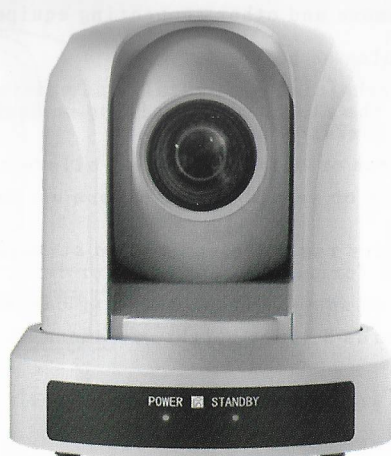


# Color Video Conference Camera

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## USER MANUAL



# Video conference camera overview

## Preface

Thank you very much for using our color video conference camera. Please read this manual in detail and use accordingly.

This manual introduce the function of video camera, opening and operation principle in detail.

This color video camera is high-quality and flexibility with a remote pan 270° /tilt 60° operation and image flip, and a DSP dealing integration module input. Support VISCA and PELCO P/D protocol.

Allowing install on the ceiling /desk and a accurate remote control of RS232/485.

## Safety requirement

In order to avoid camera and other connecting equipment damaged and lead to potential danger,

● please follow the rules as below:

- Only professional technician can install and maintenance;  
Prohibit setting on the places which raining or dampness, using unit under stated temperature, humidity and power;
- Using accessories from original factory or allowed;
- Once exchange product or repair happen please use universal meter test before using;
- Please use soft and dry rag for cleaning, no strongly corrosive cleanser for avoiding mangled for outside of camera or lens;
- Take care using and no squeeze crust avoiding camera broken;
- Bracket must be endures 3 times weight of camera at least.

## Features

- 1080 p full HD PTZ camera
- Pan 270° , Tilt 60°
- With the latest developed digital signal processor (DSP) improve the image quality of digital zoom
- Multi function IR remote controller can control PTZ, Lens and other function conveniently.
- Using PC to control camera with Sony VISCA or Pelco command
  
- IR remote controller, RS422C, RS232C and other control method
- 9 preset positions by remote controller, 200 preset positions by PC or remote control unit, memory auto saved when power off
- The maximum speed of horizontal rotation:80° /s, Tilt:60° /s
- Providing multifunctional accurate remote control

# Packing list

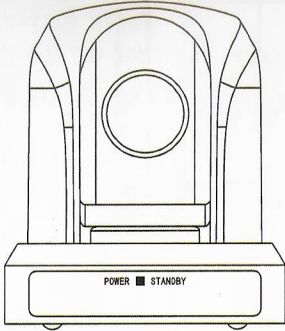
Please check up all devices inside while open package.

- Video camera-----1
- Power adapter-----1
- Power cable-----1
- Remote controller-----1
- USB transfer wire -----1
- Ceiling bracket-----1

Remote controller (1)



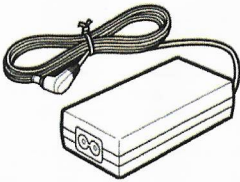
Video camera (1)



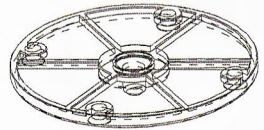
USB transfer wire (1)



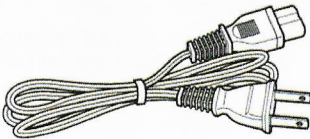
Power adapter (1)



Ceiling bracket (1)

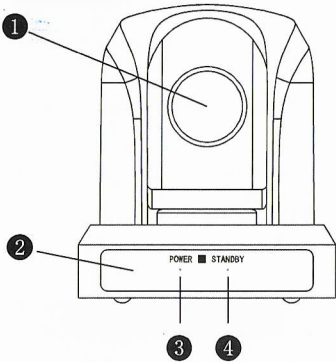


Power cable (1)



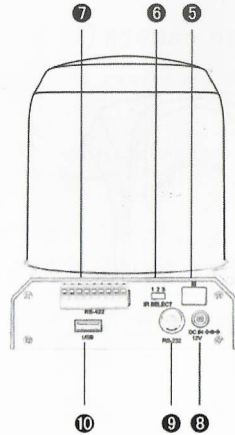
# Parts and Introduction

## Front

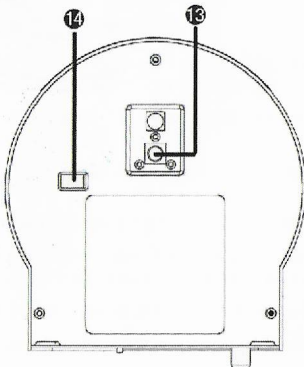


- 1 Lens
- 2 Sensor for the Remote Control
- 3 Power lamp
- 4 Standby lamp

- 5. Sensor for the Remote Control
- 6. IR select switch
- 7. RS-422C/485 VISCA/PELCO
- 8. DC IN 12V input
- 9. VISCA RS-232C IN connector
- 10. USB video output



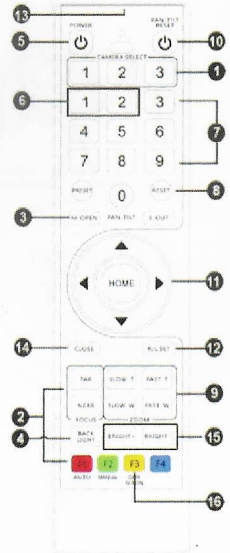
## Bottom



- 13 British screw holes
- 14 VISCA RS-422/RS-232C BOTTOM switch  
(See page 9 for details)

# Remote Controller

- ① CAMERA SELECT: (match to IR SELECT back)
- ② FOCUS: (auto or manual)
- ③ M-OPEN: open the menu
- ④ BACK LIGHT
- ⑤ POWER
- ⑥ STD, REV: (Press L/R DIRECTION SET, and then Press 1 or 2)
- ⑦ POSITION: (Number area; PRESET: press PRESET then press 1-9 for set up preset position)
- ⑧ RESET: (Press RESET and then press 1-9 for eliminate preset position)
- ⑨ ZOOM
  - SLOW T
  - SLOW W
  - FAST T
  - FAST W
- ⑩ PAN-TILT RESET
- ⑪ PAN-TILT ; HOME for return middle position
- ⑫ L/R DIRECTION SET
- ⑬ IR transmit
- ⑭ CLOSE THE MENU
- ⑮ BRIGHT+/-: Bright SET
- ⑯ DATA-SCREEN: Switching color mode

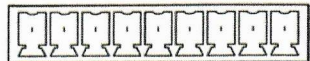


## Install diagram

VISCA RS-422.

Pin No.	Function
1	TXD IN+
2	TXD IN-
3	RXD IN+(RS485+)
4	RXD IN-(RS485-)
5	GND
6	TXD OUT+
7	TXD OUT-
8	RXD OUT+
9	RXD OUT-

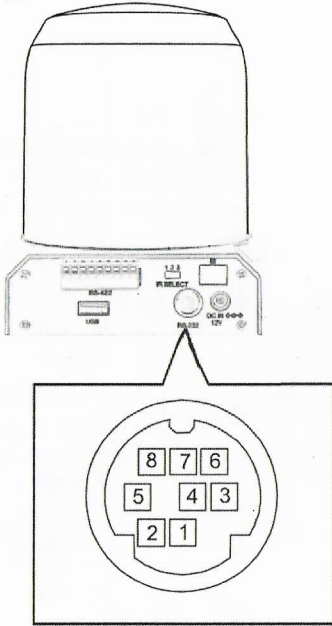
1 2 3 4 5 6 7 8 9



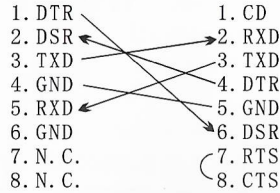
### Attention:

RS-422 and RS-232 can not be used at the same time

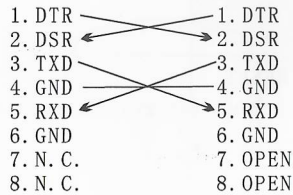
# VISCA RS-232C



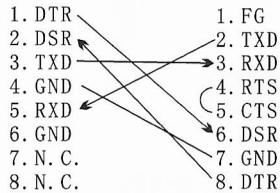
video camera Windows D-Sub 9 pin



video camera EVI Camera or Mini DIM 8 pin serial



video camera Windows D-Sub 25 pin



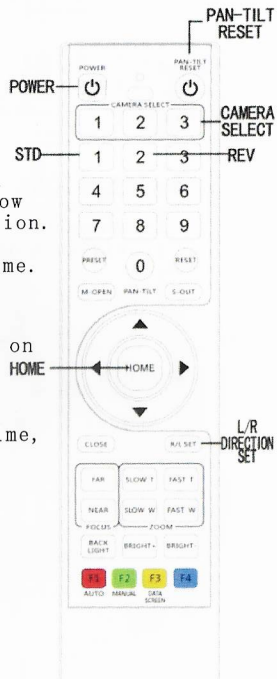
NO	Pins	Signal
1	DTR	Data Transmission Ready (OUTPUT)
2	DSR	Data Set Ready (INPUT)
3	TXD	Transmit Data (OUTPUT)
4	GND	Ground
5	RXD	Receive Data (INPUT)
6	GND	Ground
7	N. C.	No Connection
8	N. C.	No Connection

# Maintenance Description

## Remote Commander Operation

### A. Pan/Tilt control

1. Power on, Pan/Tilt will be in initial position.
2. Press arrow for adjust direction, when you can watch video on screen, you can move direction by press arrow step by step or continuously for wild turning direction. 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 turn off power and then turn on if direction is not you want, the direction will be change to initial position.
5. Press L/R DIRECTION SET and STD or REV at the same time, meanwhile, move right arrow, you can turn the direction to left or right.



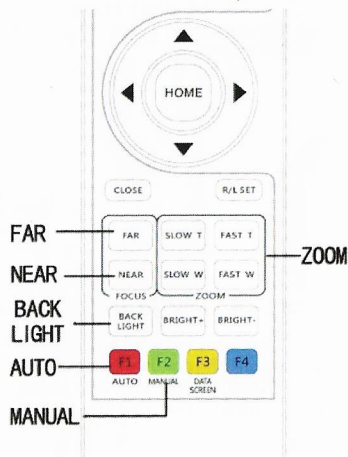
### ■ ATTENTION:

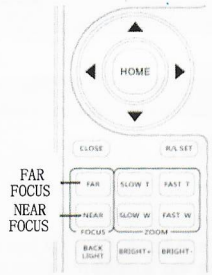
When you use more than one commander, please repeat operation accordingly.

### B. Adjust Camera

#### ■ FOCUS

- Press AUTO for focus auto
- Press MANUAL and then adjust far or near by switch FAR OR NEAR



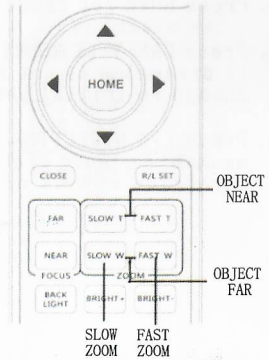


■ ATTENTION:

In the condition of far focus, it is natural for the image twitter slowly when operate pan/tilt.

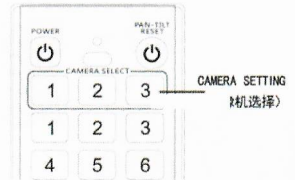
■ ZOOM

Adjust T and W for zoom far or near



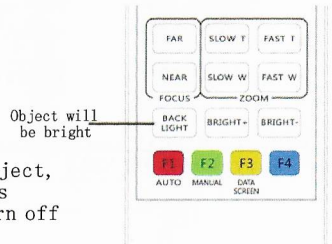
■ One Remote controller for operating few cameras

1. Maximum 3 cameras can be controlled by a remote controller through back switch 1, 2, 3.
2. Press CAMERA SELECT 1 or 2 or 3, you can control each of matching 1, 2, 3 camera, 1 or 2 or 3 button will be lighted.



■ Use back light compensation

If there is lighting on the back of focusing object, the object will be looks black. So you can press BACK LIGHT for avoiding this happening, and turn off button for close.





## C、Preset Position Operation

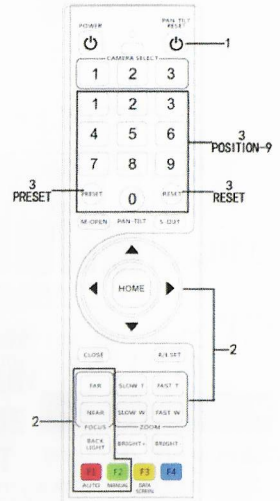
### ■ Store camera settings-presets

Up to 200 presets can be set (location, zoom, focus, and the background light)

By remote controller only can set and calling 9 preset positions.

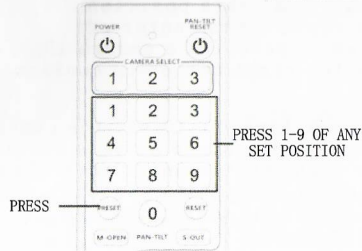
Through a user-defined protocol Over 200 presets that can be set.

- 1、Recognizes that the STANDBY led is not blinking.  
If the STANDBY indicator is flashing, press PAN-TILT RESET to restored
- 2、Adjust the camera position, zoom, focus, and the background light.
- 3、Press and hold the PRESET button, then press one of the POSITION1-9.



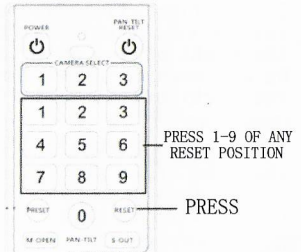
### ■ Use preset position

Press any switch of 1-9 position



### ■ Cancel preset position

Press RESET, then press 1-9 simultaneously



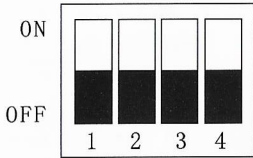
## Attention

If a POSITION is storing or deleting a new set, can not be called in the channel, set or unset.

## Bottom switch

Normal set or ceiling set  
RS232 RS422/485 selection  
the remainder being reserved switch

## BOTTOM SWITCH



Note:

The second bottom switch is for upgrade, do not keep it on while using.

DVI SWITCH	CONTROL SELECTION
1	signal selection
ON	RGB mode
OFF	YUV mode
2	Upgrade mode
ON	ON
OFF	OFF
3	Install method
ON	Ceiling install
OFF	Normal install
4	Interface mode
ON	RS422/485
OFF	RS232

USB SWITCH	Control selection
1	Control protocol
ON	PELCO D
OFF	VISCA
2	Upgrade mode
ON	ON
OFF	OFF
3	Install method
ON	Ceiling install
OFF	Normal install
4	Interface mode
ON	RS422/485
OFF	RS232

## Menu description

### CAMERA ID (address)

This option allows you to set the camera ID. when the arrow at this position, press the right button enter edit . Up and down to select the camera ID, and click the right button to confirm.

```

CAMMERA ID: 1
PROTOCOL: VISCA
BAUD RATE 9600
IR SPEED: 7
CAMMERA SETTING
VIDEO MODE: 1080p25
LOAD DEFAULTS
SAVE ADN EXIT
    
```

### PROTOCOL

This option allows you to set the camera protocol .When the arrow at this position, press the right button enter edit .Up and down to select the camera protocol, and click the right button to confirm. Left button to exit.

### BAUD RATE

This option allows you to set the camera baud rate.when the arrow at this position, press the right button enter edit . Up and down to select the Baud Rate, and click the right button to confirm. Left button to exit.

Main Menu

### VIDEO MODE

This option allows you to set the video format. when the arrow at this position, press the right button enter edit . Up and down to select the video format, and click the right button to confirm. Left button to exit.

### CAMERA SETTING

When the arrow at this position, press the right button enter edit . Up and down to select the video format, and click the right button to enter the sub-menu for more setting. See from the right picture.

### IR SPEED

This option allows you to set the pan/tilt speed, when the arrow at this position, press the right button enter edit . Up and down to choose the speed and click the right button to confirm. Left to exit. There has 18 level, the higher the faster.

### LOAD DEFAULTS

When the arrow at this position, press the right button to confirm, all the parameters of camera will be backed to restore factory setting.

### SAVE AND EXIT

Save the setting and exit the menu.

## DIGITAL ZOOM

This option allows you to turn on/off the digital zoom. when the arrow at this position, press the right button enter edit . Up and down to select the video format, and click the right button to confirm. Left button to exit.

<b>DIGITAL ZOOM</b>	: OFF
<b>SHARPER LEVEL</b>	: 000
<b>DNR LEVEL</b>	: MIDDLE
<b>BRIGHT COMP</b>	: 085
<b>WB SETTING</b>	: WBC AUTO
<b>COLOR GAIN</b>	: 115
<b>COLOR HUE</b>	: 128
<b>CONTRAST</b>	: 125

## SHAPPER LEVEL

This option allow you to set the sharpness. when the arrow at this position, press the right button enter edit . Up and down to choose the sharper level and click the right button to confirm. Left to exit.

There has 15 level, the higher the sharper the more clear, but the noise also be louder. Pls adjust with care.

## DNR LEVEL

### Submenu

This option allows you to turn on/off the DNR level. when the arrow at this position, press the right button enter edit . Up and down to select , and click the right button to confirm. Left button to exit. OFF is for turn off the DNR; ON is for turn on the DNR

## BRIGHT COMP

This option allow you to set the brightness. when the arrow at this position, press the right button enter edit . Up and down to choose the sharper level and click the right button to confirm. Left to exit. There have 200 levels, the higher the brighter. Pls adjust according the environment.

## WB SETTING (White balance)

This option allow you to set the white balance. when the arrow at this position, press the right button enter edit . Up and down to set and click the right button to confirm. Left to exit. There are 7 modes: WBS AUTO, and SODIUM, and OUT AUTO, and MANUAL, and ATW, and ONE PUSH and the OUTDOOR and the INDOOR. When this option is set to "MANUAL", the "R/BGAIN" modified, There are 15 series, the larger the deeper the color.

## COLOR GAIN

This option allow you to set the color gain. when the arrow at this position, press the right button enter edit . Up and down to select and click the right button to confirm. Left to exit. There have 200 levels, Different level has different color gain. Pls adjust according the environment.

## COLOR HUE

This option allow you to set the color hue. when the arrow at this position, press the right button enter edit . Up and down to select and click the right button to confirm. Left to exit. There have 200 levels, Different level has different color gain. Pls adjust according the environment.

## CONTRAST

This option allow you to set the color hue. when the arrow at this position, press the right button enter edit . Up and down to select and click the right button to confirm. Left to exit. There have 200 levels, The higher, the contrast effect is stronger.

**Technical parameter**

Image Sensor	1/2.8" Progressive CMOS
Effective Pixels	2.07 Megapixels
Resolution HD	MJPG:320×240,640×480,1280×720, 1920×1080
	YUY2:320×240,640×480,1280×720, 1920×1080
Signal	PAL/NTSC
Lens	10X optical zoom
Foci	f=4.7mm(W) ~ 47.0mm(T)
Horizontal View Angle	60.9°(W) ~ 6.43°(T)
Focus System	Auto/Manual
Minimum Illumination	0.1Lux
Shutter	1/30 ~ 1/10,000s
Gain	Auto/Manual
White Balance	Auto/Indoor/Outdoor/Manual
S/N Ratio	≥50db
Pan	270°(max.speed:80°/s)
Tilt	-30° ~ 30°(max.speed:60°/s)
Video Output HD	USB 2.0
Protocol	SONY VISCA、PELCO P/D
Control Mode	RS-232C、RS-422/485
Power	12V/1.5A DC
Weight	820g
Dimensions	Approx.135 x 130 x 150 mm
Accessories	DC 12V power adapter , IR Remote , Operation manual , USB cable , Ceiling bracket