

The lightning flash with an 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.

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

WARNING - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION : To prevent electric shock and risk of fire hazards:

- ◆ Do NOT use power sources other than that specified.
- ◆ Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

■ Features

10x Optical Zoom Lens Highly Reliable. It Features Manual

The built-in 10X optical zoom lens is highly reliable. It features manual focus, zoom and auto iris function.

Horizontal Resolution 500 TV Lines

Clear image quality has been achieved by employing a SONY CCD with 410,000 (effective) pixels, which provides a horizontal resolution of 500 TV lines.

DAY & NIGHT

This camera has a function that automatically selects the mode that is appropriate for daytime or night-time conditions. The COLOR mode operates in daytime conditions to provide optimum colors, and BW mode operates in night-time conditions to enhance the definition of the image.

Electronic IRIS

The electronic IRIS function enables continuous automatic control of the shutter between 1/60~1/120,000 seconds.

PRIVACY Function

The PRIVACY function conceals the areas you do not wish to appear on the screen.

High Sensitivity

The built-in high sensitivity SONY COLOR CCD enables a clear image even in 0.7Lux(0.1Lux B/W)

DNR (Digital Noise Reduction)

The amount of low illuminance noise has been significantly reduced, and the signal-to-noise ratio (S/N ratio) as well as horizontal resolution have been improved, resulting in a clear and sharp image display even in the dark.

Controlled by OSD Menu

The camera can be controlled by selecting text displayed on the monitor screen.

Built-in RS485

Protocol : PELCO-D
Baud Rate : 19200bps

Weather Proof (IP67)

Warning ■

The camera needs periodic inspection.

Contact an authorized technician for inspection.

Stop using your camera when you find a malfunction.

If you use your camera around smoke or unusual heat for a long time, fire may be caused.

Do not install the camera on a surface that can not support it.

Unless the surface is suitable, it could cause falling or other hazards.

Do not hold plug with wet hands.

It could cause an electric shock.

Do not disassemble the camera.

It may result in fire, electric shock or other hazards.

Do not use the camera close to a gas or oil leak.

It may result in fire or other hazards.

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■ Precautions

Do not install the camera in extreme temperature conditions.



Only use the camera under conditions where temperatures are between -10°C and $+50^{\circ}\text{C}$. Be especially careful to provide ventilation when operating under high temperatures.

Do not install the camera under unstable lighting conditions.



Severe lighting change or flicker can cause the camera to work improperly.

Do not install or use the camera in an environment where the humidity is high.



It can cause the image quality to be poor.

Do not touch the front lens of the camera.



It is one of the most important parts of the camera. Be careful not to be stained by fingerprint.

Do not drop the camera or subject it to physical shocks.



It can cause malfunctions to occur.

Do not expose the camera to rain or spill beverage on it.



If it gets wet, wipe it dry immediately. Liquids can contain minerals that corrode the electronic components.

Never keep the camera face to strong light directly.



It can damage the CCD.

Do not expose the camera to radioactivity.



If it is exposed to radioactivity, For heated CCD, it will be out of order.

Note

- If the camera is exposed to spotlight or object reflecting strong light, smear or blooming may occur.
- Please check that the power satisfies the normal specification before connecting the camera.

■ Components

1. 10x ZOOM
IR BULLET CAMERA



2. SCREWS



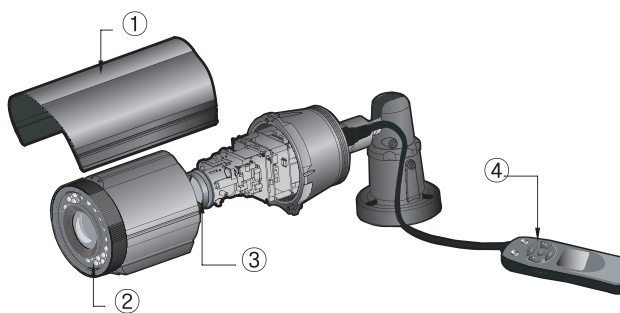
3. WRENCH



4. INSTRUCTION GUIDE

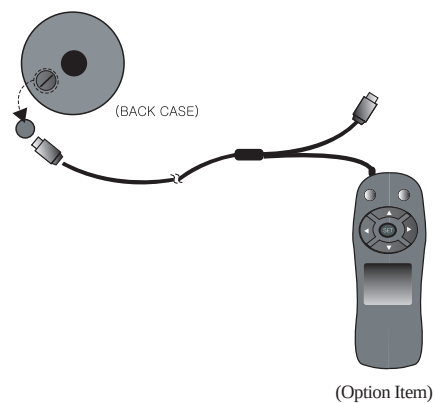


Names and Functions of Parts ■



- ① SUN SHIELD
- ② IR-LED : 33pcs
- ③ LENS : 10X optical lens.
- ④ Remote Controller

■ Names and Functions of Parts



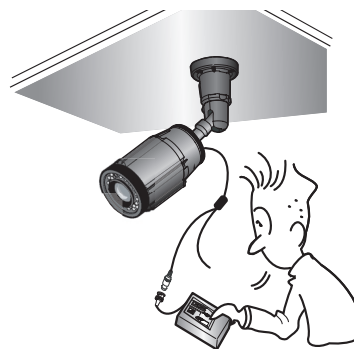
SET : Used to access menu mode and to confirm the setting.

- ▲ : OSD mode → Cursor up in the menu screen.
Zoom mode → Focus control
- ▼ : OSD mode → Cursor down the menu screen.
Zoom mode → Focus control
- ◀ : OSD mode → Cursor left in the menu screen.
→ Parameter change
Zoom mode → Zoom out
- ▶ : OSD mode → Cursor right in the menu screen.
→ Parameter change
Zoom mode → Zoom in

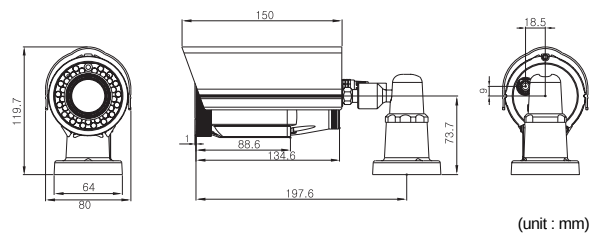
Names and Functions of Parts ■

Service connector for the easily install the camera.

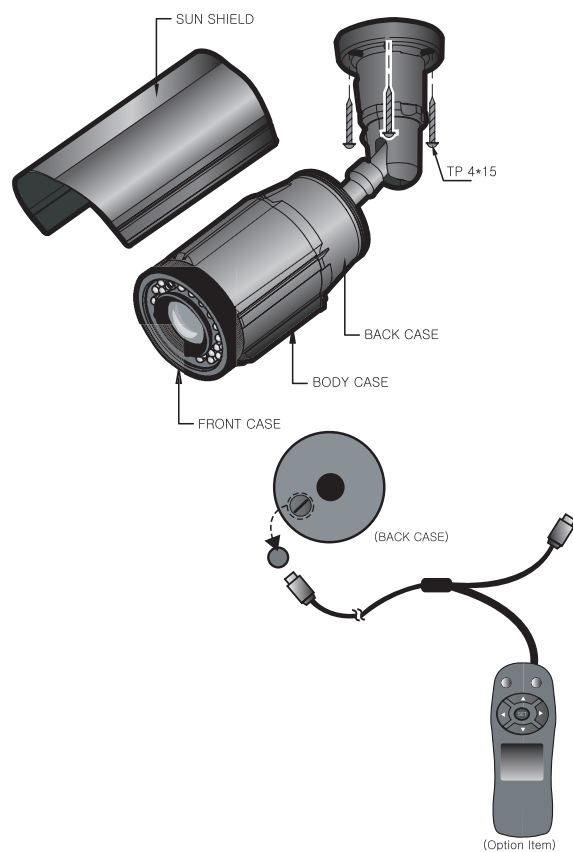
- A terminal can be connected to an LCD monitor, allowing the operator to easily adjust the camera angle within the monitoring range during it's installation.



Dimension ■



■ Installation



1. Bracket & Camera Mounting

- Affix the bracket to the mounting surface.
- Drill up the supplied screws on the mounting surface through the holes on the bracket.

2. Power Connect & Monitor Impedance

- DC12V/1,000mA regulated power supply.
- To avoid fire or shock hazard, must use a UL listed power supply.
- Set the monitor impedance switch to 75Ω. Check the impedance switch when the screen turns blurred.

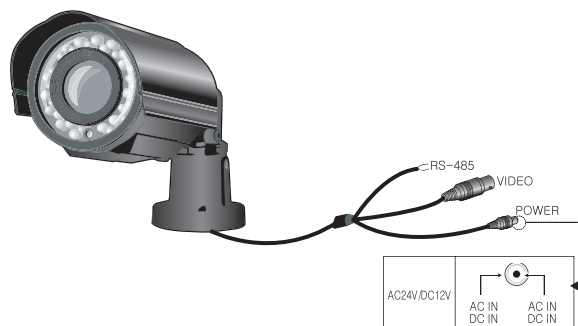
3. Sun-shield Mounting

- Cap over the camera with the sun-shield.

4. Remote control & VBS EXTRA

- Remove the cap and connect the connector of the remote control and VBS EXTRA to the terminal.

■ Cable Connection



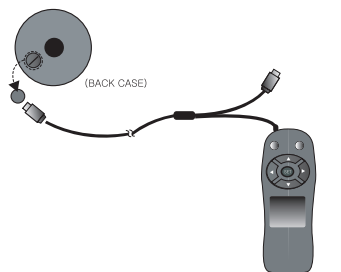
■ Camera Operation

■ Menu

SETUP menu		
LENS (selection)	• AUTO	• MANUAL
SHUTTER (condition and speed control)	• ESC	• MANUAL • FLK
WHITE BAL.	• ATW	• AWC • MANUAL
BACKLIGHT (Backlight Compensation)	• OFF • HIGH	• LOW • MIDDLE
AGC (Auto Gain Control)	• OFF • HIGH	• LOW • MIDDLE
DNR (Digital Noise Reduction)	• OFF • HIGH	• LOW • MIDDLE
SENS-UP (Low illuminance)	• OFF	• AUTO
SPECIAL	• CAMERA TITLE	• DAY/NIGHT
	• SYNC	• CAM. ID
	• PRIVACY	• MIRROR
	• DIGITAL ZOOM	• SHARPNESS
	• RESET	• RETURN
EXIT		

■ Settings

Settings can be made by the remote controller.



(Option Item)

1. Please press the SETUP button

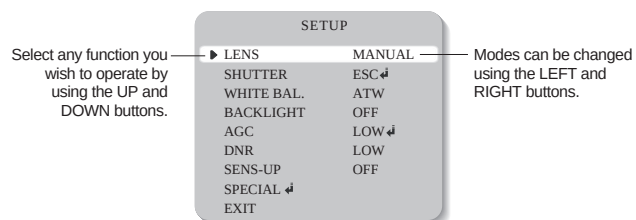
- Settings can now be made. The SETUP menu is displayed on the monitor.

SETUP	
► LENS	AUTO
SHUTTER	---
WHITE BAL.	ATW ↕
BACKLIGHT	OFF
AGC	MIDDLE ↕
DNR	LOW
SENS-UP	OFF
SPECIAL ↕	
EXIT	

2. Please select any function you wish to activate by using the UP and DOWN buttons.

- The arrow can be moved up or down by using the UP and DOWN buttons. Please position the arrow to point to the function you wish to operate.

■ Camera Operation



3. When the LEFT or RIGHT button is pressed, available values and modes are displayed in order. Please keep pressing the button until you get to the mode you wish to operate.

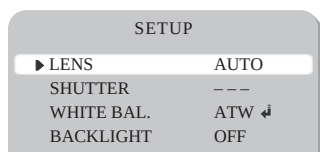
4. Please select 'EXIT' and then press the SETUP button to finish the setting.

- Note**
- If  appears at the mode you wish to operate, it means that there is a sub-menu which can be selected by pressing the SETUP button.
 - If --- appears at the mode item, it means that there is no mode available to be selected.

LENS (selection)

This function is used to adjust the brightness of the screen.

1. When the SETUP menu is displayed on the screen, please position the arrow to point to 'LENS' by using the UP and DOWN buttons.
2. Please select the type of the lens you wish to use by pressing the LEFT or RIGHT button.



MANUAL : Manual lens selection

AUTO : Auto iris lens selection

Note

- The brightness of the screen can be adjusted in AUTO mode. The brightness can be adjusted within the range of 1 ~ 70. The optimum level of brightness for the user can be achieved by adjustment.
- If you select the MANUAL mode, it can be adjusted in ESC mode.



3. Please press the SETUP button if you wish to return to the previous menu

■ Camera Operation

SHUTTER (condition and speed control)

Auto or manual control can be selected.

1. When the SETUP menu is on the screen, please position the arrow to point to 'SHUTTER' by using the UP and DOWN buttons.
2. Please select the shutter mode by pressing the LEFT or RIGHT button. (in LENS manual mode)

○ **FLK** : Please select 'FLK' mode when flickering occurs on the screen, due to an imbalance between illumination and frequency.
NTSC Model: 1/100, PAL Model: 1/120

○ **ESC** : Auto control of the shutter speed can be achieved. When ESC mode is on, the speed is controlled automatically according to the brightness of the screen.

○ **MANUAL** : The shutter speed can be controlled manually.

SETUP	
LENS	MANUAL
▶ SHUTTER	ESC ↵
WHITE BAL	ATW
BACKLIGHT	OFF

3. Please select 'MANUAL' mode if you wish to adjust the shutter manually.
 - You can select speed from '1/60' to '1/120,000'sec (NTSC Models), '1/50' to '1/120,000'sec (PAL Models).
4. Please press the SETUP button when all the settings are complete.



Note

- While using the internal synchronous system, if the shutter setting is on 'ESC' and the camera is directly facing a bright fluorescent light, the image on the screen can be adversely affected. Therefore please choose the installation location with care.
- When 'MANUAL' mode is on, the SENS UP function does not operate.

WHITE BALANCE control

The screen color can be adjusted by using the WHITE BALANCE function.

1. Please position the arrow to point to 'WHITE BAL' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.

SETUP	
LENS	MANUAL
SHUTTER	ESC ↵
▶ WHITE BAL	ATW
BACKLIGHT	OFF

※ Please select one of the 3 modes below.

○ **ATW(Auto Tracking White Balance)** : This mode can be used within the color temperature range 1,800°K ~ 10,500°K (eg, fluorescent light, outdoor, sodium vapor lamp or inside tunnels)

○ **AWC(Auto White Balance Control)** : Please press the SETUP button while the camera is directed at a piece of white paper to obtain the optimum state under current illumination. If the environment including the light source is changed you have to adjust the white balance again.

○ **MANUAL** : The manual adjustment mode enables finer adjustment.
Please select ATW or AWC first. Please change to manual adjustment mode and press the SETUP button. Please set the appropriate color temperature, and then increase or decrease the red and blue color values while monitoring the color changes on the object.



Note

- Under the following conditions the WHITE BALANCE function may not operate properly. In such cases, please select the AWC mode.
 - ① When the object's surroundings have a very high color temperature (eg, a clear sky and sunset)
 - ② When the object's surroundings are dark
 - ③ If the camera directly faces a fluorescent light or is installed in a place where there are considerable changes in illumination, the WHITE BALANCE function may become unstable.

■ Camera Operation

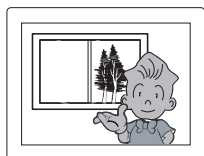
BACKLIGHT(Backlight Compensation)

When there is a strong backlight behind the object, clear images of the background as well as the object can still be obtained by using the BACKLIGHT function.

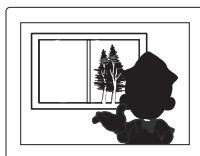
1. Please position the arrow to point to 'BACKLIGHT' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.

SETUP	
LENS	MANUAL
SHUTTER	ESC ↵
WHITE BAL.	ATW
▶ BACKLIGHT	OFF
AGC	LOW ↵
DNR	LOW

- ⦿ **HIGH** : The gain increases from 0dB up to 42dB.
- ⦿ **MIDDLE** : The gain increases from 0dB up to 30dB.
- ⦿ **LOW** : The gain increases from 0dB up to 18dB.
- ⦿ **OFF** : BACKLIGHT function does not operate.



BACKLIGHT ON



BACKLIGHT OFF

AGC (Auto Gain Control)

1. Please position the arrow to point to 'AGC' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button. As the level of gain increases, the screen gets brighter and the level of noise also increases.

- ⦿ **HIGH** : The gain increases or decreases within the range of 6dB ~ 42dB.
- ⦿ **MIDDLE** : The gain increases or decreases within the range of 6dB ~ 30dB.
- ⦿ **LOW** : The gain increases or decreases within the range of 6dB ~ 18dB.
- ⦿ **OFF** : The gain is fixed at 6dB.

SETUP	
LENS	MANUAL
SHUTTER	ESC ↵
WHITE BAL.	ATW
BACKLIGHT	OFF
▶ AGC	LOW ↵
DNR	LOW
SENS-UP	OFF
SPECIAL ↵	
EXIT	

■ Camera Operation

DNR (Digital Noise Reduction)

The background noise in the low light level decreases automatically as the level of gain changes.

1. Please position the arrow to point to 'DNR' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.

SETUP	
LENS	MANUAL
SHUTTER	ESC ↵
WHITE BAL.	ATW
BACKLIGHT	OFF
AGC	LOW ↵
▶ DNR	LOW
SENS-UP	OFF
SPECIAL	

- ⦿ OFF : There is no reduction in noise level.
- ⦿ LOW : There is a small reduction in noise level with almost no ghost image.
- ⦿ MIDDLE : The most effective mode. There is a sufficient reduction in noise levels without causing much ghost imaging.
- ⦿ HIGH : The level of noise is reduced greatly, however there is an increase in ghost imaging.



Note

- When AGC is turned off, DNR does not operate.

SENS UP (Low illuminance)

SENS UP helps maintain a bright, clear screen image by automatically detecting changes in the level of light in low light level conditions.

1. Please position the arrow to point to 'SENS UP' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.

- ⦿ AUTO : Low light level auto mode
- ⦿ OFF : The function does not operate.



Note

- When SHUTTER is in the manual or flk mode, SENS UP does not operate.
- When AGC is turned off, SENS UP does not operate.

SETUP	
LENS	MANUAL
SHUTTER	ESC ↵
WHITE BAL.	ATW
BACKLIGHT	OFF
AGC	LOW ↵
DNR	LOW
▶ SENS-UP	OFF
SPECIAL ↵	
EXIT	

3. Please press the SETUP button when all the settings are complete.



Note

- The maximum storage magnification in low light level movement situations can be adjusted by pressing the SETUP button in 'AUTO' mode.(X2~X128)
- As the magnification increases, the screen gets brighter; however the after image also increases.
- If storage magnification is increased while SENS UP is operating, it may cause noise, and spots may appear; however this is normal.

■ Camera Operation

SPECIAL

1. Please position the arrow to point to 'SPECIAL' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the UP or DOWN button.

SPECIAL	
▶ CAMERA TITLE	OFF
DAY/NIGHT	COLOR
SYNC	INT
CAM. ID ↕	
PRIVACY	OFF
D ZOOM	OFF
SHARPNESS	ON ↕
RESET	
RETURN	

🔍 **CAMERA TITLE** : If the TITLE is input, the camera TITLE appears on the monitor.

- 1) Please position the arrow to point to 'CAMERA TITLE' by using the UP or DOWN button.
- 2) Please select 'ON' by pressing the LEFT or RIGHT button.

Note

- If 'OFF' is selected, the TITLE does not appear on the monitor even if it has been input.

SPECIAL	
▶ CAMERA TITLE	OFF
DAY/NIGHT	COLOR
SYNC	INT
CAM. ID ↕	
PRIVACY	OFF
D ZOOM	OFF
SHARPNESS	ON ↕
RESET	
RETURN	

- 3) Please press the SETUP button.

```

Camera TITLE
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
-. 0123456789
←→ CLR POS END
-----

```

- 4) Up to 15 letters can be used for the TITLE.

- ① Please move the cursor to the letter you wish to choose by using the UP and DOWN button.

```

Camera TITLE
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
-. 0123456789
←→ CLR POS END
-----

```

- ② Select an ID from A,B~Y,Z, a,b~y,z, 0,1~8,9 by using the UP, DOWN, LEFT and RIGHT buttons.
- ③ Please lock in the letters by using the SETUP button.
 - When the letter is locked in, the cursor moves to the next space.
- ④ Please repeat the above to input the TITLE.

Note

- If the wrong name has been input....

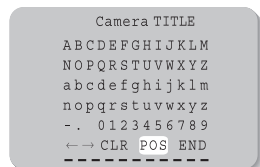
If you press the SETUP button after moving the cursor to CLR, all the letters will be erased. If you want to correct a letter, please move the cursor to the arrow at the bottom left of the screen and press 'SET'.

Please position the cursor above the letter you wish to correct, and then move the cursor onto the letter you wish to choose and press the SETUP button.

■ Camera Operation

5) When a name has been chosen, please select a position for the name display.

① Please move the cursor onto 'POS' and then press the SETUP button.



② The name will appear at the top left corner.



③ Please find the position you wish to display the name by using the 4 directional buttons, and then press the SETUP button.



6) Please select 'END' and then press the SETUP button to complete TITLE input.

○ DAY/NIGHT

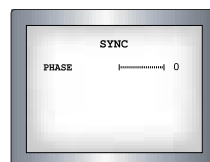
- **COLOR** : IR- Cut Filter is fixed to color mode.
- **B/W** : IR - Cut Filter is fixed to B/W mode.
- **AUTO** : When DAY & NIGHT external control signal is inputted on AUTO mode, IR- CUT filter switched to the COLOR or B/W mode or B/W COLOR mode after with the stabilization of the time about 3~4 sec.

Note

- When Day/Night mode is set to Auto under the condition which the strong IR light is flickering Periodically, A malfunction of IR-Cut filter may occur.

○ **SYNC** : Two SYNCHRONIZATION modes are available INTERNAL and EXTERNAL LINE-LOCK. In LINE-LOCK mode, it synchronizes the video signal between cameras without a synchronous generator. The line-lock synchronization is only used in the areas of 60Hz (NTSC Models) / 50Hz (PAL Models).

- INT : Internal synchronization
- LL : External line-lock synchronization
- If you choose 'LL', you can adjust the desired phase. Press the SET button.
- You can adjust the desired phase from 0 to 359.



Note

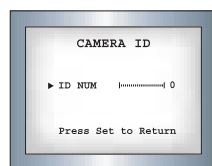
- When the power frequency is 50Hz, you can not use the line-lock mode (NTSC Models).
- When the power frequency is 60Hz, you can not use the line-lock mode (PAL Models).

■ Camera Operation

⦿ CAMERA ID :

Zoom/Focus of this product can be remote controlled by RS-485 communication.

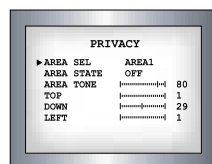
- Please press the SETUP button.
- Please select the ID of the Camera by pressing the LEFT or RIGHT button.



- The available ID number of the Camera is 1~255

⦿ PRIVACY : This mode conceals the areas you do not wish to appear on the screen.

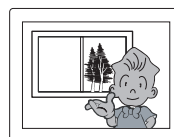
- OFF : Cancels the PRIVACY mode. - ON : Operates the PRIVACY mode.
- Please press the SETUP button.



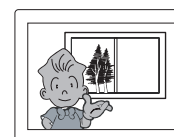
- Please select the area you do not wish to appear from the 4 areas in AREA SEL mode.
- Please select ON mode for the chosen area.
- Please adjust the size of the area to be concealed by using the UP, DOWN, LEFT or RIGHT button.

⦿ MIRROR

- OFF : Cancels inversion.
- VET : Sets a vertical image inversion.
- V-H : Sets a vertical and horizontal image inversion.
- HOR : Sets a horizontal image inversion.



MIRROR ON



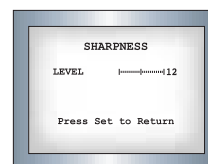
MIRROR OFF

⦿ D ZOOM : Digital Zoom

- off, 2X, 4X, 8X

⦿ SHARPNESS : The outline of the video image becomes cleaner and more distinctive as the level of SHARPNESS increases. If the level goes up excessively, however, it may affect the video image and generate noise.

- Please press the SETUP button.



- The available range of level is 0 ~ 31.

⦿ RESET : Returns to the level which was set by the manufacturer for shipment.

⦿ RETURN : Saves the SPECIAL menu and returns to the SETUP menu.

EXIT

Saves all the setting menus and then exits.

■ Troubleshooting

If there are problems in operation, please refer to the items below. If the problem persists, please contact the agent you purchased this product from.

Problems	Troubleshooting
Nothing appears on the screen.	• Please check the power connection. • Please check the video signal line connection. • Please check and make sure that the auto lens switch is set to DC (VIDEO) when using a VIDEO(DC) lens.
The video image is not clear.	• Please check if the lens is clean. Please clean the lens with a clean cloth or brush. • Please adjust the contrast feature of the monitor. • Please make sure that the screen is not exposed directly to a bright light. Please move the camera if necessary. • Please readjust the back focus of the camera.
The screen is dark.	• Please adjust the contrast feature of the monitor. • If you have an intermediate device, set the 75 / Hi-z properly, and check the terminals. • Please check if an auto iris lens is being used and adjust the brightness level.
There is a problem with the camera operation. The camera surface is too hot and black stripes appear on the screen.	• Please check if an appropriate power source to the camera complies with the manufacturer's standard requirement, or if the voltage keeps changing.

Problems	Troubleshooting
The MOTION DETECTION function is not working.	• Please check if 'MOTION DETECTION' mode is turned on. • Please check if the MD LEVEL is too low. • Please check the setting of the MD AREA.
Colors are not quite right.	• Please check the 'WHITE BAL' setting. (Please refer to page 19)
The screen is flickering.	• Please check if the camera is facing directly into sunlight or fluorescent light. • Please check if an auto iris lens is being used. • Please check the connection of the lens connector cable.
L/L mode isn't able to be selected.	• Have you connected your camera to DC power source? Connect it to AC power source.
L/L mode is not available.	• Please check the frequency of power supply (60Hz for NTSC, 50Hz for PAL).
COLOR mode is not working.	• Please check if the AGC menu is set to the OFF position.
SENS-UP function is not working.	• Please check if the AGC menu is set to the OFF position. • Please check if the SHUTTER menu is set to MANUAL mode.

■ Specifications

ITEM		NTSC	PAL
Power Supply		DC12V / AC24V	
Power Consumption		800mA MAX. at IR LED ON (DC 12V)	
C C D	Effective Pixels	768(H) x 494(V)	752(H) x 582(V)
	Image Sensor	1/ 4 inch interline transfer CCD	
	Scanning System	2:1 Interface	
S Y N C	Synchronization	INT/LL Selectable	
	Frequency	15.734KHz(H), 59.94Hz(V)	15.625KHz(H), 59.94Hz(V)
E L E C T R I C A L	Resolution	500 TV Lines(Min.) : Color (WIDE)	
		570 TV Lines(Min.) : B / W (WIDE)	
	Video Output	CVBS : 1.0Vp-p(75 Ohm Load)	
	S/N Ratio(Y signal)	50dB (AGC OFF)	
	Min. Illumination	0.7Lux/F1.8(50 IRE) : Color, 0.1Lux / F1.8(50 IRE) : B/W	
	Gain Control	OFF / Low / Middle, High selectable	
	White Balance	ATW / AWC / MANUAL(1,800°K~10,500°K)	
	Optics	10X, f=3.8 to 38.0mm(F1.8 to 2.8)	
	Digital Zoom	OFF, X2, X4, X8 selectable	
	Angle Field of View	H : Appr. 51.2°(Wide) to 5.58°(Tele)	
		V : Appr. 39.3°(Wide) to 4.27°(Tele)	
	Zoom/Focus	Manual	
	Iris Control	Auto / Manual(Full Open)	
	Camera Title	OFF / ON(Displayed 15 characters)	
	Back Light compensation	Off, Low, Middle, High	
	Shutter Speed	ESC(X128~1/60~1/20000)	ESC(X128~1/50~1/20000)
		Mnual(x128~1/60sec~1/120000)	Mnual(x128~1/50sec~1/120000)
		Flickerless(1/100sec)	Flickerless(1/120sec)
	O.S.D	Built-in	
	Motion Detection/Privacy Function	OFF / ON(4 Programmable Zone per Screen)	
	DNR	OFF, Low, Middle, High	
	Mirror	OFF, Horizontal, Vertical, Vertical-Horizontal	
Communication		RS-485	
Operating Temperature/Humidity		-10°C ~ +50°C / 95% RH max.	
Weight		900g	

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Day&Night IR 10X Zoom Camera Filter Changeable

Instruction Guide



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