

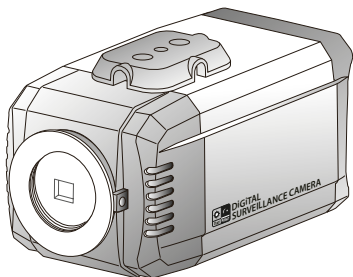
Effio-v™

700TVL

REAL WDR/3DNR/DEFOG/IR OPTIMIZE/ SCENE SELECTION

STANDARD CAMERA

USER'S MANUAL



- Sony 960H Double Scan CCD II
- Horizontal Resolution of over 700 TV Lines
- Real Wide Dynamic Range
- True Day & Night(ICR)
- Day & Night(w/o ICR)
- 2D&3D Noise Reduction
- IR-Optimizer
- Digital Image Stabilizer
- Defog(Auto. Detection)
- Motion Detection (Frame rate link)
- Multi-languages OSD
- Polygon Privacy mask
- Intelligent scene recognition
- Lens shading compensation
- Coaxial communication



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.

Precaution

Do not Keep the camera face to strong light directly

Do not install the camera in extreme temperature conditions

Do not disassemble the camera even if troubles happened

To avoid malfunctions, never use the camera close to a gas or oil leak

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

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

Do not install the camera under unstable lighting conditions

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

Components

STANDARD Camera



L-Wrench



Manual



1. Features

■ DEFOG

This camera supports DEFOG function which does a process of clearing blurred image caused by fog and snow by analyzing the brightness of input image and compensating the color of the image.

■ Horizontal Resolution

Over 700TVL with 960H CCD

■ DNR(Digital Noise Reduction)

- Improved "blur" of moving objects
- Fine color reproduction in low luminance

■ Low Light Performance

High sensitivity : Rich color information in even low luminance
Clear image under IR LED : Not saturated image by " IR optimizer"

■ IR Optimizer

Intelligent control for clear image under IR LED light

- PWM control for IR LED light
- Prevention of saturated image by AE
- Compensation of shading for IR LED hot spot

■ Real WDR (Wide Dynamic Range)

- Improvement of visibility under high contrast scene by double shutter and intelligent image processing
- Easy tuning for high contrast scene

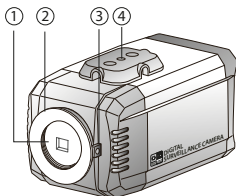
■ Auto Scene Recognition

Provide the best image automatically for every situation
by intelligent scene analysis

■ Scene Selection

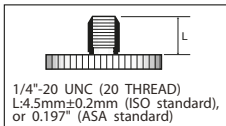
Provide the best image by automatic tuning for selected scene manually

2. Names and Functions of Parts



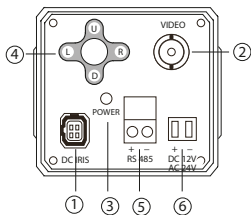
1) Front

- ① Lens protection cap
Please cover while it is out of use.
- ② CS-Mount lens adaptor
Please attach the CS-Mount lens here.
- ③ Back Focus clamp screw
Please loosen the clamp screw with a screwdriver before adjusting the Back focal length.
- ④ Mounting bracket screw hole
Please use the screw hole when fixing the camera onto the mounting bracket. Please use the clamp screw as specified in the picture.

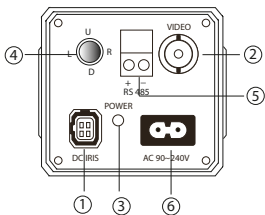


The mounting bracket can be separated and attached to the top of the camera. In this instance please do not tighten the screw to a depth of more than 5mm, otherwise serious damage can influence in the inner parts of the camera.

DC12V, DC12V/AC24V



AC 220V



2) Back

- ① Auto iris lens connector
This is the connection terminal for auto iris lens.
- ② Video composite Out
- ③ Power lamp
Light up when the correct power is supplied to the camera.
- ④ Setting button(OSD Joystick)
ENTER button : Use for menu display. This button can be used to confirm settings after changing the value of the selected function or current conditions.
UP & DOWN buttons : Use for selecting items by moving the cursor up or down on the menu screen.
LEFT(L) & RIGHT(R) buttons : Use when changing item values by moving the cursor to the left or right on the menu screen.
- ⑤ RS-485(Optional)
The camera can be controlled by using external controller like a remote controller.
- ⑥ Power input terminal
Connect to the power appropriate to each power requirement, 12V DC or 24V AC or 90~240V AC.

3. Installation

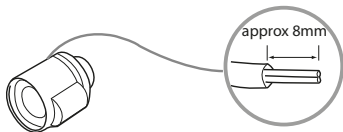
1) Lens

Lenses are sold separately. Lenses such as auto iris lens, CS-Mount lens and C-Mount lens can be used.

Note) How to operate this product effectively

- Please keep lens clean
- Any foreign objects and finger marks on the lens can cause inferior image quality in low light conditions.

- ① When using an auto iris lens
Please peel off about 8mm of the outer skin of the auto iris lens cable.

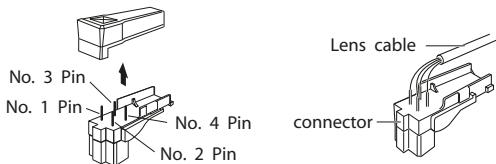


Please peel off about 2mm of the outer skin of the insulated conductor inside the lens cable.



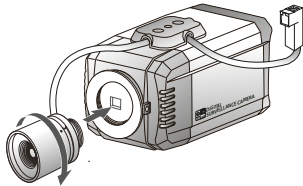
Please remove the cover of the auto iris lens connection plug and solder the lens cable to the connector pin in the plug.

Pin No.	LENS
	DC
No.1 Pin	Damping-
No.2 Pin	Damping+
No.3 Pin	Drive+
No.4 Pin	Drive-



Please fit the auto iris lens connector plug and take off the lens protection cap, and then attach the auto iris lens to the camera by screwing it in clockwise.

Please insert the connection plug that is connected to the auto iris lens cable into the auto iris lens connector, which is located on the back of the camera.



② When using a CS-Mount lens

Please take off the lens protection cap and attach the CS-Mount lens to the camera by screwing it in clockwise.

③ When using a C-Mount lens

Please take off the lens protection cap and attach the C-mount adaptor.

2) Power

* Be sure to connect power only after all installation is complete.

* Please use a power adaptor that meets the required standards.

[Recommended - Voltage : +/-20%, Current : Adapter with rated power of 2 times(than real using current)

3) RS485(optional)

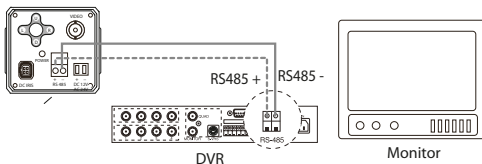
*The camera can be controlled by using external controllers like a remote controller.

* Connect the RS485 cable(+, -) to the connection port of the 485 control that is connected to the DVR or System Controller.

* Use the PELCO-D protocol.

* When controlling RS485, please check the following:

- Communication Speed : 4800 bps
- Data Bit Number : 8 bits
- Stop Bit Number : 1 bit
- Parity Bit : none



4. Setup Menu Flow

SETUP MENU		ADVANCED MENU		
SCENE SELECT	CUSTOM	SHUTTER/ AGC	FIX	SHUTTER
	FULL AUTO			AGC
	INDOOR		MANUAL	SHUTTER
	OUTDOOR			AGC MAX
	BACKLIGHT		AUTO	AE LEVEL
	ITS			AGC MAX
				SENS UP
		WHITE BAL	ATW	SPEED
				DELAY CNT
				ATW FRAME
				ENVIRONMENT
			PUSH	
			USER1	B-GAIN
				R-GAIN
			USER2	B-GAIN
				R-GAIN
			ANTI-CR	
		MANUAL	LEVEL	
		PUSH LOCK		
		HLC/BLC	OFF	
			HLC	CLIP LEVEL
			BLC	
		WDR/ATR-EX	OFF	
			ATR-EX	CONTRAST
				CLEAR FACE
		WDR		CONTRAST
				CLEAR FACE
		DNR		LEVEL
		DAY/NIGHT	DAY	
			NIGHT	BURST
			AUTO	BURST
				CNTL SIGNAL
				DELAY CNT
				DAY→NIGHT
				NIGHT→DAY

ADVANCED MENU

IR OPTIMIZER	OFF				
	ON		MODE		
		IR AREA		TOP	
				BOTTOM	
				LEFT	
				RIGHT	
			WEIGHT		
			LEVEL		
		IR LED		OFF	
				FIX	LEVEL
				DAY/NIGHT	LEVEL MIN LEVEL MAX
	COLOR NIGHT		OFF		
			ON	COLOR GAIN	
	IR SHADE COMP		OFF		
			ON	PATTERN	
			POSH POSV		
LENS SHD COMP	OFF				
	ON		PATTERN POSH POSV		
DEFOG	OFF				
	ON	LEVEL			
FLKLESS	OFF				
	ON	MODE			

SETUP MENU		ADVANCED MENU		
PICT ADJUST	BRIGHTNESS			
	CONTRAST			
	SHARPNESS			
	HUE			
	COLOR GAIN			
EZOOM	MAG			
	PAN			
	TILT			
DIS				
PRIVACY MASK	AREA SEL			
	DISPLAY			
	POSITION			
	COLOR			
	TRANSP			
MOTION DET	MOSAIC			
	DETECT SENSE			
	INTERVAL			
	BLOCK DISP			
	MASK AREA			
	MOTION AREA	AREA SEL		
		AREA MODE		
TOP				
BOTTOM				
LEFT				
SYS SETTING	SYNC MODE	RIGHT		
		INT		
		LL	PHASE	
	LENS	VSL	PHASE	
		MANUAL		
		AUTO	TYPE	
			MODE	
			ADJUST	
	SPEED			

SETUP MENU		ADVANCED MENU		
SYS SETTING	FLIP			
	LCD/CRT			
	COMMUNICATION	PROTOCOL		
		ADDRESS		
		BAUD RATE		
		DATABIT		
		PARITY		
STOP BIT				
CAMERA ID	OFF			
	ON	POS		
LANGUAGE				
VERSION				
MAINTENANCE	W.PIX MASK	MANUAL	REGISTRATION	
			REG.POINT	
		CURSOR COLOR		
		BLINK		
		REG.NUMBER		
	AUTO	RUN		
		BACK		
DATA CLEAR				
CAMERA RESET				
EXIT	SAVE			
	NOT SAVE			
	CANCEL			
	BACK			

5. SPECIFICATIONS

TV System	NTSC	PAL
Sensor	Sony 960H Double Scan CCD II	
Total Pixels	(H)1020 x (V)508	(H)1020 x (V)596
Effective Pixels	(H)976 x (V)494	(H)976 x (V)582
Synchronization	H/V 15.734/59.94Hz	H/V 15.625/50Hz
Scanning System	2:1 Interlace	
Horizontal Resolution	700 TV Lines in color	
Min. Illumination	Color : 0.3 Lux	
	B/W : 0.1 Lux	
Video Output	VBS 1.0Vp-p (75ohm Terminated)	
S/N	More than 50dB	
Function		
Scene Select	Custom / Auto Scene / Indoor / Outdoor / Backlight / ITS	
Auto Gain Control	OFF / ON	
Shutter Speed	1/60~1/120,000	1/50~1/120,000
Digital Slow Shutter	OFF / AUTO (5X)	
Flickerless	OFF / ON / AUTO	
Wide Dynamic Range	OFF / MANUAL / AUTO	
Defog	OFF / ON	
BLC/HLC	OFF / ON	
Day & Night	DAY / NIGHT / AUTO / EXT 1 / EXT 2 (IR-Optimizer)	
White Balance	ATW / PUSH / MANUAL / USER 1 / USER 2 / PUSH LOCK	

Digital Noise Reduction	2D, 3D (OFF / 1~6)		
Flip(Mirror)	OFF / H / V / HV		
Effect	POSITIVE / NEGATIVE		
Lens Shading Compensation	1 ~ 20 Steps		
Polygon Privacy Mask	OFF / On (15 masks)		
Motion Detection	OFF / ON (24 x 16 Block)		
Blemish Compensation	MANUAL / AUTO (64 point)		
Communication	COAX : PELCO-C / RS-485 : PELCO-D		
Language	English / Español / Russian / Potugal / DEUTSCH / France / Japanese		
Electrical			
Day & Night System	ICR(Option w/o ICR)		
Lens	C /CS Mount		
Operating Temperature/Humidity	-20°C ~50°C / 30% ~80%		
Storage Temperature/Humidity	-30°C ~60°C / 20% ~90%		
Power(Max.)	DC 12V	AC 24V / DC 12V	AC 90 ~ 240V
	120mA	80mA / 200mA	
	[Recommended-Voltage : +/- 20%, Current: Adapter with rated power of 2 times(than real using current)]		
Dimension(mm)	61(W) x 55(H) x 106(L)		

Design and specifications are subject to change without notice

PRODUCT WARRANTY CARD

1) ITEM # :
2) S/N # :
3) INSTALLATION CONDITION - Indoor <input type="checkbox"/> / Outdoor <input type="checkbox"/> - Power supply SPECIFICATION : DC12V <input type="checkbox"/> / AC24V <input type="checkbox"/> CURRENT _____ mA
4) TROUBLESHOOTING - No picture <input type="checkbox"/> - Bad image <input type="checkbox"/> - No power <input type="checkbox"/> - Water damage <input type="checkbox"/> - LED ON <input type="checkbox"/> / OFF <input type="checkbox"/> - ETC. : <input type="checkbox"/>
* Please keep this warranty card with the manual. * Please fill out this warranty card and send us this warranty card with the faulty units together.

- Following cases can be charged even within the warranty period.
 - a. When defects are caused by user's carelessness.
 - b. When improper or unauthorized repairs are done or when the inside is modified or damaged.
 - c. Defects caused by natural disaster or power problem.
 - d. When the warranty card is not filled out or corrected unconfirmed.