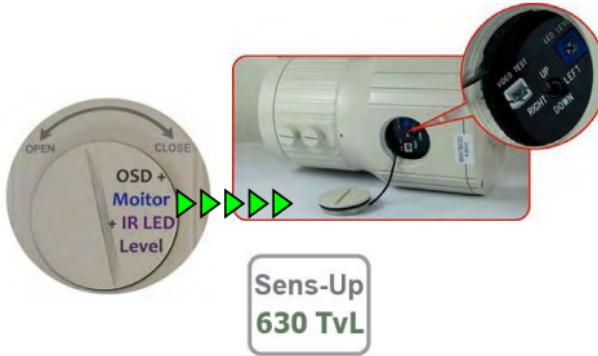


New Generation Hi-Resolution Camera



USER'S MANUAL



Applied to: Box Cameras, IR Waterproof Cameras and Dome cameras

Thank you for purchasing our products.
Please read the manual carefully before operating

Safety Precaution



 This symbol means that there might exist uninsulated dangerous voltage inside the case, be careful of electric shock.

 This symbol reminds you to pay attention to important operation and maintenance instructions in the accompanied information.

Warning

- In order to prevent damage caused by fire or electric shock, please do not put cameras exposed in the moist environment or rainwater.
- Please make sure the adapter is consistent with product specifications, otherwise it might cause fire, electric shock or damage.
- Pay attention to polarity of the adapter, it might cause some accidents like fires.
- Please don't connect multiple cameras with the same adapter at the same time; overloading of adapter capacity may cause fires.
- Power supply must be firmly fixed so as not to loose to cause fires.
- If the device gets " abnormal smell or smoke", please stop it immediately and contact with our customer service center.
- If the camera doesn't work as usual, please do not dismantle it by yourself. Please contact our local distributor or our maintenance office authorized by our company, otherwise we won't promise warranty.
- Please do not splash water on the product components when cleaning.

Notes

- Do not make the products under great impact or stay away from strong electromagnetic interference and vibration.
- There are some sophisticated parts inside the camera, therefore, during transportation and installation, please avoid the damage cause by stress or severe vibration. For the sake of safety, please do not switch on power before accomplishing all installation.
- Please comply with all electrical safety standards during operation, camera or signal transmission cable should maintain a sufficient distance (50 meters) with high-voltage equipment or cables, if necessary, lighting and thunder protective measures must be taken.
- Please install the camera in well-ventilated environment.
- Please do not make the camera face sunshine or other strong light directly in case of any damage to the lens and the sensor.
- The temperature and humidity range for cameras work are -10 ~ 50 °C, less than 95% separately, please do not start cameras beyond this range.
- To avoid lightning strikes, please make sure the installation of power supply ground line in a good condition.
- To prevent the equipment from damage by shower or splash of water, please do not place the device substances such as liquid.

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I Features

1. New Generation SONY CCD

Adopting the latest Second-generation high-sensitive CCD and DSP, it can receive clear and lucid images even at circumstances with very low illumination.

2. Super High Resolution

Color horizontal resolution can reach 630TVL, B/W horizontal resolution reach 700TVL

3. Day & Night Switch

Day & Night cameras can switch automatically into color or B/W according to light condition changes.

4. Digital Wide Dynamic Technology

Built-in special digital wide dynamic technology enable camera to see all view inside and outside house even in strong or weak light.

5. 3D DNR (Digital Noise Reduction) Technology

Enhanced the ability to handle with signal noise ratio, this technology makes camera can receive more clear and vivid images even under low-light conditions.

6. DSS

Digital Slow Shutter function

7. Gamma Curve

Variable gamma adjustment, there are four different curves optional.

8. Multi-Zone Backlight Compensation Setting

Backlight compensation can automatically adjust the lights to achieve overall optimization of the image, even in big contrast environment such as between dark and strong light.

9. Multi-Zone Motion Detection (MD)

Multi-partition motion detection feature.

10. Multi-Zone Privacy Setting (PRIVACY)

Privacy can be divided into different zones.

11. Smart IR

IR level adjustable

12. RS-485 Control

Easily remote adjusting the OSD menu through RS-485,

this greatly facilitates the installation and test

13. Monitor optional

LCD and CRT monitor optional

14. Power Supply optional

DC12V /AC 24V optional.

15. Led Light Wave optional

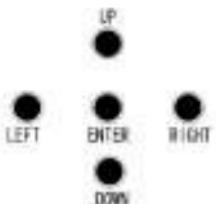
650mm/850mm OSD

16. Built-in OSD

The user can easily set up the camera parameters through menu.

II Interface Function Introduction

2.1 Interface Function Description

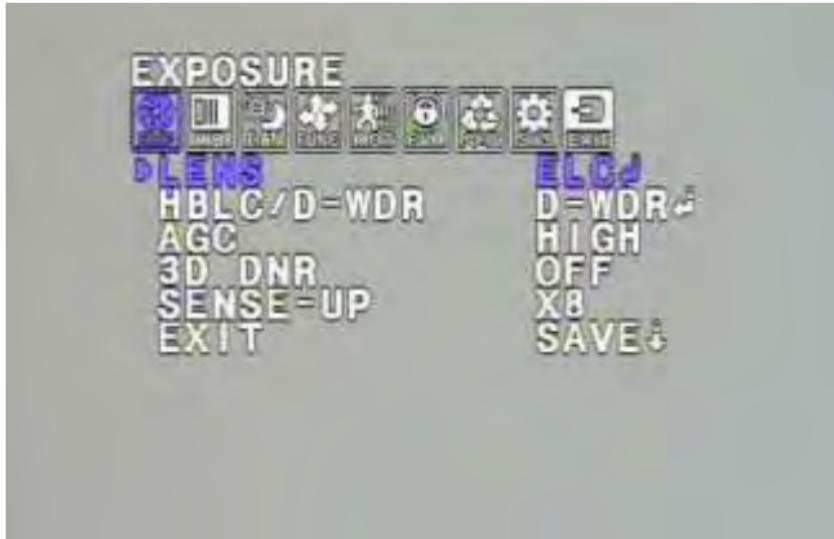


ENTER	Enter or Exit the menu, Press ENTER into Main
UP/DOWN	UP and DOWN for move up and down
LEFT/RIGHT	LEFT, RIGHT for modifying the menu parameters, press RIGHT to exit the next menu and modify the

III OSD

Press the "OK" to enter main menu, if there is no any press for 90 seconds, the main menu will disappear automatically from screen.

3.1 Exposure



(1) Lens

ELC/DC 2 modes, when in ELC Mode, could adjust Electronic Shutter Speed and Image Brightness, when in DC Mode, could adjust Electronic Shutter Speed, Image Brightness and DC-REF.

(2) HBLC/D-WDR

(a) BLC, Back Light Compensation, can set 4 areas Top/Bottom/Left/Right, 0~100 adjustable

(b) HLI, High Light Inverted, can set 4 areas, 0~100 adjustable

(c) D-WDR, Digital Wide Dynamic Range, 0~20 adjustable

(3) AGC

This function not only increase the brightness of camera images, but also increase the image noise, users can adjust it from Low/Middle/High or shut it down according to actual situation.

(4) 3D DNR

3D Digital Noise Reduction Technology, can reduce the noise in low illumination condition. Low/Middle/High adjustable.

(5) Sense-Up

X2~X256 adjustable

(6) Exit

3.2 Color



>White Balance

It is used to restore the authenticity of the color, affected by the change of color temperature. Users can choose white

balance mode according to the actual situation: Auto White Balance / Auto-tracking White Balance / Lock White Balance / Manual White Balance respectively. Default setting: Auto White balance

R-Y GAIN

Red value can be adjusted from 0-255, the default is 128.

B-Y GAIN

Blue value can be adjusted from 0-255, the default is 128.

3.3 Day&Night

(1) Day & Night Switch is specially designed for different occasions. There are 4 kinds of modes as follows: automatic mode, color mode, B/W mode and EX-CDS. The user can set different mode according to the surroundings.



(2) Burst

Set to decide to keep color signal or not when turning Day/Night

When Burst Off

Day-Night

This is color to B/W accumulated light intensity, when it reach “alternating light” state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device. Default value is 21

Night-Day

This is B/W to color accumulated light intensity, when it reach “alternating light” state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device. Default value is 15

When Burst On

Day-Night

This is color to B/W accumulated light intensity, when it reach “alternating light” state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device. Default value is 210

Night-Day

This is B/W to color accumulated light intensity, when it reach “alternating light” state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device. Default value is 100

(3) Smart IR

Auto/Off

(4) Dwell Time

0~10s optional, default: 1s

(5) C-SUP Color Suppression

0-100 adjustable

- (6) A-SUP Edge Suppression
0-100 adjustable

3.4 Function



- (1) Mirror ON/OFF optional
(2) Sharpness 0-100 adjustable
(3) LSC Light Surrounding Compensation, 0-30
adjustable, Default setting Off

3.5 Motion



(1) Motion

Whether to start the motion detection function, if you select "On", it means to start this function, then it can detect relevant regions and make time settings; if you select "off", then other functions can not be set.

(2) Alarm Select

User can select 4 independent areas

(3) Sensitivity

0-120 adjustable, default value: 80

(4) Display

"Icon" When the system detects there is a moving object, detection icon will show at the upper left corner of the screen icon;

"Track" means when the system detects any movement, the screen displays moving track.

(5) Hold Time

When detect there is a moving object, the alarm duration can be adjusted from 1 to 15 seconds. Default value: 3

(6) Alarm
On/Off Optional

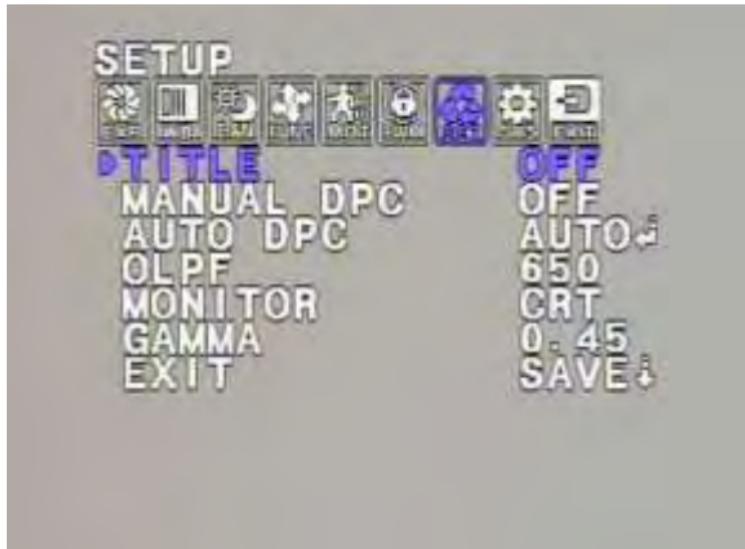
3.6 Privacy



User can set 8 privacy masks.

For each Mask, select ON, then can decide the Mask Color by adjusting Color, can decide the position shape and size of the mask by moving Up Down Left Right button

3.7 Setup



(1) Title

16 Characters optional

(2) Manual DPC

Manual Dead Pixel Complete.

(3) Auto DPC

Automatic Dead Pixel Complete

(4) OLPF

Light wave of the IR leds, 650/850 optional. When choosing 850, can sense the infrared light, when choosing 650, can not sense the infrared light.

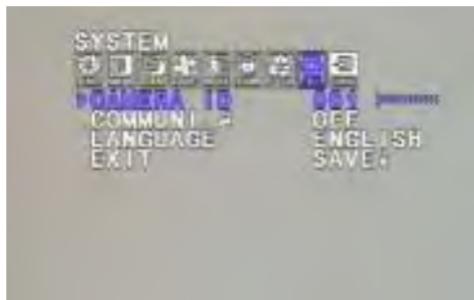
(5) Monitor

CRT and LCD Optional, default: CRT

(6) Gamma

Adjust the gamma value, there are several different modes of curves for option, different modes will give different handling way to the bright and dark area of the image. The user should select appropriate mode to achieve the most optimized image on different occasions. Value range from 0.3-1.0, the default value is: 0.45.

3.8 System



- (1) CAMERA ID: 0-254 optional
- (2) Communication: Pleco-D Protocol, Baud Rate 2400, 4800, 9600, 14400, 19200, 38400 optional
- (3) Language Chinese/English Optional

3.9 Exit



- (1) Factory Setting
Return to default setting
- (2) Save/Exit
Save and Exit
- (3) Exit
Exit without saving

IV Technical Specification

Model	
Imaging Sensor	1 / 3" SUPER HAD CCD II
Pixel	PAL: 795(H) x 596(V); NTSC: 811(H) x 508(V)
Horizontal resolution	630TVL
Signal System	PAL/ NTSC
ICR Filter	Yes
Minimum Illumination	Color 0.00015Lux (Sens-Up ON),
WDR	Digital WDR
3D DNR	0~5 adjustable
Sense-Up	Off/x2/x4/x8/x16/x32/x64/x128/x256
Syn. System	Internal Synchronization
Shutter speed	PAL: 1/50~1/100000s; NTSC: 1/60~1/100000s
S/N Ratio	54dB (AGC OFF)
Video Output	1.0Vp-p, 75 ohms BNC
D/N Switch	Auto/Color/B/W/External Control
Brightness Switch	Color to B/W & B/W to Color for option
D/N Switching Time	0s~10s
Title setting	16 characters
Title Position	Any position on the Screen
Image Brightness	0~99 adjustable
AGC	Off/12db/24db/36db

OSD	English/Chinese
Led Light Wave	850nm
Strong Light Reversion	4 zones
Backlight Compensation	0~3 adjustable
PRIVACY	1~8 Zones
Motion Detection	On / Off (multi-sensitivity settings, alarm time optional)
Alarm Display	track / Icon optional
AWB	Manual/Auto/Auto tracking/Lock
Sharpness	0~49 adjustable
GAMMA	0.3~1.0 adjustable
DPC	MDPC/ADPC
RS-485 Remote control	Support (optional)
Communication Add.	1-254 optional
BPS baud rate	2400/9600/14400/19200/38400
Control Protocol	Pelco-D (optional)
ICR filter	Optional
Power Supply	DC12V (Dual voltage DC12V/AC24V optional)
Operation Temperature	-10C~+50C
Operation Humidity	20~80%

V FAQ

1. Q: No image after installation?

A: a. Check to connect the power supply correctly, whether the indicating led is always on or not;

b. Check the video cable, make sure it is workable.

c. Check if the monitor has been open.

2. Q: Image interference after installation

A: a. Check the power quality, if the adapter can't work, please replace another one.

b. Check if electromagnetic interference exists in the surroundings, please use some anti-interference devices.

3. Q: RS485 can't control menu?

A: a. Please check the controller issued code is correct;

b. Please check if the control circuit is smooth;

c. Please verify the communication address, baud rate well-matched;

d. Please check if the connection interface is loose.

4. Q: Camera image can't switch into B/W at night?

A: Please open the camera menu to see if "Day/Night Switch" is set as AUTO, if not, please change into AUTO.

5. Q: Noise is very obvious at night with low illumination.

A: please make sure AGC ON.

6. Q: The image color is abnormal.

A: a. please make sure if the white balance is correctly set as Auto White Balance.

b. Please enter the menu to restore factory settings.

7. Q: Image appears to be whiter than usual after installation?

A: a. Please check whether the lens aperture was adjusted too large, so that the image appears whiter.

b. Please verify the camera rear panel, if the regulator potentiometer is adjusted too large.

c. Check if the brightness of the monitor is too large.

8. Q: When installation, image is not clear or exist dark corners?

A: a. Please adjust focus and zoom of the lens. Make sure the focus should be adjusted in a proper way.

b. Please check if the lens is clean.