Manual

OTTICA-4K-30x

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OTTICA 30x Zoom NDI 4K PTZ Video Camera

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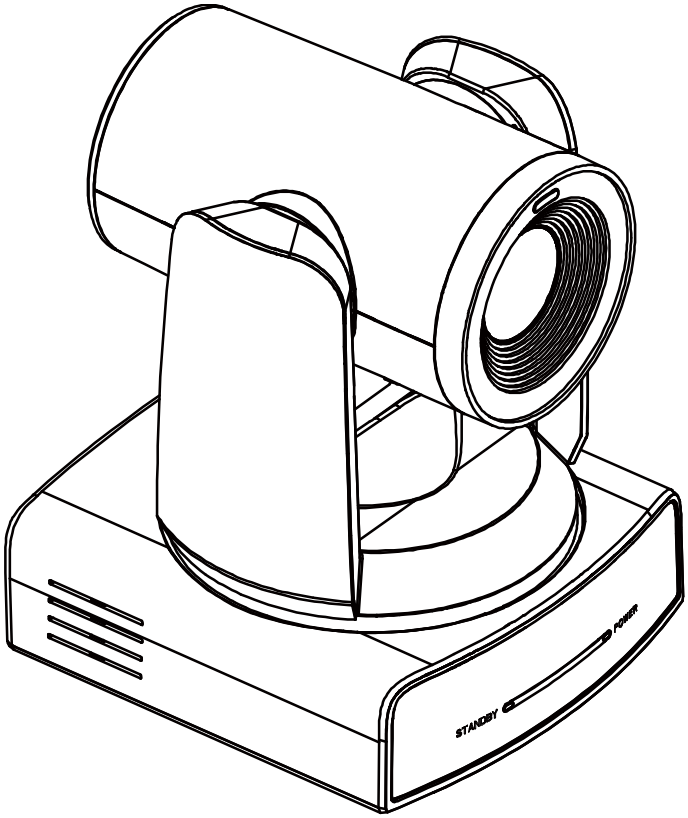

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Notice

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 reasonable protection 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 the instructions, 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 cause harmful 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 2014/30/EU.

Catalogue

1 Safety Precautions

- When installing and operating the equipment, strictly adhere to all electrical safety regulations applicable in the country and region of use.
- Please use the power adapter provided with this product.
- Do not connect multiple devices to the same power adapter, as exceeding its capacity may cause overheating or result in a fire.
- Do not manually rotate the camera head, as this may lead to mechanical failure.
- When mounting this product on a wall or ceiling, ensure the device is firmly secured. During installation, verify that no obstacles are within the gimbal's rotation range, and do not power on the device until all installation steps are complete.
- To prevent heat buildup, ensure proper ventilation around the device.
- If the device emits smoke, produces unusual odors, or makes abnormal noises, immediately turn off the power, unplug the power cord, and promptly contact the dealer.
- This device is not waterproof; please keep it dry.
- This product contains no user-serviceable parts; damage resulting from user disassembly is not covered by the warranty.

Notice

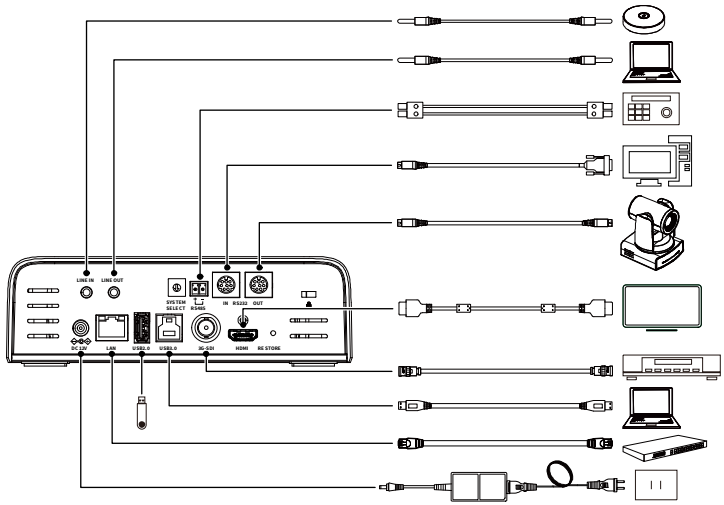
Specific frequencies of electromagnetic field may affect the image of the camera!

2 Packing List

Name	Quantity
Camera	1
Remote Control	1
Power Adapter	1
Power Cable	1
RS232 Cable	1
USB Cable (Optional)	1
User Manual	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) Once the camera is powered on, it begins initialization, moving to its maximum limit position. It then adjusts both horizontally and vertically to the center position, after which the motor stops, and initialization is complete.
(Note: If preset 0 is saved, the PTZ will 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

Notice

After switching the video format, you need to restart the camera before taking effect!

5 About Product

5.1 Features

- **AI Tracking**

Leveraging the chip's AI computing power, the camera is equipped with advanced AI algorithms for monocular humanoid tracking, enabling automatic tracking in scenarios such as education, conferences, and live broadcasts.

- **NDI|HX3**

NDI|HX3 offers low-latency and plug-and-play functionality, simplifying project implementation and deployment. It boasts a robust ecosystem, enabling simultaneous transmission of audio, video, and control commands. This makes it a cutting-edge solution for next-generation network video transmission.

- **4K UHD**

The new 1/1.8-inch high-quality UHD CMOS sensor, with a maximum of 8.42 million pixels, delivers exceptional 4K (3840x2160) ultra-high-resolution images. It is also backward compatible with 1080P, 720P, and other resolutions.

- **30x Optical Zoom**

It features a 4K ultra-long focal lens with high quality and 8 million ultra-high-resolution pixels, offering 30x optical zoom and a maximum field of view of 59°.

- **HDMI 2. 0**

The device supports an HDMI 2.0 interface, enabling direct output of uncompressed 4K video at 60 frames per second.

- **Low Light**

The implementation of a 3D noise reduction algorithm significantly minimizes image noise. Even in extremely low-light conditions, it maintains a clean and clear image, achieving an impressive signal-to-noise ratio (SNR) of up to 55dB.

- **Multiple Interfaces**

The device supports HDMI and 3G-SDI interfaces, with the 3G-SDI offering an effective transmission distance of up to 150 meters for 1080P30. It can simultaneously output three high-definition digital signals via HDMI or 3G-SDI, USB, and LAN.

- **Remote Control**

The camera can be remotely controlled via RS232 and RS485 serial ports.

- **Gravity Sensor**

It features an automatic image flipping function, facilitating easy installation and use in engineering applications.

5.2 Specifications

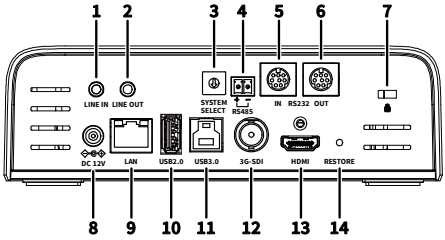
Camera	
Signal System	**HDMI:** 4KP60, 4KP50, 4KP30, 4KP25, 4KP59.94, 4KP29.97, 1080P60, 1080P50, 1080P59.94, 1080P30, 1080P29.97, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94 **3G-SDI:** 1080P60, 1080P50, 1080P30, 1080P29.97, 1080P59.94, 1080P25, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94
Sensor	1/1.8 inch, CMOS, Effective pixels: 8.42M
Scanning Mode	Progressive
Lens	30x, f=7.1mm~210mm, F1.61~F5.19
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	59.2°~2.5°
Vertical FOV	34.6°~1.4°
Pan Angle	±170°
Tilt Angle	-30°~+90°
Pan Speed	1.7°/s ~100°/s
Tilt Speed	1.7°/s ~69.9°/s
Image Flip	Support
Image Freeze	Support

PoE+	Support
Preset Position	255
Preset Accuracy	0.1°
USB Features (USB 2.0 Optional)	
Operate System	Windows 7/8/10, Mac OS X, Linux, Android
Color System/ Compression	YUY2/H.264/H.265/MJPEG
USB3.0 Video Format (Optional)	● YUY2: 1080P30 (max.) ● H.264 AVC: 4KP30 (max.) ● H.265 HEVC: 4KP30 (max.) ● MJPEG: 4KP30 (max.)
USB2.0 Video Format	● YUY2: 1080P5 (max.) ● H.264 AVC: 4KP30 (max.) ● H.265 HEVC: 4KP30 (max.) ● MJPEG: 4KP30 (max.)
USB Audio	Support
USB Video Protocol	UVC 1.1~UVC 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(S), ONVIF, DHCP, SRT, Multicast, etc.

Interfaces	
Audio Interface	1 x LINE IN: 3.5mm Audio Input Interface
	1 x LINE OUT: 3.5mm Audio Output Interface
Communication Interface	1 x RS485: 2pin phoenix port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/ Pelco-P
	1 x RS232 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	1 x LAN: 10M/100M/1000M Adaptive Ethernet Port
USB Interface	1 x USB2.0: Type-A
	1 x USB3.0: Type-B (Optional)
Video Interface	1 x 3G-SDI: BNC type, 800mVp-p, 75 Ω . Along to SMPTE 424M standard
	1 x HDMI: Version 2.0
Power Interface	JEITA type (DC 12V)
General Specifications	
Input Voltage	DC 12V/PoE+
Input Current	2A (max.)
Operating Temperature	0°C~40°C
Storage Temperature	-40°C~60°C
Power Consumption	18W (max.)
Dimension	169mm x 188mm x 226mm
Net Weight	About 2.3Kg

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

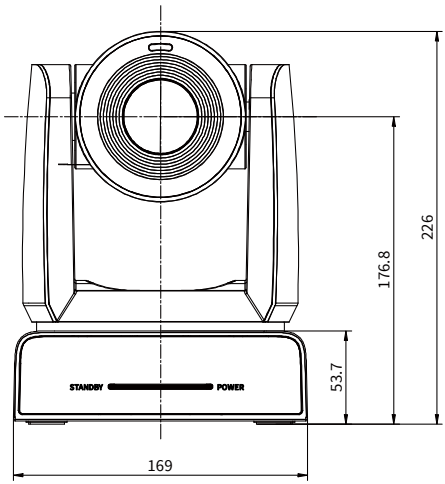
5.3 Interface and Switch

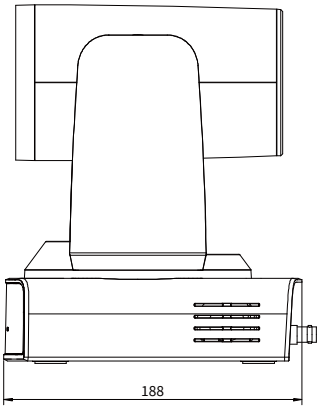


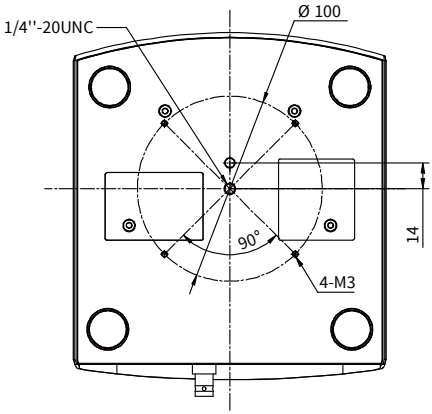
No.	Name
1	LINE IN Interface
2	LINE OUT Interface
3	SYSTEM SELECT Switch
4	RS485 Interface
5	RS232 IN Interface
6	RS232 OUT Interface
7	Security Slot
8	DC 12V Interface
9	LAN Interface
10	USB2.0 Interface
11	USB3.0 Interface
12	3G-SDI Interface
13	HDMI Interface
14	RESTORE Key

5.4 Dimension

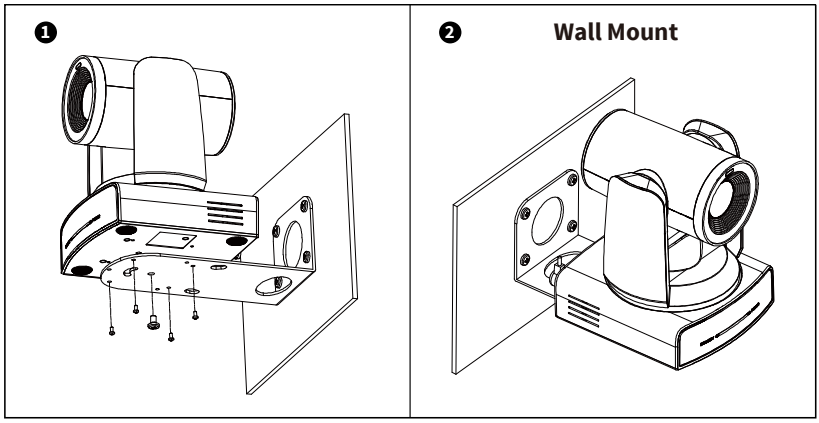
Unit: mm

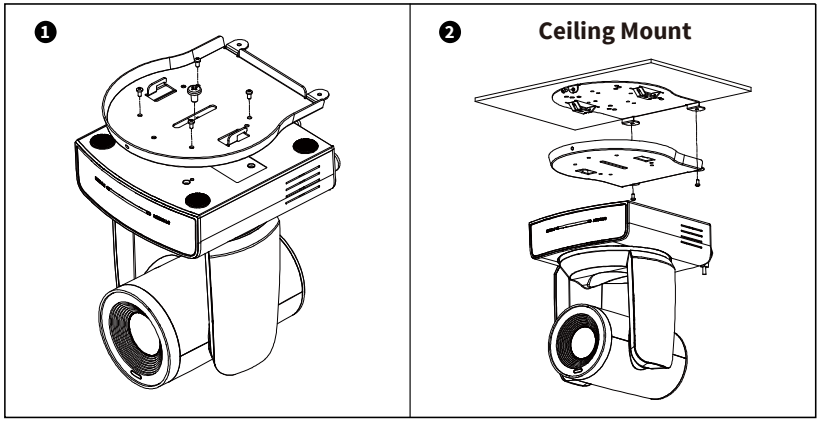






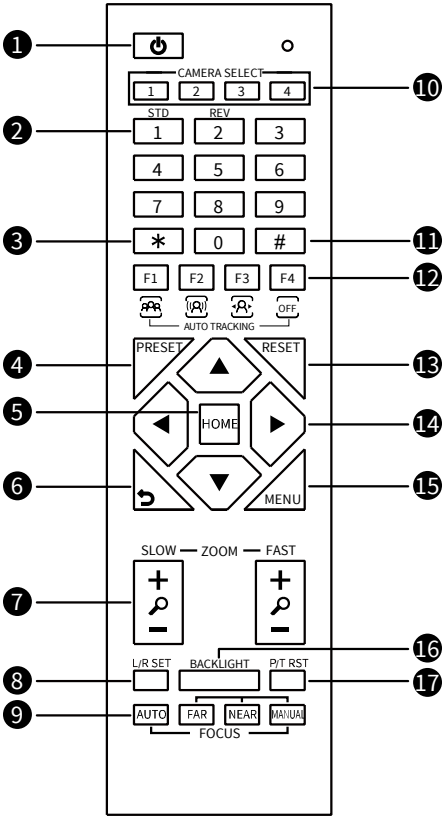
5.5 Installation





Note The above installation diagram is for reference only, please refer to actual product for the installation accessories.

5.6 Remote Control

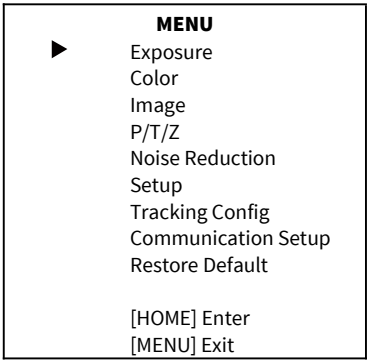


Key Description
1. ⏻ (Standby) Key
Press to enter standby mode
2. Number Keys
To set preset or call preset
3. * Key
Use with other keys
4. PRESET Key
Set preset: Successively press [PRESET] + Number key (0-9)
5. HOME Key
Confirm selection or press to turn PTZ back to the middle position
6. ⮌ (Return)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

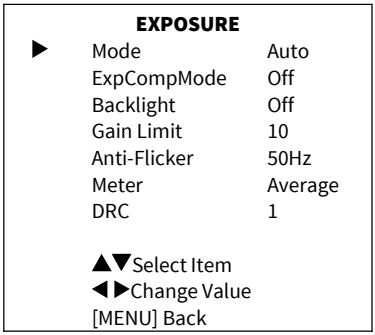
6.1 MENU

Press the [MENU] key to open the main menu on the standard screen. Use the arrow keys to move the cursor to the desired item. Press the [HOME] key to access the corresponding sub-menu.



6.2 EXPOSURE

Move the main menu cursor to [Exposure], then press the [HOME] key to open the Exposure page, as shown in the figure below.



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

ExpCompMode: On, Off (Effective only in Auto mode).

ExpComp: -7~7 (Effective only in ExpCompMode item to On).

Backlight: On, Off (Effective only in Auto mode).

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).

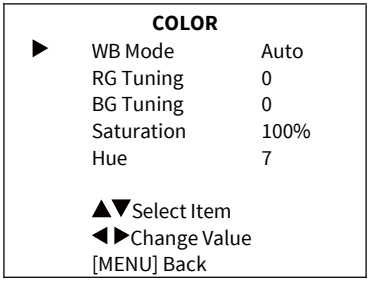
Shutter: 1/30, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Effective only in Manual, SAE mode).

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.



WB Mode: 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).

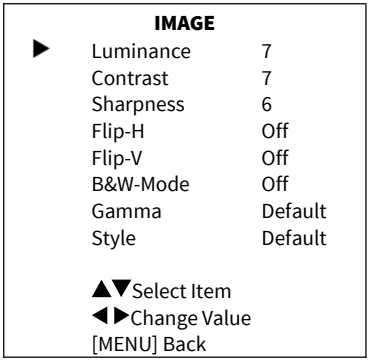
Saturation: 60%~200%.

Hue: 0~14.

Color Temp: 2500K~8000K (Effective only in VAR mode).

6.4 IMAGE

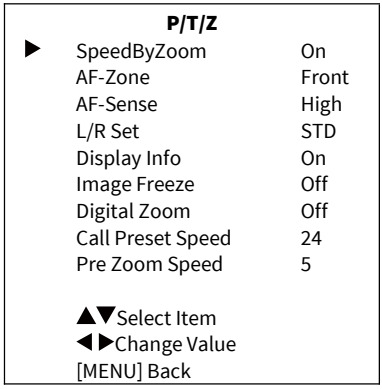
Move the main menu cursor to [Image], then press the [HOME] key to open the Image page, as shown in the figure below.



Luminance: 0~14.
Contrast: 0~14.
Sharpness: 0~11.
Flip-H: On, Off.
Flip-V: On, Off.
B&W-Mode: On, Off.
Gamma: Default, 0.45, 0.48, 0.5, 0.56, PC.
Style: Default, Norm, Bright, PC.

6.5 P/T/Z

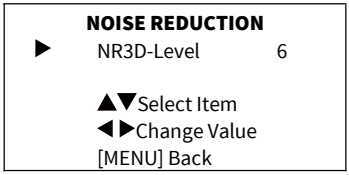
Move the main menu cursor to [P/T/Z], then press the [HOME] key to open the P/T/Z page, as shown in the figure below.



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

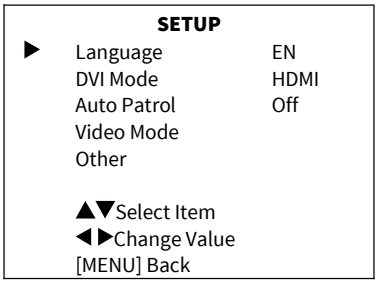
Move the main menu cursor to [Noise Reduction], then press the [HOME] key to open the Noise Reduction page, as shown in the figure below.



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.
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).

Video Mode: Press the [HOME] key to enter the "Video Mode" page, then configure the SDI-3G Mode and Video Output settings.
SDI-3G Mode: LEVEL-A, LEVEL-B.
Video Output: HDMI, SDI.
Other: Press the [HOME] key to enter the "Other" page, then configure Auto Inversion, Tally Mode, and Preset Parameters.
Auto Inversion: On, Off.
Tally Mode: On, Off.
Preset Parameters: On, Off.

6.8 TRACKING CONFIG

Move the main menu cursor to [Tracking Config], then press the [HOME] key to open the Tracking Config page, as shown below.

TRACKING CONFIG

▶	Tracking	On
	Tracking Mode	Region
	Figure Size	Close

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

Tracking: On, Off.
Tracking Mode: Region, Presenter.
Figure Size: Full, Upper, Close, Custom.

6.9 COMMUNICATION SETUP

Move the main menu cursor to [Communication Setup], then press the [HOME] key to open the Communication Setup page, as shown below.

COMMUNICATION SETUP

▶	Protocol	VISCA
	V_Address	1
	V_AddrFix	Off
	Net Mode	Serial
	Baudrate	9600

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

Protocol: Auto, VISCA, PELCO-D, PELCO-P.
V_Address: 1~7 (Effective only in Auto, VISCA protocol).
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, VISCA protocol).
Baudrate: 2400, 4800, 9600, 38400.

6.10 RESTORE DEFAULT

Move the main menu cursor to [Restore Default], then press the [HOME] key to open the Restore Default page, as shown in the figure below.

RESTORE DEFAULT

▶	Restore?	No

◀▶Change Value
[HOME] OK
[MENU] Back

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 open the login window. Enter the username (default: admin) and password (default: admin). After logging in, the screen will display as shown below:

7.2 Control Camera

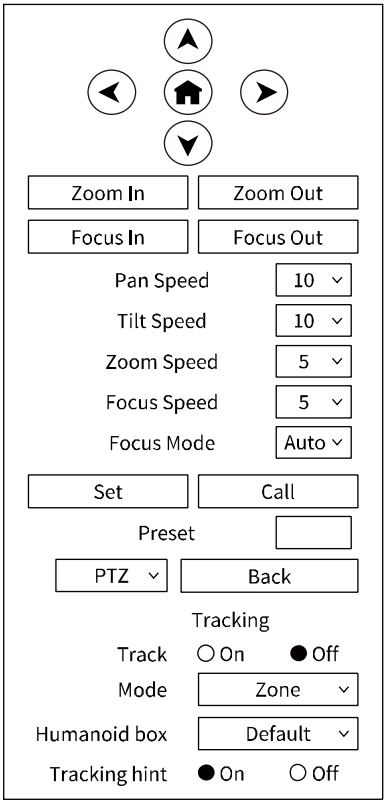
All pages include two menu bars. Real Time Monitoring: Displays the video image along with function buttons. Parameter Setup: Allows configuration of parameters.

A. Video Viewing Window

The video viewing window matches the video resolution—the higher the resolution, the larger the display area. Double-click the viewing window to enter full screen; double-click again to return to the original size.
The status bar in the viewing window is shown below:

Full screen switch button.

B. PTZ Setup



1) Pan and Tilt Control

The direction arrows and [HOME] button enable manual control to move the camera to the desired position.

2) Zoom

The Zoom In and Zoom Out buttons adjust the view to be wider or narrower.

3) Focus

The Focus In and Focus Out buttons allow for precise manual focus adjustments when the camera's autofocus struggles with challenging subjects.

4) PTZ Speeds

Pan speed can be set from 1 to 24, tilt speed from 1 to 20, and zoom and focus speeds from 1 to 7.

5) Focus Mode

Focus Mode can be set to Auto or Manual. When set to Manual, the Focus In and Focus Out buttons become active.

6) PTZ Presets

When the PTZ is positioned where you want to return later, you can save it as a preset. Enter a number (0–254) in the preset box and click the "Set" button to save. To recall a preset, enter its number and click the "Call" button; the PTZ will move back to that saved position.

7) PTZ/OSD

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

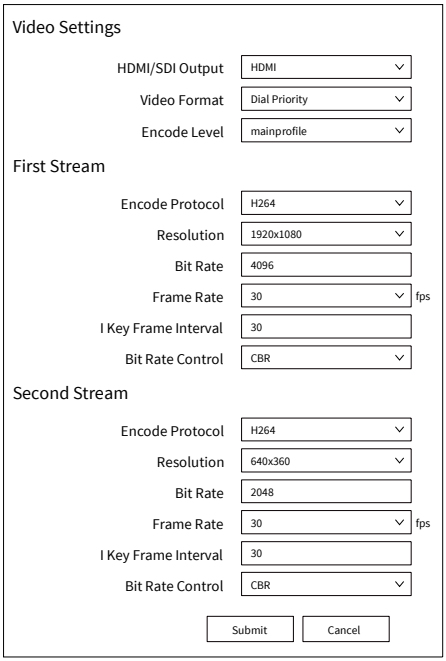
8) Tracking

Toggle the Track function and Tracking hint on or off. Configure the Mode (Zone or Presenter) and adjust the Humanoid box settings.

C. Language Selection

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

7.3 Video Settings



1) HDMI/SDI Output

Support HDMI and SDI Output.

2) Video Format

Support 50Hz, 60Hz and Dial Priority.

3) Encode Level

Support mainprofile and highprofile two levels.

4) Encode Protocol

Support H264, H265 and MJPEG protocols.

5) Resolution

First stream support 3840x2160, 1920x1080, 1280x720, 1024x576, 720x480, 720x408, 640x480, 640x360. Second stream support 720x480, 720x408, 640x480, 640x360, 480x320, 320x240; Higher resolution produces a clearer image but requires more network bandwidth.

6) Bit Rate

The user can specify the bit rate. Generally, a higher bit rate results in a clearer image. However, the bit rate should be configured based on the available network bandwidth. If the bandwidth is limited and the bit rate is set too high, the video stream may not transmit properly, leading to poorer visual quality.

7) Frame Rate

The user can set the frame rate. Generally, a higher frame rate produces smoother images, while a lower frame rate can cause choppier or stuttered playback.

8) I Key Frame Interval

Set the interval between two I-frames. A larger interval will result in slower response times in the viewing window.

9) Bit Rate Control

Stream control methods:

CBR (Constant Bit Rate): The video encoder operates at a fixed, preset bit rate.

VBR (Variable Bit Rate): The video encoder adjusts the bit rate around the preset speed to optimize image quality.

7.4 Tracking Settings

7.4.1 Presenter

1) Auto Zoom/Auto Tilt

When Auto Zoom or Auto Tilt is off, the camera will stop zooming or tilting automatically. The zoom level and tilt position will be fixed based on the tracking start position you select. With Auto Zoom off, the camera will no longer zoom in or out automatically. With Auto Tilt off, the camera will only move horizontally.

2) Target Retention Time

Set the Target Retention Time—the duration before returning to the starting point after losing the target.

3) Figure Size

Figure Size options: Full, Upper, Close, Custom.

4) Tracking Start Position

Tracking Start Position options: Current Location, Preset 1.

5) Character Position

Character Position options: Left, Middle, Right.

7.4.2 Zone

1) Zone Setting

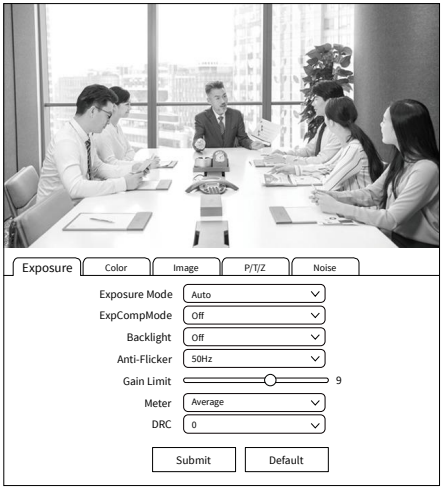
Zone Setting options: Zone A, Zone B, Zone C, Zone D. When configuring area tracking, set zones "from left to right," ensuring each zone overlaps with the next.

2) Tracking Start Area

Tracking Start Area options: 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.

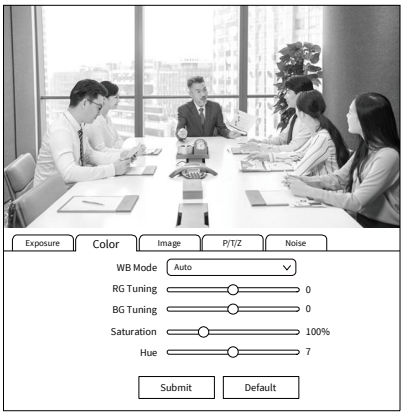
6) Meter

Meter: Average, Center, Smart, Top.

7) DRC

DRC: 0~8.

7.5.2 Color



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.

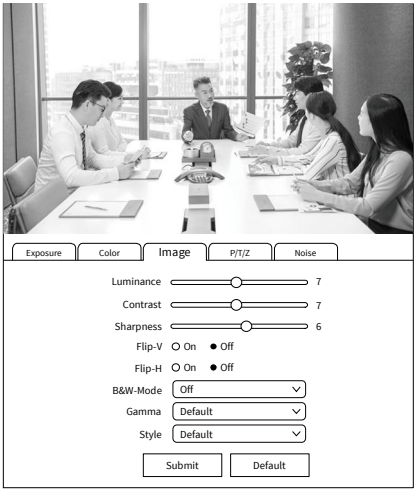
4) Saturation

Saturation: 60%~200%.

5) Hue

Hue: 0~14.

7.5.3 Image



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.

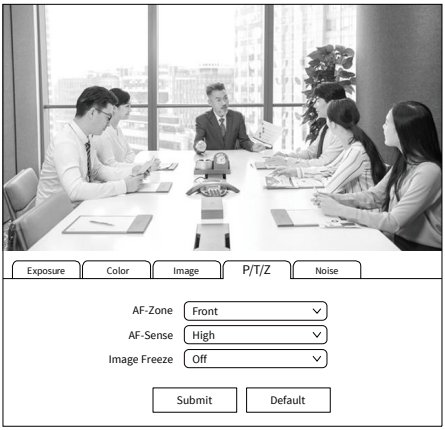
7) Gamma

Gamma: Default, 0.45, 0.48, 0.5, 0.56, PC.

8) Style

Style: Default, Norm, Bright, PC.

7.5.4 PTZ



1) AF-Zone

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

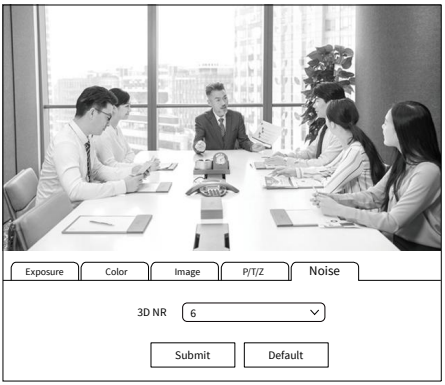
2) AF-Sense

AF-Sense: High, Normal, Low.

3) Image Freeze

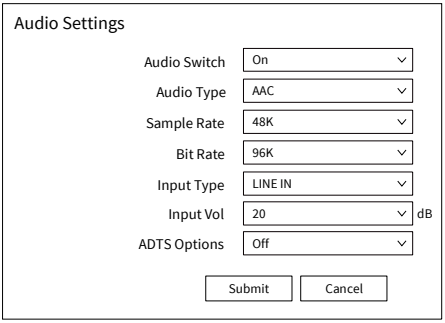
Image Freeze: On, Off.

7.5.5 Noise



3D NR: Off, 1~9.

7.6 Audio Settings



1) Audio Switch

Turn On/Off the 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: LINE IN, MIC.

6) Input Vol

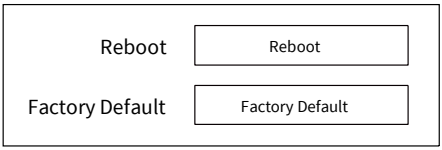
Select the volume value to control the channel volume.

7) ADTS Options

Options: On/Off.

7.7 System Settings

7.7.1 Initialize



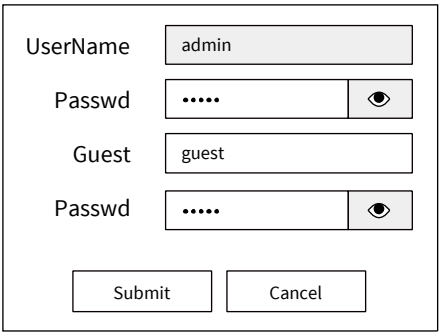
1) Reboot

Click “Reboot” to restart system.

2) Factory Default

Click “Factory Default” to open the confirmation dialog: “Please press OK to reset the camera.” Select “OK” to restore the camera to factory settings.

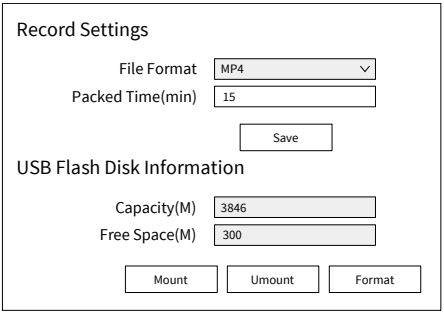
7.7.2 User



Username and Password

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

7.7.3 U Disk Record



1) Record Settings

Set up the File Format and Packed Time.

2) USB Flash Disk Information

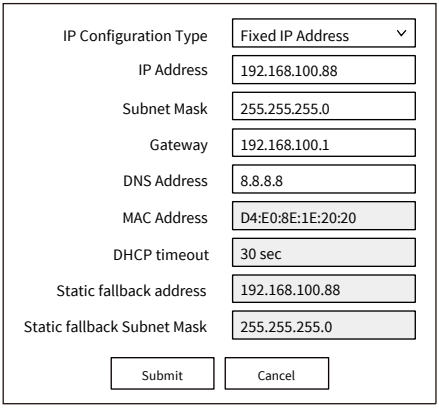
View the Capacity and Free Space of the USB Flash Disk.

7.7.4 Online Upgrade

The device supports online upgrades. To upgrade the camera firmware, follow the instructions on the upgrade interface (shown above), select the upgrade file package, and click "Update" to proceed.

7.8 Network Settings

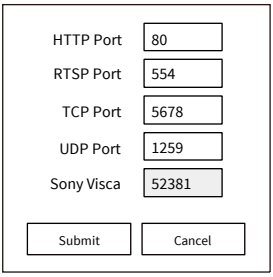
7.8.1 Lan



The default camera IP: 192.168.100.88.

The MAC address cannot be modified.

7.8.2 Port



Configure the camera's HTTP Port, RTSP Port, TCP Port, UDP Port, and Sony Visca settings.

A. HTTP Port

The IP address identifies a network device, which can run multiple network programs. Each program uses a specific network port for data transmission. This page allows you to set the port used by the WEB SERVER program. During port mapping, the port number must match the one set here (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.

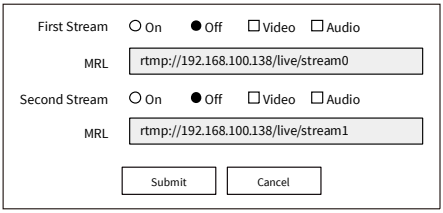
D. UDP Port

Set up the UDP Port, default is 1259.

E. Sony Visca

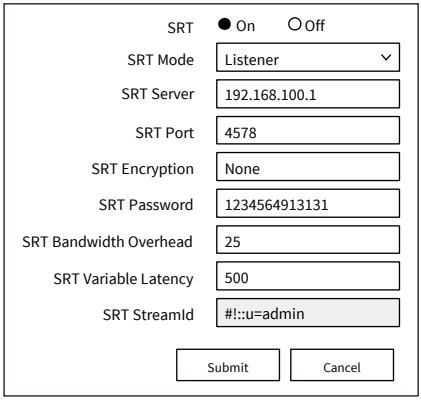
Set up the Sony Visca, default is 52381.

7.8.3 RTMP(S)



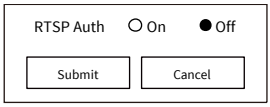
Set the RTMP(S) URL and choose "On," "Off," "Video," or "Audio" to enable or disable video and audio for the two streams. Click "Submit" and restart the device for changes to take effect.

7.8.4 SRT Settings



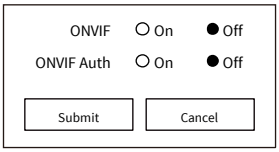
Enable or disable SRT and configure the SRT Mode, Server, Port, Encryption, Password, Bandwidth Overhead, Variable Latency, and StreamID settings.

7.8.5 RTSP



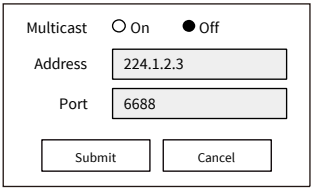
Turn On/Off the RTSP Auth.

7.8.6 ONVIF



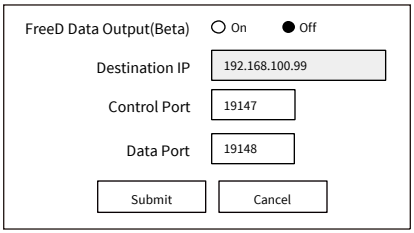
Turn On/Off the ONVIF and ONVIF Auth.

7.8.7 Multicast



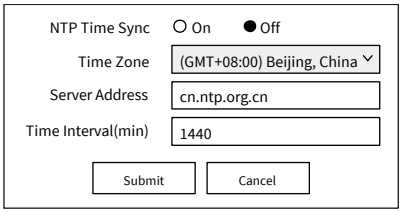
Enable or disable Multicast, and configure the Multicast Address (default: 224.1.2.3) and Port (default: 6688; port 6688 is for the first stream, and port 6690 is for the second stream).

7.8.8 FreeD



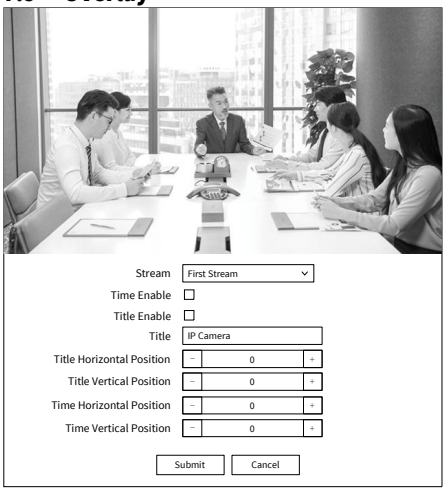
Enable or disable FreeD Data Output, and configure the Destination IP, Control Port, and Data Port.

7.8.9 NTP



Enable or disable NTP Time Sync, and configure the Time Zone, Server Address (default: cn.ntp.org.cn), and Time Interval (default: 1440 minutes).

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.

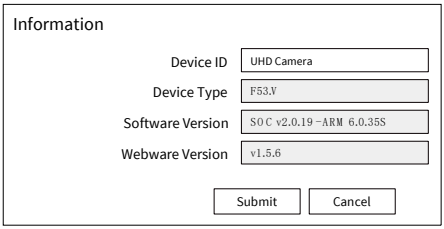
7) Time Horizontal Position

Set up the Time Horizontal Position.

8) Time Vertical Position

Set up the Time Vertical Position.

7.10 Device Information



8 AI-Tracking

8.1 Web Control

- Speaker (Presenter)/Human Tracking

By adjusting the web interface parameters, various close-up ratios can be achieved, and tracking can be enabled or disabled to display specific areas and character positions. Additionally, if needed, you can choose whether to show tracking-related prompt information.

Step 1) Enter the camera's IP address (192.168.100.88) in the browser to open the login window. After entering the username (admin) and password (admin), you can access the camera's web interface.

Step 2) Navigate to the "Tracking" option, select the speaker mode as "Presenter," and configure the tracking parameters while in the "Track Off" state.

Tracking Mode: Speaker (Presenter) / Area (Zone) The default setting is Presenter Mode.

Step 3) Determine the Target Retention Time, which defaults to 6 seconds and can be set up to a maximum of 10 seconds.

Auto Zoom: Typically remains at the default setting. When "Auto Zoom" is disabled, the camera lens can still move but will maintain the current magnification without zooming.

Auto Tilt: Typically remains at the default setting. When "Auto Tilt" is disabled, the camera lens can only move horizontally.

Target Retention Time: Usually remains at the default setting. This function determines how long the camera lens takes to return to the Home or starting position after losing the tracking target. Any modifications made take effect immediately.

Step 4) Select the desired close-up effect.

Figure Size:
By choosing different modes, users can customize the proportion of the subject in the close-up frame, which is a key feature. Any changes take effect immediately.

Full: The close-up image captures the target's entire body, as illustrated in the following figure.

Upper: The close-up image tracks the target from above the knee, as illustrated in the following figure.

Tracking Start Position:
Users can select the camera lens position when starting and stopping tracking. Two Modes: Current Location / Preset 1

Current Location:
When tracking is enabled, the camera remains in its current position.
When tracking is disabled, the camera stops at its current position.

Preset 1:
Requires setting a predefined camera position.
When tracking is enabled, the camera moves to Preset 1 first.
If a subject enters the frame, the camera will automatically track them. When the tracking target is lost (exceeding the timeout period), the camera automatically returns to Preset 1.

Character Position:
The Character Position setting defaults to Median. Users can manually select Left or Right as needed, a feature primarily used for live streaming scenarios.

Step 5) Based on the application scenario, you can choose whether to enable "Humanoid Frame" and "Tracking Hint", both of which have default settings.

In live streaming scenarios, these options are typically left disabled to avoid disruptions from temporary adjustments during the stream.
Humanoid Frame: Default / Off / Debug
Default: When tracking is enabled, if multiple people appear in front of the camera, pressing the direction key allows selection of the tracking target.

A humanoid frame will automatically appear around the selected target.
Pressing the HOME key confirms tracking, after which the frame disappears, and the camera begins tracking.

Off: The humanoid frame is not displayed when selecting a tracking target.
This setting is ideal for live streaming scenarios to maintain a clean display.

Debug: The humanoid frame remains visible on the tracking target at all times. This mode is only for debugging or demonstration purposes.

Tracking Hint: On / Off
On: A prompt appears in the upper left corner of the video when switching tracking.

Off: No prompt is displayed during tracking switches.
Recommended for live streaming scenarios to maintain an uninterrupted viewing experience.

Step 6) Enable tracking, use the arrow keys to select the tracking target, and press Home to confirm.

Area Tracking (Zone)
Function:
Divides frequently used tracking areas into multiple zones (A, B, C, D) as needed. Each zone is assigned a preset position, which is saved for automatic tracking. When the tracking target enters a specific zone, the camera automatically moves to the corresponding preset position to track the subject.

Operation Method:

Step 1: Enter the camera's IP address (192.168.100.88) in a web browser to open the login window. After entering the username (admin) and password (admin), log in to the camera's web interface.

Step 2: Navigate to the "Tracking" page and select "Zone." While in the Track Off state, configure the tracking parameters.

Step 3: Use the web interface's directional keys and Zoom In/Out controls to adjust the lens position.

Set multiple preset positions, such as Zone A, sequentially, and click “Save”.
Users can determine the number of preset positions based on their application needs, with a maximum limit of 4.
If settings are incorrect, presets can be deleted or reset as needed.

Tracking Start Area
Tracking Start Area allows selecting any Zone position as the starting or ending point for tracking.
When tracking is enabled, the camera will first move to the designated Zone position. If a subject enters the frame, the camera will automatically begin tracking.
When the tracking target is lost, the camera will return to the selected Zone position automatically.

6.2 Remote Control

Speaker Tracking (Presenter)
The camera's default mode is Speaker Tracking (Presenter). Users can verify the current settings through the web interface.

Function:
This method allows for quick tracking activation/deactivation and target selection using the remote control.

Single Person Scenario:
Press the F3 key on the remote control to start tracking.
Press the F4 key to exit tracking mode.
If only one person is in the scene:
Press F3 to start tracking.
The camera will lock onto the target and begin tracking immediately.
A confirmation screen will appear, indicating that tracking has successfully started. Users can press F4 at any time to exit tracking mode.

Multi-Person Scenario:
Press the F3 key on the remote control to start tracking.
If multiple people are in front of the camera:
Use the left and right keys on the remote control to select the tracking target. Press the HOME key to confirm the selection.
The camera will then begin tracking the chosen target.
Press the F4 key to exit tracking mode at any time.

8 Troubleshooting

Image

- The monitor shows no image

1) Check that the camera power supply is connected, the voltage is normal, and the power indicator light is always on.
2) Turn off the power switch to check whether the camera is self-testing when booting back up.
3) Check the cable of video platform and TV whether correct connection.

- The video image displayed by the camera lens is jittery

1) Check whether the camera install location is stable.
2) Check whether have vibrating machinery or object near the camera.

- No video image is displayed in the browser.

IE does not support H5, so you need to use the VLC plug-in to view videos. Go to the VLC website (http://www.videolan.org/vlc) to download and install the 32-bit VLC media player. Once installed, you should be able to view the camera's video feed as normal. Other mainstream browsers already support H5 and do not require the VLC plug-in.

- Unable to access camera through Browser

1) Use a PC to access the network and verify that it is functioning correctly. This approach also rules out any network issues caused by a potential PC virus. Continue testing until the PC and camera can successfully communicate via ping.
2) DDisconnect the network and connect the camera and PC directly. Then, reset the PC's IP address, making sure the first three segments match. For a detailed tutorial on changing your PC's IP address, scan the QR code on the right side of the page.
3) Verify the camera's IP address, subnet mask, and gateway settings.
4) Connect the camera to a monitor via HDMI and press the menu button on the IR remote. Then, press [*]+[#]+[4] to display the camera's current IP address. Enter this address in your browser's URL bar.
5) Restore the camera's default IP address using the IR remote. Aim the remote at the camera and press [*]+[#]+[MANUAL].
6) Check whether the MAC address is having conflicts.
7) Check whether the web port is modified.
The default web port is 80.

- Forgot the IP address or login password

Please remember (The default IP address: 192.168.1.88; default user name: admin; default password: admin).

Control

- The remote control is not functioning.

1) Replace the remote controller's battery.
2) Verify that the camera is in the correct operating mode.
3) Make sure the remote controller's address matches the camera's address.

- The serial port is not functioning for control.

1) Verify that the camera protocol, address, and baud rate match.
2) Ensure that the control line is properly connected.

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Support

Contact email: support@ikancorp.com

CONDITIONS OF WARRANTY SERVICE

- Free service for 3 years from the day of purchase if the problem is caused by manufacturing errors.
- The components and maintenance service fee will be charged if the warranty period is expired.

Free service will not be provided in the Following Situations: (*Even if the product is still within the warranty period.)

- Damage caused by abuse or misuse, dismantling, or changes to the product not made by the company.
- Damage caused by natural disaster, abnormal voltage, and environmental factors, etc.