

WAT-240W

Operation Manual

This Operation Manual covers safety, camera functions, installation and the correct operating procedure for the WAT-240W. First, we ask you to read this Operation Manual thoroughly, then install and operate the WAT-240W as advised. In addition, for future reference, we also advise safe keeping of this manual.

Please contact the distributor or dealer from which the WAT-240W was purchased, if you do not understand the installation, operation or safety instructions laid out in this manual. Not understanding the contents of the Operation Manual sufficiently may cause damage to the camera.

Guide to the safety symbols

The meanings of the symbols used in this operation manual are:

- When you do not adhere to or take notice of the "Danger" sign, it may lead to a serious accident such as death or injury caused by fire or electric shock.
- When you do not adhere to or take notice of the "Warning" sign, it may cause severe damage such as a physical injury.
- When you do not adhere to or take notice of the "Caution" sign, it may incur injury and cause damage to peripheral objects in the immediate surroundings.

Cautions for safety

The WAT-240W is designed to be used safely; however, electrical goods may lead to a physical accident caused by fire and electric shock if not used correctly. Therefore, please keep and read the "Cautions for safety" for protection against accidents.

- Do not disassemble and/or modify the WAT- 240W.
 - Do not operate any current-carrying part with wet hands.
- Use a stabilized power adaptor designed for DC+6V±10%, with a current capacity of more than 300mA for the WAT-240W.
The recommended voltage is DC+6V±10%
 - Do not use the WAT- 240W under unusual environmental conditions.
The WAT-240W is specified as waterproof. However, the WAT-240W is not compliant with dust-proof and explosion-proof standards.
 - Should the camera not work properly, switch off the power immediately. Then check the camera according to the "Problems and Trouble shooting" section.

- Avoid the striking of hard objects or dropping the WAT-240W.
The WAT-240W uses high quality electrical parts and precision components.
 - Do not install the WAT- 240W in a position subject to direct sunlight.
Sunlight shinning directly onto the WAT-240W lens can cause damage to the CCD.
 - Select a stable place for installation of the WAT- 240W.
Use a support of durable strength around an installation position on a ceiling or wall when a camera stand or tripod is used.
 - Do not move the WAT- 240W with the cables connected.
Before moving the WAT-240W, always remove the video cable and power cable from the rear of the camera first.

- Avoid using the WAT- 240W near any strong electromagnetic field.
Avoid emission sources of electromagnetic waves when the WAT-240W is installed into main equipment.
- Dry the WAT- 240W well after use.
When the WAT-240W is used in seawater, flush well with pure water, and then wipe. If the WAT-240W is steeped in water for many hours or left without wiping after use, the surface of the WAT-240W may become white.

EMC Conformity

The WAT-240W is in conformity with EMC test standards carried out by authorized organizations in Japan.

NTSC FCC Part15 class B
P A L EN61000-6-3 / EN50130-4

Do not modify the WAT-240W. A Modified camera may not conform to EMC test standards.

Waterproof Conformity

The external body of the WAT-240W is in conformity with the following waterproof standard.

JIS C 0920 (IEC60529)
Degrees of protection provided by enclosures: IPX7

※Waterproof capability of the WAT-240W is confirmed according to the above conditions. This waterproof standard does not cover the quality of the operation under unusual condition.

For ⑥VIDEO OUT/POWER IN, this part is not included in the compatible range of the waterproof standard. Treat the connector area for waterproofing if needed.

Problems and Trouble Shooting

If any of the following problems occur when using the WAT- 240W,

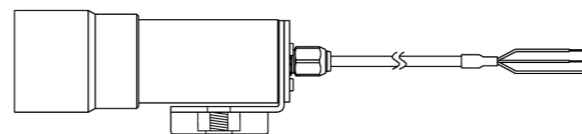
- An optimal picture cannot be obtained, after checking that all the cables and connections are correctly in place.
- Smoke or any unusual odor emerges from the WAT-240W.
- An object becomes embedded or a quantity of liquid seeps into the camera housing.
- More than the recommended voltage or/and amperage has been applied to the WAT-240W by mistake.
- Anything unusual occurring to any equipment connected to the WAT-240W.

Disconnect the camera immediately according to the following procedures:

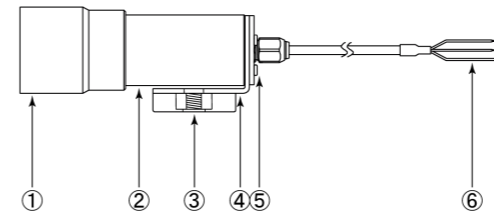
- ①Switch off the main power supply to the camera.
- ②Remove the power and video cables connected to the WAT-240W.
- ③Contact the distributor or dealer from which the WAT-240W was purchased.

Contents

Check to make sure all parts are present before use.



Description of parts

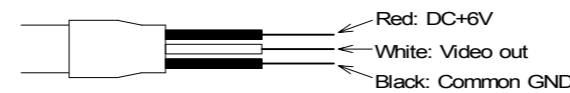


- ①FRONT GLASS (Tempered glass)
 - Dirt, water or oil deposits on the front glass will cause an unclear picture on the monitor and scratches might become permanent damage. Do not dismount the front glass.
- ②HOUSING MAIN BODY
 - This case is uses aluminum and is given alumite treatment
- ③TRIPOD MOUNTING SCREW HOLES
 - Mounting holes for stands. The size of these threads are 1/4", 20 threads, 4.5±0.2mm, which is the same as any standard camera tripod (U1/4").
- ④BRACKET
 - The bracket for fixing to the camera.
- ⑤BRACKET MOUNTING SCREWS
 - The screws for mounting the bracket to the camera.
- ⑥VIDEO OUT/POWER IN
 - The terminal for the Video out and Power in.

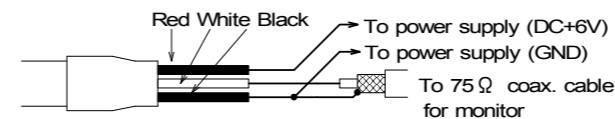
Power Supply

Use a stabilized power adaptor designed for DC+6V±10%, with a current capacity of more than 300mA. The wiring on the connector must be exact. Be careful not to touch the other terminals while wiring. Protect the wired portion by using insulation tape after wiring. If the above care and attention is not adhered to, damage to the WAT-240W and power adaptor may occur and may also cause fire.

[Diagram of output cable]

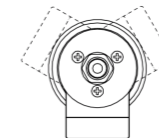


[Connection of output cables]



Set-up and Operation

- 1) Refer to the[Connection of output cables]and the wiring must be exact.
- 2) Join the video out cable with the video in cable of the monitor or peripheral equipment.
- 3) Join the power supply using the correct procedure.
- 4) Make sure that a picture can be seen on the monitor.
- 5) When a change of installation position is required, set ④BRACKET to your required position after removing ⑤BRACKET MOUNTING SCREWS from the WAT-240W, then retighten ⑤BRACKET MOUNTING SCREWS firmly. Angular settings for ceiling and wall are also available.



Specifications

Model	WAT- 240W (NTSC)	WAT- 240W (PAL)
Pick-up Element	1/4 inch interline transfer CCD image sensor	
Number of Total Pixels	811(H)×507(V)	795(H)×595(V)
Number of Effective Pixels	768(H)×494(V)	752(H)×582(V)
Unit Cell Size	4.9 μm(H)×5.6 μm(V)	5.0 μm(H)×4.77 μm(V)
Imaging system	Ye, Cy, Mg, and G complementary color mosaic filters on chip	
Sync. System	Internal	
Scanning System	2:1 interlaced	
Video Output	Composite video, 1.0 V(p-p), 75Ω(Unbalanced)	
Resolution (H)	More than 450TVL (Center)	
Minimum Illumination	0.7 lx. F2.0	
S/N	More than 50dB (AGC=6dB, γ=1.0)	
AE mode	1/60 – 1/100000 sec.	1/50 – 1/100000 sec.
White Balance	ATW	
AGC	6 - 30dB	
Gamma Characteristics	γ ≈ 0.45	
Back Light Compensation	ON	
Power Supply	DC+6V±10%	
Power Consumption	0.99W (165mA)	
Operating Temperature	-10 – +50°C	
Operating Humidity	Less than 95% RH (Without condensation)	
Storage Temperature	-30 – +70°C	
Storage Humidity	Less than 95% RH (Without condensation)	
Waterproof grade	IP X7 (without terminal of the cable connector)	
Lens	G3.8 (f3.8 F2.0)	
Cable Length	2500 mm	
Size	φ28 × 88 (mm)	
Weight	Approx. 125g	

- Design and specifications are subject to change without notice.
- Watec is not responsible for any inconvenience or the attendant damages to the video and monitoring recording equipment caused by misuse, mis-operation or improper wiring of our equipment.
- If for any reason the WAT-240W does not work properly, or if you have any questions regarding installation or operation, please contact the distributor or dealer from which it was purchased.

Contact information



Add.: 254-2 Nihonkoku, Daihoji, Tsuruoka- Shi, Yamagata-Ken, 997-0017 Japan
TEL: +81-235-23-4400 FAX: +81-235-23-4409
Email: info-o@watec.co.jp
URL: http://www.watec.net