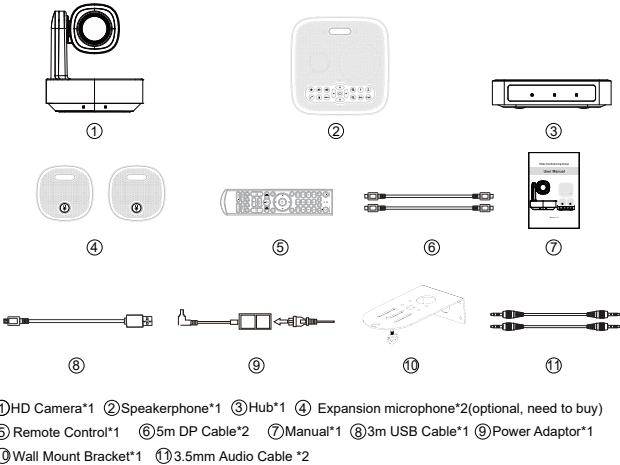


User Manual

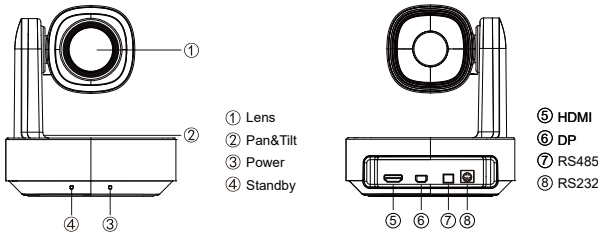
Version V1.0

1.Packing List

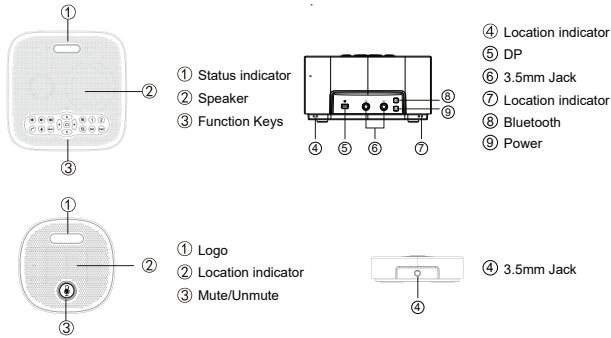


2.Product Overview

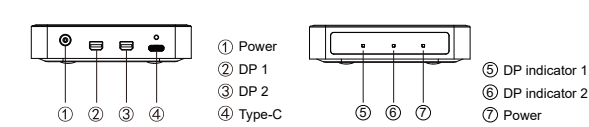
2.1 HD Camera



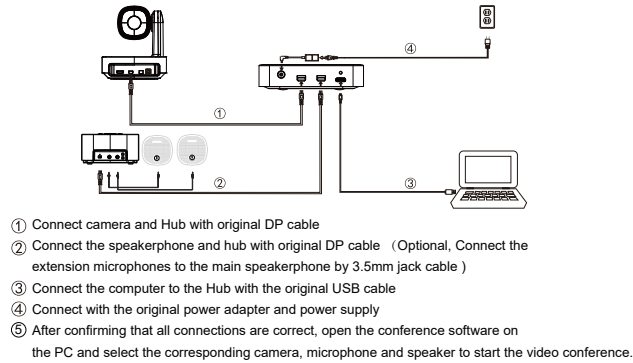
2.2 Speakerphone



2.3 Hub

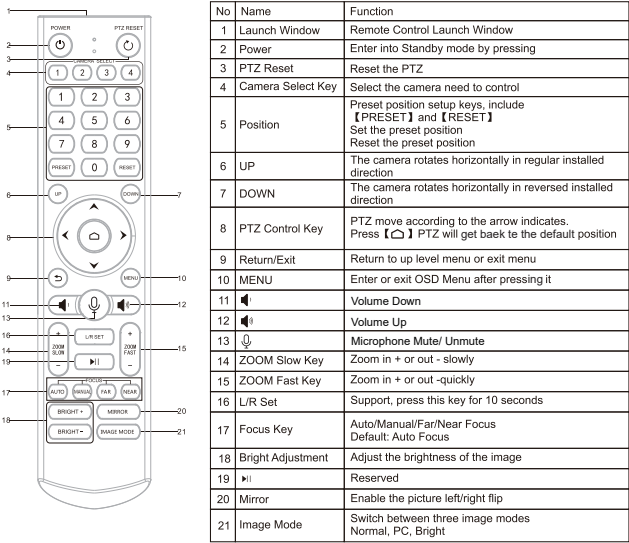


3.Connection Description



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4. Key Description of Remote Control



★Attentions for Remote Control

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

5.Common Operation Instructions

5.1 Camera Select

Refer to the dial-up at the bottom of the camera and choose camera address number that you want to control (1-4).



5.2 Camera Direction Control

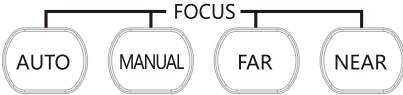
- Turning up
- Turning down
- Turning left
- Turning right
- Turning to default



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.

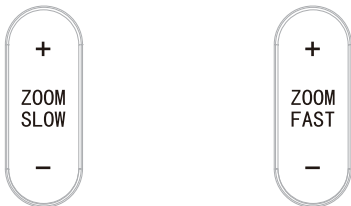
5.3 Camera Focusing Mode Control

- 【AUTO FOCUS】 Switch the focus mode to AUTO
- 【MANUAL FOCUS】 Switch the focus mode to MANUAL
- 【FAR】 Far focus manually
- 【NEAR】 Near focus manually



5.4 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.



5.5 Preset Setup, Call, Cancel

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

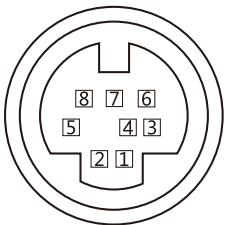


5.6 Speakerphone Volume +/- Mute

- Volume Down
- Volume Up
- Microphone Mute/ Unmute

6. Description of Control Interface

6.1 RS-232 Interface Distribution

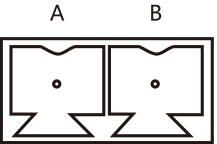


VISCA RS-232 IN

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

6.2 RS-485 Interface Distribution

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

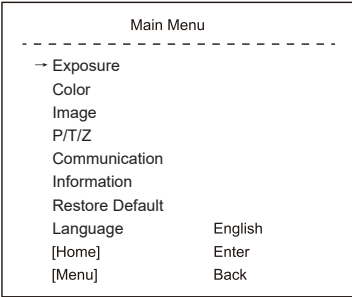


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7. Menu Setup of HD Camera

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

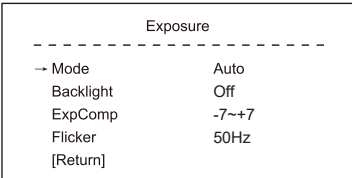
7.1 Level 1 Menu- Main Menu



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

7.2 Level 2, Menu- Exposure



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	1/100000~1/25
Gain	00
Flicker	50Hz
[Return]	

Iris:Off/F1.6/F1.85/F2.0/F2.2/F2.63/F3.0/F3.4/F4.0/F6.0/F8.0/
F10.0/F16.0/F32.0

Shutter: Between 1/10000 and 1/25

Gain, exposure gain setting, optional item is 0 to 99

Flicker: Support 50Hz/60Hz

7.3 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 0-99

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

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

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

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

WB mode: Auto/Manual/VAR

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

When the WB mode is Manual, the sub menu will be as follows ,

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Color	

→ Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
WB Mode	Manual
Rgain	40
Bgain	30
[Return]	

When the WB mode is VAR, the sub menu will be as follows :

Color	

Brightness	50
Contrast	50
Hue	50
Saturation	50
Sharpness	50
→ WB Mode	VAR
Color Temp	6600
[Return]	

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

7.4 Level 2 Menu Image

Image	

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

Flip: Enable/disable the picture up/down flip

Mirror: Enable/disable the picture left/right flip

Video Format: 4KP30/4KP25/1080P60/1080P50/1080P30/1080P25/
720P60/720P50/720P30/720P25

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USB Mode: ISOC/BULK

USB mode: Adjust between Isochronous transfers mode and Bulk transfers mode

Style Mode: Normal, PC, Bright

7.5 Level 2 Menu P/T/Z

P/T/Z	

→ Acc Curve	Middle
L/R SET	Off
[Return]	

Acc Curve: Slow/Middle/Fast

L/R SET: On/Off

When On, the remote control press left, the PTZ camera moves to the left, the remote control press right, the PTZ camera moves to the right

When Off, the remote control press left, and the PTZ camera moves to the right, the remote control press right, and the PTZ camera moves to the left

7.6 Level 2 Menu Communication

Communication	

→ Protocol	Auto
Baudrate	9600
RC Address	All
[Return]	

Communication	

→ Protocol	Visca
Address	1-7
Baudrate	9600
RC Address	All
[Return]	

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Communication	

→ Protocol	Visca
Address	0-255
Baudrate	9600
RC Address	All
[Return]	

Communication	

→ Protocol	Visca
Address	0-31
Baudrate	9600
RC Address	All
[Return]	

Protocol:Auto/Visca/Pelco-D/ Pelco-P

Baudrate :9600/38400/2400/4800

RC Address:All/1/2/3/4

7.7 Level 2 Menu-Information

Communication	

→ Model	4K Camera
PTZ Version	1.0.2.8
SOC Version	1.1.24
[Return]	

Model: 4K Camera

PTZ version: 1.0.2.8

SOC Version 1.1.24

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

Restore Default	

Restore?	No
→ [Return]	

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8. Instructions for Speakerphone

8.1 Button Function

Button	Status	Function	OLED
	Speaker Mute	ON/OFF Speaker mute	ON: Logo position red OFF: Logo position Green
	Volume-	Volume Decreasing	10-level display at the
	Volume+	Volume Increasing	Logo indicator
	Answer/Hang up	Answer and hang up the phone call	
	Microphone mute	Mute/unmute	Mute: Red Unmute: Green
	Camera Menu	Setup the camera specifications	
	Control PTZ of the camera	Control pan/tilt of the camera.Press Button, Back to the default position	
	Zoom+	Lens nearly	
	Zoom-	Lens far	
	Setup/recall preset position	presets are available to setup/call by speakerphone button Set: Setup presets Call: Call Presets Set preset: Move the camera to the right position, press then press 1 Call Preset: Press , press button 1	
	Bluetooth	Bluetooth connection/disconnection Press and hold the Bluetooth button for 10s to clear the pairing memory and re-pair Click Bluetooth Button to switch Bluetooth /wire transmission	Power on green
	Power on/off	Power on/off Press and hold the switch for 3 seconds Click to enable or disable the microphone and speaker at the same time	Power on green

8.2 Expansion Microphone Button Function

Button	Status	Function	OLED
	Mute Button	Mute/unmute for single microphone	Unmute: Green Muted : Red

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8.3 LED Indicator Function

Bluetooth status indicator (only for Bluetooth device)	Blue light flashing	Bluetooth is pairing
	Green light on	Bluetooth connected
Microphone status indicator	Red light on	Microphone mute
	Green light on	Microphone working normally

Note: When adjusting the volume, the blue light of the volume status indicator will change with the volume. When the volume increase key is pressed, the blue light progress bar of the volume status indicator will increase; When the volume down key is pressed, the blue progress bar of the volume status indicator is reduced. When the volume is adjusted to off, the indicator is red. After adjusting the volume, the green light will return at intervals of 2s.

9. Technical Specification

Conference Camera	
Optical Zoom	12x zoom
Image Sensor	1/2.8" SONY CMOS
Effective Pixels	8.29MP
Lens	F=3.9mm-46.8mm
Aperture	F1.6-2.8
Video Format	4K30, 1080P-60/50/30/25, 720P-60/50/30/25
	H.264, H.265, MJPG, YUY2, NV12
Horizontal Angle	70.82°(W)-6.48°(T)
Focus	Auto / Manual
Digital Noise Reduction	2D & 3D Noise Reduction
Exposure	Auto / Manual
Video Interfaces	HDMI, DP
Video Compression Format	H.264, H.265, MJPG, YUY2
Control Protocol	VISCA/Pelco-D/Pelco-P
Baud Rate	9600/4800/38400/2400
Pan/Tilt Rotation	±175° -90°→+90°
Pan Control Speed	0.1 -80°/sec
Tilt Control Speed	0.1-60°/sec
Preset Number	255 presets by Pelco-D,32 presets by Pelco-P, 7 presets by Visca (10 presets by remote controller)
Speakerphone	
Acoustic echo cancellation(AEC);	>65dB
Speaker Power	5W
Speaker Volume	110dB
Response	100Hz-20KHz
Pickup Range	6m(Radius)
Microphone Sensitivity	-38dBFS
SNR(Signal to Noise Ratio)	62dB
Interface	DP interface 2x3.5mm Jack (for Expansion Mics)
Hub	
Interface	DP*2; Power interface*1; USB Type-C*1
Power Supply	DC 12V
USB Cable	3m USB cable*1
Connection Cable	5m DP cable*2
General Parameter	
Operation Systems	Windows 7 or higher; Android, Mac OS™ 10.10 or higher, Linux (Required to support UVC.) Compatible with Zoom, MS Teams, Skype and etc.
Input Voltage	DC 12V
Input Current	2.0A(Max.)
Store Temperature	-10℃~+60℃
Store Humidity	20%~90%
Working Temperature	-10℃~+50℃
Working Humidity	20%~80%
Dimension (W*H*D)	Camera: 171.6*192.6*171.6mm; Speakerphone:143mm*143mm*75mm; Extension microphon:73.7*74*20mm ; Hub: 98*98*20mm

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