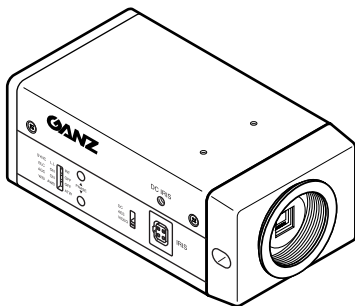


CS MOUNT COLOR CAMERA

CL SERIES

INSTRUCTION MANUAL



■ NTSC VERSION
STANDARD TYPE

CL-301

■ NTSC VERSION
HIGH-RESOLUTION TYPE

CLH-401



GANZ

ENGLISH

FRANCAIS

PORTUGUESE

Thank you for your purchase of this product. Before operating the product, please read this instruction manual carefully to ensure proper use of the product. Please store this instruction manual in a safe place for future reference.

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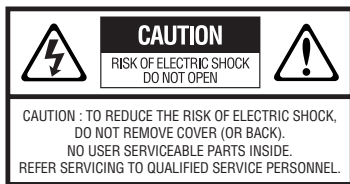
FEATURES

- Compact and Light weight design.
- Accepts DC or Video type auto-iris lenses.
- Impressive color reproduction.
- Line lock function with line phase adjustment
- DSP controls for Back Light Compensation, White Balance, and Gain Control

SAFETY PRECAUTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING :

To prevent fire or shock hazard, do not expose this appliance to rain or moisture. To avoid electrical shocks, do not open the cabinet. Refer servicing to qualified personnel only.

These cameras should be used with 12VDC or 24VAC.

CAUTION :

To prevent electrical shocks, do NOT use any other power source.

Regulatory Notices :

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This machine generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at the user's own expense.

1. Power supply

- (1) Use only with a 24VAC power supply marked class 2 or 12VDC regulated power supply.
- (2) Be sure to connect each lead to the appropriate terminal. Wrong connection may cause malfunction and / or damage to the camera.

2. Operating and storage locations

- (1) Do not attempt to aim the camera at the sun or other extremely bright objects that cause smear to appear irrespective of whether the camera is operating or not. This can damage the CCD (Charge Coupled Device).
- (2) Do not place the camera in the following locations.
 - ① Locations subjected to extremely high or low temperatures.
(operating temperature range : -10°C to $+50^{\circ}\text{C}$ { 14°F to 122°F })
(storage temperature range : -20°C to $+60^{\circ}\text{C}$ { -4°F to 140°F })
 - ② Locations subjected to high levels of humidity and dust
(storage humidity range : max 85% {no condensation})
 - ③ Locations where there are large amounts of water vapour and steam
 - ④ Locations subjected to excessive vibrations
- (3) When this camera is installed near equipment, like a wireless communication device, that emits a strong electromagnetic field, some irregularity such as noise on the monitor screen may happen.

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.

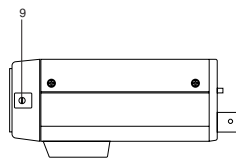
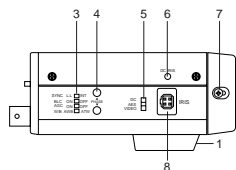
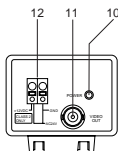
-Never attempt to disassemble or modify the camera.

-If an abnormality should occur, immediately turn off the power and consult your dealer.

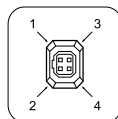
-Never open the housing of any power supply during cleaning.

-After installation, ensure that all cables are laid in such a way that they cannot be kinked or crushed or damaged in any other way.

PART DESCRIPTION



Pin assignment of auto iris lens connector



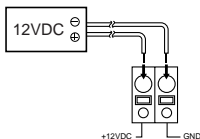
Pin No.	DC iris	Video iris
1	Control - Vcc +	
2	Control + Not used	
3	Drive +	Video
4	Drive -	Ground

- ① Tripod adaptor
- ② CCD cover
- ③ Dip switches
- ④ Line phase adjustment buttons
- ⑤ Auto iris mode switch
- ⑥ DC iris level adjustment volume

- ⑦ Back focus lock screw
- ⑧ Auto iris lens connector
- ⑨ Back focus adjustment screw
- ⑩ Power LED
- ⑪ BNC connector for video output
- ⑫ Power input connector

INSTALLATION

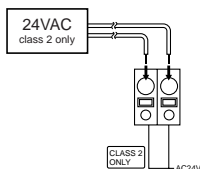
CONNECTION OF POWER SUPPLY CABLE



Connect to the 12VDC power supply. Please refer to the drawing on the left.

NOTE

When using DC power, check for proper polarity before connecting to power supply.



Connect to the 24VAC power supply. If necessary, adjust the line phase to synchronize the image. Please refer to the drawing on the left.

LINE PHASE ADJUSTMENT



If necessary, adjust the line phase to synchronize the image by pressing PHASE adjustment button.

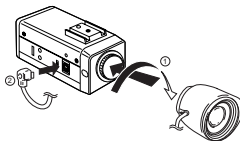
NOTE

In case 12VDC power supply is used, this function is not available.

NOTE

In case the line phase cannot be adjusted (Phase difference is more than 180°), exchange the polarity of AC power input.

LENS MOUNTING



Remove the CCD cover. Then attach the CS mount lens to the camera. Please refer to the drawing on the left.

⚠ CAUTION

Be cautious not to use Auto Iris Lens with over 75mA

DC IRIS LEVEL ADJUSTMENT

DC IRIS
⊕

DC iris level is preset in the factory. Only if necessary, adjust the DC iris level to achieve the proper picture with AGC off.

AUTO IRIS MODE SELECTION

DC
AES
VIDEO

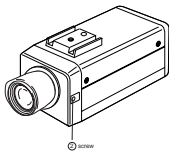
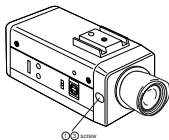


POSITION	LENS
DC	DC iris lens
AES	Manual or fixed iris lens
VIDEO	Video iris lens

Set the auto iris mode selection switch to the position that corresponds to the lens which is mounted to the camera.

Please refer to the table on the left.

BACK FOCUS ADJUSTMENT



If back focus has to be adjusted after mounting the lens, (1) loosen the back focus lock screw on the left side of the camera with a (+) screwdriver, (2) turn the back focus adjustment screw on the right side of the camera with a (-) screwdriver until the desired focus is reached, (3) tighten the back focus lock screw.

DIP SWITCH SETTING

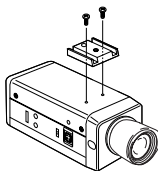
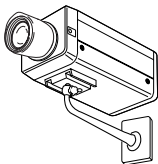
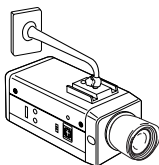
DIP switch on the left side of the camera allows you to set the functions of the camera. Please refer to the following table.

- ① SYNC L.L. INT
 ② BLC ON OFF
 ③ AGC ON OFF
 ④ WB AWB ATW

factory setting

No.	NAME	POSITION	FUNCTION
1	Synchronization mode (SYNC)	L.L.	Line lock mode
		INT.	Internal synchronization mode
2	Back light compensation (BLC)	ON	sets to this position when strong light comes in behind the target
		OFF	normal position
3	Auto gain control (AGC)	ON	AGC level varies from 0dB to maximum 20dB
		OFF	normal position
4	White balance (WB)	AWB	adjusts WB automatically and fixes it in 5sec
		ATW	tracks and adjusts WB automatically

MOUNTING BRACKET



Tighten the screw to attach the bracket. Refer to the above drawing.

SPECIFICATION

Model No.	CL-301	CLH-401
TV System		NTSC
Scanning System		2:1 Interlaced
Image Sensor		1/3" IT. CCD
Effective Elements (H x V)	510 x 492	768 x 494
Scanning Frequency (H / V)		15.734 kHz / 59.94 Hz
Video Output		1.0V (p-p) / 75Ω
Resolution (Horizontal)	330 TV lines	480 TV lines
Minimum Illuminance (50IRE)	0.8 lux (F1.2)	1.6 lux (F1.2)
AGC		+20dB
S/N Ratio (AGC Off)		More Than 48 dB
γ Characteristic		0.45
Auto Electric Shutter (AES)		1/60 - 100,000 Sec.
Sync. System		INT. / L.L.
White Balance		AWB / ATW
Power Supply		12VDC/24VAC
Power Consumption		Less Than 3.5 W
Ambient Temperature	Operation : -10°C ~ +50°C / Storage : -20°C ~ +60°C	
Ambient Humidity	Operation : RH80% Max. (Keep Free From DAMP) / Strage : RH85%	
External Dimensions	55 (W) x 40 (H) x 102.4 (D) mm	
Weight	280g approx.	
Input / Output	Video Output : BNC	
	Power Input : Screwless 2 Pins Terminal	



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