Video Conference Camera Full HD 1080P - VC1080C

User Manual

Video Conference Camera overview

Please read this manual in detail and use accordingly.

This manual introduces the functions and operations of the video conference camera.

This colour video camera is high-quality and flexible with a remote pan of 355° / tilt 120° operation and image flip, and a DSP dealing integration module input. Support VISCA and PELCO P/D protocol. Allowing install action on the ceiling / desk and a accurate remote control of RS323/485.

Safety requirement

To avoid damage to the camera and connecting equipment, please follow the instructions carefully.

• Ensure the device is properly installed and maintained.
• Only professional technicians can install and perform maintenance.
  Do not expose the device to wet or humid
  environments.
• Use original accessories as supplied.
• Once product exchange or repair occurs please use universal meter test before using,
  should the device require any repairs.
• Please use a soft and dry cloth for cleaning.
• Do not use strong chemicals as this may damage the camera or lens.
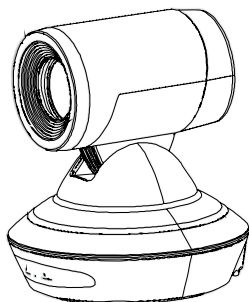• Mounting bracket must allow for 3 times the weight of camera

Features

• 1080p full HD PTZ camera
• Pan 355°, Tilt 60°
• The latest developed digital signal processor (DSP)
  improves the image quality of digital zoom.
• Multi function IR remote controller can control PTZ,
  Lens and other functions conveniently.
• Use the PC to control camera with VISCA or PELCO command.
  Baud rate: 2400 / 4800 / 9600
• 9 preset positions by remote controller, 200 preset positions by PC or remote
  control unit, memory auto saved when powered off.
• The maximum speed of horizontal rotation: 80°/s, Tilt: 60°/s.
• Providing accurate remote control.

Includes:

Please ensure all parts are included.

1 x Video camera
1 x Power adapter
1 x Remote controller
1 x USB wire
1 x Ceiling bracket

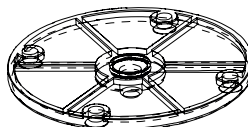1 x Remote controller

1 x Video camera

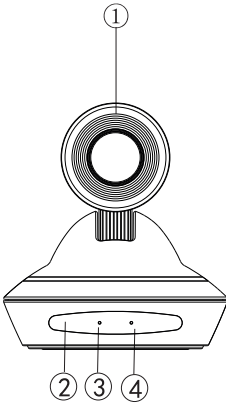1 x USB wire

1 x Power adapter

1 x Ceiling bracket

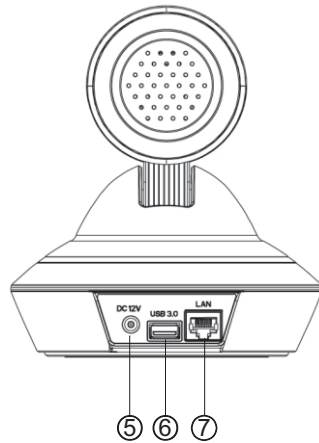# Parts and Introduction

Front
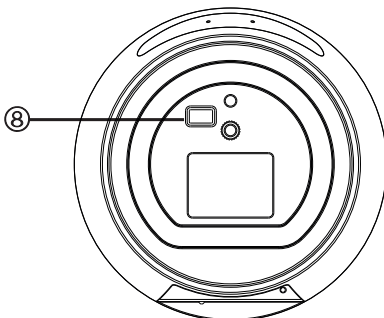

1 Lens
2 Sensor for the Remote Control
3 Power lamp
4 Standby lamp

Rear

5 DC IN 12V input
6 USB output
7 RJ-45 output

Bottom

8 Bottom switch
(See page 9 for details)

Connection instructions

Please ensure all connections are correct before use.
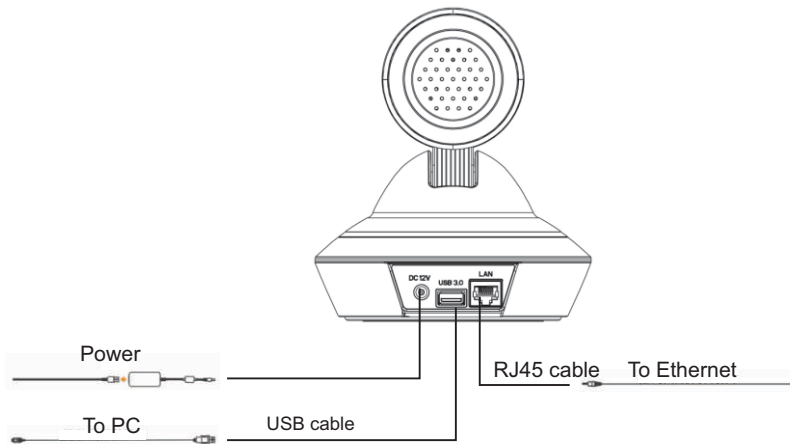
Attention

If the preset number 1 is set, after the camera is switched on, the camera's pan/tilt/zoom will automatically call the present point 1. If the preset number 1 is not set, the camera will return to the HOME position, that is, the lens will return horizontally and vertically to the front, and the zoom will be minimized.

Remote Controller

1. IR transmitter
2. Power
3. L/R Direction set
4. Focus: (auto or manual)
5. M-open: open the menu
6. Close the menu
7. Button for Brightness adjustment
8. PAN-tilt reset
9. Camera select: (match to IR Select back)
10. Position: (Number area; Preset: press PRESET then press 1-9 for setup preset position)
11. Preset: (Press RESET and then press 1-9 for eliminate preset position)
12. ZOOM
    SLOW T
    SLOW W
    FAST T
    FAST W
13. Pan-tilt: HOME for return middle position
14. Std rev: (Press L/R Direction Set, and then Press 1 or 2)
15. Back Light
16. Switch for screen information display
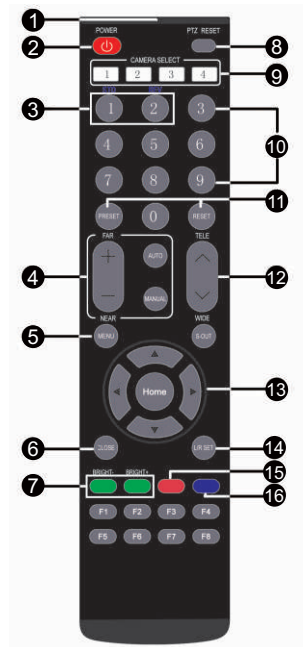
Maintenance Description

Remote Commander Operation

A. Pan/Tilt control

1. Power on, Pan/Tilt will be initial position.

2. Press arrow to adjust pan/tilt direction, when watching
    a video on screen, the direction can be moved by pressing
    the arrow step by step or continuously for wild turning direct
    If you want to fix direction, please press arrow (up or down)
    and arrow (left or right) at the same time.

3. Press HOME for front direction.

4. Press PAN-TILT RESET or switch off and on to reset the
    direction to the initial position.

5. Press L/R DIRECTION SET and STD or REV at the same
    time, then by pressing the right or left arrow, the direction
    can be moved right or left.
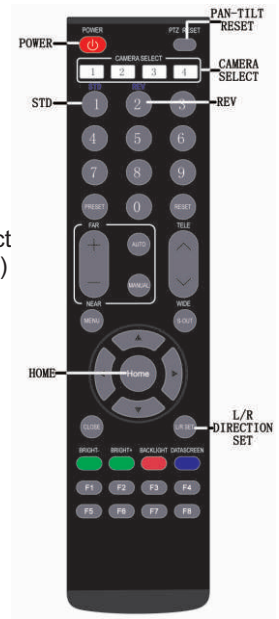
ATTENTION:

When you use more than one command, please repeat operation accordingly.

B. Adjust Camera

Focus

• Press AUTO for focus auto

• Press MANUAL and then adjust far or near by pressing FAR (+) or NEAR (-)

ATTENTION:

In the instance of far focus, it is normal for the image to blur during pan/tilt operation.

ZOOM

Adjust T and W for far or near zoom
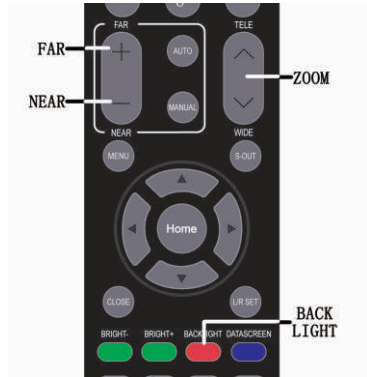
One Remote controller for operating 3 or less cameras

1. Maximum of 3 cameras can be controlled by a remote controller through back switch 1, 2, 3.

2. Press CAMERA SELECT 1 or 2 or 3, to control corresponding 1, 2, 3 camera.
   Camera select button 1, 2, 3 will light up when selected.
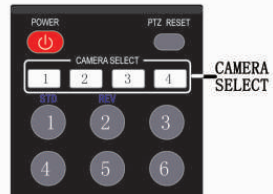
Use back light compensation

• If there is lighting on the back of the focused object, the object will appear black.
   Press BACK LIGHT to avoid this happening and turn select off button to close.
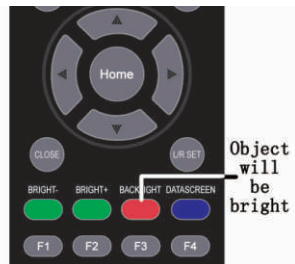
C. Preset Position Operation

•   Store camera settings-presets up to 200 presets can
     be set (Location, zoom, focus, and the background light)
     set and call 9 preset positions by remote controller.
     Through a user-defined protocol over 200 presets can
     be set

1.   Recognize that the STANDBY led is not blinking.
     If the STANDBY indicator is flashing, press PAN-TILT
     RESET to restore.

2.   Adjust the camera position, zoom, focus and the
     background light.

3.   Press and hold the PRESET button, then press one of
     the position 1-9.
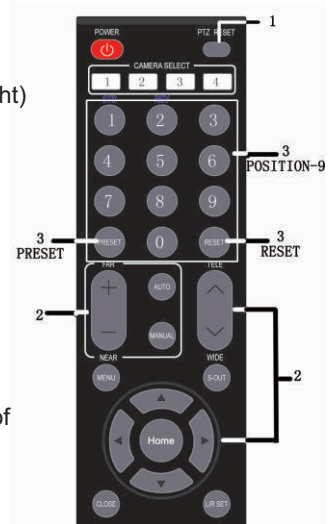
• **Use preset position**
   Press any button of 1-9 position.

• **Cancel preset position**
   Press RESET, then press 1-9 simultaneously.

8

Bottom switch

Normal or ceiling setting the remainder being reserve switch.

Bottom switch

ON				
OFF	1	2	3	4

USB Dial Switch	Control Select
1	Firmware Upgrade
ON	ON
OFF	OFF
2	Motherboard Upgrade
ON	ON
OFF	OFF
3	Install method
ON	Ceiling install
OFF	Normal install
4	NC
ON	NC
OFF	NC

Note: The 1st & 2nd bottom switch is for upgrade, do not leave on during use.

The Menu

Main Menu

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———————— Menu ————————

  COM SETTING
  PTZ SETTING
  PICTURE
  SETTING
  VIDEO FORMAT: 1080P30
  VERSION
  FACTORY RESET
  SAVE AND EXIT

——————————————————————
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Communication sub menu

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———————— Menu ————————


  PATCH:          MAIN
  PROTOCOL:       VISCA
  ADDRESS:        1
  BAUD RATE:      9600
  DIV GRADE:      100
  SPEED ACC:      1


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Main Menu:

COM SETTING: enter the communication settings sub menu

PTZ SETTING: enter PTZ setting sub menu

PICTURE SETTING: enter image settings sub menu

VIDEO FORMAT: cannot be set, displays current resolution

VERSION: cannot be set, displays current software version

FACTORY RESET: restore factory defaults

SAVE AND EXIT: save and exit

Communication sub menu:

PATCH: cannot be set
(only for binocular tracking)

PROTOCOL: set communication protocol, VISCA / PELCO-P / PELCO-D / VISCA2

ADRESS: set the camera address ID

BAUD RATE: set the communication baud rate, 2400/4800/9600/19200/38400 /115200

DIV GRADE: can set the speed range of PTZ movement (only valid for the serial port control speed), 1-24/1-64/1-100

SPEED ACC: PTZ motion acceleration can be set (only valid for serial port control speed), 1-10

The Menu

PTZ sub menu

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———————— Menu ————————

DZOOM :              OFF
FOCUS MODE :         AUTO
REMOTE SPEED :       7
REMOTE ACC :         4
PTZ FLIP :           ON



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PTZ sub menu:

DZOOM: electronic zoom, can be set to open / close

FOCUS MODE: Focus mode can be set, AUTO / MANUAL

REMOTE SPEED: can set the current movement speed of the gimbal (only valid for infrared remote control), 1 - 15

REMOTE ACC: PTZ motion acceleration can be set (only for infrared remote control), 1 - 10

PTZ FLIP: Set image flip, on/off

Image sub menu

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———————— Menu ————————

AE MODE
WB MODE
NR :                 LOW
BRIGHT :             7
SATURABILITY :       10
ACUTANCE :           8
GAMA :               0
HUE :                0
MIRROR :             OFF
FLICK :              50HZ


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Image sub menu:

AE MODE: Exposure mode can be set

WB MODE: White balance mode can be set, AUTO / INDOOR / OUTDOOR / ONE PUSH / ATW / MANUAL

NR: Set the noise reduction value, OFF / LOW / MIDDLE / HIGH

BRIGHT: You can set the screen brightness value, you can set 1 - 15

SATURABILITY: can set the color saturation of the screen, can be set 1 - 14

ACUTANCE: You can set the screen sharpness, you can set 1 - 15

GAMA: Can set the screen gamma value, can be set 1 - 4

HUE: Cannot be set, can display the current tone value of the screen

MIRROR: Mirror effect can be set, on/off

FLICK: Can be set to anti-flicker, OFF/50HZ/60HZ

Network Connections

Connection mode

Direct connection mode: Connect the camera directly to the computer with a network cable.

Network connection mode: Connect the camera to the Internet Network, and access the network through a router or switch. Users can log in to the device through the browser.

First open the computer network local connection properties window, select "Internet Protocol Version 4 (TCP / IPv4)" double click or click the property "Internet Protocol Version 4 (TCP / IPv4)", enter the properties window, click "Advanced" to enter advanced TCP / IP set the IP address and subnet mask in the IP address field. After the addition is complete, click OK to complete the IP network segment addition. Users can add corresponding network segments according to their modified camera IP address.

Network login

WEB login:
Enter the device IP address in the browser address bar to default to 192.168.1.118, and press Enter to enter the web client login interface. Enter admin in the [User Name] field, enter admin in the [Password] field, and pass the verification to enter the background preview interface.

Language selection: Select the language icon in the upper right corner of the login interface, click to select the web interface language type.

Preview and pan/tilt

Image preview:
After logging in successfully, enter the management interface. The default is to enter the video preview interface. On the left side of the preview interface, the image preview area, you can click to output the main stream, sub-stream and the display ratio of the screen output (16:9 & 4:3) and full-screen display function.

PTZ control:
On the right side of the preview interface, the PTZ control area can specifically implement the following functions: The gimbal rotates upward, the gimbal rotates downward, the gimbal turns to the left, the gimbal rotates to the right, the gimbal restores the initial center position, the lens zooms out, the lens zooms in and the preset position number is set. Number 0 starts counting, which is preset position 1; saves the preset position currently set; deletes the corresponding preset position; calls the corresponding preset position.

Configuration

Click "Settings" in the upper right corner to enter the software parameter configuration interface. There are mainly the following options: video configuration, network configuration, system configuration, etc.

Configuration

Video configuration - Video coding
• Encoding mode: Set the video compression format. The default primary/secondary
  stream compression format is H. 264/H. 265.
• Stream: Set different video output modes and use different streams. Contains primary
  and secondary streams. The primary stream is optional 1920*1080, 1280*720, and the
  secondary stream is optional 1280*720, 1024*576, 640*360.

Configuration
• Rate (Kb/s): Set the video bit rate (the default stream is 4096Kb/s; the default stream is
  2048Kb/s; 0-15360Kb/s is optional)
• Frame rate: set the video frame rate, the default frame rate is 30 frames
• Rate Control: Set the stream control mode, the primary/secondary stream default variable
  bit rate (CBR), support for selectable bit rate (VBR)
• I frame interval: set the key frame interval, the primary/secondary stream defaults to 30,
  1-100 is optional.

Image parameter
The image parameter interface allows you to make the following adjustments to the image effects:
• Focus: You can set the focus mode, focus distance, digital zoom on and off
• Exposure: Set the exposure mode, shutter speed, anti-flickering, gain, aperture and brightness
• White balance: white balance mode, red and blue gain effect can be set
• Image: Set mirror, flip, back light compensation, gamma curve, wide dynamic and other functions
• Picture quality: can set the screen brightness, sharpness, contrast, saturation and
  other functions
• Noise reduction: can be set to enable 2D noise reduction, 3D noise reduction

Network Configuration

Ethernet parameters
• DHCP: Set whether to enable automatic IP acquisition. Chosen by default
• IP address: Set the IP address. The default is 192.168.1.118, where IP is the address
  of the login web page.
• Subnet mask: Set the subnet mask (default is 255.255.255.0)
• Default gateway: Set the default gateway (default gateway is 192.168.1.1)
• HTTP port: set the HTTP port, the default is 80
• Web port: Set the web port, the default is 6087
• Main stream port: Set the main stream video acquisition port. the default is 554.
• Secondary stream port: Set the secondary stream video acquisition port. The default is 554.

System Configuration

• Version upgrade: The page displays version information, which can only be read by
  the user and cannot be modified.
• File upgrade: Click the upgrade icon, in the pop-up window, select the upgrade file;
  click Upload upgrade, after the upgrade is successful, the device automatically restarts.
  Note: Ensure that the power and network of the device is properly connected during
  the upgrade process, otherwise the upgrade will fail.
• Restore factory: You can select "Simple Recovery" to reset the image parameters,
  select "Full Recovery" to reset and restart all parameters, and select "Restart"
  to restart the device directly.
• Account settings: You can modify the user name and password of the login
  management account. After modification, you need to restart and log in again.

Technical Features:

Image Sensor	SONY 1/2.8" Progressive CMOS
Effective Pixels	3.10 Megapixels
Resolution	1920*1080P / 1280*720P
Signal System	PAL / NTSC
Lens	5x & 12x Optical Zoom
Horizontal View Angle	72.5° & 84.5° wide angle
Pan	355° (max. speed: 80°/s)
Tilt	-30° to + 30° (max. speed: 60°/s)
Focus System	Auto / Manual
S/N Ratio	≥50db
Preset Position	9 presets by IR remote controller 255 presets by Keyboards or PC
Minimum Illumination	0.1 Lux
Exposure Control	Auto / Manual Priority AE / Exposure Compensation / Bright
Shutter Speed	1/1~1/10,000s
Gain	Auto / Manual
White Balance	Auto / Manual / Indoor / Outdoor / ATW
Image Effect	Full color, black and white / electronic flip
Control Protocol	VISCA, PELCO P/D
Control Mode	USB Control / UVC Control
Video Output HD	USB 3.0 + IP
Power	12V DC (10.8~13.0V DC)
Power Consumption	Max. 30W (DC12V)
Operating Temperature	0~40°C
Product Size	(L)148x(W)148x(H)163.5mm
Weight	885g
Accessories	Power Cord, IR Remote, Remote Control, User Manual, USB Cable
Operating System	Microsoft Windows XP / Vista / 7 / 8 / 10