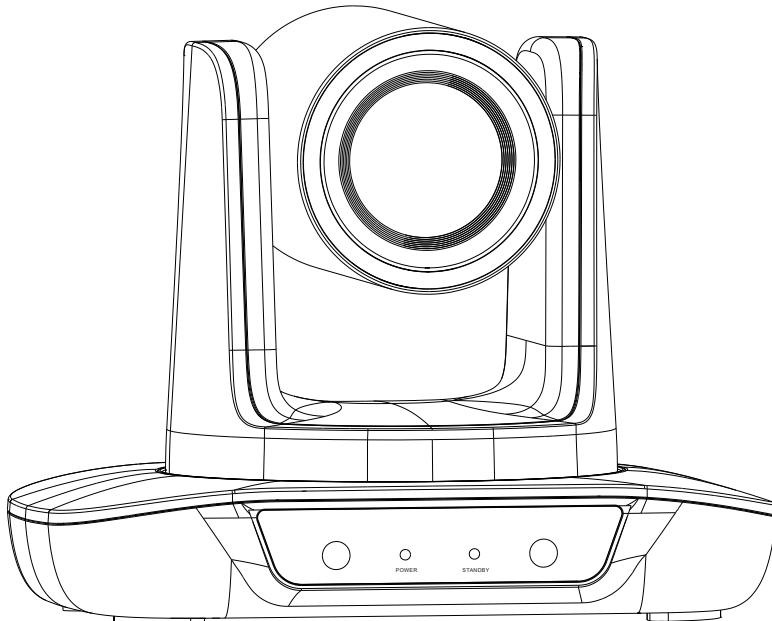


# PTZ Video Camera

## User Manual



Version V1.0U

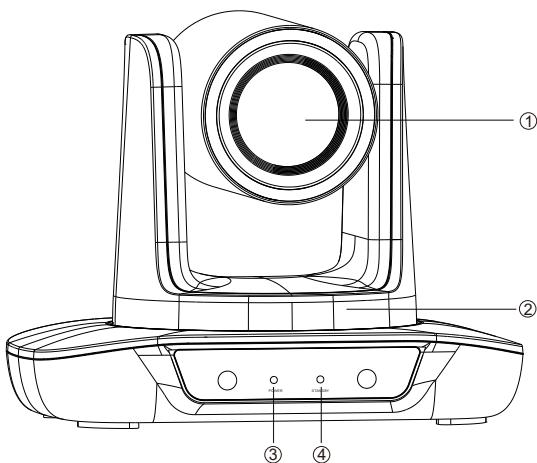


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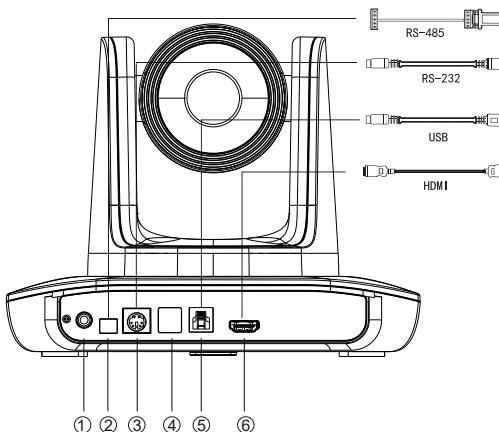
## 1. Product Description

### 1.1 Front



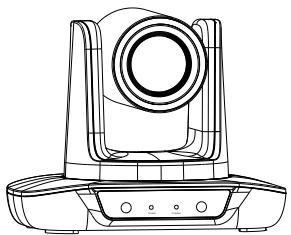
- ① Lens
- ② Pan & Tilt
- ③ Power
- ④ Standby

### 1.2 Back



- ① DC 12V
- ② RS-485
- ③ RS-232
- ④ IR Receiver
- ⑤ USB
- ⑥ HDMI

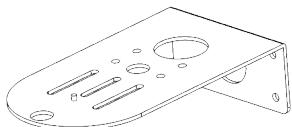
## 2. Packing List



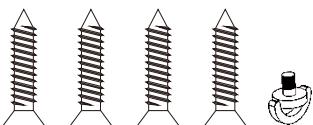
HD conference camera



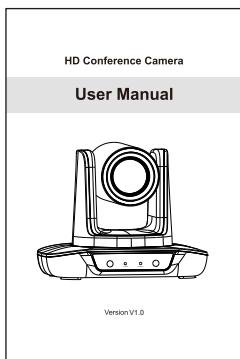
DC 12V power supply



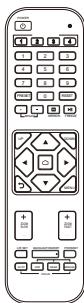
Wall mount



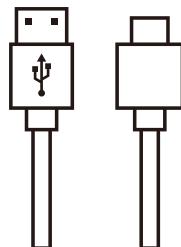
Mounting screws



User manual



Remote control

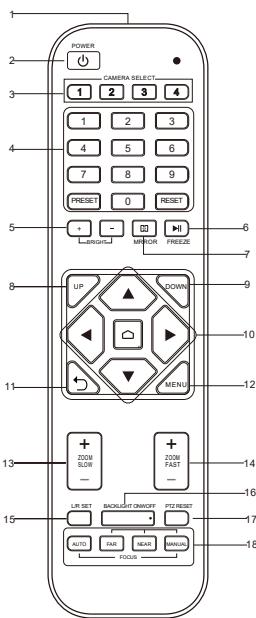


USB cable

### 3. Performance Characteristics

Model No.	1080P 3X Zoom	1080P 10X Zoom	1080P 12X Zoom	1080P 20X Zoom	4K 12X Zoom		
Sensor	1/2.8"SONY CMOS			1/2.8"SONY CMOS			
Effective Pixels	2.38 mega pixel			8.29 mega pixel			
Video Signals	1080p@60/50/30/25fps, 720p@60/50/30/25fps			4K@30/25fps, 1080p@60/50/30/25fps, 720p@60/50/30/25fps			
Zoom	3x optical zoom	10x optical zoom	12x optical zoom	20x optical zoom	12x optical zoom		
Lens	f=2.38-7mm	f=5.76-46.09mm	f=3.42-40.02mm	f=5.9-94.4mm	f=3.42-40.02mm		
Aperture	F1.96-3.64	F1.8-2.6	F1.88-3.77	F1.8-3.9	F1.88-3.77		
Horizontal Angle	103.69°(W)-42.12°(T)	54.7°(W)-6.8°(T)	80.56°(W)-7.89°(T)	52.1°(W)-3.4°(T)	80.56°(W)-7.89°(T)		
Vertical Angle	67.14°(W)-24.87°(T)	30.8°(W)-3.8°(T)	49.61°(W)-4.46°(T)	29.3°(W)-1.9°(T)	49.61°(W)-4.46°(T)		
Diagonal Angle	113.91°(W)-47.55°(T)	62.8°(W)-7.8°(T)	89.51°(W)-9.04°(T)	59.8°(W)-3.9°(T)	89.51°(W)-9.04°(T)		
Video Output	USB3.0, HDMI			USB3.0, HDMI			
LAN	/			/			
Network Protocol	/			/			
Video Encoding Format	H.264, H.265, MJPG, YUY2			H.264, H.265, MJPG, YUY2			
Video Resolution	1080P (1920 *1080) etc			4K (3840*2160) etc			
Signal Standard	NTSC/PAL						
Preset Position	User can set up to 255 presets (10 presets by IR remote)						
Control Interface	RS-232 (input only), RS-485, USB						
Shutter	1/30s-1/10000s, auto						
Baud Rate	2400/4800/9600/38400bps						
Control Protocol	VISCA, PELCO-D, PELCO-P(RS-232, RS-485)						
USB Protocol	UVC1.1						
Minimal Illumination	0.1Lux						
SNR	≥50dB						
Horizontal Rotation	350° (±175°) 0.1°/s ~ 100°/s						
Vertical Rotation	180° (±90°) 0.1°/s ~ 80°/s						
Power Supply	DC 12V/2A						
Power Consumption	12W						
Work Temperature	0°~+50°						
Work Humidity	0~95% RH						
Product Size	247.1*152*169.6mm/285*217*197mm(before / after packing)						
Product Weight	1.37kg/2.45kg (net / gross weight)						

## 4. Remote Control Button Description



No	Name	Function
1	Lunch Window	Remote control launch window
2	Power Key	Enter into standby mode by pressing it
3	Camera Select Key	Select the camera need to control
4	Preset Position	Preset position setup keys, include 【PRESET】 and 【RESET】 Set the preset position Reset the preset position
5	Brightness	Increase or decrease video brightness
6	Screen Freeze	Turn on or turn off Screen Freeze
7	Mirror	Turn on the video (left and right) mirror
8	Up	Camera rotates horizontally in regular installed direction
9	Down	Camera rotates horizontally in reversed installed direction
10	PTZ Control Key	PTZ move according to the arrow indicates. Press □ PTZ will return to the middle position
11	Return Key	Return to the previous operation
12	Menu	Enter or exit OSD Menu after pressed it
13	ZOOM Slow Key	Zoom in + or out - slowly
14	ZOOM Fast key	Zoom in + or out - quickly
15	L/R Set Key	Long press 10 Seconds to switch the left and right directions
16	Backlight KEY	Turn on/off backlight compensation
17	PTZ Reset Key	The camera returns to its original position
18	Auto Focus	Auto/far/near/manual Default: Auto focus

### ★Attentions for Remote Control

1. Please check whether the indicator corresponding to the camera selection area is on or not.
2. If the remote control doesn't work, please replace batteries.
3. Make sure the Number keys on the camera selection area are consistent with the remote control address in the menu.

## 5. Camera Menu Setup

When operating remote control, press **【MENU】** to enter main menu of the video camera.

### 5.1 Level 1 Menu - Main Menu

Main Menu	
→ Exposure	
Color	
Image	
P/T/Z	
Communication	
Information	
Restore Default	
Language	English
 [Home]	Enter
[Menu]	Back

Language: Support Chinese/English

Click the Home button on the Remote to enter level 2 sub-menu

Click the Menu button on the Remote to exit menu

### 5.2 Level 2 Menu - Exposure

Exposure	
→ Mode	Auto
Backlight	On/Off
ExpComp	0
Flicker	50Hz
[Return]	

Mode: Auto/Manual

Backlight: On/Off the backlight

ExpComp: Exposure compensation, optional item is 0 to 15

Flicker: Support 50Hz/60Hz

When changing the exposure mode to Manual, the sub-menu is as follows,

### Exposure

→ Mode	Manual
Iris	F1.6
Shutter	1/60
Gain	0
Flicker	50Hz
[Return]	

Iris: F No. Setting, the value should be

F1.6/F2.0/F2.4/F2.8/F3.4/F4.0/F4.8/F5.6/F6.8/F8.0/F9.6(Suitable for 10x and 12x Zoom PTZ Camera)

Shutter: Shutter value setting, the value is between 1/100000 and 1/25

Gain: Exposure Gain Setting, optional item is 0 to 99

Flicker: Off/50HZ/60HZ

### 5.3 Level 2 Menu - Color

#### Color

→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	Auto
Rtuning	50
Btuning	50
[Return]	

Brightness: Set image brightness dynamically. Default 50, optional item is 0-99

Contrast: Set image contrast dynamically. Default 50, optional item is 0-99

Hue: Set the relative brightness of the image. Default 50, optional item is 0-99

Saturation: Set image color effect. Default 50, optional item is 0-99

Sharpness: Set sharpness level. Default 50, optional item is 0-99

WB mode: Auto/Manual/VAR

When the WB mode is Auto, the Rtuning and Btuning value can be tuned and the range is 0 to 99

When the WB mode is Manual, the sub-menu will be the following:

Color	
Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
→ WB Mode	Manual
Rtuning	50
Btuning	50
Rgain	50
Bgain	50
[Return]	

In manual WB mode, the above values can be adjusted. The Rgain and Bgain value can be tuned, the range is 0 to 99. When the WB mode is VAR, the sub-menu will be the following:

Color	
→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	VAR
Color Temp	5500
Rtuning	50
Btuning	50
[Return]	

The range for the color temp can be adjusted between 2500K to 9000K.

## 5.4 Level 2 Menu - Image

Image	
→ Flip	Off
Mirror	Off
Video Format	1080P60
Menu Mirror	Off
USB Mode	ISOC
Style	Normal
[Return]	

Flip: Off/On, Enable/disable the picture up/down

Mirror: Off/On, Enable/disable the picture left/right flip

Video Format: 1080P60/1080P50/1080P30/1080P25

720P60/720P50/720P30/720P25

Menu Mirror: Off/On, Enable/disable the menu picture left/right flip

Mode: ISOC/BULK

USB mode: Adjust between Isochronous transfers mode

and Bulktransfers mode. Style Mode: Normal, PC, Bright

## 5.5 Video Format

1080P supports video formats as follows:

Video Format	
→ 1080P60	
1080P50	
1080P30	
1080P25	
720P60	
720P50	
720P30	
720P25	

4K supports video formats as follows:

Video Format
4KP30
4KP25
→ 1080P60
1080P50
1080P30
1080P25
720P60
720P50
720P30
720P25

## 5.6 Level 2 Menu P/T/Z

P/T/Z
→ Acc Curve
Middle
[Return]

Acc Curve: Adjust the rotation speed of the Pan and Tilt, Fast/Middle/Slow,

## 5.7 Level 2 Menu-Communication

Communication	
Protocol	Auto
Baudrate	9600
RC Address	2
→ [Return]	

Protocol: Default Visca, option item Visca/PELCO-D/PELCO-P/Auto

Address: Set the camera's address, option item 1-7 in Visca,

1-255 in PELCO-D, 1-32 in PELCO-P

Baudrate: Default 9600, option item 2400/4800/9600/38400

RC Address: Set the IR remote control's address to control the corresponding camera, option item ALL/1/2/3/4

## 5.8 Level 2 Menu-Information

Information	
Model	UHD Camera
Version	1.0.1.0
	2023-08-21
→ [Return]	

Model: UHD Camera (FHD for 1080P Camera and UHD for 4K Camera)

Version: 1.0.1.0

Date:2023-08-21

Notice:The version number here is just an example,  
the actual parameters shall prevail.

Restore Default	
Restore?	NO/YES
→ [Return]	

Restore: No/Yes, before you Exit the Menu,  
please choose restore all settings on the menu or not.

## 6. Common Operation Instructions

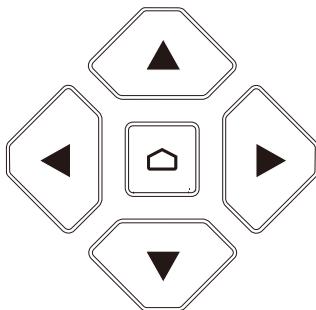
### 6.1 Camera Select

Set the IR remote control's address to control the corresponding camera, option item 1/2/3/4



### 6.2 Camera Direction Control

- ▲ Turning up
- ▼ Turning down
- ◀ Turning left
- ▶ Turning right
- ⌂ Turning to default



Note: Press the direction key when you need to adjust the angle. If you want to move the camera slowly, just click the direction key; If you want to move the camera fast at a large scale, just long-press the button.

### 6.3 Camera Focus Mode Control

【AUTO】 Switch the focus mode to AUTO

【MANUAL】 Switch the focus mode to MANUAL

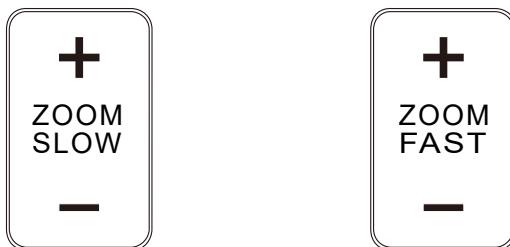
【FAR】 Far focus manually

【NEAR】 Near focus manually



### 6.4 Camera Zoom Control

Press any one of the 4 【ZOOM】 to make the zoom functioning. These 4 keys are not applicable for fixed focus cameras.



## 6.5 Preset Setup, Call, Cancel

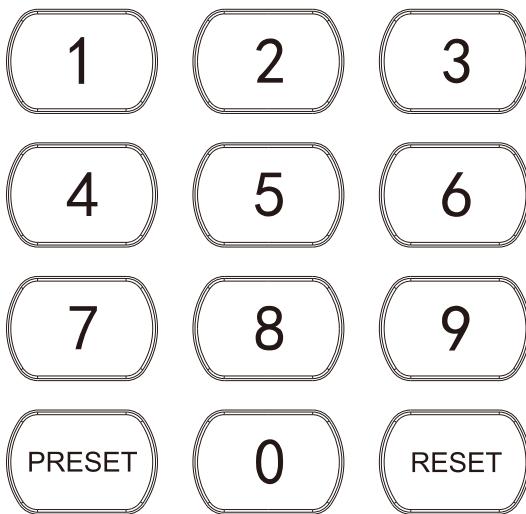
(1) Reserve Preset: Press **【PRESET】**, then press one of the numbers (0-9) to reserve a preset that corresponds to the NUMBER.

Note: You can setup 10 presets at most by the remote control.

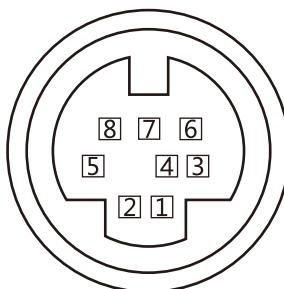
(2) Call Preset: Press the NUMBER (0-9) directly to call the reserved preset.

Note: It won't work if there's no preset reserved in the corresponding number.

(3) Remove Preset: Press **【RESET】**, then press one of the number (0-9) to remove a preset that corresponds to the NUMBER.



## 6.6 RS-232 Interface Distribution

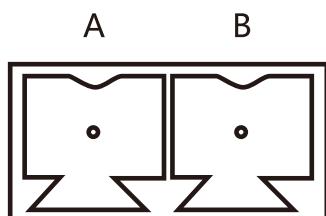


VISCA RS-232 IN

- 1.N.C.
- 2.N.C.
- 3.TXD
- 4.GND
- 5.RXD
- 6.N.C.
- 7.N.C.
- 8.N.C.

## 6.7 RS-485 Interface Distribution

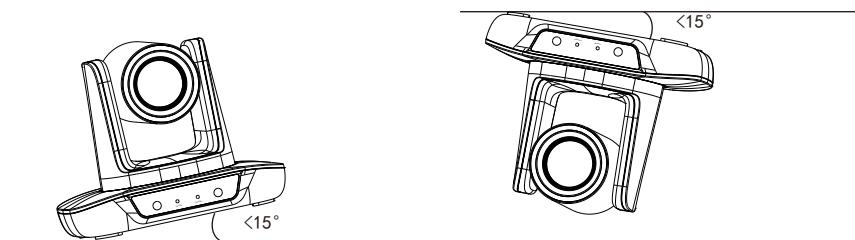
PIN NUM	FUNCTION
A	DTR IN+ (connect to RS-485)
B	DSR IN-(connect to RS-485)



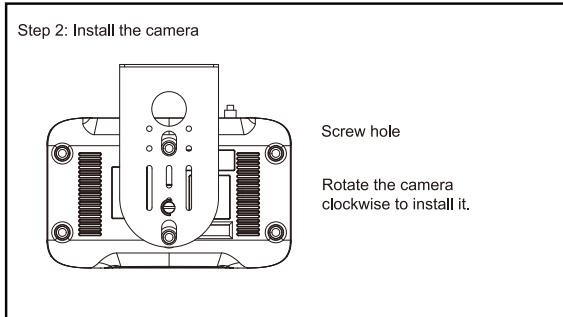
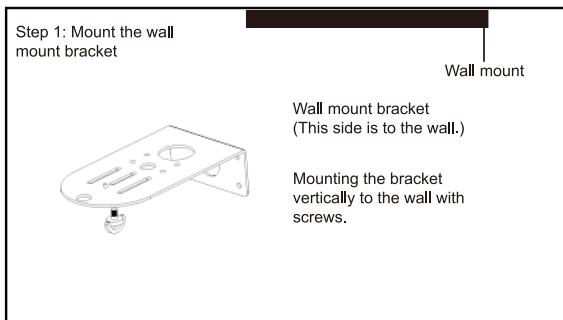
## 7. Installation Instructions

### 7.1 Surface Installation

Put the camera on the desk flatly, and make sure the camera is in a horizontal position. If you want to put the camera on an oblique surface, please make sure the angle of inclination is less than 15 degrees to ensure the camera's pan&tilt works normally.



### 7.2 Wall Mount Installation



## 8. Trouble Shooting

Before requesting service to service engineer, please refer to the following methods to remove failures. If the failures still can't be solved, please contact us for assistance.

Q: The video of the camera cannot be displayed on the screen.

A: Please check the connection between power cable, video cable, camera and monitor, fix the connector on each end.

Q: It's unable to Pan, Tilt and Zoom camera.

A: Because the menu was displayed on monitor. Please re-operate after exiting the menu.

Q: Why the camera rotates for about 10 seconds after power on?

A: This is the normal self-test of the camera.

Q: Poor Image quality while using in church or other low-light conditions.

A: Press menu (ON/OFF) to adjust backlight effect to suit the church lighting properly.

Q: Remote control is not working or insensitive.

A: ①Not work, please replace batteries.

②Not sensitive: Choose the correct "IR select" number to correspond to the camera. Control the camera within 10m (32.8ft). Remove the obstacles. Aim at the sensor which is in front of the camera when controlling it.

Q: USB interface is not identifiable.

A: Please check if the USB cable and extension cable are well connected or not. If yes, change to another USB interface and try to connect again.

Q: It won't be controlled via RS-232/RS-485 when camera connect to PC.

A: Make sure it is a correct connection between the camera and PC. (Refer to RS-485 and RS-232 Pins distribution on page 12).

Q: Why no ceiling mount bracket?

A: Camera comes with wall mount only. ceiling mount or tripod brackets need to buy separately.

Q: Does this camera has built-in mic?

A: No, this camera comes with no built-in mic.

Q: Can we control the camera only by the remote control?

A: You can control the camera by remote control, keyboard controller (joystick), and software.

## **9 . Maintenance Services**

All products purchased from our company are guaranteed to keep in good repair for 36 months. If there are any quality problems during the guarantee period, we will maintain them for free.

Under any of the following warranties, related maintenance costs will be collected:

1. Product was not normally used.
2. Fire, electric shock, outside object collapse or other natural disasters causing the equipment damaged.
3. Unauthorized repair, misuse, abuse or change.

## Warranty Card

Thank you so much for choosing our products.

### User's Info

Name: \_\_\_\_\_ Tel: \_\_\_\_\_

Email: \_\_\_\_\_ Post Code: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

### Product's Info

Product Name: \_\_\_\_\_

Factory Serial Number: \_\_\_\_\_

### Fault Description

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Attention

1. This card is considered as the protection to fix warranty, so please reserve it carefully. Please fill in truthfully.
2. Please indicate the model number, factory serial number and the detailed description of the fault information.







