustment). 151
Using the saved focus adjustment value. 151
Configuring [AF Focus Adjustment]. 152
AF Illuminator Autofocus Assist (AF Illuminator). 153
AF Target Display Mode (AF Area Pointer). 154
Functions for setting the focusing position. 155
Matching AF Target Selection to Camera Orientation (Orientation Linked [·:·]). 155
Choosing the AF Home Position ([·:·] Set Home). 157
Using the [[·:·]Home] function. 158
AF Target Selection ([·:·]Select Screen Settings). 159

Enabling AF Target Selection Wrap ([∴] Loop Settings). 160
Touch AF Target Selection for Viewfinder Photography (AF Targeting Pad). 162
Other functions that are useful when focusing. 163
Manual Focus Assist (MF Assist). 163
Focus Peaking Options (Peaking Settings). 165
Using Focus Peaking. 166
Choosing a Focus Distance for Preset MF (Preset MF distance). 167
Disabling the MF Clutch (MF Clutch). 168
Lens Focus Direction (Focus Ring). 169
Resetting the Lens Position at Shutdown (Reset Lens). 170
Metering and Exposure. 171
Controlling exposure (Exposure Compensation). 171
Adjusting Exposure Compensation. 172
Resetting Exposure Compensation. 172
EV Steps for Exposure Control (EV Step). 174
Fine-Tuning Exposure (Exposure Shift). 175
Reducing Flicker Under LED Lighting (Flicker Scan / Flicker Scan). 176
Choosing the Shutter Speed. 177
Choosing how the camera measures brightness (Metering). 178
Locking the exposure (AE Lock). 179
AE Lock Exposure Metering (Metering during AEL). 180
Releasing AE Lock after shooting (AEL Auto Reset). 181
Locking exposure when the shutter button is pressed halfway (AEL by half-pressing). 182
Setting metering options for sequential shooting (Metering during). 183
Metering the Focus Target ([∴]Spot Metering). 184
Changing ISO sensitivity (ISO / ISO). 185
EV Steps for ISO Sensitivity Control (ISO Step). 187
Setting the range of ISO sensitivity values selected in [Auto] mode (ISO-A Upper/Default / ISOM-A Upper/Default). 188
Setting the shutter speed at which the camera automatically raises ISO sensitivity (ISO-A Lowest S/S). 189
Choosing the modes in which [Auto] can be used for ISO sensitivity (ISO-Auto / ISOM-Auto). 190

High ISO Noise Reduction Options (Noise Filter / Noise Filter). 191
Image Processing Options (Low ISO Processing). 192
Long Exposure Noise Reduction Options (Noise Reduction). 193
Flash photography. 194
Using a flash (Flash photography). 194
Flash units designed for use with the camera. 194
Attaching Compatible Flash Units. 194
Choosing a Flash Mode. 195
Flash Modes. 195
Flash Modes and Setting Combinations. 196
Configuring flash modes (Flash Mode Settings). 199
Adjusting flash output (Flash Exposure Comp.). 200
Wireless Remote Flash Control (RC Mode). 201
Choosing a Flash Sync Speed (X-Sync.). 202
Choosing the Minimum Shutter Speed (Slow Limit). 203
Flash and Exposure Compensation (+). 204
Sequential Shooting/Self-Timer. 205
Performing the sequential/self-timer shooting. 205
Configuring the sequential shooting functions (Sequential Shooting Settings). 208
Configuring the self-timer functions (Self-timer Settings). 210
Shooting without the vibration caused by shutter button operations (Anti-Shock[♦] Settings). . . 212
Shooting without shutter sound (Silent[♥] Settings). 213
Shooting without a release time lag (Pro Capture shooting). 215
Reducing Flicker in Photographs (Anti-Flicker Shooting). 218
Image Stabilization. 219
Reducing camera shake (Image Stabilizer / Image Stabilizer). 219
Setting the detailed option of image stabilizer. 220
Half-press image stabilization (Image Stabilizer). 221
Stabilization for IS Lenses (Lens I.S. Priority). 222
Color and Quality. 223
Setting the Quality of Photos and Movies (/ / S&Q). 223
Configuring 223

Configuring 224
Configuring S&Q 225
Combinations of JPEG image sizes and compression rates (Detailed Settings) 229
Setting the image aspect (Image Aspect) 230
Peripheral illumination (Shading Comp.) 231
Processing options (Picture Mode / Picture Mode) 232
Changing the modes using the Profile Control Switch 232
Setting with Super Control Panel/Menu 233
Setting Picture Mode 233
Setting Color Profile Control 235
Setting Monochrome Profile Control 237
Setting detailed options of Each Mode 238
Setting detailed options of a Picture Mode Exclusive for Movies 242
Choosing which options are displayed when selecting a picture mode (Picture Mode Settings) 243
Adjusting color (WB (white balance)) 244
Setting the white balance 244
Making fine adjustments to white balance of each WB mode 246
One-touch white balance 247
Making fine adjustments to white balance (All WB) 249
Preserving the warm tones of incandescent lighting when in WB Auto mode (WB AUTO Keep Warm Color) 250
Flash White Balance (+WB) 251
Setting the color reproduction format (Color Space) 252
Preview Options for [Picture Mode] (View Assist) 253
Special shooting modes (Computational Modes) 254
Shooting still pictures in a higher resolution (High Res Shot) 254
Enabling High Res Shot 254
Configuring High Res Shot 255
Shooting 255
Setting with the **CP** button 257
Slowing the Shutter in Bright Light (Live ND Shooting) 258

Enabling Live ND Shooting. . . . 258
Configuring Live ND Shooting. . . . 258
Shooting. . . . 259
Setting with the **CP** button. . . . 260
Increasing Depth of Field (Focus Stacking). . . . 261
Enabling Focus Stacking. . . . 261
Configuring Focus Stacking. . . . 262
Shooting. . . . 262
Setting with the **CP** button. . . . 263
Taking HDR (High Dynamic Range) images (HDR). . . . 264
Setting with the **CP** button. . . . 265
Recording multiple exposures in a single image (Multiple Exposure). . . . 266
Enabling Multiple Exposure. . . . 266
Configuring Multiple Exposure. . . . 267
Shooting. . . . 267
Setting with the **CP** button. . . . 268
When [Overlay] is set. . . . 268
Digital Zoom (Digital Tele-converter / Digital Tele-converter). . . . 270
Shooting automatically with a fixed interval (Interval Shooting). . . . 271
Enabling Interval Shooting. . . . 271
Configuring Interval Shooting. . . . 271
Shooting. . . . 273
Keystone correction and perspective control (Keystone Comp.). . . . 275
Correcting Fisheye Distortion (Fisheye Compensation). . . . 277
Enabling Fisheye Compensation. . . . 277
Configuring Fisheye Compensation. . . . 278
Shooting. . . . 278
Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings). . . . 280
Recording a series of shots with varied exposure (AE BKT). . . . 282
Recording pictures with varied white balance (WB BKT). . . . 284
Recording pictures with varied flash level (FL BKT). . . . 285
Recording pictures with varied ISO sensitivity (ISO BKT). . . . 286

Recording copies of one picture with different art filters applied (ART BKT). 287
Enabling art filter bracketing. 287
Configuring art filter bracketing. 288
Shooting. 288
Recording pictures with different focus positions (Focus BKT). 289
Enabling focus bracketing. 289
Configuring focus bracketing. 289
Shooting. 290
Functions that are only available in movie mode. 292
Sound Recording Options (Sound Recording Settings). 292
Time Codes (Time Code Settings). 294
HDMI Output (HDMI Output). 295
Displaying a red frame while recording movies (Red Frame during REC). 296
Lamp during movie recording (Recording Lamp). 297
Playback. 298
Information display during playback. 298
Playback image information. 298
Switching the information display. 300
Viewing photographs and movies. 301
Viewing photographs. 301
Watching movies. 302
Finding Pictures Quickly (Index and Calendar Playback). 304
Zooming In (Playback Zoom). 305
Playback Using Touch Controls. 306
Full-frame playback. 306
Index/Calendar playback. 307
Other functions. 308
Setting playback functions. 309
Rotating Pictures (Rotate). 309
Protecting Pictures (). 310
Deleting Pictures (Erase). 311
Deleting All Pictures (Erase All). 312

Disabling Deletion Confirmation (Quick Erase). 313
RAW+JPEG Deletion Options (RAW+JPEG Erase). 314
Selecting Pictures for Sharing (Share Order). 315
Selecting RAW+JPEG Pictures for Sharing (RAW+JPEG). 316
Rating Pictures (Rating). 317
Selecting the numbers of stars to be used for rating (Rating Settings). 318
Selecting Multiple Pictures (Share Order Selected, Rating Selected, , Erase Selected). 319
Print order. 320
Configuring print orders. 320
Setting print orders. 320
Resetting all protection/share orders/print orders/ratings (Reset All Images). 322
Adding Audio to Pictures ( ). 323
Audio Playback. 324
Retouching Pictures (Edit). 325
Retouching RAW Pictures (RAW Data Edit). 325
Retouching JPEG Pictures (JPEG Edit). 327
Combining Pictures (Image Overlay). 329
Trimming movies (Movie Trimming). 331
Creating Movie Stills (In-Movie Image Capture). 332
Changing the role of the ( ) button during playback (Function). 333
Changing the roles of the front and rear dials during playback (Dial Function). 334
Choosing the Playback Zoom Ratio (Default Setting). 335
Automatically Rotating Portrait-Orientation Pictures for Playback ( ). 336
Choosing the information displayed during playback (Info Settings). 337
Choosing the information displayed during magnified playback (Info Settings). 338
Configuring the index display (Settings). 339
Functions for Configuring Camera Controls. 340
Changing the roles of buttons (Button Settings). 340
Customizable Controls. 340
Available Roles. 341
Using multi-function options (Multi Function). 349
Using the **CP** button (Computational Modes). 350

Recording a movie by pressing the shutter button (Shutter Function). 351
Setting the display when pressing the **OK** button (Setting screen opened by OK). 352
Assigning Roles to the Front and Rear Dials (Dial Function / Dial Function). 353
Changing the Dial Direction (Dial Direction). 355
Power Zoom Lenses (Electronic Zoom Settings). 356
Choosing What Happens When the Shutter Button Is Pressed During Live View Zoom (LV Close Up Mode). 357
Choosing the Behavior of the Control Used for Depth-of-Field Preview (Lock). 358
Button Hold Options (Press-and-hold Time). 359
Functions for adjusting the live view display. 360
Making the display easier to see in dark places (Night Vision). 360
Art Filter Preview (Art LV Mode). 361
Reducing Flicker in Live View (Anti-Flicker LV). 362
Selfie Assist (Selfie Assist). 363
Functions for configuring information display. 364
Selecting the display style of the viewfinder (EVF Style). 364
Viewfinder display when shooting using the viewfinder (Style 1 / Style 2). 364
Shooting Indicators (Info Settings / Info Settings). 366
Configuring Info Settings. 366
Configuring Info Settings. 367
Choosing a Display. 367
Configuring the display for when the shutter button is pressed halfway (Info by half-pressing). 368
Viewfinder Info Display Options (Info Settings). 369
Displaying the Level Gauge when the shutter button is pressed halfway (Level Gauge). . 370
Framing Guide Options (Grid Settings / Grid Settings). 371
Viewfinder Framing Grid Options (Grid Settings). 372
Choosing the Settings Available via the **CP** button (CP Button Settings). 373
Choosing the Settings Available via Multi-Fn (Multi Function Settings). 374
Histogram Exposure Warning (Histogram Settings). 375
Settings related to operation and display of menus. 376
Configuring the cursor on the menu screen (Menu Cursor Settings). 376

Choosing how to move between pages with the rear dial (Loop in Menu Tab). 378
[Yes]/[No] Default (Priority Set). 379
"My Menu" Settings. 380
My Menu. 380
Adding items to "My Menu". 380
Managing "My Menu". 382
Card/Folder/File Settings. 383
Formatting the card (Card Formatting). 383
File Naming Options (File Name). 384
Naming Files (Edit Filename). 385
User information. 386
Saving lens info (Lens Info Settings). 386
Output Resolution (dpi Settings). 388
Adding Copyright Information (Copyright Info.). 389
Enabling Copyright Info.. 389
Configuring Copyright Info.. 390
Monitor/Sound/Connection Settings. 391
Disabling Touch Controls (Touchscreen Settings). 391
Monitor Brightness and Hue (Monitor Adjust). 392
Viewfinder Brightness and Hue (EVF Adjust). 393
Configuring the eye sensor (Eye Sensor Settings). 394
Disabling the Focus Beep ( ). 395
External Monitor Display Options (HDMI Settings). 396
Choosing a USB Connection Mode (USB Settings). 397
Battery/Sleep Settings. 398
Dimming the Backlight (Backlit LCD). 398
Setting Sleep (Power Saving) Options (Sleep). 399
Setting Auto Power Off Options (Auto Power Off). 400
Reducing Power Consumption (Quick Sleep Mode). 401
Enabling Quick Sleep Mode. 401
Configuring Quick Sleep Mode. 402
Reset/Clock/Language/Others Settings. 403

Restoring Default Settings (Reset/Initialize Settings). 403
Setting the Camera Clock (Settings). 404
Choosing a Language ( ). 405
Calibrating the Level Gauge (Level Adjust). 406
Image Processing Check (Pixel Mapping). 407
Viewing the Firmware Version (Firmware Version). 408
Viewing Certificates (Certification). 409
Connecting the Camera to External Devices. 410
Connecting to External Devices. 410
Precautions for Using Wi-Fi and **Bluetooth**® 411
Disabling the camera's wireless communication (Airplane Mode). 412
Connecting the Camera to a Smartphone. 413
Connecting to Smartphones. 413
Pairing the Camera and Smartphone (Device Connection). 414
Setting the security for smartphone connections (Connection Security). 416
Wireless Connection Standby Setting for When the Camera Is On (Bluetooth). 417
Wireless Settings for When the Camera Is Off (Power-off Standby). 418
"Select". 418
Transferring images to a smartphone. 420
Automatically uploading images while the camera is off. 421
Shooting remotely with a smartphone (Live View). 422
Shooting remotely with a smartphone (Remote Shutter). 423
Adding position information to images. 424
Resetting smartphone connection settings (Reset Settings). 425
Changing the password (Connection Password). 426
Connecting to Computers via USB. 427
Installing Software. 427
Copying Pictures to the Computer (Storage/MTP). 428
Using the Camera as a Webcam (Webcam). 430
Powering the Camera via USB (Power Supply). 432
Using the Remote Control. 433
Names of parts. 433

Connection. . . . 434
Wireless connection. . . . 434
Deleting pairing. . . . 435
Shooting from the remote control. . . . 436
Data transfer indicator of the remote control. . . . 437
MAC address of the remote control. . . . 438
Precautions for using the remote control. . . . 439
Connecting to TVs or External Displays via HDMI. . . . 440
Connecting the Camera to TVs or External Displays (HDMI). . . . 440
Viewing Pictures on a TV (HDMI). . . . 441
Connecting the Camera to a TV. . . . 441
Cautions. . . . 442
Information about Water-resistant Features. . . . 442
Precautions. . . . 442
Maintenance. . . . 442
Batteries. . . . 443
Using your USB-AC adapter abroad. . . . 444
Information. . . . 445
Interchangeable lenses. . . . 445
Lens and camera combinations. . . . 445
MF Clutch Lenses. . . . 446
Monitor display when using a lens equipped with the SET/CALL function. . . . 447
Optional Accessories. . . . 448
Designated External Flash Units. . . . 448
Wireless remote control flash photography. . . . 449
Other external flash units. . . . 452
Accessories. . . . 453
Cleaning and storing the camera. . . . 456
Cleaning the camera. . . . 456
Storage. . . . 456
Inspecting and Cleaning the Image Sensor. . . . 457
Pixel Mapping - Checking the image processing functions. . . . 457

Shooting tips and information. . . . 458
The camera does not turn on even when a battery is loaded. . . . 458
The battery is not charged. . . . 458
A dialog prompting you to choose a language is displayed. . . . 459
No picture is taken when the shutter button is pressed. . . . 459
The number of AF targets is reduced. . . . 460
The date and time has not been set. . . . 461
Set functions are restored to their factory default settings. . . . 461
Pictures are “washed out”. . . . 461
Unknown bright dot(s) appear on the subject in the picture taken. . . . 461
Pressing a button does not activate the desired function, but a different function is activated 462
Functions that cannot be selected from menus. . . . 462
Functions that cannot be set from the super control panel. . . . 462
The subject appears distorted. . . . 462
Lines appear in photographs. . . . 462
Only the subject is displayed and no information is shown. . . . 463
Focus mode cannot be changed from MF (manual focus). . . . 463
Nothing is displayed on the monitor. . . . 463
Error codes. . . . 464
Specifications. . . . 466
Camera. . . . 466
Lithium-ion battery. . . . 470
Default Settings. . . . 471
Default Settings. . . . 471
Super Control/LV Super Control Panel. . . . 472
Tab. . . . 478
Tab. . . . 485
AF Tab. . . . 489
Tab. . . . 495
Tab. . . . 499
Tab. . . . 501
 Tab. . . . 508

Memory Card Capacity. 512
Memory Card Capacity: Photos. 512
Memory Card Capacity: Movies. 514
SAFETY PRECAUTIONS. 518
SAFETY PRECAUTIONS. 518
General Precautions. 518
⚠WARNING. 519
⚠CAUTION. 521
⚠NOTICE. 521
Trademarks. 524

Introduction

Before You Begin

Read and Follow Safety Precautions

To prevent incorrect operation resulting in fire or other damage to property or harm to yourself or to others, read "SAFETY PRECAUTIONS" (P.518) in its entirety before using the camera.
Before you start to use your new camera, please read these instructions carefully to enjoy optimum performance and a longer service life. Be sure to keep the manual in a safe place once it is read.
Our company will not be held liable for violations of local regulations arising from use of this product outside the country or region of purchase.

Wireless LAN and Bluetooth®

The camera features built-in wireless LAN and **Bluetooth®**. Use of these features outside the country or region of purchase may violate local wireless regulations; be sure to check with local authorities before use. Our company assumes no liability for any failure on the part of the user to observe local laws and regulations.
Disable the wireless LAN and **Bluetooth®** functions in locations in which their use is prohibited.
☞ "Disabling the camera's wireless communication (Airplane Mode)" (P.412)

User Registration

Be sure to register your purchase. Visit our website for information on registering your products.

Installing PC Software/Apps

OM Workspace

This computer application is used to download and view photos and movies recorded with the camera. It can also be used to update the camera firmware. The software can be downloaded from our website. When downloading the software, be prepared to provide the camera serial number.

OM Image Share

Download pictures marked for sharing to your smartphone. You can also operate the camera remotely and take pictures from a smartphone. Visit our website for information about the application.

About This Manual

How to find what you want to know

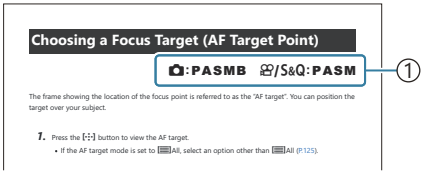
You can use the following methods to find what you want to know in this manual.

Search method	Where to look
Search based on what you want to do	☞ "Table of Contents"
Search based on names of buttons and parts of the camera	☞ "Names of parts" (P.23)
Search based on menus and terms displayed on the monitor	☞ "Default Settings" (P.471)

How to read this manual

Supported shooting modes for each function

In this manual, the shooting modes in which each shooting function can be used are listed at the top of the function description. Black indicates supported shooting modes, while gray indicates unsupported shooting modes.

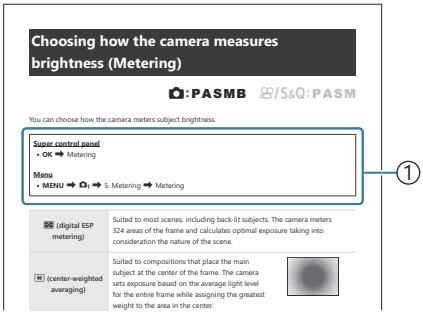


①Supported shooting modes

For **AUTO**, **SCN**, and **ART** modes, optimal settings and effects are pre-registered for the subject and shooting scene. Available shooting functions vary depending on the shooting mode.

Configuring functions

In this manual, the configuration method for each function is described at the beginning of the function description. For details, refer to "How to operate the menus" (P.114) and "How to change the shooting settings" (P.102).

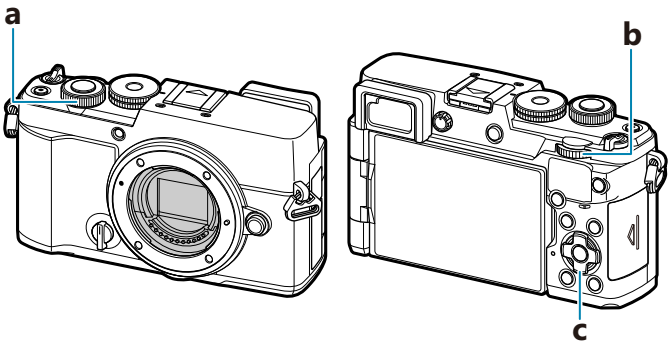


①Method

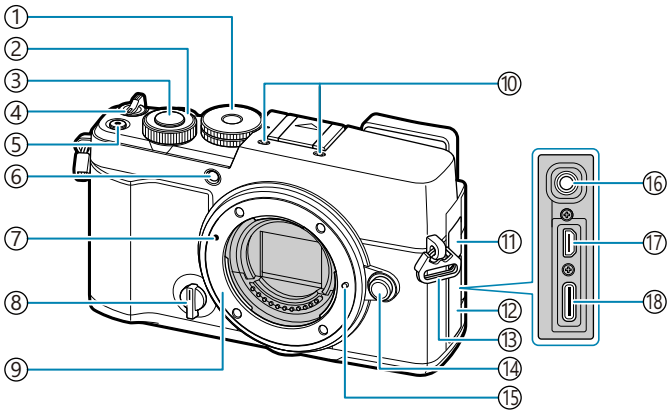
Symbols in this manual

The symbols below are used throughout this manual.

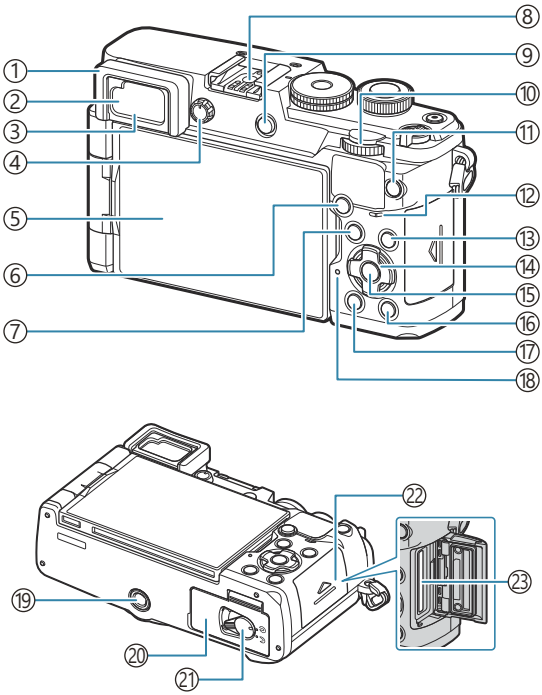
△▽◁▷	Indicates an operation performed by pressing the buttons (respectively the up, down, left, and right arrow buttons) on the arrow pad (**c**).
	Indicates an operation performed using the front dial (**a**).
	Indicates an operation performed using the rear dial (**b**).
	Cautions and limitations.
	Tips and other helpful information for using the camera.
☞	References to other pages in this manual.



Names of parts



①Mode dial (P.51)
②Front dial (P.58, P.61, P.63, P.65, P.114, P.301, P.334, P.353, P.355)
③Shutter button (P.52)
④Power lever (📷/🎥/S&Q) (P.38, P.50)
⑤⏺ (Movie) button (P.90)
☑ (Selection) button (P.319)
⑥Self-timer lamp (P.205)
AF illuminator (P.153)
Movie recording lamp (P.297)
⑦Lens attachment mark (P.35)
⑧Profile control switch (P.232)
⑨Mount (Remove the body cap before attaching the lens.)
⑩Stereo microphone (P.292, P.323)
⑪Microphone jack cover
⑫Connector cover
⑬Strap eyelet (P.26)
⑭Lens release button (P.36)
⑮Lens lock pin
⑯Microphone jack (A commercially available microphone can be connected. ø3.5 stereo mini plug) (P.292)
⑰HDMI connector (Type D) (P.295, P.441)
⑱USB connector (Type C) (P.29, P.30, P.428, P.430, P.432)

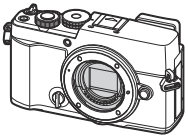


①Eyecup
②Eye sensor (P.46)
③Viewfinder (P.46, P.364)
④Diopter adjustment dial (P.46)
⑤Monitor (Touch screen) (P.43, P.46, P.54, P.162, P.306)
⑥**AF-ON** button (P.134, P.135)
(Protect) button (P.310)
⑦**MENU** button (P.114)
⑧Hot shoe (P.194, P.452)
⑨ (**LV**) button (P.46)
⑩Rear dial (P.58, P.61, P.63, P.65, P.114, P.301, P.334, P.353, P.355)
⑪**CP** button (P.350)
★ (Rating) button (P.317)
⑫Speaker
⑬**INFO** button (P.48, P.116, P.300)
⑭Arrow pad (P.103, P.301)
⑮**OK** button (P.114, P.107, P.301)
⑯ (Playback) button (P.301)
⑰ (Erase) button (P.311)
⑱Battery charge lamp (P.29)
⑲Tripod socket
⑳Battery compartment cover (P.27)
㉑Battery compartment lock (P.27)
㉒Card compartment cover (P.33)
㉓Card slot (P.33)

Preparation

Unpacking the box contents

At purchase, the package contains the camera and the following accessories.
If anything is missing or damaged, contact the dealer from whom you purchased the camera.



Camera

Body cap [1]

Hot shoe cover [1]

Strap

BLS-7 rechargeable lithium-ion battery

Basic Manual

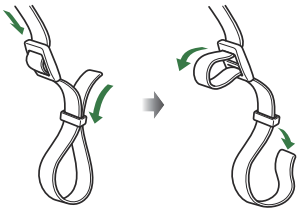
Warranty Card

1 The body cap and hot shoe cover are attached to or inserted in the camera.

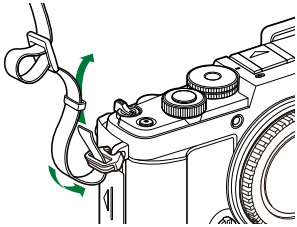
The battery will not be fully charged at the time of purchase. Charge the battery before use (P.29).

Attaching the Strap

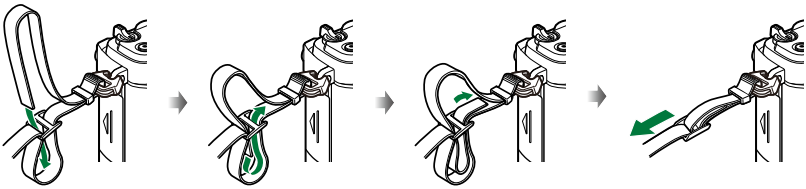
1. Before attaching the strap, remove the end from the keeper loop and loosen the strap as shown.



2. Pass the end of the strap through the strap eyelet and back through the keeper loop.



3. Pass the end of the strap through the buckle and tighten as shown.

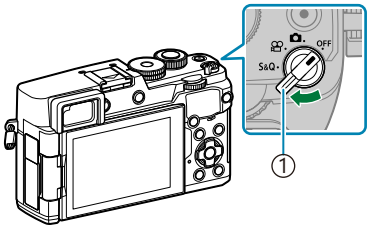


- Attach the other end of the strap to the other eyelet.
- After attaching the strap, pull on it firmly to ensure that it will not come loose.

Inserting and removing the battery

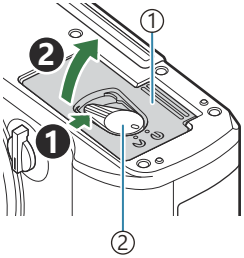
Inserting the battery

1. Confirm that the power lever is in the **OFF** position.



①Power lever

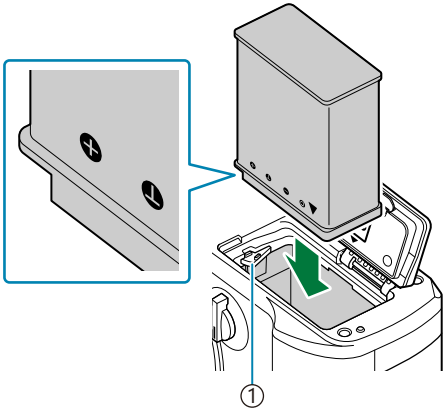
2. Open the battery compartment cover.



①Battery compartment cover
②Battery compartment lock

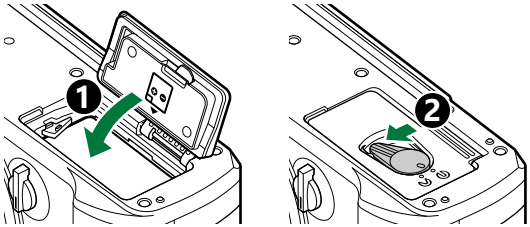
3. Insert the battery.

- Use only BLS-7 batteries (P.25, P.470).
- Insert the battery as illustrated with the ⊕ mark toward the battery lock knob.



①Battery lock knob

4. Close the battery compartment cover.



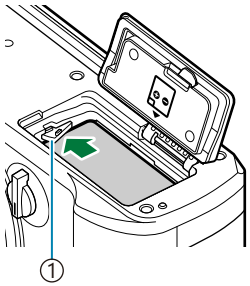
Be sure the battery compartment cover is closed before using the camera.

It is recommended to set aside a backup battery for prolonged shooting in case the battery in use drains.

See also "Batteries" (P.443).

Removing the battery

Turn off the camera before opening or closing the battery compartment cover. To remove the battery, first push the battery lock knob in the direction of the arrow and then remove.



① Battery lock knob

Contact an authorized distributor or service center if you are unable to remove the battery. Do not use force.

Never remove batteries or memory cards while the card write indicator (P.43) is displayed.

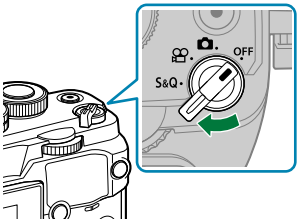
Remove the battery before putting the camera into storage for periods of a month or more.

Charging the battery

- The battery will not be fully charged at the time of purchase. Charge the battery before use.
- When charging, be sure to insert the battery before connecting the USB cable.
- The camera can be charged using the following methods.
  - Using the USB-AC adapter F-5AC (sold separately) (P.29)
  - Using a commercially available USB device (P.30)
  - Using a charger sold separately (BCS-7) (P.32)

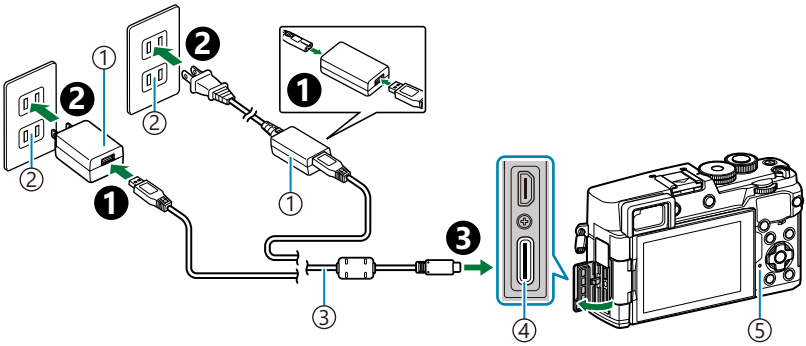
Charging the battery using an optional USB-AC adapter (F-5AC)

1. Confirm that the power lever is in the **OFF** position.



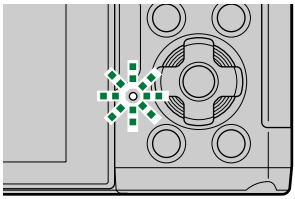
2. Connect the USB cable, USB-AC adapter, and AC outlet.

- Refrain from using any cable other than the USB cable (CB-USB11), which is sold separately.



①USB-AC adapter F-5AC (sold separately)
②AC outlet
③USB cable CB-USB11 (sold separately)
④USB connector
⑤Battery charge lamp

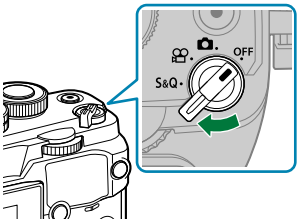
- The battery charge lamp lights during charging. Charging with the camera turned off takes about 3 hours. The lamp goes out as the batteries reach full charge. Remove the USB cable from the camera.



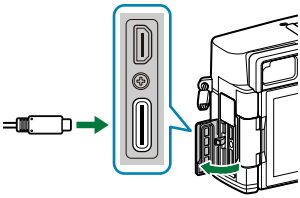
Charging the battery using a USB device

The battery inserted in the camera will charge when the camera is connected via a USB cable to a commercially available USB device.

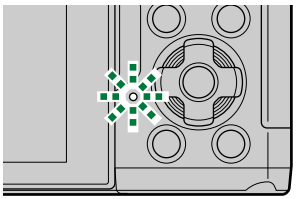
1. Confirm that the power lever is in the **OFF** position.



2. Connect the camera to the USB device using a USB cable.



- The battery charge lamp lights during charging. Charging times vary with the output of the USB device. The lamp goes out as the batteries reach full charge.



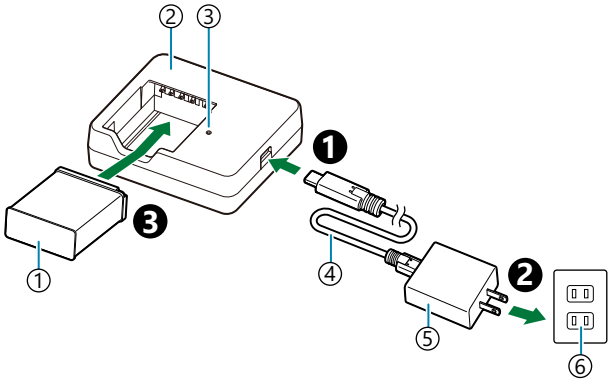
- The supply of power ends when the battery is charged. Disconnect and reconnect the USB cable to resume charging.
- The camera can be powered using mobile batteries or similar devices connected via USB. For details, see "Powering the Camera via USB (Power Supply)" (P.432).

Precautions for charging

- If a charging error occurs, the battery charge lamp will blink. Disconnect and reconnect the USB cable.
- If the battery charge lamp does not light when a USB-AC adapter or a commercially available USB device is connected to the camera, charging has not started. Charging may start when you perform the following steps.
  1. Remove the battery from the camera
  2. Disconnect the USB cable from the camera, if a USB-AC adapter or commercially available USB device is connected
  3. Confirm that the power lever is in the **OFF** position
  4. Leave the battery out of the camera for a while, then insert it into the camera again
  5. Connect the USB-AC adapter or commercially available USB device
- Be sure to unplug the USB-AC adapter for cleaning. Leaving the USB-AC adapter plugged in during cleaning could result in injury or electric shock.
- Charging may not start depending on the ambient temperature. If this happens, the battery charge lamp will blink.
- Charging stops when the battery temperature is too high. It will resume after the battery temperature falls.
- For safety reasons, charging may take longer, or the battery may not reach full charge, when the battery is charged in a high-temperature environment.

Using the charger (BCS-7)

1. Charge the battery.



①Lithium ion battery (BLS-7)
②Lithium-ion charger
③Charging indicators
④USB cable (CB-USB13: sold separately)
⑤USB-AC adapter (F-7AC: sold separately)
⑥AC wall outlet

- When using the F-7AC, the charging time is approximately 1 hour 30 minutes. The charging time varies depending on the connected USB device.
- See the table below for status of the charging indicators and battery charge.

Charging indicator	Battery charge
Lights orange	Charging in progress
Off	Charging complete
Blinks orange	Charging error

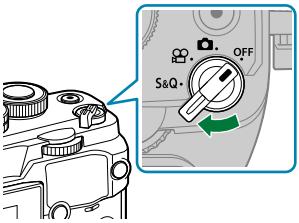
- See the documentation provided with the BCS-7 for details.

Inserting and removing the card

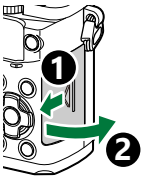
Inserting the card

In this manual, all storage devices are referred to as “cards”. The following types of SD memory card (commercially available) can be used with this camera: SD, SDHC, and SDXC.
Cards must be formatted with this camera before first use or after being used with other cameras or computers. ☞ “Formatting the card (Card Formatting)” (P.383)

1. Confirm that the power lever is in the **OFF** position.



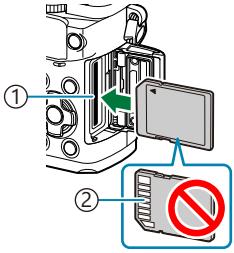
2. Open the card compartment cover.



3. Insert the card.

- Slide the card in until it locks into place.

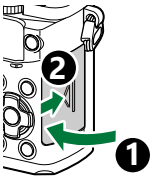
Ⓘ Do not forcibly insert a damaged or deformed card. Doing so may damage the card slot.



① Card slot
② Terminal area

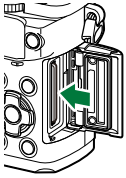
4. Close the card compartment cover.

- Close it securely until you hear it click.



Removing the card

Press the card in to eject it. Pull out the card.



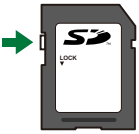
Never remove batteries or memory cards while the card write indicator (P.43) is displayed.

Usable cards

In this manual, all storage devices are referred to as “cards.” The following types of SD memory card (commercially available) can be used with this camera: SD, SDHC, and SDXC. For the latest information, please visit our website.

SD card write protect switch

The SD card body has a write protect switch. Setting the switch to “LOCK” prevents data being written to the card. Return the switch to the unlock position to enable writing.



When recording movies, use an SD card that supports an SD speed class of 10 or higher.

A UHS-I card with a UHS speed class of 3 or better is required when:

- **[4K]** or **[C4K]** is selected for Movie Resolution
- **[A-I]** (ALL-Intra) is selected for Motion Compensation
- a Sensor Frame Rate of **[120fps]** is selected for S&Q

The data in the card will not be erased completely even after formatting the card or deleting the data. When discarding, destroy the card to prevent leakage of personal information.

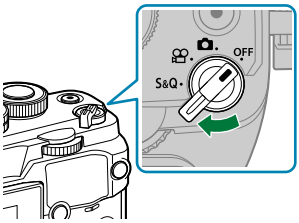
Access to some playback functions and the like may be restricted when the SD memory card write-protect switch is in the “LOCK” position.

Attaching and removing lenses

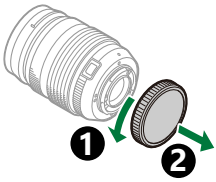
Attaching a lens to the camera

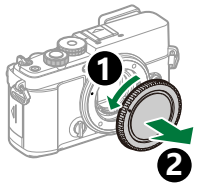
See "Interchangeable lenses" (P.445) for information on compatible lenses.

1. Confirm that the power lever is in the **OFF** position.

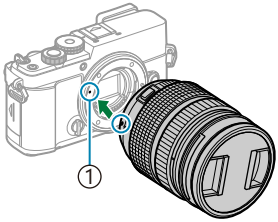


2. Remove the rear cap of the lens and the body cap of the camera.





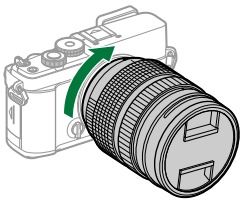
3. Align the lens attachment mark (red) on the camera with the alignment mark (red) on the lens, then insert the lens into the camera's body.



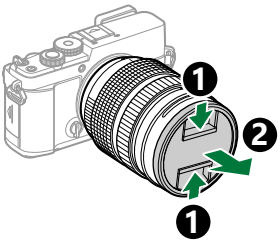
① Lens attachment mark

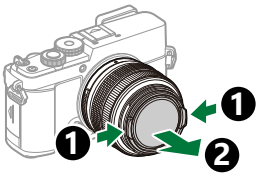
4. Hold the lens by its base and rotate it clockwise until you hear it click.

ⓘ Do not press the lens release button.
ⓘ Do not touch internal portions of the camera.



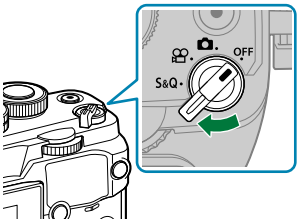
5. Remove the front lens cap.



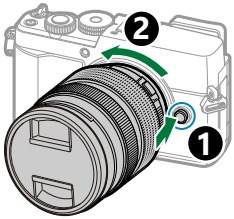


Removing Lenses

1. Confirm that the power lever is in the **OFF** position.

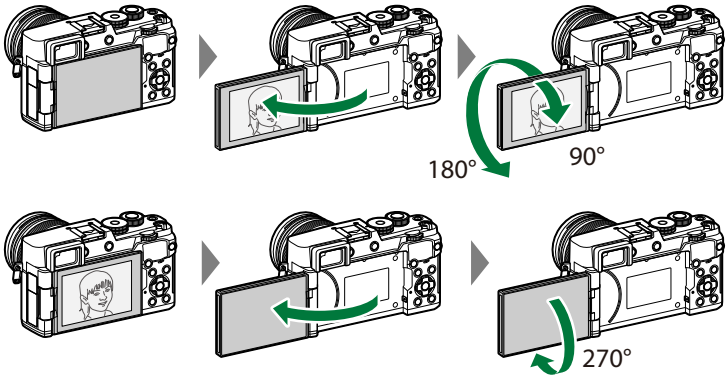


2. Hold the lens release button and rotate the lens as shown.

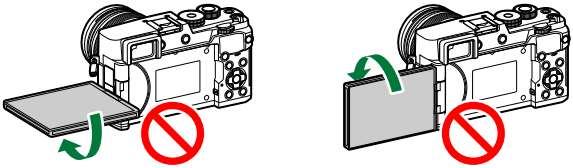


Using the monitor

Rotate the monitor for ease of viewing. The angle of the monitor can be adjusted according to conditions at the time of shooting.



- Gently rotate the monitor within its range of motion. Attempting to rotate the monitor beyond the limits shown below could damage the connectors.

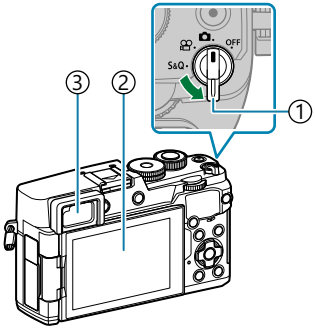


- The camera can be configured to display a mirror image of the view through the lens or automatically zoom power zoom lenses all the way out when the monitor is rotated for self portraits. ☞ "Selfie Assist (Selfie Assist)" (P.363)

Turning the camera on

1. Rotate the power lever to , , or S&Q.

- When the camera is turned on, the monitor will turn on.

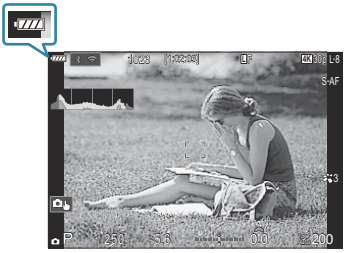


①Power lever
②Monitor
③Viewfinder

Battery level

A battery level indicator appears in the display.

- (white): The camera is ready to shoot.
- (white): The battery is not full.
- (white): The battery is low.
- (blinks red): Charge the battery.



- To turn the camera off, return the power lever to the **OFF** position.

Sleep Mode

If no controls are used for a set period, the camera will automatically enter suspend operation to reduce the drain on the batteries. This is referred to as “sleep mode”.

- When the camera enters sleep mode, the monitor will turn off and operation will be suspended. Pressing the shutter button reactivates the camera.
- If no operations are performed for a set period after the camera enters sleep mode, the camera will turn off automatically. The camera can be reactivated by turning it on again.

The camera may require additional time to recover from sleep mode when **[On]** (enabled) is selected for **[Settings]** > **[Power-off Standby]**. ☞ “Wireless Settings for When the Camera Is Off (Power-off Standby)” (P.418)

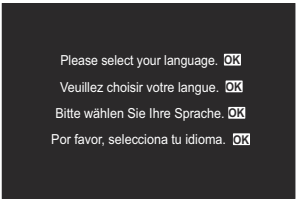
The delay before the camera goes to sleep or turns off automatically can be selected in the menu. ☞ “Setting Sleep (Power Saving) Options (Sleep)” (P.399), “Setting Auto Power Off Options (Auto Power Off)” (P.400)

Initial setup

After turning the camera on for the first time, perform the initial setup by choosing a language and setting the camera clock.

ⓘ The file name is also included with the date and time information. Be sure to set the correct date and time before using the camera. Some functions cannot be used if the date and time have not been set.

1. Press the **OK** button when the initial setup dialog is displayed prompting you to choose a language.



2. Highlight the desired language using the front or rear dial or the △▽◁▷ buttons.

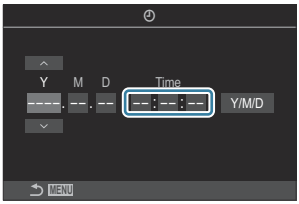
3. Press the **OK** button when the desired language is highlighted.

- If you press the shutter button before pressing the **OK** button, the camera will exit to shooting mode and no language will be selected. You can perform the initial setup by turning the camera off and then on again to display the initial setup dialog and repeating the process from Step 1.

ⓘ The screens displayed may vary depending on the country or region of purchase.

The language can be changed at any time from the menu. ☞ "What to Do If You Can't Read the Display" (P.42)

4. Set the date, time, and date format.



- Use the ◁▷ buttons to highlight items.
- Use the △▽ buttons to change the highlighted item.
- The time is displayed using a 24-hour clock.
- Items and settings can also be selected by tapping the screen.

The clock can be adjusted at any time from the menu. ☞ "Setting the Camera Clock (Settings)" (P.404)

5. Press the **OK** button.

6. Highlight a time zone using the △▽ buttons and press the **OK** button.

- Press the **INFO** button to enable or disable daylight-saving time.

7. Press the **OK** button to save changes and exit.

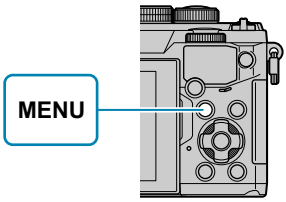
Date and time information is recorded on the card together with the images.

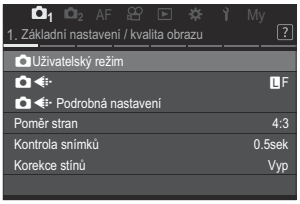
If the battery is removed from the camera and the camera is left for a while, the date and time may be reset. If this happens, set the date and time using the menu. ☞ "Setting the Camera Clock (Settings)" (P.404)

What to Do If You Can’t Read the Display

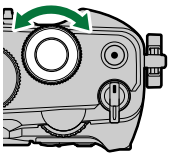
If you see unfamiliar characters or words in other languages, you may not have selected the language you intended. Follow the steps below to choose another language.

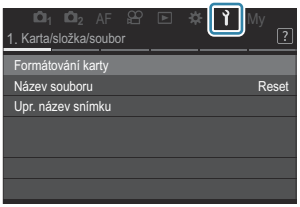
1. Press the **MENU** button to view the menus.



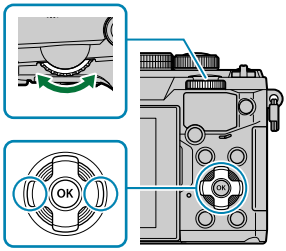


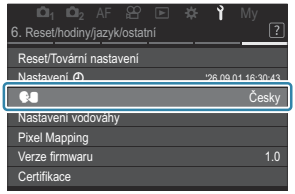
2. Highlight the (setup) tab using the front dial.



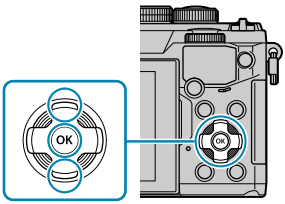


3. Select a screen on which **[ ]** appears using the ◁▷ buttons or the rear dial.





4. Highlight **[ ]** using the △▽ buttons and press the **OK** button.

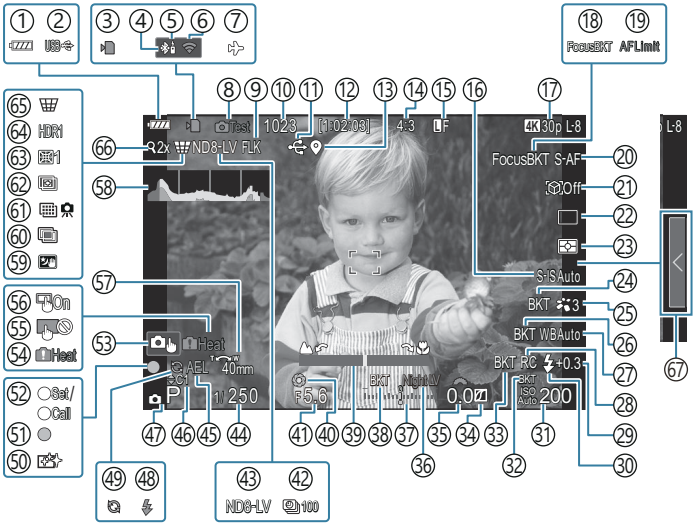


5. Highlight the desired language using the △▽◁▷ buttons and press the **OK** button.

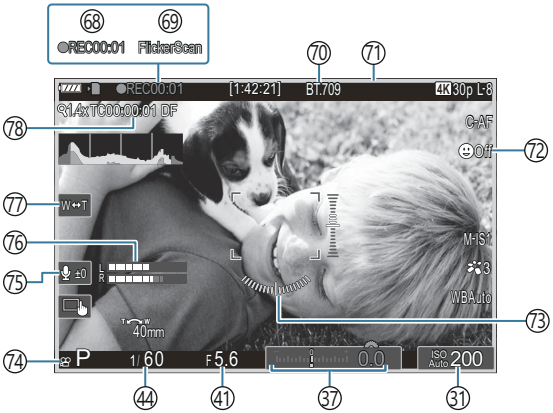
Shooting

Information displays while shooting

Monitor display during still photography



Monitor display during movie mode



① Battery level (P.38)
② Power supply (P.432)
③ Card write indicator (P.28, P.34)
④ Active **Bluetooth**® connection (P.417, P.434)
⑤ Remote control (P.434)
⑥ Wireless LAN connection (P.414)
⑦ Airplane Mode (P.412)
⑧ Test Picture (P.341)
⑨ Anti-Flicker Shooting (P.218)
⑩ Number of storable still pictures (P.512)
⑪ Active USB connection (P.430)
⑫ Available Recording Time (P.514)
⑬ **Bluetooth**® Position Information (P.424)
⑭ Aspect Ratio (P.230)
⑮ Image Quality (P.223)
⑯ Image Stabilizer (P.219)
⑰ Movie Quality / S&Q Movie Quality (P.224, P.225)
⑱ Focus BKT (P.289)
⑲ AF Limiter (P.148)
⑳ AF Mode (P.118)
㉑ Subject Detection (P.138)
㉒ Drive (Single, Sequential, Self-Timer, Anti-Shock, Silent Mode, Pro Capture Shooting) (P.205 / P.212 / P.213 / P.215)
㉓ Metering mode (P.178)
㉔ ART BKT (P.287)
㉕ Picture Mode (P.232)
㉖ WB BKT (P.284)
㉗ White balance (P.244)
㉘ RC Mode (P.201)
㉙ Flash Intensity Control (P.200)
㉚ Flash Mode (P.195)
㉛ ISO sensitivity (P.185)
㉜ ISO BKT (P.286)
㉝ FL BKT (P.285)
㉞ Highlight & Shadow Control (P.349)
㉟ Exposure compensation value (P.171)
㊱ Night Vision (P.360)
㊲ Exposure compensation (P.171)
㊳ AE BKT (P.282)
㊴ Focus Indicator (P.163)
㊵ Preview (P.358)
㊶ Aperture Value (P.58, P.61)
㊷ Interval Shooting (P.271)
㊸ Live ND Shooting (P.258)
㊹ Shutter Speed (P.58, P.63)
㊺ AE Lock (P.179)
㊻ Custom Mode (P.95)
㊼ Shooting Mode (P.58)
㊽ Flash (blinks: charging in progress, lights up: charging completed) (P.194)
㊾ Pro Capture active (P.215)
㊿ Dust reduction (P.457)
(51) AF confirmation mark (P.52)
(52) SET/CALL function (P.447)
(53) Touch Controls (P.54)
(54) Internal temperature warning (P.464)
(55) Touch control lock (P.341)
(56) AF Targeting Pad (P.162)
(57) Zoom operation direction/Focal length

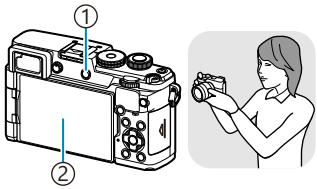
58 Histogram (P.49)
59 Handheld Starlight (P.79)
60 Multiple Exposure (P.266)
61 High Res Shot (P.254)
62 Focus Stacking (P.261)
63 Fisheye Compensation (P.277)
64 HDR (P.264)
65 Keystone Comp. (P.275)
66 Digital Tele-converter (P.270)
67 Live guide recall (P.75)
68 Recording time (displayed during recording) (P.90)
69 Flicker Scan (P.176)
70 View Assist (P.253)
71 Red frame during move recording (P.296)
72 Face & Eye Detection (P.141)
73 Level Gauge (P.49)
74 /S&Q Recording Modes (P.90)
75 Sound Recording Level (P.94)
76 Sound Recording Level Meter (P.94)
77 Electronic Zoom (P.94)
78 Time Code (P.294)

Switching between displays

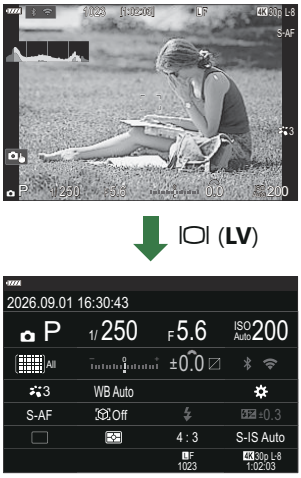
The camera uses an eye sensor to automatically switch between the viewfinder and monitor displays. The viewfinder and monitor display (live view/super control panel) also show information on camera settings. Options are available for controlling display switching and choosing the information shown.

Framing photos in the monitor

The shooting screen on the monitor will be displayed in live view.
Pressing the |O| (**LV**) button while the monitor is in live view switches the display to the super control panel.

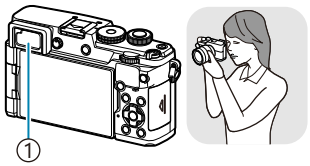


①|O| (**LV**) button
②Monitor



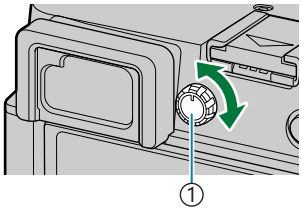
Framing photos in the viewfinder

The viewfinder turns on automatically when you bring it to your eye. When the viewfinder is lit up, the monitor turns off.



①Viewfinder

- If the viewfinder is not in focus, put your eye to the viewfinder and focus the display by rotating the diopter adjustment dial.



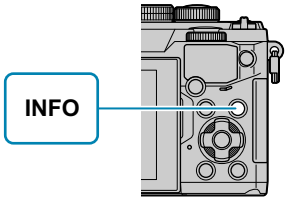
①Diopter adjustment dial

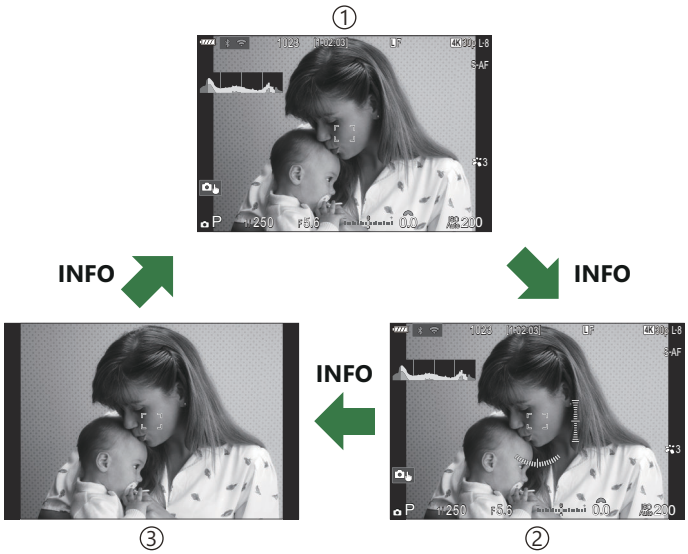
Display switching and viewfinder display options are available. ☞ "Selecting the display style of the viewfinder (EVF Style)" (P.364), "Configuring the eye sensor (Eye Sensor Settings)" (P.394)

Switching the information display

:PASMB /S&Q:PASM

You can switch the information displayed in the monitor during shooting using the **INFO** button.



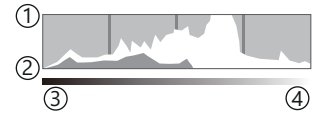


①Information 1
②Information 2 (mode only)
③Image Only

- The information display screens can be switched in either direction by rotating the dial while pressing the **INFO** button.
- The information shown in still photography mode (mode) and the information shown in movie mode (/S&Q modes) can be set individually. "Shooting Indicators (Info Settings / Info Settings)" (P.366)
- You can choose whether to display information when the shutter button is pressed halfway. "Configuring the display for when the shutter button is pressed halfway (Info by half-pressing)" (P.368)

Histogram display

A histogram showing the distribution of brightness in the image is displayed. The horizontal axis gives the brightness, the vertical axis the number of pixels of each brightness in the image. Areas above the upper limit at shooting are displayed in red, those below the lower limit in blue, and those within the spot metering range in green. You can choose the upper and lower limits. ☞ "Histogram Exposure Warning (Histogram Settings)" (P.375)



①More ③Dark
②Less ④Bright

Highlights and Shadows

Highlights and shadows, defined according to the upper and lower limits for the histogram display, are shown in red and blue. You can choose the upper and lower limits. ☞ "Histogram Exposure Warning (Histogram Settings)" (P.375)

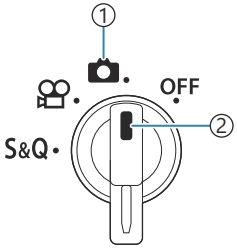
Level gauge display

The orientation of the camera is indicated. The "tilt" direction is indicated on the vertical bar and the "horizon" direction on the horizontal bar.

- The level gauge is intended as a guide only.
- Calibrate the gauge if you find it is no longer truly plumb or level. ☞ "Calibrating the Level Gauge (Level Adjust)" (P.406)

Rotate the lever (📷/🎥/S&Q) to switch modes

Use the power lever (📷/🎥/S&Q) to switch modes.



①Mode icon
②Indicator

📷	Shoot still pictures (P.52).
🎥	Record movies at normal playback speed (P.90).
S&Q	Slow motion/fast motion movies can be recorded for sensor frame rate different from the playback frame rates (P.90).

Sound is not recorded for a movie recorded in S&Q mode.

Using Shooting Modes

Types of shooting modes

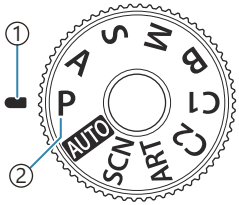
For how to use the various shooting modes, see the following.

P	Program AE (P.58)
A	Aperture-priority AE (P.61)
S	Shutter-priority AE (P.63)
M	Manual exposure (P.65)
B	Bulb/time (P.68)
	Live composite (P.72)
AUTO	Auto (P.75)
SCN	Scene (P.78)
ART	Art Filter (P.85)
C1/C2	Custom (P.97)

- When the power lever is rotated to 🎀 or S&Q, bulb photography/time photography/live composite photography are not available even the mode dial is set to **B**.
- When the power lever is rotated to S&Q, art filter photography is not available even the mode dial is set to **ART**.

Choosing shooting modes

Rotate the mode dial to the mode you wish to use.



①Indicator
②Mode icon

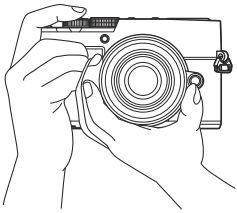
Shooting still pictures

1. Rotate the power lever to .

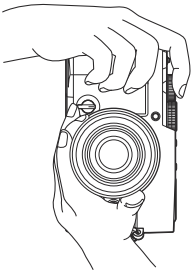
2. Rotate the mode dial to the mode you wish to use.

3. Frame the shot.

ⓘBe careful that your fingers or the camera strap do not obstruct the lens or AF illuminator.



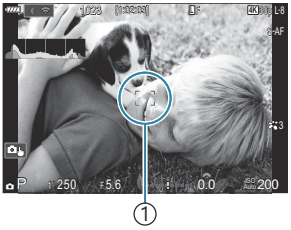
Landscape position



Portrait position

4. Adjust the focus.

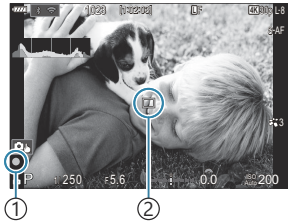
- Position the AF frame over your subject.



①AF frame

- Lightly press the shutter button down to the first position (press the shutter button halfway).

- The AF confirmation mark (●) will be displayed, and a green frame (AF target) will be displayed in the focus location.



①AF confirmation mark
②AF target

You can also focus by pressing the **AF-ON** button (P.134).
If the camera is unable to focus, the AF confirmation mark will flash (P.460).
The AF frame varies with the option chosen for AF-target mode. Change the area (P.124) and position (P.123) of the AF target as required.
The AF frame is not displayed when [▦]All (all targets) is chosen for AF-target mode (P.124).

5. Release the shutter.

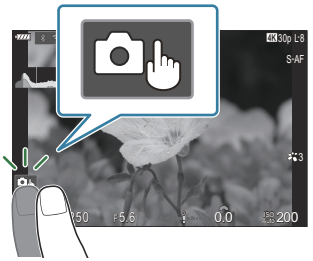
- Press the shutter button all the way (fully).
- The camera will release the shutter and take a picture.

You can focus and take pictures using touch controls. ☞ "Shooting with touch screen operations" (P.54)

Shooting with touch screen operations

:PASMB **/S&Q:PASM**

You can tap the subject to focus and take a photograph.



	Tap a subject to focus and automatically release the shutter. This option is not available when - is selected by the power lever and **B** (bulb) is selected by the mode dial, or - or S&Q is selected by the power lever.
	Shooting with touch screen operations is disabled.
	Tap to display an AF target and focus on the subject in the selected area. You can use the touch screen to choose the position and size of the focus frame. Photographs can be taken by pressing the shutter button.
/	When the camera detects a subject, tap the subject to set it as the main subject to focus on. In mode, is displayed when **[Subject Detection]** is set to a setting other than **[Off]** (P.138). In /S&Q modes, is displayed when **[Face & Eye Detection]** is set to **[On]** (P.141). Subject selection is not available when S&Q is selected for the power lever and **[Sensor Frame Rate]** in **[S&Q]** is set to **[120fps]** (P.225).

- Tapping an icon switches the settings.

Do not tap the display with your fingernails or other sharp objects.
Gloves or monitor covers may interfere with touch screen operation.

Previewing the subject ( )

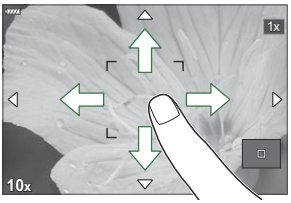
1. Tap the subject in the display.

- An AF target will be displayed.
- Use the slider to choose the size of the frame.

- Tap Off to turn off the display of the AF target.

2. Use the slider to adjust the size of the AF target, and then tap to zoom in at the frame position.

- Use your finger to scroll the display when the picture is zoomed in.



- Tap 1x to cancel the zoom display.

The situations in which touch screen operations are not available include the following.

- When buttons or dials are in use

You can disable the touch screen operation. "Disabling Touch Controls (Touchscreen Settings)" (P.391)

Photo Review (Image Review)

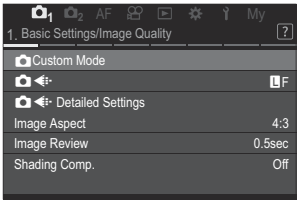
:PASMB **/S&Q:PASM**

Pictures are displayed immediately after shooting. This gives you a chance to quickly review the shot. You can choose how long pictures are displayed or disable photo review altogether.
To end photo review and resume shooting at any time, press the shutter button halfway.

Auto ▶	Switch to playback after shooting. You can delete images and perform other playback operations.
Off	Photo review disabled. The camera continues to display the view through the lens after shooting.
0.3 – 20sec	Choose how long photos are displayed.

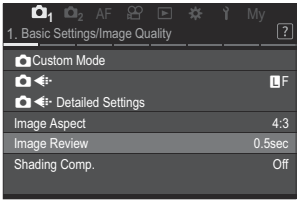
1. Press the **MENU** button to view the menus.

2. Highlight the $\square_1$ tab using the front dial.

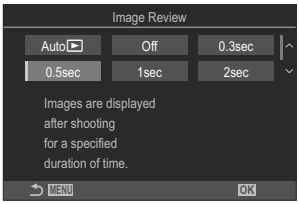


3. Highlight **[1. Basic Settings/Image Quality]** using the ◁▷ buttons or the rear dial.

4. Highlight **[Image Review]** using the △▽ buttons and press the **OK** button.



5. Change the settings using the △▽◁▷ buttons and press the **OK** button.



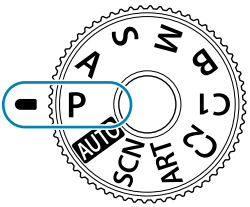
6. Press the **MENU** button to exit the menus.

Letting the camera choose aperture and shutter speed (P: Program AE)

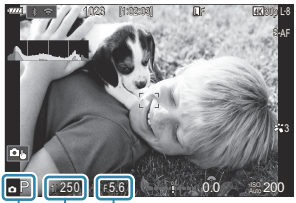
The camera chooses the optimal aperture and shutter speed according to subject brightness.

1. Rotate the power lever to 📷.

2. Rotate the mode dial to **P**.



3. Focus and check the display.
   - Use the front and rear dials to adjust the following settings.
     Front dial: Exposure compensation (P.171)
     Rear dial: Program shift (P.60)
   - The shutter speed and aperture chosen by the camera are displayed.



①Shooting mode
②Shutter speed
③Aperture

4. Release the shutter.

You can choose the functions performed by the front and rear dials. ☞ "Assigning Roles to the Front and Rear Dials (📷Dial Function / 🎥Dial Function)" (P.353)

For 🎥 or S&Q, see "Recording movies in 🎥/S&Q modes" (P.90).

Subject Too Dark or Too Bright

If the camera is unable to achieve optimal exposure, the shutter-speed and aperture displays will flash as shown.

Display	Problem/solution
Large aperture (low F-number)/slow shutter speed 	The subject is too dark. • Use a flash.
Small aperture (high F-number)/fast shutter speed 	Subject is too bright. • The limits of the camera metering system have been exceeded. Use a third-party ND (Neutral Density) filter to reduce the amount of light entering the camera. • Shutter speeds as fast as 1/32000 s are available in [♥] (silent) mode. ☞ "Shooting without shutter sound (Silent[♥] Settings)" (P.213), "Performing the sequential/self-timer shooting" (P.205)

When **[ISO]** is not set to **[Auto]**, optimal exposure may be achieved by changing the setting.
☞ "Changing ISO sensitivity (ISO / ISO)" (P.185)

The aperture value shown when the display flashes varies with the lens and focal length.

Program Shift

Without changing exposure, you can choose from different combinations of aperture and shutter speed selected automatically by the camera. This is known as program shift.

1. Rotate the rear dial until the camera displays the desired combination of aperture and shutter speed.

- The shooting mode indicator in the display changes from **P** to **Ps** while program shift is in effect. To end program shift, rotate the rear dial in the opposite direction until only **P** is displayed.

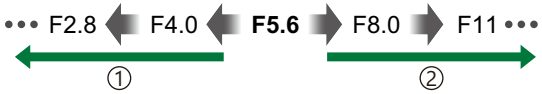
①

①Program shift

Letting the camera choose aperture and shutter speed (**P**: Program AE)

Choosing aperture (A: Aperture-Priority AE)

In this mode, you choose the aperture (F-number) and the camera automatically sets the shutter speed for optimal exposure according to subject brightness. Lower aperture values (larger apertures) reduce the depth of the area that appears to be in focus (depth of field), blurring the background. Higher aperture values (smaller apertures) increase the depth of the area that appears to be in focus in front of and behind the subject.

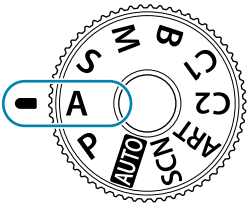


①**Lower aperture values...**
...reduce depth of field and increase blur.

②**Higher aperture values...**
...increase depth of field.

1. Rotate the power lever to 📷.

2. Rotate the mode dial to **A**.



3. Adjust aperture.

- Use the front and rear dials to adjust the following settings.
  Front dial: Exposure compensation (P.171)
  Rear dial: Aperture

①Aperture

- The shutter speed selected automatically by the camera will appear in the display.

4. Release the shutter.

- You can choose the functions performed by the front and rear dials. ☞ "Assigning Roles to the Front and Rear Dials (Dial Function / Dial Function)" (P.353)
- You can stop aperture down to the selected value and preview depth of field. ☞ "Changing the roles of buttons (Button Settings)" (P.340)
- For or S&Q, see "Recording movies in /S&Q modes" (P.90).

Subject Too Dark or Too Bright

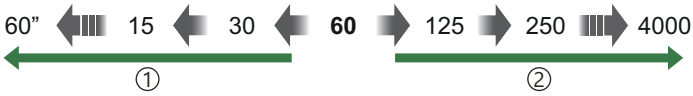
If the camera is unable to achieve optimal exposure, the shutter-speed display will flash as shown.

Display	Problem/solution
Slow shutter speed	Underexposure. • Choose a lower aperture value.
Fast shutter speed	Overexposure. • Choose a higher aperture value. • If the subject is still overexposed at the higher value, the limits of the camera metering system have been exceeded. Use a third-party ND (Neutral Density) filter to reduce the amount of light entering the camera. • Shutter speeds as fast as 1/32000 s are available in [♥] (silent) mode. ☞ "Shooting without shutter sound (Silent[♥] Settings)" (P.213), "Performing the sequential/self-timer shooting" (P.205)

- When **[ISO]** is not set to **[Auto]**, optimal exposure may be achieved by changing the setting. ☞ "Changing ISO sensitivity (ISO / ISO)" (P.185)

Choosing shutter speed (S: Shutter-Priority AE)

In this mode, you choose the shutter speed and the camera automatically sets aperture for optimal exposure according to subject brightness. Faster shutter speeds appear to "freeze" fast-moving subjects. Slower shutter speeds add blur to moving objects, lending them a sense of motion for a dynamic effect.

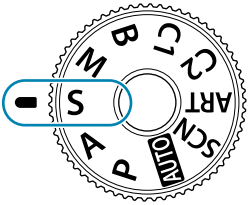


①**Slower shutter speeds...**
...produce dynamic shots with a sense of motion.

②**Faster shutter speeds...**
..."freeze" the motion of fast-moving subjects.

1. Rotate the power lever to 📷.

2. Rotate the mode dial to **S**.



3. Choose the shutter speed.

- Use the front and rear dials to adjust the following settings.
  Front dial: Exposure compensation (P.171)
  Rear dial: Shutter speed
- Choose from shutter speeds of 1/4000–60 s.
- Shutter speeds as fast as 1/32000 s are available in silent mode. ☞ "Shooting without shutter sound (Silent[♥] Settings)" (P.213), "Performing the sequential/self-timer shooting" (P.205)

①Shutter speed

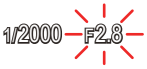
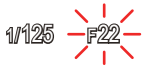
- The aperture selected automatically by the camera will appear in the display.

4. Release the shutter.

- You can choose the functions performed by the front and rear dials. ☞ "Assigning Roles to the Front and Rear Dials (Dial Function / Dial Function)" (P.353)
- To achieve the effect of a slow shutter in brightly-lit settings in which slow shutter speeds are not otherwise available, use the live ND filter. ☞ "Slowing the Shutter in Bright Light (Live ND Shooting)" (P.258)
- Depending on the shutter speed selected, you may notice banding in the display caused by flicker from fluorescent or LED light sources. The camera can be configured to reduce the effects of flicker during live view or when pictures are taken. ☞ "Reducing Flicker in Photographs (Anti-Flicker Shooting)" (P.218), "Reducing Flicker Under LED Lighting (Flicker Scan / Flicker Scan)" (P.176)
- For or S&Q, see "Recording movies in /S&Q modes" (P.90).

Subject Too Dark or Too Bright

If the camera is unable to achieve optimal exposure, the aperture display will flash as shown.

Display	Problem/solution
Low aperture value 	Underexposure. • Choose a slower shutter speed.
High aperture value 	Overexposure. • Choose a faster shutter speed. Shutter speeds as fast as 1/32000 s are available in silent mode. • If the subject is still overexposed at the higher speed, the limits of the camera metering system have been exceeded. Use a third-party ND (Neutral Density) filter to reduce the amount of light entering the camera.

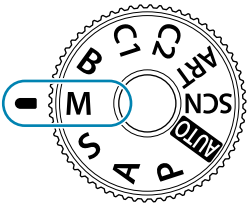
- When **[ISO]** is not set to **[Auto]**, optimal exposure may be achieved by changing the setting. ☞ "Changing ISO sensitivity (ISO / ISO)" (P.185)
- The aperture value shown when the display flashes varies with the lens and focal length.

Choosing aperture and shutter speed (M: Manual Exposure)

In this mode, you choose the aperture and shutter speed. You can adjust settings according to your goals, for example by combining fast shutter speeds with small apertures (high F-numbers) for increased depth of field.

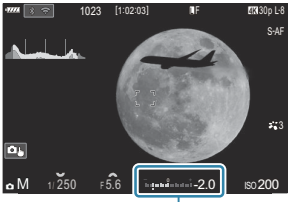
1. Rotate the power lever to 📷.

2. Rotate the mode dial to **M**.



3. Adjust aperture and shutter speed.

- Use the front and rear dials to adjust the following settings.
  Front dial: Aperture
  Rear dial: Shutter speed
- Choose from shutter speeds of 1/4000–60 s.
- Shutter speeds as fast as 1/32000 s are available in silent mode. ☞ "Shooting without shutter sound (Silent[♥] Settings)" (P.213)
- The display shows the difference between the exposure produced by the selected aperture and shutter speed and the optimal exposure metered by the camera. The display will flash if the difference exceeds ±3 EV.



①Difference from optimal exposure

- When **[Auto]** (auto) is selected for **[📷ISO]**, ISO sensitivity will automatically be adjusted for optimal exposure at the selected exposure settings. **[📷ISO]** defaults to **[Auto]**.
  ☞ "Changing ISO sensitivity (📷ISO / 🎬ISO)" (P.185)

4. Release the shutter.

- You can choose the functions performed by the front and rear dials. ☞ "Assigning Roles to the Front and Rear Dials (Dial Function / Dial Function)" (P.353)
- Depending on the shutter speed selected, you may notice banding in the display caused by flicker from fluorescent or LED light sources. The camera can be configured to reduce the effects of flicker during live view or when pictures are taken. ☞ "Reducing Flicker in Photographs (Anti-Flicker Shooting)" (P.218), "Reducing Flicker Under LED Lighting (Flicker Scan / Flicker Scan)" (P.176)
- For or S&Q, see "Recording movies in /S&Q modes" (P.90).

Subject Too Dark or Too Bright

If the camera is unable to achieve optimal exposure with **[Auto]** selected for **[ISO]**, the ISO sensitivity display will flash as shown.

Display	Problem/solution
	Overexposure. • Choose a higher aperture value or faster shutter speed.
	Underexposure. • Choose a lower aperture value or slower shutter speed. • If the warning does not clear from the display, choose a higher value for ISO sensitivity. ☞ "Changing ISO sensitivity (ISO / ISO)" (P.185), "Setting the range of ISO sensitivity values selected in [Auto] mode (ISO-A Upper/Default / ISO-A Upper/Default)" (P.188)

Using Exposure Compensation in Mode M

In mode **M**, exposure compensation is available when **[Auto]** (auto) is selected for **[ISO]**. Because exposure compensation is performed by adjusting ISO sensitivity, aperture and shutter speed are not affected. ☞ "Changing ISO sensitivity (ISO / ISO)" (P.185), "Setting the range of ISO sensitivity values selected in [Auto] mode (ISO-A Upper/Default / ISO-A Upper/Default)" (P.188)

When setting the exposure compensation in **M** mode, it is required that you assign **[]** to a button. ☞ "Changing the roles of buttons (Button Settings)" (P.340)

1. Hold the button to which **[]** is assigned and rotate the front or rear dial.

- Exposure compensation is added to the exposure difference shown in the display.

① Difference from the exposure setting value with compensation value added
② Exposure compensation value

Long Exposures (B: Bulb/Time)

Select this mode to leave the shutter open for a long exposure. You can preview the photo in live view and end the exposure when the desired results have been achieved. Use when long exposures are required, for example when photographing night scenes or fireworks.

For long exposures, it is recommended that you fix the camera securely on a tripod.

"Bulb" and "Live Bulb" Photography

The shutter remains open while the shutter button is pressed. Releasing the button ends the exposure.

- The amount of light entering the camera increases the longer the shutter is open.
- When live bulb photography is selected, you can check the results in the live view display and end exposure when you want to.

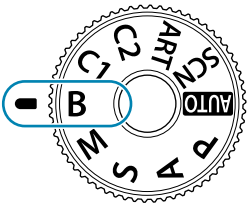
"Time" and "Live Time" Photography

The exposure begins when the shutter button is pressed all the way down. To end the exposure, press the shutter button all the way down a second time.

- The amount of light entering the camera increases the longer the shutter is open.
- When live time photography is selected, you can check the results in the live view display and end exposure when you want to.

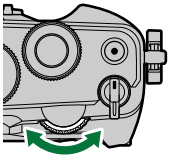
1. Rotate the power lever to .

2. Rotate the mode dial to **B**.



3. Select **[Bulb]** (for bulb photography) or **[Time]** (time photography).

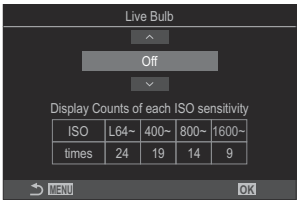
- At default settings, the selection is made with the rear dial.



① Bulb or time photography

4. Press the **MENU** button.

- You will be prompted to choose the interval at which the preview is updated.



5. Highlight an interval using △▽.

6. Press the **OK** button to save changes.

- The menus will be displayed.

7. Press the **MENU** button repeatedly to exit the menu.

- If an option other than **[Off]** is selected, **[Live Bulb]** or **[Live Time]** will appear in the display.

8. Adjust aperture.

- At default settings, aperture can be adjusted using the front dial.

① Aperture

9. Release the shutter.

- In bulb and live bulb modes, keep the shutter button pressed. The exposure ends when the button is released.
- In time and live time modes, press the shutter button all the way down once to start the exposure and again to end it.
- During live time photography, you can refresh the preview by pressing the shutter button halfway.
- The exposure ends automatically when the time selected for **[Bulb/Time Timer]** is reached. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)
- **[Noise Reduction]** is applied after shooting. The display shows the time remaining until the process is complete. You can choose the conditions under which **[Noise Reduction]** is performed. ☞ "Long Exposure Noise Reduction Options (Noise Reduction)" (P.193)

Some limitations apply to the choice of ISO sensitivity settings available.

Bulb photography is used in place of live bulb photography when multiple exposure, keystone compensation, or fisheye correction is in effect.

Time photography is used in place of live time photography when multiple exposure, keystone compensation, or fisheye correction is in effect.

During shooting, there are limits on the settings for the following functions.

- Sequential shooting, self-timer shooting, time lapse shooting, AE bracket shooting, flash bracketing, focus bracketing, Focus Stacking, etc.

[Image Stabilizer] (P.219) is automatically turned off.

Depending on camera settings, the temperature, and the situation, you may notice noise or bright spots in the monitor. These may sometimes appear in pictures even when **[Noise Reduction]** is enabled. ☞ "Long Exposure Noise Reduction Options (Noise Reduction)" (P.193)

Starry sky AF can be used for shots of the night sky. ☞ "Choosing a focus mode (AF Mode / AF Mode)" (P.118), "Changing the settings of Starry Sky AF (Starry Sky AF Setting)" (P.137)

Display brightness can be adjusted during bulb/time photography. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

In mode **B** (bulb), you can adjust focus manually while the exposure is in progress. You can take pictures using techniques such as putting the subject out of focus during exposure or focusing at the end of exposure. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

Noise

While shooting at slow shutter speeds, noise may appear on screen. These phenomena occur when the temperature rises in the image sensor or image sensor internal drive circuit, causing current to be generated in those sections of the image sensor that are not normally exposed to light. This can also occur when shooting with a high ISO setting in a high-temperature environment. To reduce this noise, the camera activates the noise reduction function. ☞ "Long Exposure Noise Reduction Options (Noise Reduction)" (P.193)

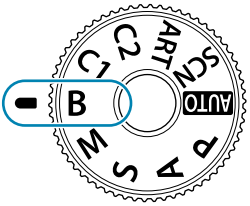
Lighten Blending (B: Live Composite Photography)

Select this mode to leave the shutter open for a long exposure. You can view the light trails left by fireworks or stars and photograph them without changing the exposure of the background. The camera combines multiple shots and records them as a single photograph.

For live composite photography, it is recommended that you fix the camera securely on a tripod.

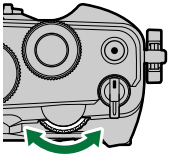
1. Rotate the power lever to .

2. Rotate the mode dial to **B**.



3. Select **[Live Comp]**.

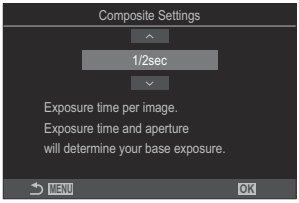
- At default settings, the selection is made with the rear dial.



① Live composite photography

4. Press the **MENU** button.

- The **[Composite Settings]** menu will be displayed.



5. Highlight an exposure time using △▽.

- Choose an exposure time of from 1/2 to 60 s.

6. Press the **OK** button to save changes.

- The menus will be displayed.

7. Press the **MENU** button repeatedly to exit the menu.

8. Adjust aperture.

- At default settings, aperture can be adjusted using the front dial.

9. Press the shutter button all the way down to ready the camera.

- The camera is ready to shoot when **[Ready for composite shooting]** is displayed.

10. Press the shutter button to start shooting.

- Live composite photography will start. The display will be updated after each exposure.

11. Press the shutter button again to end shooting.

- Shooting ends automatically after the time selected for **[Live Composite Timer]**. This can be changed. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)
- The maximum recording time available varies with battery level and shooting conditions.

Some limitations apply to the choice of ISO sensitivity settings available.

The following cannot be used:

- Sequential shooting, the self-timer, interval timer photography, AE bracketing, flash bracketing, focus bracketing, HDR photography, High Res Shot, Focus Stacking, multiple exposure, keystone compensation, live ND shooting, and fisheye compensation.

[Image Stabilizer] (P.219) is automatically turned off.

Starry sky AF can be used for shots of the night sky. ☞ "Choosing a focus mode (AF Mode / AF Mode)" (P.118), "Changing the settings of Starry Sky AF (Starry Sky AF Setting)" (P.137)

Display brightness can be adjusted during live composite photography. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

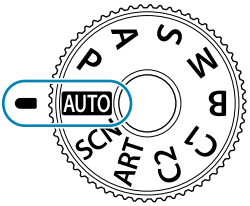
The exposure time for each exposure made during live composite photography can be chosen in advance using the menus. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

Letting the camera choose the settings (AUTO Mode)

The camera adjusts settings to suit the scene. Use live guides to easily adjust such parameters as color, brightness, and background blurring.

1. Rotate the power lever to 📷, 🎞, or S&Q.

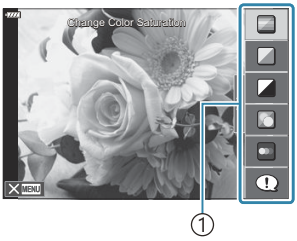
2. Rotate the mode dial to AUTO.



- The camera automatically selects the scene mode option appropriate to your subject. Once the selection has been made, the AUTO icon in the bottom left corner of the display will be replaced by the icon for the chosen scene. In 📷 mode, press the shutter button halfway to select the scene mode option.

3. To adjust shooting settings, display the live guide by pressing the **OK** button.

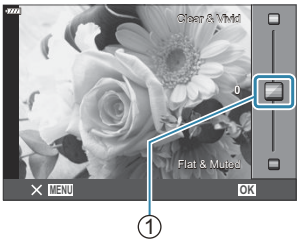
Ⓘ When the power lever is rotated to 🎞 or S&Q, **[Express Motions]** and **[Shooting Tips]** are not displayed.



①Guide item

- Use △ ▽ to highlight an item in the live guide and press **OK** to display a slider.

4. Use △▽ to position the slider and choose a level.



1 Slider

- Press the **OK** button to save changes.
- To exit, press the **MENU** button.
- When **[Shooting Tips]** is selected, use △▽ to highlight the item and press the **OK** button to display the detail.
- The effect of the selected level is visible in the display.
  If **[Blur Background]** or **[Express Motions]** is selected, the display will return to normal, but the selected effect will be visible in the final photograph.

5. To set multiple live guides, repeat Steps 2 and 3.

- A check is displayed on the guide item for live guides that are already set.
- To clear the live guides from the display, press the **MENU** button.

[Blur Background] and **[Express Motions]** cannot be set at the same time.

6. Release the shutter.

- Press the shutter button in mode.
- Press the button in /S&Q modes.

Live guide settings can also be adjusted using touch controls.
Selecting **[RAW]** for image quality automatically sets it to RAW+JPEG when a live guide is set.
Live guide settings are not applied to the RAW copy.
Pictures may appear grainy at some live guide setting levels.
Changes to live guide setting levels may not be visible in the monitor.
The flash cannot be used when a live guide is set.

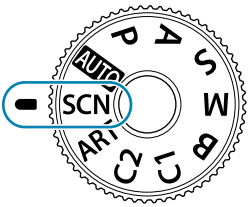
- Choosing live guide settings that exceed the limits of the camera exposure meters may result in pictures that are overexposed or underexposed.
- Frame rates drop the closer the **[Express Motions]** slider is to **[Blurred Motion]**.
- The setting for **[Express Motions]** does not apply to videos.
- Rotating the power lever to 🎞 or S&Q will exit live guide if only **[Express Motions]** is set.

Shooting in scene mode (SCN Mode)

The camera automatically optimizes settings for the subject or scene.

1. Rotate the power lever to 📷, 🎥, or S&Q.

2. Rotate the mode dial to **SCN**.



3. Use △ ▽ ◁ ▷ to highlight a scene and press the **OK** button.

4. Use ◁ ▷ to highlight a scene mode and press the **OK** button.

5. Release the shutter.

- To choose a different scene, press the **OK** button. Next, press the **MENU** button to return to the scene-selection display.

Scenes can also be selected using touch controls.

Types of scene modes

only: This option can only be selected when the power lever is rotated to .

Scenery

	Landscape	Suitable for landscape shooting.
	Portrait + Landscape	Suitable for portraits featuring a landscape in the background. Blues, greens, and skin tones are captured beautifully.
	Sunset	Suitable for shooting the sunset.
	Starry Scene (only)	Suitable for shooting landscapes featuring starry skies. The colors of the starry sky are captured beautifully. Use a tripod or take similar measures to fix the camera in place. For information on taking photos using this feature, see "Shooting a Starry Scene or a Starry Sky" (P.83).
	Beach & Snow	Suitable for shooting at snow-capped mountains, seascapes in the sun, and other whitish scenes.
	Panorama (only)	Take photos that can afterwards be joined on a computer to create a panorama. For information on taking photos using this feature, see "Shooting a Panorama" (P.84).
	Backlight HDR (only)	Suitable for high-contrast scenes. Each time the shutter button is pressed, the camera takes four shots that are automatically combined to form a single, correctly exposed image when shooting is complete.

Close-ups

	Nature Macro	Suitable for vivid close-ups of flowers or insects.
	Macro	Suitable for close-ups.

	Multi Focus Shot (📷 only)	The camera takes eight photos, varying the focus distance with each shot.
	Documents (📷 only)	Suitable for photos of timetables or other documents. The camera heightens the contrast between the text and background.

People

	Portrait + Landscape	Suitable for portraits featuring a landscape in the background. Blues, greens, and skin tones are captured beautifully.
	Portrait	Suitable for portrait shooting. Brings out skin texture.
	e-Portrait (📷 only)	Smooths out skin tones and texture. The camera records two pictures: one with the effect applied and one without.
	Portrait + Nightscape (📷 only)	Suitable for portrait shooting against a background of night view. Attach an external flash unit designed for use with the camera (P.194). We recommend that you use a tripod and either OM Image Share or an optional remote control (P.422, P.436).
	Children	Suitable for photographs of children and other active subjects.

Nightscapes
Light Trails

	Light Trails (📷 only)	The camera automatically shoots multiple images, takes newly bright areas only, and composites them into a single image. With normal long exposure, an image of light trace such as star trails with bright buildings tends to get too bright. You can capture them without over exposure while checking the progress. Press the shutter button to start shooting, then view the changing result in the monitor and press the shutter button again to end shooting once the desired result is achieved (maximum 3 hours). We recommend that you use a tripod and either OM Image Share or an optional remote control (P.422, P.436). Advanced settings can be accessed via live composite photography (dark and light field composite) in mode **B** (P.72).

	Starry Scene (📷 only)	Suitable for shooting landscapes featuring starry skies. The colors of the starry sky are captured beautifully. Use a tripod or take similar measures to fix the camera in place. For information on taking photos using this feature, see "Shooting a Starry Scene or a Starry Sky" (P.83).
	Nightscape	Suitable for tripod shooting of night scenes. We recommend that you use a tripod and either OM Image Share or an optional remote control (P.422, P.436).
	Portrait + Nightscape (📷 only)	Suitable for portrait shooting against a background of night view. Attach an external flash unit designed for use with the camera (P.194). We recommend that you use a tripod and either OM Image Share or an optional remote control (P.422, P.436).
	Handheld Starlight (📷 only)	Suitable for shooting night scenes without a tripod. Reduces blur when shooting low light/illuminated scenes. The camera makes eight exposures and combines them into a single photograph.
	Fireworks	Suitable for shooting fireworks at night. We recommend that you use a tripod and either OM Image Share or an optional remote control (P.422, P.436).

Motion

	Sport	Suitable for fast action shooting.
	Children	Suitable for photographs of children and other active subjects.
	Dogs & Cats (📷 only)	Suitable for photographs of dogs and cats. Disable camera sounds and lights.
	Panning (📷 only)	Choose to blur the background behind moving objects. The camera chooses the optimal shutter speed for panning shots based on camera motion.

Indoors

	Candlelight	Suitable for shots of candlelit scenes. Warm colors are preserved.
	Silent[♥]	Disable camera sounds and lights in situations in which they may be unwelcome.
	Portrait	Suitable for portrait shooting. Brings out skin texture.
	e-Portrait (📷 only)	Smooths out skin tones and texture. The camera records two pictures: one with the effect applied and one without.
	Children	Suitable for photographs of children and other active subjects.
	Dogs & Cats (📷 only)	Suitable for photographs of dogs and cats. Disable camera sounds and lights.
	Backlight HDR (📷 only)	Suitable for high-contrast scenes. Each time the shutter button is pressed, the camera takes four shots that are automatically combined to form a single, correctly exposed image when shooting is complete.

- In **[Panning]**, is displayed during panning detection, and is displayed when nothing is detected.
- To maximize the benefits of the scene modes, some of the shooting function settings are disabled.
- Some time may be needed to record pictures taken using **[e-Portrait]**. In addition, when the image quality mode is **[RAW]**, the image is recorded in RAW + JPEG.
- **[Handheld Starlight]** pictures taken with **[RAW]** selected for image quality will be recorded in RAW + JPEG format, with the first frame recorded as a RAW image and the final composite as a JPEG image.
- **[Backlight HDR]** records HDR-processed images in JPEG format. When the image quality mode is set to **[RAW]**, the image is recorded in RAW+JPEG.
- When using a lens with an image stabilizer switch in **[Panning]**, turn the image stabilizer switch off. Sufficient panning effects may not be obtained in bright conditions. Use a commercially available ND filter to obtain effects more easily.
- Shooting will end if zoom is adjusted while photographs are being taken in **[Multi Focus Shot]** mode.
- No pictures can be taken in **[Multi Focus Shot]** mode when a Four Thirds lens is attached.

Shooting a Starry Scene or a Starry Sky

1. Highlight **[Starry Scene]** in the scene mode menu (P.78) and press the **OK** button.
   - **[Stabilize the camera]** is displayed if the camera is not steady. Use a tripod or take similar measures to fix the camera in place.

2. Position the AF frame over a bright star.

3. Press the **AF-ON** button to initiate starry sky AF.
   - To interrupt starry sky AF, press the **AF-ON** button again.
   - The camera displays **[Starry Sky AF is Running]** during starry sky AF. The in-focus indicator (●) is displayed for about two seconds after the camera focuses; if the camera is unable to focus, the in-focus indicator will instead flash for about two seconds.

4. Press the shutter button the rest of the way down to take the picture.
   - The shutter is released two seconds after the shutter button is pressed all the way down.
   - Tap a brighter star to focus and automatically release the shutter.

- The camera will not be able to focus in bright locations.
- Manual focus is selected when a Four Thirds lens is attached.
- Starry sky AF is available with Micro Four Thirds lenses made by OM Digital Solutions or OLYMPUS. It cannot, however, be used with lenses with a maximum aperture over F5.6. For more information, visit our website.
- By tapping the screen, if the camera is unable to focus, no photo will be taken.
- Your choice of AF target modes is restricted to **[▪]**Single, **[▪▪]**Middle, or **[▪▪▪]**Large (P.124).
- The camera automatically focuses at infinity when **[Starry Scene]** is selected in scene mode.
- You can configure the camera so that starry sky AF starts when the shutter button is pressed halfway. ☞ "Changing the settings of Starry Sky AF (Starry Sky AF Setting)" (P.137)
- To eliminate the delay between pressing the shutter button all the way down and shutter release, set **[Drive /]** to **[ ]** (single). ☞ "Performing the sequential/self-timer shooting" (P.205)

Shooting a Panorama

Pictures taken using this option can be joined together to form a panorama. You will need to install the latest version of OM Workspace on your computer to join pictures together to form a panorama.
☞ "Installing Software" (P.427)

1. Highlight **[Panorama]** in the scene mode menu (P.78) and press the **OK** button.

2. Use △▽◁▷ to choose a pan direction.

3. Take a picture, using the guides to frame the shot.

- Focus, exposure, and other settings are fixed at the values for the first shot.

4. Take the remaining images, framing each shot so that the guides overlap with the previous picture.

- A panorama may include up to 10 images. A warning indicator (✋) is displayed after the tenth shot.

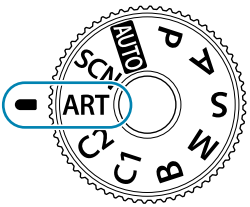
ⓘ During panorama shooting, the image previously taken for position alignment will not be displayed. With the frames or other markers for display in the images as a guide, set the composition such that the edges of the overlapping images overlap within the frames.

5. After taking the last shot, press **OK** to end the series.

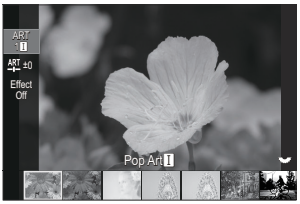
Using art filters (ART Mode)

1. Rotate the power lever to 📷 or 🎥.

2. Rotate the mode dial to **ART**.



3. Use ◁▷ to highlight a filter.



4. Press △▽ to select **[Add Effects]**, **[Color Filter]**, or **[Monochrome Color]**.

- See "Adjust the level of the art filter (Fine-Tune)" (P.88) for ART (Fine-Tune).
- See "Using [Partial Color]" (P.89) for ○ (Partial Color).

5. Use ◁▷ to set the filters and effects and press the **OK** button.

6. Release the shutter.

- Press the **OK** button to choose a different art filter. If effects are displayed, press △.
- The effects available vary with the selected filter (Soft Focus Effect, Pin Hole Effect, Frame Effect, White Edge Effect, Star Light Effect, Color Filter, Monochrome Color, Blur Effect, or Shade Effect).

Filters and effects can also be selected using touch controls.

Types of art filters

only: This option can only be selected when the power lever is rotated to .

ART 1	Pop Art I/II	Creates an image that emphasizes the beauty of color.
ART 2	Soft Focus	Creates an image that expresses a soft tone atmosphere.
ART 3	Pale&Light Color I/II	Creates an image that expresses warm light by scattering overall light and slightly overexposing the image.
ART 4	Light Tone	Creates a high-quality image by softening both shadows and highlights.
ART 5	Grainy Film I/II	Creates an image that expresses the roughness of black and white images.
ART 6	Pin Hole I/II/III	Creates an image that looks as if it was taken using an old or toy camera by dimming the image perimeter.
ART 7	Diorama I/II	Creates a miniature-like image by emphasizing saturation and contrast, and blurring unfocused areas.
ART 8	Cross Process I/II	Creates an image that expresses a surreal atmosphere. Cross Process II creates an image that emphasizes magenta.
ART 9	Gentle Sepia	Creates a high-quality image by drawing out shadows and softening the overall image.
ART 10	Dramatic Tone I/II	Creates an image that emphasizes the difference between brightness and darkness by partially increasing contrast.
ART 11	Key Line I/II	Creates an image that emphasizes edges and adds an illustrative style.
ART 12	Watercolor I/II	Creates a soft, bright image by removing dark areas, blending pale colors on a white canvas, and further softening contours.
ART 13	Vintage I/II/III	Expresses an everyday shot in a nostalgic, vintage tone using printed film discoloration and fading.

ART 14	**Partial Color I/II/III**	Impressively expresses a subject by extracting colors you want to emphasize and keeping everything else monotone.
ART 15	**Bleach Bypass I/II**	The “bleach bypass” effect, which you may recognize from motion pictures and the like, can be used to great effect in shots of streetscapes or metal objects.
ART 16	**Instant Film**	A contemporary take on the shadow and skin tones typical of film.
ART BKT	**ART BKT (ART bracketing) (📷 only)**	Records images using all art filter options with a single shot. Press the ▽ button, select **[ART BKT Setting]**, and press the **OK** button to select the filter to be recorded.

II and III are altered versions of the original (I).

- To maximize the benefits of the art filters, some of the shooting function settings are disabled.
- If **[RAW]** is currently selected for image quality (P.223), image quality will automatically be set to RAW+JPEG. Art filters apply only to the JPEG copy.
- Depending on the scene, the effects of some settings may not be visible, while in other cases tone transitions may be ragged or the image rendered more “grainy”.
- The star light effect is not applied to movie recording.
- Playback may differ according to the filters, effects, or movie quality settings applied.

Adjust the level of the art filter (Fine-Tune)

Adjust the level of the effect for pop art, soft focus, pin hole, cross process, or instant film.

1. Rotate the mode dial to **ART**.

2. Select **[Pop Art I/II]**, **[Soft Focus]**, **[Pin Hole I/II/III]**, **[Cross Process I/II]**, or **[Instant Film]**.

3. Press △▽ to select **[Fine-Tune]**.

- A slider appears on the screen.

① Slider

4. Rotate the front or rear dial to adjust the level of the art filter.

- The effect is visible in the display.
- The slider can also be operated using touch controls.
- The level of the art filter can also be adjusted with the ◁▷ buttons.
- For art filters whose levels have been adjusted, a mark (*) will appear on the icon.
- You can reset the level of the art filter by pressing and holding the **OK** button.

5. Press the **OK** button.

- Save the current setting and exit to the shooting display.

6. Release the shutter.

Press the **OK** button to adjust the level of the art filter after shooting. If the slider is not displayed, press △▽ to select **[Fine-Tune]**.

Using [Partial Color]

Record only selected hues in color.

1. Rotate the mode dial to **ART**.

2. Select **[Partial Color I/II/III]**.

3. Press the ▽ button to select **[Color]**.

- A color ring appears in the display.

①Color ring

4. Rotate the front or rear dial to choose a color.

- The effect is visible in the display.
- Colors can also be selected with the ◁▷ buttons.
- Colors can also be selected tapping the color ring.

5. Press the **OK** button.

- Save the current setting and exit to the shooting display.

6. Release the shutter.

Press the **OK** button to change the color after shooting. If the color ring is not displayed, press the △▽ buttons to select **[Color]**.

Recording Movies

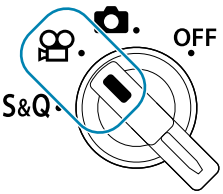
- When recording movies, use an SD card that supports an SD speed class of 10 or higher.
- A UHS-I card with a UHS speed class of 3 or better is required when:
  - **[4K]** or **[C4K]** is selected for Movie Resolution, **[A-I]** (ALL-Intra) is selected for Motion Compensation, or a Sensor Frame Rate of **[120fps]** is selected for S&Q
- When the camera is used continuously for extended periods, the temperature of the image sensor will rise and noise and color splotches may be visible in the display. Should this occur, turn the camera off and wait for it to cool. Noise and color splotches are particularly likely to occur at high ISO sensitivities. If the temperature of the sensor increases further, the camera will turn off automatically.
- When using a Four Thirds system lens, AF will not be available during movie recording.
- Operating sounds may be recorded if you use the camera during movie recording.
- CMOS image sensors of the type used in the camera generate a so-called "rolling shutter" effect that can cause distortion in pictures of moving objects. This distortion is a phenomenon that occurs in pictures of fast-moving subjects or if the camera is moved during shooting. It is particularly noticeable in pictures taken at long focal lengths.
- When an SDXC card is used, movies up to 2 hours long can be recorded. Movies over 2 hours are recorded over multiple files (depending on shooting conditions, the camera may start recording to a new file before the 2-hour limit is reached).
- When an SD/SDHC card is used, movies over 4 GB in size are recorded over multiple files (depending on shooting conditions, the camera may start recording to a new file before the 4 GB limit is reached).
- Divided movie files can be played back as a single movie. ☞ "Playing back separated movies" (P.303)
- When shooting a movie with the camera in portrait position, the information is recorded in portrait position. When the movie is played back on a computer or smartphone, it will be played back in the same orientation that it was shot in.

Recording movies in 🎥/S&Q modes

Rotate the power lever to 🎥 to record movies at normal playback speed. When setting to S&Q, slow motion/fast motion movies can recorded for sensor frame rates different from the playback frame rate. You can record movies using the effects available in **P**, **A**, **S**, and **M** modes.

- Sound is not recorded for S&Q.

1. Rotate the power lever to 🎥 or S&Q.



2. Rotate the front dial to the mode you wish to use.

P	Optimal aperture is set automatically according to the brightness of the subject. Use the front dial or rear dial to adjust exposure compensation.
A	Depiction of background is changed by setting the aperture. Use the front dial to adjust exposure compensation and rear dial to adjust aperture.
S	Shutter speed affects how the subject appears. Use the front dial to adjust exposure compensation and rear dial to adjust shutter speed. Shutter speed can be set to values between 1/24 s and 1/32000 s.
M	Freely adjust both aperture and shutter speed. Use the front dial to select aperture value and the rear dial to select shutter speed. • Choose from shutter speeds of 1/24–32000 s. • The display shows the difference between the exposure produced by the selected aperture and shutter speed and the optimal exposure metered by the camera. The display will flash if the difference exceeds ±3 EV. • The option chosen for **[🎥M ISO-A Upper/Default]** (P.188) takes effect.

The low end of the shutter speed changes according to the frame rate of the movie record mode.

3. Press the ◎ button to begin recording.

- A beep will be off when the camera focuses in 🎥/S&Q modes.
- Movie you are recording will be displayed on the monitor.
- If you put your eye to the viewfinder, movie you are recording will be displayed in the viewfinder.
- A red frame is displayed during movie recording (P.296).
- The movie recording lamp lights during movie recording (P.297).
- Focus area can be changed by tapping the screen while recording.
- Exposure and sound recording level can be set while recording.
- The camera will start the recording count to display on the screen.

You can also begin recording movies by pressing the shutter button. ☞ "Recording a movie by pressing the shutter button (🎥 Shutter Function)" (P.351)

4. Press the ◎ button again to end recording.

When **[🎥 AF Mode]** is set to **[MF]** or **[Pre MF]** in **M** mode, a shutter speed slower than 1/24 s can be set by lowering the frame rate, but the response of camera buttons may become slower.

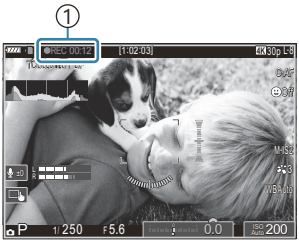
Recording movies in photo shooting modes

Movies can be recorded in program AE mode even when the power lever is rotated to 📷.

ⓘ The AF target takes on the shape selected for 🎬/S&Q modes (P.90). Rotate the power lever to 🎬 or S&Q and set the AF frame shape on the AF target selection screen in advance (P.124).
ⓘ Movies are recorded in the movie quality set in the 🎬 quality mode.

1. Press the ◎ button to begin recording.

- "●REC", the recording time, and a red frame are displayed during movie recording (P.296).



① Recording time

- If you put your eye to the viewfinder, movie you are recording will be displayed in the viewfinder.
- You can change the focus location by tapping the screen while recording.

2. Press the button again to end recording.

- When recording ends, "●REC", the recording time, and the red frame are cleared from the display (P.296).

ⓘ Even pressing the ◎REC button, movies cannot be recorded in the following instances:
- During a multiple exposure, while the shutter button is pressed halfway, during sequential shooting, interval shooting, keystone compensation, fisheye compensation, or live ND shooting, in **B** mode, **ART** mode (**[ART BKT]**), or **SCN** mode (**[Starry Scene]**, **[Panorama]**, **[Backlight HDR]**, **[Multi Focus Shot]**, **[Documents]**, **[e-Portrait]**, **[Portrait + Nightscape]**, **[Light Trails]**, **[Handheld Starlight]**, **[Dogs & Cats]**, **[Panning]**)

Touch Controls (Silent Controls)

You can prevent the camera from recording operating sounds that occur due to camera operations while shooting. After tapping an item, tap the displayed arrows to select the settings.

①**Electronic Zoom**: Zoom power zoom lenses in or out.
②**Sound Recording Level**: Choose the recording level.
③**Shutter Speed**: Adjust shutter speed when the mode dial is rotated to **S** (shutter-priority AE) or **M** (manual) in 🎥/S&Q modes (P.90).
④**Aperture Value**: Adjust aperture value when the mode dial is rotated to **A** (aperture-priority AE) or **M** in 🎥/S&Q modes (P.90).
⑤**Exposure Comp.**: Adjust exposure compensation. If the mode dial is rotated to **M** in 🎥/S&Q modes (P.90), exposure compensation is available when **[Auto]** is selected for **[🎥ISO]** (P.185).
⑥**ISO**: Adjust **[🎥ISO]** (P.185).

Silent controls are not available when recording movies in S&Q mode with a Sensor Frame Rate of **[120fps]**.

You can configure the camera so that silent controls using the touch panel can also be used during still photography. ☞ **[Silent Operation]** (P.366)

Saving Custom Settings to the Mode Dial (C1 and C2 Custom Modes)

Frequently-used settings and shooting modes can be saved as custom modes and recalled as needed simply by rotating the mode dial. Saved settings can also be recalled from the menus. Custom mode names can be registered to distinguish among the saved custom mode settings (P.100).

- Custom modes can be registered separately for photos (📷 mode) and movies (🎬/S&Q modes).
- Save settings to positions **C1** and **C2**.
- At default settings, the settings for Picture Mode **[OM-Cinema1]** are stored in 🎬 custom mode **C1** and Picture Mode **[OM-Cinema2]** in 🎬 custom mode **C2**, respectively.

Saving Settings (Assign)

📷: P A S M B　🎬/S&Q: P A S M

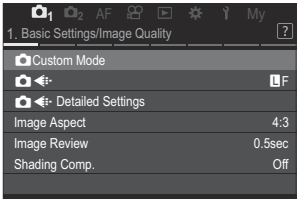
1. Choose a shooting mode other than AUTO, **SCN**, or **ART** and adjust camera settings as desired.

- For information on the settings that can be saved, see "Default Settings" (P.471).

2. Press the **MENU** button to view the menus.

3. Highlight a tab using the front dial.

- To register photo settings: 📷1 tab
- To register movie settings: 🎬 tab

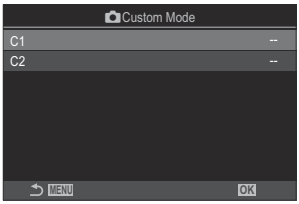


4. Highlight **[1. Basic Settings/Image Quality]** using the ◁▷ buttons or the rear dial.

5. Highlight an item using the △▽ buttons and press the **OK** button.

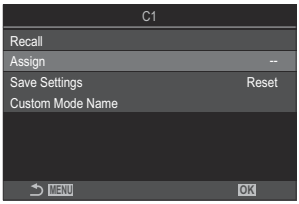
- To register settings for photos: **[📷Custom Mode]**
- To register settings for movies: **[🎬Custom Mode]**

6. Highlight the desired custom mode (**[C1]** or **[C2]**) using △▽ buttons and press the **OK** button.



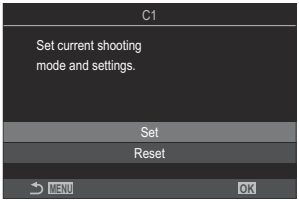
- The menu for the selected custom mode will be displayed.

7. Use △▽ to select **[Assign]** and press the **OK** button.



8. Use △▽ to select **[Set]** and press the **OK** button.

- Any existing settings will be overwritten.
- To restore default settings for the selected custom mode, highlight **[Reset]** and press the **OK** button.



9. Press the **MENU** button to exit the menus.

Custom modes can be updated automatically to reflect any changes made to settings (**C1**/**C2**) during shooting. ☞ "Saving the Changes Made to Settings while in Custom Modes" (P.99)

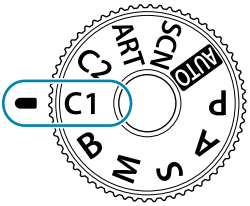
Using Custom Modes (C1/C2)

To recall all saved settings, including the shooting mode:

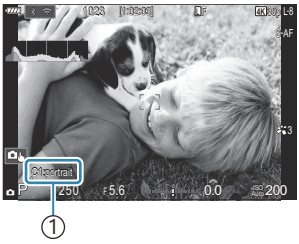
Recalling Settings with the Mode Dial

1. Rotate the power lever to 📷 to recall a custom mode for photos, or to 🎬 or S&Q to recall a custom mode for movies.

2. Rotate the mode dial to the desired custom mode (**C1** or **C2**).
   - The camera will recall the custom mode.



   - If the custom mode name is set (P.100), it is displayed on the screen.



① Custom mode name

By default, changes made after recall will not be applied to the stored settings. The saved settings will be restored when next you select the custom mode with the mode dial.

Recalling Saved Settings

In modes other than AUTO, **SCN**, or **ART**, you can recall the settings saved for custom modes **[C1]** and **[C2]**.

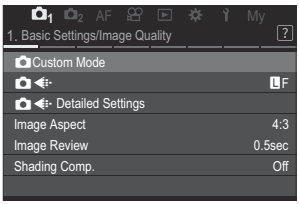
1. Rotate the power lever to a desired mode.

2. Press the **MENU** button to view the menus.

3. Highlight a tab using the front dial.

- To recall settings for photos: 📷1 tab
- To recall settings for movies: 🎥 tab

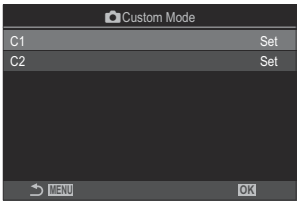
4. Highlight **[1. Basic Settings/Image Quality]** using the ◁▷ buttons or the rear dial.



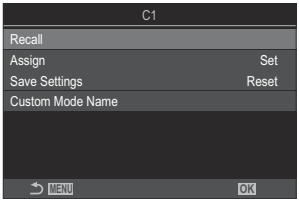
5. Highlight an item using the △▽ buttons and press the **OK** button.

- To recall settings for photos: **[📷Custom Mode]**
- To recall settings for movies: **[🎥Custom Mode]**

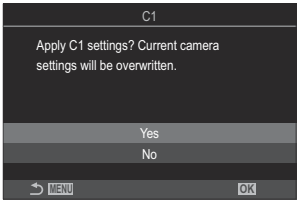
6. Highlight the desired custom mode (**[C1]** or **[C2]**) using △▽ buttons and press the **OK** button.



7. Use △▽ to select **[Recall]** and press the **OK** button.



8. Use △▽ to select **[Yes]** and press the **OK** button.



9. Press the **MENU** button to exit the menus.

When the mode dial is set to **C1** or **C2**, recalling settings also changes the shooting mode to the saved mode. Registered custom mode name will not be displayed.

Settings recalled by pressing a button to which **[C1]** or **[C2]** (Custom Mode C1 or 2) has been assigned in **[Button Function]** (P.340) or **[Button Function]** (P.340) are disabled when you:

- Turn the camera off
- Rotate the power lever to another setting
- Rotate the mode dial to another setting
- Press the **MENU** button during shooting
- Perform a reset
- Save or recall custom settings

Saving the Changes Made to Settings while in Custom Modes

You can save the changes made to settings while in custom modes in the camera. The changed settings remain even if you rotate the mode dial. Custom modes can be used in much the same way as modes **P**, **A**, **S**, **M**, and **B**.

1. Rotate the power lever to a shooting mode you wish to save.

2. Press the **MENU** button to view the menus.

3. Highlight a tab using the front dial.
   - To save the changed settings for photos: 1 tab
   - To save the changed settings for movies: tab

4. Highlight **[1. Basic Settings/Image Quality]** using the ◁▷ buttons or the rear dial.

5. Highlight an item using the △▽ buttons and press the **OK** button.
   - To save the changed settings for photos: **[Custom Mode]**
   - To save the changed settings for movies: **[Custom Mode]**

6. Highlight the desired custom mode (**[C1]** or **[C2]**) using △▽ buttons and press the **OK** button.

7. Use △▽ to select **[Save Settings]** and press the **OK** button.

8. Highlight **[Hold]** using the ◁▷ buttons and press the **OK** button.

9. Press the **MENU** button to exit the menus.

Setting custom mode names (Custom Mode Name)

Custom mode names can be set.

1. Choose a shooting mode other than AUTO, **SCN**, or **ART**.

2. Rotate the power lever to a shooting mode for which you wish to set a name.

3. Press the **MENU** button to view the menus.

4. Highlight a tab using the front dial.

- To set names for photos: camera_1 tab
- To set names for movies: movie tab

5. Highlight **[1. Basic Settings/Image Quality]** using the ◁▷ buttons or the rear dial.

6. Highlight an item using the △▽ buttons and press the **OK** button.

- To set names for photos: **[Custom Mode]**
- To set names for movies: **[Custom Mode]**

7. Highlight the desired custom mode (**[C1]** or **[C2]**) using △▽ buttons and press the **OK** button.

8. Use △▽ to select **[Custom Mode Name]** and press the **OK** button.

9. Enter a desired name.

Entering characters

1. Press the **INFO** button to switch between uppercase, lowercase and symbols.

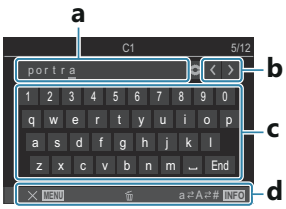
2. Highlight a character using △▽◁▷, and press the **OK** button to enter.

- The selected character appears in the character entry area (**a**).
- To delete a character, press the 🗑 button.

3. To delete a character in the character entry area (**a**), move the cursor using the front and rear dials.

- Select a character and press the 🗑 button to delete.

4. When you have finished entering, select **[End]** and press the **OK** button.



a Character entry area
b Cursor movement keys
c Keyboard
d Operation guide

Touch operation can be used to enter characters and operate **a** to **d**.

When a custom mode name is changed from the default settings, highlight **[Assign]** ➡ **[Reset]** and press the **OK** button to display a screen asking whether to delete the custom mode name.
Highlight **[Delete]** to delete the custom mode name and return it to its default setting.
Highlight **[Keep]** to save the custom mode name.

Shooting Settings

How to change the shooting settings

The camera offers many photography-related functions. Depending on how often you use them, you can access settings via buttons, icons in the display, or menus that can be used for detailed adjustments.

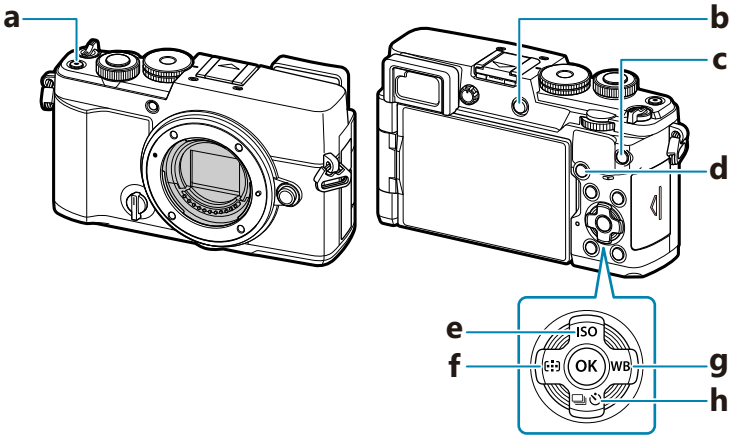
Method	Description
Direct Buttons	Adjust settings directly using buttons, including those listed below. Commonly-used functions are assigned to buttons for quick access during viewfinder photography (P.103).
LV super control panel/ super control panel	Choose from a list of settings showing current camera status. You can also view current camera settings (P.107).
Menu	In addition to shooting and playback options, the menus contain options that let you customize the operation and display of the camera, and set up the camera (P.113).

Direct Buttons

Functions and Direct Buttons

Frequently-used photographic functions are assigned to buttons. These are referred to as "direct buttons". They are useful when changing the settings frequently according to the subject.

The buttons to which functions can be assigned are listed below.



Direct buttons during photo shooting

Direct button		Assigned function
a	◉ button	Movie recording (P.90)
b	▭ (**LV**) button	Display (monitor/viewfinder) selection (P.46)
c	**CP** button	Computational Modes (P.350)
d	**AF-ON** button	AF-ON (P.134, P.135)
e	**ISO** button (△)	ISO sensitivity (P.185)

Direct button		Assigned function
f	[⋯] button (◁)	[⋯] AF Area Select (AF area select) (P.123)
g	**WB** button (▷)	White balance (P.244)
h	⧉⏲ button (▽)	Sequential/self-timer shooting (P.205)

Each button can be assigned other roles. ☞ "Changing the roles of buttons (Button Settings)" (P.340)

Direct buttons during movie/S&Q recording

Direct button		Assigned function
a	◉ button	Movie recording (P.90)
b	▭ (**LV**) button	**[EVF Auto Switch]** (P.394) by pressing and holding the button
c	**CP** button	Exposure compensation (P.171)
d	**AF-ON** button	AF-ON (P.134, P.135)
e	**ISO** button (△)	ISO sensitivity (P.185)
f	[⋯] button (◁)	[⋯] AF Area Select (AF area select) (P.123)
g	**WB** button (▷)	White balance (P.244)
h	⧉⏲ button (▽)	Off

Each button can be assigned other roles. ☞ "Changing the roles of buttons (Button Settings)" (P.340)

For information on how each direct button function works, see the explanation page of each function.

Setting with Direct Buttons

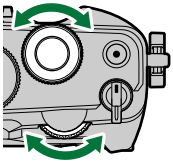
This section explains how to operate when a selection menu is displayed, using **[Drive /]** as an example.

1. Press the button of the function you want to use.

- Press the button.
- A selection menu appears.

①Selection menu

2. Rotate the front/rear dial to select a setting.



- Setting values can also be selected by tapping the screen.
- You can also use the ◁▷ buttons.
- Press the shutter button halfway to save the current setting and exit to the shooting display.

- With some functions, further detailed settings are available after selecting the setting in step 2. For information on how to operate, see the explanation of each function.

In this manual, the procedure for changing a setting using a direct button is shown as follows.

Button

- button ➡

Quickly changing the setting while keeping the button pressed

Some settings can be changed by rotating the front/rear dial while keeping the button of the function pressed.
The setting screen closes when you release the button.

LV Super Control Panel/Super Control Panel

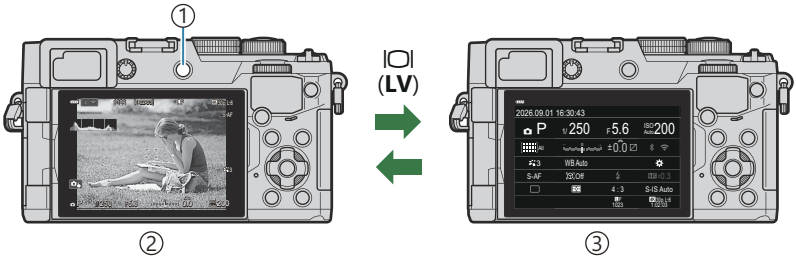
On LV Super Control Panel/Super Control Panel

The LV super control panel/super control panel lists shooting settings and their current values. Use the LV super control panel when framing shots in the monitor (“live view”), the super control panel when framing shots in the viewfinder.

- Pressing the button switches between viewfinder photography and live view photography.

In the following cases, pressing the button does not switch between viewfinder photography and live view photography.

- the power lever is rotated to or S&Q, or
- the mode dial is rotated to **ART** or **SCN**



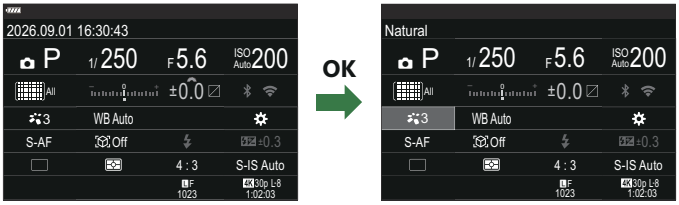
① (**LV**) button
② Live view photography
③ Viewfinder photography (monitor turns off while viewfinder is on)

LV Super Control Panel (Live View Photography)

To display the LV super control panel in the monitor, press the **OK** button during live view.

Super Control Panel (Viewfinder Photography)

When you frame subjects in the viewfinder, the super LV control panel will be displayed in the monitor at all times. Press the **OK** button to activate the cursor.

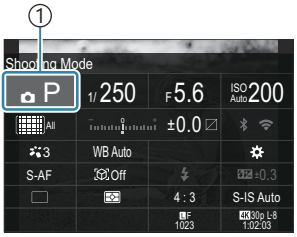


Setting with LV Super Control Panel/Super Control Panel

This section explains how to operate super control panel/LV super control panel using **[Subject Detection]** as an example.

1. Press the **OK** button.

- The last setting used will be highlighted.



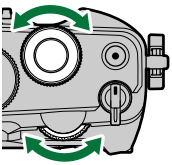
① Cursor

2. Highlight an item using △▽◁▷.

- The selected setting will be highlighted.
- The name of the selected function appears.
- You can also highlight items by tapping them in the display.

3. Rotate the front/rear dial to change the highlighted setting.

- Settings can also be adjusted by tapping the screen.



- Press the shutter button halfway to save the current setting and exit to the shooting display.

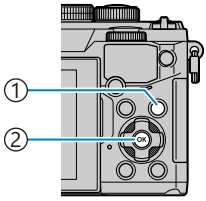
In this manual, the procedure for changing a setting using LV super control panel and super control panel is shown as follows.

Super control panel

- **OK** ➡ Subject Detection

Additional Options

Pressing the **OK** button or tapping the item in Step 2 displays options for the highlighted setting.
You can also configure items by tapping the setting values directly in the display.
In some cases, additional options can be configured.



①**INFO** button
②**OK** button

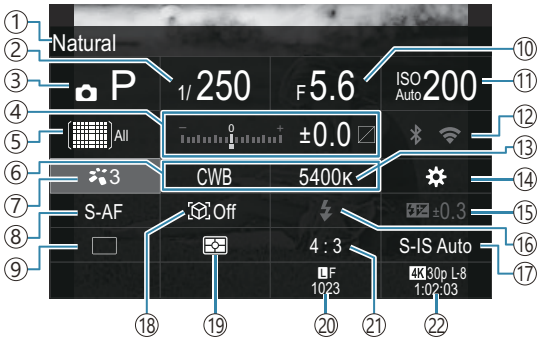
① ② ③

①LV Super Control Panel/Super Control Panel display
②Selection menu display
③Detailed setting display

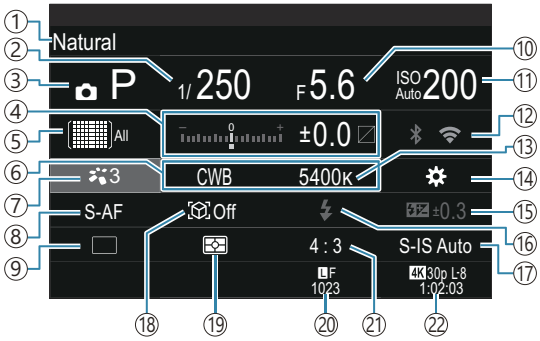
Functions Available with the LV Super Control/ Super Control Panel

Photo shooting mode

LV super control panel



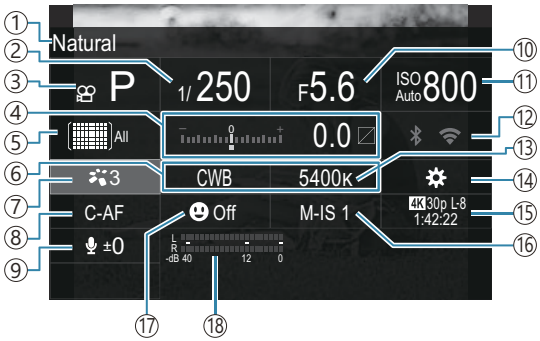
Super control panel



① Name of the currently selected option
② Shutter Speed (P.58, P.63)
③ Shooting Mode (P.51)
④ Exposure Compensation / Highlight & Shadow Control (P.171 / P.349)
⑤ AF Target Mode (P.124)
⑥ White Balance (P.244)
⑦ Picture Mode (P.232)
⑧ AF Mode (P.118)
⑨ Drive (sequential/self-timer shooting) (P.205)
⑩ Aperture Value (P.58, P.61)
⑪ ISO Sensitivity (P.185)
⑫ Wi-Fi/Bluetooth (P.414)
⑬ Color Temperature (P.244)
⑭ Button Function (P.340)
⑮ Flash Intensity Control (P.200)
Manual Value (P.195)
⑯ Flash (P.195)
⑰ Image Stabilizer (P.219)
⑱ Subject Detection (P.138)
⑲ Metering (P.178)
⑳ Image Quality, Number of Storable Still Pictures (P.223, P.512)
㉑ Aspect Ratio (P.230)
㉒ Movie Quality, Available Recording Time (P.224, P.514)

Movie recording mode

LV super control panel



① Name of the currently selected option
② Shutter Speed (P.90)
③ Shooting Mode (P.51)
④ Exposure Compensation / Highlight & Shadow Control (P.171 / P.349)
⑤ AF Target Mode (P.124)
⑥ White Balance (P.244)
⑦ Picture Mode (P.232)
⑧ AF Mode (P.118)
⑨ Sound Recording Level (P.94)
⑩ Aperture Value (P.90)
⑪ ISO Sensitivity (P.185)
⑫ Wi-Fi/Bluetooth (P.414)
⑬ Color Temperature (P.244)
⑭ Button Function (P.340)
⑮ Movie Quality, Available Recording Time (P.224, P.514)
⑯ Image Stabilizer (P.219)
⑰ Face & Eye Detection (P.141)
⑱ Sound Recording Level Meter (P.94)

Using the menu

What you can do with menus

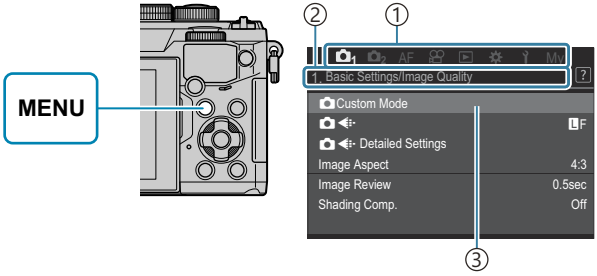
In addition to shooting and playback options, the menus contain options that let you customize the operation and display of the camera, and set up the camera.
There are several tabs which represent function categories, and related functions are contained in each page.

How to operate the menus

Front dial ( )	Select a tab.
◁▷/Rear dial ( )	Select a page.
△▽	Move the cursor.
OK button	Confirm the setting/proceed to the next screen.
MENU button	Cancel operation/return to previous screen.

The following explanation uses **[AF Mode]** as an example.

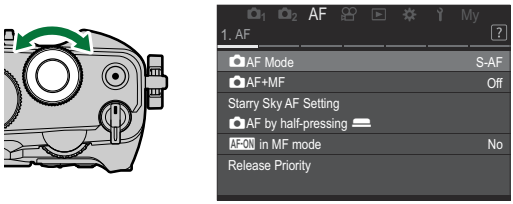
1. Press the **MENU** button to view the menus.



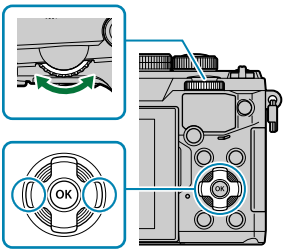
① Tab
② Page title
③ Cursor

2. Use the front dial to select the desired tab.

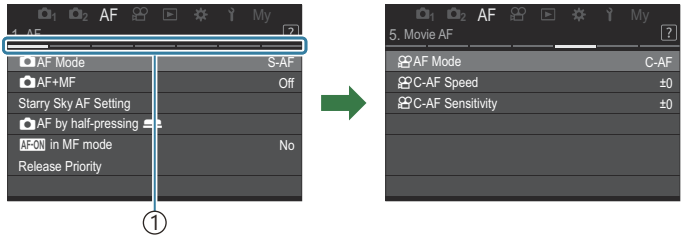
- **[AF Mode]** can be found in the **[AF]** tab. Rotate the front dial until the **[AF]** tab is highlighted.
- You can also tap the tab icon to switch to the tab.



3. Use ◁▷ or the rear dial to select the desired page.



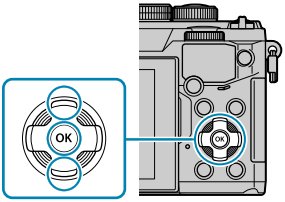
- **[AF Mode]** can be found on the 5th page, **[5. Movie AF]**. Press ◁▷ or rotate the rear dial until the **[5. Movie AF]** is highlighted.

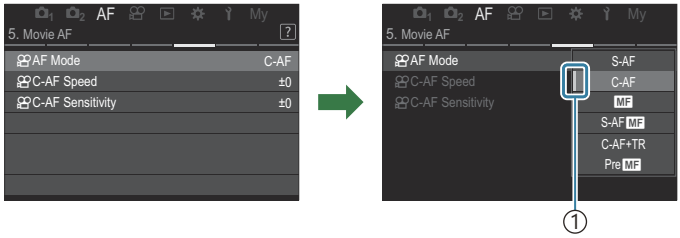


①Page guide

- You can tap the page guide to change the page.

4. Highlight **[AF Mode]** using the △▽ buttons and press the **OK** button.





①The configured item will be displayed.

- Items can also be selected by tapping the screen.

5. Use △▽ to highlight an option and press the **OK** button to select.

- The setting is confirmed.
- Setting values can also be selected by tapping the screen.
- Pressing the **MENU** button closes the menu.
- The procedure after selecting an item and pressing the **OK** button varies depending on the menu item.
- Some menu items require further settings after you select an option in Step 5.

In this manual, the procedure for selecting menu items is shown as follows.

Menu

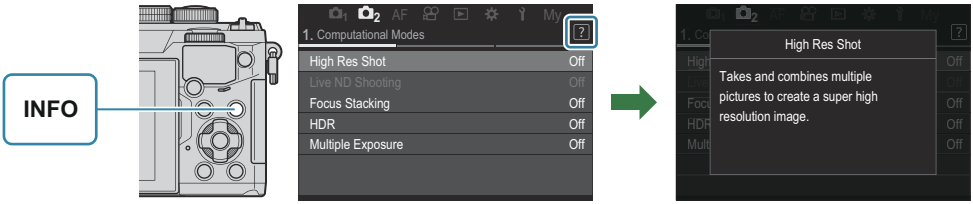
- **MENU** ➡ **AF** ➡ 5. Movie AF ➡ AF Mode

To cancel menu operation, press the **MENU** button.

For the default settings of each option, refer to "Default Settings" (P.471).

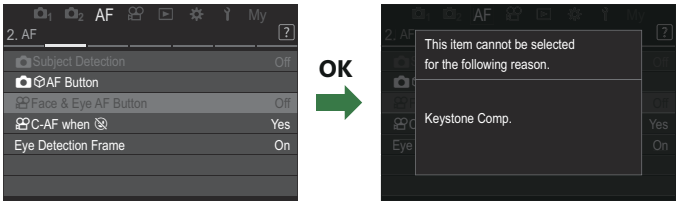
Displaying the description of a menu item

When you press the **INFO** button while a menu item is selected or when you tap ? displayed on the screen, the description of the menu is displayed on the screen.



Items shown in gray

If an item is currently unavailable due to the condition of the camera or other settings, it is shown in gray.
When you press the **OK** button while a gray item is highlighted, the reason it is not available is displayed.



Basic functions for focusing

Choosing a focus mode (AF Mode / AF Mode)

: PASMB / S&Q: PASM

You can select a focusing method (focus mode).

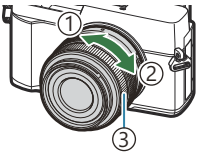
Super control panel

- **OK** ➡ AF Mode / AF Mode

Menu

- **MENU** ➡ **AF** ➡ 1. AF ➡ AF Mode
- **MENU** ➡ **AF** ➡ 5. Movie AF ➡ AF Mode

S-AF (Single AF)	The camera focuses once when the shutter button is pressed halfway or the **AF-ON** button is pressed. When the focus is locked in mode, a beep sounds, and the AF confirmation mark and the AF target mark light up. When the focus is locked in /S&Q modes, the AF confirmation mark and the AF target are displayed. This mode is suitable for taking pictures of still subjects or subjects with limited movement.
C-AF (Continuous AF)	In mode, the camera repeats measuring the distance between the subject and the camera and focusing while the shutter button remains pressed halfway or while the **AF-ON** button is pressed. When the subject is in focus, the AF confirmation mark lights up on the monitor. Also, the beep sounds when the focus is locked at the first time. In /S&Q modes, the camera repeats focusing both before and during recording. This mode is suitable when the distance to the subject keeps changing.

MF (Manual focus)	This function allows you to manually focus on any position by operating the focus ring on the lens.  ①Near ②∞ ③Focus ring
S-AF MF	The camera focuses in S-AF mode. You can adjust the focus position by operating the focus ring on the lens.
C-AF+TR (AF tracking)	Press the shutter button halfway or press the **AF-ON** button to focus; the camera then tracks and maintains focus on the current subject while the button is held in position. In 🎥/S&Q modes, the camera continues AF tracking even if you release the button before you start recording. To stop it, press the **OK** button. When you start recording a movie while the camera is tracking the subject, it will continue tracking. AF tracking always operates during recording. • During AF tracking, a white frame is displayed on the subject being tracked. • If the tracked subject is lost, the frame will be displayed in gray. Release the button and then frame the subject again and press the shutter button halfway or press the **AF-ON** button. If **[On2]** is selected for **[AF Area Pointer]**, AF targets will appear at the areas in focus instead a white frame. When using AF tracking (P.124), [▦]All (all targets) cannot be selected for AF target mode. Tracking AF cannot be used with: - keystone compensation, High Res Shot, focus bracketing, focus stacking, interval-timer photography, HDR photography, live ND shooting, fisheye compensation
Pre MF (Preset MF)	The camera automatically focuses on the preset focus point when shooting.
☆AF (Starry Sky AF) (only during photo shooting)	Choose this mode for pictures of stars in the night sky. Press the **AF-ON** button to focus on the stars. ☞ "Using Starry Sky AF" (P.120)

- **[S-AF MF]** only appears in **[AF Mode]**.
  To focus manually during autofocus when taking pictures, use **[AF+MF]**. ☞ "Combined Auto and Manual Focus (AF+MF)" (P.131)
- **[C-AF+TR]** does not appear if the power lever is rotated to and a setting other than **[Off]** is selected for **[Subject Detection]** (P.138).
- **[C-AF+TR]** does not appear if the power lever is rotated to or S&Q and a setting other than **[Off]** is selected for **[Face & Eye Detection]** (P.141).
- The camera may be unable to focus if the subject is poorly lit, obscured by mist or smoke, or lacks contrast.
- The camera may fail to track the subject depending on its type or on shooting conditions.
- When using a Four Thirds system lens, AF will not be available during movie recording.
- **[AF Mode]**/**[AF Mode]** selection is not available if **[Operative]** is selected for **[MF Clutch]** (P.168) and the lens focus ring (P.446) is in the MF position or if the focus switch is set to MF.
- You can choose whether the camera focuses when the shutter button is pressed halfway.
  ☞ "Configuring the AF operation when the shutter button is pressed (AF by half-pressing)" (P.133)

Using Starry Sky AF

1. Select **[AF]** for AF mode.

2. Press the **AF-ON** button to initiate starry sky AF.
   - To interrupt starry sky AF, press the **AF-ON** button again.
   - You can configure the camera so that starry sky AF starts when the shutter button is pressed halfway. ☞ "Changing the settings of Starry Sky AF (Starry Sky AF Setting)" (P.137)
   - The camera displays **[Starry Sky AF is Running]** during starry sky AF. The in-focus indicator (●) is displayed for about two seconds after the camera focuses; if the camera is unable to focus, the in-focus indicator will instead flash for about two seconds.

3. Press the shutter button the rest of the way down to take the picture.
   - Tap a brighter star to focus and automatically release the shutter.

- The camera will not be able to focus in bright locations.
- Starry sky AF cannot be used with Pro Capture.
- Starry sky AF cannot be used if a setting other than **[Off]** is selected for **[Subject Detection]** (P.138).

- **[Orientation Linked [∴]]** (P.155), **[[∴] Loop Settings]** (P.160), **[AF Limiter]** (P.148), **[AF Illuminator]** (P.153), and **[AF Scanner]** (P.150) are fixed at **[Off]**.
- Manual focus is selected when a Four Thirds lens is attached.
- Starry sky AF is available with Micro Four Thirds lenses made by OM Digital Solutions or OLYMPUS. It cannot, however, be used with lenses with a maximum aperture over F5.6. For more information, visit our website.
- No photo will be taken by tapping the screen when the camera is unable to focus.
- **[AF Priority]** (P.137) in **[Starry Sky AF Setting]** offers a choice of **[Accuracy]** and **[Speed]**. Mount the camera on a tripod before taking photographs with **[Accuracy]** selected.
- Your choice of AF target modes is restricted to **[·]**Single, **[⠿]**Middle, or **[▦]**Large (P.124).
- The camera automatically focuses at infinity when starry sky AF is selected.
- When **[On]** is selected for **[Release Priority]** in **[Starry Sky AF Setting]**, the shutter can be released even when the subject is not in focus.

Setting a focus position for Preset MF

1. Select **[Pre MF]** in AF mode and press the **INFO** button.

2. Press the shutter button halfway to focus.
   - Focus can be adjusted by rotating the focus ring.

3. Press the **OK** button.

- The distance for the preset focus point can be set with **[Preset MF distance]** (P.167).
- The camera also focuses at the preset distance:
  - when turned on and
  - when you exit the menus to the shooting display.

Adjusting Focus Manually During Autofocus

- Select **[On]** for **[AF+MF]** (P.131) in advance. MF is displayed next to **[S-AF]**, **[C-AF]**, **[C-AF+TR]**, or **[AF]**.

1. Choose a focus mode marked with a MF icon (P.118).

- When recording movies, choose **[S-AF MF]**.

2. Press the shutter button halfway to focus using autofocus.

- When using **[AF MF]**, press the **AF-ON** button to initiate Starry Sky AF.

3. Keeping the shutter button pressed halfway, rotate the focus ring to adjust focus manually.

- To refocus using autofocus, release the shutter button and press it halfway again.

Manual focus adjustment during autofocus is not available in **[AF MF]** mode.

Manual focus adjustment during autofocus is available via the focus ring on M.ZUIKO PRO lenses. For information on other lenses, visit our website.

4. Press the shutter button the rest of the way down to take the picture.

Choosing a Focus Target (AF Target Point)

:PASMB **/S&Q:PASM**

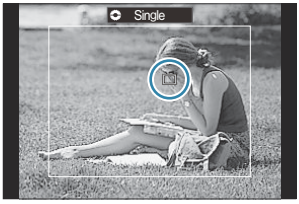
The frame showing the location of the focus point is referred to as the "AF target". You can position the target over your subject.

1. Press the [·:·] button to view the AF target.

- If the AF target mode is set to [▦]All, select an option other than [▦]All (P.124).

2. Use the △▽◁▷ buttons to select the AF position while selecting the AF target.

- To select the center AF target, press and hold the **OK** button.
- You can choose whether AF target selection "wraps around" the edges of the display (P.160).



3. Release the shutter.

- The AF target selection display will clear from the monitor when the shutter button is pressed halfway.
- The AF frame is displayed in the position of the selected AF target.

- If the arrow pad is set to **[AF Area Select]** in **[Button Function]** (P.340), you can reposition the AF target during focusing when **[C-AF]** or **[C-AF MF]** is selected in mode.
- If the arrow pad is set to **[AF Area Select]** in **[Button Function]** (P.340) for mode or in **[Button Function]** (P.340) for or S&Q mode, you can reposition the AF target during movie recording.
- The size and number of the AF target changes depending on shooting settings.
- When **[On]** is selected for **[AF Targeting Pad]** (P.162), you can reposition the AF target using monitor touch controls while framing your subject in the viewfinder.

Choosing an AF Target Mode (AF Target Mode)

📷:PASMB 🎥/S&Q:PASM

Button

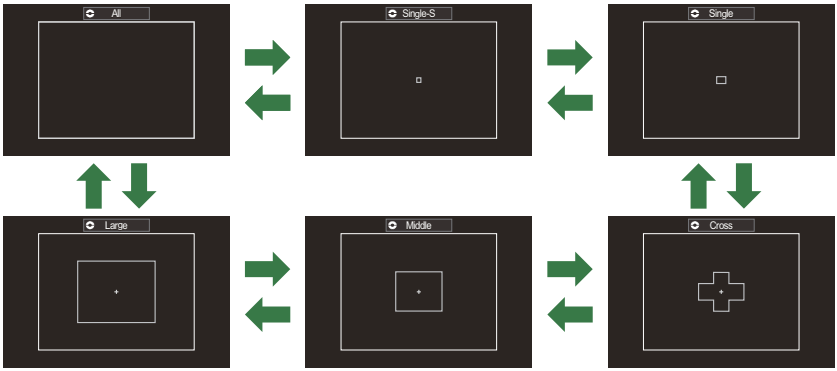
- [⁘] button

Super control panel

- **OK** ➡ 📷AF Target Mode / 🎥AF Target Mode

1. Press the [⁘] button to view the AF target.

2. Rotate the front dial to select size and shape while selecting the AF target.



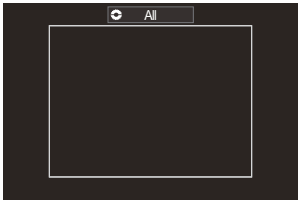
Types of AF Target Modes

- When using ★AF (P.118), only [▪]Single, [▦]Middle, and [▦]Large can be selected.
- The only options available during movie recording are [▪]Single, [▦]Middle, [▦]Large, and [▦]All.
- The AF target modes to be displayed for still photography can be selected in **[📷AF Target Mode Settings]** (P.127).

[▦]All

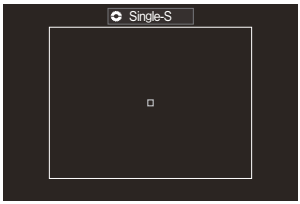
The camera chooses the target used for focus from all available targets.

- The camera chooses from 121 (11 × 11) targets in 📷 mode and from 99 (11 × 9) targets in 🎞/S&Q modes.



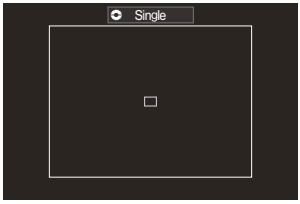
[·]Single-S

An AF target smaller than the one used in [·]Single is available. Use this when the subject is small or when you want to focus on a smaller area.



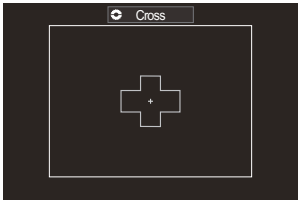
[·]Single

Select a single focus target.



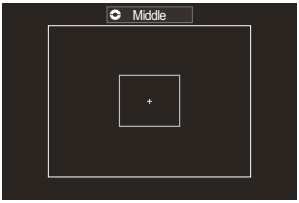
[✣]Cross

Select a group of targets arranged in a cross. The camera chooses the target used for focus from within the selected group.



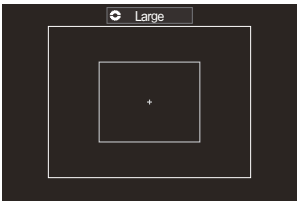
[⠿]Middle

Select a middle-sized group of targets. The camera chooses the target used for focus from within the selected group.



[▦]Large

Select a large-sized group of targets. The camera chooses the target used for focus from within the selected group.



[⠿]C1–[⠿]C4 Custom Target

You can change the size of the AF target and the step (the distance it moves at one time). Custom target modes can be selected when there is a check (✓) next to a custom target in **[AF Target Mode Settings]** (P.127).

- The number of AF targets available may be reduced depending on shooting settings.
- Separate AF target modes can be selected according to camera orientation. ☞ "Matching AF Target Selection to Camera Orientation (Orientation Linked [∷])" (P.155)
- You can adjust AF target settings for **[C-AF]**. ☞ **[C-AF Center Priority]** (P.145)
- Separate options can be selected for still photography mode (mode) and movie mode (/S&Q modes).

Setting the options for AF target modes (AF Target Mode Settings)

P:PASMB S&Q:PASM

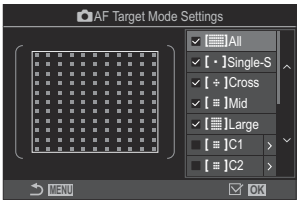
Specify which options are displayed when setting the AF Target Mode.

Menu

- **MENU** ➡ **AF** ➡ 6. AF Target Settings & Operations ➡ AF Target Mode Settings

1. Select the AF target modes that you want to have displayed as options and put a check (✔) next to each of them.

- Select an option using △ ▽ and press the **OK** button to put a check (✔) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✔).



AF Target Mode Settings screen

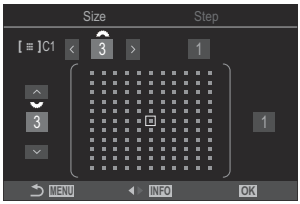
[▦]All, [·]Single-S, [÷]Cross, [⠿]Mid, [▦]Large

If you put a check (✔) next to an option, it will be displayed as the option when selecting the AF target.

[⠿]C1–[⠿]C4

If you put a check (✔) next to an option, it will be displayed as the option when selecting the AF target.

Press ▷ to configure the size of the AF target and the step (the distance it moves at one time).



Item	Horizontal	Vertical
Size	6 types (1 / 3 / 5 / 7 / 9 / 11) Switch using ◁▷ or the front dial.	6 types (1 / 3 / 5 / 7 / 9 / 11) Switch using △▽ or the rear dial.
Step	3 types (1 to 3) Switch using ◁▷ or the front dial.	3 types (1 to 3) Switch using △▽ or the rear dial.

- Press the **INFO** button to switch between Size and Step.
- The size of the AF target and the step can also be adjusted by tapping the screen.

Zoom frame AF/Zoom AF (Super Spot AF)

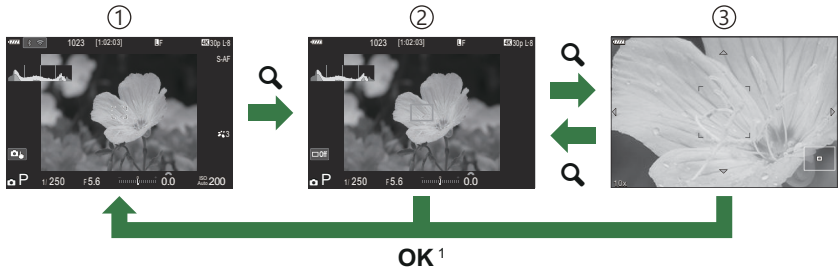
📷:PASMB 🎥/S&Q:PASM

You can zoom in on the display during shooting. For greater precision during focusing, zoom in on the focus area. At higher zoom ratios, you can focus on areas smaller than the standard focus target. You can reposition the focus area as desired during zoom.

Button

- A button to which 🔍 has been assigned

To use Zoom frame AF/Zoom AF, you must assign **[🔍]** (P.341) to a camera control. ☞ "Changing the roles of buttons (Button Settings)" (P.340)



①Shooting display
②Zoom frame AF display
③Zoom AF display

1 You can also return to the shooting display by pressing and holding the button you assigned **[🔍]** (magnify) to instead of the **OK** button.

1. Press the button to which **[🔍]** (magnify) is assigned.

- The zoom frame will be displayed.

2. Press the △▽◁▷ buttons to position the zoom frame.

- To re-center the frame, press and hold the **OK** button.

3. Adjust the size of the zoom frame to choose the zoom ratio.

- Press the **INFO** button and then use the △▽ buttons or the front or rear dial to adjust the size of the zoom frame.
- Press the **OK** button to accept and exit.

4. Press the button to which **[🔍]** is assigned once more.

- The camera will zoom the selected area in to fill the display.
- Use the front or rear dial to zoom in or out.
- Use △▽◁▷ to scroll the display.

- If the shooting mode is **M** (manual) or **B** (bulb) and **[ISO Auto]** is not selected, you can press the **INFO** button during zoom to choose aperture or shutter speed.
- Press the 🔍 button to return to the zoom frame.
- Press the **OK** button to end focus zoom.
- You can also end focus zoom by pressing and holding the 🔍 button.

Exposure adjustment display for modes **M** and **B**

Focus zoom applies to the display only. Pictures taken with the camera are not affected.
Zoom AF does not work during zoom display and when using a Four Thirds system lens.
When **[Digital Tele-converter]** is **[On]** in /S&Q modes, camera cannot zoom.
Pictures can also be taken during zoom frame AF display and zoom AF display.
Touch controls can be used for focus zoom. "Shooting with touch screen operations" (P.54)
You can configure the camera to exit focus zoom when the shutter button is pressed halfway to focus. "Choosing What Happens When the Shutter Button Is Pressed During Live View Zoom (LV Close Up Mode)" (P.357)

Functions for configuring how to focus

Combined Auto and Manual Focus (AF+MF)

P:PASMB S&Q:PASM

After focusing using autofocus, you can adjust focus manually by keeping the shutter button pressed halfway and rotating the focus ring. Switch from auto to manual focus at will or fine-tune focus manually after focusing with autofocus.

The procedure varies with the AF Mode selected (P.118).

Menu
- **MENU** ➡ **AF** ➡ 1. AF ➡ AF+MF

On	Manual focus adjustment enabled during autofocus. MF is displayed next to **[S-AF]**, **[C-AF]**, **[C-AF+TR]**, or **[AF]**. • When **[S-AF MF]** is selected, you can keep the shutter button pressed halfway or keep the **AF-ON** button pressed after focusing using single AF and adjust focus manually. Alternatively, you can switch to manual focus by rotating the focus ring while the camera is focusing. Focus can also be adjusted manually while the shutter is open and during burst photography. • When **[C-AF MF]** or **[C-AF+TR MF]** is selected, you can switch to manual focus by rotating the focus ring while the camera is focusing in continuous AF and continuous tracking AF modes. Press the shutter button halfway or press the **AF-ON** button a second time to refocus using autofocus. Focus can also be adjusted manually while the shutter is open and during burst photography. • When **[AF MF]** is selected, you can focus manually after focusing or before initiating focus using AF.
Off	Manual focus adjustment disabled during autofocus.

Manual focus is not available during burst photography in **[H]** or **[ProCapH]** mode.

- Autofocus with manual focus is also available when autofocus is assigned to other camera controls.
  ☞ "Changing the roles of buttons (Button Settings)" (P.340)
- The lens focus ring can be used to interrupt autofocus only when M.ZUIKO PRO lenses are used. For information on other lenses, visit our website.
- In **B** (bulb) mode, manual focus is controlled by the option selected for **[Bulb/Time Focusing]** (P.280).

Configuring the AF operation when the shutter button is pressed (AF by half-pressing)

P:PASMB S&Q:PASM

You can choose whether the camera focuses when the shutter button is pressed halfway.

Menu
- **MENU** ➡ **AF** ➡ 1. AF ➡ AF by half-pressing

S-AF	Set the AF operation for when the AF mode is **[S-AF]**. **[No]**: The camera does not start AF operation when the shutter button is pressed halfway. **[Yes]**: The camera starts AF operation when the shutter button is pressed halfway. If you press the shutter button halfway while pressing the **AF-ON** button, autofocus will be continued.
C-AF/ C-AF+TR	Set the AF operation for when the AF mode is **[C-AF]** or **[C-AF+TR]**. **[No]**: The camera does not start AF operation when the shutter button is pressed halfway. **[Yes]**: The camera starts AF operation when the shutter button is pressed halfway. If you press the shutter button halfway while pressing the **AF-ON** button, autofocus will be continued.

Autofocus using the AF-ON button

📷:PASMB 🎬/S&Q:PASM

The camera starts AF operation when you press the **AF-ON** button. Autofocus ends when you release the **AF-ON** button. When you press the **AF-ON** button while the camera is performing autofocus because the shutter button has been pressed halfway, autofocus will be continued.

Button

- **AF-ON** button

If **[C-AF]** is selected for **[🎬 AF Mode]**, the camera operates in S-AF mode when the **AF-ON** button is pressed during movie recording. If **[C-AF+TR]** is selected, the camera performs AF tracking when the **AF-ON** button is pressed.

Using Autofocus in Manual Focus Mode (AF-ON in MF mode)

📷:PASMB 🎬/S&Q:PASM

You can configure the camera so that it focuses with autofocus when you press the **AF-ON** button, even if the AF mode is **[MF]** or **[Pre MF]**.

Menu
- **MENU** ➡ **AF** ➡ 1. AF ➡ AF-ON in MF mode

No	If the AF mode is **[MF]** or **[Pre MF]**, the camera does not focus with autofocus even when the **AF-ON** button is pressed.
Yes	If the AF mode is **[MF]** or **[Pre MF]**, the camera focuses with autofocus in **[S-AF]** mode when the **AF-ON** button is pressed.

ⓘ When the power lever is rotated to S&Q and the mode dial is rotated to **M**, the mode is fixed to **[No]**.

Configuring camera operation when it cannot focus on the subject (Release Priority)

:PASMB /S&Q:PASM

You can choose whether the camera takes a picture when it cannot focus on the subject with autofocus.

Menu

- **MENU** ➡ **AF** ➡ 1. AF ➡ Release Priority

S-AF	Set the camera operation for when the AF mode is **[S-AF]** and it cannot focus on the subject with autofocus. **[Off]**: If the camera cannot focus on the subject with autofocus, the shutter cannot be released even when the shutter button is pressed fully. If the flash is configured to fire, the shutter cannot be released until the flash is charged. **[On]**: The shutter is released when the shutter button is pressed fully, even if the camera cannot focus on the subject with autofocus.
C-AF/C-AF+TR	Set the camera operation for when the AF mode is **[C-AF]** or **[C-AF+TR]** and it cannot focus on the subject with autofocus. **[Off]**: If the camera cannot focus on the subject with autofocus, the shutter cannot be released even when the shutter button is pressed fully. If the flash is configured to fire, the shutter cannot be released until the flash is charged. **[On]**: The shutter is released when the shutter button is pressed fully, even if the camera cannot focus on the subject with autofocus.

Changing the settings of Starry Sky AF (Starry Sky AF Setting)

P:PASMB S&Q:PASM

You can configure the operation of the Starry Sky AF function.

Menu
- **MENU** ➡ **AF** ➡ 1. AF ➡ Starry Sky AF Setting

AF Priority	**[Accuracy]**: Prioritize focus accuracy over speed. Use a tripod. **[Speed]**: Prioritize focus speed over accuracy.
AF Operation	**[S]**: Focuses with autofocus while the shutter button is pressed halfway. **[AF-ON]**: Focuses with autofocus while the **AF-ON** button is pressed. **[AF-ON Start/Stop]**: Focusing starts when the **AF-ON** button is pressed. Press again to stop focusing.
Release Priority	**[Off]**: • If **[AF Operation]** is set to **[S]**, the shutter cannot be released even when the shutter button is pressed fully, unless the camera is in focus. • If **[AF Operation]** is set to **[AF-ON]** and the **AF-ON** button is pressed, the shutter cannot be released even when the shutter button is pressed fully, unless the camera is in focus. If the **AF-ON** button is not pressed, you can start shooting at any time by pressing the shutter button fully. • If **[AF Operation]** is set to **[AF-ON Start/Stop]** and Starry Sky AF is being executed, shooting does not start even when the shutter button is pressed fully. If Starry Sky AF is not being executed, you can start shooting at any time by pressing the shutter button fully. **[On]**: Shooting starts when the shutter button is pressed fully, regardless of the setting of **[AF Operation]**.

Functions for customizing AF operation to fit the subject

Tracking Focus on Selected Subjects (Subject Detection)

📷:PASMB 🎬/S&Q:PASM

When focusing, the camera can detect people's faces and eyes, as well as fast-moving subjects.

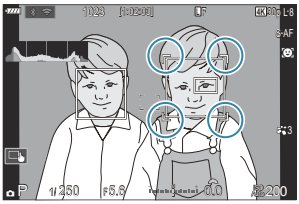
Menu
- **MENU** ➡ **AF** ➡ 2. AF ➡ Subject Detection

(Human)	The camera detects people. It tracks focus on such elements as the face, head, eyes, and upper body.
(Dogs & Cats)	The camera detects cats, dogs, and similar animals. It tracks focus on such elements as the head or eyes.
Off	Tracking subject selection disabled.

When a setting other than **[Off]** is selected, **[AF]** (**[AF MF]**) is set to **[S-AF]** (**[S-AF MF]**), and **[C-AF+TR]** (**[C-AF+TR MF]**) is set to **[C-AF]** (**[C-AF MF]**).

Taking Pictures Using [Subject Detection]

1. Point the camera at your subject.
- When the camera detects subjects, a white frame appears on the subject which is focused on. Gray frames appear on other subjects. On the subject which is focused on, an additional frame appears surrounding the white frame.



- When the camera detects specific elements such as eyes, smaller white frames also appears on them.
  These frames can be hidden from the menu (P.144).
- If multiple subjects are detected, the white frame indicating the subject to focus on may switch to another subject.
- If the white frame indicating a subject to be focused on appears on another subject, change the size and/or position of the AF target so that it overlaps the subject to be focused on.
- When set to , if multiple subjects are detected, you can select the subject to focus on by tapping the screen (P.54).
- When set to , if eyes are detected while **[(Human)]** is selected, you can select which eye to focus on by tapping the screen (P.54).

2. Press the shutter button halfway to focus.

- You can also focus by pressing the **AF-ON** button (P.134).
- When the camera focuses on a subject, a green frame appears on the focus position.
- When the camera detects eyes, it focuses on them.
- When **[C-AF]** or **[C-AF MF]** is selected for AF mode, the camera will continue to track and focus on the subject with the white frame, even while the subject is in motion, until the button is released.

3. Press the shutter button the rest of the way down to take the picture.

The camera may fail to detect the subject depending on the subject or art filter selected.
The camera may fail to detect the subject depending on its type or on shooting conditions.

Assigning focus priority to buttons (AF Button)

P:PASMB S&Q:PASM

Separate focus points can be configured for the shutter button and the **AF-ON** button when a subject is detected.

Menu
- **MENU** ➡ **AF** ➡ 2. AF ➡ AF Button

	Select the AF operation for when the shutter button is pressed halfway. **[Priority]**: Tracks focus on the subject when it is detected. **[Priority]**: Always tracks focus on the selected AF target point.
AF-ON	Select the AF operation for when the **AF-ON** button is pressed. **[Priority]**: Tracks focus on the subject when it is detected. **[Priority]**: Always tracks focus on the selected AF target point.

Tracking Focus on Faces or Eyes of Subjects (Face & Eye Detection)

:PASMB /S&Q:PASM

During movie recording, the camera automatically detects and focuses on people's faces and eyes.

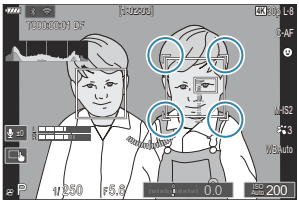
Super control panel
- **OK** ➡ Face & Eye Detection

Menu
- **MENU** ➡ **AF** ➡ 2. AF ➡ Face & Eye Detection

On	Detect the subject's face or eye and focus on it.
Off	Face Priority AF is not used.

- When **[On]** is selected, the AF mode changes from **[C-AF+TR]** to **[C-AF]**.
- This function is disabled when the Sensor Frame Rate in S&Q mode is set to **[120fps]**.

Taking Pictures Using [Face & Eye Detection]



1. Point the camera at your subject.
   - When the camera detects faces, a white frame appears on the face in focus, and gray frames appear on other faces. Additional double frames are displayed on the four corners of the white frame on the face in focus.
   - You can choose whether to display an eye detection frame when the camera detects a face (P.144).
   - When set to , the face to focus on can be selected by tapping the screen (P.54).
2. Press the **AF-ON** button to focus on the subject.
   - A green frame appears on the focused area of the detected face.
   - You can also select the face or the eyes with **[MF]** (P.118). When a face or eye is detected, a frame will be displayed. In this case, the exposure will still be set centered on the face.

3. Press the ◉ button to begin recording.

- The camera may fail to detect faces depending on the shooting conditions, the subject, or the art filter settings.
- When the zoom frame is displayed, the camera focuses on its position.

Configuring the C-AF operation when a face is not detected (C-AF when)

:PASMB /S&Q:PASM

Configure the C-AF operation when a face is not detected for movie recording.

Menu

- **MENU** ➡ **AF** ➡ 2. AF ➡ C-AF when

Yes	The camera keeps focusing even when no face is detected.
No	The camera does not focus if no face is detected.

Configuring the frame displays for detected eyes (Eye Detection Frame)

P:PASMB S&Q:PASM

You can choose whether to display an eye detection frame when the camera detects a face.

Menu
- **MENU** ➡ **AF** ➡ 2. AF ➡ Eye Detection Frame

Off	The eye detection frame is not displayed.
On	The eye detection frame is displayed.

- Even if **[Eye Detection Frame]** is set to **[Off]**, the camera focuses on the eyes when they are detected.

C-AF Center Target Priority (C-AF Center Priority)

C:PASMB C/S&Q:PASM

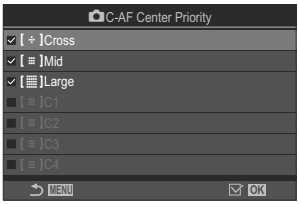
When focusing using group-target AF in **[C-AF]** and **[C-AF MF]** modes, the camera always assigns priority to the center target in the selected group for a repeated series of focus operations. Only if the camera is unable to focus using the center focus target will it focus using the surrounding targets in the selected focus group. This helps you track subjects that are moving quickly but relatively predictably. Center priority is recommended in most situations.

Menu

- **MENU** ➡ **AF** ➡ 4. AF ➡ C-AF Center Priority

1. Select an AF target mode for which the camera always assigns priority to the center target for a repeated series of focus operations and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



C-AF Center Priority setting screen

[÷]Cross	If you put a check (✓) next to an option, the camera always assigns priority to the center target for a repeated series of focus operations when the AF target mode is used.
[⠿]Mid	
[▦]Large	
[⠿]C1 – [⠿]C4	

[⠿]C1 – **[⠿]C4** can only be checked (✓) when either the horizontal or vertical **[Size]** specified in **[⠿]C1** – **[⠿]C4** in **[AF Target Mode Settings]** (P.127) is 3 or larger.

C-AF Tracking Sensitivity (C-AF Sensitivity / C-AF Sensitivity)

C:PASMB C/S&Q:PASM

Choose how rapidly the camera responds to changes in the distance to the subject while focusing with **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]** or **[C-AF+TR MF]** selected for **[AF Mode]**, or with **[C-AF]** or **[C-AF+TR]** selected for **[AF Mode]**. This can help autofocus track a quickly-moving subject or prevent the camera refocusing when an object passes between the subject and the camera.

Menu

- **MENU** ➡ **AF** ➡ 4. AF ➡ C-AF Sensitivity
- **MENU** ➡ **AF** ➡ 5. Movie AF ➡ C-AF Sensitivity

- Choose from five levels (**[C-AF Sensitivity]**) / three levels (**[C-AF Sensitivity]**) of tracking sensitivity.
- The higher the value, the higher the sensitivity. Choose positive values for subjects that suddenly enter the frame, that are moving rapidly away from the camera, or that change speed or stop suddenly while moving toward or away from the camera.
- The lower the value, the lower the sensitivity. Choose negative values to prevent the camera refocusing when the subject is briefly obscured by other objects or to prevent the camera focusing on the background when you are unable to keep the subject in the AF target.

C-AF Focus Speed (C-AF Speed)

:PASMB /S&Q:PASM

Choose how quickly the camera responds to changes to the distance to subject when **[C-AF]** or **[C-AF+TR]** is selected for focus mode. This can be used to adjust the time the camera takes to refocus when, for example, you switch subjects.

Menu

- **MENU** ➡ **AF** ➡ 5. Movie AF ➡ C-AF Speed

- Choose from five focus speed levels.
- Refocusing is quicker when set to the + side and the − side. Set to the − side to gently bring the camera into focus from out of focus.

Functions for changing camera operation regarding focus

Lens Focus Range (📷AF Limiter)

📷:PASMB 🎥/S&Q:PASM

Choose the range in which the camera will focus using autofocus. This is effective in situations in which an obstacle presents itself between the subject and the camera during the focus operation, causing drastic changes in focus. You can also use it to prevent the camera focusing on foreground objects when shooting through a fence, window, or the like.

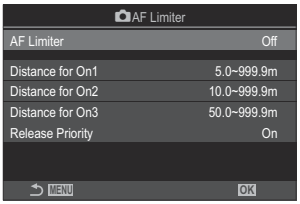
Using the settings saved in [AF Limiter]

Menu

- **MENU** ➡ **AF** ➡ 4. AF ➡ 📷AF Limiter

1. Highlight **[AF Limiter]** using the △▽ buttons and press the **OK** button.

2. Select **[On1]**, **[On2]**, or **[On3]** using the △▽ buttons and press the **OK** button.



📷 AF Limiter setting screen

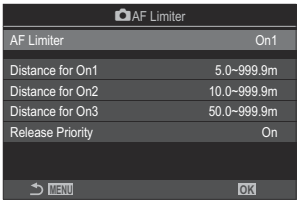
Off	The camera does not use the saved range of focusing distances.
On1	The camera uses the range saved in **[Distance for On1]**.
On2	The camera uses the range saved in **[Distance for On2]**.
On3	The camera uses the range saved in **[Distance for On3]**.

3. Return to the AF Limiter setting screen.

AF Limiter is not available in the following cases.
- When the focus limiter is enabled on the lens
- When using focus bracketing or focus stacking
- While in or S&Q mode or recording a movie
- When **[AF]** or **[AF MF]** is selected for focus mode

Configuring [AF Limiter]

1. Configure options.
- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- Press the **OK** button again to return to the AF Limiter setting screen.



Distance for On1 **Distance for On2** **Distance for On3**	Set the range of focusing distances. The range of focusing distances can be set from 000.0 to 999.9 m/ft. Use ◁ ▷ to move between digits and units (m/ft) and change options with △ ▽.
Release Priority	**[Off]**: Complies to the **[Release Priority]** (P.136) setting. **[On]**: The shutter can still be released if the camera is unable to focus when a setting other than **[Off]** is selected for **[AF Limiter]**.

The figures displayed in **[Distance for On1]** – **[Distance for On3]** are intended as guides only.

C-AF Lens Scanning (AF Scanner)

P:PASMB S&Q:PASM

Choose whether the camera performs a focus scan. If the camera is unable to focus, it will scan for the focus position by cycling the lens from the minimum focus distance to infinity. You can limit the scanning operation if desired. This option takes effect when **[C-AF]**, **[C-AF+TR]**, **[C-AF MF]**, or **[C-AF+TR MF]** is selected for **[AF Mode]** (P.118).

Menu

- **MENU** ➡ **AF** ➡ 4. AF ➡ AF Scanner

Off	The camera will not scan if unable to focus. This prevents focus changing to such an extent that you lose sight of your subject when attempting to track small objects and the like.
On	When unable to focus, the camera scans only once. The camera will not scan again as long as the focus operation continues.

- Regardless of the option selected for **[AF Scanner]**, the camera will scan once if unable to focus when **[S-AF]** or **[S-AF MF]** is selected for **[AF Mode]**.

Fine-Tuning Autofocus (AF Focus Adjustment)

:PASMB /S&Q:PASM

Fine-tune phase-detection autofocus. Focus can be fine-tuned by up to ±20 steps.

Menu

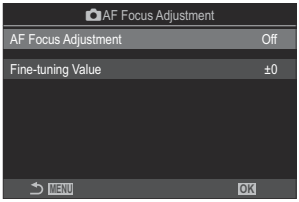
- **MENU** ➡ **AF** ➡ 4. AF ➡ AF Focus Adjustment

- Normally there is no need to fine-tune autofocus using this item. Fine-tuning focus may prevent the camera focusing normally.
- AF focus adjustment has no effect in **[S-AF]** and **[S-AF MF]** when a Micro Four Thirds lens is attached.

Using the saved focus adjustment value

1. Highlight **[AF Focus Adjustment]** using the △▽ buttons and press the **OK** button.

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.



AF Focus Adjustment setting screen

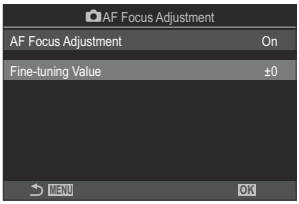
Off	The camera does not use the saved focus adjustment value.
On	The camera uses the saved focus adjustment value.

3. Return to the AF Focus Adjustment setting screen.

Configuring [AF Focus Adjustment]

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- Press the **OK** button again to return to the AF Focus Adjustment setting screen.



Fine-tuning Value	Adjusts focus for all lenses. Focus can be fine-tuned by up to ±20 steps. **[-20]** – **[±0]** – **[+20]**

The adjustment amount cannot be changed when the mode dial is rotated to **B**, **ART**, **SCN**, or AUTO.

You can zoom in on the display by using the front dial or ◉ button to check the results.

You can take a test picture to check the results by pressing the shutter button before pressing the **OK** button.

AF Illuminator Autofocus Assist (AF Illuminator)

: PASMB /S&Q: PASM

The AF illuminator lights to assist the focus operation when lighting is poor.

Menu

- **MENU** ➡ **AF** ➡ 3. AF ➡ AF Illuminator

On	The illuminator lights during autofocus if the subject is poorly lit.
Off	The illuminator does not light even if the subject is poorly lit.

To use this function in silent mode, it is required that you configure the **[Silent[♥] Settings]** setting (P.213).

AF Target Display Mode (AF Area Pointer)

In autofocus mode, the position of the subject on which the camera has focused is shown by a green focus target. This item controls the display of the focus target.

Menu

- **MENU** ➡ **AF** ➡ 3. AF ➡ AF Area Pointer

Off	The focus target is not displayed.
On1	The focus target is displayed only briefly after the camera focuses.
On2	After the camera focuses, cluster AF targeting is enabled and the camera will display AF targets for all areas that are in focus while the shutter button is pressed halfway or the **AF-ON** button is pressed.

Functions for setting the focusing position

Matching AF Target Selection to Camera Orientation (Orientation Linked [∴])

P:PASMB S&Q:PASM

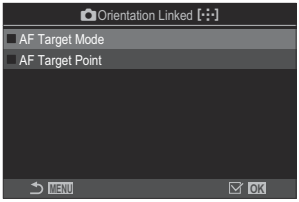
The camera can be configured to change the AF target position and AF target mode automatically when it detects that it has been rotated between landscape (wide) or portrait (tall) orientations. Rotating the camera changes the composition and consequently also the position of the subject in the frame. The camera can store the AF target mode and AF target position separately according to camera orientation. When this option is active, **[[∴] Set Home]** (P.157) can be used to store separate home positions for landscape and portrait orientations.

Menu

- **MENU** ➡ **AF** ➡ 6. AF Target Settings & Operations ➡ Orientation Linked [∴]

1. Select a function with which you want to save different settings for landscape and portrait orientations, and put a check (✓) next to it.

- Select an option using △▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



Orientation Linked [∴] setting screen

AF Target Mode	When you put a check (✓) next to this, the camera saves separate AF target modes (e.g., [▦]All, [▪]Single) for landscape and portrait orientations.
AF Target Point	When you put a check (✓) next to this, the camera saves separate AF target positions for landscape and portrait orientations.

2. The display returns to the Orientation Linked [∴] setting screen.

3. Press the **MENU** button to return to shooting screen.

4. Choose the AF target mode or target position with the camera first in one orientation and then the other.
   - Separate settings are stored for landscape orientation, portrait orientation with the camera rotated to the right, and portrait orientation with the camera rotated to the left.

Choosing the AF Home Position (📷[⁘] Set Home)

📷:PASMB 🎬/S&Q:PASM

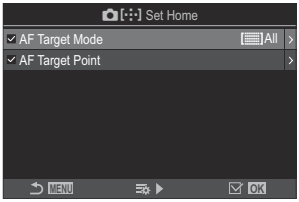
Choose the home position for the **[[⁘]Home]** feature. The **[[⁘]Home]** feature lets you recall a previously-saved "home position" for AF target at the touch of a button. This item is used to choose the home position.

Menu

- **MENU** ➡ **AF** ➡ 6. AF Target Settings & Operations ➡ 📷[⁘] Set Home

1. Select a setting you wish to store with the home position and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



AF Target Mode	Choose the home position AF target mode. Only options selected for **[📷AF Target Mode Settings]** (P.127) are available.
AF Target Point	Choose the home position focus target position.

2. Press ▷ to configure options for the selected item.

- Choose settings for the home position
- When **[📷Orientation Linked [⁘]]** is active, you will be prompted to select landscape or portrait (camera rotated left/camera rotated right) orientation before pressing the **OK** button to display options.

Using the [⁘Home] function

In **[Button Function]** (P.340), assign **[⁘Home]** to a button. The AF target moves to the saved home position when you press the button.

AF Target Selection ([⁘]Select Screen Settings)

📷:PASMB 🎥/S&Q:PASM

Choose the roles played by the front and rear dials or arrow pad during AF target selection. The controls used can be selected according to how the camera is used or personal taste.

Menu

- **MENU** ➡ **AF** ➡ 6. AF Target Settings & Operations ➡ [⁘]Select Screen Settings

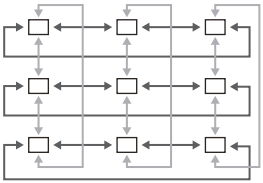
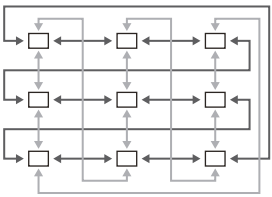
dial	Assign roles to the front and rear dials. **[Off]**: None. **[Pos]**: Position the AF target (P.123). **[[⁘]Mode]**: Choose the AF target mode (e.g., [▦]All, [▪]Single) (P.124).
button	Assign roles to △▽◁▷. **[Off]**: None. **[Pos]**: Position the AF target (P.123). **[[⁘]Mode]**: Choose the AF target mode (e.g., [▦]All, [▪]Single) (P.124).

Enabling AF Target Selection Wrap ([·:·] Loop Settings)

📷:PASMB 🎥/S&Q:PASM

You can choose whether AF target selection “wraps around” the edges of the display. You can also choose whether you have the option of selecting [▦]All (all targets) before AF target selection “wraps around” to the opposite border of the display.

Menu
- **MENU ➡ AF ➡** 6. AF Target Settings & Operations **➡ [·:·]** Loop Settings

[·:·] Loop Selection	**[Off]**: Wrap disabled. Target selection stays within the borders of the display. **[Loop 1]**: If you continue to press the △▽◁▷ buttons in the same direction after reaching the border of the display, the target in the same row or column on the opposite border will be selected.  “Loop 1” **[Loop 2]**: If you continue to press the △▽◁▷ buttons in the same direction after reaching the border of the display, the target in the next row or column on the opposite border will be selected.  “Loop 2”
Via [▦]All	**[No]**: Target selection does not pass through [▦]All (all targets) before wrapping around. **[Yes]**: If **[Loop 1]** or **[Loop 2]** is chosen for **[[·:·] Loop Selection]**, target selection will pass through [▦]All (all targets) before wrapping around to the opposite border. ⓘ Hiding [▦]All (all targets) in **[📷AF Target Mode Settings]** (P.127) fixes **[Via [▦]All]** at **[No]**.

AF targets do not wrap during shooting, for example sequential shooting.

[[·⁝·] Loop Selection] is fixed at **[Off]** during movie recording and when **[AF]** or **[AF MF]** is selected for focus mode.

Touch AF Target Selection for Viewfinder Photography (AF Targeting Pad)

P:PASMB S&Q:PASM

Use touch controls in the monitor to select the AF target during viewfinder photography. Glide a finger over the monitor to position the focus target while viewing your subject in the viewfinder.

Menu
- **MENU** ➡ **AF** ➡ 6. AF Target Settings & Operations ➡ AF Targeting Pad

Off	Monitor touch controls cannot be used for AF target selection during viewfinder photography.
On	Monitor touch controls can be used for AF target selection during viewfinder photography. Gently tap the monitor twice to enable or disable touch AF target selection. When the target reaches the edge of the display and you lift and glide your finger again, the AF target moves to the other side or becomes [▦]All (all target) mode depending on the **[[⁘] Loop Selection]** (P.160) setting.

When **[On]** is selected, touch controls can also be used to position the zoom frame (P.129).

Other functions that are useful when focusing

Manual Focus Assist (MF Assist)

:PASMB /S&Q:PASM

This is a focus assist function for MF. When the focus ring is rotated, the edge of the subject is enhanced or a portion of the screen display is magnified.

Menu
- **MENU** ➡ **AF** ➡ 7. MF ➡ MF Assist

Magnify	Magnifies a portion of the screen. **[Off]**: Normal display. **[On]**: Magnifies a portion of the screen. The portion to be magnified can be set in advance using AF target. ☞ "Choosing a Focus Target (AF Target Point)" (P.123)
Peaking	Displays clearly defined outlines with edge enhancement. **[Off]**: Normal display. **[On]**: Displays clearly defined outlines with edge enhancement. You can select the enhancement color and intensity. ☞ "Focus Peaking Options (Peaking Settings)" (P.165)
Focus Indicator	Rotating the focus ring during manual focus displays an indicator showing the direction and approximate amount of rotation required to bring the subject into focus. **[Off]**: Normal display. **[On]**: Rotating the focus ring during manual focus displays an indicator showing the direction and approximate amount of rotation required to bring the subject into focus.

When Peaking is in use, the edges of small subjects tend to be enhanced more strongly. This is no guarantee of accurate focusing.

- Focus zoom is not available in the following instances:
  - During movie recording / when **[C-AF MF]** or **[C-AF+TR MF]** is selected for focus mode / during a multiple exposure / when **[Digital Tele-converter]** is set to **[On]** in /S&Q modes
- When using third-party lenses with focus clutch mechanism, the direction of focus and the display of Focus Indicator may be reversed. If this happens, change the setting of **[Focus Ring]** (P.169).
- Focus Indicator cannot be displayed when using a Four Thirds system lens.
- Rotate the front or rear dial to zoom in or out during focus zoom.
- Press the **INFO** button to change the color and intensity when peaking is displayed.

Focus Peaking Options (Peaking Settings)

Highlight objects using color outlines. This makes objects that are in focus easier to see during manual focus and the like.

Button

- A button to which **[Peaking]** has been assigned ➡ **INFO** button

Menu

- **MENU** ➡ **AF** ➡ 7. MF ➡ Peaking Settings

Peaking Color	Choose the focus peaking color. **[White]** / **[Black]** / **[Red]** / **[Yellow]**
Highlight Intensity	Choose the focus peaking level. **[Low]** / **[Normal]** / **[High]**
Image Brightness Adj.	Adjust background brightness to make focus peaking easier to see. **[Off]**: Normal display. **[On]**: Adjusts background brightness.

When **[On]** is selected for **[Image Brightness Adj.]**, the live view display may be brighter or darker than the final photograph.

Using Focus Peaking

The following options are available for using focus peaking.

- **Assigning [Peaking] to a control using [Button Function] or [Button Function]:**
  Focus peaking can be assigned to a control by selecting **[Peaking]** for **[Button Function]** (P.340) or **[Button Function]** (P.340). Pressing the button enables focus peaking. **[Peaking]** can also be selected for **[Multi Function]** (P.349).
- **Using [Peaking] for [MF Assist]:**
  If **[Peaking]** is selected for **[MF Assist]**, focus peaking will activate automatically when the lens focus ring is rotated.

Press the **INFO** button to view peaking options.

Choosing a Focus Distance for Preset MF (Preset MF distance)

: PASMB /S&Q: PASM

Set the focusing position for Preset MF.
Specify the number and unit (m or ft).

Menu

- **MENU** ➡ **AF** ➡ 7. MF ➡ Preset MF distance

If the lens is equipped with a focus limiter, disable it before proceeding.
The figures displayed are intended as guides only.

Disabling the MF Clutch (MF Clutch)

P:PASMB S&Q:PASM

Disable the manual focus clutch, which is found on some lenses. This can prevent autofocus being disabled by the focus ring being rotated accidentally.

Menu

- **MENU ➡ AF ➡** 7. MF **➡** MF Clutch

Operative	The camera responds to the position of the lens focus ring.
Inoperative	The camera focuses according to the option selected for **[AF Mode]** / **[AF Mode]**, regardless of the position of the lens focus ring.

Manual focus using the lens focus ring is not available when **[Inoperative]** is selected for **[MF Clutch]**, even if the lens focus ring is in the manual focus position.

MF Clutch is available with Micro Four Thirds lenses made by OM Digital Solutions or OLYMPUS. For details about lenses equipped with MF clutch, see "MF Clutch Lenses" (P.446).

Lens Focus Direction (Focus Ring)

Choose the direction in which the focus ring is rotated to adjust focus.

Menu

- **MENU** ➡ **AF** ➡ 7. MF ➡ Focus Ring

	Rotate the ring counterclockwise to increase the focus distance.
	Rotate the ring clockwise to increase the focus distance.

Resetting the Lens Position at Shutdown (Reset Lens)

You have the option of not restoring the lens to the reset focus position when the camera is turned off. This lets you turn the camera off without changing the focus position.

Menu

- **MENU** ➡ **AF** ➡ 7. MF ➡ Reset Lens

Off	The lens focus position is not reset when the camera is turned off. Power zoom lenses also return to the zoom position they were in before the camera was turned off.
On	The lens focus position is reset when the camera is turned off.

Metering and Exposure

Controlling exposure (Exposure Compensation)

: PASMB /S&Q: PASM

The exposure selected automatically by the camera can be altered to suit your artistic intent. Choose positive values to make pictures brighter, negative values to make them darker.

Button

- When a shooting mode other than **M** is selected in mode: Button to which **[ ]** (exposure compensation) is assigned ➡ ◁▷
- When **M** is selected for the shooting mode in mode: Rotate the front or rear dial while pressing the button to which **[ ]** (exposure compensation) is assigned.
- When a shooting mode other than **M** is selected in /S&Q modes: **CP** button ➡ ◁▷
- When **M** is selected for the shooting mode in /S&Q modes: Rotate the front or rear dial while pressing the **CP** button.

Super control panel

- **OK** ➡ Exposure Comp.

① ② ③

①Negative (–)
②No compensation (0)
③Positive (+)

- During photo shooting, exposure compensation can be adjusted by up to ±5.0 EV. The viewfinder and live view show the effects of values not exceeding ±3.0 EV. The exposure bar flashes when the value exceeds ±3.0 EV.
- During movie recording, exposure compensation can be adjusted by ±3.0 EV.
- The front and rear dials or touch controls can be used to adjust exposure during movie recording.

① Exposure bar
② Exposure compensation value

To preview the effects of exposure compensation in live view, select **[Off]** for **[Night Vision]** (P.360).

Adjusting Exposure Compensation

Modes P, A, S, and ART

1. Rotate the front dial to adjust exposure compensation.

2. Release the shutter.

Mode M

In mode, select **[P/A/S/M]** for **[ISO-Auto]** (P.190) and **[Auto]** for **[ISO]** (P.185).
In /S&Q modes, select **[On]** for **[ISO-Auto]** (P.190) and **[Auto]** for **[ISO]** (P.185).

1. Press the button to which **[]** (exposure compensation) is assigned and then rotate the front dial or rear dial to adjust exposure compensation.

2. Release the shutter.

Resetting Exposure Compensation

To reset exposure compensation, press and hold the **OK** button.

EV Steps for Exposure Control (EV Step)

:PASMB **/S&Q:PASM**

Choose the size of the increments used when adjusting shutter speed, aperture, exposure compensation, and other exposure-related settings. Choose from 1/3, 1/2, and 1 EV.

Menu

- **MENU** ➡ 1 ➡ 4. Exposure ➡ EV Step

Fine-Tuning Exposure (Exposure Shift)

:PASMB **/S&Q:PASM**

Fine-tune exposure. Use this option if you want the results of auto exposure to be consistently brighter or darker.

- Fine-tuning is not normally required. Use only as necessary. In normal circumstances, exposure can be adjusted using exposure compensation (P.171).
- Fine-tuning exposure reduces the amount of exposure compensation available in the direction (+ or −) exposure was fine-tuned.

Menu

- **MENU** ➡ 1 ➡ 4. Exposure ➡ Exposure Shift

(digital ESP metering)	Set the fine-tuning amount for when the metering method is A. **[-1]** – **[±0]** – **[+1]**
(center-weighted averaging)	Set the fine-tuning amount for when the metering method is B. **[-1]** – **[±0]** – **[+1]**
(spot metering)	Set the fine-tuning amount for when the metering method is C. **[-1]** – **[±0]** – **[+1]**

Reducing Flicker Under LED Lighting (Flicker Scan / Flicker Scan)

:PASMB /S&Q:PASM

Banding may occur in photographs taken under LED lighting. Use **[Flicker Scan]** / **[Flicker Scan]** to optimize shutter speed while viewing banding in the display.

- This mode can be used in silent mode and with Pro Capture shooting while rotating the mode dial to **S** or **M** in mode.
- The range of available shutter speeds is reduced.

Menu

- **MENU** ➡ ➡ 4. Exposure ➡ Flicker Scan
- **MENU** ➡ ➡ 1. Basic Settings/Image Quality ➡ Flicker Scan

- When set to **[On]**, "FlickerScan" will be displayed.

- Focus peaking and the LV super control panel are not available in the flicker scan display. To view these items, first press the **INFO** button to exit the flicker scan display.

Choosing the Shutter Speed

- Choose a shutter speed using the front or rear dial or the △▽ buttons. If desired, the shutter speed can be selected by keeping △▽ pressed.
- You can also rotate the front dial to adjust shutter speed in the exposure increments selected for **[EV Step]** (P.174).
- Continue adjusting shutter speed until banding is no longer visible in the display.
- Magnifying the display (P.129) makes it easier to check for banding.
- Press the **INFO** button; the display will change and the “FlickerScan” will no longer be displayed. You can adjust aperture and exposure compensation. Do so using the front or rear dial or the arrow pad.
- Press the **INFO** button repeatedly to return to the flicker scan display.

Choosing how the camera measures brightness (Metering)

P:PASMB S&Q:PASM

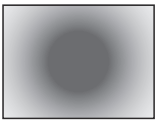
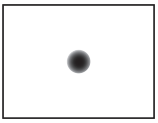
You can choose how the camera meters subject brightness.

Super control panel

- **OK** ➡ Metering

Menu

- **MENU** ➡ 1 ➡ 5. Metering ➡ Metering

(digital ESP metering)	Suited to most scenes, including back-lit subjects. The camera meters 324 areas of the frame and calculates optimal exposure taking into consideration the nature of the scene.
(center-weighted averaging)	Suited to compositions that place the main subject at the center of the frame. The camera sets exposure based on the average light level for the entire frame while assigning the greatest weight to the area in the center. 
(spot metering)	Use a specific area of the subject meter exposure. The camera meters a small portion (approximately 2%) of the frame. 
Hi (spot highlight metering)	Increases spot metering exposure. Ensures bright subjects appear bright.
Sh (spot shadow metering)	Lowers spot metering exposure. Ensures dark subjects appear dark.

The spot metering position can be set at the selected AF target. ☞ "Metering the Focus Target ([·:·]Spot Metering)" (P.184)

Locking the exposure (AE Lock)

: PASMB /S&Q: PASM

You can lock the exposure by pressing the button. Use this when you want to adjust the focus and exposure separately or when you want to shoot several images at the same exposure.

Button

- mode: The button to which the **[AEL]** function is assigned in **[Button Function]**
- /S&Q modes: The button to which the **[AEL]** function is assigned in **[Button Function]**

You need to assign **[AEL]** (P.341) to a button in advance using **[Button Function]** (P.340) in mode or **[Button Function]** (P.340) in /S&Q modes.

The camera can be configured to automatically release the lock after shooting. ☞ **[AEL Auto Reset]** (P.181)

- If you press the AEL button once, the exposure is locked and "AEL" is displayed.
- Press the button once again to release the AE Lock.
- The lock will be released if you operate the mode dial, **MENU** button, or **OK** button.

AE Lock Exposure Metering (Metering during AEL)

:PASMB /S&Q:PASM

Choose the metering method used to meter exposure when exposure is locked using the button to which the **[AEL]** (P.341) function is assigned in **[Button Function]** (P.340).

Menu
- **MENU** ➡ $\square_1$ ➡ 5. Metering ➡ Metering during AEL

- For more information on AE lock, see "Locking the exposure (AE Lock)" (P.179).

Auto	Exposure is metered using the method selected for **[Metering]** (P.178).
(center-weighted averaging)	The camera sets exposure based on the average light level for the entire frame while assigning the greatest weight to the area in the center.
(spot metering)	The camera meters a small portion (approximately 2%) of the frame.
Hi (spot highlight metering)	Increases spot metering exposure. Ensures bright subjects appear bright.
Sh (spot shadow metering)	Lowers spot metering exposure. Ensures dark subjects appear dark.

Releasing AE Lock after shooting (AEL Auto Reset)

P:PASMB S&Q:PASM

Configure the camera so that it automatically releases the lock after shooting when exposure is locked using the button to which the **[AEL]** (P.341) function is assigned in **[Button Function]** (P.340).

Menu

- **MENU** ➡ C_1 ➡ 5. Metering ➡ AEL Auto Reset

No	Exposure remains locked after shooting. Press the **AEL** button to release the lock.
Yes	Exposure lock is released after shooting.

When multiple photos are taken using such functions like sequential shooting, custom self-timer or interval shooting, exposure lock will be released after a series of photos have been taken.

Locking exposure when the shutter button is pressed halfway (AEL by half-pressing)

:PASMB /S&Q:PASM

Configure the camera so that it locks exposure when the shutter button is pressed halfway.

Menu
- **MENU** ➡ $\square_1$ ➡ 5. Metering ➡ AEL by half-pressing

No	Exposure is not locked when the shutter button is pressed halfway. Exposure is determined based on the shooting conditions when the shutter button is pressed fully.
Yes	Exposure is locked when the shutter button is pressed halfway.
S-AF Only	Exposure is locked when the shutter button is pressed halfway only when the AF mode is **[S-AF]**, **[S-AF MF]**, **[AF]** or **[AF MF]**.

If exposure is locked by pressing the button to which the **[AEL]** (P.341) function is assigned in **[Button Function]** (P.340), it remains locked when you press the shutter button halfway regardless of this setting.

If you configure the camera so that it does not lock exposure when the shutter button is pressed halfway, you can choose whether the camera meters brightness for each frame during sequential shooting. "Setting metering options for sequential shooting (Metering during)" (P.183)

Setting metering options for sequential shooting (Metering during)

:PASMB /S&Q:PASM

Menu

- **MENU** ➡ 1 ➡ 5. Metering ➡ Metering during

No	The camera meters exposure when capturing the first frame and exposure is locked during sequential shooting.
Yes	The camera meters brightness and determines exposure for each frame.

- If exposure is locked by pressing the button to which the **[AEL]** (P.341) function is assigned in **[Button Function]** (P.340) (P.179) or pressing the shutter button halfway (P.182), exposure remains locked during sequential shooting even when **[Metering during]** is set to **[Yes]**.
- When **[H]** or **[ProCapH]** is set, **[Metering during]** is fixed at **[No]**.

Metering the Focus Target ([⁘]Spot Metering)

📷:PASMB 🎥/S&Q:PASM

Choose whether the camera meters the current AF target when [⊡] is selected for **[Metering]**. Settings can be adjusted separately for spot, spot highlight, and spot shadow metering.

Menu

- **MENU** ➡ 📷1 ➡ 5. Metering ➡ [⁘]Spot Metering

1. Select a metering method with which you want the camera to meter the current AF target, and put a check (✓) next to it.

- Select an option using △▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).

Spot	Applied when **[Metering]** is [⊡] (spot metering).
Spot Hilight	Applied when **[Metering]** is [⊡**Hi]** (spot highlight metering).
Spot Shadow	Applied when **[Metering]** is [⊡**Sh]** (spot shadow metering).

ⓘ The selected option takes effect when [·]Single-S or [·]Single is selected as the AF target mode (P.124).

ⓘ The camera zooms in on the selected AF target during focus zoom (P.129).

ⓘ Not applied when a setting other than **[Off]** is selected for **[📷Subject Detection]**.

ⓘ Not applied when **[C-AF+TR]** or **[C-AF+TR MF]** is selected for AF mode.

Changing ISO sensitivity (ISO / ISO)

P:PASMB /S&Q:PASM

Select a value according to subject brightness. Higher values let you photograph darker scenes but also increase image "noise" (mottling). Select **[Auto]** to let the camera adjust sensitivity according to lighting conditions.

Button

- **ISO** button ➡

Super control panel

- **OK** ➡ ISO / ISO

Auto	Sensitivity is adjusted automatically according to shooting conditions. During still photography, you can choose the maximum and standard values for ISO sensitivity (P.188). You can change the shutter speed at which ISO sensitivity starts to rise in **P** and **A** modes (P.189). During movie recording, ISO sensitivity will be set to values of from ISO 200 to 6400. When the mode dial is rotated to **M**, auto ISO sensitivity control can be enabled by selecting **[On]** for **[ISO-Auto]**. You can also choose the upper limit and the default value for ISO sensitivity. ☞ "Setting the range of ISO sensitivity values selected in [Auto] mode (ISO-A Upper/Default / ISO-A Upper/Default)" (P.188)
L64, L100, 200–25600 (still photography)	Choose a value for ISO sensitivity. In **P**, **A**, and **S** modes, **[Auto]** is recommended for scenes where the brightness changes frequently. **[L64]** and **[L100]** are available at all exposure step values. **[L64]** and **[L100]** reduce dynamic range.
200–6400 (movie recording)	Choose a value for ISO sensitivity. ISO 200 offers a good balance between noise and dynamic range.

Combining **[ISO]** values over ISO 8000 with settings that use an electronic shutter (for example, silent mode or focus bracketing) sets the flash sync speed to 1/20 s.

- Regardless of the value selected for ISO sensitivity, the flash sync speed for photos taken using ISO bracketing in silent mode is 1/20 s.
- When the mode dial is rotated to **M** in 🎥/S&Q modes, ISO sensitivity can be adjusted during recording using touch controls (P.94), rotating the front or rear dial (P.353), or using the buttons (P.340).
- If **[Auto]** is selected for **[📷ISO]** in 📷 mode and **[Dramatic Tone]** or **[Watercolor]** is chosen for picture mode, sensitivity will not exceed ISO 1600.
- In 🎥/S&Q modes, the following restrictions apply depending on the picture mode:
  - **[OM-Log400], [OM-Cinema1], [OM-Cinema2]:**
    - If the **[Playback Frame Rate]** selected for movie quality is 23.98p, 24.00p, 25.00p, or 29.97p, **[Auto]** is restricted to sensitivities of ISO 400–3200. However, if the **[Sensor Frame Rate]** is 50fps, 60fps, or 120fps, **[Auto]** is restricted to sensitivities of ISO 400–6400.
    - If the **[Playback Frame Rate]** selected for movie quality is 50.00p or 59.94p, **[Auto]** is restricted to sensitivities of ISO 400–6400.
    - The lowest value that can be selected manually is ISO 400.
  - **[Dramatic Tone] / [Watercolor]:**
    - **[Auto]** is restricted to sensitivities of ISO 200–1600.
  - **Art filters other than [Dramatic Tone] / [Watercolor]:**
    - If the **[Playback Frame Rate]** selected for movie quality is 23.98p, 24.00p, 25.00p, or 29.97p, **[Auto]** is restricted to sensitivities of ISO 200–3200.
    - If the **[Playback Frame Rate]** selected for movie quality is 50.00p or 59.94p, **[Auto]** is restricted to sensitivities of ISO 200–6400.
  - **Other picture modes:**
    - If the **[Playback Frame Rate]** selected for movie quality is 23.98p, 24.00p, 25.00p, or 29.97p, **[Auto]** is restricted to sensitivities of ISO 200–3200. However, if the **[Sensor Frame Rate]** is 50fps, 60fps, or 120fps, **[Auto]** is restricted to sensitivities of ISO 200–6400.

EV Steps for ISO Sensitivity Control (ISO Step)

:PASMB **/S&Q:PASM**

Choose the size of the increments used when adjusting ISO sensitivity. Choose from 1/3 and 1 EV.

Menu

- **MENU** ➡ Camera_1 ➡ 3. ISO/Noise Reduction ➡ ISO Step

Setting the range of ISO sensitivity values selected in [Auto] mode (ISO-A Upper/ Default / MISO-A Upper/Default)

P A S M B P A S M

Choose the range of ISO sensitivity values selected by the camera when **[Auto]** (auto) is selected for **[ISO]** or **[ISO]**.

Menu

- **MENU** ➡ 1 ➡ 3. ISO/Noise Reduction ➡ ISO-A Upper/Default
- **MENU** ➡ ➡ 3. ISO/Noise Reduction ➡ MISO-A Upper/Default

Upper Limit	Choose the maximum sensitivity selected automatically by the camera. Set the value using △▽ or the front/rear dials.
Default	Choose the default sensitivity. Set the value using △▽ or the front/rear dials.

- Switch between **[Upper Limit]** and **[Default]** using ◁▷.

The upper limit and the default settings differ during still photography and during movie recording. If the optimal exposure cannot be achieved under the aperture and shutter speed conditions, a lower sensitivity is applied.

Setting the shutter speed at which the camera automatically raises ISO sensitivity (ISO-A Lowest S/S)

P:PASMB /S&Q:PASM

Choose the shutter speed at which the camera starts raising the ISO sensitivity when **[Auto]** is selected for **[ISO]**.

Menu

- **MENU** ➡ 1 ➡ 3. ISO/Noise Reduction ➡ ISO-A Lowest S/S

Auto	The camera sets it automatically.
1/4000 – 60″	The camera starts raising the ISO sensitivity at the specified shutter speed. Press the **OK** button and set the shutter speed using △▽.

Choosing the modes in which [Auto] can be used for ISO sensitivity (ISO-Auto / MISO-Auto)

:PASMB /S&Q:PASM

Choose the modes in which **[Auto]** can be used for ISO sensitivity.

Menu
- **MENU** ➡ 1 ➡ 3. ISO/Noise Reduction ➡ ISO-Auto
- **MENU** ➡ ➡ 3. ISO/Noise Reduction ➡ MISO-Auto

ISO-Auto

P/A/S	In mode, **[Auto]** can be used for ISO sensitivity when the shooting mode is **P**, **A**, or **S**.
P/A/S/M	In mode, **[Auto]** can be used for ISO sensitivity when the shooting mode is **P**, **A**, **S**, or **M**.

[Auto] ISO sensitivity is available in **ART**, **SCN**, and AUTO modes.

MISO-Auto

Off	**[Auto]** cannot be used for ISO sensitivity when the shooting mode is **M** in /S&Q modes.
On	**[Auto]** can be used for ISO sensitivity when the shooting mode is **M** in /S&Q modes.

High ISO Noise Reduction Options (Noise Filter / Noise Filter)

P A S M B P A S M

Reduce image artifacts (“noise”) in footage filmed at high ISO sensitivities. This can help reduce “graininess” in footage filmed under low light. You can choose the amount of noise reduction performed.

Menu

- **MENU** ➡ 1 ➡ 3. ISO/Noise Reduction ➡ Noise Filter
- **MENU** ➡ ➡ 3. ISO/Noise Reduction ➡ Noise Filter

Off	Noise reduction disabled.
Low	Choose the amount of noise reduction performed.
Standard	
High	

Image Processing Options (Low ISO Processing)

: PASMB /S&Q: PASM

Choose the type of processing applied to photographs taken at low ISO sensitivities using sequential shooting.

Menu
- **MENU** ➡ Camera_1 ➡ 3. ISO/Noise Reduction ➡ Low ISO Processing

Drive Priority	Image processing is adapted so as not to curtail the number of pictures that can be taken in a single burst.
Detail Priority	Image processing prioritizes image quality.

- Photographs taken in single shooting are processed in **[Detail Priority]** mode even if **[Drive Priority]** is selected.

Long Exposure Noise Reduction Options (Noise Reduction)

P:PASMB S&Q:PASM

Choose whether to process photos taken at slow shutter speeds to reduce image artifacts (“noise”). At slow shutter speeds, noise is caused by the heat generated from the camera itself. After each photo is taken, the camera captures a second image for noise reduction, causing a delay equal to the selected shutter speed before the next photo can be taken.

Menu

- **MENU** ➡ CAM_1 ➡ 3. ISO/Noise Reduction ➡ Noise Reduction

Off	Noise reduction not performed.
On	Noise reduction is performed at all shutter speeds.
Auto	Noise reduction is performed automatically when the camera’s internal temperature is elevated.

- During noise reduction, the camera displays the time remaining until the process is complete.
- During sequential shooting, **[Off]** is selected automatically and noise reduction is not performed.
- Noise reduction may not produce the desired effects depending on the subject and shooting conditions.

To use this function in silent mode, it is required that you configure the **[Silent[♥] Settings]** setting (P.213).

Flash photography

Using a flash (Flash photography)

When using a flash unit designed for use with the camera, you can choose from various shooting modes to meet your needs.

Flash units designed for use with the camera

Choose a flash unit to suit your needs, taking into consideration such factors as the output required and whether the unit supports macro photography. Flash units designed to communicate with the camera support a variety of flash modes, including TTL auto and super FP. Flash units can be mounted on the camera hot shoe or connected using a cable (available separately) and flash bracket. The camera also supports the following wireless flash control systems:

Radio-Controlled Flash Photography: CMD, CMD, RCV, and X-RCV Modes

The camera controls one or more remote flash units by means of radio signals. The range of locations in which flash units can be placed increases. Flash units can control other compatible units or be fitted with radio commander/receivers to allow the use of units that do not otherwise support radio flash control.

Wireless Remote-Control Flash Photography: RC Mode

The camera controls one or more remote flash units by means of optical signals. The flash mode can be selected using camera controls (P.201).

Attaching Compatible Flash Units

The methods used to attach and operate external flash units vary with the unit. See the documentation provided with the unit for details.

Confirm that both the camera and flash unit are off. Attaching or removing a flash unit while either the camera or flash unit is on could damage the equipment.

Choosing a Flash Mode

P:PASMB S&Q:PASM

Super control panel
- **OK** ➡ Flash Mode

Flash Modes

Flash modes that are displayed vary depending on the configuration of **[Flash Mode Settings]** (P.199).

ϟ	**Fill In**	Enable the flash. ⓘ Shutter speed can be set to values between that selected for **[ϟ Slow Limit]** (P.203) and **[ϟ X-Sync.]** (P.202).
⊘	**Flash Off**	Disable the flash. ⓘ The flash will not fire even if the unit is on.
ϟSlow	**Slow**	Slow shutter speeds are used to capture both the main subject and the background. ⓘ Shutter speed is set according to the exposure value metered by the camera and is not restricted by the option selected for **[ϟ Slow Limit]**.
ϟManual	**Manual**	The flash fires at the selected level. This option appears only when a flash unit that supports manual flash is attached.

Flash Modes and Setting Combinations

The flash modes and required setting combinations for each are as follows.

Flash Mode: Fill In

This setting is available only in **P**/**A**/**S**/**M**/**B** modes.

[Reduce Red-eye] [1]	[Synchro Settings] [1]	Super control panel display	Reduce Red-eye	Flash timing
[No]	**[First Curtain]**	ϟ	No	Front-curtain sync
	[Second Curtain]	ϟ2		Rear-curtain sync [2]
[Yes]	**[First Curtain]**	ϟ👁	Yes	Front-curtain sync
	[Second Curtain]	ϟ👁2		Rear-curtain sync [2]

1 The red-eye reduction flash is set in **[Reduce Red-eye]** and the flash timing is set in **[Synchro Settings]**. ☞ **[Flash Mode Settings]** (P.199)

2 Even if **[Second Curtain]** is selected for **[Synchro Settings]**, if **[Live Comp]** (P.72) is set in **B** mode, the flash will fire in first-curtain sync.

In **P**/**A**/**S**/**M** modes, the range of available shutter speeds is 60 s to 1/250 s. The range of available shutter speeds can be further restricted using the options in the menu. ☞ **[ϟ X-Sync.]** (P.202), **[ϟ Slow Limit]** (P.203)

Flash Mode: Slow

This setting is available only in **P**/**A** modes.

[Reduce Red-eye] [1]	[Synchro Settings] [1]	Super control panel display	Reduce Red-eye	Flash timing
[No]	**[First Curtain]**	Slow	No	Front-curtain sync
	[Second Curtain]	Slow2		Rear-curtain sync
[Yes]	**[First Curtain]**	Slow	Yes	Front-curtain sync
	[Second Curtain]	Slow2		Rear-curtain sync

1 The red-eye reduction flash is set in **[Reduce Red-eye]** and the flash timing is set in **[Synchro Settings]**. ☞ **[Flash Mode Settings]** (P.199)

- The range of available shutter speeds is 60 s to 1/250 s. The range of available shutter speeds can be further restricted using the options in the menu. ☞ **[X-Sync.]** (P.202), **[Slow Limit]** (P.203)

Flash Mode: Manual

This option appears only when a flash unit that supports manual flash is attached. This setting is available only in **P**/**A**/**S**/**M**/**B** modes.

[Reduce Red-eye]	[Synchro Settings]	Super control panel display	Reduce Red-eye	Flash timing
(regardless of setting)	(regardless of setting)	Manual	No	Front-curtain sync

- In **P**/**A**/**S**/**M** modes, the range of available shutter speeds is 60 s to 1/250 s. The range of available shutter speeds can be further restricted using the options in the menu. ☞ **[X-Sync.]** (P.202), **[Slow Limit]** (P.203)
- You can select the amount of flash output by selecting **[Manual Value]** from the super control panel.

- In red-eye reduction mode, the shutter will be released approximately one second after the initial red-eye reduction pre-flash. Do not move the camera until shooting is complete. Also note that red-eye reduction may not produce the desired results in some conditions.
- The fastest shutter speed available when the flash fires is 1/250 s. Bright backgrounds in pictures taken with the flash may be overexposed.
- The flash sync speed for silent modes (P.213), High Res Shot (P.254), and focus bracketing (P.289) is 1/50 s. Furthermore, combining **[ISO]** values over ISO 8000 with settings that use an electronic shutter (for example, silent mode or focus bracket shooting) sets the flash sync speed to 1/20 s. The flash sync speed is also set to 1/20 s during ISO bracketing (P.286).
- Even the minimum available flash output may be too bright at short range. To prevent overexposure in pictures taken at short range, select mode **A** or **M** and choose a smaller aperture (higher f-number) or choose a lower setting for **[ISO]**.

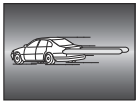
Configuring flash modes (Flash Mode Settings)

:PASMB /S&Q:PASM

Choose which modes are displayed on the flash mode selection screen.

Menu

- **MENU** ➡ Camera_1 ➡ 6. Flash ➡ Flash Mode Settings

Reduce Red-eye	Reduce "red-eye" in portrait photos. **[No]**: The camera does not display Reduce Red-eye modes. **[Yes]**: The camera displays Reduce Red-eye modes.
Synchro Settings	Choose when the flash fires. **[First Curtain]**: The flash fires when the shutter is fully open. **[Second Curtain]**: The flash fires immediately before the shutter closes. Moving objects appear to leave trails of light behind them. 

Adjusting flash output (Flash Exposure Comp.)

P:PASMB S&Q:PASM

Flash output can be adjusted if you find that your subject is over- or under-exposed even though the exposure in the rest of the frame is appropriate.

Flash compensation is available in modes other than manual.

Super control panel

- **OK** ➡ Flash Exposure Comp.

Changes to flash intensity made with the external flash unit are added to those made with the camera.

Wireless Remote Flash Control (RC Mode)

P:PASMB S&Q:PASM

Adjust settings for wireless remote flash control. Remote control is available with optional flash units that support wireless remote control (“wireless RC flash”). For information on using wireless remote flash control, see “Wireless remote control flash photography” (P.449).

Menu

- **MENU** ➡ $\square_1$ ➡ 6. Flash ➡ RC Mode

Off	Wireless remote flash control disabled.
On	Wireless remote flash control enabled. The camera displays settings for wireless remote flash control.

- Selecting **[On]** and pressing **OK** in the shooting standby screen displays the RC mode super control panel in the camera monitor. To view the regular super control panel, press the **INFO** button.

Choosing a Flash Sync Speed (⚡ X-Sync.)

📷:PASMB 🎬/S&Q:PASM

Choose the fastest shutter speed available for flash photography.
Choose the fastest shutter speed available for flash photography, irrespective of subject brightness.

Menu

- **MENU** ➡ 📷1 ➡ 6. Flash ➡ ⚡ X-Sync.

Choosing the Minimum Shutter Speed (⚡ Slow Limit)

📷:PASMB 🎥/S&Q:PASM

Choose the slowest shutter speed available for flash photography in **P**/**A** modes.
This item is used to select the slowest setting available to the camera when selecting the shutter speed automatically during flash photography, regardless of how dark the subject may be.

ⓘ It does not take effect in slow-sync (⚡Slow, ⚡Slow2, ⚡👁Slow, and ⚡👁Slow2) modes.

Menu

- **MENU** ➡ 📷1 ➡ 6. Flash ➡ ⚡ Slow Limit

Flash and Exposure Compensation (+)

:PASMB /S&Q:PASM

Choose whether exposure compensation is added to the value for flash compensation. For more information on flash compensation, see "Adjusting flash output (Flash Exposure Comp.)" (P.200).

Menu

- **MENU** ➡ $\square_1$ ➡ 6. Flash ➡ +

Off	Flash and exposure compensation are set independently.
On	The value for exposure compensation is added to the value for flash compensation.

Sequential Shooting/Self-Timer

Performing the sequential/self-timer shooting

P/A/S/M/B S&Q:P/A/S/M

Adjust settings for burst or self-timer photography. Choose an option according to your subject. Other options, including anti-shock and silent modes, are also available.

Fix the camera securely on a tripod for self-timer shooting.

Button

- button ➡

Super control panel

- **OK** ➡ Drive

Menu

- **MENU** ➡ 1 ➡ 7. Drive Mode ➡ Drive

/	**Single**	Single-frame advance. The camera takes one photo each time the shutter button is pressed all the way down.
/	**Sequential**	The camera takes photos at up to about 5 fps while the shutter button is held all the way down. If **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]**, or **[C-AF+TR MF]** is selected for **[AF Mode]** (P.118), the camera will focus before each shot. When **[Metering during]** (P.183) is set to **[Yes]**, the camera will meter the brightness and determines the exposure before each shot.
	Silent Sequential	The camera takes photos at up to about 8 fps while the shutter button is held all the way down. If **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]**, or **[C-AF+TR MF]** is selected for **[AF Mode]** (P.118), the camera will focus before each shot. When **[Metering during]** (P.183) is set to **[Yes]**, the camera will meter the brightness and determines the exposure before each shot.

♥H	Silent Sequential H	The camera takes photos at up to about 30 fps while the shutter button is held all the way down. Focus, exposure, and white balance are locked at the values for the first shot in each series.
ProCap ProCapH	Pro Capture	Capture starts when the shutter button is pressed halfway. The camera starts recording pictures, including those captured while the button was pressed halfway, when the button is pressed all the way down (P.215). Focus and exposure during each ProCap mode are the same as **[♥]** (Silent Sequential) and **[♥H]** (Silent Sequential H).
12s/♦12s ♥12s	Self-timer 12 sec	The shutter is released 12 seconds after the shutter button is pressed all the way down. The self-timer lamp will light for about 10 seconds and then start to flash about 2 seconds before the shutter is released. The camera focuses when the shutter button is pressed halfway.
2s/♦2s ♥2s	Self-timer 2 sec	When the shutter button is pressed all the way down, the self-timer lamp will start to flash and a photo will be taken after about 2 seconds. The camera focuses when the shutter button is pressed halfway.
C/♦C ♥C	Custom Self-timer	Adjust self-timer settings, including the self-timer delay and the number of shots taken when the timer expires (P.210).

- You can choose the frame advance rate and the maximum number of shots in each series (P.208).
- Items marked with ♦ allow you to take pictures with the small amount of blur caused by operation of the shutter reduced. Use this option when even slight camera motion can cause blur, for example during macro or telephoto photography. This is configured when **[Anti-Shock[♦]]** is set to **[On]** in **[Anti-Shock[♦] Settings]** (P.212).
- Items marked with ♥ use the electronic shutter. Use these with shutter speeds faster than 1/4000 seconds, or in settings where the sound of the shutter would be unwelcome.
- To cancel the activated self-timer, press ▽.
- In , ♦, ♥ and ProCap modes, the camera displays the view through the lens during shooting. In ♥H mode, it displays the shot immediately preceding the current frame.

- In ProCap mode, the lower limit of the shutter speed is 1/8 s.
- In ProCapH mode, the lower limit of the shutter speed is 1/30 s when **[Max fps]** in **[Sequential Shooting Settings]** is set to **[30fps]**, 1/20 s when set to **[20fps]**, and 1/15 s when set to **[15fps]**.
- Shooting speed will be lower when **[ISO]** is 8000 or higher.
- In silent photography, the flash sync speed is 1/50 s. It is set to 1/20 s when **[ISO]** is 8000 or higher.

- If you stand in front of the camera to press the shutter button when using the self-timer, the picture may be out of focus.
- The speed of sequential shooting varies depending on the lens you are using and the focus of the zoom lens.
- During sequential shooting, if the battery level icon blinks due to low battery, the camera stops shooting. The camera may not save all of the pictures depending on how much battery power remains.
- Photographs taken in silent and Pro Capture modes may be distorted if the subject or camera moves quickly during shooting.
- To use the flash in silent shooting modes, select **[Allow]** for **[Flash Mode]** in **[Silent[♥] Settings]** (P.213).
- Shooting speed may be lower when shooting in a dark place. You may be able to increase shooting speed by setting **[Night Vision]** to **[Off]**. ☞ "Making the display easier to see in dark places (Night Vision)" (P.360)

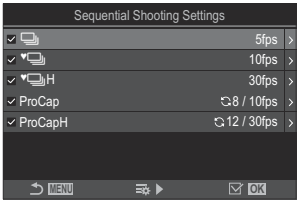
Configuring the sequential shooting functions (Sequential Shooting Settings)

P:PASMB S&Q:PASM

You can choose which types of sequential shooting modes are displayed when you press the button, and the maximum speed/number of frames for each sequential shooting mode.

Menu
- **MENU** ➡ 1 ➡ 7. Drive Mode ➡ Sequential Shooting Settings

1. Select a sequential shooting mode that you want to have displayed, and put a check (✓) next to it.
- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



Sequential Shooting Settings screen

[♦] is displayed when **[Anti-Shock[♦]]** is set to **[On]** in **[Anti-Shock[♦] Settings]** (P.212).

2. Press ▷.

3. Configure options.

Max fps	Set the shooting speed for sequential shooting. The numbers indicate the approximate maximum speeds. /♦: 1 – 5 fps ♥: 1 – 8 fps ♥H: 15, 20, 30 fps ProCapH: 15, 20, 30 fps
Pre-shutter Frames (ProCap/ProCapH only)	Set the number of frames to be captured before the shutter button is pressed fully from between 0 and 12.

Frame Count Limiter	Set the total number of frames from 2 to 99 (including the pre-shutter frames) to be captured. You can limit the number of frames that are captured after you press the shutter button fully. Shooting stops automatically when the limit is reached. • Select **[Off]** if you do not want to put a limit on the number of frames. • To put a limit on the number of frames, select the number and press the **OK** button. The setting screen appears. You can change the number with △▽. • For Pro Capture shooting, the number of frames includes the pre-shutter frames. ☞ "Shooting without a release time lag (Pro Capture shooting)" (P.215)

ⓘ The frame advance rate for **[ProCap]** is fixed at 8 fps.
ⓘ When **[HDR]**, **[Focus Stacking]** or **[Focus BKT]** is enabled, **[Frame Count Limiter]** will be **[Off]**.

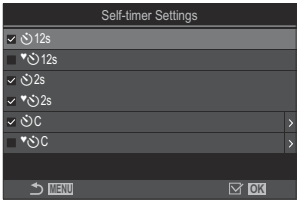
Configuring the self-timer functions (Self-timer Settings)

P:PASMB S&Q:PASM

You can choose which types of self-timer modes are displayed when you press the button, and change the self-timer settings such as the time the camera waits before taking a picture, and the number of frames it captures.

Menu
- **MENU** ➡ 1 ➡ 7. Drive Mode ➡ Self-timer Settings

1. Select a self-timer mode that you want to have displayed, and put a check (✓) next to it.
- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



[12s], **[2s]**, and **[C]** is displayed when **[Anti-Shock[]]** is set to **[On]** in **[Anti-Shock[] Settings]** (P.212).

2. When setting Custom Self-timer, select **[C]** / **[C]** / **[C]** (Custom Self-timer) and press ▷.

3. Configure options.

Number of Frames	Choose the number of shots taken when the timer expires.
Timer	Choose how long the camera waits to begin shooting after the shutter button is pressed all the way down.
Interval Length	If the number of shots is 2 or more, choose the interval between the shots taken when the timer expires.

Every Frame AF	**[Off]**: If the number of shots is 2 or more, focus is locked when the first shot is taken. **[On]**: The camera focuses before each shot.

Shooting without the vibration caused by shutter button operations (Anti-Shock[♦] Settings)

📷:PASMB 🎬/S&Q:PASM

Anti-shock shooting modes can be used to reduce the slight blur caused by shutter motion. Use this option when even slight camera motion can cause blur, for example during macro or telephoto photography.

Menu
- **MENU** ➡ 📷1 ➡ 7. Drive Mode ➡ Anti-Shock[♦] Settings

Anti-Shock[♦]	**[Off]**: Anti-shock shooting modes (**[♦□]**, **[♦□]**, etc.) are not displayed on the drive mode selection screen. Normal shooting modes (**[□]**, **[□]**, etc.) are displayed. **[On]**: Anti-shock shooting modes (**[♦□]**, **[♦□]**, etc.) are displayed on the drive mode selection screen. Normal shooting modes (**[□]**, **[□]**, etc.) are not displayed.
Waiting Time	Choose how long the camera waits to begin shooting after the shutter button is pressed all the way down when shooting in anti-shock shooting modes. **[0sec]**, **[1/8sec]**, **[1/4sec]**, **[1/2sec]**, **[1sec]**, **[2sec]**, **[4sec]**, **[8sec]**, **[15sec]**, **[30sec]**

- Be sure there is a check (✓) next to a sequential shooting mode with ♦ in **[Sequential Shooting Settings]** (P.208).
- Select a mode with ♦ (P.205), press the **OK** button, then take pictures. After the specified time elapses, the shutter will be released and pictures will be taken.

Shooting without shutter sound (Silent[♥] Settings)

📷:PASMB 🎬/S&Q:PASM

In situations where the shutter sound is a problem, you can use the silent shooting modes to shoot without making a sound. An electronic shutter is used to reduce the minuscule camera shake caused by the motion of the mechanical shutter, much as is the case for anti-shock photography.

Menu
- **MENU** ➡ 📷1 ➡ 7. Drive Mode ➡ Silent[♥] Settings

Waiting Time	Choose how long the camera waits to begin shooting after the shutter button is pressed all the way down when shooting in silent shooting modes. **[0sec]**, **[1/8sec]**, **[1/4sec]**, **[1/2sec]**, **[1sec]**, **[2sec]**, **[4sec]**, **[8sec]**, **[15sec]**, **[30sec]**
Noise Reduction	**[Off]**: Shoots normally. **[Auto]**: Reduces image "noise" in long exposures during silent photography. The sound of the shutter may be audible when noise reduction is active.
■)))	Choose whether to allow the **[■)))]** (P.395) to sound as specified.
AF Illuminator	Choose whether to allow **[AF Illuminator]** (P.153) to work as specified.
Flash Mode	Choose whether the flash works as specified.

ⓘ During High Res Shot shooting (P.254), **[■)))]**, **[AF Illuminator]**, and **[Flash Mode]** work in **[Allow]** mode even if they are set to **[Not Allow]**.
When **[High Res Shot]** is set to **[On📷]** (handheld), however, **[Flash Mode]** is fixed at **[Flash Off]**.

- Be sure there is a check (✓) next to a sequential shooting mode with ♥ in **[Sequential Shooting Settings]** (P.208).
- Select a mode with ♥ (P.205), press the **OK** button, then take pictures. The monitor turns dark for a short while when the shutter is released. The shutter does not sound.

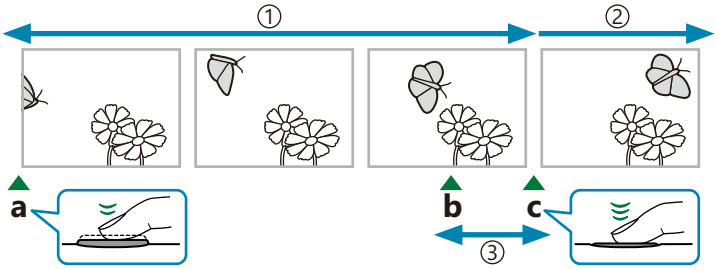
ⓘ The desired results may not be achieved under flickering light sources such as fluorescent or LED lamps or if the subject moves abruptly during shooting.

- The fastest available shutter speed is 1/32000 s.
- The flash sync speed is 1/50 s. It is set to 1/20 s when **[ISO]** is 8000 or higher.

Shooting without a release time lag (Pro Capture shooting)

: PASMB /S&Q: PASM

Capture starts when the shutter button is pressed halfway; the moment the button is pressed the rest of the way down, the camera will start saving the last n captured pictures to the memory card, where n is a number selected before shooting begins. If the button is held all the way down, shooting will continue until the selected number of pictures is recorded. Use this option to capture moments you might otherwise miss due to your subject's reactions or shutter lag.



①Up to 12 frames
②Burst shooting continues
③Shutter lag

a Shutter button pressed halfway
b Moment you want
c Shutter button pressed all the way down

Pro Capture (ProCap)

Choose this option if you anticipate that the distance to the subject will change during shooting. The camera shoots at 8 fps. A maximum of 12 frames can be captured before the shutter button is pressed all the way down. If **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]**, or **[C-AF+TR MF]** is selected for **[AF Mode]** (P.118), the camera will focus before each shot.

- In **[ProCap]** mode, the lower limit of the shutter speed is 1/8 s.
- In **[ProCap]**, the aperture range is limited between maximum aperture and F8.0.
- **[ProCap]** cannot be used with Four Thirds system lenses or Micro Four Thirds system lenses from other manufacturers.

Pro Capture H (ProCapH)

Choose this option if the distance to the subject is unlikely to change very much during shooting. The camera shoots at up to 30 fps. A maximum of 12 frames can be captured before the shutter button is pressed all the way down. The camera will use **[S-AF]** when **[C-AF]** or **[C-AF+TR]** is selected for **[AF Mode]** (P.118) and **[S-AF MF]** when **[C-AF MF]** or **[C-AF+TR MF]** is selected.

- In **[ProCapH]** mode, the lower limit of the shutter speed is 1/30 s when **[Max fps]** under **[Sequential Shooting Settings]** is set to **[30fps]**, 1/20 s when it is set to **[20fps]**, and 1/15 s when it is set to **[15fps]**.

Button

- button ➡

Super control panel

- **OK** ➡ Drive (/)

Menu

- **MENU** ➡ $\square_1$ ➡ 7. Drive Mode ➡ Drive /

1. Select Pro Capture (ProCap)/Pro Capture H (ProCapH) and press the **OK** button.

2. Press the shutter button halfway to start capturing.

- When the shutter button is pressed halfway, a capture icon () will be displayed. If the button is kept pressed halfway for over a minute, capture will end and the icon will clear from the display. Press the shutter button halfway again to resume shooting.
- Shooting will continue while the shutter button is pressed all the way down, up to the number of shots selected for **[Frame Count Limiter]**.

[Max fps] (Pro Capture H (ProCapH) only), **[Pre-shutter Frames]** and **[Frame Count Limiter]** can be adjusted in **[Sequential Shooting Settings]** (P.208).

3. Press the shutter button all the way down to start saving pictures to the memory card.

- Pro Capture is not available while the camera is connected to a smartphone (Wi-Fi).
- Flickering occurred by fluorescent lights or the large movement of the subject, etc. may cause distortions in images.

- During capture, the monitor will not go dark and the sound of the shutter will not be heard.
- The slowest shutter speed is limited.
- In **[ProCap]** mode, the monitor or viewfinder display may appear unstable or blurred when using a lens equipped with an IS switch; however, this is due to lens image stabilization and has no effect on the recorded images.

Reducing Flicker in Photographs (Anti-Flicker Shooting)

:PASMB /S&Q:PASM

You may notice uneven exposure in photos taken under flickering light. When this option is enabled, the camera will detect the flicker frequency and adjust the timing of the shutter release accordingly.

Menu

- **MENU** ➡ 1 ➡ 7. Drive Mode ➡ Anti-Flicker Shooting

- "FLK" appears in the display when you select **[On]**.

- This option does not take effect in modes that use the electronic shutter, including silent modes, High Res Shot, and Pro Capture modes.
- The camera may be unable to detect flicker at some settings. Normal release timing will be used if flicker is not detected.
- Normal release timing is used at slow shutter speeds.
- Enabling flicker reduction may cause release lag, slowing the frame advance rate during burst photography.

Image Stabilization

Reducing camera shake (Image Stabilizer / Image Stabilizer)

Image Stabilizer: PASMB Image Stabilizer/S&Q: PASM

You can reduce the amount of camera shake that can occur when shooting in low light situations or shooting with high magnification.

Super control panel

- **OK** ➡ Image Stabilizer / Image Stabilizer

Menu

- **MENU** ➡ Camera_1 ➡ 8. Image Stabilizer ➡ Image Stabilizer
- **MENU** ➡ ➡ 4. Image Stabilizer ➡ Image Stabilizer

Image Stabilizer

S-IS Off (Still-I.S. Off)	Image stabilizer is off. Select this option when using a tripod.
S-IS Auto (Auto I.S.)	Image stabilization applies to motion on all axes. If panning motion is detected, the camera will automatically suspend image stabilization on that axis.
S-IS1 (All Direction Shake I.S.)	Image stabilization applies to motion on all axes.
S-IS2 (Vertical Shake I.S.)	Image stabilization applies to vertical motion. Use when panning the camera horizontally.
S-IS3 (Horizontal Shake I.S.)	Image stabilization applies to horizontal motion. Use when panning the camera vertically.

Image Stabilizer

M-IS Off (Movie-I.S. Off)	Image stabilizer is off.
M-IS1 (All Direction Shake I.S.)	Electronic image stabilization combined with VCM-controlled image sensor movement.
M-IS2 (All Direction Shake I.S.)	VCM-controlled image sensor movement only. Electronic image stabilization is not performed.

Setting the detailed option of image stabilizer

When using lenses other than Micro Four Thirds or Four Thirds system lenses, input the focal length of the lens.

1. Press the **INFO** button while configuring **[Image Stabilizer]** or **[Image Stabilizer]**. Input the focal length using △▽◁▷ and then press the **OK** button.

- Settings can also be adjusted by tapping the screen.

Focal Length	Set the lens focal length. Input the number that is printed on the lens. **[0.1]** – **[1000.0]** mm

- Image stabilization may be unable to compensate for excessive camera motion or very slow shutter speeds. Use a tripod in these cases.
- You may notice noise or vibration while image stabilization is in effect.
- The setting selected with the lens image stabilization switch, if any, takes priority over that selected with the camera.
  This can be changed. ☞ "Stabilization for IS Lenses (Lens I.S. Priority)" (P.222)
- **[S-IS Auto]** functions as **[S-IS1]** when **[On]** is selected for **[Lens I.S. Priority]** (P.222).
- You can choose whether image stabilization will be performed while the shutter button is pressed halfway. ☞ "Half-press image stabilization (Image Stabilizer)" (P.221)

Half-press image stabilization (Image Stabilizer)

:PASMB /S&Q:PASM

Choose whether image stabilization applies while the shutter button is pressed halfway. An example of a situation in which you might want to suspend image stabilization would be when using the level gauge to keep the camera level while framing photographs.

Menu

- **MENU** ➡ 1 ➡ 8. Image Stabilizer ➡ Image Stabilizer

On	Image stabilization is performed while the shutter button is pressed halfway.
Off	Image stabilization is not performed while the shutter button is pressed halfway.

Stabilization for IS Lenses (Lens I.S. Priority)

When using a third-party lens with an on-board image stabilizer, choose whether image stabilization gives priority to the camera or the lens.

This option has no effect if the lens is equipped with an IS switch that can be used to enable or disable image stabilization.

Menu

- **MENU** ➡ $\square_1$ ➡ 8. Image Stabilizer ➡ Lens I.S. Priority

On	Priority is given to lens image stabilization.
Off	Priority is given to camera image stabilization.

Color and Quality

Setting the Quality of Photos and Movies (📷◀ / 🎥◀ / S&Q◀)

📷:PASMB 🎥/S&Q:PASM

You can set the image quality modes for photos and movies. Select a quality suitable for the application (such as for processing on PC, use on website etc.).
In [S&Q◀], you can set slow motion movie and quick motion movie.

Super control panel

- OK ➡ 📷◀ / 🎥◀ / S&Q◀

Menu

- MENU ➡ 📷1 ➡ 1. Basic Settings/Image Quality ➡ 📷◀
- MENU ➡ 🎥 ➡ 1. Basic Settings/Image Quality ➡ 🎥◀
- MENU ➡ 🎥 ➡ 1. Basic Settings/Image Quality ➡ S&Q◀

Configuring 📷◀

Item	Image size	Compression ratio	File format
LSF	5184 × 3888	SuperFine (1/2.7)	JPG
LF	5184 × 3888	Fine (1/4)	JPG
LN	5184 × 3888	Normal (1/8)	JPG
M1N	3200 × 2400	Normal (1/8)	JPG
RAW	5184 × 3888	Loss-less compression	ORF
RAW+JPEG	RAW plus the JPEG option selected above		

The image size/compression combinations available can be selected in the menus.
☞ "Combinations of JPEG image sizes and compression rates (📷 Detailed Settings)" (P.229)
The options available during high resolution shooting (P.254) are 50M F, 25M F, 50M F+RAW, and 25M F+RAW.
Selecting High Res Shot (P.254) changes the image quality option selected; be sure to check the image quality setting before shooting.
RAW files store raw image data in an unprocessed state. Choose this format (extension ".ORF") for pictures that will later be enhanced.
- Cannot be viewed on other cameras
- Can be viewed on computers using OM Workspace Digital Photo Managing software
- Can be saved in JPEG format using the **[RAW Data Edit]** (P.325) retouch option in the camera menus

Configuring 🎥

- To change the settings of each image quality mode, press ▷ while an image quality mode is selected.

The Movie Quality Icon

Changes to settings are reflected in the 🎥 movie quality icon as shown. Changes to settings are reflected in the movie quality icon as shown. Up to three combinations can be saved.

①Movie Resolution
②Playback Frame Rate
③Motion Compensation

Movie Resolution

4K	4K	3840 × 2160
FHD	FHD (Full HD)	1920 × 1080
C4K	C4K (4K Digital Cinema)	4096 × 2160

Motion Compensation

I-8	A-I (ALL-Intra [1])
L-8	L-GOP (LongGOP)

1 When ALL-Intra is used, the movie will be recorded without interframe compression. It is suitable for editing, but the data will be large.

- Fixed to **[L-GOP]** when **[Movie Resolution]** is **[4K]** or **[C4K]**.

Playback Frame Rate

60p [1]	59.94p	**25p**	25.00p
50p [1]	50.00p	**24.00p** [2]	24.00p
30p	29.97p	**24p**	23.98p

1 Not available when:
- **[FHD]** (Full HD) is selected for **[Movie Resolution]** and **[A-I]** is selected for **[Motion Compensation]**
- **[C4K]** or **[4K]** is selected for **[Movie Resolution]**

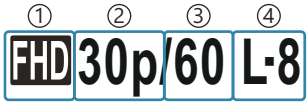
2 This option can only be selected when **[Movie Resolution]** is **[C4K]**.

Configuring S&Q

- To change the settings of each movie quality mode, press ▷ while the mode is selected.

The Movie Quality Icon

Changes to settings are reflected in the S&Q movie quality icon as shown. Changes to settings are reflected in the movie quality icon as shown. Up to three combinations can be saved.



①Movie Resolution
②Playback Frame Rate
③Sensor Frame Rate
④Motion Compensation (unchangeable)

Movie Resolution

4K	4K	3840 × 2160
FHD	FHD (Full HD)	1920 × 1080
C4K	C4K (4K Digital Cinema)	4096 × 2160

Playback Frame Rate

60p [1]	59.94p	**25p**	25.00p
50p [1]	50.00p	**24.00p** [2]	24.00p
30p	29.97p	**24p**	23.98p

1 Not available when:
- **[C4K]** or **[4K]** is selected for **[Movie Resolution]**
- the mode dial is set to **SCN**

2 This option can only be selected when **[Movie Resolution]** is **[C4K]**.

Sensor Frame Rate

120 [1]	119.88 fps	**12**	11.99 fps
60 [1]	59.94 fps	**8**	7.99 fps
50 [1]	50.00 fps	**6**	5.99 fps
30 [1]	29.97 fps	**3**	2.997 fps
25	25.00 fps	**2**	1.998 fps
24	23.98 fps	**1**	0.999 fps
15	14.99 fps		

1 This option can only be selected when **[Movie Resolution]** is **[FHD]**.

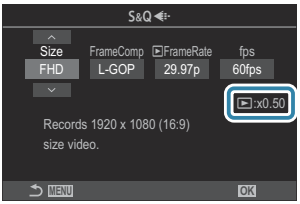
The available sensor frame rates vary with the playback frame rate setting.

Motion Compensation

L-8	L-GOP (LongGOP)

- Fixed to **[L-GOP]** with S&Q (slow and quick) movies.

- On the **[S&Q]** settings screen, you can check whether a slow motion movie or quick motion movie will be recorded. If the value (speed) is less than 1, it will record in slow motion, and if it is greater than 1, it will record in quick motion.



- When the sensor frame rate is set to 120 fps, movies are filmed at 120 fps and played back at 23.98 - 59.94 fps. Stretching playback to 2x - 5x the recording time lets you view in slow motion movements that in real life took only the blink of an eye.
- Sound is not recorded.
- When the camera is connected to a smartphone via Wi-Fi for remote shooting, the movie will be recorded in mode even if the power lever is rotated to S&Q.
- Only shutter speeds of 1/24 s or faster are available. Availability depends on the Sensor Frame Rate setting.
- When **[AF Mode]** is set to **[MF]** or **[Pre MF]** in **M** mode, a shutter speed slower than 1/24 s can be set by lowering the frame rate, but the response of camera buttons may become slower.
- Depending on the card used, recording may end before the maximum length is reached.
- Movies are recorded at an aspect ratio of 16:9. C4K movies are recorded at an aspect ratio of 17:9.
- **[e-Portrait]** and art filter picture modes (P.232) are not available.

Restrictions when the sensor frame rate is 120 fps

- When an SD/SDHC card is used, the size of one file is limited to 4 GB. When an SDXC card is used, recording stops before the playback time reaches two hours.
- Focus, metering, and white balance lock during recording.
- The picture angle is slightly reduced.
- Aperture, shutter speed, exposure compensation, and ISO sensitivity cannot be changed during recording.
- Time codes cannot be recorded or displayed.
- Brightness may change if zoom is adjusted during recording.
- The sensor frame rate cannot be set to 120 fps when the camera is connected to a device via HDMI.
- The sensor frame rate cannot be set to 120 fps when the mode dial is set to **SCN**.
- **[]** All (all targets) cannot be selected for AF target mode.
- **[Image Stabilizer]** (P.219) > **[M-IS1]** is not available.
- Picture Mode (P.232) > **[i-Enhance]** is not available.
- **[OM-Cinema1]** and **[OM-Cinema2]** in Picture Mode (P.242) are not available.

- **[Gradation]** (P.238) is fixed at **[Gradation Normal]**.
- **[Face & Eye Detection]** (P.141) is disabled during recording.
- **[C-AF]** and **[C-AF+TR]** in **[AF Mode]** (P.118) are not available.
- **[Digital Tele-converter]** (P.270) will be set to **[Off]**.

Combinations of JPEG image sizes and compression rates (Detailed Settings)

P:PASMB S&Q:PASM

You can set the JPEG image quality by combining image size and compression rate.

Menu

- **MENU** ➡ 1 ➡ 1. Basic Settings/Image Quality ➡ Detailed Settings

Image size (Pixel count)	Compression ratio			Application
	Super Fine	Fine	Normal	
Large (5184×3888)	L SF	L F	L N	Select for the print size
Middle (3200×2400)	M1 SF	M1 F	M1 N	
Middle (1920×1440)	M2 SF	M2 F	M2 N	
Small (1280×960)	S1 SF	S1 F	S1 N	For small prints and use on a website
Small (1024×768)	S2 SF	S2 F	S2 N	

Setting the image aspect (Image Aspect)

📷:PASMB 🎥/S&Q:PASM

Choose the ratio of width to height for pictures according to your intent or your goals for printing or the like. In addition to the standard aspect (width-to-height) ratio of **[4:3]**, the camera offers settings of **[16:9]**, **[3:2]**, **[1:1]**, and **[3:4]**.

Super control panel

- **OK** ➡ Aspect

Menu

- **MENU** ➡ 📷1 ➡ 1. Basic Settings/Image Quality ➡ Image Aspect

- JPEG images are recorded at the selected aspect ratio. RAW images are the same size as the image sensor and are recorded at an aspect ratio of **[4:3]** with a tag indicating the aspect ratio selected. A crop indicating the selected aspect ratio is displayed when images are played back.

Peripheral illumination (Shading Comp.)

P:PASMB S&Q:PASM

Compensate for the drop in brightness at the edges of the frame due to the optical characteristics of the lens. Some lenses may exhibit a drop in brightness at the edges of the frame. The camera can compensate for this by making the edges brighter.

Menu

- **MENU** ➡ 1 ➡ 1. Basic Settings/Image Quality ➡ Shading Comp.

Off	Shading compensation disabled.
On	The camera detects and compensates for reduced peripheral illumination.

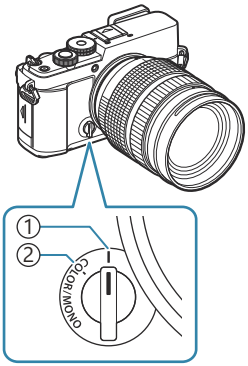
- **[On]** has no effect when a teleconverter or extension tube is attached.
- Noise may be more noticeable at the edges of the frame at high ISO sensitivities.

Processing options (Picture Mode / Picture Mode)

:PASMB /S&Q:PASM

Choose how pictures are processed during shooting to enhance color, tone, and other properties. Choose from preset picture modes according to your subject or artistic intent. Contrast, sharpness, and other settings can be adjusted separately for each mode. You can also add artistic effects using art filters. Art filters give you the option of added frame effects and the like. Adjustments to individual parameters are stored separately for each picture mode and art filter.
With Monochrome Profile and Color Profile, color filter effects can be applied to monochrome images, and the saturation of color images can be adjusted for each color.
Color Creator can adjust hue and color.

Changing the modes using the Profile Control Switch



① **|** (Picture Mode)
② **COLOR/MONO** (Color Profile Control/ Monochrome Profile Control)

- Rotate the profile control switch to **COLOR/MONO** (Color Profile Control/Monochrome Profile Control) during live view to display the setting screen for each mode.
- When the mode dial is set to **AUTO**, **SCN**, or **ART**, the mode does not change even if the profile control switch is operated.
- **COLOR/MONO** is not available in **S&Q** mode. Rotate the profile control switch to **|** (Picture Mode).
- When **[Picture Mode]** is set to a setting other than **[Same as]**, the mode does not change even if the profile control switch is operated in mode.

Setting with Super Control Panel/Menu

Super control panel

- **OK** ➡ Picture mode

Menu

- **MENU** ➡ 📷1 ➡ 2. Picture Mode/WB ➡ 📷Picture Mode
- **MENU** ➡ 🎥 ➡ 2. Picture Mode ➡ 🎥Picture Mode

When in 🎥/S&Q modes with the camera configured as follows, you can set the same setting as the **[📷Picture Mode]** (P.233) setting by selecting Picture Mode from the super control panel.

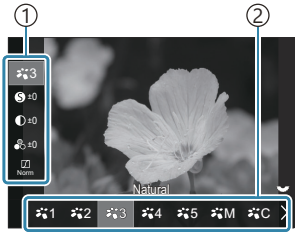
- **[🎥Picture Mode]** is set to **[Same as 📷]** from the menu

Setting Picture Mode

1. Select a picture mode using the rear dial or ◁▷.

- Picture modes can also be selected by tapping the screen.

Detailed options of a Picture Mode can be set. ☞ "Setting detailed options of Each Mode" (P.238)



Picture Mode setting screen

① Item
② Picture mode

Types of Picture Mode

1	i-Enhance	The camera adjusts colors and contrast for optimal results according to the type of subject.
2	Vivid	Choose for vivid colors.
3	Natural	Choose for natural colors.
4	Muted	Choose for pictures that will later be retouched.

5	**Portrait**	Enhance skin tones.
M	**Monochrome**	Record pictures in monochrome. You can apply color filter effects and choose a tint.
C	**Custom**	Adjust picture mode parameters to create a custom version of a selected picture mode.
	e-Portrait	Enhance the skin to make it brighter and smoother.
	Underwater	Process pictures to preserve the vivid colors seen under water. We recommend choosing **[Off]** for **[+WB]** (P.251) when **[ ]** is selected.
	Color Creator	Adjust hue and color to suit your creative intent.

ART 1	Pop Art	Uses Art Filter settings. Art effects can also be used. Available effects differ depending on the art filter.
ART 2	Soft Focus	
ART 3	Pale&Light Color	
ART 4	Light Tone	
ART 5	Grainy Film	
ART 6	Pin Hole	
ART 7	Diorama	
ART 8	Cross Process	
ART 9	Gentle Sepia	
ART 10	Dramatic Tone	
ART 11	Key Line	
ART 12	Watercolor	
ART 13	Vintage	
ART 14	Partial Color	
ART 15	Bleach Bypass	
ART 16	Instant Film	

In 📷 mode, art filters and color creator apply only to the JPEG copy. **[RAW+JPEG]** is automatically selected for image quality in place of **[RAW]**.

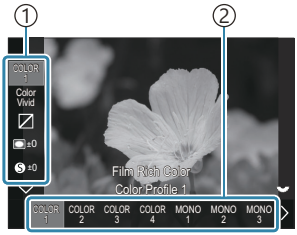
Setting Color Profile Control

The saturation of color images can be adjusted for each color, Color filter effects can be applied to monochrome images (Saturation adjustment), the amount of light around an image can be adjusted (Shading), and the brightness and darkness of an image can be controlled (Highlight & Shadow Control).

1. Select a picture mode using the rear dial or ◁▷.

- Profiles can also be selected by tapping the screen.

Detailed options of a Color Profile Control can be set.
☞ "Setting detailed options of Each Mode" (P.238)
A mark (*) appears next to the icon for the profiles in which the settings for detailed items have been changed. Press and hold the **OK** button to reset all the setting values for detailed items of the selected profile.



Color Profile Control setting screen

①Item
②Profile

Types of Color Profile Control

COLOR1	Film Rich Color Color Profile 1	This results in a color tone with depth and richness.
COLOR2	Film Vivid Color Profile 2	This creates a film-like effect with high saturation and rich colors.
COLOR3	Film Soft Tone Color Profile 3	It creates a light and soft color tone.
COLOR4	Standard (Natural) Color Profile 4	This is a standard (Natural) preset. Each setting value is set to default (±0).

In 📷 mode, color profiles apply only to the JPEG copy. **[RAW+JPEG]** is automatically selected for image quality in place of **[RAW]**.

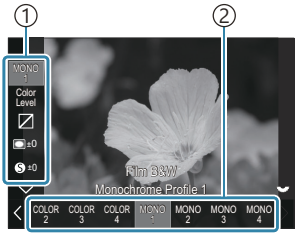
Setting Monochrome Profile Control

Color filter effects can be applied to monochrome images (Color Filter Effects), the amount of light around an image can be adjusted (Shading), and the brightness and darkness of an image can be controlled (Highlight & Shadow Control).

1. Select a picture mode using the rear dial or ◁▷.

- Profiles can also be selected by tapping the screen.

Detailed options of a Monochrome Profile Control can be set. ☞ "Setting detailed options of Each Mode" (P.238)
A mark (*) appears next to the icon for the profiles in which the settings for detailed items have been changed. Press and hold the **OK** button to reset all the setting values for detailed items of the selected profile.



Monochrome Profile Control setting screen

① Item
② Profile

Types of Monochrome Profile Control

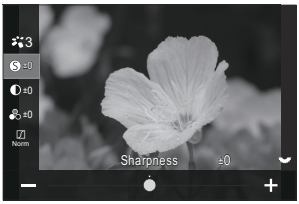
MONO1	Film B&W Monochrome Profile 1	This creates a monochrome film-like finish.
MONO2	Film IR Monochrome Profile 2	This produces an infrared film-like effect.
MONO3	Film Low Contrast Monochrome Profile 3	This suppresses contrast for a softer look.
MONO4	Standard (Monotone) Monochrome Profile 4	This is a standard (monochrome) preset. Each setting value is set to default (±0).

In 📷 mode, monochrome profiles apply only to the JPEG copy. **[RAW+JPEG]** is automatically selected for image quality when the image quality mode is set to **[RAW]**.

Setting detailed options of Each Mode

1. Press △▽ on each setting screen (P.233) to select the option you want to set.

- Available settings vary depending on the selected mode.
- Items to be set can also be selected by tapping the screen.



Ⓢ	**Sharpness**	Adjust image sharpness. Outlines can be emphasized for a sharp, clear picture. **[-2]** – **[±0]** – **[+2]**
◐	**Contrast**	Adjust image contrast. Increasing contrast heightens the difference between bright and dark areas for a harder, more well-defined picture. **[-2]** – **[±0]** – **[+2]**
❀	**Saturation**	Adjust color saturation. Increasing saturation makes pictures more vivid. **[-2]** – **[±0]** – **[+2]**
◰	**Gradation**	Adjust color brightness and shading. Bring pictures closer to what you envisage by, for example, brightening the entire picture. Depending on the contrast, you can produce both dark gradations and bright gradations. **[Shadow Adj]**: Divides the image into detailed regions and adjusts the brightness separately for each region. This is effective for images with areas of large contrast in which the whites appear too bright or the blacks appear too dark. **[Gradation Normal]**: Optimal shading. Recommended in most circumstances. **[Gradation High Key]**: Uses a tone suitable for a bright subject. **[Gradation Low Key]**: Uses a tone suitable for a dark subject.

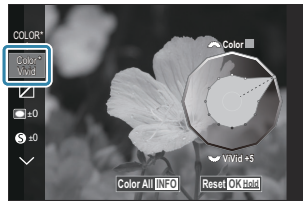
Effect	Effect	Choose the strength of i-Enhance. **[Effect: Low]**: Adds a low effect to images. **[Effect: Standard]**: Adds an effect between "low" and "high" to images. **[Effect: High]**: Adds a high effect to images.
Filter	Color Filter	Color filter effects can be added to monochrome picture modes. Depending on the color of the subject, color filter effects can make subjects brighter or enhance contrast. Orange adds more contrast than yellow, red more contrast than orange. Green is a good choice for portraits and the like. **[N:None]**: No filter effect. **[Ye:Yellow]**: Reproduces clearly defined white cloud with natural blue sky. **[Or:Orange]**: Slightly brings out blue skies or the light of the setting sun. **[R:Red]**: Further brings out blue skies or autumn foliage. **[G:Green]**: Adds warmth to skin tones in portraits. The green filter also emphasizes the reds in lipstick.
Color	Monochrome Color	Add a tint to pictures when using monochrome picture modes. **[N:Normal]**: Creates a normal black and white image. **[S:Sepia]**: Shoot in sepia-tinted monochrome. **[B:Blue]**: Shoot in blue-tinted monochrome. **[P:Purple]**: Shoot in purple-tinted monochrome. **[G:Green]**: Shoot in green-tinted monochrome.
1 2 3 4 5 M	C Picture Mode	Choose a picture mode you want to adjust when using **[Custom]**. **[i-Enhance]**, **[Vivid]**, **[Natural]**, **[Muted]**, **[Portrait]**, **[Monochrome]**

	Color Creator	Rotate the front dial to adjust hue. Rotate the rear dial to adjust saturation. To reset exposure compensation, press and hold the **OK** button.
ART	**Fine-Tune**	Adjust the level of the effect for pop art, soft focus, pin hole, cross process, or instant film. **[-5]** – **[±0]** – **[+5]**
Effect	**Add Effects**	Add effects to an art filter. The effects that can be added differ depending on the art filter. With some art filters, Color Filter and Monochrome Color can be adjusted.
Color	**Partial Color**	Selects the art filter "partial color".
Color Level	**Color/Level**	Choose from eight colors and three intensities to apply a color filter effect to a black-and-white image. Use the front dial to set the type of the color filter and the rear dial to set the intensity. Press and hold the **OK** button to reset the adjusted values.
	Highlight&Shadow Control	Adjust brightness separately for highlight, shadow, and midtone. Press the **INFO** button to change the area (highlight, shadow, and midtone) to be configured. Change the setting using the front and rear dials. Press and hold the **OK** button to reset the adjusted values.
	Shading Effect	Adjust brightness of the peripheral areas of the image. **[-5]** – **[±0]** – **[+5]**
	Film Grain Effect	Add a grainy effect similar to the grain of black and white film. **[Film Grain Effect Off]** / **[Film Grain Effect Low]** / **[Film Grain Effect Medium]** / **[Film Grain Effect High]**

Color Vivid	Color/Vivid	The saturation of each of the 12 colors can be adjusted within a range of ±5. Use the front dial to adjust hue and the rear dial to adjust saturation. Press and hold the **OK** button to reset the adjusted values. Press the **INFO** button to switch between changing all colors at once or changing them individually. When **[Color All]** is displayed on the color profile control screen, all colors can be changed at once. Adjust saturation using the rear dial.

ⓘ Depending on the scene, the effects of some settings may not be visible, while in other cases tone transitions may be ragged or the image rendered more “grainy”.

When a setting value is changed in Monochrome Profile Control and Color Profile Control, a mark (*) will appear on the icon of the item.



The settings are stored in the selected profile (**[MONO1]** to **[MONO4]** and **[COLOR1]** to **[COLOR4]**).

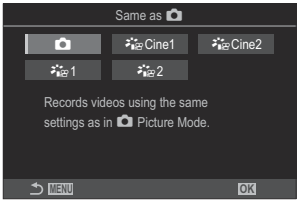
ⓘ In the following cases, Shading Control is fixed at ±0 and cannot be changed.
- High Res Shot / Live ND Shooting / Multiple Exposure / Keystone Comp. / Fisheye Compensation / ISO BKT

ⓘ In the following cases, Film Grain Effect is set to **[Off]** and cannot be changed.
- High Res Shot / Live ND Shooting / Multiple Exposure / Keystone Comp. / Fisheye Compensation / ISO BKT / Shading Control set to a value other than ±0 during movie recording

Setting detailed options of a Picture Mode Exclusive for Movies

1. Select **[Picture Mode]** from the menu.

2. Highlight an item using △▽◁▷.



	Same as	Movies are recorded using the same setting as configured in Picture Mode.
Cine1	**OM-Cinema1**	Record movies with a cinematic expression using yellow in the highlights and blue in the shadows to create color contrast. It is recommended to set **[Frame Rate]** to **[24p]**.
Cine2	**OM-Cinema2**	Record movies with a cinematic expression using soft colors featuring cyan tones and weak contrast. It is recommended to set **[Frame Rate]** to **[24p]**.
1	**Flat**	Movies are recorded using a tone curve adapted to color grading.
2	**OM-Log400**	Movies are recorded using a log tone curve for greater freedom during color grading.

Choosing which options are displayed when selecting a picture mode (Picture Mode Settings)

P:PASMB /S&Q:PASM

You can display only the options you need when selecting a picture mode.

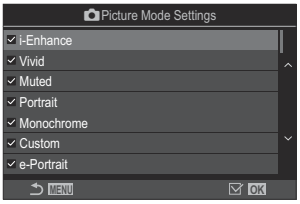
For details on picture modes, see "Processing options (Picture Mode / Picture Mode)" (P.232).

Menu

- **MENU** ➡ $\square_1$ ➡ 2. Picture Mode/WB ➡ Picture Mode Settings

1. Select a picture mode that you want to have displayed, and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



Picture Mode Settings screen

Adjusting color (WB (white balance))

White balance (WB) ensures that white objects in images recorded by the camera appear white. **[WB Auto]** is suitable in most circumstances, but other values can be selected according to the light source when **[WB Auto]** fails to produce the desired results or you wish to introduce a deliberate color cast into your images.

Setting the white balance

Button

- **WB** button

Super control panel

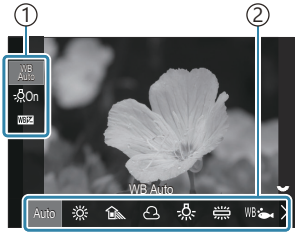
- **OK** ➡ WB

Menu

- **MENU** ➡ 1 ➡ 2. Picture Mode/WB ➡ WB

1. Select a WB mode using the rear dial or ◁▷.

- White balance can also be selected by tapping the screen.



WB setting screen

①Item
②White balance

2. To fine-adjust white balance, select an option using △▽.

- Items can also be selected by tapping the screen.

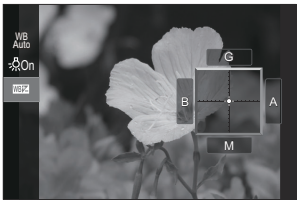
Auto	WB Auto	Most normal scenes (scenes containing objects that are white or close to white) • This mode is recommended in most situations. • You can choose the white balance used under incandescent lighting (P.250).
	Sunny	Sunlit outdoor scenes, sunsets, fireworks • Color temperature is set to 5300K.
	Shadow	Daylight shots of subjects in the shade • Color temperature is set to 7500K.
	Cloudy	Shots taken in daylight under overcast skies • Color temperature is set to 6000K.
	Incandescent	Subjects under incandescent lighting • Color temperature is set to 3000K.
	Fluorescent	Subjects under fluorescent lighting • Color temperature is set to 4000K.
WB	Underwater	Underwater photography
WB	WB Flash	Light sources with the same color temperature as flash lighting • Color temperature is set to 5500K.
1 2 3 4	One-touch WB 1-4	Situations in which you want to set white balance for a specific subject • Color temperature is set to a value metered from a white object under the lighting what will be used in the final photograph (P.247).
CWB	Custom WB	Situations in which you can identify the appropriate color temperature • Choose a color temperature.

Making fine adjustments to white balance of each WB mode

You can fine-tune the white balance settings. Adjustments can be made separately.

1. Configure options.

- Press △ ▽ on the WB setting screen (P.244) to select the option to adjust.



WB AUTO Keep Warm Color (only when WB Auto is used)	**[Off]**: The camera suppresses the warm tones produced by incandescent lighting when Auto is used. **[On]**: The camera preserves the warm tones produced by incandescent lighting when Auto is used.
WB± (WB Compensation)	Use the front dial or ◁ ▷ to adjust the "amber–blue" axis. Moving the pointer (⌖) closer to A adds a red cast and moving it closer to B adds a blue cast. Use the rear dial or △ ▽ to adjust the "green–magenta" axis. Moving the pointer (⌖) closer to G adds a green cast and moving it closer to M adds a magenta cast. When WB± (WB Compensation) is done, a mark (*) appears next to the WB mode icon. Pressing the **INFO** button in still photography mode allows you to take a test picture with the current configuration. Press the **INFO** button again to return to the setting screen. Press and hold the **OK** button to reset the adjusted values. White balance can also be adjusted by tapping the screen. Fine-tune white balance of all white balance modes at once. ☞ **[All WB±]** (P.249)
Kelvin (only for Custom WB)	You can set the color temperature. **[2000K]** – **[14000K]**

One-touch white balance

Measure white balance by framing a piece of paper or other white object under the lighting that will be used in the final photograph. Use this option to fine-tune white balance when you find it hard to obtain the desired results with white balance compensation or preset white balance options such as ☼ (Sunny) or ☁ (Cloudy). The camera stores the metered value for quick recall as required. Separate values can be stored for still photography and movie recording.

1. Select **[PRE1]**, **[PRE2]**, **[PRE3]**, or **[PRE4]** (one-touch white balance 1, 2, 3, or 4) on the WB setting screen.

2. Select PRESet.

3. Frame a piece of colorless (white or gray) paper in the center of the display.
   - Frame the piece of paper so that it fills the display. Ensure that it is free of shadows.
   - Press the **INFO** button.
   - The one-touch white balance screen appears.

4. Highlight **[Yes]** and press the **OK** button.
   - The new value is saved as a preset white balance option.
   - The new value is stored until one-touch white balance is measured again. Turning the power off does not erase the data.
   - The new value can also be saved by tapping the screen.

Metering with the Button

Assigning **[PRESet]** to a button allows the control to be used to measure white balance. ☞ "Changing the roles of buttons (Button Settings)" (P.340)

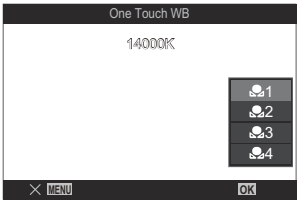
1. Frame a piece of colorless (white or gray) paper in the center of the display.
   - Frame the piece of paper so that it fills the display. Ensure that it is free of shadows.

2. Hold the button to which One-Touch White Balance is assigned and press the shutter button all the way down.

- When recording movies, press the button to which One-Touch White Balance is assigned to proceed to Step 3.
- You will be prompted to choose the one-touch white balance option that will be used to store the new value.

3. Highlight an option using △▽ and press the **OK** button.

- One-touch white balance can also be saved to the camera by tapping the screen.
- The new value will be saved as the value for the selected setting and the camera will exit to the shooting display.



Making fine adjustments to white balance (All WB±)

:PASMB **/S&Q:PASM**

Fine-tune white balance of all white balance modes at once.

Menu

- **MENU** ➡ $\square_1$ ➡ 2. Picture Mode/WB ➡ All WB±

All WB±	Use the front dial or ◁▷ to adjust the "amber–blue" axis. Moving the pointer (⊹) closer to A adds a red cast and moving it closer to B adds a blue cast. Use the rear dial or △ ▽ to adjust the "green–magenta" axis. Moving the pointer (⊹) closer to G adds a green cast and moving it closer to M adds a magenta cast. Settings can also be adjusted by tapping the screen. When All WB Compensation is performed, a mark (*) appears next to each WB mode icon. Press and hold the **OK** button to reset the adjusted values.

Preserving the warm tones of incandescent lighting when in WB Auto mode (WB AUTO Keep Warm Color)

:PASMB **/S&Q:PASM**

Choose how the camera adjusts white balance for pictures taken using auto white balance under incandescent lighting.

Menu

- **MENU** ➡ 1 ➡ 2. Picture Mode/WB ➡ WB AUTO Keep Warm Color

Off	The camera suppresses the warm tones produced by incandescent lighting.
On	The camera preserves the warm tones produced by incandescent lighting.

You can fine-tune the white balance settings. ☞ "Making fine adjustments to white balance of each WB mode" (P.246)

Flash White Balance (+WB)

P:PASMB S&Q:PASM

Choose the white balance used for photos taken with a flash. Instead of using a setting adapted to flash lighting, you can opt to prioritize the value selected for non-flash photography. Use this option to automatically switch from one white balance setting to another when you find yourself frequently enabling and disabling the flash.

Menu

- **MENU** ➡ $\square_1$ ➡ 2. Picture Mode/WB ➡ +WB

Off	The camera uses the value currently selected for white balance.
WB Auto	The camera uses auto white balance (**[WB Auto]**).
WB 5500K	The camera uses flash white balance (**[WB]**).

Setting the color reproduction format (Color Space)

P:PASMB S&Q:PASM

You can select a format to ensure that colors are correctly reproduced when shot images are regenerated on a monitor or using a printer.

Menu

- **MENU** ➡ Camera_1 ➡ 2. Picture Mode/WB ➡ Color Space

sRGB	The color space standardized by an international standards organization. It is widely supported across displays, printers, digital cameras, and computer applications. This setting is recommended in most circumstances.
Adobe RGB	It can reproduce a wider gamut of colors than sRGB. Accurate color reproduction is available only with software and devices (displays, printers, and the like) that support this standard. An underscore ("_") appears at the beginning of the file name (e.g., "_xxx0000.jpg").

[Adobe RGB] is not available in HDR or when an art filter is selected for picture mode.

Preview Options for [Picture Mode] (View Assist)

:PASMB /S&Q:PASM

The display can be adjusted for ease of viewing when **[Flat]** or **[OM-Log400]** is selected for **[Picture Mode]** (P.242).

Menu

- **MENU** ➡ ➡ ➡ 2. Picture Mode ➡ View Assist

On	Adjust the picture for ease of viewing. The indicators in the display may change color.
Off	Do not adjust the picture for ease of viewing.

- This option applies only to the display, not to the actual movie files.
- This option does not apply when movies recorded using **[Flat]** or **[OM-Log400]** are played back on the camera. It also does not apply when the movies are viewed on a TV.
- The histogram (P.48) is processed on the original image without View Assist applied.

Special shooting modes (Computational Modes)

Shooting still pictures in a higher resolution (High Res Shot)

:PASMB /S&Q:PASM

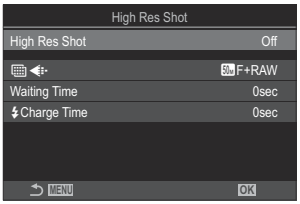
Shoot at resolutions higher than that of the image sensor. The camera takes a series of shots while moving the image sensor and combines them to create a single high-resolution photo. Use this option to capture details that normally would not be visible even at high zoom ratios.
When High Res Shot is enabled, the image quality mode for High Res Shot can be selected using **[ ]** (P.223).

Button
- **CP** button

Menu
- **MENU** ➡ $\square_2$ ➡ 1. Computational Modes ➡ High Res Shot

Enabling High Res Shot

1. Use △▽ to select **[High Res Shot]** and press the **OK** button.



High Res Shot setting screen

2. Use ◁▷ to select **[On]** (tripod) or **[On]** (handheld) and press the **OK** button.

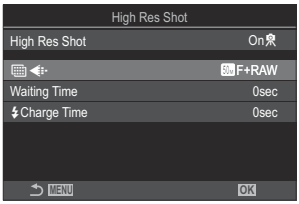
Off	High Res Shot is disabled.
On (Tripod)	Shoot with the camera fixed to a tripod. The RAW picture is recorded in 80M (10368 × 7776).
On (Handheld)	Shoot with the camera in your hands. The RAW picture is recorded in 50M (8160 × 6120).

3. The display returns to the High Res Shot setting screen.

Configuring High Res Shot

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to High Res Shot setting screen.



	Choose the image quality of High Res Shot shooting (P.223).
Waiting Time	Set how long the camera waits before releasing the shutter after you press the shutter button fully. Use this to prevent the effect of camera shake caused by the pressing of the shutter button.
Charge Time	Choose how long the camera waits for the flash to charge between shots when using a flash unit not specifically designated for use with the camera.

1. Press the **MENU** button to close the High Res Shot setting screen and return to shooting screen.

- The icon * will be displayed. The icon will flash if the camera is not steady. The icon stops flashing and glow when the camera is steady and ready to shoot.

  * When **[On]** (tripod) is selected for **[High Res Shot]**, will be displayed, and when **[On]** (handheld) is selected, will be displayed.

- After enabling High Res Shot, check the option selected for image quality. Image quality can be adjusted in the super control panel.

2. Release the shutter.

- Shooting is complete when the green icon clears from the display.
- The camera will automatically create the composite image when shooting is complete. A message will be displayed during this process.

- Choose from JPEG (50M F or 25M F) and RAW+JPEG modes. When image quality is set to RAW+JPEG, the camera saves a single RAW image (extension ".ORI") before combining it with the high resolution shooting. Pre-combination RAW images can be played back using the latest version of OM Workspace.

- **[S-IS Off]** is automatically selected for **[Image Stabilizer]** (P.219) when **[On]** (tripod) is chosen, **[S-IS Auto]** when **[On]** (handheld) is selected.
- The maximum wait time for **[On]** (handheld) is 1 second.
- During RC flash photography, the maximum flash wait time is 4 seconds and the flash control mode is fixed at **[Manual]**.
- The following cannot be used:
  - multiple exposure, keystone compensation, bracketing, focus stacking, fisheye correction, HDR, anti-flicker shooting, live ND shooting, and interval shooting
- When High Res Shot is enabled, **[Drive /]** is set to **[]** (Silent Single). **[12s]** (Silent self-timer 12s), **[2s]** (Silent self-timer 2s) and **[C]** (Silent custom self-timer) can be set.
- Pictures taken with **[e-Portrait]** or an art filter selected for picture mode will be recorded in **[Natural]** mode.
- Image quality may drop under flickering light sources such as fluorescent or LED lamps.

If the camera is unable to record a composite image due to blur or other factors, and if **[JPEG]** is selected for image quality, the first shot will be recorded in JPEG format. If **[RAW+JPEG]** is selected, the camera will record two copies of the first shot, one in RAW (.ORF) and the other in JPEG format.

Setting with the CP button

When setting from the button, you can turn this function on and off using the **CP** button.
You can also switch between **[On]** (tripod) and **[On]** (handheld) by rotating the front or rear dial while pressing the **CP** button. ☞ "Using the **CP** button (Computational Modes)" (P.350)

Slowing the Shutter in Bright Light (Live ND Shooting)

: PASMB /S&Q: PASM

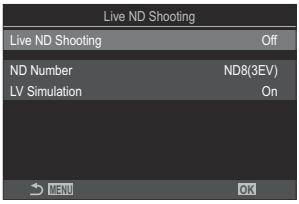
The camera combines a series of exposures to create a single photo, giving the appearance of a single photo taken at a slow shutter speed.

Enabling Live ND Shooting

Menu

- **MENU** ➡ Camera_2 ➡ 1. Computational Modes ➡ Live ND Shooting

1. Use △▽ to select **[Live ND Shooting]** and press the **OK** button.



Live ND Shooting setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

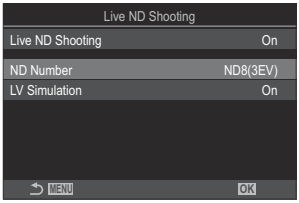
Off	Pictures are taken without using this function.
On	Pictures are taken with the slow shutter effect enabled.

3. The display returns to the Live ND Shooting setting screen.

Configuring Live ND Shooting

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Live ND Shooting setting screen.



ND Number	Choose an ND filter type; the camera will convert it to an exposure value and reduce exposure by that amount. Options are available in increments of 1 EV: **[ND2(1EV)]**/**[ND4(2EV)]**/**[ND8(3EV)]**/**[ND16(4EV)]**
LV Simulation	Choose whether to preview the effect of the selected filter at the current shutter speed. **[Off]**: Use the standard shooting display. **[On]**: The effects of shutter speed are shown in the display.

Shooting

1. Press the **MENU** button to close the Live ND Shooting setting screen and return to shooting screen.

- An icon appears in the display.

2. Adjust shutter speed while previewing the results in the display.

- Adjust shutter speed using the rear dial.
- The fastest shutter speed available varies with the ND filter selected.
  [ND2(1EV)]: 1/30 s
  [ND4(2EV)]: 1/15 s
  [ND8(3EV)]: 1/8 s
  [ND16(4EV)]: 1/4 s

① Shutter speed

- If **[On]** is selected for **[LV Simulation]**, the effects of changes to shutter speed can be previewed in the display.
- The camera requires a length of time equivalent to the selected shutter speed to produce **[LV Simulation]** results similar to the final image.
- When the time equivalent to the selected shutter speed passes, the "LV" part of the icon on the screen turns green.
  When the LV icon is green, the display is similar to the final image.
- Changing exposure compensation or shutter speed resets the **[LV Simulation]** display.

3. Release the shutter.

- To end live ND filter photography, select **[Off]** in the **[Live ND Shooting]** display.

[e-Portrait] and art filter picture modes (P.232) are not available.

The upper limit for **[ISO]** during live ND photography is ISO 800. This also applies when **[Auto]** is selected for **[ISO]**.

The following cannot be used:

- Flash photography, HDR, High Res Shot, multiple exposure, keystone compensation, bracketing, focus stacking, interval-timer photography, flicker scan, flickerless photography, and fisheye correction

When Live ND Shooting is enabled, **[Drive /]** is set to **[]** (Silent Single). **[12s]** (Silent self-timer 12s), **[2s]** (Silent self-timer 2s), and **[C]** (Silent custom self-timer) can be set.

Unlike physical ND filters, the live ND filter does not reduce the amount of light reaching the image sensor, and consequently very bright subjects may be overexposed.

Setting with the CP button

Press and hold the **CP** button and rotate the front or rear dial. ☞ "Using the **CP** button (Computational Modes)" (P.350)
After configuring options, press the **CP** button again to return to Live ND Shooting setting screen.

Increasing Depth of Field (Focus Stacking)

P:PASMB S&Q:PASM

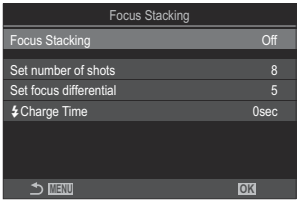
Combine multiple images for a depth of field greater than can be obtained with a single shot. The camera takes a series of shots at focus distances both in front of and behind the current focus position and creates a single image from the areas that are in focus in each shot.
Choose this option if you want all areas of the subject in focus in photographs taken at short ranges or wide apertures (low f-numbers). The pictures are taken in silent mode using the electronic shutter.

- The composite image is recorded in JPEG format, regardless of the option selected for image quality.
- The composite image is enlarged 7% horizontally and vertically.
- Shooting will end if focus or zoom is adjusted after the shutter button has been pressed all the way down to start focus stacking photography.
- If focus stacking fails, the camera will record the selected number of photos without creating a composite image.
- This option is available only with lenses that support focus stacking. See our website for information on compatible lenses.
- When the picture mode is set to **[e-Portrait]**, art filter, color profile, or monochrome profile, it changes to **[Natural]**.

Menu
- **MENU** ➡ $\square_2$ ➡ 1. Computational Modes ➡ Focus Stacking

Enabling Focus Stacking

1. Use △▽ to select **[Focus Stacking]** and press the **OK** button.



Focus Stacking setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

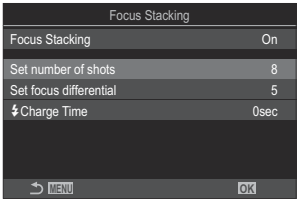
Off	Pictures are taken without using this function.
On	Pictures are taken with increased depth of field.

3. The display returns to the Focus Stacking setting screen.

Configuring Focus Stacking

1. Configure options.

- Press △▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Focus Stacking setting screen.



Set number of shots	Choose the number of shots to be taken with varied focus positions. **[3]** – **[8]**
Set focus differential	Choose the amount the camera varies focus with each shot. **[1]** – **[10]**
Charge Time	Choose how long the camera waits for the flash to charge between shots when using a flash unit not specifically designated for use with the camera. **[0sec]** / **[0.1sec]** / **[0.2sec]** / **[0.5sec]** / **[1sec]** / **[2sec]** / **[4sec]** / **[8sec]** / **[15sec]** / **[30sec]**

1. Press the **MENU** button to close the Focus Stacking setting screen and return to shooting screen.

- [⊡] appears on the screen.
- A frame indicating the final crop will be shown in the display. Compose the shot with your subject in the frame.

2. Release the shutter.

- The camera will automatically take the selected number of shots when the shutter button is pressed all the way down.

When **[Focus Stacking]** is set to **[On]**, **[Flash Mode]** in **[Silent[♥] Settings]** (P.213) becomes **[Allow]**.

The flash sync speed is set to 1/50 s. It will be set to 1/20 s when **[ISO]** is 8000 or higher.

The following cannot be used:

- HDR, High Res Shot, multiple exposure, keystone compensation, bracketing, interval-timer photography, flicker scan, fisheye correction, and live ND shooting

We recommend using an optional remote control (P.436) to reduce blur caused by camera shake. In **[Silent[♥] Settings]** (P.213), you can choose how long the camera will wait to release the shutter after the shutter button is pressed all the way down.

Setting with the CP button

Press and hold the **CP** button and rotate the front or rear dial and select **[⊡]** to turn on focus stacking. ☞ "Using the **CP** button (Computational Modes)" (P.350)

Press and hold the **CP** button to choose an option for focus stacking.

Press the **CP** button again to turn off focus stacking.

Taking HDR (High Dynamic Range) images (HDR)

P:PASMB S&Q:PASM

The camera varies exposure over a series of shots, selects from each tone range with the highest level of detail, and combines them to create a single picture with a wide dynamic range. If the photo features a high-contrast subject, details that would otherwise be lost in shadows or highlights will be preserved.

Use a tripod or take similar measures to fix the camera in place.

Menu

- **MENU** ➡ Camera_2 ➡ 1. Computational Modes ➡ HDR

Off	HDR is disabled.
HDR1 **HDR2**	Each time you take a photo, the camera will take a series of shots while varying exposure and combine them into a single picture. Choose **[HDR1]** for natural-looking results, **[HDR2]** for a more painterly effect. • **[ISO]** is fixed at ISO 200. • Shutter speeds can be as slow as 4 s. Shooting will continue for up to 15 s. • Picture mode is fixed at **[Natural]** and color space at **[sRGB]**. • The HDR-processed images are recorded in JPEG format. Pictures taken with **[RAW]** for image quality are recorded in RAW+JPEG format.
3f 2.0EV **5f 2.0EV** **7f 2.0EV** **3f 3.0EV** **5f 3.0EV**	Each time you take a photo, the camera will vary exposure over a series of shots. The shots are not combined to create a single picture. The shots can however be combined using HDR software on a computer or other devices. 3f 2.0EV ① ② ①Number of shots ②Exposure range

- "HDR" appears on the screen.

1. Release the shutter.

- Each time you press the shutter button, the camera will take the selected number of shots.
- In **[HDR1]** and **[HDR2]** modes, the camera will automatically combine the shots into a single picture.
- Exposure compensation is available in modes **P**, **A**, and **S**.

- The image displayed in the monitor or viewfinder during shooting differs from the final HDR picture.
- Noise may appear in the final picture when a slower shutter speed is selected in **[HDR1]** or **[HDR2]** mode.
- When **[HDR1]** or **[HDR2]** is enabled, **[Drive /]** is set to [♥] (Silent Single). [♥**12s**] (Silent self-timer 12s), [♥**2s**] (Silent self-timer 2s) and [♥**C**] (Silent custom self-timer) can be set.
- The following cannot be used:
  - flash photography, bracketing, focus stacking, multiple exposure, interval-timer photography, keystone compensation, live ND shooting, fisheye correction, and High Res Shot

Setting with the CP button

Press and hold the **CP** button and rotate the front or rear dial and select **[HDR1]** or **[HDR2]** to turn on HDR. ☞ "Using the **CP** button (Computational Modes)" (P.350)
Press the **CP** button again to turn off HDR.

Recording multiple exposures in a single image (Multiple Exposure)

P:PASMB S&Q:PASM

Take two shots and combine them into a single picture. Alternatively, you can take a shot and combine it with an existing picture stored on the memory card.
The combined image is recorded at current image quality settings. Only RAW pictures can be selected for multiple exposures that include an existing image.

If you record a multiple exposure with RAW selected for **[ ]**, you can then select it for subsequent multiple exposures using **[Overlay]**, allowing you to create multiple exposures combining three or more photographs.

Menu
- **MENU** ➡ $\square_2$ ➡ 1. Computational Modes ➡ Multiple Exposure

Enabling Multiple Exposure

1. Use △▽ to select **[Multiple Exposure]** and press the **OK** button.

Multiple Exposure setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

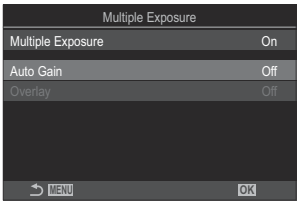
Off	Pictures are taken without using this function.
On	Create a multiple exposure from 2 pictures.

3. The display returns to the Multiple Exposure setting screen.

Configuring Multiple Exposure

1. Configure options.

- Press △▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Multiple Exposure setting screen.



Auto Gain	**[Off]**: Do not adjust brightness the brightness of the pictures in the multiple exposure. **[On]**: Halve the brightness of each picture in the multiple exposure.
Overlay	**[Off]**: Create a multiple exposure from the next 2 pictures taken. **[On]**: Shoot a multiple exposure that includes an existing RAW image stored on the memory card. • **[Overlay]** is only available when **[On]** is selected for **[Multiple Exposure]**.

Shooting

1. Press the **MENU** button to close the Multiple Exposure setting screen and return to shooting screen.

- The icon will be displayed.

2. Release the shutter.

- The first shot will be visible superimposed on the view through the lens as you compose the next shot.
- The icon turns green.

- Normally, a multiple exposure will be created after the second shot is taken.
- Pressing the 🗑 button allows you to retake the first shot.
- The ⧉ icon clears from the display when multiple exposure ends.

Setting with the CP button

Press and hold the **CP** button and rotate the front or rear dial and select **[⧉]** to turn on multiple exposure. ☞ "Using the **CP** button (Computational Modes)" (P.350)
Press and hold the **CP** button to choose an option for multiple exposure.
Press the **CP** button again to turn off multiple exposure.

When [Overlay] is set

When **[On]** is selected for **[Overlay]**, a list of pictures is displayed.

1. Highlight an image using the △▽◁▷ buttons and press the **OK** button.
   - Only RAW images can be selected.

2. Press the **MENU** button to exit the menus.
   - The ⧉ icon will be displayed.
   - The selected picture is overlaid on the screen.

3. Release the shutter.
   - You can take additional pictures that will be overlaid on the previously-chosen photograph.

- The camera will not enter sleep mode during multiple exposure photography.
- Pictures taken with other cameras cannot be used for multiple exposures.
- RAW pictures taken using High Res Shot cannot be used for multiple exposures.
- The RAW pictures listed in the image-selection display when **[On]** is selected for **[Overlay]** are those processed using the settings in effect at the time the photograph was taken.
- Exit multiple exposure mode before adjusting shooting settings. Some settings cannot be adjusted while multiple exposure mode is in effect.

- Performing any of the following operations after the first shot is taken ends multiple exposure photography:
  - turning the camera off, pressing the ▶ or **MENU** button, operating the power lever, choosing a different shooting mode, running out of battery, or connecting cables to any connectors.
- The image-selection display for **[Overlay]** shows the JPEG copies of photographs taken with RAW+JPEG selected for image quality.
- Live composite photography (**[Live Comp]**) is not available in mode **B**.
- The following functions cannot be used during multiple exposure photography.
  - HDR, bracketing, focus stacking, interval-timer photography, keystone compensation, live ND shooting, fisheye correction, and High Res Shot
- Performing any of the following operations ends **[Overlay]**. In this case, if **[Multiple Exposure]** has been set to **[On]**, **[Multiple Exposure]** will also be set to **[Off]**.
  - Turning the camera off,
  - Editing images and movies (JPEG Edit/RAW Data Edit/Movie Edit/Image Overlay),
  - Deleting images and movies,
  - Formatting the card,
  - Removing the card, or
  - Establishing a USB connection using **[Storage]** or **[MTP]**.
- Pictures taken with RAW selected for **[📷◀]** can also be overlaid during playback.

☞ "Combining Pictures (Image Overlay)" (P.329)

Digital Zoom (Digital Tele-converter / Digital Tele-converter)

P:PASMB S&Q:PASM

This option takes a crop at the center of the frame the same dimensions as the size option currently selected for image quality and zooms it in to fill the display. This allows you to zoom in past the lens' maximum focal length, making it a good choice when you are unable to switch lenses or find it difficult to get any closer to your subject.

Menu

- **MENU** ➡ $\square_2$ ➡ 2. Other Shooting Functions ➡ Digital Tele-converter
- **MENU** ➡ ➡ 1. Basic Settings/Image Quality ➡ Digital Tele-converter

Off	Pictures are taken without using this function.
On	Images are recorded enlarged (Still pictures: 2x, Movies: 1.4x).

- When **[On]** is selected, an icon is displayed and, when live view is enabled, it is enlarged.
- The size of the AF targets (P.124) increases and their number decreases.

- JPEG images are recorded at the selected zoom ratio.
  In the case of RAW images, a frame shows the zoom crop. A frame showing the zoom crop is displayed on the image during playback.

- In mode, this function cannot be used during multiple exposure, keystone comp., fisheye correction, or when panorama is selected for **SCN** mode.
- In S&Q mode, this function cannot be used when the sensor frame rate is **[120fps]**.
- You cannot zoom in on the display when **[Digital Tele-converter]** is set to **[On]**.

☞ "Previewing the subject ( )" (P.55), "Zoom frame AF/Zoom AF (Super Spot AF)" (P.129), "Manual Focus Assist (MF Assist)" (P.163)

Shooting automatically with a fixed interval (Interval Shooting)

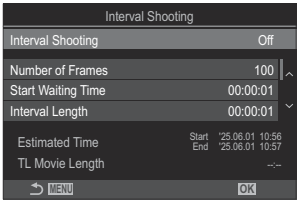
P:PASMB S&Q:PASM

You can set the camera to shoot automatically with a set time lapse. The shot frames can also be recorded as a single movie.

Menu
- **MENU** ➡ $\square_2$ ➡ 2. Other Shooting Functions ➡ Interval Shooting

Enabling Interval Shooting

1. Use △▽ to select **[Interval Shooting]** and press the **OK** button.



Interval Shooting setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

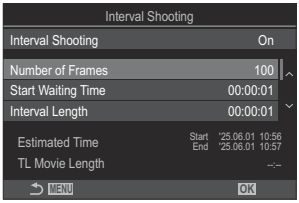
Off	Pictures are taken without using this function.
On	Pictures are taken at specified intervals.

3. The display returns to the Interval Shooting setting screen.

Configuring Interval Shooting

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Interval Shooting setting screen.



Number of Frames	Choose the number of frames shot. **[002]** – **[9999]**
Start Waiting Time	Choose how long the camera waits before starting interval timer photography and taking the first shot. **[00:00:00]** – **[24:00:00]**
Interval Length	Choose how long the camera waits between shots once shooting has begun. **[00:00:01]** – **[24:00:00]**
Interval Mode	Choose whether to put priority on the interval time or the number of frames. **[Time Priority]**/**[Frames Priority]** If **[Time Priority]** is selected, the previous shooting may be still in progress even when it is time to shoot the next shot. When the selected **[Interval Length]** is short or when using long exposure, the number of recorded frames may be smaller than the number selected for **[Number of Frames]**.
Exposure Smoothing	Choose whether to smooth the exposure settings for all frames. The change of exposure will be smooth in the time lapse movie. **[Off]**/**[On]**
Time Lapse Movie	Choose whether to record a time-lapse movie. **[Off]**: The camera saves the individual shots but does not use them to create a time-lapse movie. **[On]**: The camera records the individual shots and also uses them to create a time-lapse movie.

Movie Settings	Choose the frame size (**[Movie Resolution]**) and frame rate (**[Frame Rate]**) for movies created using **[Time Lapse Movie]**. Choose the **[Movie Resolution]** from the following options. **[4K]**/**[FullHD]** Choose the **[Frame Rate]** from the following options. **[30fps]**/**[15fps]**/**[10fps]**/**[5fps]**

[Start Waiting Time], **[Interval Length]** and **[Estimated Time]** may change depending on shooting settings. Use these as guidelines only.

Shooting

1. Press the **MENU** button to close the Interval Shooting setting screen and return to shooting screen.

- An icon and the selected number of frames appear on the shooting screen.

2. Release the shutter.

- The specified number of frames will be shot automatically.

- The icon will turn green and the number of shots remaining will be displayed.
- Time lapse shooting will be canceled if any of the following is operated:
  Mode dial, **MENU** button, ▶ button, lens release button, or connection to a computer using a USB cable.
- Turning the camera off ends interval-timer photography.

Frames are shot even if the image is not in focus after AF. If you wish to fix the focus position, shoot in MF.

[Image Review] (P.56) is fixed at 0.5 seconds.

- If the time until shooting or the shooting interval is 1 minute 31 seconds or longer, the monitor will go dark and the camera will enter sleep mode if no operations are performed for 1 minute. The display will turn on automatically 10 seconds before shooting for the next interval begins. It can also be reactivated by pressing the shutter button at any time.
- The camera automatically selects **[S-AF]** for AF mode (P.118) in place of **[C-AF]** and **[C-AF+TR]**, and **[S-AF MF]** in place of **[C-AF MF]** and **[C-AF+TR MF]**.
- When **[AF]** is selected as the AF mode (P.118), focus to initiate shooting, then lock focus and start recording.
- Touch operations are disabled during time lapse shooting.
- Interval shooting cannot be combined with High Res Shot, HDR, bracketing, focus stacking, multiple exposure, or live ND shooting.
- The flash will not work if the flash charging time is longer than the interval between shots.
- When 1000 or a larger number is selected for **[Number of Frames]**, **[Time Lapse Movie]** will be set to **[Off]**.
- If any of the still pictures are not recorded correctly, the time lapse movie will not be generated.
- If there is insufficient space on the card, the time lapse movie will not be recorded.
- If there is not enough charge left on the battery, the shooting may end partway through. Use a sufficiently charged battery or connect a USB-AC adapter or a commercially available mobile battery to the camera when shooting.

Keystone correction and perspective control (Keystone Comp.)

P A S M B S&Q: P A S M

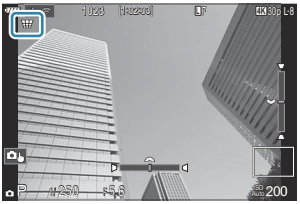
Keystone distortion due to the influence of lens focal length and proximity to the subject can be corrected, or enhanced to exaggerate the effects of perspective. Keystone compensation can be previewed in the monitor during shooting. The corrected image is created from a smaller crop, slightly increasing the effective zoom ratio.

Menu

- **MENU** ➡ 2 ➡ 2. Other Shooting Functions ➡ Keystone Comp.

Off	Keystone compensation is not applied.
On	Keystone compensation is applied.

- When you select **[On]**, a keystone compensation icon is displayed and sliders appear on the monitor.



1. Frame the shot and adjust keystone compensation while viewing your subject in the display.

- Rotate the front dial to make horizontal adjustments and the rear dial to make vertical adjustments.
- Use △ ▽ ◁ ▷ to position the crop. The direction in which the crop can be moved is shown by the ▲ icon.
- To cancel changes, press and hold the **OK** button.

2. To adjust aperture, shutter speed, and other shooting settings, press the **INFO** button.

- The camera will return to the standard shooting display.
- The ⊞ icon is displayed while keystone compensation is enabled. The icon is displayed in green if adjustments have been made to keystone compensation settings.
- To return to the keystone compensation display shown in Step 1, press the **INFO** button repeatedly.

3. Release the shutter.

- Pictures may seem "grainy" depending on the amount of compensation performed. The amount of compensation also determines the amount the picture will be enlarged when cropped and whether the crop can be moved.
- Depending on the amount of compensation, you may be unable to reposition the crop.
- Depending on the amount of compensation performed, the selected AF target may not be visible in the display. If the AF target is outside the frame, its direction is indicated by a ↑, ↓, ←, or → icon in the display.
- Pictures taken with **[RAW]** for image quality are recorded in RAW+JPEG format.
- The following cannot be used:
  - Composite photography, sequential photography, bracketing, focus stacking, HDR, multiple exposure, live ND shooting, fisheye compensation, the digital tele-converter, movie recording, **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]**, and **[C-AF+TR MF]** AF modes, **[e-Portrait]** in Picture Mode, art filters, the custom self-timer, High Res Shot, and 📷 subject detection
- Lens converters may not produce the desired results.
- Be sure to provide **[📷 Image Stabilizer]** data for lenses that are not part of the Four Thirds or Micro Four Thirds family (P.219).

  Keystone compensation will be performed based on the focal length set in **[📷 Image Stabilizer]** (P.219) or, when using a lens, based on the focal length set in **[Lens Info Settings]** (P.386).

Correcting Fisheye Distortion (Fisheye Compensation)

P:PASMB S&Q:PASM

Correct distortion caused by fisheye lenses to give photos the appearance of pictures taken with a wide-angle lens. The amount of correction can be selected from three different levels. You can also opt simultaneously to correct distortion in photos taken under water.

- This option is only available with compatible fisheye lenses.
  As of September 2026, it could be used with the M.ZUIKO DIGITAL ED 8mm F1.8 Fisheye PRO.

Menu

- **MENU** ➡ $\square_2$ ➡ 2. Other Shooting Functions ➡ Fisheye Compensation

Enabling Fisheye Compensation

1. Use △▽ to select **[Fisheye Compensation]** and press the **OK** button.

Fisheye Compensation setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

Off	Pictures are taken without using this function.
On	Pictures are taken with fisheye compensation applied.

3. The display returns to the Fisheye Compensation setting screen.

Configuring Fisheye Compensation

1. Configure options.

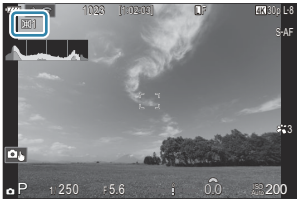
- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Fisheye Compensation setting screen.

Angle	When fisheye correction is performed, the picture is cropped to eliminate blacked-out areas. Choose from three different crops. **[1]** / **[2]** / **[3]**
Correction	Choose whether to correct distortion in photos taken under water in addition to the correction performed using **[Angle]**. **[Off]**/**[On]**

Shooting

1. Press the **MENU** button to close the Fisheye Compensation setting screen and return to shooting screen.

- When fisheye compensation is enabled, a icon will be displayed together with the selected crop.



2. Release the shutter.

Pictures taken with **[RAW]** for image quality are recorded in RAW+JPEG format. Fisheye compensation is not applied to the RAW image.

Focus peaking is not available in the fisheye compensation display.

- AF target selection is restricted to [·]Single-S and [·]Single target modes.
- The following cannot be used:
  - Composite photography, sequential photography, bracketing, focus stacking, HDR, multiple exposure, live ND shooting, keystone compensation, the digital tele-converter, movie recording, **[C-AF]**, **[C-AF MF]**, **[C-AF+TR]**, and **[C-AF+TR MF]** AF modes, **[e-Portrait]** in Picture Mode, art filters, the custom self-timer, High Res Shot, and subject detection.

Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)

: PASMB /S&Q: PASM

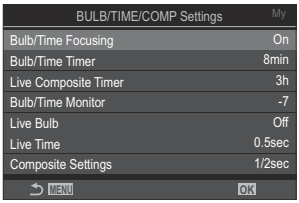
Set items related to bulb/time/composite photography.

Menu

- **MENU** ➡ $\square_2$ ➡ 2. Other Shooting Functions ➡ BULB/TIME/COMP Settings

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.



Bulb/Time Focusing	Allows manual focusing in **B** (bulb) mode. You can take pictures using techniques such as putting the subject out of focus during exposure or focusing at the end of exposure. **[Off]**: Disables manual focusing during exposure. **[On]**: Enables manual focusing during exposure.
Bulb/Time Timer	Specify the maximum length of bulb/time photography. **[30min]** / **[25min]** / **[20min]** / **[15min]** / **[8min]** / **[4min]** / **[2min]** / **[1min]**
Live Composite Timer	Specify the maximum length of live composite photography. **[6h]** / **[5h]** / **[4h]** / **[3h]** / **[2h]** / **[1h]** / **[30min]** / **[25min]** / **[20min]** / **[15min]** / **[8min]** / **[4min]**
Bulb/Time Monitor	Specify the display brightness in **B** (bulb) mode. **[-7]** – **[±0]** – **[+7]**

Live Bulb	Choose the display interval during bulb photography. The number of update times is limited. Choose **[Off]** to disable the display. **[60sec]** / **[30sec]** / **[15sec]** / **[8sec]** / **[4sec]** / **[2sec]** / **[1sec]** / **[0.5sec]** / **[Off]**
Live Time	Choose the display interval during time photography. The number of update times is limited. Choose **[Off]** to disable the display. **[60sec]** / **[30sec]** / **[15sec]** / **[8sec]** / **[4sec]** / **[2sec]** / **[1sec]** / **[0.5sec]** / **[Off]**
Composite Settings	Set an exposure time to be the reference in composite photography. **[60sec]** / **[50sec]** / **[40sec]** / **[30sec]** / **[25sec]** / **[20sec]** / **[15sec]** / **[13sec]** / **[10sec]** / **[8sec]** / **[6sec]** / **[5sec]** / **[4sec]** / **[3.2sec]** / **[2.5sec]** / **[2sec]** / **[1.6sec]** / **[1.3sec]** / **[1sec]** / **[1/1.3sec]** / **[1/1.6sec]** / **[1/2sec]**

Recording a series of shots with varied exposure (AE BKT)

P A S M B / S&Q: P A S M

Vary exposure over a series of shots. You choose the amount of variation and the number of shots. The camera takes a series of shots with different exposure settings. The camera will take pictures while the shutter button is pressed all the way down, ending when the selected number of shots has been taken.

Menu

- **MENU** ➡ CAM_2 ➡ 3. Bracketing ➡ AE BKT

Off	Pictures are taken without using this function.
3f 0.3EV	3 pictures are taken with the bracketing amount of 0.3 EV.
3f 0.7EV	3 pictures are taken with the bracketing amount of 0.7 EV.
3f 1.0EV	3 pictures are taken with the bracketing amount of 1.0 EV.
5f 0.3EV	5 pictures are taken with the bracketing amount of 0.3 EV.
5f 0.7EV	5 pictures are taken with the bracketing amount of 0.7 EV.
5f 1.0EV	5 pictures are taken with the bracketing amount of 1.0 EV.
7f 0.3EV	7 pictures are taken with the bracketing amount of 0.3 EV.
7f 0.7EV	7 pictures are taken with the bracketing amount of 0.7 EV.

"BKT" is displayed in green until all the shots in the bracketing sequence have been taken. The first shot is taken at current exposure settings, followed first by the shots with reduced exposure and then by the shots with increased exposure.

The settings used to alter exposure vary with the shooting mode.

P (program AE)	Both aperture and shutter speed
A (aperture-priority AE)	Shutter speed
S (shutter-priority AE)	Aperture
M (manual)	• Shutter speed (when **[ISO]** is not set to **[Auto]**) • ISO sensitivity (when **[ISO]** is set to **[Auto]**)

- If exposure compensation is enabled before shooting begins, the camera will vary exposure output around the selected value.
- Changing the option selected for **[EV Step]** (P.174) changes the options available for bracketing amount.

This setting cannot be combined with flash bracketing (P.285) or focus bracketing (P.289).

Recording pictures with varied white balance (WB BKT)

: PASMB /S&Q: PASM

The camera varies white balance to record a series of pictures. You choose the color axis and the bracketing amount.
The entire series is shot with a single press of the shutter button. The camera takes one picture when the shutter button is pressed all the way down and automatically processes it to record the pictures.

Menu
- **MENU** ➡ CAM_2 ➡ 3. Bracketing ➡ WB BKT

A-B	Select the bracketing amount for the A-B (amber–blue) axis. **[Off]** / **[3f 2Step]** / **[3f 4Step]** / **[3f 6Step]**
G-M	Select the bracketing amount for the G-M (green–magenta) axis. **[Off]** / **[3f 2Step]** / **[3f 4Step]** / **[3f 6Step]**

Three pictures are created for each color axis.
The first copy is recorded at current white balance settings, the second using a negative value for compensation, and the third using a positive value.
If white balance fine-tuning is enabled before shooting begins, the camera will vary white balance around the selected value.

This setting cannot be combined with art filter bracketing (P.287) or focus bracketing (P.289).

Recording pictures with varied flash level (FL BKT)

: PASMB /S&Q: PASM

The camera varies flash level (output) over a series of shots. You choose the amount of variation. The camera takes a shot at a new flash level each time the shutter button is pressed all the way down. Bracketing ends after the required number of shots has been taken. In burst shooting modes, the camera will take pictures while the shutter button is pressed all the way down, ending when the required number of shots has been taken.

Menu

- **MENU** ➡ C_2 ➡ 3. Bracketing ➡ FL BKT

Off	Pictures are taken without using this function.
3f 0.3EV	3 pictures are taken with the bracketing amount of 0.3 EV.
3f 0.7EV	3 pictures are taken with the bracketing amount of 0.7 EV.
3f 1.0EV	3 pictures are taken with the bracketing amount of 1.0 EV.

"BKT" is displayed in green until all the shots in the bracketing sequence have been taken. The first shot is taken at current flash settings, followed first by the shot with reduced flash output and then by the shot with increased flash output.
If flash compensation is enabled before shooting begins, the camera will vary flash output around the selected value.

If you change the **[EV Step]** (P.174) setting, the bracketing amount of flash also changes.
This setting cannot be combined with AE bracketing (P.282) or focus bracketing (P.289).

Recording pictures with varied ISO sensitivity (ISO BKT)

P:PASMB S&Q:PASM

The camera varies ISO sensitivity to record a series of pictures. You choose the amount of variation and the number of shots. The entire series is shot with a single press of the shutter button. The camera takes one picture when the shutter button is pressed all the way down and automatically processes it to record the required number of shots.

Menu
- **MENU** ➡ CAM_2 ➡ 3. Bracketing ➡ ISO BKT

Off	Pictures are taken without using this function.
3f 0.3EV	3 pictures are taken with the bracketing amount of 0.3 EV.
3f 0.7EV	3 pictures are taken with the bracketing amount of 0.7 EV.
3f 1.0EV	3 pictures are taken with the bracketing amount of 1.0 EV.

The first copy is recorded at the current ISO sensitivity setting, the second with sensitivity reduced by the selected amount, and the third with ISO sensitivity increased by the selected amount.
If shutter speed or aperture have been changed to modify exposure from the value selected by the camera, the camera will vary ISO sensitivity around the current exposure value.

- The maximum sensitivity selected for **[ISO-A Upper/Default]** does not apply.
- During silent photography, the flash sync speed is set to 1/20 s.
- Changing the option selected for **[ISO Step]** (P.187) does not change the options available for bracketing amount.
- This setting cannot be combined with art filter bracketing (P.287) or focus bracketing (P.289).

Recording copies of one picture with different art filters applied (ART BKT)

P A S M B S&Q: P A S M

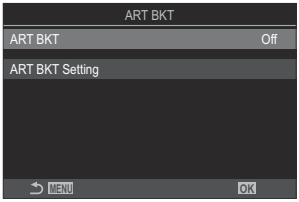
Create multiple versions of each picture, each with a different art filter applied.

Enabling art filter bracketing

Menu

- **MENU** ➡ Camera_2 ➡ 3. Bracketing ➡ ART BKT

1. Highlight **[ART BKT]** using the △▽ buttons and press the **OK** button.



ART BKT setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

Off	Pictures are taken without using this function.
On	Pictures are taken with multiple art filters applied.

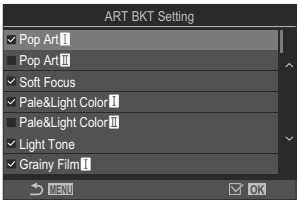
3. The display returns to the ART BKT setting screen.

Configuring art filter bracketing

1. Select **[ART BKT Setting]** on the ART BKT setting screen and press the **OK** button.

2. Select an art filter that you want to apply, and put a check (✓) next to it.

- Select an option using △▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



ART BKT Setting	Select the art filters that you want to apply. Picture modes such as **[Vivid]**, **[Natural]** and **[Muted]** can also be selected.

ⓘ When there are a large number of art filters to be applied, it may take a long time to record the pictures after shooting.
ⓘ This setting cannot be combined with bracketing functions other than AE BKT (P.282) and FL BKT (P.285).

Shooting

1. Press the **MENU** button to close the ART BKT setting screen and return to shooting screen.

2. The camera takes one picture when the shutter button is pressed all the way down and automatically creates multiple copies, each with a different art filter applied.

Recording pictures with different focus positions (Focus BKT)

P A S M B S&Q: P A S M

The camera varies focus over a series of pictures. You choose the amount and the number of shots. The entire series is shot with a single press of the shutter button. Each time the shutter button is pressed all the way down, the camera takes the selected number of shots, varying focus with each shot. The pictures are taken in silent mode using the electronic shutter.

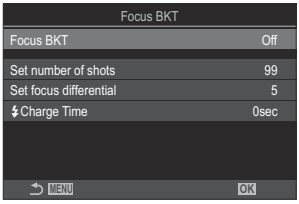
Focus bracketing is available only when using Micro Four Thirds AF lenses.

Enabling focus bracketing

Menu

- **MENU** ➡ $\square_2$ ➡ 3. Bracketing ➡ Focus BKT

1. Highlight **[Focus BKT]** using the △ ▽ buttons and press the **OK** button.



Focus BKT setting screen

2. Highlight **[On]** using the △ ▽ buttons and press the **OK** button.

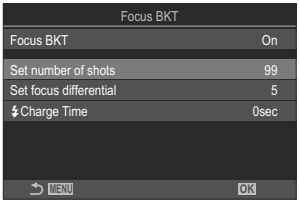
Off	Pictures are taken without using this function.
On	Pictures are taken with varied focus positions.

3. The display returns to the Focus BKT setting screen.

Configuring focus bracketing

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Focus BKT setting screen.



Set number of shots	Choose the number of shots to be taken with varied focus positions. **[003]** – **[999]**
Set focus differential	Choose the amount the camera varies focus with each shot. **[1]** – **[10]**
Charge Time	Choose how long the camera waits for the flash to charge between shots when using a flash unit not specifically designated for use with the camera. **[0sec]** / **[0.1sec]** / **[0.2sec]** / **[0.5sec]** / **[1sec]** / **[2sec]** / **[4sec]** / **[8sec]** / **[15sec]** / **[30sec]**

Shooting

1. Press the **MENU** button to close the Focus BKT setting screen and return to shooting screen.

2. Press the shutter button the rest of the way down to shoot.

- Shooting will continue until the selected number of shots has been taken.
- To interrupt bracketing, press the shutter button all the way down a second time.
- The camera varies the focus distance by the amount selected for Set focus differential with each shot. Shooting will end if the focus distance reaches infinity.

Ⓘ Shooting will end if focus or zoom is adjusted after the shutter button has been pressed all the way down to start bracketing.
Ⓘ When **[Focus BKT]** is set to **[On]**, **[Flash Mode]** in **[Silent[♥] Settings]** (P.213) becomes **[Allow]**.
Ⓘ Focus bracketing cannot be combined with other forms of bracketing.

The flash sync speed is set to 1/50 s. It will be set to 1/20 s when **[ISO]** is 8000 or higher.

Functions that are only available in movie mode

Sound Recording Options (Sound Recording Settings)

:PASMB /S&Q:PASM

Adjust settings for recording sound during filming. You can also access settings for use when an external microphone or recorder is connected.

Menu

- **MENU** ➡ 🎬 ➡ 5. Sound Recording/Connection ➡ Sound Recording Settings

Recording Volume	Adjust microphone sensitivity. Choose separate values for the built-in stereo microphone and external microphones. **[Built-In 🎙]**: Adjust the sensitivity of the camera's built-in stereo microphone. **[-10]** – **[0]** – **[+10]** **[MIC 🎙]**: Adjust the sensitivity of external microphones connected to the microphone jack. **[-10]** – **[0]** – **[+10]**
🎙Volume Limiter	The camera puts a limit on the volume of sounds recorded by the microphone. Use this option to automatically reduce the level of sounds above a certain volume. **[Off]**: Does not put a limit on the volume of sounds recorded by the microphone. **[On]**: Puts a limit on the volume of sounds recorded by the microphone.
Wind Noise Reduction	Reduce wind noise during audio recording. **[Off]**: Does not reduce wind noise during audio recording. **[Low]** / **[Standard]** / **[High]**: Set the level of wind noise reduction.

Recording Rate	Choose an audio recording format. **[96kHz/24bit]**: High-quality audio. **[48kHz/16bit]**: Standard-quality audio.
Plug-in Power	In most circumstances, there is no need to change this setting. If your external microphone does not require plug-in power, and supplying power causes noise to be recorded, set this to **[Off]**. **[Off]**: Does not supply power from the camera to the external microphone. **[On]**: Supplies power from the camera to the external microphone.
Camera Rec. Volume	This setting is only available when an external microphone is connected. When set to **[Inoperative]**, the camera's sound recording settings (**[Recording Volume]**, **[Volume Limiter]**, **[Wind Noise Reduction]**) will be disabled. **[Operative]**: The camera's sound recording settings are enabled. **[Inoperative]**: The camera's sound recording settings are disabled. The sound input from the external microphone is recorded as is.

- Sound is not recorded:
  - when S&Q is selected for the power lever or when ART 7 I/ART 7 II (diorama) is selected for picture mode
- Audio can only be played on devices that support the option selected for **[Recording Rate]**.
- Operation sounds of the lens and camera may be recorded in a movie.
  To prevent it from recording, reduce the operation sounds by setting **[AF Mode]** (P.118) to **[S-AF]**, **[MF]**, or **[Pre MF]**, or by minimizing the button operations of the camera.

Time Codes (Time Code Settings)

:PASMB /S&Q:PASM

Adjust time code settings. Time codes are used to synchronize picture and sound during editing and the like. Choose from the following options.

Menu

- **MENU** ➡ 🎞 ➡ 5. Sound Recording/Connection ➡ Time Code Settings

Time Code Mode	Choose a time code recording option. Use time codes where precise timing is required. **[Drop Frame]**: Drop-frame time codes. The time code is adjusted to compensate for deviations from the recording time. **[Non-DF]**: Non-drop-frame time codes. The time code is not adjusted to compensate for deviations from the recording time.
Count Up	Choose how the time count is incremented. **[Rec Run]**: The count is incremented only during recording. **[Free Run]**: The count is incremented continuously, including when recording is not in progress or the camera is off.
Starting Time	Set a starting time for the time code. **[Reset]**: Reset the time code to 00:00:00 **[Manual Input]**: Enter the time code manually. **[Current Time]**: Set the time code to the current time, frame 00.

- When setting **[Starting Time]** to **[Current Time]**, be sure that the camera shows the correct time.
  ☞ "Setting the Camera Clock (🕘 Settings)" (P.404)
- In S&Q mode, time codes are not recorded when the Sensor Frame Rate is **[120fps]**.

HDMI Output (HDMI Output)

:PASMB /S&Q:PASM

Adjust settings for output to HDMI devices. Options are available for controlling HDMI recorders from the camera or adding time codes for use during movie editing.

Menu

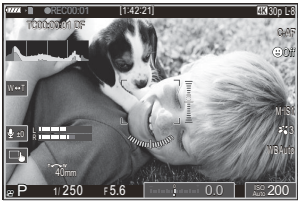
- **MENU** ➡ ➡ 5. Sound Recording/Connection ➡ HDMI Output

Output Mode	**[Monitor]**: The HDMI device functions as an external monitor. The camera outputs both images and indicators to the display. Output settings can be adjusted using the **[HDMI Settings]** option (P.396). **[Record]**: When live view is displayed in /S&Q modes, the HDMI device functions as an external recorder. Only images are output to the device. Frame size and sound settings are adjusted using camera controls. Fixed to **[Monitor]** when **[4K]** or **[C4K]** is selected for the Movie Resolution.
REC Bit	The camera and the external device start and stop recording at the same time. This option is only available with compatible devices. **[Off]**: Does not use this function. **[On]**: Controls the external device.
Time Code	Output time codes to the external device. Time code settings can be adjusted using **[Time Code Settings]** (P.294). **[Off]**: Does not output time codes to the external device. **[On]**: Output time codes to the external device.

Displaying a red frame while recording movies (Red Frame during ◉REC)

:PASMB /S&Q:PASM

You can display a red outer frame on the screen to make it easier to see whether the camera is recording a movie.



Menu

- **MENU** ➡ 🎬 ➡ 6. Shooting Assist ➡ Red Frame during ◉REC

Off	The camera will not display a red frame.
On	The camera will display a red frame during movie recording.

Lamp during movie recording (Recording Lamp)

:PASMB /S&Q:PASM

You can light the lamp on the front of the camera to make it easier to see whether the camera is recording a movie.

Menu
- **MENU** ➡ 🎬 ➡ 6. Shooting Assist ➡ Recording Lamp

Off	The lamp on the front of the camera does not light during movie recording.
Low	The lamp on the front of the camera lights during movie recording.
High	

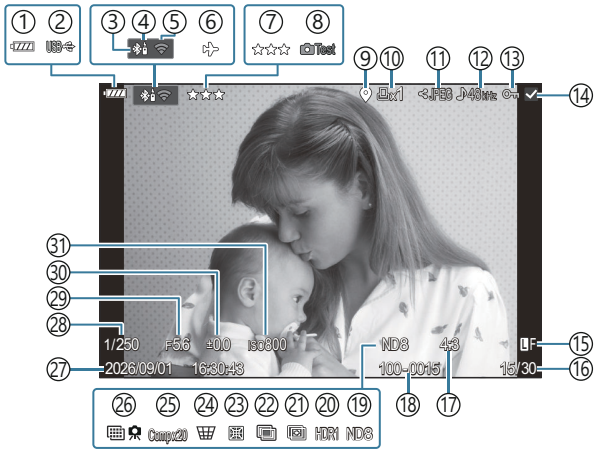
- In the following cases, the movie recording lamp flashes slowly when:
  - the batteries are low,
  - the internal temperature of the camera has risen, or
  - the remaining recording time is running low.
- When the batteries are low, the card is full, or the internal temperature of the camera rises further, movie recording stops and the movie recording lamp flashes quickly.

Playback

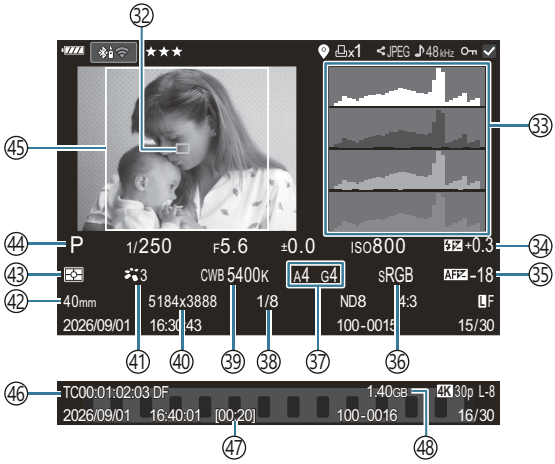
Information display during playback

Playback image information

Basic



Overall



① Battery level (P.38)
② Power supply (P.432)
③ Active **Bluetooth**® connection (P.417, P.434)
④ Remote control (P.434)
⑤ Wireless LAN connection (P.414)
⑥ Airplane Mode (P.412)
⑦ Rating (P.317)
⑧ Test Picture (P.341)
⑨ GPS data indicator (P.424)
⑩ Print order
Number of prints (P.320)
⑪ Share order (P.315)
⑫ Sound Recording (P.292)
⑬ Protect (P.310)
⑭ Image selected (P.319)
⑮ Image Quality (P.223, P.224)
⑯ Frame number/total number of frames
⑰ Aspect Ratio (P.230)
⑱ File numbering (P.384)
⑲ Live ND (P.258)
⑳ HDR image (P.264)
㉑ Focus Stacking (P.261)
㉒ Multiple Exposure (P.266)
㉓ Fisheye Compensation (P.277)
㉔ Keystone Compensation (P.275)
㉕ Composite Photography
Number of combined shots (P.72)
㉖ High Res Shot (P.254)
㉗ Date and Time (P.404)
㉘ Shutter Speed (P.58, P.63)
㉙ Aperture Value (P.58, P.61)
㉚ Exposure compensation (P.171)
㉛ ISO sensitivity (P.185)
㉜ AF target display (P.124)
㉝ Histogram (P.49)
㉞ Flash Intensity Control (P.200)
㉟ AF Focus Adjustment (P.151)
㊱ Color space (P.252)
㊲ White balance compensation (P.246, P.249)
㊳ Compression rate (P.223)
㊴ White balance (P.244)
㊵ Pixel count (P.223)
㊶ Picture Mode (P.232)
㊷ Focal length
㊸ Metering mode (P.178)
㊹ Shooting Mode (P.58)
㊺ Aspect border (P.230)
㊻ Time Code [1] (P.294)
㊼ Movie recording time [1] (P.514)
㊽ Movie file size [1] (P.514)

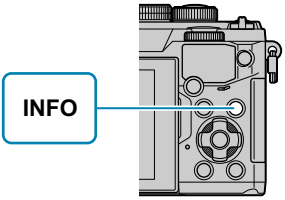
1 Displayed only during movie playback.

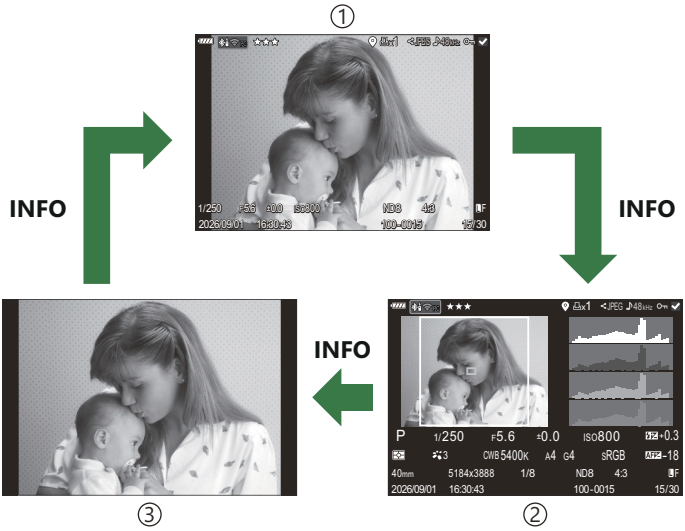
Switching the information display

Button

- **INFO** button

You can switch the information displayed during playback by pressing the **INFO** button.





①Basic
②Overall
③Image only

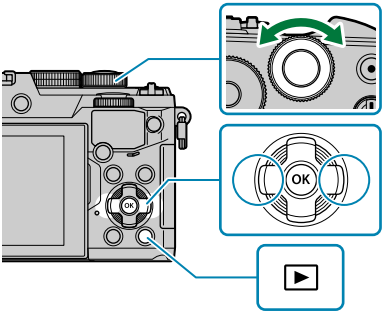
Choose the information to display. ☞ "Choosing the information displayed during playback (▶Info Settings)" (P.337)

Viewing photographs and movies

Viewing photographs

1. Press the ▶ button.

- The most recent picture will be displayed.
- Select the desired photograph or movie using the front dial or arrow pad.
- Press the shutter button halfway to return to shooting screen.



Still image

Rear dial ( )	Zoom in ( )/Index ( )
Front dial ( )	Previous ( )/Next ( ) Operation also available during magnified playback.
Arrow pad (△▽◁▷)	Single-frame playback: Next (▷)/Previous (◁)/Playback volume (△▽) Playback zoom: Change zoom position Index/calendar playback: Highlight image
INFO button	View image info
☑ button	Select picture (P.319)
★ button	Assign rating stars to pictures (P.317)
O┳ button	Protect picture (P.310)
🗑 button	Delete picture (P.311)

OK button	View the playback direct menu. (In calendar playback, press this button to exit to single-frame playback.)

Watching movies

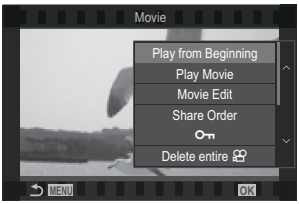
1. Press the ▶ button.

- The most recent picture will be displayed.

Movie

2. Select a movie and press the **OK** button.

- The playback direct menu will be displayed.



3. Select **[Play Movie]** and press the **OK** button.

- Movie playback begins.
- Fast-forward and rewind using ◁/▷.
- Press the **OK** button again to pause playback. While playback is paused, use △ to view the first frame and ▽ to view the last frame. Use ◁▷ or the front dial to view previous or next frame.
- Press the **MENU** button to end playback.

Playing back separated movies

Long movies are automatically recorded over multiple files when the file size exceeds 4 GB or the recording time exceeds 2 hours (P.90). The files can be played back as a single movie.

1. Press the ▶ button.

- The most recent picture will be displayed.

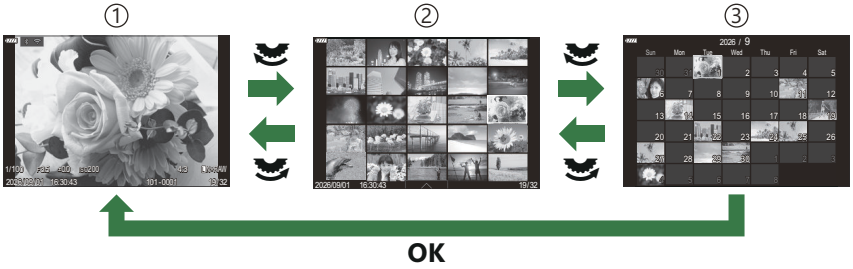
2. Display a long movie you want to view and press the **OK** button.

- The following options will be displayed.
  [Play from Beginning]: Plays back a split movie all the way through
  [Play Movie]: Plays back files separately
  [Delete entire 🎞]: Deletes all parts of a split movie
  [Erase]: Deletes files separately

We recommend using the latest version of OM Workspace to play back movies on a computer (P.427). Before launching the software for the first time, connect the camera to the computer.

Finding Pictures Quickly (Index and Calendar Playback)

- In single-frame playback, rotate the rear dial to ▦ for index playback. Rotate further for calendar playback.
- Turn the rear dial to 🔍 to return to single-frame playback.



①Single-frame playback
②Index display
③Calendar display

You can change the number of frames for index display. ☞ "Configuring the index display (▦ Settings)" (P.339)

Zooming In (Playback Zoom)

①Playback display
②Zoom frame
③Playback zoom scroll display

When you press a button to which **[🔍]** (magnify) has been assigned (P.340), a zoom frame will be displayed over the part of the picture that was in focus or the part where the subject was detected. Press the button again to zoom in on the zoom frame. You can scroll the image by pressing △▽◁▷ during playback zoom.

- You can change the settings of the zoom frame and image scroll. ☞ "Choosing the information displayed during magnified playback (▶🔍Info Settings)" (P.338)
- You can change the zoom ratio using the rear dial.
- Press the **OK** button to end Magnify playback.
- Pressing the **INFO** button while the zoom frame is displayed moves the zoom frame to the detected face. During close-up playback, the detected face will be enlarged.

Playback Using Touch Controls

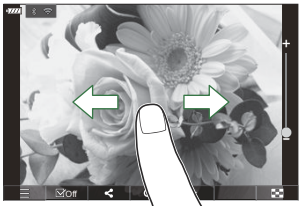
Use touch controls to zoom pictures in and out, scroll pictures, or choose the picture displayed.

- Do not tap the display with your fingernails or other sharp objects.
- Gloves or monitor covers may interfere with touch screen operation.

Full-frame playback

Displaying the previous or next image

- Slide your finger to the left to view the next image, and right to view the previous image.



Magnify

- Lightly tap the screen to display the slider and .
- Lightly tap the screen twice to magnify the image at the ratio specified in **[Default Setting]** (P.335).
- Slide the bar up or down to zoom in or out.

- Slide your finger to scroll the display when the picture is zoomed in.
- Tap to display index playback. Tap for calendar playback.

Movie playback

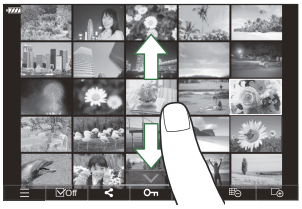
- Tap ▶ to begin playback.

- Tap the lower part of the screen to display the control bar which allows you to end playback and change the playback volume.
- Tap the center of the screen to pause playback. Tap again to resume playback.
- By sliding the bar at the bottom of the screen during playback pause, you can change the position from which the movie will be played when playback is resumed.
- Tap ☐ to end playback.

Index/Calendar playback

Displaying the previous or next page

- Slide your finger up to view the next page, and down to view the previous page.



- The touch control menu will be displayed when you tap ^ during index playback. Tap ⊖ or ⊕ to switch the number of images displayed. ☞ "Configuring the index display (Settings)" (P.339)
- Tap ⊕ several times to return to single-frame playback.

Viewing images

- Tap an image to view it full frame.

Other functions

Lightly tap the screen during single-frame playback or tap ^ during index playback to display the touch menu. You can then perform the desired operation by tapping the icons in the touch menu.

☰	The playback direct menu will be displayed. ☞ "Watching movies" (P.302), "Rotating Pictures (Rotate)" (P.309), "Deleting Pictures (Erase)" (P.311), "Selecting Pictures for Sharing (Share Order)" (P.315), "Print order" (P.320), "Adding Audio to Pictures (🎙)" (P.323), "Retouching RAW Pictures (RAW Data Edit)" (P.325), "Retouching JPEG Pictures (JPEG Edit)" (P.327), "Combining Pictures (Image Overlay)" (P.329), "Trimming movies (Movie Trimming)" (P.331), "Creating Movie Stills (In-Movie Image Capture)" (P.332)
☑	Select an image. You can select multiple images and delete them collectively. ☞ "Selecting Multiple Pictures (Share Order Selected, Rating Selected, 🔑, Erase Selected)" (P.319)
<	Images you want to share with a smartphone can be set. ☞ "Selecting Pictures for Sharing (Share Order)" (P.315)
★	Assign rating stars to an image. ☞ "Rating Pictures (Rating)" (P.317)
🔑	Protects an image. ☞ "Protecting Pictures (🔑)" (P.310)

Setting playback functions

Rotating Pictures (Rotate)

Choose whether to rotate photographs.

1. Display an image you want to rotate and press the **OK** button.
   - The playback direct menu will be displayed.

2. Select **[Rotate]** and press the **OK** button.

3. Press △ to rotate the image counterclockwise, ▽ to rotate it clockwise; the image rotates each time the button is pressed.
   - Press the **OK** button to save changes and exit.
   - Movies and protected images cannot be rotated.

The camera can be configured to automatically rotate portrait-orientation pictures during playback.
☞ "Automatically Rotating Portrait-Orientation Pictures for Playback (🗀)" (P.336)
[Rotate] is not available when **[Off]** is selected for **[🗀]**.

Protecting Pictures (🔑)

Protect images from accidental deletion.

1. Display the image you want to protect and press the 🔑 button.

- Protected images are marked with a 🔑 ("protected") icon. Press the 🔑 button again to cancel protection.

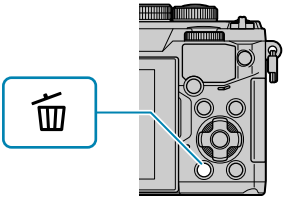
- When an unprotected image is displayed, you can hold the 🔑 button and rotate the front or rear dial to protect all images displayed while the dial is rotated. Any previously-protected images displayed while the dial is rotated will be unaffected.
- When a protected image is displayed, you can hold the 🔑 button and rotate the front or rear dial to remove protection from all images displayed while the dial is rotated. Any previously-unprotected images displayed while the dial is rotated will be unaffected.
- The same operations can be performed during playback zoom or when a picture is selected in the index display.

You can also protect multiple selected images. ☞ "Selecting Multiple Pictures (Share Order Selected, Rating Selected, 🔑, Erase Selected)" (P.319)

Formatting the card erases all data including protected images.

Deleting Pictures (Erase)

1. Display an image you want to delete and press the 🗑 button.



2. Highlight **[Yes]** and press the **OK** button.

- The image will be deleted.

You can erase images without the confirmation step by changing the button settings.
☞ "Disabling Deletion Confirmation (Quick Erase)" (P.313)

You can choose whether deleting pictures recorded in RAW+JPEG image quality modes deletes both copies, only the JPEG copy, or only the RAW copy. ☞ "RAW+JPEG Deletion Options (RAW+JPEG Erase)" (P.314)

Deleting All Pictures (Erase All)

Delete all pictures. Protected pictures will not be deleted. You can also exclude the pictures which have been assigned rating stars (P.317) and delete all other pictures.

Menu

- **MENU** ➡ ▶ ➡ 1. File ➡ Erase All

Erase	Delete all pictures including those with rating stars assigned.
Save	Keep the pictures with rating stars assigned, and delete all other pictures.

ⓘ If you choose **[Save]** and execute **[Erase All]**, it may take some time depending on the speed class of the card and the number of pictures on the card.

Disabling Deletion Confirmation (Quick Erase)

If this option is enabled when the 🗑 button is pressed to delete photos or movies, the camera will not display a confirmation dialog but will instead delete the images immediately.

Menu

- **MENU** ➡ ▶ ➡ 2. Operations ➡ Quick Erase

Off	A confirmation dialog is displayed when the 🗑 button is pressed.
On	No confirmation dialog will be displayed when the 🗑 button is pressed.

RAW+JPEG Deletion Options (RAW+JPEG Erase)

Choose operation performed when **[RAW+JPEG]** images are deleted.

Menu

- **MENU** ➡ ▶ ➡ 2. Operations ➡ RAW+JPEG Erase

JPEG	Only the JPEG copy is deleted.
RAW	Only the RAW copy is deleted.
RAW+JPEG	Both the RAW and JPEG copies are deleted.

Both the RAW and JPEG copies are deleted when **[Erase All]** (P.312) or **[Erase Selected]** (P.319) is selected.

Selecting Pictures for Sharing (Share Order)

You can select images you want to transfer to a smartphone in advance.

1. Display an image you want to transfer and press the **OK** button.

- The playback direct menu will be displayed.

2. Select **[Share Order]** and press the **OK** button. Then, press △ or ▽.

- The image is marked for sharing. A icon and the file type will be displayed.
- Up to 200 pictures can be marked for sharing.
- To cancel a share order, press △ or ▽.

A movie file whose file size exceeds 4GB cannot be marked for sharing.

You can select images you want to transfer in advance and set a share order all at once.

☞ "Selecting Multiple Pictures (Share Order Selected, Rating Selected, , Erase Selected)" (P.319), "Transferring images to a smartphone" (P.420)

You can also mark images for sharing by assigning **[ ]** to a button in **[Function]** (P.333).

Press the **[ ]** button when an unmarked image is displayed during single-frame-playback/index playback/playback zoom.

When you hold the **[ ]** button and rotate the front or rear dial, all images displayed while the dial is rotated will be marked for sharing. Any previously-marked images displayed while the dial is rotated will be unaffected.

When you hold the **[ ]** button and rotate the front or rear dial while a marked image is displayed, all images displayed while the dial is rotated will be unmarked. Any unmarked images displayed while the dial is rotated will be unaffected.

Selecting RAW+JPEG Pictures for Sharing (RAW+JPEG)

In the case of pictures recorded with **[RAW+JPEG]** for image quality, you can choose to share only the JPEG copies, only the RAW copies, or both the JPEG and RAW copies.

Menu

- **MENU** ➡ ➡ 2. Operations ➡ RAW+JPEG

JPEG	Only the JPEG copies will be marked for sharing.
RAW	Only the RAW copies will be marked for sharing.
RAW+JPEG	Both RAW and JPEG copies will be marked for sharing.

- Changing the option selected for **[RAW+JPEG]** does not affect pictures already marked for sharing.
- Regardless of the option selected, removing share marking removes the marking from both copies.

Rating Pictures (Rating)

Assign one to five rating stars to a picture.
This can be helpful when arranging and searching for pictures using OM Workspace or other utilities.

Button
- ★ button

If you press the ★ button when the selected picture has no rating stars assigned, rating stars will be assigned to the picture. The number of stars will be the same as the previously set number.
If you press the ★ button when the selected picture has rating stars assigned, rating stars will be cleared.
You can change the number of stars by rotating the front or rear dial while holding the ★ button.

- Rating stars can only be assigned to still images.
- If the picture was recorded with RAW+JPEG, the same rating will be applied to both the RAW and JPEG files.
- Rating stars cannot be assigned to protected images.
- Rating stars cannot be assigned to pictures that were taken with a different camera.

Selecting the numbers of stars to be used for rating (Rating Settings)

You can select the numbers of stars that will be displayed as options for rating.

Menu

- **MENU** ➡ ▶ ➡ 3. Displays ➡ Rating Settings

1. Select the number of stars that you want to display as an option when rating pictures, and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).

When there is no item with a check (✓) next to it, you cannot assign rating stars to pictures.

Changing the settings of **[Rating Settings]** does not affect the ratings of pictures that have already been assigned.

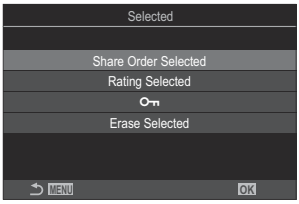
Selecting Multiple Pictures (Share Order Selected, Rating Selected, O-, Erase Selected)

You can select multiple images for **[Share Order Selected]**, **[Rating Selected]**, **[O-]**, or **[Erase Selected]**.

1. Select pictures by pressing the ☑ button during playback.

- The image will be selected and ✓ will be displayed.
  Lock is released when you press the button again.
- You can select an image during single-frame playback and index playback.

2. Press the **OK** button to display the menu and select **[Share Order Selected]**, **[Rating Selected]**, **[O-]**, or **[Erase Selected]**.



- When an unmarked image is displayed, you can hold the ☑ button and rotate the front or rear dial to select all images displayed while the dial is rotated. Any previously-marked images displayed while the dial is rotated will be unaffected.
- When a marked image is displayed, you can hold the ☑ button and rotate the front or rear dial to deselect all images displayed while the dial is rotated. Any previously-unmarked images displayed while the dial is rotated will be unaffected.

Print order

You can save digital “print orders” to the memory card listing the pictures to be printed and the number of copies of each print. You can then have the pictures printed at a print shop that supports DPOF. Print order information (DPOF) is recorded on a memory card.

Configuring print orders

Menu

- **MENU** ➡ ▶ ➡ 1. File ➡ 🖨

🖨	Press ◁▷ to select a frame you want to add to the print order and then press △▽ to choose the number of prints. To set print reservations for several pictures, repeat this step. Press the **OK** button when all the desired pictures have been selected, and then select the date and time format. **[No]**: The pictures are printed without the date and time. **[Date]**: The pictures are printed with the shooting date. **[Time]**: The pictures are printed with the shooting time.
🖨All	Select this when you want to set print orders to all of the pictures. Select the date and time format. **[No]**: The pictures are printed without the date and time. **[Date]**: The pictures are printed with the shooting date. **[Time]**: The pictures are printed with the shooting time.

When printing images, the setting cannot be changed between the images.

Setting print orders

Set	Print orders will be set. Settings will be reflected on the pictures saved on the currently selected card.
Cancel	Print orders will not be set.

- The camera cannot be used to modify print orders created with other devices. Creating a new print order deletes any existing print orders created with other devices.
- Print orders cannot include RAW images or movies.

Resetting all protection/share orders/print orders/ratings (Reset All Images)

You can reset all protection/share orders/print orders/ratings from pictures at once.

Menu

- **MENU** ➡ ▶ ➡ 1. File ➡ Reset All Images

Reset Print Orders	Resets all print orders.
Reset Protect	Resets all protection.
Reset share Order	Resets all share orders.
Reset Ratings	Resets all ratings.

When there are a lot of rated pictures, **[Reset Ratings]** will take a long time.

Adding Audio to Pictures (🎙)

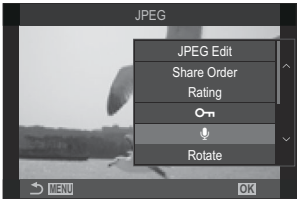
You can record audio using the built-in stereo microphone or an optional external microphone and add it to pictures. The recorded audio provides a simple replacement for written notes about the pictures. Audio recordings can be up to 30 s long.

1. Display the image to which you want to add audio and press the **OK** button.

- The playback direct menu will be displayed.

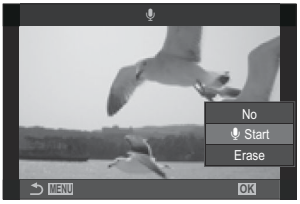
Ⓘ Audio recording is not available with protected images.

2. Select **[🎙]** and press the **OK** button.



3. Select **[🎙 Start]** and press the **OK** button to begin recording.

- To exit without adding audio, select **[No]**.



4. Press the **OK** button to end recording.

- Pictures with audio are indicated by ♪ icons and indicators showing the recording rate.
- To delete recorded audio, select **[Erase]** in Step 3.

Audio is recorded at the rate selected for movies. The rate can be selected using **[Sound Recording Settings]** (P.292).

Audio Playback

Playback begins automatically when a picture with audio is displayed. To adjust the volume:

1. Display the picture whose audio you want to play back.

2. Press △ or ▽ on the arrow pad.

- △ button: Raise volume.
- ▽ button: Lower volume.

Retouching Pictures (Edit)

Create retouched copies of pictures. In the case of RAW pictures, you can adjust the settings in effect at the time the picture was taken, such as white balance and picture mode (art filters included). With JPEG pictures, you can make simple edits such as cropping and resizing.

RAW Data Edit	Retouch pictures and save the resulting copies in JPEG format (P.325). The following options are available: **[Current]**: Save the picture at the settings currently selected with the camera. **[Custom1]**/**[Custom2]**: Adjust settings while previewing the results in the display. The settings are saved as **[Custom1]** or **[Custom2]**. **[ART BKT]**: The camera creates multiple JPEG copies of each image, one for each art filter selected. Select one or more filters and apply them to one or more images.
JPEG Edit	Retouch JPEG pictures and save the resulting copies in JPEG format (P.327).

Retouching RAW Pictures (RAW Data Edit)

[RAW Data Edit] can be used to adjust the following settings.

- Image quality
- Picture mode
- Color/saturation (Color Creator)
- Color (Partial Color)
- Fine-Tune (ART)
- White balance
- Color temperature
- Exposure compensation
- Shadows
- Mid-tones
- Highlights
- Aspect
- High ISO noise reduction
- Color space
- Keystone compensation

[Color Space] is fixed at **[sRGB]** when an art filter is selected for picture mode.

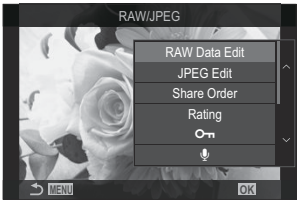
RAW pictures cannot be retouched if:

- there is not enough space on the memory card, if the picture was created with a different camera, or the camera is in 🎞 or S&Q mode

1. Display an image you want to edit and press the **OK** button.

- The playback direct menu will be displayed.

2. Highlight **[RAW Data Edit]** using △ ▽ and press the **OK** button.



- The editing menu will be displayed.

3. Highlight items using △ ▽.

- To apply current camera settings, highlight **[Current]** and press the **OK** button. Current settings will be applied.

  For exposure compensation, the current settings will not be applied.

  - Highlight **[Yes]** using △ ▽ and press the **OK** button to create a copy using the selected settings.

- For **[Custom1]** or **[Custom2]**, highlight the desired option and press ▷, then edit settings as follows:

  - Retouch options will be displayed. Highlight items using △ ▽ and use ◁ ▷ to choose settings. Repeat until all the desired settings have been chosen.
    Items can also be selected and settings can be changed by tapping the screen.
    Press the ⊛ button to preview the results.

  - Press the **OK** button to confirm the settings. The processing will be applied to the image.
  - Highlight **[Yes]** using △ ▽ and press the **OK** button to create a copy using the selected settings.

- Highlighting **[ART BKT]** and pressing ▷ displays a list of art filters. Highlight art filters and press the **OK** button to select or deselect; selected filters are marked with a ✓. Press the **MENU** button to return to the previous display once all the desired filters have been selected.
  - Press the **OK** button to record the image after processing with the selected art filter.

4. To create additional copies from the same original, highlight **[Reset]** and press the **OK** button. To exit without creating more copies, highlight **[No]** and press the **OK** button.

- Selecting **[Reset]** displays editing options. Repeat the process from Step 3.

Retouching JPEG Pictures (JPEG Edit)

[JPEG Edit] can be used to adjust the following settings.

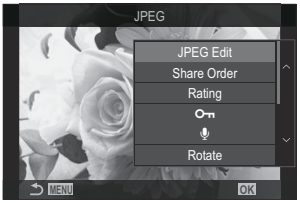
Shadow Adj	Brighten back-lit subjects.
⌗	Crop pictures. Size the crop with the front or rear dial and position it with △▽◁▷.
Aspect	Change the aspect ratio from the standard 4:3 to **[3:2]**, **[16:9]**, **[1:1]**, or **[3:4]**. After choosing an aspect ratio, use △▽◁▷ to position the crop.
Black & White	Create a black-and-white copy of the current picture.
Sepia	Create a sepia copy of the current picture.
Saturation	Adjust the vividness of colors. The results can be previewed in the display.
⧉	Create a resized copy 1280 × 960, 640 × 480, or 320 × 240 pixels in size. Pictures with an aspect ratio other than the standard 4:3 are resized to dimensions as close as possible to the selected option.
e-Portrait	Smooths the skin. Some images may not be retouched such as when faces cannot be detected.

- JPEG pictures cannot be retouched if:
  - the image is processed on a PC, if there is not enough space in the memory card, or if an image is recorded on another camera.
- Images cannot be made larger than the original size using **[⧉]**.
- The **[⧉]** feature may not be available for some images.
- **[⌗]** and **[Aspect]** can only be used to edit images with an aspect ratio of 4:3 (standard).

1. Display an image you want to edit and press the **OK** button.

- The playback direct menu will be displayed.

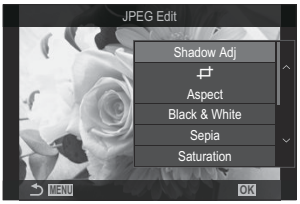
2. Highlight **[JPEG Edit]** using △▽ and press the **OK** button.



- The editing menu will be displayed.

3. Highlight an option using △▽ and press the **OK** button.

- The effect can be previewed in the display. If multiple options are listed for the selected item, use △▽ to choose the desired option.
- When **[⌗]** is selected, you can size the crop using the dials and position it using △▽◁▷.
- When **[Aspect]** is selected, you can select an option using △▽, and then position the crop using △▽◁▷.



4. Highlight **[Yes]** using △▽ and press the **OK** button.

- The new copy will be saved at the selected settings and the camera will return to the playback display.

Combining Pictures (Image Overlay)

Overlay existing RAW photos and to create a new picture. Up to 3 pictures can be included in the overlay.
The results can be modified by adjusting brightness (gain) separately for each picture.

- The overlay is saved in the format currently selected for image quality. Overlays created with **[RAW]** selected for image quality are saved in RAW format and in JPEG format using the image quality option selected for **[2]** (P.223).
- Overlays saved in RAW format can in turn be combined with other RAW images to create overlays containing 4 or more pictures.

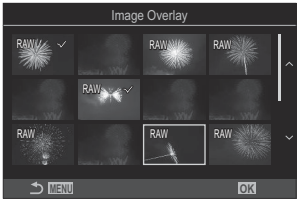
Image Overlay is not available in /S&Q modes.

1. Display an image you want to edit and press the **OK** button.
- The playback direct menu will be displayed.

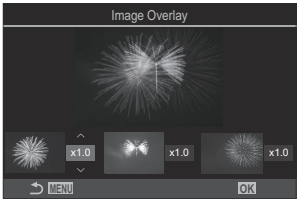
2. Highlight **[Image Overlay]** using the △▽ and press the **OK** button.

3. Select the number of images to be overlaid and press the **OK** button.

4. Highlight a RAW image to overlay using the △▽◁▷ buttons and press the **OK** button.
- The ✓ icon will appear on the selected image. To remove the ✓ icon, press the **OK** button again.
- The check (✓) can also be put or removed by tapping the screen.
- The overlaid image will be displayed if images of the number specified in Step 3 are selected.



5. Adjust the gain for each of the images in the overlay.
- Highlight images using the ◁▷ buttons and adjust gain using the △▽ buttons.
- Images can also be selected and gain can be adjusted by tapping the screen.
- Gain can be adjusted in the range 0.1 – 2.0. Check the results in the monitor.



6. Press the **OK** button; a confirmation dialog will be displayed.
   - Highlight **[Yes]** and press the **OK** button.

Trimming movies (Movie Trimming)

Cut selected footage from movies. Movies can be trimmed repeatedly to create files containing only footage you want to preserve.

This option is available only with movies recorded with the camera.

1. Display a movie you want to edit and press the **OK** button.
   - The playback direct menu will be displayed.

2. Select **[Movie Edit]** and press the **OK** button.

3. Use △ ▽ to select **[Movie Trimming]** and press the **OK** button.
   - You will be prompted to choose how you want to save the edited movie.
     [New File]: Save the trimmed movie in a new file.
     [Overwrite]: Overwrite the existing movie.
     [No]: Exit without trimming the movie.
   - If the movie is protected, you cannot select **[Overwrite]**.

4. Highlight an option and press the **OK** button.
   - You will be presented with an edit display.

5. Trim the movie.
   - Use the △ button to skip to the first frame and the ▽ button to skip to the last frame.
   - Using the front or rear dial or the ◁ button, highlight the first frame of the footage you want to delete and press the **OK** button.
   - Using the front or rear dial or the ▷ button, highlight the last frame of the footage you want to delete and press the **OK** button.
   - The footage to be deleted can also be specified by tapping the screen.

6. Highlight **[Yes]** and press the **OK** button.
   - The edited movie will be saved.
   - To select different footage, highlight **[No]** and press the **OK** button.
   - If you selected **[Overwrite]**, you will be prompted to choose whether to trim additional footage from the movie. To trim additional footage, highlight **[Continue]** and press the **OK** button.

Creating Movie Stills (In-Movie Image Capture)

Save a still copy of a selected frame.

This option is available only with **[4K]** movies recorded with the camera.

1. Display a movie you want to edit and press the **OK** button.
   - The playback direct menu will be displayed.

2. Select **[Movie Edit]** and press the **OK** button.

3. Use △▽ to select **[In-Movie Image Capture]** and press the **OK** button.

4. Use ◁▷ to select a frame to be saved as a still image and press the **OK** button.
   - The camera will save a still copy of the selected frame.
   - Use the △ button to go back and the ▽ button to skip ahead. How much it goes back or skips ahead differ depending on the length of the movie.
   - A frame to be saved as a still image can also be specified by tapping the screen.

Changing the role of the ◉ (☑) button during playback (▶ ◉Function)

Choose the role played by the ◉ (☑) button during playback.

Menu

- **MENU** ➡ ▶ ➡ 2. Operations ➡ ▶ ◉Function

▶ ◉Function	[<]: Create or modify a “share order” by marking pictures for upload to a smartphone. [☑]: Select multiple pictures.

Changing the roles of the front and rear dials during playback (▶ Dial Function)

Choose the roles performed by the front and rear dials.

Menu

- **MENU** ➡ ▶ ➡ 2. Operations ➡ ▶ Dial Function

(Index/Magnify)	Zoom in or out or switch to the index display during playback.
Prev/Next	View the next or previous image during playback.

Choosing the Playback Zoom Ratio (▶🔍 Default Setting)

Choose the starting zoom ratio for playback zoom (close-up playback).

Menu

- **MENU** ➡ ▶ ➡ 2. Operations ➡ ▶🔍 Default Setting

Recently	Zoom in to the most recently selected zoom ratio.
Equally Value	Images are displayed at a zoom ratio of 1:1. The 1:1 icon appears in the monitor.
×2 / ×3 / ×5 / ×7 / ×10 / ×14	Choose the starting zoom ratio.

Automatically Rotating Portrait-Orientation Pictures for Playback (🖵)

Choose whether pictures shot in portrait orientation are automatically rotated for display on the camera.

Menu
- **MENU** ➡ ▶ ➡ 3. Displays ➡ 🖵

On	Pictures are automatically rotated for display during playback.
Off	Pictures are not automatically rotated for display during playback.

Choosing the information displayed during playback (▶Info Settings)

Choose the information displayed during playback. Pressing the **INFO** button during playback will switch the display between the selected displays.

Menu
- **MENU** ➡ ▶ ➡ 3. Displays ➡ ▶Info Settings

1. Select the display type, and put a check (✔) next to it.
- Select an option using △ ▽ and press the **OK** button to put a check (✔) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✔).

Image Only	Only the image is shown.
Basic	Minimum information is shown. Press ▷ to hide or show **[▲]** and **[Highlight&Shadow]**.
Overall	Full information including the shooting conditions and histogram is shown (P.298).

ⓘ The set that is currently in use cannot be disabled, but the items to be displayed can be configured.

Choosing the information displayed during magnified playback (▶🔍Info Settings)

Choose the display when you magnify the picture by pressing a button to which **[🔍]** (magnify) has been assigned (P.340).

①Playback display
②Zoom frame
③Playback zoom scroll display

Menu
- **MENU** ➡ ▶ ➡ 3. Displays ➡ ▶🔍Info Settings

1. Select the display type, and put a check (✔) next to it.
- Select an option using △▽ and press the **OK** button to put a check (✔) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✔).

Magnify Frame	Displays the zoom frame.
Magnify Scroll	Allows you to scroll the display during magnified playback.

ⓘIf you remove the checks from all options, you will not be able to magnify the image using a button to which **[🔍]** (magnify) has been assigned.

Configuring the index display (Settings)

You can change the number of frames to be displayed on the index display and whether to use the calendar display.

Menu

- / : **MENU** ➡ ➡ 3. Displays ➡ Settings

1. Select the display type, and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).

4/9/25/100	Choose the number of frames to be displayed on the index display.
Calendar	Pictures are displayed on a calendar.

Functions for Configuring Camera Controls

Changing the roles of buttons (Button Settings)

: PASMB /S&Q: PASM

Other roles can be assigned to buttons in place of their existing functions.
The functions assigned using **[Button Function]** take effect in mode. The functions assigned using **[Button Function]** take effect in /S&Q modes.

Customizable Controls

Icon	Button	Default role	
	button	REC (movie recording)	
	button	View Selection (switch monitor/viewfinder)	**[EVF Auto Switch]** by pressing and holding the button
CP	**CP** button	Computational Modes	Exposure Comp.
AF-ON	**AF-ON** button	AF-ON	
	Arrow pad	Direct Function	
	Arrow pad ▷ (right)	WB (white balance)	
	Arrow pad ▽ (down)	(sequential shooting/self-timer)	Off

Icon	Button	Default role	
		📷	🎬
L-Fn	**Fn** button on the lens	AF Stop	

Super control panel
- **OK** ➡ 📷Button Function / 🎬Button Function

Menu
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Button Settings ➡ 📷Button Function
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Button Settings ➡ 🎬Button Function

1. Highlight a button to configure using the △▽ buttons and press the **OK** button.

2. Highlight a function to assign using the △▽◁▷ buttons and press the **OK** button.

Available Roles

"📷 only": This role is only available in the **[📷Button Function]** menu.
"🎬 only": This role is only available in the **[🎬Button Function]** menu.

The options available vary from button to button.

Role	Function
Custom Mode C1, 2 (**C1**, **C2**)	Recall settings for the selected custom mode. Press the control once to recall saved settings, a second time to restore the settings previously in effect (P.97). The control continues to perform this function when a custom mode is selected with the mode dial.
⏺**REC** (movie recording)	The control functions as a movie-record button. Press to start or stop recording.

Role	Function
RAW (RAW image quality) (only)	If you press the button when **[ ]** is set to JPEG, it changes to RAW+JPEG. If it is set to RAW or RAW+JPEG, the setting does not change. You can also choose an image quality setting by holding the button and rotating a dial.
WB (**WB**) (white balance)	Adjust white balance (P.244). Hold the control and rotate the front or rear dial. Alternatively, you can press the button to activate settings and then rotate the dials. Highlight settings using the front or rear dial or ◁▷.
(One-touch white balance)	Measure a value for one-touch white balance (P.247). To measure white balance during still photography, frame a reference object (a piece of white paper or the like) in the display, then press and hold the control and press the shutter button. A list of one-touch white balance options will be displayed, from which you can choose the location to which the new value will be saved. To measure white balance during movie recording, frame a reference object (a piece of white paper or the like) in the display and press the button. A list of one-touch white balance options will be displayed, from which you can choose the location to which the new value will be saved.
ISO	Adjust ISO sensitivity (P.185). Hold the control and rotate the front or rear dial. Alternatively, you can press the button to activate settings and then rotate the dials. Highlight settings using the front or rear dial or ◁▷.

Role	Function
Exposure Comp. (⊠)	Adjust exposure settings. Hold the control and rotate the front or rear dial. Alternatively, you can press the button to activate settings and then rotate the dials. The adjustments available vary with the shooting mode: **[P]**: Use the front or rear dial or ◁▷ for exposure compensation. Use the △▽ buttons for program shift. **[A]**: Use the front or rear dial or ◁▷ for exposure compensation. Use the △▽ buttons for aperture. **[S]**: Use the front or rear dial or ◁▷ for exposure compensation. Use the △▽ buttons for shutter speed. **[M]**: Use the rear dial or △▽ for shutter speed. Use the front dial or the ◁▷ buttons for aperture. For information on adjusting exposure settings when **[Auto]** is selected for **[ISO]** (P.185) or **[ISO]** (P.185), see "Adjusting Exposure Compensation" (P.172). **[B]**: Use rear dial or △▽ to switch between bulb/time and live composite photography. Use the front dial or the ◁▷ buttons for aperture.
AEL (AE lock)	Press the button to lock exposure. Press again to release it.
Flicker Scan (**Flicker Scan**)	Adjust settings for Flicker Scan (P.176). Press the control to select **[On]**. You can adjust shutter speed for best results while viewing banding in the display. Press the control again to display shooting information and access other settings. Press and hold the control to select **[Off]** for Flicker Scan.
(sequential shooting/self-timer) (only)	Choose a drive (sequential shooting/self-timer) mode (P.205). Press once to display flash options and again select the highlighted option and exit. Set a drive (sequential shooting/self-timer) mode using the front or rear dial or the ◁▷ buttons.
IS Mode (**IS**)	Switch Image Stabilizer off (P.219). Press once to select **[Off]** and again to turn image stabilization on. Hold the control and rotate the front or rear dial to access Image Stabilizer options.

Role	Function
Computational Modes (CP) (📷 only)	Toggle roles of the **CP** (Computational Modes) button (P.350). Press the button to turn on the last used Computational Modes. Press and hold the button and rotate the front or rear dial to change the settings for Computational Modes or switch to other Computational Modes.
High Res Shot (⌨) (📷 only)	Pressing the button when **[Off]** is selected for **[High Res Shot]** selects the setting selected under **[High Res Shot]** (P.254). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. To choose an option for **[High Res Shot]**, hold the button and rotate the front or rear dial.
Live ND Shooting (**ND**) (📷 only)	Enable the live ND filter (P.258). Press once to enable **[Live ND Shooting]**. Press again to disable. Hold the button and rotate the front or rear dial to adjust **[ND Number]** settings.
Focus Stacking (⧈) (📷 only)	Toggle **[Focus Stacking] [Off]** or **[On]** (P.261). To choose an option for **[Focus Stacking]**, press and hold the button.
HDR (**HDR**) (📷 only)	Enable HDR (P.264). Press once to enable HDR. Press again to disable. Press and hold the button and rotate the front or rear dial to adjust **[HDR]** settings.
Multiple Exposure (⧉) (📷 only)	Toggle **[Multiple Exposure] [Off]** or **[On]** (P.266). To choose an option for **[Multiple Exposure]**, press and hold the button.
Digital Tele-converter (📷: 🔍2x / 🎥: 🔍1.4x)	Turn the digital teleconverter on or off (P.270). Press once to zoom in and again to zoom out. You can turn it on/off even when you are recording a movie. During movie recording, a frame indicating the area that will be magnified by the digital teleconverter is displayed.
Keystone Comp. (⌗) (📷 only)	Press the control to view keystone compensation settings (P.275). After adjusting settings, press the control again to exit. To cancel keystone compensation, press and hold the control.
Fisheye Compensation (▦) (📷 only)	Enable fisheye correction (P.277). Press once to enable fisheye correction. Press again to disable. Hold the button and rotate the front or rear dial to choose from **[Angle]** options 1, 2, and 3.

Role	Function
AE BKT (📷 only)	Pressing the button when **[Off]** is selected for **[AE BKT]** selects the setting selected under **[AE BKT]** (P.282). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. To choose an option for **[AE BKT]**, hold the button and rotate the front or rear dial.
WB BKT (📷 only)	Pressing the button when **[Off]** is selected for **[WB BKT]** selects the setting selected under **[WB BKT]** (P.284). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. To choose an option for **[WB BKT]**, hold the button and rotate the front or rear dial.
FL BKT (📷 only)	Pressing the button when **[Off]** is selected for **[FL BKT]** selects the setting selected under **[FL BKT]** (P.285). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. To choose an option for **[FL BKT]**, hold the button and rotate the front or rear dial.
ISO BKT (📷 only)	Pressing the button when **[Off]** is selected for **[ISO BKT]** selects the setting selected under **[ISO BKT]** (P.286). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. To choose an option for **[ISO BKT]**, hold the button and rotate the front or rear dial.
ART BKT (📷 only)	Toggle **[ART BKT] [Off]** or **[On]** (P.287). To choose an option for **[ART BKT]**, press and hold the button.
Focus BKT (📷 only)	Toggle **[Focus BKT] [Off]** or **[On]** (P.289). To choose an option for **[Focus BKT]**, press and hold the button.
AF-ON	The camera focuses with autofocus while the button is pressed (P.134). The camera stops focusing when the button is released.
MF (MF)	Switch between AF and MF. Press once to select MF and again to return to the previous mode. The focus mode can also be selected by holding the button and rotating a dial.
Preset MF (**Pre** MF)	Select **[Pre** MF **]** for AF mode (P.118). Press the control once to enable preset MF and again to restore the previous focus mode. The focus mode can also be selected by holding the button and rotating a dial.

Role	Function
Subject Detection (⬡) (📷 only)	Pressing the button when **[Off]** is selected for **[📷Subject Detection]** selects the setting selected under **[📷Subject Detection]** (P.138). If an option other than **[Off]** is selected, pressing the button selects **[Off]**. Press and hold the button and rotate the front or rear dial to adjust **[📷Subject Detection]** settings.
AF Limiter (**AFLimit**) (📷 only)	Enable the **[📷AF Limiter]** (P.148). Press once to enable **[📷AF Limiter]**. Press again to disable. Hold the button and rotate the front or rear dial to choose from three stored settings.
AF Area Select (**[∷]**) (AF area select)	Configure AF Target Mode (P.124) and AF Target Point (P.123). Press the control to view the AF target selection display. Use the front or rear dial to choose AF target mode and the arrow pad to position the AF target. You can choose the controls used for this operation. ☞ "AF Target Selection (**[∷]**Select Screen Settings)" (P.159)
[∷]Home (**[∷]HP**) (AF home position) (📷 only)	Recall previously-saved **[AF Target Mode]**, and **[AF Target Point]** "home position" settings. Home position settings are saved using **[📷[∷] Set Home]** (P.157). You can save separate home positions for landscape and portrait orientations. ☞ "Matching AF Target Selection to Camera Orientation (📷Orientation Linked **[∷]**)" (P.155)
Peaking (**Peak**)	Toggle focus peaking on or off (P.165). Press the control once to turn peaking on and again to turn it off. When peaking is on, peaking options (color, amount) can be displayed by pressing the **INFO** button.
Focus Ring Lock (⭘)	Press the control once to disable, and again to enable, the lens focus ring. This option is available when **[S-AF MF]**, **[C-AF MF]**, **[MF]**, **[C-AF+TR MF]**, **[Pre MF]**, or **[AF MF]** is selected for AF mode. The MF portion of the AF mode indicator is displayed gray while the ring is disabled. In the case of lenses equipped with an MF (manual focus) clutch, pressing the button has no effect when the focus ring is in the MF position (closer to the camera body). Focus ring lock ends when you perform an operation such as turning the camera off or attaching a different lens.

Role	Function
Magnify (🔍)	Press the control once to display the zoom frame and again to zoom in (P.129). Press the control a third time to exit zoom; to hide the zoom frame, press and hold the control. Use touch controls or △▽◁▷ to position the zoom frame.
Preview (⏣) (📷 only)	Stop aperture down to the selected value. This lets you preview depth of field. Aperture stops down to the currently-selected value while the button is pressed. Preview options can be selected using **[⏣Lock]** (P.358).
Night Vision (**Night LV**) (📷 only)	Pressing the button when **[Off]** is selected for **[📷Night Vision]** (P.360) selects **[On]**. If **[On]** is selected, pressing the button selects **[Off]**.
Level Disp (〰)	Display the digital level gauge. The exposure bar display in the viewfinder functions as a level gauge. Press the control again to exit. This option takes effect when **[Style 1]** or **[Style 2]** is selected for **[EVF Style]** (P.364).
View Selection (⧉) (switch monitor/ viewfinder)	Switch between viewfinder photography and live view. If **[Off]** is selected for **[EVF Auto Switch]** (P.394), the display will switch between the viewfinder and the monitor. Press and hold the control to display **[EVF Auto Switch]** options.
Lens Info Settings (**Exif Lens**)	Recall previously-saved lens data (P.386). Recall saved data for the current lens after changing lenses or the like.
Multi Function (**Multi Fn**) (Multi-Function)	Configure the control for use as a multi-function button (P.349). Hold the control and rotate the front or rear dial to choose the function performed. The selected function can be performed by pressing the control.
Test Picture (**📷Test**) (📷 only)	Take a test shot. You can view the effects of selected settings in an actual photograph. If you keep the control pressed while pressing the shutter button, you will be able to view the results but the picture will not be saved to the memory card.

Role	Function
Direct Function (ISO/[⁘]/▶/▼)	Assign roles to the buttons on the arrow pad (△ ▽ ◁ ▷). The following roles can be assigned: △ button: **[ISO]** ◁ button: **[⁘]** (AF-target selection) ▷ button: **[WB]** (WB mode) ▽ button: **[▭/⏱]** (sequential shooting/self-timer) • The ▷ and ▽ buttons can be assigned other functions.
Flash Mode (⚡) (📷 only)	Adjust flash settings (P.195). Press once to display flash options and again select the highlighted option and exit. Highlight settings using the front or rear dial or ◁ ▷. ⓘ This function can be assigned to the ▷ and ▽ buttons only. You must first set **[✥]** to **[Direct Function]**.
Electronic Zoom (**W↔T**)	Zoom power zoom lenses in or out. After pressing the control, use the arrow pad to zoom in or out. Use △ or ▷ to zoom in and ▽ or ◁ to zoom out. ⓘ This function can be assigned to the ▷ and ▽ buttons only. You must first set **[✥]** to **[Direct Function]**.
Lock (🔒) (touch control lock)	Lock touch controls. Press and hold the button once to lock touch controls and again to unlock. ⓘ This function can be assigned to the ▷ and ▽ buttons only. You must first set **[✥]** to **[Direct Function]**.
AF Stop (**AF Stop**)	Suspend autofocus. Focus locks and autofocus is suspended while the control is pressed. Applies only to the lens L-Fn button.
View Assist (**BT.709**) (🎬 only)	Toggle **[View Assist]** (P.253) **[Off]** or **[On]**. Settings can also be changed when recording movies.
Face & Eye Detection (☺) (🎬 only)	Toggle **[Face & Eye Detection]** (P.141) **[Off]** or **[On]**. Settings can also be changed when recording movies.

Role	Function
C-AF when (**C-AF**) (only)	Toggle **[C-AF when]** (P.143) **[Yes]** or **[No]**. Settings can also be changed when recording movies.
Off	The control is not used.

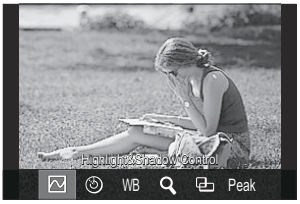
Using multi-function options (Multi Function)

Assign multiple roles to a single button.

To use the multi-function feature, you must first assign **[Multi Function]** to a camera control.
"Customizable Controls" (P.340)

Choosing a function

1. Hold the button to which **[Multi Function]** is assigned and rotate the front or rear dial.



- Rotate the dial until the desired feature is highlighted. Release the button to select the highlighted feature.

2. Press the button to which **[Multi Function]** is assigned.

3. Adjust settings.

The **[Multi Function]** button can be used for:

	Highlight&Shadow Control	Change the setting using the front and rear dials. Press the **INFO** button to change the area (highlight, shadow, midtone) to be configured.

	Color Creator	Use the front dial to adjust hue and the rear dial to adjust saturation.
ISO	ISO	Change the setting using the front and rear dials.
WB	WB	
	Magnify	A zoom frame will be displayed.
	Image Aspect	Change the setting using the front and rear dials.
Peak	Peaking	Turns on and off with each press of the button.

You can choose the options displayed. ☞ **[Multi Function Settings]** (P.374)

[Highlight&Shadow Control] can also be configured by following operations.

- During shooting, press the button to which ± (Exposure compensation) is assigned and then press the **INFO** button.
- After pressing **OK** on the shooting display, select **[Exposure Comp. /]** on the super control panel (P.111) and press **OK**.

Using the CP button (Computational Modes)

Press the button to turn on the last used Computational Modes. Hold the button and rotate the front or rear dial to change the settings for Computational Modes or switch to other Computational Modes.

If the **CP** button has been assigned a different role, you will need to assign **[Computational Modes]** to a control using **[Button Function]**. ☞ "Customizable Controls" (P.340)

Switch Computational Modes/Settings

1. Press the **CP** button and rotate the front dial or rear dial.

- Rotate the dial until the desired Computational Mode/ Setting is highlighted. Select the highlighted feature and release the button.
- Select **[Off]** to exit Computational Modes and return to normal shooting.

2. You can photograph with the selected Computational Mode and setting.

Turn on or off Computational Modes

The operations when the **CP** button is pressed are listed below. The last used Computational Mode is recalled.

/	**High Res Shot**	Turns on and off with each press of the button.
ND2–ND16	**Live ND Shooting**	Turns on and off with each press of the button.
	Focus Stacking	Turns on and off with each press of the button. To choose an option for **[Focus Stacking]**, press and hold the button.
HDR1/HDR2	**HDR**	Turns on and off with each press of the button.
	Multiple Exposure	Turns on and off with each press of the button. To choose an option for **[Multiple Exposure]**, press and hold the button.

You can choose the options displayed. ☞ "Choosing the Settings Available via the **CP** button (CP Button Settings)" (P.373)

Recording a movie by pressing the shutter button (Shutter Function)

:PASMB /S&Q:PASM

Configure the shutter button as a (movie record) button.

Menu
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Button Settings ➡ Shutter Function

Off	The shutter button cannot be used to record movies.
REC	Press the shutter button all the way down to start or stop movie recording.

Setting the display when pressing the OK button (Setting screen opened by OK)

Set whether to display or hide each operation screen accessed by pressing the **OK** button in the shooting standby screen.

Menu
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Button Settings ➡ Setting screen opened by OK

AUTO	Select an option using △▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again. **[Live Guide]**/**[Live SCP]**
ART	Select an option using △▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again. **[Art Menu]**/**[Live SCP]**
SCN	Select an option using △▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again. **[Scene Menu]**/**[Live SCP]**

- You can also tap the check box to put or remove the check (✓).

The screens for the checked (✓) options can be switched by pressing the **INFO** button while the operation screen is displayed after pressing the **OK** button in the shooting standby screen.

Assigning Roles to the Front and Rear Dials (Dial Function / Dial Function)

:PASMB /S&Q:PASM

Choose the roles performed by the front and rear dials.

Menu
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Dial Settings ➡ Dial Function
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Dial Settings ➡ Dial Function

1. Highlight an option and press the **OK** button.
- Choose a dial using the ◁▷ buttons and use the △▽ buttons to choose a role.
- Press the **OK** button when settings are complete.

The functions that can be assigned in **[Dial Function]** are listed below.

Role	Function	Shooting mode			
		P	A	S	M/B
Program Shift (Ps)	Configure program shift (P.60).	✓	—	—	—
Shutter Speed (Shutter)	Choose the shutter speed.	—	—	✓	✓ [1]
Aperture Value (FNo)	Adjust aperture.	—	✓	—	✓
Exposure Comp. ( )	Adjust exposure compensation.	✓	✓	✓	✓ [2]
Flash Exposure Comp. ( )	Adjust flash exposure compensation.	✓	✓	✓	✓
ISO	Adjust ISO sensitivity.	✓	✓	✓	✓
WB (WB)	Adjust white balance.	✓	✓	✓	✓

Role	Function	Shooting mode			
		P	A	S	M/B
CWB Kelvin (CWB Kelvin)	Adjust the color temperature when CWB (Custom WB) is selected for white balance.	✓	✓	✓	✓
Off	None.	✓	✓	✓	✓

1 Switch between Bulb, Time, and Live Comp when the mode dial is set to **B**.

2 Not available if the mode dial is set to **B**.

When the mode dial is set to **ART**, conform to the settings for **[P]**.

The functions that can be assigned in **[Dial Function]** are listed below.

Role	Function	Shooting mode			
		P	A	S	M
Shutter Speed (Shutter)	Choose the shutter speed.	—	—	✓	✓
Aperture Value (FNo)	Adjust aperture.	—	✓	—	✓
Exposure Comp. ( )	Adjust exposure compensation.	✓	✓	✓	✓
ISO	Adjust ISO sensitivity.	✓	✓	✓	✓
WB (WB)	Adjust white balance.	✓	✓	✓	✓
CWB Kelvin (CWB Kelvin)	Adjust the color temperature when CWB (Custom WB) is selected for white balance.	✓	✓	✓	✓
Sound Recording Level (Vol)	Adjust the recording volume.	✓	✓	✓	✓
Off	None.	✓	✓	✓	✓

Changing the Dial Direction (Dial Direction)

:PASMB **/S&Q:PASM**

Choose the direction in which the dials are rotated to set exposure.

Menu

- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Dial Settings ➡ Dial Direction

Exposure	Choose the direction the dials are rotated to set aperture and shutter speed in **A**, **S**, **M**, and **B** modes.
Ps	Choose the direction the dials are rotated for program shift (mode **P**).

Power Zoom Lenses (Electronic Zoom Settings)

📷:PASMB 🎬/S&Q:PASM

Choose the speed at which power zoom lenses zoom in or out when the zoom ring is rotated. Adjust zoom speed if it is so quick that you find it hard to frame your subject.

Menu
- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Electronic Zoom Settings

📷Elec. Zoom Speed	Sets the zoom speed for 📷 mode. **[Low]**: Slow zoom. A good choice when precise adjustments are needed. **[Normal]**: Normal zoom speed. **[High]**: Fast zoom.
🎬Elec. Zoom Speed	Sets the zoom speed for 🎬/S&Q modes. **[Low]**: Slow zoom. A good choice when precise adjustments are needed. **[Normal]**: Normal zoom speed. **[High]**: Fast zoom.

Although the same options are displayed for still photography mode (📷 mode) and movie mode (🎬/S&Q modes), the actual zoom speeds are different.

Choosing What Happens When the Shutter Button Is Pressed During Live View Zoom (LV Close Up Mode)

: PASMB /S&Q: PASM

Choose display options for use with focus zoom.

Menu

- **MENU** ➡ ⚙ ➡ 2. Operations ➡ LV Close Up Mode

For information on live view zoom options, see the explanation on "Zoom frame AF/Zoom AF (Super Spot AF)" (P.129).

LV Close Up Mode	Choose what happens if the shutter button is pressed halfway during focus zoom. **[mode1]**: Focus zoom ends. You can check the composition after focusing using focus zoom. **[mode2]**: Focus zoom remains in effect while the camera focuses. Compose the shot before focusing, then zoom in for precise focus and take a picture without ever ending zoom.

Choosing the Behavior of the Control Used for Depth-of-Field Preview (Lock)

:PASMB /S&Q:PASM

Choose the behavior of the control used for depth-of-field preview.

Menu
- **MENU** ➡ ⚙ ➡ 2. Operations ➡ Lock

Before you will be able to use Super Spot AF, you must use **[Button Settings]** (P.340) to assign **[Preview]** to a camera control in advance.

Lock	Choose the behavior of the control used for depth-of-field preview. **[Off]**: Aperture stops down while the control is pressed. **[On]**: Aperture stops down when the control is pressed; to end depth-of-field preview, press the control a second time.

Button Hold Options (Press-and-hold Time)

:PASMB /S&Q:PASM

Choose how long buttons must be pressed to perform resets and other similar functions for various features. For ease of use, button hold times can be set separately for different features.

Menu

- **MENU** ➡ ⚙ ➡ 2. Operations ➡ Press-and-hold Time

Set the button hold time for each function.

[0.5sec] – **[3.0sec]**

The functions that allows you to set press-and-hold time are listed below:

- End LV
- Reset LV Frame
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Reset
- Call Setting
- Call Setting

Functions for adjusting the live view display

Making the display easier to see in dark places (Night Vision)

P A S M B S&Q: P A S M

Increase brightness of the display to make it easier to see in dark places.

Menu

- **MENU** ➡ ⚙ ➡ 3. Live View ➡ Night Vision

Off	Normal display.
On	Brightness is adjusted for ease of viewing. The brightness and colors of the preview differs from the final photograph.

- "Night LV" appears on the display when **[On]** is selected.

Art Filter Preview (Art LV Mode)

:PASMB /S&Q:PASM

You can preview the effects of art filters in the monitor or viewfinder during shooting. Some filters may cause subject movement to appear jerky, but this can be minimized so as to not influence photography.

Menu

- **MENU** ➡ ⚙ ➡ 3. Live View ➡ Art LV Mode

mode1	The effects of art filters can be previewed during shooting.
mode2	While the shutter button is pressed halfway, the camera gives priority to maintaining the display rate and reduces the effects of art filters on the preview display. Motion is smooth.

Reducing Flicker in Live View (Anti-Flicker LV)

📷:PASMB 🎥/S&Q:PASM

Reduce flicker under fluorescent lighting and the like. Choose this option if flicker makes the display difficult to view.

Menu

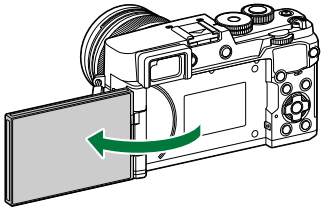
- **MENU** ➡ ⚙ ➡ 3. Live View ➡ Anti-Flicker LV

Auto	The camera detects and reduces flicker.
50Hz	Reduce flicker under workplace or outdoor lighting powered by alternating current with a frequency of 50 Hz.
60Hz	Reduce flicker under workplace or outdoor lighting powered by alternating current with a frequency of 60 Hz.
Off	Flicker reduction off. This option is not available when **[On]** is selected for **[Anti-Flicker Shooting]** (P.218).

Selfie Assist (Selfie Assist)

P A S M B P A S M

Choose the display used when the monitor is reversed for self-portraits.



Menu

- **MENU** ➡ ⚙ ➡ 3. Live View ➡ Selfie Assist

Off	The display does not change when the monitor is reversed.
On	When reversed for self-portraits, the monitor shows a mirror image of the view through the lens.

Functions for configuring information display

Selecting the display style of the viewfinder (EVF Style)

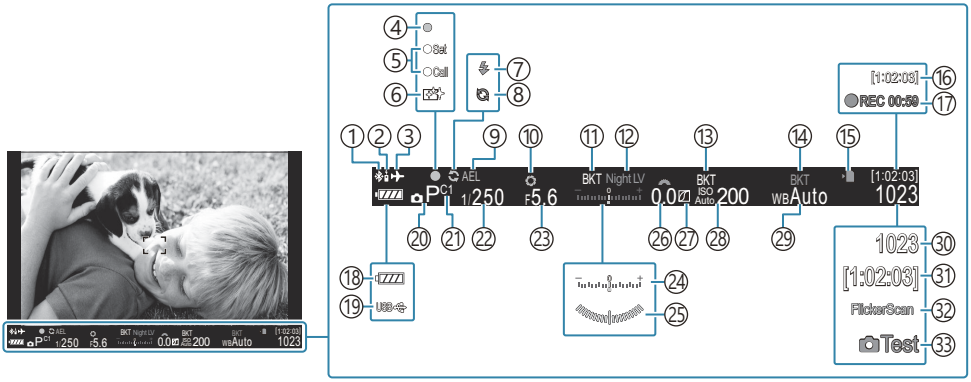
:PASMB /S&Q:PASM

Menu

- **MENU** ➡ ⚙ ➡ 4. Information ➡ EVF Style

Style 1 / Style 2	Similar to film camera viewfinder displays.	
Style 3	The same as the monitor display.	

Viewfinder display when shooting using the viewfinder (Style 1 / Style 2)



① Active **Bluetooth**® connection (P.417, P.434)
② Remote control (P.434)
③ Airplane Mode (P.412)
④ AF confirmation mark (P.52)
⑤ SET/CALL function (P.447)
⑥ Dust reduction (P.457)
⑦ Flash (blinks: charging in progress, lights up: charging completed) (P.194)
⑧ Pro Capture active (P.215)
⑨ AE Lock (P.179)
⑩ Preview (P.358)
⑪ AE BKT (P.282)
⑫ Night Vision (P.360)
⑬ ISO BKT (P.286)
⑭ WB BKT (P.284)
⑮ Card write indicator (P.28, P.34)
⑯ Available Recording Time (P.514)
⑰ Recording time (displayed during recording) (P.90)
⑱ Battery level (P.38)
⑲ Power supply (P.432)
⑳ Shooting Mode (P.58)
㉑ Custom Mode (P.95)
㉒ Shutter Speed (P.58, P.63)
㉓ Aperture Value (P.58, P.61)
㉔ Exposure compensation (P.171)
㉕ Level Gauge [1] (P.370)
㉖ Exposure compensation value (P.171)
㉗ Highlight & Shadow Control (P.349)
㉘ ISO sensitivity (P.185)
㉙ White balance (P.244)
㉚ Number of storable still pictures (P.512)
㉛ Available Recording Time (P.514)
㉜ Flicker Scan (P.176)
㉝ Test Picture (P.341)

1 Displayed while the shutter button is pressed halfway. ☞ **[Level Gauge]** (P.370)

Shooting Indicators (Info Settings / Info Settings)

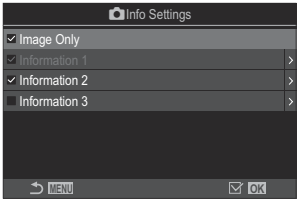
P A S M B S&Q P A S M

Choose the indicators listed in the live view display.
You can display or hide shooting setting indicators. Use this option to choose the icons that appear in the display.
You can configure three sets of display settings for mode and two sets for /S&Q modes.

Menu
- **MENU** ➡ ⚙ ➡ 4. Information ➡ Info Settings
- **MENU** ➡ ⚙ ➡ 4. Information ➡ Info Settings

Configuring Info Settings

1. Select an indicator you wish to display when the **INFO** button is pressed, and put a check (✔) next to it.
- Select an option using △ ▽ and press the **OK** button to put a check (✔) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✔).



Info Settings setting screen

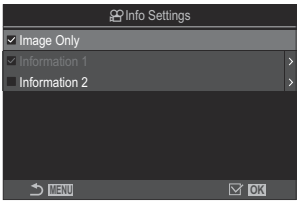
Image Only	No information will be displayed.
Information 1 **Information 2** **Information 3**	Select an option using △ ▽ and press the **OK** button to put a check (✔) next to it. To remove the check, press the **OK** button again. To set the details of an item to be displayed, press ▷. The following items can be set. **[ ] / [Highlight&Shadow] / [Level Gauge] / [Silent Operation]**

The set that is currently in use cannot be disabled, but the items to be displayed can be configured.

Configuring Info Settings

1. Select an indicator you wish to display when the **INFO** button is pressed, and put a check (✓) next to it.

- Select an option using △▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



Info Settings setting screen

Image Only	No information will be displayed.
Information 1	Select an option using △▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again. To set the details of an item to be displayed, press ▷. The following items can be set. **[ ]/[Level Gauge]/[Image Stabilizer]/[Picture Mode]/[WB]/[AF Mode]/[Face & Eye Detection]/[Sound Recording Level Meter]/[Time Code]/[Silent Operation]/[Grid]**
Information 2	

The set that is currently in use cannot be disabled, but the items to be displayed can be configured.

Choosing a Display

Press the **INFO** button during shooting to cycle through the selected displays. "Switching the information display" (P.48)

Configuring the display for when the shutter button is pressed halfway (Info by half-pressing)

: PASMB /S&Q: PASM

You can configure the display for when the shutter button is pressed halfway.

Menu

- **MENU** ➡ ⚙ ➡ 4. Information ➡ Info by half-pressing

Off	No information is displayed while the shutter button is pressed halfway.
On1	Only the following exposure-related items are displayed while the shutter button is pressed halfway. • Shutter speed • Aperture • Reset Exposure Compensation • Difference from optimal exposure • ISO sensitivity
On2	The display does not change even when the shutter button is pressed halfway.

Viewfinder Info Display Options (Info Settings)

P:PASMB S&Q:PASM

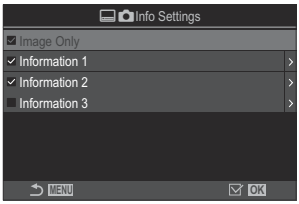
Choose the information that can be viewed by pressing the **INFO** button in the viewfinder display. Just as you can with the monitor, you can display a histogram or level gauge in the viewfinder by pressing the **INFO** button. This item is used to choose the types of display available. This option takes effect when **[Style 1]** or **[Style 2]** is selected for **[EVF Style]** (P.364) in P mode. The option selected for **[Info Settings]** (P.367) takes effect in S&Q modes.

Menu

- **MENU** ➡ ⚙ ➡ 4. Information ➡ Info Settings

1. Select an indicator you wish to display when the **INFO** button is pressed, and put a check (✓) next to it.

- Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it.
  To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).



Info Settings setting screen

Image Only	No information will be displayed.
Information 1 **Information 2** **Information 3**	Select an option using △ ▽ and press the **OK** button to put a check (✓) next to it. To remove the check, press the **OK** button again. To set the details of an item to be displayed, press ▷. The following items can be set. **[ ]**: A histogram superimposed on the display in the viewfinder. **[Highlight&Shadow]**: Tints applied to over- and under-exposed areas. **[Level Gauge]**: The level gauge.

The set that is currently in use cannot be disabled, but the items to be displayed can be configured.

Displaying the Level Gauge when the shutter button is pressed halfway (Level Gauge)

:PASMB /S&Q:PASM

Choose whether the level gauge can be displayed in the viewfinder by pressing the shutter button halfway when **[Style 1]** or **[Style 2]** is selected for **[EVF Style]** (P.364).

Display when shutter button is pressed halfway

Menu

- **MENU** ➡ ⚙ ➡ 4. Information ➡ Level Gauge

On	The level gauge is displayed in the viewfinder while the shutter button is pressed halfway. The level gauge appears in place of the exposure bar.
Off	The level gauge is not displayed.

Framing Guide Options (Grid Settings / Grid Settings)

P:PASMB /S&Q:PASM

Menu
- **MENU** ➡ ⚙ ➡ 5. Grid/Other Displays ➡ Grid Settings
- **MENU** ➡ ⚙ ➡ 5. Grid/Other Displays ➡ Grid Settings

Display Color	Choose the displayed color. **[Preset 1]**: The settings of **[Color of Preset 1]** are used. **[Preset 2]**: The settings of **[Color of Preset 2]** are used.
Exclusive for ([Grid Settings] only)	Choose whether to use a movie-exclusive setting when displaying guides in /S&Q modes. **[Off]**: Use the same setting as when in still photography mode. **[On]**: Use the settings dedicated to movie recording mode.
Displayed Grid	Select the type of guides displayed. Choose from: **[Off]** / [▦] / [⊞] / [▦] / [⊡] / [⊠] / [▭] ([**Grid Settings]** only) • When **[▭]** is selected, the guides are adjusted for a 16:9 movie frame when movies are shot in still photography mode. Depending on the option selected for **[◀⋯]**, the guides may be displayed with an aspect ratio of 17:9.
Color of Preset 1	**[R]**: Increase the number to emphasize the red tint.
Color of Preset 2	**[G]**: Increase the number to emphasize the green tint. **[B]**: Increase the number to emphasize the blue tint. **[α]**: Increase the number to make the color of the guides deeper.

The guides configured here are not displayed during focus stacking (P.261).

The settings made here are also used when **[Style 3]** is selected for **[EVF Style]**.

Viewfinder Framing Grid Options (Grid Settings)

:PASMB /S&Q:PASM

Choose whether to display a framing grid in the viewfinder. You can also choose guide color and type. This option takes effect when **[Style 1]** or **[Style 2]** is selected for **[EVF Style]** in mode. The option selected for **[Info Settings]** (P.367) takes effect in /S&Q modes.

Menu
- **MENU** ➡ ➡ 5. Grid/Other Displays ➡ Grid Settings

Exclusive for	Choose whether to use a viewfinder-exclusive setting when displaying guides on the viewfinder. **[Off]**: Use the same setting as when using the monitor. **[On]**: Use the setting dedicated to the viewfinder.
Display Color	Choose the displayed color. **[Preset 1]**: The settings of **[Color of Preset 1]** are used. **[Preset 2]**: The settings of **[Color of Preset 2]** are used.
Displayed Grid	Select the type of guides displayed. Choose from: **[Off]** / [▦] / [⊞] / [⊞] / [⊞] / [⊠] / [▭] • When [▭] is selected, the guides are adjusted for a 16:9 movie frame when movies are shot in still photography mode. Depending on the option selected for [ ], the guides may be displayed with an aspect ratio of 17:9.
Color of Preset 1	**[R]**: Increase the number to emphasize the red tint.
Color of Preset 2	**[G]**: Increase the number to emphasize the green tint. **[B]**: Increase the number to emphasize the blue tint. **[α]**: Increase the number to make the color of the guides deeper.

The guides configured here are not displayed during focus stacking (P.261).

Choosing the Settings Available via the CP button (CP Button Settings)

📷:PASMB 🎬/S&Q:PASM

Choose the settings available via the **CP** button.

Menu
- **MENU** ➡ ⚙ ➡ 5. Grid/Other Displays ➡ CP Button Settings

1. Select an indicator you wish to display when the INFO button is pressed, and put a check (✓).
- Select an option using △ ▽ and press the **OK** button to put a check (✓). To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✓).

High Res Shot Tripod	When you put a check (✓), the function will be displayed on the selection screen appearing when the **CP** button is pressed.
High Res Shot Handheld	
Live ND Shooting : ND2(1EV) – Live ND Shooting : ND16(4EV)	
Focus Stacking	
HDR HDR1	
HDR HDR2	
Multiple Exposure	

Choosing the Settings Available via Multi-Fn (Multi Function Settings)

📷:PASMB 🎥/S&Q:PASM

Choose the settings that can be accessed via multi-function buttons.

Menu
- **MENU** ➡ ⚙ ➡ 5. Grid/Other Displays ➡ Multi Function Settings

1. Select the display type, and put a check (✔) next to it.
- Select an option using △▽ and press the **OK** button to put a check (✔) next to it. To remove the check, press the **OK** button again.
- You can also tap the check box to put or remove the check (✔).

Highlight&Shadow Control	Change the setting using the front and rear dials. Press the **INFO** button to change the area (highlight, shadow, midtone) to be configured.
Color Creator	Use the front dial to adjust hue and the rear dial to adjust saturation.
ISO	Change the setting using the front and rear dials.
WB	
Magnify	A zoom frame will be displayed.
Image Aspect	Change the setting using the front and rear dials.
Peaking	Turns on and off with each press of the button.

Histogram Exposure Warning (Histogram Settings)

Choose the brightness levels that the histogram shows as overexposed (highlights) or underexposed (shadows). These levels are used for exposure warnings in the histogram displays during shooting and photo playback.

- The areas shown in red or blue in the monitor and viewfinder **[Highlight&Shadow]** displays are also selected according to the values chosen for this option.

Menu

- **MENU** ➡ ⚙ ➡ 5. Grid/Other Displays ➡ Histogram Settings

Highlight	Choose the minimum brightness for the highlight warning. **[245]** – **[255]**
Shadow	Choose the maximum brightness for the shadow warning. **[0]** – **[10]**

Settings related to operation and display of menus

Configuring the cursor on the menu screen (Menu Cursor Settings)

:PASMB /S&Q:PASM

Choose where the cursor will be displayed when you open the menu or move to a different page.

Menu

- **MENU** ➡ ⚙ ➡ 2. Operations ➡ Menu Cursor Settings

Page Cursor Position	**[Save]**: When you move to a different page, the cursor appears where it was the last time the page was opened. **[Reset]**: Each time you move to a different page, the cursor appears at the top of the page.
Menu Start Position	**[Recently]**: When you open the menu, the last used tab, page, and cursor position are recalled. **[/]**: When you open the menu, the first page of the (still picture 1) tab is displayed when the power lever is rotated to , and the first page of the (movie) tab is displayed when the lever is rotated to /S&Q. **[My]**: When you open the menu, the first page of the "My" tab is displayed.

Shortcut to B Mode Settings	The camera can be configured to open the mode-specific menu when you press the **MENU** button in **B** mode. **[Off]**: The menu opens according to the setting of **[Menu Start Position]**. **[On]**: **[Live Bulb]**, **[Live Time]**, or **[Composite Settings]** opens, depending on the selected mode. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

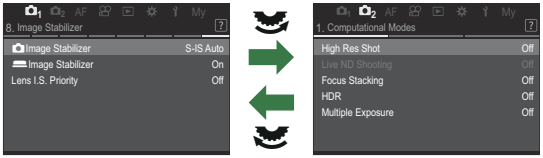
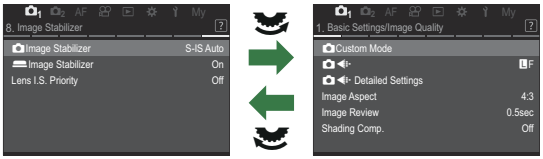
Choosing how to move between pages with the rear dial (Loop in Menu Tab)

:PASMB /S&Q:PASM

Choose whether to switch the pages only within the same menu tab when the rear dial is turned.

Menu

- **MENU** ➡ ⚙ ➡ 1. Operations ➡ Dial Settings ➡ Loop in Menu Tab

No	When you move to the last page by turning the rear dial and turn it further, the first page of the next tab is displayed. When you move to the first page by turning the rear dial and turn it further, the last page of the previous tab is displayed. 
Yes	When you move to the last page by turning the rear dial and turn it further, the first page of the current tab is displayed. When you move to the first page by turning the rear dial and turn it further, the last page of the current tab is displayed. 

- This settings is effective only when the rear dial is operated. When you use ◁▷ to switch pages, it always works in the same way as when **[No]** is selected.

[Yes]/[No] Default (Priority Set)

📷:PASMB 🎬/S&Q:PASM

Choose the option highlighted by default when a **[Yes]**/**[No]** confirmation is displayed.

Menu
- **MENU** ➡ ⚙ ➡ 2. Operations ➡ Priority Set

No	**[No]** is highlighted by default.
Yes	**[Yes]** is highlighted by default.

“My Menu” Settings

My Menu

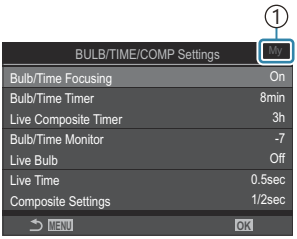
You can use “My Menu” to create a personalized menu tab containing only items you select. “My Menu” can contain up to 5 pages of 7 items each. You can delete items or change the page or item order.
At purchase, “My Menu” contains no items.

Adding items to “My Menu”

1. Press the **MENU** button to view the menus.

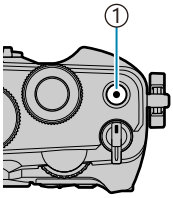
2. Highlight an item for inclusion in “My Menu”.

- Any item in the menus 📷1 through 🔧 can be added to “My Menu” if it appears on the screen with tabs displayed.
- Some other menu items can also be added to “My Menu”. If the menu item can be added, “My” is displayed at the top right corner of the display.



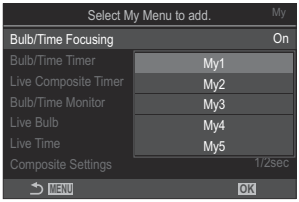
① Item can be added to “My Menu”

3. Press the ◉ button.



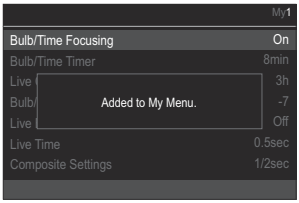
① ◉ button

- You will be prompted to choose a page. Use △ ▽ on the arrow pad to choose the “My Menu” page to which the item will be added.

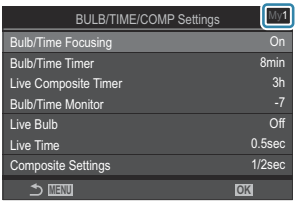


4. Press the **OK** button to add the item to the selected page.

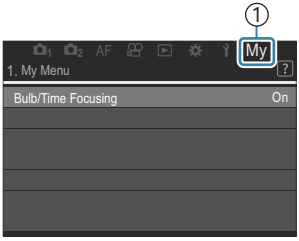
- The camera will display a message stating that the item has been added to “My Menu”.



- Items that have been added to “My Menu” are indicated by the number of the “My Menu” page.
- Items can be removed from “My Menu” by pressing the ◉ button. Select **[Yes]** and press the **OK** button.



- Items saved to “My Menu” are added to the **My** (“My Menu”) tab.



①**My** (“My Menu”) tab

5. To access “My Menu”, select the “**My**” tab.

You can make the camera display “My Menu” first when you press the **MENU** button.

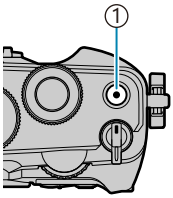
“Configuring the cursor on the menu screen (Menu Cursor Settings)” (P.376)

Managing “My Menu”

You can reorder items in “My Menu”, move them between pages, or remove them from “My Menu” altogether.

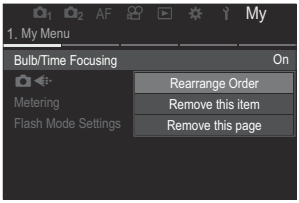
1. Press the **MENU** button to display the menus.

2. Display the “My Menu” page you want to edit and press the ⊙ button.



① ⊙ button

- The options below will be displayed.
  [Rearrange Order]: Change the order of items or pages. Use △▽◁▷ to choose the new location. The new location can also be selected by tapping the screen.
  [Remove this item]: Remove the highlighted item from “My Menu”. Select **[Yes]** and press the **OK** button.
  [Remove this page]: Remove from “My Menu” all items on the current page. Select **[Yes]** and press the **OK** button.



Card/Folder/File Settings

Formatting the card (Card Formatting)

:PASMB /S&Q:PASM

Cards must be formatted with this camera before first use or after being used with other cameras or computers.
All data stored on the card, including protected images, is erased when the card is formatted.
When formatting a used card, confirm there are no images that you still want to keep on the card.
☞ "Usable cards" (P.34)

Menu
- **MENU** ➡ 🔧 ➡ 1. Card/Folder/File ➡ Card Formatting

Format Card	**[Yes]**: The card will be formatted. **[No]**: Formatting will be cancelled.
No	Formatting will be cancelled.

File Naming Options (File Name)

Choose how the camera names files when saving photos or movies to memory cards. File names consist of a four-character prefix and a four-digit number. Use this option to choose how file numbers are assigned.

Menu

- **MENU** ➡ ⚙ ➡ 1. Card/Folder/File ➡ File Name

Auto	When a new memory card is inserted, file numbering continues from the last number used. If the card already contains a file with the same or a higher number, numbering will continue from the highest number.
Reset	Folder numbering is reset to 100 and file numbering to 0001 when a new card is inserted. If the card already contains images, numbering will continue from the highest number.

Naming Files (Edit Filename)

Change the file names the camera uses when saving photos and movies to memory cards.

Menu

- **MENU** ➡ ⚙ ➡ 1. Card/Folder/File ➡ Edit Filename

sRGB	**[Date (mdd)]**: The 2nd to 4th characters will be made up of the numbers corresponding to the month and day of the recording date (A to C will be used for October to December). You can set the 1st character as you wish. **[Directory Number]**: The 2nd to 4th characters will be made up of the number of the destination folder (“100” – “999”). You can set the 1st character as you wish. **[Manual]**: You can set the first four characters as you wish using alphanumeric characters.
Adobe RGB	**[Date (mdd)]**: The 2nd to 4th characters will be made up of the numbers corresponding to the month and day of the recording date (A to C will be used for October to December). The 1st character cannot be changed from “_”. **[Directory Number]**: The 2nd to 4th characters will be made up of the number of the destination folder (“100” – “999”). The 1st character cannot be changed from “_”. **[Manual]**: You can set the 2nd to 4th characters as you wish using alphanumeric characters. The 1st character cannot be changed from “_”.

User information

Saving lens info (Lens Info Settings)

:PASMB /S&Q:PASM

The camera can store information for up to 10 lenses that do not conform to the Micro Four Thirds or Four Thirds system standards. These data also supply the focal length used for the image stabilization and keystone compensation features. The data are saved as Exif tags.

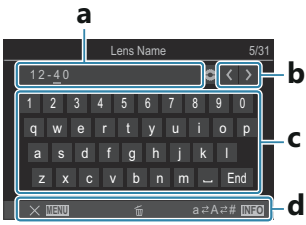
Menu

- **MENU** ➡ 🔧 ➡ 2. Information Record ➡ Lens Info Settings

Create Lens Information	Register the lens information. **[Lens Name]**: Input the name of the lens. **[Focal Length]**: Input the focal length. **[0.1]** – **[1000.0]** mm **[Aperture Value]**: Input the aperture value. **[00.00]** – **[99.99]** **[Set]**: Save the lens information you have inputted.
Lens 01 (Registered Name) – Lens 10 (Registered Name)	Edit the registered lens information. **[Edit]**: Edit the registered lens information. Edit **[Lens Name]**, **[Focal Length]**, and **[Aperture Value]**. **[Delete]**: Delete the registered lens information.

Entering characters

1. Press the **INFO** button to switch between uppercase, lowercase and symbols.
2. Highlight a character using △▽◁▷ press the **OK** button to enter.
   - The selected character appears in the character entry area (**a**).
   - To delete a character, press the 🗑 button.
3. To delete a character in the character entry area (**a**), move the cursor using the front and rear dials.
   - Select a character and press the 🗑 button to delete it.
4. When you have finished entering, select **[End]** and press the **OK** button.



a Character entry area
b Cursor movement keys
c Keyboard
d Operation guide

Touch operation can also be used to enter characters and operate **a** to **d**.

- The lens will be added to the lens info menu.
- When a lens that does not supply info automatically is attached, the info used is indicated by checks (✓). Highlight lenses to which you want to add checks (✓) and press the **OK** button.

Output Resolution (dpi Settings)

:PASMB /S&Q:PASM

Choose the output resolution information (in dots per inch, or dpi) stored with photo image files. The selected resolution will be used when the images are printed. The dpi setting is stored as an Exif tag.

Menu

- **MENU** ➡ 🔧 ➡ 2. Information Record ➡ dpi Settings

Adding Copyright Information (Copyright Info.)

Choose the copyright information stored with photos when they are saved. Copyright information is stored as Exif tags.

Menu
- **MENU** ➡ 🔧 ➡ 2. Information Record ➡ Copyright Info.

- We will not be held liable for any disputes or damages arising from use of the **[Copyright Info.]** feature. Use at your own risk.
- To delete the copyright information you have entered, delete the characters on the entry screen of each item (P.390).

Enabling Copyright Info.

1. Use △▽ to select **[Copyright Info.]** and press the **OK** button.

Copyright Info. setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

Off	Do not add Exif tags naming the photographer and/or copyright holder.
On	Add Exif tags naming the photographer and/or copyright holder.

3. The display returns to the Copyright Info. setting screen.

Configuring Copyright Info.

1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Copyright Info. setting screen.

Artist Name	Enter the name of the photographer.
Copyright Name	Enter the name of the copyright holder.

Entering characters

1. Press the **INFO** button to switch between uppercase, lowercase and symbols.

2. Highlight a character using △ ▽ ◁ ▷ press the **OK** button to enter.

- The selected character appears in the character entry area (**a**).
- To delete a character, press the 🗑 button.

3. To delete a character in the character entry area (**a**), move the cursor using the front and rear dials.

- Select a character and press the 🗑 button to delete it.

4. When you have finished entering, select **[End]** and press the **OK** button.

a Character entry area
b Cursor movement keys
c Keyboard
d Operation guide

Touch operation can also be used to enter characters and operate **a** to **d**.

Monitor/Sound/Connection Settings

Disabling Touch Controls (Touchscreen Settings)

: PASMB /S&Q: PASM

Enable or disable touch controls.

Menu

- **MENU** ➡ ➡ 3. Monitor/Sound/Connection ➡ Touchscreen Settings

Off	Disable touch controls.
On	Enable touch controls.

Monitor Brightness and Hue (Monitor Adjust)

📷:PASMB 🎥/S&Q:PASM

Adjust monitor color temperature and brightness. This option applies in both still photography and movie modes.

Menu

- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ Monitor Adjust

(Color temperature)	Adjust color temperature. Select an option using △▽. **[-7]** – **[±0]** – **[+7]**
☼ (Brightness)	Adjust brightness. Select an option using △▽. **[-7]** – **[±0]** – **[+7]**

- Press the **INFO** button to switch between color temperature and brightness and set each item.
- In **B** mode, the monitor uses the brightness selected in **[Bulb/Time Monitor]**. ☞ "Configuring BULB/TIME/COMP Settings (BULB/TIME/COMP Settings)" (P.280)

Viewfinder Brightness and Hue (EVF Adjust)

P A S M B P A S M

Adjust viewfinder brightness and hue. The display switches to the viewfinder while these settings are being adjusted.

Menu
- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ EVF Adjust

☼ (Brightness)	**[EVF Auto Luminance Off]**/**[EVF Auto Luminance On]**: Select whether the viewfinder brightness and information display intensity automatically adjust according to ambient lighting conditions. Select an option using ◁▷. **[☼]**: Adjust brightness. Select an option using △▽. **[-2]** – **[±0]** – **[+2]** ⓘ Brightness cannot be changed when **[EVF Auto Luminance On]** is selected.
(Color temperature)	Adjust color temperature. Select an option using △▽. **[-3]** – **[±0]** – **[+3]**

- Press the **INFO** button to switch between color temperature and brightness and set each item.

Configuring the eye sensor (Eye Sensor Settings)

:PASMB /S&Q:PASM

You can specify how the camera operates when you put your eye to the viewfinder.

Menu

- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ Eye Sensor Settings

EVF Auto Switch	**[Off]**: The display does not switch when you put your eye to the viewfinder. To switch the display, press the ▭ button. **[On]**: The viewfinder automatically turns on when you put your eye to the viewfinder.
Behavior when switched	Choose what will be displayed when the display automatically switches to the viewfinder. **[Maintain Screen]**: The screen that was shown on the monitor will be shown in the viewfinder. **[Shooting Screen]**: The viewfinder shows the live view even if the playback screen or a menu was shown on the monitor.
When Monitor is Opened	**[Operative]**: When **[EVF Auto Switch]** is **[On]** and you put your eye to the viewfinder, the display switches to the viewfinder even if the monitor is open. **[Inoperative]**: When **[EVF Auto Switch]** is **[On]** and you put your eye to the viewfinder, the display does not switch to the viewfinder if the monitor is open.

The **[EVF Auto Switch]** setting screen appears when you press and hold the ▭ button.

Disabling the Focus Beep (🔔)

📷:PASMB 🎬/S&Q:PASM

Disable the beep that sounds when the camera focuses.

Menu

- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ 🔔

On	A beep sounds after successful autofocus operations. The beep sounds only when the camera first focuses using **[C-AF]**.
Off	A beep does not sound after successful autofocus operations.

To enable the focus beep in silent mode, configure **[Silent[♥] Settings]** settings (P.213).

External Monitor Display Options (HDMI Settings)

📷:PASMB 🎬/S&Q:PASM

Choose the signal output to external monitors connected via HDMI. Adjust the frame rate, movie frame size, and other settings according to monitor specifications.

Menu
- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ HDMI Settings

Output Size	Choose the type of signal output to the HDMI connector. **[C4K]**: The signal is output in 4K digital cinema (4096 × 2160) format. **[4K]**: If possible, the signal is output in 4K (3840 × 2160). **[1080p]**: If possible, the signal is output in Full HD (1080p). **[720p]**: If possible, the signal is output in HD (720p).
Output Frame Rate	Choose the signal frame rate according to whether the device supports NTSC or PAL. **[60p Priority]**: Frame rate for areas supporting NTSC. **[50p Priority]**: Frame rate for areas supporting PAL.

ⓘ **[Output Frame Rate]** cannot be changed when the camera is connected to a device via HDMI.
ⓘ Sound will not be played back unless the connected device is compatible with the sound format.
You can configure detailed options for when outputting signals to an HDMI device in 🎬/S&Q modes. ☞ "HDMI Output (🎬HDMI Output)" (P.295)

Choosing a USB Connection Mode (USB Settings)

:PASMB /S&Q:PASM

Choose how the camera functions when connected to external devices via USB.

Menu

- **MENU** ➡ 🔧 ➡ 3. Monitor/Sound/Connection ➡ USB Settings

USB Mode	**[Select]**: The menu for selecting the connection mode appears each time a USB cable is connected. **[Storage]**: The camera functions as an external storage device. The data on the camera memory card can be copied to the computer. **[MTP]**: The pictures on the memory card can be viewed or copied to the computer using computer software (P.428). **[Webcam]**: The camera can be connected to a computer and used as a webcam for online meetings and live streaming (P.430). No additional drivers or applications are necessary. Video and audio data captured by the camera is streamed to the computer by simply connecting the two devices via USB (USB streaming). **[Power Supply]**: Select when power supply does not start automatically when connected to a commercially available USB device. This setting is not required in most situations.
Power Supply from USB	Choose whether to power the camera when connecting to a computer via USB (P.428). **[Yes]**: The camera will be powered when the camera and computer are connected via USB. **[No]**: The camera will not be powered when the camera and computer are connected via USB. ⓘ The camera may not be powered even if **[Yes]** is selected depending on the ambient temperature or the computer performance.

Battery/Sleep Settings

Dimming the Backlight (Backlit LCD)

: PASMB / S&Q: PASM

Choose the length of time before the monitor backlight dims when no operations are performed. Dimming the backlight reduces the drain on the battery.

Menu

- **MENU** ➡ 🔧 ➡ 5. Battery/Sleep ➡ Backlit LCD

8sec / 30sec / 1min	The monitor backlight dims after the specified time.
Hold	The monitor backlight does not dim.

Setting Sleep (Power Saving) Options (Sleep)

Choose the delay before the camera enters sleep mode when no operations are performed. In sleep mode, camera operations are suspended and the monitor turns off.

Menu

- **MENU** ➡ ➡ 5. Battery/Sleep ➡ Sleep

Off	The camera does not enter sleep mode.
1min / 3min / 5min	The camera enters sleep mode after the specified time.

- Normal operation can be restored by pressing the shutter button halfway.

The camera will not enter sleep mode in the following situations.

- while a multiple exposure is in progress, while connected to an HDMI device, while connected to a smartphone via Wi-Fi, while connected to a computer, or while connected to a remote control wirelessly

Setting Auto Power Off Options (Auto Power Off)

: PASMB /S&Q: PASM

The camera will turn off automatically if no operations are performed for a set time after it has entered sleep mode. This option is used to choose the delay before the camera turns off automatically.

Menu

- **MENU** ➡ 🔧 ➡ 5. Battery/Sleep ➡ Auto Power Off

Off	The camera does not turn off automatically.
5min / 30min / 1h / 4h	The camera turns off after the specified time.

To reactivate the camera after it has turned off automatically, turn the camera on using the power lever.

Reducing Power Consumption (Quick Sleep Mode)

:PASMB /S&Q:PASM

Further reduce power consumption during viewfinder photography. The delay before the backlight turns off or the camera enters sleep mode can be shortened.

Power saving is not available:

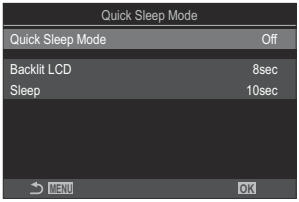
- during live view photography, while the viewfinder is on, while multiple exposure or interval timer photography is in progress, while connected to an HDMI device, while connecting to a smartphone via Wi-Fi, while connecting to a computer, or while Bluetooth is enabled

Menu

- **MENU** ➡ 🔧 ➡ 5. Battery/Sleep ➡ Quick Sleep Mode

Enabling Quick Sleep Mode

1. Use △▽ to select **[Quick Sleep Mode]** and press the **OK** button.



Quick Sleep Mode setting screen

2. Highlight **[On]** using the △▽ buttons and press the **OK** button.

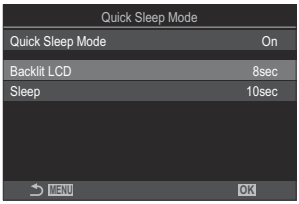
Off	The camera does not enter power-saving mode.
On	The camera is quick to enter power-saving mode. When power-saving is in effect and the super control panel is displayed (P.46), "ECO" is displayed on the monitor.

3. The display returns to the Quick Sleep Mode setting screen.

Configuring Quick Sleep Mode

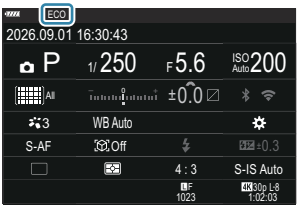
1. Configure options.

- Press △ ▽ to select an item and press the **OK** button to display the setting menu.
- After configuring options, press the **OK** button to return to Quick Sleep Mode setting screen.



Backlit LCD	Choose the length of time before the monitor backlight dims when no operations are performed. **[3sec] / [5sec] / [8sec]**
Sleep	Choose the delay before the camera enters sleep mode when no operations are performed. **[3sec] / [5sec] / [8sec] / [10sec] / [15sec] / [30sec] / [1min]**

- When power-saving is in effect and the super control panel is displayed (P.46), "ECO" is displayed on the monitor.



Reset/Clock/Language/Others Settings

Restoring Default Settings (Reset/Initialize Settings)

:PASMB /S&Q:PASM

Reset the camera to factory default settings. You can opt to reset almost all settings or only those directly related to photography.

Menu
- **MENU** ➡ 🔧 ➡ 6. Reset/Clock/Language/Others ➡ Reset/Initialize Settings

Reset Shooting Settings	Reset photography-related settings only.
Initialize All Settings	Reset all settings with a few exceptions, such as the clock and language.

See "Default Settings" (P.471) for information on the settings that are reset.
Settings can be saved using OM Workspace or OM Image Share. For more information, visit our website.

Setting the Camera Clock (Settings)

:PASMB /S&Q:PASM

Set the camera clock.

Menu

- **MENU** ➡ ➡ 6. Reset/Clock/Language/Others ➡ Settings

	Set the date, time, and date format. Use the ◁▷ buttons to highlight items and use the △▽ buttons to change the highlighted item.
Time Zone	Set the time zone and daylight-saving time. Use the △▽ buttons to change the time zone. Pressing the **INFO** button allows you to set the daylight-saving time. It switches on and off each time the **INFO** button is pressed.

Choosing a Language ( )

: PASMB /S&Q: PASM

Choose a language for camera menus and tool tips.

Menu

- **MENU** ➡ ➡ 6. Reset/Clock/Language/Others ➡

Calibrating the Level Gauge (Level Adjust)

Correct deviation in the level gauge. Calibrate the gauge if you find it is no longer truly plumb or level.

Menu

- **MENU** ➡ 🔧 ➡ 6. Reset/Clock/Language/Others ➡ Level Adjust

Reset	Reset the gauge to factory default settings.
Adjust	Choose the reference (zero) point. Calibrate the level gauge after positioning the camera appropriately.

Image Processing Check (Pixel Mapping)

:PASMB /S&Q:PASM

Check the image sensor and image processing functions simultaneously. For best results, end shooting and playback and wait at least a minute before performing pixel mapping.

Be sure to perform the check again if you accidentally turn the camera off while the check is in progress.

Menu

- **MENU** ➡ 🔧 ➡ 6. Reset/Clock/Language/Others ➡ Pixel Mapping

Viewing the Firmware Version (Firmware Version)

View the versions of the firmware for the camera and any lenses or other peripherals currently connected. You may need this information when contacting customer support or performing firmware updates.

Menu

- **MENU** ➡ ➡ 6. Reset/Clock/Language/Others ➡ Firmware Version

Viewing Certificates (Certification)

Display the compliance certificates for some of the standards with which the camera complies.

Menu

- **MENU** ➡ 🔧 ➡ 6. Reset/Clock/Language/Others ➡ Certification

Connecting the Camera to External Devices

Connecting to External Devices

A number of tasks can be accomplished by connecting the camera to an external device such as a computer or smartphone.

Precautions for Using Wi-Fi and Bluetooth®

Disable wireless LAN and **Bluetooth**® in countries, regions, or locations in which their use is prohibited.

The camera is equipped with wireless LAN and **Bluetooth**®. Use of these features in countries outside the region of purchase may violate local wireless regulations.

Some countries and regions may prohibit the acquisition of location data without prior governmental permission. In some sales areas, the camera may consequently ship with location data displays disabled.

Each country and region have its own laws and regulations. Check them before traveling and observe them while abroad. Our company assumes no liability for any failure on the part of the user to observe local laws and regulations.

Disable Wi-Fi on airplanes and in other locations where their use is prohibited. ☞ "Disabling the camera's wireless communication (Airplane Mode)" (P.412)

- Wireless transmissions are vulnerable to interception by third parties. Use wireless features with this in mind.
- The wireless transceiver is located in the camera grip. Keep it as far away as practicable from metal objects. Moreover, the signal strength may be reduced if the grip part is held or covered.
- When transporting the camera in a bag or other container, be aware that the contents of the container or the materials of which it is constructed may interfere with wireless transmissions, which can prevent the camera connecting to a smartphone.
- Wi-Fi connections increase the drain on the batteries. The connection may be lost during use if the batteries are low.
- Devices such as microwave ovens and cordless phones that generate radio-frequency emissions, magnetic fields, or static electricity may slow or otherwise interfere with wireless data transmission.
- Some wireless LAN features are unavailable when the memory card write-protect switch is in the "LOCK" position.

Disabling the camera's wireless communication (Airplane Mode)

Disable the camera's wireless (Wi-Fi/**Bluetooth**®) functions.

Menu

- **MENU** ➡ ✕ ➡ 4. Wi-Fi/Bluetooth ➡ Airplane Mode

Off	Wireless communication is enabled.
On	Wireless communication is disabled. You cannot use it until you change the setting to **[Off]**. ✈ appears when you select **[On]**.

Connecting the Camera to a Smartphone

Connecting to Smartphones

Use the camera's wireless LAN (Wi-Fi) and **Bluetooth**® features to connect to a smartphone, where you can use the dedicated app to enhance your enjoyment of the camera both before and after shooting. Once a connection has been established, you can download and take pictures remotely and add position information to images.

- Operation is not guaranteed on all smartphones.

Things you can do with the specified app, OM Image Share

- **Download images from the camera to the smartphone**
  Download pictures marked for sharing (P.315) to your smartphone.
  You can also use the smartphone to select images for download from the camera.
- **Remote shooting from a smartphone**
  You can remotely operate the camera and shoot using a smartphone.
- **Beautiful image processing**
  Use intuitive controls to apply impressive effects to images downloaded to your smartphone.
- **Addition of GPS tags to camera images**
  Using the smartphone's GPS function, you can add position information when taking pictures with the camera.

For details, visit our website.

Pairing the Camera and Smartphone (Device Connection)

Follow the steps below when connecting the devices for the first time.

- Adjust pairing settings using OM Image Share, not the settings app that is part of the smartphone operating system.

1. Launch the copy of the dedicated OM Image Share app previously installed on your smartphone.

2. Tap the icon displayed on the shooting standby screen.

You can also perform the following operations.

Super control panel

-

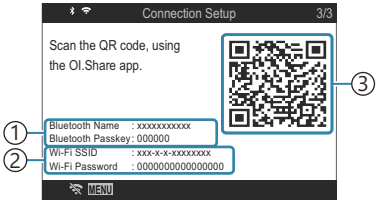
Menu

- **MENU** ➡ ➡ 4. Wi-Fi/Bluetooth ➡ Device Connection

3. Select **[Device Connection]** and press the **OK** button.

4. Follow the on-screen guide to adjust Wi-Fi/**Bluetooth**® settings.

- The **Bluetooth** local name and passcode, the Wi-Fi SSID and password, and a QR code are displayed in the monitor.



①**Bluetooth** local name
Bluetooth Passcode
②Wi-Fi SSID
Wi-Fi Password
③QR code

5. Tap the camera icon at the bottom of the OM Image Share display.

- An **[Easy Setup]** tab will be displayed.

6. Follow the on-screen instructions in OM Image Share to scan the QR code and adjust connection settings.

- If you are unable to scan the QR code, follow the on-screen instructions in OM Image Share to adjust settings manually.
  - **Bluetooth**®: To connect, select the local name and enter the passcode displayed in the camera monitor into the Bluetooth settings dialog in OM Image Share.
  - Wi-Fi: To connect, enter the SSID and password displayed on the camera monitor into the Wi-Fi settings dialog in OM Image Share.
- on the screen will turn green when pairing is complete.
- The **Bluetooth**® icon indicates the status as follows:
  - : The camera is emitting wireless signal.
  - : Wireless connection has been established.

7. To end the Wi-Fi connection, press **MENU** on the camera or tap MENU on the monitor screen.

- You can also turn the camera off and end the connection from OM Image Share.
- At default settings, **Bluetooth**® connection is kept active even after Wi-Fi connection is terminated, allowing you to shoot remotely with a smartphone. To set the camera to also terminate **Bluetooth**® connection when terminating Wi-Fi connection, set **[Bluetooth]** to **[Off]**.

Setting the security for smartphone connections (Connection Security)

Set the security for Wi-Fi connection to your smartphone.

Menu

- **MENU** ➡ ➡ 4. Wi-Fi/Bluetooth ➡ Settings ➡ Connection Security

- If set to **[WPA2/WPA3]** or **[WPA3]**, you may not be able to connect to your smartphone via Wi-Fi. If this happens, set to **[WPA2]**.
- When the setting is changed, both the Wi-Fi connection password and **Bluetooth**® connection passcode can be changed.
- Reconnect to the smartphone after changing passwords. ☞ "Pairing the Camera and Smartphone (Device Connection)" (P.414)

Wireless Connection Standby Setting for When the Camera Is On (Bluetooth)

You can choose whether the camera will be on standby for wireless connection with a smartphone or optional remote control when the power is on.

Complete the pairing of camera and smartphone or the optional remote control beforehand. **[Bluetooth]** cannot be selected unless the pairing has been completed.

Menu

- **MENU** ➡ 🔧 ➡ 4. Wi-Fi/Bluetooth ➡ Bluetooth

Off	The camera will not be on standby for wireless connection and wireless signal will not be emitted even when the power is on.
On	When the camera is on, it will emit wireless signal and be on standby for wireless connection. You can connect the camera and the smartphone through operation of OM Image Share and shoot remotely or transfer images.
On	When the camera is turned on, it will start transmitting wireless signals, and if the devices have already been paired (P.436), it will stand by for connection from a remote control.

If the GPS track log is enabled in the dedicated OM Image Share app, location data downloaded from the app will be added to pictures taken while **[On]** is selected.

Wireless Settings for When the Camera Is Off (Power-off Standby)

You can choose whether the camera will maintain a wireless connection to the smartphone when off.

Menu

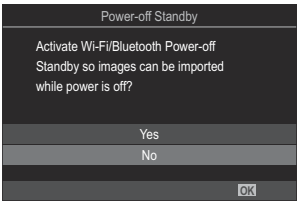
- **MENU** ➡ ⚙ ➡ 4. Wi-Fi/Bluetooth ➡ Settings ➡ Power-off Standby

Select	When you turn the camera off, you will be prompted to choose whether to maintain the wireless connection to the smartphone.
Off	Turning the camera off terminates the wireless connection to the smartphone.
On	When the camera is turned off, the connection to the smartphone remains active and the smartphone can still be used to download or view the pictures on the camera.

"Select"

When **[Select]** is chosen for **[Power-off Standby]**, a confirmation dialog will be displayed before the camera turns off if all the following conditions are met:

- **[Off]** is selected for **[Airplane Mode]**
- The camera is currently connected with a smartphone (P.414)
- The memory card is correctly inserted



Yes	Turn the camera off but leave the wireless smartphone connection active.
No	Turn the camera off and terminate the wireless smartphone connection.

- If no operations are performed about a minute after the confirmation dialog is displayed, the camera will end the wireless connection to the smartphone and turn off automatically.
- If left active, the wireless connection will automatically terminate if: The connection can be restored by turning the camera on.
  - the connection remains inactive for 12 hours
  - the memory card is removed
  - the battery is replaced
  - a charging error occurs during on-board battery charging

Note that if **[On]** is selected for **[Power-off Standby]**, camera may not turn on immediately when the power lever is rotated to 📷/🎞/S&Q.

Transferring images to a smartphone

You can select images in the camera and load them to a smartphone. You can also use the camera to select images you want to share in advance. ☞ "Selecting Pictures for Sharing (Share Order)" (P.315)

- If **[Off]** or **[On]** is selected for **[Bluetooth]** (P.417), select **[On]**.
- Selecting **[On]** for **[Bluetooth]** (P.417) puts the camera on standby, ready for a wireless connection.

1. Tap **[Import Photos]** in OM Image Share on the smartphone.

ⓘ Depending on the smartphone, a confirmation screen for Wi-Fi connection may appear. Follow the on-screen guidance to connect the smartphone and the camera.

- The images in the camera are displayed in a list.

2. Select the pictures you want to transfer and tap the Save button.

- When saving is completed, you can turn off the camera from the smartphone.
- Even if **[Bluetooth]** (P.417) is set to **[Off]** or **[On]**, **[Import Photos]** can be used by **[Device Connection]** on the camera.

Automatically uploading images while the camera is off

To configure the camera to automatically upload images to a smartphone while off:

- Mark images for sharing (P.315).
- Enable power-off standby (P.418).
- If you are using an iOS device, launch OM Image Share.

When you mark an image for sharing on the camera and turn the camera off, a notification appears in OM Image Share. When you tap the notification, images are automatically transferred to the smartphone.

Shooting remotely with a smartphone (Live View)

You can shoot remotely by operating the camera with a smartphone while checking the live view on the smartphone screen.

- The camera shows the connection screen and all operations are performed from the smartphone.
- If **[Off]** or **[On]** is selected for **[Bluetooth]** (P.417), select **[On]**.
- Selecting **[On]** for **[Bluetooth]** (P.417) puts the camera on standby, ready for a wireless connection.

1. Launch OM Image Share and tap **[Remote Control]**.

2. Tap **[Live View]**.

3. Tap the shutter button to shoot.
   - The image taken is saved on the memory card in the camera.

Even if **[Bluetooth]** (P.417) is set to **[Off]** or **[On]**, **[Live View]** can be used by starting **[Device Connection]** on the camera.

Available shooting options are partially limited.

Shooting remotely with a smartphone (Remote Shutter)

You can shoot remotely by operating the camera with a smartphone (Remote Shutter).

- All operations are available on the camera. In addition, you can shoot pictures and record movies using the shutter button displayed on the smartphone screen.
- If **[Off]** or **[On]** is selected for **[Bluetooth]** (P.417), select **[On]**.
- Selecting **[On]** for **[Bluetooth]** (P.417) puts the camera on standby, ready for a wireless connection.

1. Launch OM Image Share and tap **[Remote Control]**.

2. Tap **[Remote Shutter]**.

3. Tap the shutter button to shoot.
   - The image taken is saved on the memory card in the camera.

Even if **[Bluetooth]** (P.417) is set to **[Off]** or **[On]**, **[Remote Shutter]** can be used by starting **[Device Connection]** on the camera.

Adding position information to images

Using the smartphone's GPS function, you can add position information when taking pictures with the camera.

- If **[Off]** or **[On]** is selected for **[Bluetooth]** (P.417), select **[On]**.
- Selecting **[On]** for **[Bluetooth]** (P.417) puts the camera on standby, ready for a wireless connection.

1. Before taking pictures with the camera, launch OM Image Share and switch on the position information addition function.

- When you are prompted to synchronize the clocks of the smartphone and the camera, follow the guides displayed in OM Image Share.

2. Take pictures with the camera.

- When it is possible to add position information, ⌖ will be lit on the shooting screen. When the camera cannot acquire position information, ⌖ blinks.
- It may take some time before the camera is ready to add position information when it has been turned on or it has resumed from sleep mode.
- Position information will be added to pictures taken while ⌖ is displayed on the screen.
- ⌖ is displayed on the screen when you view a picture that has position information.

ⓘ Position information is not added to movies.

3. When you have finished shooting, switch off the position information addition function in OM Image Share.

Resetting smartphone connection settings (Reset Settings)

You can restore smartphone connection settings to default values.

Menu

- **MENU** ➡ ➡ 4. Wi-Fi/Bluetooth ➡ Settings ➡ Reset Settings

- The following menu items will be reset.
  - **[Connection Security]** (P.416), **[Connection Password]** (P.426), **[Power-off Standby]** (P.418)
- Before connecting to a smartphone, you will need to pair the devices again (P.414).

Changing the password (Connection Password)

To change the Wi-Fi/**Bluetooth**® passwords:

Menu

- **MENU** ➡ ➡ 4. Wi-Fi/Bluetooth ➡ Settings ➡ Connection Password

1. Press the ◎ button as directed by the on-screen guide.

- A new password will be set.

Both the Wi-Fi connection password and **Bluetooth**® connection passcode can be changed.

Reconnect to the smartphone after changing passwords. ☞ "Pairing the Camera and Smartphone (Device Connection)" (P.414)

Connecting to Computers via USB

Installing Software

Install the following software to access the camera while it is connected directly to the computer via USB.

OM Workspace

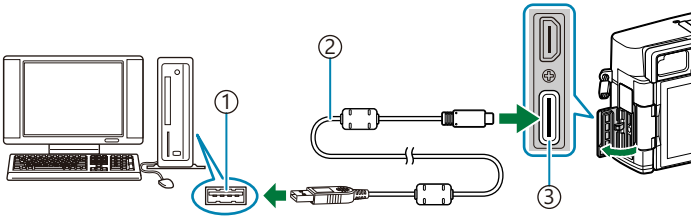
This computer application is used to download, view, and manage photos and movies recorded with the camera. It can also be used to update the camera firmware. The software can be downloaded from our website. When downloading the software, be prepared to provide the camera serial number.

Follow the on-screen instructions to install the software. System requirements and installation instructions are available at our website.

Copying Pictures to the Computer (Storage/MTP)

You can transfer images by connecting the camera to your computer as a card reader or portable device.

1. After confirming that the camera is off, connect it to the computer using the USB cable.



①USB port
②USB cable CB-USB11/CB-USB13 (sold separately)
③USB connector

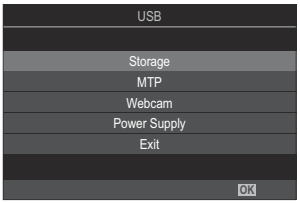
- The locations of USB ports vary from computer to computer. See the documentation provided with the computer for information on USB ports.

2. Turn the camera on.

- The camera will display a message prompting you to identify the device to which the USB cable is connected.
- If the message is not displayed, select **[Select]** for **[USB Mode]** (P.397).
- If the batteries are very low, the camera will not display a message when connecting to a computer. Be sure the batteries are charged.

3. Highlight **[Storage]** or **[MTP]** using △▽ and press the **OK** button.

[Storage]: The camera functions as a card reader.
[MTP]: The camera functions as a portable device.



4. The camera will connect to the computer as a new storage device.

- Data transfer is not guaranteed in the following environments, even if your computer is equipped with a USB port.
  - Computers with a USB port added by means of an extension card, etc., computers without a factory-installed OS, or home-built computers
- Camera functions cannot be used while the camera is connected to the computer.
- If the computer fails to detect the camera, disconnect and reconnect the USB cable.
- When **[MTP]** is selected, movies exceeding 4 GB cannot be copied to the computer.
- The camera battery may also be charged while connected to a computer via USB when the power lever is in the **OFF** position. Charging time varies significantly depending on the performance of the computer and other devices.

Using the Camera as a Webcam (Webcam)

The camera can be connected to a computer and used as a webcam for online meetings and live streaming. No additional drivers or applications are necessary. Video and audio data captured by the camera is streamed to the computer by simply connecting the two devices via USB (USB streaming).

1. Confirm that the camera is off.

2. Connect the camera to the computer.

ⓘ The locations of USB ports vary from computer to computer. See the documentation provided with the computer for information on USB ports.

3. Rotate the power lever to 🎥.

💡 If it is not displayed on the screen, select **[Select]** for **[USB Mode]** (P.397).

ⓘ If the batteries are very low, the camera will not display a message when connecting to a computer. Be sure the batteries are charged.

4. Highlight **[Webcam]** using △▽ and press the **OK** button.

- The camera will enter shooting mode.
- The icon will be displayed.
- Adjust the brightness and focus by operating the camera.

5. On the PC, launch the desired web conferencing or streaming service application. Select the model name of the connected camera in the device settings for the application.

- Streaming of video and audio will begin.
- Video will be streamed in a 1280×720 movie resolution.

ⓘ When **[Frame Rate]** is set to **[60p]**, **[30p]** or **[24p]** for [🎥], video is streamed at **[30p]**. When it is set to **[50p]** or **[25p]**, video is streamed at **[25p]**.

💡 The camera can be used as a webcam even if no card is inserted.

💡 If an external microphone is connected, audio captured by the microphone will be streamed.

When **[Yes]** is selected for **[Power Supply from USB]**, USB power is supplied to the camera from the PC while using it as a webcam.

The availability of USB power delivery depends on the specifications and performance of the computer's USB ports.

Power supply to the camera may not be available when the ambient or internal temperature is high.

Video and audio cannot be streamed to the computer if:

- an option other than is selected for the power lever, or the playback screen or menu screen are being displayed

Depending on the application you are using, performing these operations may temporarily disrupt video and audio streaming.

The following restrictions are in place while video and audio are being streamed to a computer.

- Photography and movie recording are not available.
- Movie Quality settings cannot be configured.
- **[Picture Mode]** (P.242) is fixed at **[Same as]**.

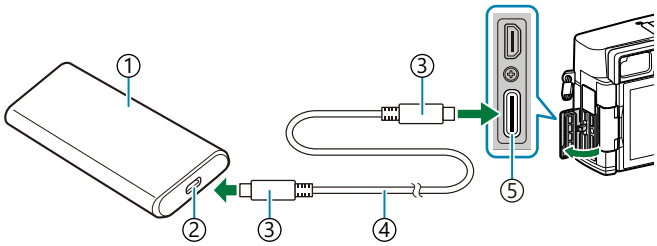
Exposure and other camera settings cannot be changed on the computer.

Powering the Camera via USB (Power Supply)

Commercially available mobile batteries and USB-AC adapters can be used to reduce battery consumption. The devices can be used under the following conditions:
Voltage/current: 5 V 1.5 A

Power supply to the camera may not be available when the ambient or internal temperature is high. Also, the continuous movie recording time may shorten while the camera is being powered.

1. After confirming that the camera is off, use the USB cable to connect it to the device.



①Mobile battery or other USB devices
②USB port
③USB connector
④USB cable CB-USB11/CB-USB13 (sold separately)
⑤USB connector

- The method used for connection varies from device to device. See the documentation provided with the device for details.
- You may be unable to use USB power delivery with some USB devices. See the manual supplied with the USB device.

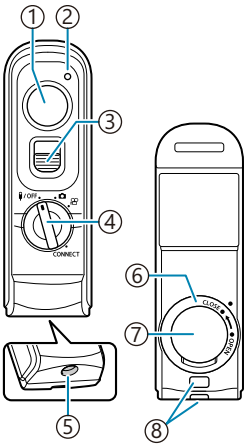
2. Turn the camera on.

- The camera will draw power from the connected USB device.
- If the camera displays a message prompting you to identify the device to which the USB cable is connected, select **[Power Supply]**.
- If the batteries are very low, the display will remain blank when the camera is connected to the USB device. Be sure the batteries are charged.
- USB is displayed while the camera draws power from the USB device.

Using the Remote Control

Names of parts

RM-WR2 (optional)



①Shutter button
②Data transfer indicator
③Shutter button lock
④Mode dial (**/OFF** / / / **CONNECT**)
⑤Cable connector
⑥Battery-compartment lid
⑦Battery compartment cover
⑧Strap eyelet

The optional RM-WR1 remote control cannot be used with this camera.

Connection

Wireless connection

For wireless connection, you must pair the camera and the remote control first.

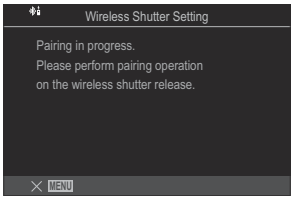
Menu

- **MENU** ➡ 🔧 ➡ 4. Wi-Fi/Bluetooth ➡ Wireless Shutter Setting

Start Pairing	Follow the on-screen instructions. When pairing is complete, **[Bluetooth]** will be set to **[On]**.
Delete Pairing	If you select **[Yes]** and press the **OK** button, the paired device will be deleted.

1. Highlight **[Start Pairing]** and press the **OK** button.

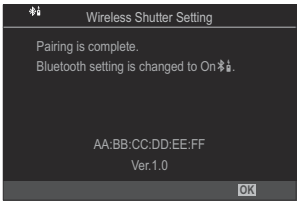
2. When a message is displaying stating that “pairing is in progress”, rotate the mode dial on the remote control to **CONNECT** and keep it in this position.



- Pairing starts when it is kept 3 seconds. Keep it in the **CONNECT** position until pairing is complete. If you rotate the mode dial before it is complete, the data transfer indicator flashes rapidly.
- The data transfer indicator lights when pairing starts.

3. When a message indicating pairing is complete is displayed, press the **OK** button.

- The remote control firmware version is displayed.



- The data transfer indicator goes out when pairing is complete.
- **[Bluetooth]** (P.417) will automatically be set to **[On]** when pairing is complete.

If you rotate the mode dial of the remote control or press the **MENU** button of the camera before the pairing completion message is displayed, the pairing process ends. Paired device information will be reset. Pair the devices again.

If you rotate the mode dial of a remote control that is not currently paired to **CONNECT** and keep it 3 seconds, or when pairing fails, the pairing information from previous connections will be reset. Pair the devices again.

Deleting pairing

1. Select **[Delete Pairing]** and press the **OK** button.

2. Select **[Yes]** and press the **OK** button.

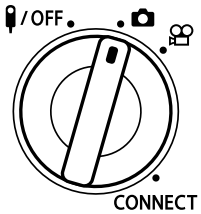
When you have paired the camera with a remote control, you have to perform **[Delete Pairing]** to reset pairing information before you pair the camera with a new remote control.

Shooting from the remote control

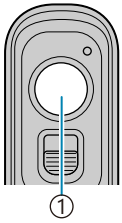
📷:PASMB 🎥/S&Q:PASM

Before establishing a wireless connection between the camera and remote control, confirm that **[On]** is selected for **[Bluetooth]** (P.417). When set to **[On]**, appears in the display and the camera will be on standby for wireless communication with the remote control as soon as it is turned on.

1. Rotate the mode dial of the remote control to 📷 or 🎥.



2. Press the shutter button on the remote control to take pictures.



①Shutter button

- When the mode dial of the remote control is set to 📷 (still photography mode): When you lightly press the shutter button of the remote control down to the first position (press the shutter button halfway), the AF confirmation mark (●) will be displayed, and a green frame (AF target) will be displayed in the focus location.
- When the mode dial of the remote control is set to 🎥 (movie recording mode): When you press the shutter button of the remote control, movie recording starts. Press the shutter button of the remote control again to stop movie recording.

Data transfer indicator of the remote control

Lights once	Remote control operation is sent to the camera correctly.
Flashes rapidly (1 second)	Remote control operation is not sent to the camera correctly. Shorten the distance between the camera and the remote control. If the problem is not solved, check the setting of the camera.
Flashes rapidly (3 seconds)	There is a problem regarding the pairing of the camera and remote control. Pair the devices again.
Does not light	This may occur in the following situations. • The battery in the remote control is dead. • The mode dial of the remote control is in the **OFF** position. • The camera and remote control are connected with a cable

- Even if **[Bluetooth]** (P.417) is set to **[On]**, you can connect the camera to a smartphone by starting **[Device Connection]** on the camera.
  However, you cannot control the camera from the remote control when it is connected to a smartphone.
- Pairing devices and remote shooting are not available when **[On]** is selected for **[Airplane Mode]** (P.412).
- The camera does not enter sleep mode when a remote control is connected wirelessly.
- If you rotate the mode dial of the remote control to the **OFF** position, the camera enters sleep mode according to the setting of **[Sleep]** (P.399).
  The camera will not enter sleep mode when **[On]** is selected for **[Bluetooth]** (P.417) unless the mode dial on the remote control is in the **OFF** position.
- If you operate the remote control while the camera is in sleep mode, it may take a longer time for the camera to resume operation.
- The camera cannot be controlled from the remote control while it is waking from sleep. Operate the remote control after the camera has resumed operation.
- Rotate the mode dial of the remote control to the **OFF** position when you have finished using the remote control.

MAC address of the remote control

The MAC address of the remote control is printed on the warranty card provided with the remote control.

Precautions for using the remote control

- Do not tug on the battery-compartment cover or use it to turn the battery-compartment lid.
- Do not pierce batteries with sharp objects.
- Confirm that the battery-compartment lid is free of foreign matter before closing it.

Connecting to TVs or External Displays via HDMI

Connecting the Camera to TVs or External Displays (HDMI)

Pictures can be displayed on televisions connected to the camera via HDMI. Use the television to display pictures to an audience.

You can also film movies while the camera is connected to an external monitor or video recorder via HDMI.

HDMI cables are available from third-party suppliers. Use an HDMI-certified cable.

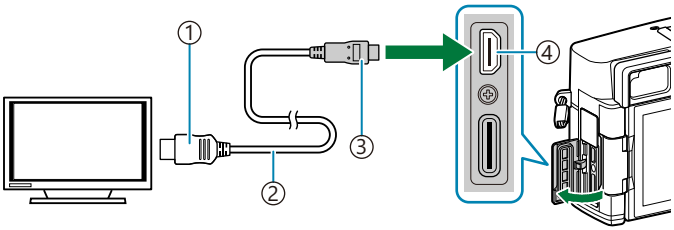
Viewing Pictures on a TV (HDMI)

Photos and movies can be viewed on a high-definition TV connected directly to the camera by means of an HDMI cable.
For information on output signal setting, see "External Monitor Display Options (HDMI Settings)" (P.396).

Connecting the Camera to a TV

Connect the camera using an HDMI cable.

1. After confirming that the camera is off, connect it to the TV using an HDMI cable.



①HDMI connector
②HDMI cable (sold separately)
③HDMI connector (Type D)
④HDMI connector

2. Switch the TV to HDMI input and turn the camera on.

- The TV will show the content on the camera monitor. Press the ▶ button to view pictures.

- For information on switching to HDMI input, see the manual provided with the TV.
- Depending on TV settings, the image may be cropped and some indicators may not be visible.
- HDMI cannot be used while the camera is connected to a computer via USB.
- If **[Record]** is selected for **[HDMI Output]** (P.295) > **[Output Mode]**, the signal will be output at the current movie frame size. No image will be displayed if the TV does not support the selected frame size.
- If **[4K]** or **[C4K]** is selected, 1080p priority format will be used during still photography.

Cautions

Information about Water-resistant Features

This camera has a water-resistant specification of IPX1 (when used in combination with a water-resistant lens supplied by our company).

Precautions

- Water-resistant capabilities may be lost when the camera is subjected to shock.
- Check the following parts for foreign material including dirt, dust or sand: packing parts of the battery compartment cover, card compartment cover, connector covers, and the parts that come in contact with them, and the parts that come in contact when attaching the lens and accessories. Wipe off foreign material with a clean cloth that does not produce textile waste.
- To ensure water-resistant capabilities, be sure to close the lids and covers firmly and attach the lens before use.
- Do not operate the camera, open/close the covers, or attach/remove the lens when they are wet.
- Water-resistant feature is ensured only when compatible lenses/accessories are attached. Check the compatibility.
  For compatible accessories, visit our website.

Maintenance

- Wipe off water thoroughly with a dry cloth.
- Remove foreign materials such as dirt, dust, or sand thoroughly.

Batteries

- The camera uses our lithium-ion battery. Never use any battery other than our genuine batteries.
- The camera's power consumption varies widely with usage and other conditions.
- As the following consume a lot of power even without shooting, the battery will be drained quickly.
  - Performing auto focus repeatedly by pressing the shutter button halfway in shooting mode.
  - Displaying images on the monitor for a prolonged period.
  - When connected to a computer (except when powering the camera via USB).
  - Leaving wireless LAN/**Bluetooth**® enabled.
- When using a drained battery, the camera may turn off without the low battery warning being displayed.
- The battery will not be fully charged at the time of purchase. Charge the battery before use.
- If the battery charge lamp does not light when a USB-AC adapter or a commercially available USB device is connected to the camera, charging has not started. Charging may start when you perform the following steps.
  1. Remove the battery from the camera
  2. Disconnect the USB cable from the camera, if a USB-AC adapter or commercially available USB device is connected
  3. Confirm that the power lever is in the **OFF** position
  4. Leave the battery out of the camera for a while, then insert it into the camera again
  5. Connect the USB-AC adapter or commercially available USB device
- When not using the camera for periods of a month or more, remove the battery from the camera after charging. Leaving the batteries in the camera for extended periods shortens their lives, potentially rendering them unusable.
- There is a risk of explosion if the battery is replaced with the incorrect battery type.
- Dispose of the used battery following the instructions under "⚠CAUTION" (P.521) in the instruction manual.

Using your USB-AC adapter abroad

- An USB-AC adapter can be used in most home electrical sources within the range of 100 V to 240 V AC (50/60 Hz) around the world. However, depending on the country or area you are in, the AC wall outlet may be shaped differently and the USB-AC adapter may require a plug adapter to match the wall outlet.
- Do not use third-party travel adapters as the USB-AC adapter may malfunction.

Information

Interchangeable lenses

Choose a lens according to the scene and your creative intent. Use lenses designed exclusively for the Micro Four Thirds system and bearing the M.ZUIKO DIGITAL label or the symbol shown. With an adapter, you can also use Four Thirds System lenses. The optional adapter is required.

- When you attach or remove the body cap and lens from the camera, keep the lens mount on the camera pointed downward. This helps prevent dust and other foreign matter from getting inside the camera.
- Do not remove the body cap or attach the lens in dusty places.
- Do not point the lens attached to the camera toward the sun. This may cause the camera to malfunction or even ignite due to the magnifying effect of sunlight focusing through the lens.
- Be careful not to lose the body cap and rear cap.
- Attach the body cap to the camera to prevent dust from getting inside when no lens is attached.

Lens and camera combinations

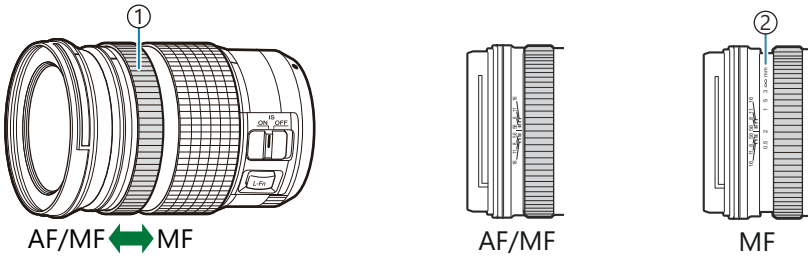
Lens	Camera	Attachment	AF	Metering
Micro Four Thirds system lens	Micro Four Thirds system camera	Yes	Yes	Yes
Four Thirds system lens		Attachment possible with mount adapter	Yes[1]	Yes

1 Not available during enlarged display, movie recording or starry sky AF.

MF Clutch Lenses

The “MF clutch” (manual focus clutch) mechanism on MF clutch lenses can be used to switch between auto and manual focus simply by repositioning the focus ring.

- Check the position of the MF clutch before shooting.
- Sliding the focus ring to the AF/MF position at the end of the lens selects autofocus, while sliding it to the MF position closer to the camera body selects manual focus, regardless of the focus mode chosen with the camera.



①Focus Ring
②Focus distances visible

Selecting **[Inoperative]** for **[MF Clutch]** (P.168) disables manual focus even when the MF clutch is in the MF position.

Monitor display when using a lens equipped with the SET/CALL function

The camera monitor displays "●Set" when the focus position is saved using the SET option and "●Call" when a saved focus position is restored using the CALL option.
For more information on SET and CALL, see the lens manual.

Optional Accessories

Designated External Flash Units

When using an optional flash unit designed for use with the camera, you can choose the flash mode using camera controls and take pictures with the flash. See the documentation provided with the flash unit for information on flash features and their use.

Choose a flash unit to suit your needs, taking into consideration such factors as the output required and whether the unit supports macro photography. Flash units designed to communicate with the camera support a variety of flash modes, including TTL auto and super FP. The camera also supports these wireless flash control systems:

Radio-Controlled Flash Photography: CMD, ϟCMD, RCV, and X-RCV Modes

The camera controls one or more remote flash units by means of radio signals. The range of locations in which flash units can be placed increases. Flash units can control other compatible units or be fitted with radio commander/receivers to allow the use of units that do not otherwise support radio flash control.

Wireless Remote-Control Flash Photography: RC Mode

The camera controls one or more remote flash units by means of optical signals. The flash mode can be selected using camera controls (P.449).

Wireless remote control flash photography

:PASMB /S&Q:PASM

Wireless flash photography is available with compatible flash units that support wireless remote control (RC). The remote flash units are controlled via a unit mounted on the camera hot shoe. Settings can be adjusted separately for the units in up to three other groups.

RC mode must be enabled on both the master and remote flash units (P.448).

Configuring RC mode

1. Select **[On]** for **[RC Mode]** (P.201) and press the **OK** button.

- The camera will exit to the shooting display.
- "RC" appears on the screen.

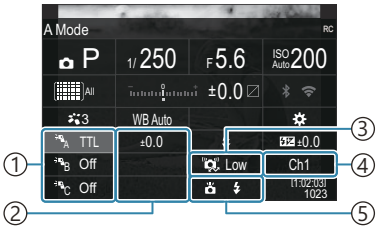
2. Press the **OK** button.

- The RC mode super control panel will be displayed.

- The standard LV super control panel can be displayed by pressing the **INFO** button. The display will change each time the **INFO** button is pressed.

3. Adjust flash settings.

- Highlight items using the △▽◁▷ buttons and rotate the front dial to choose settings.



① Group, flash control mode
② Flash compensation
③ Optical signal strength
④ Channel
⑤ Flash mode

Group	Choose a group. Changes to settings apply to all units in the selected group. The unit mounted on the camera works as a member of Group A.
Flash control mode	Choose a flash mode.
Flash compensation	Adjust flash output. When **[MANUAL]** is selected for flash mode, you can choose a value for manual flash output.
Optical signal strength	Choose the brightness of the optical control signals emitted by the flash units. Choose **[High]** if you have placed flash units close to the maximum distance from the camera. This setting applies to all groups.
Flash mode	Choose (standard) or FP (super FP). Choose super FP for shutter speeds faster than the flash sync speed. This setting applies to all groups.
Channel	Choose the channel used for flash control. Change the channel if you find that other light sources in the area are interfering with remote flash control.

Setting up the flash

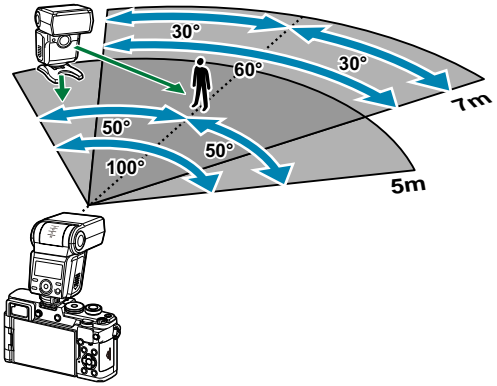
1. Set the remote flash units.
   - Turn on the remote flash units and set them to RC mode.
   - Set up the group to control with the flash and configure the communication channel so that it matches the camera settings.
   - See the documentation provided with the flash units for how to configure the settings.

2. Arrange the flash units.
   - Position the wireless units with the remote sensors facing the camera.

3. Take pictures after confirming that the camera and flash units are charged.

Wireless Flash Control Range

The illustration is intended as a guide only. The flash control range varies with the type of flash mounted on the camera and the conditions in the surrounding area.



- We recommend that each group contain no more than 3 flash units.
- Wireless flash photography is not available in anti-shock mode or in rear-curtain slow sync mode when a shutter speed slower than 4 s is selected.
- Waiting times longer than 4 s cannot be selected in anti-shock and silent modes.
- Flash control signals may interfere with exposure if the subject is too close to the camera. This can be mitigated by reducing the brightness of the camera flash, for example by using a diffuser.

Other external flash units

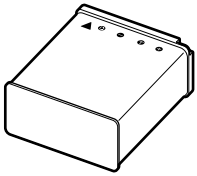
Note the following when using a third-party flash unit mounted on the camera hot shoe:

- Using obsolete flash units that apply currents of more than about 250 V to the X-contact will damage the camera.
- Connecting flash units with signal contacts that do not conform to our specifications may damage the camera.
- Select mode **M**, choose a shutter speed no faster than the flash sync speed, and set **[ISO]** to a setting other than **[Auto]**.
- Flash control can only be performed by manually setting the flash to the ISO sensitivity and aperture values selected with the camera. Flash brightness can be adjusted by adjusting either ISO sensitivity or aperture.
- Use a flash with an angle of illumination suited to the lens. Angle of illumination is usually expressed using 35-mm format equivalent focal lengths.

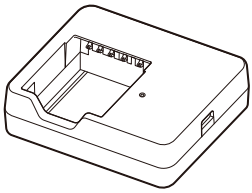
Accessories

For the latest information, please visit our website.

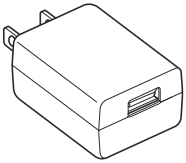
Power supply



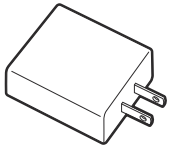
Lithium-ion battery
BLS-7



Lithium-ion charger
BCS-7

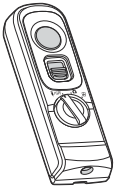


USB-AC adapter
F-5AC



USB-AC adapter
F-7AC

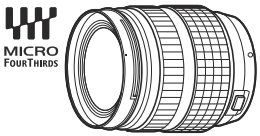
Remote control/release



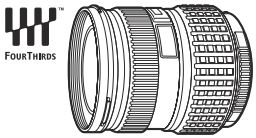
Remote control
RM-WR2

Lens

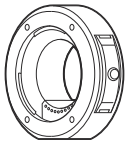
Micro Four Thirds system lenses



Four Thirds system lenses



- An MMF-2 or MMF-3 Four Thirds Adapter is required to use Four Thirds System lenses with this camera.
- There are restrictions on the lenses that can be used with the adapter. For more information, visit our website.



Four Thirds Adapter
MMF-2/MMF-3

Converter lenses

- **MC-20** (Teleconverter)
- **MC-14** (Teleconverter)

Visit our website for information on compatible lenses.

Case/Strap

- Camera Case
- Shoulder Strap

Connection Cable

- USB Cable
  CB-USB11/CB-USB13
- HDMI Cable (HDMI cables are available from third-party suppliers.)

Memory Card

- SD
- SDHC
- SDXC

Memory cards are available from third-party suppliers.

Microphone

Microphones are available from third-party suppliers.

Software

Photo management/editing software for computers
OM Workspace

Smartphone app
OM Image Share

Cleaning and storing the camera

Cleaning the camera

Turn off the camera and remove the battery before cleaning the camera.

- Do not use strong solvents such as benzene or alcohol, or a chemically treated cloth.

Exterior:

- Wipe gently with a soft cloth. If the camera is very dirty, soak the cloth in mild soapy water and wring well. Wipe the camera with the damp cloth and then dry it with a dry cloth. If you have used the camera at the beach, use a cloth soaked in clean water and well wrung.

Monitor:

- Wipe gently with a soft cloth.

Lens:

- Blow dust off the lens with a commercially available blower. For the lens, wipe gently with a lens cleaning paper.

Storage

- When not using the camera for a prolonged period, remove the battery and card after charging. Store the camera in a cool, dry place that is well ventilated.
- Insert the battery periodically and test the camera's functions.
- Remove dust and other foreign matter from the body and rear caps before attaching them.
- Attach the body cap to the camera to prevent dust from getting inside when no lens is attached. Be sure to replace the front and rear lens caps before putting the lens away.
- Clean the camera after use.
- Do not store the camera with insect repellent.
- Avoid storing the camera in places where chemicals are treated, in order to protect the camera from corrosion.
- Mold may form on the lens surface if the lens is left dirty.
- Check each part of the camera before use if it has not been used for a long time. Before taking important pictures, such as during trips overseas, be sure to take a test shot and check that the camera works properly.

Inspecting and Cleaning the Image Sensor

This camera incorporates a dust reduction function to keep dust from getting on the image sensor and to remove any dust or dirt from the image sensor surface with ultrasonic vibrations. The dust reduction function operates when the camera is turned on. The dust reduction function operates at the same time as the pixel mapping, which checks the image sensor and image processing circuitry. Since dust reduction is activated every time the camera's power is turned on, the camera should be held upright for the dust reduction function to be effective.

Pixel Mapping - Checking the image processing functions

Check the image sensor and image processing functions simultaneously. For best results, wait at least a minute after shooting and playback have ended before performing pixel mapping.

1. Select **[Pixel Mapping]** (P.407).

2. Select **[Yes]** and press the **OK** button.
   - The **[Busy]** bar is displayed when pixel mapping is in progress. When pixel mapping is finished, the menu is restored.

- If you accidentally turn the camera off during pixel mapping, start again from Step 1.

Shooting tips and information

The camera does not turn on even when a battery is loaded

The battery is not fully charged

- Charge the battery. ☞ "Charging the battery" (P.29)

The battery is temporarily unable to function because of the cold

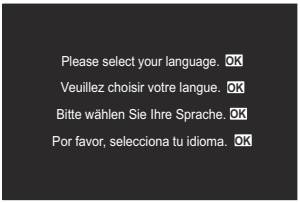
- Battery performance drops at low temperatures. Remove the battery and warm it by putting it in your pocket for a while.

The battery is not charged

- If the battery charge lamp does not light when a USB-AC adapter or a commercially available USB device is connected to the camera, charging has not started. Charging may start when you perform the following steps.
  1. Remove the battery from the camera
  2. Disconnect the USB cable from the camera, if a USB-AC adapter or commercially available USB device is connected
  3. Confirm that the power lever is in the OFF position
  4. Leave the battery out of the camera for a while, then insert it into the camera again
  5. Connect the USB-AC adapter or commercially available USB device

A dialog prompting you to choose a language is displayed

- The dialog is displayed in the following situations.
  - The camera is turned on for the first time.
  - You have not chosen a language.



See "Initial setup" (P.40) for information on choosing a language.

The screen displayed may vary depending on the country or region of purchase.

No picture is taken when the shutter button is pressed

The camera has turned off automatically

- If **[On]** is selected for **[Quick Sleep Mode]**, the camera will enter sleep mode if no operations are performed for a set period. Press the shutter button halfway to exit the sleep mode. ☞ **[Quick Sleep Mode]** (P.401)
- The camera automatically enters sleep mode to reduce the drain on the battery if no operations are performed for a set period of time. ☞ **[Sleep]** (P.399)
- If no operations are performed for a set time after the camera has entered sleep mode, the camera will turn off automatically. ☞ **[Auto Power Off]** (P.400)

The flash is charging

- On the monitor, the ϟ mark blinks when charging is in progress. Wait for the blinking to stop, then press the shutter button.

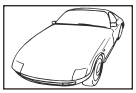
Unable to focus

- The camera cannot focus on subjects that are too close to the camera or that are not suited to autofocus (the AF confirmation mark will blink in the monitor). Increase the distance to the subject or focus on a high contrast object at the same distance from the camera as your main subject, compose the shot, and shoot.

Subjects that are difficult to focus on

It may be difficult to focus with auto focus in the following situations.

- AF confirmation mark is blinking.
  The camera will not be able to focus on the following.



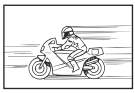
Subjects with low contrast

Excessively bright light in center of frame

Index

- AF confirmation mark lights up but the subject is not in focus.

Subjects at different distances



Fast-moving subject

Subjects not inside AF area

Noise reduction is activated

- When shooting night scenes, shutter speeds are slower and noise tends to appear in images. The camera activates the noise-reduction process after shooting at slow shutter speeds, during which shooting is not possible. You can set **[Noise Reduction]** to **[Off]**. ☞ **[Noise Reduction]** (P.193)

The number of AF targets is reduced

- The size and number of available AF targets vary with the options chosen for **[Digital Tele-converter]** (P.270) and **[Aspect]** (P.230), group target settings (P.124), drive settings (P.205), and the options chosen for **[Image Stabilizer]** (P.219).

The date and time has not been set

The camera is used with the settings at the time of purchase

- The date and time of the camera is not set when purchased. Set the date and time before using the camera. ☞ "Initial setup" (P.40)

The battery has been removed from the camera

- The date and time settings will be returned to the factory default settings if the camera is left without the battery for approximately 1 day (in-house measurements). The settings will be canceled more quickly if the battery was only loaded in the camera for a short time before being removed. Before taking important pictures, check that the date and time settings are correct.

Set functions are restored to their factory default settings

- Settings altered in AUTO and **SCN** modes are reset to default values when the mode dial is rotated to another setting.
- Settings altered in custom modes (**C1**/**C2**) are reset to saved values when the mode dial is rotated to another setting or the camera is turned off. If **[Hold]** is selected for **[Save Settings]** when a custom mode is selected, changes to settings will automatically be saved to the selected mode. ☞ "Saving the Changes Made to Settings while in Custom Modes" (P.99)

Pictures are "washed out"

- This may occur when the picture is taken in backlight or semi-backlight conditions. This is due to a phenomenon called flare or ghosting. As far as possible, consider a composition where strong light source is not taken in the picture. Flare may occur even when a light source is not present in the picture. Use a lens hood to shade the lens from the light source. If a lens hood does not have effect, use your hand to shade the lens from the light.

Unknown bright dot(s) appear on the subject in the picture taken

- This may be due to the dead pixel(s) on the image sensor. Perform **[Pixel Mapping]**. If the problem persists, repeat pixel mapping a few times. ☞ "Pixel Mapping - Checking the image processing functions" (P.457)

Pressing a button does not activate the desired function, but a different function is activated

- Other roles may have been assigned to buttons in place of their existing functions. Check the settings in **[Button Settings]** (P.340).

Functions that cannot be selected from menus

- When you open the menu, items that cannot be set are displayed in gray. When you press the **OK** button while a gray item is highlighted, the reason it is not available is displayed. Refer to the on-screen instructions and check the settings. ☞ "Items shown in gray" (P.117)

Functions that cannot be set from the super control panel

- Some functions may be unavailable depending on the current shooting settings. Check if the same function is displayed in gray in the menus.

The subject appears distorted

- The following functions use an electronic shutter:
  - Movie Recording (P.90) / Silent Mode (P.213) / Pro Capture Shooting (P.215) / High Res Shot (P.254) / Focus Bracketing (P.289) / Focus Stacking (P.261) / Live ND Shooting (P.258) / HDR (P.264) / Backlight HDR and Handheld Starlight in **SCN** mode (P.78)

  This may cause distortion if the subject is moving rapidly or the camera is moved abruptly. Avoid moving the camera abruptly during shooting, or use standard sequential shooting.

Lines appear in photographs

- The following functions use an electronic shutter, which may result in lines due to flicker and other phenomena associated with fluorescent and LED lighting:
  - Movie Recording (P.90) / Silent Mode (P.213) / Pro Capture Shooting (P.215) / High Res Shot (P.254) / Focus Bracketing (P.289) / Focus Stacking (P.261) / Live ND Shooting (P.258) / HDR (P.264)

  Flicker can be reduced by choosing slower shutter speeds. You can also reduce flicker using flicker scan. ☞ **[Flicker Scan]** (P.176), **[Flicker Scan]** (P.176)

Only the subject is displayed and no information is shown

- The display has been switched to “Image Only”. Press the **INFO** button and switch to another display mode. ☞ “Switching the information display” (P.48)

Focus mode cannot be changed from MF (manual focus)

- The lens you are using may be equipped with the MF clutch mechanism. In this case, manual focus is selected when the focus ring is slid to the camera body side. Check the lens. ☞ “MF Clutch Lenses” (P.446)

Nothing is displayed on the monitor

- When something, e.g. your face, hand or strap, comes close to the viewfinder, the monitor turns off and the viewfinder turns on. ☞ “Switching between displays” (P.46)

Error codes

Monitor indication	Possible cause/Corrective action
No Card	**The card is not inserted, or it cannot be recognized.** Insert a card. Or reinsert the card properly.
Card Error	**There is a problem with the memory card.** Remove and reinsert the memory card. If this does not solve the problem, format the card. If formatting fails, the card cannot be used.
Write Protect	**The memory card is write-protected (“locked”).** The memory card write-protect switch is in the “LOCK” position. Return the switch to the unlocked position (P.34).
Card Full	**Shooting disabled; the memory card is full.** Insert another memory or delete pictures. Before deleting pictures, be sure any pictures you wish to keep have been copied to a computer.
Card Full	**There is not enough space on the memory card to record additional pictures.** Insert another memory or delete pictures. Before deleting pictures, be sure any pictures you wish to keep have been copied to a computer.
No Picture	**Playback unavailable; the memory card contains no pictures.** The selected memory card contains no pictures. Take pictures before choosing playback mode.
Picture Error	**The selected file is damaged and cannot be played back. Alternatively, the picture is in a format that is not supported by the camera.** View the picture using computer imaging software or the like. If the picture cannot be displayed on a computer, the file may be corrupt.

Monitor indication	Possible cause/Corrective action
The Image Cannot Be Edited	**Camera retouch features cannot be applied to pictures recorded with other devices.** Retouch the picture on a computer or other devices.
Y/M/D	**The clock is not set.** Set the clock (P.404).
	The internal temperature of the camera has risen due to sequential shooting. Turn off the camera and wait for the internal temperature to cool.
Internal camera temperature is too high. Please wait for cooling before camera use.	**The internal temperature of the camera has risen due to sequential shooting.** Wait a moment for the camera to turn off automatically. Allow the internal temperature of the camera to cool before resuming operations.
Battery Empty	**The battery is drained.** Charge the battery.
No Connection	**The camera is not correctly connected to a computer, HDMI display, or other devices.** Reconnect the camera.
The lens is locked. Please extend the lens.	**The lens of the retractable lens remains retracted.** Extend the lens.
Please check the status of a lens.	**An abnormality has occurred between the camera and the lens.** Turn off the camera, check the connection with the lens, and turn the power on again.

Specifications

Camera

Product type	
Product type	Digital camera with interchangeable Micro Four Thirds Standard lens system
Lens	M.ZUIKO DIGITAL, Micro Four Thirds System Lens
Lens mount	Micro Four Thirds mount
Equivalent focal length on a 35 mm film camera	Approx. twice the focal length of the lens
Image sensor	
Product type	4/3″ Live MOS sensor
Total no. of pixels	Approx. 21.77 million pixels
No. of effective pixels	Approx. 20.37 million pixels
Screen size	17.4 mm (H) × 13.0 mm (V)
Aspect ratio	1.33 (4:3)
Viewfinder	
Type	Electronic viewfinder with eye sensor
No. of pixels	Approx. 2.36 million dots
Magnification	100%
Eye point	Approx. 20.5 mm (−1 m^{-1})

Live view	
Sensor	Uses Live MOS sensor
Magnification	100%
Monitor	
Product type	3.0" TFT color LCD, Vari-angle, touch screen
Total no. of pixels	Approx. 1.04 million dots (aspect ratio 3:2)
Shutter	
Product type	Computerized focal-plane shutter
Shutter Speed	1/4000 – 60 sec., bulb photography, time photography
Flash sync speed	1/250 s or slower
Auto focus	
Product type	Hi-Speed Imager AF
Focusing points	121 points
Selection of focusing point	Auto, Optional
Exposure control	
Metering system	TTL metering system (imager metering) Digital ESP metering/Center weighted averaging metering/Spot metering
Metered range	−2 to 20 EV (F2.8, ISO 100 equivalent)
ISO	L64; L100; 200 – 25600 in steps of 1/3 or 1 EV
Exposure Comp.	±5.0 EV (1/3, 1/2, 1 EV step)

White balance	
Mode setting	Auto/Preset WB (7 settings)/Customized WB/One-touch WB (camera can store up to 4 settings)
Recording	
Memory	SD, SDHC and SDXC UHS-I compatible
Recording system	Digital recording, JPEG (DCF2.0), RAW Data
Compatible standard	Exif 3.0, Digital Print Order Format (DPOF)
Sound with still pictures	Wave format
Movie recording mode	Compliant with MPEG-4 AVC/H.264
Audio	Stereo linear PCM, 16-bit; sampling frequency 48 kHz (wave format) Stereo linear PCM, 24-bit; sampling frequency 96 kHz (wave format)
Playback	
Display format	Single-frame playback/Close-up playback/Index display/Calendar display
Drive	
Drive mode	Single frame; sequential; anti-shock; silent; Pro Capture; self-timer
Sequential shooting	Up to 5 fps (□) Up to 8 fps (♥□) 8 fps (ProCap) Up to 30 fps (♥□H/ProCapH)
Self-timer	12 sec./2 sec./Customized
External flash	
Flash control mode	TTL-AUTO (TTL pre-flash mode)/MANUAL
X-Sync.	1/250 s or slower

Wireless LAN	
Compatible standard	IEEE 802.11b/g/n
Bluetooth®	
Compatible standard	**Bluetooth** Version 5.2 (Bluetooth Low Energy)
External connector	
	USB (Type C); HDMI (type D); microphone jack (ø3.5 mm stereo mini-jack)
Power supply	
Battery	Lithium-ion Battery ×1
Energy saving function	Switch to sleep mode: 1 minute, Power OFF: 4 hours (This function can be customized.)
Dimensions/weight	
Dimensions	Approx. 125.8 mm (W) × 74.5 mm (H) × 43.3 mm (D) (5.0″ × 2.9″ × 1.7″) (excluding protrusions)
Weight	Approx. 393 g (0.9 lb.) (including battery and memory card)
Operating environment	
Temperature	0 °C – 40 °C (32 °F – 104 °F) (operation) / –20 °C – 60 °C (–4 °F – 140 °F) (storage)
Humidity	30% – 90% (operation) / 10% – 90% (storage)
Water resistance	IEC Standard publication 60529 IPX1 (applies if camera is used with our water-resistant lens)

Lithium-ion battery

MODEL NO.	BLS-7
Type	Rechargeable Lithium-ion battery
No. of charge and discharge times	Approx. 300 times (varies with usage conditions)
Ambient temperature	0 °C – 40 °C (32 °F – 104 °F) (charging)
Dimensions	Approx. 40.7 mm (W) × 34.9 mm (H) × 17.3 mm (D) (1.6″ × 1.4″ × 0.7″)
Weight	Approx. 46.3 g (0.1 lb.)

- The appearance and specifications of this product are subject to change without notice or obligation on the part of the manufacturer.
- Visit our website for the latest specifications.

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.

Default Settings

Default Settings

Super Control/LV Super Control Panel (P.472)
Tab (P.478)
Tab (P.485)
AF Tab (P.489)
Tab (P.495)
Tab (P.499)
Tab (P.501)
Tab (P.508)

Super Control/LV Super Control Panel

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

📷 Mode

Role	Default role	*1	*2	*3
Shutter Speed	1/250 s (When set to **S**/**M**), Bulb (When set to **B**)	📷	✓	✓
Aperture Value	F5.6	📷	✓	✓
📷ISO	ISO Auto	📷	✓	✓
📷AF Target Mode	**[▪]**Single	📷	✓	✓
Exposure Comp. / 🖼				
Exposure Comp.	±0.0	📷	✓	✓
🖼	All ±0.0	📷	✓	✓
Wi-Fi/Bluetooth	—	—	—	—
📷Picture Mode	**3**Natural	📷	✓	✓
WB	WB Auto	📷	✓	✓
Kelvin	5400K (When **[WB]** is set to **[CWB]**)	📷	✓	—
📷Button Function	—	📷	✓	—
📷AF Mode	S-AF	📷	✓	✓
📷Subject Detection	Off	📷	✓	✓
Flash Mode	ϟ	📷	✓	✓
Flash Exposure Comp.	±0.0	📷	✓	✓

Role	Default role	*1	*2	*3
Manual Value	Full (When flash is set to **[Manual]**)	✓	✓	✓
Drive /		✓	✓	✓
Metering		✓	✓	✓
Aspect	4:3	✓	✓	✓
Image Stabilizer	S-IS Auto	✓	✓	✓
	F (when High Res Shot is set: F+RAW)	✓	✓	✓
	30p L-8	✓	✓	✓

Mode

Role		Default role	*1	*2	*3
Shutter Speed		1/125 s		✓	✓
Aperture Value		F5.6		✓	✓
ISO		ISO Auto		✓	✓
AF Target Mode		[ ]Middle		✓	✓
Exposure Comp. /					
	Exposure Comp.	±0.0		✓	✓
		All ±0.0		✓	✓
Wi-Fi/Bluetooth		—	—	—	—
Picture Mode		3Natural		✓	✓
WB		WB Auto		✓	✓
Kelvin		5400K (When **[WB]** is set to **[CWB]**)		✓	—
Button Function		—		✓	—
AF Mode		C-AF		✓	✓
Face & Eye Detection		Off		✓	✓
Image Stabilizer		M-IS1		✓	✓
		4K 30p L-8		✓	✓
Sound Recording Level		±0		✓	✓

S&Q Mode

Role		Default role	*1	*2	*3
Shutter Speed		1/125 s		✓	✓
Aperture Value		F5.6		✓	✓
ISO		ISO Auto		✓	✓
AF Target Mode		[ ]Middle		✓	✓
Exposure Comp. /					
	Exposure Comp.	±0.0		✓	✓
		All ±0.0		✓	✓
Wi-Fi/Bluetooth		—	—	—	—
Picture Mode		3Natural		✓	✓
WB		WB Auto		✓	✓
Kelvin		5400K (When **[WB]** is set to **[CWB]**)		✓	—
Button Function		—		✓	—
AF Mode		C-AF		✓	✓
Face & Eye Detection		Off		✓	✓
Image Stabilizer		M-IS1		✓	✓
S&Q		4K 30p/60 L-8		✓	✓
Sound Recording Level		±0		✓	✓

RC Mode

Role	Default role	*1	*2	*3
Shutter Speed	1/250 s (When set to **S**/**M**), Bulb (When set to **B**)	📷	✓	✓
Aperture Value	F5.6	📷	✓	✓
📷ISO	ISO Auto	📷	✓	✓
📷AF Target Mode	[▪]Single	📷	✓	✓
Exposure Comp. / 🖼				
Exposure Comp.	±0.0	📷	✓	✓
🖼	All ±0.0	📷	✓	✓
Wi-Fi/Bluetooth	—	—	—	—
📷Picture Mode	3Natural	📷	✓	✓
WB	WB Auto	📷	✓	✓
Kelvin	5400K (When **[WB]** is set to **[CWB]**)	📷	✓	—
📷Button Function	—	📷	✓	—
A mode	TTL	📷	✓	✓
B mode	Off	📷	✓	✓
C mode	Off	📷	✓	✓
Flash Exposure Comp.	±0 (when set to TTL/Auto)	📷	✓	✓
Flash output	1/1 (when in Manual Mode)	📷	✓	✓
Flash Mode	ϟ	📷	✓	✓
ϟ/FP	ϟ (Normal)	📷	✓	✓
Level	Low	📷	✓	✓

Role	Default role	*1	*2	*3
Channel	Ch1	📷	✓	✓

1 Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. Basic Settings/Image Quality

Role			Default role	*1	*2	*3
📷Custom Mode						
	C1	Recall	—	—	—	—
		Assign	Shooting Mode: **P** Image quality: LF+RAW	—	—	—
		Save Settings	Reset	—	✓	—
		Custom Mode Name	—	—	✓	—
	C2	Recall	—	—	—	—
		Assign	Shooting Mode: **P** Image quality: LF+RAW	—	—	—
		Save Settings	Reset	—	✓	—
		Custom Mode Name	—	—	✓	—
📷			LF	📷	✓	✓

Role	Default role	*1	*2	*3
Detailed Settings				
1	Pixel Count: L Compression: SF		✓	—
2	Pixel Count: L Compression: F		✓	—
3	Pixel Count: L Compression: N		✓	—
4	Pixel Count: M1 Compression: N		✓	—
Image Aspect	4:3		✓	✓
Image Review	0.5sec		✓	—
Shading Comp.	Off	/video	✓	✓

2. Picture Mode/WB

Role	Default role	*1	*2	*3
Picture Mode	3Natural	/video	✓	✓
Picture Mode Settings	All items: ✓	/video	✓	—
WB	WB Auto	/video	✓	✓
All WB				
A-B	0	/video	✓	—
G-M	0	/video	✓	—
WB AUTO Keep Warm Color	On	/video	✓	—
+WB	Off		✓	—

Role	Default role	*1	*2	*3
Color Space	sRGB	📷	✓	✓

3. ISO/Noise Reduction

Role		Default role	*1	*2	*3
📷ISO-A Upper/Default					
	Upper Limit	6400	📷	✓	✓
	Default	200	📷	✓	✓
📷ISO-A Lowest S/S		Auto	📷	✓	✓
📷ISO-Auto		P/A/S/M	📷	✓	—
ISO Step		1/3EV	📷/🎥	✓	—
📷Noise Filter		Standard	📷	✓	✓
Low ISO Processing		Drive Priority	📷	✓	✓
Noise Reduction		Auto	📷	✓	✓

4. Exposure

Role		Default role	*1	*2	*3
📷Flicker Scan		Off	📷	✓	✓
EV Step		1/3EV	📷/🎥	✓	—
Exposure Shift					
		±0	📷/🎥	✓	—
		±0	📷/🎥	✓	—
		±0	📷/🎥	✓	—

5. Metering

Role	Default role	*1	*2	*3
Metering		✓	✓	✓
Metering during AEL	Auto	✓	✓	✓
AEL Auto Reset	No	✓	✓	✓
AEL by half-pressing	S-AF Only	✓	✓	✓
Metering during	Yes	✓	✓	✓
Spot Metering	All items: ✓	✓	✓	✓

6. Flash

Role		Default role	*1	*2	*3
RC Mode		Off	✓	✓	✓
X-Sync.		1/250sec	✓	✓	✓
Slow Limit		1/60sec	✓	✓	✓
+		Off	✓	✓	✓
Flash Mode Settings					
	Reduce Red-eye	No	✓	✓	✓
	Synchro Settings	First Curtain	✓	✓	✓

7. Drive Mode

Role	Default role	*1	*2	*3
Drive /	▭	📷	✓	✓
Anti-Flicker Shooting	Off	📷	✓	✓
Sequential Shooting Settings				
	✓	📷	✓	—
Max fps	5fps	📷	✓	✓
Frame Count Limiter	Off	📷	✓	✓
	✓	📷	✓	—
Max fps	8fps	📷	✓	✓
Frame Count Limiter	Off	📷	✓	✓
H	✓	📷	✓	—
Max fps	30fps	📷	✓	✓
Frame Count Limiter	Off	📷	✓	✓
ProCap	✓	📷	✓	—
Pre-shutter Frames	6	📷	✓	✓
Frame Count Limiter	25	📷	✓	✓
ProCapH	✓	📷	✓	—
Max fps	30fps	📷	✓	✓
Pre-shutter Frames	12	📷	✓	✓
Frame Count Limiter	25	📷	✓	✓

Role	Default role	*1	*2	*3
Self-timer Settings				
⏲12	✓	📷	✓	—
♥⏲12	☐ (without ✓)	📷	✓	—
⏲2	✓	📷	✓	—
♥⏲2	✓	📷	✓	—
⏲C	✓	📷	✓	—
Number of Frames	3f	📷	✓	✓
⏲ Timer	1sec	📷	✓	✓
Interval Length	0.5sec	📷	✓	✓
Every Frame AF	Off	📷	✓	✓
♥⏲C	☐ (without ✓)	📷	✓	—
Number of Frames	3f	📷	✓	✓
⏲ Timer	1sec	📷	✓	✓
Interval Length	0.5sec	📷	✓	✓
Every Frame AF	Off	📷	✓	✓
Anti-Shock[♦] Settings				
Anti-Shock[♦]	Off	📷	✓	✓
Waiting Time	0sec	📷	✓	—

Role	Default role	*1	*2	*3
Silent[♥] Settings				
Waiting Time	0sec	📷	✓	—
Noise Reduction	Off	📷	✓	—
■)))	Not Allow	📷	✓	—
AF Illuminator	Not Allow	📷	✓	—
Flash Mode	Not Allow	📷	✓	—

8. Image Stabilizer

Role	Default role	*1	*2	*3
📷Image Stabilizer	S-IS Auto	📷	✓	✓
▬Image Stabilizer	On	—	✓	✓
Lens I.S. Priority	Off	📷/🎥	✓	✓

2 Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. Computational Modes

Role		Default role	*1	*2	*3
High Res Shot					
	High Res Shot	Off	📷	✓	✓
	⌨◀	50M F+RAW	📷	✓	✓
	Waiting Time	0sec	📷	✓	—
	ϟCharge Time	0sec	📷	✓	—
Live ND Shooting					
	Live ND Shooting	Off	📷	✓	✓
	ND Number	ND8(3EV)	📷	✓	—
	LV Simulation	On	📷	✓	—
Focus Stacking					
	Focus Stacking	Off	📷	✓	✓
	Set number of shots	8	📷	✓	—
	Set focus differential	5	📷	✓	—
	ϟCharge Time	0sec	📷	✓	—
HDR		Off	📷	✓	✓

Role	Default role	*1	*2	*3
Multiple Exposure				
Multiple Exposure	Off	—	✓	✓
Auto Gain	Off	📷	✓	—
Overlay	Off	—	✓	—

2. Other Shooting Functions

Role	Default role	*1	*2	*3
📷 Digital Tele-converter	Off	📷	✓	✓
Interval Shooting				
Interval Shooting	Off	—	✓	✓
Number of Frames	100	📷	✓	—
Start Waiting Time	00:00:01	📷	✓	—
Interval Length	00:00:01	📷	✓	—
Interval Mode	Time Priority	📷	✓	—
Exposure Smoothing	On	📷	✓	—
Time Lapse Movie	Off	📷	✓	—
Movie Settings				
Movie Resolution	4K	📷	✓	—
Frame Rate	10fps	📷	✓	—
Keystone Comp.	Off	📷	✓	—

Role	Default role	*1	*2	*3
Fisheye Compensation				
Fisheye Compensation	Off	📷	✓	✓
Angle	1	📷	✓	—
/Correction	Off	📷	✓	—
BULB/TIME/COMP Settings				
Bulb/Time Focusing	On	📷	✓	✓
Bulb/Time Timer	8min	📷	✓	✓
Live Composite Timer	3h	📷	✓	✓
Bulb/Time Monitor	-7	📷	✓	—
Live Bulb	Off	📷	✓	—
Live Time	0.5sec	📷	✓	—
Composite Settings	1/2sec	📷	✓	✓

3. Bracketing

Role	Default role	*1	*2	*3
AE BKT	Off	📷	✓	✓
WB BKT				
A-B	Off	📷	✓	✓
G-M	Off	📷	✓	✓
FL BKT	Off	📷	✓	✓
ISO BKT	Off	📷	✓	✓

Role	Default role	*1	*2	*3
ART BKT				
ART BKT	Off	📷	✓	✓
ART BKT Setting	ART only: ✓ (ART with multiple types: only the I type is checked ✓.)	📷	✓	—
Focus BKT				
Focus BKT	Off	📷	✓	✓
Set number of shots	99	📷	✓	—
Set focus differential	5	📷	✓	—
ϟCharge Time	0sec	📷	✓	—

AF Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. AF

Role	Default role	*1	*2	*3
📷AF Mode	S-AF	📷	✓	✓
📷AF+MF	Off	📷	✓	✓
Starry Sky AF Setting				
AF Priority	Speed	📷	✓	✓
AF Operation	AF-ON Start/Stop	📷	✓	✓
Release Priority	Off	📷	✓	✓
📷AF by half-pressing				
S-AF	Yes	📷	✓	✓
C-AF/C-AF+TR	Yes	📷	✓	✓
AF-ON in MF mode	No	📷/🎬	✓	✓
Release Priority				
S-AF	Off	📷	✓	✓
C-AF/C-AF+TR	On	📷	✓	✓

2. AF

Role		Default role	*1	*2	*3
Subject Detection		Off	📷	✓	✓
AF Button					
	▬	Priority	📷	✓	✓
	AF-ON	Priority	📷	✓	✓
Face & Eye Detection		Off	📷/🎥	✓	✓
C-AF when		Yes	📷/🎥	✓	—
Eye Detection Frame		On	📷/🎥	✓	—

3. AF

Role	Default role	*1	*2	*3
AF Illuminator	On	📷/🎥	✓	✓
AF Area Pointer	On1	📷/🎥	✓	—

4. AF

Role	Default role	*1	*2	*3
C-AF Sensitivity	±0	📷	✓	✓
C-AF Center Priority				
[✣]Cross	✓	📷	✓	✓
[⠿]Mid	✓	📷	✓	✓
[▦]Large	✓	📷	✓	✓
[⠿]C1	☐ (without ✓)	📷	✓	✓
[⠿]C2	☐ (without ✓)	📷	✓	✓
[⠿]C3	☐ (without ✓)	📷	✓	✓
[⠿]C4	☐ (without ✓)	📷	✓	✓
AF Limiter				
AF Limiter	Off	📷	✓	✓
Distance for On1	5.0 - 999.9m	📷	✓	—
Distance for On2	10.0 - 999.9m	📷	✓	—
Distance for On3	50.0 - 999.9m	📷	✓	—
Release Priority	On	📷	✓	—
AF Scanner	On	📷	✓	✓
AF Focus Adjustment				
AF Focus Adjustment	Off	📷	✓	—
Fine-tuning Value	±0	—	✓	—

5. Movie AF

Role	Default role	*1	*2	*3
AF Mode	C-AF	/	✓	✓
C-AF Speed	±0	/	✓	✓
C-AF Sensitivity	±0	/	✓	✓

6. AF Target Settings & Operations

Role	Default role	*1	*2	*3
AF Target Mode Settings				
[All]	✓		✓	—
[·]Single-S	✓		✓	—
[÷]Cross	✓		✓	—
[⁞]Mid	✓		✓	—
[ ]Large	✓		✓	—
[⁞]C1	☐ (without ✓)		✓	—
[⁞]C2	☐ (without ✓)		✓	—
[⁞]C3	☐ (without ✓)		✓	—
[⁞]C4	☐ (without ✓)		✓	—
Orientation Linked [⁘]				
AF Target Mode	☐ (without ✓)		✓	—
AF Target Point	☐ (without ✓)		✓	—

Role	Default role	*1	*2	*3
[·:·] Set Home				
AF Target Mode	✓ ([▦]All)	📷	✓	—
AF Target Point	✓	📷	✓	—
[·:·]Select Screen Settings				
dial	[·:·]Mode	📷/🎥	✓	—
button	Pos	📷/🎥	✓	—
[·:·] Loop Settings				
[·:·] Loop Selection	Off	📷/🎥	✓	—
Via [▦]All	No	📷/🎥	✓	—
AF Targeting Pad	Off	📷/🎥	✓	—

7. MF

Role	Default role	*1	*2	*3
MF Assist				
Magnify	Off	📷/🎥	✓	—
Peaking	Off	📷/🎥	✓	—
Focus Indicator	Off	📷/🎥	✓	—
Peaking Settings				
Peaking Color	Red	📷/🎥	✓	—
Highlight Intensity	Normal	📷/🎥	✓	—
Image Brightness Adj.	Off	📷/🎥	✓	—

Role	Default role	*1	*2	*3
Preset MF distance	999.9m	📷/🎬	✓	—
MF Clutch	Operative	📷/🎬	✓	✓
Focus Ring	↻	📷/🎬	✓	—
Reset Lens	Off	📷/🎬	✓	—

Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. Basic Settings/Image Quality

Role			Default role	*1	*2	*3
🎬Custom Mode						
	C1	Recall	—	—	—	—
		Assign	Shooting Mode: **P** 🎬Movie Quality: 4K 24p L-8 S&Q Movie Quality: FHD 24p/60 L-8 🎬Picture Mode: OM-Cinema1	—	—	—
		Save Settings	Reset	—	✓	—
		Custom Mode Name	OM-Cinema1	—	✓	—
	C2	Recall	—	—	—	—
		Assign	Shooting Mode: **P** 🎬Movie Quality: 4K 24p L-8 S&Q Movie Quality: FHD 24p/60 L-8 🎬Picture Mode: OM-Cinema2	—	—	—
		Save Settings	Reset	—	✓	—
		Custom Mode Name	OM-Cinema2	—	✓	—
🎬◀			4K 30p L-8	📷/🎬	✓	✓
S&Q◀			FHD 30p/60 L-8	🎬	✓	✓
🎬Flicker Scan			Off	🎬	✓	✓

Role	Default role	*1	*2	*3
Digital Tele-converter	Off		✓	✓

2. Picture Mode

Role	Default role	*1	*2	*3
Picture Mode	Same as	/	✓	✓
View Assist	Off	/	✓	—

3. ISO/Noise Reduction

Role		Default role	*1	*2	*3
ISO-A Upper/Default					
	Upper Limit	6400		✓	✓
	Default	200		✓	✓
ISO-Auto		On		✓	—
Noise Filter		Standard	/	✓	✓

4. Image Stabilizer

Role	Default role	*1	*2	*3
Image Stabilizer	M-IS1	/	✓	✓

5. Sound Recording/Connection

Role		Default role	*1	*2	*3
Sound Recording Settings					
Recording Volume					
	Built-In	±0		✓	✓
	MIC	±0		✓	✓
Volume Limiter		On		✓	—
Wind Noise Reduction		Off		✓	—
Recording Rate		48kHz/16bit		✓	—
Plug-in Power		On		✓	—
Camera Rec. Volume		Operative		✓	—
Time Code Settings					
Time Code Mode		Drop Frame	—	✓	—
Count Up		Rec Run	—	✓	—
Starting Time		—	—	✓	—
HDMI Output					
Output Mode		Monitor		✓	—
REC Bit		Off		✓	—
Time Code		On		✓	—

6. Shooting Assist

Role	Default role	*1	*2	*3
Red Frame during ◉REC	On	🎦	✓	—
Recording Lamp	Low	🎦	✓	—

Tab

*1: indicates roles that can be registered in **[Custom Mode]**. / indicates roles that can be registered in **[Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. File

Role	Default role	*1	*2	*3
	—	—	—	—
Reset All Images	—	—	—	—
Erase All	—	—	✓	—

2. Operations

Role	Default role	*1	*2	*3
Function		—	✓	—
Dial Function	/	—	✓	—
Default Setting	Recently	—	✓	—
Quick Erase	Off	—	✓	—
RAW+JPEG Erase	RAW+JPEG	—	✓	—
RAW+JPEG	JPEG	—	✓	—

3. Displays

Role	Default role	*1	*2	*3
	On	—	✓	—
Info Settings	All items: ✓	—	✓	—
Info Settings	All items: ✓	—	✓	—
Settings	**[25]** and **[Calendar]**: ✓	—	✓	—
Rating Settings	All items: ✓	—	✓	—

⚙ Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. Operations

Role	Default role	*1	*2	*3
Button Settings				
📷Button Function				
◉	◉REC	📷	✓	—
▭	▭ View Selection (switch monitor/viewfinder)	📷	✓	—
CP	Computational Modes	📷	✓	—
AF-ON	AF-ON	📷	✓	—
✥	Direct Function	📷	✓	—
▶	WB	📷	✓	—
▼	▭/⏱	📷	✓	—
L-Fn	AF Stop	📷	✓	—
🎬Button Function				
◉	◉REC	🎬	✓	—
▭	**[EVF Auto Switch]** by pressing and holding the button	🎬	✓	—
CP	Exposure Comp.	🎬	✓	—
AF-ON	AF-ON	🎬	✓	—

Role		Default role	*1	*2	*3
	Direct Function	Direct Function	🎥	✓	—
	▶	WB	🎥	✓	—
	▼	Off	🎥	✓	—
	L-Fn	AF Stop	🎥	✓	—
🎥 Shutter Function		Off	🎥	✓	—
Setting screen opened by OK					
	AUTO	**[Live Guide]**: ✓	—	✓	—
	ART	**[Art Menu]**: ✓	—	✓	—
	SCN	**[Scene Menu]**: ✓	—	✓	—
Dial Settings					
📷 Dial Function					
	P	: Exposure Comp. : Program Shift	📷	✓	—
	A	: Exposure Comp. : Aperture Value	📷	✓	—
	S	: Exposure Comp. : Shutter Speed	📷	✓	—
	M/B	: Aperture Value : Shutter Speed	📷	✓	—
🎥 Dial Function					
	P	: Exposure Comp. : Exposure Comp.	🎥	✓	—
	A	: Exposure Comp. : Aperture Value	🎥	✓	—

Role			Default role	*1	*2	*3
		S	: Exposure Comp. : Shutter Speed		✓	—
		M	: Aperture Value : Shutter Speed		✓	—
	Loop in Menu Tab		No	—	✓	—
	Dial Direction					
		Exposure	Dial1	/	✓	—
		Ps	Dial1	/	✓	—
Electronic Zoom Settings						
	Elec. Zoom Speed		Normal		✓	—
	Elec. Zoom Speed		Normal	/	✓	—

2. Operations

Role		Default role	*1	*2	*3
LV Close Up Mode		mode2	/	✓	—
Lock		Off		✓	—
Priority Set		No	—	✓	—
Menu Cursor Settings					
	Page Cursor Position	Reset	—	✓	—
	Menu Start Position	Recently	—	✓	—
	Shortcut to B Mode Settings	On		✓	—

Role	Default role	*1	*2	*3
Press-and-hold Time				
End LV	0.7sec	—	✓	—
Reset LV Frame	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Call EVF Auto Switch	0.7sec	—	✓	—
End	0.7sec	—	✓	—
Reset	0.7sec	—	✓	—
Switch Lock	0.7sec	—	✓	—
End Flicker Scan	0.7sec	—	✓	—
Call WB BKT Setting	0.7sec	—	✓	—
Call ART BKT Setting	0.7sec	—	✓	—
Call Focus BKT Setting	0.7sec	—	✓	—

Role	Default role	*1	*2	*3
Call Setting	0.7sec	—	✓	—
Call Setting	0.7sec	—	✓	—

3. Live View

Role	Default role	*1	*2	*3
Night Vision	Off	📷	✓	—
Art LV Mode	mode1	📷	✓	—
Anti-Flicker LV	Off	📷	✓	—
Selfie Assist	On	—	✓	—

4. Information

Role	Default role	*1	*2	*3
EVF Style	Style 3	—	✓	—
Info Settings	**[Image Only]**, **[Information 1]** and **[Information 2]**: ✓	📷	✓	—
Info by half-pressing	On2	📷	✓	—
Info Settings	**[Image Only]**, **[Information 1]** and **[Information 2]**: ✓	📷	✓	—
Level Gauge	On	📷	✓	—
Info Settings	**[Image Only]**, **[Information 1]**: ✓	📷/🎥	✓	—

5. Grid/Other Displays

Role	Default role	*1	*2	*3
Grid Settings				
Display Color	Preset 1	✓	✓	—
Displayed Grid	Off	✓	✓	—
Color of Preset 1	R/G/B: 38 α: 75%	✓	✓	—
Color of Preset 2	R: 180 G/B: 0 α: 75%	✓	✓	—
Grid Settings				
Exclusive for	Off	✓	✓	—
Display Color	Preset 1	✓	✓	—
Displayed Grid	Off	✓	✓	—
Color of Preset 1	R/G/B: 38 α: 75%	✓	✓	—
Color of Preset 2	R: 180 G/B: 0 α: 75%	✓	✓	—

Role		Default role	*1	*2	*3
Grid Settings					
	Exclusive for	Off	/	✓	—
	Display Color	Preset 1	/	✓	—
	Displayed Grid	Off	/	✓	—
	Color of Preset 1	R/G/B: 38 α: 75%	/	✓	—
	Color of Preset 2	R: 180 G/B: 0 α: 75%	/	✓	—
Button Settings		All items: ✓		✓	—
Multi Function Settings		All items except **[ISO]**: ✓	/	✓	—
Histogram Settings					
	Highlight	255	/	✓	—
	Shadow	0	/	✓	—

Tab

*1: 📷 indicates roles that can be registered in **[📷Custom Mode]**. / 🎬 indicates roles that can be registered in **[🎬Custom Mode]**.
*2: Default can be restored by selecting **[Initialize All Settings]**.
*3: Default can be restored by selecting **[Reset Shooting Settings]**.

1. Card/Folder/File

Role		Default role	*1	*2	*3
Card Formatting		—	—	—	—
File Name		Reset	—	✓	—
Edit Filename					
	sRGB	MDD	—	✓	—
	Adobe RGB	MDD	—	✓	—

2. Information Record

Role		Default role	*1	*2	*3
Lens Info Settings		Off	—	✓	—
dpi Settings		350dpi	📷/🎬	✓	—
Copyright Info.					
	Copyright Info.	Off	📷/🎬	✓	—
	Artist Name	—	—	—	—
	Copyright Name	—	—	—	—

3. Monitor/Sound/Connection

Role	Default role	*1	*2	*3
Touchscreen Settings	On	—	✓	—
Monitor Adjust				
(Brightness)	±0	📷/🎥	✓	—
(Color temperature)	0	📷/🎥	✓	—
EVF Adjust				
(Brightness)	EVF Auto Luminance Off	📷/🎥	✓	—
(Color temperature)	0	📷/🎥	✓	—
Eye Sensor Settings				
EVF Auto Switch	On	—	✓	—
Behavior when switched	Maintain Screen	—	✓	—
When Monitor is Opened	Inoperative	—	✓	—
■))	On	📷/🎥	✓	—
HDMI Settings				
Output Size	4K	—	✓	—
Output Frame Rate	60p Priority	—	—	—
USB Settings				
USB Mode	Select	—	✓	—
Power Supply from USB	Yes	—	✓	—

4. Wi-Fi/Bluetooth

Role	Default role	*1	*2	*3
Airplane Mode	Off	—	✓	—
Bluetooth	Off	—	✓	—
Wireless Shutter Setting	—	—	—	—
Device Connection	—	—	—	—
Settings				
Power-off Standby	Off	—	✓	—
Connection Security	WPA2/WPA3	—	—	—
Connection Password	—	—	—	—
Reset Settings	—	—	—	—

5. Battery/Sleep

Role	Default role	*1	*2	*3
Backlit LCD	Hold	/	✓	—
Sleep	1min	/	✓	—
Auto Power Off	4h	/	✓	—
Quick Sleep Mode				
Quick Sleep Mode	Off	/	✓	—
Backlit LCD	8sec	/	✓	—
Sleep	10sec	/	✓	—

6. Reset/Clock/Language/Others

Role	Default role	*1	*2	*3
Reset/Initialize Settings				
Reset Shooting Settings	—	—	—	—
Initialize All Settings	—	—	—	—
Settings				
	—	—	—	—
Time Zone	—	—	—	—
	—	—	—	—
Level Adjust	—	—	✓	—
Pixel Mapping	—	—	—	—
Firmware Version	—	—	—	—
Certification	—	—	—	—

Memory Card Capacity

Memory Card Capacity: Photos

Figures are for a 64 GB SDXC card used to record photos with an aspect ratio of 4:3.

Record mode	Image size (Pixel count)	Compression ratio	File format	File size (MB) (approx.)	Number of storable still pictures
50M F+RAW	(Tripod) 10368 × 7776	Loss-less compression	ORF	(Tripod) 168.4 (Handheld) 121.5	(Tripod) 354 (Handheld) 489
	(Handheld) 8160 × 6120				
	8160 × 6120	1/4	JPEG		
	5184 × 3888	Loss-less compression	ORI		
25M F+RAW	(Tripod) 10368 × 7776	Loss-less compression	ORF	(Tripod) 157.6 (Handheld) 110.7	(Tripod) 381 (Handheld) 541
	(Handheld) 8160 × 6120				
	5760 × 4320	1/4	JPEG		
	5184 × 3888	Loss-less compression	ORI		
50M F	8160 × 6120	1/4	JPEG	21.7	2529
25M F	5760 × 4320	1/4	JPEG	10.9	5033

Record mode	Image size (Pixel count)	Compression ratio	File format	File size (MB) (approx.)	Number of storable still pictures
RAW	5184 × 3888	Loss-less compression	ORF	21.7	2806
L SF		1/2.7	JPEG	13.1	4209
L F		1/4		8.9	6180
L N		1/8		4.6	11909
M1 SF	3200 × 2400	1/2.7	JPEG	5.1	10614
M1 F		1/4		3.6	15258
M1 N		1/8		1.9	28721
M2 SF	1920 × 1440	1/2.7	JPEG	2.0	27126
M2 F		1/4		1.4	37559
M2 N		1/8		0.9	61033
S1 SF	1280 × 960	1/2.7	JPEG	1.0	54252
S1 F		1/4		0.8	69752
S1 N		1/8		0.5	97654
S2 SF	1024 × 768	1/2.7	JPEG	0.8	69752
S2 F		1/4		0.6	97654
S2 N		1/8		0.3	244135

- The number of storable still pictures may change according to the subject, whether or not print reservations have been made, and other factors. In certain instances, the number of storable still pictures displayed on the monitor will not change even when you take pictures or erase stored images.
- The actual file size varies according to the subject.
- The maximum number of storable still pictures displayed on the monitor is 9999.

Memory Card Capacity: Movies

Figures are for a 64 GB SDXC memory card.

([Recording Rate]: Set to [48kHz/16bit])

Movie Resolution	Motion Compensation	Playback Frame Rate	Sensor Frame Rate	Capacity (approx.)
C4K	L-GOP	24.00p	—	34 minutes
4K	L-GOP	29.97p	—	81 minutes
		25.00p	—	81 minutes
		23.98p	—	81 minutes
FHD	A-I	29.97p	—	41 minutes
		25.00p	—	41 minutes
		23.98p	—	41 minutes
	L-GOP	59.94p	—	160 minutes
		50.00p	—	160 minutes
		29.97p	—	280 minutes
		25.00p	—	280 minutes
		23.98p	—	280 minutes

([Recording Rate]: Set to [96kHz/24bit])

Movie Resolution	Motion Compensation	Playback Frame Rate	Sensor Frame Rate	Capacity (approx.)
C4K	L-GOP	24.00p	—	34 minutes
4K	L-GOP	29.97p	—	79 minutes
		25.00p	—	79 minutes
		23.98p	—	79 minutes
FHD	A-I	29.97p	—	40 minutes
		25.00p	—	40 minutes
		23.98p	—	40 minutes
	L-GOP	59.94p	—	151 minutes
		50.00p	—	151 minutes
		29.97p	—	254 minutes
		25.00p	—	254 minutes
		23.98p	—	254 minutes

S&Q

Movie Resolution	Motion Compensation	Playback Frame Rate	Sensor Frame Rate	Capacity (approx.)
C4K	L-GOP	24.00p	15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	34 minutes
4K	L-GOP	29.97p	25fps / 24fps / 15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	81 minutes
		25.00p	24fps / 15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	81 minutes
		23.98p	15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	81 minutes
FHD	L-GOP	59.94p	120fps	167 minutes
		50.00p	120fps	167 minutes
		29.97p	120fps	324 minutes
			60fps / 50fps / 25fps / 24fps / 15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	280 minutes
		25.00p	120fps	324 minutes
			60fps / 50fps / 30fps / 24fps / 15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	280 minutes
		23.98p	120fps	324 minutes
			60fps / 50fps / 30fps / 25fps / 15fps / 12fps / 8fps / 6fps / 3fps / 2fps / 1fps	280 minutes

- Figures are for footage recorded at the maximum frame rate. The actual bit rate varies with the frame rate and scene recorded.
- When an SDXC card is used, movies up to 2 hours long can be recorded. Movies over 2 hours are recorded over multiple files (depending on shooting conditions, the camera may start recording to a new file before the 2-hour limit is reached).
- When an SD/SDHC card is used, movies over 4 GB in size are recorded over multiple files (depending on shooting conditions, the camera may start recording to a new file before the 4 GB limit is reached).

SAFETY PRECAUTIONS

SAFETY PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

⚠	An exclamation mark enclosed in a triangle alerts you to important operating and maintenance instructions in the documentation provided with the product.
⚠ WARNING	If the product is used without observing the information given under this symbol, serious injury or death may result.
⚠ CAUTION	If the product is used without observing the information given under this symbol, injury may result.
⚠ NOTICE	If the product is used without observing the information given under this symbol, damage to the equipment may result.

WARNING!
TO AVOID THE RISK OF FIRE OR ELECTRICAL SHOCK, NEVER DISASSEMBLE, EXPOSE THIS PRODUCT TO WATER OR OPERATE IN A HIGH HUMIDITY ENVIRONMENT.

General Precautions

Read All Instructions — Before you use the product, read all operating instructions. Save all manuals and documentation for future reference.
Power Source — Connect this product only to the power source described on the product label.
Foreign Objects — To avoid personal injury, never insert a metal object into the product.
Cleaning — Always unplug this product from the wall outlet before cleaning. Use only a damp cloth for cleaning. Never use any type of liquid or aerosol cleaner, or any type of organic solvent to clean this product.
Heat — Never use or store this product near any heat source such as a radiator, heat register, stove, or any type of equipment or appliance that generates heat, including stereo amplifiers.
Lightning — If a lightning storm occurs while using a USB-AC adapter, remove it from the wall outlet immediately.
Attachments — For your safety, and to avoid damaging the product, use only accessories recommended by our company.
Location — To avoid damage to the product, mount the product securely on a stable tripod, stand, or bracket.

⚠WARNING

- **Do not use the camera near flammable or explosive gases.**
- **Rest your eyes periodically when using the viewfinder.**
  Failure to observe this precaution could result in eyestrain, nausea, or sensations similar to motion sickness. The length and frequency of the required rest varies with the individual; use your own judgement. If you feel tired or unwell, avoid using the viewfinder and if necessary consult a physician.
- **Do not use the flash and LED (including AF illuminator) on people (infants, small children, etc.) at close range.**
  - You must be at least 1 m (3 ft.) away from the faces of your subjects. Firing the flash too close to the subject's eyes could cause a momentary loss of vision.
- **Do not look at the sun or strong lights with the camera.**
- **Keep the camera out of the reach of infants, young children, and pets.**
  - Always use and store the camera out of the reach of young children and infants to prevent the following dangerous situations which could cause serious injury:
    - Becoming entangled in the camera strap, causing strangulation.
    - Accidentally swallowing the battery, cards or other small parts.
    - Accidentally firing the flash into their own eyes or those of another child.
    - Accidentally being injured by the moving parts of the camera.
- **If you find that the USB-AC adapter or charger is extremely hot or notice any unusual odors, noise, or smoke around it, unplug the power plug from wall outlet immediately and stop using it. Then, contact an authorized distributor or service center.**
- **Stop using the camera immediately if you notice any unusual odors, noise, or smoke around it.**
  - Never remove the batteries with bare hands, which may cause a fire or burn your hands.
- Never hold or operate the camera with wet hands.
  This may cause overheating, exploding, burning, electrical shocks, or malfunctions.
- **Do not leave the camera in places where it may be subject to extremely high temperatures.**
  - Doing so may cause parts to deteriorate and, in some circumstances, cause the camera to catch fire. Do not use the charger or USB-AC adapter if it is covered (such as a blanket). This could cause overheating, resulting in fire.
- **Handle the camera with care to avoid getting a low temperature burn.**
  - When the camera contains metal parts, overheating can result in a low-temperature burn. Pay attention to the following:
    - When used for a long period, the camera will get hot. If you hold on to the camera in this state, a low-temperature burn may be caused.
    - In places subject to extremely cold temperatures, the temperature of the camera's body may be lower than the environmental temperature. If possible, wear gloves when handling the camera in cold temperatures.

- To protect the high-precision technology contained in this product, never leave the camera in the places listed below, no matter if in use or storage:
  - Places where temperatures and/or humidity are high or go through extreme changes. Direct sunlight, beaches, locked cars, or near other heat sources (stove, radiator, etc.) or humidifiers.
  - In sandy or dusty environments.
  - Near flammable items or explosives.
  - In wet places, such as bathrooms or in the rain.
  - In places prone to strong vibrations.
- The camera uses a lithium ion battery specified by our company. Charge the battery with the specified USB-AC adapter or charger. Do not use any other USB-AC adapters or chargers.
- Never incinerate or heat batteries in microwaves, on hot plates, or in pressure vessels, etc.
- Never leave the camera on or near electromagnetic devices.
  This may cause overheating, burning, or exploding.
- Do not connect terminals with any metallic objects.
- Take precautions when carrying or storing batteries to prevent them from coming into contact with any metal objects such as jewelry, pins, fasteners, keys, etc.
  The short circuit may cause overheating, exploding, or burning, which burn or damage you.
- To prevent causing battery leaks or damaging their terminals, carefully follow all instructions regarding the use of batteries. Never attempt to disassemble a battery or modify it in any way, solder, etc.
- If battery fluid gets into your eyes, flush your eyes immediately with clear, cold running water and seek medical attention immediately.
- If you cannot remove the battery from the camera, contact an authorized distributor or service center. Do not try to remove the battery by force.
  Damage to the battery exterior (scratches, etc.) may produce heat or an explosion.
- Always store batteries out of the reach of small children and pets. If they accidentally swallow a battery, seek medical attention immediately.
- To prevent batteries from leaking, overheating, or causing a fire or explosion, use only batteries recommended for use with this product.
- If rechargeable batteries have not been recharged within the specified time, stop charging them and do not use them.
- Do not use batteries with scratches or damage to the casing, and do not scratch the battery.
- Never subject batteries to strong shocks or continuous vibration by dropping or hitting.
  This may cause exploding, overheating, or burning.
- If a battery leaks, has unusual odor, becomes discolored or deformed, or becomes abnormal in any other way during operation, stop using the camera, and keep away from fire immediately.
- If a battery leaks fluid onto your clothing or skin, remove the clothing and flush the affected area with clean, running cold water immediately. If the fluid burns your skin, seek medical attention immediately.
- Never use lithium-ion batteries in a low-temperature environment. Doing so may cause generation of heat, ignition, or explosion.
- The lithium-ion battery is designed to be used only for the digital camera. Do not use the battery to other devices.

- **Do not allow children or animals/pets to handle or transport batteries (prevent dangerous behaviour such as licking, putting in mouth or chewing).**
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Use Only Dedicated Rechargeable Battery, Battery Charger and USB-AC adapter

We strongly recommend that you use only the genuine rechargeable battery, battery charger, and USB-AC adapter specified by our company with this camera. Using a non-genuine rechargeable battery, battery charger and/or USB-AC adapter may result in fire or personal injury due to leakage, heating, ignition or damage to the battery. Our company does not assume any liability for accidents or damage that may result from the use of a battery, battery charger, and/or USB-AC adapter that are not specified genuine accessories.

⚠CAUTION

- **Do not cover the flash with a hand while firing.**
- Never store batteries where they will be exposed to direct sunlight, or subjected to high temperatures in a hot vehicle, near a heat source, etc.
- Keep batteries dry at all times.
- The battery may become hot during prolonged use. To avoid minor burns, do not remove it immediately after using the camera.
- This camera uses one of our lithium-ion batteries. Use the specified genuine battery. There is a risk of explosion if the battery is replaced with the incorrect battery type.
- Please recycle batteries to help save our planet's resources. When you throw away dead batteries, be sure to cover their terminals and always observe local laws and regulations.

⚠NOTICE

- **Do not use or store the camera in dusty or humid places.**
- **Use SD/SDHC/SDXC memory cards only. Never use other types of cards.**
  If you accidently insert another type of card into the camera, contact an authorized distributor or service center. Do not try to remove the card by force.
- Regularly backup important data to a computer or other storage device to prevent accidental loss.
- Our company accepts no liability for any loss of data associated with this device.
- Be careful with the strap when you carry the camera. It could easily catch on stray objects and cause serious damage.
- Before transporting the camera, remove a tripod and all other accessories made by other companies.
- Never drop the camera or subject it to severe shocks or vibrations.

- When attaching the camera to or removing it from a tripod, rotate the tripod screw, not the camera.
- Do not touch electric contacts on cameras.
- Do not leave the camera pointed directly at the sun. This may cause lens or shutter curtain damage, color failure, ghosting on the image sensor, or may possibly cause fires.
- Do not leave the viewfinder exposed to a strong light source or direct sunlight. The heat may damage the viewfinder.
- Do not push or pull severely on the lens.
- Be sure to remove any water droplets or other moisture from the product before replacing the battery or opening or closing covers.
- Before storing the camera for a long period, remove the batteries. Select a cool, dry location for storage to prevent condensation or mold from forming inside the camera. After storage, test the camera by turning it on and pressing the shutter button to make sure that it is operating normally.
- The camera may malfunction if it is used in a location where it is subject to a magnetic/electromagnetic field, radio waves, or high voltage, such as near a TV set, microwave, video game, loud speakers, large monitor unit, TV/radio tower, or transmission towers. In such cases, turn the camera off and on again before further operation.
- Always observe the operating environment restrictions described in the camera's manual.
- Insert the battery carefully as described in the operating instructions.
- Before loading, always inspect the battery carefully for leaks, discoloration, warping, or any other abnormality.
- When the camera will not be used for a long period, charge the battery and then remove it from the camera.
- When storing the battery for a long period, select a cool location for storage.
- Power consumption by the camera varies depending on which functions are used.
- During the conditions described below, power is consumed continuously and the battery becomes exhausted quickly.
  - Press the shutter button halfway in shooting mode to repeatedly activate autofocus.
  - Display an image on the monitor for an extended period.
  - When connected to a computer (except during USB charging).
  - Enable the wireless LAN/**Bluetooth**® function.
- Using an exhausted battery may cause the camera to turn off without displaying the battery level warning.
- If the battery's terminals get wet or greasy, camera contact failure may result. Wipe the battery well with a dry cloth before use.
- Always charge a battery when using it for the first time, or if it has not been used for a long period.
- When operating the camera with battery power at low temperatures, try to keep the camera and spare battery as warm as possible. A battery that has run down at low temperatures may be restored after it is warmed at room temperature.
- Before going on a long trip, and especially before traveling abroad, purchase extra batteries. A recommended battery may be difficult to obtain while traveling.

Using the wireless LAN/Bluetooth® functions

- **Turn off the camera in hospitals and other locations where medical equipment is present.**
  The radio waves from the camera may adversely affect medical equipment, causing a malfunction that results in an accident. Be sure to disable wireless LAN/**Bluetooth**® functions in the vicinity of medical equipment (P.412).
- **Turn off the camera when onboard aircraft.**
  Using wireless devices onboard may hinder safe operation of the aircraft. Be sure to disable wireless LAN/**Bluetooth**® functions onboard aircraft (P.412).

Monitor

- Do not push the monitor forcibly; otherwise the image may become vague, resulting in a playback mode failure or damage to the monitor.
- A strip of light may appear on the top/bottom of the monitor, but this is not a malfunction.
- When a subject is viewed diagonally in the camera, the edges may appear zigzagged on the monitor. This is not a malfunction; it will be less noticeable in playback mode.
- In places subject to low temperatures, the monitor may take a long time to turn on or its color may change temporarily.
  When using the camera in extremely cold places, it is a good idea to occasionally place it in a warm place. The monitor exhibiting poor performance due to low temperatures will recover in normal temperatures.
- The monitor of this product is manufactured with high-quality accuracy, however, there may be a stuck or dead pixel on the monitor. These pixels do not have any influence on the image to be saved. Because of the characteristics, the unevenness of the color or brightness may also be found depending on the angle, but this is due to the structure of the monitor. This is not a malfunction.

Legal and Other Notices

- Our company makes no representations or warranties regarding any damages, or benefit expected by using this unit lawfully, or any request from a third person, which are caused by the inappropriate use of this product.
- Our company makes no representations or warranties regarding any damages or any benefit expected by using this unit lawfully which are caused by erasing picture data.

Disclaimer of Warranty

- Our company makes no representations or warranties, either expressed or implied, by or concerning any content of these written materials or software, and in no event shall be liable for any implied warranty of merchantability or fitness for any particular purpose or for any consequential, incidental or indirect damages (including but not limited to damages for loss of business profits, business interruption and loss of business information) arising from the use or inability to use these written materials or software or equipment. Some countries do not allow the exclusion or limitation of liability for consequential or incidental damages or of the implied warranty, so the above limitations may not apply to you.
- Our company reserves all rights to this manual.

Warning

Unauthorized photographing or use of copyrighted material may violate applicable copyright laws. Our company assumes no responsibility for unauthorized photographing, use or other acts that infringe upon the rights of copyright owners.

Copyright Notice

All rights reserved. No part of these written materials or this software may be reproduced or used in any form or by any means, electronic or mechanical, including photocopying and recording or the use of any type of information storage and retrieval system, without the prior written permission of our company. No liability is assumed with respect to the use of the information contained in these written materials or software, or for damages resulting from the use of the information contained therein. Our company reserves the right to alter the features and contents of this publication or software without obligation or advance notice.

Trademarks

- SDXC Logo is a trademark of SD-3C, LLC.
- Apical logo is a registered trademark of Apical Limited.

- Micro Four Thirds, Four Thirds, and the Micro Four Thirds and Four Thirds logos are trademarks or registered trademarks of the OM Digital Solutions Corporation in Japan, the United States, the countries of the European Union, and other countries.
- Wi-Fi is a registered trademark of the Wi-Fi Alliance.
- The **Bluetooth**® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by OM Digital Solutions Corporation is under license.
- QR Code is a trademark of Denso Wave Inc.

- The standards for camera file systems referred to in this manual are the “Design Rule for Camera File System/DCF” standards stipulated by the Japan Electronics and Information Technology Industries Association (JEITA).
- All other company and product names are registered trademarks and/or trademarks of their respective owners. “™” and “®” symbols may sometimes be omitted.

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NONCOMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD (“AVC VIDEO”) AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE HTTP://WWW.MPEGLA.COM

The software in this camera may include third party software. Any third party software is subject to the terms and conditions, imposed by the owners or licensors of that software, under which software is provided to you.
Those terms and other third party software notices, if any, may be found in the software notice PDF file stored at
https://support.jp.omsystem.com/en/support/imsg/digicamera/download/notice/notice.html

date of issue 2026.09.

https://www.om-digitalsolutions.com/

© 2026 OM Digital Solutions Corporation

WG071300