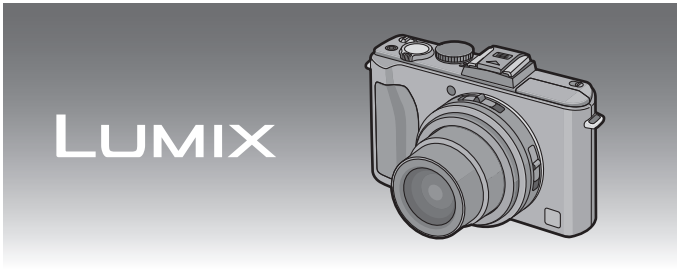
Panasonic

Basic Operating Instructions
Digital Camera

Model No. DMC-LX5



Before use, please read these instructions completely.

Please also refer to the Operating Instructions (PDF format) contained on the CD-ROM (supplied).
You can learn about advanced operation methods and check the Troubleshooting.

GN

VQT2X00

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference. Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.

Carefully observe copyright laws.

- Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

Information for Your Safety

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- **DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

IF THE POWER CORD OF THIS EQUIPMENT IS DAMAGED, IT MUST BE REPLACED WITH AN ELECTRICALLY APPROVED POWER CORD.

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

■ Product identification marking

Product	Location
Digital camera	Bottom
Battery charger	Bottom

■ About the battery pack

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

Warning
Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C or incinerate.

■ About the battery charger

CAUTION!
- **DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.**
- **DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.**
- **DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.**
- **DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.**

- The battery charger is in the standby condition when the AC power supply cord is connected. The primary circuit is always "live" as long as the power cord is connected to an electrical outlet.

■ Cautions for Use

- Do not use any other AV cables except the supplied one.
- Do not use any other USB connection cables except the supplied one.
- Always use a genuine Panasonic HDMI mini cable (RP-CDHM15, RP-CDHM30; optional).
  Part numbers: RP-CDHM15 (1.5 m), RP-CDHM30 (3.0 m)

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult the Panasonic Customer Care Centre on 132600.

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- 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.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery or disconnect AC adaptor (DMW-AC5G; optional). Then reinsert the battery or reconnect AC adaptor and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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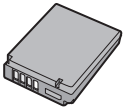
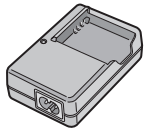
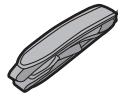
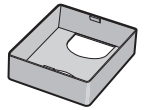
Standard Accessories

Check that all the accessories are supplied before using the camera.
Product numbers correct as of July 2010. These may be subject to change.

1 Battery Pack
(Indicated as **battery pack** or **battery** in the text)
Charge the battery before use.
2 Battery Charger
(Indicated as **battery charger** or **charger** in the text)
3 AC Cable
4 USB Connection Cable
5 AV Cable
6 CD-ROM
• Software:
Use it to install the software to your PC.
7 CD-ROM
• Operating Instructions
8 Shoulder Strap
9 Battery Case
10 Lens Cap*
Ⓐ: Black
Ⓑ: White
11 Lens Cap String
12 Lens ring front*
Ⓐ: Black
Ⓑ: White
(For the mounting position on the unit, refer to “Names of the Components”)
13 Hot Shoe Cover*

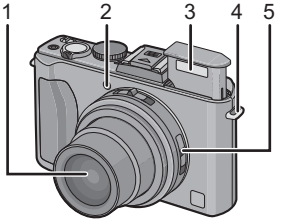
* This is attached to the camera body at the time of purchase.

- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
- **The card is optional.**
  You can record or play back pictures on the built-in memory when you are not using a card.
- Consult the dealer or your nearest Service Centre if you lose the supplied accessories. (You can purchase the accessories separately.)

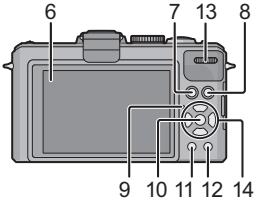
1  DMW-BCJ13E	**2**  DE-A82A	**3** K2CJ29A00002
4 K1HA08AD0002	**5** K1HA08CD0028	**6**
7 VFF0674	**8**  VFC4324	**9**  VGQ0N97
10 Ⓐ: VYF3361 Ⓑ: VYF3376	**11** VFC4366	**12** Ⓐ: VGK3662 Ⓑ: VGK3696
13 VYF3287		

Names of the Components

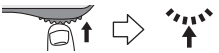
1 Lens
2 Self-timer indicator
AF Assist Lamp
3 Flash
4 Shoulder strap eyelet
5 Focus selector switch



6 LCD monitor
7 [AF/AE LOCK] button
8 Playback button
9 Status indicator
10 [MENU/SET] button
11 [DISPLAY] button
12 [Q.MENU]/Delete button



13 Rear dial

Rear dial is described as follows in these operating instructions.	
e.g.: Rotating left or right	e.g.: Pressing the rear dial 

14 Cursor buttons

▲/[FOCUS] button

▼/Function button

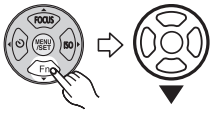
Assign Menu to ▼ button. It is convenient to register a Menu that is used often.

[FILM MODE]/[QUALITY]/[METERING MODE]/[WHITE BALANCE]/[AF MODE]/[I.EXPOSURE]/[GUIDE LINE]/[REC AREA]/[REMAINING DISP.]/[FLASH]/[AUTO BRACKET]/[ASPECT BRACKET]

◄/Self-timer button

►/ISO

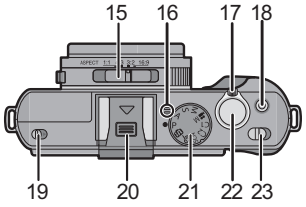
In these operating instructions, the cursor buttons are described as shown in the figure below or described with ▲/▼/◄/►.
e.g.: When you press the ▼ (down) button



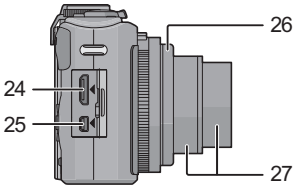
or **Press ▼**

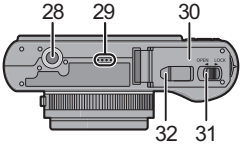
15 Aspect ratio selector switch
16 Microphone
17 Zoom lever
18 Motion picture button
19 Flash open switch
20 Hot shoe cover
- Keep the hot shoe cover out of reach of children to prevent swallowing.

21 Mode dial
22 Shutter button
23 Camera ON/OFF switch



24 [HDMI] socket
25 [AV OUT/DIGITAL] socket
26 Lens ring front
27 Lens barrel





28 Tripod receptacle
- When you use a tripod, make sure the tripod is stable when the camera is attached to it.

29 Speaker
- Do not cover the speaker with your fingers.

30 Card/Battery door

31 Release lever

32 DC coupler cover
- When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC7; optional) and AC adaptor (DMW-AC5G; optional) are used.
- Always use a genuine Panasonic AC adaptor (DMW-AC5G; optional).
- When using an AC adaptor, use the AC cable supplied with the AC adaptor.
- We recommend you use a battery with sufficient battery power or the AC adaptor when recording motion pictures.
- If while recording motion pictures using the AC adaptor and the power supply is cut off due to a power outage or if the AC adaptor is disconnected etc., the motion picture being recorded will not be recorded.

Charging the Battery

■ About batteries that you can use with this unit

The battery that can be used with this unit is DMW-BCJ13E.

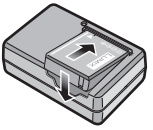
It has been found that counterfeit battery packs which look very similar to the genuine product are made available to purchase in some markets. Some of these battery packs are not adequately protected with internal protection to meet the requirements of appropriate safety standards. There is a possibility that these battery packs may lead to fire or explosion. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. To ensure that safe products are used we would recommend that a genuine Panasonic battery pack is used.

- **Use the dedicated charger and battery.**
- **The camera has a function for distinguishing batteries which can be used safely. The dedicated battery (DMW-BCJ13E) supports this function. The only batteries suitable for use with this unit are genuine Panasonic products and batteries manufactured by other companies and certified by Panasonic. (Batteries which do not support this function cannot be used.) Panasonic cannot in any way guarantee the quality, performance or safety of batteries which have been manufactured by other companies and are not genuine Panasonic products.**

■ Charging

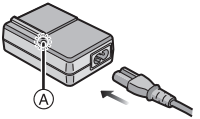
- **The battery is not charged when the camera is shipped. Charge the battery before use.**
- Charge the battery with the charger indoors.
- **It is recommended to charge the battery in a temperature between 10 °C to 30 °C. (The battery temperature should also be the same.)**

1 Attach the battery paying attention to the direction of the battery.



2 Connect the AC cable.

- Disconnect the charger from the electrical socket and detach the battery after charging is completed.



■ About the [CHARGE] indicator

The [CHARGE] indicator turns on:
The [CHARGE] indicator Ⓐ is turned on and charging will start.

The [CHARGE] indicator turns off:
The [CHARGE] indicator Ⓐ of the charger will turn off once the charging has completed without any problem.

- **When the [CHARGE] indicator flashes**
  - The battery temperature is too high or too low. It is recommended to charge the battery again in an ambient temperature of between 10 °C to 30 °C.
  - The terminals of the charger or the battery are dirty. In this case, wipe them with a dry cloth.

■ **Charging time**

Charging time	Approx. 155 min

■ **Recording still pictures**
[when using the LCD monitor/External Live Viewfinder (DMW-LVF1; optional)]

Number of recordable pictures	Approx. 400 pictures	By CIPA standard in Programme AE Mode
Recording time	Approx. 200 min	

Recording conditions by CIPA standard
- CIPA is an abbreviation of [Camera & Imaging Products Association].
- Temperature: 23 °C/Humidity: 50%RH when LCD monitor is on.
- Using a Panasonic SD Memory Card (32 MB).
- Using the supplied battery.
- Starting recording 30 seconds after the camera is turned on. (When the Optical Image Stabilizer function is set to [AUTO].)
- **Recording once every 30 seconds** with full flash every second recording.
- Rotating the zoom lever from Tele to Wide or vice versa in every recording.
- Turning the camera off every 10 recordings and leaving it until the temperature of the battery decreases.

■ **Playback**
[when using the LCD monitor/External Live Viewfinder (DMW-LVF1; optional)]

Playback time	Approx. 360 min

About the Built-in Memory/the Card

Built-in Memory

- **Memory size: Approx. 40 MB**
- The built-in memory can be used as a temporary storage device when the card being used becomes full.
- The access time for the built-in memory may be longer than the access time for a card.

Card

The following cards which conform to the SD video standard can be used with this unit.
(These cards are indicated as **card** in the text.)

Type of card which can be used with this unit	Remarks
SD Memory Card (8 MB to 2 GB)	• SDHC Memory Card can be used with SDHC Memory Card or SDXC Memory Card compatible equipment. • SDXC Memory Card can only be used with SDXC Memory Card compatible equipment. • Check that the PC and other equipment are compatible when using the SDXC Memory Cards. **http://panasonic.net/avc/sdcard/information/SDXC.html**
SDHC Memory Card (4 GB to 32 GB)	
SDXC Memory Card (48 GB, 64 GB)	

- Only cards bearing the SDHC logo (indicating that the card conforms to SD video standards) may be used as 4 GB to 32 GB cards.
- Only cards bearing the SDXC logo (indicating that the card conforms to SD video standards) may be used as 48 GB and 64 GB cards.
- Use a card with SD Speed Class* with “Class 4” or higher when recording motion pictures in [AVCHD Lite]. Also, use a card with SD Speed Class with “Class 6” or higher when recording motion pictures in [MOTION JPEG].
  * SD Speed Class is the speed standard regarding continuous writing.
- Please confirm the latest information on the following website.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

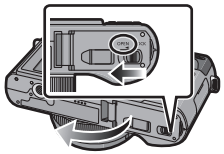
Note

- Keep the Memory Card out of reach of children to prevent swallowing.

Inserting and Removing the Card (optional)/the Battery

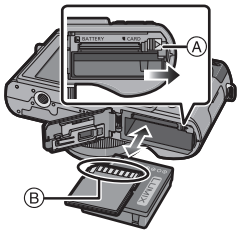
- Check that this unit is turned off.
- Close the flash.
- We recommend using a Panasonic card.

1 **Slide the release lever in the direction of the arrow and open the card/battery door.**



- **Always use genuine Panasonic batteries (DMW-BCJ13E).**
- **If you use other batteries, we cannot guarantee the quality of this product.**

2 **Battery: Insert until it is locked by the lever Ⓐ being careful about the direction you insert it. Pull the lever Ⓐ in the direction of the arrow to remove the battery.**

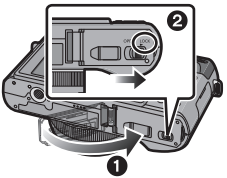


Card: Push it fully until it clicks being careful about the direction you insert it. To remove the card, push the card until it clicks, then pull the card out upright.

Ⓑ: Do not touch the connection terminals of the card.
- The card may be damaged if it is not fully inserted.

3 **❶:Close the card/battery door.**

❷:Slide the release lever in the direction of the arrow.

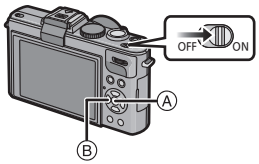


Setting Date/Time (Clock Set)

• The clock is not set when the camera is shipped.

1 Turn the camera on.

Ⓐ [MENU/SET] button
Ⓑ Cursor buttons



2 Press [MENU/SET].

3 Press ◄/► to select the items (year, month, day, hour, minute, display sequence or time display format), and press ▲/▼ to set.

• You can cancel without setting the clock by pressing [🗑].

4 Press [MENU/SET] to set.

5 Press [MENU/SET].

• Press [🗑] to return to the settings screen.

Changing the Clock Setting

Select [CLOCK SET] in the [REC] or [SETUP] menu, and press ►.
• It can be changed in steps **3** and **4** to set the clock.

Setting the Menu

This section describes how to select the [REC] Mode menu settings, and the same setting can be used for the [MOTION PICTURE] Mode menu, [PLAYBACK] Mode menu and [SETUP] menu as well.

Example: Setting [AF MODE] from [▣] to [👥] in the Programme AE Mode

1 Press [MENU/SET] to display the menu.

2 Press ▲/▼ to select [AF MODE] and then press ►.

- Depending on the item, its setting may not appear or it may be displayed in a different way.

3 Press ▲/▼ to select [👥] and then press [MENU/SET] to set.

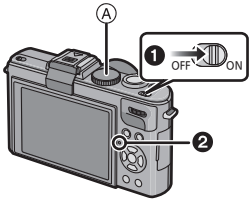
4 Press [MENU/SET] to close the menu.

Switching to other menus
e.g.: Switching to the [SETUP] menu **1 Press [MENU/SET] to display the menu.** **2 Press ◄.** **3 Press ▼ to select the [SETUP] menu icon [🔧].** **4 Press ►.** • Select a menu item next and set it.

Selecting the [REC] Mode

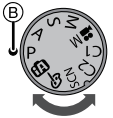
1 Turn the camera on.

Ⓐ Mode dial
- The status indicator ❷ lights when you turn this unit on ❶. (It turns off after about 1 second.)



2 Switching the mode by rotating the mode dial.

Align a desired mode with part Ⓑ.
- **Rotate the Mode dial slowly and surely to adjust to each mode. (The mode dial rotates 360°)**



■ Basic

P Programme AE Mode

The subjects are recorded using your own settings.

iA Intelligent Auto Mode

The subjects are recorded using settings automatically selected by the camera.

■ **Advanced**

A Aperture-Priority AE Mode

The shutter speed is automatically determined by the aperture value you set.

S Shutter-Priority AE Mode

The aperture value is automatically determined by the shutter speed you set.

M Manual Exposure Mode

The exposure is adjusted by the aperture value and the shutter speed which are manually adjusted.

Creative Motion Picture Mode

Record motion picture with manual settings.

C1 C2 Custom Mode

Use this mode to take pictures with previously registered settings.

SCN Scene Mode

This allows you to take pictures that match the scene being recorded.

My Colour Mode

Use this mode to check colouring effects, select a colour mode from among twelve colour modes, and then take pictures.

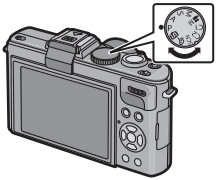
[REC] Mode: P

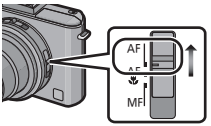
Taking pictures with your favourite settings (P: Programme AE Mode)

The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject.
You can take pictures with greater freedom by changing various settings in the [REC] menu.

1 Set the mode dial to [P].

- Set the focus selector switch to [AF].

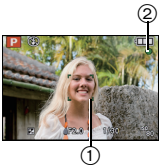




2 Aim the AF area ① at the point you want to focus on.

3 Press the shutter button halfway to focus.

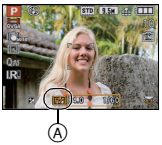
- The focus indication ② (green) lights when the subject is focused.
- The focus range is 50 cm to ∞.



4 Press the shutter button fully (push it in further), and take the picture.

Programme Shift

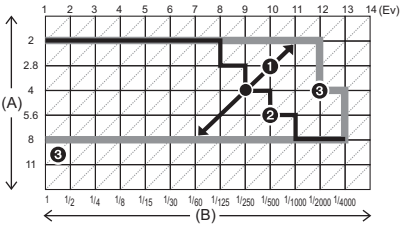
In Programme AE Mode, you can change the preset aperture value and shutter speed without changing the exposure. This is called Programme Shift.
You can make the background more blurred by decreasing the aperture value or record a moving subject more dynamically by slowing the shutter speed when taking a picture in Programme AE Mode.



- Press the shutter button halfway and then use the rear dial to activate Programme Shift while the aperture value and the shutter speed are displayed on the screen (about 10 seconds).
- The Programme Shift indication Ⓐ appears on the screen when Programme Shift is activated.
- Programme Shift is cancelled if the camera is turned off or the rear dial is rotated until the Programme Shift indication disappears.

■ Example of Programme Shift

(A): Aperture value
(B): Shutter speed
❶ Programme Shift amount
❷ Programme Shift line chart
❸ Programme Shift limit



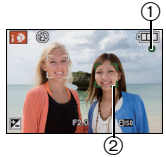
[REC] Mode: iA

Taking Pictures Using the Automatic Function (iA: Intelligent Auto Mode)

The camera will set the most appropriate settings to match the subject and the recording conditions so we recommend this mode for beginners or those who want to leave the settings to the camera and take pictures easily.

1 Set the mode dial to [iA].

2 Press the shutter button halfway to focus.



- The focus indication ① (green) lights when the subject is focused.
- The AF area ② is displayed around the subject's face by the Face Detection function. In other cases, it is displayed at the point on the subject which is in focus.
- The focus range is 1 cm (Wide)/30 cm (Tele) to ∞.

3 Press the halfway pressed shutter button fully to take a picture.

Scene Detection

When the camera identifies the optimum scene, the icon of the scene concerned is displayed in blue for 2 seconds, after which its colour changes to the usual red.

iA →	[i-PORTRAIT]	
	[i-SCENERY]	
	[i-MACRO]	
	[i-NIGHT PORTRAIT]	• Only when [iA] is selected
	[i-NIGHT SCENERY]	
	[i-SUNSET]	
	[i-BABY]	

- [iA] is set if none of the scenes are applicable, and the standard settings are set.
- When [ ], [ ] or [ ] is selected, the camera automatically detects a person's face, and it will adjust the focus and exposure. **(Face Detection)**

AF Tracking Function

It is possible to set the focus and exposure to the specified subject. Focus and exposure will keep following the subject automatically even if it moves.

1 Press ▲ (FOCUS).

- [ ] is displayed in the upper left of the screen.
- AF Tracking frame is displayed in the centre of the screen.
- Press ▲ (FOCUS) again to cancel.

2 Bring the subject to the AF tracking frame, and press [AF/AE LOCK] to lock the subject.

AF/AE LOCK

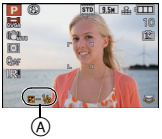
- AF Tracking frame will turn yellow.
- An optimum scene for the specified subject will be chosen.
- Press ▲ (FOCUS) to cancel.

[REC] Mode: iA P A S M C1 C2 SCN

Compensating the Exposure

Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background. Look at the following examples.

1 Press the rear dial to select [+/-], and then rotate the rear dial to compensate the exposure.



Ⓐ Exposure compensation value

- Enabled operation will switch every time the rear dial is pressed.
- Exposure compensation operation is enabled when [+/-] at the bottom left of the screen changes to orange.
- The exposure compensation value can be set within a range of −3 EV to +3 EV.
- Select [+/-] only to return to the original exposure (0 EV).

2 Take a picture.

[REC] Mode: A S

Taking pictures by specifying the aperture/shutter speed

A: Aperture-Priority AE

Set the aperture value to a higher number when you want a sharp focus background. Set the aperture value to a lower number when you want a soft focus background.

1. **Set the mode dial to [A].**
2. **Rotate the rear dial to set the aperture value.**
   Ⓐ Aperture Value
3. **Take a picture.**

Ⓐ

S: Shutter-Priority AE

When you want to take a sharp picture of a fast moving subject, set with a faster shutter speed. When you want to create a trail effect, set to a slower shutter speed.

1. **Set the mode dial to [S].**
2. **Rotate the rear dial to set the shutter speed.**
   Ⓑ Shutter Speed
3. **Take a picture.**

Ⓑ

[REC] Mode: M

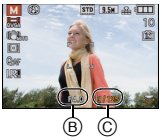
Taking pictures by setting the exposure manually

Determine the exposure by manually setting the aperture value and the shutter speed.

1 Set the mode dial to [M].

- The Manual Exposure Assistance Ⓐ appears for about 10 seconds.

2 Rotate the rear dial to set the aperture and shutter speed.



Ⓑ Aperture Value
Ⓒ Shutter Speed

- It will switch between aperture setting operation and shutter speed setting operation every time the rear dial is pressed.

3 Press the shutter button halfway.

- The Manual Exposure Assistance Ⓐ appears for about 10 seconds.

4 Take the picture.

■ Manual Exposure Assistance

	The exposure is adequate.
	Set to faster shutter speed or larger aperture value.
	Set to slower shutter speed or smaller aperture value.

- The Manual Exposure Assistance is an approximation.

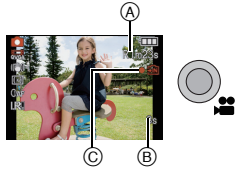
[REC] Mode: iA P A S M C1 C2 SCN

Recording Motion Picture

This can record high definition motion pictures compatible with the AVCHD format or motion pictures recorded in Motion JPEG.
Audio will be recorded in monaural.

1 Switching the mode by rotating the Mode dial.

2 Start recording by pressing the motion picture button.



Ⓐ Available recording time
Ⓑ Elapsed recording time

- It will be recorded in the aspect ratio set in [REC QUALITY] regardless of the position of the aspect ratio selector switch.
- Release the motion picture button right after you press it.
- The recording state indicator (red) Ⓒ will flash while recording motion pictures.

3 Stop the recording by pressing the motion picture button again.

- If the built-in memory or the card becomes full in the middle of recording, the camera stops recording automatically.

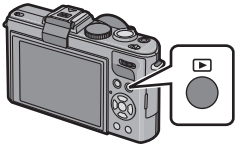
Note

- Motion picture recorded continuously in [MOTION JPEG] is up to 2 GB. Only the maximum recordable time for 2 GB is displayed on the screen.
- Maximum time to record motion pictures continuously with [AVCHD Lite] is 13 hours 3 minutes 20 seconds. Screen will only display up to 13 hours 3 minutes 20 seconds. However, the recording may stop before that depending on the remaining battery level.

[PLAYBACK] Mode:

Playing Back Pictures ([NORMAL PLAY])

1 **Press [▶].**



2 **Press ◄/► to select the picture.**

- After selecting the motion picture, press ▲ to start playback.

[PLAYBACK] Mode:

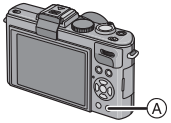
Deleting Pictures

Once deleted, pictures cannot be recovered.

- Pictures on the built-in memory or the card that are being played back will be deleted.

1 **Select the picture to be deleted, and then press [🗑].**

Ⓐ [🗑] button



2 **Press ◄ to select [YES] and then press [MENU/SET].**

Reading the Operating Instructions (PDF format)

- You have practised the basic operations introduced in these operating instructions and want to progress to advanced operations.
- You want to check the Troubleshooting.

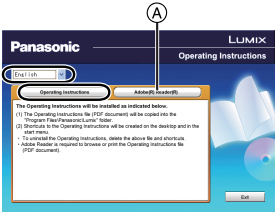
In these kinds of situations refer to Operating Instructions (PDF format) contained on the CD-ROM (supplied).

■ **For Windows**

1 **Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).**

2 **Select the desired language and then click [Operating Instructions] to install.**

3 **Double click the “Operating Instructions” shortcut icon on the desktop.**



■ When the Operating Instructions (PDF format) will not open

You will need Adobe Acrobat Reader 5.0 or later or Adobe Reader 7.0 or later to browse or print the Operating Instructions (PDF format).
Insert the CD-ROM containing the Operating Instructions (supplied), click Ⓐ and then follow the messages on the screen to install.
(Compatible OS: Windows 2000 SP4/Windows XP SP2 or SP3/Windows Vista SP1 or SP2/Windows 7)

- You can download and install a version of Adobe Reader that you can use with your OS from the following Web Site.
  http://get.adobe.com/reader/otherversions

■ To uninstall the Operating Instructions (PDF format)

Delete the PDF file from the “Program Files\Panasonic\Lumix\” folder.
- When the contents in the Program Files folder cannot be displayed, click the [Show the contents of this folder] to display them.

■ For Macintosh

1 Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).

2 Open the “Manual” folder in the CD-ROM and then copy the PDF file with the desired language inside the folder.

3 Double click the PDF file to open it.

Specifications

Digital Camera: Information for your safety

Power Source:	DC 5.1 V
Power Consumption:	1.4 W (When recording) 0.8 W (When playing back)

Camera effective pixels:	10,100,000 pixels
Image sensor:	1/1.63″ CCD, total pixel number 11,300,000 pixels, Primary colour filter
Lens:	Optical 3.8×zoom, f=5.1 mm to 19.2 mm (35 mm film camera equivalent: 24 mm to 90 mm)/ F2.0 (Wide) to F3.3 (Tele)
Digital zoom:	Max. 4×
Extra optical zoom:	Max. 6.7× (When set to 3,000,000 pixels [3M] or less)
Focus range:	Normal: 50 cm to ∞ Macro/Intelligent Auto: 1 cm (Wide)/30 cm (Tele) to ∞ Scene Mode: There may be differences in the above settings.
Shutter system:	Electronic shutter+Mechanical shutter
Burst recording	
Burst speed:	Approx. 2.5 pictures/second
Number of recordable pictures:	Max. 5 pictures (Standard), max. 3 pictures (Fine).
Hi-speed burst	
Burst speed:	Approx. 10 pictures/second (Speed priority) Approx. 6.5 pictures/second (Image priority) [2.5M (1:1), 3M (4:3), 2.5M (3:2) or 2M (16:9) is selected as the picture size.]
Number of recordable pictures:	Approx. 15 to 100
Minimum illuminance:	Approx. 3 lx (when i-Low light is used)

Shutter speed:	60 seconds to 1/4000th of a second [STARRY SKY] Mode: 15 seconds, 30 seconds, 60 seconds
Exposure (AE):	Programme AE (P)/Aperture-Priority AE (A)/ Shutter-Priority AE (S)/Manual Exposure (M) Exposure compensation (1/3 EV Step, −3 EV to +3 EV)
Metering mode:	Multiple/Centre weighted/Spot
LCD monitor:	3.0″ TFT LCD (3:2) (Approx. 460,000 dots) (field of view ratio about 100%)
Flash:	Built-in pop up flash Flash range: [ISO AUTO] Approx. 80 cm to 7.2 m (Wide)
Microphone:	Monaural
Speaker:	Monaural
Recording media:	Built-in Memory (Approx. 40 MB)/SD Memory Card/SDHC Memory Card/SDXC Memory Card
Recording file format	
Still Picture:	JPEG (based on “Design rule for Camera File system”, based on “Exif 2.3” standard)/DPOF corresponding
Motion pictures with audio:	AVCHD Lite/QuickTime Motion JPEG
Interface	
Digital:	“USB 2.0” (High Speed)
Analogue video/ audio:	NTSC/PAL Composite (Switched by menu) Audio line output (monaural)
Terminal	
[AV OUT/DIGITAL]:	Dedicated jack (8 pin)
[HDMI]:	MiniHDMI TypeC
Dimensions:	Approx. 109.7 mm (W)×65.5 mm (H)×43.0 mm (D) (excluding the projecting parts)
Mass:	Approx. 271 g (with card and battery) Approx. 233 g (excluding card and battery)
Operating temperature:	0 °C to 40 °C
Operating humidity:	10%RH to 80%RH

Battery Charger (Panasonic DE-A82A): Information for your safety

Input:	AC ~ 110 V to 240 V, 50/60 Hz, 0.2 A
Output:	DC ⎓ 4.2 V, 0.65 A

Battery Pack (lithium-ion) (Panasonic DMW-BCJ13E): Information for your safety

Voltage/capacity:	3.6 V/1250 mAh

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