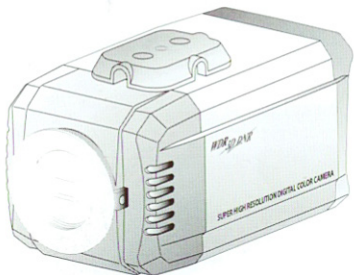




VEILUX

SUPER WDR/3D DNR CAMERA USER'S MANUAL



- WDR/3D DNR
- Zero Defect
- High Resolution of 600 TV Lines
- Sens Up(x512, DSS)
- DIS(Digital Image Stabilization)
- Polygonal Privacy Masking
- D.Zoom(x1~x10)
- Eclipse
- High Sensitivity Day&Night



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.

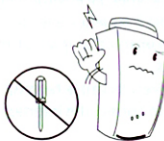
Precaution



Do not Keep the camera face to strong light directly



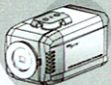
Do not install the camera in extreme temperature conditions.



Do not disassemble the camera even if troubles happened



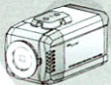
To avoid malfunctions, never use the camera close to a gas or oil leak



	<p>Do not drop the camera or subject them to physical shocks.</p>
	<p>Do not expose the camera to rain or spill beverage on it.</p>
	<p>Do not install the camera under unstable lighting conditions</p>
	<p>Do not install or use the camera in an environment where the humidity is high</p>

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1. Features

WDR(Wide Dynamic Range)

Delivers a powerful Wide Dynamic Range to the camera which provides superior images, internally and externally, even under extreme light and dark contrasts. It automatically compensates the necessary light levels to get detailed information in the dark part of the image without saturation from the bright part. It enables the WDR function to be very efficient, using a normal CCD, by using a Dual Shutter (long & short shutter) algorithm, a specialised AE (Auto Exposure) and intelligent image processing.

600 TVL ULTRA HIGH RESOLUTION

The horizontal resolution is 600 TV Lines in Color mode and 700 TV Lines in Black/White mode using a high density CCD. It gives a vivid image output with super high horizontal resolution using our own De-Mosaic Interpolation algorithm and a specialised built-in sharpness filter.

3D DNR(Digital Noise Reduction)

Achieves excellent 3D-DNR (3-Dimensional Digital Noise Reduction) function using upgraded 3D filtering. This function is automatically enabled when the camera is being used and provides clear and superior images in very low light luminance. Normally video noise increases in low light conditions, while the gain level of the amplifier increases. It compensates for the dynamic noise using the inactive information of a normal frame

D-ZOOM(x1~x10)

Has digital zoom magnification to get an enlarged video image. It has remote control technology for a camera without physical control, by a built-in pan & tilt function on the chip.

ZERO DEFECT

Adaptive Defect Correction delivers clear picture capture in very low light luminance using two algorithms for defect pixel compensation.

DIS(Digital Image Stabilization)

Delivers digital image stabilisation and anti-shaking compensation against outside influences, such as wind and vibration. After installation, the camera gives a much more stable video output. It also gets the moving direction information of the objects per field as the chip has a built-in image tracking module.

Sens-Up(x512, DSS)

Achieves high quality pictures by supporting a long exposure time - more than 1/50second - and enables recognition of the shape and color of a suspended object under no light conditions - in cases where exposure time is greater than 8 seconds (x512).

POLYGONAL PRIVACY MASKING(Polygonal, 8colors)

Ensures privacy protection for private and specific areas on the video signal output using a polygonal masking function. It allows the size and position of the masking areas to be controlled very easily, and there are 8 mask areas which are user programmable - color, brightness and mosaic.

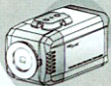
ECLIPSE

Enables the recognition of a visible car license plate by blocking unwanted light sources.

HIGH SENSITIVITY TRUE DAY&NIGHT

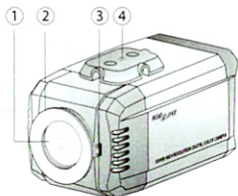
The Day & Night function delivers high quality color rendition and converts automatically into monochrome as luminance levels drop.

2. Components



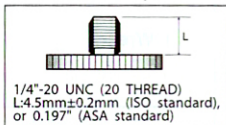
Super WDR/3D DNR Camera	
Auto Iris Lens Connection Plug	
C-Mount Adaptor	
L-Wrench	
Manual	

3. Names and Functions of Parts

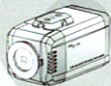


1) Front

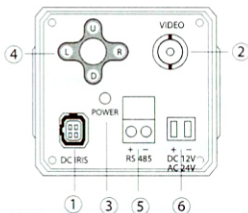
- ① Lens protection cap
Please cover while it is out of use.
- ② CS-Mount lens adaptor
Please attach the CS-Mount lens here.
- ③ Back Focus clamp screw
Please loosen the clamp screw with a screwdriver before adjusting the Back focal length.
- ④ Mounting bracket screw hole
Please use the screw hole when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



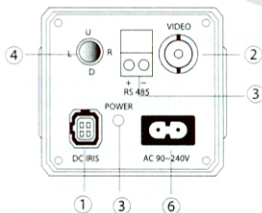
The mounting bracket can be separated and attached to the top of the camera. In this instance please do not tighten the screw to a depth of more than 5mm, otherwise serious damage can influence in the inner parts of the camera.



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
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.

4. 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

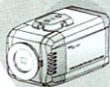
- Please keep lens clean
- Any foreign objects and finger marks on the lens can cause inferior image quality in low light conditions.

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



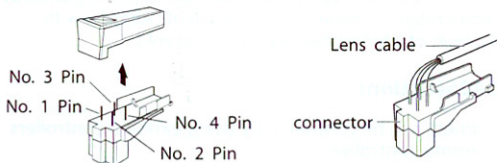
Please peel off about 2mm of the outer skin of the insulated conductor inside the lens cable.





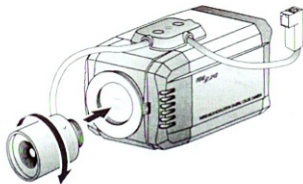
Please remove the cover of the auto iris lens connection plug and solder the lens cable to the connector pin in the plug.

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.



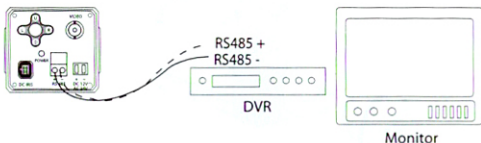
- ② When using a CS-Mount lens
Please take off the lens protection cap and attach the CS-Mount lens to the camera by screwing it in clockwise.
- ③ When using a C-Mount lens
Please take off the lens protection cap and attach the C-mount adaptor.

2) Power

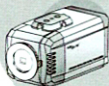
- * Be sure to connect power only after all installation is complete.
- * Please use a power adaptor that meets the required standards.
[Recommended - Voltage : +/-20%, Current : Adapter with rated power of 2 times(than real using current)]

3) RS485(option)

- *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



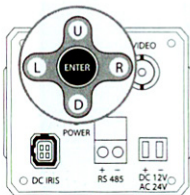
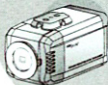
5. Setup Menu Flow



EXPOSURE	LENS	—	DC, ELC
	E.SHUTTER	—	AUTO, 1/50, 1/60(NTSC), 1/100, 000
	BLC	—	ON<1~256>, OFF
	WDR	—	OFF
		—	ON WDR LEVEL<0~20> WEIGHT<0~20>
	AGC	—	OFF, LOW, MID, HIGH
	SENS-UP	—	AUTO, OFF, MANUAL (x512 ~ x2)
	RETURN		
COLOR	WB MODE	—	AWC, ATW, MANUAL, PUSH
	R-Y GAIN		
	B-Y GAIN		
	RETURN		
DAY&NIGHT	D&N MODE	—	AUTO, DAY, NIGHT, EXT
	LEAD TIME	—	<1, 3, 5, 10>
	BURST	—	ON, OFF
	RETURN		
FUNCTION	MIRROR	—	ON, OFF, V-FLIP, ROTATE
	SHARPNESS	—	<0~49>
	GAMMA	—	0.45, 0.5, 0.6
	FREEZE	—	OFF, ON
	NEGA	—	OFF, ON
	3D DNR	—	OFF, LOW, MID, HIGH
	D.ZOOM	—	OFF
		—	ON ZOOM(x1.0~10) PAN(-128~127) TILT(-128~127) SHOW POS<OFF, ON>
	LSC	—	OFF, ON<0~50>
	ECLIPSE	—	OFF
		—	ON SET LEVEL-LOW/MIDDLE/HIGH HI-INV -ON/OFF
	DIS	—	OFF, ON
	RETURN		

MOTION	ALARM	— OFF, ON
	SET WINDOWS	
	ALL SET	
	ALL CLEAR	
	SENSITIV	
	SHOW	— OFF, ICON, TRACE
	DELAY TIME	— <1~15>
	RETURN	
PRIVACY	MASK1	— OFF — ON
	.	
	.	
	.	
	MASK8	— OFF — ON
		— SET WINDOWS — COLOR SET<1~8>
	— SET WINDOWS — COLOR SET<1~8>	
	RETURN	
SYNC	SYNC MODE	— AUTO, INTER
	V-PHASE	— <0~199>
	RETURN	
COMMUNICATION	ADDRESS	— <0~255>
	BAUDRATE	— OFF, 2400~38400
	PROTOCOL	— PELCO-D
	RETURN	
SPECIAL	TITLE	— OFF — ON
		— EDIT — RESET — POSITION
	LANGUAGE	— ENG
	DPC	— AUTO, OFF
	FILTER	— BLUE, RED
	RETURN	
EXIT	SAVE&EXIT	
	FACTORY SET	
	EXIT	
	RETURN	

6. How to Set up the Function



ENTER: Use to access the Main Menu & Sub-Menus and return to the Main Menu.

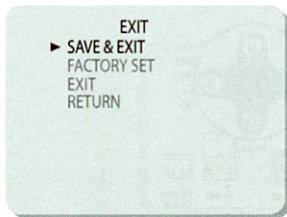
UP / DOWN: Moves the cursor Up and/or Down to select a menu item.

LEFT / RIGHT: Use to select (change) or adjust the parameter value of the selected item.

MAIN MENU

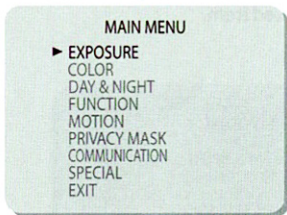
- ▶ EXPOSURE
- COLOR
- DAY & NIGHT
- FUNCTION
- MOTION
- PRIVACY MASK
- SYNC
- COMMUNICATION
- SPECIAL
- EXIT

When Set-Up is complete, press EXIT and press SAVE & EXIT.



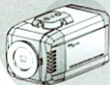
6-1. EXPOSURE

Press ENTER to access the Main Menu --> Select EXPOSURE using the UP / DOWN button --> Press ENTER --> Displayed Sub-Menu.

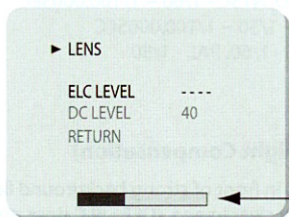
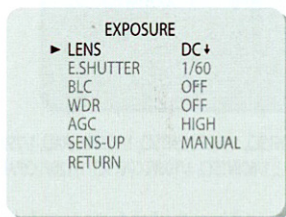


6-1-1 LENS

Select the connected lens type DC or ELC by using the LEFT / RIGHT buttons.



- * To use the functions of this camera effectively a DC type Auto Iris lens is recommended.
- * Some lenses may not work properly, depending on the setting of the DC level in the EXPOSURE.
- * Please note that you should set the lens type ELC in the EXPOSURE menu when using a fixed lens.



- Using this function, you can control brightness level.
DC <0~50>, ELC <0~15>

6-1-2 E. SHUTTER

Selectable shutter speeds.

EXPOSURE	
LENS	DC ↓
▶ E.SHUTTER	1/60
BLC	OFF
WDR	OFF
AGC	HIGH
SENS-UP	MANUAL
RETURN	

-DC LENS : 1/50(PAL), 1/60(NTSC), 1/100FLC(NTSC), 1/120FLC(PAL), 1/250~1/100,000

-ELC LENS : AUTO, 1/50(PAL), 1/60(NTSC), 1/100FLC(NTSC), 1/120FLC(PAL), ~ 1/100,000

* Basically, shutter speed is setted at factory as follow.

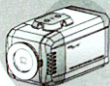
ELC LENS : AUTO, NTSC - 1/60 ~ 1/100,000SEC,

PAL - 1/50 ~ 1/100,000SEC

DC LENS : NTSC - 1/60, PAL - 1/50

6-1-3 BLC(Backlight Compensation)

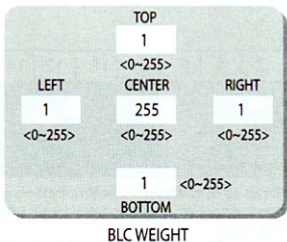
When the object is in front of strong background lighting, select "ON" to get a clear image. (OFF : BLC does not operate)



EXPOSURE

LENS	DC +
E.SHUTTER	1/60
▶ BLC	ON
WDR	OFF
AGC	HIGH
SENS-UP	MANUAL
RETURN	

You can adjust the enhancement level of an area by selecting "WEIGHT". Only if set to "ON". Select the desired area to view an area more clearly.



6-1-4 WDR(Wide Dynamic Range)

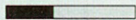
Wide Dynamic Range is essential for capturing images in all light levels.

EXPOSURE

LENS DC+
 E.SHUTTER 1/60
 BLC ON
 ► WDR ON
 AGC HIGH
 SENS-UP MANUAL
 RETURN

► WDR

WDR LEVEL 11
 WEIGHT 10
 RETURN



1) WDR LEVEL :

You can set the WDR LEVEL on the entry timing for this function. You can set the level into low number if you need a WDR function just in more strong light.

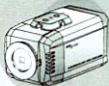
On the contrary you can set the level into high number if you need a WDR function in various light conditions.

	0	2	4	6	8	10	12	14	16	18	20	
WDR LEVEL (1~20)												
WDR Entry Level (Day Time)	Low Light (Day Time)				Middle Light (Day Time)				Strong Sunshine Light (Day Time)			
	WDR can be operated while Eclipse mode is off. On the contrary WDR mode should be off when you like to use Eclipse mode.											

2) WEIGHT : This is a level to make the dark area more bright.

Low number for more dark condition and high number for more brightness condition.

- Eclipse mode should be Off while you use WDR function.
- (Eclipse is just a special WDR function for car license plate)



6-1-5 AGC(Auto Gain Control)

To obtain a brighter picture. Select LOW, MIDDLE, HIGH and OFF menu.
- The higher the gain level, the brighter the screen, but noise increases.

EXPOSURE	
LENS	DC ↓
E.SHUTTER	1/60
BLC	OFF
WDR	OFF
▶ AGC	HIGH
SENS-UP	MANUAL
RETURN	

* Changing the 'AGC' setting from LOW to HIGH results in greater sensitivity as well as on screen noise.

6-1-6 SENS UP

You can get a clear image with this function, even at night or at low lighting levels.

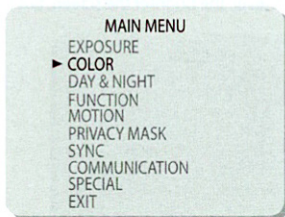
-AUTO, OFF, MANUAL<X2~X512>

EXPOSURE	
LENS	DC ↓
E.SHUTTER	1/60
BLC	OFF
WDR	OFF
AGC	HIGH
▶ SENS-UP	MANUAL
RETURN	

Note : Ghost is increased according to the SENS-UP level(x2~x512)

* Note that higher SENS-UP level, the brighter the screen, but there will be a more likely ghosting effect.

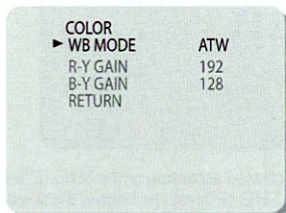
6-2. COLOR

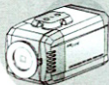


6-2-1 WB MODE (WHITE BALANCE CONTROL)

Selectable AWC, ATW, MANUAL, PUSH-LOCK.

- AWC : The white balance is adjusted automatically in a specific environment where a white reference is used.
If the environment changes, it will require adjustment.
- ATW : Select this when the color temperature is between 2,000~20,000K.
- MANUAL : Select to adjust the white balance manually.
- PUSH LOCK : Pressing ENTER, locks the color temperature to meet existing environmental conditions.





COLOR	
▶ WB MODE	MANUAL
M.WB R	128
M.WB B	128
R-Y GAIN	150
B-Y GAIN	150
RETURN	

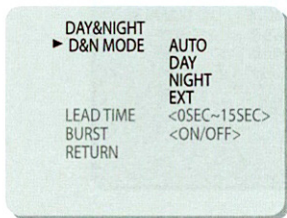
6-3. DAY/NIGHT

MAIN MENU	
EXPOSURE	
COLOR	
▶ DAY & NIGHT	
FUNCTION	
MOTION	
PRIVACY MASK	
SYNC	
COMMUNICATION	
SPECIAL	
EXIT	

6-3-1 DAY/NIGHT

Selectable AUTO, DAY, NIGHT, EXT

- AUTO : The camera switches from Color to B/W, or from B/W to Color automatically according to the ambient illumination.
 - DAY: The picture is always displayed in Color.
 - NIGHT : The picture is always displayed in Monochrome.
 - EXT : Switches day or night using an external CDS sensor.
For true Day&Night (ICR / Lens ICR).
- * EXT set is recommended in using camera with CDS sensor.

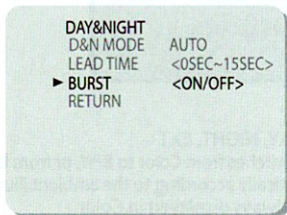


6-3-2 LEAD TIME

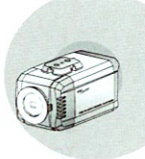
The selectable switching time from Day to Night and from Night to Day.

6-3-3 BURST

Select BURST ON or OFF.



6-4. FUNCTION



MAIN MENU

- EXPOSURE
- COLOR
- DAY & NIGHT
- ▶ FUNCTION
- MOTION
- PRIVACY MASK
- SYNC
- COMMUNICATION
- SPECIAL
- EXIT

6-4-1 MIRROR

Select MIRROR ON, OFF, V-FLIP, ROTATE.

FUNCTION

- | | |
|-----------|----------------------|
| ▶ MIRROR | ON/OFF/V-FLIP/ROTATE |
| SHARPNESS | <0~23> |
| GAMMA | USER |
| FREEZE | ON/OFF |
| NEGA | ON/OFF |
| 3D DNR | HIGH |
| D.ZOOM | OFF |
| LSC | ON/OFF |
| ECLIPSE | ON/OFF |
| DIS | ON/OFF |
| RETURN | ON/OFF |

6-4-2 SHARPNESS

To get a sharper picture, adjust the value appropriately.
Increasing the value makes the picture outline become clearer.

6-4-3 GAMMA

Selectable 0.45, 0.5, 0.6

- Factory set at 0.45

6-4-4 FREEZE

You can view still or moving pictures.

6-4-5 NEGA

Select NEGA ON or OFF.

6-4-6 3D DNR(Digital Noise Reduction)

Select 3D DNR ON or OFF.

- 3D-DNR function reduce the background noise in a low luminance environment.
- Our technology by upgraded 3D- filtering ensures even more clear image.

6-4-7 D.ZOOM

You can use a digital zoom of x1~x10

6-4-8 LSC

In using wider angle lenses, the edges of picture is not clear and darker than center To compensate this problem you can use this function.

6-4-9 ECLIPSE

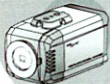
If there is a highlight within a limited environment, such as a car park, it makes it possible to view vehicle license plates by removing the highlight. (* Only for car license plate in low light condition and note that the WDR mode is not used while ECLIPSE is On mode) Eclipse can be operated while WDR mode is off.

On the contrary Eclipse mode should be off when you like to use WDR mode.

- Eclipse is just a special WDR function for car license plate.

6-4-10 DIS(Digital Image Stabilization)

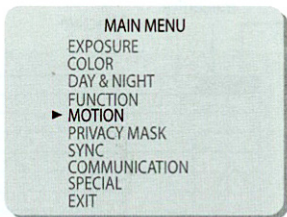
This function can eliminate any picture movements due to external factors, such as wind.



6-5. MOTION

This camera has a function to observe moving objects in 64 different areas on the screen.

Motion ICON or TRACE (BLOCK) appears on the screen.

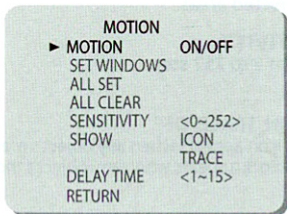


6-5-1 MOTION

Select ON or OFF.

* ON : Use MOTION detection.

* OFF : Do not use MOTION detection.

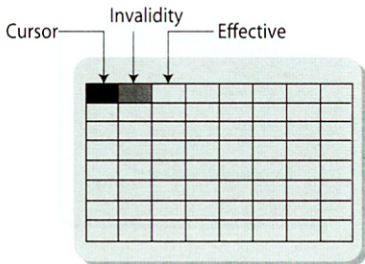


6-5-2 SET WINDOWS

You can select the areas you want to observe by using the UP/DOWN buttons and LEFT/RIGHT buttons if ALARM is set to "ON".

Place the cursor on the areas you wish to observe and press ENTER.

* Return to menu (exit from window) and move cursor to the outside of the window by LEFT/RIGHT buttons.



6-5-3 ALL SET

All areas on full screen is observed.

6-5-4 ALL CLEAR

Remove all selected areas.

6-5-5 SENSITIVITY

Selectable from 2 to 252 steps.

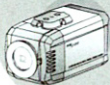
6-5-6 SHOW

Selectable ICON, TRACE, OFF

- ICON : Motion icon appears when any object's motion is detected.
- TRACE : Trace block appears when any object's motion is detected.
- OFF : OFF

6-5-7 DELAY TIME

Selectable holding time of motion detection from 1~15sec.



6-6. PRIVACY

This function is to conceal the areas you do not want to appear on the image. Eight selectable areas can be masked using eight different colors.

The mask size can be adjusted, on each selected area, using the UP/DOWN buttons.

MAIN MENU

- EXPOSURE
- COLOR
- DAY & NIGHT
- FUNCTION
- MOTION
- ▶ PRIVACY
- SYNC
- COMMUNICATION
- SPECIAL
- EXIT

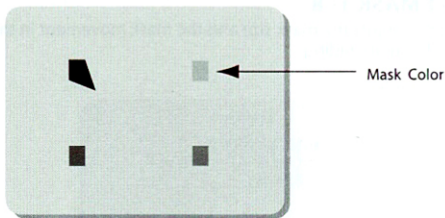
6-6-1 MASK 1~8

You can adjust the mask size and the mask movement in the places which require hiding.

MASK 1

- ▶ SET WINDOWS
- COLOR SET BLACK
- RETURN

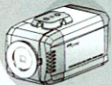
1. SET WINDOWS Press ENTER
-You can move the masking area using the key buttons.
2. SET WINDOWS Press ENTER
-You can adjust the mask size by key button.
3. SET WINDOWS Press ENTER
-You can adjust masking size in detail by UP/DOWN buttons.
4. SET WINDOWS Press ENTER
-You can adjust the masking size in detail by LEFT/RIGHT buttons.
5. SET WINDOWS Press ENTER
-You can adjust masking size using the UP/DOWN buttons.
6. SET WINDOWS Press ENTER
-You can adjust the mask size using the LEFT/RIGHT buttons.
7. SET WINDOWS Press ENTER
-Setting finished.



6-6-2 COLOR

- Select the color of the mask areas (selectable 8 colors).
-BLACK, GREY, COLOR1~COLOR6

6-7. SYNC



MAIN MENU

EXPOSURE
COLOR
DAY & NIGHT
FUNCTION
MOTION
PRIVACY MASK
▶ SYNC
COMMUNICATION
SPECIAL
EXIT

In areas where the supply is at 60Hz, you can synchronise the output phase of multiple cameras using the power synchronisation function (Line-Lock) without using a synchronisation signal generator.

-INTER : Internal Synchronisation Type.

-Auto : Power Synchronisation Type.

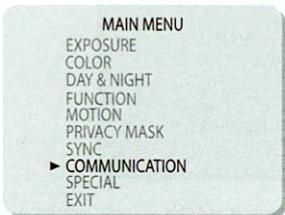
* The SYNC menu is fixed to the 'INT'(Internal) mode when power is DC 12V

* Note(Optional) : You can use the L/L type synchronization when using AC power at 60Hz(NTSC) and 50Hz(PAL) frequency.

SYNC
▶ SYNC MODE INTER
V-PHASE -----
RETURN

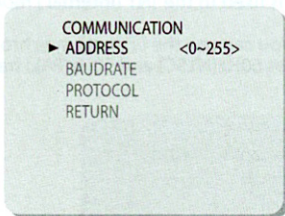
6-8. COMMUNICATION

This is for RS-485 communication setting only



6-8-1 ADDRESS

Determine ADDRESS No. of the camera between 0~255

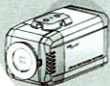


6-8-2 BAUDRATE

Select baudrate 2400....38400bps

6-8-3 PROTOCOL

Select PELCO-D



6-9. SPECIAL

This is for entering the camera title (name). If a title is entered for the camera, the name is displayed on screen.

MAIN MENU

- EXPOSURE
- COLOR
- DAY & NIGHT
- FUNCTION
- MOTION
- PRIVACY MASK
- SYNC
- COMMUNICATION
- ▶ SPECIAL
- EXIT

6-9-1 TITLE

You can enter up to 16 characters by using the UP/DOWN and LEFT/RIGHT buttons.

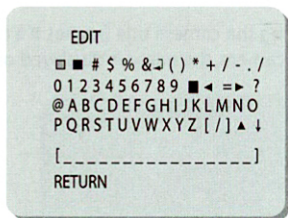
SPECIAL

- ▶ TITLE
- LANGUAGE ENG
- DPC AUTO
- FILTER BLUE
- RETURN

TITLE

- ▶ TITLE EDIT
- TITLE RESET
- TITLE POS

- RETURN



You can enter up to 16 characters.

6-9-2 TITLE RESET

Change / Reset / Modify the TITLE

6-9-3 TITLE POS

Enter Title and use the cursor to move to TITLE POS and press ENTER. The entered title appears on the screen. Select the position where the title is displayed on the screen using the UP/DOWN and LEFT/RIGHT buttons.

6-9-4 LANGUAGE

Choose the language.

6-9-5 DPC

Auto-defect compensation at low luminance.(about 1,000EA)

6-9-6 FILTER : OLPF(Optical Low Pass Filter)

BLUE FILTER : IR cutting

RED FILTER : IR received

6-10. EXIT



MAIN MENU

- EXPOSURE
- COLOR
- DAY & NIGHT
- MOTION
- FUNCTION
- PRIVACY MASK
- SYNC
- COMMUNICATION
- SPECIAL
- ▶ EXIT

OSD menu will go out of the screen after 30 sec.

6-10-1 SAVE & EXIT

Save current settings and exit.

EXIT

- ▶ SAVE & EXIT
- FACTORY SET
- EXIT
- RETURN

Reset to factory default values and exit

-It should be set again because DC Lens is set at factory when an ELC lens is used.

6-10-2 FACTORY SET

Reset to factory default values and exit

-It should be set again because DC Lens is set at factory when an ELC lens is used.

6-10-3 EXIT

Exit without saving current setting.

6-10-4 RETURN

Move to main OSD menu.

7. SPECIFICATIONS

TV System		NTSC	PAL
Sensor		Sony 1/3" SuperHAD II CCD	
Synchronization	Internal	H/V 15.734/59.94Hz	H/V 15.625/50Hz
	Line Lock	H/V 15.750/60Hz	H/V 15.625/50Hz
Scanning System		2:1 Interlace	
Horizontal Resolution		600 TV Lines (Max.) / 700TV Lines(B/W)	
Min. Illumination	Sens-Up Off	0.12Lux(15IRE), 0.2Lux(30IRE), 0.4Lux(50IRE) F1.2	
	Sens-Up On	0.0002Lux(15IRE), 0.0005Lux(30IRE), 0.0008Lux(50IRE) F1.2	
Video Output		1.0Vp-p/ 75ohm Video 0.714Vp-p	
γ Correction		0.45	
S/N		More than 52dB(AGC off)	
O.S.D		LENS,E-SHUTTER, BACKLIGHT,WDR, AGC, SENS-UP WHITE-BALANCE, DAY&NIGHT, MOTION, MIRROR SHARPNESS, GAMMA, FREEZE, NEGA, DNR, D-ZOOM LSC, ECLIPSE, DIS, PRIVACY, COMMUNICATION SYNC, TITLE, LANGUAGE, DPC, FILTER	
Electrical Shutter		1/60~1/100,000	1/50~1/100,000
Privacy Masking		8 Windows(Polygonal, 8 Colors)	
Day & Night		AUTO / COLOR / BW / EXT	
Motion Detection		ON / OFF	
Digital Zoom		x1.0 ~x10	
Sens-Up(Low Shutter)		AUTO, OFF ~x512	
SYNC		AUTO / INTERNAL / DIGITAL LINE LOCK(Option)	
White Balance		ATW / AWC / MANUAL / PUSH	
WDR		ON / OFF(WDR LEVEL, WEIGHT)	
3D-DNR		ON / OFF(OFF, LOW, MID, HIGH)	
LSC		ON / OFF	
DIS		ON / OFF	
ECLIPSE		ON / OFF	
AGC		OFF / LOW / MIDDLE / HIGH	
Lens		C/CS Mount	
Operating Temperature/Humidity		-20℃ ~60℃ /30% ~80%	
Storage Temperature/Humidity		-30℃ ~60℃ /20% ~90%	
Supply Voltage		Only DC12V(±20%)	Dual AC24V / DC 12V AC 90~240V
Current		110mA	80mA / 200mA
Power Consumption		1.4W	4.8W / 2.4W
		[Recommended - Voltage : +/-20%, Current : Adapter with rated power of 2 times(than real using current)	
Dimension		61(W) X 55(H) X 106mm(L)	
Weight		Abt. 460g	

Design and specifications are subject to change without notice.

PRODUCT WARRANTY CARD

1) ITEM # :

2) S/N # :

3) INSTALLATION CONDITION

- Indoor / Outdoor

- Power supply SPECIFICATION :

DC12V / AC24V

CURRENT _____ mA

4) TROUBLESHOOTING

- No picture

- Bad image

- No power

- Water damage

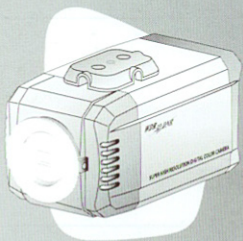
- LED ON / OFF

- ETC. :

* 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.



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