Panasonic

Operating Instructions

Camera Head

Model No. AG-HCK10

POVCAM

AVCHD

Before operating this product, please read the instructions carefully and save this manual for future use.

?0809K0 -M D
Printed in Japan

ENGLISH

VQT2H60

indicates safety information.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS. USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

The rating plate is on the underside of the unit.

CAUTION:

In order to maintain adequate ventilation, do not install or place this unit in a bookcase, built-in cabinet or any other confined space. To prevent risk of electric shock or fire hazard due to overheating, ensure that curtains and any other materials do not obstruct the ventilation.

CAUTION:

Do not leave the unit in direct contact with the skin for long periods of time when in use. Low temperature burn injuries may be suffered if the high temperature parts of this unit are in direct contact with the skin for long periods of time. When using the equipment for long periods of time, make use of the tripod.

FCC Note:

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Warning: To assure continued FCC emission limit compliance, the user must only use shielded interface cables when connecting to external units. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate it.

indicates safety information.

IMPORTANT SAFETY INSTRUCTIONS

(1) Read these instructions.
(2) Keep these instructions.
(3) Heed all warnings.
(4) Follow all instructions.
(5) Do not use this equipment near water.
(6) Clean only with a dry cloth.
(7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
(8) Do not install near any heat sources such as radiators, heat registers, stoves, or any other equipment (including amplifiers) that produce heat.
(9) Only use attachments/accessories specified by the manufacturer, and as outlined in this manual.
(10) Refer all servicing requests to qualified service personnel. Servicing is required when the equipment has been damaged in any way, such as damage to the power supply cord or plug, liquid being spilled on or objects have fallen into the equipment, the equipment has been exposed to rain or moisture and does not operate normally, or has been dropped.

This camera head is designed exclusively for connecting with Memory Card Portable-Recorder AG-HMR10.

Note concerning illustrations in these instructions

Illustrations (camera-head, other devices, etc.) in these operating instructions differ slightly from the actual models.

References

- References are shown as (Page 00).

- Model names, company names, and product names listed in these operating instructions are trademarks or registered trademarks of their respective companies.

Please read before use

Do not allow any water to get into the unit when using it in the rain or snow or at the beach.

- Failure to heed this caution will cause the unit to malfunction (and may result in irreparable damage).

Keep the unit away from equipment (such as TV sets and video game machines) that generate magnetic fields.

- Using the unit on top of or near a TV set may cause distortion in the images and/or sound due to the electromagnetic waves that the set emits. The powerful magnetic fields generated by speakers or large motors may damage your recordings or distort the images.
- The electromagnetic waves emitted from a microcomputer will adversely affect the unit, causing the images and/or sound to be distorted.
- If the unit is so adversely affected by products that generate magnetic fields that it no longer operates properly, do the followings. 1. Turn off the power of the recorder AG-HMR10. 2. Remove the battery from the recorder or unplug the AC adapter from the power outlet. 3. Install the battery again or reconnect the AC adapter. 4. Turn the recorder back on.

Do not use the unit near radio transmitters or high-voltage equipment.

- Using the unit near a radio transmitter or high-voltage equipment may adversely affect the recorded images and/or sound

Do not allow any sand or dust to get into the unit when using it at the beach and other similar places.

- Sand and dust can damage the unit.

When the camera head is connected to the portable recorder, do not carry them by holding the camera head or the camera cable only.

- Doing so may put undue stress on the camera head and the cable, and may damage them

Do not spray the unit with insect sprays or other volatile substances.

- These can warp the unit or cause the finish to come off.
- Do not leave the unit in contact with rubber or PVC products for extended periods of time. Turn the recorder off first and then disconnect the camera cable after use

Do not point the lens at the sun.

- Doing so may damage the parts inside.

Caution regarding laser beams

- The CCD may be damaged if it is subjected to light from a laser beam.
  When using the unit in locations where laser irradiation equipment is used, be careful not to allow the laser beam to shine directly on the lens.

Cleaning

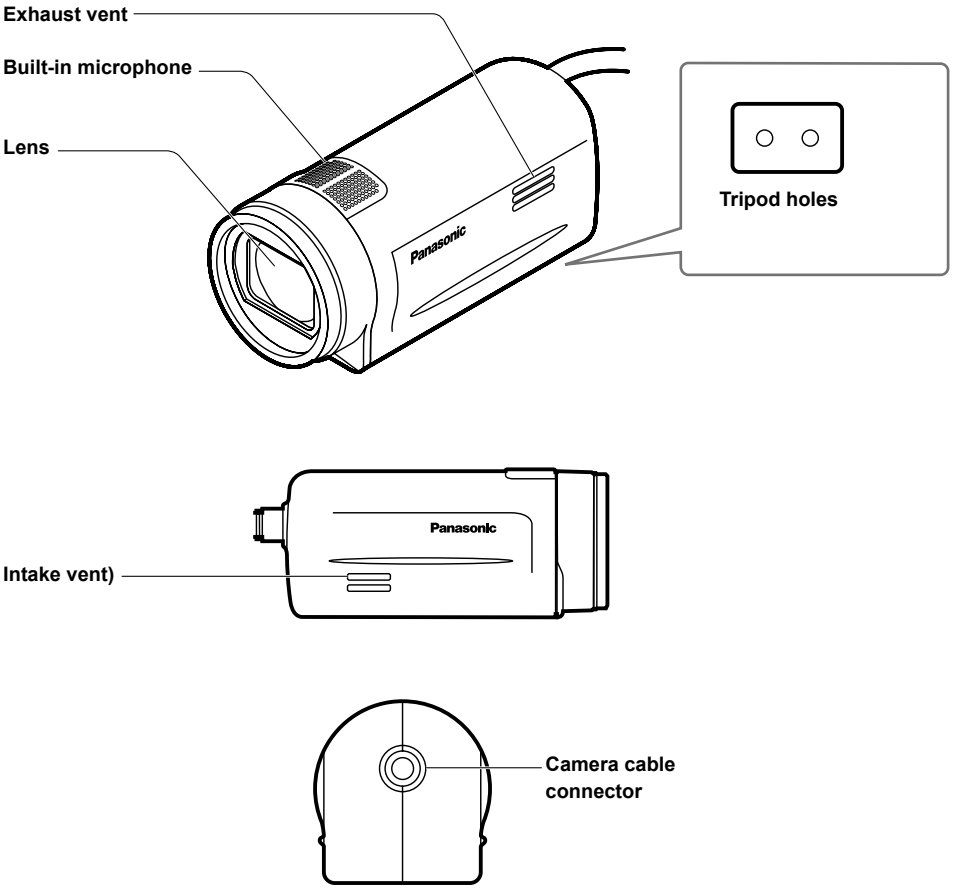
When cleaning, do not use benzene or thinner.

- Using benzine or paint thinners may deform the camera head and/or cause the surface finish to peel off.
- Before proceeding with maintenance, disconnect the camera cable from the camera head.
- Use a soft, clean cloth to wipe the camera head. To remove stubborn dirt, wipe the camera head with a cloth moistened with kitchen detergent that has been diluted with water and then use a dry cloth to take up the remaining moisture.

Optional accessories

- **Camera cable**
  3 m (118.1-inch)
- **Camera cable**
  20 m (787.4-inch)

Description of parts



Connecting to the AG-HMR10 portable recorder

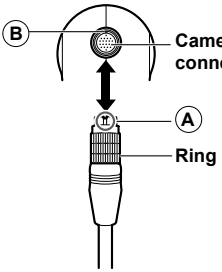
■ **Camera cable connection**

Be sure to turn OFF the power of the AG-HMR10 before connecting the camera cable.

Connecting to the camera head

1 **Align the slit on the connector of the camera cable (A) with the guide of the camera cable connector on the camera head, and insert the cable (B).**

2 **Turn the ring of the camera cable connector clockwise to connect it.**

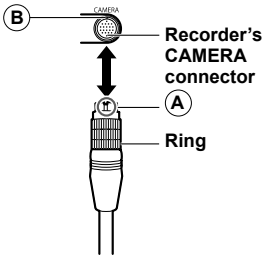


Camera cable

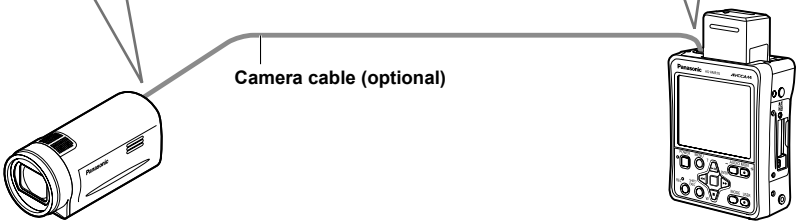
Connecting to a recorder

1 **Align the slit on the connector of the camera cable (A) with the guide of the CAMERA connector on the recorder, and insert the cable (B).**

2 **Turn the ring of the camera cable connector clockwise to connect it.**



Camera cable



Camera head

AG-HMR10

■ **Camera cable removal**

Be sure to turn OFF the power of the AG-HMR10 before removing the camera cable.

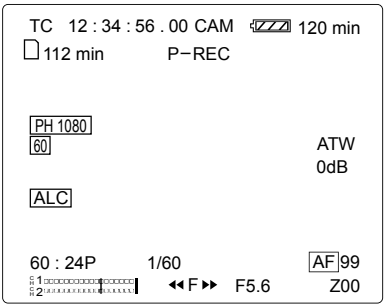
1 **Turn the ring of the camera cable connector counterclockwise to loosen it.**

2 **Hold the ring of the camera cable and pull it straight outwards.**

- When the power of the AG-HMR10 is turned ON after connection, the camera head power turns ON and it is ready for shooting.

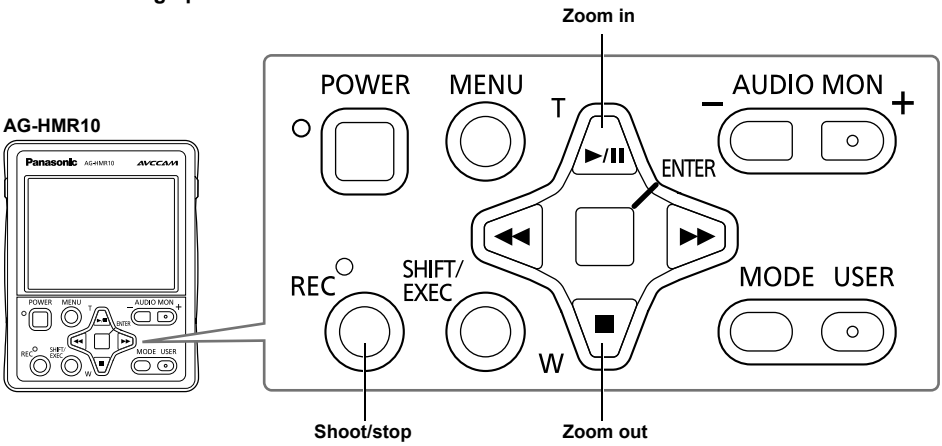
Shooting

1 Press the POWER button of the AG-HMR10 for 2 seconds or longer to turn ON the power.
The shooting screen appears on the LCD monitor screen of the AG-HMR10.



2 Press the REC button of the AG-HMR10 to start recording.
Press the REC button again to stop recording.

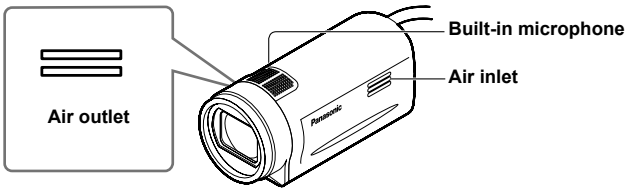
■ Main shooting operations



• See the operating instructions of the AG-HMR10 for shooting functions not shown above.

■ **Shooting by hand**

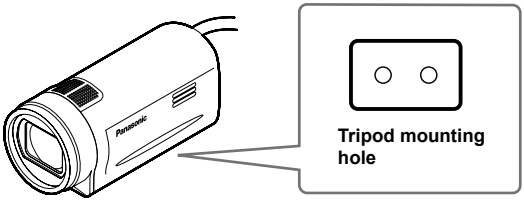
When holding the camera head by hand for shooting, make sure that your hand does not cover the air inlet, air outlet or built-in microphone.



- Make sure that your hand does not cover the camera head's heat dissipation outlet or built-in microphone.

■ **Mounting on a tripod**

Attach the tripod to the camera head's tripod mounting hole.

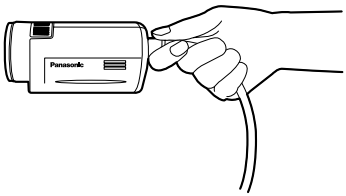


- The depth of the tripod mounting hole is 5.5 mm. Do not force the screw beyond this depth when attaching the camera head to a tripod. You may damage the camera head if you use any screw other than 1/4-20UNC.

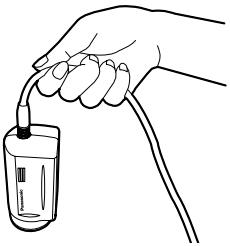
Beware of the following if fixing the camera head to something other than a tripod.

- Fix the camera head securely with vinyl tape or something similar to make sure that it does not wobble.
  * Do not use tape that has a strong adhesive, because it may peel off the paint.
- Do not cover the camera head's air inlet, air outlet or built-in microphone with the material that you use for fixing the camera head.

- If you hold the camera head as shown in the examples below, the cable and connector will be subjected to a large load and may be damaged.
  Further, the cable may disconnect and the camera head may fall, or the camera head may hit a surrounding object such as a wall, resulting in damage.



Holding or fixing by the cable only



Suspending the camera head while holding the cable only

Troubleshooting

Starting up

Power does not come on.	• Make sure the camera cable is connected properly. Refer to the connections on Page E-7.
Unusual sound is heard.	• Some operating sounds may be evident when powering on, switching operation modes and zooming. Sounds in such cases do not necessarily indicate a problem.

Shooting

Cannot start shooting.	• Make sure the recorder's operation mode is CAM Mode.
Cannot focus automatically.	• Make sure the camera is in auto focus mode, where you can focus automatically. • You may be shooting a scene where it is difficult to bring the subject into focus in the auto focus mode. If this is the case, focus in the manual focus mode. It may be hard to bring the subject into focus when ・both close and distant objects are to be shot ・shooting through a dirty window ・shooting in a dark place ・there are sparkling or shiny objects around the subject ・the subject is moving fast ・shooting a scene with minimal contrast
Video is distorted or not recorded.	(Refer to the Operating Instructions for the Memory Card Portable-Recorder AG-HMR10.) • Are the recorder and the video output device connected properly? • Does the video input terminal coincide with the selected input terminal of the recorder? • Is a proper video signal output from the device connected to the recorder?

Specifications

<When connected to AG-HMR10>
Supply voltage
DC ** Vwhen the battery is used) /
** V (when the AC adapter is used)
Power consumption *.* W

indicates safety information.

Ambient operating temperature
0 °C to 40 °C (32 °F to 104 °F)
Ambient operating humidity
10% to 80% (no condensation)
Weight
approx. *.* kg
Dimensions (W x H x D)
53.5 mm × 56 mm × 122.8 mm
(excluding the projection part)

Image sensor
1/4.1-inch MOS type solid-state image sensor (× 3)
(progressive-capable)
Lens
LEICA DICOMAR Optical image stabilizer lens,
Motorized 12 x zoom,
F1.8 to F2.8 (f=4.0 mm to 48 mm)
(35 mm equivalent: video 40.8 mm to 490 mm
(16:9))
Filter diameter
43 mm
Color separation optical system
Prism system

Weight and dimensions are approximate.
Specifications are subject to change without notice.