

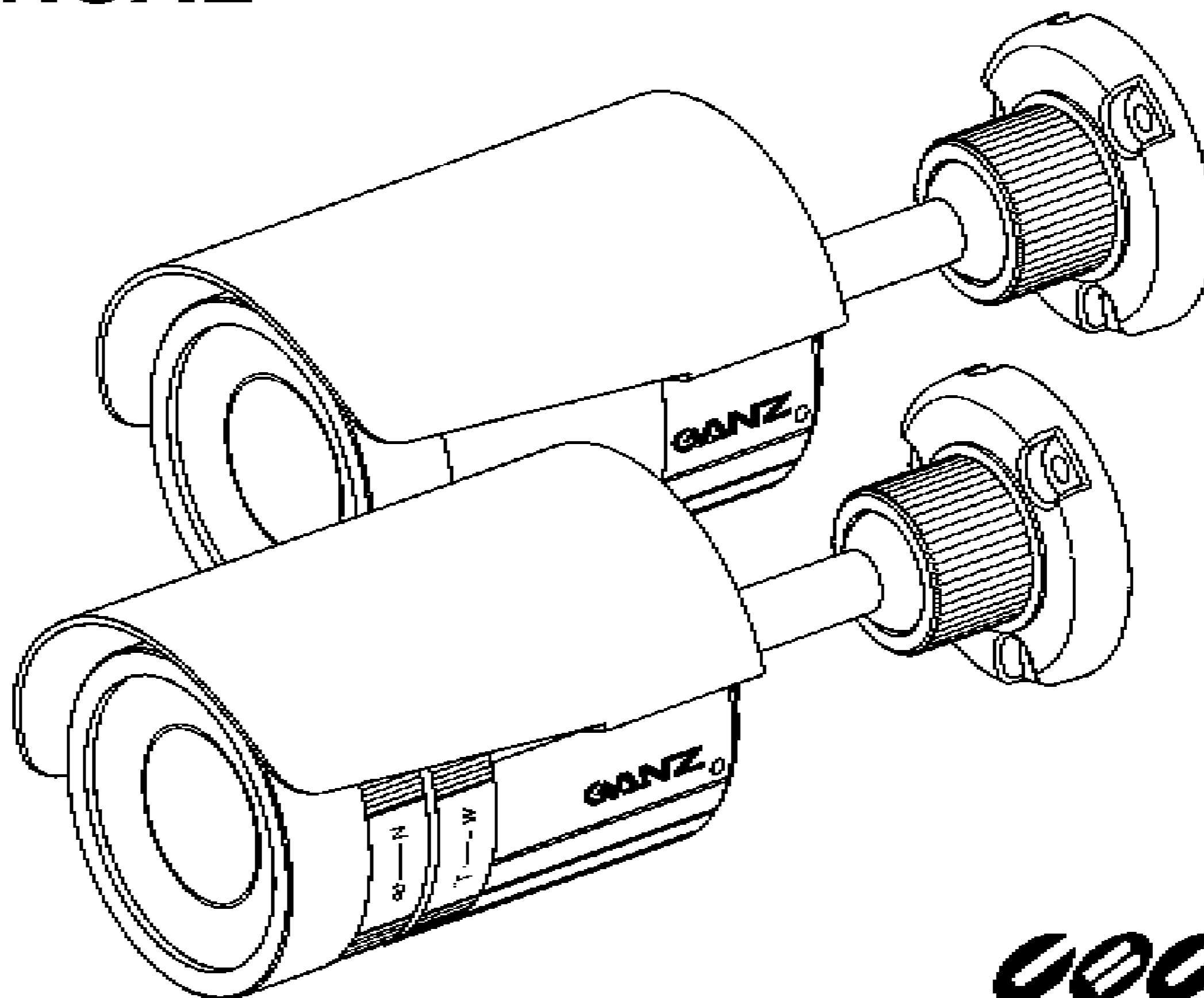
Outdoor Day / Night IR Camera

ZC-BT / BX SERIES

INSTRUCTION MANUAL

ZC-BT3039PHA
ZC-BNT3039PHA
ZC-BX3039PHA
ZC-BNX3039PHA

24VAC/12VDC

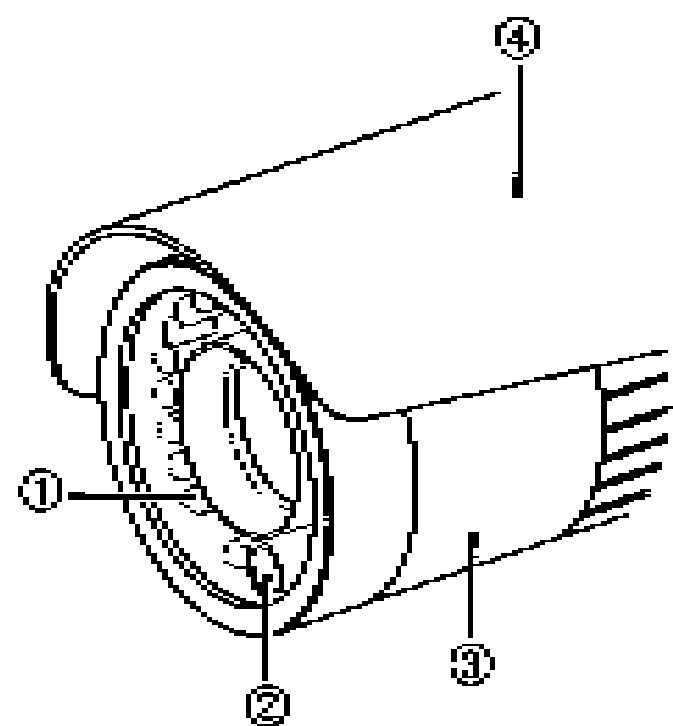


ENGLISH
DEUTSCH
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ITALIANO
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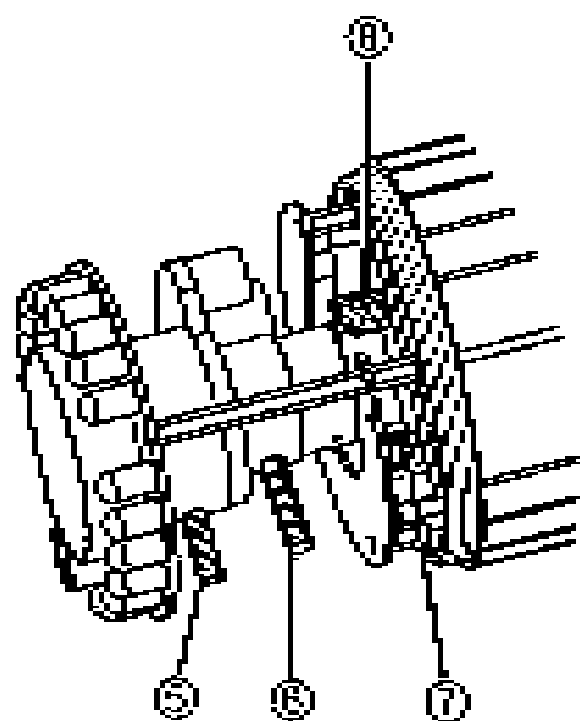
PARTS DESCRIPTION

1. ZC-BT series

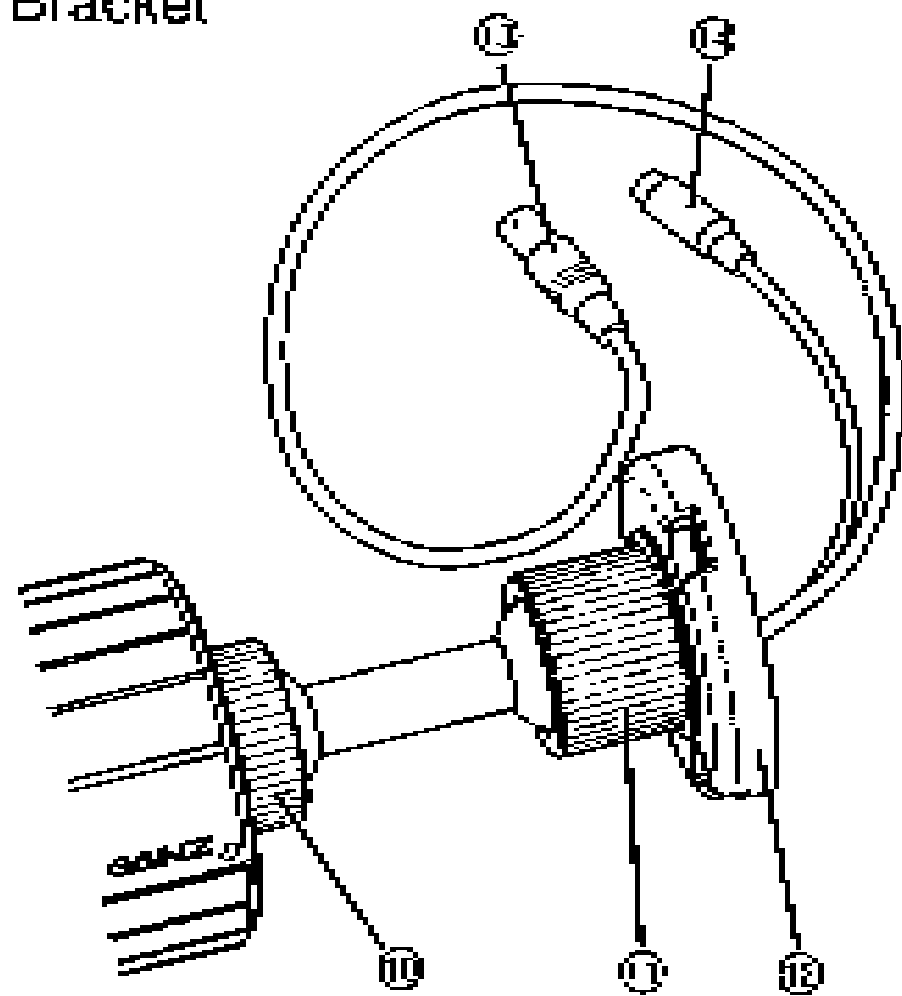
Outside



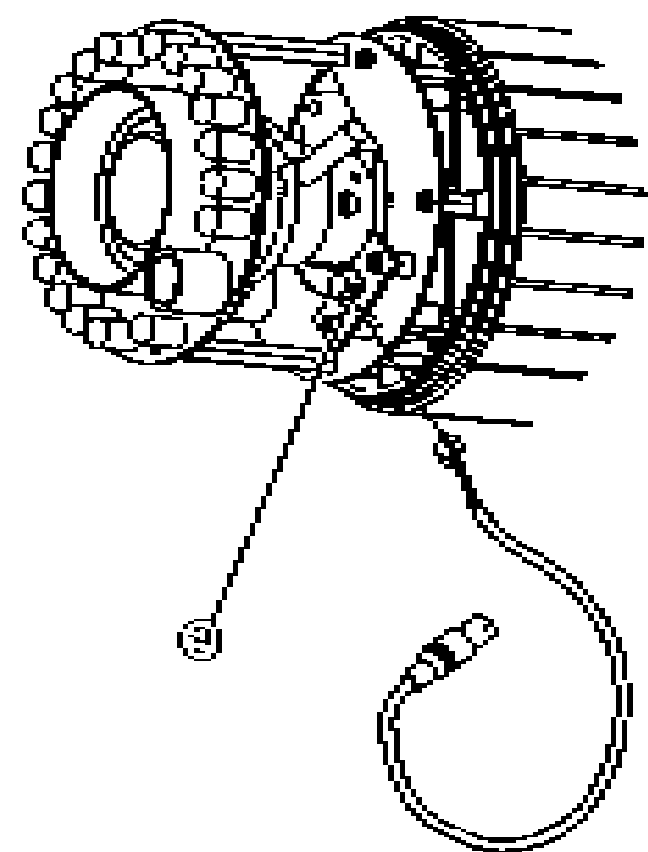
Inside



Bracket



Service connector (*optional)



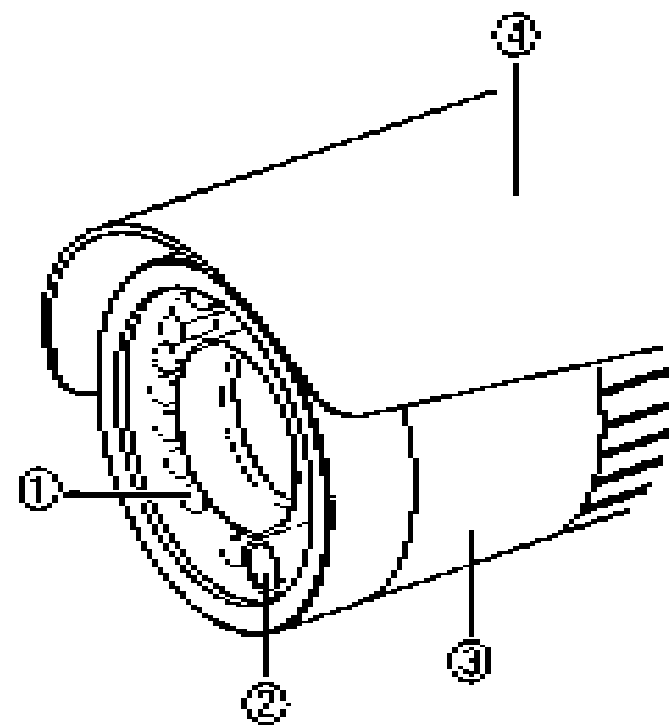
* Unscrew the Front Cover counterclockwise to open the unit for adjustments. Once adjusted, screw the Front Cover back and tighten it, clockwise, and refrain from opening and closing frequently to ensure the best waterproof and condensation free performance.

- ① IR LED
- ② Photo sensor
- ③ Front cover
- ④ Sunshield
- ⑤ Focus adjustment lever (Lock screw)
- ⑥ View angle adjustment lever (Lock screw)
- ⑦ DIP SW (AGC ON/OFF, FL ON/OFF, BLC ON/OFF, ALC \leftrightarrow ELC)
- ⑧ DC iris level adjustment volume
- ⑨ Service jack socket (*for ZC-BT series only)
- ⑩ Locking ring (Body)
- ⑪ Locking ring (Bracket)
- ⑫ Mounting base
- ⑬ BNC connector for video output
- ⑭ DC jack for power input (12V DC or 24V AC)

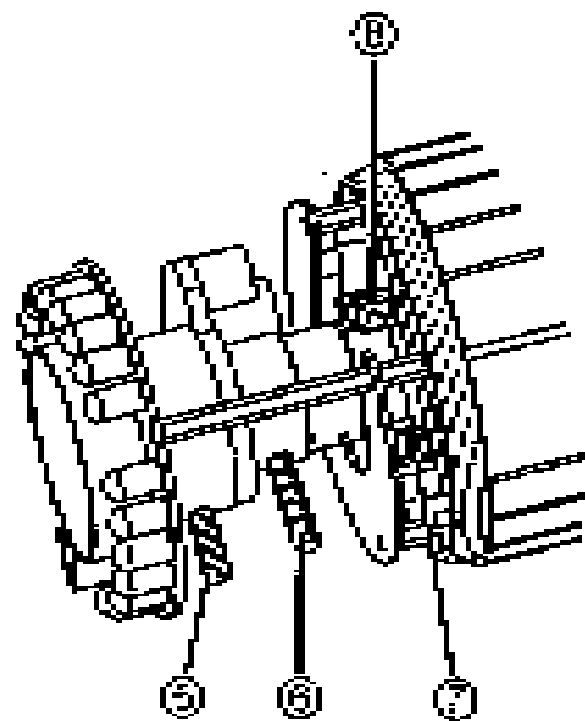
PARTS DESCRIPTION

1. ZC-BT series

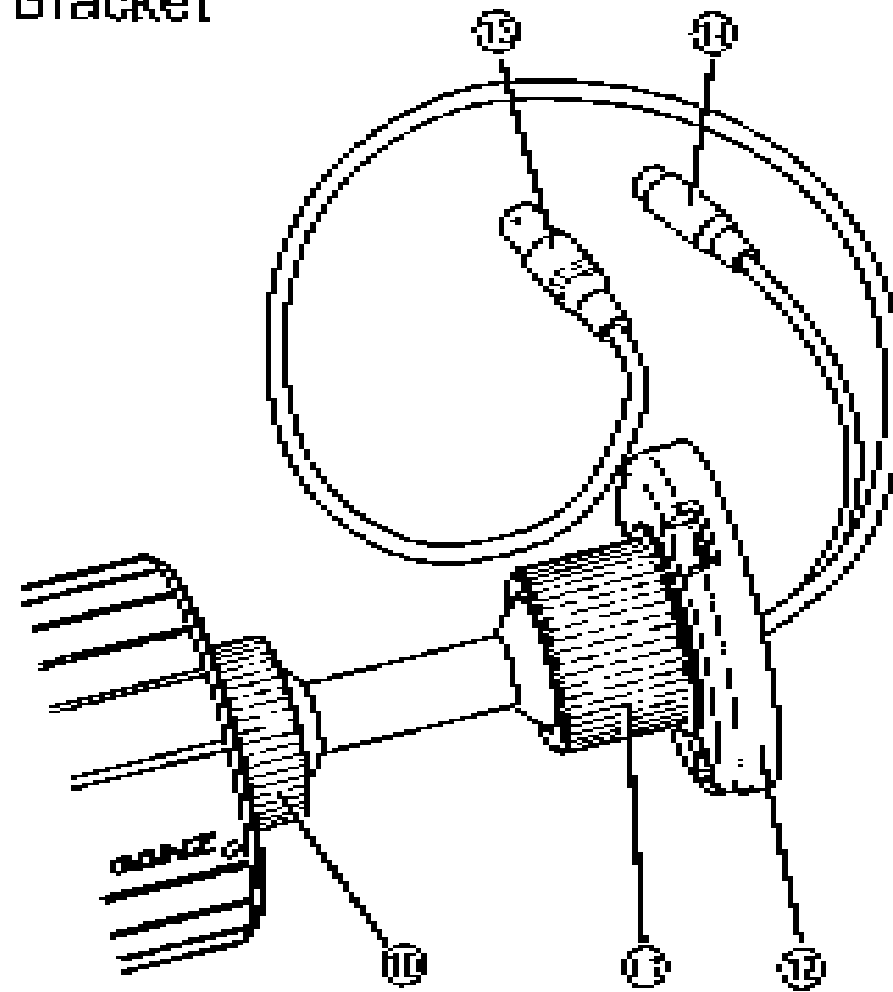
Outside



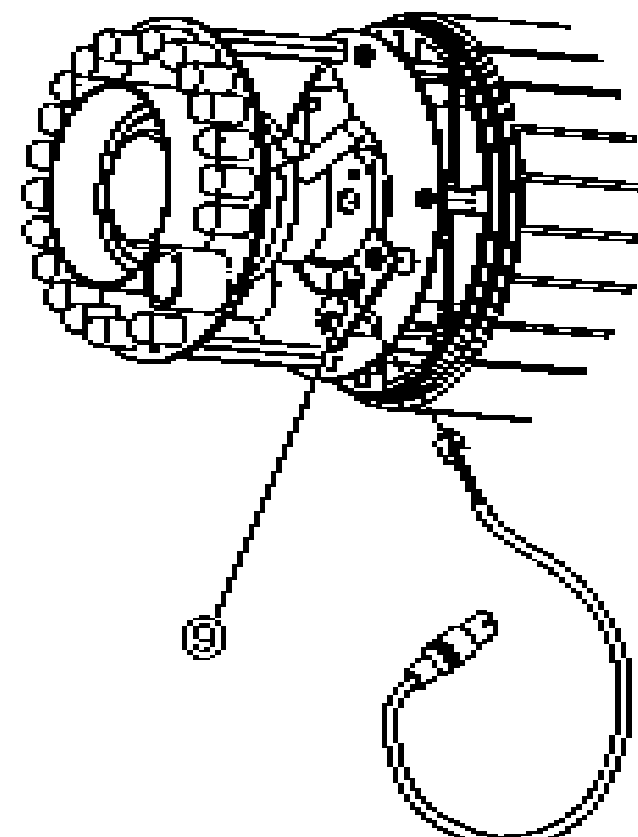
Inside



Bracket



Service connector (*optional)

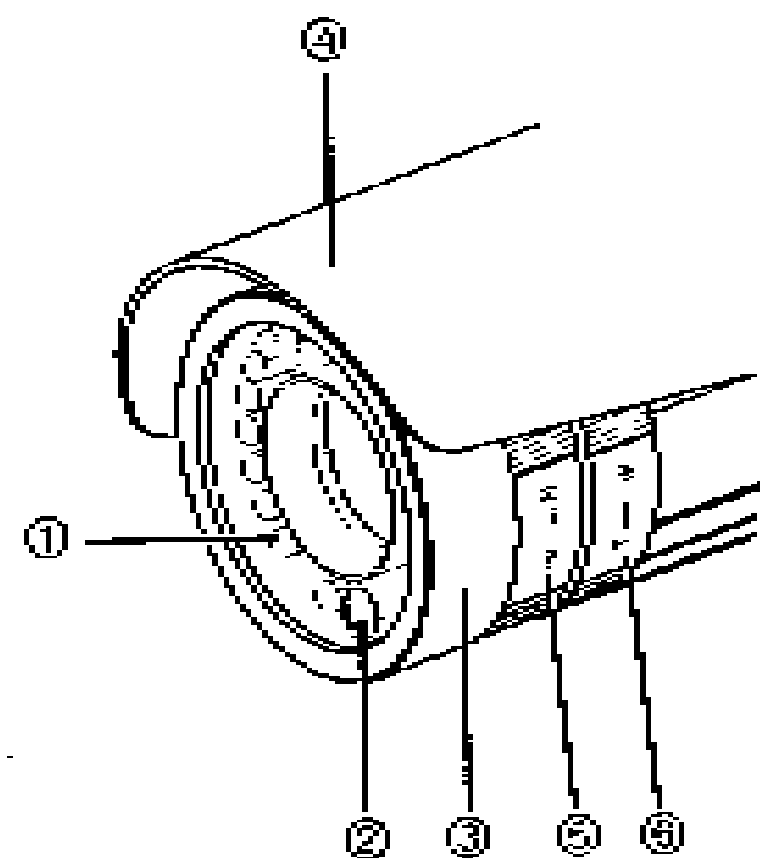


* Unscrew the Front Cover counterclockwise to open the unit for adjustments. Once adjusted, screw the Front Cover back and tighten it clockwise, and refrain from opening and closing frequently to ensure the best waterproof and condensation free performance.

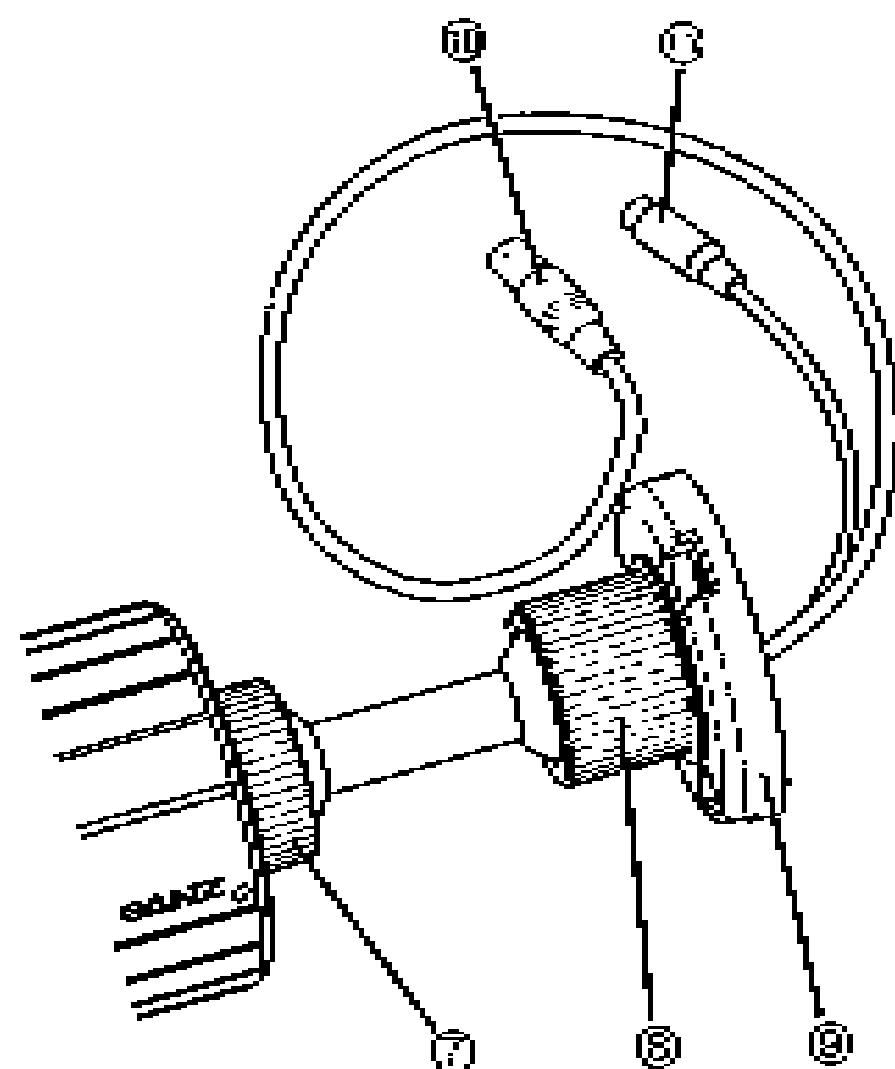
- ① IR LED
- ② Photo sensor
- ③ Front cover
- ④ Sunshield
- ⑤ Focus adjustment lever (Lock screw)
- ⑥ View angle adjustment lever (Lock screw)
- ⑦ DIP SW (AGC ON/OFF, FL ON/OFF, BLC ON/OFF, ALC \leftrightarrow ELC)
- ⑧ DC iris level adjustment volume
- ⑨ Service jack socket (*for ZC-BT series only)
- ⑩ Locking ring (Body)
- ⑪ Locking ring (Bracket)
- ⑫ Mounting base
- ⑬ BNC connector for video output
- ⑭ DC jack for power input (12V DC or 24V AC)

2. ZC-BX series

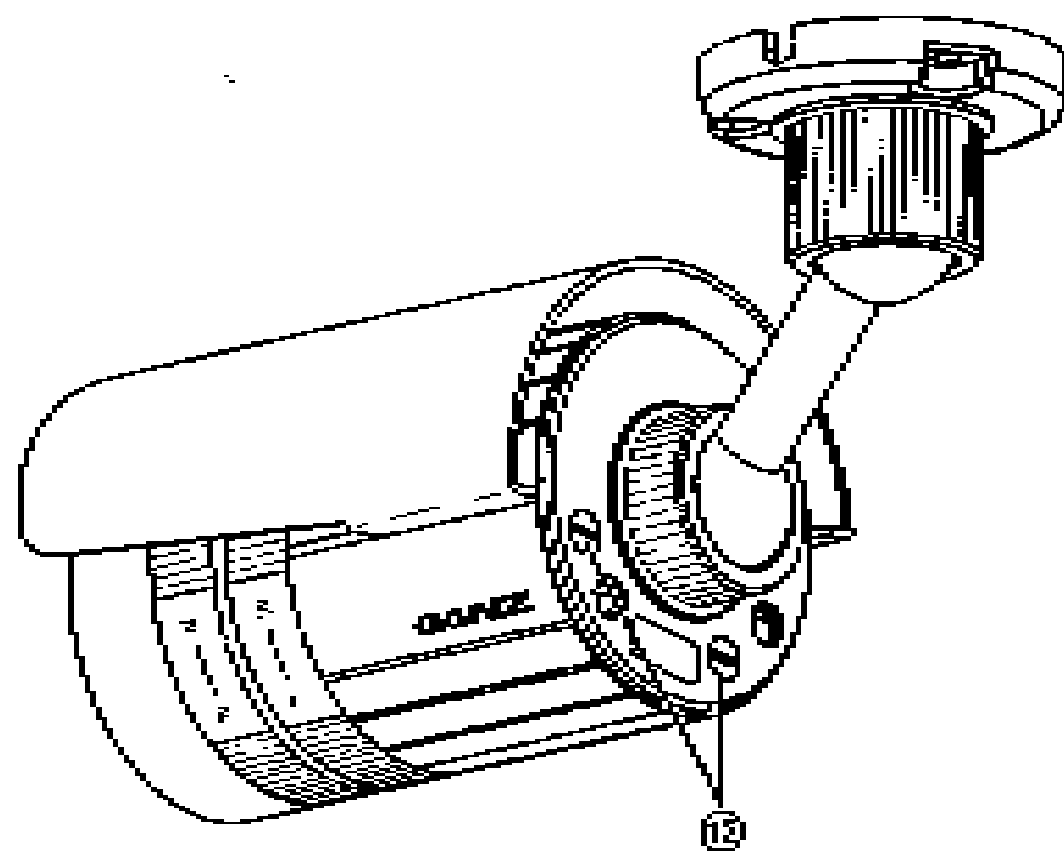
Outside



Bracket



Rear

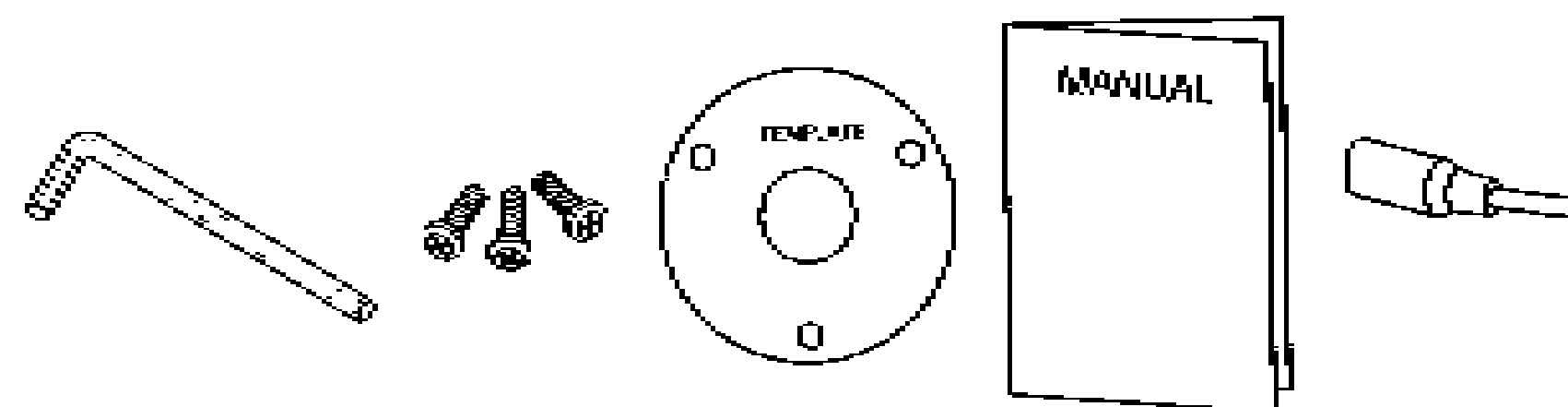


⚠ CAUTIONS

- ZC-BX housing is designed to be adjusted externally. ALC⇌ELC adjustment and BLC ON/OFF can be made only by Magnetic Control Bolt (MCB).
- Once Front Cover is unlocked for any reason, its outdoor performance cannot be guaranteed.

- ① IR LED
- ② Photo sensor
- ③ Front cover
- ④ Sunshield
- ⑤ Exterior focus adjustment ring
- ⑥ Exterior view angle adjustment ring
- ⑦ Locking ring (Body)
- ⑧ Locking ring (Bracket)
- ⑨ Mounting base
- ⑩ BNC connector for video output
- ⑪ DC jack for power input (12V DC or 24V AC)
- ⑫ Magnetic control bolt (MCB) for ALC⇌ELC and BLC ON/OFF

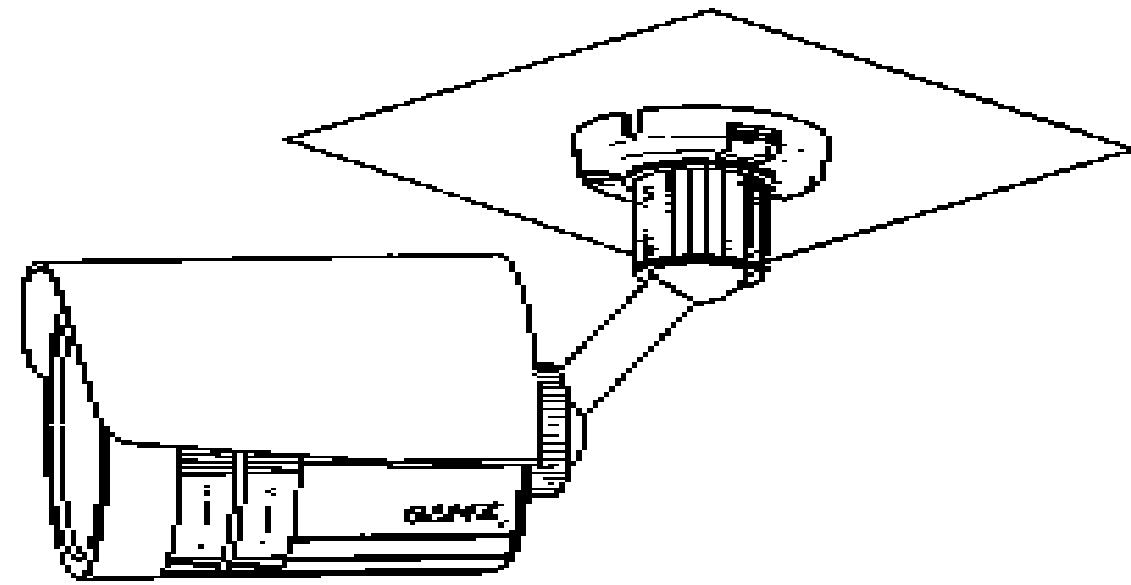
3. Accessories



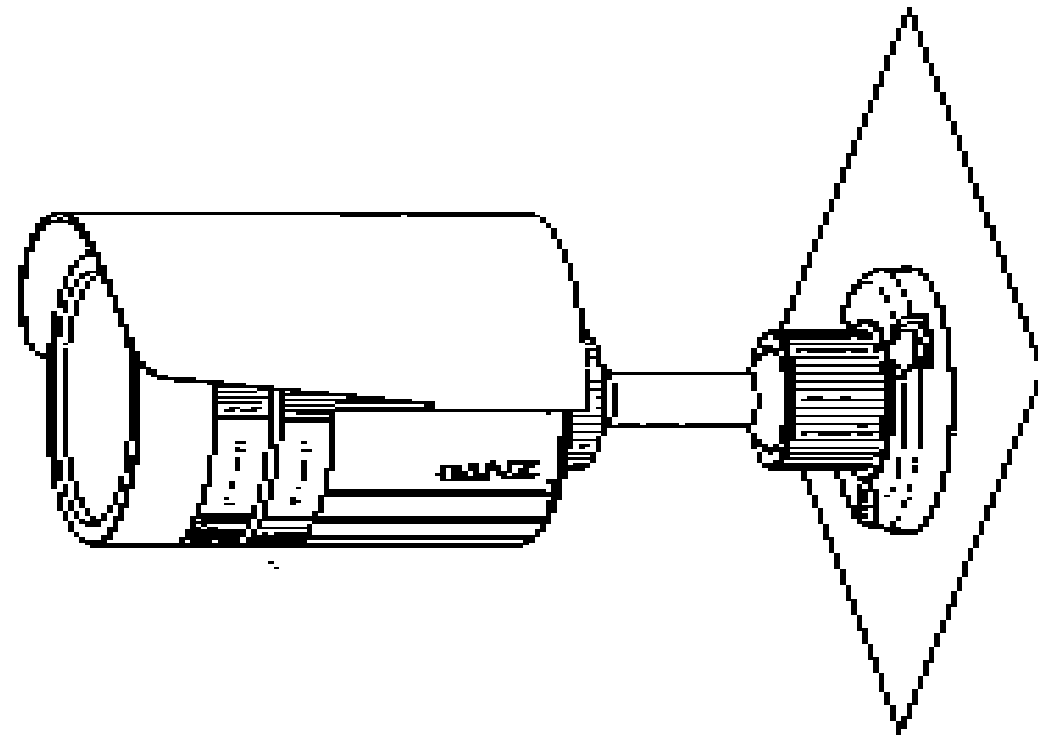
- Wrench: 1ea
- Bracket screw: 3ea
- Template: 1ea
- Instruction manual: 1ea
- Additional power connector: 1ea

INSTALLATION AND ADJUSTMENT

● Attaching to the ceiling



● Attaching to the wall



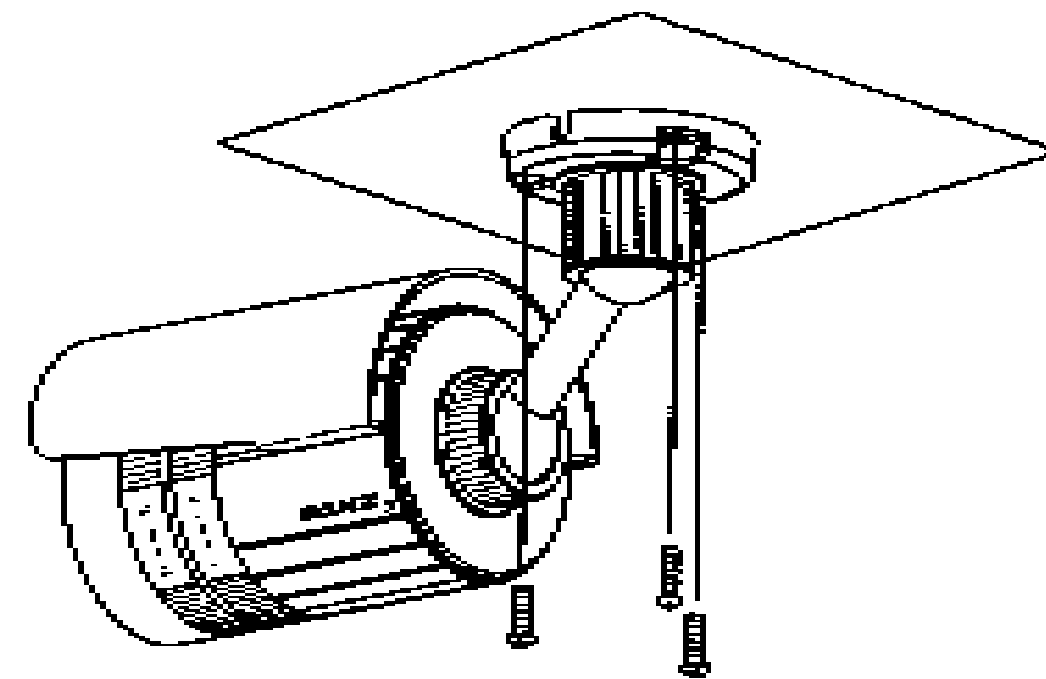
● Attaching to the ceiling or wall

This section explains how to install the unit where cables are running through the interior of the ceiling or wall.

- Drilling holes in the ceiling or wall:
Use the template included to mark out the position on the ceiling or wall where you want to install the unit.
 - When running cables through the interior of the ceiling or wall, use the template, and drill three holes for screws used to attach the camera body and one hole for the cables (Cables).

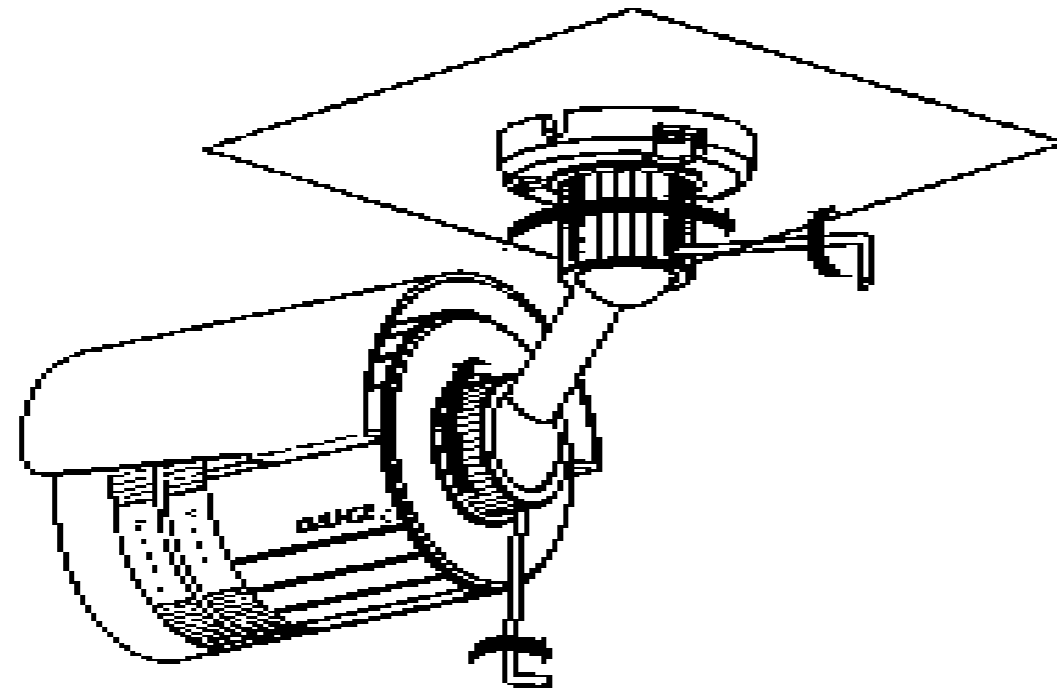
⚠ CAUTIONS

- Attached screws are not necessarily suitable for all applications. Ensure to check if the screws are suitable for the intended applications.



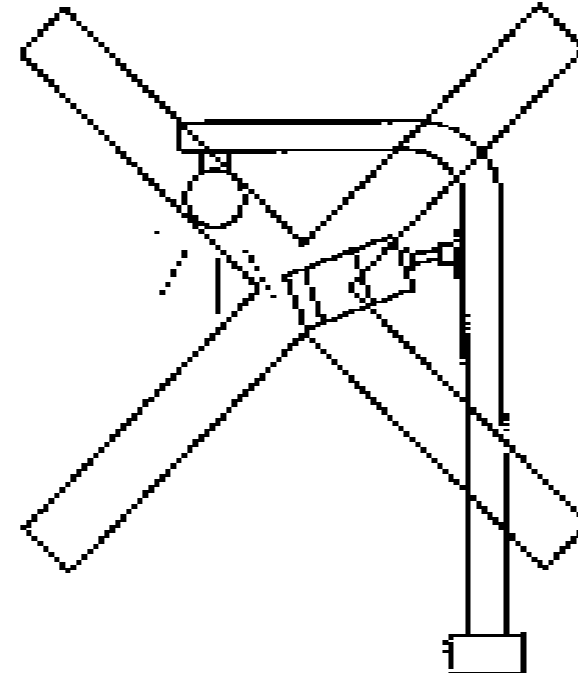
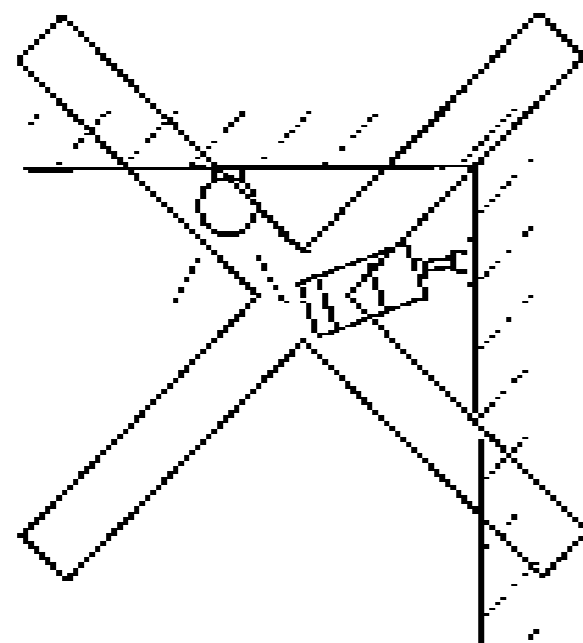
● Adjusting the camera direction

This camera can be easily adjusted for viewing in all directions. After attaching the camera on the wall or ceiling, adjust camera for the desired direction. Then tighten each locking ring and lock rings with an allen wrench as shown in the picture below.



👉 Special instruction

- To ensure the best low light performance, this camera has IR LED device to change automatically to night mode when the environment gets dark. If the high light source or some object reflecting very bright light is placed within 1m from the installed camera, it interferes with IR LED performance so that Day & Night function may not perform at the optimum level. Ensure that the field conditions are suitable before installing the camera unit.



● Connecting the cables

Connect the power and video cables.

Connect the video cable from the monitor and the coaxial video cable attached to the camera body.

- For using DC 12V, connect DC jack from camera with power supply (CLASS ONLY). If necessary, after cutting off DC jack from camera connect it with power supply.
- For using AC 24V, after cutting off DC jack from camera connect it with power supply (CLASS ONLY 2)

👉 Attention

- Specification below is recommended as an Output rated capacity of Power supply that is connected to camera.

Input power	Voltage	current
12V DC	12V DC \pm 10%	500mA \pm 10%
24V AC	24V AC \pm 10%	400mA \pm 10%

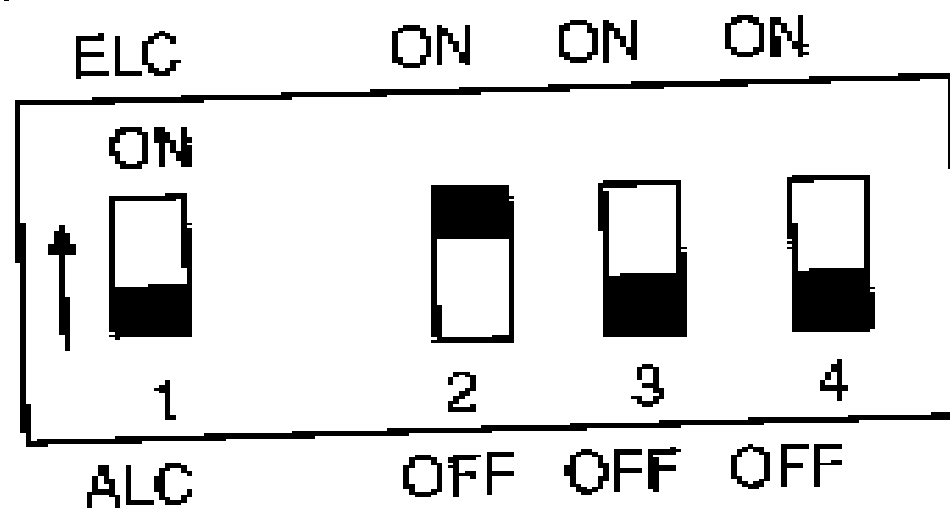
👉 Attention

- Be sure to check that the cables are connected correctly before turning on the power.
- Turning on the power when the cables are connected with incorrect polarity may damage the camera.

● Adjusting the DIP Switch Mode (for ZC-BT series only)

⚠ CAUTIONS

- DIP Switch is available for ZC-BT series only and each of the following functions can be adjusted by ON/OFF of the Switch.



The setting modes shown at left are (=■) actual factory default settings.

1	ELC/ALC	ELC	Easy back focus adjustment to maximize the best focusing (refer to Attention ①)
		ALC	Factory set position
2	AGC (Auto Gain Control)	ON	Depending on video signal, Gain is controlled automatically. (Factory set position)
		OFF	Apply in the stable light condition
3	BLC (Backlight compensation)	ON	Select this position when a strong light is in the back ground.
		OFF	Factory set position
4	FL (Flickerless)	ON	Shutter speed to be fixed at 1/100 (NTSC) 1/120 (PAL) (refer to Attention ②)
		OFF	(Factory set position) * Caution: Never set to "ON" mode in ordinary locations except for special locations like Tokyo area in Japan, etc.

👉 Attention

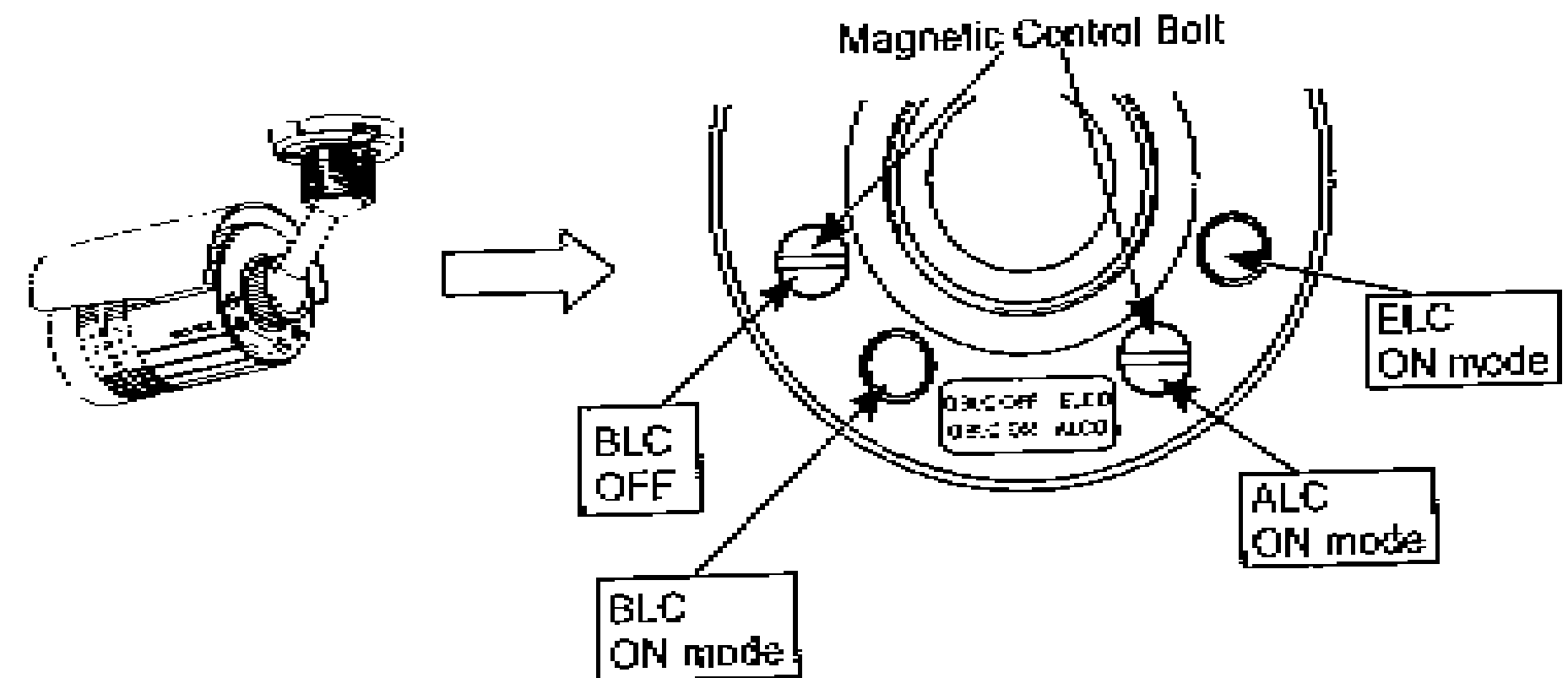
- ① ELC Mode: This special mode is not only to help prevent focus shift but also to make the lens focus adjustment easier in the field of installation. Simply make the adjustment in the following order:
 - Select ELC mode
 - Adjust lens focus well
 - After adjusting, select ALC mode
- ② Setting the Flickerless function to "ON" under low light conditions may reduce the sensitivity.

● Setting the MCB mode (for ZC-BX series only)

⚠ CAUTIONS

- DIP Switch is available for ZC-BT series only and each of the following MCB (Magnetic Control Bolt) is available for ZC-BX series only and it allows to make an adjustment of ALC⇄ELC and BLC ON/OFF without opening the Front Cover.

AGC is always ON and FL (Flickerless) is not available in ZC-BX series.



1	ELC/ALC	ELC	Easy back focus adjustment to maximize the best focusing (refer to Attention below)
	*ON/OFF adjustable by MCB	ALC	Factory set position
2	BLG (Back Light Compensation)	ON	
	*ON/OFF adjustable by MCB	OFF	Factory set position

Attention

- **ELC Mode:**
This mode helps make the focus adjustment easier in the field of installation. Simply make the adjustment in the following order:
 - Select ELC mode
 - Adjust lens focus well
 - After adjusting, select ALC mode

CAUTIONS

- Never leave ELC ON. Ensure to return to ALC mode after making focus adjustment.

● Adjusting the view angle and focus

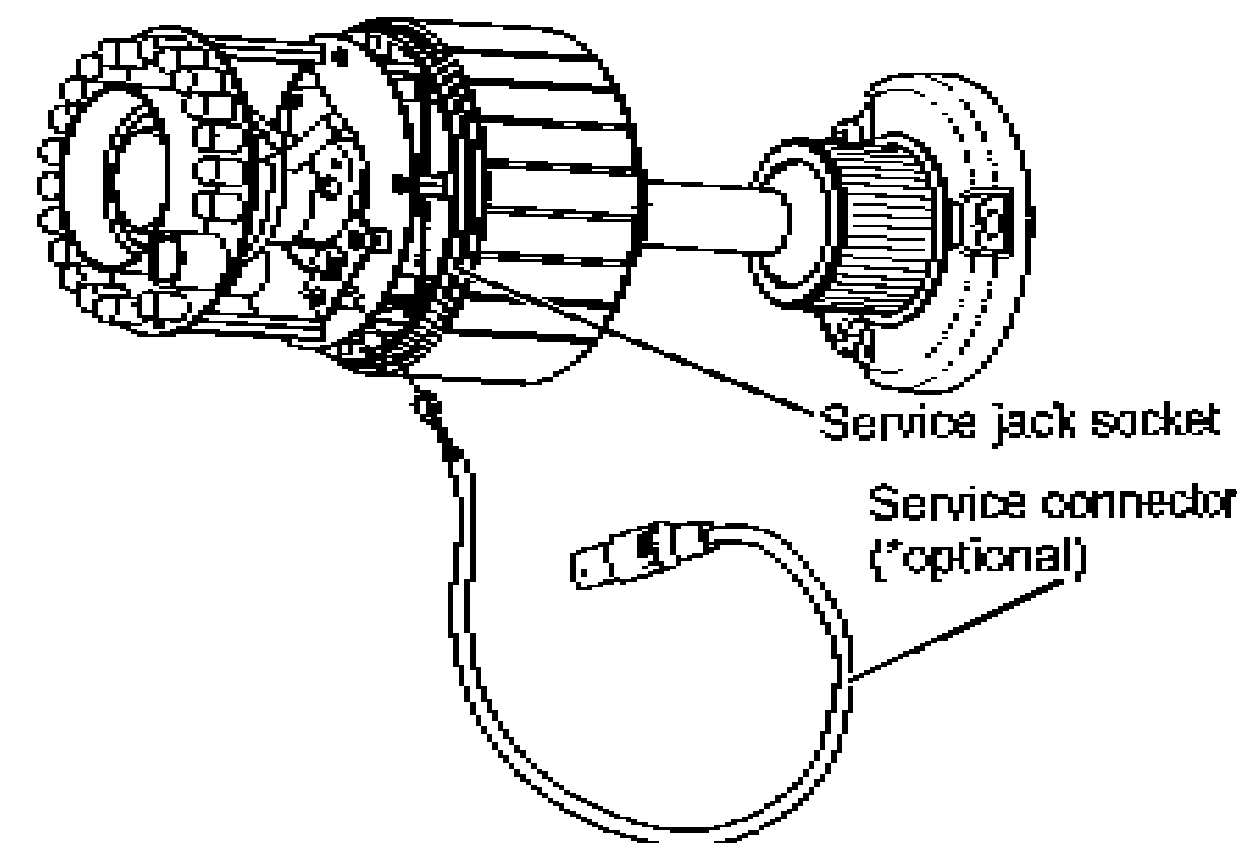
- For ZC-BT series,
 - ① Move the lever to adjust focus and zoom after taking off the Front Cover.
 - ② Turn focus and zoom levers in clockwise direction to fix the positions.
- For ZC-BX series,
 - Turn the exterior Focus and Angle of view ring to make adjustment.

● Adjusting the DC iris level (for ZC-BT series only)

Adjust the DC iris level to suit the environment.

● Service Jack Socket (for ZC-BT series only)

A service jack socket is provided for temporary video connection when focusing the camera.

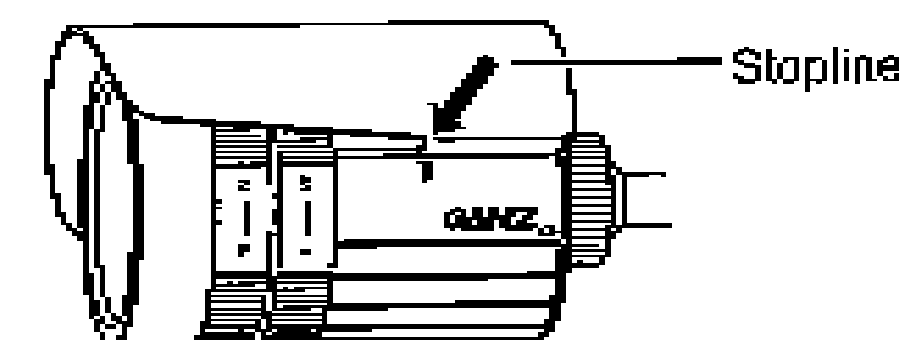


● Attaching the sunshield

Fit the sunshield to the camera body at the Stopline shown (refer to below).

Attention

- Ensure the sunshield is not allowed to be mounted beyond Stopline, otherwise some corners on screen monitor can be blocked by interference from the sunshield.



CAUTIONS

- Never exceed this line otherwise the sunshield may interfere with the

SPECIFICATIONS



Model name	ZC-BT3039PHA	ZC-BNT3039PHA	ZC-BX3039PHA	ZC-BNX3039PHA
TV system	PAL			
Scanning system	2:1 Interlace			
Image sensor	1/3"-Type interline transfer CCD			
Effective elements	752 (H) x 582 (V)			
Scanning frequency	15.625kHz (H) x 50.00Hz (V)			
Video output	1.0V p-p / 75Ω			
Horizontal resolution	More than 480 TVL			
Min. Illuminance	0 lux (B/W Mode - at IR LED ON)			
Day / Night	Digital Day / Night	Mechanical Day / Night	Digital Day / Night	Mechanical Day / Night
S/N ratio	More than 50 dB (at minimum AGC gain)			
Gamma characteristic	0.45			
IR Illumination	16 IR LEDs			
Sync. System	Internal only			
Electronic shutter	1/50 sec. (FL OFF), 1/120sec. (FL ON) * No FL function on ZC-BX(BNX) models			
White balance	ATW			
Power supply	AC 24V ± 10%, 50 ± 1Hz, DC 12V ± 10%			
Power consumption	DC 12V	6.5W		
	AC 24V	6.0W / 430mA		
Ambient temperature	Operation: -10°C to +50°C / Storage: -20°C to +60°C			
Ambient humidity (No condensing)	Operation: Max. 85%RH / Storage: Max. 95%RH			
IP rating	IP68		IP55	
External dimensions	φ17(L) x 84Φ (Included sunshield)			
Weight	650g			
Adjustment volumes	DC Iris Adjustment		Factory set	
Switches, Bolts	Dip Switch		ALC⇔ELC and BLC ON/OFF by MCB	
Accessories	Wrench, Bracket Tapping Screw (M4x20 : 3pcs), Template, Instruction Manual, Additional Power Connector			

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

SPECIFICATIONS



Model name		ZC-BT3039PHA	ZC-BNT3039PHA	ZC-BX3039PHA	ZC-BNX3039PHA
TV system		PAL			
Scanning system		2:1 Interlace			
Image sensor		1/3" Type Interline transfer CCD			
Effective elements		752 (H) x 582 (V)			
Scanning frequency		15.625kHz (H) x 50.00Hz (V)			
Video output		1.0V p-p / 75Ω			
Horizontal resolution		More than 480 TVL			
Min. Illuminance		① lux (B/W Mode - at IR LED ON)			
Day / Night		Digital Day / Night	Mechanical Day / Night	Digital Day / Night	Mechanical Day / Night
S/N ratio		More than 50 dB (at minimum AGC gain)			
Gamma characteristic		0.45			
IR Illumination		①6 IR LEDs			
Sync. System		Internal only			
Electronic shutter		1/50 sec. (FL OFF), 1/120sec. (FL ON) * No FL function on ZC-BX(BNX) models			
White balance		ATW			
Power supply		AC 24V ± 10%, 50 ± 1Hz, DC 12V ± 10%			
Power consumption	DC 12V	6.5W			
	AC 24V	6.0W / 430mA			
Ambient temperature		Operation: -10°C to +50°C / Storage: -20°C to +60°C			
Ambient humidity (No condensing)		Operation: Max. 85%RH / Storage: Max. 85%RH			
IP rating		IP66		IP56	
External dimensions		117(L) x 84Φ (Included sunshield)			
Weight		650g			
Adjustment volumes		DC Iris Adjustment		Factory set	
Switches, Bolts		Dip Switch		ALC ↔ ELC and BLC ON/OFF by MCB	
Accessories		Wrench, Bracket Tapping Screw (M4x20 : 3pcs), Template, Instruction Manual, Additional Power Connector			

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