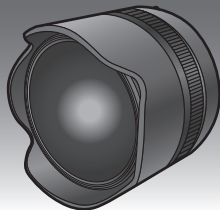


# Panasonic<sup>®</sup>

## Operating Instructions INTERCHANGEABLE LENS FOR DIGITAL CAMERA

Model No. **H-F008**

LUMIX



Before use, please read these instructions completely.



E

VQT2W39

## Contents

Information for Your Safety .....	2
Precautions .....	5
Supplied Accessories .....	6
Attaching/Detaching the Lens .....	6
To use commercially available filters .....	8
Names and Functions of Components .....	9
Cautions for Use .....	9
Troubleshooting .....	10
Specifications .....	11

## Information for Your Safety

---

**Keep the unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games, radio transmitters, high-voltage lines etc.).**

- Do not use the camera near cell phones because doing so may result in noise adversely affecting 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 and/or the connected AC adaptor. Then reinsert the battery and/or reconnect the AC adaptor and turn the camera on.

The lens can be used with a digital camera compatible with the lens mount standard for the “Micro Four Thirds™ System”.

- It cannot be mounted on the Four Thirds™ mount specification camera.
- The digital camera illustrations in these operating instructions show DMC-G2 as an example.
- The appearance and specifications of products described in this manual may differ from the actual products you have purchased due to later enhancements.
- Four Thirds™ and Four Thirds Logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.
- Micro Four Thirds™ and Micro Four Thirds Logo marks are trademarks or registered trademarks of Olympus Imaging Corporation, in Japan, the United States, the European Union and other countries.
- G MICRO SYSTEM is a lens exchange type digital camera system of LUMIX based on a Micro Four Thirds System standard.

- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.

-If you see this symbol-

### **Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)**



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

### **For business users in the European Union**

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

### **Information on Disposal in other Countries outside the European Union**

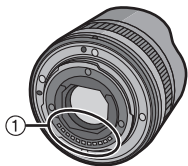
This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

## Precautions

### ■ Lens Care

- Sand and dust can damage the lens. Make sure that no sand or dust gets inside the lens or the terminals when using the lens on a beach, etc.
- This lens is not waterproof. If drops of water get onto the lens, wipe the lens with a dry cloth.
- Do not press the lens with excessive force.
- When there is dirt (water, oil, and fingerprints, etc.) on the surface of the lens, the picture may be affected. Lightly wipe the surface of the lens with a soft, dry cloth before and after taking pictures.
- Do not place the lens mount facing downwards. Do not allow the lens contact point ① to become dirty.



### ■ About Condensation (Fogging of the Lens)

- Condensation occurs when there are differences in temperature and humidity as described below. Condensation can cause the lens to become dirty and lead to mold and malfunctioning, so exercise caution in the following situations:
  - When the camera is brought indoors from outside during cold weather
  - When the camera is brought into an air-conditioned car
  - When cold air from an air conditioner is directly blown onto the lens
  - In humid places
- Put the camera into a plastic bag to allow it to acclimatise to the surrounding temperature in order to prevent condensation. If condensation occurs, turn the power off and leave it for about two hours. Once the camera acclimatises to the surrounding temperature the condensation will go away naturally.

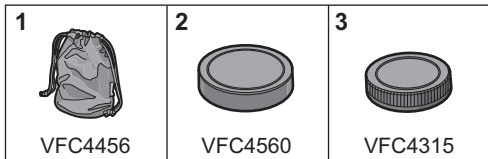
# Supplied Accessories

## [Inspection to be performed when you unpack the unit]

When removing the unit from its packing box, check that the main unit and the supplied accessories are there and also check their external appearance and functions to verify that they have not sustained any damage during distribution and transportation.

If you discover any trouble, contact your vendor before using the product.

Product numbers correct as of May 2010. These may be subject to change.



1 Lens Storage Bag

2 Lens Front Cap

3 Lens Rear Cap

(The lens front cap and lens rear cap are attached to the interchangeable lens at the time of purchase.)

6

VQT2W39

# Attaching/Detaching the Lens

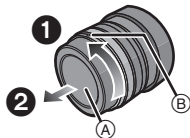
- Refer also to the camera's operating instructions for attaching and detaching the lens.

## ■ Attaching the Lens

- Check that the camera is turned off.

### 1 Turn the lens rear cap to detach it.

(A): Lens Rear Cap




### 2 Align the lens fitting marks (B) (red marks) on the camera body and the lens and then rotate the lens in the direction of the arrow until it clicks.



- Do not press the lens release button when you attach a lens.
- Do not try to attach the lens when holding it at an angle to the camera body as the lens mount may get scratched.
- Check that the lens is attached correctly.

## ■ Detaching the Lens

- Check that the camera is turned off.

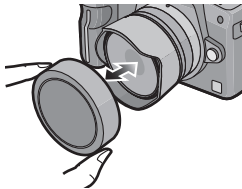
**Press the lens release button  while turning the lens as far as possible in the direction of the arrow to detach it.**

- Attach the lens rear cap so that the lens contact point does not get scratched.
- Attach the body cap to the camera so no dirt or dust will get inside the main unit.



## ■ Attaching and Detaching the Lens Front Cap

- Be careful not to lose the lens front cap.



## ■ Features of this lens

- This lens is an equisolid angle projection fisheye lens with a 180° field of view in a diagonal direction. Be careful about the legs of the tripod or arms and legs of the photographer entering the frame when taking pictures.
- As the fisheye lens captures images of a very wide angle, the characteristics of the lens causes subjects close to the perimeter of the image to appear extremely warped, or causes the size or relative position of the subjects to look different when pictures are taken. The image will look greatly different even with the slightest movement of the camera, so view the screen and check the composition of the picture when taking pictures.

# To use commercially available filters

- There is a filter holder at the rear of this lens. To use it, insert a commercially available sheet filter, such as a gelatin filter or similar, into the filter holder.

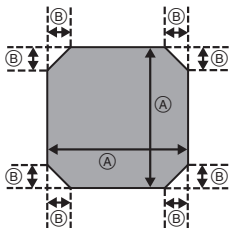
## 1 Prepare the filter.

- Cut the filter to the size that can be used with this lens.  
(right image)

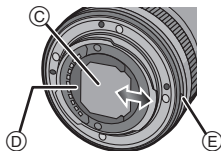
Size of the filter

(A): 21.5 mm to 22 mm

(B): 3 mm to 4 mm



- ## 2 Insert the cut filter (C) all the way into the filter holder (D).



(E): Lens fitting mark

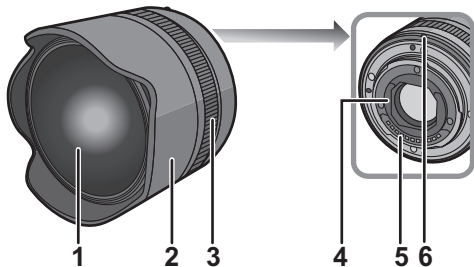
- To remove the filter, pull it out straight.

- ## 3 Mount the lens onto the digital camera.



# Names and Functions of Components

## ■ Lens



- 1 Lens surface
  - 2 Lens hood
  - 3 Focus ring
- Rotate to focus when taking pictures with manual focus.
- 4 Filter holder
  - 5 Contact point
  - 6 Lens fitting mark

### Note

- Since this lens is a fisheye lens with 180° diagonal field of view, the perimeter of the image may become dark (vignette) when a flash is used to take pictures.

## Cautions for Use

### ■ About the Lens

**Take care not to drop or knock the lens. Also take care not to put a lot of pressure on the lens.**

- Take care not to drop the bag that you inserted the lens in as it may strongly shock the lens. The camera may stop operating normally and pictures may no longer be recorded. Also, the lens may be damaged.

**When using pesticides and other volatile substances around the camera make sure that they do not get onto the lens.**

- If such substances get onto the lens they can damage the exterior case or cause the paint to peel.

**Do not carry the unit when it is still attached to the camera body.**

- Under no circumstances should the unit be stored in any of the following locations since doing so may cause problems in operation or malfunctioning.
  - In direct sunlight or on a beach in summer
  - In locations with high temperatures and humidity levels or where the changes in temperature and humidity are acute
  - In locations with high concentrations of sand, dust or dirt
  - Where there is fire
  - Near heaters, air conditioners or humidifiers
  - Where water may make the unit wet
  - Where there is vibration
  - Inside a vehicle
- Refer also to the operating instructions of the digital camera.
- When the unit is not going to be used for a prolonged period, we recommend storing with a desiccant (silica gel). Failure to do so may result in performance failure caused by mold, etc. It is recommended that you check the unit's operation prior to use.

- Do not leave the lens in contact with rubber or plastic products for extended periods of time.
- Do not touch the lens contact point. Doing so can cause failure of the unit.
- Do not disassemble or alter the unit.

**Do not use benzine, thinner, alcohol or other similar cleaning agents to clean the lens glass or exterior cabinet.**

- Using solvents can damage the lens or cause the paint to peel.
- Wipe off any dust or fingerprints with a soft, dry cloth.
- Use a dry, dust cloth to remove dirt and dust on the focus ring.
- Do not use a household detergent or a chemically treated cloth.

### *Troubleshooting*

**A sound is heard when the camera is turned on or off.**

- This is the sound of lens or aperture movement and is not a malfunction.

# Specifications

## INTERCHANGEABLE LENS FOR DIGITAL CAMERA “LUMIX G FISHEYE 8 mm/F3.5”

<b>Focal length</b>	f=8 mm (35 mm film camera equivalent: 16 mm)
<b>Aperture type</b>	7 diaphragm blades/round iris aperture
<b>Aperture range</b>	F3.5
<b>Minimum aperture value</b>	F22
<b>Lens construction</b>	10 elements in 9 groups (1 ED lens)
<b>In focus distance</b>	0.1 m (0.33 feet) to $\infty$ (from the focus distance reference line)
<b>Maximum image magnification</b>	0.2 $\times$ (35 mm film camera equivalent: 0.4 $\times$ )
<b>Optical image stabilizer</b>	Not available
<b>Mount</b>	“Micro Four Thirds Mount”
<b>Angle of view</b>	180°
<b>Projection method</b>	Equisolid angle projection
<b>Filter diameter</b>	Front (mounting not possible), Rear (clamping type: 22 mm $\times$ 22 mm)
<b>Max. diameter</b>	Approx. 60.7 mm (2.39 inch) (lens hood section)
<b>Overall length</b>	Approx. 51.7 mm (2.04 inch) (from the tip of the lens hood to the base side of the lens mount)
<b>Mass</b>	Approx. 165 g (5.82 oz)



VQT2W39  
X0510HN0

**Panasonic Corporation**

Web Site: <http://panasonic.net>

**EU**

Pursuant to at the directive 2004/108/EC, article 9(2)

**Panasonic Testing Centre**

**Panasonic Marketing Europe GmbH**

Winsbergring 15, 22525 Hamburg, Germany

© Panasonic Corporation 2010