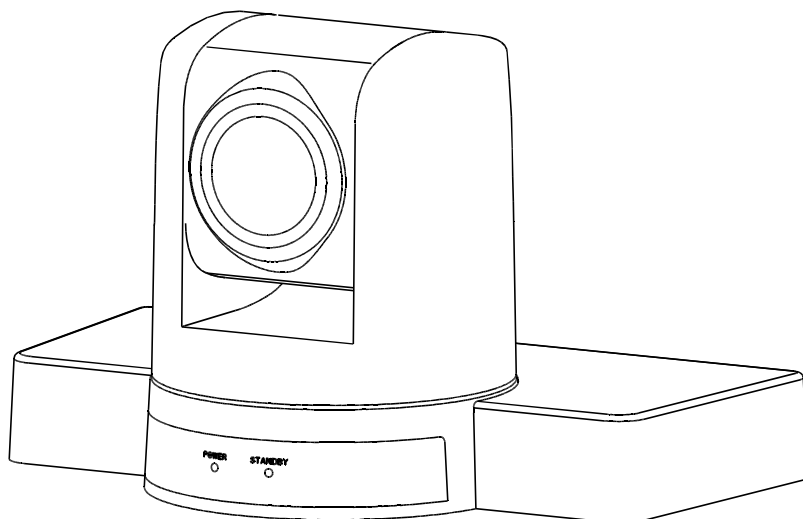


# HD-Video Conference Camera

## User Manual

---



# TABLE OF CONTENT

1. Precaution -----	1
2. Application system diagram-----	2
2.1 High Definition operation illustration-----	2
3. Performance-----	3
3.1 dome parameter -----	3
3.2 camera parameter -----	3
3.3 performance & features-----	4
4. Function instruction -----	5
4.1 positions of control system -----	5
4.2 Dimension -----	6
4.3 Functions of remote controller -----	7
5. Instruction -----	8
5.1 Pan/Tilt operation -----	8
5.2 camera control-----	8
5.3 Memory settings-----	10
6. System setting-----	11
7. Camera setting-----	12
8. Video output and communication parameters setting-----	15
9. Maintenance service terms-----	16

## 1. Precaution

### ● Electrical Safety

Confirm country and local electrical safety standard when using or installing the product.

The product itself has no power switch. Please stop power supply or plug out power socket when it is not in good working. Video wire and control wire should be insulated and individual connected, can not mix-up with other wires.

### ● Transportation with care

Product should be protected against extremes of pressure, vibration and humidity during transportation, storage and installation. It is transported by integrated packing style.

### ● Installation with care

Please read carefully user installation manual when installation. Please pick up the camera parts gently and do not press it, or else, which may cause malfunction; the camera parts belong to senior optical products, please do not touch it by your hand in order to avoid scratch for protecting the imaging quality.

### ● Requirements to service personnel

All the service work should be done by qualified technicians.

### ● Do not disassemble the Pan/Tilt module

Do not disassemble screws and repair the parts of the Pan/Tilt module by yourself. Only qualified and professional personnel can do this job.

### ● Environmental Requirements

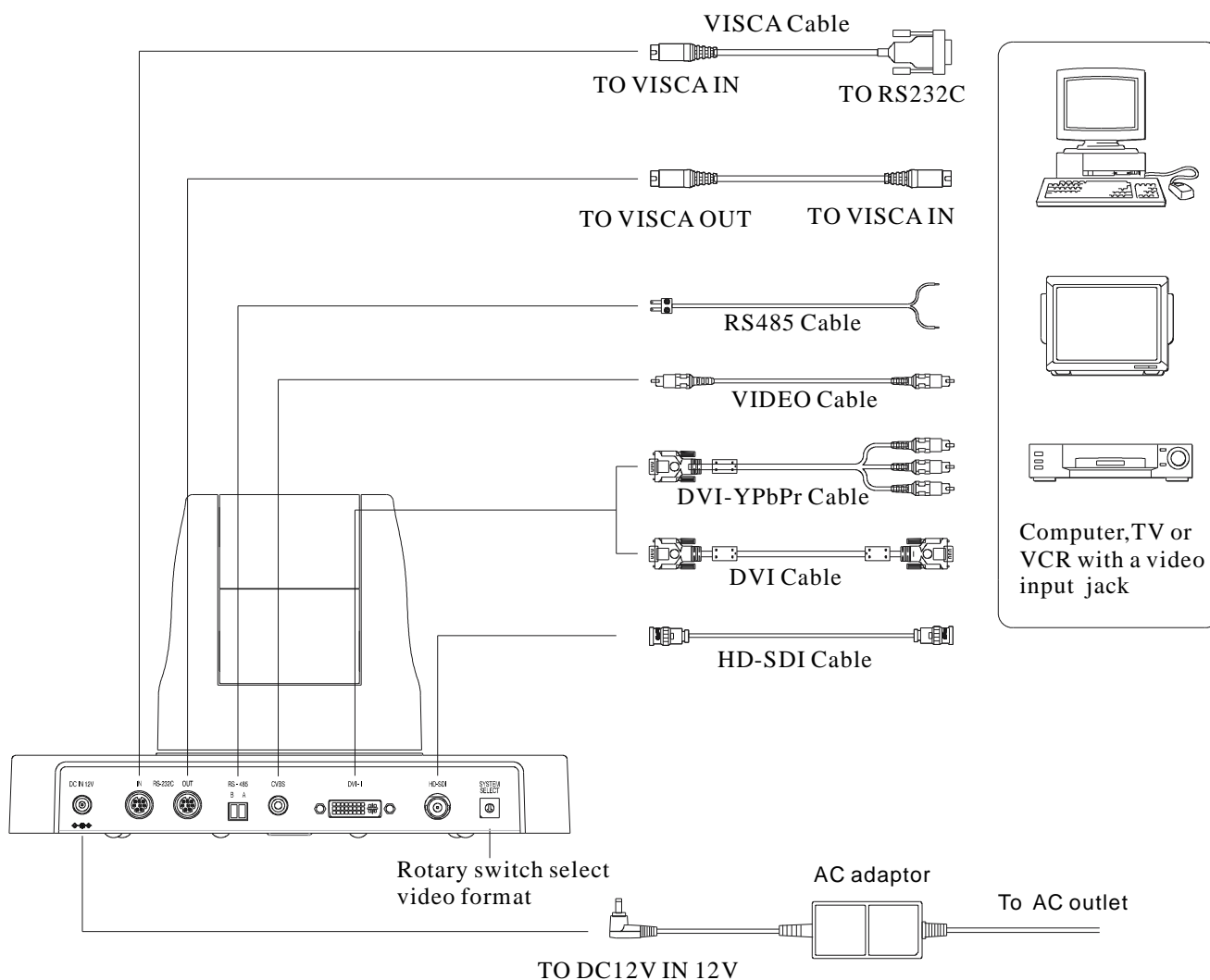
Environmental temp:	-10~+50°	Humidity:	<95%
Air Pressure:	86~106 Kpa	Power supply:	DC12V±2V
Power consumption:	Maximum 12W		DC12V

### ● Don't focus the camera on objects with strong light

Don't focus the camera on objects with strong light. Don't focus the camera direct to the sun or other bright objects no matter when in use or not. Otherwise ,it may affect image quality.

## 2. Application system diagram

### 2.1 High Definition camera operation illustration. for instance as below:



### 3. Performance

#### 3.1 Dome parameter

Electricity:		Communications:	
Power supply	DC12V	Baud rate ( RS232 )	9600bps
Power consumption	12W	Protocol	PelcoP/D Visca
Decoder	Built in	Address setting	1~8
Operation:		Environmental:	
Pan rotation	170°	Working environmental temperature	0 °C~ +50°C
Tilt rotation	120°	Environmental humidity	0~95% No-condensation
Rotation speed	Pan 0.4° ~80° /s		
Physical:			
Presets	Remote controller 9 Visca protocol 128	Installation	Stand-up position
net weight	1.7kg		

#### 3.2 Camera parameter

Spec	Model	KSS: 20× Color
Signal system		PAL/NTSC
Imaging element		1/2.8Type Exmor CMOS Sensor
Scanning system		720P50/60, 1080I50/60, 1080P25/30 (Optional)
Effective pixel (H × V)		2 Mega pixel
Minimum illumination		1.7lux/0.005lux
Zoom		20X Optical,12X Digital
Focus		4.7-94(mm)
Angle Field of view		55.4° (W)-2.9° (T)
IRIS Control		Auto/Manual
Focusing system		Auto/Manual
White balance		Auto/Manual
Back -light compensation		Off/No
S/N ratio		>50dB
Electronic shutter speed		1/1-1/10000
Video output port		SDI
Wide Dynamic Range		Off/No/Auto
Privacy zone masking		24

## 3.3 Performance&Features

Remark: The parameter for each video camera module is different; please refer to the details in Chapter 3.2

### Ø System

- Video signal: 720P50/60, 1080i50/60, 1080P25/30, PAL, NTSC
- Pixel: 2 Mega Pixel
- Minimum distance for imaging: (wide view, the nearest settings under Visca protocol):10mm
- S/N Ratio: 50 dB
- Pan/Tilt: Pan $\pm 170^\circ$  , maximum speed:100° /S  
Tilt:+90° , -30° , maximum speed: 90° /S

### Ø Input/Output port:

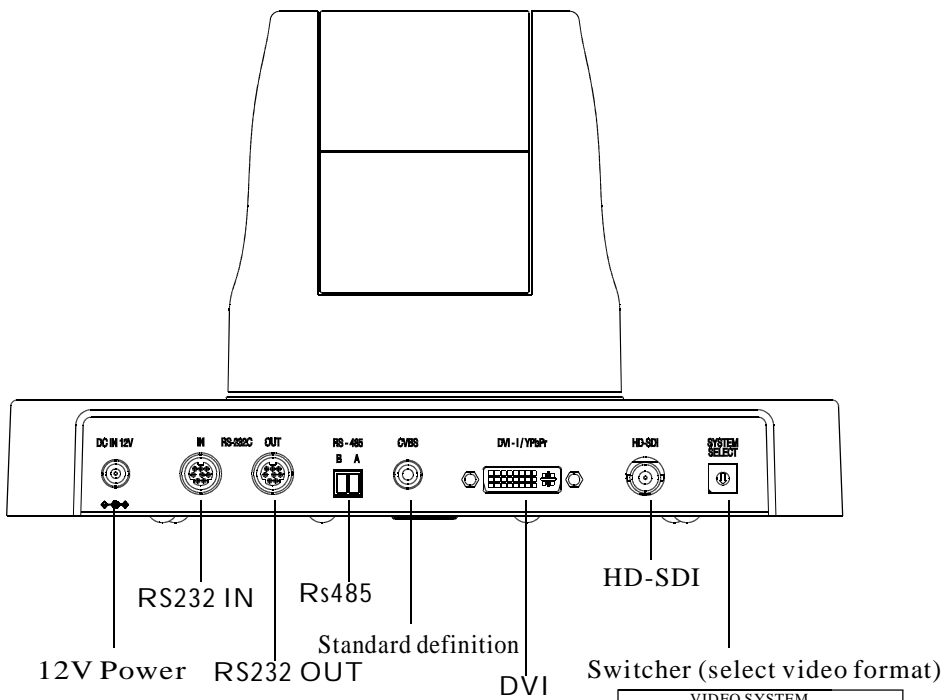
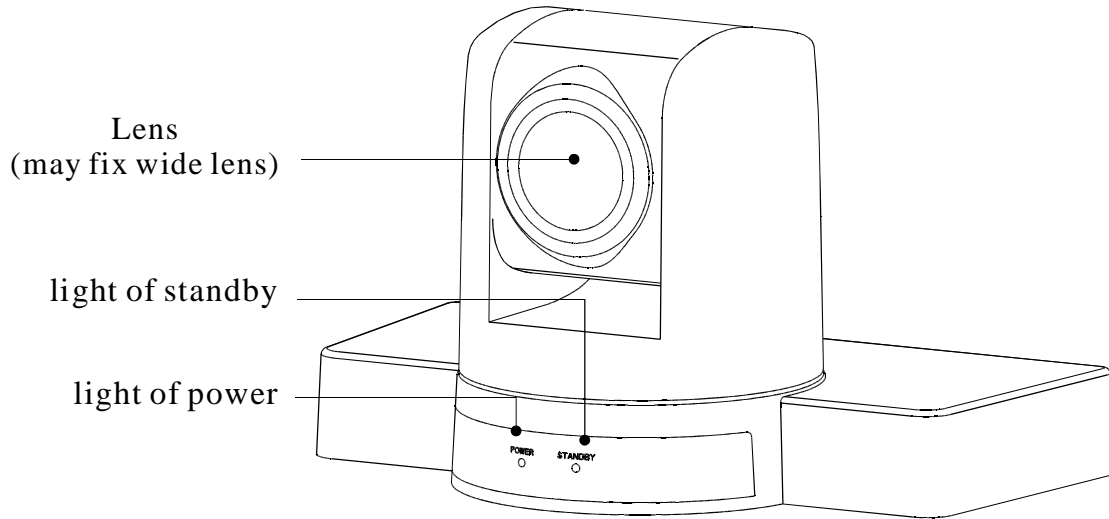
- Output: DVI .Ypbpr. HD-SDI. CVBS
- Input/Output control connection port: Visca RS-232C: 8-Core Minisize DIN (input:1; output:1)
- Mode of signal control: 9600bps data:8 bit Stop bit:1
- Power connection port: JEITA 4

### Ø Features

- With Fast, wide Pan/Tilt functions.
- With RS-232C communication and Visca protocol, can control video conference camera by terminal equipment and computer.
- Improved quality and definition of digital zoom image by the newest development digital signal processor (DSP).
- Can remove and attenuate IR light by attenuation-filter. Besides, this filter can open and close automatically; it provides image with good quality in high definition and strong brightness in large scope.
- Can save 9 presets in memory, it's available for working when necessary.
- With 1 Multi function IR Remote controller, which is easily and convenient to control video conference camera.

## 4. Functions

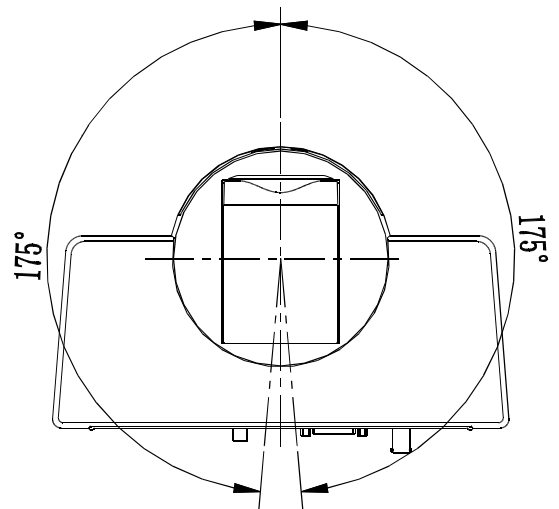
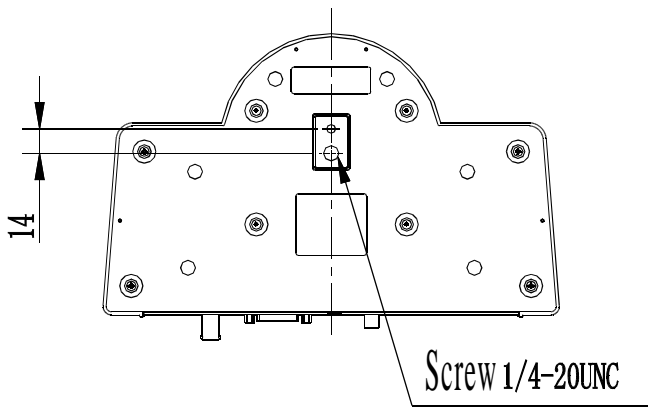
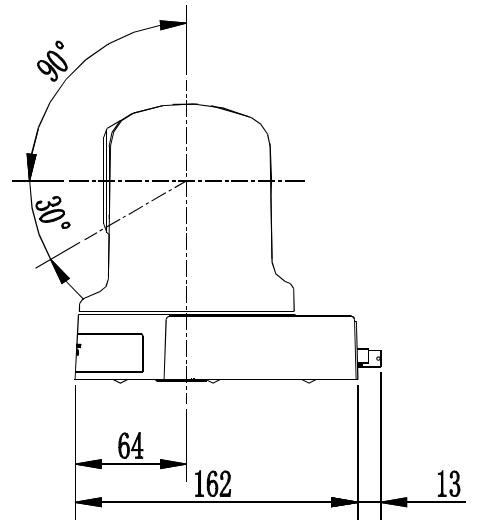
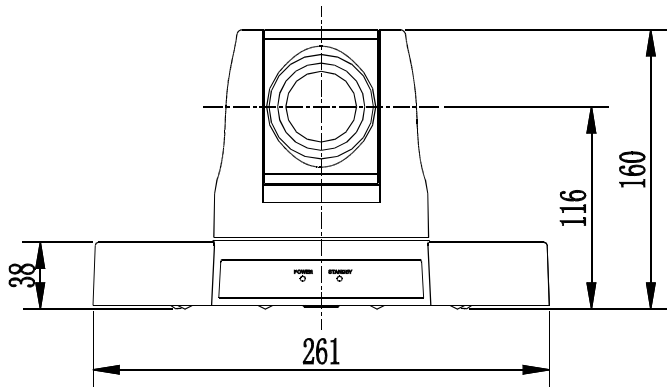
### 4.1 positions of control system



VIDEO SYSTEM		
0	1080i60	8
1	720p60	9
2	NTSC	A
3	1080i50	B
4	720p50	C
5	PAL	D
6	1080p30	E
7	1080p25	F

### 4.2 Dimension

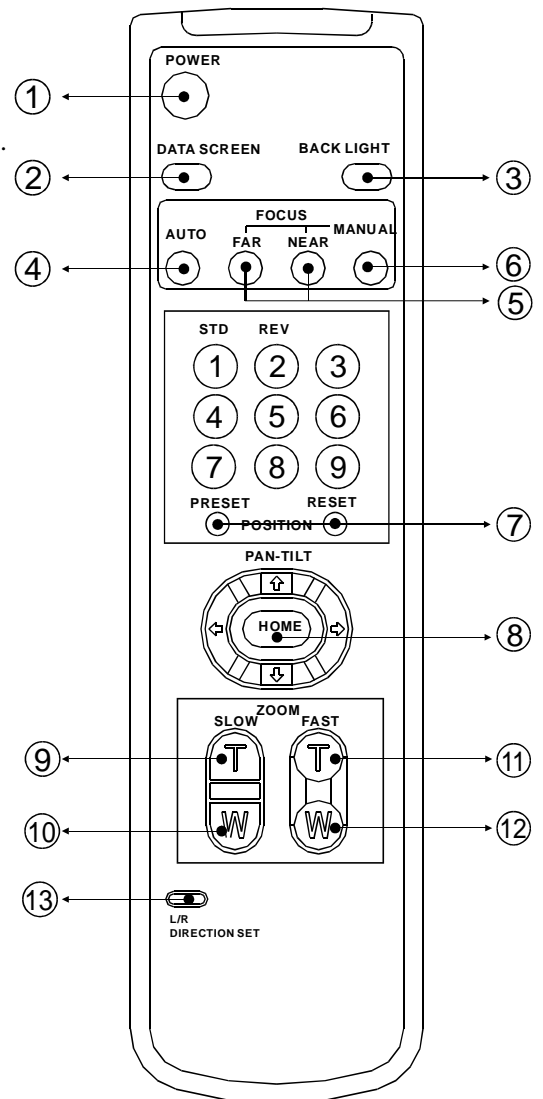
The Size for High definition video conference camera is as below:





## 4.3 Functions of remote controller

- ① **POWER:** open/close power
- ② **DATA SCREEN:** Enter OSD Menu, Continuous press 6 times (Every time must be around 1 second), Restart may make the dome restore factory default.
- ③ **BACK LIGHT:** press for back light compensation.
- ④ **AUTO:** press for auto-focus.
- ⑤ **FAR:** press for far zoom, focus on objects in far distance;  
**NEAR:** press for near zoom, focus on objects in near distance.
- ⑥ **MANUAL :** press for Manual Auto/ focus.
- ⑦ **POSITION:** Setting for preset and reset.  
**PRESET:** press any number from 0-9 within 2 seconds after press “preset” to set preset.  
**RESET :** press any number from 0-9 within 2 seconds after press “reset” to delete preset.  
 Press any number to see preset.
- ⑧ **HOME:** press this key to set position in central of front side.
- ⑨ **SLOW T:** focus on near object slowly
- ⑩ **SLOW W:** focus on far object slowly
- ⑪ **FAST T:** focus on near object fast
- ⑫ **FAST W:** focus on far object fast
- ⑬ **L/R DIRECTION/SET:** 1.press 1 in 2 seconds after press this key, camera start left to right rotation under upside installation style; Press 2 in 2 seconds after press this key, camera start left to right rotation under upside-down installation style.

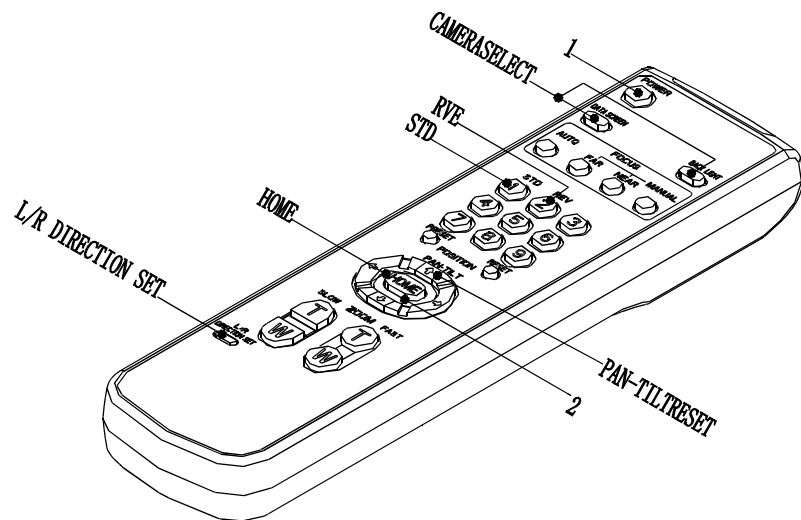


### ● Notes:

1. if the remote controller doesn't work, please change batteries.
2. camera can not work if there is any block between remote controller and camera, please make sure the controller is direct to the sensor when using.

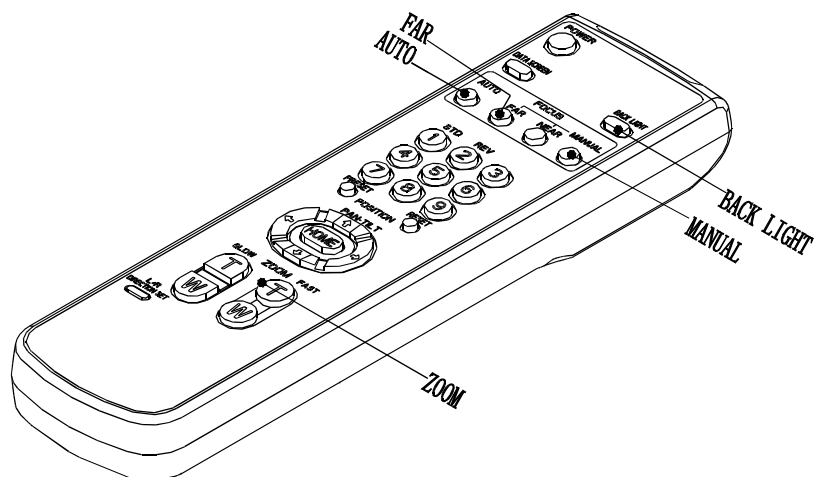
## 5. Instruction

### 5.1 Pan/Tilt operation



1. Press direction keys to change the direction. If need to change view angle of camera, please press the right direction key. Press short time for slow moving, press long time for fast moving.
2. Press "Home" to set position in central of front side.

### 5.2 Camera control

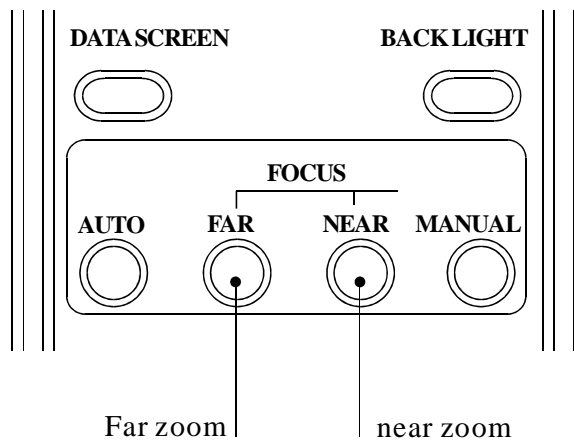


#### Focus

1. Auto focusing: press "auto", camera will focus on the central object.
2. Manual focusing: press "manual" to switch auto and manual focusing. Under model of "manual focusing", press "far" to set focus in far distance, press "near" to set focus in near distance.

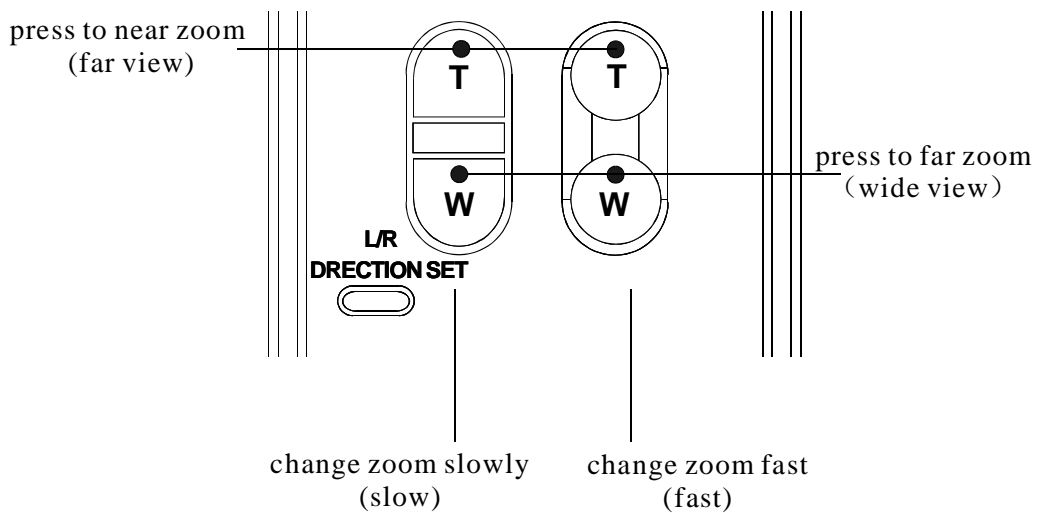
**Ø Back light imaging**

Light behind of the object, which will be black, press “back light” for compensation.  
 Press again for cancel this function.



**Ø Change focus**

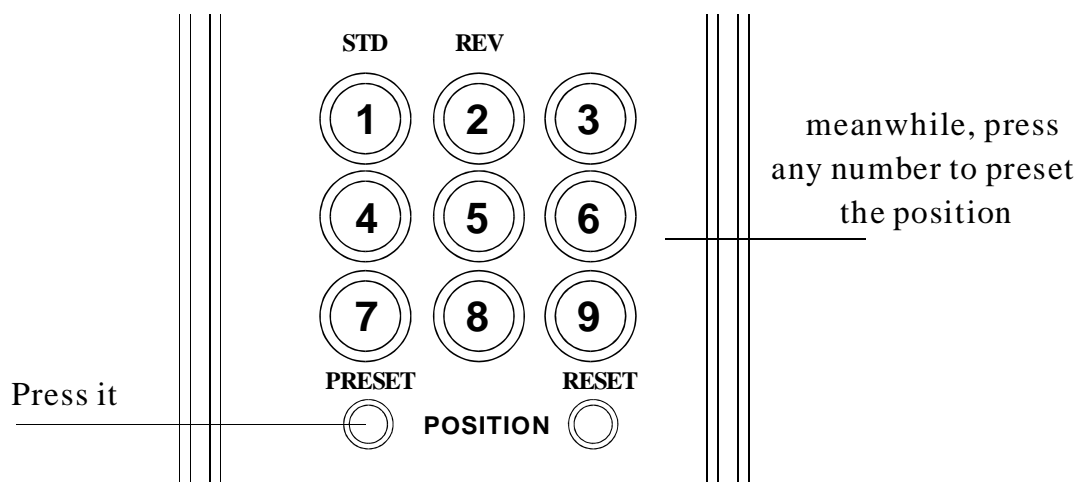
Press any button of zoom to realize different zoom.



## 5.3 Memory settings-preset function

Can set **up to 9** combinations of presets: position, zoom and back light etc.

1. Confirm standby with no glitter.
2. Adjust camera position, zoom and focus on back light.
3. Press position of 1-9 number keys, then press preset key to save preset.



**Choose memory settings:** Press any number 1-9 which stands for the saved preset.

**Delete memory settings:** Press RESET while press the related number which is saved for the preset for deletion.

### Attention

- 1、 When camera wired into the power supply, it starts automatically from the memory presets.
- 2、 If you want to keep the presets effective when start again after power break off, you can save the presets in position .
- 3、 Preset is saved or deleted in one position, it can not use other presets when setting. Same preset only can be saved or deleted in one position.

## 6. System setting

<b>MAIN MENU</b>
<b>SYSTEM SETTING</b> CAMERA SETTING VIDEO OUT COMM PARA EXIT

- 1、 Operate remote controller, press **【DATA SCREEN】** enter OSD menu;
- 2、 Press the arrow keys to select the menu, press left and right button to set functions;

### 6.1 System setting

<b>SYSTEM SETTING</b>
ZOOM LABEL OFF HEAD DOWN OFF L-R DIRACTION OFF POS MODE VISCA INITIAL INFO DEFAULT BACK EXIT

- 1、 Operate remote controller, Press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【SYSTEM SETTING】** press right button to enter next menu; as the left picture

- I **【ZOOM LABEL】**
- I **【HEAD DOWN】** Image inversion **【OFF】** Top mount **【NO】** Top-down mount
- I **【L-R DIRACTION】** Remote controller arrow keys and the camera running direction
- I **【OFF】** Remote controller arrow keys consistent with the direction of camera run
- I **【NO】** Remote controller arrow keys with the camera running direction of the opposite
- I **【POS MODE】** protocol mode, VISCA and FACTORY for option
- I **【INITIAL INFO】** Dome initialization information display; As the left picture shown: Initialization information including software version number, PTZ protocols, communication parameters, dome address, etc.
- I **【DEFAULT】** Restore to factory default setting

<b>INITIAL INFO</b>
FIRMWARE V2.33 6300 PROTOCOL: VISCA DAURATE: 9600 CAM ADDRESS: AUTO  BACK EXIT

## 7. CAMERA SETTING

MAIN MENU
SYSTEM SETTING
<b>CAMERA SETTING</b>
VIDEO OUT
COMM PARA
EXIT

Operate remote controller, Press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【CAMERA SETTING】** press right 1 button to enter next menu; as the left picture

CAMERA SETTING
* EXPOSURE
COLOR
FOCUS
PICTURE
BACK
EXIT

### 7.1 CAMERA **【EXPOSURE】** SETTING

1. Press arrow keys to move to **【EXPOSURE】** and then press right button to enter next menu, as the left picture

#### **【AE MODE】**

1. Press right button, for optional as Follows

- **【AUTO】** : default setting, auto Iris mode
- **【MANUAL】** : manual setting
- **【BRIGHT】** : brightness priority mode
- **【IRIS】** : iris priority mode
- **【SHUTTER】** : shutter priority mode

2. Option iris priority mode **【IRIS】**, press right-hand button, save setting.

3. Move the joystick to AE model sub-options **【IRIS F1.4】** press right key, Select the appropriate aperture size, press right button, save setting.

- **【SHUTTER 1/50】** It means shutter speed, when the AE mode is shutter priority, this function can be set.
- **【IRIS F1.6/0DB】** It means the size of iris, when the AE mode is iris priority, this function can be set.
- **【BRIGH F1.6/0DB】** It means brightness, when the AE mode is brightness priority, this function can be set.
- **【AGC LIMIT】** Automatic Gain, range of options 8-28dB;
- **【AGC LIMIT】** The smaller the value, the darker and image of snowflakes point less; numerical bigger and bright, the image of snowflakes point more
- **【SLOW SHUTTER】** Slow shutter control  
**【OFF】** Close slow shutter  
**【ON】** Open slow shutter
- **【BLC】** Backlight compensation function  
**【OFF】** Close backlight compensation  
**【ON】** Open backlight compensation
- **【EX-COMP】** Exposure compensation function

EXPOSURE
AE MODE SET
AGC LIMIT 28DB
SLOW SHUTTER OFF
BLC OFF
EX-COMP -1.5DB
BACK
EXIT

AE MODE
AE MODE AUTO
SHUTTER N/A
IRIS N/A
BRIGHT N/A
GAIN N/A
BACK
EXIT

## 7.2 CAMERA 【COLOR】 SETTING

<b>MAIN MENU</b>
SYSTEM SETTING <b>CAMERA SETTING</b> VIDEO OUT COMM PARA EXIT

<b>CAMERA SETTING</b>
EXPOSURE * COLOR FOCUS PICTURE BACK EXIT

<b>COLOR</b>
WB MODE      ATW R GAIN        100 B GAIN        100 BACK EXIT

<b>FOCUS</b>
FOCUS MODE    AUTO BACK EXIT

1. Operate remote controller, Press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【CAMERA SETTING】** press right button to enter next menu; As the left picture:

2. Press arrow keys to move to **【COLOR】** and then press right button to enter next menu, as the left picture
- **【WB MODE】** White balance mode.  
 Auto mode of white balance **【AUTO】** is the default mode of intelligent PTZ, environmental detection by the camera's white balance sensor automatically restore the true color. When select manual mode **【MANUAL】** you can adjust the values of **【R GAIN】** and **【B GAIN】**
  - **【R GAIN】** Options range in 1-255, values larger, represents an increase of more red, hue warm .
  - **【B GAIN】** Options range in 1-255, values larger, represents an increase of more blue, hue turn cold .  
 Indoor mode **【INDOOR】** hue cool colors  
 Outdoor mode **【OUTDOOR】** hue warmer
  - **【ATW】** Auto tracking mode
  - **【OPW】** Single lock white balance mode

## 7.3 CAMERA 【FOCUS】 SETTING

1. Operate remote controller, Press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【CAMERA SETTING】** press right button to enter next menu; as the left picture
2. Press arrow keys to move to **【FOCUS】** and then press right button to enter next menu, as the left picture

- **【FOCUS MODE】** Focus optional.  
**【AUTO】** Auto Focus  
**【MANUAL】** Manual Focus

## 7.4 CAMERA 【PICTURE】 SETTING

MAIN MENU
SYSTEM SETTING
<b>CAMERA SETTING</b>
VIDEO OUT
COMM PARA
EXIT

CAMERA SETTING
EXPOSURE
COLOR
FOCUS
* PICTURE
BACK
EXIT

PICTURE	
B&W	AUTO
GAMMA	NORMAL
HI-RESOLUTION	OFF
NOISE REDUCE	OFF
MIRROR	OFF
FLIP	OFF
SHARPNESS	000
BACK	
EXIT	

1. Operate remote controller, press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【CAMERA SETTING】** press right button to enter next menu; as the left picture

2. Press arrow keys to move to **【PICTURE】** and then press right button to enter next menu, as the left picture

- **【B&W】** color / black and white switch mode  
**【AUTO】** Auto color / black and white switch mode, intelligent PTZ automatically switched according to illumination  
**【COLOR】** set as color mode  
**【BLACK】** set as black and white mode
- **【GAMMA】** Gamma correction
- **【HI-RESOLUTION】** Camera built - in high-resolution capabilities , refer to the camera types
- **【NOISE REDUCE】** **Noise reduce processing**
- **【MIRROR】** Mirror image function
- **【FLIP】** The function of Auto flip when the camera rotates pan 180 degrees
- **【SHARPNESS】** image acutance settings



## 8. Video output and communication parameters setting

MAIN MENU	
SYSTEM SETTING	
CAMERA SETTING	
VIDEO OUT	
COMM PARA	
EXIT	

1. Operate remote controller, press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【VIDEO OUT】** press right button to enter next menu; As the left picture

- **【RGB /YUV】** Signal output format
- **【HDCP】** High-bandwidth Digital Content Protection  
**【OFF】** Closed off high-bandwidth Digital Content Protection  
**【ON】** Open high-bandwidth Digital Content Protection
- **【OPT · CORR】** Optical correction

VIDO OUT	
FORMAT	1080P30
RGB/YUV	OFF
HDCP	OFF
OPT · CORR	N/A
BACK	
EXIT	

2. Operate remote controller, press **【DATA SCREEN】** enter OSD menu, press the arrow keys to move to **【COMM PAPER】** press right button to enter next menu; As the left picture.

- **【PROTOCOL】** Dome Commutation protocol, the optional of VISCA, PELCO D, PELCO P and so on;
- **【BAUDRATE】** Setting dome baud rate, optional: 2400bps、4800bps、9600bps、19200bps、38400bps.
- **【ADDRESS】** Setting dome address, (range of address 001-255), when **it** is AUTO, the system automatically assigns the linkage dome address;

COMM PAPER	
PROTOCOL	VISCA
BAUDRATE	2400
ADDRESS	AUTO
BACK	
EXIT	

## 9. Maintenance service terms

### 1. Range of warranty

- The product will be maintained free for one year.
- The product will be obtained the free maintenance service if the same malfunction appears again within three payable maintenance months.
- Malfunction of products caused by force majeure (such as war, earthquake, lightning strike and so on ), abuse, non-standard operation, change of construction, non-normal wear or accident are non-free of warranty.
- Please prevent from the damage which is caused by heavy pressure , the fierce vibration and soaks in the process of transportation and storage, which does not belong to the free maintenance range.
- Please adopt the way of fission package or original package to transport because the product damage dose not belong to the free maintenance scope if you use the whole packing way , not the original packing way.
- The maintenance services will not be free when the pan/tilt module is disassembled or serviced by the user voluntarily.
- Our company implements the lifetime payable service if the product in malfunction has surpassed the warranty period.
- To the products with defect :if it's in the period of warranty, please fill in the form of warranty information correctly, describe the trouble in details, and provide original sales. invoice or its copy.
- For the damage and loss which was caused by the user's specifically application, factory won't bear any risk and responsibility. The factory compensation made by breach of faith, negligence or tortious won't exceed the amount of the products. The factory won't bear any responsibility for the special, unexpected and continue damage caused by any other reasons.
- Our company has the final right of explanation for the above terms.

### 2. Warranty terms

- If the products are within the warranty time, the buyer should fill in the warranty card and send back together with the products.

### 3. Shipping

- If the product needs repaired , you can return it to the manufacturer through the supplier or directly. If you choose the later , please contact us in order to speed up the process. And our company only undertake the one-way freight from manufacturer to customer after maintenance.

