

# Basic Operating Instructions Digital Camera Model No. DMC-FH22



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



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

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

#### 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 time to fill in the information in the box 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 these Operating Instructions.

Model No.

Serial No.

#### 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.



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**

#### 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 is located on the bottom of units.

### 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-FH22 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.



#### - 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.

## 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  $60^{\circ}C$  (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 110V and 240V. But

- In the U.S.A. and Canada, the battery charger must be connected to a 120V 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

- Always use a genuine Panasonic AC adaptor (DMW-AC5PP: optional).
- When using an AC adaptor, use the AC cable supplied with the AC adaptor.
- Do not use any other AV cables except the supplied one.
- Do not use any other USB connection cables except the supplied one.

#### Keep the camera as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use the camera on top of or near a TV, the pictures and sound on the camera may be disrupted by electromagnetic wave radiation.
- Do not use the camera near cell phones because doing so may result in noise adversely affecting the pictures and 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 the camera, disturbing the pictures and sound.
- If the camera is adversely affected by electromagnetic equipment and stops functioning properly, turn the camera off and remove the battery or disconnect AC adaptor (DMW-AC5PP: optional). Then reinsert the battery or reconnect AC adaptor and turn the camera on.

# Do not use the camera near radio transmitters or high-voltage lines.

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

# Contents

| Information for Your Safet | y2 |
|----------------------------|----|
|                            |    |

## **Before Use**

| Standard Accessories       | 8 |
|----------------------------|---|
| Names of the Components    | 9 |
| How to Use the Touch Panel |   |
|                            |   |

## Preparation

| Charging the Battery                                   | 11 |
|--|----|
| About the Built-in Memory/the Card                     | 13 |
| Inserting and Removing the Card (optional)/the Battery |    |
| Setting Date/Time (Clock Set)                          |    |
| Setting the Menu                                       |    |
| Selecting the [REC] Mode                               | 17 |
|  |    |

## Basic

| Taking Pictures Using the Automatic Function |    |
|--|----|
| ( 🚯 : Intelligent Auto Mode)                 | 18 |
| Scene Detection                              |    |
| Motion Picture Mode                          | 20 |
| Playing Back Pictures ([NORMAL PLAY])        | 21 |
| Deleting Pictures                            | 21 |

## Others

| Reading the Operating Instructions (PDF format)    | 22 |
|--|----|
| Specifications                                     | 24 |
| Digital Camera Accessory System                    |    |
| Digital Camera Accessory Order Form                |    |
| Limited Warranty (ONLY FOR U.S.A. AND PUERTO RICO) |    |

# **Standard Accessories**

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

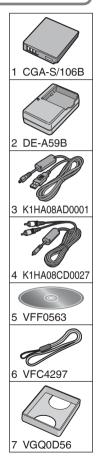
- 1 Battery Pack (Battery Pack is indicated as **battery pack** or **battery** in the text.) Charge the battery before use.
- 2 Battery Charger (Battery Charger is indicated as **battery charger** or **charger** in the text.)
- 3 USB Connection Cable
- 4 AV Cable
- 5 CD-ROM
  - Software:

Use it to install the software to your PC.

- Operating Instructions
- 6 Hand Strap
- 7 Battery Case
- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
- Card is optional.

You can record or play back pictures on the built-in memory when you are not using a card.

- For information about optional accessories, please refer to "Digital Camera Accessory System".
- If any of the accessories are lost, customers in the USA and Puerto Rico should contact Panasonic's parts department at 1 800 833-9626 for further information about obtaining replacement parts.



# Names of the Components

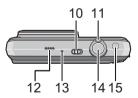
- 1 Flash
- 2 Lens
- 3 Self-timer indicator AF assist lamp



- 4 Touch Panel/LCD Monitor
- 5 [REC]/[PLAYBACK] selector switch
- 6 [MODE] button
- 7 [DISPLAY] button
- 8 [MENU] button
- 9 [Q.MENU]/Delete button



- 10 Camera ON/OFF switch
- 11 Zoom lever
- 12 Speaker
- 13 Microphone
- 14 Shutter button
- 15 Intelligent auto button



- 16 Hand strap eyelet
  - Be sure to attach the hand strap when using the camera to ensure that you will not drop it.
- 17 Lens barrel
- 18 [AV OUT/DIGITAL] socket
- 19 Tripod receptacle
  - When you use a tripod, make sure the tripod is stable when the camera is attached to it.
- 20 Card/Battery door
- 21 Release lever
- 22 DC coupler cover
  - When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC4; optional) and AC adaptor (DMW-AC5PP; optional) are used.

# How to Use the Touch Panel

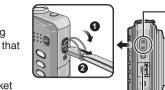
You can operate by directly touching the LCD Monitor (Touch Panel) with your finger.

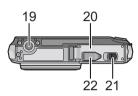
## Touch

To touch and release the Touch Panel. It is used to select icon or picture.

## Drag

A movement performed without releasing the Touch Panel. It is used to forward or rewind the image during playback.





16

17

18

# **Charging the Battery**

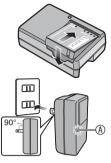
About batteries that you can use with this unit Supplied battery or dedicated optional batteries (DMW-BCF10PP) can be used with this camera.

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 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 before use.
- · Charge the battery with the charger indoors.
- Charge the battery in a temperature between 10 °C to 35 °C (50 °F to 95 °F). (The battery temperature should also be the same.)

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

• Charging starts when the [CHARGE] indicator (1) lights green.



# 2

# Detach the battery after charging is completed.

• Charging is complete when the [CHARGE] indicator (A) turns off.

#### Charging

|                | Supplied battery | Optional battery |  |
|----------------|------------------|------------------|--|
| Charging time* | Approx. 100 min  | Approx. 130 min  |  |

\* with the supplied charger

#### The battery life (By CIPA standard in Normal Picture Mode)

|                                  | Supplied battery     | Optional battery     |
|----------------------------------|----------------------|----------------------|
| Capacity                         | 740 mAh              | 940 mAh              |
| Number of<br>recordable pictures | Approx. 300 pictures | Approx. 380 pictures |
| Recording time                   | Approx. 150 min      | Approx. 190 min      |

#### Recording conditions by CIPA standard

- CIPA is an abbreviation of [Camera & Imaging Products Association].
- Temperature: 23 °C (73.4 °F)/Humidity: 50% 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 [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.

# 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 types of cards can be used with this unit. (These cards are indicated as **card** in the text.)

| Type of card                         | Remarks   |  |
|--------------------------------------|---|--|
| SD Memory Card (8 MB to 2 GB)        | in equipment that is compatible   |  |
| SDHC Memory Card<br>(4 GB to 32 GB)  | <ul> <li>with those cards.</li> <li>Before using SDXC Memory<br/>Cards, check your computer<br/>and other devices support this<br/>type of card.<br/><u>http://panasonic.net/avc/sdcard/</u><br/>information/SDXC.html</li> </ul> |  |
| SDXC Memory Card<br>(48 GB to 64 GB) |   |  |

- If you use cards between 4 GB and 32 GB capacity, confirm SDHC logo on the card (indicating compliance with the SD standard).
- If you use cards between 48 GB and 64 GB capacity, confirm SDXC logo on the card (indicating compliance with the SD standard).
- 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.
- 1

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

 Always use genuine Panasonic batteries (CGA-S/106B: supplied or DMW-BCF10PP: optional).



• If you use other batteries, we cannot guarantee the quality of this product.

Battery: Insert until it is locked by the lever (a) being careful about the direction you insert it. Pull the lever (a) 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.

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

- The card may be damaged if it is not fully inserted.
- 3
- •: Close the card/battery door.
- 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.



Turn the camera on.



Touch [CLOCK SET].





Touch  $[\Delta]/[\nabla]/[\triangleleft]/[\triangleright]$  for each item to set year, month, day, hour, minute, display sequence or time display format, and touch [SET].

in: Cancel without setting the clock.



Touch [SET] to set.

Changing the clock setting

Select [CLOCK SET] in the D [REC] or F [SETUP] menu.

• It can be changed in step 3 to set the clock.

# Setting the Menu

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

Example: Setting [AF MODE] from [ ] to [ ] in the Normal Picture Mode



## Press [MENU] to display the menu.





# Touch [AF MODE].

Touch [♥] to move to the second screen.

| S SENSITIVITY | E120 | 2/5 |
|---------------|------|-----|
| AF MODE       |      |     |
| MACRO MODE    | OFF  |     |
|               | EXIT | 1   |



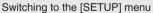
# Touch [ 🔛 ].

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





## Touch [EXIT] to close the menu.



# Touch the [SETUP] menu icon 🗲.



OFF ON

(A)

(B)

# Selecting the [REC] Mode



#### Intelligent Auto Mode (P18)

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

#### To select a [REC] Mode from the [REC] Modes list



## Turn the camera on.

[REC]/[PLAYBACK] selector switch
 [MODE] button



# Slide the [REC]/[PLAYBACK] selector switch to [



Press [MODE].



Touch the Mode.

### List of [REC] Modes

#### 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.

#### H Motion Picture Mode

This mode allows you to record motion pictures with audio.



# [REC] Mode: 👔

Taking Pictures Using the Automatic Function ( (A) : 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.

🖲 [ 🏠 ] button



Slide the [REC]/[PLAYBACK] selector switch to [ 1].





# Press [ 😰 ].

Hold the camera gently with both hands, keep your arms still at your side and stand with your feet slightly apart.



# 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 5 cm (0.17 feet) (Wide)/1.0 m (3.28 feet) (Tele) to  $\infty$ .



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 color changes to the usual red.

| (A) | $\rightarrow$ | [i-PORTRAIT] | <ul> <li>[i-NIGHT PORTRAIT]</li> <li>Only when [i\$A] is selected</li> </ul> |
|-----|---------------|--------------|--|
|     |               | [i-SCENERY]  | 🔀 [i-NIGHT SCENERY]  |
|     |               | 🔝 [i-MACRO]  | [i-SUNSET]   |

- [ 1] 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**



# Slide the [REC]/[PLAYBACK] selector switch to [ 1], and then press [MODE].



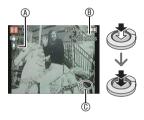
Touch [MOTION PICTURE].



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

Audio recording

• The available recording time is displayed on the top right and the elapsed recording time is displayed on the bottom right of the screen.



- · After pressing the shutter button fully, release it straight away.
- When the subject is focused, the focus indication lights.
- The focus and zoom are fixed to the setting when recording starts (the first frame).
- The audio is also recorded simultaneously from the built-in microphone on this unit. (Motion pictures cannot be recorded without audio.)



## Press the shutter button fully to stop recording.

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

[PLAYBACK] Mode: 🕨

Playing Back Pictures ([NORMAL PLAY])

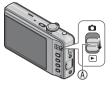


Slide the [REC]/[PLAYBACK] selector switch (8 to [ )].



Forward or rewind the image by dragging the screen horizontally. Forward: drag from left to right Rewind: drag from right to left







## [PLAYBACK] Mode: **•**

# **Deleting Pictures**

### Once deleted, pictures cannot be recovered.

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



# Select the picture to be deleted, and then press [ $\begin{bmatrix} m \\ m \end{bmatrix}$ ].



Touch [DELETE SINGLE].



Touch [YES].



# 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) recorded on the CD-ROM containing the Operating Instructions (supplied).

## [Windows]



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



Click the [Operating Instructions].



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







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.

#### [Macintosh]

| 18 | R | 5  | н   |  |
|----|---|----|-----|--|
|    |   | I. | Ш   |  |
| г  |   | L  | JI. |  |
|    |   |    |     |  |

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



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



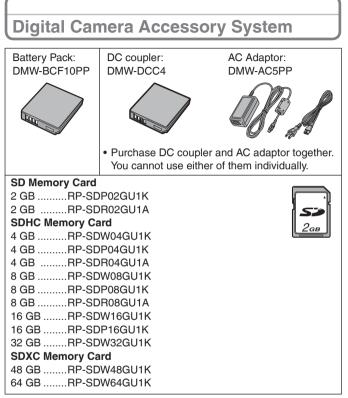
Double click the PDF file to open it.

# Specifications

| Digital Camera:                   | Information for your safety   |
|-----------------------------------|---|
| Power Source:                     | DC 5.1 V  |
| Power Consumption:                | 1.1 W (When recording)<br>0.6 W (When playing back)                           |
|                                   | ( 1, 3, 6, 7,   |
| Camera Effective pixels:          |   |
| Image sensor:                     | 1/2.33" CCD   |
| Total pixels:                     | 14,500,000 pixels   |
|                                   | Primary color filter  |
| Lens:                             | Optical 8 $\times$ zoom, f=5 to 40 mm [35 mm film                             |
|                                   | camera equivalent: 28 to 224 mm] / F3.3 to F5.9                               |
| Digital zoomu                     | F5.9<br>Max 4 ×   |
| Digital zoom:<br>Extended optical | Max. 4 ×  |
| zoom:                             | Max. 16.9 ×   |
| Focus:                            | Normal / AF macro / Macro zoom / Touch AF                                     |
| 100005.                           | area selection  |
|                                   | Face detection / 9-area-focusing / 1-area-                                    |
|                                   | focusing / Touched area (during Touch AF                                      |
|                                   | area selection)   |
| Focus range:                      | Normal :  |
|                                   | 50 cm (1.64 feet) (Wide) / 2 m (6.57 feet)                                    |
|                                   | (Tele) to $\infty$  |
|                                   | Macro / Intelligent auto:<br>5 cm (0.17 feet) (Wide) / 1 m (3.28 feet) (Tele) |
|                                   |   |
|                                   | Scene mode: settings may be different to                                      |
|                                   | those shown above   |
| Shutter system:                   | Electronic shutter+Mechanical shutter   |
| Burst recording                   |   |
| Burst speed:                      | Approx. 1.5 pictures/second   |
| Number of                         | -   |
| recordable                        |   |
| pictures:                         | Depends on the remaining capacity of the                                      |
|                                   | built-in memory or the card.  |

| Hi-speed burst           |   |
|--------------------------|---|
| Burst speed:             | Approx. 4.6 pictures/second   |
| Picture size:            | 3M (4:3), 2.5M (3:2) or 2M (16:9) is selected as the picture size.  |
| Number of<br>recordable  |   |
| pictures:                | Approx. 15 to 100   |
| Shutter speed:           | 8 seconds to 1/1,600th of a second<br>[STARRY SKY] mode:15 seconds, 30<br>seconds, 60 seconds   |
| Exposure (AE):           | Auto (Program AE)<br>Exposure compensation (1/3 EV Step, -2 EV<br>to +2 EV)   |
| Metering mode:           | Multiple  |
| LCD monitor:             | TFT LCD 3.0" (Approx. 230,400 dots) (field of view ratio about 100%)  |
| Flash:                   | Flash range:<br>Approx. 0.6 m (1.97 feet) to 5.8 m (19.03 feet)<br>(Wide [] so])<br>AUTO, AUTO / Red-eye reduction, Forced ON<br>(Forced ON / Red-eye reduction), Slow sync. /<br>Red-eye reduction, Forced OFF |
| Microphone:              | Monaural  |
| Speaker:                 | Monaural  |
| Recording media:         | Built-in Memory (Approx. 40 MB) / SD<br>Memory Card / SDHC Memory Card / SDXC<br>Memory Card  |
| Recording file format    |   |
| Still Picture:           | JPEG (based on "Design rule for Camera File system", based on "Exif 2.21" standard)/DPOF corresponding  |
| Motion pictures:         | "QuickTime Motion JPEG" (motion pictures with audio)  |
| Interface<br>Digital:    | USB 2.0 (Full Speed)  |
| Analog video /<br>audio: | NTSC / Audio line output (monaural)   |

| Terminal<br>AV OUT/DIGITAL:<br>Dimensions:<br>Mass (Weight): | Dedicated jack (8 pin)<br>Approx. 100.0 mm (W) $\times$ 56.5 mm (H) $\times$<br>27.2 mm (D)<br>(3.9" (W) $\times$ 2.3" (H) $\times$ 1.1" (D))<br>(excluding the projection part)<br>Approx. 162 g/0.36 lb<br>(with Memory Card and battery)<br>Approx. 140 g/0.31 lb<br>(excluding Memory Card and battery) |
|--|---|
| Operating<br>Temperature:                                    | 0 °C to 40 °C (32 °F to 104 °F)   |
| Operating Humidity:  | . ,   |
|  |   |
| Battery Charger<br>(Panasonic<br>DE-A59B):                   | Information for your safety   |
| Input:   | 110 V to 240 V $\sim$ 50/60 Hz, 0.2 A   |
| Output:  | 4.2 V === 0.65 A (Battery charging)   |
| Equipment mobility:  | Movable   |
| Battery Pack<br>(lithium-ion)<br>(Panasonic<br>CGA-S/106B):  | Information for your safety   |
| Voltage/capacity<br>(Minimum):                               | 3.6 V/740 mAh   |



- Product numbers are correct as of January 2010. These may be subject to change.
- NOTE: Accessories and/or model numbers may vary by country. Please 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 |  |
|--------------------------|-------------|------------|----------|-------------|--|
|                          |             |            |          |             |  |
|                          |             |            |          |             |  |
|                          |             |            |          |             |  |
|                          |             |            |          |             |  |
|                          |             |            |          |             |  |
|                          |             |            |          |             |  |
| 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. Shipp<br>Ship<br>Mr.<br>Mrs.<br>Ms. | To:       | ation (UPS delivery                  | requires | complet | te street | addre | iss) |            |      |
|--|-----------|--------------------------------------|----------|---------|-----------|-------|------|------------|------|
|  | First     | Last                                 |          |         |           | Phone | #:   |            |      |
|  |           |                                      |          |         | I         | Day   | (    | )          |      |
|  | Street Ad | dress                                |          |         |           |       |      |            |      |
|  |           |                                      |          |         | I         | Night | (    | )          |      |
|  | City      |                                      | State    | Zip     |           |       |      |            |      |
| TO OB1                                 | TAIN ANY  | OF OUR DIGITAL<br>TH<br>VISIT YOUR L | HE FOLL  | OWING   | G:        |       |      | CAN DO ANY | ' OF |
|  |           | VISIT YOUR L                         |          |         |           |       | ٦    |            |      |
|  | CALL PAL  | NASONIC'S ACCE                       |          |         |           | AT 1- | 800  | -332-5368  |      |
|  |           | [6 AM-6 I                            | PM M-F.  | PACIFI  | IC TIME   | E]    |      |            |      |
|  |           |                                      | O        | R       |           | -     |      |            |      |
| MAIL                                   | THIS OR   | DER TO: PANASO                       | NIC SE   | RVICE   | AND TE    | ECHN  | OLC  | OGY COMPAN | Y    |
|  |           | ACCESS                               | SORY O   | RDER (  | OFFICE    | -     |      |            |      |

20421 84th Avenue South Kent, WA. 98032

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

#### 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<br>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

When shipping the unit, carefully pack, include all accessories, and send it prepaid, adequately insured and preferably in the original carton. If Lithium Ion batteries are shipped by air the package must be labeled "Contains Lithium Ion Battery (No lithium metal)". Damaged batteries are prohibited from shipment by US Mail. Batteries must be securely packed in a manner to prevent short-circuiting and a package cannot contain more than 3 Lithium Ion batteries. 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: <u>http://www.panasonic.com/help</u>

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: <u>http://www.pstc.panasonic.com</u> Or, send your request by E-mail to: <u>npcparts@us.panasonic.com</u> 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 November 2009

- SDXC Logo is a trademark of SD-3C, LLC.
- QuickTime and the QuickTime logo are trademarks or registered trademarks of Apple Inc., used under license therefrom.
- Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.



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

© Panasonic Corporation 2010

Printed in China