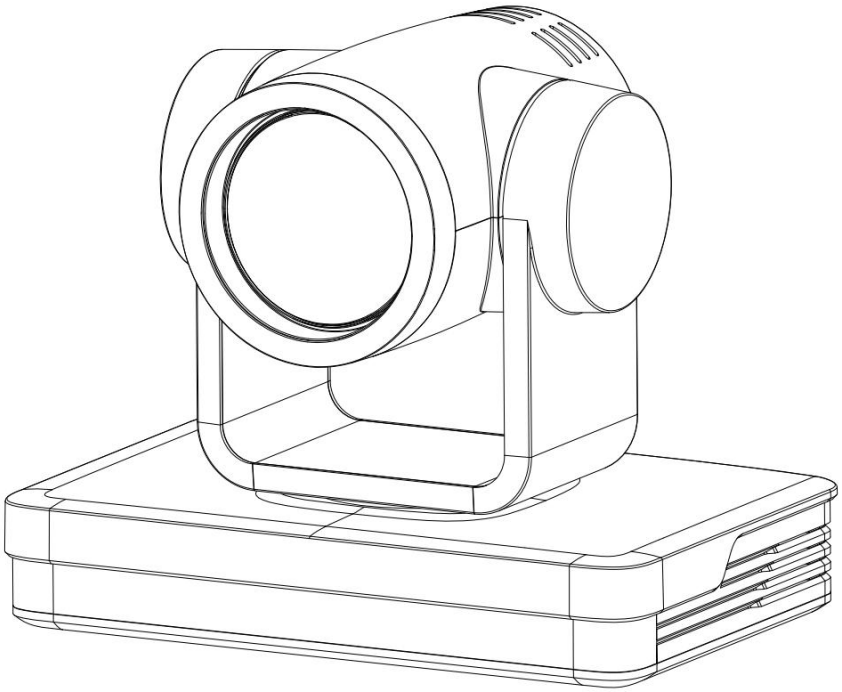
AVIPAS

Model: AV-1563A

30x Auto Tracking PTZ Camera



User Manual

（V1.0）

Preface

Thank you for selecting AViPAS AV-1563A 30x Auto Tracking PTZ Camera. This manual provides comprehensive information on the camera's features, installation procedures, and operational guidelines. Please ensure you read this manual thoroughly before proceeding with the installation and use of the camera.

Overview

This manual is about AV-1563A PTZ camera operation

Graphic Symbols

Description of graphic symbols used in this manual

Symbols	Description
	This symbol indicates that the words are clarification or supplement to this article.
	This symbol indicates that negligence of the instructions may lead to mishandling that may cause injury or property damage.
	This symbol indicates a risk that may result in damage to this machine or documents. Follow the instructions to avoid property damage.

Attention

This manual introduces functions, installations and operations for this product in detail. Please read this manual carefully before installation and use.

Precautions:

This product can only be used in the specified conditions in order to avoid any damage to the camera:

1) Do not expose the product to rain or moisture.
2) To prevent the risk of electric shock, do not open the case. Installation and maintenance should only be carried out by qualified technicians.
3) Do not use the product beyond the specified temperature, humidity or power supply specifications.
4) Please use soft dry cloth to clean the camera. If the camera is very dirty, clean it with diluted neutral detergent; do not use any type of solvents, which may damage the surface.

Electrical Safety:

Installation and use of this product must strictly comply with local electrical safety standards.

Transportation:

Avoid any stress, vibration, or moisture during transportation, storage, installation and operation

Installation:

1) Do not rotate the camera head violently, otherwise it may cause mechanical failure;
2) This product should be placed on a stable desktop or other horizontal surface. Do not install the product obliquely, otherwise it may display inclined image;
3) Ensure there are no obstacles within rotation range of the holder.
4) Do not power on before complete installation.

Do Not Dismantle Camera：

We are not responsible for any unauthorized modification or dismantling.

Magnetic Interference

Electromagnetic fields at specific frequencies may affect the video image. This product is Class A. It may cause radio interference in household applications. Appropriate measure is required.

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Quick Start

Interface

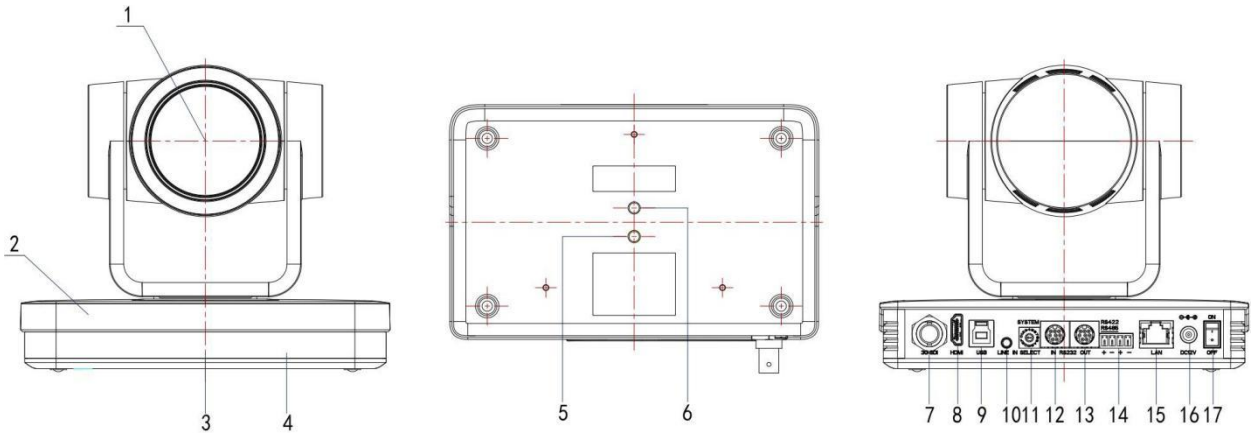


Figure 1-1 Back Panel

Interface Introduction:

1.Camera Lens	10.Audio Input Interface (3.5mm LINE-IN)
2.Camera Base	11.Rotary Dial Switch for Mode Selection
3.Remote Control Receiving Indicator	12.RS232 Input Interface (Input)
4.Infrared Receiver	13.RS232 Output Interface (Output)
5. ¼-20 Threaded Tripod Hole	14.RS422 Compatible with RS485 Interface
6. Hole for Tripod mounting	15.LAN Port (RJ45)
7.SDI Output Interface	16.Power Input Socket (DC12V)
8.HDMI	17.Power Switch Button
9.USB3.0 (Type-B)	

Connection Diagram

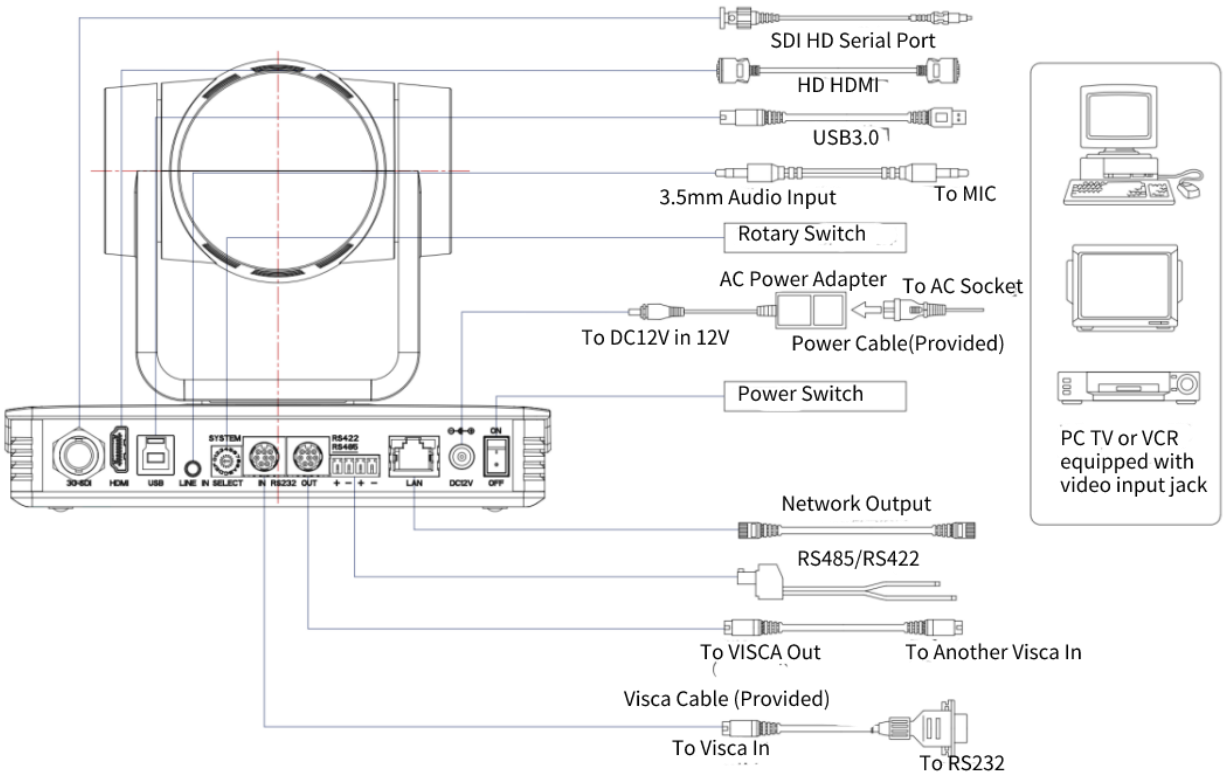


Figure 1-2 Connection Diagram

1) After power on and self-check, the camera will automatically return to the preset 0 position if it's pre-set.

2) The default address for the IR remote control is #1.

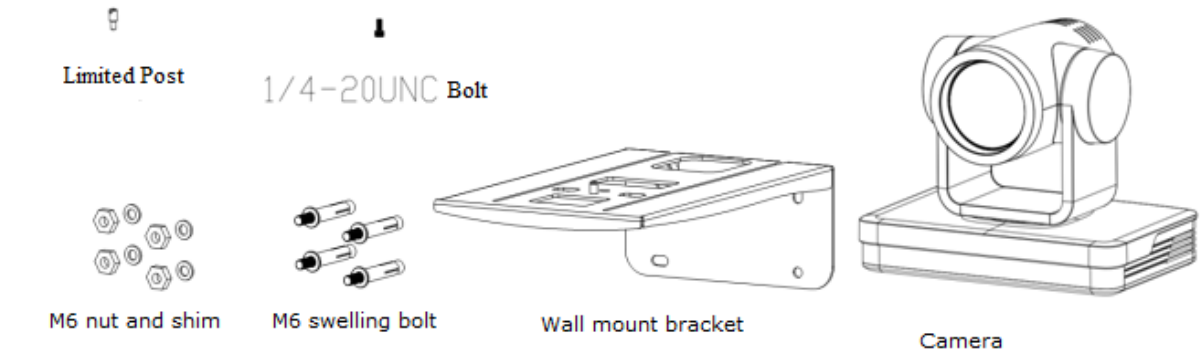
If the menu restored to factory defaults, the remote control default address will restore to #1.

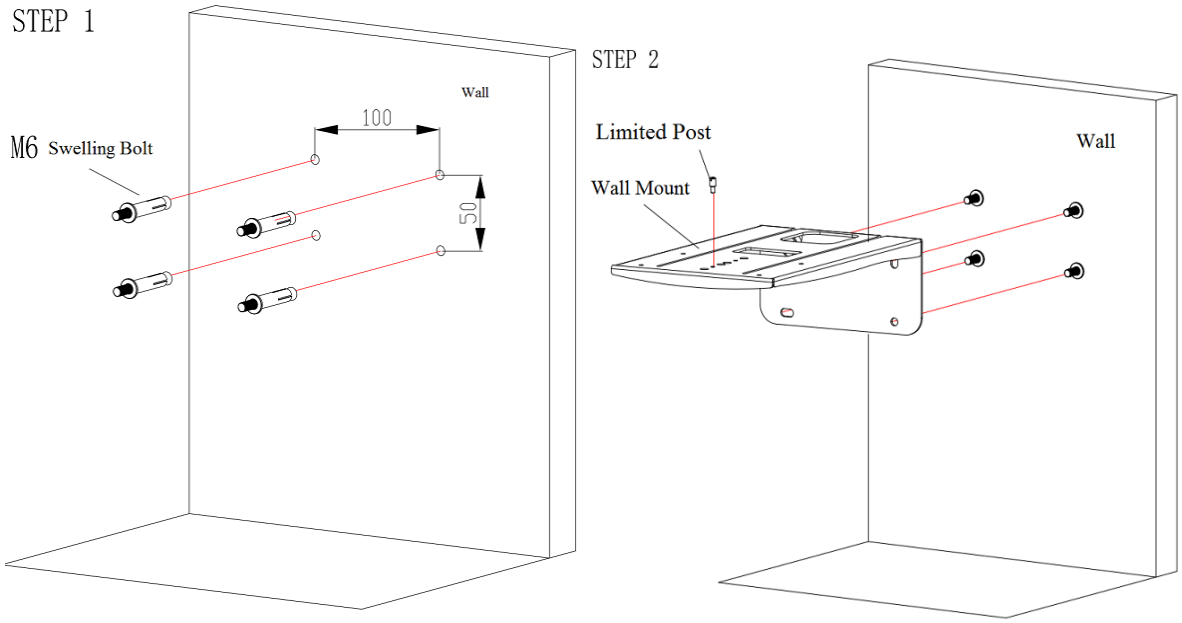
Mounting Brackets

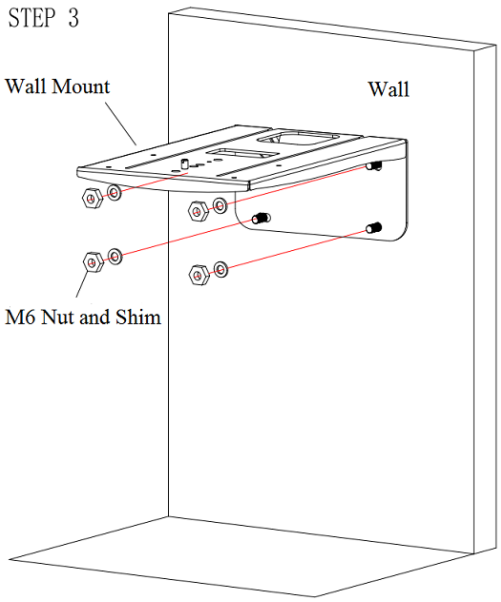
Caution

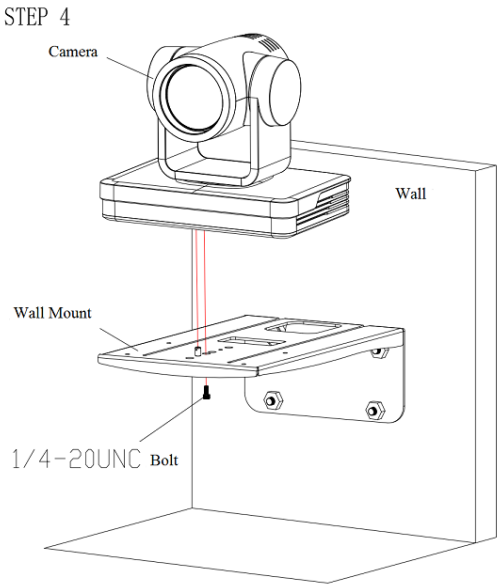
- Ceiling or wall mounting brackets can only be mounted on template and concrete wall. For safety reasons, plasterboard is not recommended.

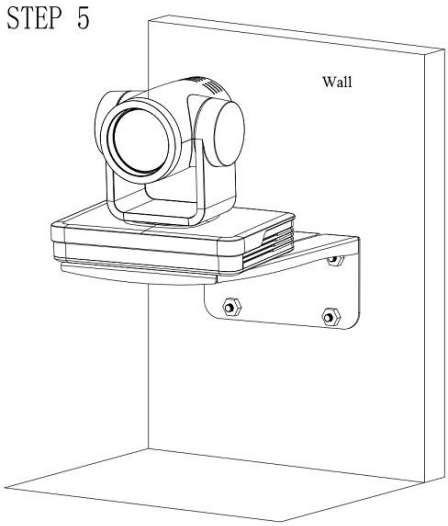
Wall Mount











Ceiling Mount



PA3X30 Self Tapping Screw



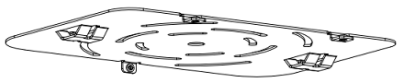
PM3X6 Bolt



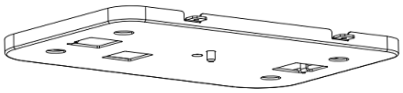
Screw Stopper



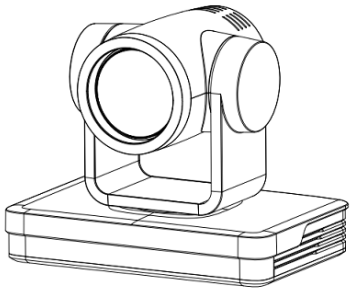
1/4-20UNC Bolt



Upper Cover Plate

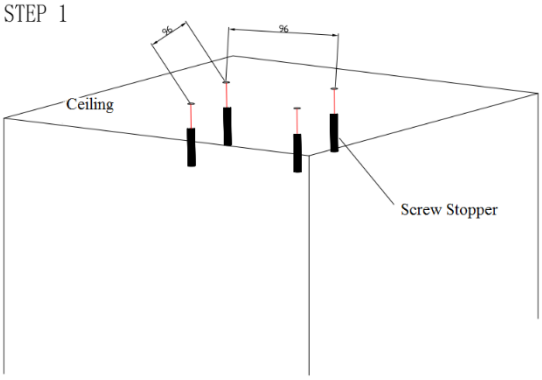


Lower Cover Plate

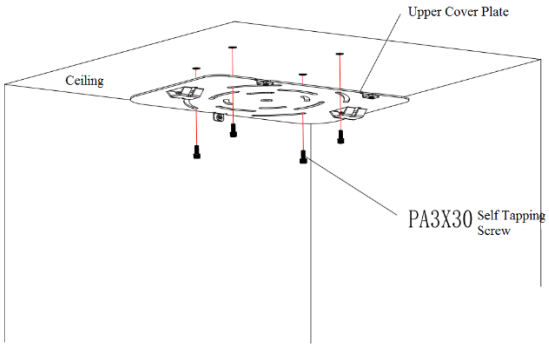


Camera

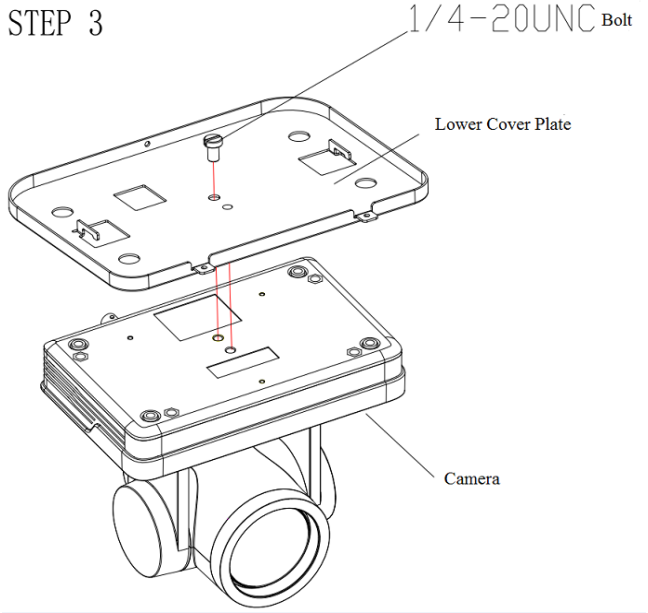
STEP 1



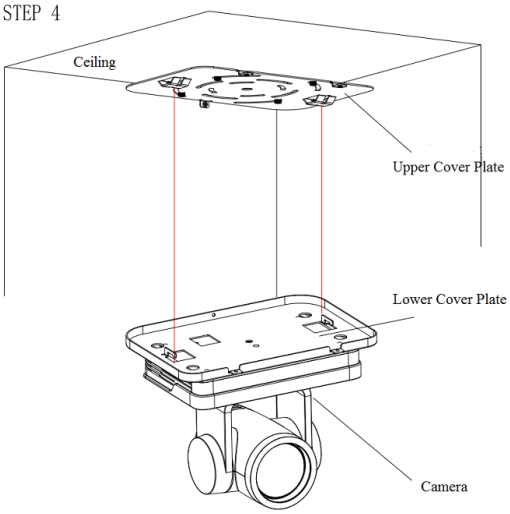
STEP 2



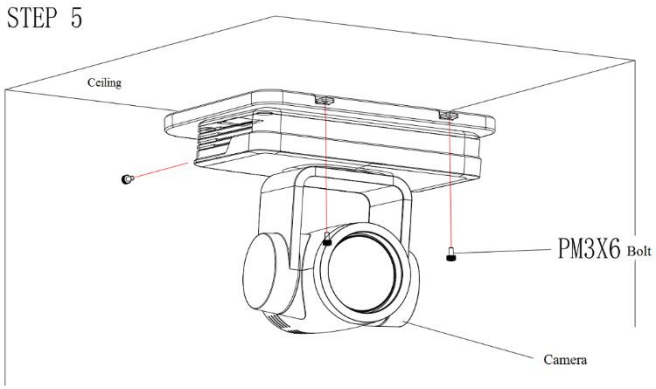
STEP 3



STEP 4



STEP 5



Product Overview

Dimension

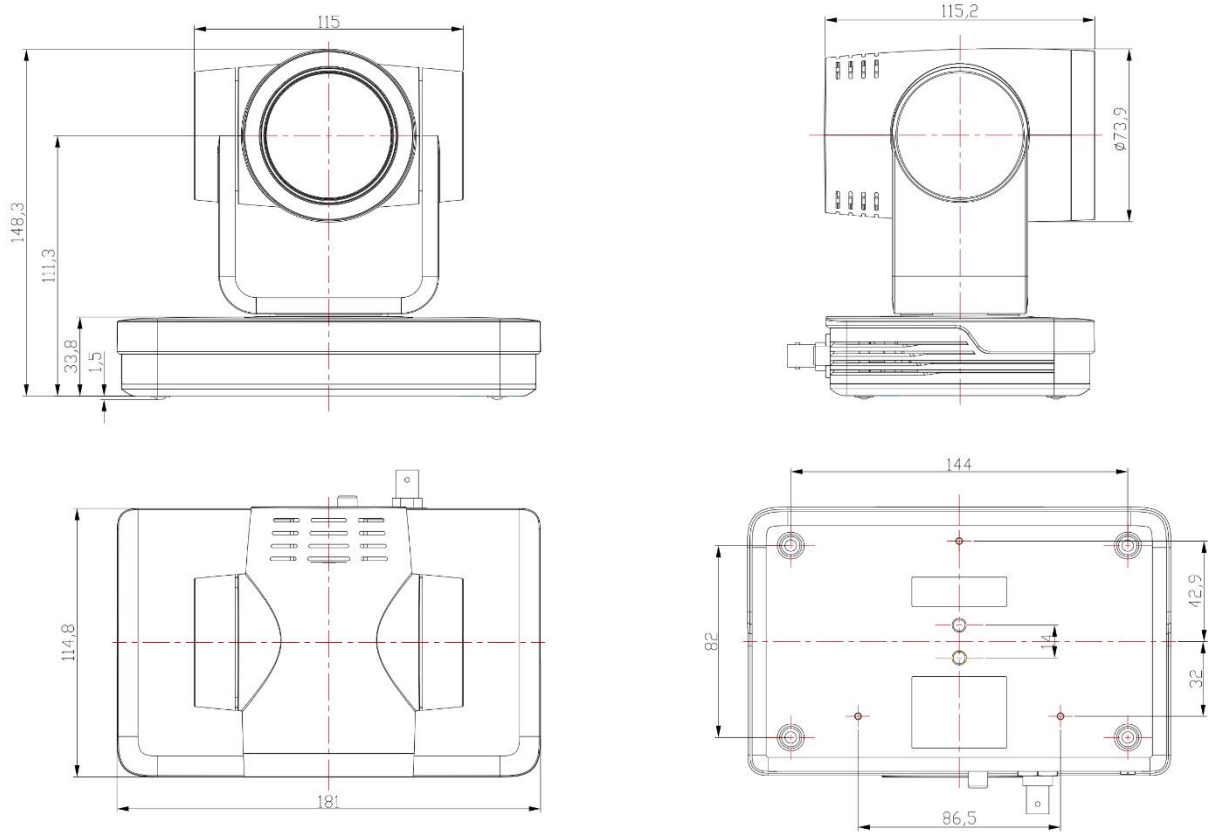


Figure 2-1 Product Dimension

Accessory Included

When unpacked, check if all supplied accessories are included:

AV-1563A Camera---------- 1pc

Power Adapter (US standard) ----------1pc

Power Cord (US standard) ----------1pc

RS232 Cable (9-Pin DB-9 Female to 8-Pin Mini-Din Male) ----------1pc

USB 3.0 Cable (Type-A to Type-B) ----------1pc

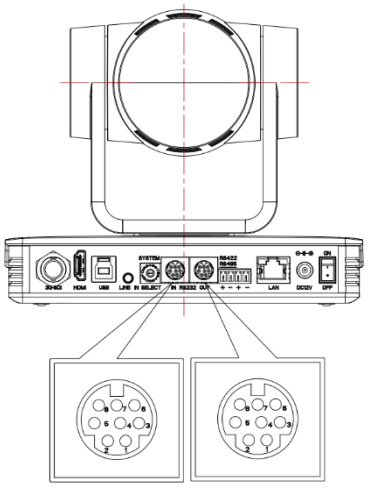
IR Remote Control----------1pc

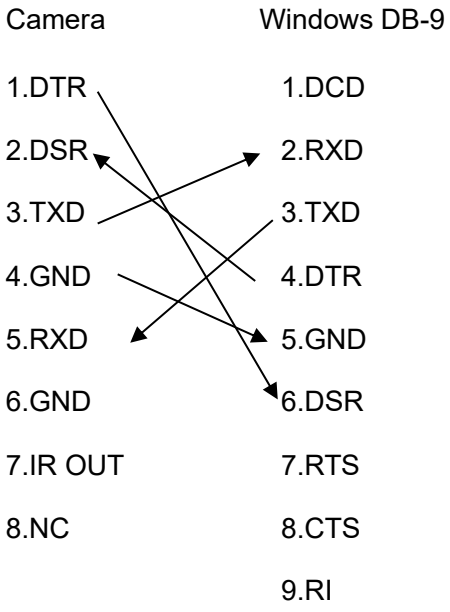
User Manual---------- 1pc

Anti-vibration Pad ----------1pc

RS-232 Interface

1）RS-232 Port: Connection method of camera to PC or Controller.





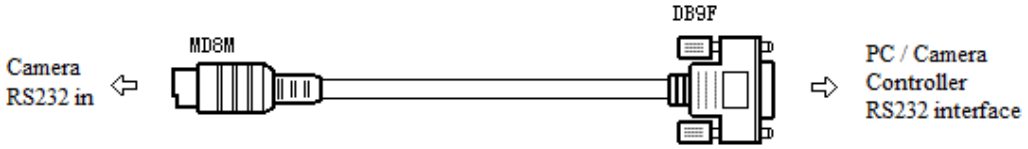


Figure 2-2 diagram of RS232 Connection

2）RS-232 Mini-DIN 8-pin Terminal Definition

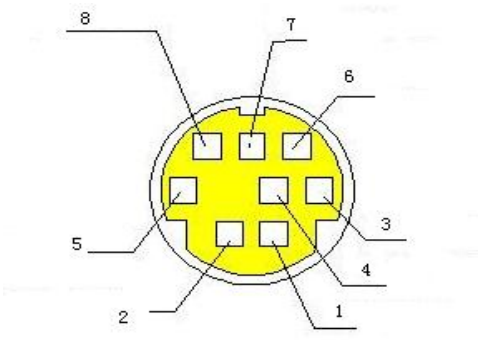


Table 2-2 RS-232 Mini-DIN 8-pin Port Definitions

NO.	Port	Definition
1	DTR	Data Terminal Ready
2	DSR	Data Set Ready
3	TXD	Transmit Data
4	GND	Signal Ground
5	RXD	Receive Data
6	GND	Signal Ground
7	IR OUT	IR Commander Signal
8	NC	No Connection

3）RS232(DB9) Port Definition

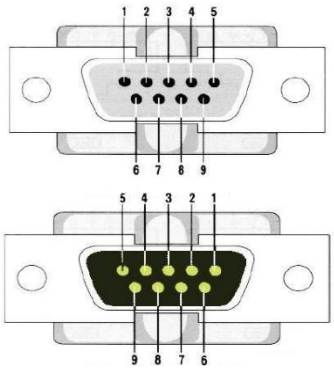
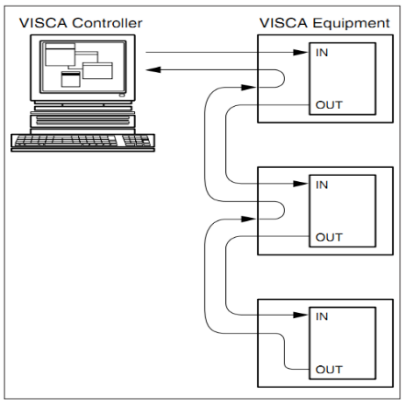


Table 2-3 RS232(DB9) Port Definition

NO.	Port	Definition
1	DCD	Data Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	System Ground
6	DSR	Data Set Ready
7	RTS	Request to Send
8	CTS	Clear to Send
9	RI	Ring Indicator

4）VISCA Networking Method

Note: *RS232 input and output interfaces and can be cascaded in the this manner.*



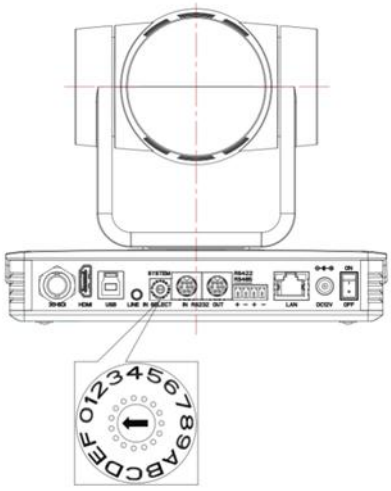
Networking Method

Device 1	Device2
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.OPEN
8. NC	8.OPEN

Figure 2-3 Diagram of Networking Method

Rotary Dial for Mode Selection

Figure 2-4 Rotary dial corresponding to video format



Dial	Video Format	Dial	Video Format
0	1080P60	8	720P59.94
1	1080P50	9	-----
2	1080P30	A	-----
3	1080P25	B	-----
4	720P60	C	-----
5	720P50	D	-----
6	1080P59.94	E	-----
7	1080P29.97	F	-----

Caution

- After switching the mode and dialing the code, you need to restart the camera to take effect.
- Check if changes are successfully, open OSD or WebUI to confirm.
- Dial position at “F”: Video format can be adjusted from the webpage, IR remote shortcuts, and the video format item will be shown on OSD menu.

Product Features

- **Full HD Resolution:** 1/2.8 inch high quality CMOS sensor with 2.07 effective pixel. Resolution is 1920x1080 with frame rate up to 60 fps.
- **Lens:** 30X optical zoom, 15x digital zoom lens with 58.1-degree field of view.
- **AI Powered Human Auto Tracking**: Automatically detects, tracks, and focuses on the human moving subject which it identifies. It works for both presenter and zone settings.
- **Advanced H.264/H.265 Compression**: Maximizes storage efficiency and minimizes bandwidth usage without compromising image quality.
- **2D/3D Noise Reduction and High SNR(≥50db):** Significantly enhances video quality, especially in low-light conditions.
- **Built-in Gravity Sensor:** Support PTZ auto-flip function and simplified installation.
- **Easily Adjustable Image Settings**: With both automatic and manual adjustment options, effortlessly fine-tune White Balance, Exposure, Focus, and Iris.

- **Multiple Video Output Interface**: Supports HDMI, 3G-SDI, LAN and USB3.0(Type-B) outputs simultaneously, suitable for a variety of applications.
- **Audio Input/output**: 3.5mm TRS Line-in audio input, embedded out through HDMI, SDI, and IP streaming with AAC encoding.
- **Multiple Control Options:** IR Remote control, IP control (RJ45)**,** USB (Type-B), RS232-IN, RS232-OUT, RS422 & RS485 (RS422 compatible with RS485). RS232 interface supports cascading.
- **Multiple Streaming Protocols**: Supports multiple streaming protocols including RTSP, RTMP, RTMPS and SRT, ensuring versatile and reliable video transmission for any application.
- **Multiple Control Protocol**: Supports VISCA, PELCO-P, PELCO-D, VISCA over IP, ONVIF and UVC control protocols; IP VISCA over both TCP and UDP.
- **PoE + (Power over Ethernet):** With PoE+ supported, allowing a single Cat5/6 cable for delivering power to the camera, control signal, and video out from camera, simplify installation.

Technical Specification

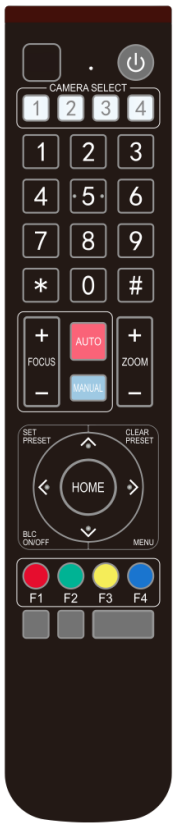
Camera	**AV-1563A(Black)**
Sensor	1/2.8-inch Sony CMOS sensor, 2.07MP effective pixel
Zoom	30x Optical Zoom, 15x Digital Zoom
Lens	f=5.2 ~148.4mm, F1.3 ~ F4.8
Min/Illumination	0.5 Lux (F1.8)
Field of View	58.1° (Wide)~2.1° (Tele)
Video Format ***Support only Progressive (P) video format, not for Interlaced (I) video format***	**HDMI/SDI:**1080P60, 1080P50, 1080P30, 1080P25, 720P60,720P50,1080P59.94, 1080P29.97, 720P59.94； **USB3.0:**YUY2/NV12: 1920×1080/1280×720/1024×576/800×600/800×448/640×360/640×480/480×270/320×180@30/25/20/15/10/5fps; MJPG/H264: 1920×1080/1600×896/1280×720/1024×576/960×540/800×600/800×448/720×576/720×480/640×360/640×480/480×270/352×288/320×240@30/25/20/15/10/5fps; **LAN:** **Main streaming:** H.264/H.265: 1920×1080/1280×720/640×480@60/30/25/20/15/10/5fps **Sub-streaming:** H.264/H.265: 1920×1080/1280×720/640×360/320×240/640×480/320×180 @30/25/20/15/10/5fps

Pan/ Tilt, Auto Tracking Movement	
Pan/Tilt Rotation	Pan: ±170°; Tilt: -30°~+90°
Pan/Tilt Control Speed	Pan: 1 - 100°/sec; Tilt: 1 - 45°/sec
Preset Speed	Pan: 100°/sec; Tilt: 45°/sec; (*Note: recall preset speed)*
Max Preset Positions	IR remote control: 10; Serial RS232/RS485: 255; IP: 255
Real-Time Tracking	maximum effective distance of 6–7 meters, accurately following presenters moving at speeds of 1.3 to 1.7 meters per second.
Regional Tracking	Supports up to 4 independent tracking regions, configurable within a wide field of view: Horizontal range: −170° to +170°; Vertical range: −30° to +90°
Image Parameter	
Noise Reduction	2D & 3D
SNR	≥50dB
Exposure	Auto, manual, shutter priority, aperture priority, brightness priority
White Balance	Automatic, Manual, One-push white balance, Specified color temperature range (3000K-10000K)
Anti-Flicker	50Hz, 60Hz, OFF
Focus	Auto, Manual, One push
Iris	F1.8~F11, CLOSE
Shutter Speed	1/25s ~ 1/10000s
Backlight Compensation	On / Off
Flip Horizontal	On / Off
Flip Vertical	On / Off
Gamma	Support
Dynamic range	Off / Dynamic level adjustment 1- 8
Image adjustment	Brightness, chroma, saturation, contrast, sharpness, black and white mode, gamma curve

Input/Output Interface	
Video Output	1*HDMI, 1*3G-SDI, 1*LAN(RJ45), 1*USB3.0 (Type-B)
Serial Communication Interface	1* 8-pin Mini DIN RS232-in, 1* 8-pin Mini DIN RS232-out, 1* RS422 (compatible with RS485)
Serial Control Protocol	VISCA/Pelco-D/Pelco-P; support baud rate 115200/38400/9600/4800/2400
RS232 Daisy Chain	Supported up to 7 cameras under VISCA protocol
Audio Input Interface	Dual channel 3.5mm TRS Line-in input, embedded audio out via HDMI/ SDI/ USB/IP streaming
Audio output	HDMI, SDI, LAN, USB3.0
Audio Compression	AAC
Power Input	DC12V
LAN interface	10M/100M adaptive Ethernet port, support POE+ power supply, support audio and video output
USB Communication Protocol	UVC, UAC
IP Networking Specification	
Video Encoding Standard	H.264 / H.265
Video Streaming Mode	First streaming, Second streaming
Main Streaming Resolution	1920×1080/1280×720/640×480@60/30/25/20/15/10/5fps
Sub Streaming Resolution	1920×1080/1280×720/640×480@60/30/25/20/15/10/5fps
Network Port Speed	1000Mbps
Streaming Protocols	RTSP, RTMP, ONVIF, GB/T28181, VISCA OVER IP, RTMPS, SRT, etc.
Audio Encoding Format	AAC
USB Communication Protocol	UVC 1.1

General Specification	
Power Input	HEC3800 Power socket (DC12V), PoE+(IEEE802.3at Standard)
Power adapter	Input AC110V-AC220V; output DC12V/2.0A
Power Consumption	Maximum: 14W
Input currency	≤1.16A
Stored Temperature	-10℃~+50℃
Storage Humidity	20%~95%
Working Temperature	-10℃~+50℃
Working Humidity	20%~80%
Dimension	7.1*4.5*5.9inch (181*115*149mm)
Net Weight	2.5lbs (1.15kg)

IR Remote Control Guide



Overview: After the camera completes its initialization, it is ready to receive and execute commands from the IR remote control the camera's pan, tilt, and zoom functions, as well as set and recall preset positions. When a button on the remote is pressed, the indicator light flashes to confirm the signal has been transmitted. The indicator light stops flashing once the button is released.

Key Instructions:

In this manual, "press the key" refers to a short press (single click) rather than a long press. If a function requires pressing and holding a button for more than one second, it will be specifically noted.

For key combinations:

Press the buttons in sequence. For example, "【*】 + 【#】 + 【F1】" means press 【*】 first, then 【#】, and finally 【F1】.

Power/Standby Button

Press and hold the Standby button for 3 seconds to place the camera into standby mode. Press and hold the button again for 3 seconds to wake the camera. The camera will perform a self-test and return to the HOME position. Note: If the Power-On Mode is enabled and Preset 0 is configured, the camera will automatically move to the specified preset position after 12 seconds of inactivity.

1) Camera Selection



Select the camera address to control.

2) Pan/Tilt Control



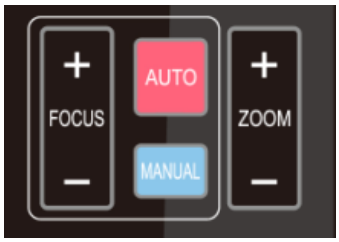
Up: press ◂Down: press ▲

Left: press ▾Right: press ◂

Back to middle position: press"【HOME】"

Press and hold the up/down/left/right key, the pan/tilt will keep running, from slow to fast, until it runs to the endpoint; the pan/tilt running stops as soon as the key is released.

3）Zoom Control

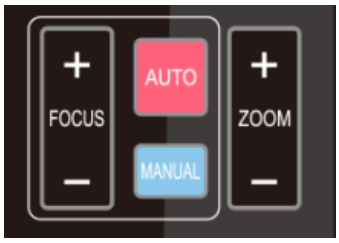


Auto /Manual Zoom: Supported

In Manual Zoom mode, press [Zoom +] for ZOOM IN or [Zoom –] for ZOOM Out

Press and hold the key, the camera will keep zooming in or zooming out and stops as soon as the key is released.

4) Focus Control



Auto /Manual Focus: Supported

In Manual Focus mode, press [Focus +] or [Focus –] to adjust the camera focus manually.

Press and hold the key, the action of focus will keep continuing and stops as soon as the key is released.

5) BLC Setting



BLC ON / OFF: Backlight compensation supported

6) Presets Setting, Running, Clearing



1.Set Preset position:

Press the 【SET PRESET】 button, then press a number key (0–9) to assign the current camera position to that preset.

Note: The IR remote supports up to 10 preset positions

2. Recall Preset:
Press a number button (0–9) on the IR remote to recall the corresponding preset position.

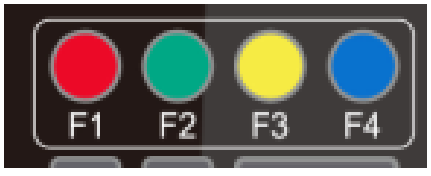
Note: If the selected preset position has not been set, the command will not take effect.

3. Clear Preset: To delete a preset, press the 【CLEAR PRESET】 button, then press the number key (0–9) corresponding to the preset you want to clear.



Note: To clear all presets at once, press the 【#】 key three times consecutively.

7）Camera Remote Controller Address Setting



【*】+【#】+【F1】:Camera Address No.1
【*】+【#】+【F2】:Camera Address No. 2
【*】+【#】+【F3】:Camera Address No. 3
【*】+【#】+【F4】:Camera Address No. 4

8) Key Combination Functions

1) 【#】+【#】+【#】:Clear all presets

2) 【*】+【#】+【6】:Factory Restore

3) 【*】+【#】+【9】:Image Flip switch

4) 【*】+【#】+【AUTO】Enter Auto mode

5) 【*】+【#】+【3】:Menu set to Chinese

6) 【*】+【#】+【4: Menu set to English

7) 【*】+【#】+【Manual】Restore the default user name, password, and IP address

8) 【#】+【#】+【0】: Switch video format to 1080P60

9)【#】+【#】+【1】: Switch video format to 1080P50

10)【#】+【#】+【2】: Switch the video format to 1080P30

11)【#】+【#】+【3】: Switch video format to 1080P25

12)【#】+【#】+【4】:Switch video format to 720P60

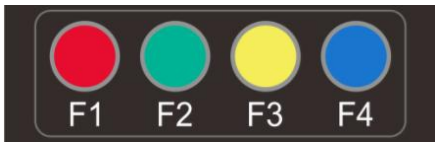
13)【#】+【#】+【5】: Switch video format to 720P50

14)【#】+【#】+【6】:Switch video format to 1080P59.94

15)【#】+【#】+【7】: Switch video format to 1080P29.97

16)【#】+【#】+【8】:Switch video format to 720P59.94

9) AI Function Short Keys



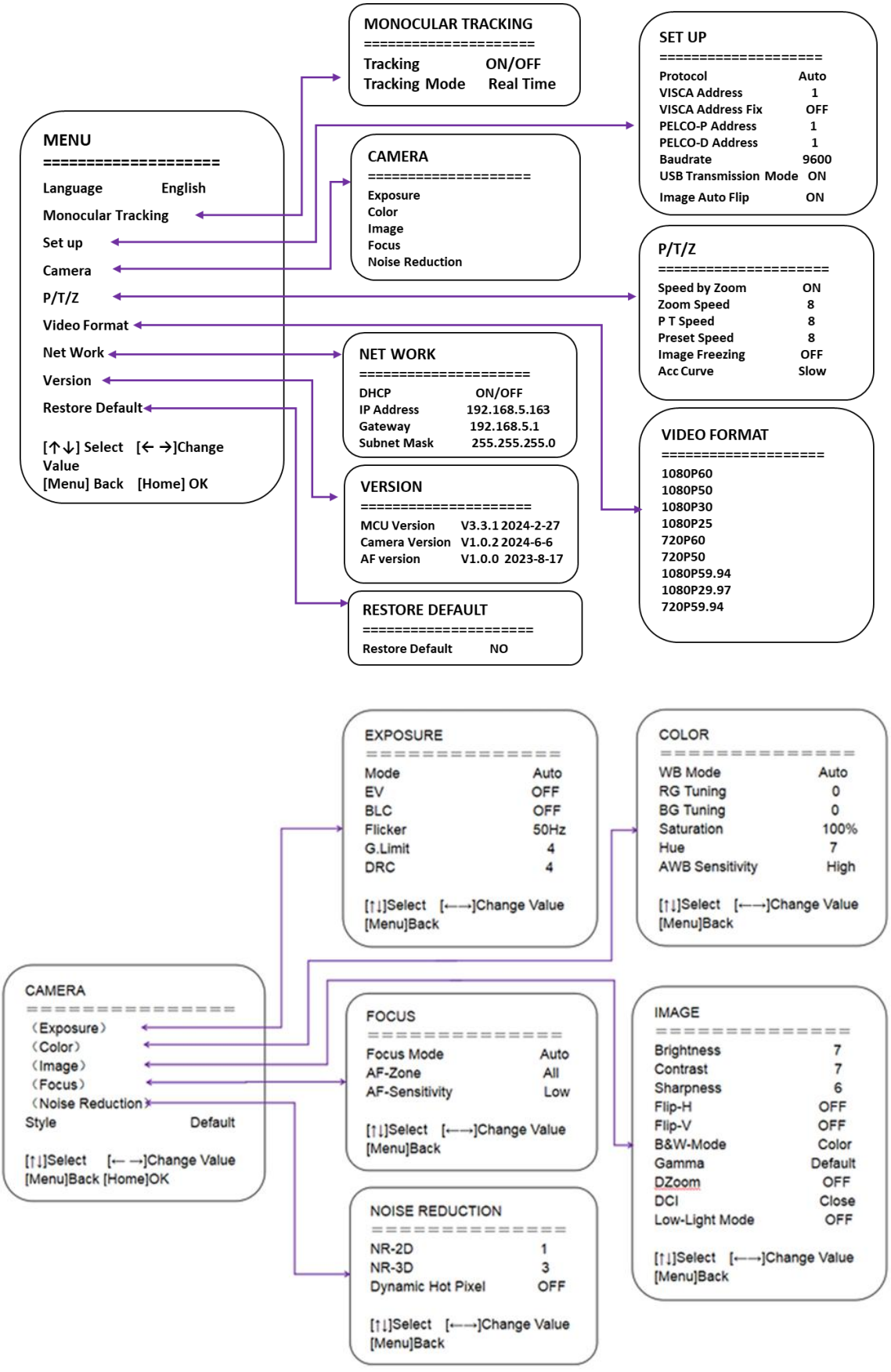
【F1】: Turn off AI Human Detection

【F2】: Turn on AI Human Detection

【F3】: Toggle between real time tracking mode and region tracking mode

【F4】: Chang tracking target to real tracking mode

Camera OSD (On-Screen Display) Menu



1. Main Menu

Press **[MENU]** to display the Main Menu on the screen.
Use **[↑↓] Select, and [← →] Change Value**
Press **[HOME]** to confirm the selections or enter the sub-menu
Press **[MENU]/Back** to return to the previous level.

Language: English

Monocular Tracking – Enable or disable tracking functions and choose the tracking mode.

Setup: Configure system communication settings such as protocol, address, and baud rate.

Camera: Adjust exposure, color, image quality, noise reduction, and style settings.

PTZ: Configure pan, tilt, and zoom behavior, including speed and preset options.

Video Format: Select the output resolution and frame rate.

Network: Configure IP address, DHCP, gateway, and subnet mask.

Version: View firmware version information for the camera.

Restore Default: Reset the camera to factory default settings.

2. SETUP

Move the cursor to [SETUP] in the main menu and press [HOME], [SETUP] menu is shown below.

Protocol: Select the control protocol used by the camera. Options include VISCA, Pelco-P, Pelco-D, and Auto.

VISCA Address Fix: ON/OFF

PELCO-P/D Address: Set the Pelco-P/D control address (typically 1–255).

Baudrate: Available rates include 2400, 4800, 9600, and 115200.

USB Transmission Mode: ON/OFF

Auto Flip: Image auto flip, ON/OFF

3. Monocular Tracking

Select Monocular Tracking from the Main Menu and press **[HOME].** This menu controls the camera's subject-tracking functions.

Tracking: Turn tracking ON or OFF.

Track Mode: Select tracking mode.

• Real-time Tracking: The camera continuously follows the subject.

• Region Tracking: The camera tracks only within a defined area of the image

4. CAMERA

Move the cursor to [Camera] in the main menu and press [HOME], [Camera] menu is shown below.

EXPOSURE: Enter Exposure settings

Move the cursor to [EXPOSURE] and press [HOME], [EXPOSURE] menu is shown below.

Mode: Auto/ Manual/ Shutter priority/ Iris priority/ Brightness priority

EV: On/ Off (only available in auto mode)

Compensation Level: -7~7 (only available in auto mode & when EV is ON)

BLC: On/ Off (only available in auto mode)

Flicker: anti-flicker: OFF/ 50Hz/ 60Hz (only available in Auto/ Iris priority/ Brightness priority modes)

Gain Limit: 0~15 (only available in Auto/ Iris priority /Brightness priority mode)

WDR: Off/ 1~8

Shutter Priority: 1/25, 1/30, 1/50, 1/60, 1/90, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/1000, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (only available in Manual or Shutter priority mode)

IRIS Priority: OFF, F11.0, F9.6, F8.0, F6.8, F5.6, F4.8, F4.0, F3.4, F2.8, F2.4, F2.0, F1.8 (only available in Manual or Iris priority mode)

Brightness: 0~23 (only available in Brightness priority mode)

COLOR: Enter color settings

Move the cursor to [COLOR] and press [HOME], [COLOR] menu is shown below.

WB Mode: Auto/ 3000K/ 3500K/ 4000K/ 4500K/ 5000K/ 5500K/ 6000K/ 6500K/ 7000K/ Manual/ One Push

RG Tuning: -10~10 (only available in Manual mode)

BG Tuning: -10~10 (only available in Manual mode)

Red Gain: 0~255 (only available in Manual mode)

Blue Gain: 0~255 (only available in Manual mode)

Saturation: 60%, 70%, 80%, 90%, 100%, 110%, 120%, 130%, 140%, 150%, 160%, 170%, 180%, 190%, 200%

Hue: 0~14

AWB Sensitivity: high/ middle/ low

IMAGE: Enter image settings

Move the cursor to [IMAGE] and press [HOME], [IMAGE] menu is shown below.

Brightness: 0~14

Contrast: 0~14

Sharpness: 0~15

Flip-H: On/ Off

Flip-V: On/ Off

B&W Mode: color, black/white

Gamma: default/ 0.45/ 0.50/ 0.55/ 0.63

DZoom: digital zoom options: On/ Off

DCI: Dynamic Contrast: Off/ 1～8

FOCUS: Enter focus settings

Move the cursor to [FOCUS] and press [HOME], [FOCUS] menu is shown below.

Focus Mode: Auto/ manual/ one-push

AF-Zone: Up, middle, down, overall

AF-Sensitivity: High, middle, low

Noise Reduction: Enter noise reduction settings

Move the cursor to [NOISE REDUCTION] and press [HOME], [NOISE REDUCTION] menu is shown below.

2D Noise Reduction: Auto/ close/ 1~7

3D Noise Reduction: Close/ 1~8

Dynamic Hot Pixel: Close/ 1~5

5. P/T/Z

Move the cursor to [P/T/Z] in the main menu and press [HOME], [P/T/Z] menu is shown below.

Speed by Zoom: When ON, the pan/tilt speed automatically slows down as the zoom level increases for smoother control.

Zoom Speed: Adjust the manual zoom speed from low to high.

Image Freezing: On/ Off

Acc Curve: Slow/High

Preset Speed: Adjust the movement speed when recalling preset positions.

PT speed: 0- 10

6. Video Format

Move the cursor to [VIDEO FORMAT] in the main menu and press [HOME], [VIDEO FORMAT] menu is shown below.

1080P60	1080P50
1080P30	1080P25
720P60	720P50
1080P59.94	720P59.94
1080P29.97	

Note: After modifying video format, reboot to save the changes.

7. NETWORK

Move the cursor to [NETWORK] in the main menu and press [HOME], [NETWORK] menu is shown below.

DHCP: When ON, the camera automatically obtains an IP address from the network.

IP Address: Set the IP address manually when DHCP is OFF.

Gateway: Set the network gateway address.

Subnet Mask: Set the subnet mask for the network.

Whether to Reset: Reset network settings to default values

8. VERSION

Move the cursor to [VERSION] in the main menu and press [HOME], [VERSION] menu is shown below.

MCU Version: Display MCU version

Camera Version: Display camera version

AF Version: Display the focus version

9. RESTORE DEFAULT

Move the cursor to [RESTORE DEFAULT] in the main menu and press [HOME], [RESTORE DEFAULT] menu is shown below.

Restore Default: Yes/ No

Note: After selecting restore default, the video format won’t be restored.

Network Connection

Direct connection: Connect the camera and computer via an Ethernet cable directly.

Internet connection mode: Connect the camera to Internet (via a Router or a Switch).

Note: *The camera and PC must be in the same Local Area Network (LAN). It required the first three segments of their IP addresses to be identical, while the fourth segment is unique.*

• **Example:** Camera current IP Address is: **192.168.5.163**, PC IP Address must be: 192.168.5.XXX (where XXX is any number different from 163, but less than 255).

Steps on how to assign your computer's IP address to the same local LAN as camera:

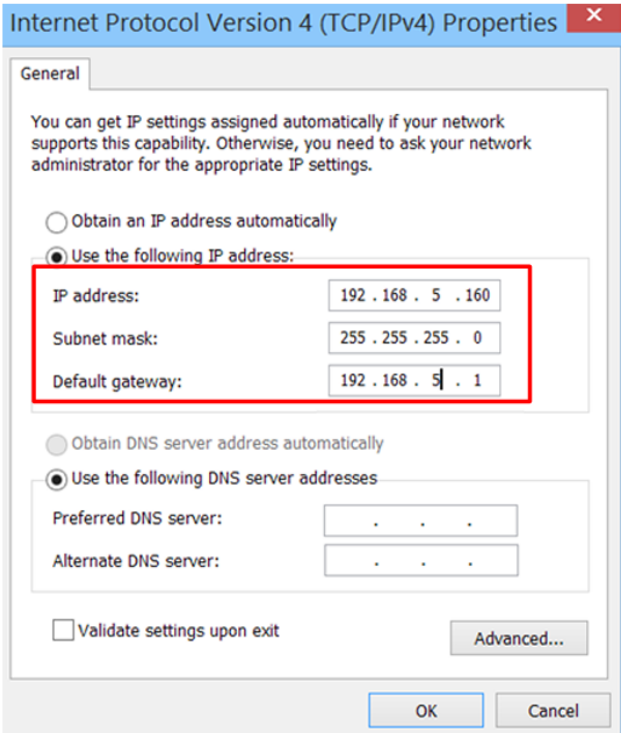
Windows user: Open your computer "**Network and Sharing Center**", select "**Ethernet**",-> "**Ethernet Status**", ->"**Properties**". Double click "**Internet protocol version 4 (TCP/IPv4)".** In the TCP/IPv4 Properties window; select "**Advanced**" to access TCP/IP settings. Set computer's IP, subnet mask and default gateway accordingly. Click the "OK" to finish the adding of IP segment.

If you're using a camera with default settings, the recommended setting for your computer is:

IP: 192.168.5.160

Subnet mask: 255.255.255.0

Default gateway: 192.168.5.1



For Mac users:

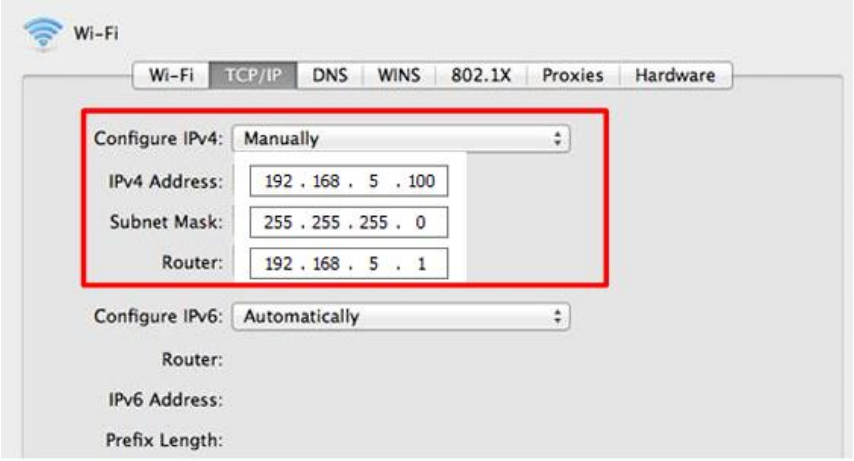
From the Apple menu, select "System Preferences"-> Select "Network". Then select "Ethernet"->. Click "Advanced" -> Select "TCP/IP". From the Configure IPv4 menu, select "Manually" The

window shown below appears. If you're using a camera with default settings, 192.168.5.163, the recommended setting for your Mac is:

IPv4: 192.168.5.100

Subnet mask: 255.255.255.0

Router: 192.168.5.1



Click "OK", then "Apply".

For more details on How to access camera via IP, welcome to visit www.avipas.com -> Support-> How to material-> how to access cam via IP

Note: The IP address must be unique on the network. Before adding it, verify that no other device is already using the same IP address.

Check if the network segment is being added successfully

Users can also verify network connection as the above mentioned steps after the finish of camera self-check. If IP is default, open DOS command window (cmd) and ping 192.168.5.163, then press Enter key. It will show message as below: which means network connection is normal.

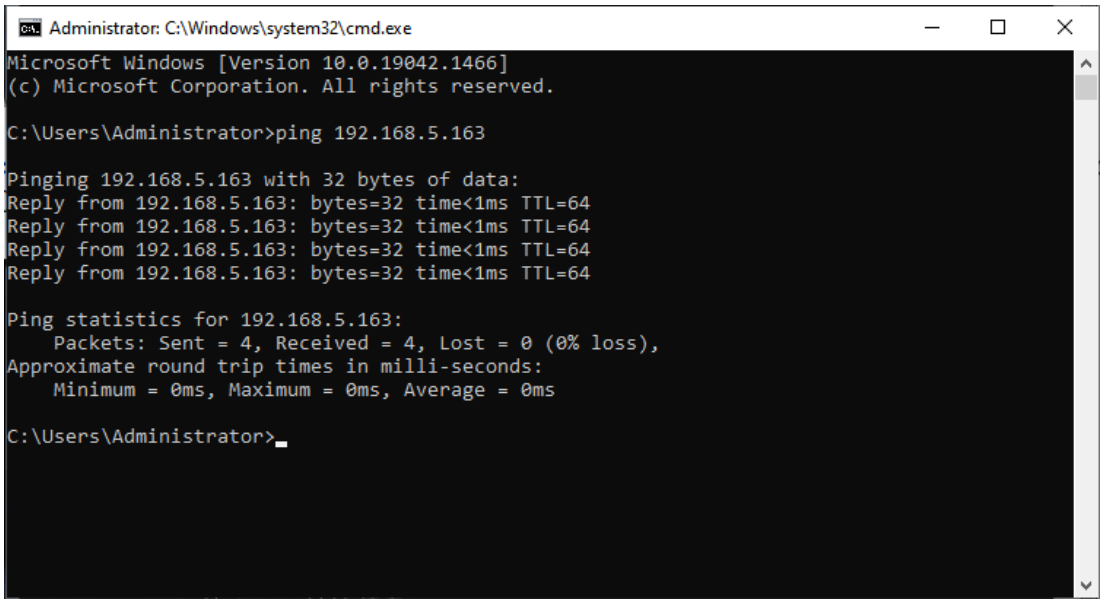


Figure 4-2 Network Connection Screenshot

Camera Web Interface

1) Web Login: Access Camera via IP (computer)

Prerequired: The camera and PC must be in the same Local Area Network (LAN). It required the first three segments of their IP addresses are identical, while the fourth segment is unique.

- Example: Camera current IP Address is: ***192.168.5.163***; PC IP Address must be in the range of: ***192.168.5.XXX*** (*where XXX is any number different from 2, but less than 255).*

Tips: The IP address of each device in this network must be unique.

After obtaining the IP address of the camera, you can reach the Web Interface by typing in the camera's IP address into a web browser. From the Web Interface, you can control the camera using the arrows on the left side. You can also adjust many of your camera's settings via this IP interface.

Note: Username: admin

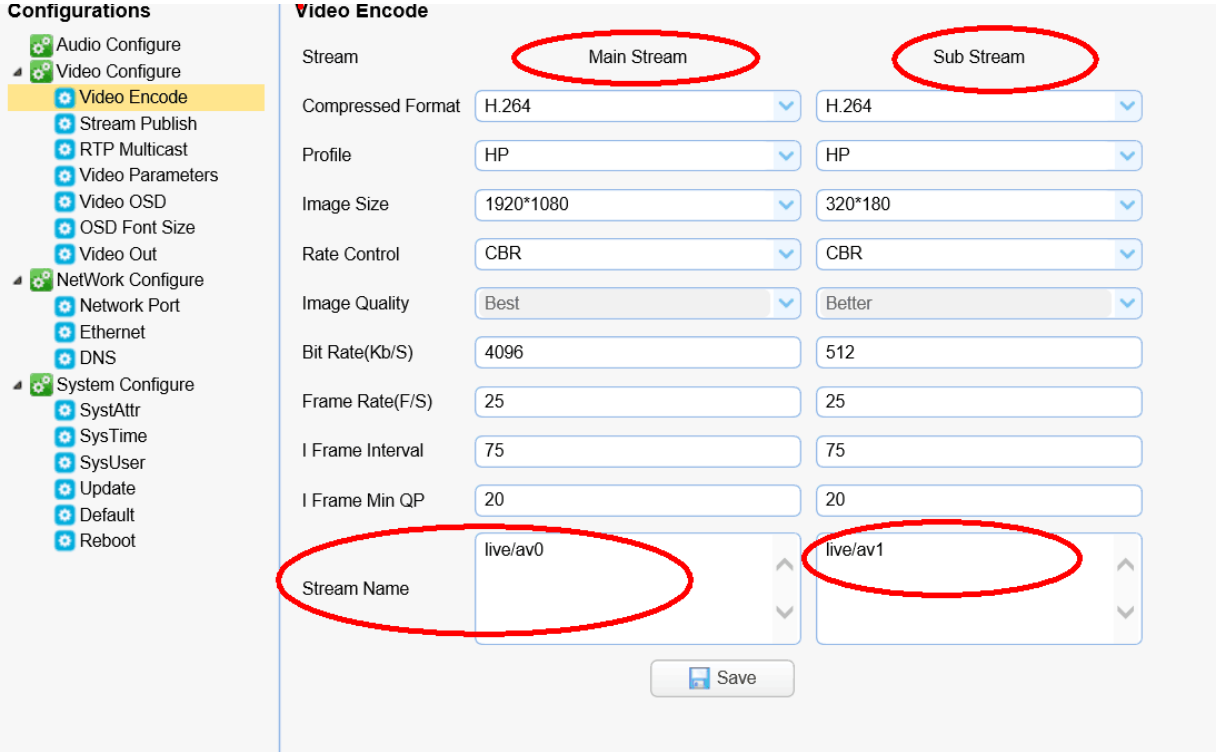
Password: admin

For more details on how to access camera web UI, welcome to visit us at [www.avipas.com-> support-> How to materials]

Streaming

1). Video Stream Capture

Configurations -> Video Configure-> Video Encode



Configure the parameters according to the network environment.

Note: stream name live/av0 (live/ XXX)

For example:

The default IP address of the camera is 192.168.5.163. The way to obtain the RTSP video stream is as below

rtsp://192.168.5.163:554/live/av0（av0 main stream）

rtsp://192.168.5.163:554/live/av1（av1 sub stream）

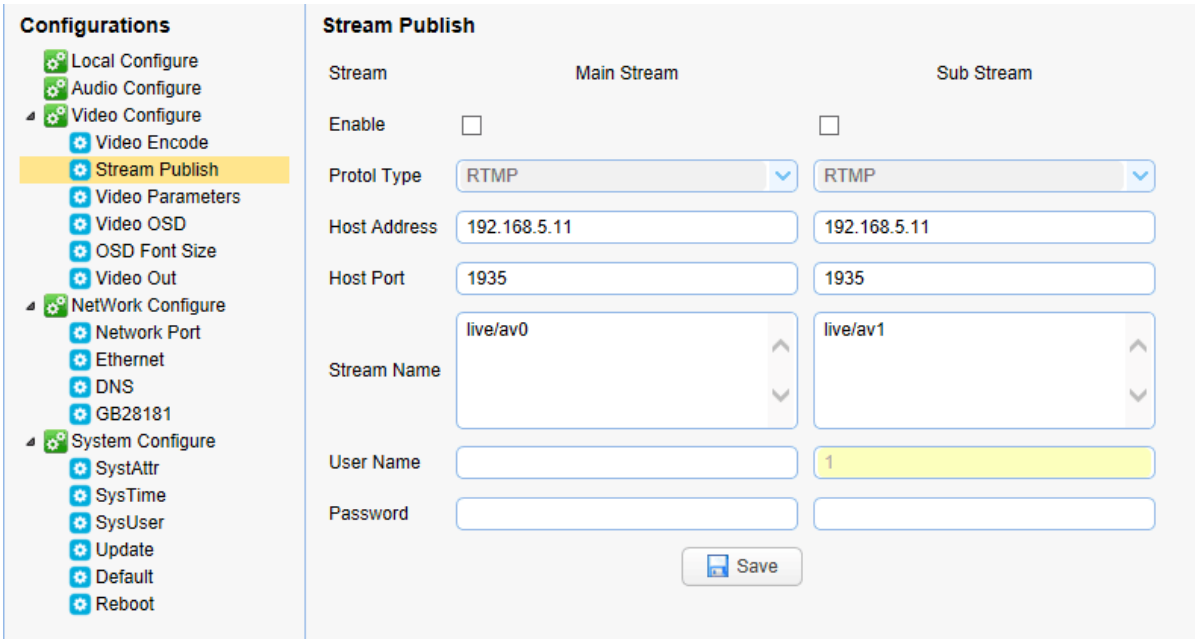
The default IP address of the camera is 192.168.5.163. the way to obtain RTMP video stream is as below

rtmp://192.168.5.163:1935/live/av0（av0 main stream）

rtmp://192.168.5.163:1935/live/av1（av1 sub stream）

2). Push Video Stream

Configurations -> Video Configure-> Stream Publish



Push RTMP stream to public network server, the stream camera must be on the public network, otherwise it will fail to connect to server.

Host address: server address, which can be either a domain name or an IP address

Host port: server default port number

Stream name: live/test (live/ XXX)

Username and password: the username and password set by the server, or leave it empty

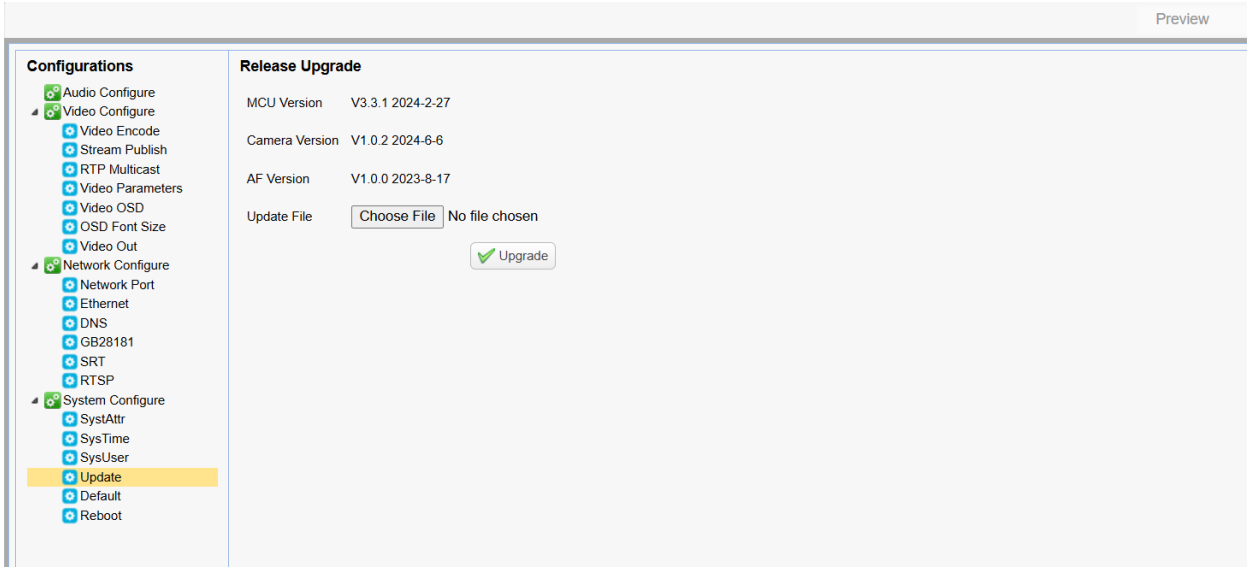
Access URL：rtmp://host domain name: host port/live/xxx

Or (rtmp://host IP address: host port/live/xxx)

Software Update

1). Log in to the web page and manage camera settings. The default page is [Preview] interface, where users cam PTZ control, record video, preset camera positions and etc.

2). Configurations -> System Configure-> Update



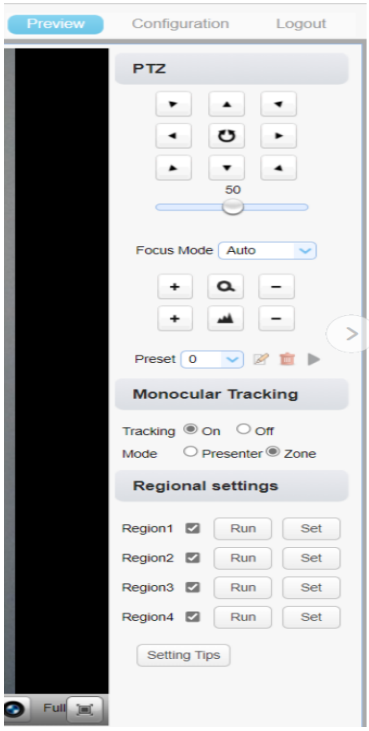
3). Click "choose File" to select “update file”, then click upgrade button to finish software updating.

4). Camera reboot after completion of firmware update. It prompts with "successful update".

Log in to check the firmware version to make sure software update successful.

Then click "restore factory default", reboot and restore parameters to factory default (default IP 192.168.5.163, user name: admin; password admin).

Webpage Configuration for AI Auto Tracking



1. After login, enter the preview interface: there are PTZ control, Focus mode, preset positions, and Auto tracking settings.

2. Turn on Tracking “Monocular Tracking”, and then select tracking mode to do auto tracking, two options: tracking Presenter or Zone tracking.

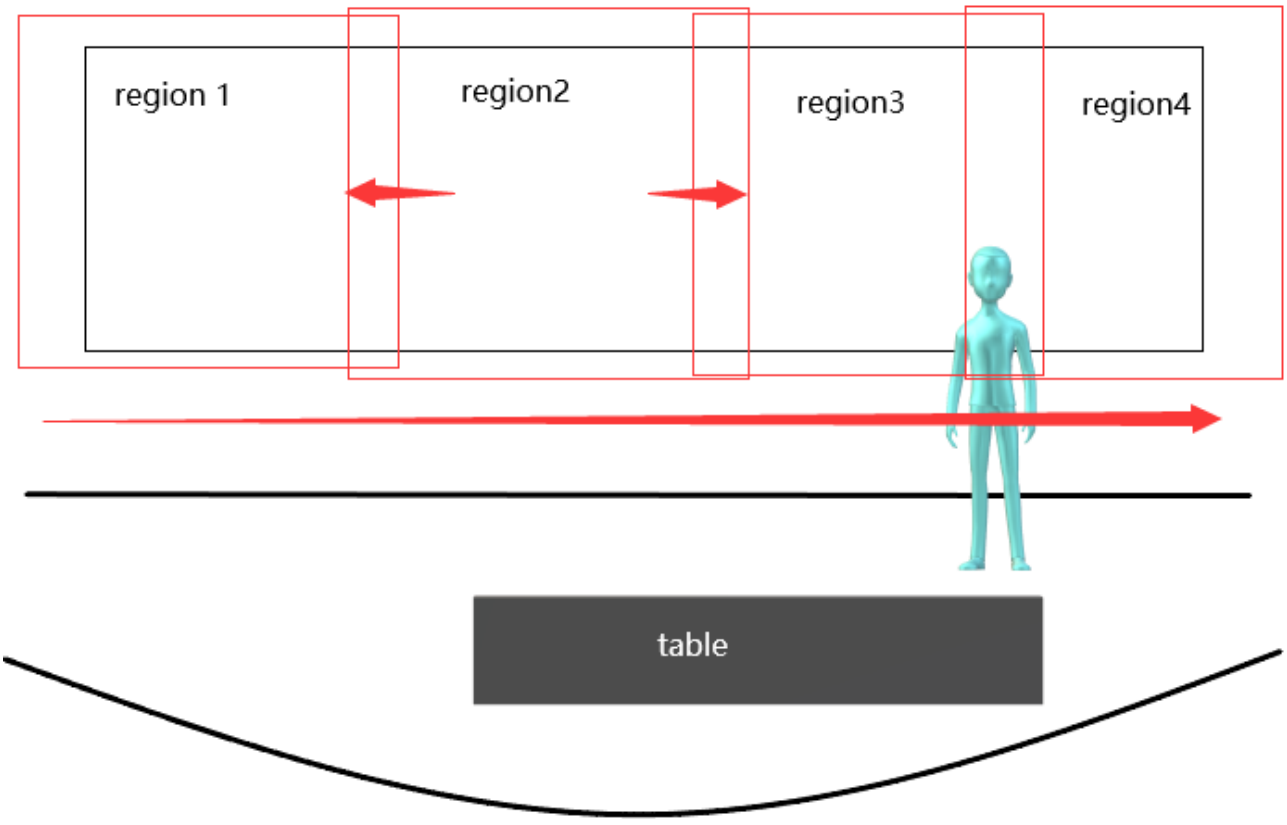
3. Regional Settings Steps (We take Region1 as an example):

- On the PTZ Area, adjust image by clicking direction buttons to select one region.
- After finishing region1 setting, click “Set” to complete the Region1 Tracking. Other region settings are same as region1 setting steps.
- You can set up 4 different regions, and minimum 2 regions. And the Regional Tracking settings can only be configured through the webpage.
- Call out the regional tracking: Click “Run” of corresponding region on the “Regional settings” area.

Note: When configuring Tracking regions (Zones), each preset's preview image must be arranged from left to right and should slightly overlap with the next zone. This ensures smooth subject detection and continuous tracking across adjacent regions.

After adjusting the current zone, select (tick) the next region number to save your current zone settings.

Repeat and continue setting up the remaining zones.



Serial Port Communication Port

In normal working state, you can control the camera through RS232/RS485 (VISCA IN) cable. The parameter of RS232 is as below:

Baud rate: 2400/4800/9600/115200/second

Start Bit：1 bit；

Data Bit：8 bit；

Stop Bit：1 bit；

Verification Bit：None.

After power on, the camera will have a brief tour and then back to the center position.

The zoom lens is pulled to the farthest position, and then pulled back, after that self-test is completed.

VISCA Protocol List

Ack/Completion Message		
	Command packet	**Remark**
ACK	z0 41 FF	Returned when the command is accepted.
Completion	z0 51 FF	Returned when the command has been executed.

z = device address + 8

Error Messages		
	Command packet	**Remark**
Syntax Error	z0 60 02 FF	Returned when the command format is different or when a command with illegal command parameters is accepted.
Command Buffer Full	z0 60 03 FF	Indicates that two sockets are already being used(executing two commands) and the command could not be accepted when received.
Command Canceled	z0 6y 04 FF(y: Socket No.)	Returned when a command which is being executed in a socket specified by the cancel command is canceled. The completion message for the command is not returned.
No Socket	z0 6y 05 FF(y: Socket No.)	Returned when no command is executed in a socket specifild by the cancel command, or when an invalid socket number is specified.
Command Not Executable	z0 6y 41 FF(y: Execution command Socket No. Inquiry command: 0)	Returned when a command canot be executed due to current conditions.For example, when commands controlling the focus manually are received during auto focus.

Camera Control Command

Command	**Function**	**Command Packet**	**Remark**
AddressSet	Broadcast	88 30 0p FF	p：Address setting
IF_Clear	Broadcast	88 01 00 01 FF	I/F Clear

Command	Function	Command Packet	Remark
CAM _Power	On	8x 01 04 00 02 FF	Power ON/OFF
	Off	8x 01 04 00 03 FF	
CAM_Zoom	Stop	8x 01 04 07 00 FF	
	Tele(Standard)	8x 01 04 07 02 FF	
	Wide(Standard)	8x 01 04 07 03 FF	
	Tele(Variable)	8x 01 04 07 2p FF	p = 0(low) - 7(high)
	Wide(Variable)	8x 01 04 07 3p FF	
	Direct	8x 01 04 47 0p 0q 0r 0s FF	pqrs: Zoom Position
CAM _Focus	Stop	8x 01 04 08 00 FF	
	Far(Standard)	8x 01 04 08 02 FF	
	Near(Standard)	8x 01 04 08 03 FF	
	Far(Variable)	8x 01 04 08 2p FF	p = 0(low) - 7(high)
	Near (Variable)	8x 01 04 08 3p FF	
	Direct	8x 01 04 48 0p 0q 0r 0s FF	pqrs: Focus Position
	Auto Focus	8x 01 04 38 02 FF	
	Manual Focus	8x 01 04 38 03 FF	
	One Push mode	8x 01 04 38 04 FF	
	One Push Triger	8x 01 04 18 01 FF	One Push Triger
CAM _Zoom Focus	Direct	8x 01 04 47 0p 0q 0r 0s 0t 0u 0v 0w FF	pqrs: Zoom Position tuvw: Focus Position
CAM_AF Sensitivity	High	8x 01 04 58 01 FF	Focus sensitivity Setting
	Normal	8x 01 04 58 02 FF	
	Low	8x 01 04 58 03 FF	
CAM_AF Zone	Top	8x 01 04 AA 00 FF	Focus Region Setting
	Center	8x 01 04 AA 01 FF	
	Bottom	8x 01 04 AA 02 FF	
	ALL	8x 01 04 AA 03 FF	
CAM_WB	Auto	8x 01 04 35 00 FF	
	3000K	8x 01 04 35 01 FF	
	4000k	8x 01 04 35 02 FF	
	One Push mode	8x 01 04 35 03 FF	
	5000k	8x 01 04 35 04 FF	
	Manual	8x 01 04 35 05 FF	
	6500k	8x 01 04 35 06 FF	
	3500K	8x 01 04 35 07 FF	
	4500K	8x 01 04 35 08 FF	
	5500K	8x 01 04 35 09 FF	
	6000K	8x 01 04 35 0A FF	
	7000K	8x 01 04 35 0B FF	
	One Push Trigger	8x 01 04 10 05 FF	One Push WB Trigger(Enabled during One Push WB mode)
	Low	8x 01 04 A9 00 FF	WB Sensitivity Setting

Command	Function	Command Packet	Remark
CAM_AWB Sensitivity	Normal	8x 01 04 A9 01 FF	
	High	8x 01 04 A9 02 FF	
CAM _RGain	Reset	8x 01 04 03 00 FF	Manual Control of R Gain
	Up	8x 01 04 03 02 FF	
	Down	8x 01 04 03 03 FF	
	Direct	8x 01 04 43 00 00 0p 0q FF	pq: R Gain
CAM_ Bgain	Reset	8x 01 04 04 00 FF	Manual Control of B Gain
	Up	8x 01 04 04 02 FF	
	Down	8x 01 04 04 03 FF	
	Direct	8x 01 04 44 00 00 0p 0q FF	pq: B Gain
CAM_AE	Full Auto	8x 01 04 39 00 FF	Automatic Exposure mode
	Manual	8x 01 04 39 03 FF	Manual Control mode
	Shutter priority	8x 01 04 39 0A FF	Shutter Priority Automatic Exposure mode
	Iris priority	8x 01 04 39 0B FF	Iris Priority Automatic Exposure mode
	Bright	8x 01 04 39 0D FF	Bright mode
CAM_Shutter	Reset	8x 01 04 0A 00 FF	Shutter Setting
	Up	8x 01 04 0A 02 FF	
	Down	8x 01 04 0A 03 FF	
	Direct	8x 01 04 4A 00 00 0p 0q FF	pq: Shutter Position
CAM_Iris (Reserved Function)	Reset	8x 01 04 0B 00 FF	Iris Setting
	Up	8x 01 04 0B 02 FF	
	Down	8x 01 04 0B 03 FF	
	Direct	8x 01 04 4B 00 00 0p 0q FF	pq: Iris Position
CAM_Gain Limit	Reset	8x 01 04 0C 00 FF	Gain Limit Setting
	Up	8x 01 04 0C 02 FF	
	Down	8x 01 04 0C 03 FF	
	Gain Limit	8x 01 04 2C 0p FF	p: Gain Positon
CAM_Bright	Reset	8x 01 04 0D 00 FF	Bright Setting
	Up	8x 01 04 0D 02 FF	
	Down	8x 01 04 0D 03 FF	
	Direct	8x 01 04 4D 00 00 0p 0q FF	pq: Bright Positon
CAM_ExpComp	On	8x 01 04 3E 02 FF	Exposure Compensation ON/OFF
	Off	8x 01 04 3E 03 FF	
	Reset	8x 01 04 0E 00 FF	Exposure Compensation Amount Setting
	Up	8x 01 04 0E 02 FF	
	Down	8x 01 04 0E 03 FF	

Command	Function	Command Packet	Remark
	Direct	8x 01 04 4E 00 00 0p 0q FF	pq: ExpComp Position
CAM_Back Light	On	8x 01 04 33 02 FF	Back Light Compensation
	Off	8x 01 04 33 03 FF	
CAM_WDRStrength	Reset	8x 01 04 21 00 FF	WDR Level Setting
	Up	8x 01 04 21 02 FF	
	Down	8x 01 04 21 03 FF	
	Direct	8x 01 04 51 00 00 00 0p FF	p: WDR Level Positon
CAM_NR	2D	8x 01 04 53 0p FF	P=0-7 0:OFF
	3D	8x 01 04 54 0p FF	P=0-8 0:OFF
CAM_Gamma		8x 01 04 5B 0p FF	p = 0 – 4 0：Default 1：0.45 2：0.50 3：0.55 4：0.63
CAM_Low-Light Mode	ON	8x 01 04 2D 01 FF	Low-Light Mode Setting
	OFF	8x 01 04 2D 00 FF	
CAM_Gain		8x 01 04 4C 00 00 0p 0q FF	pq：0-20
CAM PresetSpeed		8x 01 01 0p FF	p：1-10
CAM_Flicker	OFF	8x 01 04 23 00 FF	OFF
	50HZ	8x 01 04 23 01 FF	50HZ
	60HZ	8x 01 04 23 02 FF	60HZ
CAM_Aperture(Reserved Function)	Reset	8x 01 04 02 00 FF	Aperture Control
	Up	8x 01 04 02 02 FF	
	Down	8x 01 04 02 03 FF	
	Direct	8x 01 04 42 00 00 0p 0q FF	pq: Aperture Gain
CAM_Picture effect	B&W-Mode	8x 01 04 63 04 FF	Picture effect Setting
	OFF	8x 01 04 63 00 FF	
CAM_Memory	Reset	8x 01 04 3F 00 pq FF	pq: Memory Number(=0 to 254) Corresponds to 0 to 9 on the Remote Commander
	Set	8x 01 04 3F 01 pq FF	
	Recall	8x 01 04 3F 02 pq FF	
CAM_LR_Reverse	On	8x 01 04 61 02 FF	Image Flip Horizontal ON/OFF
	Off	8x 01 04 61 03 FF	
CAM_PictureFlip	On	8x 01 04 66 02 FF	Image Flip Vertical ON/OFF
	Off	8x 01 04 66 03 FF	
CAM_ColorSaturation	Direct	8x 01 04 49 00 00 00 0p FF	P=0-E 0:60% 1:70% 2:80% 3:90% 4:100% 5:110% 6:120% 7:130% 8:140% 9:150% 10:160% 11:160% 12:180% 13:190% 14:200%

Command	Function	Command Packet	Remark
CAM_IDWrite		8x 01 04 22 0p 0q 0r 0s FF	pqrs: Camera ID (=0000 to FFFF)
SYS_Menu (Reserved Function)	ON	8x 01 04 06 06 02 FF	Turn on the menu screen
	OFF	8x 01 04 06 06 03 FF	Turn off the menu screen
IR_Receive	ON	8x 01 06 08 02 FF	IR(remote commander)receive On/Off
	OFF	8x 01 06 08 03 FF	
CAM_Setting Reset	Reset	8x 01 04 A0 10 FF	Reset Factory Setting
CAM_Brightness	Direct	8x 01 04 A1 00 00 0p 0q FF	pq: Brightness Position
CAM_Contrast	Direct	8x 01 04 A2 00 00 0p 0q FF	pq: Contrast Position
CAM_Flip	OFF	8x 01 04 A4 00 FF	Single Command For Video Flip
	Flip-H	8x 01 04 A4 01 FF	
	Flip-V	8x 01 04 A4 02 FF	
	Flip-HV	8x 01 04 A4 03 FF	
CAM_VideoSystem	Set Camera video system	8x 01 06 35 00 0p FF	P: 0~E Video format
Pan_tiltDrive	Up	8x 01 06 01 VV WW 03 01 FF	VV: Pan speed 0x01 (low speed) to 0x18 (high speed) WW: Tilt speed 0x01 (low speed) to 0x14 (high speed) YYYY: Pan Position ZZZZ: Tilt Position
	Down	8x 01 06 01 VV WW 03 02 FF	
	Left	8x 01 06 01 VV WW 01 03 FF	
	Right	8x 01 06 01 VV WW 02 03 FF	
	Upleft	8x 01 06 01 VV WW 01 01 FF	
	Upright	8x 01 06 01 VV WW 02 01 FF	
	DownLeft	8x 01 06 01 VV WW 01 02 FF	
	DownRight	8x 01 06 01 VV WW 02 02 FF	
	Stop	8x 01 06 01 VV WW 03 03 FF	
	AbsolutePosition	8x 01 06 02 VV WW 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	
	RelativePosition	8x 01 06 03 VV WW 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	

Command	Function	Command Packet	Remark
	Home	8x 01 06 04 FF	
	Reset	8x 01 06 05 FF	
Pan-tiltLimitSet	Set	8x 01 06 07 00 0W 0Y 0Y 0Y 0Y 0Z 0Z 0Z 0Z FF	W:1 UpRight 0:DownLeft YYYY: Pan Limit Position(TBD) ZZZZ: Tilt Limit Position(TBD)
	Clear	8x 01 06 07 01 0W 07 0F 0F 0F 07 0F 0F 0F FF	
Tracking	Tracking OFF	81 0A 01 32 00 00 03 00 FF	Tracking OFF/ON
	Tracking ON	81 0A 01 32 00 00 02 00 FF	
	Real time tracking mode	81 0A 01 32 00 00 02 00 FF	
	zone tracking mode	81 0A 01 32 00 00 02 01 FF	

Inquiry Command

Command	Command Packet	Return Packet	Remark
CAM_PowerInq	8x 09 04 00 FF	y0 50 02 FF	On
		y0 50 03 FF	Off(Standby)
CAM_ZoomPosInq	8x 09 04 47 FF	y0 50 0p 0q 0r 0s FF	pqrs: Zoom Position
CAM_FocusAFModeInq	8x 09 04 38 FF	y0 50 02 FF	Auto Focus
		y0 50 03 FF	Manual Focus
		y0 50 04 FF	One Push mode
CAM_FocusPosInq	8x 09 04 48 FF	y0 50 0p 0q 0r 0s FF	pqrs: Focus Position
CAM_AFSensitivityInq	8x 09 04 58 FF	y0 50 01 FF	High
		y0 50 02 FF	Normal
		y0 50 03 FF	Low
CAM_AFZoneInq	8x 09 04 AA FF	y0 50 00 FF	Front
		y0 50 02 FF	Meeting
		y0 50 04 FF	Moving
		y0 50 05 FF	Middle
CAM_WBModeInq	8x 09 04 35 FF	y0 50 00 FF	Auto
		y0 50 01 FF	3000K
		y0 50 02 FF	4000K
		y0 50 03 FF	One Push Mode
		y0 50 04 FF	5000K
		y0 50 05 FF	Manual
		y0 50 00 FF	6500K
		y0 50 06 FF	6500K

Command	Command Packet	Return Packet	Remark
		y0 50 07 FF	3500K
		y0 50 08 FF	4500K
		y0 50 09 FF	5500K
		y0 50 0A FF	6000K
		y0 50 0B FF	7000K
CAM_AWBSensitivityInq	8x 09 04 A9 FF	y0 50 00 FF	Low
		y0 50 01 FF	Normal
		y0 50 02 FF	High
CAM_RGainInq	8x 09 04 43 FF	y0 50 00 00 0p 0q FF	pq: R Gain
CAM_BGainInq	8x 09 04 44 FF	y0 50 00 00 0p 0q FF	pq: B Gain
CAM_AEModeInq	8x 09 04 39 FF	y0 50 00 FF	Full Auto
		y0 50 03 FF	Manual
		y0 50 0A FF	Shutter priority
		y0 50 0B FF	Iris priority
		y0 50 0D FF	Bright
CAM_ShutterPosInq	8x 09 04 4A FF	y0 50 00 00 0p 0q FF	pq: Shutter Position
CAM_IrisPosInq	8x 09 04 4B FF	y0 50 00 00 0p 0q FF	pq: Iris Position
CAM_Gain LimitInq	8x 09 04 2C FF	y0 50 0p FF	p: Gain Positon
CAM_ BrightPosiInq	8x 09 04 4D FF	y0 50 00 00 0p 0q FF	pq: Bright Position
CAM_ExpCompModeInq	8x 09 04 3E FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_ExpCompPosInq	8x 09 04 4E FF	y0 50 00 00 0p 0q FF	pq: ExpComp Position
CAM_BacklightModeInq	8x 09 04 33 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_WDRStrengthInq	8x 09 04 51 FF	y0 50 00 00 00 0p FF	p: WDR Strength
CAM_NRLevel(2D)Inq	8x 09 04 53 FF	y0 50 0p FF	P: 2DNRLevel
CAM_NRLevel(3D)Inq	8x 09 04 54 FF	y0 50 0p FF	P:3D NRLevel
CAM_FlickerModelnq	8x 09 04 55 FF	y0 50 0p FF	p: Flicker Settings(0: OFF, 1: 50Hz, 2:60Hz)
CAM_ApertureInq	8x 09 04 42 FF	y0 50 00 00 0p 0q FF	pq: Aperture Gain
CAM_PictureEffectModeInq	8x 09 04 63 FF	y0 50 00 FF	Off
		y0 50 04 FF	B&W
CAM_MemoryInq	8x 09 04 3F FF	y0 50 0p FF	p: Memory number last operated.
SYS_MenuModeInq	8x 09 06 06 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_LR_Reverselnq	8x 09 04 61 FF	y0 50 02 FF	On
		y0 50 03 FF	Off

Command	Command Packet	Return Packet	Remark
CAM_PictureFlipInq	8x 09 04 66 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_ColorSaturationInq	8x 09 04 49 FF	y0 50 00 00 00 0p FF	p: Color Gain setting 0h (60%) to Eh (130%)
CAM_IDInq	8x 09 04 22 FF	y0 50 0p FF	p: Camera ID
IR_ReceiveInq	8x 09 06 08 FF	y0 50 02 FF	On
		y0 50 03 FF	Off
CAM_BrightnessInq	8x 09 04 A1 FF	y0 50 00 00 0p 0q FF	pq: Brightness Position
CAM_ContrastInq	8x 09 04 A2 FF	y0 50 00 00 0p 0q FF	pq: Contrast Position
CAM_FlipInq	8x 09 04 A4 FF	y0 50 00 FF	Off
		y0 50 01 FF	Flip-H
		y0 50 02 FF	Flip-V
		y0 50 03 FF	Flip-HV
CAM_GammaInq	8x 09 04 5B FF	y0 50 0p FF	p: Gamma setting
CAM_VersionInq	8x 09 00 02 FF	y0 50 ab cd mn pq rs tu vw FF	ab cd : vender ID (0220) mn pq : model ID rs tu：ARM Version vw：reserve
VideoSystemInq	8x 09 06 23 FF	y0 50 0p FF	P: 0~E Video format 0:1080P60 1:1080P50 2:1080i60 3:1080i50 4:1080P30 5:1080P25 6:720P60 7:720P50 8：1080P59.94 9：1080i59.94 A：1080P29.97 B：720P59.9
Pan-tiltMaxSpeedInq	8x 09 06 11 FF	y0 50 ww zz FF	ww: Pan Max Speed zz: Tilt Max Speed
Pan-tiltPosInq	8x 09 06 12 FF	y0 50 0w 0w 0w 0w 0z 0z 0z 0z FF	wwww: Pan Position zzzz: Tilt Position

Pelco-D Protocol Command List

Function	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
Up	0xFF	Address	0x00	0x08	Pan Speed	Tilt Speed	SUM
Down	0xFF	Address	0x00	0x10	Pan Speed	Tilt Speed	SUM
Left	0xFF	Address	0x00	0x04	Pan Speed	Tilt Speed	SUM
Right	0xFF	Address	0x00	0x02	Pan Speed	Tilt Speed	SUM

Function	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
Upleft	0xFF	Address	0x00	0x0C	Pan Speed	Tilt Speed	SUM
Upright	0xFF	Address	0x00	0x0A	Pan Speed	Tilt Speed	SUM
DownLeft	0xFF	Address	0x00	0x14	Pan Speed	Tilt Speed	SUM
DownRight	0xFF	Address	0x00	0x12	Pan Speed	Tilt Speed	SUM
Zoom In	0xFF	Address	0x00	0x20	0x00	0x00	SUM
Zoom Out	0xFF	Address	0x00	0x40	0x00	0x00	SUM
Focus Far	0xFF	Address	0x00	0x80	0x00	0x00	SUM
Focus Near	0xFF	Address	0x01	0x00	0x00	0x00	SUM
Stop	0xFF	Address	0x00	0x00	0x00	0x00	SUM
Set Preset	0xFF	Address	0x00	0x03	0x00	Preset ID	SUM
Clear Preset	0xFF	Address	0x00	0x05	0x00	Preset ID	SUM
Call Preset	0xFF	Address	0x00	0x07	0x00	Preset ID	SUM
Query Pan Position(Reserved Function)	0xFF	Address	0x00	0x51	0x00	0x00	SUM
Query Pan Position Response(Reserved Function)	0xFF	Address	0x00	0x59	Value High Byte	Value Low Byte	SUM
Query Tilt Position(Reserved Function)	0xFF	Address	0x00	0x53	0x00	0x00	SUM
Query Tilt Position Response(Reserved Function)	0xFF	Address	0x00	0x5B	Value High Byte	Value Low Byte	SUM
Query Zoom Position(Reserved Function)	0xFF	Address	0x00	0x55	0x00	0x00	SUM
Query Zoom Position Response(Reserved Function)	0xFF	Address	0x00	0x5D	Value High Byte	Value Low Byte	SUM

Pelco-P Protocol Command List

Function	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7	Byte8
Up	0xA0	Address	0x00	0x08	Pan Speed	Tilt Speed	0xAF	XOR
Down	0xA0	Address	0x00	0x10	Pan Speed	Tilt Speed	0xAF	XOR
Left	0xA0	Address	0x00	0x04	Pan Speed	Tilt Speed	0xAF	XOR
Right	0xA0	Address	0x00	0x02	Pan Speed	Tilt Speed	0xAF	XOR
Upleft	0xA0	Address	0x00	0x0C	Pan Speed	Tilt Speed	0xAF	XOR

Upright	0xA0	Address	0x00	0x0A	Pan Speed	Tilt Speed	0xAF	XOR
DownLeft	0xA0	Address	0x00	0x14	Pan Speed	Tilt Speed	0xAF	XOR
DownRight	0xA0	Address	0x00	0x12	Pan Speed	Tilt Speed	0xAF	XOR
Zoom In	0xA0	Address	0x00	0x20	0x00	0x00	0xAF	XOR
Zoom Out	0xA0	Address	0x00	0x40	0x00	0x00	0xAF	XOR
Stop	0xA0	Address	0x00	0x00	0x00	0x00	0xAF	XOR
Focus Far	0xA0	Address	0x01	0x00	0x00	0x00	0xAF	XOR
Focus Near	0xA0	Address	0x02	0x00	0x00	0x00	0xAF	XOR
Set Preset	0xA0	Address	0x00	0x03	0x00	Preset ID	0xAF	XOR
Clear Preset	0xA0	Address	0x00	0x05	0x00	Preset ID	0xAF	XOR
Call Preset	0xA0	Address	0x00	0x07	0x00	Preset ID	0xAF	XOR
Query Pan Position (Reserved Function)	0xA0	Address	0x00	0x51	0x00	0x00	0xAF	XOR
Query Pan Position Response (Reserved Function)	0xA0	Address	0x00	0x59	Value High Byte	Value Low Byte	0xAF	XOR
Query Tilt Position (Reserved Function)	0xA0	Address	0x00	0x53	0x00	0x00	0xAF	XOR
Query Tilt Position Response (Reserved Function)	0xA0	Address	0x00	0x5B	Value High Byte	Value Low Byte	0xAF	XOR
Query Zoom Position (Reserved Function)	0xA0	Address	0x00	0x55	0x00	0x00	0xAF	XOR
Query Zoom Position Response (Reserved Function)	0xA0	Address	0x00	0x5D	Value High Byte	Value Low Byte	0xAF	XOR

Maintenance and Troubleshooting

Maintenance

1. Please turn off the camera and disconnect the power adapter whenever the camera is not in use.
2. Use soft cloth or tissue to clean the camera cover. Wipe it with soft, dry cloth when cleaning the camera lens. Wipe it gently with a mild detergent if needed. Do not use strong or corrosive detergents to avoid scratching the lens and affecting the video quality.

Troubleshooting

1. **No video feed on display**
   - Check Power Supply: Ensure the camera's power supply is connected and the power indicator light on the camera is solid blue.
   - Check if the camera can perform self-check (move the lens for the entire range) when powered on.
   - Check Video Connections: Ensure that all video cables (HDMI, SDI, or whichever you are using) are securely connected to both the camera and the display.
   - Check the Input Selection display: if the "Input" on display set to the correct input
   - Check Video Format: check video format from camera that compatible with the video format on display.

2. **IR Remote control does not work**
   - Ensure the remote control address is set to 1. If the camera is reset to factory defaults, the remote control address must also be set to 1**.**
   - Check the battery, make sure it has enough capacity.
   - Verify the menu setting. Camera control via IR remote is only available after exiting the menu. Note: If video outputs via LAN, menu will not be displayed on screen. The camera menu will automatically close after 30sec.

3. **Serial port does not work**
   - Check the camera serial device protocol, baud rate and address (camera ID), make sure they are consistent with controller's settings.
   - Check the serial cable, make sure it is connected properly.

4. **Web pages cannot log in**
   - Ensure the network cable is properly connected. The Ethernet port indicator light should be flashi ng yellow
   - Check if the computer is set to the same local network segment that consists of the IP address of the camera. For details, please refer to: avipas.com-> SUPPORT -> HOW TO MATERIALS -> "Access camera via IP."

5. **Can not see image preview under Web UI**
    - Clear browser cache or try different browsers, or different computers.
    - Restart camera, turn it off, then turn it on.
    - Make sure camera's firmware is up to date.
    - Reset camera back to factory default.

Warranty and Support

Warranty

Thank you for your interest in the products of AVIPAS Inc.

This Limited Warranty applies to UHD Conference Camera purchased from AVIPAS Inc.

This Limited Warranty covers any defect in material and workmanship under normal use within the Warranty Period. AVIPAS Inc. will repair or replace the qualified products at no charge.

AVIPAS Inc. provides a **two (2)-year** warranty (from the date of purchase) for this UHD Conference Camera.

This Limited Warranty does not cover problems including but not limited to improper handling, malfunction or damage not resulting from defects in material.

To receive warranty service, please contact AVIPAS Inc. first. We will decide whether a repair or replacement is needed and will advise you of the cost of such repair or replacement.

Support

For more help, please visit our website: avipas.com for technical support, FAQs and more knowledge-based information about how to better use our camera. Visit us at www.avipas.com or contact service@avipas.com

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