# VC-R31

## HD Camera

(PTZ Video Camera)

## User Manual - English
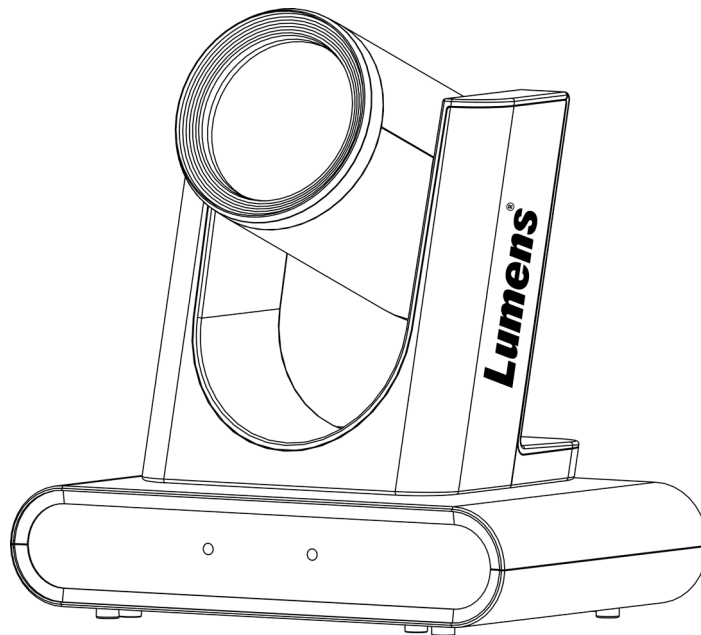
Version VUE100

[Important]

**Lumens**®

# Table of Contents

# Chapter 1 Package Contents

| VC-R31 | 3-PIN to 2-PIN connector | Remote Control |
|:---:|:---:|:---:|
| | (For Japan only) | |

| Power Cord | Power Adapter | USB 3.0 Cable (TypeA-B, 2m) |
|:---:|:---:|:---:|
| Appearance may vary depending on country/ region | | |
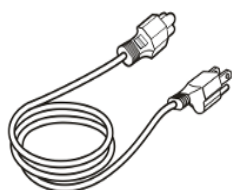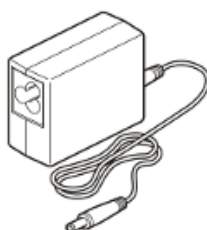
# Chapter 2 Product Overview and Interface

## 2.1 I/O functions Introduction

Front View
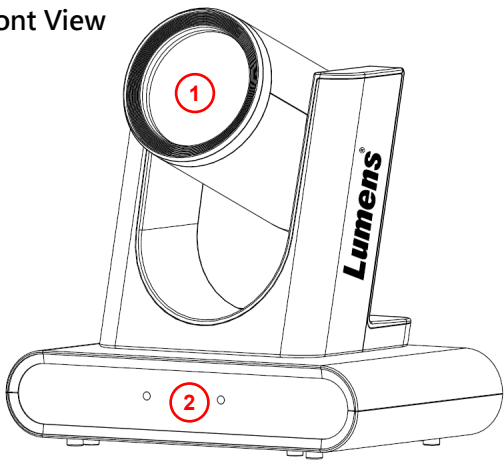


Back View
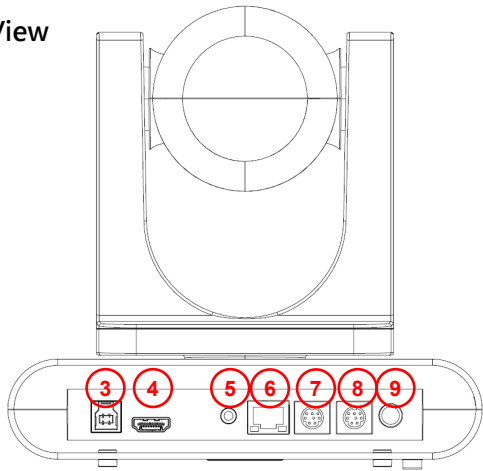


| NO. | Item | Function Descriptions |
|---|---|---|
| 1. | Camera lens | Camera lens |
| 2. | Power/Standby LED indicator | Display the status of the camera |
| 3. | USB3.0 Port | The USB port is for connecting to the USB port of the computer and providing USB signal images |
| 4. | HDMI output | HDMI output |
| 5. | Audio In | 3.5 mm LINE IN |
| 6. | Network port | Network port, supporting PoE (IEEE802.3af) power supply |
| 7. | RS-232 input | RS-232 input, at most 7 cameras can be connected in a serial connection |
| 8. | RS-232 output | RS-232 output, at most 7 cameras can be connected in a serial connection |
| 9. | DC 12 V power Port | DC supply connecting port |

Bottom
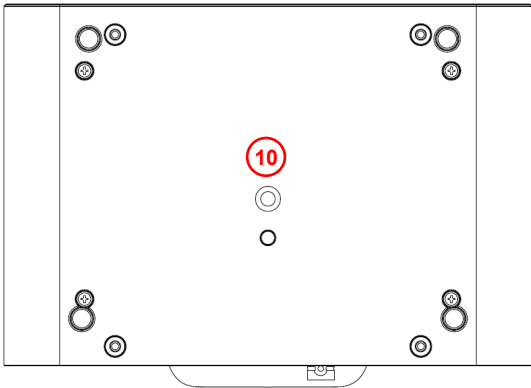


| NO. | Item | Function Descriptions |
|---|---|---|
| 10. | Tripod lock hole | The camera is mounted on a (specification) 1/4" -20 UNC tripod |

## 2.2 Description of LED indicator

| Status | Power | Standby |
|---|---|---|
| Powered off (power not connected) | No indicator | No indicator |
| Initialization | Green | Amber |
| Power on completed (In use) | Green | No indicator |
| In standby mode | No indicator | Amber |
| Privacy Mode | Amber | No indicator |
| Auto Framing mode | Green (slow flickering) | Green (slow flickering) |

*Lumens*®

# Chapter 3　Instruction for installation

## 3.1　Preparation before installation

Installation and connection of HD camera requires special skills. To install by yourself, please follow necessary steps, ensure steady and tight installation of the device, and pay attention to your safety to avoid any accident.

**3.1.1** Ensure the safety of the installation environment. Please do not install the device on unstable ceiling or in a place where the device is in danger of falling to avoid any accident.

**3.1.2** Please check whether accessories in the box are complete or not. Please contact the supplier for any shortage, and make sure to keep the accessories in the box intact.

**3.1.3** Please choose a proper place for installation of camera in advance. Please determine an installation place according to the following requirements

- Confirm the position for the object to be captured.
- Confirm the camera is set at a proper distance from other light sources.

**3.1.4** Precautions for installation

- Please confirm the orientation of the machine relative to the object to be captured
- It is recommended that the camera should be set at a distance of more than 1.5 meter away from the object to be captured. Please adjust for a best distance according to the magnification of the lens
- Do not grab the camera head by hand when handling the device
- Do not rotate the camera head by hand. Improper rotation may result in breakdown of the camera
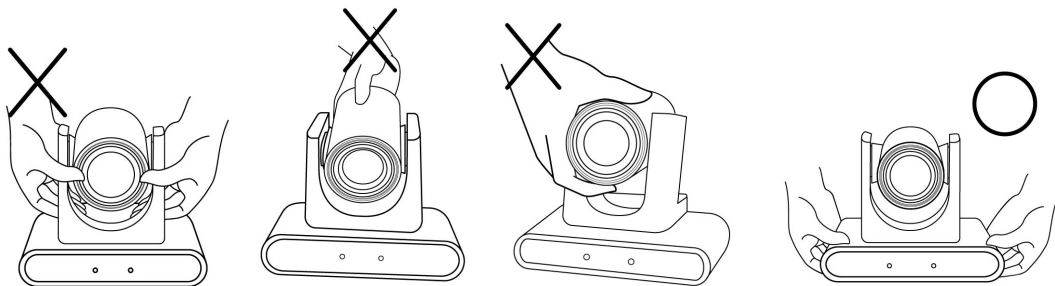
## 3.2　Instruction for installation

**3.2.1** I would like to install camera on the desk

- Please install the camera on a flat desk

**3.2.2** I would like to install the camera on the ceiling/wall/TV stand

Available with VC-WM14 3-in-1 sheet metal, please refer to <u>VC-WM14 Quick Installation Guide</u>

- Install on the TV
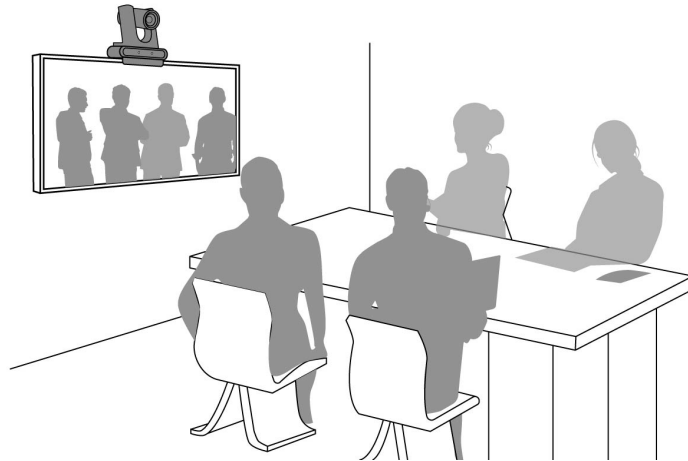
- Install on the ceiling
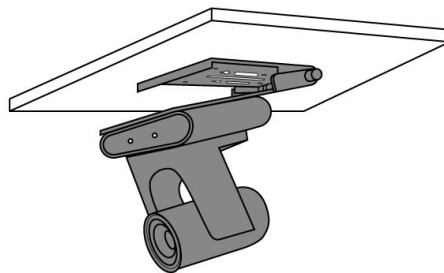


- Install on the wall
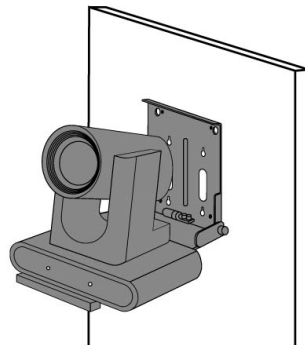


### 3.2.3 Camera Size

- Length x Width x Height: 190 x 137.4 x 185mm
- Weight: 1.5 Kg

## 3.3 Connecting devices



Computer

USB 3.0 Port

Router / Hub

Ethernet Port

Camera (Serial)

RS-232 Output

USB

HDMI

AUDIO IN

ETHERNET

RS-232 IN

RS-232 OUT

DC IN 12V

HDMI Output

Audio Input

RS-232 Input

DC Input

Display

Microphone

Computer / VS-KB30
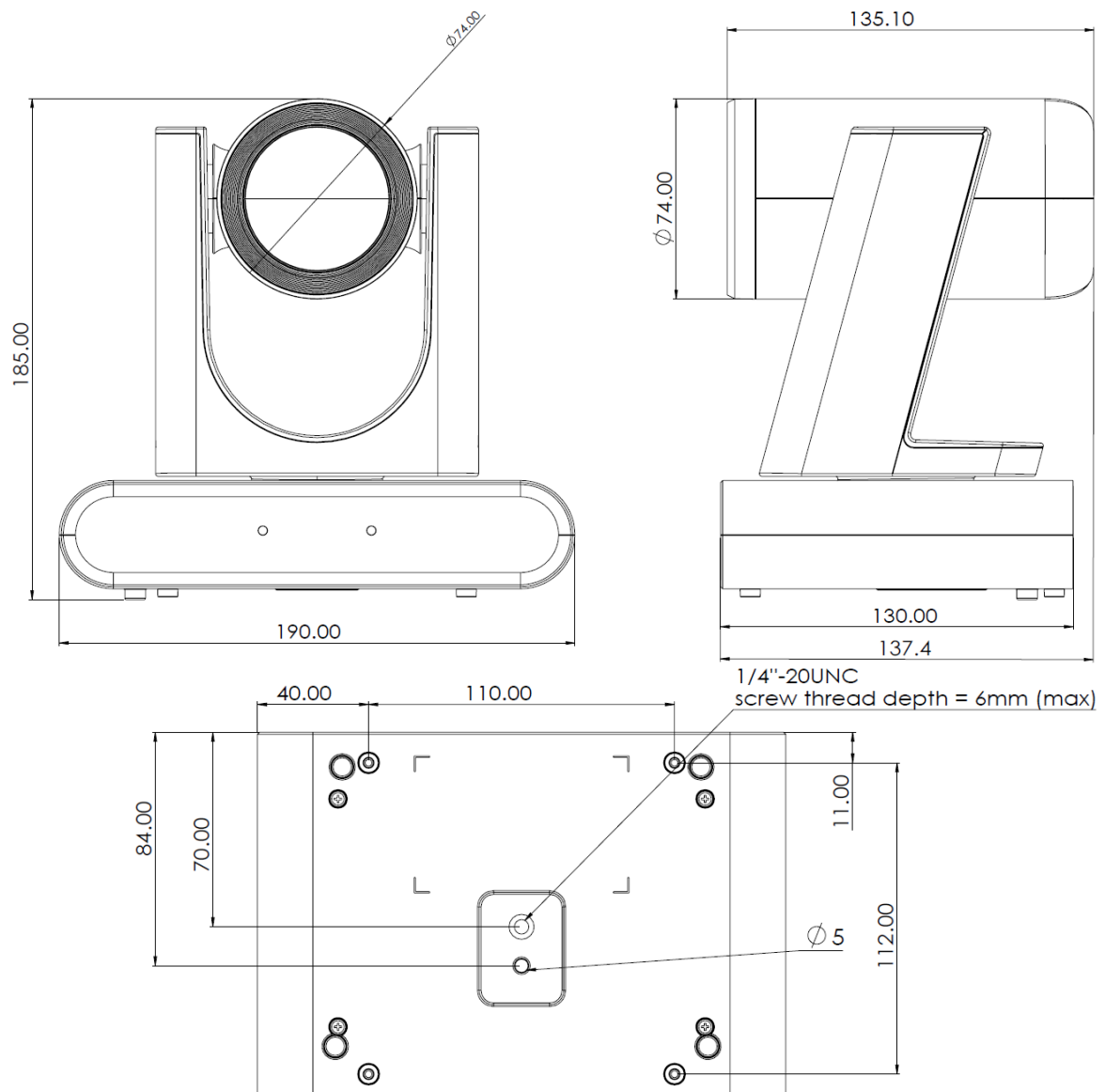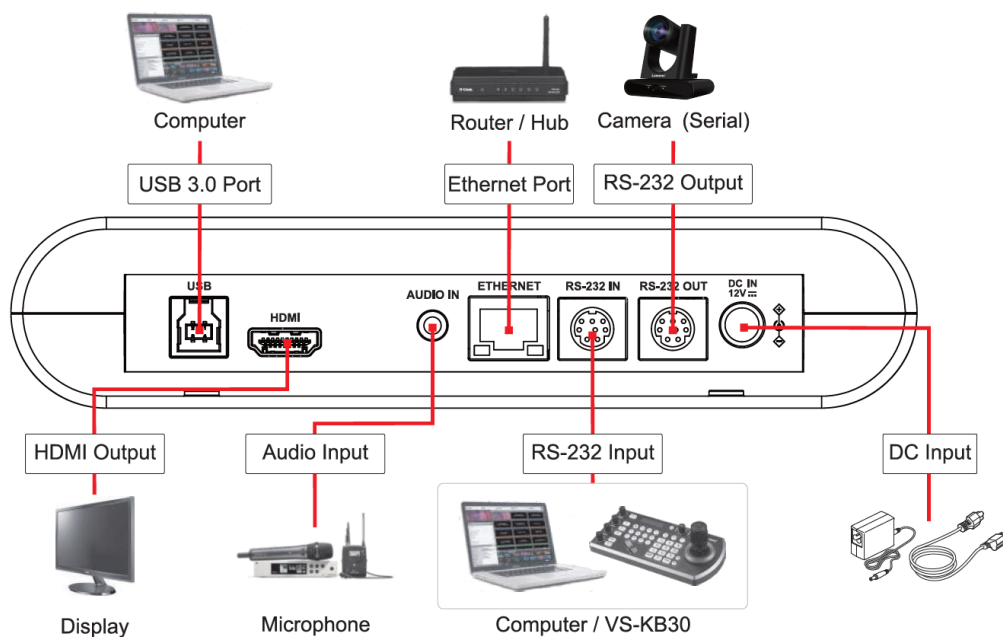
**Note** Network cable port, supporting PoE (IEEE802.3af) power supply.

### 3.3.1 USB Image Output

Connect to computer with a USB3.0 cable, and you can view images with video software, such as, Skype, Zoom and Microsoft Teams

### 3.3.2 RS-232 Connection

With RS-232 in/out, at most 7 Lumens cameras can be connected.

■ RS-232 pins definition instructions

#### ▼ RS-232 IN Pins Instructions

| NO | Pins | Signals |
|----|------|---------|
| 1 | DTR | Data Transmission Reade |
| 2 | DSR | Data Set Reade |
| 3 | TXD | Transmit Data |
| 4 | GND | Ground |
| 5 | RXD | Receive Data |
| 6 | GND | Ground |
| 7 | IR OUT | IR Commander Signal |
| 8 | N.C. | No Connection |

#### ▼ RS-232 OUT Pins Instructions

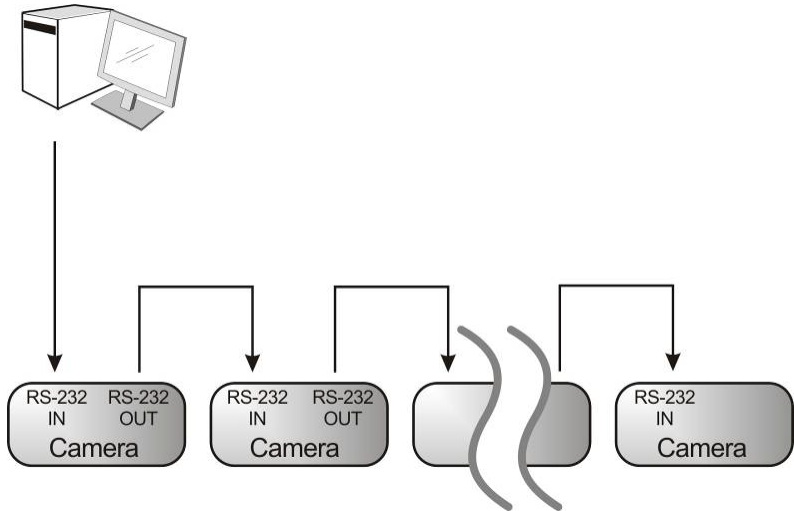| NO | Pins | Signals |
|----|------|---------|
| 1 | DTR | Data Transmission Reade |
| 2 | DSR | Data Set Reade |
| 3 | TXD | Transmit Data |
| 4 | GND | Ground |
| 5 | RXD | Receive Data |
| 6 | GND | Ground |
| 7 | OPEN | Reserved |
| 8 | OPEN | Reserved |

#### ▼ RS-232 Connection Instructions

RS-232 IN of VC          RS-232 of PC

1. DTR          1. CD
2. DSR          2. RXD
3. TXD          3. TXD
4. GND          4. DTR
5. RXD          5. GND
6. GND          6. DSR
7. IR OUT       7. RTS
8. N.C.         8. CTS
                9. RI

#### ▼ RS-232 Connection Instructions

RS-232 IN          RS-232 OUT
of Next Camera     of Last Camera

1. DTR          1. DTR
2. DSR          2. DSR
3. TXD          3. TXD
4. GND          4. GND
5. RXD          5. RXD
6. GND          6. GND
7. IR OUT       7. OPEN
8. N.C.         8. OPEN
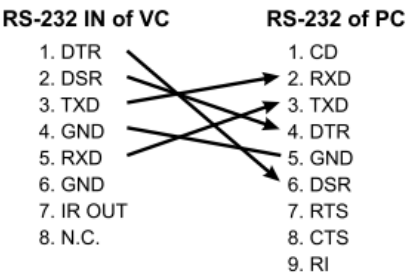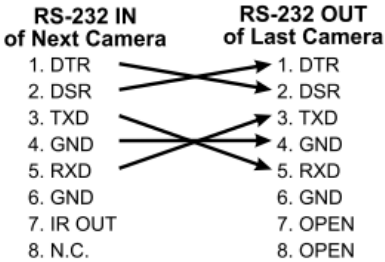
# Chapter 4 Introduction of Remote Control and Menu

## 4.1 Remote Control
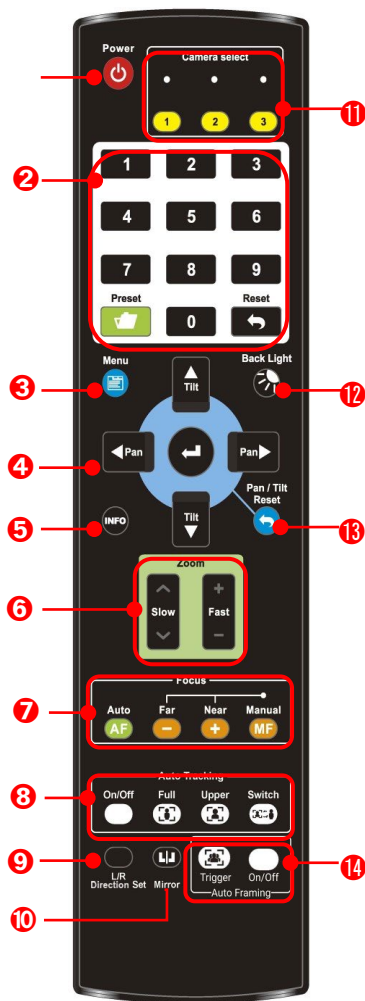
| No. | Function | Description |
|-----|----------|-------------|
| 1. | Power | Power On/ Off |
| 2. | Preset | ■ Numeric Keys 0 - 9: Click to call the preset<br>■ Preset: Appoint an ID (0 ~ 9) to save the current position data<br>■ Reset: Appoint an ID (0 ~ 9) to delete the current position data |
| 3. | Menu | Display OSD menu |
| 4. | Pan/ Tilt/ Enter | ■ Pan/Tilt: Move the lens<br>■ Home-Enter: Go back to the main page / Execute |
| 5. | Info | Status information |
| 6. | Zoom | ■ Fast: Adjust image size<br>■ Slow: Fine-tune image size |
| 7. | Focus | ■ Auto: Auto focus<br>■ Manual: Enable Manual Focus<br>■ Far/Near: Adjust the focal length in Manual |
| 8. | Auto Tracking | Note VC-R31 not support this function. |
| 9. | L/R Direction Set | L/R Direction / Normal |
| 10. | Mirror | Rotate the image (OFF / Mirror / Flip / Rotate) |
| 11. | Camera select | Choose Camera ID 1 ~ 3 |
| 12. | Back Light | Turn on/off back light compensation |
| 13. | Pan/Tilt Reset | Clear the Pan/Tilt setting |
| 14. | Auto Framing | ■ On/Off: Enable/Disable auto framing<br>■ Trigger: Manual framing correction |

## 4.2  Menu

Press [MENU] on the **remote control** to enter the setting menu; the **bold underlined** values in the following table are defaults.

| 1st Level | 2nd Level | 3rd Level | | Function Descriptions |
|---|---|---|---|---|
| Exposure | Mode | **Full Auto**/ Shutter Pri/ Iris Pri/ Manual/ White Board | | Exposure mode setting |
| | Spot Light | On/ **Off** | | Turn on/off Spot Light |
| | Spot Light Position | X(0~6)Y(0~4) | | Adjustable after *Spot Light* is activated |
| | Anti-flicker | 50Hz/ 60Hz/ **Off** | | When capturing LED lights that appear to flicker, please enable this feature according to the frequency. |
| | Exposure Comp. | On/ **Off** | | Turn on/off Exposure Comp. |
| | Exposure Comp. Level | -6~**C**~4 | | Adjustable after *Exposure Comp.* is activated |
| | Shutter Speed | 60/30fps | 50/25fps | Adjustable when the *Exposure mode* is set to *Shutter Pri* or *Manual* |
| | | 1/10000~1/25 | | |
| | Iris Level | F1.6~**C**~F14/ Close | | Adjustable when the *Exposure mode* is set to *IRIS Pri* or *Manual* |
| | Gain Limit | 8~**30**dB | | Max. limit value of electron gain |
| | Gain Level | **0**~30dB | | Adjustable when the *Exposure mode* is set to *Manual* |
| | WDR | **Off**/ 1/ 2/ 3 | | WDR settings |
| White Balance | Mode | **1.Auto** 2.Indoor 3.Outdoor 4.One Push WB 5.ATW 6.Manual 7.Sodium Lamp | | Select the color temperature mode 1.  4000k ~ 7000k 2.  3200k 3.  5800k 4.  1700k ~ 10000k 5.  1700k ~ 10000k 6.  Custom 7.  2800k |
| | One Push Trigger | **ENTER** | | One push trigger |
| | Manual Red | 0~**C**~127 | | Adjustable when the white balance mode is set to *Manual* |
| | Manual Blue | 0~**C**~127 | | Adjustable when the white balance mode is set to *Manual* |
| Picture | 2D NR | Off/ **1**/ 2/ 3 | | 2D noise reduction |
| | 3D NR | Off/ Low/ **Typ**/ Max | | 3D noise reduction |
| | Image Mode | **Default**/ Custom | | The user may customize his/her desired image mode |

**Lumens®**

| 1st Level | 2nd Level | 3rd Level | Function Descriptions |
|---|---|---|---|
| | Brightness | 0~**C**~15 | Adjustable when the *Image Mode* is set to *Custom* |
| | Hue | 0~**C**~15 | Adjustable when the *Image Mode* is set to *Custom* |
| | Saturation | 0~**C**~15 | Adjustable when the *Image Mode* is set to *Custom* |
| | Gamma | 0~**C**~3 | Adjustable when the *Image Mode* is set to *Custom* |
| | Sharpness | 0~**C**~14 | Adjustable when the *Image Mode* is set to *Custom* |
| Pan Tilt Zoom) | Pan/Tilt Limit | On/ **Off** | Turn on/off the angle limit setting |
| | Pan Right Limit | 0~**170** | Limit the right angle |
| | Pan Left Limit | **-170**~0 | Limit the left angle |
| | Tilt UP Limit | 0~**90** | Limit the upward angle |
| | Tilt Down Limit | **-30**~0 | Limit the downward angle |
| | Pan Flip | On/ **Off** | On: Pan command will be reverse |
| | Tilt Flip | On/ **Off** | On: Tilt command will be reverse |
| | Preset Speed | 5/ 25/ 50/ 80/ **120** deg/sec | Set the rotation speed of the cradle head when Preset is executed |
| | PTZ Speed Comp | On/ **Off** | On: the Pan/Tilt moving speed will vary from the zoom position |
| | D-Zoom Limit | **x1**~x12 | Set the D-zoom limit |
| D-Effect | Mirror | **Off**/ Mirror/ Flip/ Mirror+Flip | Set the mode at which the image is turned |
| Auto Focus | AF Sensitivity | Low/ **Middle**/ High | For AF triggering speed, the higher the sensitivity is, the faster AF is triggered |
| | AF Frame | Center/ Full Frame/ **Auto** | *Center*: focusing will be on the center of the screen. *Full Frame*: focusing will be calculated based on the full screen |
| Ethernet | DHCP | **On**/ Off | Enable/Disable the dynamic host configuration |
| | IP Address | **192.168.100.100** | Configurable when *DHCP* is set to *Off* |
| | Subnet mask | **255.255.255.0** | |
| | Gateway | **192.168.100.254** | |
| Audio | Audio Enable | On/ **Off** | Turn on/off audio output |
| | Audio In | **Line In**/ Mic In | |
| | Audio Volume | 0~**C**~10 | Volume Setting |

| 1st Level | 2nd Level | 3rd Level | Function Descriptions |
|---|---|---|---|
| | Audio Delay | On/ **Off** | When the audio is not synchronized with the video, enable this function to set the audio delay time |
| | Audio Delay Time(ms) | **-10**~-500ms | Set audio delay time |
| | Encode Sample Rate | **48** KHz(AAC) | Set the encode type and sample rate |
| System | Prompt | On/ **Off** | Turn on/off the prompt information. |
| | IR Receive | **On**/ Off | Off: the remote control will not be able to control the camera. At this moment, turn off and then turn on the power to restore control of the remote control. |
| | IR Select | **1**/ 2/ 3 | Camera IR Select setting must be the same setting as the Camera Select of the remote control to control the camera |
| | Tracking Led Status | On/ Off | ON: the front panel LED will display flashing green lights when the auto framing function is enabled. |
| | Language | **English** | |
| | Initial Position | **Last MEM**/ 1st Preset | When the camera power on, the camera returned to *Last MEM* or *1st Preset* position <br> Note *1st Preset* =Preset 0 position |
| | Motionless Preset | On/ **Off** | On: the screen will Freeze when *Preset* is executed. Freeze will be released after *Preset* is completed |
| | Privacy Mode | On/**Off** | On: when the camera is turned off via the remote control or software, the lens will auto turn to the bottom right to ensure the user's privacy |
| | Protocol | **VISCA** | |
| | Baud Rate | **9600**/38400 | Choose the transmission speed of the control signal |
| | VISCA Address | **1**~7 | Assign camera ID (0= auto assign) |
| | Output Mode | **1080p 60**/50/30/25 720p 60/50/ | Choose the output resolution |
| | Factory Reset) | On/ **Off** | Resume the factory default setting |
| Status | | | Display the current setting status |

# Chapter 5　Network Function Settings Description

## 5.1　Web System Requirements

| Operating System | Version | Browser |
|---|---|---|
| Windows | 7 (64 bits) and above | FireFox |
| | | Chrome |
| | 10 (64 bits) and above | Edge |
| | | FireFox |
| | | Chrome |
| Mac | 10.14 and above | Safari |
| | | Chrome |
| | | FireFox |

## 5.2　Connecting Camera to Network

### 5.2.1 Connecting to Internet

Two common connection methods are shown below

1. Connecting via switch or router

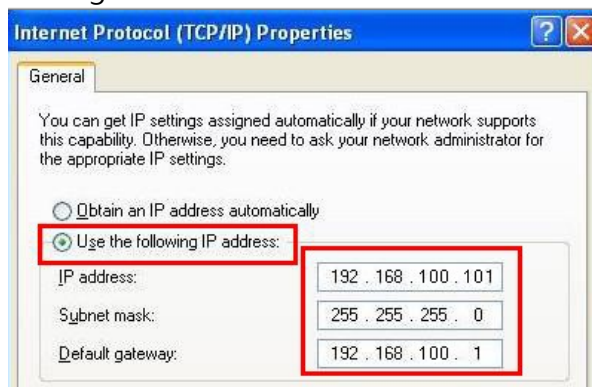Camera　　Cat5e Cable　　Switch/ Router　　Cat5e Cable　　PC

2. To connect directly through network cable, the IP address of the computer should be changed so that it is on the same network segment as the camera

   **E.g.:** The factory-preset default IP address of the camera is 192.168.100.100. The computer IP address must be set with the same network segment, such as 192.168.100.101, so that the computer can be connected correctly with the camera

Camera　　Cat5e Cable　　PC
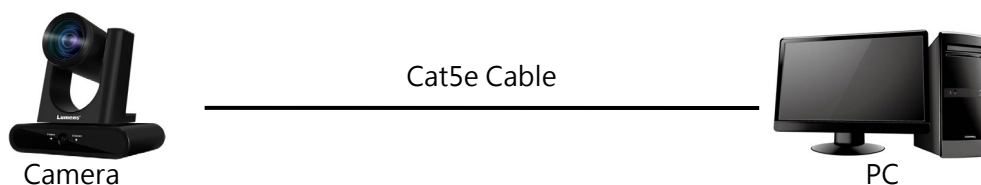
● Change network settings

**Internet Protocol (TCP/IP) Properties**

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

◉ Use the following IP address:

IP address:　192 . 168 . 100 . 101

Subnet mask:　255 . 255 . 255 . 0

Default gateway:　192 . 168 . 100 . 1

### 5.2.2 Using the Browser to View the Images

■ Open the browser, and enter the IP address of the camera in the address bar

E.g.: http://192.168.100.100 (default IP address)

■ Enter administrator's account and password

Note For the first-time login, please refer to *5.3.9 System Settings - User* to change the default password



```
Lumens Network Camera
    ● Account: admin
    ● Password: 9999 (Default)
```
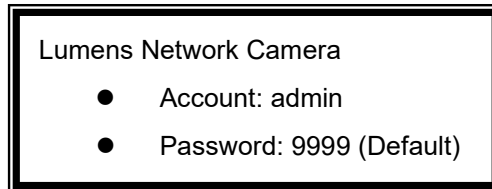
### 5.2.3 Using RTSP Player to View the Images

Free software can be used for RTSP connection, such as VLC, Quick Time and PotPlayer

RTSP connection address formats are as follows:

● RTSP Stream 1 => rtsp://camera IP:8557/h264

● RTSP Stream 2 => rtsp://camera IP:8556/h264

If password authentication is enabled, the RTSP connection address is as follows:

● rtsp://Username:Password@VC IP address:port/h264

● To enable password authentication function, please refer to 5.3.5 *Stream*

**Example:**

Open the VLC software, click [Open Network Streaming], and enter the URL:

rtsp://192.168.100.150:8557/h264
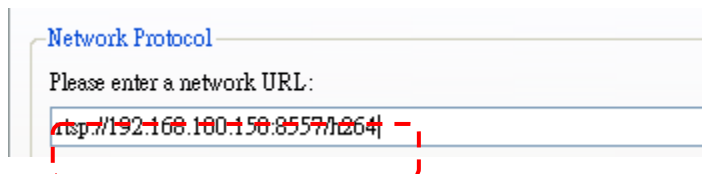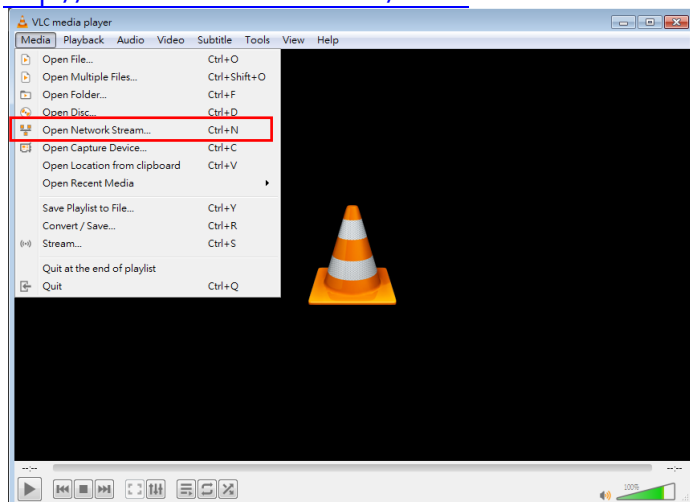
## 5.3 Web Interface

### 5.3.1 Login



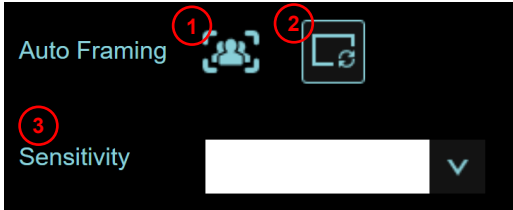| No | Item | Function Descriptions |
|----|------|------------------------|
| 1 | User Name | Enter user login account (default: admin) |
| 2 | Password | Enter user password (default: 9999)<br>Note For the first-time login, please refer to *5.3.9 System Settings - User* to change the default password |
| 3 | Remember Me | Save user name and password. When logging in next time, there is no need to re-enter them. |
| 4 | Language | Supporting English/Traditional Chinese/Simplified Chinese |
| 5 | Login | Log into the management page to control the camera. |

### 5.3.2 Live Video – PTZ Control
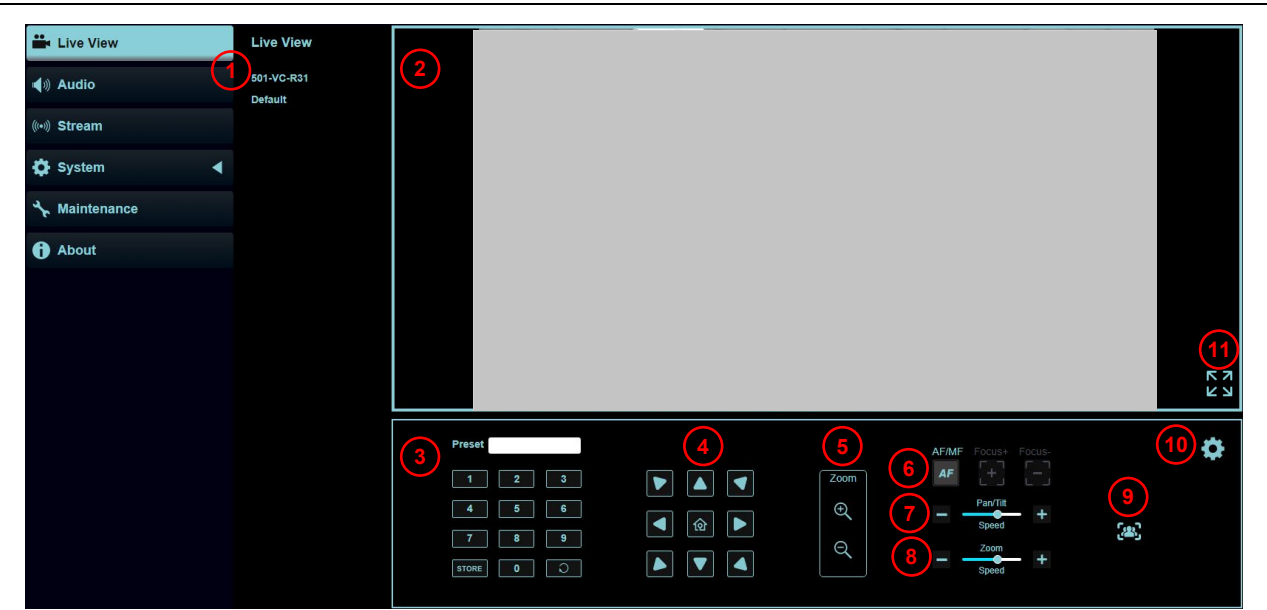


| No | Item | Function Descriptions |
|----|------|------------------------|
| 1 | Camera ID/location | Display camera ID/location |

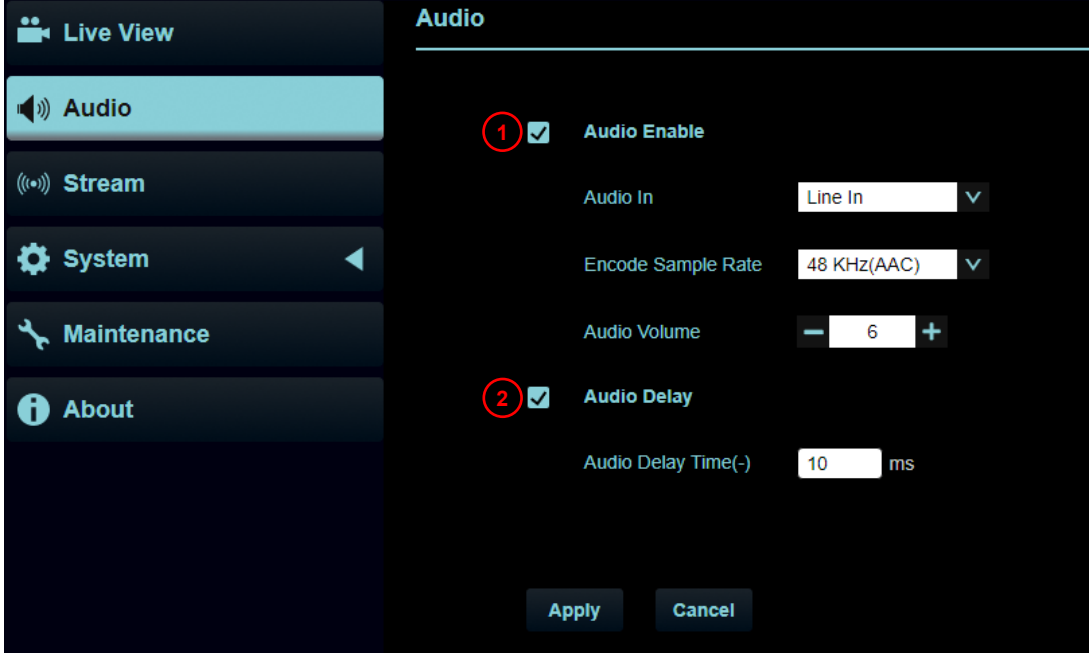| | | Please refer to *5.3.6 System Settings - Output* |
|---|---|---|
| 2 | Preview window | Display the live view of the camera |
| 3 | Preset setting | Select the number first and then select STORE or LOAD |
| 4 | Pan/Tilt setting | Adjust the Pan/ Tilt position of the camera screen |
| 5 | Zoom | Zoom In/ Zoom Out ratio |
| 6 | AF/MF | Switch AF/ MF |
| 7 | Pan/ Tilt Speed | Adjust the Pan/ Tilt moving speed |
| 8 | Zoom speed | Adjust the zoom speed |
| 9 | Auto Framing | Enable Auto Framing setting<br><br><br><br>1. Enable/Disable Auto Framing<br>2. Correction: If the image is not zoomed according to the actual number of people, please click to perform framing correction<br>3. Sensitivity: Set tracking sensitivity |
| 10 | Camera Setting | Please refer to *5.3.3 Live Video - Camera Setting* for related settings |
| 11 | Enlarge | Zooming in/ out the preview image |
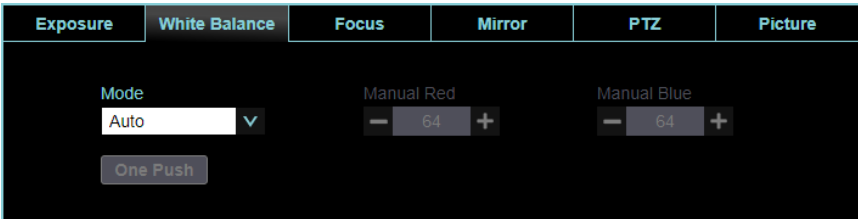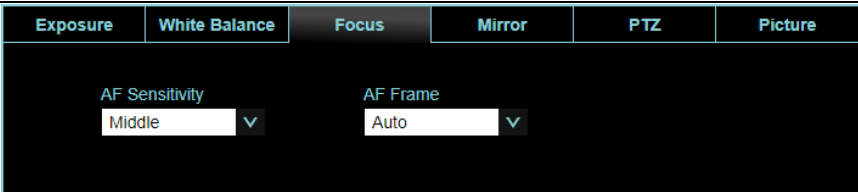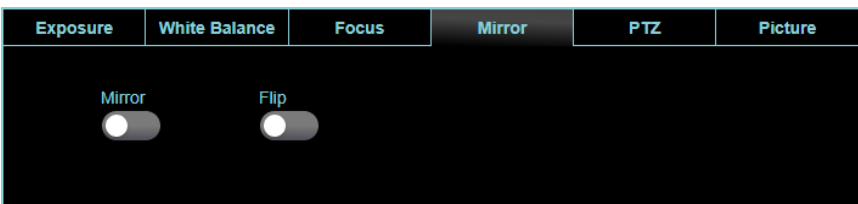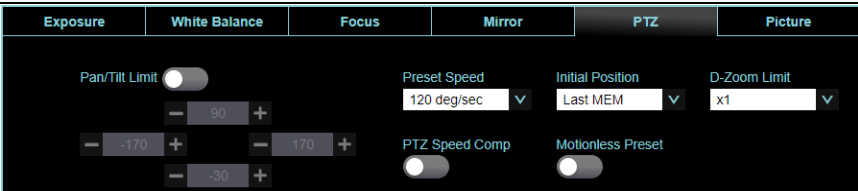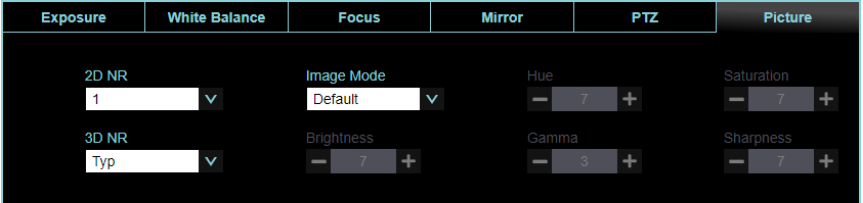
### 5.3.3 Live Video - Camera Setting



| No | Item | Function Descriptions |
|---|---|---|
| 1. | Exposure | ■ Mode: Select exposure mode (Full Auto/ Shutter Pri/ Iris Pri/ Manual/ White Board)<br>■ Gain Level: Adjust the gain level (adjustable only under the "Manual")<br>■ Gain Limit: Adjust he gain limit (adjustable only under the "Manual")<br>■ Exposure Comp. Level: Select exposure compensation level<br>■ WDR: Set the level of wide dynamic range (WDR) in order to obtain better images<br>■ Iris Level: Adjust the size of aperture (adjustable only under the "Manual" or "Aperture Priority" |

| | | |
|---|---|---|
| | | ■ Shutter Speed: Adjust the shutter speed (adjustable only under the "Manual" or "Shutter Priority"<br>■ Anti-Flicker: When capturing LED lights that appear to flicker, please enable this feature according to the frequency. |
| 2. | White Balance | <br>■ Mode: Select the White Balance mode<br>■ One Push: Single white balance execution adjustment (adjustable only under the "One Push WB"<br>■ Manual Red/Blue: Manually adjust blue/red color temperature |
| 3. | Focus | <br>■ AF Sensitivity: Set sensitivity for auto focus.<br>■ AF Frame: Set focus range for auto focus. |
| 4. | Mirror | <br>■ Mirror: Set image mirroring<br>■ Flip: Set image flip |
| 5. | Pan Tilt Zoom | <br>■ Pan/Tilt limit: Enable to set the pan/tilt limit<br>■ Preset Speed: Set the rotation speed of the camera head when Preset is executed<br>■ PTZ Speed Comp: After it is activated, the Pan/Tilt moving speed will vary according to the zoom position<br>■ Initial Position: Set the camera lens to *Last MEM* or *1st Preset* position after POWER ON<br>  Note *1st Preset* = Preset 0<br>■ Motionless Preset: After enabled, the screen will Freeze when Preset is executed. Freeze will be released after Preset is completed |

**Lumens**®

| No | Item | Function Descriptions |
|---|---|---|
| 1 | | ■ D-Zoom Limit: Set the D-Zoom Limit |
| 6. | Picture |  ■ 2D noise reduction: 2D noise reduction settings <br> ■ 3D noise reduction: 3D noise reduction settings <br> ■ Image Mode: The user may customize his/her desired image mode <br> ■ Brightness: Brightness adjustment of the image; Adjustable when the image mode is set to Custom <br> ■ Hue: Hue adjustment of the image; Adjustable when the image mode is set to Custom <br> ■ Gamma: Gamma Level adjustment; Adjustable when the image mode is set to Custom <br> ■ Saturation: Saturation adjustment of the image; Adjustable when the image mode is set to Custom <br> ■ Sharpness: Sharpness adjustment of the image; Adjustable when the image mode is set to Custom |
| 7. | PTZ Control | Go back to PTZ Control page |

### 5.3.4 Audio



| No | Item | Function Descriptions |
|---|---|---|
| 1 | Audio Enable | Select to enable Audio function <br> ■ Audio In: Set Line In / Mic In <br> ■ Encode sample rate: Set the encode type and sample rate <br> ■ Volume: Adjust Audio Volume |

| 2 | Audio Delay | After checking the box, set the audio delay time (10 ~ -500 ms) |
|---|---|---|
| 3 | Apply/Cancel | Apply/ Cancel Audio Setting |

## 5.3.5 Stream



| No | Item | Function Descriptions |
|---|---|---|
| 1 | Streaming 1/ Streaming 2 | Support 2 x streaming output |
| 2 | Streaming parameter setting | Please refer to *5.3.5.1 Streaming Parameter Setting* for relevant settings |
| 3 | RTSP | Select to enable RTSP<br>■ Enable/Disable Multicast<br> It is suggested to enable Multicast when the number of users online watching the live image simultaneously is more than 4<br>■ Enable/Disable Password Authentication<br> ➢ RTSP connection format can be found in 5.2.3 *Using RTSP Player to View the Images* |
| 4 | RTMP/ RTMPS | Select to enable RTMP/RTMPS<br>■ Enable/Cancel Password Authentication |
| 5 | SRT | ■ The port number must be set in the range above 1024 with a maximum value of 9999<br>Note The following port is to be used by the camera. Setting of the said port may not connect correctly 8554, 8556, 8557, 8080, 9090, 1935<br>■ Delay time is for 20 to 8000 microseconds. The default value is 120 microseconds |

5.3.5.1 Streaming parameter setting

| Function | | Streaming 1 | Streaming 2 |
|---|---|---|---|
| Encode Format | | H.264 | |
| Resolution | | 1080p / 720p | 720p |
| Bit rate | Range | 2,000~20,000 | 2,000~20,000 |
| | Factory Default | 7,000 | 3,000 |
| Rate Control | | CBR / VBR | |
| Frame Rate | | Setting according to the supported resolution | |
| Group of Pictures | | Setting according to the supported resolution | |

## 5.3.6   System Settings – Output



| No | Item | Function Descriptions |
|---|---|---|
| 1 | Camera ID | Change camera name here<br>■ Supporting 1 - 32 characters for the camera name<br>■ Please mix uppercase and lowercase letters or numbers for characters. Special symbols such as "/" and "space" cannot be used |
| 2 | Camera Location | Modify the location of the camera, such as Room 1<br>■ Supporting 1 - 32 characters for the camera location<br>■ Please mix uppercase and lowercase letters or numbers for characters. Special symbols such as "/" and "space" cannot be used |
| 3 | Resolution | Set the resolution of the camera<br>After switching the resolution, the camera will restart. Please refresh the browser |
| 4 | HDMI format | Select YUV444/ RGB |

| 5 | Privacy Mode (UVC) | After the function is enabled, when the camera is turned off via the remote control or software, the lens will automatically turn to the bottom right to ensure the user's privacy |
|---|---|---|
| 6 | Apply/Cancel | Apply/ Cancel Setting |

### 5.3.7 System Settings – Network
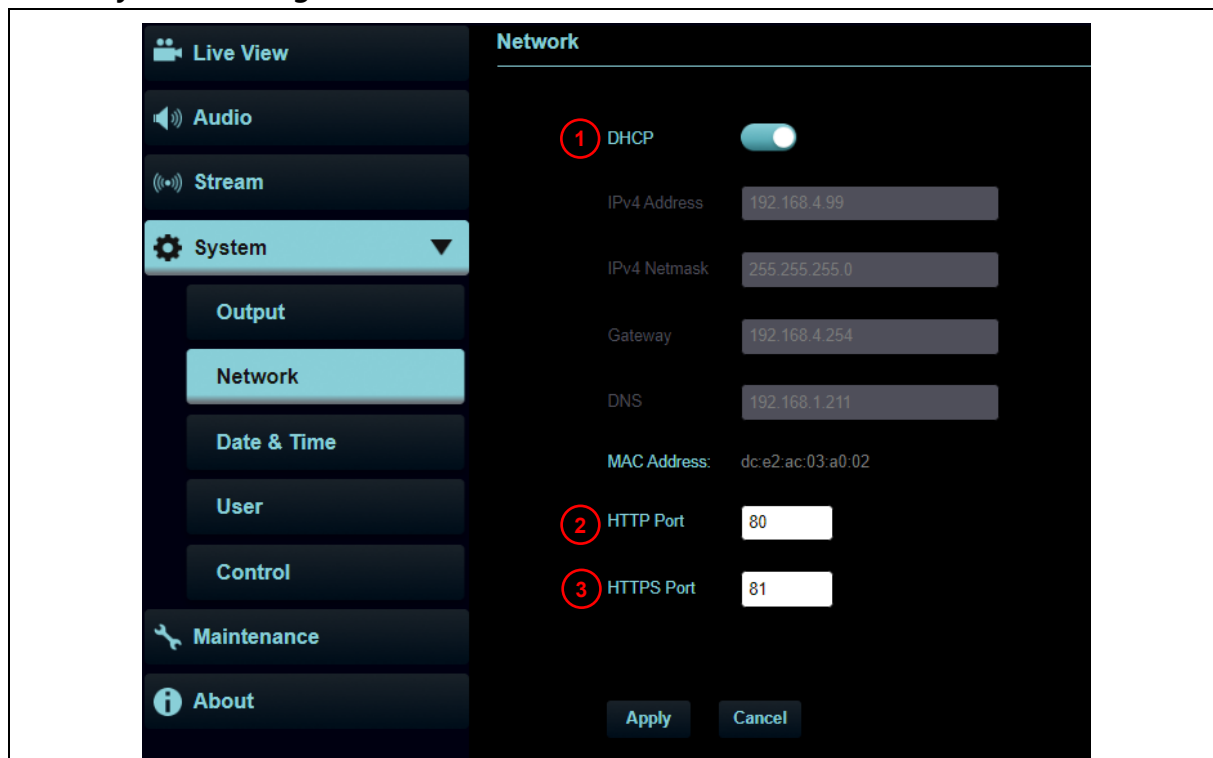


| No | Item | Function Descriptions |
|---|---|---|
| 1 | DHCP | Network setting of camera. Change of setting is available when DHCP function is closed |
| 2 | HTTP port number | Set HTTP port. The default Port value is 80 |
| 3 | HTTPS port number | Set HTTPS port. The default Port value is 81 |
| 4 | Apply/Cancel | Apply/ Cancel Setting |

## 5.3.8 System Settings - Date & Time



| 功能說明 |
|---|
| Display the current camera/PC date and time, and set the display format and synchronization way. When Manually Set is selected for [Time Settings], Date & Time can be customized |

## 5.3.9  System Settings – User
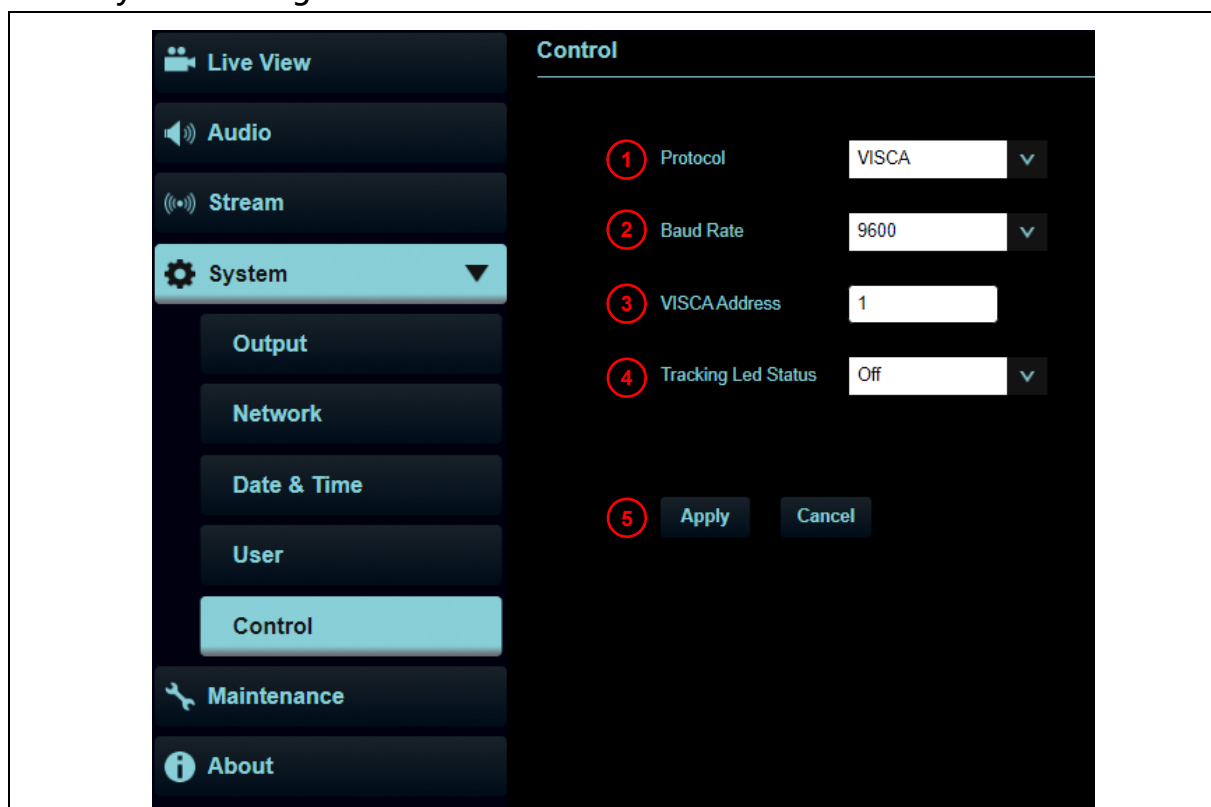


| 功能說明 |
|---|
| Add/Modify/Delete user account |

- Supporting 4 - 32 characters for user name and password
- Please use uppercase and lowercase letters or numbers for characters. Special symbols or the underlined cannot be used
- Account Authentication:

| User Type | Admin | Operator | Viewer |
|---|---|---|---|
| Live View | V | V | V |
| Settings | V | V | X |
| Account management | V | X | X |

## 5.3.10 System Settings – Control



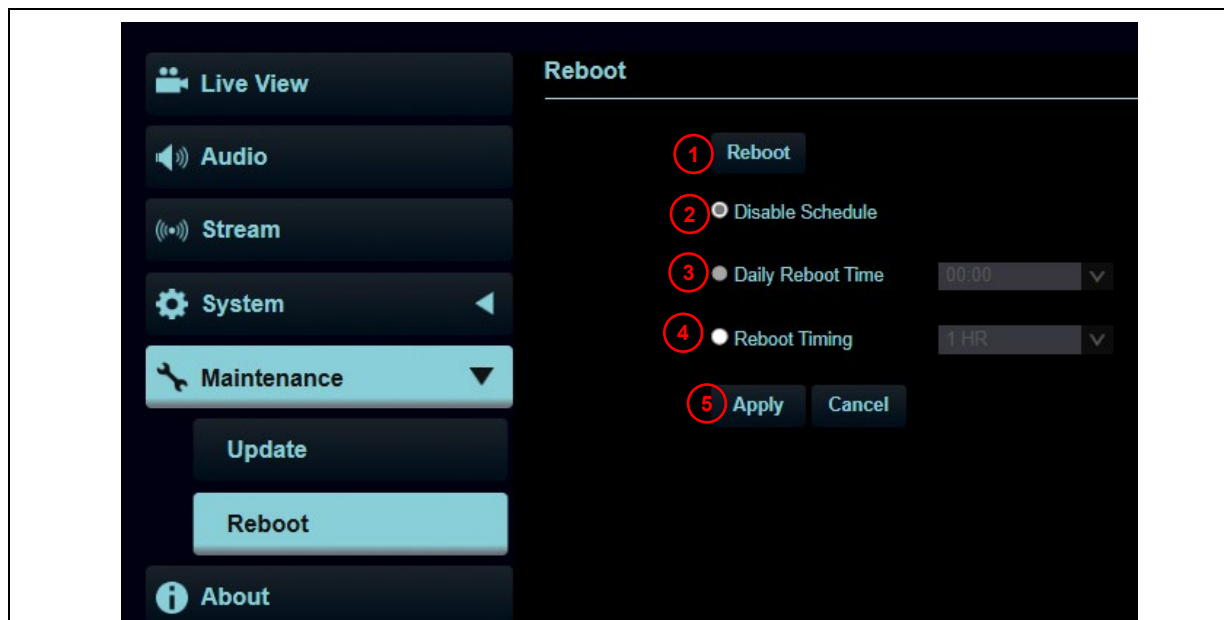| No | Item | Function Descriptions |
|----|------|----------------------|
| 1 | Protocol | Supporting VISCA protocol |
| 2 | Baud Rate | Choose the transmission speed of the control signal as 9600/38400 |
| 3 | VISCA address | The camera ID address 1~7 can be assigned. |
| 4 | Apply/ Cancel | Apply/Cancel Setting |
| 5 | Protocol | Supporting VISCA protocol |

## 5.3.11 Maintenance - Update
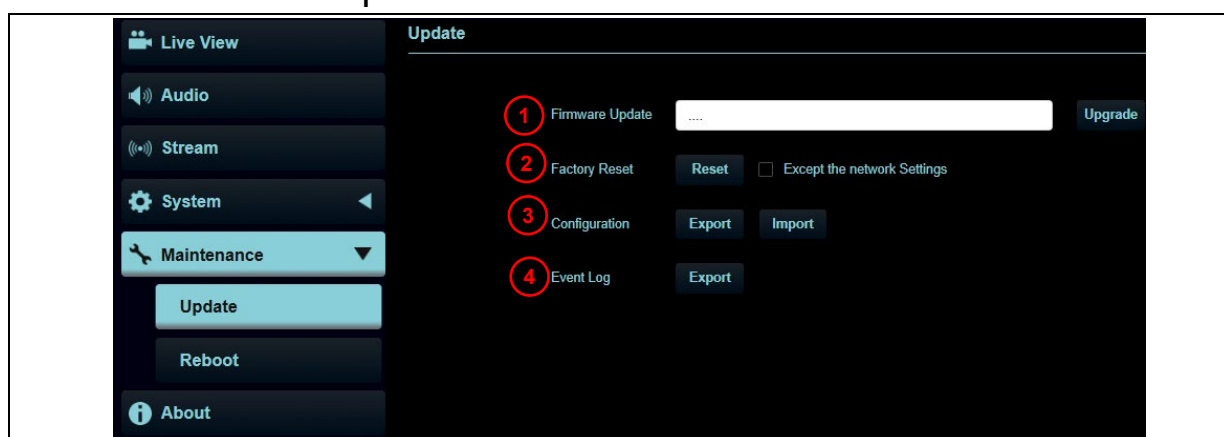


| No | Item | Function Descriptions |
|----|------|----------------------|
| 1 | Firmware Upgrade | Click [....] to select the firmware file, and click [Upgrade] to start the process.<br>Note Update takes about 2-3 minutes.<br>Note Please do not operate or turn off the power of the device during the update to avoid firmware update failure. |

**Lumens**®

| 2 | Factory Reset | Reset all configurations to factory default settings. |
|---|---|---|
| 3 | Configuration | Save setup parameters as a Profile, and users can download and upload camera setup parameters |
| 4 | Event Log | If the camera operates abnormally, the event log can be exported and provided to Lumens for reference. |

### 5.3.12 Maintenance – Reboot



| No | Item | Function Descriptions |
|---|---|---|
| 1 | Reboot | Press the Reboot button to restart the camera. |
| 2 | Disable Schedule | Disable the Reboot schedule |
| 3 | Daily Reboot Time | Select the exact time the camera will reboot (00:00~23:00). **Note: This option can only be enabled when synchronized with the NTP server.** |
| 4 | Reboot Timing | Select how long the camera will wait to reboot after a specific period. (1HR~24HR) **Note: This option can only be enabled when not synchronized with the NTP server.** |
| 5 | Apply / Cancel | Save or discard the settings. |

## 5.3.13 About



| 功能說明 |
|---|
| Display the firmware version, serial number, and other related information of the camera<br><br>For technical support, please scan the QR code at the bottom right. |

# Chapter 6    Troubleshooting

This chapter describes problems you may encounter while using VC-R31. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact your distributors or the service center.

| No. | Problems | Solutions |
|---|---|---|
| 1. | Boot without power signal | 1. Make sure you have plugged in the power cord.<br>2. When using a PoE connection, ensure that the power supply supports PoE (IEEE802.3af) hubs |
| 2. | There is no image output from camera | 1. Check the power supply or PoE supply functions.<br>2. Confirm the output signals are in streaming output.<br>3. Confirm whether the camera resolution can be used together with the monitor equipment<br>4. Replace the cables and make sure they are not faulty. |
| 3. | Camera image is severely delayed | Please use 1080p or 720p 60/50 fps rather than 25/30 fps signals. |
| 4. | RS-232 cannot be controlled | 1. Confirm the connection is correct (RS-232 In/ Out)<br>2. Please make sure the Baud rate setting is the same as the control equipment |
| 5. | Whether the Internet can be used for operation | Please refer to Chapter 5 Network Function Settings Description for the Internet usage |
| 6. | The camera does not save the relevant parameters (PTZ, AWB ...) after reboot | Please make sure if the Initial Position is set to Last Operated Position from the setting menu or web page<br>Setting Menu: System-Initial Position<br>Web page: Live View - Camera Setting- Pan Tilt Zoom |
| 7. | VC-R31 cannot be operated by remote control | 1. Please make sure the IR Select setting in the camera menu is the same setting as the Camera Select of the remote control<br>2. Please try to replace the batteries of the remote control<br>3. Please prevent VC-R31 from direct sunshine<br>4. Make sure the energy-saving bulb and the IR touch screen are as far as possible in order to avoid interference<br>5. When several VC-R31 are connected in the same area, the operation of two remote controls at the same time may result in signal interference. It is recommended to use one remote control only |

# Chapter 7    Safety Instructions

Always follow these safety instructions when setting up and using VC-R31 PTZ Video Camera:

1   **Operation**
  1.1   Please use the product in the recommended operating environment, away from water or source of heat
  1.2   Do not place the product on a tilted or unstable trolley, stand or table.
  1.3   Please clean the dust on the power plug prior to usage. Do not insert the product's power plug into a multiplug to prevent sparks or a fire.
  1.4   Do not block the slots and openings in the case of the product. They provide ventilation and prevent the product from overheating.
  1.5   Do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
  1.6   Unplug the product from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
    ■ If the USB port becomes damaged or frayed.
    ■ If liquid is spilled into the product or the product has been exposed to rain or water.

2   **Installation**
  2.1   For security considerations, please make sure the standard mount you use is in line with UL or CE safety approbations and installed by technician personnel approved by agents.

3   **Storage**
  3.1   Do not place the product where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
  3.2   Unplug this product during thunderstorms or if it is not going to be used for an extended period.
  3.3   Do not place this product or accessories on top of vibrating equipment or heated objects.

4   **Cleaning**
  4.1   Disconnect all the cables prior to cleaning and wipe the surface with a dry cloth. Do not use alcohol or volatile solvents for cleaning.

5   **Batteries (for products or accessories with batteries)**
  5.1   When replacing batteries, please only use similar or the same type of batteries.
  5.2   When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products.

■ **Precautions**

| | This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock. Do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel. | | This symbol indicates that there are important operating and maintenance instructions in this User Manual with this unit. |
|---|---|---|---|

■ **FCC Warning**
  This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

  Notice :
  The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
  This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

■ **IC Warning**
  This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

  Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe A prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

■ **EN55032 CE Warning**
  Operation of this equipment in a residential environment could cause radio interference.
  Warning: Operation of this equipment in a residential environment may cause radio interference

**Lumens**®

# Supplier's Declaration of Conformity
# 47 CFR § 2.1077 Compliance Information

Manufacturer：Lumens Digital Optics Inc.

Product Name：VC-R31

Model Number：PTZ Video Camera

## Responsible Party – U.S. Contact Information

Supplier：Lumens Integration, Inc.

4116 Clipper Court, Fremont, CA 94538, United States

e-mail ：support@mylumens.com

## FCC Compliance 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.

# Copyright Information

**Lumens**®