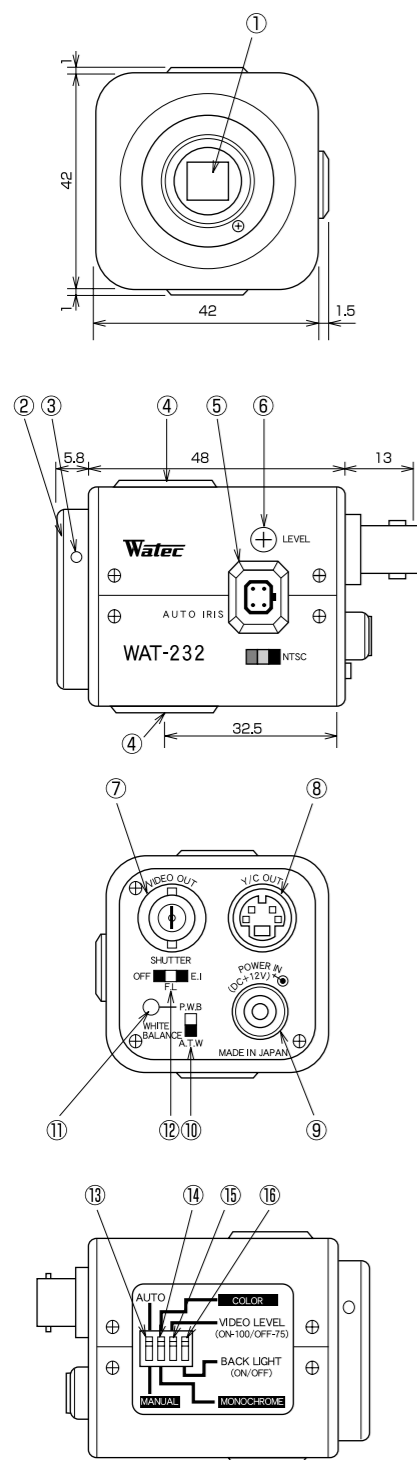


Description of Camera Parts & Functions (unit: mm)



- ① **CCD FRONT FACE**...light receiving face of CCD camera
 - Dirt, water, or oil deposits on the CCD will cause an unclear picture on the monitor.
 - Attach the lens cap to protect the lens and the CCD from contamination and damage.
- ② **LENS MOUNT**...CS-mount
 - For mounting the lens. (Thread type)
- ③ **HEX. FOCUSING ADJUSTMENT SCREWS**...fine focusing adjustment screws
 - There are 3 screws each placed at intervals of 120°.
- ④ **TRIPOT MOUNTING SCREW HOLES**...the screw holes to mount the WAT-232 to a stand
 - 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").
- ⑤ **AUTO-IRIS SOCKET**...the connection terminal for the auto-iris lens
 - The function is compatible for both video and DC driven iris lenses. The switching function is automatic and does not need setting manually.
- ⑥ **IRIS LEVEL VOLUME**...applicable for DC driven iris lenses only
 - By controlling this volume, the iris level of the lens can be adjusted.
- ⑦ **VIDEO OUT**...BNC terminal
 - The terminal for composite video signal output.
- ⑧ **VIDEO OUT**...S terminal
 - The terminal for Y/C signal output.
- ⑨ **POWER IN**
 - The terminal designed for connection with a DC-plug from an appropriate power adaptor.
 - The optional power adaptor, AD-901(DC+12V, 250mA), is recommended for use with the WAT-232.
- ⑩ **WHITE BALANCE MODE SWITCH**...A.T.W and P.W.B
 - A.T.W (auto-tracking setting) : The white balance is automatically adjusted on the monitor screen in various lighting situations.
 - P.W.B (push-lock setting): This setting is selected first when the operator would like to make white balance adjustments manually. Used in conjunction with ⑩PUSH-LOCK WHITE BALANCE BUTTON.
 - (The switch is set to "A.T.W" on shipment.)
- ⑪ **PUSH-LOCK WHITE BALANCE BUTTON**...tact button
 - When ⑩ WHITE BALANCE MODE SWITCH is set to P.W.B, the white color balance can be adjusted manually by holding this button down until the desired color is obtained, then release the button.
- ⑫ **AE-MODE SWITCH**...shutter speed switch
 - Shutter speed can be selected to OFF, F.L (flickerless), and E.I (auto).
 - (The switch is set to "E.I" on shipment.)
- ⑬ **AUTO or MANUAL COLOR/MONOCROME SELECTION SWITCH.**
 - AUTO: Color or monochrome monitoring is automatically selected in accordance with the brightness of an object or monitored area.
 - MANUAL: Monitoring either in color or monochrome only when used in conjunction with ⑬COLOR/MONOCROME switch.
- ⑭ **COLOR/MONOCROME MANUAL SWITCH**
 - This switch is applicable only when ⑬AUTO or MANUAL COLOR/MONOCROME SELECTION SWITCH is set to MANUAL.
 - COLOR: Monitoring is in color.
 - MONOCROME: Monitoring is in monochrome.
 - NB: Color monitoring is possible when the illumination is 0.1lx or brighter.
- ⑮ **VIDEO LEVEL SWITCH**
 - In the upper position (ON), white level indicates 100 IRE on the color bar chart monitoring.
 - In the lower position (OFF), it is set to 75 IRE.
- ⑯ **BACK LIGHT COMPENSATION SWITCH**
 - This switch is used for the back light compensation function.
 - (This function is set to "OFF" on shipment.)

Set-up and Operation of the WAT-232

Applicable Lens

The WAT-232 adopts a 1/3" CCD sensor and a CS-mount. Therefore, use a CS-lens for 1/3" cameras with IR sensitivity, especially a lens specifically designed for day & night cameras.

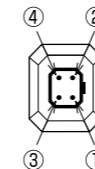


Make sure to attach a lens with a mechanical-back shorter than 5.5mm. If it is longer than 5.5mm, the WAT-232 or the lens may be damaged. For more detailed information about the mechanical-back, please read the section, "About the Mechanical-back."

1) For Use with a Video-driven Auto-iris Lens

The WAT-232 is subject to the pin configuration recommended by the EIAJ.

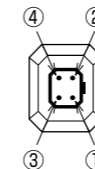
PIN #	Video Iris Lens Arrangement (EIAJ)
①	Power
②	Not Used
③	Iris Signal
④	Common (GND)



2) For use with a DC-driven Auto-iris Lens

The WAT-232 is subject to the pin configuration standardized by the EIAJ.

PIN #	DC Iris Lens Arrangement (EIAJ)
①	Control -
②	Control +
③	Drive +
④	Drive -



Before connecting the auto-iris lens, please make sure that the pin configuration is correct by confirming with the above tables. If the configuration of your iris connector is different from the above, the plug and pins will need to be rewired.

Mounting of the Lens

Remove the lens cap from the WAT-232 and screw the lens in. When an auto-iris lens is used, confirm the specifications of the lens first, then connect the iris control cable with ⑤AUTO-IRIS SOCKET.

Connection of Equipment

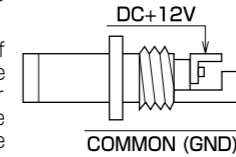
1. Make sure that the power is turned OFF. Then, connect the DC-plug to the ⑨POWER IN on the rear panel of the WAT-232.

We recommend the optional Wattec power adaptor, AD-901(DC+12V, 250mA), as the power supply for WAT-232.



If any other power adaptor besides the AD-901 is used, the following points should be adhered to.

- Use a stabilized power adaptor designed for DC+12±15%, with a current capacity of more than 250mA.
- Use the attached DC-plug if the shape or polarity of the DC-plug of the power adaptor to be used is not compatible with the WAT-232 as the drawing on the right. Be careful not to touch any other terminal while wiring.



●NB: If the above-mentioned care and attention are not adhered to, damage to the WAT-232 and power adaptor may occur, and in extreme cases, it may cause fire.

2. Connect either ⑦ or ⑧VIDEO OUT to the monitor using the cable such as an RG-59B (RG-140/U, 3C-2V) or an RG-6A (5C-2V) with 75Ω impedance

3. Turn the WAT-232, monitor, and all the other equipments ON.

If there is no picture on the monitor, switch off the power to all equipments and check that the power, video, and any other related terminals are properly connected, and then retry.

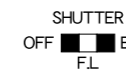
4. Adjust the iris and focus of the lens while looking at the picture.

If a lens specifically designed for day & night cameras is not used, focusing in the near infrared ray area may not be satisfactory.

5. Select any required shutter speed by operating ⑫AE-MODE SWITCH.

E.I (electronic iris): The electronic shutter speed varies automatically in accordance with brightness of an object in a range of 1/60 to 1/100,000 in NTSC and 1/50 to 1/100,000 in PAL. (This function is used in combination with a lens without an iris mechanism.)

F.L (flickerless): It is effective in reducing the flickers on the monitor screen caused by various lighting, such as fluorescent and mercury lamps, (effective only in areas using 50Hz NTSC and 60Hz PAL)
OFF : The shutter speed will be fixed at 1/60 NTSC and 1/50 PAL.



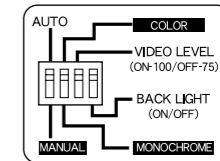
6. Select any required white balance mode by operating ⑩WHITE BALANCE MODE SWITCH.

A.T.W (auto-tracking mode) : This mode is effective when lighting conditions are constantly varying. On occasions, it may be difficult to get optimal white balance adjustment in low light conditions and in a place where flickering occurs.



P.W.B (push-lock white balance): This can be used in such conditions when low fluctuating light is present. The white balance can be adjusted in almost all lighting conditions. However, it cannot adjust to levels of fluctuating light. Adjustment of the white balance when set at P.W.B mode is especially effective with monitoring white objects.

7. Optimal picture quality can be obtained when the switches on the side of the camera are changed in accordance with the monitored situation.



⑬COLOR/MONOCROME SWITCH...AUTO/MANUAL

AUTO: With this setting, color and monochrome monitoring can be automatically selected in accordance with the brightness of the monitored object or area.

MANUAL: With this setting, monitoring can be fixed either with color or monochrome, which is selected with ⑬COLOR/MONOCROME MANUAL SWITCH.

⑭COLOR/MONOCROME MANUAL SWITCH...COLOR/MONOCROME

COLOR : This setting is for color monitoring only.
MONOCROME : This setting is for monochrome monitoring only.

⑮VIDEO LEVEL SWITCH...ON (100) / OFF (75)

ON (100): This setting is employed when contrast and brightness on a monitor is not adjustable, or when you are monitoring in contrasting light and want to improve dark area imaging.

OFF (75) : This setting is used when a standard video output level is required.

⑯BACK LIGHT COMPENSATION SWITCH...ON/OFF

This function is to reduce the darkness of an silhouetted image.

ON: This setting is used when back light compensation is required.

OFF: This setting is used when back light compensation is not required.

Options



C-mount Adaptor 34CMA-R

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



Ministand MS50

A convenient stand for the WAT-232. With this stand, the WAT-232 can be fixed to any desired angle.



Camera Bracket B003

A bracket which is effective for a stable installation of the WAT-232.



AC-adaptor AD-901

The recommended power supply for the WAT-232. With this adaptor, stabilized power can be supplied constantly to the camera.



Camera Housing CH-140

This housing is for use in an outside or an outside-like environment. The housing is weather-resistant with a front glass protected by a visor for clear viewing during rain or snow.

To purchase these options, please contact the distributor or dealer from which you purchased the WAT-232.