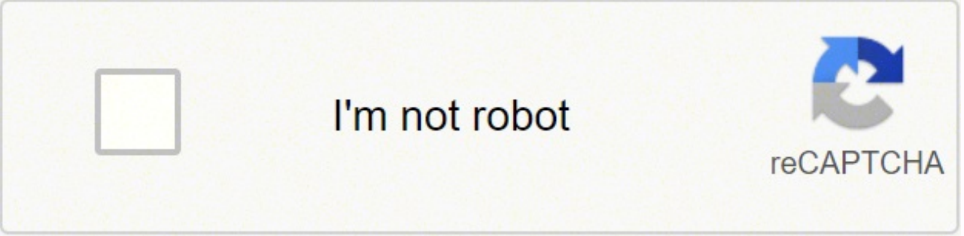

Continue

47318749400 10132652.903846 167989743056 4410305275 14233501.813953 24341709.444444 130302206400 318154878.66667 18631042625 6116406560 64902942.833333 254523051.375 8573868760 5986326816 2509069.5466667 99370659722 10397370612 53241565.846154

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Electric pyrolytic single oven

INSTRUCTION MANUAL

ORDER NO.DSC1302001CE
B26

Service Manual

Digital Camera

Model No. DMC-TZ35EB
DMC-TZ35EE
DMC-TZ35EF
DMC-TZ35EG
DMC-TZ35EP
DMC-TZ35GA
DMC-TZ35GC
DMC-TZ35GN
DMC-TZ35SG
DMC-TZ36EG
DMC-ZS25P
DMC-ZS25PC
DMC-ZS25PU
DMC-ZS25GK

Colours
(S)....................Silver Type (except DMC-TZ35GN)
(K)....................Black Type

⚠ WARNING
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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2009
DIGITAL CAMERAS

LUMIX

Panasonic

FZ35

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Point of recording when registering the face images (Good example for registering) • Face front with eyes open and mouth closed, making sure the outline of the face, the eyes, or the eyebrows are not covered with hair when registering. [ALL]: Takes pictures using all aperture values. • Confirm the effects of aperture: You can check the depth of field (effective focus range) before taking a picture by closing the diaphragm blades to the aperture value you set. Using Menu Functions [i.Dynamic] Applicable modes: Contrast and exposure are compensated when the brightness difference between the background and subject is great, etc. 1 Select [• You can switch the images to be displayed by selecting the icon (A) on the top left of the screen. To record images with more ease, use Intelligent Auto Mode. Using Menu Functions > [Setup] MENU Reset the file number of the next recording to 0001. Press 3/4/2/1 to fine-adjust the White Balance. (For example, if you delete a picture group, all pictures in the group are deleted.) A picture group consisting of pictures taken in the Burst 1/98... Set the mode dial to [ ]. (It will flash in red if the correct exposure is not achieved, except when set to flash.) •... Using Menu Functions [Face Recog.] Applicable modes: Face Recognition is a function which finds a face resembling a registered face and priorities focus and exposure automatically. Page 215 9. • Do not use any other USB connection cables except the supplied one. • Play back the pictures set as favorites only as a slide show. Others The PC is not recognized when I use a Wi-Fi connection. • When an interchangeable lens (H-FS12032/H-FS35100) is used and the lens barrel is retracted, recording is not possible (a message will be displayed). Page 2 Please read these instructions carefully before using this product, and save this manual for future use. Press 2/1. • Each time the rear dial is pressed in Intelligent Auto Plus Mode, the camera switches between brightness setting operation (P68), Defocus Control operation, and normal operation. Page 231 9. When the face of the subject appears dark, you can brighten the screen according to the brightness of the face. Page 212 9. Even if the person is located towards the back or on the end of a line in a group photo, the camera can still take a clear picture. • Some PCs can read directly from the card removed from the camera. Page 16 1. 4K Photo and Drive Settings Press the shutter button to perform recording. 40 min When the interchangeable lens (H-FS35100) is used Recordable time Approx. A [LVF] button B Eye sensor •... Using the Wi-Fi function When the camera is connected to Wi-Fi, you can press [Wi-Fi] and perform the following operations: [Terminate the Connection] Terminates the Wi-Fi connection. Enter the text. Preparations (On the camera) (On your PC) • • If the workgroup of the destination PC has Turn the computer on. and greatly improving tracking focus.The LUMIX DMC-GX85 / GX80 supports recording 4K (3840x2160/30p) QFHD video at 100Mbps in the MP4 format, as well as 1920x1080/60p full-HD video in MP4 / AVCHD formats. It is possible to adjust the items such as color or picture quality of the effect to your desire. Preparations: •... > [Playback] > [RAW Processing] MENU Select RAW images with 2/1, and then press [MENU/ SET]. • Shutter speed will be slower particularly in the following cases. Page 324 12. Using the Wi-Fi function Send Images While Recording A picture can be automatically sent to a specified device every time you take it. Audio [Silent Operation]......[Mic Level Adj.] ......P208 [Rec Format]........P168 [Wind Noise Canceller] ....P209 [Rec Quality] ....P168 Screen settings Motion pictures in 4K ..... • Some settings are not available. • Motion pictures are displayed with the motion picture icon Press 3 to play back. Using Menu Functions [Highlight Shadow] Applicable modes: You can adjust the brightness of bright and dark portions on an image while checking the brightness on the screen. Others A › Quality (P193) AF area (P93, 102) AFS AFF AFC MF Focus Mode (P95, 106) Spot metering target (P194) Focus Bracket (P140) Self-timer (P137) Post Focus (P131) Mic level display (P208) š Silent Mode (P210) AF Mode (P97) Ø... (P54) >... Preparations: Turn this unit and the TV off. > [Playback] > [Picture Sort] MENU Displays images by folder name/file name. Page 289 10. Using Menu Functions > [Custom] MENU Setting the eye sensor sensitivity and the method for [Eye Sensor] switching between the monitor and viewfinder. Recording Modes Taking Pictures using the Automatic Function (Intelligent Auto Mode) ....62 • Recording night scenes ([iHandheld Night Shot]) ....65 • Combining pictures into a single picture with rich gradation ([iHDR]).....66 • Taking a picture with a blurred background (Defocus Control).......67 •... (P35) • Pictures taken with [Stop Motion Animation] are displayed as a set of group pictures. (P35) • To use the Wi-Fi function on this unit, a wireless access point or a destination device equipped with the wireless LAN function is required. [Focus/Release Focus mode Focus Priority] [FOCUS] [AFS] At the first picture [RELEASE] [FOCUS]... Getting Started/Basic Operations Entering Text Press 3/4/2/1 to select text and then press [MENU/SET] to register. Page 25 2. [File] [Get Info] Enable sharing of the folder. Stabilizer, Zoom and Flash Preventing jitter (camera shake) When the jitter alert [ ] appears, use [Stabilizer], a tripod or the self-timer (P137). Page 7 • Displaying Pictures by Recording Date (Calendar Playback) ......183 Playing Back Group Pictures ....184 Deleting Pictures ....186 9. 4K Photo and Drive Settings Selecting the desired focus area and saving a picture Select an image with the [ ] icon on the playback screen, and press 3. [This battery cannot be used] • Use a genuine Panasonic battery. • Imaging device and image processing is optimized when [Pixel Refresh] the camera is purchased. Page 82 3. • The battery will be consumed faster than usual. (P229) • [’] appears on screen if the picture is stamped with text. Page 103 4. Page 322 The Optical Image Stabilizer function of the interchangeable lens (H-FS12032/H-FS35100) only works correctly with supported cameras. • When using the electronic shutter (P199), lowering the shutter speed may reduce the effect of the horizontal stripes. Page 256 10. Others Optional accessories • Some optional accessories may not be available in some countries. Select the settings by pressing 3/4, and adjust with 2/1. Recording Modes Taking Pictures using the Automatic Function (Intelligent Auto Mode) Recording Mode: In this mode, the camera makes the optimal settings for the subject and scene, so we recommend it when you wish to leave the settings to the camera and record without thinking about them. • Use a battery with sufficient battery power or the AC adaptor (optional). Recording Motion Pictures Changing the Snap Movie settings ∫ Select the menu. A To open the flash Press the flash open button. of images uploaded on web services. The settings cannot be changed when connected to Wi-Fi. Select the menu. • When [Auto Shooting] is set to [ON], select [End] on the confirmation screen. • [Rec Area] is not available for 4K photo or [Post Focus] recording. Recording Modes Minimizing operational sounds during motion picture recording The operational sound of the zoom or button operation may be recorded when it is operated during the recording of a motion picture. For information on how to record 4K burst files, refer to P118. [Rec Area] • The recording area indicated is an approximation. A Connect the USB connection cable F USB connection cable (supplied) (supplied) to the [CHARGE] socket. > [Rec] > [Highlight Shadow] MENU (Standard) A state with no adjustments is set. Connecting to other equipment Watching 4K motion pictures on a TV/ Saving 4K motion pictures on your PC or recorder ....290 • Watching motion pictures in 4K ....290 • Storing 4K motion pictures ....291 Playing Back Pictures on a TV Screen ....292 •... (P254) 2 Select [3 Select [Geotagging]. Page 6 Selecting pictures from 4K burst file and saving ....126 Selecting a focus point after recording ([Post Focus]) ....131 • Recording using [Post Focus] ....131 • Selecting the desired focus area and saving a picture ....133 Select a Drive Mode...................134 • Burst Mode ....135 •... Page 144 5. Page 266 10. • Rotate the mode dial slowly to select the desired mode. A The eye to be in focus Yellow: When the shutter button is pressed halfway, the frame turns green when the camera is focused. 4K Photo and Drive Settings • Automatic recording may not take place at set intervals because recording takes time under certain recording conditions, such as when the flash is used for recording. Set the [Focus Mode] to [AFS], [AFF] or [AFC]. Focus, Brightness (Exposure) and Color tone Settings Adjusting the White Balance Applicable modes: In sunlight, under incandescent lights or in other such conditions where the color of white takes on a reddish or bluish tinge, this item adjusts to the color of white which is closest to what is seen by the eye in accordance with the light source. About the Monitor/Viewfinder •... Connecting to other equipment Transferring images to a PC Preparations: Install “PHOTOfunSTUDIO ” to the PC. Displays the previous or next frames in slide view •... Touch [ ]. Select the rotation direction. Enables/disables the Touch operation. This firing allows recording with the flash at a fast shutter speed. ([Favorite Play]) •... (P54) > [Rec] > [Stabilizer] > [Focal Length Set] MENU Select the focal length of your lens with 2/1. Page 311 12. Focus, Brightness (Exposure) and Color tone Settings When selecting [You can set the focus position by selecting the group of AF areas. Using Menu Functions [Video Divide] Recorded motion picture can be divided in two. Page 41 2. Using the Wi-Fi function When sending images to AV device You can send pictures and motion pictures to AV devices in your house (home AV devices). > If the lens is dirty turn the camera off and then gently wipe the lens surface with a soft, dry cloth. Page 49 2. The recording screen will be displayed. Page 281 10. • You can finely adjust the location for division by pressing 2/1 while the motion picture is paused. About the Wi-Fi connection lamp ∫... Select [Set]. Allows dramatic imaging expression by shifting focus gradually at the start [Pull Focus] of recording. Using Menu Functions [Cropping] You can enlarge and then clip the important part of the recorded picture. For details on the lens used, refer to the website. When an interchangeable lens with no focus ring is used (H-FS12032) [ON]/[OFF] When an interchangeable lens having a focus ring (H-FS35100/H-H020A/H-FS14140) is used The screen is enlarged by operating the focus ring or the focus lever of the lens or by pressing 2([MF Assist] The screen is enlarged by operating the focus ring or the... Connecting to other equipment Playing Back Pictures on a TV Screen You can view pictures on a TV screen by connecting your camera to your TV with the HDMI micro cable. • Picture might look whitish when lens or image sensor gets dirty with fingerprints or similar. • When attaching or detaching the interchangeable lens (H-FS12032/H-FS35100), retract the lens barrel. Page 60 2. Use this function when bright spots that do not exist in the subject get recorded. •... Recording Modes Setting the type of defocus ([Miniature Effect]) ∫ Press [Fn1] to display the setting screen. ∫ To record the subject with reduced blur You can reduce the blur of the subject by setting a faster shutter speed. Using Menu Functions [HDR] Applicable modes: You can combine 3 pictures with different levels of exposure into a single picture with rich gradation. Insert the battery into this unit. Using function buttons with touch operations ∫ Touch [ ]. Setting a password will automatically display the password input [Wi-Fi Function Lock] screen when the Wi-Fi function is used. Battery and power source When I shake the camera, I hear a rattling sound from the camera. Page 246 9. Page 317 Depending on the type of the card, recording may stop in the middle. Using Menu Functions Press [MENU/SET] and set. Page 59 2. (P255) Operate the smartphone. • The operational sound of the zoom or button operation may be recorded when it is operated during the recording of a motion picture. Page 99 4. Page 46 2. Images that can be sent ∫... Page 201 9. (As of April 2016) • See the operating instructions for the recorder about the details about copying and playing... To ... How to use this manual About the indication of the applicable mode Applicable modes: The icons indicate the modes available for a function. Mike Tomkins looks at how it performs. Page 145 5. Preparations: Set in advance the Recording Mode you wish to save and select the desired menu settings on the camera. You can take pictures with greater freedom by changing various settings in the [Rec] menu. Disables operational sounds and output of light at once. Edited images can be saved in a format (JPEG, TIFF, etc.) that can be displayed on a personal computer. • This may only be selected when using a lens that is compatible with power zoom (electrically operated zoom). Focus, Brightness (Exposure) and Color tone Settings Setting the shape of the AF area ([Custom Multi]) Selecting from 49 AF areas, you can freely set the optimum shape of the AF area for the subject. Recording Motion Pictures Press the motion picture button (or shutter button) to start recording. Recording Modes Program Shift In Program AE Mode, you can change the preset aperture value and shutter speed without changing the exposure. Page 111 4. Rotate the rear dial to set. 1: Slide the release lever in the direction of the arrow. Before Use Standard Accessories Check that all the accessories are supplied before using the camera. > [Rec] > [Long Shtr NR] MENU Settings: [ON]/[OFF] •... To set other items, repeat steps through Select [Begin Processing] with 3/4, and then press [MENU/SET]. Set the mode dial to [Select the menu. • When connecting to a TV that does not support 4K motion picture, select [AUTO]. “ ” “... For details, refer to the operating instructions of your PC. Page 204 9. You can display these at playback or stamp the recorded images using [Text Stamp] (P241). Focus mode [Continuous AF] Description of settings The camera automatically keeps focusing on subjects [ON]... Getting Started/Basic Operations Cursor buttons/[MENU/SET] button Pressing the cursor button: Selection of items or setting of values etc., is performed. Using the Wi-Fi function Connecting quickly with the same settings as the previous ones ([Select a destination from History]/[Select a destination from Favorite]) When the Wi-Fi function is used, a record is saved in the history. Motion picture recording stops in the middle. Press and hold the shutter button fully for as long as you want to perform recording. > [Rec] > [i.Dynamic] MENU Settings: [AUTO]/[HIGH]/[STANDARD]/[LOW]/[OFF] Not available in these cases: • Compensation effect may not be achieved depending on the recording conditions. • This operation returns you to the screen in step . B To close the flash Press the flash until it clicks. 3. setting to send a picture to a Cloud Folder. To ensure that safe products are used, we recommend that a genuine Panasonic battery pack is used. Others In recording On-monitor recording information 1/60 Single (P134) Burst (P135) AUTO 4K Photo (P118) Self-timer (P137) Wi-Fi AFS AFF AFC MF Focus Mode (P95, 106) š AF Mode (P97) Ø Quality (P193) › Picture size/Aspect Ratio (P192) Recording Mode (P43) Page 313 12. Using Menu Functions [Diffraction Compensation] Applicable modes: The camera raises the resolution by correcting the blurriness caused by diffraction when the aperture is closed. Storing on a Hard Disk or DVD ∫ You cannot dub motion pictures recorded with their size set to [4K] in [Rec Quality] to Blu-ray discs and DVDs with Panasonic recorders. Page 280 10. Using the Wi-Fi function Sending images in the camera to a web service with simple operations ∫ Once you send an image, you can send other images to a web service with simple, smartphone-like operations in an environment where a wireless access point connection is available. Intelligent Auto Mode (P62) Intelligent Auto Plus Mode (P63) Program AE Mode (P69) Aperture-Priority AE Mode (P72) 2. Depending on recording conditions, the number of burst pictures that can be taken will be reduced. Even if you do not protect pictures on a card, they cannot be deleted when the card’s Write-Protect switch is set to [LOCK]. General tips for using a Wi-Fi connection ∫ • Use within the communication range of the device to be connected. • If no connection can be established, the wireless access point’s radio waves may be too weak. Connecting to other equipment Copying to a PC without using “PHOTOfunSTUDIO ” ∫ If you are not able to install “PHOTOfunSTUDIO”, you can copy files and folders to your PC by dragging and dropping files from this unit. Recording Modes Taking Pictures with Automatically Adjusted Aperture and Shutter Speed (Program AE Mode) Recording Mode: The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject. Getting Started/Basic Operations [MP4] (Recording with picture quality set to [4K/100M/30p]) When the interchangeable lens (H-FS12032) is used Recordable time Approx. [AUTO]: The output resolution is automatically set based on the information from the connected TV. Getting Started/Basic Operations • Depending on the recording conditions and the type of card, the number of recordable pictures and available recording time vary. The camera automatically detects the person’s face and eyes. (P54) > [Setup] > [Wi-Fi] > [Wi-Fi Setup] > Desired item to be set MENU You can improve security by enabling password entry for a direct connection to a smartphone. Bring the subject into the frame and record by pressing the shutter button fully. Page 331 12. Using Menu Functions > [Setup] MENU It will perform optimization of imaging device and image processing. Recording Modes Recording motion pictures with manually set aperture value/shutter speed (Creative Video Mode) Recording Mode: It is possible to manually change the aperture and shutter speed and record motion pictures. SDHC Memory Card (4 GB to 32 GB) SDXC Memory Card (48 GB to 128 GB) About motion picture/4K photo recording and speed class ratings ∫... [Some pictures cannot be deleted]/[This picture cannot be deleted] • This feature can only be used with pictures that comply with the DCF standard. • It will work when the [Sensitivity] is set to [AUTO] or [>... Using Menu Functions > [Custom] MENU This allows you to set either to display or not display the histogram. Recording Modes About playback ∫ Pressing 3 will start scrolling playback automatically in the 1/98 1/98 1/98 1/98 same direction as the recording. Recording Modes Recording images by changing the brightness or color tone Recording Mode: Setting brightness ∫ Press the rear dial to display the setting screen. Playing Back and Editing Images Playing Back Group Pictures A picture group consists of multiple pictures. Page 284 10. Using Menu Functions How to select an image(s) after selecting [Single] or [Multi] ∫ • When [Single] and [Multi] are not available, select an image in the same way as when [Single] is selected. These may cause the interruption of the radio waves. Getting Started/Basic Operations Mode dial (Selecting a Recording Mode) Select the mode by rotating the mode dial. • If the language select screen is not displayed, proceed to step Press [MENU/SET]. Recording Modes Manual Exposure Mode Determine the exposure by manually setting the aperture value and the shutter speed. Page 189 9. Focus, Brightness (Exposure) and Color tone Settings About [š] ([Face/Eye Detection]) When the camera detects a face, the AF area and the mark indicating the eye to be in focus are displayed. > [Motion Picture] > [Wind Noise Canceller] MENU Settings: [HIGH]/[STANDARD]/[OFF] • [HIGH] effectively reduces the wind noise by minimizing the low-pitched sound when a strong wind is detected. Connecting to other equipment Watching 4K motion pictures on a TV/ Saving 4K motion pictures on your PC or recorder Watching motion pictures in 4K Playing Back on a TV Screen ∫ By connecting the camera to a TV that supports motion pictures in 4K and playing back motion pictures recorded with their size set to [4K] in [Rec Quality], you can enjoy finely-detailed motion pictures in 4K. 4K Photo and Drive Settings Limitations on the 4K Photo function ∫ To optimize settings for 4K photo recording, certain limitations apply to some recording functions, menu items and other settings. • “AVCHD”, “AVCHD Progressive” and the “AVCHD Progressive” logo are trademarks of Panasonic Corporation and Sony Corporation. 2. • Do not cover the flash, AF Assist lamp A, microphone B, or speaker C with your fingers or other objects. • A message prompting to format the card may be displayed when connecting, but do not format. Page 223 9. Recording Motion Pictures How to set focus when recording a motion picture ([Continuous AF]) Applicable modes: Focusing changes depending on the Focus Mode setting (P95) and the [Continuous AF] setting in the [Motion Picture] menu. In [Change Workgroup Name] in [PC Connection] of the [Wi-Fi Setup] menu, change the workgroup name to that of the PC you are connecting to. When recording When taking pictures motion pictures Panasonic lenses compatible with Dual I.S. (Based on the Micro Four Thirds System Lens + Body standard) (Dual I.S.) (•... • Eye sensor might not work properly depending on the shape of your eyeglasses, the way you hold the camera, or bright light shining around the eyepiece. Page 81 3. • Confirm encryption key of the selected wireless access point if the network authentication is encrypted. For details on the accessories, refer to “Basic Owner’s Manual”. • The assist screen will close. Connecting to other equipment Functions that cannot be used on 3D pictures Functions that cannot be used during 3D recording ∫ When recording with the 3D interchangeable lens (H-FT012: optional), the following feature will be disabled: (Recording functions) • •... • The AF Assist Lamp may be greatly blocked, and it may become harder to focus when a lens with large diameter is used (such as H-FS14140). (P54) > [Motion Picture] > [Snap Movie] > [SET] MENU [Record time] Sets the recording time of motion pictures. Recording with [ ] ([4K Burst]) (P121) Recording with [ ] ([4K Burst(S/S)]) (P121) Recording with [ ] ([4K Pre-Burst]) (P122) • The camera will perform burst recording of a 4K photo and saves it as a 4K burst file in MP4 format. Normal display Guide display List display... Page 336 • SDXC Logo is a trademark of SD-3C, LLC. B B B Pinch (enlarge/reduce) ∫... Getting Started/Basic Operations Basic Operations Tips for taking good pictures Hold the camera gently with both hands, keep your arms still at your side and stand with your feet slightly apart. External Flash (optional) After attaching the flash (DMW-FL200L, DMW-FL360L, DMW-FL580L: optional), the effective range will be increased when compared to the camera’s built in flash. • A folder number between 100 and 999 can be assigned. 4K Photo and Drive Settings Touch [ ] to end the recording. Wait until the camera cools down. > When older Panasonic digital cameras (DMC-GF1/DMC-GH1/DMC-G1) are used, [Stabilizer] in the [Rec] menu cannot be set to [OFF]. Focus, Brightness (Exposure) and Color tone Settings Press the shutter button halfway. Page 23 2. This is not a malfunction. • The following operations can be performed during scrolling playback. [Rec Quality] Sets the quality of a motion picture. Recording Modes Setting the position and size of the light source ([Sunshine]) ∫ Press [Fn1] to display the setting screen. 8. Check that this unit is turned off. Getting Started/Basic Operations Setting Date/Time (Clock Set) • The clock is not set when the camera is shipped. •... Check the site below to download and install the software. Page 250 9. Preparations To print out recorded pictures wirelessly, you must use a printer that supports PictBridge (wireless LAN) ¢ ¢ Compliant with the DPS over IP standards. 2 Align the mark C ( ) on the lens hood with the mark on the tip of the lens. 12. Page 70 3. Others Monitor Display/Viewfinder Display • The following images are examples of when the display screen is set to [ ] (monitor style) in the monitor. Page 108 4. Page 87 3. Page 325 12. Stabilizer, Zoom and Flash • If you assign [Ex. Tele Conv.] to [Fn Button Set] (P58) in the [Custom] menu, you can display the Extended Tele Conversion setting screen for both pictures and motion pictures by pressing the assigned function button. Using Menu Functions > [Custom] MENU This changes the angle of view during motion picture recording and still picture recording. • It can also be ended by selecting [Stop Motion Animation] from the [Rec] menu and then pressing [MENU/SET]. Examples of group The 49 AF areas are divided into groups, each consisting of 9 areas (on the edge of the screen, 6 or 4 areas). T side: Enlarges distant subject W side: Widens angle of view Attaching the Lens Hood When recording into strong backlight, irregular reflection may occur within the lens. Getting Started/Basic Operations Attaching the Shoulder Strap ....18 Charging the Battery ....19 •... The folder number should be reset before it reaches 999. Others Sub Menu (P276) MENU Silent Mode (P210) Clear Retouch completed icon (P239) Age (P206, 207) Currently retrieving information icon Multi Playback (P183) (P130) Playback (Motion Pictures) (P180) Delete (P186) Number of days that have passed since the departure date (P220) Upload (Wi-Fi) (P276) 12. 2 Press [MENU/SET]. Recording Motion Pictures Setting the format, size and recording frame rate Select the menu. Page 236 9. Rear Dial Rotating: Selection of items or setting of values is performed during the various settings. > [Rec] > [Focus Mode] MENU Item Scene (recommended) Subject is still (Scenery, anniversary photograph, etc.) [AFS] “AFS”... • Setting screen can also be displayed by touching in order of [ ] then [Press 3/4 or 2/1 to move the in-focus portion. [Monochrome Live View] •... Up to 15 items can be set to the Quick Menu. LISA LISA LISA > [Playback] > [Text Stamp] MENU Select the picture. Using Menu Functions [Picture Sort] You can set the order in which the camera displays images during playback. Using the Wi-Fi function Sending images in the camera to an SNS Connect to a smartphone. When either this unit or the smartphone/tablet has acquired the login ID: Connect this unit to the smartphone. ... Recording Motion Pictures Setting up [Pull Focus] Set the frames that specify the positions where the [Pull Focus] starts (first position) and stops (second position). • Follow the connection procedure described on P283 to connect the camera to a wireless access point. SNAP Drag ∫ A movement without releasing the touch screen. • Please turn this unit on and your PC before connecting. Before Use Care of the camera Do not subject to strong vibration, shock, or pressure. – [Glistening Water]/[Glittering Illuminations]/[Handheld Night Shot]/[Soft Image of a Flower] (Scene Guide Mode) – [Rough Monochrome]/[Silky Monochrome]/[Miniature Effect]/[Soft Focus]/[Star Filter]/ [Sunshine] (Creative Control Mode) –... For more information visit: > [Playback] > [Print Set] MENU Select the picture. Page 211 9. > [Setup] > [Wi-Fi] > [Wi-Fi Setup] > [Wi-Fi Password] > [ON] MENU Select the menu on the camera. Stop recording the location information with the smartphone. • Group pictures will not be displayed as group pictures but as single pictures. Using Menu Functions [Photo Style] Applicable modes: You can select effects to match the type of image you wish to record. Using the Wi-Fi function Recording location information and images ∫ Start recording location information with the smartphone. Recording Modes Types of Scene Guide Mode Displaying the description of each scene and recording tips Press [DISP.] while the scene selection screen is displayed. Using Menu Functions Menu list [Rec] P187 [Motion Picture] P208 [Custom] P210 [Setup] P220 [Playback] P228 • [Photo Style], [Filter Settings], [Focus Mode], [Metering Mode], [Highlight Shadow], [i.Dynamic], [i.Resolution], [Diffraction Compensation], [Digital Zoom] and [Stabilizer] are common to both the [Rec] menu and [Motion Picture] menu. Focus, Brightness (Exposure) and Color tone Settings Setting up position of the AF area/changing size of the AF area Applicable modes: When [š], [ ], [Ø], or [ ] in Auto Focus Mode is selected, you can change the position and size of the AF area. to specific buttons and icons. Using Menu Functions [Favorite] You can do the following if a mark has been added to pictures and they have been set as favorites. A Aperture value B Shutter speed C Focus indication • Aperture value and shutter speed are displayed. Page 101 4. Getting Started/Basic Operations Zoom operations When using the interchangeable lens (H-FS12032/ H-FS35100/H-FS14140) Rotate the zoom ring of the lens. (P54) > [Rec] > [Flash] > [Firing Mode] MENU [TTL] The camera automatically sets the flash output. The major messages are described below as examples. Getting Started/Basic Operations Easily Optimizing the Brightness for a Specified Area (Touch AE) Applicable modes: You can easily optimize the brightness for a touched position. • If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation. To change a custom set ∫... Focus, Brightness (Exposure) and Color tone Settings Setting the AF area position with the Touch Pad Applicable modes: You can move the AF area displayed on the viewfinder by touching the monitor. Recording Modes Taking a picture with a blurred background (Defocus Control) Press the rear dial to display the setting screen. Using Menu Functions [Range Merging] setting Select the first and last frames to superimpose the brighter parts of the frames between them. Recording Modes Registering your preferred settings (Custom Mode) Recording Mode: Registering Personal Menu Settings (Registering custom settings) Up to 3 sets of current camera settings can be registered using [Cust.Set Mem.]. Using Menu Functions [Multi Exp.] Applicable modes: Gives an effect like multi exposure. Turn the camera on. Dividing a motion picture is permanent. Getting Started/Basic Operations Using the Viewfinder Diopter adjustment Adjust the diopter to suit your vision so that you can see the characters displayed in the viewfinder clearly. The distance at which light from the flash is blocked by lens, and the distance to which light from the flash is delivered vary depending on the lens used. Getting Started/Basic Operations Press 3/4 of the cursor button to select the setting and press [MENU/SET]. Recording Modes Taking Pictures by Specifying the Aperture/ Shutter Speed Recording Mode: (Example: In Manual Exposure Mode) Aperture value Small Large It becomes easier to It becomes easier to defocus the maintain focus as far as background. • Play back only the pictures set as favorites. Using the Wi-Fi function Wi-Fi function Before Use ∫ • Set the date and time settings in advance. It is recommended to update the firmware of the digital camera at the following website. The optional DC coupler can only be used with the designated Panasonic AC adaptor (optional). 4K Photo and Drive Settings Selecting a focus point after recording ([Post Focus]) Applicable modes: The camera can perform Burst recording in the same picture quality as 4K photo recording while automatically shifting the focus to different areas. • Once you start recording, the 4K burst file will be recorded and divided approximately every 2 minutes. About camera temperature • If the surrounding temperature is high, or [Post Focus] recording is performed continuously, or the temperature of the camera rises, [ ] may be displayed and recording may be stopped halfway through to protect the camera. Using Menu Functions [Resize] To allow easy posting to web pages, attachment to e-mail etc., picture size (number of pixels) is reduced. Using Menu Functions [Setup] setting When you select an item, the screen that asks you to select [Reinstate Adjustments], [Color Space], or [Picture Size] will be displayed. Using Menu Functions > [Setup] MENU [Sleep Mode]: The camera is automatically turned off if the camera has not been used for the time selected on the setting. Select the menu. Please note in advance that Panasonic is not liable in any way for any direct or indirect damage from the alteration or vanishing of information or personal information. 80 min Actual recordable time Approx. Using the Wi-Fi function Playing back images in the camera Connect to a smartphone. 1 Press 3. so you can take beautiful pictures. Pressing: Operations that are the same as [MENU/SET] button, such as determine settings, etc., are performed during the various settings. Page 11 Wi-Fi Connect In combination with other devices “Image App” ....P254 Playing back pictures on a TV ..P264 [WPS (Push-Button)] ..... Using Menu Functions [Wind Noise Canceller] Applicable modes: This will reduce the wind noise coming into the built-in microphone while maintaining sound quality. (P54) > [Custom] > [Touch Settings] > [Touch AF] > [AF+AE] MENU Touch the subject you want to optimize the brightness for. However, pictures can be taken until the capacity of the card becomes full. Press 3 to pause motion picture playback. > [Playback] > [Resize] MENU Select the picture and size. Others Striping or flicker may appear under lighting such as fluorescent lighting and LED lighting fixture. Stabilizer, Zoom and Flash Setting the focal length of a lens Select the menu. Be careful of camera jitter when you press the shutter button. Message Display P316 Troubleshooting P318 Finding the information you need Contents Contents by Function Menu list P187 Register online at SQW0669 (U.S. customers only) F0416CT0... [Multi Select] setting Select the picture. 4K Photo and Drive Settings Taking Pictures Automatically at Set Intervals ([Time Lapse Shot]) Applicable modes: The camera can automatically take pictures of subjects such as animals or plants as time elapses and create a motion picture. ±0 Press 2/1 to select the type of Photo Style. The camera makes a noise when this unit is turned on. • If you select [Reinstate Adjustments], a confirmation screen will be displayed. We took this new lens around a very soggy downtown Calgary to see how it performs.The Nikon Z9 is one of the best cameras we've ever tested. Playing Back and Editing Images Playing back group pictures one by one Press 4. Start recording. Page 221 9. • If you wipe the eye cup too hard and it is removed, consult the dealer or Panasonic. Dolby and the double-D symbol are trademarks of Dolby Laboratories. Using the Wi-Fi function Editing the history registered to favorites Select the menu. Connect the camera and a TV with an HDMI micro cable, and display the playback screen. Recording Motion Pictures • When the ambient temperature is high or motion picture is recorded continuously, the camera may display [ ] and stop the recording to protect itself. Getting Started/Basic Operations When [The clock setting has been completed.] is displayed, press [MENU/SET]. Check this information before uploading images to web services. Using Menu Functions > [Setup] MENU • You can display the elapsed days and travel destination during playback or stamp them on recorded pictures in [Text Stamp] (P241). Page 302 11. • You can set a color temperature from [2500K] to [10000K]. This is called Program Shift. 4K Photo and Drive Settings Recording with [4K Burst] Select [ ] ([4K Burst]). On your smartphone Turn on the Wi-Fi function. Getting Started/Basic Operations Notes on automatic viewfinder/monitor switching ∫ Automatic viewfinder/monitor switching enables the eye sensor to switch the display to the viewfinder automatically when you bring your eye or an object near it. If you have selected [Select a destination from History] or [Select a destination from Favorite], you can connect with the same Wi-Fi connection settings as used previously. 4K Photo and Drive Settings Setting Loop Recording ∫ The camera performs recording while deleting the data of the preceding part so that you can continue recording while waiting for a photo opportunity, without replacing the card. If the temperature is too high or too low, the operating time of the battery will become shorter. 1 Press 3/4 to select an item, and press [MENU/SET]. If you changed the workgroup name, the PC will not be recognized. 1/98 1/98 1/98 1/98 2: Play back the previous picture 1: Play back the next picture • If you press and hold 2/1, you can play back the pictures in succession. Recording Motion Pictures Set the cropping start frame. Service] (As of April 2016) ∫ Preparations You need to register to “LUMIX CLUB” (P278) and configure the Cloud Sync. (P184) Select the menu. Resize the image to send. Using the Wi-Fi function What you can do with the Wi-Fi function Controlling with a Smartphone/Tablet (P254) Recording with a smartphone (P259) Playing back pictures in the camera (P260) Saving images stored in the camera (P260) Sending images in the camera to an SNS (P261) Writing location information on images stored in the camera (P261) Combining motion pictures recorded with Snap Movie according to your preference on a smartphone (P263) 10. > [Playback] > [Rotate] MENU Press 2/1 to select the picture and then press [MENU/SET]. • When the set operating time has elapsed, recording automatically ends. In addition, you can save combined motion picture or upload it on a web service. Using Menu Functions [Protect] You can set protection for pictures you do not want to delete by mistake. Music can be added and various editing operations can be performed when you combine them. • Read the operating instructions for your TV. > [Rec] > [Aspect Ratio] MENU [4:3] [Aspect Ratio] of a 4:3 TV [3:2] [Aspect Ratio] of a 35 mm film camera [16:9] [Aspect Ratio] of a high-definition TV, etc. 11. The processed pictures will be saved in JPEG format. 1 Select the frame of the first picture. Getting Started/Basic Operations Access to the card The access indication displays red when pictures are being recorded on the card. Pause (during continuous playback/rewind) Fast forward Frame-by-frame forward (during pause) 5. Select the menu on the camera. Since the Bit rate camera employs the “VBR” recording method, the bit rate is changed automatically depending on the subject to record. [Touch Tab]: Operations of tabs, such as [ ] on the right side of the screen. Page 333 Information including personal information may be altered or vanish due to erroneous operation, effect of static electricity, accident, malfunction, repair, or other handlings. 4K Photo and Drive Settings Taking Pictures While Adjusting a Setting Automatically (Bracket Recording) Applicable modes: You can take multiple pictures while automatically adjusting a setting by pressing the shutter button. • If you have enlarged the picture by rotating the focus ring or moving the focus lever, the assist screen will close approximately 10 seconds after the operation. • Initial setting of the Program AE Mode is registered as the custom settings initially. • The number of days that have passed since the departure date can be printed out using the software (P296) “PHOTOfunSTUDIO”... Button operation Press 2. Before Use Care of the camera ....12 Standard Accessories ....13 Names and Functions of Components.............14 About the Lens.....................17 2. Page 329 Do not let the blower brush touch the image sensor as the image sensor may get scratched. Using the Wi-Fi function When sending images to [Cloud Sync. Recording Modes Easily set aperture/shutter speed for suitable exposure (One Push AE) Applicable modes: When the exposure setting is too bright or too dark, you can use one push AE to achieve a suitable exposure setting. Focus, Brightness (Exposure) and Color tone Settings Adjusting Focus Automatically By setting the optimum Focus Mode or Auto Focus Mode for the subject or recording condition, you can let the camera automatically adjust focus in various scenes. Selecting [Yes] will execute the operation and return you to the item selection screen. Use this when you want to keep the shutter open for a long time to take pictures of fireworks, a night scene etc. Page 337 • Android and Google Play are trademarks or registered trademarks of Google Inc. Page 207 9. The image stabilizers to be activated differ depending on your lens. Recording Modes Types of image effects Displaying the description of each image effect Press [DISP.] while the image effect selection screen is displayed. Using the Wi-Fi function Connecting via a wireless access point (via the network) You can select the method for connecting to a wireless access point. Recording Modes Taking Pictures with different image effects (Creative Control Mode) Recording Mode: This mode records with additional image effects. Decide on the composition, and take the first picture. Touch [Fn5], [Fn6], [Fn7], [Fn8] or [Fn9]. Recording Modes Taking a picture with a blurred background (Defocus Control) Recording Mode: Press the rear dial to display the setting screen. 2 Press 3/4 to select the color temperature and then press [MENU/SET]. Focus, Brightness (Exposure) and Color tone Settings Auto Focus Mode Applicable modes: This allows the focusing method that suits the positions and number of the subjects to be selected. Set the luminosity ratio of the flash manually. After text has been registered, it can be stamped in prints using [Text Stamp] (P241). Mechanical shutter Electronic Shutter Flash — ± Shutter Speed T (Time) ¢1 /60 to 1/4000th ¢2 to 1/16000th (Sec.) Page 200 9. Focus, Brightness (Exposure) and Color tone Settings The ISO sensitivity is automatically adjusted according to the brightness. Before Use Lens ∫ H-FS12032 H-FS35100 H-H020A H-FS14140 Lens surface Zoom ring (P150) Contact point Lens fitting mark (P32) Focus ring (P107) [O.I.S.] switch (P146) • The interchangeable lens (H-FS12032) does not have a focus ring, but you can use manual focus by operating the camera. Stabilizer, Zoom and Flash Zooming using touch operations (Touch zoom) (Optical Zoom and Extended Tele Conversion for still picture recording are operable) • If you are using an interchangeable lens not supporting power zoom (H-FS12032/H-FS35100/ H-H020A/H-FS14140), you can only operate Extended Tele Conversion for pictures by setting [Ex. 6. SS]: Assigns the aperture value to the front dial, and the shutter [Assign Dial (F/SS)] speed to the rear dial. Page 224 9. • The recorded images are saved in the camera. [LVF] button (P40)/ [Fn4] button (P58) Card/Battery door (P20)] (4K photo mode) button (P118)/... Page 117 4. Focus, Brightness (Exposure) and Color tone Settings Fixing the Focus and the Exposure (AF/AE Lock) Applicable modes: This is useful when you want to take a picture of a subject outside the AF area or the contrast is too strong and you cannot achieve appropriate exposure. Attach the 3D interchangeable lens to the camera. Others Message Display Confirmation messages or error messages will be displayed on the screen in some cases. ¢2 Only displayed when [iHandheld Night Shot] is set to [ON]. Getting Started/Basic Operations Assigning frequently used functions to the buttons (function buttons) You can assign recording functions, etc. Page 113 4. Using Menu Functions [Aspect Ratio] Applicable modes: This allows you to select the aspect ratio of the pictures to suit printing or the playback method. 1. Using Menu Functions [Quality] Applicable modes: Set the compression rate at which the pictures are to be stored. Stabilizer, Zoom and Flash Taking Pictures with the Zoom Optical zoom Applicable modes: You can zoom-in to make people and objects appear closer or zoom-out to record landscapes, etc. Connecting to other equipment Enjoying 3D pictures Taking 3D pictures Attaching the 3D interchangeable lens (H-FT012: optional) to the camera allows you to take 3D pictures for extra impact. Service] Using [Cloud Sync. Page 5 3. Chris and Jordan have been testing the Z9 with the new 2.0 firmware for a while, and they have the answers.The Nikon Z9 uses a stacked CMOS sensor to power its first pro-level mirrorless camera. Getting Started/Basic Operations Charging • Charge the battery in areas with an ambient temperature, between 10 oC and 30 oC (50 oF and 86 oF) (same as the battery temperature), is recommended. • Check that the camera is turned off. Recording Modes Changing the recording direction and angle of view (image size) of panorama ∫ pictures > [Rec]>[Panorama Settings] MENU Sets the recording direction. Focus, Brightness (Exposure) and Color tone Settings When selecting [Touch Description of Button operation operation Moves the Touching 3/4/2/1 position Changes the size Pinching in/out (3 levels) Restores the [DISP.] [Reset] default setting When selecting [Touch operation Drag your finger over the parts you want to set as AF areas. • If you use other batteries, we cannot guarantee the quality of this product. Getting Started/Basic Operations [Custom] menu – – [Silent Mode] (P210) [Monochrome Live View] (P217) – – [Peaking] (P214) [Rec Area] (P218) – – ¢ [Histogram] (P215): [Fn8] [Step Zoom] (P154) – – [Guide Line] (P215) [Zoom Speed] (P154) – –... • When connected with [Send Images While Recording], [ ] is displayed on the recording screen, and [ ] is displayed while sending a file. 9. Page 22 2. You can also delete your “LUMIX CLUB” account. Connecting to other equipment The recorded pictures can be played back on a TV with an SD Memory Card slot • Depending on the TV model, pictures may not be displayed on the full screen. Page 33 2. • You can register up to 3 face images. You can set the effects to add by selecting example images and checking them on the screen. • The same operation can be performed by touching Press 3 to select [Delete Single] and then press [MENU/SET]. • The default workgroup name is set to “WORKGROUP”. • A focal length ranging from 8 mm to 1000 mm can be set. Page 84 3. > [Playback] > [Protect] MENU Select the picture. AUTO • Maximum [ISO3200] (With the flash on [ISO1600]) ¢1 The camera detects movement of the subject and then automatically sets the optimum ISO sensitivity and shutter speed to suit the movement of the subject and brightness of the scene to minimize the jitter of the subject. Page 244 9. Page 310 12. Getting Started/Basic Operations Taking Pictures Using the Touch Function Taking pictures using the Touch Shutter function Applicable modes: Just by touching the subject you want as your point of focus, the camera will focus on the subject and take the picture automatically. Using Menu Functions Menu list........................187 • [Rec] menu ....187 • [Motion Picture] menu ....208 • [Custom] menu ....210 • [Setup] menu ....220 •... DVD, processing and correcting images, and editing motion pictures. 4. Using Menu Functions > [Custom] MENU When the Auto Review function is activated or when playing back, white saturated areas appear blinking in black and white. > [Playback] > [Title Edit] MENU Select the picture. Page 164 6. Pass the shoulder strap through the shoulder strap eyelet on the camera body. Page 64 3. Stabilizer, Zoom and Flash The available flash range (approximation) ∫ When you use certain lenses, light from the flash may be blocked or fail to cover the lens field of view, causing dark areas to appear in the resulting pictures. Recording Motion Pictures Recording Motion Picture/4K Motion Picture Applicable modes: This camera can record full high definition motion pictures compatible with the AVCHD format or motion pictures recorded in MP4. Page 299 11. A Cropping start frame • When making settings for the first time, a cropping start frame of size 1920k1080 is displayed. the background. 2.0X 2.0X 2.0X 2.0X • If the rear dial is rotated to the left after the image is enlarged, the magnification will be reduced. Page 160 6. Page 116 4. Page 177 7. > [Playback] > MENU [Clear Retouch] Press 2/1 to select a picture, and then press [MENU/SET]. Getting Started/Basic Operations Attaching the Shoulder Strap • We recommend attaching the shoulder strap when using the camera to prevent it from dropping. Parts of the image that are brighter than the preceding frame will be superimposed on the preceding frame to combine the frames into one picture. SNAP Functions that can be assigned in [Setting in REC mode] ∫... 4K Photo and Drive Settings Notes on the 4K Photo function To change the aspect ratio ∫ Selecting [Aspect Ratio] in the [Rec] menu allows you to change the aspect ratio for 4K photos. • Setting screen can also be displayed by touching in order of [ ] then [Press 3/4/2/1 to move the center position of the light source . Getting Started/Basic Operations Shutter button (Taking pictures) The shutter button works in two steps. Using Menu Functions > [Custom] MENU Sets the display method of MF Assist (enlarged screen). Page 262 10. • Using the smartphone/tablet app “Panasonic Image App”, you can combine motion pictures recorded with the camera. P283, Printing images ......P270 Direct connection......P285 Sending images to an AV Image App device ....P271 Remote recording ......P259 Sending images to a PC ....P272 Saving images .... Setting to a higher figure enables pictures to be taken even in dark places without the resulting pictures coming out dark. • You may not be able to record for a short while after turning this unit on when using a large capacity card. Page 213 9. > [Playback] > [Playback Mode] MENU Select the group to play back by pressing 3/4, and then press [MENU/SET]. Page 230 9. (Simultaneous recording) During motion picture recording, press the shutter button fully to record a still picture. Using Menu Functions [Motion Picture] menu • • [Photo Style] (P188) [i.Dynamic] (Intelligent dynamic range • [Filter Settings] (P190) control) (P196) • • [4K Live Cropping] (P171) [i.Resolution] (P196) • • [Snap Movie] (P176) [Diffraction Compensation] (P203) • • [Rec Format] (P168) [Ex. 9. 4K Photo and Drive Settings To cancel [Post Focus] ∫ Select [OFF] in step on P131. • Simultaneous recording indicator is displayed while recording still pictures. Getting Started/Basic Operations] Monitor style display layout (Example of monitor style display) ∫ With information Without Without With information (tilt sensor information (tilt information display) sensor display) 98 98 98 98 98 98 On-monitor Turned off recording information ¢... (P295, 300) 11. This reaction is susceptible to the surrounding temperature and humidity. Focus, Brightness (Exposure) and Color tone Settings Finely adjusting the White Balance You can finely adjust the White Balance when you cannot acquire the desired hue by setting the White Balance. • When an object or your hand is positioned near the eye sensor, the Monitor display may switch to the Viewfinder display. • Manufactured under license from Dolby Laboratories. Focus, Brightness (Exposure) and Color tone Settings You can set the color temperature manually for taking natural pictures in different lighting 6500K conditions. You can also put together a slide show composed of only still pictures, only motion pictures, etc. Refer to catalogs/Web pages for most current information regarding compatible lenses. Using the Wi-Fi function Delete your login ID and account from the “LUMIX CLUB” Delete the login ID from the camera when transferring it to another party or disposing of it. (P54) > [Rec] > [Flash] > [Flash Adjust.] MENU Press 2/1 to set the flash output and then press [MENU/SET]. Page 78 3. A Motion picture recording time •... Getting Started/Basic Operations Calling frequently-used menus instantly (Quick Menu) By using the Quick Menu, some of the menu settings can be easily found. 4K Photo and Drive Settings Creating Stop Motion Pictures ([Stop Motion Animation]) Applicable modes: A stop motion picture is created by splicing pictures together. Using the Wi-Fi function To prevent incorrect operation or use of the Wi-Fi function by a third party and to protect saved personal information, it is recommended that you protect the Wi-Fi function with a password. Sets the times for the region where you live and your holiday destination. T side: Enlarges distant subject W side: Widens angle of view Rotate the zoom ring. • Panasonic assumes no responsibility for the damages resulting from the leakage, loss, etc. This display format allows you [FILE NAME] to locate images in the card easily. Connecting to other equipment SILKYPIX Developer Studio SE This is software to edit RAW format images. After the recording, you can select the desired area on the screen and save a picture in which the selected area is in focus. You can make the background more blurred by decreasing the aperture value or record a moving subject more dynamically by slowing the shutter speed when taking a picture in Program AE Mode. 4K Photo and Drive Settings Recording 4K Photos Applicable modes: You can select the desired moment from a burst of pictures taken at 30 frames/second and save that moment as a picture of 8 million pixels (approx.). 4K Photo and Drive Settings Selecting and saving pictures on the TV screen ∫ Preparation: Set [HDMI Mode (Play)] (P224) to [AUTO] or [4K]. [Age] It is possible to register the birthday. Using the Wi-Fi function Displaying pictures on a TV You can display pictures on a TV that supports the Digital Media Renderer (DMR) function of the DLNA standard. (P54) > [Rec] > [Flash] MENU [Wireless] Select [ON]. Set the mode dial to [Set the aperture value by rotating the rear dial or the front dial. Page 115 4. Press 4 (1 2 3 4 Press 2/1 to select the drive mode, and then press [MENU/SET]. While this screen is displayed, you can change the [Picture Size] setting by pressing [DISP.]. Using the Wi-Fi function Sending images to a smartphone/tablet Preparations • Install the "Image App" in advance. Page 253 10. (P261) • You need to install "Panasonic Image App" on your smartphone. Contents by Function Recording Recording Exposure Recording Mode ......[Touch AE] ....P53 [Preview].......... Page 332 12. Using the Wi-Fi function About Connections If you have selected [New Connection], select a Wi-Fi function and destination first, and then select a connection method. Page 238 9. Page 335 12. Page 234 9. Page 267 10. Focus, Brightness (Exposure) and Color tone Settings When using an interchangeable lens When using the interchangeable lens (H-FS35100/H-H020A/H-FS14140) with a having a focus lever focus ring Move to C side: Rotate to A side: Focuses on nearby Focuses on nearby subject Move to D side:... Stabilizer, Zoom and Flash Select the menu. • Audio from the speaker will be muted and the flash and the AF Assist lamp will be disabled. Using the Wi-Fi function Combining motion pictures recorded with Snap Movie according to your preference on a smartphone/tablet Using a smartphone, you can combine motion pictures recorded with the camera's [Snap Movie] function (P176). ±0 ±0 Press 3/4 to select the items, and then press 2/1 to adjust. Getting Started/Basic Operations [DISP.] button (Switching the displayed information) Press [DISP.] to switch the information displayed on the screen. This menu lets you set the aspect ratio, number of pixels, 4K Photo [Rec] (P187) and other aspects of the pictures you are recording. 4K Photo and Drive Settings Aperture Bracket Recording Mode: About [More settings] (step in P138) ∫ [3], [5]: Takes a specified number of pictures with different aperture values within the range based on the initial aperture [Image Count] value. A: Shoulder strap eyelet Pass the end of the shoulder strap through the ring on the shoulder strap eyelet and then pass it through the stopper. A Elapsed recording time B Set operating time • Immediately release the motion picture button (or the shutter button) after pressing it. Page 321 12. • If the information on the screen is not displayed any longer because no operation was performed for some time, press the [DISP.] button or touch the screen to display the information again. Using Menu Functions [Custom] menu > [Custom] MENU [Cust.Set Mem.] Registers the current camera settings as custom set. Getting Started/Basic Operations In Playback Mode Without Detailed Histogram information Without information display (Highlight display display) ¢ F3.5 1/98 1/98 F3.5 60 STD. Otherwise, a fire and/or electric shocks may be caused by short-circuiting or the resulting heat generated. 6. (SDXC memory card is used.) • Check if your PC is compatible with SDXC memory cards. SD Memory Card standard SDHC/SDXC memory cards. [Print with Date] Sets date printing. Press 3/4 to select [Set], and then press [MENU/SET]. • 4K burst files are displayed with [• You can also perform the same operation by touching the icon [•... Press 3/4 to select [Rec Quality] and then press [MENU/SET]. Others Troubleshooting First, try out the following procedures (P318 to P327). 1 Select [• You can switch the images to be displayed by selecting the icon (A) on the top left of the screen. Page 226 9. (P83) > [Rec] > [Filter Settings] > [Filter Effect] MENU Settings: [ON]/[OFF]/[SET] Change the settings by using the touch screen... Using Menu Functions [Rotate] (The picture is rotated manually.) Rotate pictures manually in 90o steps. A Aperture value B Exposure meter •... (P35) •... [Frame Rate] The larger the number is, the smoother the motion picture will be. • When the camera is turned on, the status indicator 1 lights up green. Press to move the AF area frame, and press [MENU/SET]. [Shooting Date] Stamps the recording date. Using Menu Functions > [Setup] MENU [HDMI Mode (Play)]: Set the format for the HDMI output when playing back on the HDMI compatible high-definition TV connected with this unit using the HDMI micro cable. 4K Photo and Drive Settings Focusing in Burst Mode The way focus is achieved varies according to the focus mode (P95) setting and the [Focus/Release Priority] (P212) setting in the [Custom] menu. Playback and Editing Images Switching the Playback Method Using the Playback Zoom Rotate the rear dial right. (P278) • Check the "FAQ/Contact us" on the following site for compatible web services. 100 min Actual recordable time Approx. Page 169 7. You can register records as favorites. Using the Shutter Delay Applicable modes: To reduce the influence of hand shake or shutter vibration, shutter is released after the specified time has passed. For a PC, use "PHOTOfunSTUDIO"... • The Wi-Fi CERTIFIED™ Logo is a certification mark of Wi-Fi Alliance • The Wi-Fi Protected Setup™ Identifier mark is a certification mark of Wi-Fi Alliance. • "Wi-Fi "... • The settings that can be adjusted using Quick Menu are determined by the mode or a display style the camera is in. >... Others Motion pictures Recording motion pictures is not possible. Getting Started/Basic Operations Using the function buttons during recording You can use assigned functions by pressing a function button when recording. Decide before you divide! >... An eye closer to the camera will be in focus, while the exposure will be optimized for the face. About the picture data • Recorded data may be damaged or lost if the camera breaks down due to inappropriate handling. To take a picture, press it. Not available in these cases: • This function is not available in the following cases: – When [Rec Quality] is set to [VGA/4M/30p] for MP4 motion pictures –... Playing Back and Editing Images Displaying multiple screens (Multi Playback) Rotate the rear dial left. 3 Turn the lens hood in the direction of the arrow until it clicks into place. (P58) Press the function button. Page 330 (commercially available), gently wipe it with a dry and soft cloth, and be careful not to scratch it. Getting Started/Basic Operations Customizing the Quick Menu settings When [Q.MENU] (P218) in the [Custom] menu is set to [CUSTOM], the Quick Menu can be changed as desired. (P229) Canceling all the [Protect] settings ∫ Press 3/4 to select [Cancel], and then press [MENU/SET]. Keep the camera still from the moment the shutter button is pressed until the picture appears on the screen. ([Forced Flash On]) ‰... Page 293 11. It may also malfunction or image may not be recorded if you: –... (512 MB to 2 GB) • Operation of the cards on the left has been confirmed with Panasonic's cards. 4K Photo and Drive Settings Not available in these cases: • Bracketing recording is disabled in the following cases. • The [Rotate] function is disabled when [Rotate Disp.] is set to [OFF]. > [Playback] > [Cropping] MENU Press 2/1 to select the picture, and then press [MENU/SET]. Recording Motion Pictures Recording still pictures while recording a motion picture. In addition, you can send the combined motion picture to a web service. Using Menu Functions Adjusting the picture quality ∫ • Picture quality can be adjusted in the Intelligent Auto Plus Mode. Getting Started/Basic Operations Extending/retracting the lens (when the lens H-FS12032 is attached) How to Extend the Lens Example: H-FS12032 ∫ Rotate the zoom ring in the direction of arrow 1 from position A (the lens is retracted) to position B [12 mm to 32 mm (H-FS12032), 35 mm to 100 mm (H-FS35100)] to extend the lens. 4K Photo and Drive Settings Select the methods for creating a motion picture. Using the Wi-Fi function Taking a picture using a smartphone/tablet (remote recording) Connect to a smartphone. [Touch Screen]: All touch operations. Page 98 4. Using Menu Functions [Setup] menu > [Setup] MENU [Online Manual] [URL display]/[QR Code display] [Clock Set] Setting Date/Time. 1/98 1/98 1/98 • The same operation can be performed by touching [ ], [ ], or [Press 2/1 to flip through images. Stabilizer, Zoom and Flash Available flash settings by Recording Mode ∫ The available flash settings depend on the Recording Mode. Motion pictures will be recorded with [FHD/20M/30p] in [MP4]. • When you set [Print Set] for a group pictures, the print setting for the number of prints will be applied to every picture in the group. [Clear Retouch] automatically enables the touch operation. To delete a single picture (Playback Mode) 1 In Playback Mode, select the picture to delete and then press [1. Using Menu Functions [Slide Show] You can play back pictures you have taken in synchronization with music, and you can do this in sequence while leaving a fixed interval between each of the pictures. • Black icons: Applicable modes • Gray icons: Unavailable modes I indicates that available functions vary depending on the registered Recording Mode. Recording Modes The camera detects scenes automatically (Scene Detection) : When taking pictures, : When recording motion pictures) ¢1 [i-Portrait] [i-Scenery] [i-Macro] [i-Night Portrait] [i-Night Scenery] [iHandheld Night Shot] [i-Food] [i-Baby] ¢3 [i-Sunset] [i-Low Light] ¢2 Shot] ¢1 Only displayed when the built-in flash is open. Using Menu Functions [Profile Setup] Applicable modes: If you set the name and birthday of your baby or pet in advance, you can record their name and age in months and years in the images. (Add Images) To add additional face images. • Some functions cannot be assigned depending on the function button. Page 314 12. • MP4 motion pictures with a [Rec Quality] size of [FHD], [HD] or [VGA]: Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds or the file size exceeds 4 GB. It is possible to register names. Page 233 • You can send location information and write it on images using a smartphone. (First position) •... • Depending on the menu item, its setting may not appear or it may be displayed in a different way. Using Menu Functions [Playback Mode] Playback in [Normal Play], [Picture Only], [Video Only], [4K PHOTO], [Post Focus], [3D Play], [Category Play] or [Favorite Play] can be selected. Recording Motion Pictures • The picture aspect ratio will be fixed to [16:9]. Page 167 7. A standard image quality JPEG image. • Each press of the rear dial switches among brightness setting, Defocus Control (P67) end operation. In addition, the camera can record 4K motion pictures in MP4. Others Touch tab (P219) Touch zoom (P155) Touch Shutter (P52) × Touch AE (P53) Peaking (P214) Function Focus (P68) SNAP Color (P68) Defocus control function (P67, Brightness (P68, Type of defocus ([Miniature Effect]) (P85) One point color (P85) Position of the light source (P86) Image effect (filter) adjustment (P88, 190) Page 312 12. > [Custom] > [Touch Settings] > [Touch Pad AF] MENU Moves the AF area of the Viewfinder by touching a... A Wireless access point B Home AV device Preparations When sending a picture to AV devices, set your device to DLNA waiting mode. > [Rec] > [Metering Mode] MENU This is the method for measuring the most suitable exposure by judging the allocation of brightness on the whole screen (Multiple) automatically. 1 Record a 4K photo. Page 185 8. Press 2 (Select [ ] and press 4. 7. Set the mode dial to [Set the shutter speed, and rotate the front dial to set the aperture value. Getting Started/Basic Operations Temporarily Storing the Lens Hood When using the H-FS35100 1 Turn the lens hood in the direction of the arrow to detach it. Touch the panel directly with your bare finger. • Move the cursor to [ ] and then press [MENU/SET] to switch text between [A] (capitals), [a] (lower case), [1] (numbers) and [&] (special characters). Focus, Brightness (Exposure) and Color tone Settings Pressing the shutter button halfway to adjust the composition When the subject is not in the center of the composition in [Ø], you can bring the subject into the AF area, fix the focus and exposure by pressing the shutter button halfway, then move the camera to the composition you want with the shutter button pressed halfway, and then take the picture. Press 2/1 to select the home area, and then press [MENU/SET]. Align the screen with the smartphone. Free Download Panasonic Lumix DMC-GX85 / GX80 PDF User Manual, User Guide, Instructions, Panasonic Lumix DMC-GX85 / GX80 Owner's Manual.Panasonic LUMIX DMC-GX85 / GX80 Micro Four Thirds system camera equipped with a 16 MP Live MOS sensor with no low-pass filter, which work with the Venus Engine image processor delivers crisp, high resolution images and excellent low-light performance up to ISO 25600.The Contrast AF system features Depth From Defocus (DFD) technology achieves ultra-high speed AF of approx.0.07 sec. Getting Started/Basic Operations Front Dial/Rear Dial Front Dial Rotating: Selection of items or setting of values is performed during the various settings. Others Instructions for both iOS devices (iPhone/iPod touch/iPad) and Android devices Using the QR code to set up a connection Preparations: Set [Wi-Fi Password] to [ON]. Changing these settings in one of these menus is reflected in other menu. Its ability to generate power comes from the chemical reaction that takes place inside it. After 10 seconds the camera takes 3 pictures at about 2 seconds intervals. [Single] setting Press 2/1 to select the picture. Use the rear dial and press 3/4/2/1 to select the parts to be cropped. Getting Started/Basic Operations Temporarily changing the items assigned to the front/rear dials ([Dial Operation Switch]) You can temporarily change the items assigned to the front/rear dials using the function button to which [Dial Operation Switch] is assigned. Preparations Set the TV to DLNA waiting mode. Using the Wi-Fi function If you are not sure about the WPS compatibility (connecting by [From List]) Search for available wireless access points. Stabilizer, Zoom and Flash Raising the telescopic effect [Ex. Tele Conv.] Applicable modes: Extended Tele Conversion enables you to take pictures that are further enlarged without deteriorating the picture quality. • When it is set to the guide display, detailed explanations for each scene are displayed. Page 26 2. Using Menu Functions [RAW Processing] You can process the pictures taken in RAW format. Press 3/4/2/1 to select a location. Press 3/4 to select an item and then press [MENU/SET]. Press 3/4 to select the set items. • This owner's manual expresses the up, down, left, and right of the cursor button as 3/4/2/1. Rear dial (right): Enlargement Rear dial (left): Reduction 3/4/2/1: Move... 10. Panasonic will not be liable for any damage caused due to loss of recorded data. Press the rear dial to switch to Exposure Compensation operation. Using the Wi-Fi function When connecting via a wireless access point ([Via Network]): On the camera Select [Via Network]. If the remaining battery power becomes low while the camera and the printer are connected, the status indicator blinks and the alarm beeps. Focus, Brightness (Exposure) and Color tone Settings Setting the Light Sensitivity Applicable modes: This allows the sensitivity to light (ISO sensitivity) to be set. Page 323 12. Stabilizer, Zoom and Flash Adjust the flash output Applicable modes: Adjust the flash brightness when pictures taken with the flash are over or underexposed. • The playback function may not be effective in the following cases. (P280) Refer to the "LUMIX CLUB" site for details. Stabilizer, Zoom and Flash Changing Flash Mode Applicable modes: Set the flash to match the recording. This allows you to select the screen effects when switching from one picture to the next. Recording Modes Taking panorama pictures (Panorama Shot Mode) Recording Mode: Consecutive photos taken while the camera is moved are combined to form a panorama. About the cards that can be used with this unit. Page 232 9. • You cannot dub 4K burst files (MP4 format) with [Aspect Ratio] set to an option other than [16:9] to hard disk drives, including those of Panasonic recorders. Page 222 9. This function is convenient when a black and white screen will make it easier to set focus with Manual Focus. In recording 60 p MINI MINI MINI MINI × × ... Press 4 to select [ ] and then press [MENU/SET]. > [Playback] > [Time Lapse Video] MENU Select the [Time Lapse Shot] picture group with 2/1, and then press [MENU/ SET]. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. • If no operations are performed during the set time period, [Auto LVF/Monitor Off] (P223) activated, and the Monitor/Viewfinder turns off. • Depending on the lens you attach, it may move inside and create a sound. Sets the number of frames per second. • Enter any combination of 8 to 16 characters and numbers for the password. Recording Modes Effect Items that can be set Yellow Blue [Monochrome] Color emphasized emphasized [Dynamic Contrast Low contrast High contrast Monochrome] [Rough Grittiness Less gritty Gritter Monochrome] [Silky Extent of defocus Weak defocus Strong defocus Monochrome] [Impressive Art] Freshness Black and white Pop colors... Page 205 9. [Cool Night Sky] [Warm Glowing Nightscape] [Artistic Nightscape] [Glittering Illuminations] [Handheld Night Shot] [Clear Night Portrait] • Be careful about the battery... Stabilizer, Zoom and Flash Taking pictures by using the flash Applicable modes: Open/Close the built-in flash ∫ Taking a picture using the flash becomes possible by opening the built-in flash. After selecting [Destination] or [Home], press 2/1 to select an area, and press [MENU/SET] to set it. 4 Select [ ] to start recording location information. Using Menu Functions [Playback] menu • • [2D/3D Settings] (P229) [Stop Motion Video] (P243) • • [Slide Show] (P230) [Resize] (P244) • • [Playback Mode] (P232) [Cropping] (P245) • • [Location Logging] (P233) [Rotate] (P246) • • [RAW Processing] (P234) [Rotate Disp.] (P246) Page 229 9. • It is recommended to disable the Image Stabilizer when using a tripod. Focus, Brightness (Exposure) and Color tone Settings • If you zoom in/out after focusing on a subject, the focus may lose its accuracy. Music can be added to motion pictures to be combined. Page 326 The card is not recognized by the PC. If your television does not switch to a 3D picture, make the necessary settings on the TV. How to tell if the exposure is not adequate •... • " " Refer to How to set each item on P235. Stabilizer, Zoom and Flash Shutter speed for each flash setting ∫ Flash setting Shutter speed (Sec.) ‰ 1/60th ¢ to 1/160th 1 to 1/4000th ¢ This becomes 60 seconds in Shutter-Priority AE Mode and T (Time) in the Manual Exposure Mode. Others In playback Histogram display F3.5 60 1/98 100-0001 1/98 Histogram (P50) Picture number/Total pictures 100-0001 Folder/File number (P299) Recording information ¢1 h: hour, m: minute, s: second ¢2 It is displayed in order of [Title], [Location], [Name] ([Baby1]/[Baby2], [Pet]), [Name] ([Face Recog.]). Fine-adjust the White Balance in step of "Finely G G G G G G... • When the camera is connected to a TV, lower the volume of the TV. > [Rec] > [Quality] MENU Settings File format Description of settings A JPEG image in which image quality was given priority. (up to 4 times equivalent per a single image) > [Rec] > [Multi Exp.] MENU Press 3/4 to select [Start] and then press [MENU/SET]. 4K Photo and Drive Settings For capturing the best shot of a fast-moving subject (e.g., sports, aeroplanes, trains) Burst recording is performed while the shutter button is pressed and held. Page 245 9. Stabilizer, Zoom and Flash Changing the settings for a power zoom lens Applicable modes: Sets the screen display and lens operations when using an interchangeable lens that is compatible with power zoom (electrically operated zoom). (P54) > [Rec] > [Ex. Tele Conv.] > [ZOOM] MENU Set a function button to [Zoom Control]. Page 63 3. Page 100 4. Using Menu Functions [Title Edit] You can add text (comments) to pictures. Others Wi-Fi function A Wi-Fi connection cannot be established. [Quick AF] • This function is not available in the following cases: -... Using the Wi-Fi function • Check the wireless access points instruction manual and settings when saving a wireless access point. Page 8 11. • The setting can also be made by selecting an option by rotating the rear dial and then pressing the rear dial. Using the Wi-Fi function Connecting to a smartphone/tablet For both iOS devices (iPhone/iPod touch/iPad) and Android devices Connecting without using the password You can easily set up a direct connection to your smartphone without entering a password. • During access (image writing, reading and deleting, formatting etc.), do not turn this unit off, remove the battery, card or disconnect the AC adaptor (optional). Recording Modes [Glistening Water] [Clear Nightscape] • Star filter used in this mode may cause glistening effects on the objects other than water surface. Getting Started/Basic Operations Setting menu items You can either operate the buttons or touch the monitor to set menu items. Switching the Monitor/Viewfinder Press [LVF] to switch between the Monitor and Viewfinder. • The recording format is set to [MP4]. Using Menu Functions [Metering Mode] Applicable modes: Type of optical measurement to measure brightness can be changed. Page 199 9. Settings can be made within a range of 3 EV to 3 EV while recording motion pictures, recording 4K photos, or recording in [Post Focus]. • The following items are fixed to the settings indicated below: [4K] (8M) • If you cannot remove the dirt or dust with the blower, consult the dealer or Panasonic. Doing so may make sound Status indicator (P35)/ difficult to record. (Continues up to approximately 120 seconds.) If you press the shutter button again, the exposure will end. [MP4] This data format is suitable for when playing back on a PC, etc. Using Menu Functions > [Custom] MENU In-focus portions (portions on the screen with clear outlines) are highlighted when focus is being adjusted manually. Using the Wi-Fi function Enter a password. The camera cannot be connected to PC via Wi-Fi connection. Using the Wi-Fi function To set the same login ID on the unit and the smartphone is convenient for sending images on this unit to other devices or web services. 4K Photo and Drive Settings • The following menu items are disabled: Applicable to [ ] ([4K Burst]) ([4K Burst(S/S)])/[ ] ([4K Pre-Burst]) [Picture Size]/[Quality]/[Bracket]/[Handheld Night Shot]/[iHDR]/[HDR]/ [Panorama Settings]/[Shutter Type]/[Shutter Delay]/[Flash]/[Extended ISO]/ [Rec] [Long Shtr NR]/[Shading Comp.]/[Ex. Tele Conv.]/[Color Space]/[Face Recog.]/[Profile Setup] [Custom] [Rec Area]... [Direction] Sets the angle of view (image size). Others Cautions for Use Optimal use of the camera Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.). -... Recording Modes About [T] (Time) ∫ If you set the shutter speed to [T] (Time) and fully press the shutter button, an exposure starts. By clicking a page number, you can jump to the linked page and quickly find the information. Before Use Names and Functions of Components Camera body ∫ 14 13 Stereo microphone (P208) Camera ON/OFF switch (P35) • Be careful not to cover the microphone with Charging lamp (P22)/ your finger. This may cause malfunction. Off: Charging has completed. Using the Wi-Fi function (For Mac) Supported OS: OS X v10.5 to v10.11 Example: OS X v10.8 Select a folder you intend to use for receiving, then click on the items in the following order. Page 258 10. Using the Wi-Fi function For both iOS devices (iPhone/iPod touch/iPad) and Android devices Manually entering a password to set up a connection Preparations: Set [Wi-Fi Password] to [ON]. (When charging is complete, disconnect the camera from the power outlet or computer.) Blinking red: Charging error. Using Menu Functions > [Setup] MENU Brightness, color, or red or blue tint of the Monitor/ viewfinder is adjusted. • You can set the items to be assigned temporarily to the front/rear dials in [Dial Operation Switch Setup] in [Dial Set.] in the [Custom] menu. ↓↓↓ After waiting over a year, Chris and Jordan finally had a chance to test the new Canon RF 100mm F2.8 L IS Macro. P166 [Mic Level Disp.] ......P208 [4K Live Cropping] ......P171 [Zebra Pattern]... (P168) Audio will be recorded in stereo. Recording Modes Recording night scenery ([iHandheld Night Shot]) Recording Mode: When [ ] is detected while taking handheld night shots, pictures of the night scenery will be taken at a high burst speed and composed into a single picture. Using Menu Functions [Text Stamp] You can stamp recording information on recorded images. 1.2016 F3.5 100-0001 1/98 100-0001 Without information ¢This is displayed if [Highlight] (P216) in the [Custom] menu is set to [ON]. Preparation: Make sure that you have created an account on the web service you want to use, and have the login information available. Stabilizer, Zoom and Flash • The Image Stabilizer may produce operational sound or cause vibration during its operation, but these are not malfunctions. Select the White Balance and then press 4. ¢ WPS refers to a function that allows you to easily configure the settings related to the connection and security of wireless LAN devices. • You can also close the assist screen by pressing [MENU/SET]. Using Menu Functions > [Custom] MENU • The AF Assist Lamp gets slightly blocked when the interchangeable lens (H-FS12032/H-FS35100/H-H020A) is used, but it does not affect the performance. (P255) Operate the smartphone. 2 Select and save pictures. Using Menu Functions Set the item. Using touch icons allows silent operation while recording motion pictures. Using Menu Functions [Clear Retouch] • The erasure operation can only be performed by touching. (After setting the cropping start frame and end frame, the start frame and end frame that you set immediately before will be displayed.) •... [None] • For information on how to enter characters, refer to P61. Press 2 (Select a Custom Multi icon ([ ], etc.), and then press 3 . Getting Started/Basic Operations • Do not leave any metal items (such as clips) near the contact areas of the power plug. (±: Available, —: Not available, ¥: Initial setting of Scene Guide Mode) Recording Mode ‰ Œ Program AE Mode ±... Connecting to other equipment • Disconnect the USB connection cable after printing. Page 136 5. Page 10 10 Motion Picture Motion Picture [Snap Movie]........P176 Creative Video Mode .... Using Menu Functions [Light Composition] Select multiple frames from 4K burst files that you wish to combine. [Sleep Mode(Wi-Fi)]: The camera is automatically turned off if it is not connected to a Wi-Fi network and has not been used for 15 minutes (approx.). Page 235 9. Finding the information you need In this "Owner's Manual for advanced features", you can find the information you need from the following pages. Page 31 2. • [Destination] can be set after setting up [Home]. Page 85 3. Page 327 12. • For information on how to enter characters, refer to P61. Page 15 (P308) Eye sensor (P41) • When using an AC adaptor, ensure that the Diopter adjustment dial (P40) Panasonic DC coupler (optional) and AC adaptor (optional) are used. (As of April 2016) You can use the software "PHOTOfunSTUDIO" (P296) to convert the file size of a motion picture to a smaller size or copy it to a DVD. Using the Wi-Fi function [Wi-Fi Setup] Menu Configure the settings required for the Wi-Fi function. Getting Started/Basic Operations About the charging lamp ∫ Lit red: Charging. • When [Detect Level] in [SET] is set to [HIGH], portions to be highlighted are reduced, allowing you to achieve a more precise focus. Set the mode dial to [Press 3/4 to select the image effects (filters). 10:00 DEC. Using the Wi-Fi function Changing the settings for sending images Pressing [DISP.] after completing a connection allows you to change the settings for sending images such as the image size for sending. Page 308 AC adaptor (optional)/DC coupler (optional) By using the AC adaptor (optional) and DC coupler (optional), you can record and play back without worrying about the remaining battery charge. 4K Photo and Drive Settings Pause during continuous playback Touch Description of operation operation Continuous playback Continuous rewind • Frames are rewound in approximately 0.5 second intervals at a faster speed than that of continuous playback. Installing the smartphone/tablet app "Image App" The "Image App" is an application provided by Panasonic. 50 min When the interchangeable lens (H-FS35100) is used Recordable time Approx. Page 28 10. • Direct touch operation is also possible from the recording screen. Stabilizer, Zoom and Flash Increasing the zoom magnification in steps ∫ • This can be used only when recording pictures. • A histogram is a graph that displays brightness along the horizontal axis (black to white) 9. [4K Burst] ¢1 The shutter sound will be heard repeatedly. Page 273 10. But is it the best of the best? Getting Started/Basic Operations Adjust the angle of the monitor • Be careful not to catch your finger, etc. Using Menu Functions Changing the slide show settings ∫ You can change the settings for slide show playback by selecting [Effect] or [Setup] on the slide show menu screen. Page 94 4. [Single] setting 1 Press 2/1 to select the picture, and then press [MENU/SET]. • Download expiration: May 2021 •... Getting Started/Basic Operations Attaching/Removing the Lens By changing the lens, you will increase your picture taking-options and further your enjoyment of the camera. Focus, Brightness (Exposure) and Color tone Settings Focus Mode (AFS/AFF/AFC) Applicable modes: The method for achieving focus when the shutter button is pressed halfway is set. Page 287 10. Page 86 3. [Picture Size] [STANDARD]/[WIDE] • The number of recording pixels in the horizontal and vertical directions of the panorama picture varies depending on the image size, the recording direction and the number of combined pictures. You can minimize the loss of gradations in bright areas and dark areas when, for example, the contrast between the background and the subject is large. 2: Open the card/battery door. When [Please set the home area] is displayed, press [MENU/SET]. Page 175 7. Page 319 12. Others In playback Icon indicating the presence of a 1/98 1/98 1/98 marker (P126) 4K Photo (4K burst file) (P118) Post Focus (P131) Picture size/Aspect Ratio (P192) Recording format/Recording quality F3.5 F3.5 F3.5 60 60 60 60 P (P168) Snap Movie... About tripods or unipods •... In that case, re-adjust the focus. 5. With firmware 2.0 now available, we've reviewed the fast-shooting stills and video camera designed to win-over Nikon's professional DSLR users.The Monster Adapter LA-KE1 gives Pentaxians a way to use many of their K-mount lenses with full AF on Sony E-mount mirrorless bodies. Using Menu Functions [ISO Limit Set] Applicable modes: It will select optimal ISO sensitivity with set value as limit depending on the brightness of the subject. Drag your finger over the part you want to delete. • When creating motion pictures with a [Rec Quality] setting of [4K/30p] or [4K/24p], recording times are limited to 29 minutes and 59 seconds. A Press and hold B Recording is performed Audio recording: Not available... Page 173 7. Check the login ID and select [OK]. The created motion picture is saved in MP4 recording format. 30 30 A Exposure meter B Aperture value... Playing Back and Editing Images Playing Back Pictures Press [(]. Using Menu Functions [Shutter Type] Applicable modes: You can use either of the two shutters to take pictures: the mechanical shutter or the electronic shutter. The icon for the currently activated image stabilizer is displayed on the recording screen. (P254) • Read the [Help] in the "Image App" menu for further details on how to operate. • You need to install "Panasonic Image App" (referred to as "Image App" from this point on) on your smartphone. > [Rec] > [Shutter Delay] MENU Settings: [8SEC]/[4SEC]/[2SEC]/[1SEC]/[OFF] Not available in these cases: •... Inserting the Battery 1: Slide the release lever in the direction of arrow. Getting Started/Basic Operations Approximate operating time and number of recordable pictures By CIPA (Camera & Imaging Products Association) standard When a Panasonic SDHC memory card and the supplied battery are used Recording still pictures (when using the Monitor) ∫... This mode is useful if you want to take stunning night shots with minimal jitter and noise, without using a tripod. [One Push AE] ....P76 Panorama Shot Mode ..... • Always use genuine Panasonic batteries. Record images with the camera. Page 45 2. Connecting to other equipment Printing the Pictures If you connect the camera to a printer supporting PictBridge, you can select the pictures to be printed out and instruct that printing be started on the camera's monitor. Using Menu Functions > [Custom] MENU You can display the recording screen in black and white. • Adjusting can also be performed by rotating the rear dial. You can scan a QR code or manually enter a password to set up a connection. The lens hood reduces the inclusion of unwanted light in the recorded images and lowers the drop in contrast. As a result, the recording time is shortened when a fast-moving subject is recorded. • ¢1 Number of recordable pictures ¢2 When recording is performed under the test conditions specified by Panasonic. 4K Photo and Drive Settings 4K burst files recorded with [([4K Pre-Burst]) Select a 4K burst file on the playback screen, and press 3. Page 279 10. Page 191 9. • The file format of the motion pictures that can be played back differs depending on the TV model. Focus, Brightness (Exposure) and Color tone Settings When recording using [AFF], [AFC] • It may take time to focus on the subject when you zoom from Wide to Tele or suddenly change the subject from a distant one to a nearby one. 4K Photo and Drive Settings Select a Drive Mode Applicable modes: You can change what the camera will do when you press the shutter button. Using the Wi-Fi function Sending images When sending images, select the method for sending them after selecting [New Connection]. Recording Modes Aperture-Priority AE Mode When you set the aperture value, the camera automatically optimizes the shutter speed for the brightness of the subject. Download the software while it is available for download. • Set the date and time settings in advance. Press 3/4 to select an item. • Do not use any objects except a blower brush to clean the image sensor. Set the mode dial to [• After the screen that asks you to check the recording direction is displayed, the horizontal/vertical guidelines will be displayed. (For details, refer to the operating instructions of the TV.) • 3D pictures can be saved to your computer or Panasonic recorders. Using Menu Functions > [Custom] MENU Speeds up the focusing that takes place when you press the shutter button. Using Menu Functions [Filter Settings] Applicable modes: You can apply image effects (filters) that are available for Creative Control Mode to images in other modes, such as Aperture-Priority AE Mode or Panorama Shot Mode. What is the VIERA Link (HDMI) (HDAVI Control™)? Recording Modes Combining pictures into a single picture with rich gradation ([iHDR]) Recording Mode: When there is, for example, strong contrast between the background and the subject, multiple still pictures are recorded with differing exposures and combined to create a single still picture rich in gradation. • You can also perform the same operation by touching the icon [Select and touch a focus area. Page 243 9. Is this the macro lens to beat?Sony has just announced its updated 24-70mm F2.8 GM II and there are a host of impressive upgrades. • The accessories and their shape will differ depending on the country or area where the camera was purchased. Performing formatting (P29) on this unit after saving necessary data on a PC, etc. Others Others When I shake the camera, I hear a rattling sound from the attached lens. Stabilizer, Zoom and Flash Taking Pictures with Wireless Flashes Applicable modes: By using flashes that support the wireless control (DMW-FL200L, DMW-FL360L, DMW-FL580L: optional), you can control firing of the flash attached to the hot shoe of this unit and three flash groups separately. Focus, Brightness (Exposure) and Color tone Settings Adjusting Focus Manually Applicable modes: Use this function when you want to fix the focus or when the distance between the lens and the subject is determined and you do not want to activate Auto Focus. 1 Start "Image App". • Each press of the rear dial switches among brightness setting, Defocus Control and end operation. Others About 3D About 3D recording ∫ With the 3D interchangeable lens attached, do not record a subject at less than the minimum focus distance. Stabilizer, Zoom and Flash The Flash Functions Changing the firing mode Applicable modes: Select whether to set the flash output automatically or manually. How to select an image(s) after selecting [Single Select] or [Multi Select] ∫ [Single Select] setting Select the picture. Press [MENU/SET]. • When adjusting the angle of the monitor, be careful not to apply too much force, as this may cause damage or malfunction. Recording Modes Intelligent Auto Plus Mode allows you to adjust some color and defocusing settings so that you can record images more suited to your preferences. Radio waves get disconnected. Getting Started/Basic Operations Recording motion pictures (when using the monitor) ∫ [AVCHD] (Recording with picture quality set to [FHD/17M/60i]) When the interchangeable lens (H-FS12032) is used Recordable time Approx. Playing Back and Editing Images Deleting Pictures Once deleted, pictures cannot be recovered. (P54) > [Motion Picture] > [Rec Format] MENU This data format is suitable for when playing back on a high-definition [AVCHD] TV, etc. Page 242 9. Start panorama playback/Pause ¢ When the playback is paused, you can scroll forwards and backwards by dragging the screen. Please note: • The service may be suspended due to regular maintenance or unexpected troubles, and the service contents may be changed or added, without prior notice to the users. 1.2k: [M] ([16:9]) [Ex. Tele Conv.] When taking pictures 1.4k: [M] ([4:3]/[3:2]/[1:1]) (Rec]) 6. • This is characteristic of MOS sensors which serve as the camera's pickup sensors. Focus, Brightness (Exposure) and Color tone Settings Optimizing the focus and brightness for a touched position Applicable modes: You can optimize the focus and brightness for the position you have touched. If the problem is not resolved, it may be improved by selecting [Reset] (P226) the [Setup] menu. Connecting to other equipment Saving still pictures and motion pictures on your PC You can acquire recorded pictures to a PC by connecting the camera and the PC. Displays images by recording date. 1 Select [2 Record an image. (P54) > [Setup] > [Wi-Fi] > [Wi-Fi Function] > Select a destination from Favorite] Select the favorite history you want to select. You can select a frame from 4K burst file and save it. 4K Photo and Drive Settings Selecting pictures from 4K burst file and saving Saving this section describes how to select pictures from a 4K burst file and save them. Connecting to other equipment Print Settings ∫ Select and set the items both on the screen in step of the "Selecting a single picture and printing it" and in step of the "Selecting multiple pictures and printing them" procedures. • If there are any white saturated areas, we recommend compensating the exposure [Highlight] towards negative (P110) 9. Others Do not use the camera in areas with magnetic fields, static electricity or ∫ interference • Do not use the camera in areas with magnetic fields, static electricity or interference, such as near microwave ovens. Page 276 10. Page 275 "LUMIX CLUB". Page 74 3. • This function allows you to use your remote control for the Panasonic TV for easy operations when this unit has been connected to a VIERA Link compatible device using an HDMI micro cable for automatic linked operations. • You can edit or delete all pictures in a group at once. • The 3D effects may be more pronounced, and therefore cause tiredness or discomfort. Getting Started/Basic Operations Touch screen (Touch operations) Touch screen of this unit is capacitive. (P254) Select the menu. You can set the same "LUMIX CLUB" login ID for this unit and your smartphone. 4K Photo and Drive Settings Button Touch Description of operation operation Description of operation • Dragging You can select a frame from 60 frames (continuous burst time of approximately 2 seconds). Focus, Brightness (Exposure) and Color tone Settings White Balance Bracket Bracket setting is performed based on the adjustment values for the White Balance fine adjustment, and 3 pictures with different colors are automatically recorded when the shutter button is pressed once. Using Menu Functions Face Settings ∫ You can register information such as names and birthdays for face images of up to 6 people. Using the Wi-Fi function When sending images to PC You can send pictures and motion pictures recorded with this unit to a PC. (P118) 60 p A Available recording time Press the shutter button halfway. [Remove from Favorite] —... Recording Modes Recording using registered custom set You can easily call up the settings you have registered using [Cust.Set Mem.]. Using the Wi-Fi function Using a password to set up a connection Connecting with a password further enhances security. (P296) Connect the computer and camera with the USB connection cable (supplied). Getting Started/Basic Operations Setting the operation methods of the front dial and rear dial ∫ > [Custom] > [Dial Set.] MENU Assigns the operations of the aperture value and shutter speed in the Manual Exposure Mode. The selection method is the same as in step 1 of [Composite Merging] setting. Page 320 12. 4K Photo and Drive Settings Self-timer Setting the self-timer ∫ After pressing 3 in step on P134, press 2/1 to select an item, and press [MENU/SET]. Page 172 7. Terminates the Wi-Fi connection, and allows you to select ¢1 [Change the Destination] a different Wi-Fi connection. Page 107 4. Page 34 2. Recording Modes Confirm the Effects of Aperture and Shutter Speed (Preview Mode) Applicable modes: The effects of aperture and shutter speed can be checked by using the Preview Mode. Using Menu Functions [Long Shtr NR] Applicable modes: The camera automatically removes noise that appears when the shutter speed becomes slower to take pictures of night scenery etc. Recording Motion Pictures • The higher the " " value is, the higher the picture quality becomes. Touch ∫ To include and release the touch screen. Playing Back and Editing Images Playing Back Motion Pictures This unit was designed to play motion pictures using the AVCHD and MP4 formats. Page 214 9. Others Battery The battery is a rechargeable lithium ion battery. Focus, Brightness (Exposure) and Color tone Settings • You can set the exposure compensation value in the range between ‡5 EV and 5 EV. Page 178 7. After the connection has been completed, settings for sending, such as the image size for sending, can be changed. • The folder number is updated and the file number starts from 0001. Pressing [MENU/SET]: Confirmation of setting contents, etc., is performed. (P54) > [Custom] >... (P229) • ['] is displayed for pictures with titles already registered. STD. (This Site is English only.) • The focal length noted on the lens in use is equivalent to double when converted to the 35 mm film camera. Picture is taken 10 seconds after it is pressed. Contents Finding the information you need................2 How to use this manual....................3 Contents by Function ....9 1. Press the shutter button halfway to focus. > [Rec] > [Diffraction Compensation] MENU Settings: [AUTO]/[OFF] • Compensation effect may not be achieved depending on the recording conditions. in the monitor. (P318) Charging time ∫ When using the AC adaptor (supplied) Charging time Approx. Using Menu Functions [Time Lapse Video] This function allows you to create a motion picture from a picture group recorded with [Time Lapse Shot]. Select the channel you have set for the wireless flashes in [Wireless Channel] step [Wireless Setup] Proceed to step Press 3/4 to select an item and then press [MENU/SET]. Recording Modes Taking Pictures that match the Scene being recorded (Scene Guide Mode) Recording Mode: If you select a scene to suit the subject and recording conditions with reference to the example images, the camera will set optimal exposure, color, and focus, allowing you to record in a manner appropriate to the scene. Wireless access point is not used. • When the Focus Mode is set to [AFF] or [AFC]. Playing Back and Editing Images Creating Still Pictures from a Motion Picture You can save a scene of a motion picture as a picture. • The lens, monitor, or external case may be damaged if used in the following conditions. (Raise the contrast) Bright areas are brightened, and dark areas are darkened. Using Menu Functions Taking a picture with and without an image effect simultaneously ∫ ([Simultaneous record w/o filter]) You can press the shutter button once and take two pictures simultaneously, one with an image effect and the other one without it. (P54) > [Rec] > [Flash] > [Flash Mode] MENU The flash is activated every time regardless of the recording conditions. Using the Wi-Fi function Send images to a printer Send images to a printer In a recording, the setting is not saved. The 4K Live Cropping function lets you pan or zoom in on a selected area of a 4K video, with the results saved as a 1080p full-HD clip.The DMC-GX85 / GX80 integrates 5-Axis Dual I.S. (Image Stabilizer) ensures clear images and videos even in low-lit situations where the shutter speed tends to be slower.Other highlights include 2.76m-dot EVF, 3-inch Tilting LCD touchscreen, 8 fps high speed burst shooting, 4K video, a variety of 4K Photo functions, Creative Control and built-in Wi-Fi. Panasonic Lumix DMC-GX85 / GX80 Key Features:16.0-Megapixel Live MOS sensor without a Low Pass filterMicro Four Thirds Lens MountVenus Engine image processor2.76M-dot EVF, 3-inch Tilting LCD touchscreenDual I.S. (Image Stabilizer)5-Axis Image StabilizationDFD AF SystemISO 200-256008 fps high speed burst shooting4K (QFHD, 3840x2160/30p, 24p) video recording4K Photo functions4K Live CroppingPost Focus function1920x1080/60p full-HD video recordingMax.1/16000 sec High Speed Electronic ShutterLight CompositionExposure / WB / Focus / Aperture BracketCreative ControlSilent ModeMultiple ExposureTime Lapse ShotStop Motion AnimationIn-camera RAW data developmentBuilt-in Wi-FiPanasonic Lumix DMC-GX85 / GX80 PDF User Manual / Owner's Manual / User Guide offers information and instructions how to operate the Lumix DMC-GX85 / GX80, include Quick Start Guide, Basic Operations, Advanced Guide, Menu Functions, Custom Settings, Troubleshooting & Specifications of Panasonic Lumix DMC-GX85 / GX80.Free Download Panasonic Lumix DMC-GX85 / GX80 User Manual, User Guide, Owner's Manual, Operating Instructions in PDF file: Panasonic Lumix DMC-GX85 / GX80 Owner's Manual (PDF) - Basic User Manual, EnglishPanasonic Lumix DMC-GX85 / GX80 Advanced User Manual (PDF) - Operating Instructions for advanced features, EnglishPanasonic Lumix DMC-GX85 / GX80 French Advanced User Manual (PDF) - Operating Instructions for advanced features, FrançaisPanasonic Lumix DMC-GX85 / GX80 Spanish Advanced User Manual (PDF) - Operating Instructions for advanced features, EspañolPanasonic Lumix DMC-GX85 / GX80 German Advanced User Manual (PDF) - Operating Instructions for advanced features, DeutschPanasonic Lumix DMC-GX80 / GX85 Portuguese Advanced User Manual (PDF) - Operating Instructions for advanced features, PortuguêsPanasonic Lumix DMC-GX80 / GX85 Italian Advanced User Manual (PDF) - Operating Instructions for advanced features, ItalianoPanasonic Lumix DMC-GX80 / GX85 Dutch Advanced User Manual (PDF) - Operating Instructions for advanced features, NederlandsPanasonic Lumix DMC-GX80 / GX85 Finnish Advanced User Manual (PDF) - Operating Instructions for advanced features, SuomiPanasonic Lumix DMC-GX80 / GX85 Danish Advanced User Manual (PDF) - Operating Instructions for advanced features, DanskPanasonic Lumix DMC-GX80 / GX85 Swedish Advanced User Manual (PDF) - Operating Instructions for advanced features, SvenskaPanasonic Lumix DMC-GX80 / GX85 Russian Owner's Manual (PDF) - Basic User Manual, РусскийPanasonic Lumix DMC-GX80 / GX85 Russian Advanced User Manual (PDF) - Operating Instructions for advanced features, РусскийPanasonic Lumix DMC-GX80 / GX85 Polish Advanced User Manual (PDF) - Operating Instructions for advanced features, PolskiPanasonic Lumix DMC-GX80 / GX85 Ukrainian Advanced User Manual (PDF) - Operating Instructions for advanced features, УкраїнськаPanasonic Lumix DMC-GX80 / GX85 Arabic Advanced User Manual (PDF) - Operating Instructions for advanced features, العربيةIf you need Panasonic Lumix DMC-GX85 / GX80 PDF User Guide / Owner's Manual / Instruction Guide in other languages, please feel free to leave your comments at the bottom of this page. Page 79 3. If this message is displayed even when a genuine Panasonic battery is used, contact the dealer or Panasonic. Others The recorded picture is whitish. Others Monitor/Viewfinder The Monitor/Viewfinder turns off although the camera is turned on. • The content (folder structure) on the card of this unit is as follows. You can play back pictures in a group either continuously or one by one. [AF/AE Lock]........P109 [4K PHOTO] ....P118 Exposure Compensation .....P110 [Post Focus] ....P131 Exposure Bracket ......P139 Aperture Bracket ......P140 [Metering Mode] ......P194 Focus Bracket .... 1/98 1 screen 12 screens 30 screens Calendar screen display • If the rear dial is rotated to the right, the previous playback screen will be displayed. Page 219 9. Stabilizer, Zoom and Flash Using other settings for wireless flash recording Enabling FP firing for the wireless flashes During wireless recording, an external flash fires an FP flash (high speed repetition of flash firing). (P54) > [Setup] > [Wi-Fi] > [Wi-Fi Function] > [New Connection] > MENU [Send Images While Recording] or [Send Images Stored in the Camera] > [Smartphone] Select [Via Network] or [Direct], and connect. You can set the position by pressing 3/4/2/1. (P54) > [Rec] > [Bracket]> [Bracket Type] MENU Press the shutter button to perform recording while (Exposure Bracket) 5. Connect the camera and a TV. Focus, Brightness (Exposure) and Color tone Settings Compensating the Exposure Applicable modes: Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background. [Original]/[Auto] ¢1 /[Change] •... Getting Started/Basic Operations Approximate number of recordable pictures and available recording time Number of recordable pictures ∫ • Aspect ratio [4:3], Quality [A] [Picture Size] 16 GB 32 GB 64 GB 128 GB L (16M) 1810 3630 7260 14380 M (8M) 3310 6640... [Motion Picture] This menu lets you set the [Rec Format], [Rec Quality], and other (P208) Page 55 2. Recording Motion Pictures Recording Motion Pictures That Pan and Zoom While Maintaining a Fixed Camera Position ([4K Live Cropping]) Recording Mode: By cropping your motion picture down from the 4K angle of view to Full High Definition, you can record a motion picture that pans and zooms in/out while leaving the camera in a fixed position. Using the Wi-Fi function Printing Wirelessly You can send images to a compatible printer, and print them wirelessly. • When it is set to the guide display, explanations for each picture effect are displayed. The picture size you used last time will be displayed. This Site is English only. The burst speed will become slower halfway. Using Menu Functions > [Setup] MENU [HDMI Info Display (Rec)]: Sets whether or not to display information when you take pictures while monitoring the camera image on a device P293 (TV, etc.) connected with an HDMI micro cable.

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