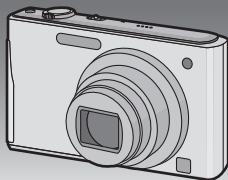# Panasonic®

Basic Operating Instructions
Digital Camera

Model No. **DMC-FH25**
DMC-FH5
DMC-FH2

LUMIX

Before use, please read these instructions completely.

More detailed instructions on the operation of this camera are contained in "Operating Instructions for advanced features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

SD XC™

GC GH GM GF GA   VQT3D43

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.**

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.

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.
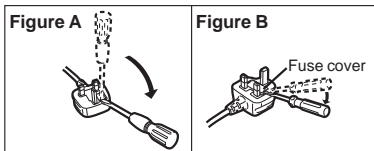
∎ How to replace the Fuse

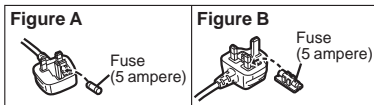The location of the fuse differ according to the type of AC cable (figures A and B).
Confirm the AC cable fitted and follow the instructions below.
Illustrations may differ from actual AC cable.

1 Open the fuse cover with a screwdriver.

Figure A | **Figure B**
Fuse cover

2 Replace the fuse and close or attach the fuse cover.

Figure A | **Figure B**
Fuse (5 ampere) | Fuse (5 ampere)

-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.
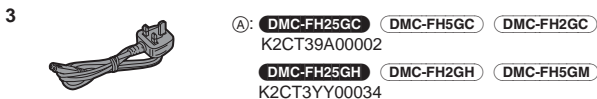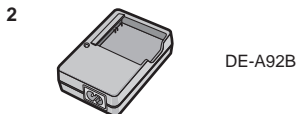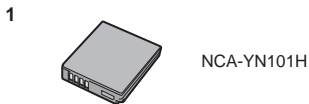
Contents

■ **About illustrations in these operating instructions**
The procedure is described for **DMC-FH25** as an example.

Standard Accessories

Check that all the accessories are supplied before using the camera.
Product numbers correct as of January 2011. 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
   Ⓐ Hong Kong Special Administrative Region of China and Saudi Arabia
   Ⓑ Areas Other than Hong Kong Special Administrative Region of China and
     Saudi Arabia
4 USB Connection Cable
5 AV Cable
6 CD-ROM
   • Software:
     Use it to install the software to your PC.
   • Operating Instructions
7 Hand Strap

∗ When purchasing a spare battery, please purchase an optional battery
   (DMW-BCK7E).

• 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	NCA-YN101H	2	DE-A92B

3	Ⓐ: DMC-FH25GC DMC-FH5GC DMC-FH2GC K2CT39A00002 DMC-FH25GH DMC-FH2GH DMC-FH5GM K2CT3YY00034
	Ⓑ: DMC-FH25GF DMC-FH5GF DMC-FH2GF DMC-FH25GA DMC-FH5GA DMC-FH2GA K2CQ2YY00082

4	DMC-FH25GC DMC-FH5GC DMC-FH2GC DMC-FH25GH DMC-FH25GF DMC-FH25GA K1HY08YY0019 DMC-FH2GH DMC-FH5GM DMC-FH5GF DMC-FH2GF DMC-FH5GA DMC-FH2GA K1HY08YY0015

5	DMC-FH25GC DMC-FH5GC DMC-FH2GC DMC-FH25GH DMC-FH25GF DMC-FH25GA K1HY08YY0020 DMC-FH2GH DMC-FH5GM DMC-FH5GF DMC-FH2GF DMC-FH5GA DMC-FH2GA K1HY08YY0016

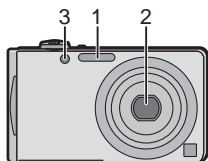| 6	DMC-FH25GC DMC-FH5GC DMC-FH2GC VFF0794 DMC-FH25GH DMC-FH2GH DMC-FH5GM DMC-FH25GF DMC-FH5GF DMC-FH2GF DMC-FH25GA DMC-FH5GA DMC-FH2GA VFF0729

7	VFC4297

Names of the Components

1 Flash
2 Lens
3 Self-timer indicator
  AF Assist Lamp

DMC-FH25
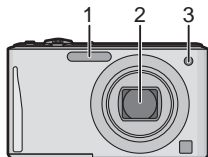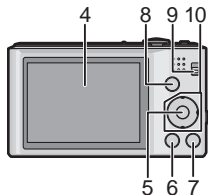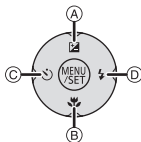
DMC-FH5 **DMC-FH2**

4 LCD monitor
5 [MENU/SET] button
6 [DISP.] button
7 [Q.MENU]/Delete/Cancel button
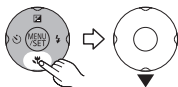8 [MODE] button
9 [Rec]/[Playback] selector switch

10 Cursor buttons
- (A): ▲/Exposure compensation
- (B): ▼/Macro Mode
  AF Tracking
- (C): ◀/Self-timer
- (D): ▶/Flash setting

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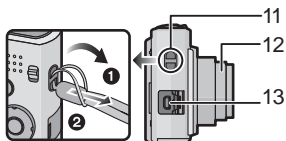e.g.: When you press the ▼ (down) button

   or   **Press ▼**

11 Strap eyelet
- Be sure to attach the strap when using the camera to ensure that you will not drop it.
12 Lens barrel
13 [AV OUT/DIGITAL] socket

14 Camera ON/OFF switch
15 Zoom lever
16 Speaker
 • Do not cover the speaker with your fingers.
17 Microphone
18 Shutter button
19 **DMC-FH25**
 [E.ZOOM] button
20 Tripod receptacle
21 Card/Battery door

22 DC coupler cover
 • When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC10; 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.
 • It is recommended to use a fully charged battery or AC adaptor (DMW-AC5G; optional) and DC coupler (DMW-DCC10; optional) 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.
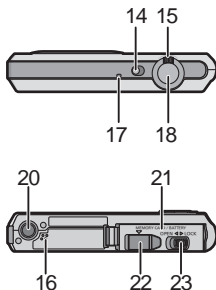
23 **DMC-FH5** **DMC-FH2**
 Release lever

DMC-FH25
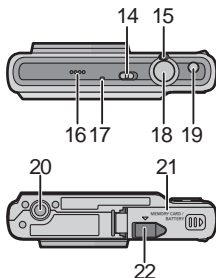
DMC-FH5 **DMC-FH2**

Charging the Battery

■ **About batteries that you can use with this unit**
Supplied battery or dedicated optional batteries (DMW-BCK7E) can be used with this unit.

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.**

Charging

• **The battery is not charged when the camera is shipped. Charge the battery before use.**
• Charge the battery with the charger indoors.

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.

Ⓐ
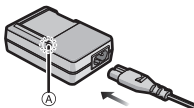
■ **About the [CHARGE] indicator**
The [CHARGE] indicator turns on:
The [CHARGE] indicator Ⓐ is turned on during charging.

The [CHARGE] indicator turns off:
The [CHARGE] indicator Ⓐ 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

	Supplied battery	**Optional battery**
Charging time	**Approx. 115 min**	**Approx. 120 min**

Approximate operating time and number of recordable pictures

DMC-FH25

	Supplied battery	**Optional battery**
Capacity of the battery	**660 mAh**	**680 mAh**
Number of recordable pictures	**Approx. 250 pictures**	**Approx. 255 pictures**
Recording time	**Approx. 125 min**	**Approx. 127 min**

DMC-FH5

	Supplied battery	**Optional battery**
Capacity of the battery	**660 mAh**	**680 mAh**
Number of recordable pictures	**Approx. 260 pictures**	**Approx. 265 pictures**
Recording time	**Approx. 130 min**	**Approx. 132 min**

DMC-FH2

	Supplied battery	**Optional battery**
Capacity of the battery	**660 mAh**	**680 mAh**
Number of recordable pictures	**Approx. 270 pictures**	**Approx. 275 pictures**
Recording time	**Approx. 135 min**	**Approx. 137 min**

Recording conditions by CIPA standard
- CIPA is an abbreviation of [Camera & Imaging Products Association].
- Normal Picture Mode
- Temperature: 23 °C/Humidity: 50%RH when LCD monitor is on.
- Using a Panasonic SD Memory Card (32 MB).
- Starting recording 30 seconds after the camera is turned on. (When the Optical Image Stabilizer function is set to [ON].)
- **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.

	Supplied battery	**Optional battery**
Playback time	**Approx. 200 min**	**Approx. 205 min**

About the Built-in Memory/the Card

Built-in Memory

- **Memory size: Approx. 70 MB**
- 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)	• **Use a card with SD Speed Class✳ with "Class 6" or higher when recording motion pictures.**
SDHC Memory Card (4 GB to 32 GB)	• SDHC Memory Card can be used with SDHC Memory Card or SDXC Memory Card compatible equipment.
SDXC Memory Card (48 GB, 64 GB)	• 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** • Only the cards with capacity listed left can be used.

✳ SD Speed Class is the speed standard regarding continuous writing. Check via the label on the card, etc.

e.g.:

CLASS ⑥

- Please confirm the latest information on the following website.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

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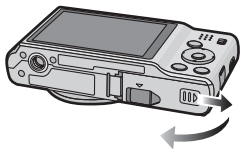- Keep the Memory Card out of reach of children to prevent swallowing.

Inserting and Removing the Card (optional)/the Battery

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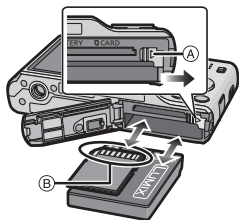- We recommend using a Panasonic card.

DMC-FH25

1. **Slide the card/battery door to open it.**
   - **Always use genuine Panasonic batteries (NCA-YN101H; supplied or DMW-BCK7E; optional).**
   - **If you use other batteries, we cannot guarantee the quality of this product.**

2. **Battery: Being careful about the battery orientation, insert all the way until you hear a locking sound and then check that it is locked by lever Ⓐ. Pull the lever Ⓐ in the direction of the arrow to remove the battery.**
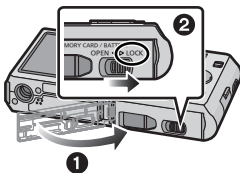
   Card: Push it securely all the way until you hear a "click" while being careful about the direction in which you insert it. To remove the card, push the card until it clicks, then pull the card out upright.

   Ⓑ: Do not touch the connection terminals of the card.

3. **❶:Close the card/battery door.**

   ❷:Firmly slide the card/battery door to the end until you hear a locking sound.

DMC-FH5 DMC-FH2
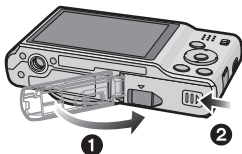
1 **Slide the release lever in the direction of the arrow and open the card/battery door.**
   - **Always use genuine Panasonic batteries (NCA-YN101H; supplied or DMW-BCK7E; optional).**
   - **If you use other batteries, we cannot guarantee the quality of this product.**

2 **Battery: Being careful about the battery orientation, insert all the way until you hear a locking sound and then check that it is locked by lever Ⓐ. Pull the lever Ⓐ in the direction of the arrow to remove the battery.**

   Card: Push it securely all the way until you hear a "click" while being careful about the direction in which 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.

3 ❶:**Close the card/battery door.**
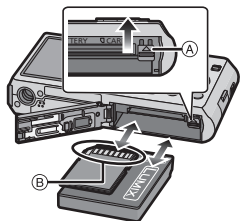
   ❷:**Slide the release lever in the direction of the arrow.**

Setting Date/Time (Clock Set)

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

1 **Slide the [Rec]/[Playback] selector switch to [ ] and then turn the camera on.**
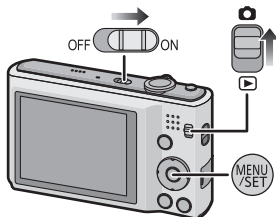
2 **Press [MENU/SET].**

3 **Press ▲/▼ to select the language, and press [MENU/SET].**

4 **Press [MENU/SET].**

5 **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 [🗑/⤺].

6 **Press [MENU/SET] to set.**

7 **Press [MENU/SET].**

Changing the Clock Setting

Select [Clock Set] in the [Rec] or [Setup] menu, and press [MENU/SET].
• It can be changed in steps **5** and **6** to set the clock.

Selecting the [Rec] Mode

1 Slide the [Rec]/[Playback] selector switch to [□].

2 Press [MODE].

3 Press ▲/▼/◄/► to select the mode.

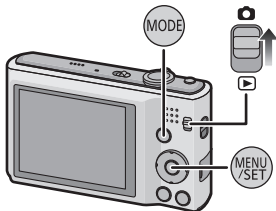**4** Press [MENU/SET].
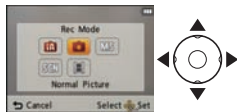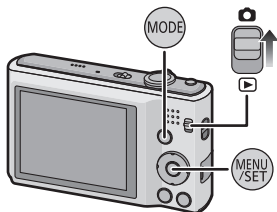
■ List of [Rec] Modes

🅐 Intelligent Auto Mode
The subjects are recorded using settings automatically selected by the camera.

🄾 Normal Picture Mode
The subjects are recorded using your own settings.

MS My Scene Mode
Pictures are taken using previously registered recording scenes.

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

🎬 Motion Picture Mode
This mode allows you to record motion pictures with audio.

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 **Slide the [Rec]/[Playback] selector switch to [○], and then press [MODE].**

2 **Press ▲/▼/◄/► to select [Intelligent Auto], and then press [MENU/SET].**

3 **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.
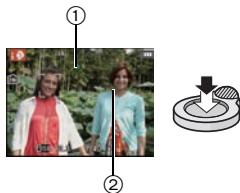
4 **Press the shutter button fully (push it in further), and take the picture.**

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.

🅰 →		
	🔅	[i-Portrait]
	🏔	[i-Scenery]
	🌷	[i-Macro]
	🌃	[i-Night Portrait]
	🌉	[i-Night Scenery]
	🌅	[i-Sunset]

• Only when [I⚡A] is selected

• [🅰] 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)**

[Rec] Mode: 🎦

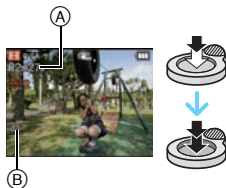# Motion Picture Mode

1 **Slide the [Rec]/[Playback] selector switch to [📷], and then press [MODE].**
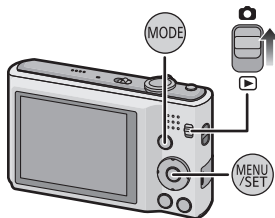
2 **Press ▲/▼/◀/▶ to select [Motion Picture], and then press [MENU/SET].**

3 **Press the shutter button halfway to focus and then press it fully to start recording.**

Ⓐ Available recording time
Ⓑ Elapsed recording time
• The focus and zoom are fixed to the setting when recording starts (the first frame).

4 **Press the shutter button fully to stop recording.**

Note
• Motion pictures can be recorded continuously up to 2 GB.
The maximum available recording time for up to 2 GB only is displayed on the screen.

Playing Back Pictures ([Normal Play])

1 Slide the [Rec]/[Playback] selector switch to [▶].

2 Press ◀ or ▶.

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

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.

Select the picture to be deleted, and then press [🗑/↩].

• Confirmation screen is displayed.
  Picture is deleted by selecting [Yes].

Q.MENU
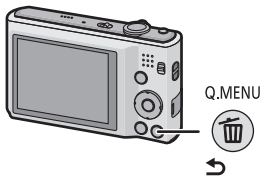
Setting the Menu

1 **Press [MENU/SET].**

2 **Press ◄/► to select menu and then press [MENU/SET].**
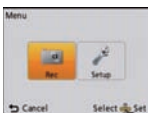
3 **Press ▲/▼ to select the menu item and then press [MENU/SET].**

- Screen at right is an example of selecting [AF Mode] in [Rec] mode Menu.
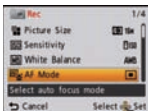
4 **Press ▲/▼ to select the setting and then press [MENU/SET].**

- Depending on the menu item, its setting may not appear or it may be displayed in a different way.
- Screen at right is an example to set the [AF Mode] from [[■]] (1-area-focusing) to [.●.] (Face Detection).
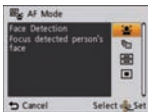
■ Close the menu

Press [🗑 / ↩] several times or press the shutter button halfway.

Reading the Operating Instructions (PDF format)

More detailed instructions on the operation of this camera are contained in "Operating Instructions for Advanced Features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

■ For Windows

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

2. **Click the [Operating Instructions].**

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

   Ⓐ To return to the install menu.

4. **Double click the "Operating Instructions" shortcut icon on the desktop.**

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

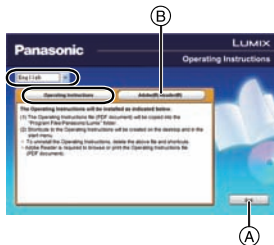You will need Adobe Acrobat Reader 5.0 or later or Adobe Reader 7.0 or later to browse or print the Operating Instructions (PDF format).

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 SP3/Windows Vista 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:	1.1 W (When recording)
	0.7 W (When playing back)

Camera effective pixels	DMC-FH25 DMC-FH5 16,100,000 pixels
	DMC-FH2 14,100,000 pixels
Image sensor	DMC-FH25 DMC-FH5 1/2.33″ CCD, total pixel number 16,600,000 pixels, Primary colour filter
	DMC-FH2 1/2.33″ CCD, total pixel number 14,500,000 pixels, Primary colour filter
Lens	DMC-FH25 Optical 8×zoom, f=5 mm to 40 mm (35 mm film camera equivalent: 28 mm to 224 mm)/F3.3 (Wide) to F5.9 (Tele)
	DMC-FH5 DMC-FH2 Optical 4×zoom, f=5 mm to 20 mm (35 mm film camera equivalent: 28 mm to 112 mm)/F3.1 (Wide) to F6.5 (Tele)
Digital zoom	Max. 4×
Extra optical zoom	DMC-FH25 Max. 18× (When set to 3,000,000 pixels [3M] or less)
	DMC-FH5 Max. 9× (When set to 3,000,000 pixels [3M] or less)
	DMC-FH2 Max. 8.4× (When set to 3,000,000 pixels [3M] or less)

Focus range	Normal	**DMC-FH25** 50 cm (Wide)/2 m (Tele) to ∞
		DMC-FH5 **DMC-FH2** 50 cm (Wide)/1 m (Tele) to ∞
	Macro/ Intelligent auto/ Motion picture	5 cm (Wide)/1 m (Tele) to ∞
	Scene Mode	There may be differences in the above settings.
Shutter system	Electronic shutter+Mechanical shutter	
Burst recording		
Burst speed	**DMC-FH25** Approx. 1.7 pictures/second	
	DMC-FH5 **DMC-FH2** Approx. 2.0 pictures/second	
Number of recordable pictures	Depends on the remaining capacity of the built-in memory/card.	
Hi-speed burst		
Burst speed	**DMC-FH25** Approx. 4 pictures/second	
	DMC-FH5 **DMC-FH2** Approx. 6 pictures/second	
	[3M (4:3), 2.5M (3:2) or 2M (16:9) is selected as the picture size.]	
Number of recordable pictures	When using the built-in memory: Approx. 15 pictures (immediately after formatting) When using a Card: Max. 100 pictures (differs depending on the type of Card and the recording conditions)	
Shutter speed	8 seconds to 1/1600th of a second [Starry Sky] Mode: 15 seconds, 30 seconds, 60 seconds	
Exposure (AE)	Programme AE Exposure compensation (1/3 EV Step, −2 EV to +2 EV)	
Metering mode	Multiple	
LCD monitor	2.7″ TFT LCD (4:3) (Approx. 230,000 dots) (field of view ratio about 100%)	

Flash range	**DMC-FH25** Approx. 60 cm to 5.8 m (Wide, [ISO] is set) **DMC-FH5** **DMC-FH2** Approx. 40 cm to 3.3 m (Wide, [ISO] is set)
Microphone	Monaural
Speaker	Monaural
Recording media	Built-in Memory (Approx. 70 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	"QuickTime Motion JPEG" (motion pictures with audio)
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)
Dimensions (excluding the projecting parts)	**DMC-FH25** Approx. 99.2 mm (W)×56.5 mm (H)×27.8 mm (D) **DMC-FH5** **DMC-FH2** Approx. 94.3 mm (W)×53.5 mm (H)×18.8 mm (D)
Mass	**DMC-FH25** Approx. 152 g (with card and battery) Approx. 135 g (excluding card and battery) **DMC-FH5** Approx. 121 g (with card and battery) Approx. 104 g (excluding card and battery) **DMC-FH2** Approx. 118 g (with card and battery) Approx. 101 g (excluding card and battery)
Operating temperature	0 °C to 40 °C
Operating humidity	10%RH to 80%RH

Battery Charger (Panasonic DE-A92B):
Information for your safety

Input:	AC ～ 110 V to 240 V, 50/60 Hz, 0.2 A
Output:	DC === 4.2 V, 0.43 A

Battery Pack (lithium-ion) (Panasonic NCA-YN101H):
Information for your safety

Voltage/capacity:	3.6 V/660 mAh

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QuickTime