



Full HD Compact Camera

WAT-30HD

Operation Manual

This operation manual covers safety, camera functions, installation and the correct operating procedure for the WAT-30HD. First, we ask you to read this operation manual thoroughly, then install and operate the WAT-30HD as advised. In addition, for future reference, we also advise safekeeping of this manual.

If you do not understand the installation, operation or safety instructions expressed in this manual, please contact the distributor or dealer from where the WAT-30HD was purchased. Not understanding the contents of the operation manual sufficiently may cause damage to the camera, personal belongings and/or result in injury.

Guide to the Safety Symbols

Symbols used in this operation manual:



“Danger”, may lead to a serious accident such as death or injury caused by fire or electric shock.



“Warning”, may cause severe damage such as a physical injury.



“Caution”, may incur injury and cause damage to peripheral objects in the immediate surroundings.

Cautions for Safety

The WAT-30HD is designed to be used safely. If not used safely, it may lead to a physical accident caused by fire and electric shock. Therefore, please keep and read the, “Cautions for safety” below for protection against accidents.



- **Do not disassemble and/or modify the WAT-30HD.**
- **Do not operate the WAT-30HD with wet hands.**



- **Use a stabilized power adaptor designed for DC+12V±10%, with a current capacity of more than 250mA for the WAT-30HD.**
The recommended voltage is DC+12V±10%. Also, we advise the Use of an “inline fuse” power line to protect the camera and peripheral equipment, where applicable.
- **Do not expose the WAT-30HD to wetness or high moisture conditions.**
The WAT-30HD is designed and approved for indoor use only. The WAT-30HD is not water-resistant or waterproof. If the location of the camera is outdoors or in an outdoor like environment, we recommend that you use an outdoor camera housing.
- **Protect the WAT-30HD from condensation.**
Keep the WAT-30HD dry at all times during storage and operation.
- Should the camera not work properly, unplug 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-30HD.**
The WAT-30HD uses high quality electrical parts and precision components and may inadvertently be damaged if not cared for properly.
- **Do not connect any power supply directly to the video out terminal of the unit.**
Do not connect the WAT-30HD with any monitor using a video/power single transmission terminal. The WAT-30HD utilizes HD-SDI output and is not designed for use with this type of equipment. We also advise you to read the operation manual of the monitor you plan to use before any connections are made.
- **Do not install the WAT-30HD in a position subject to direct sunlight.**
Sunlight shinning directly onto the WAT-30HD lens can cause damage to the sensor.
- **Select a stable place for installation of the WAT-30HD.**
Use an appropriately rated mount durable and strong for all installation position.

- **Do not move the WAT-30HD with the cables connected.**
Before moving the WAT-30HD, always remove the video cable and power cable from the rear of the camera first.
- **Avoid using the WAT-30HD near any strong electro-magnetic field.**
Avoid emission sources of electromagnetic waves when the WAT-30HD is installed into main equipment.

Problems and Trouble Shooting

If any of the following problems occur when using the WAT-30HD,

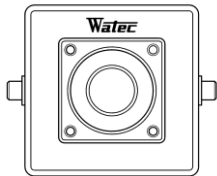
- An optimal picture cannot be obtained, after checking that all the cables and connections are correctly in place.
- Smoke or any unusual odor emerges from the WAT-30HD
- More than the recommended voltage or/and amperage has been applied to the WAT-30HD by mistake.
- More than the recommended voltage or/and amperage has been applied to the WAT-30HD by mistake
- Anything unusual occurring to any equipment connected to the WAT-30HD

Disconnect the camera immediately according to the following procedures:

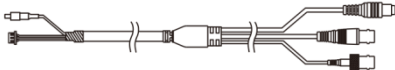
- ①**Switch off the main power supply to the camera.**
- ②Remove the power and video cables connected to the WAT-30HD.
- ③Contact the distributor or dealer from which the WAT-30HD was purchased.

Contents

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

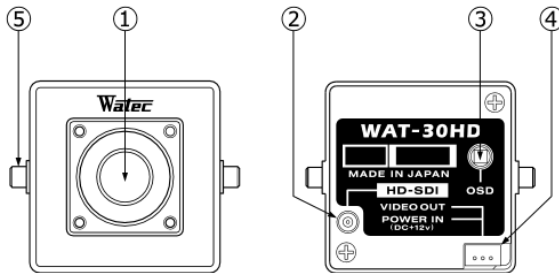


WAT-30HD



Power and Video Cable

Description of Parts



①LENS FRONT FACE

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

②VIDEO OUT

The terminal for SDI signal output. Use the attached power and video cable for this purpose.

③JOYSTICK

Joystick is for on screen display setups for functions.

④POWER IN/VIDEO OUT

The terminal for power input and video signal output. Use the attached power and video cable for this purpose.

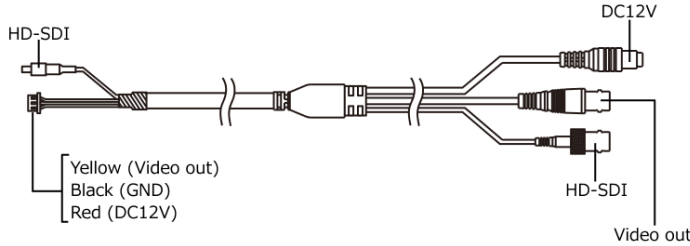
⑤CAMERA MOUNTING FEATURES

These mounting features are used to mount the camera.

Power Supply

Use a stabilized power adaptor designed for DC+12V±10%, with a current capacity of more than 250mA.

See below for the details, for connecting to a peripheral devices.

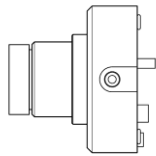


Set-up and Operation

- 1) Ensure that the power to the WAT-30HD and the peripheral equipment is turned off before making any connections.
- 2) Remove the lens cap from the WAT-30HD.
- 3) Connect VIDEO OUT on the WAT-30HD with the monitor.
- 4) Turn on the power to the WAT-30HD, monitor and all other allied equipment. When a picture cannot be obtained on the monitor, or a strong smell of burning is present, or smoke is visible, check and follow the procedure mentioned in the “Problems and Trouble Shooting” section.
- 5) After following the procedure below and the picture is still out of focus.
- 6) When detailed settings are required or an adequate image is not obtained, then set the functions on the screen by ③Joystick.

Mounting

The WAT-30HD has two bosses on both sides featuring M2 thread and screws. Use these if the camera is to be mounted to the B001 bracket.



Options



Mounting Bracket (B001)






B001 is used for mounting the WAT-30HD to stands and surfaces. The base has a U1/4” thread for mounting on stands, and through holes on both sides.



Mini Stand (MS50)

A convenient stand for the B001. With this stand, the camera can be adjusted to any desired angle.

关于电子信息产品污染控制标识

环境使用期限	名称	有害物质或元素																											
		铅	镉	汞	六价铅	PBB	PBDE																						
	外壳	○	○	○	○	○	○																						
	实装基板	×	○	○	○	○	○																						
	电线流	×	○	○	○	○	○																						
	镜头	×	○	○	○	○	○																						
○:表示该有毒有害物质在该部件所有均质材料中的含量的在SJ/T 11363-2006规定的限量要求以下 ×:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006规定的限量要求 尚无制造代用品的技术。																													
 瓦楞纸板 外包装箱					 包装袋			 气帽	 附件袋	※生产日期位于包装的上面 <table><tr><td>A</td><td>A</td><td>年</td><td>记号</td><td>月</td><td>记号</td></tr><tr><td> </td><td> </td><td>2011</td><td>A</td><td>1</td><td>1</td></tr><tr><td>年</td><td>月</td><td>2012</td><td>B</td><td>10</td><td>A</td></tr></table>		A	A	年	记号	月	记号			2011	A	1	1	年	月	2012	B	10	A
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Specifications

Model	WAT-30HD	
Pick-up element	1/3 inch CMOS image sensor	
Number of Effective Pixels	1944(H)×1092(V)	
Unit Cell Size	2.75μm × 2.75μm	
Imaging system	RGB primary color bayer arrangement mosaic filters on chip	
Sync. System	Internal	
Scanning System	Progressive	
Video Outputs	HD-SDI / Composite video	
Output Format	1080/30p, 1080/25p, 720/60p, 720/50p, NTSC, PAL	
Resolution (H)	900TVL	
Minimum Illumination	0.1lx F1.8 (DSS=Off) 0.01lx F1.8 (DSS=Max)	
S/N	More than 52dB	
Function Settings	OSD (On Screen Display) operated by joystick	
AE Mode	AUTO / MANUAL / FLICKER	
Shutter Speed	1/30, 1/60, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000, 1/60000	
Slow Shutter	OFF, x2, x4, x8, x16, x32	
White Balance	AUTO, AUTO EXT, PUSH LOCK, Manual	
AGC	12 - 60dB	
DAY / NIGHT	AUTO, COLOR, B&W	
3D Noise Reduction	OFF, LOW, MIDDLE, HIGH	
WDR	Double Shutter	ON / OFF
	Digital	ON / OFF
Back Light Compensation	ON (Area selectable) / OFF	
White Blemish Correction	Yes	
Defog	ON (LOW, MIDDLE, HIGH) / OFF	
Digital Zoom	1.0x - 20.0x	
Privacy Mask	16marks	
Mirror Image	OFF, H-FLIP, V-FLIP, HV-FLIP	
Motion Detection	ON / OFF	
HLMASK	ON / OFF	
Power Supply	DC+12V±10%	
Power Consumption	1.44W (120mA)	
Operating Temperature	-10 - +50°C	
Operating Humidity	80% RH or less (Without condensation)	
Storage Temperature	-20 - +60°C	
Storage Humidity	95% RH or less (Without condensation)	
Lens Mount	M12	
Size	35.4(W)×29.4(H)×29.2(D) (mm)	
Weight	Approx. 35.5g	

- 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, miss-operation or improper wiring of our equipment.
- If for any reason the WAT-30HD 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



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