

DPS Super Wide Dynamic Camera

User Manual

- ☐ Super WDR High Resolution Color Camera
- ☐ Super WDR High Resolution Day&Night Camera

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Warning



SA1966

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

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



SA1965

The 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 result in a risk of electric shock to persons.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: To reduce the risk of electric shock, do not remove cover or back no user serviceable parts inside refer servicing to qualified service personnel		

CAUTION:

To prevent electric shocks and risk of fire hazards. Do not use other than specified power source.

NOTICE

1. To reduce the risk of electric shock, do not remove cover.
2. No user serviceable part inside. Refer servicing to qualified service personnel.
3. This device should only be operated with the power supply included with the kit or provided as an accessory.

Introduction of WDR

Introduction of WDR

Compared with common cameras, WDR (Wide Dynamic Rang) can revert to filmed image more correctly. If the filmed region has a large contrast, stronger bright covers a large area of filmed region, common camera's electronic shutter will work in a higher speed after lighting, at the same time, dark region will be darker, even black, on the contrary, If the dark covers a larger area, common cameras' electronic shutter will work in a low speed, at this time, bright area will over-exposure, resulting in a white and can not be resolved. WDR cameras is using some kind technologies, making dark in the light of different circumstances can reproduce the brightest objects, also can reproduce the dark objects.

In some complex environment, common cameras film some objects, only to give up.



Common camera



WDR camera

Introduction of WDR



Common camera
BLC ON



Common camera
BLC OFF



WDR CAMERA

Above features of WDR camera can be more suitable for the using of some environment has large brightness contrast, such as ATM automated teller machine, the entrance of the building, wharf, etc.

Function Characters

Function Characters

1. Super Wide Dynamic Range, up to 120dB.
2. Taking advanced DPS camera technique needs much less storage capability of DVR than CCD camera.
3. Be more convenient for users to operate with English and Chinese OSD menu.
4. Revert to highly real color.
5. Supports PAL and NTSC systems.
6. With moving IR cut filter to enhance S/N ratio in night (several models use only).

System Function

1. Video output connection port (BNC, VIDEO OUT)
1.0 Vp-p@75 Ω , Signal of video output is supplied by this connection.
2. Power input connection port.



This port connector accepts DV12V (AC24V power supply only suitable for specifically cameras)

Recommendation power supply: 500-1500mA DC

It can be operated with specification voltage.

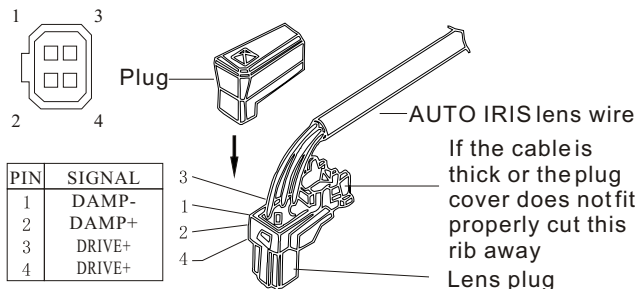
3. DC automatic aperture lens and manual board lens optional, use menu to adjust the right type of lens match with this machine. For DC automatic aperture lens, can set menu parameter to control lens aperture's size.

System Function

4. Power supply indicator light (LED)

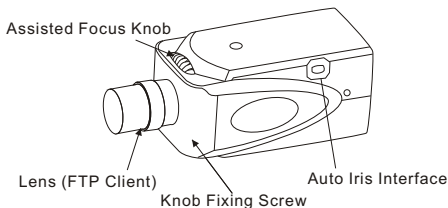
When the powersupplies normally, power indicator light will light up.

5. Automatic IRIS lens interface (AUTO IRIS)



6. Assisted Focus Knob

To a certain ratio, if using C or CS lens can not focus, please adjust this knob.



7. Dust Guard

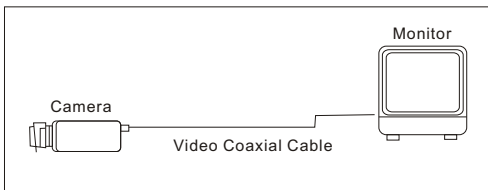
Unload the dust guard before installing lens.

Do not bring or leave the camera after unloading the dust guard.

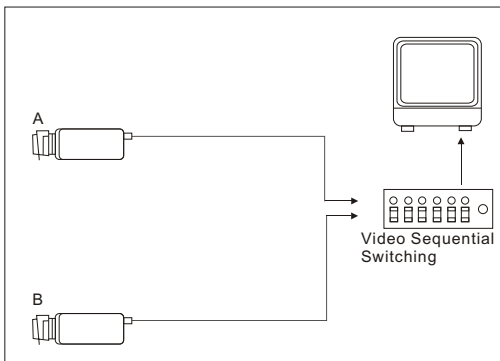
Connecting Example

Connecting Example

1. The way of single camera connecting.



2. The way of Multi-camera connecting.



* Make sure power off before connecting.

Back Panel Instruction

Back Panel Instruction

(1)、Key-press

UP Upward selection push-button to move the menu.

DOWN Downward selection push-button to move the menu.

LEFT Leftward selection push-button to select menu.

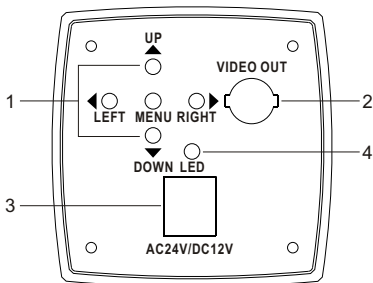
RIGHT Rightward selection push-button to select menu.

MENU Menu functional Key-press.

(2)、Video output port (BNC VIDEO OUT)

(3)、Power supply input port

(4)、Power supply indicator light (LED)

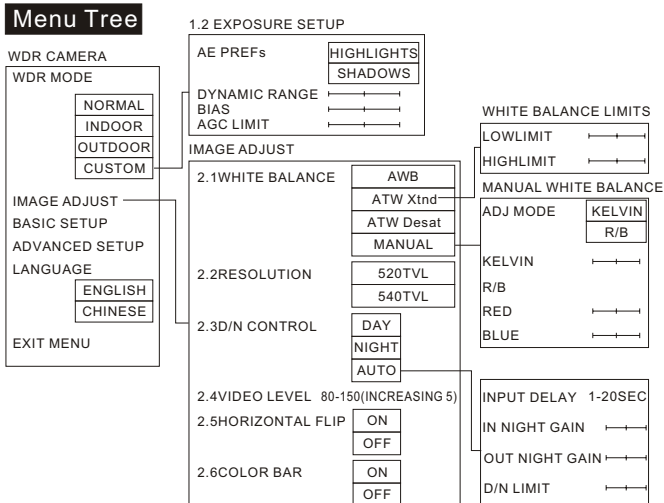


Main Camera Function Settings

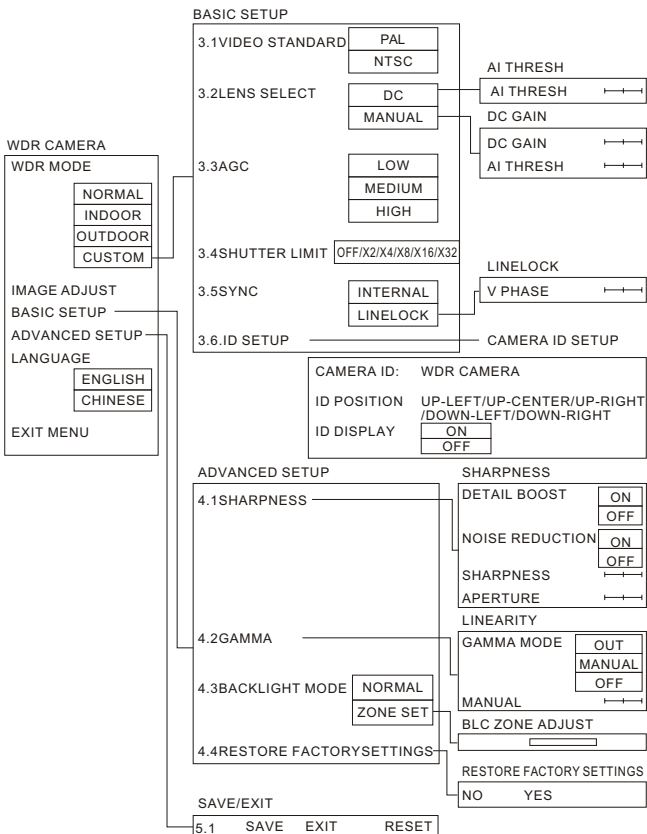
Main Camera Function Settings

- ①: WDR camera has 4 optional models : common, indoor 、 outdoor 、 user-defined (Details of the reference manual 1.1) ; Also can select region to be optimized (Details of the reference manual 4.3).
- ②: Video format (MENU->BASIC SETUP->VIDEO FORMAT), Set signal system as PAL or NTSC.
- ③: Use line lock of AC 24 V can control the color rolling (This feature only applies to some models products). Enter MENU (MENU->SETUP->SYNC->LINE LOCK), and regulate vertical phase until the color rolling phenomenon disappear.

Menu Tree



Menu Tree



Basic Operation

MENU tree totally include : MENU、UP、DOWN、LEFT、RIGHT five key-press, Hold MENU key three seconds to enter MENU SETUP. The MENU with "..." express having submenu. The MENU with "." express can be operated but no submenu, Press EXIT key to exit MENU, Hold MENU key three seconds to exit menu.

Menu Instruction

1.1 WDR MODE

Normal: To obtain the high quality image; Indoor: Use for office or similar environments; Outdoor: Use for bright sunshine environments; Custom.

1.2 EXPOSURE SETUP

Exposure AEPREFs: Select the region to optimize image; Dynamzic Range: Select the maximum value of dynamic; BIAS: Adjust the image brightness; AGC Limit: Adjust the multiple of AGC, make sure the image brightness and noise Size in the low illumination.

1.3 Language

Chinese and English menu switch.

2.1 WHITE BALANCE

AWB: In accordance with different color temperature can be automatic white balance mode of action (ATW); White Balance limit: When the color temperature changes in a limited range, and then can determine their maximum and minimum by white balance; Auto white balance: Use (AWB) when the color temperature has a larger range. Manual white balance: in complex

Menu Instruction

environment, when the effects of using ATW or AWB are not well, choose manual white balance to select an appropriate mode. When the color temperature environment is stable, and then can select the color temperature mode to adjust color temperature value. If the overall environment is fixed-tone, red and blue patterns can be selected and adjust the value of red and blue color temperature excursion.

2.2 RESOLUTION

520 TV-lines and 540 TV-lines can be switched, 520 TV-line is soft, low-resolution, 540 TV-lines 'edge has slight sawtooth, high-resolution.

2.3 D/N CONTROL

Day: colorful all the time. Night: Black & White all the time: Auto: Colorful and Black & White can be switched. Customizable delay switch, switch mode gain, and the image has the largest gain at night.

2.4 VIDEO LEVEL

Video Level can be setting; the compensation of long-distance signal transmission attenuation

2.5 HORIZONTAL FLIP

Change the lens image right or left position.

2.6 COLOR BAR

Be able to monitor the color calibration, so that the monitor shows the more true color.

3.1 VIDEO STANDARD

P Format, N Format two kinds optional.

3.2 LENS SELECT

DC automatic aperture lens and manual camera lens optional, when use DC AUTO aperture lens, be able to

Menu instruction

enter DC lens adjustment to adjust Auto aperture gain . and adjust AUTO gain to start level control the camera correct action.

3.3 AGC

AGC can be defined as low, medium, and high.

3.4 SHUTTER LIMIT

Shutter limit function also is used in low-light; improve the image brightness through sacrificing the speed of image response in low-light environment. The higher multiples, brighter the image is, the image response time is longer.

3.5 SYNC

Select SYNC when use DV 12V, if use AC 24V, then can use function line locking, through level phase adjustment to inhibit the image 's color rolling.

3.6 ID SETUP

Press MENU key to move the menu rightward, Press LEFT 、 RIGHT to switch letters, as to get needful title, and be capable of setting whether display title and the display position.

4.1 SHARPNESS

Through sharpness adjustment to adjust the image noise , edge profile, resolution etc.

4.2 GAMMA

Set gray level, the typical value is $Y=0.45$

4.3 BACKLIGHT MODE

If the needful subject became dark as a result of bright background, this feature can be strong backlight compensation. The pane express this region need backlight compensation. Press MENU key to switch blocks model adjustment: white pane can move region,

Menu Instruction

green pane can enlarge region, red pane to narrow region, Hold MENU key three seconds to return last menu.

4.4 RESTORE FACTORY SETTINGS

Restore factory default value.

5.1 SAVE /EXIT

Save: Save users' settings, and exit MENU; EXTE: Exit Menu without saved; RESET: Reset camera, restore last saved parameter.

Product Specifications

Product Specifications

Image Sensor	1/3" Pixim Orca,DPS	
Signal System	PAL/NTSC Compatible	
Effective Pixels	PAL:720×540; NTSC:720×540	
Resolution	Color: 540 TVlines Black&White: 570 TV lines (level)	
Min.illumination	0.5 Lux × F1.2;0.08 Lux/F1.2 (32Xslow shutter)	
S/N Ratio	> 48 dB	
Dynamic Range	101 dB (Typical Value), 120 dB (Max Value)	
Control Mode	OSD Menu ControlMode	
White Balance	Auto tracking/ Auto/ Manual White Balance	
Color Temperature Range	Auto 2000 Kto 11.000K	
Auto Gain	Low/ Normal / High	
Color&Black Switching	Yes (With moving IR cut filter)	No (Without moving IR cut filter)
Video Out-put	1.0Vp-p (Video Range ValueAdjustment)@75 Ω	
Gamma Correction	Adjustment	
Aperture Control	DC Drive	
Lens Interface	C/CS Type	
Synchronization Mode	INT /Line locking	INT
Power Supply	AC 24 V/DC 12 V	DC 12 V
Operating Temperature	-10℃~+50℃	
Storage Temperature	-30℃~+60℃	

* All specification subject to change without notice.

Remove Common Troubles

Remove Common Troubles

Number	Trouble	Causation	Remove ways
1	No picture	No power supply	Plug power
		Power supply not well	Change power supply
2	No picture	Video line is not connected	Connect video line
3	Unclear picture	Check the lens or image sensor whether be polluted	Use soft cloth to clear
4	Abnormal picture color	Check image menu's white balance settings whether is correct	Reset white balance
5	Image contrast too weak	Monitor contrast imbalance	Adjust monitor contrast
		Camera is placed in strong bright background	Change the position of camera

* All specification subject to change without notice.