

INTRODUCTION:

Thank you for choosing our WAT-230CD CCD Camera.

WATEC hopes that both the quality and design satisfy your requirements.

Before proceeding to install or operate the WAT-230CD, please read and understand thoroughly the contents of this Operation Manual.

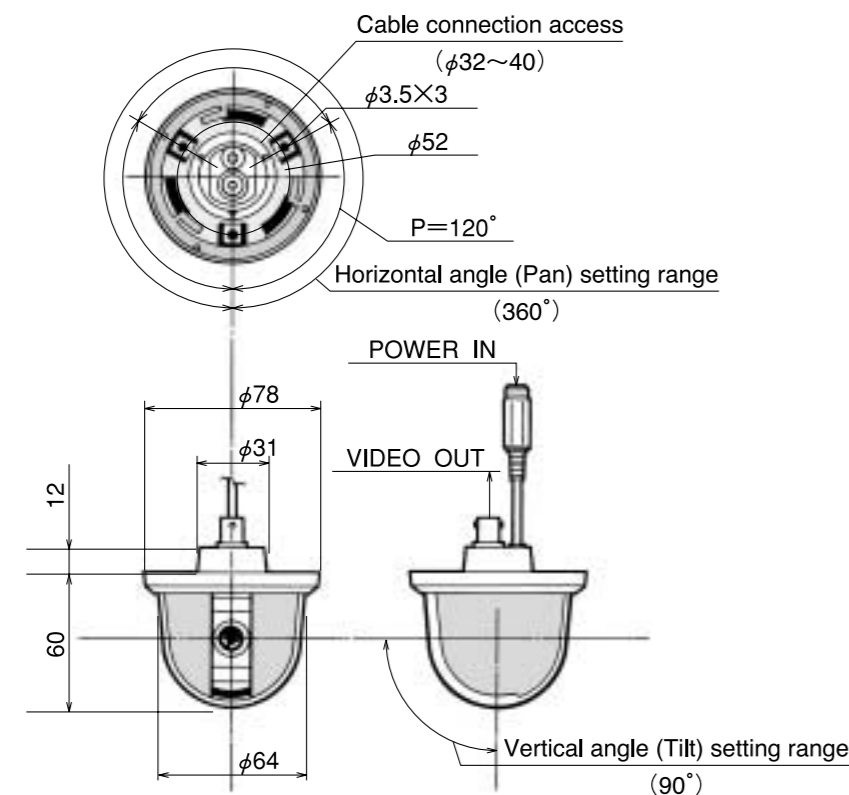
For future reference we also advise safe keeping of this manual.

CAUTIONS:

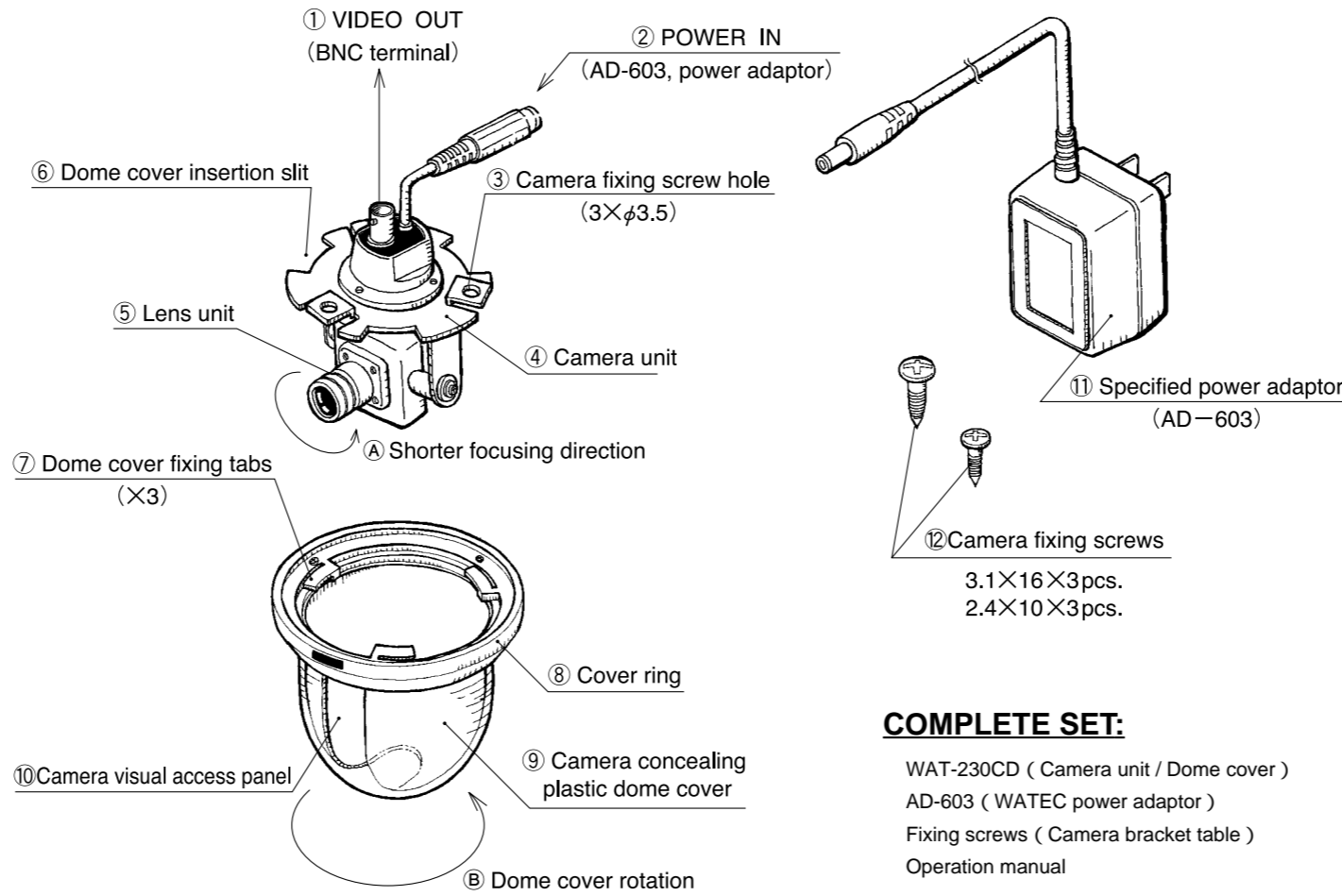
1. Use only the AD-603 or equivalent power adaptor for the WAT-230CD. Power supplied without voltage stabilization and/or the voltage range maintained at +6~7.5V DC. may cause damage.
2. Do not expose the WAT-230CD to wetness or high moisture conditions. The WAT-230CD is designed and approved for indoor use only.
If the location of the camera is outdoors or in an outdoor like environment, we recommend that you use an OUTDOOR CAMERA HOUSING.
3. Avoid the striking of hard objects or dropping the unit.
4. Do not disassemble and/or modify the WAT-230CD or any of its component parts or accessories. WATEC can not be held responsible for equipment failure or any damage and/or trouble caused by such action.
5. Do not install the WAT-230CD near heat sources, such as radiators or heating air ducts, or in a position subject to direct sunlight, excessive dust, mechanical vibration or shock.
6. When installing the WAT-230CD in an industrial or commercial environment (i.e. within equipment housing, near other electronic device, etc.) make sure to avoid any strong electromagnetic field, otherwise the video output may be distorted and monitor clearness compromised.
7. Do not connect any power supply directly to the VIDEO OUT of the unit. This may cause damage.
8. When a cable operation system, such as video/power multiplex transmission is being used, check the specifications or requirements of your monitor for proper connection to the video signal terminal of the camera.
9. Do not make connections and/or operate the WAT-230CD with wet hands.
10. Should the WAT-230CD not work properly, switch off the power and then, check that power and video terminals are properly connected.

Sunlight shining directly onto the camera lens can cause damage to the CCD.

DIMENSIONS(Unit:mm):



DESCRIPTION OF PARTS:



COMPLETE SET:

WAT-230CD (Camera unit / Dome cover)
AD-603 (WATEC power adaptor)
Fixing screws (Camera bracket table)
Operation manual

SETTING UP AND OPERATION OF THE WAT-230CD:

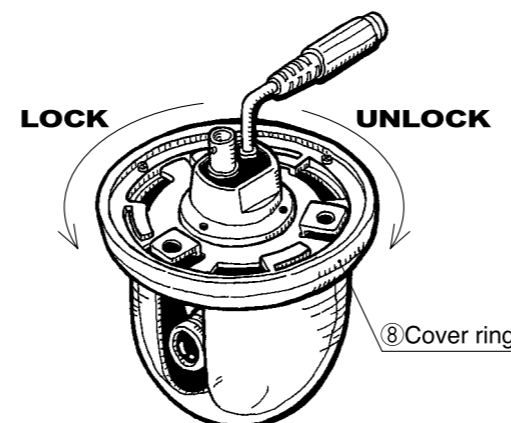
NOTE: Ensure that before any connections are made to the WAT-230CD the power is switched OFF.

1. Determine the fixing place for the WAT-230CD and make a hole for the video and power cables.
(Diameter: 32 ~ 40mm)
2. Fix the camera unit with the attached camera fixing screws. Determine the required sighting angle and focusing position of the WAT-230CD after connecting the video signal and power cables.
NOTE:RG-58/U or RG-6/U terminated at 75 impedance should be used for the video signal transmission.
:There are two kinds of screws provided. Use either of them to suit your purpose.
3. Put the camera concealing plastic dome cover onto the camera unit.
(Referring to the Mounting / Dismounting method of the camera concealing plastic dome cover)
4. Set the camera visual access panel over the lens unit.
(This is done by rotating the dome cover to the appropriate position)

NOTE:When the lens unit is not placed within the area of the camera visual access panel, a clear picture may not be obtained on the monitor.

:When the camera concealing plastic dome cover is mounted, focusing may not be sharp around the edges due to the introduction of the cover. In this situation a sharp picture can be obtained by pre-setting the focusing position at a slightly shorter distance. This may take several attempts.

MOUNTING/DISMOUNTING OF THE DOME COVER:



Mounting

Set the dome cover fixing tabs to the dome cover insertion slit and turn the cover ring clockwise until it stops.

NOTE: Be careful not to damage the dome fixing tabs by rotating the cover ring excessively.

Dismounting

Turn the cover ring anticlockwise until it stops.

NOTE: Hold the cover ring during mounting or dismounting operation.

SPECIFICATIONS:

Model	WAT-230CD(NTSC)	WAT-230CD(PAL)
Pick-up element	1/4"Interline transfer CCD image sensor	
Number of pixels	542(H) x 492(V)	542(H) x 582(V)
Sensing area	512(H) x 492(V)	512(H) x 582(V)
Unit cell size	7.2 μ m(H) x 5.6 μ m(V)	7.2 μ m(H) x 4.7 μ m(V)
Sync system	Internal	
Scanning system	2:1 Interlaced	
Video output	1Vp-p 75 (unbalanced)	
Built-in Lens	G-3.8mm(F2.0) Angular View(H x V) [*] 51° x 40°	
Horizontal resolution	350TV lines (center)	
Minimum illumination	0.4 lx. F2.0 (G3.8mm)	
S/N Ratio	50dB (AGC OFF)	
Electric iris	1/60 ~ 1/100000 sec.	1/50 ~ 1/100000 sec.
White Balance mode	Automatic	
AGC	6 ~ 30dB	
Gamma characteristic	0.45	
Pan range	360°	
Tilt range	90°	
Power supply	DC + 5.4V ~ + 7.5V	
Current consumption	160mA	
Storage temperature	- 30 ~ + 70	
Operating temperature	- 10 ~ + 40	
Weight	approx. 115g	

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.

Important:

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

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

If for any reason the WAT-230CD 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.

Design and specifications are subject to change without notice.