Prestel 4K-PTZ420HSU3N

4K PTZ Camera

USER MANUAL

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Notice

Product specifications and information which were referred to in this document are for reference only. We may change, delete, or update any content at any time and without prior notice.

FCC NOTICE (Class A)

This product complies with Part 15 of the FCC Rules. The operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note

This product 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 reasonableprotection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with theinstructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does causeharmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the equipment and receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced radio/television technician for help.**

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

Warning

Operating this equipment in a residential environment may cause radio interference.

European Community Compliance Statement (Class A)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive

Catalogue

1 Note

- During the installation and use of the equipment, all electrical safety regulations of the country and region of use must be strictly observed.
- Please use the power adapter that comes standard with this product.
- Please do not connect multiple devices to the same power adapter (exceeding the capacity of the adapter may generate excessive heat or cause a fire).
- Do not rotate head of the camera by hand, otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, secure the device securely. When installing, make sure that there are no obstacles within the rotation range of the gimbal; do not turn on the power until all installations are completed.
- To avoid heat build-up, keep ventilation around the device smooth.
- If the device emits smoke, smells, or makes noises, please turn off the power immediately and unplug the power cord, and contact the dealer in time.
- This device is not waterproof, please keep the device dry.
- This product has no user serviceable parts, damage caused by disassembly by the user is not covered by the warranty.

⚠ Notice

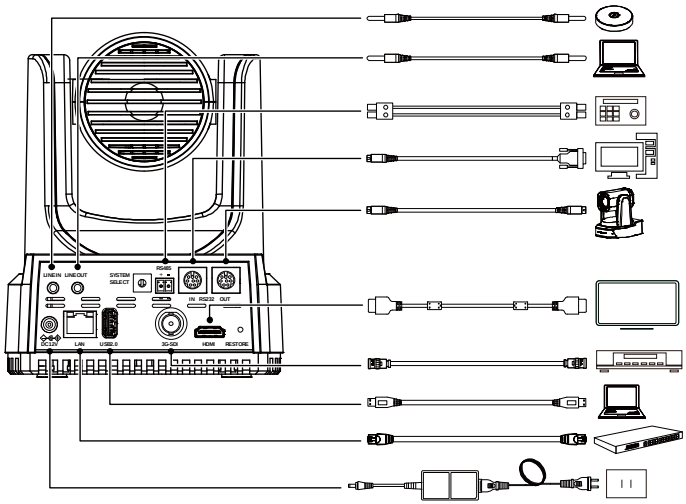
Specific frequencies of electromagnetic field
may affect the image of the camera!

2 Packing List

Name	Quantity
Camera	1
Power Adapter	1
Power Cable	1
RS232 Cable	1
USB Cable	1
Remote Control	1
Quick Start Guide	1

3 Product Connection

1) Please check connections are correct before starting.



Note **The schematic diagram is for reference only. Please refer to the actual application scenario for product connection.**

2) Connect the power adapter to the power connector on the rear panel of the camera. The power indicator on the front panel of the camera is on.
3) After the camera is powered on, it starts to initialize, right up to the limit position, and then both horizontal and vertical go to the middle position, the motor stops running, and the initialization is completed.
(Note: If preset 0 is saved, PTZ will be move to preset 0)

4 Video Format

HDMI		SDI	
0	1080P60	0	1080P60
1	1080P50	1	1080P50
2	1080I60	2	1080I60
3	1080I50	3	1080I50
4	1080P30	4	1080P30
5	720P60	5	720P60
6	1080P29.97	6	1080P29.97
7	1080I59.94	7	1080I59.94
8	1080P59.94	8	1080P59.94
9	720P59.94	9	720P59.94
A	4KP29.97	A	1080P29.97
B	4KP59.94	B	1080P59.94
C	4KP25	C	1080P25
D	4KP30	D	1080P30
E	4KP50	E	1080P50
F	4KP60	F	1080P60

5 About Product

5.1 Feature

- AI Tracking

With the help of the AI computing power of the chip, the camera is equipped with advanced AI algorithms to realize monocular humanoid tracking, which can realize automatic tracking of scenes such as education, conferences and live broadcasts.

- **NDI|HX2(Optional)**

NDI|HX2 has the characteristics of low delay and plug and play, which is convenient for project implementation and deployment. It has good ecology and supports the simultaneous transmission of audio, video and control commands. It is a new generation of network video transmission mode.

- **4K UHD**

Use1/1.8-inch high-quality UHD CMOS sensor with a maximum of 8.42 million pixels can realize 4K (3840x2160) ultra-high-resolution high-quality images. And downward compatible with 1080p, 720p and other resolutions.

- **20x Optical Zoom**

It adopts 4K ultra long focal lens with high quality and 8 million ultra-high resolution, 20x optical zoom, and the maximum field angle is 60°.

- **HDMI2. 0**

Support HDMI 2.0 interface, which can directly output 4KP60 uncompressed digital video.

- **LowLight**

The application of 3D noise reduction algorithm greatly reduces image noise. Even under the condition of ultra-low illumination, it still keep the picture clean and clear, and the SNR of image is as high as 55dB.

- **Multiple Interfaces**

Support HDMI and 3G-SDI interface, effective transmission distance of 3G-SDI is up to 150 meters (1080P30). HDMI, 3G-SDI, USB, LAN can output fourHD digital signals at the same time.

- **Remote Control**

Through the RS232 and RS485 serial ports, the camera can be controlled remotely.

- **Gravity Sensor (Optional)**

It supports automatic image flipping function, which is convenient for engineering installation and use.

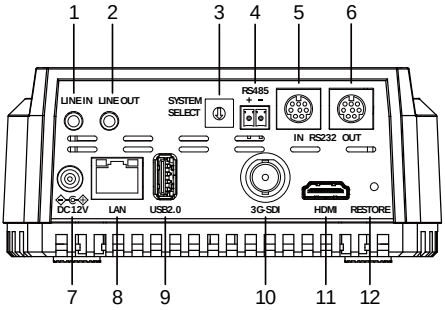
5.2 Specification

Camera	
Signal System	HDMI: 4KP60, 4KP50, 4KP30, 4KP25, 4KP59.94, 4KP29.97, 1080P60, 1080P50, 1080P59.94, 1080P30, 1080P29.97, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94 3G-SDI: 1080P60, 1080P50, 1080P30,1080P29.97, 1080P59.94, 1080P25, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94
Sensor	1/1.8 inch, CMOS, Effective pixels: 8.42M
Scanning Mode	Progressive
Lens	20x, f=6.25mm~125mm, F1.58~F3.95
Digital Zoom	16x
Minimum Illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s~1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Backlight Compensation	Support
Digital Noise Reduction	3D Digital Noise Reduction
SNR	≥55dB
Horizontal FOV	60°~3.5°
Vertical FOV	35.7°~2.0°
Pan Angle	±170°
Tilt Angle	-30°~+90°
Pan Speed	1.7°~100°/s
Tilt Speed	1.7°~69.9°/s
Image Flip	Support
Image Freeze	Support
PoE	Support
Preset Position	255
Preset Accuracy	0.1°
USB Features	
Operate System	Windows 7/8/10, Mac OS X, Linux, Android
Color System/ Compression	YUY2/H.264/MJPEG/H.265
Video Format	YUY2: 1080P5 (max.) H.264 AVC: 2160P30 (max.) H.265 HEVC: 2160P30 (max.) MJPEG: 2160P30 (max.)
USB Audio	Support
USB Video Protocol	UVC 1.1~1.5
UVC PTZ	Support
Network Features	
Video Compression	H.264/H.265/MJPEG
Video Stream	First Stream, Second Stream
First Stream Resolution	3840x2160, 1920x1080, 1280x720, 1024x576, 720x480, 720x408, 640x480, 640x360
Second Stream Resolution	720x480, 720x408, 640x480, 640x360, 480x320, 320x240
Video Bit Rate	• First Stream: 32kbps~51200kbps • Second Stream: 32kbps~20480kbps
Bit Rate Control	CBR, VBR
Frame Rate	50Hz: 1fps~50fps, 60Hz: 1fps~60fps
Audio Compression	AAC
Audio Bit Rate	96K, 128K
Protocols	NDI®|HX2, TCP/IP, HTTP, RTSP, RTMP/RTMPS, ONVIF, DHCP, SRT, Multicast

Interfaces	
LINE IN Interface	1 x LINE IN: 3.5mm Audio Interface
LINE OUT Interface	1 x LINE OUT: 3.5mm Audio Interface
Communication Interface	1 x RS485: 2pin phoenix port, Max Distance: 1200m, Protocol: VISCA/ Pelco-D/Pelco-P
	1xRS232 IN: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/ Pelco-P
	1 x RS232 OUT: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only
Network Interface	1xLAN: 10M/100M/1000M Adaptive Ethernet Port
USBInterface	1xUSB2.0: Type A
3G-SDIInterface	1x3G-SDI: BNC type, 800mVp-p, 75Ω. Along to SMPTE 424M standard
HDMIInterface	1 x HDMI: Version 2.0
Power Interface	JEITA type (DC IN 12V)
General Specifications	
Tally Indicator	1
Power Indicator	1
Status Indicator	1
RestoreKey	1
Input Voltage	DC 12V/PoE+(802.3at)
Input Current	2A(max.)
Operating Temperature	0°C~40°C
Storage Temperature	-40°C~60°C
Power Consumption	18W(max.)
Dimension	169mm x 141.5mm x 176mm
Net Weight	About 1.5Kg

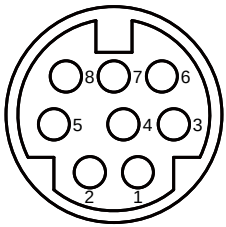
Note **Product specifications and parameters are subject to change without notice.**

5.3 Interface and Switch



No.	Name
1	LINE IN Interface
2	LINE OUTInterface
3	System Select Switch
4	RS485 Interface
5	RS232 IN Interface
6	RS232 OUT Interface
7	DC 12V Interface
8	LAN Interface
9	USB2.0 Interface
10	3G-SDI Interface
11	HDMI Interface
12	RESTOREKey

5.4 RS232Interface



No.	Function	No.	Function
1	DTR	5	RXD
2	DSR	6	GND
3	TXD	7	IR OUT
4	GND	8	NC

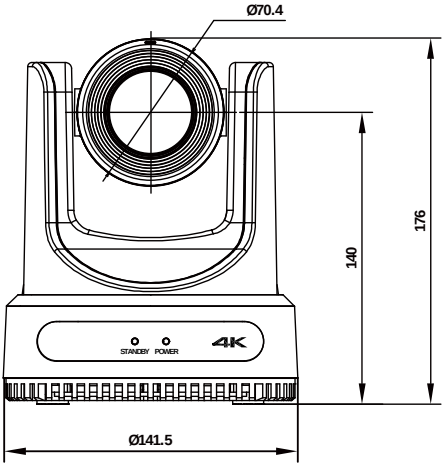
The correspondence between RS232 and DB-9:

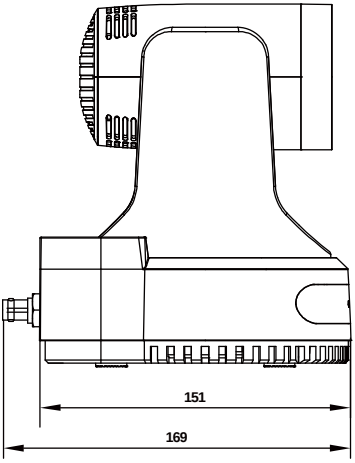
RS232	DB-9
1.DTR	1.CD
2.DSR	2.RXD
3.TXD	3.TXD
4.GND	4.DTR
5.RXD	5.GND
6.GND	6.DSR
7.IR OUT	7.RTS
8.NC	8.CTS
-	9.RI

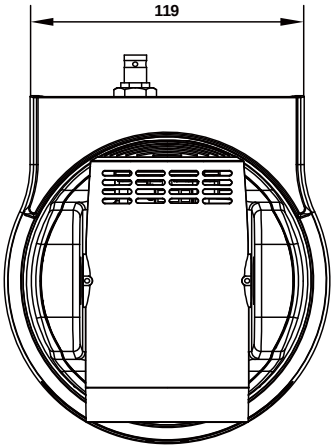
The correspondence between RS232 and Mini DIN:

RS232	Mini DIN
1.DTR	1.DTR
2.DSR	2.DSR
3.TXD	3.TXD
4.GND	4.GND
5.RXD	5.RXD
6.GND	6.GND
7.IR OUT	7.NC
8.NC	8.NC

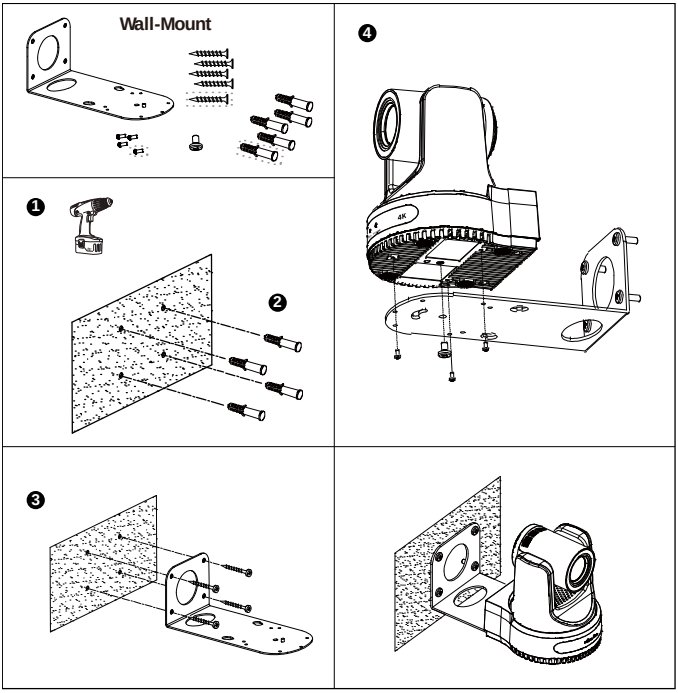
5.5 Dimension

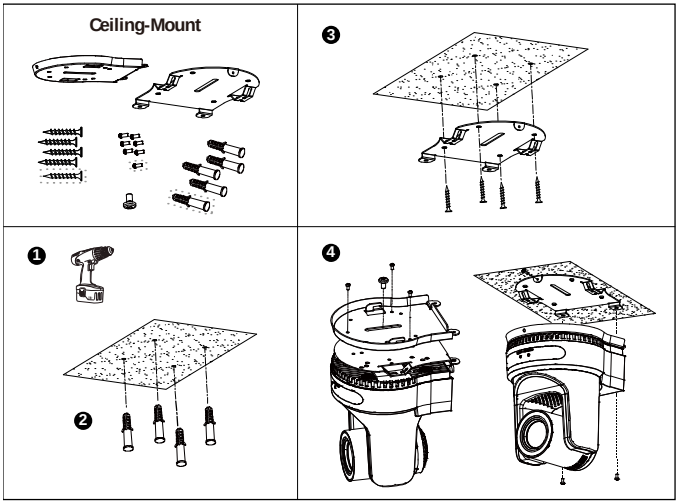



151
169


119

5.6 Installation

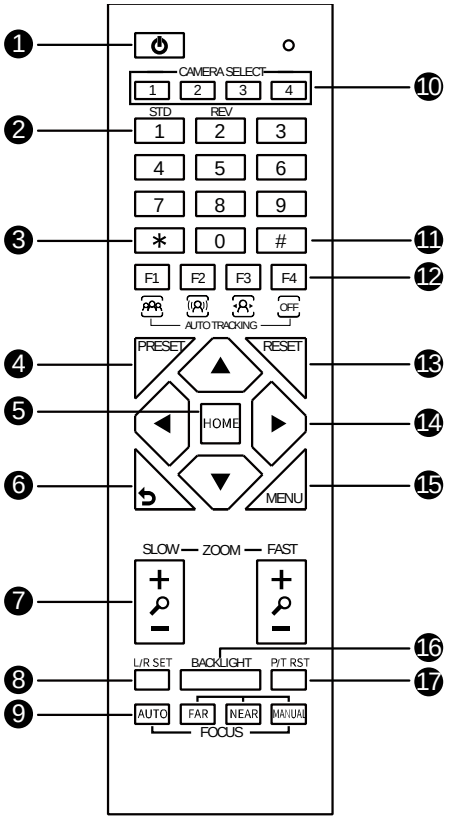




Note **The installation diagram is for reference only. The brackets and screws are not standard.**

For packing accessories, please refer to the actual product.

5.7 Remote Control



Key Description
1. ⏻ (Standby) Key
Press to enter standby mode
2. Number Keys
To set preset or call preset
3. * Key
Use with other keys
4. PRESET Key
Set preset: Successively press [PRESET] + Number key (0-9)
5. HOME Key
Confirm selection or press to turn PTZ back to the middle position
6.↩ (Return) Key
Press to return to the previous menu

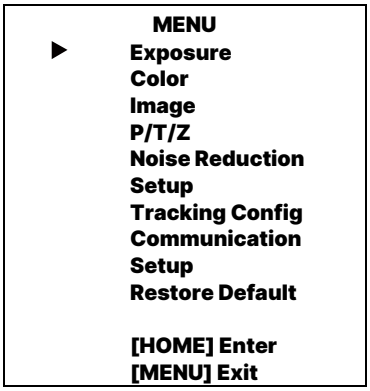
7. ZOOM Keys
• SLOW: Zoom In [+] or Zoom Out [-] slowly • FAST: Zoom In [+] or Zoom Out [-] fast
8. L/R SET Key
• Standard: Simultaneously press [L/R SET] + [1] • Reverse: Simultaneously press [L/R SET] + [2]
9. FOCUS Keys
Auto/Manual/Far-end/Near-end focus
10. CAMERA SELECT Keys
Press to select and control the camera
11. # Key
Use with other keys
12. Auto Tracking Keys
[F1]: Disable[F2]: Disable [F3]: Enable AI Tracking [F4]: Disable AI Tracking
13. RESET Key
Clear preset position: Successively press [RESET] + Number key (0-9)
14. PTZ Control Keys
PTZ moved according to the arrow indicates
15. MENU Key
Enter OSD menu or back to the previous menu
16. BACKLIGHT Key
Backlight ON/OFF: Press repeatedly to enable or disable the backlight compensation • Effective only in auto exposure mode • If there is a light behind the subject, the subject will become dark, press the backlight key to enable the backlight compensation. Press again to disable this function.
17. P/T RST (PTZ Reset) Key
Press to preset Pan/Tilt self-test
Shortcut Set
Successively press [#] + [*] + [F4]: Enable or disable the Image Freeze Successively press [*] + [#] + [1]: OSD menu default English Successively press [*] + [#] + [3]: OSD menu default Chinese Successively press [*] + [#] + [4]: Display current IP address Successively press [*] + [#] + [6]: Quickly recover the default Successively press [*] + [#] + [8]: Check the camera version

Successively press [*] + [#] + [9]: Quickly set up inversion
Successively press [*] + [#] + [MANUAL]: Restore to default IP address

6 GUI Settings

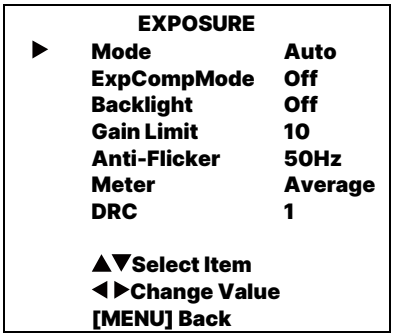
6.1 MENU

Press [MENU] key to display the main menu on the normal screen, using arrow key to move the cursor to the item to be set. Press the [HOME] key to enter the corresponding sub-menu.



6.2 EXPOSURE

Move the main menu cursor to [Exposure],
and press [HOME] key enter the exposure
page, as shown in the following figure.

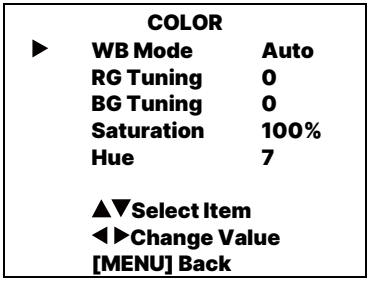


Mode:Auto,Manual, SAE, AAE, Bright.
ExpCompMode:On, Off (Effective only inAutomode).
ExpComp:-7~7 (Effective only in ExpCompMode item to On).
Backlight:On, Off (Effective only in Automode).
Bright: 0~17 (Effective only in Bright mode).

Gain Limit:0~15 (Effective only in Auto, SAE, AAE, Bright mode).
Anti-Flicker:Off, 50Hz, 60Hz (Effective only in Auto, AAE, Bright mode).
Meter: Average, Center, Smart, Top (Effective only in Auto, SAE, AAE, Bright mode).
Iris:F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (Effective only in Manual, AAE mode).
Shutter:1/30,1/60,1/90,1/100,1/125,1/180,1/250,1/350,1/500,1/725,1/1000,1/1500,1/2000,1/3000,1/4000,1/6000,1/10000 (Effective only in Manual, SAE mode).
Gain:0~7 (Effective only in Manual mode).
DRC:0~8.

6.3 COLOR

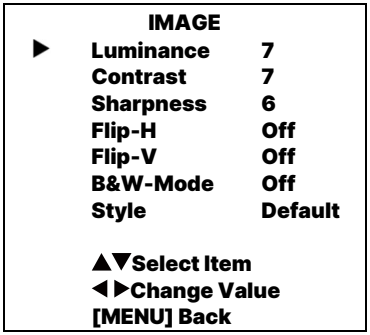
Move the main menu cursor to [Color], and press [HOME] key enter the color page, as shown in the following figure.



WBMode:Auto, Indoor, Outdoor, One Push, Manual, VAR.
RG: 0~255 (Effective only in Manual mode).
BG: 0~255 (Effective only in Manual mode).
RG Tuning: -10~+10 (Effective only in Auto, One Push, VAR mode).
BG Tuning: -10~+10 (Effective only in Auto, One Push, VAR mode).
Saturation: 60%~200%.
Hue:0~14.
Color Temp: 2500K~8000K (Effective only in VAR mode).

6.4 IMAGE

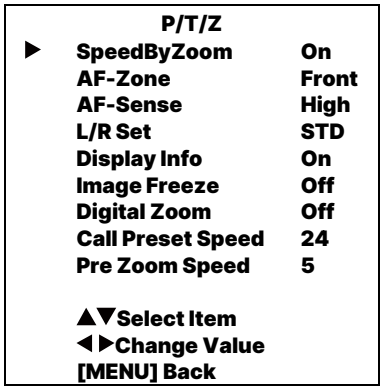
Move the main menu cursor to [Image], and press [HOME] key enter the image page, as shown in the following figure.



Luminance: 0~14.
Contrast: 0~14.
Sharpness:0~11.
Flip-H: On, Off.
Flip-V: On, Off.
B&W-Mode:On, Off.
Style: Default, Norm, Bright, PC.

6.5 P/T/Z

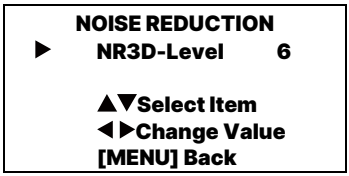
Move the main menu cursor to [P/T/Z], and press [HOME] key enter the P/T/Z page, as shown in the following figure.



SpeedByZoom:On, Off.
AF-Zone:Front, Top, Center, Bottom.
AF-Sense:High, Low, Normal.
L/R Set: STD, REV.
Display Info:On, Off.
Image Freeze:On, Off.
Digital Zoom:Off, 2x, 4x, 8x, 16x.
Call Preset Speed: 1~24.
Pre Zoom Speed:0~7.

6.6 NOISE REDUCTION

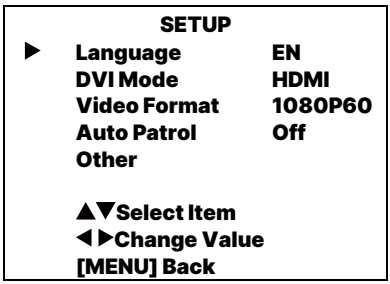
Move the main menu cursor to [Noise Reduction], and press [HOME] key
enter the noise reduction page, as shown in
the following figure.



NR3D Level:Off, 1~9.

6.7 SETUP

Move the main menu cursor to [Setup], and press [HOME] key enter the setup page,
as shown in the following figure.



Language: EN, Chinese, Russian.
DVI Mode: HDMI, DVI.
Video Format: 4KP25, 4KP29.97, 4KP30, 4KP50, 4KP59.94, 4KP60, 1080P30, 1080P25, 1080P50, 1080P60, 1080P59.94, 1080P29.97, 1080I50, 1080I60, 1080I59.94, 720P60, 720P59.94, 720P50.
Auto Patrol:On, Off.
Residence Time: 1~60(Effective only in Auto Patrol item to On).

Call Preset Speed: 1~24(Effective only in Auto Patrol item to On).
Other:Press the [HOME] key to confirm enter the "Other" page and set Auto Inversion, Tally Mode, and USB2.0 Audio.
Auto Inversion: On, Off.
Tally Mode: On, Off.
USB2.0 Audio: On, Off.

Note

After changing the DVI mode and video format,
it will take effect after press the [HOME] key to confirm to restart the device.

6.8 TRACKING CONFIG

Move the main menu cursor to [Tracking Config],
and press [HOME] key enter the tracking config page, as shown in the following figure.

```
TRACKING CONFIG
▶ Tracking          On
  Tracking Mode     Region

  ▲▼Select Item
  ◀▶Change Value
  [MENU] Back
```

Tracking:On, Off.
Tracking Mode:Region, Presenter.

6.9 COMMUNICATION SETUP

Move the main menu cursor to [Communication Setup], and press [HOME]
key enter the communication setup page, as shown in the following figure.

```
COMMUNICATION SETUP
▶ Protocol          VISCA
  V_Address         1
  V_AddrFix         Off
  Net Mode          Serial
  Baudrate          9600
  Com Inf           RS422

  ▲▼Select Item
  ◀▶Change Value
```

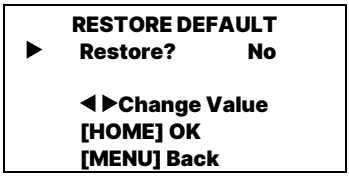
```
COMMUNICATION SETUP
[MENU] Back
```

Protocol:Auto, VISCA, PELCO-D, PELCO-P.
V_Address:1~7(Effective only in Auto, VISCAprotocol).
V_AddrFix:On, Off (When set to On, useless in 88 30 01 FF Command).
P_D_Address: 0~254(Effective only in Auto,PELCO-D protocol).

P_P_Address: 0~31(Effective only in Auto,PELCO-P protocol).
Net Mode: Serial, Paral(Effective only in Auto,
VISCAprotocol).
Baudrate: 2400, 4800, 9600, 38400.
Com Inf: RS422, RS485.

6.10 RESTORE DEFAULT

Move the main menu cursor to [Restore Default], press [HOME] key enter restore default page, as shown in the following figure.



Restore:Yes, No.

Note

GUI menu and device information are subject to change without notice.

7 WEB Settings

7.1 Access Camera

Access http://192.168.100.88 to pop up the login window, then input username (default: admin) and password (default: admin). After login, it will show as below:

7.2 Control Camera

All pages include two menu bars:
Real Time Monitoring: Video image displaying with function buttons.

Parameter Setup: Parameter configurating.

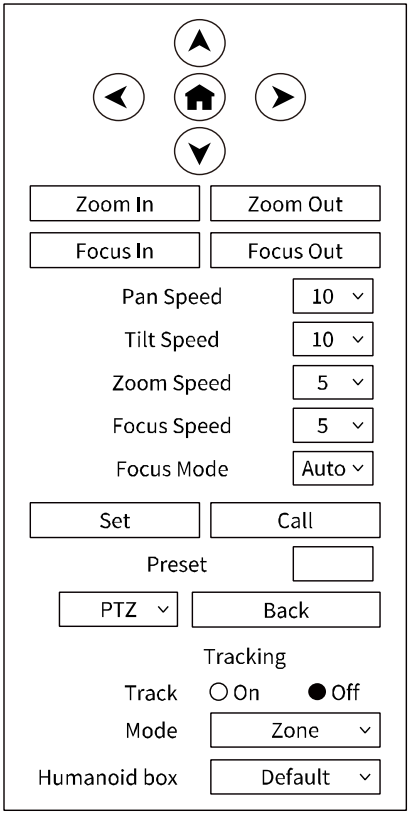
A. Video Viewing Window

The video viewing window is same as video resolution, the bigger the resolution, the bigger the playing area. Double click the viewing window to show full screen, double click again, to return to initialized size.

Status bar in viewing window shown as below:

Full screen switch button.

B. PTZ Setup



1) Pan and Tilt Control

The direction arrows and HOME button allow you to manually drive the camera to desired position.

2) Zoom

Zoom In and Zoom Out buttons allow for wide or narrow view of the space.

3) Focus

Focus In and Focus Out button allow for fine manual focus adjustment if the camera has any auto focusing problems on difficult object.

4) Focus Mode

Focus Mode can be selected Auto/Manual. When you select "Manual", Focus In and Focus Out will to take effect.

5) PTZ Speeds

Pan speed rate can be set to 1~24, Tilt speed rate can be set to 1~20. Zoom and Focus speed rate can be set to 1~7.

6) PTZ Presets

When the PTZ turns to the position that you would like to return to later, you can set presets for quick recall. Type a number (0~254) into the preset box and click "Set" button to save.

When the PTZ turn to other position, input the preset number and click "Call" button to turn the PTZ back to the preset position.

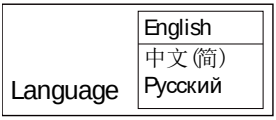
7) PTZ/OSD

Move the cursor to dropdown menu, select and click "OSD" to open the on-screen menu and do menu settings on the interface.

8) Tracking

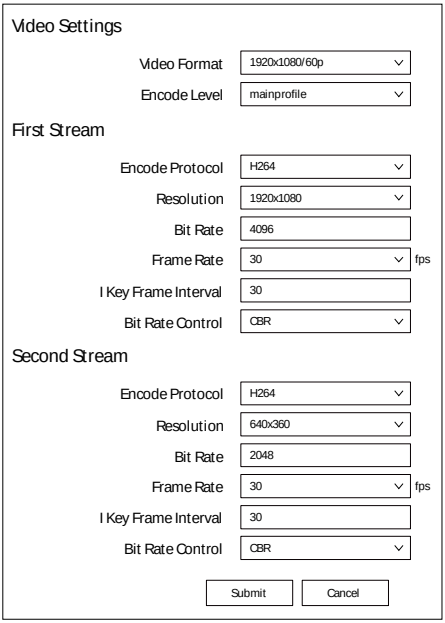
Turn On/Off the Track function. Set Mode (Zone, Presenter) and Humanoid box.

C. Language Selection



Click either "Chinese", "English" or "Russian" to change the language of the webpage.

7.3 Video Settings



1) Video Format

Video Format: 3840x2160/60p, 3840x2160/59.94p, 3840x2160/50p, 3840x2160/30p, 3840x2160/29.97p, 3840x2160/25p, 1920x1080/60p, 1920x1080/59.94p, 1920x1080/50p, 1920x1080/60i, 1920x1080/59.94i, 1920x1080/50i, 1920x1080/30p, 1920x1080/29.97p, 1920x1080/25p, 1280x720/60p, 1280x720/59.94p, 1280x720/50p.

2) Encode Level

Support mainprofile and highprofiletwo levels.

3) Encode Protocol

Support H264, H265and MJPEG protocols.

4) Resolution

First stream support 3840x2160, 1920x1080, 1280x720, 1024x576, 720x480, 720x408, 640x480, 640x360.Second stream support720x480, 720x408, 640x480,

640x360, 480x320, 320x240; The bigger resolution is, the clearer the image will be, more network bandwidth will be taken.

5) Bit Rate

The user can specify the bit rate. Generally speaking, the larger of the bit rate, the clearer of the image. However, the configuration of the bit rate needs to be combined with the network bandwidth. When the network bandwidth is narrow and the bit rate is configuredlarger, the video stream cannot be transmitted normally, and the visual effect is worse.

6) Frame Rate

User can specify the size of the frame rate, generally, the frame rategreater, the image more smooth; Frame rate is smaller, the more sense of beating.

7) I Key Frame Interval

Set interval between 2 I frame,the bigger interval isthe response will be lower from view window.

8) Bit Rate Control

Code stream control way:

CBR (Constant Bit Rate): Video coder will be coding according to preset speed.

VBR(Variable Bit Rate): Video coder will adjust the speed based on preset speed to gain the best image quality.

7.4 Tracking Settings

7.4.1 Presenter

1) Auto Zoom/Auto Tilt

When Auto Zoom or Tilt is off, camera stops
zooming in/out or tilting automatically.
Determine the zoom size and tilt position based on the tracking start position you choose.When auto zoom is off, camera stops zooming In/Out automatically.When auto tilt is off, camera only move horizontally.

2) Target Retention Time

Set Target Retention Time, the time to return to the starting point after losing the target.

3) Figure Size

Figure Size:Full, Upper, Close, Custom.

4) Tracking Start Position

Tracking Start Position:Current Location, Preset 1.

7.4.2Zone

1) Zone Setting

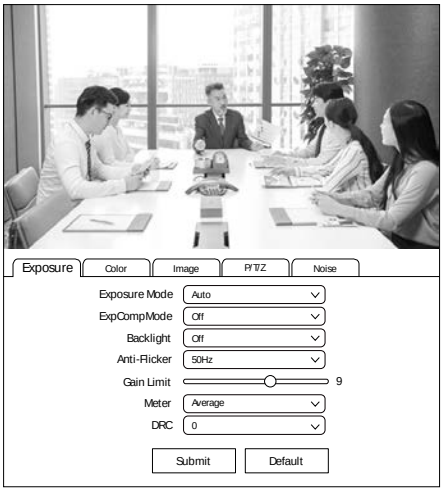
Zone Setting:Zone A, Zone B, Zone C, Zone D. Set area tracking must be set "from left to right", and each area must have overlap.

2) Tracking Start Area

Tracking Start Area:Zone A, Zone B,
Zone C,
Zone D.

7.5 Image Settings

7.5.1 Exposure



1) Exposure Mode

Exposure Mode: Auto, Manual, SAE, AAE, Bright.

2) ExpCompMode

ExpCompMode: On, Off.

3) Backlight

Backlight: On, Off.

4) Anti-Flicker

Anti-Flicker: Off,50Hz,60Hz.

5) Gain Limit

Gain Limit: 0~15.

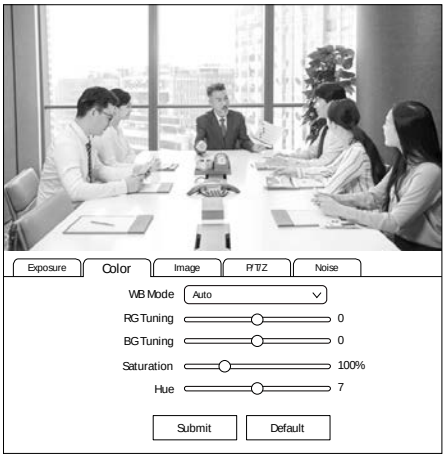
6) Meter

Meter: Average, Center, Smart, Top.

7) DRC

DRC: 0~8.

7.5.2Color



1) WB Mode

WB Mode: Auto, Indoor, Outdoor, Manual, One Push, VAR.

2) RG Tuning

RG Tuning: -10~10.

3) BG Tuning

BG Tuning: -10~10.

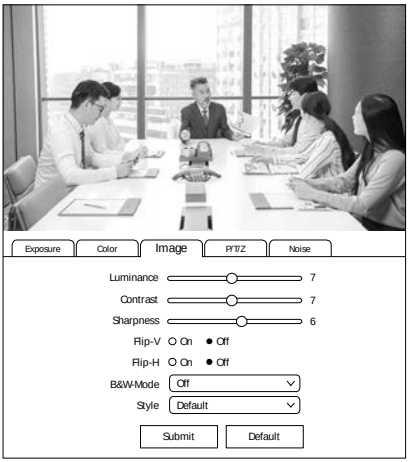
4) Saturation

Saturation: 60%~200%.

5) Hue

Hue: 0~14.

7.5.3Image



1) Luminance

Luminance: 0~14.

2) Contrast

Contrast: 0~14.

3) Sharpness

Sharpness: 0~11.

4) Flip-V

Turn On/Off the Flip-V function.

5) Flip-H

Turn On/Off the Flip-H function.

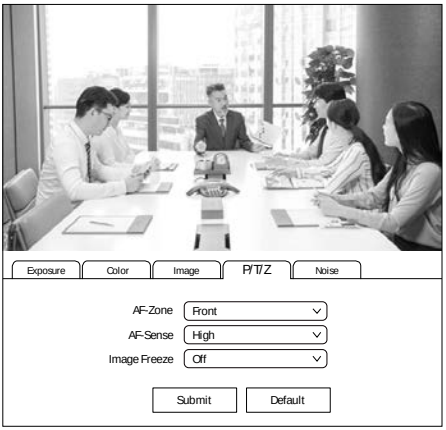
6) B&W-Mode

B&W-Mode: On, Off.

7) Style

Style: Default, Norm, Bright, PC.

7.5.4PTZ



1) AF-Zone

AF-Zone: Top, Center, Bottom, Front.

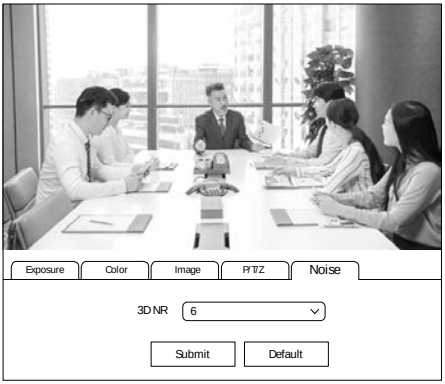
2) AF-Sense

AF-Sense: High, Normal, Low.

3) Image Freeze

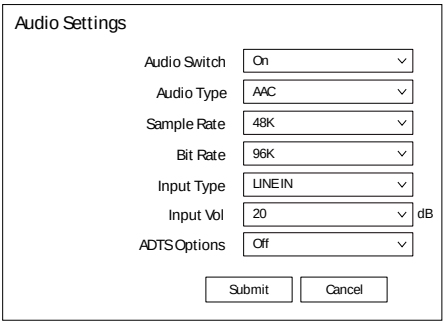
Image Freeze: On, Off.

7.5.5Noise



3D NR: Off, 1~9.

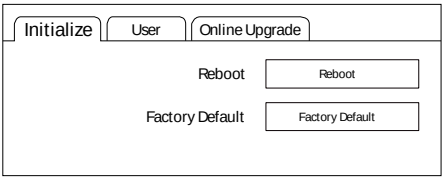
7.6 Audio Settings



1) Audio Switch
Turn On/Offthe audio switch.
2) Audio Type
Audio Type: AAC.
3) Sample Rate
Sample Rate: 44.1K, 48K.
4) Bit Rate
Bit Rate: 96K, 128K.
5) Input Type
Input Type: LINEIN, MIC.
6) Input Vol
Select the volume value to control the channel volume.
7) ADTS Options
Options: On/Off.

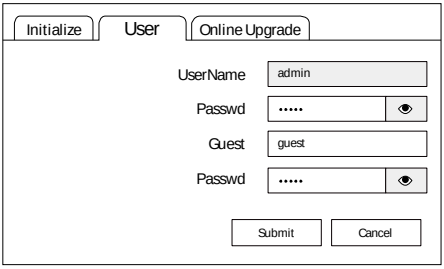
7.7 System Settings

7.7.1 Initialize



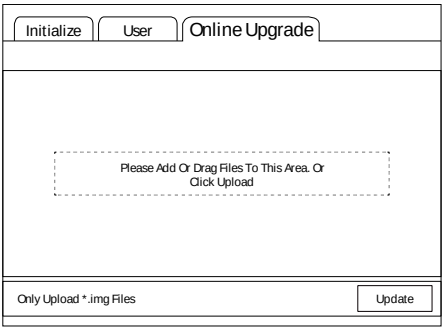
1) Reboot
Click "Reboot" to restart system.
2) Factory Default
Click the "Factory Default", and the "Please press OK to reset the camera." dialog box pops up. Select "OK" to restore the factory default.

7.7.2 User



Username and Password
Modify the password of username and guest (only use letters and numbers).

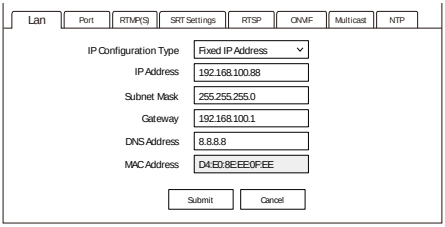
7.7.3 Online Upgrade



The device supports online upgrade. If you need to upgrade the camera program, please refer to the upgrade interface instructions (as shown in the above figure), select the upgrade file package, and click the "Update" to upgrade the program.

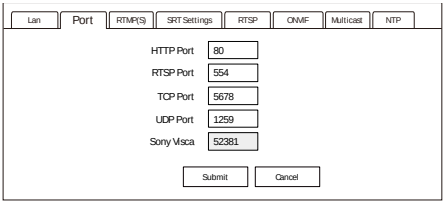
7.8 Network Settings

7.8.1 Lan



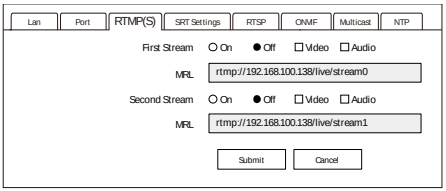
The default camera IP: 192.168.100.88.
The MAC address cannot be modified.

7.8.2Port



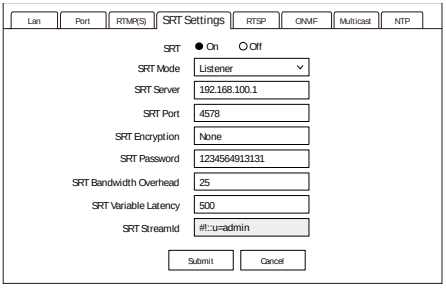
Set the HTTP Port, RTSP Port, TCP Port, UDP Port and Sony Visca of the camera.
A. HTTPPort
The IP address identifies a network device and multiple network programs can run on the device, each network program uses the network port for data transmission. The port setting on this page is to set up which port the WEB SERVER program uses to transmit. During port mapping, it needs to be consistent with port number (default is 80).
B. RTSP Port
Set up the RTSP Port, default is 554.
C. TCP Port
Set up the TCP Port, default is 5678.
D. UDP Port
Set up the UDP Port, default is 1259.
E. Sony Visca
Set up the Sony Visca, default is 52381.

7.8.3RTMP(S)



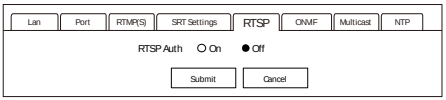
Set the MRL of RTMP(S) and select "On", "Off", "Video" and "Audio" functions to enable or disable video and audio in the two streams.
Click "Submit" and restart to take effect.

7.8.4 SRTSettings



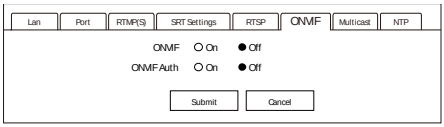
Turn On/Off SRT and set up the SRT Mode, SRT Server, SRT Port, SRT Encryption, SRT Password, SRT Bandwidth Overhead, SRT Variable Latency and SRT StreamID.

7.8.5RTSP



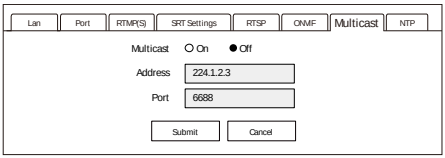
Turn On/Off the RTSP Auth.

7.8.6ONVIF



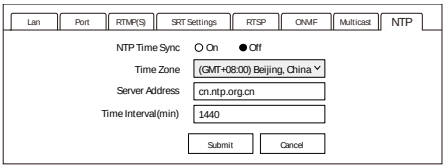
Turn On/Off the ONVIF and ONVIF Auth.

7.8.7 Multicast



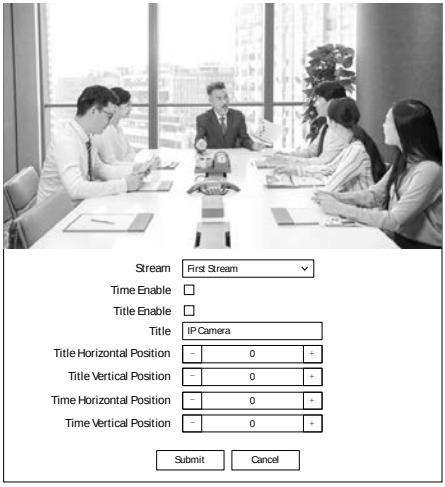
Turn On/Off Multicast, set up Multicast Address (default is 224.1.2.3) and Port (default is 6688; 6688 is the multicast port of the first stream and 6690 is the multicast port of the second stream).

7.8.8 NTP



Turn On/Off NTP Time Sync, set up the Time Zone, Server Address (default is cn.ntp.org.cn) and Time Interval (default is 1440min).

7.9 Overlay



1) Stream

Stream: First Stream, Second Stream.

2) Time Enable

Enable or disable the Time.

3) Title Enable

Enable or disable the Title.

4) Title

Set up the Title of the display screen.

5) Title Horizontal Position

Set up the Title Horizontal Position.

6) Title Vertical Position

Set up the Title Vertical Position.

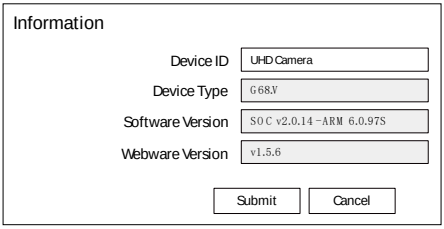
7) Time Horizontal Position

Set up the Time Horizontal Position.

8) Time Vertical Position

Set up the Time Vertical Position.

7.10 Device Information



Note

WEB interface and device information are subject to change without notice.

8 Troubleshooting

Image

- **The monitor shows no image**

1) Ensure that the camera power supply is connected, the voltage is normal, and the power indicator is always on.

2) Turn off the power switch to check that the camera is self-testing.

3) Ensure the cable of video platform and TV that in correct connection.

- **Image jitters after the camera is properly connected**

1) Ensure that the camerainstallation is in stable position.

2) Check that any vibrating machinery or object near the camera.

- **There is no video image in browser**

That do not support IE browser and IE core browser, it is recommended to use Google, Firefox and Edge browsers. The camera video image will be displayed normally.

- **Unable to access camera through the browser**

1) Using PC to access the network to test that the network access can work properly to eliminate the network fault caused by cable and PC virus until the PC and camera can ping each other.

2) Disconnect the network, connect camera with PC separately and reset the IP address of PC if necessary.

3) Ensure that the IP address, subnet mask and gateway settings is correct.

4) Check that the MAC address is conflicts.

5) Check that the web port is modified, the default setting is 80.

- **Forget the IP address or login password**

The default IP address is: 192.168.100.88; the default username and password are: admin.

Control

- **Remote control does not work**

1) **Check and replace with new batteries.**
2) **Ensure that the camera working mode is correct.**
3) **Ensure that the address key of remote control can match the camera.**

- **Serial port cannot control**

1) **Ensure that the protocol, address and bit rate of the camera are consistent.**
2) **Ensure that the control cable is properly connected.**