

# WAT-35

## Operation Manual

This Operation Manual covers safety, WAT-35 functions, installation and the correct operating procedure for the WAT-35. First, we ask you to read it thoroughly, then install and operate the WAT-35 as advised. In addition, for future reference, we also advise safekeeping of this manual.

Please contact the distributor or dealer from which the WAT-35 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 WAT-35.

### Cautions for Safety

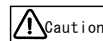
The WAT-35 is designed to be used safely. However, electrical goods may lead to a physical accident caused by fire and electric shock if not used correctly. Therefore, please keep and read the "Cautions for safety" below for protection against accidents.



- Do not disassemble and/or modify the WAT-35.
- Do not operate the WAT-35 with wet hands.



- Use only the AD901-120/230 or equivalent power adaptor for the WAT-35. The recommended voltage is DC+12V ± 10%.
- Do not expose the WAT-35 to wetness or high moisture conditions. The WAT-35 is designed and approved for indoor use only. The WAT-35 is not water-resistance or waterproof. If the location of the WAT-35 is outdoors or in an outdoor like environment. We recommend that you use an outdoor housing for protection.
- Protect the WAT-35 from condensation. Keep the WAT-35 dry at all times during storage and operation.
- Should the WAT-35 not work properly, switch off the power immediately. Then check the WAT-35 according to the "Problem and Troubleshooting" section.



- Avoid the striking of hard objects or dropping the WAT-35. The WAT-35 uses high quality electrical parts and precision components.
- Do not input a video signals other than NTSC/PAL to the video input terminal of the WAT-35.
- Select a stable place for installation of the WAT-35. Use a support of durable strength around an installation position on a ceiling or wall when a stand or tripod is used.
- Do not move the WAT-35 with the cables connected. Before moving the WAT-35, always remove the video cable and power cable from the rear of the camera first.
- Avoid using the WAT-35 near any strong electro-magnetic field. Avoid emission sources of electromagnetic waves when the WAT-35 is installed into main equipment.
- Use the WAT-35 within the nominated operating temperature range of 0 - 40°C. When the WAT-35 is used in environments more than 40°C or less than 0°C, it might not work properly.

### Guide to the Safety Symbols

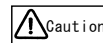
The meanings of the symbols used in this operation manual are:



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 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.

### Problems and Trouble Shooting

If any of the following problems occur when using the WAT-35.

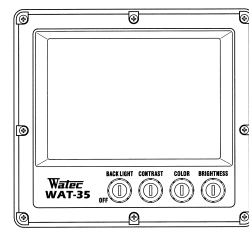
- An optimal picture cannot be obtained, after checking that all the cables and connections are correctly in place.
- Smoke or any unusual odor emerges from the WAT-35.
- An object becomes embedded or enters into the LCD housing or a quantity of liquid seeps into the LCD housing.
- More than the recommended voltage or/and amperage has been applied to the WAT-35 by mistake.
- Anything unusual occurring to any equipment connected to the WAT-35.

Disconnect the WAT-35 immediately according to the following procedures:

- Switch off the main power supply to the WAT-35 or remove the power adaptor from the socket.
- Remove the power and video cables connected to the WAT-35.
- Contact the distributor or dealer from which the WAT-35 was purchased.

### Contents

Using the contents figures below, check to make sure all parts are present before use.



WAT-35



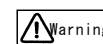
DC plug

### Fixing the WAT-35

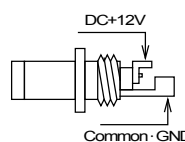
Referring to "Description of parts", use ⑧ TRIPOD MOUNTING SCREW HOLES. The MS50 or the S120 are the recommended Watec stands used for the WAT-35. The thread and pitch of the screw for the mounting hole should be U1/4" L= 5mm. After setting up, check that the WAT-35 is fixed in a stable position.

### DC plug wiring

Check the voltage and polarity when a power adaptor other than the AD901-120/230 is used for power to the WAT-35.



When using an alternative power adaptor requiring the additional DC plug (WPDC12), be sure to wire the plug correctly. See the diagram on the right. After wiring the WPDC12, be sure to insulate the terminals with insulation tape or sleeving for safety and protection.



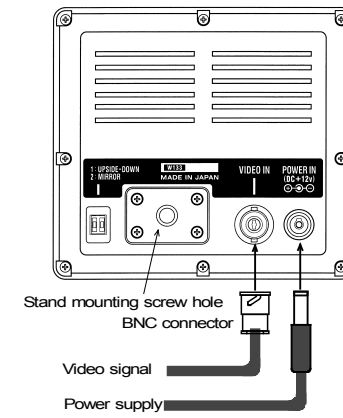
### Set-up and Operation

Ensure that the power to the WAT-35 is turned off before making any connections. The cable for the power supply and the video signal must be connected with the WAT-35 as shown in the diagram on the right.

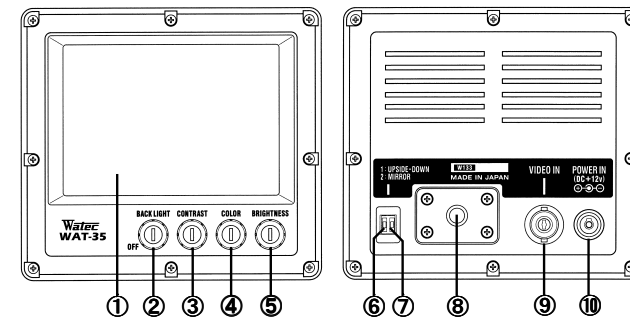
Use a coaxial cable with 75Ω impedance such as a 3C-2V (RG-59B) for the video signal cable.

After connecting, turn on the power by turning the contrast adjustment switch placed on the front panel clockwise until it clicks.

After a picture is displayed on the screen, any optimal function can be selected. See "Description of parts".



### Description of Parts



#### ① LIQUID CRYSTAL DISPLAY PANEL

Do not apply any pressure to the display using your finger or any other object. Applying pressure to the display could cause permanent damage.

#### ② BACK LIGHT CONTROL/POWER

The ON/OFF switch is also used for the back light brightness control. After turning on the unit, continue turning the control clockwise until the back light brightness is to your requirement.

#### ③ CONTRAST ADJUSTMENT KNOB

Turn the knob clockwise to increase the contrast and anticlockwise to decrease the contrast.

#### ④ COLOR ADJUSTMENT KNOB

Color tint can be adjusted. Turn the knob while looking at the monitored picture.

#### ⑤ BRIGHTNESS ADJUSTMENT KNOB

Brightness adjustment. Adjust the knob while looking at the monitored picture.

#### ⑥ UPSIDEDOWN IMAGE SWITCH

Use this switch to turn the image 180 degrees. Place the switch in the upper position.

#### ⑦ MIRROR IMAGE SWITCH

Use this switch to create a mirror image. Place the switch ⑦ in the upper position for this function. This function can be useful in correcting reflective images, especially when numbers and letters are visible.

#### ⑧ TRIPOD MOUNTING SCREW HOLES

The mount thread is U1/4" for a stable tripod fixing. Optional MS50 or S120 stands are recommended.

#### ⑨ VIDEO IN

Video input terminal. NTSC/PAL signal transmission is available. Use a coaxial cable terminated with 75Ω impedance.

An RG-59B (RG-140/U) or RG-6A/U cable is recommended.

Do not connect a single cable multiplexing video signal with power to the WAT-35.

#### ⑩ POWER IN

Use a stable power supply of DC+12V ± 10% with more than 200mA. The AD901-120/230, power adaptor is recommended for the WAT-35. For the polarity of the power socket, the center pin is (+).

### Options

#### MS50 and S120 stands

The WAT-35 can be attached to either stand using the stand mounting thread on the rear of the unit. In addition, each stand is easily fixed to a wall or any other stable surface.



MS50



S120

#### AD901-120/230 power supply

The recommended AC adaptor for the WAT-35, for a constant and stable power supply.



To purchase these options and others, please contact the distributor or dealer from which you purchased the WAT-35.

### Specifications

Model	WAT-35
TV system	NTSC / PAL (Auto-select)
Screen Size	3.5"
Element	COLOR TFT LCD
Number of Pixel	480(H) × 234(V)
Dot Pitch	0.15(H) × 0.216(V) mm
Horizontal view angle	±45°
Vertical view angle	±45°
Back Light	LED
Contrast	250 : 1
Power Supply	DC+12V ± 10%
Power Consumption	1.6W (130mA)
Operating Temperature	0 - +60°C (Without condensation)
Operating Humidity	Less than 95RH
Storage Temperature	-25 - +80°C (Without condensation)
Storage Humidity	Less than 95RH
Size	100(W) × 90(H) × 36.5(D) mm
Weight	Approx. 170g

- 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-35 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