



## NETWORK CAMERA

# WAT-2400

## Operation Manual

Thank you for purchasing the WAT-2400 Network Camera. Before you start using the camera, read this operation manual carefully to ensure correct usage. Once you have finished reading this operation manual, keep it in a convenient place for future reference.

The design, specifications and operation manual contents are subject to change without prior notice. Setup and operation, please read download the “User Manual” from Watec website.

The WAT-2400 Network Camera is referred to as “the camera” in this document.

## Important Safety Instructions

When using the camera, basic safety precautions should always be followed to reduce the risk of fire, electric shock, or personal injury. Please read all instructions before using.

1. Read and understand all instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not disassemble and/or modify.
6. Do not touch with wet hands.
7. Do not install it near any heat sources.
8. The camera is intended for indoor use only.
9. Do not expose this camera to rain or moisture.
10. Prolonged exposure to direct sunlight may damage the image sensor.
11. Only use attachments/accessories specified by the manufacturer.
12. Do not touch the camera, the LAN cable, AC adaptor, or AC adaptor cord during lightning storms.
13. Unplug the camera when unused for long periods of time.
14. Unplug the camera from power outlets if it emits smoke, an abnormal smell or makes unusual noise. These conditions can cause fire or electric shock. Confirm that smoke has stopped and contact the distributor or dealer from which the camera was purchased.
15. Make no modifications to the camera or accessories. Unauthorized alterations may compromise safety, regulatory compliance, and system performance.
16. Operate this camera within the temperature range of -10°C to 40°C.
17. Since the camera may become hot during operation, please provide a sufficient space around the camera for heat dissipation. When you remove the camera, please let time pass for heat dissipation as well.

## Notes on Use

- Use an image that you have recorded on this unit without authorization, there is a case where the conduct of the disclosure, etc. it becomes infringement of copyright and portrait rights.
- In the video to be taken using the camera, which can identify the individual will be personal information. Publication of the video will be necessary to obtain a pre-approval, it will be the responsibility of those who operate the system.
- Because the use at the place of high temperature and humidity adversely affects an internal parts, and life shortens by deterioration, please be careful about use enough. We recommend use less than 30°C.
- About the damage such as the losses of the data which occurred because of blackouts, we do not take responsibility.

## Security Cautions

When using the camera, take appropriate measures to avoid the following security breaches.

- Disclosure of private information via this product
- Unauthorized use of this product by a third party
- Interference or suspension of the use of this product by a third party

You are responsible for the security of this product and its use. Take the following measures to avoid security breaches.

- To prevent unauthorized access, disclosure of private information, interference, information of suspension of access to the camera, make sure the camera's firmware is up to date.
- Do not reveal the user names and passwords required to access the camera to an unknown party.
- When sending this product for service or transferring this product to another party, reset this product to its factory default settings.

## EMC Information

The camera is in conformity with standards carried out by authorized organization in Japan.

- FCC Part15 Class B
- EN61000-6-3 / EN50130-4

### FCC Notice “Declaration of Conformity Information”

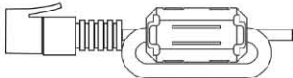
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.

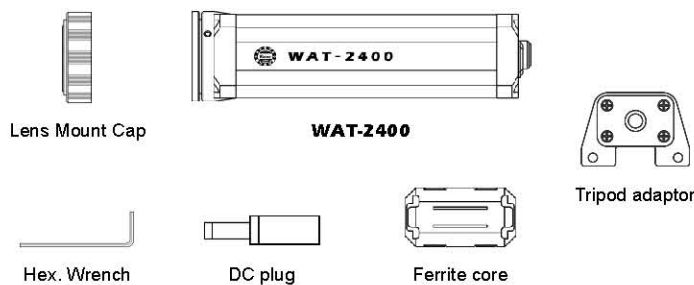
### CAUTION:

- Do not modify the camera. A modified camera may not conform to EMC standards.
- Please use an auxiliary power supply (eg: UPS) to this camera to comply with EN50130-4 of EMC standards.
- Compatibility of EMC will have tested using the accessories and optional accessories.
- In order to reduce the generation of unnecessary signals, pass the LAN cable through the ferrite core and connect.

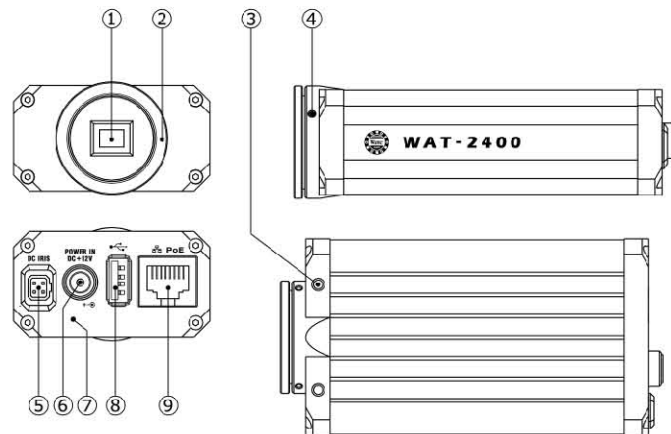


## Contents

Check to make sure all parts are present before use.



## Description and Parts



### ① Image Sensor

The light receiving face of the image sensor (Dirt, water or oil deposits on the image sensor will cause an unclear picture on the monitor. Attach the lens cap to protect the lens and the sensor from contamination and damage.)

### ② Lens Mount

Mount for the lens. (CS-mount)

### ③ Camera Mounting Features

These mounting features are used to mount the camera. Bolt Size: M3, Depth 4mm. If utilizing a tripod, please attach the supplied tripod adaptor by fixing the 4 bolt locations. There are a total of 4 mounting features encompassing the sides, top and bottom of camera.

### ④ CS Mount Set Screws (Consider using “BACK FOCUS” screws instead)

There are 3 adjustable hexagonal screws. Each screw is placed at intervals of 120° around the housing for fine focusing of the lens.

### ⑤ DC-Iris Socket

This socket is for the DC auto-iris lens cable connector.

### ⑥ Power Input (DC 12V)

Connects to DC 12V power supply system. When you use an attached DC plug, please refer to “Power Supply”.

### ⑦ Reset Button

Press the reset switch for more than 10 seconds, the restore the camera to the function default settings.

### ⑧ USB Connector

This connection is for maintenance.

### ⑨ LAN Connector (PoE Supported)

Connect a network cable to this port to communicate with a network or PoE system. The mac address is located on the back of the camera.

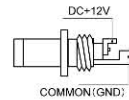
## Power Supply

If in a non-PoE power supply environment, connect the power jack to the DC 12V power supply. A regulated DC 12V 1A power supply is recommended for use with this camera for the most stable operation.

### CAUTION:

**Do not use PoE and DC 12V at the same time!**

Use a stabilized power adaptor designed for 12V DC, with a current capacity of more than 1A. Use the optional DC Plug if the shape or polarity of the DC plug of the power adaptor to be used is not compatible with the camera (See the drawing below).



Be careful not to reverse the polarity when you connect the power cable.

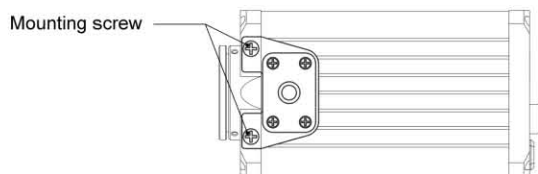
If the above care and attention is not adhered to, damage to the WAT-2400 and power adaptor may occur and may also cause fire.

## Set-up and Operation

- 1) Please make sure the monitor and camera are turned off when connecting them.
- 2) Remove the lens mount cap from the WAT-2400 and attach the CS-mount lens. Use the optional C-mount adaptor (30CMA-R) when a C-mount lens is used.
- 3) Connect the LAN cable to the local network or to the Internet. If you are using a DC power supply, refer to “Power Supply”, please be connected to the terminal.
- 4) The camera has no main power switch or button. To turn the power on, insert the plug of the power cord into a power outlet. Turn the power on after you have installed the camera.
- 5) Adjust the focus and iris until optimal image clarity through the lens is achieved. If the picture is still out of focus, open the iris fully and loosen ④ CS Mount Set Screws with the hex. wrench and move the lens forwards until a fully focused and clear picture is obtained.

## About tripod adaptor

If using the mounting bracket (included), please refer to the figure below and secure the bracket to the camera using the M3×5mm screws (included)



## Options

To purchase these options, please contact the distributor or dealer from which you purchased the WAT-2400.



### C-mount Adaptor (30CMA-R)

This lens mount adaptor is used to convert a CS-mount to a C-mount.



### AC Adaptor (SW12-12-N/E-P5)

If in a non-PoE power supply environment, connect the AC adaptor.

## Specifications

Model	WAT-2400	
Pick-up element	1/2.8-inch CMOS image sensor	
Number of total pixels	1952(H) × 1236(V)	
Number of Effective pixels	1080P	1920(H) × 1080(V)
	720P	1280(H) × 720(V)
Unit cell size	2.8um × 2.8um	
Imaging system	RGB+W array mosaic filters on chip	
Sync. system	Internal	
Scanning system	Progressive	
Video output	H.264	
Output format	1080p30, 720p30	
Minimum illumination	0.1 lx. F1.2	
S/N	More than 50dB	
Function settings	Operated by Web Browser	
AE mode	E.I + AGC, MANUAL	
Shutter speed	1/5 ~ 1/10000 sec.	
Flicker less mode	AUTO, 50Hz, 60Hz, OFF	
White balance	ATW, PWB, MWB	
AGC	0 ~ 42dB	
Interface	RJ45(10M/100M), USB, Auto Iris, Power Supply	
Lens iris	DC	
Power supply	PoE	IEEE 802.3af/at(Type1)
	DC	12V DC ±10%
Power consumption	5.6W/127mA(PoE), 5.4W/450mA(12V)	
Operating/Storage temperature	-10 ~ +40°C / -30 ~ +70°C	
Operating/Storage Humidity	90% RH or less (Without condensation)	
Lens mount	CS mount (Back focus adjustable)	
Size	56(W)×34(H)×109(D) (mm)	
Weight	Approx.175g	

- Design and specifications are subject to change without notice.
- Watec is not responsible for any inconvenience of the attendant damages to the video and monitoring recording equipment caused by misuse, miss-operation of improper wiring of our equipment.
- If for any reason the WAT-2400 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



**Watec Co., Ltd.**

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