



# Video Conferencing Room Solution User Manual V1.0



# Attentions

This manual introduces the functions, installation and operations for SV3100 video conferencing room solution in details. Please read this manual carefully before installation and use.

## 1.How to Use

To prevent damage to this product or any product connected to it, this product can only be used within the specified range.

1.1 Do not expose the product to rain or moisture.

1.2 To prevent the risk of electric shock, do not open the case.

Installation and maintenance should only be carried out by qualified technicians.

1.3 Do not use the product beyond the specified temperature, humidity or power supply specifications.

1.4 Wipe it with a 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 image.

## 2.Electrical Safety

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

## 3.Handle with care

Avoid damage to the product caused by heavy pressure, strong vibration or immersion during transportation, storage and installation.

## 4.Install with Caution

4.1 Do not rotate the camera head violently, otherwise it may cause mechanical failure;

4.2 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;

4.3 Housing of this product is made of organic materials. Do not expose it to any liquid, gas or solids which may corrode the shell.

4.4 Ensure there are no obstacles within rotation range of the holder.

4.5 Do not power on before completing installation.

#### 5. Do not Disassemble the Product without Permission

This product contains no parts which can be maintained by the users themselves. Any damage caused by dismantling the product by the users without permission is not covered by warranty.

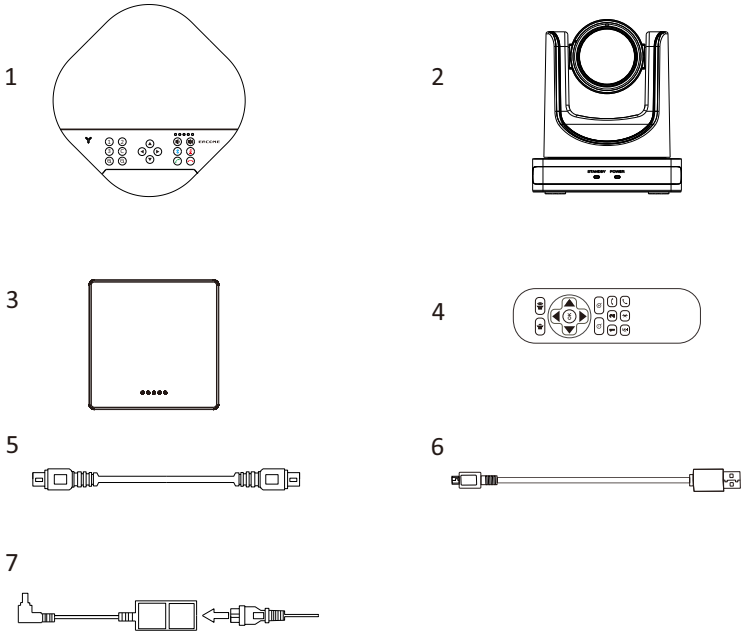
#### 6. Magnetic Interference

Electromagnetic fields at specific frequencies may affect the image. This product is Class A. It may cause radio interference in household application. The appropriate measure is required.

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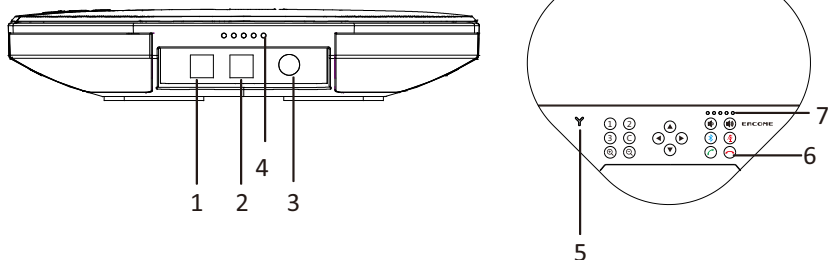
# 1.Packing Contents



- 1.Speakerphone
- 2.VHD-V71CV Camera
- 3.Hub
- 4.Remote Control
- 5.5m DIN6 Cable \* 2 pcs
- 6.3m USB cable \*1 pcs
- 7.Power supply

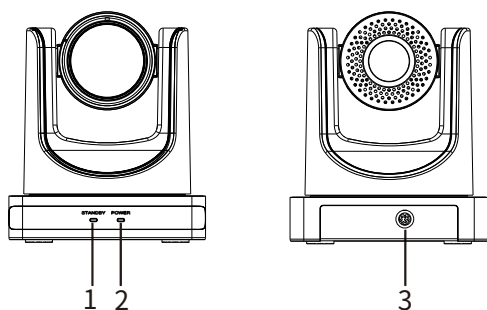
## 2.Product Overview

### 2.1 Speakerphone



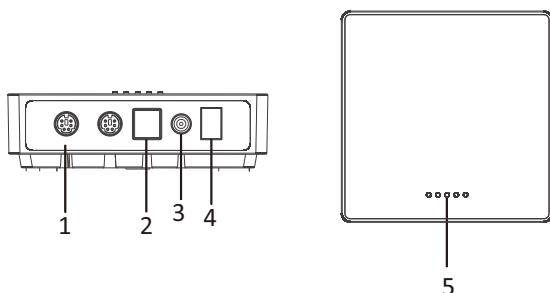
- 1.Optional expansion microphone port 1
- 2.Optional expansion microphone port 2
- 3.DIN6 cable port
- 4.LED Status indicator
- 5.Bluetooth indicator
- 6.Function keys
- 7.Volume indicator

### 2.2 VHD-V71CV Camera



- 1.Status indicator
- 2.Power indicator
- 3. DIN6 Cable port

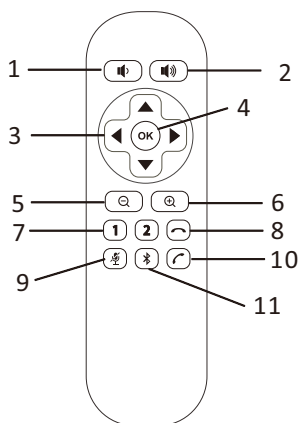
## 2.3 Hub



1. DIN6 Cable port
2. USB port
3. Power port
4. Turn on/off
5. Status indicator

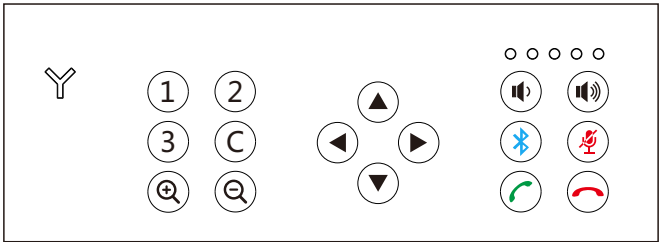
## 3..Keys operation Description

### 3.1 About Remote control



- 1: Volume down
- 2: Volume up
- 3: Pan / Tilt
- 4: OK
- 5: Zoom out
- 6: Zoom in
- 7: 1-2 Camera presets
- 8: Hang up
- 9: Mute microphone
- 10: Pick up
- 11: Turn on/off Bluetooth

### 3.2 About Speakerphone

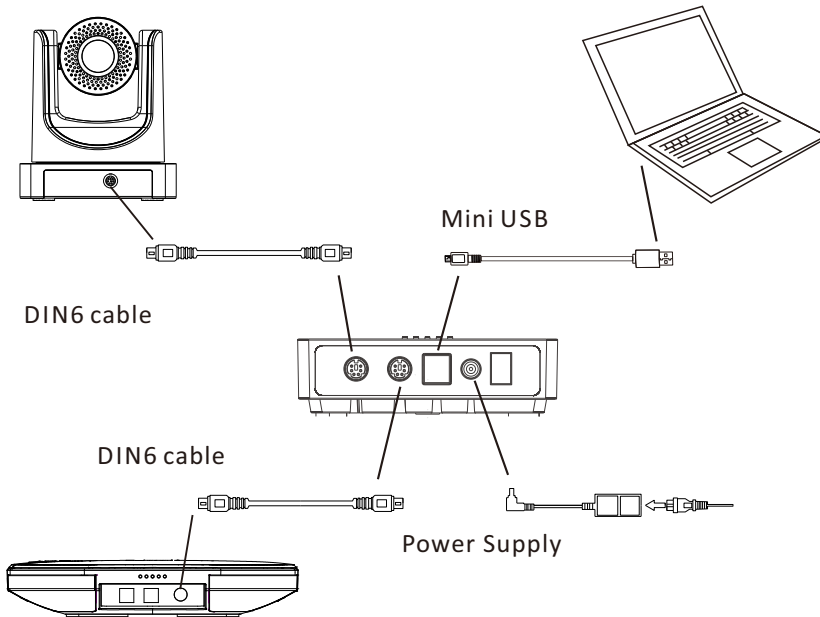


Keys Description :

|  |                       |                                                                                                                                                                                                                                                                              |
|--|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Presets button        | Those keys represent the camera preset positions 1,2 and 3 respectively                                                                                                                                                                                                      |
|  | Remote control button | The Camera Zero position                                                                                                                                                                                                                                                     |
|  | Zoom in/out           | The camera zooms in/out                                                                                                                                                                                                                                                      |
|  | Camera pan / tilt     | Control the direction of the camera:left, right,up, down,.                                                                                                                                                                                                                   |
|  | Volume button         | Press the Volume down/up button                                                                                                                                                                                                                                              |
|  | Bluetooth button      | Turn on/off Bluetooth                                                                                                                                                                                                                                                        |
|  | End call              | Press the End call                                                                                                                                                                                                                                                           |
|  | Answer call           | Press the Answer call                                                                                                                                                                                                                                                        |
|  | Mute microphone       | Turn on/off Microphone mute                                                                                                                                                                                                                                                  |
|  | Echo cancellation     | Press the Answer call,End call and Volume up button at the same time to enter/exit the echo cancellation mode.When the echo cancellation mode is entered, the status light blue flashes three times .When the echo cancellation mode is exited, the blue light flashes twice |



## 4.Connection Description



SV3100 can be connected to computer, the hardware video equipment system through Hub USB. It's not only provides 48KHz digital voice bandwidth speakers, but also an ultra-clear video experience.

Connection steps:

- 1.Connect the camera and Hub with the original DIN6 data cable;
- 2.Connect the speakerphone and Hub with the original DIN6 data cable;
- 3.Connect the power supply equipment with the original power adapter;
- 4.Connect one end of the USB cable to the USB port of the computer and video conference system, and connect the other end to the USB socket of the Hub;
5. Turn on the power switch after the connection was confirmed correct, and wait for the speakerphone and Camera self-check completed, turn on the terminal third-party conference software, and select the corresponding Camera, microphone (Eacome SV3100) and speaker driver (Eacome SV3100) to start the audio and video conference with the device.

Common reference Settings for PC and video devices with USB talking mode:

1. Please adjust the volume of horns and microphones comprehensively to ensure the communication is clear and smooth.
2. Don't turn on the speaker and microphone automatic gain.
3. Give priority to turning off the audio processing functions of the computer software/video software (such as turning off automatic gain, echo cancellation, noise , reduction etc.).
4. Please use those speeches coding that has a higher sound quality as far as possible.

## 5.About Bluetooth pairing

Once paired with a Bluetooth device, you can use an omnidirectional microphone for audio calls. To pair your Bluetooth device with an omnidirectional microphone, follow these steps:

1. Press the Bluetooth pairing button and the Y type Bluetooth indicator green light flashes. At this time, the omnidirectional microphone enters the Bluetooth pairing mode.
2. Place the mobile device in the Bluetooth device search mode and select "Eacome SV3100". After the Bluetooth connection, the indicator light is steady green. At this point, you can use an omnidirectional microphone for audio calls.

## 6.The LED Status indicator description

|                     |                            |                                                                                                      |
|---------------------|----------------------------|------------------------------------------------------------------------------------------------------|
| Status indicator    | Blue LED light             | USB connection                                                                                       |
|                     | Red LED light              | Microphone mute status                                                                               |
| Volume indicator    | Green light                | The higher the volume, the more the number of lights                                                 |
| Bluetooth indicator | Y type Bluetooth indicator | 1.Turn on the Bluetooth, the green light flashes<br>2.Bluetooth connection, green light is always on |

## 7.About preset

How to save presets :

Adjust the camera to the position that needs to be pressed. Press and hold the preset button for 5 seconds. The corresponding preset position is set successfully.

(Note: 2 preset positions (1-2) can be set on the remote control).

How to use preset position:

Short press the preset button to call the corresponding preset position

(Note: the number key is invalid if it's not preset).

## 8. Installation and use of optional expansion microphone(Optional)

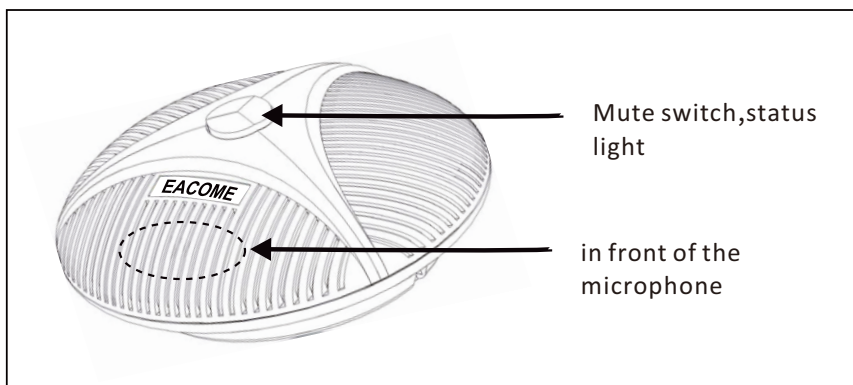
Use an expansion microphone for important and large meetings.

1.Connect one end of a 2.5-meter long 4P4C dedicated wire to the socket of the expansion microphone and the other end to the speakerphone EXT1.

2.Connect one end of a 2.5-meter long 4P4C dedicated wire to the socket of the expansion microphone and the other end to the speakerphone EXT2.

3.Due to the host uses a high single point microphone.To achieve the best effect, the speaker should be facing the microphone directly in front of the microphone. The direction of the microphone is the same as that of the nameplate.

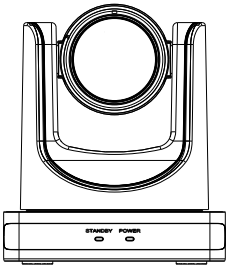
4.The expansion microphone has mute switch and status indicator. The indicator is green when it works normally, and red when mute.



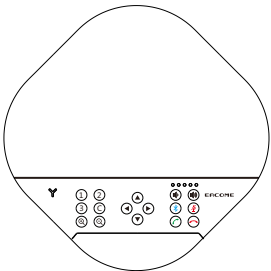
### Note:

In order to properly use and protect the expansion microphone, it is necessary to plug and unplug the expansion microphone connection and install the expansion microphone without power.

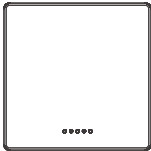
## 9. Technical Specifications

| Model NO.                   | VHD-V71CV USB2.0 HD Video Conference Camera                                       |
|-----------------------------|-----------------------------------------------------------------------------------|
| Product Picture             |  |
| Sensor                      | 1/2.7", CMOS                                                                      |
| Effective Pixels            | 2.07M                                                                             |
| Video Format                | 1080P, 720P, 540P, 480P, 360P, 240P etc                                           |
| Optical zoom lens           | 12x, f=3.5mm ~ 42.3mm                                                             |
| View angle                  | Horizontal Angle of View: 72.5°~ 6.9°<br>Vertical Angle of View: 44.8°~ 3.9°      |
| Aperture value              | F1.8 – F2.8                                                                       |
| Digital Zoom                | 16X                                                                               |
| Minimum Illumination        | 0.5Lux(F1.8, AGC ON)                                                              |
| DNR                         | 2D & 3D DNR                                                                       |
| White Balance               | Auto, Indoor, Outdoor, One Push, Manual, VAR                                      |
| Focus                       | Auto/Manual/One Push                                                              |
| Aperture/Electronic Shutter | Auto/Manual 1/30s ~ 1/1000s                                                       |
| BLC                         | Support                                                                           |
| WDR                         | OFF/ Dynamic level adjustment                                                     |

|                  |                                                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------|
| Video Adjustment | Brightness, Color, Saturation, Contrast, Sharpness, B/W mode, Gamma curve                                  |
| SNR              | ≥55dB                                                                                                      |
| Rotation angle   | Horizontal Rotation Range: $\pm 170^{\circ}$<br>Vertical Rotation Range: $-30^{\circ} \sim +90^{\circ}$    |
| Control speed    | Pan Speed Range: $1.7^{\circ} \sim 100^{\circ} /s$<br>Tilt Speed Range: $1.7^{\circ} \sim 69.9^{\circ} /s$ |
| Dimensions       | 144mm x 144mm x 167.9mm                                                                                    |

| Model NO.                  | Speakerphone                                                                                                                                                                                                                                                        |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Picture            |                                                                                                                                                                                   |
| Voice technical parameters | <p>Acoustic Echo cancellation (AEC) : &gt;65dB</p> <p>Echo length cancellation: ≥500ms</p> <p>Bidirectional noise compression (NC) : &lt;25dB</p> <p>Automatic Direction finding Technology of Intelligent microphone (EMI)</p> <p>Automatic gain control (AGC)</p> |
| Bluetooth                  | Bluetooth devices available                                                                                                                                                                                                                                         |

| Model NO.                | Speakerphone                                                                                                                                                                                   |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio parameters         | Microphone frequency response 100Hz-22KHz<br>Speaker frequency response 100Hz-22KHz<br>Speaker volume: 90dB at the most<br>Microphone sound-pickup radius: 6 meters,<br>360 degrees full range |
| IR Reception             | Angle: 360°<br>Distance: 10m<br>IR Transparent transmission available                                                                                                                          |
| Expansion Mic (optional) | 2 external microphones optional for connection<br>makes the sound-pickup radius up to 10 meters                                                                                                |
| Dimensions               | 180mm×180mm×42mm(L×W×H)                                                                                                                                                                        |

| Model NO.       | Hub                                                                                |
|-----------------|------------------------------------------------------------------------------------|
| Product Picture |  |
| Interface       | Mini DIN6 ×2<br>Power interface × 1<br>Power switch × 1<br>Mini USB interface × 1  |

| Model NO.        | Hub                                                                                                                                                                                      |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply     | Power plug(DC12V)<br>Adapter input AC110V-AC220V,output DC12V/2A                                                                                                                         |
| Connection Cable | Mini DIN6 data line × 2<br>Length: 5m ( 10m/15m for options )                                                                                                                            |
| USB cable        | USB cable                                                                                                                                                                                |
| Compatibility    | Support Windows, Android, iOS and Linux<br>Drive-free automatic recognition of cameras,<br>microphones and speakers<br>Compatible with Zoom, Lynch, Vidy, Skype for<br>business and etc. |
| Dimensions       | 113.6mm×113.6mm×32.6mm(L×W×H)                                                                                                                                                            |



# Warranty

Warranty service is an important part in shopping.

Please refer to the company's website if the details and warranty period that not mentioned in the following contents.

The warranty

Customers who purchase this product can enjoy the repair services in defective of materials and workmanship. By the way, the repair services excluded the terms listed below.

Warranty period

The warranty period is one year from the date of sale.

During the warranty period, the warranty will not be given in the following conditions:

A. The product is not stored, used in a reasonable manner or as suggested by the user's manual that cause damaged;

B. Modify, change or use product with any modified kits, components or accessories not sold by us.

C. The product is not installed according to relevant instructions in the user's manual.

D. Ask others who not authorized by us to repair the product .

E. Use those equipment, components or systems that not manufactured by us to connect with the product.

The content of the warranty

This warranty applies to the product and all standard accessories, but does not include the paper items such as packaging and instructions.

The procedures for obtaining warranty services

If the customer purchases a product that requires a warranty, not only can the customer receive the warranty service by mailing the QMC but also they can send the customer's purchase certificate (such as a copy of the sales invoice) to your QMC dealer.



## **Eacome Electronics Co.,Ltd.**

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## **FCC STATEMENT :**

This device complies with Part 15 of the FCC Rules. 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.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B 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/TV technician for help.

## **RF warning statement:**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.