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CAUTIONS:

1. Use only the AD-901 or equivalent power adaptor for the WAT-902H. Power supplied without voltage stabilization and/or the voltage range is not maintained at ±10%. LCD may damage to the WAT-902H.

2. Do not expose the WAT-902H to any lower temperature conditions. The WAT-902H is designed and approved for indoor use only.

3. If the location of the WAT-902H is outdoors or in an outdoor like environment, we recommend that you use an OUTDOOR-CAMERA HOUSING.

4. Do not disassemble and/or modify the WAT-902H or the component parts or accessories. WATEC can not be held responsible for equipment failure or any damage or trouble caused by such action.

5. Do not install the WAT-902H near a heat source, such as radiators or heating air ducts, or in a position subject to direct sunlight, excessive dust, mechanical vibration or shock.

6. When the WAT-902H is used under fluorescent or mercury lighting conditions, a flickering phenomenon may occur on the monitor screen. This does not mean that the WAT-902H is damaged.

7. A white dot affected by cosmic rays may casually appear on the monitor screen. This is a characteristics which the CCD cell unit has and is not considered abnormal.

8. When installing the WAT-902H in an industrial or commercial environment (i.e. within equipment housing, near other electronic devices, etc.) make sure to avoid any strong electromagnetic field. Otherwise the video output will be distorted and monitor sharpness compromised.

9. Check and protect the WAT-902H from any source generating a strong electromagnetic field from your equipment, when the WAT-902H is fitted near or inside that unit.

10. Do not connect any power supply directly to the VIDEO OUT terminal of the unit. This may cause damage.

11. When a cable operation system such as video/power multiplex transmission is being used, check the specifications and requirements of your monitor for proper connection to the video signal terminal of the WAT-902H.

12. Do not connect any signal line directly into the camera. The camera lens can damage to the CCD.

NOTE: Any standard model C mount lens can be attached to the WAT-902H, if our optional C mount ring, 30CMA-R is fitted to the unit.

NOTE 1. Be careful not to scratch the surface of the lens mount ring for the forward and backward motions of the lens mount.

NOTE 2. Do not use any excess force to the lens mount and rings.

NOTE 3. Dirt, water or oil deposits on either will cause an unclear picture on the monitor and scratches will become permanent damage.

NOTE: Handle the CCD and the lens with special care.

NOTE: Always attach the lens cap so as to protect the lens and the CCD from contamination and damage.

NOTE: Do not mix or interlock power input, video input and control signal input lines.

NOTE 1. Handle the CCD and the lens with special care.

NOTE 2. Always attach the lens cap so as to protect the lens and the CCD from contamination and damage.

NOTE 3. Steady, water or oil deposits on either will cause an unclear picture on the monitor and scratches will become permanent damage.

NOTE 4. Do not connect any power supply directly to the VIDEO OUT terminal of the unit. This may cause damage to the CCD.

NOTE 5. Do not connect any signal line directly into the camera. The camera lens can damage to the CCD.
### IMPORTANT NOTES ON FOCUSING

- After the required lens on the WAT-902H has been inserted, loosen the hexagonal focusing adjustment screws (3 pcs.) when focusing is completed.
- Be extremely careful not to drop the lens.
- Set the focus ring to the infinitive (infinity) position, and while looking at the monitor screen, move the lens forwards or backwards to focus.
- Tighten the hexagonal focusing adjustment screws (3 pcs.) when focusing is completed.
- Continually repeat the procedures (1 – 3) position, and while looking at the monitor screen, move the lens forwards or backwards to focus.
- Be extremely careful not to drop the lens.

### IMPORTANT NOTES ON USAGE OF AUTO IRIS LENS

- An optimal picture may not be obtained on the monitor screen due to the different kinds of lenses used which give different angular views and different contrasts of objects. In this case adjustment must be made by reading through as shown below.
- Check that the required auto iris lens has the adjustment control as shown in the drawing on the left.
- Set the ALC (Automatic Level Control) adjustment control in the center between AV and PK on the lens using a small screw driver.
- Point the lens towards the object while looking at the screen.
- Turn the ALC adjustment control clockwise or counterclockwise to obtain the optimal brightness of an object on the monitor screen.
- The same operation as the above is carried out at the ON position of the SHUTTER switch even when the iris is fixed.
- Always turn the ALC adjustment control towards PK when the contrast of the object needs to be stronger or towards AV when it needs to be weaker.
- Continually repeat the procedures (1) and (2) to obtain an optimal picture.

### EXAMPLE FOR SHUTTER SWITCH USE

- ON: When a fixed lens without auto iris function is used. When brightness of an object is constant such as continuous monitoring of the outdoors through a 24 hour cycle.
- OFF: When an auto iris lens is used. When an optimal picture can be obtained on the monitor screen in conditions that light is less variable such as indoors.

**NOTE:** Select the most appropriate function out of the above three that correspond to your required monitoring.

*Smear phenomenon is a portion of an object with high brightness projecting bright trails up and down, appears on the monitor screen, when an object with high brightness is monitored. (especially in the ON position) This does not mean the camera is damaged! This is normal.

### NOTICES

- Smear phenomenon appears when the object is stationary or moving slowly.
- Be extremely careful not to drop the lens.
- As the lens is inserted, loosen the screws, and while looking at the monitor screen, move the lens forwards or backwards to focus.
- After the required lens on the WAT-902H has been inserted, loosen the hexagonal focusing adjustment screws (3 pcs.) when focusing is completed.

### IMPORTANT:

- The camera mentioned above does not comply with this regulation, if it is modified at your disposal.

### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Feature</th>
<th>WAT-902H EIA</th>
<th>WAT-902H CCIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format (PAL)</td>
<td>1/2&quot; Interline transfer CCD image sensor</td>
<td>1/2&quot; Interline transfer CCD image sensor</td>
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<tr>
<td>Resolution</td>
<td>570TV Lines</td>
<td>570TV Lines</td>
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<tr>
<td>Number of effective pixels</td>
<td>494(V)</td>
<td>494(V)</td>
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<tr>
<td>Number of total pixels</td>
<td>768(H)</td>
<td>768(H)</td>
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<tr>
<td>Video output</td>
<td>1Vp-p 75V</td>
<td>1Vp-p 75V</td>
</tr>
<tr>
<td>Scanning system</td>
<td>2:1 Interlace</td>
<td>2:1 Interlace</td>
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<tr>
<td>Sync system</td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td>S/N ratio</td>
<td>46dB (AGC off)</td>
<td>46dB (AGC off)</td>
</tr>
<tr>
<td>Minimum illumination</td>
<td>0.000 Lux (1/10A, 1/10A)</td>
<td>0.000 Lux (1/10A, 1/10A)</td>
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<tr>
<td>Maximum illumination</td>
<td>9,844 Lux (1/10A, 1/10A)</td>
<td>9,844 Lux (1/10A, 1/10A)</td>
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<td>Back light compensation</td>
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<tr>
<td>Gamma characteristic</td>
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<td>AGC</td>
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<tr>
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<td>1/60 – 1/10000 sec</td>
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<tr>
<td>Alarm</td>
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<td>100, 500 mV</td>
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<td>Frames</td>
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<td>Storage temperature</td>
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<td>-40 ~ +70℃</td>
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<tr>
<td>Operating temperature</td>
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<tr>
<td>Angle</td>
<td>360°</td>
<td>360°</td>
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</tbody>
</table>

### IMPORTANT:

- This device complies with Part 15 of the FCC Rules.
- Operation is subject to the following two conditions:
  1. This device may not cause harmful interference, and
  2. This device must accept any interference received, including interference that may cause undesired operation.

**Design and specifications are subject to change without notice.**

**WAT-902H is not responsible for any inconvenience or the attendant damages to the video, audio and monitoring recording equipment, caused by misuse, misoperation or improper wiring of our equipment.**

**If for any reason the WAT-902H 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.**

**WATEC, Co., Ltd.**

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**http://www.watec.net** **E-mail:** info@watec.net

**This device complies with Part 15 of the FCC Rules.**