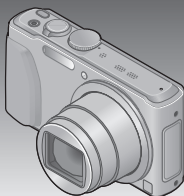


Panasonic®

Basic Owner's Manual Digital Camera

Model No. **DMC-ZS30**

LUMIX



Please read these instructions carefully before using this product, and save this manual for future use.



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



Register online at www.panasonic.com/register (U.S. customers only)

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>



QVT4S89
M0113KZ0

**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 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.

Date of Purchase	Dealer Phone No.
Dealer Purchased From	Model No.
Dealer Address	Serial No.

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.



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.

■ **Product identification marking**

Product	Location
Digital camera	Bottom

WARNING:

To reduce the risk of fire, electric shock or product damage,

- Do not expose this unit to rain, moisture, dripping or splashing.
- Use only the recommended accessories.
- Do not remove covers.
- Do not repair this unit by yourself. Refer servicing to qualified service personnel.

■ 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 type recommended by the manufacturer.
- When disposing the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.

- Do not heat or expose to flame.
- Do not leave the battery(ies) in a car 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.

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-ZS30

Responsible Party: Panasonic Corporation
of North America

One Panasonic Way,
Secaucus, NJ 07094

Support Contact: Panasonic Consumer
Marketing Company of
North America

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.

 **Panasonic**
DMC-ZS30

■ About the AC adaptor (supplied)

CAUTION!

To reduce the risk of fire, electric shock or product damage,

- Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure this unit is well ventilated.

AC adaptor

This AC adaptor operates on AC between 110V and 240V.

But

- In the U.S.A. and Canada, the AC adaptor 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

- Do not use any other USB connection cables except the supplied one or a genuine Panasonic USB connection cable (DMW-USBC1: optional).
- Always use a genuine Panasonic HDMI micro cable (RP-CHEU15: optional). Part number: RP-CHEU15 (1.5 m) (4.9 feet)
- Always use a genuine Panasonic AV cable (DMW-AVC1: 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 (supplied)/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.

Certification and Compliance

See Camera for the certification and compliance mark specific to that device.

- 1 Select **[Wi-Fi Setup]** in the **[Wi-Fi]** menu
- 2 Press **▲ ▼** to select **[Approved Regulations]**, and press **[MENU/SET]**

Contains FCC ID: VPYLBXN604

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

This product is licensed under the AVC patent portfolio license for the personal and non-commercial 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>.

Contents

Information for Your Safety 2	GPS and map functions 22
Before use 8	Recording/viewing pictures
Standard accessories 9	with a smartphone/tablet 26
Names and Functions of	Reading the Owner's Manual
Main Parts 10	(PDF format)..... 31
Touch operations..... 12	Supplied software..... 32
Inserting and removing the	Specifications 33
battery or SD memory card	Digital Camera Accessory
(optional) 14	System..... 36
Charging the battery 15	Digital Camera Accessory
Setting the clock..... 16	Order Form..... 37
Setting the menu 18	Limited Warranty
Taking pictures 19	(ONLY FOR U.S.A. AND
Recording motion pictures... 20	PUERTO RICO) 38
Viewing your pictures 21	
Deleting pictures 21	

Before use

■ Camera handling

- Keep the camera away from excessive vibration, force, or pressure.
- The camera is not dust resistant, splash resistant, or waterproof. Avoid using the camera in places with excessive dust or sand, or where water can come into contact with the camera.

■ Condensation (When the lens or the LCD monitor is fogged up)

- Condensation may occur when the camera is exposed to sudden changes of temperature or humidity. Avoid these conditions, which may make the lens or LCD monitor dirty, cause mold, or damage the camera.
- If condensation does occur, turn off the camera and wait about two hours before using it. Once the camera adjusts to the surrounding temperature, the fogging will clear naturally.






About the compass

■ Information measured with this unit is simply a rough estimate.

- Please do not use for professional applications.
- When using this unit for mountain climbing, trekking, or underwater, in addition to using the measured direction as a rough estimate, please make sure to bring along a map and a dedicated measuring instrument.

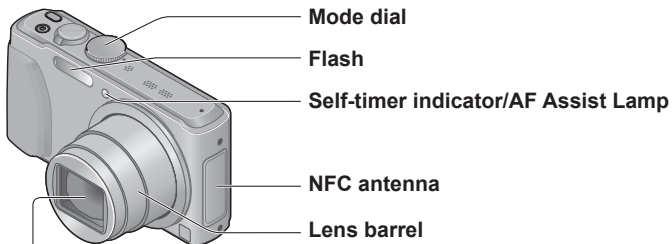
Standard accessories

Check that all the accessories are supplied before using the camera. Part numbers are as of January 2013. These may be subject to change.

<input type="checkbox"/> Battery pack DMW-BCM13PP • Charge the battery before use. Battery pack is indicated as battery pack or battery in the text. 	<input type="checkbox"/> DVD VFF1146 • Software: Use it to install the software on your PC. • Map data • Owner's Manual for advanced features DVD is indicated as disc in the text. 
<input type="checkbox"/> AC adaptor VSK0768 	
<input type="checkbox"/> Hand strap VFC4297 	
<input type="checkbox"/> USB connection cable K1HY08YY0031 	

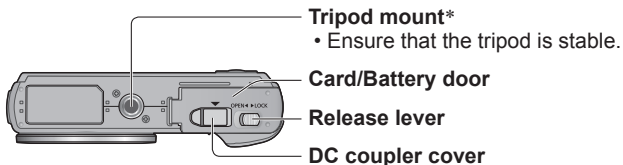
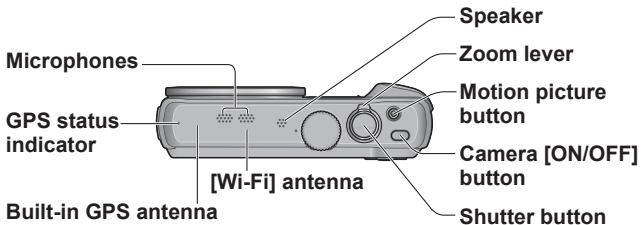
- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as card in the text.
- **Cards are optional.** You can record or play back pictures on the built-in memory when you are not using a card.
- For information about optional accessories, refer to the “Digital Camera Accessory System”.
- 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.
- The illustrations and screens in this manual may differ from the actual product.

Names and Functions of Main Parts



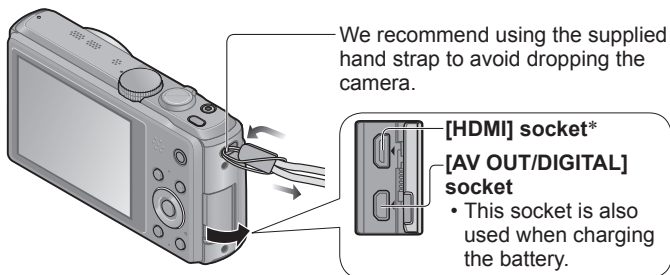
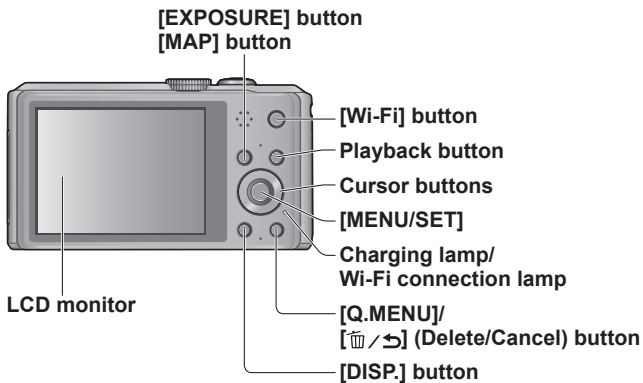
Lens

- Do not touch the lens barrier.



* Do not attach to a tripod with a 5.5 mm (0.22 inch) or longer screw. Doing so may damage this unit.

- Always use a genuine Panasonic AC adaptor (DMW-AC5PP: optional).
- When using an AC adaptor, ensure that the Panasonic DC coupler (DMW-DCC14: optional) and AC adaptor (DMW-AC5PP: optional) are used.



* Do not connect any other cables except the HDMI micro cable (RP-CHEU15: optional). Doing so may cause malfunction.

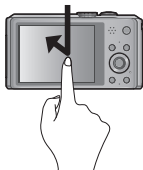
Touch operations

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

Touch

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

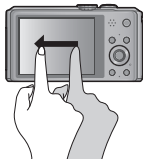
Touching is used to select icons or pictures, among other actions.



Drag

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

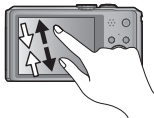
Dragging (sliding your finger across the screen) is used to scroll the pictures or change the range of the pictures displayed.



Pinch (spread/pinch)

On the touch panel, spread (pinch out) your 2 fingers to zoom in, and pinch (pinch in) your 2 fingers to zoom out. You use it when zooming in/out of playback pictures etc.

- You can also zoom in by quickly touching the touch screen twice. (If the display was enlarged, it returns to the same magnification ratio.)

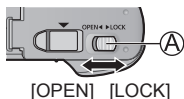


- If the type of sheet made to protect LCD screens that are available in the market is to be used, observe the precautions that are contained with the sheet. (Some types of protective sheets may impair the screen's appearance and ease of operation.)
- If the camera is used with a protective sheet available 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 screen when holding the camera, the touch screen will not work properly.
- Do not press on the LCD monitor with hard pointed tips, such as ballpoint pens.
- Do not press the touch screen with your fingernails.
- Clean the LCD monitor with a soft, dry cloth if there are fingerprints or other kinds of dirt on it.

Inserting and removing the battery or SD memory card (optional)

Make sure that the camera is turned off.

- 1 Slide the release lever (A) to the [OPEN] position and open the card/battery door**



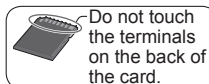
- 2 Insert the battery and card, making sure that their orientation is correct**

- Battery: Insert the battery all the way firmly and check that it is locked by lever (B).
- Card: Insert the card all the way firmly until it clicks.



- 3 Close the door**

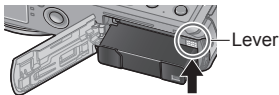
Slide the release lever to the [LOCK] position.



■ To remove

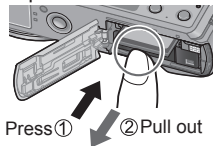
• To remove battery:

Move lever in direction of arrow.



• To remove card:

Push the card until it clicks, then pull the card out.



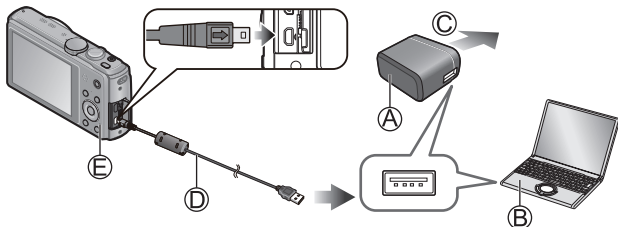
- Always use genuine Panasonic batteries (DMW-BCM13PP).
- If you use other batteries, we cannot guarantee the quality of this product.
- Keep the Memory Card out of reach of children to prevent swallowing.
- We recommend using a Panasonic card.

Charging the battery

- The battery that can be used with this unit is DMW-BCM13PP.
- The battery is not charged when the camera is shipped. Charge the battery before use.
- Charge the battery with the AC adaptor (supplied) indoors (10 °C to 30 °C (50 °F to 86 °F)).

Make sure that the camera is turned off.

- 1** Insert the battery to this unit, and then connect this unit to the AC adaptor (A) (supplied) or a PC (B)



- © To the electrical outlet
- © USB connection cable (supplied)

■ Charging lamp (E)

On: Charging in progress (approx. 210 min. if fully depleted)

Off: Charging stops

When using the AC adaptor (supplied), observe the following points as improper connections may cause malfunctions.

- Do not use any other USB connection cables except the supplied one or a genuine Panasonic USB connection cable (DMW-USBC1: optional).
- Do not use any other AC adaptors except the supplied one.
- Do not use the AC adaptor (supplied) or the USB connection cable (supplied) with other devices.

Setting the clock

The clock is not set when the camera is shipped.
Disconnect the unit from the AC adaptor (supplied).

1 Press the Camera [ON/OFF] button (A)

2 Press [MENU/SET] (B)

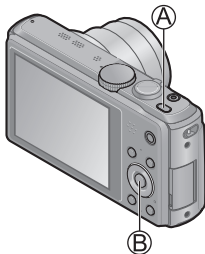
3 Press ◀▶ to select the items (year, month, day, hour, minute, display order or time display format), and press ▲▼ to set

4 Press [MENU/SET] to set
• To cancel → Press [⏪/⏩] button.

5 Confirm the setting and press [MENU/SET]
• To return to the previous screen, press [⏪/⏩] button.

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].
- When you select automatic time adjustment using the GPS function, [GPS Setting] is set to [ON].



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.



■ Changing time settings

Select [Clock Set] from [Rec] or [Setup] menu, perform **3** and **4**. Please see the next page on how to set the menu.

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

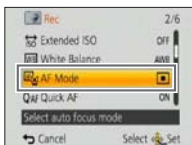
Use cursor button to select [Rec] and press [MENU/SET]

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



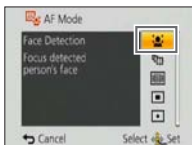
2 Press ▲▼ to select [AF Mode] and then press [MENU/SET]

- 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 [] button several times to close the menu



Taking pictures

- 1 Press the Camera [ON/OFF] button (A)
- 2 Set to the desired recording mode (B)



■Recording mode

iA	Take pictures with automatic settings.
P	Take pictures with automatic shutter speed and aperture value settings.
A	Determine aperture, then record pictures.
S	Determine shutter speed, then record pictures.
M	Determine aperture and shutter speed, then record pictures.
C1 C2	Record pictures using pre-registered settings.
	Record panorama pictures.
SCN	Take pictures using Scene modes.
	Take pictures by selecting your preferred picture effect.

3 Take a picture



Press halfway
(press lightly and focus)



Press fully
(press the button
all the way to record)

Recording motion pictures


You can record motion pictures with audio (stereo). Zoom can also be used during recording.

- 1 Press the motion picture button (A) to start recording**
- 2 Press the motion picture button (A) again to end recording**



Remaining recording time (approx.)

Elapsed recording time

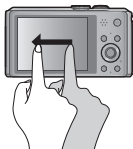
- Immediately release the motion picture button after pressing it all the way.
- You can continuously record a motion picture in [MP4] for up to 29 minutes 59 seconds or approx. 4 GB. (Since recording in [MP4] with [FHD/30p] creates larger files, the recording time for such motion pictures will be shorter than 29 minutes 59 seconds.)
- If [Rec Quality] of [AVCHD] motion pictures is set to [FHD], you can continuously record a motion picture for up to 29 minutes 59 seconds.
- **If the surrounding temperature is high, or a motion picture is recorded continuously,  is displayed and recording may be stopped halfway through to protect the camera.**
- Motion pictures cannot be recorded in the built-in memory.


Viewing your pictures

1 Press the Playback button (A)



2 Drag your finger across the screen, and select the picture to be played back



- By holding down the Playback button while the camera is off, you can turn the camera on in Playback Mode.
- To play back a motion picture, touch  after selecting a picture.
- To switch to Recording Mode, press the playback button again or press the shutter button halfway during playback.

Deleting pictures

Deleted pictures cannot be recovered.

1 Press [trash/undo] button (A) to delete the displayed picture



2 Press ◀ to select [Yes] and then press [MENU/SET] (B)

GPS and map functions

Before using the camera, be sure to read “License Agreement for Place Name and Map Data” (Owner’s Manual for advanced features).

This camera can record the location information of a place where a picture was taken on the pictures.

The camera can also automatically adjust the time or display a place where a picture was taken on a map during playback.

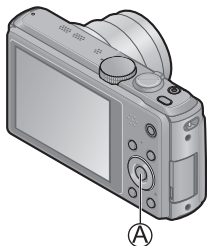
Your Panasonic Lumix digital still camera is GPS-equipped which can automatically record the precise location coordinates of where the photo was taken. The specific physical address of this location can easily be derived from this information.

If you upload such “geotagged” photos to the Internet, a social networking site or any other electronic media, the precise location of where the photo was taken will remain embedded in the photo and can be viewed by others.

Therefore, when taking digital still photos, care should be taken in determining whether you wish to have the GPS feature enabled or disabled.

Using the GPS function to execute positioning

- 1** Press [MENU/SET] (A)
- 2** Press ▲ ▼ ◀ ▶ to select [GPS] menu and press [MENU/SET]
- 3** Press ▲ ▼ to select [GPS Setting] and press [MENU/SET]
- 4** Press ▲ ▼ to select [ON] and press [MENU/SET]
 - A message appears on the screen. After confirming the message, press [MENU/SET].



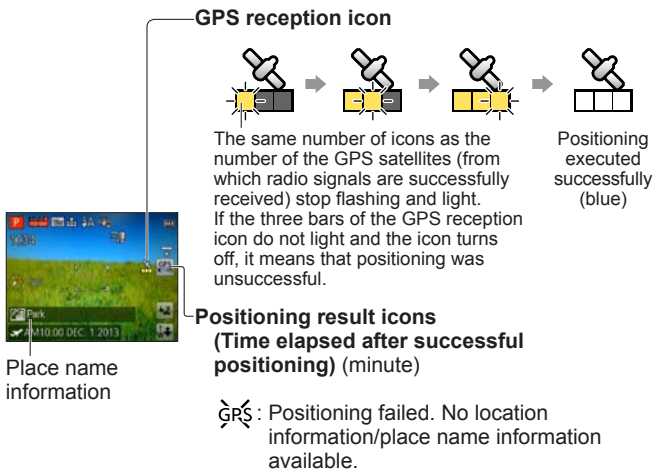
■ When [GPS Setting] is [ON], the GPS function works even if the camera is turned off.

- Electromagnetic waves from the camera can affect instruments and meters. During takeoff and landing of airplanes or in other restricted areas, set [Airplane Mode] to [ON] and turn off the camera.
- When [GPS Setting] is [ON] and [Airplane Mode] is [OFF], power will drain from the battery even if the camera is turned OFF.

GPS and map functions

■ Displaying the status and result of positioning

The icons that indicate the status and result of positioning will appear on the LCD monitor. When positioning is successful, camera will search the place name information (name of place and landmark) inside its internal database and display it.



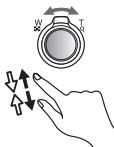
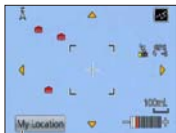
- Positioning will take time in environments where it is difficult to receive the signals from the GPS satellites. For details, refer to “Using the GPS function to record the location of a picture” (Owner’s Manual for advanced features).
- Even if GPS reception is good, it will take approx. 2 to 3 minutes to successfully execute positioning under the following conditions;
 - When positioning is executed for the first time
 - When [GPS Setting] was set to [OFF]
 - When [Airplane Mode] was set to [ON] and the camera was turned off
 - When the battery was removed

Confirming the place where you took a picture using a map

You can display a map showing the location where a picture was taken or your current location.

- If you copy the map data stored on the supplied DVD to a memory card, you can display more detailed maps. For details, refer to “Using the map data on the disc (supplied)” (Owner’s Manual for advanced features).

1 Press [MAP] button (A) in playback mode

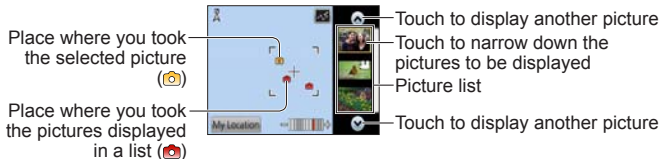


Touch the screen to display the current location (if positioning is currently available)

- As with zooming in/out of pictures, you can also zoom in/out of the map by operating the zoom lever or by using the pinch function.
- You can drag the screen or press the cursor button to operate the display location of a map.
- When you press the [⏪/⏩] button, it will return to the previous display.

■ Displaying the recording location

- When you press the [DISP.] button, the pictures that were recorded nearby will be displayed in a list.



Recording/viewing pictures with a smartphone/tablet

You can use the Wi-Fi function to connect to another device through wireless LAN (a system that exchanges information with radio waves without using cables), record pictures from an away location, and transfer pictures saved in this unit to a TV or PC.

This section describes how to make a Wi-Fi connection between this unit and a smartphone/tablet to record pictures using the smartphone/tablet and to transfer pictures to the smartphone/tablet.

Installing “Image App”

If you install “Image App” to your smartphone/tablet, you can operate this unit from an away location to record or play back pictures.

The “Panasonic Image App” is an application provided by Panasonic that allows your smartphone/tablet to perform the following operations of a Wi-Fi-compatible LUMIX. (“Panasonic Image App” is indicated as “Image App” in the text.)

■ Version

1.2 or above

■ Supported OS

Android 2.2 - Android 4.2

iOS 4.3 - iOS 6.0

■ Installation procedure

Connect your smartphone/tablet to the Internet, and please install “Image App” from the following site.

- “Google Play™ Store” (for Android)
- “App StoreSM” (for iOS)
- When downloading the app on a mobile network, high packet communication fees may be incurred depending on the details of your contract.
- To connect this unit with [Wi-Fi Direct], Android OS 4.0 or above is required and the device must be compatible with Wi-Fi Direct.
- The service may not be able to be used properly depending on the type of smartphone/tablet being used. For compatible devices, see the following support site.
<http://panasonic.jp/support/global/cs/dsc/>
(This site is available in English only.)

Easily connect to a smartphone/tablet

Use the NFC (Near Field Communication) function to easily connect this unit to a smartphone/tablet with Wi-Fi for remote recording and to send pictures to the smartphone/tablet.

- This function can be used with NFC compatible devices with Android (2.3.3 or above). (Not available in certain models)

■Preparation on the smartphone/tablet side

- Install “Image App” in advance
- Set Wi-Fi function to “ON”
(For information on how to adjust settings, please read the manual for your smartphone/tablet)

When manually connecting without the NFC function

■Operating this unit

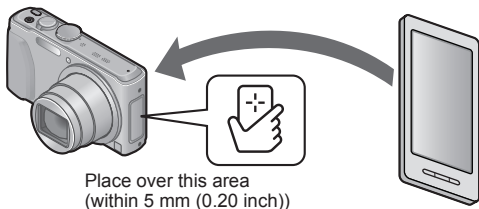
- ① Press the [Wi-Fi] button
- ② Press ▲▼◀▶ to select [New Connection] and press [MENU/SET]
- ③ Press ▲▼ to select [Remote Shooting] and press [MENU/SET]

■On your smartphone/tablet

- ④ Select the SSID displayed on the camera, and enter the password
 - The SSID displayed differs depending on the connection method.
 - To connect [Via Network], select a wireless access point and adjust the settings.
- ⑤ Start up “Image App”
 - When the connection is complete, live images captured by the camera will be displayed on the “Image App” screen.

Connecting to a smartphone/tablet

- 1 Start up “Image App” on your smartphone/tablet**
- 2 Place your smartphone/tablet to the side of this unit**



Place the NFC area of your smartphone/tablet over the part of this unit as shown in the figure below.

- Do not bump your smartphone/tablet strongly against this unit. (The smartphone/tablet or this unit may get scratched)
- For information on how to use NFC compatible devices, please contact the device manufacturer.
- If there is no immediate reaction, slightly move the position where the smartphone/tablet was placed.

- 3 Press ◀▶ to select [Yes] and press [MENU/SET]**
- 4 Place your smartphone/tablet over this area of the unit again**

- When the connection is complete, live images captured by the camera will be displayed on your smartphone/tablet.
- Connected smartphone/tablet is registered to this unit. From the next time and on, you can connect by performing steps **1** and **2**.

Taking pictures via a smartphone/tablet (remote recording)

1 Select [👤📷] on a smartphone/tablet



- The recorded images are saved in the camera.
 - Some settings are not available.
 - The screen differs depending on the operating system.
- Cannot be set for recording AVCHD motion pictures at [60p] in [FHD].
 - If the internal camera temperature rises because the surrounding temperature is high or a motion picture is recorded continuously, recording may be stopped halfway through to protect the camera. Also, the picture quality setting change message may be displayed when the recording starts.

Playing back pictures in the camera

1 Select [📷▶] on a smartphone/tablet

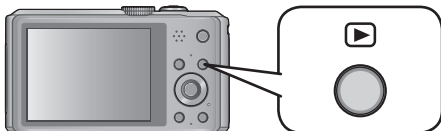


- You can save pictures on the smartphone/tablet.
 - You can send pictures to a WEB service, etc.
 - The screen differs depending on the operating system.
- You cannot play back motion pictures stored in the camera. Save the motion picture on your smartphone/tablet, and then playback.

Transferring a still picture easily to your smartphone/tablet

When transferring just 1 still picture to your smartphone/tablet with “Image App” installed, you can use the NFC function to easily send the picture.

- 1 Start up “Image App” on your smartphone/tablet**
- 2 Display the still picture to be transferred to your smartphone/tablet on the 1-picture screen (full screen)**



- 3 Place your smartphone/tablet to the side of this unit**

The still picture displayed on this unit is transferred to your smartphone/tablet.

- It may take several minutes to complete the picture transfer depending on the environment used.

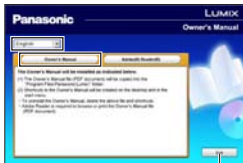
Reading the Owner's Manual (PDF format)

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

To read the supplied DVD, use a DVD drive with single-sided dual layer support.

■ For Windows

- 1 Turn the PC on and insert the disc 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.
- 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).

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

Supplied software

The supplied disc contains the following software.
Install the software on your computer to use.

PHOTOfunSTUDIO 9.1 PE	Pictures can be captured to a PC, and can be viewed, organized, printed, etc. Also, still pictures can be corrected and motion pictures can be edited. • Compatible OS: Windows 8 / 7 / Vista / XP
LUMIX Map Tool 1.1	The map data recorded on the DVD (supplied) can be copied to your card. • Compatible OS: Windows 8 / 7 / Vista / XP Mac OS X v10.4 / v10.5 / v10.6 / v10.7 / v10.8
LoiLoScope (30-day full-trial version)	You can edit motion pictures easily. This will only install a shortcut to the trial version download site. For details about using LoiLoScope, please download and see the manual from the following site. http://loilo.tv/product/20/ • Compatible OS: Windows 8 / 7 / Vista / XP

For details about operating environment and usage, please read “Owner’s Manual for advanced features” (PDF format) or the manuals for each software.

- PHOTOfunSTUDIO / LoiLoScope are not compatible with Mac.

Installing supplied software

Preparations:

- Check the environment of your PC.
- Before inserting the disc, close all running applications.

Insert the supplied disc in the computer drive and then install the software.

■ For Windows

Click on the [Applications] on the install menu

■ For Mac (LUMIX Map Tool)

Double-click the [LUMIX Map Tool.pkg] within [Application] - [MAPTOOL] of the DVD (supplied)

Specifications

Specifications are subject to change without notice.

Digital Camera: Information for your safety

Power Source	DC 5.1 V
Power Consumption	When recording: 1.7 W When playing back: 1.1 W
Camera effective pixels	18,100,000 pixels
Image sensor	1/2.3" MOS sensor, total pixel number 18,900,000 pixels Primary color filter
Lens [NANO SURFACE COATING]	Optical 20 x zoom f=4.3 mm to 86.0 mm (35 mm film camera equivalent: 24 mm to 480 mm) / F3.3 (Max. Wide) to F6.4 (Max. Tele)
Image Stabilizer	Optical method
Focus range	
P / A / S / M	50 cm (1.6 feet) (Max. Wide) / 2 m (6.6 feet) (Max. Tele) to ∞
Macro / Intelligent Auto / Motion picture	3 cm (0.098 feet) (Max. Wide) / 1 m (3.3 feet) (Max. Tele) to ∞ (5 × to 7 × is 2 m (6.6 feet) to ∞)
Scene Mode	The focus ranges listed above may vary depending on the selected Scene Mode.
Shutter system	Electronic shutter + Mechanical shutter
Minimum Illumination	Approx. 10 lx (when i-Low light is used, the shutter speed is 1/30th of a second)
Shutter speed	4 seconds to 1/2000th of a second [Starry Sky] Mode: 15 seconds, 30 seconds
Exposure (AE)	Program AE (P) / Aperture-priority AE (A) / Shutter-priority AE (S) / Manual exposure (M)
Metering Mode	[Multi Metering] / [Center Weighted] / [Spot]

Specifications

LCD monitor	3.0" TFT LCD (4:3) (Approx. 921,600 dots) (field of view ratio about 100%) / Touch screen
Microphones	Stereo
Speaker	Monaural
Recording media	Built-in Memory (Approx. 12 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) / MPO
Motion pictures	AVCHD / MP4
Audio compression format	AVCHD: Dolby® Digital (2 ch) MP4: AAC (2 ch)
Interface	
Digital	USB 2.0 (High Speed)
Analog video	NTSC Composite
Audio	Audio line output (Monaural)
Terminal	HDMI: MicroHDMI TypeD AV OUT/DIGITAL: Dedicated jack (8 pin)
Dimensions	Approx. 108.3 mm (W) x 58.9 mm (H) x 27.7 mm (D) [4.26" (W) x 2.32" (H) x 1.09" (D)] (excluding the projection part)
Mass (Weight)	With card and battery: Approx. 198 g (0.437 lb) Excluding card and battery: Approx. 172 g (0.379 lb)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Operating humidity	10%RH to 80%RH
Language select	[ENGLISH] / [ESPAÑOL]

Wireless transmitter

Compliance standard	IEEE 802.11b/g/n (standard wireless LAN protocol)
Frequency range used (central frequency)	2412 MHz to 2462 MHz (1 - 11ch)
Encryption method	Wi-Fi compliant WPA™ / WPA2™
Access method	Infrastructure mode

AC adaptor

(Panasonic VSK0768): Information for your safety

Input	~ 110 V to 240 V, 50/60 Hz, 0.2 A
Output	== 5 V, 800 mA

Battery pack (lithium-ion)

(Panasonic DMW-BCM13PP): Information for your safety

Voltage / capacity	3.6 V / 1250 mAh
---------------------------	------------------

Digital Camera Accessory System

Description	Accessory#
Battery pack*1	DMW-BCM13
DC coupler*2	DMW-DCC14
AC adaptor*2*3	DMW-AC5
Marine case*4	DMW-MCTZ40
USB connection cable	DMW-USBC1
AV cable	DMW-AVC1
HDMI micro cable	RP-CHEU15

*1 The battery pack can be charged from the camera using the AC adaptor (supplied).

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

*3 This AC adaptor (optional) cannot be used to charge the battery pack. Use supplied AC adaptor to charge the battery pack.

*4 NFC functions cannot be used while using a marine case.

- Product numbers are correct as of January 2013. 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
Shipping & Handling				\$6.95
Subtotal				
Your State & Local Sales Tax				
Total				

3. Method of payment (check one)

American Express

VISA

MasterCard

Discover

Credit Card # _____

Expiration Date _____

Customer Signature _____

(Please do not send cash)

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

Ship To:

Mr.

Mrs.

Ms.

First

Last

Phone#:

Day () _____

Street Address

Night () _____

City

State

Zip

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 NATIONAL PARTS CENTER

20421 84th Ave S., Kent, WA 98032

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

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

Panasonic 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 Marketing Company of North America (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 Camera	1 Year	1 Year
All included Accessories (Except Non-Rechargeable Batteries)	90 Days	Not Applicable
Only Non-Rechargeable Batteries	10 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

Online Repair Request

To submit a new repair request and for quick repair status visit our Web Site at www.panasonic.com/repair.

When shipping the unit, carefully pack, include all supplied accessories listed in the Owner's Manual, and send it prepaid, adequately insured and packed well in a carton box. When shipping Lithium Ion batteries please visit our Web Site at 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

You may also contact us directly at:

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

(Monday-Friday 9am-9pm EST)

Panasonic National Parts Center

20421 84th Ave S., Kent, WA 98032

(We accept Visa, MasterCard, Discover Card, American Express)

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

As of October 2012

AVCHD™
Progressive



- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- HDAVI Control™ is a trademark of Panasonic Corporation.
- “AVCHD”, “AVCHD Progressive” and the “AVCHD Progressive” logo are trademarks of Panasonic Corporation and Sony Corporation.
- Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- 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.
- Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Mac and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries.

This product incorporates the following software:

- (1) the software developed independently by or for Panasonic Corporation,
- (2) the software owned by third party and licensed to Panasonic Corporation and/or,
- (3) open sourced software including the software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>), and the software written by Eric Young (eyay@cryptsoft.com).

For the software categorized as (1) and (2), please view the information by pressing [MENU/SET], displaying [Setup] → [Version Disp.], and then pressing [MENU/SET]. For the software categorized as (3), please refer to the applicable license terms in the following “Owner’s Manual for advanced features (PDF format)”.

- App Store is a service mark of Apple Inc.
- Android and Google Play are trademarks or registered trademarks of Google Inc.
- The Wi-Fi CERTIFIED Logo is a certification mark of the Wi-Fi Alliance.
- The Wi-Fi Protected Setup Mark is a mark of the Wi-Fi Alliance.
- “Wi-Fi”, “Wi-Fi Protected Setup”, “Wi-Fi Direct”, “WPA” and “WPA2” are marks or registered marks of the Wi-Fi Alliance.
- DLNA, the DLNA Logo and DLNA CERTIFIED are trademarks, service marks, or certification marks of the Digital Living Network Alliance.
- This product uses “DynaFont” from DynaComware Corporation. DynaFont is a registered trademark of DynaComware Taiwan Inc.
- Other names, company names, and product names mentioned in these instructions are trademarks or registered trademarks of the companies concerned.

-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 Marketing Company of North America,
Division of Panasonic Corporation of North America**

One Panasonic Way, Secaucus, NJ 07094

© Panasonic Corporation 2013

Printed in Japan