

HIGH PERFORMANCE CCTV CAMERA OPERATION MANUAL



Thank you for choosing our high quality camera.
Before attempting to connect or operate, please read and follow these instructions.

CAUTIONS

This device complies with Part 15 of the FCC Rules. Operation is subject to the 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.

Note -

This equipment has been tested and found to comply with the 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 -

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Caution -

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION

1. A regulated DC12V 300mA power supply is recommended for use with this camera for the best picture and the most stable operation.
An unregulated power supply can cause damage to the camera. When unregulated power supply is applied, product warranty will be out of subject.
2. It is recommended that the camera is used with a monitor that has a CCTV quality 75 video impedance level. If your monitor is switched to high impedance then please adjust accordingly.
3. Do not attempt to disassemble the camera to gain access to the internal components. Refer servicing to your dealer.
4. Never face the camera towards the sun or any bright or reflective light, which may cause smear on the picture and possible damage to the CCD.
5. Do not remove the serial sticker for the warranty service.

CAUTIONS

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicate that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

This product should not be mixed with other commercial wastes purchased this product, or their local government office, for details of where and how they can take item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.
Household users should contact either the retailer where they for disposal.



CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER(OR BACK). NO USER, SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol 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.



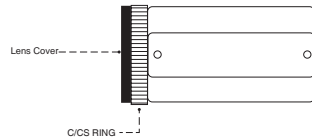
This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instruction in the literature accompanying the appliance.

COMPONENTS

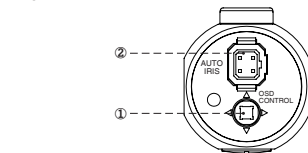
High Performance DSP Color Camera	
Auto Iris Lens Connection Plug	
C-mount Adaptor Ring	
Spare Screw (Machine 2x2) - 2ea	
Operation Manual	

NAME AND FUNCTION

FRONT



BACK



1. MENU BUTTON
2. UP BUTTON
3. DOWN BUTTON
4. LEFT BUTTON
5. RIGHT BUTTON

2. Auto IRIS Jack

INSTALLATION

• LENS CONNECTION

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

NOTE

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

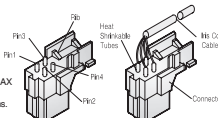
When using an auto iris lens

1. Please peel off about 8mm of the outer skin of the auto iris lens cable.
2. Please peel off about 2mm of the outer skin of the insulated conductor inside the lens cable.
3. Please remove the cover of the auto iris lens connection plug and solder the lens cable to the connector pin in the plug.

*PIN ASSIGNMENT OF THE LENS CONNECTOR

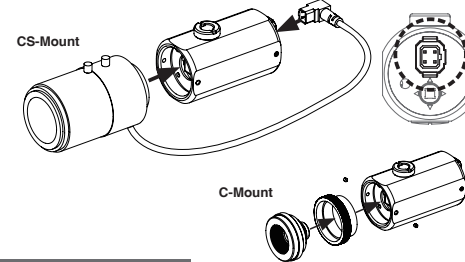
Signal for DC + Iris lens
Pin 1: DAMP.
Pin 2: DAMP+
Pin 3: DRV-
Pin 4: DRV-(GND)

Signal for Video + Iris lens
Pin 1: Power source +9 DC, 50mA MAX
Pin 2: N.C.(Not used)
Pin 3: Video Signal 0.7Vp-p 10K ohms.
Pin 4: Shield, ground



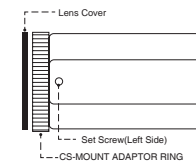
4. Please replace the auto iris lens connection plug cover and take off the CCD protection cap and then attach the auto iris lens to the camera by screwing it in clockwise.

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



Back Focus Procedure

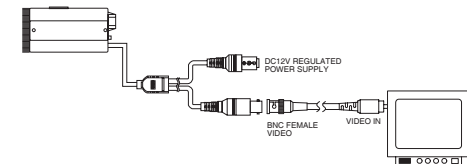
- Step 1 - Remove Lens Cover.
- Step 2 - If using a C-Mount lenses it can be applied to the camera at this time.
- Step 3 - Most current lenses are CS-Mount and require removal of the C/CS ring.
- Step 4 - To remove the C/CS ring loosen but do not remove completely the two set screws and then remove the C/CS ring.
- Step 5 - Screw on the CS-Mount lens until a good picture is obtained and tighten the set screws.
- Step 6 - Use the focus ring on the lens to obtain a finer focusing



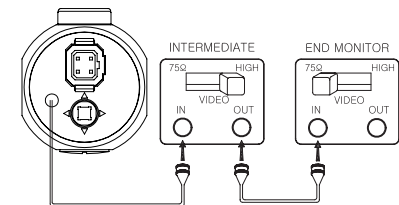
NOTE

- If a C-Mount lens was applied and focus could not be obtained, please try the following :
 - Ensure that the lens is in face a C-Mount and not a CS-Mount.
 - Check the focus adjust on the lens.
 - If need be loosen the set screws and adjust the position of the lens and C/CS ring as one until a good focus is obtained.

• MONITOR CONNECTION



- * As the connecting method varies with instruments, refer to the manual supplied with the instrument.
- * Only connect the cable when the power is turned off.
- * Set the 75Ω / Hi-Z selection switch as shown below if you have an intermediate device.



OSD MANUAL

MAIN MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU
LENS	MANUAL			
		TYPE	DC / VIDEO	
	AUTO	MODE	AUTO, OPEN, CLOSE	
		SPEED	000 ~ 255	
		RETURN		
SHUTTER / AGC	AUTO	HIGH LUMINANCE	MODE BRIGHTNESS MODE AGC, OFF BRIGHTNESS	SHUT, AUTO IRIS, SHUT+AUTO IRIS 000 ~ 255 AGC, OFF x0.25, x0.50, x0.75, x1.00
		LOW LUMINANCE		
		RETURN		
	MANUAL	MODE	SHUT+AGC	
		SHUTTER	1/50(PAL), 1/100(NTSC) 1/60(NTSC), 1/120(PAL) 1/250, 1/500, 1/1000 1/2000, 1/4000, 1/10000	
		AGC	6, 12, 18, 24, 30, 36, 42, 44, 8	
		RETURN		
	ATW	SPEED	000 ~ 255	
		DELAY CNT	000 ~ 255	
		ATW FRAME	x0.50, x1.00, x1.50, x2.00	
		ENVIRONMENT	INDOOR, OUTDOOR	
		RETURN		
WHITE BAL	PUSH			
	USER1	B-GAIN	000 ~ 255	
		R-GAIN	000 ~ 255	
		RETURN		
	USER2	B-GAIN	000 ~ 255	
		R-GAIN	000 ~ 255	
		RETURN		
	ANTI CR			
	MANUAL	LEVEL	NTSC: 30 ~ 115 PAL: 28 ~ 134	
		RETURN		
	PUSH LOCK			
BACK LIGHT	OFF, BLC, HLC			
PIC ADJUST	MIRROR	OFF, ON		
	BRIGHTNESS	000 ~ 255		
	CONTRAST	000 ~ 255		
	SHARPNESS	000 ~ 255		
	HUE	000 ~ 255		
	GAIN	000 ~ 255		
	RETURN			
ATR	ON	LUMINANCE	LOW, MID, HIGH	
		CONTRAST	LOW, MIDLOW, MID, MIDHIGH, HIGH	
		RETURN		
	OFF			
MOTION DET	ON	DETECT SENSE	000 ~ 255	
		BLOCK DISP	OFF, ON, ENABLE (CONTROLLER)	
		MONITOR AREA	ON, OFF	
		AREA SEL	TOP BOTTOM LEFT RIGHT	NTSC: 000 ~ 244 / PAL: 000 ~ 288 NTSC: 000 ~ 244 / PAL: 000 ~ 288 NTSC: 000 ~ 474 / PAL: 000 ~ 468 NTSC: 000 ~ 474 / PAL: 000 ~ 468
		RETURN		
NEXT				
EXIT				
SAVE ALL				

* **SHUT+IRIS**: Both the Shutter and the Mechanical Iris are automatically adjusted according to brightness.
 * **Auto Iris(Default)**: The Shutter stays at the manually selected value and only the Mechanical Iris adjusts to brightness.

MAIN MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU
PRIVACY	ON	AREA SEL	1/4, 2/4, 3/4, 4/4	
			TOP	NTSC: 000 ~ 244 / PAL: 000 ~ 288
			BOTTOM	NTSC: 000 ~ 244 / PAL: 000 ~ 288
			LEFT	NTSC: 000 ~ 474 / PAL: 000 ~ 468
			RIGHT	NTSC: 000 ~ 474 / PAL: 000 ~ 468
		COLOR	1 ~ 8	
			TRANSP	0.00, 0.50, 0.75, 1.00
			MOSAIC	OFF, ON
			RETURN	
		OFF		
DAY/NIGHT	AUTO	BURST	OFF, ON	
		DELAY CNT	0 ~ 255	
		DAY > NIGHT	0 ~ 255	
		NIGHT > DAY	0 ~ 255	
		RETURN		
	COLOR			
	BW			
NR	NR MODE	OFF, Y, C, Y/C		
	C LEVEL	000 ~ 015		
	Y LEVEL	000 ~ 015		
	RETURN			
	ON	EDIT MODE		
CAMERA ID		RETURN		
	OFF			
LANGUAGE	ENGLISH, 日本語, DEUTSCH, FRANCAIS, Русский, PORTUGUÊS, ESPAÑOL, 中文			
CAMERA RESET				
BACK				
EXIT				
SAVE ALL				

* **Important Note** : - Any changes made to the camera settings must be saved prior to exiting the OSD menu. Else all changes will be discarded.
 - By changing the lens option in the OSD from MANUAL to AUTO will automatically change the SHUTTER/AGC setting from AUTO IRIS to SHUT+AUTO IRIS. (Default: AUTO IRIS)

SPECIFICATION

Signal Format	NTSC	PAL
Image Device	1/3" SONY Super HAD CCD II	
Scanning System	2 : 1 Interlace	
Scanning Frequency	15.734KHz(H), 59.94Hz(V)	15.625KHz(H), 50Hz(V)
Total Pixels	1020(H) X 508(V)	1020(H) X 596(V)
Effective Pixels	976(H) X 494(V)	976(H) X 582(V)
Electronic Shutter	1/60 ~ 1/100,000sec	1/50 ~ 1/100,000sec
H.Resolution	700TV Lines	
S/N Ratio	More than 50dB(AGC OFF)	
Min.Illumination	0.08Lux (30IRE@F1.4)	
Sync System	Internal	
Gamma	r= 0.45	
Video Output Level	1.0 Vp-p Composite(75Ω)	
OSD	Built in	
BLC	OFF / BLC / HLC	
2DNR	OFF / ON (Level adjustable)	
ATR	OFF / ON (Level adjustable)	
Function	MIRROR / BRIGHTNESS / CONTRAST / SHARPNESS / HUE / GAIN	
White Balance	ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH-LOCK	
Privacy Masking	4 Zones	
Motion Detection	4 Zones	
Day & Night	AUTO / COLOR / BW	
Language	ENGLISH / JAPANESE / GERMAN / FRENCH / RUSSIAN / PORTUGUESE / SPANISH / CHINESE	
Operating Temperature	14°F~122°F(-10°C~+50°C)	
Weight	113g	

Storage Temperature	-4°F~140°F(-20°C~+60°C)	
Humidity	Less than 80%	
Dimension	30.5(W) x 30.5(H) x 55(D)	
Power Consumption	DC12V	DC12V(±10%), Max. 110mA
Lens	MANUAL / DC / VIDEO	

Specifications and designs are subject to change for improving the functionality of this product without notice.

DIMENSIONS Unit(mm)

