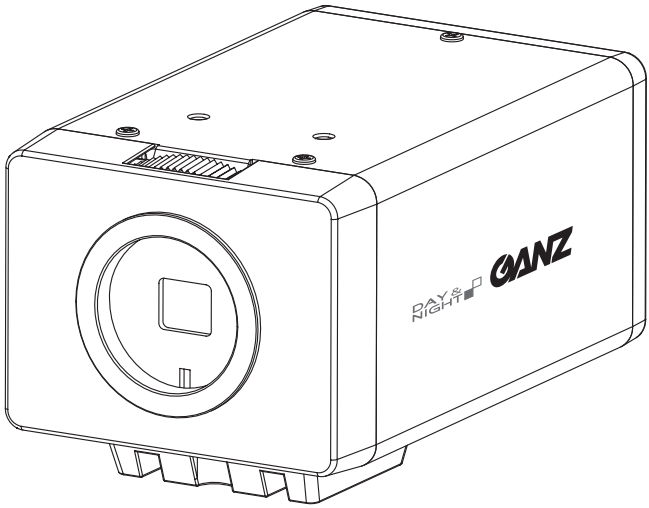
Color / Digital Day & Night CAMERA

YCH-03Am

Mechanical Day & Night CAMERA

ZC-NH258Nm

Instruction Manual



ENGLISH
FRANÇAIS
ESPAÑOL
PORTUGUÊS

Thank you for your purchase of this product. Before operating this product, please read this instruction manual carefully. After you have read this manual, store it in a safe place for future reference.

CONTENTS

PRODUCT FEATURES

- High resolution surveillance camera with a built-in 1/3- type CCD.
- With the Misty Image Self correction Technology (MIST) function, low contrast images that are caused by a poor visibility environment such as fog, mist, rain or snow are processed in real time into high quality images with the contrast automatically enhanced.
- The Dynamic Range Control (DRC) function automatically detects and evaluates bright and dark areas on the screen, and corrects dark and bright image areas by making them brighter or darker respectively.
- The day and night function provides high quality color picture in the normal lighting conditions (day mode) and high sensitivity black and white picture in the low light conditions (night mode).

SAFETY PRECAUTIONS

THE INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO ALL LOCAL CODES.

⚠ WARNING
This symbol indicates that there is a possibility of serious injury or even death if the product is not used correctly.

⚠ CAUTIONS
This symbol indicates that there is a possibility of minor or moderate injury or damage to equipment.

1. Power supply
   (1) Use only with a 24 V AC power supply marked class 2 or +12 V DC power supply.
   (2) Be sure to connect each lead to the appropriate terminal. Wrong connection may cause malfunction and/or damage to the video camera.
2. Operating and storage locations
   (1) Whether or not the camera is turned on, do not aim it at the sun or other extremely bright objects. Extremely bright objects cause the image on the LCD to smear and can damage the CCD (Charge Coupled Device).
   (2) Do not place the camera in the following locations.
      ① Locations with extremely high or low temperatures (storage temperature range: -20°C to +60°C)

② Locations with high levels of humidity or dust (storage humidity range: max. 95% RH (no condensation))
③ Locations where there are large amounts of water vapor or steam
④ Locations with excessive vibrations

(3) If this camera is used near wireless communication devices or other equipment that emits a strong electromagnetic field some irregularities such as noise on monitor screen may occur.

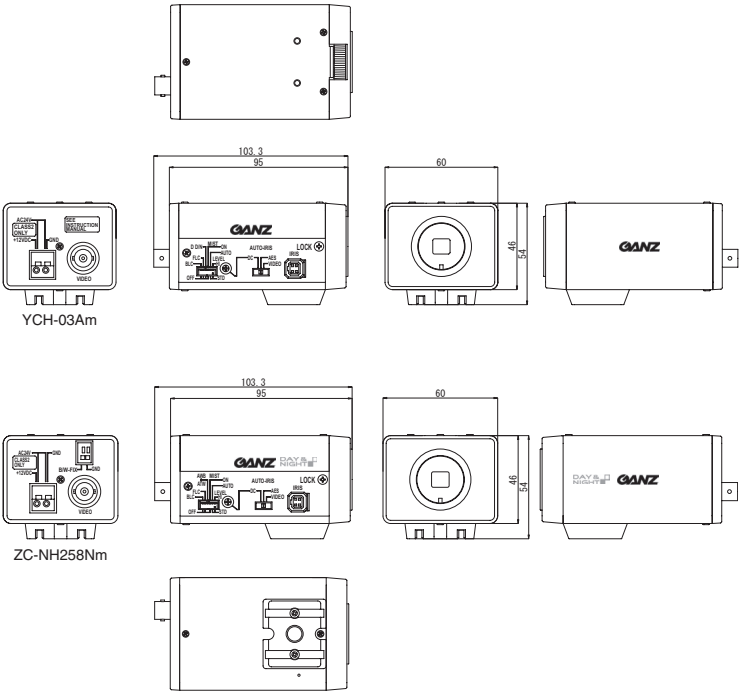
3. Handling of the unit
Do not allow the camera to be subjected to strong impacts or shocks. The camera could be damaged by improper handling or storage.

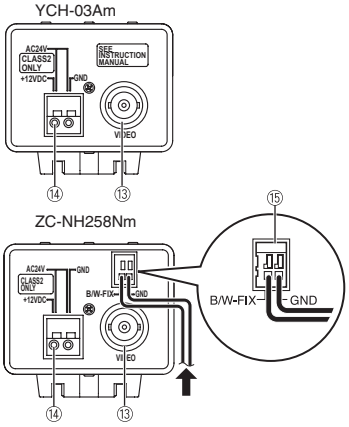
· Never attempt to disassemble or modify the camera.
· If the camera behaves abnormally, immediately turn off the power and consult your dealer.

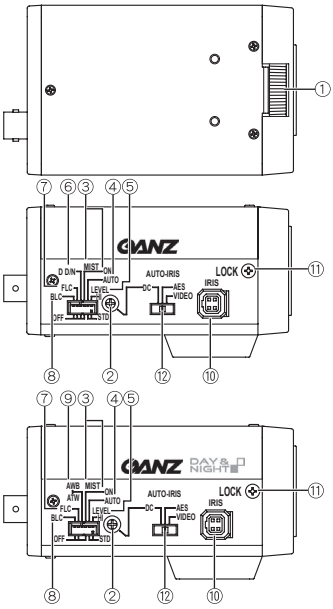
This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada's Compliance Statement
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

EXTERNAL DIMENSIONS







① Flange back adjustment wheel

If the focus needs to be adjusted after the lens has been mounted, loosen the flange back locking screw (⑪) and rotate the adjustment wheel to adjust.

② DC iris level adjust POT

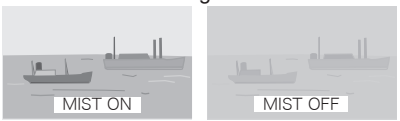
Adjust DC auto-iris level manually.

Easy Focus adjustment

Be sure to adjust the lens focus only in a well-lit environment. When using a DC iris lens, set the auto-iris mode switch (⑫) to AES, and then make the focus adjustment. After the adjustment, be sure to return switch (⑫) to DC.

③ MIST function switch

For turning on and off the MIST function which corrects low image contrast.



ON : Activates the MIST function.

OFF : Disables the MIST function.

④ MIST mode switch

STD : Standard setting for MIST. The preset conditions are applied to ON/OFF control and correction effects of the MIST function.

AUTO: Select this mode when image contrast is over-corrected in "STD" of the MIST mode. Under normal conditions, AUTO does not function at all or just functions to correct the image contrast slightly. However, when the image contrast deteriorates due to an environmental change, the MIST automatically adjusts the correction effects.

Cautions

- In "AUTO" of the MIST mode, an object's environmental information obtained from camera images is made into data and then stored and analyzed for ON/OFF control of MIST operation as well as for correction effect adjustment according to the object's environment.
- The data stored in the camera will be deleted if the MIST mode is switched from "AUTO" to "STD".

- When using “AUTO” of the MIST mode, be sure to switch the mode from “AUTO” to “STD” and then back to “AUTO” after setting up the camera. This is required to reset the data accumulated during the setup process.
- When using “AUTO” of the MIST mode, fix the camera setting direction. The “AUTO” cannot be used for constant movement of all objects, such as when a pan-tilt camera is used. In such a case, use “STD” of the MIST mode.

⑤ MIST/DRC level selection switch

HI : MIST level (when the MIST mode is set to “STD” in ④)
Allows wider operating range as well as achieving higher correction effects than “STD” mode.
DRC level (when the MIST mode is set to “AUTO” in ④)
Achieves higher correction effects than “STD” mode.

STD: Sets standard correction effects for MIST and DRC.

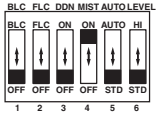
DRC ON

DRC OFF

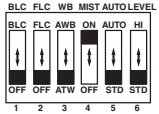
The following shows the switch settings and the MIST/DRC function settings.

Mode setting switch

YCH-03Am



ZC-NH258Nm



■ Factory default switch settings

Position settings of MIST-related switches

MIST OFF/STD/AUTO	DRC OFF/STD/HIGH	SW No. 4 MIST ON/OFF	5 AUTO/STD mode	6 LEVEL HIGH/STD
OFF	OFF	□■	□■	□■
STD	STD	■□	□■	□■
HIGH	STD	■□	□■	■□
AUTO	STD	■□	■□	□■
	HIGH	■□	■□	■□

⑥ D D/N (Digital Day & Night) select switch (YCH-03Am)

The camera image digital processing produces well-lit images even in low illumination environments. While this function is operating, the image will be monochrome. When the environment in which the camera is being used brightens the image will be in color.

ON : Day/Night automatic switching (low illumination: monochrome; normal lighting: color)

OFF : Fixed to color image

⑦ FLC switch

FLC : Shutter speed to be fixed at 1/100 sec.

OFF : Normal position (Fixed at 1/60 second)

⑧ BLC (Back Light Compensation) mode switch

BLC OFF

When strong light (sun, sky, illumination, etc.) is present behind the object being photographed, the object will appear dark. In this case, put this switch in the BLC position.

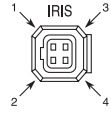
⑨ WB (White Balance) switch (ZC-NH258Nm)

AWB : Will set fixed white balance.

ATW : The white balance will be automatically adjusted following any changes in the color temperature of a light source.

⑩ Auto-iris output connector

For connecting the cable of an auto-iris lens. The pin assignment is following.



No.	DC	VIDEO
1	CONTROL -	+ 12V (max. 50 mA)
2	CONTROL +	N. C.
3	DRIVE +	VIDEO
4	DRIVE -	GND

⑪ Flange back lock screw

Loosen this screw for flange back adjustment. Be sure to retighten the screw after adjustment.

⑫ Auto-Iris mode switch

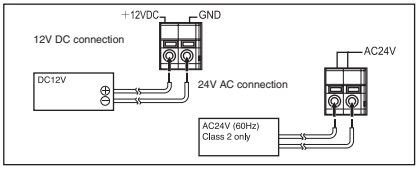
For switching the output from the auto-iris connector (⑩).

⚠ **CAUTIONS** : When connecting the auto-iris lens, turn off the camera power. Also, if the auto-iris mode switch is set to a mode other than “DC” or “VIDEO” that is set for the connecting lens, the lens may be damaged.

DC	:	To be set when using a non-amp auto-iris lens.
AES	:	To be set when using fixed iris lens.
VIDEO:		To be set when using an auto-iris lens a built-in amp.

⑬ **Video output connector**
Connected to the TV monitor with a coaxial cable.

⑭ **Power input terminal**



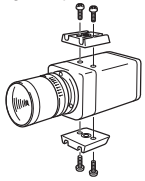
⚠ **CAUTIONS** : Use only with a 24 V AC power supply marked class 2 or +12 V DC power supply.

⑮ **B/W Mode Fix terminal (ZC-NH258Nm)**
The picture mode can be fixed at B/W by shorting the two contacts on the B/W Mode Fix terminal (for details, see the figure on page 4). Fixing the picture mode at B/W can prevent the picture from having optical oscillation, a phenomenon in which continuous switching between color mode and B/W mode occurs under infrared illumination.

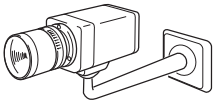
Instructions when using an infrared lamp
Always check the brightness of an infrared lamp which is to be used with this product. Excessive infrared illumination may cause optical oscillation. Refer to section (⑮) above and fix the picture mode at B/W in order to avoid optical oscillation under excessive infrared illumination.

CAMERA MOUNTING

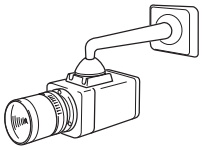
Moving the tripod set base plate



Bottom attachment



Top attachment



The camera can be attached to a tripod, fixer or other mounting device from either the top or bottom side by using the mounting screw holes (1/4-inch, 20 UNC) of the tripod set base plate. The tripod set base plate can be moved by first removing the two screws and then attaching the base plate to the top or bottom.

⚠ **CAUTIONS** : Do not use any screws other than those of the tripod set base plate of this camera. Use of longer screws can damage the camera and use of shorter screws can result in falling.

TROUBLESHOOTING

Please check the following points before asking for repair.

Symptom	Points to check
No video image is displayed.	· Is the power turned on? · Has the coaxial cable been connected properly? · Has the lens cap been removed? · Has the Auto-Iris mode switch been set properly?
Blurred image is displayed.	· Is the lens clean? · Has the lens focus been set properly? · Has the monitor been adjusted properly?

SPECIFICATIONS

Model No.			YCH-03Am D D/N (Digital Day & Night)	ZC-NH258Nm M D/N (Mechanical Day & Night)
TV system			NTSC	
Scanning system			2:1 Interlace	
Image sensor			1/3-type Interline transfer CCD	
Effective elements			768 (H) × 494 (V)	
Scanning frequency			15.734kHz (H) / 59.94Hz (V)	
Video output			1.0 V (p-p) / 75Ω	
Horizontal resolution			More than 540 TVL	
Min. illuminance	F1.2	50IRE	0.6 lx (D D/N: OFF) / 0.4 lx (D D/N: ON)	0.03 lx (Night mode, B/W)
		30IRE	0.3 lx (D D/N: OFF) / 0.2 lx (D D/N: ON)	0.015 lx (Night mode, B/W)
	With IR illuminance		—	0.00 lx (Night mode, B/W)
S/N ratio			More than 50dB (At minimum AGC gain, with MIST OFF)	
Gamma characteristic			0.45	
Sync. System			Internal synchronization (INT.)	
Iris Control	DC IRIS		DC-drive auto-iris lens	
	AES		Fixed iris lens (1/60-1/20,000 sec. automatic electronic shutter)	
	VIDEO IRIS		Video-drive auto-iris lens Vcc=DC 12V, 50mA max, video signal: 0.7V (p-p) (high impedance)	
White balance			ATW	ATW / AWB
MIST mode			STD / AUTO	
Dynamic Range Control (DRC)			STD / HIGH	
Power supply			AC24V ± 10% 50Hz/60Hz ± 1Hz, DC12V ± 10%	
Power consumption	DC12V		4.5W	
	AC24V		4.5W, 330mA	
Ambient temperature			Operational limits: - 10°C to + 50°C / Storage limits: - 20°C to + 60°C	
Ambient humidity (No condensing)			Operational limit: Maximum 85% RH / Storage limit: Maximum 95% RH	
External dimensions			60 (W) ×54 (H) ×103.3 (D) mm	
Weight			Approximately 250g	
Input/Output terminals	Video output		BNC	
	Power input		Terminal block	
	B/W Mode-Fix terminal		—	Terminal block
	Auto-iris output		4-pin connector (D4-157J-250/equivalent)	
Adjustable volume			DC iris adjustment volume (adjustable POT in only DC iris mode)	
Accessories			Instruction manual (this document)	

* The specifications and/or appearance of the product may change without a prior notice.

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