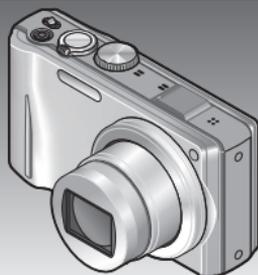


# Panasonic®

## Basic Owner's Manual Digital Camera

Model No. **DMC-ZS10**

LUMIX



Before connecting, operating or adjusting this product, please read the instructions completely.



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



For USA and Puerto Rico assistance, please call: 1-800-211-PANA(7262) or, contact us via the web at: <http://www.panasonic.com/contactinfo>

P

VQT3G70  
M0211KZ0

**Dear Customer,  
Thank you for choosing Panasonic!**

You have purchased one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take the time to fill in the information below.

The serial number is on the tag located on the underside of your Camera. Be sure to **retain this manual** as your convenient Camera information source. 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 this Owner's Manual.

**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.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_



A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

## Information for Your Safety

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

**FCC Note:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** To assure continued compliance, follow the attached installation instructions and use only shielded interface cables with ferrite core when connecting to computer or peripheral devices.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**Declaration of Conformity**

**Trade Name:** Panasonic

**Model No.:** DMC-ZS10

Responsible party: Panasonic Corporation of  
North America  
One Panasonic Way,  
Secaucus, NJ 07094

Support Contact: Panasonic Consumer  
Electronics Company  
1-800-211-PANA (7262)

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

The logo features the FCC symbol (the letters 'F' and 'C' inside a circle) on the left, followed by the word 'Panasonic' in a bold, sans-serif font, and 'DMC-ZS10' in a smaller, bold, sans-serif font below it.

## **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.

### ■ Product identification marking

<b>Product</b>	<b>Location</b>
Digital camera	Bottom
Battery charger	Bottom

### ■ About the battery pack

#### **CAUTION**

Battery pack (Lithium ion battery pack)

- Use the specified unit to recharge the battery pack.
- Do not use the battery pack with equipment other than the specified unit.
- Do not get dirt, sand, liquids, or other foreign matter on the terminals.
- Do not touch the plug terminals (+ and -) with metal objects.
- Do not disassemble, remodel, heat or throw into fire.

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.

If any electrolyte should come into contact with your eyes, never rub the eyes. Rinse eyes thoroughly with water, and then consult a doctor.

#### **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 (140 °F) 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.**

#### **Battery charger**

This battery charger operates on AC between 110 V and 240 V.

But

- In the U.S.A. and Canada, the battery charger must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.

### ■ 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).

**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-AC5PP; 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.

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This product is licensed under the AVC patent portfolio license for the personal and noncommercial use of a consumer to (i) encode video in compliance with the AVC Standard ("AVC Video") and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC.  
See <http://www.mpegla.com>.

# Standard accessories

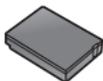
Check that all the accessories are supplied before using the camera. Part numbers are as of January 2011.

**Battery pack**

DMW-BCG10PP

- Charge the battery before use.

Battery pack is indicated as battery pack or battery in the text.



**Hand strap**

VFC4297



**USB connection cable**

K1HY08YY0017



**Battery charger**

DE-A65B



Battery charger is indicated as battery charger or charger in the text.

**AV cable**

K1HY08YY0018



**CD-ROM**

VFF0765

- Software:  
Use it to install the software on your PC.
- Owner's Manual



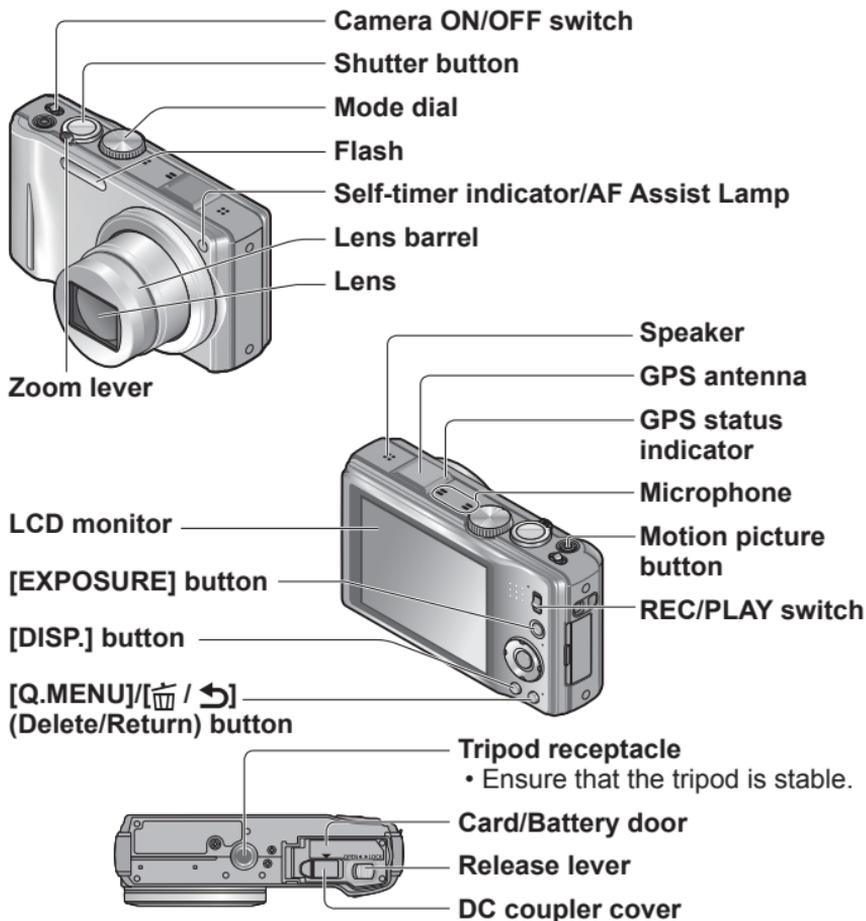
**Stylus Pen**

VGQ0C14



- Cards are optional. You can record or play back pictures on the built-in memory when you are not using a card.
- If any accessories are lost, customers should contact Panasonic's parts department at 1 800 833-9626 for further information about obtaining replacement parts.
- Please dispose of all packaging appropriately.
- Keep small parts in a safe place out of the reach of children.

# Names of parts



- Always use a genuine Panasonic AC adaptor (DMW-AC5PP; optional).
- When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC5; optional) and AC adaptor (DMW-AC5PP; optional) are used.

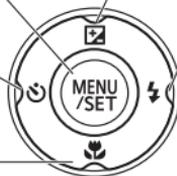
The illustrations and screens in this manual may differ from the actual product.

## Cursor button

**[MENU/SET]**  
(menu display/set/finish)

**Left cursor button (◀)**  
• Self-timer

**Down cursor button (▼)**  
• Macro Mode etc.



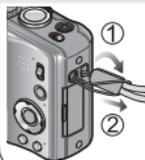
**Up cursor button (▲)**  
• Exposure Compensation,  
Auto Bracket etc.

**Right cursor button (▶)**  
• Flash

● In this manual, the button that is used is indicated by ▲ ▼ ◀ ▶ .



### Hand strap eyelet



We recommend using the supplied hand strap to avoid dropping the camera.

**HDMI socket**

**[AV OUT/DIGITAL] socket**

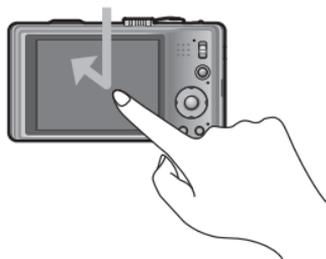
- We recommend you use a battery with sufficient battery power or the AC adaptor when recording motion pictures.
- If the power supply is cut off due to a power cut or the AC adaptor being disconnected, the motion picture being recorded using the AC adaptor will not be recorded.

## Touch operations

This camera's touch panel senses pressure that is applied to the screen.

### Touch

To “touch” is to press the touch panel and then pull the finger back again.



Touching is used to select icons or pictures, among other actions.

- Touch an icon near its center. If multiple icons are touched simultaneously, the camera may not operate normally.

### Drag

To “drag” is to touch and slide your finger across the touch panel surface.



Dragging (sliding your finger across the screen) is used to scroll the pictures or change the range of the pictures displayed.

- If the type of sheet to protect LCD screens that are available on the market is to be used, observe the precautions that are contained with the sheet. (Some types of protective sheets may impair the screen's visual recognition and ease of operation.)
- If the camera is used with a protective sheet available on the market attached to its screen or if the screen is not very responsive, touch the screen with a little more pressure.
- If your hand is pressed against the touch panel when holding the camera, the touch panel will not work properly.
- Do not press on the LCD monitor with hard pointed tips, such as ball point pens.
- Do not press the touch panel with your fingernails.
- Clean the LCD monitor with a soft dry cloth if there are fingerprints or other kinds of dirt on it.

### ■ Stylus pen

The stylus pen (supplied) comes in handy when doing the kinds of jobs that require close or careful operation and your fingertips are too large to perform the operations easily.

- Do not use a pen other than the pen supplied.
- Keep the stylus pen out of the reach of infants and small children.
- Do not place the stylus pen on the LCD monitor when storing. LCD monitor may break when the stylus pen is pressed strongly against the LCD monitor.

## Charging the battery

### ■ About batteries that you can use with this unit

The battery that can be used with this unit is DMW-BCG10PP.

It has been found that counterfeit battery packs which look very similar to the genuine products 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 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-BCG10PP) 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.
- The battery is not charged when the camera is shipped. Charge the battery and set the clock before use.
- Charge the battery with the charger indoors (10 °C - 30 °C (50 °F - 86 °F)).

### 1 Insert the battery terminals and attach the battery to the charger

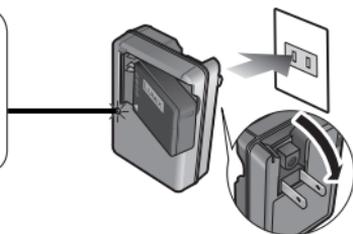
Ensure [LUMIX] faces outwards.



## 2 Connect the charger to the electrical outlet

### Charging light ([CHARGE])

- On:** Charging in progress  
(approx. 130 min. if fully depleted)
- Off:** Charging complete



## 3 Detach the battery after charging is completed

### ■ Recording capacity guidelines (pictures/recording time)

Number of recordable pictures	Approx. 260 pictures
Recording time	Approx. 130 min
Playback time	Approx. 210 min

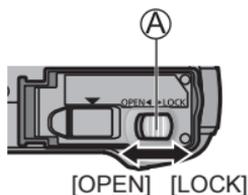
### Recording conditions by CIPA standard

- CIPA is an abbreviation of [Camera & Imaging Products Association].
- [Program AE] Mode.
- [GPS Setting] is set to [OFF]
- Temperature: 23 °C (73.4 °F)/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 [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.

The number of recordable pictures or available operating time may vary according to surrounding environment and usage conditions. Figures may be reduced if flash, zoom, or other functions are used frequently, or in colder climates.

# Inserting and removing the card (optional)/the battery

- 1** Set the camera ON/OFF switch to OFF and slide the release lever (A) to [OPEN] before opening the lid



- 2** Insert the battery and card, making sure that their orientation is correct

Battery: Insert all the way firmly until a locking sound is heard, and check that the lever is hooked over the battery.

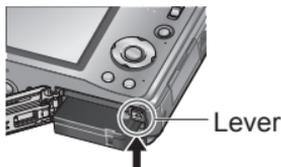
Card: Insert all the way firmly until it clicks.



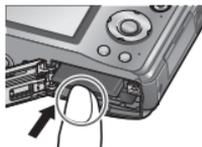
- 3** Close lid  
Slide to the [LOCK] position.

## ■ To remove

- To remove battery:  
move lever in direction of arrow.



- To remove card:  
press down in center.



- Always use genuine Panasonic batteries (DMW-BCG10PP).
- If you use other batteries, we cannot guarantee the quality of this product.
- Insert the card fully, otherwise it may be damaged.

## Picture save destination (cards and built-in memory)

### ■ Built-in memory (approx. 18 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.

### ■ Compatible memory cards (optional)

The following SD standard-based cards  
(Panasonic brand recommended)

Type of Card	Capacity	Notes
SD Memory Cards	8 MB – 2 GB	<ul style="list-style-type: none"><li>• Using a card of SD speed “Class 4”* or above is recommended for recording motion pictures in [AVCHD].</li><li>• Using a card of SD speed “Class 6”* or above is recommended for recording motion pictures in “MOTION JPEG”.</li><li>• Can be used with devices compatible with the respective formats.</li><li>• Before using SDXC Memory Cards, check that your computer and other devices support this type of card. <a href="http://panasonic.net/avc/sdcard/information/SDXC.html">http://panasonic.net/avc/sdcard/information/SDXC.html</a></li><li>• Only the cards listed on the left with the given capacities are supported.</li></ul>
SDHC Memory Cards	4 GB – 32 GB	
SDXC Memory Cards	48 GB, 64 GB	

\*SD speed class refers to a specification for sustained write speeds. Confirm the SD speed by checking the card label or other card related materials.

(Example)

CLASS 

CLASS 

- Latest information:

<http://panasonic.jp/support/global/cs/dsc/>  
(This Site is English only.)

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

# Setting the clock

The clock is not set when the camera is shipped.

- 1 Turn on the power (A)**
- 2 Press [MENU/SET] (B) while the message is displayed**
- 3 Press ◀▶ to select the items (year, month, day, hour, minute, display order or time display format), and press ▲▼ to set**
  - To cancel → Press [⏪ / ⏩].
- 4 Press [MENU/SET]**
- 5 Confirm the setting and press [MENU/SET]**
  - To return to the previous screen, press [⏪ / ⏩].
- 6 Press ◀ to select [Yes] and press [MENU/SET] if automatically correcting time of day using the GPS function**
  - To manually set date and time →select [No].



**7** When [Please set the home area] is displayed, press [MENU/SET]

**8** Press ◀▶ to set your home area and press [MENU/SET]

The current time and home area are set.

- [GPS Setting] turns [ON].
- Turn on power again and check the time display.



### ■ To change the time setting

Select [Clock Set] from [Rec] or [Setup] menu, perform **3** and **4**.

## About GPS

When GPS is used, the camera performs the following functions.

- Records location name information and the latitude and longitude for the positioned location on the recorded pictures
- Corrects automatically to the current time

### ■ When [GPS Setting] is [ON], the GPS function works even if the camera's power is off.

- Electromagnetic waves from the camera can affect instruments and meters. During airplane takeoff and landing or in other restricted area, set [GPS Setting] to [OFF] or , then turn the camera's power off.
- When [GPS Setting] is [ON], power will drain from the battery even if the camera's power is OFF.

# Setting the menu

Refer to the following procedures to operate the menus.

**Example: Setting [AF Mode] from  to  in the [Program AE] Mode**

- 1** Press [MENU/SET] to display the menu 

## Switching to the [Rec] menu

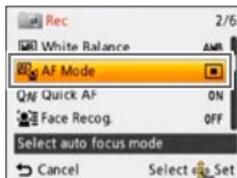
Select [Rec], and press [MENU/SET].

- The menu type can also be selected by touch operations.



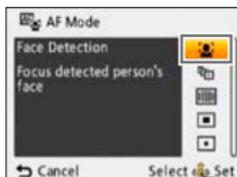
- 2** Press   to select [AF Mode] and then press [MENU/SET]

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



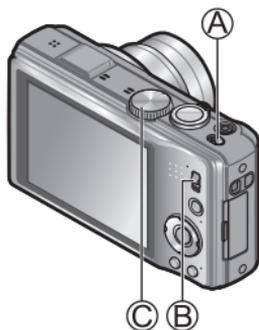
- 3** Press   to select  and then press [MENU/SET] to set

- 4** Press  /  several times to close the menu



# Selecting the Recording Mode

- 1 Turn on the power (A)
- 2 Slide the [REC/PLAY] switch (B) to 
- 3 Switch the mode by rotating the mode dial (C)

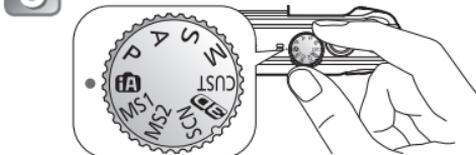


<b>iA</b>	<b>[Intelligent Auto] Mode</b> Take pictures with automatic settings.
<b>P</b>	<b>[Program AE] Mode</b> The subjects are recorded using your own settings.
<b>A</b>	<b>[Aperture-Priority] Mode</b> The shutter speed is automatically determined by the aperture value you set.
<b>S</b>	<b>[Shutter-Priority] Mode</b> The aperture value is automatically determined by the shutter speed you set.
<b>M</b>	<b>[Manual Exposure] Mode</b> The exposure is adjusted by the aperture value and the shutter speed which are manually adjusted.
<b>CUST</b>	<b>[Custom] Mode</b> Use this mode to take pictures with previously registered setting.
<b>ED</b>	<b>[3D Photo Mode]</b> Record 3D still pictures.
<b>SCN</b>	<b>[Scene Mode]</b> Take pictures according to the scene.
<b>MS1</b>	<b>[My Scene Mode]</b>
<b>MS2</b>	Take pictures in frequently-used Scene Modes.

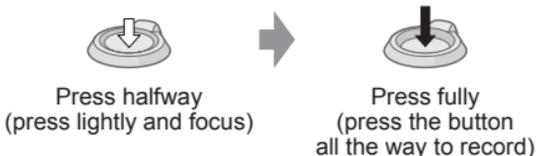
# Taking pictures with automatic settings

Optimum settings are made automatically from information such as “face,” “movement,” “brightness,” and “distance” just by pointing the camera at the subject, meaning that clear pictures can be taken without the need to make settings manually.

- 1 Turn on the power (A)
- 2 Slide the [REC/PLAY] switch (B) to 
- 3 Set the mode dial (C) to 



## 4 Take pictures



- If jitter becomes noticeable, use both hands, keep your arms close to your body, and stand with your feet at shoulder width.
- **Focus display (D)**  
(In focus: lit / Not in focus: flashing)
- The AF area (E) 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.
- Focus: Max. W: 3 cm (0.10 feet)  
Max. T: 1 m (3.28 feet) and above  
(7 × to 11 × is 2 m (6.57 feet) to ∞)



## [Intelligent Auto] Mode

Recording Mode: 

### ■ Automatic Scene Detection

Camera identifies the scene when pointed at the subject, and makes optimum settings automatically. The type of scene detected is indicated by a blue icon for two seconds.

	People are detected.
	Baby is detected.
	Scenery is detected.
	People and night scenery are detected. (Only when  is selected)
	Night scenery is detected.
	Recognizes night scenes without a tripod.
	A close-up shot is detected.
	A sunset is detected.
	Reads subject movement to avoid blurring when the scene does not correspond to any of the above.

If the camera automatically identifies the scene and determines that people appear as subjects in the picture (, , ) , Face Detection is activated, and the focus and exposure are adjusted for the recognized faces.

## AF Tracking

This function enables the camera to continue to focus on the subject and adjust the exposure of the subject even when the subject is moving.

Perform these operations with the touch shutter function released.

### 1 Touch the subject

- When switching to lock on to another subject  
→ Touch the other subject.
- To release AF tracking → Touch .

# Taking motion pictures

Recording Mode: **[A]** **[P]** **[AS]** **[M]** **[MS1]** **[MS2]** **[SCN]**

This records motion pictures with audio. Zoom can also be used during recording.

**1** Slide the [REC/PLAY] switch to 

**2** Start recording



Press

**3** End recording



Press



Elapsed recording time

Remaining recording time (approx.)

- Immediately release the motion picture button after pressing it all the way.
- When there is no space left to store the motion picture, recording automatically ends.
- An AVCHD motion picture can be recorded continuously for up to 29 minutes 59 seconds when [GFS] or [FSH] is set. Also, a maximum of approx. 2 GB of continuous motion picture can be recorded in Motion JPEG format. (Even if there is more than 2 GB of available space on the card, the available recording time will be calculated up to a maximum of 2 GB.)
- If [Rec Quality] is set to [GFS] or [FSH], and if the surrounding temperature is high, or motion picture is recorded continuously,  is displayed, and the recording may be stopped halfway through.

## Viewing your pictures [Normal Play]

Playback Mode: 

- 1 Slide the [REC/PLAY] switch (A) to 
- 2 Drag your finger across the screen, and select the picture to be played back



- To play back a motion picture, select an image with ◀ or ▶, and then press ▲ to start playback.
- You can print pictures by connecting a camera to your computer or printer, or by giving an SD card to a shop assistant at a photo shop.

## Deleting pictures

Playback Mode: 

Deleted pictures cannot be recovered.

- 1 Press  /  (A) to delete the displayed picture
- 2 Press ◀ to select [Yes] and then press [MENU/SET] (B)



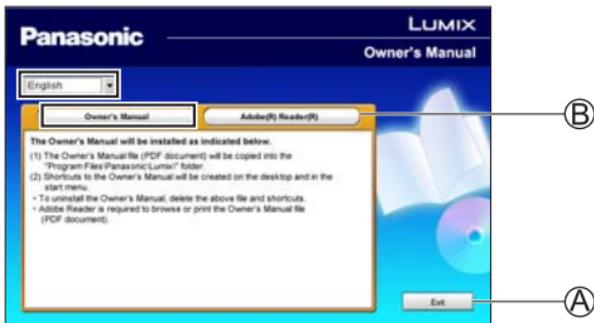
# Reading the Owner's Manual

(PDF format)

More detailed instructions on the operation of this camera are contained in "Owner's Manual 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 Owner's Manual (supplied)
- 2** Click the "Owner's Manual"
- 3** Select the desired language and then click "Owner's Manual" to install



- Ⓐ To return to the install menu.  
Ⓑ See next page.

- 4** Double click the "Owner's Manual" shortcut icon on the desktop

### ■ When the Owner's Manual (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 Owner's Manual (PDF format).

Insert the CD-ROM containing the Owner's Manual (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 Owner's Manual (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 Owner's Manual (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

<b>Power Source</b>	DC 5.1 V
<b>Power Consumption</b>	When recording: 1.4 W When playing back: 0.9 W
<b>Camera effective pixels</b>	14,100,000 pixels
<b>Image sensor</b>	1/2.33" MOS sensor, total pixel number 15,100,000 pixels Primary color filter
<b>Lens</b>	Optical 16 x zoom f=4.3 mm to 68.8 mm (35 mm film camera equivalent: 24 mm to 384 mm)/ F3.3 (Max. W) to F5.9 (Max. T)
<b>Digital Zoom</b>	Max. 4 x
<b>Extended optical zoom</b>	Max. 33.8 x (When the picture size is set to 3 million pixels [3M] or less.)
<b>Focus range</b>	
<b>P/A/S/M</b>	50 cm (1.64 feet) (Wide)/2 m (6.57 feet) (Tele) to ∞
<b>Macro/ Intelligent Auto/ Motion picture</b>	3 cm (0.10 feet) (Wide)/1 m (3.28 feet) (Tele) to ∞ (7 × to 11 × is 2 m (6.57 feet) to ∞)
<b>Scene Mode</b>	There may be difference in above settings.
<b>Shutter system</b>	Electronic shutter + Mechanical shutter
<b>Burst recording</b>	Burst speed (Burst number/maximum recordable pixels)
<b>For mechanical shutter</b>	Approx. 2 frames/sec (Max. 100 frames/14 M), Approx. 5 frames/sec (Max. 100 frames/14 M), Approx. 10 frames/sec (Max. 15 frames/14 M)
<b>For electronic shutter</b>	40 frames/sec (Max. 50 frames/5 M), 60 frames/sec (Max. 60 frames/3.5 M)
<b>During motion picture recording</b>	Approx. 2 frames/sec (Max. 40 frames/3.5 M), Approx. 5 frames/sec (Max. 40 frames/3.5 M), Approx. 10 frames/sec (Max. 40 frames/3.5 M)

<b>Minimum Illumination</b>	Approx. 14 lx (when i-Low light is used, the shutter speed is 1/60th of a second)
<b>Shutter speed</b>	60 to 1/4000 th [Starry Sky] Mode: 15 seconds, 30 seconds, 60 seconds
<b>Exposure (AE)</b>	Program AE (P)/Aperture-priority AE (A)/ Shutter-priority AE (S)/Manual exposure (M) Exposure Compensation (1/3 EV Step, -2 EV to +2 EV)
<b>Metering Mode</b>	Multiple/Center weighted/Spot
<b>LCD monitor</b>	3.0" TFT LCD (4:3) (Approx. 460,800 dots) (field of view ratio about 100 %)/Touch panel
<b>Flash</b>	Flash range: (ISO AUTO) Approx. 60 cm (1.97 feet) to 5.0 m (16.4 feet) (Wide)
<b>Microphone</b>	Stereo
<b>Speaker</b>	Monaural
<b>Recording media</b>	Built-in Memory (Approx. 18 MB)/SD Memory Card/ SDHC Memory Card/SDXC Memory Card
<b>Recording file format</b>	
<b>Still picture</b>	JPEG (based on Design rule for Camera File system, based on Exif 2.3 standard/DPOF corresponding)/MPO
<b>Motion pictures</b>	AVCHD/QuickTime Motion JPEG
<b>Interface</b>	
<b>Digital</b>	USB 2.0 (High Speed)
<b>Analog video</b>	NTSC Composite
<b>Audio</b>	Audio line output (Monaural)
<b>Terminal</b>	HDMI: MiniHDMI TypeC AV OUT/DIGITAL: Dedicated jack (8 pin)
<b>Dimensions</b>	Approx. 104.9 mm (W) x 57.6 mm (H) x 33.4 mm (D) [4.13" (W) x 2.27" (H) x 1.31" (D)] (excluding the projection part)

## Specifications (Continued)

<b>Mass</b>	With card and battery: Approx. 219 g (0.482 lb) Excluding card and battery: Approx. 197 g (0.434 lb)
<b>Operating temperature</b>	0 °C to 40 °C (32 °F to 104 °F)
<b>Operating humidity</b>	10 %RH to 80 %RH
<b>GPS</b>	Reception frequency: 1575.42 MHz (C/A code) Geographical coordinate system: WGS84
<b>Language select</b>	[ENGLISH]/[ESPAÑOL]

### Battery charger

(Panasonic DE-A65B): Information for your safety

<b>Input</b>	110 V to 240 V ~ 50/60Hz, 0.2 A
<b>Output</b>	4.2 V --- 0.65 A

### Equipment mobility: Movable

#### Battery Pack (lithium-ion)

(Panasonic DMW-BCG10PP): Information for your safety

<b>Voltage/capacity</b>	3.6 V/895 mAh
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## Optional accessories

Product name: Battery Pack

Product no.: DMW-BCG10PP

- Performance identical to supplied battery pack.
- Recommended for taking on holiday, etc.

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Product name: AC adaptor\*

Product no.: DMW-AC5PP

Purchase the AC adaptor and DC coupler as a set. They cannot be used individually with this camera.

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Product name: Marine Case

Product no.: DMW-MCTZ20

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Product name: DC coupler\*

Product no.: DMW-DCC5

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Product name: HDMI mini cable

Product no.: RP-CDHM15/RP-CDHM30

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Product name: SDXC Memory Card

Product no.: 48 GB: RP-SDW48GU1K Class 10

64 GB: RP-SDW64GU1K Class 10

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Product name: SDHC Memory Card

Product no.: 4 GB: RP-SDW04GU1K Class 10

4 GB: RP-SDN04GU1A Class 4

8 GB: RP-SDW08GU1K Class 10

8 GB: RP-SDN08GU1A Class 4

16 GB: RP-SDW16GU1K Class 10

16 GB: RP-SDN16GU1A Class 4

32 GB: RP-SDW32GU1K Class 10

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Product name: SD Memory Card

Product no.: 2 GB: RP-SDN02GU1A Class 4

\* The AC Adaptor (optional) can only be used with the designated Panasonic DC Coupler (optional). The AC adaptor (optional) cannot be used by itself.

- 
- Product numbers are correct as of January 2011. These may be subject to change.
  - Accessories and/or model numbers may vary between countries. Consult your local dealer.

# Digital Camera Accessory Order Form

Please photocopy this form when placing an order.

1. Digital Camera Model # \_\_\_\_\_

2. Items Ordered

Accessory #	Description	Price Each	Quantity	Total Price
Subtotal				
Your State & Local Sales Tax				
Shipping & Handling				6.95
Total Enclosed				

3. Method of payment (check one)

- Check of Money Order enclosed (NO C.O.D. SHIPMENTS)  
 VISA Credit Card # \_\_\_\_\_  
 MasterCard Expiration Date \_\_\_\_\_  
 Discover Customer Signature \_\_\_\_\_

Make Check or Money Order to: PANASONIC ACCESSORIES

(Please do not send cash)

4. Shipping information (UPS delivery requires complete street address)

Ship To:

Mr.

Mrs.

Ms.

\_\_\_\_\_

First \_\_\_\_\_ Last \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone#:

Day ( ) \_\_\_\_\_

Night ( ) \_\_\_\_\_

TO OBTAIN ANY OF OUR DIGITAL CAMERA ACCESSORIES YOU CAN DO ANY OF THE FOLLOWING:

VISIT YOUR LOCAL PANASONIC DEALER

OR

CALL PANASONIC'S ACCESSORY ORDER LINE AT 1-800-332-5368

[6 AM-6 PM M-F, PACIFIC TIME]

OR

MAIL THIS ORDER TO: PANASONIC SERVICE AND TECHNOLOGY COMPANY  
ACCESSORY ORDER OFFICE

20421 84th Avenue South Kent, WA. 98032

# Limited Warranty

## (ONLY FOR U.S.A. AND PUERTO RICO)

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Panasonic Consumer Electronics Company,  
Division of Panasonic Corporation of North America  
One Panasonic Way, Secaucus, New Jersey 07094

### Panasonic Digital Still Camera Products Limited Warranty

#### Limited Warranty Coverage (For USA and Puerto Rico Only)

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company (referred to as “the warrantor”) will, for the length of the period indicated on the chart below, which starts with the date of original purchase (“warranty period”), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product or Part Name	Parts	Labor
Digital Still Camera	1 year	1 year
CCD	6 months	90 days
SD Memory Cards, Rechargeable Battery Pack (defective exchange)	90 days	Not Applicable

During the “Labor” warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold “as is”.

### **Mail-In Service**

For assistance in the U.S.A. and Puerto Rico in obtaining repairs, please ship the product prepaid to:

**Panasonic Exchange Center**  
**4900 George McVay Drive**  
**Suite B**  
**McAllen, TX 78503**  
**[panacare@us.panasonic.com](mailto:panacare@us.panasonic.com)**

When shipping the unit, carefully pack, include all accessories, and send it prepaid, adequately insured and preferably in the original carton. When shipping Lithium Ion batteries please visit our Web Site at [www.panasonic.com/BatteryHandling](http://www.panasonic.com/BatteryHandling) as Panasonic is committed to providing the most up to date information. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

**IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

### **Limited Warranty Limits And Exclusions**

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

**THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE".  
THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.**

(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)

**ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

**PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.**

### ***Customer Services Directory (United States and Puerto Rico)***

**Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:**

**<http://www.panasonic.com/help>**

**or, contact us via the web at:**

**<http://www.panasonic.com/contactinfo>**

You may also contact us directly at:

1-800-211-PANA (7262)

Monday-Friday 9am-9pm, Saturday-Sunday 10am-7pm EST

**For hearing or speech impaired TTY users, TTY: 1-877-833-8855**

### ***Accessory Purchases (United States and Puerto Rico)***

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

Or, send your request by E-mail to:

[npcparts@us.panasonic.com](mailto:npcparts@us.panasonic.com)

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)

(Monday-Friday 9am-9pm EST)

Panasonic Service and Technology Company

20421 84th Avenue South, Kent, WA 98032

(We accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

**For hearing or speech impaired TTY users, TTY: 1-866-605-1277**

**As of December 2010**

# HDMI

# VIERA Link™

# AVCHD™

**DOLBY**  
DIGITAL  
STEREO CREATOR



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**-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.

**Panasonic Consumer Electronics Company,  
Division of Panasonic Corporation of North America**

One Panasonic Way, Secaucus, NJ 07094

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