# VC-B30U PTZ Video Camera

# **Installation Guide - English**



# [Important]

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# **Chapter 1 Safety Instructions**

Always follow these safety instructions when setting up and using the product:

#### 1 Operation

- 1.1 Please use the product in the recommended operating environment.
- 1.2 Do not place the product in tilted position.
- 1.3 Do not place the product on an unstable trolley, stand or table.
- 1.4 Do not use this product near water or source of heat.
- 1.5 Use attachments only as recommended.
- 1.6 Use the type of power source indicated on the product. If you are not sure of the type of power available, consult your distributor or local electricity company for advice.
- 1.7 Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire:
  - Ensure the plug is free of dust before inserting it into a socket.
  - Ensure that the plug is inserted into the socket securely.
- 1.8 Do not overload wall sockets, extension cords or multi-way plug boards to avoid potential risks.
- 1.9 Do not block the slots and openings in the case of this product. They provide ventilation and prevent the product from overheating.
- 1.10 Except as specifically instructed in this User Manual, do not attempt to operate this product by yourself. Opening or removing covers may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
- 1.11 Unplug the product from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
  - If the power cords are 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 hanging rack you bought 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 Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the Product.
- 3.3 Unplug this product during thunderstorms or if it is not going to be used for an extended period.
- 3.4 Do not place this product or accessories on top of vibrating equipment or heated objects.



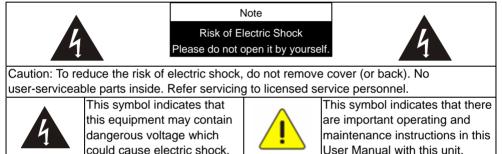
#### 4 Cleaning

- 4.1 Unplug all the cables before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
- 5 Remote control (if the accessories are equipped with remote control)
  - 5.1 Using an incorrect battery type in the remote control may result in breakdown. Follow local instructions on how to dispose of used batteries.

#### Precautions

# Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

If the HD camera will not be used for an extended time, unplug it from the power socket.



#### ■ FCC Warning

This HD camera has been tested and found to comply with the limits for a Class A digital device, pursuant to Article 15-J of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

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 Radiation) Warning

Operation of this equipment in a residential environment could cause radio interference.



# **Chapter 2 Package Contents**

VC-B30U	Instruction for installation	Remote Control
Power Cord	Power Adapter	USB cable (USB 3.0)
Appearance may vary depending on country/region		

HDMI cable

PA

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# **Chapter 3 Product Overview**

### 3.1 Overview



1. Camera Lens	2. Power LED Indicator
3. Standby LED Indicator	4. Power Input
5. RS232 IN	6. USB 3.0 Port
7. HDMI Output	8. RS232 Output
9. IR Select DIP Switch	



# 3.2 Description of LED indicator

- 3.2.1 Power:
  - 3.2.1.1 No Light: Power off
  - 3.2.1.2 Green light: In use
- 3.2.2 Standby:
  - 3.2.2.1 No Light: Power on
  - 3.2.2.2 Orange: Startup in progress or in standby mode
  - 3.2.2.3 Flickering orange: Power off in progress

# 3.3 System Requirements

- 1. Windows System: Windows 7 or later
- 2. Chrome system
- 3. MAC System: Mac OS X (10.8 and above)

<Remark> When connecting to MAC, please refer to Chapter 7 DIP Switch Setting, to modify DIP Switch



# 4.1 Preparation before installation

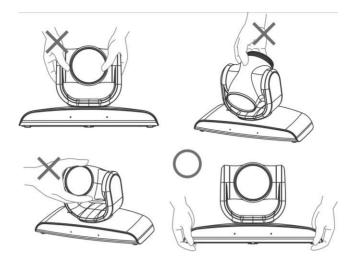
Installation and connection of HD camera requires special skills. To install by yourself, please follow necessary steps, ensure steady and tight installation of the device, and pay attention to your safety to avoid any accident.

- 4.1.1 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.
- 4.1.2 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.
- 4.1.3 Please choose a proper place for installation of camera in advance. Please determine an installation place according to the following requirements
  - 4.1.1.1 Confirm the position for the object to be captured.
  - 4.1.1.2 Confirm whether the camera is set at a proper distance from other light sources.

# 4.2 Instruction for installation

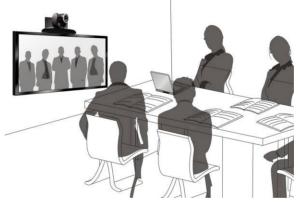
- 4.2.1 I would like to install camera on the desk
  - 4.2.1.1 Precautions for installation
    - Please install the machine on a flat desk
    - Do not grab the camera head by hand when handling the device
    - Do not rotate the camera head by hand. Improper rotation may result in breakdown of the camera





#### 4.2.1.2 Installation steps

1. Install the camera on the wall with VC-AC03

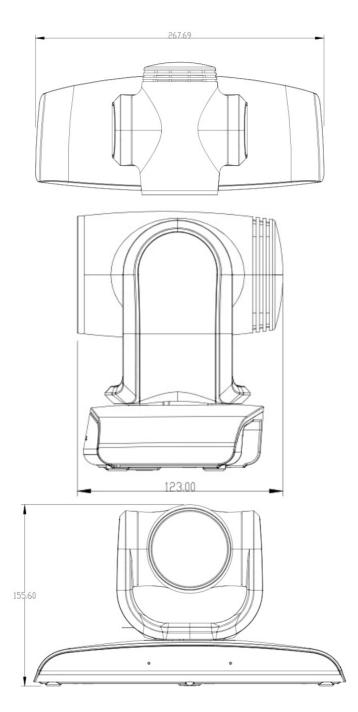


<Remark> For the installation of VC-AC03, please refer to VC-AC03 Quick Installation Guide

#### 4.2.1.3 Camera Size

Length x Width x Height: 267.69 x 123 x 155.60 mm Weight : 1.3 Kg







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#### 4.2.1.4 Precautions for installation

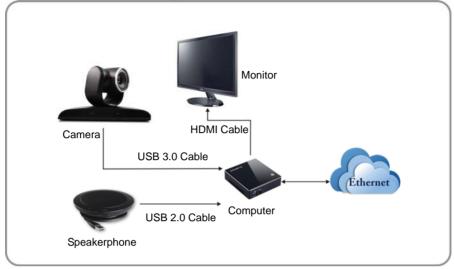
- Before installation, please confirm the orientation of the machine relative to the object to be captured
- It is recommended that the machine should be set at a distance of more than 1 meter away from the object to be captured.
   Please adjust for a best distance according to the magnification of the lens



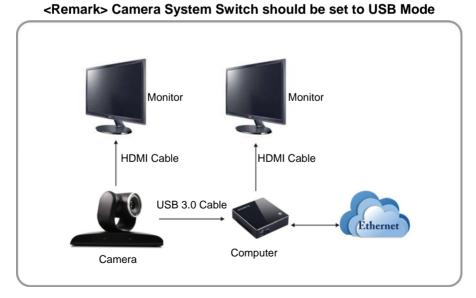
### 4.3 Connecting the device

#### 4.3.1 Video Conference - Connecting to PC

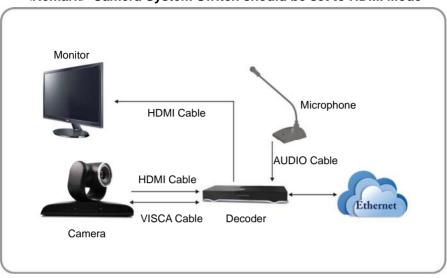
<Remark> Camera System Switch should be set to USB Mode



# 4.3.2 Video Conference - connecting to dual monitor



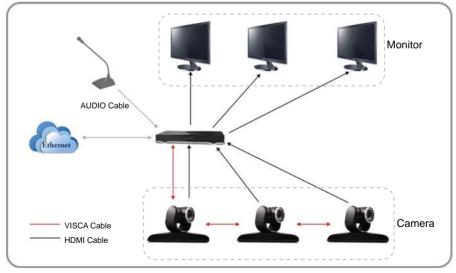




### 4.3.3 Video Conference - Connecting to the conference host <Remark> Camera System Switch should be set to HDMI Mode

#### 4.3.4 Connect Multiple VC-B30U Sets Through VISCA

<Remark> Camera System Switch should be set to HDMI Mode



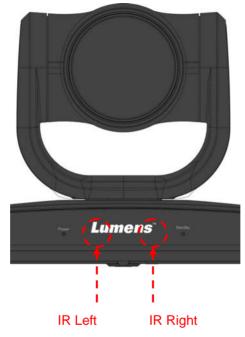
<Remark> With RS-232 in/out, at most 7 VCs can be connected.



#### 4.3.5 IR Out

IR Out includes IR Right and IR Left, use VISCA command to switch:

- 1. IR right and IR left ON
- 2. IR left OFF, IR right ON
- 3. IR left ON, IR right OFF
- 4. NA (no signal from IR receiver.)





### 5.1 Functions of remote control

<Remark> The below functions are listed alphabetically.

	Item	Description
Camera select	<b>∢,≻,</b> ∧, <b>∨</b>	Move the lens
1 2 3	Back Light	Turn on/off back light compensation
1 2 3	Camera select	Choose camera 1 ~ 3
4 5 6 7 8 9	Focus- Manual / Far/Near	Turn on manual focus to adjust the focal length
Preset Reset	Focus-Auto	Auto Focus
Menu Back Light	Freeze	Freeze the screen
	Home-Enter	Go back to the main page / Execute
	Info	Status information
	L/R Direction Set	L/R Direction / Normal
Zoom +	Menu	Display OSD menu
Slow Fast	Mirror	Rotate the image (OFF / Mirror / Flip / Rotate)
Focus	Pan/Tilt Reset	Clear the Pan / Tilt setting
Picture Freeze Nirror Info	Picture	Switch image effect (OFF / Neg / B&W)
© \$3 U	Power	Power Switch
Direction Set	Preset	Appoint an ID (0 ~ 9) to save the current position data
	Reset	Appoint an ID (0 ~ 9) to delete the current position data
Lumens	Zoom-Fast	Adjust image size
	Zoom-Slow	Fine-tune image size



# 5.2 Setting Menu

<Remark> 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		_evel	Function Descriptions
Major	Minor Items	Adjustment		
Items		Values		
	Mode	1. <u>Full Au</u> 2. Smooth 3. Shutter		Exposure mode setting
	Exposure Comp.	<u>On</u> / Off		AE Level
	Exposure Comp. Level	-6~ <b>C</b> ~4		The value can be adjusted only after <b>Exposure</b> <b>Comp.</b> is activated
	Spot Light	On / <u>Off</u>		The value can be adjusted when the mode is set to <b>Full Auto</b> or <b>Shutter Pri</b>
Exposure	Spot Light Position	X(0~8)Y(0~6)		The value can be adjusted only after <b>Spot Light</b> is activated
		60/30 mode	50/25 mode	
		1/10000	1/10000	
		1/5000	1/5000	
		1/3000	1/3000	
	Shutter Pri	1/2500	1/2500	Shutter priority setting
		1/2000	1/1750	
		1/1500	1/1250	
		1/1000	1/1000	
		1/725	1/600	
		1/500	1/425	

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	1		
	1/350	1/300	
	1/250	1/215	
	1/180	1/150	
	1/120	1/120	
	1/100	1/100	
	1/90	1/75	
	<u>1/60</u>	<u>1/50</u>	
	1/30	1/25	
	1/15	1/12	
	1/8	1/6	
	1/4	1/3	
	1/2	1/2	
	1/1	1/1	
Iris Pri	F1.8           2.         F2.5           3.         F3.6           4.         F5.1           5.         F7.2           6.         F10           7.         F14           8.         F20		Iris setting



Manual Gain	0dB           2.         2 dB           3.         4 dB           4.         6 dB           5.         8 dB           6.         10 dB           7.         12 dB           8.         14 dB           9.         16 dB           10.         18 dB           11.         20 dB           12.         22 dB           13.         24 dB           14.         26 dB           15.         28 dB           16.         30 dB		Manually set the gain
Manual Speed	60/30 mode 1/10000 1/5000 1/2500 1/2500 1/2000 1/1500 1/1500 1/725 1/500 1/250 1/250 1/180 1/120 1/120 1/100 1/90	50/25 mode 1/10000 1/5000 1/2500 1/1750 1/1250 1/1250 1/1000 1/425 1/300 1/215 1/150 1/120 1/120 1/100 1/75	Manually set the shutter

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	4/00	4/50	
	<u>1/60</u>	<u>1/50</u>	
	1/30	1/25	
	1/15	1/12	
	1/8	1/6	
	1/4	1/3	
	1/2	1/2	
	1/1	1/1	
Manual Iris	F1.8         2.       F2.5         3.       F3.6         4.       F5.1         5.       F7.2         6.       F10         7.       F14         8.       F20		Manually set the iris
Gain Limit	<ol> <li>8 dB</li> <li>10 dB</li> <li>12 dB</li> <li>14 dB</li> <li>14 dB</li> <li>16 dB</li> <li>18 dB</li> <li>20 dB</li> <li>22 dB</li> <li>24 dB</li> <li>26 dB</li> <li>28 dB</li> <li>30dB</li> </ol>		Max. limit value of electron gain
WDR	12.         300B           1.         Off           2.         1           3.         2           4.         3           5.         4           6.         5		WDR settings



			Select the color	
		1. <u>Auto</u>	temperature mode	
		2. Indoor	1. 4000k ~ 7000k	
		3. Outdoor	<ol> <li>4000k ~ 7000k</li> <li>3200k</li> </ol>	
		4. One Push WB	2. 5200k 3. 5800k	
		5. ATW	4. 1700k ~ 10000k	
		6. Manual	4. 1700k ~ 10000k 5. 1700k ~ 10000k	
	Mode	7. Sodium Lamp	6. Custom	
	mode	8. 3000K	7. 2800k	
		9. 4300K	8. 3000K	
White		10. 5000K	9. 4300K	
Balance		11. 6500K	10. 5000K	
Dalance		12. 8300K	11. 6500K	
		13. WideAuto	12. 8000K	
			13. 3000k ~ 7000k	
	One Push			
	Trigger	<u>ENTER</u>	One push trigger	
			Adjustable when the white	
	Manual R	0~ <u>C</u> ~60	balance mode is set to	
	Gain	_	Manual	
	Manual B		Adjustable when the white	
	Gain	0~ <u>C</u> ~60	balance mode is set to Manual	
		1. <u>Off</u>		
	Picture	2. Neg	Set the picture effect	
	Effect	3. B&W		
	Champion		Adjust the <b>sharpness</b> of	
	Sharpness	1~ <u>A</u> ~16	the image	
Picture		1. <u>Auto</u>		
Picture		2. Off		
		3. 1	2D noise reduction	
	2D NR	4. 2	settings	
		5. 3		
		6. 4		
		7.5		



	3D NR	<ol> <li>Off</li> <li>Low</li> <li>Typ</li> <li>Max</li> <li>Auto</li> </ol>	3D dynamic noise reduction settings
	Saturation	0~ <u>A</u> ~25	
	Hue	0~ <u>A</u> ~14	
	Gamma	0~ <u>A</u> ~3	
	Skin Tone	1~ <u>A</u> ~5	
	Brightness	0~ <u>A</u> ~14	
	Contrast	0~ <u>A</u> ~14	Contrast adjustment
	Black Level	<ol> <li><u>Off</u></li> <li>Type 1</li> <li>Type 2</li> <li>Type 3</li> </ol>	Shadow details and translucency adjustment
	Pan/Tilt Limit	On / <u>Off</u>	Turn on/off the angle limit setting
	Pan Right Limit	0~ <u>100</u>	Limit the right angle
Pan Tilt	Pan Left Limit	<u>-100</u> ~0	Limit the left angle
Zoom	Tilt UP Limit	0~ <u><b>30</b></u>	Limit the upward angle
	Tilt Down Limit	<u>-30</u> ~0	Limit the downward angle
	D-Zoom Limit	<u><b>x1</b></u> ~x12	Limit the D-zoom multiple
D-Effect	Mirror	1. <u>Off</u> 2. Mirror 3. Flip 4. Mirror + Flip	Set the mode at which the image is turned
Auto Focus	AF Sensitivity	1. Low 2. <u>Middle</u> 3. High	Select the AF triggering speed. The higher the speed is, the faster AF is triggered



	AF Frame	<b>Full Area</b> /Center Area	AF frame setting, when central area was set as AF frame, focusing will be on the center of the screen. When Full Frame was set as AF frame, focusing will be calculated based on the full screen
	Prompt	On / <u>Off</u>	Turn on/off the prompt information on the display
System	Motionless Preset	On / <u>Off</u>	When the function is enabled, the screen will Freeze when Preset is executed. Freeze will be released after Preset is completed. Supports HMDI output
	IR Receive	<u>On</u> / Off	Turn on/off the infrared reception
	Language	<u>English</u> / Chinese	Language
	Factory Reset	On / <u>Off</u>	Resume the factory default setting
Status			Display the current setting status



# Chapter 6 Descriptions of Major Functions

### 6.1 I would like to switch camera

- 1. Press [Camera 1 ~ 3] on the remote control to select VC-B30U.
- Camera 1 ~ 3 is selected with IR SELECT.

### 6.2 I would like to control the camera

The VC-B30U can be controlled using the "USB PTZ Camera Controller" software or the **VS-K20** Compact Camera Controller.

- The USB PTZ Camera Controller software can be downloaded from the Lumens website. Refer to the <u>USB PTZ Camera Controller Manual</u> for more details.
- The VS-K20 Compact Camera Controller can be purchased separately. Please refer to the <u>VS-K20 User Manual</u> for more details.

### 6.3 I would like to save the current lens position data

- 1. Hold [Preset + ID] on the remote control to save the current position data.
- ID shall be a digit [0 ~ 9].
- Use VISCA Command to store position data to [0 ~ 127]

### 6.4 I would like to clear the saved position data

- 1. Hold [Reset + ID] on the remote control to clear the given position data.
- ID shall be a digit [0 ~ 9].
- Use VISCA command to clear position data stored in [0 ~ 127]



# 6.5 I would like to turn on the back light compensation function

1. Press [Back Light] on the remote control to turn on or turn off the back light compensation

# 6.6 I would like to adjust the shooting angle of the lens

- Press [Tilt ▲] or [Tilt ▼] on the remote control to adjust the angle upward or downward.
- 2. Press [Pan ▶] or [Pan ◀] on the remote control to adjust the angle to right or left.
- 3. Press **[Pan Tilt Reset]** on the **remote control** to reset the angle to the center point.

## 6.7 I would like to zoom in/out images

#### 6.7.1 Adjust image size

- 1. Press [Fast +] on the remote control to zoom in images.
- 2. Press [Fast -] on the remote control to zoom out images.

#### 6.7.2 Fine-tune image size

- 1. Press [Slow +] on the remote control to zoom in images.
- 2. Press [Slow -] on the remote control to zoom out images.

# 6.8 I would like to adjust the focal length

#### 6.8.1 Auto tune

1. Press [AF] on the remote control to adjust automatically.

#### 6.8.2 Manual focus

- 1. Press **[MF]** on the **remote control** to turn on the manual focus function.
- 2. Press Focus [+] or Focus [-] to adjust.



# 6.9 I would like to adjust the AF speed

#### 6.9.1 Adjust the AF Sensitivity

Triggering speed of focus. The higher the speed is, the faster focus is triggered

To shoot fast-moving objects, *AF Sensitivity* can be set to [High] or [Medium], which is applicable to quick focus.

When the environment is too dark to enable auto focus or fixed objects have to be shot in different brightness, *AF Sensitivity* can be set to

#### [Low].

- 1. Press [MENU] to activate the setting menu.
- 2. Press [▶] or [◀] to select [Auto Focus].
- 3. Press [ENTER] to activate.
- 4. Press [▲] or [▼] to select [AF Sensitivity].
- 5. Press [ENTER] to activate.
- 6. Press [▶] or [◀] to select [High / Middle / Low].
- 7. Press [MENU] to exit.

#### 6.9.2 Adjust the AF speed

The focus speed upon triggering AF Sensitivity

- [Normal] (default): Image flickering may not occur
- [Fast]: Fast focus speed
- 1. Press [MENU] to activate the setting menu.
- 2. Press [▶] or [◀] to select [Auto Focus].
- 3. Press [ENTER] to activate.
- 4. Press [▲] or [▼] to select [AF speed].
- 5. Press [ENTER] to activate.
- 6. Press [▶] or [◀] to select [Fast / Normal].
- 7. Press [MENU] to exit.



### 6.10 I would like to set the image mode

1. Press [Picture] on the remote control to switch [Off / Neg / B&W].

### 6.11 I would like to freeze images

1. Press [Freeze] on the remote control to freeze the current image on the display.

### 6.12 I would like to rotate the image

Press [Mirror] on the remote control to switch [Off / Mirror / Flip / Mirror + Flip].

### 6.13 I would like to change the camera direction

1. Press **[L/R Direction Set]** on the **remote control** to switch [L/R Direction / Off / Normal].

### 6.14 I would like to display the current status

1. Press **[Info]** on the **remote control** to display the current status information.

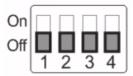
### 6.15 I would like to reset to the original setting

- 1. Press [MENU] to activate the setting menu.
- 2. Press [▶] or [◀] to select [System].
- 3. Press [ENTER] to activate.
- 4. Press [▲] or [▼] to select [Factory Reset].
- 5. Press [ENTER] to activate.
- 6. Press  $[\bullet]$  or  $[\triangleleft]$  to select **[On]**.
- 7. Press [ENTER] to execute.



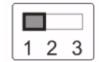
<Note> Please turn off the machine before changing DIP switch setting.

# 7.1 SYSTEM SWITCH



Setting	Function Descriptions
DIP 1	HDMI / USB Mode OFF:USB Mode / ON:HDMI Mode
DIP 2	Output Resolution OFF:1080P / ON:720P
DIP 3	Power Frequency OFF:60Hz / ON:50Hz
DIP 4	Bulk / ISO Mode OFF: Bulk Mode / ON:ISO Mode

### 7.2 IR SELECT



ID	Setting
1	
2	
3	



# **Chapter 8 Troubleshooting**

This chapter describes problems you may encounter while using VC-B30U. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact your distributor or the service center.

No.	Problems	Solutions
1.	Boot without power signal	1. Make sure you have plugged in the power cord.
2.	There is no image output from VC-B30U	<ol> <li>Check the power.</li> <li>Make sure the display supports the output resolution; in general, the resolution is 1080p60/1080i60/720p60.</li> <li>Replace the cables and make sure they are not faulty.</li> </ol>
3.	VC-B30U cannot be operated by remote control	<ol> <li>Please confirm that VC-B30U has been connected to the computer, and launch video software.</li> <li>Please prevent VC-B30U from direct sunshine.</li> <li>Make sure the energy-saving bulb and the IR touch screen are as far as possible in order to avoid interference.</li> <li>When several VC-B30U 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.</li> </ol>
4.	When connected to the MAC computer, the video screen flicker or freeze	Please confirm that DIP Switch-DIP4 at the base of the camera is switched to "ON" when using Mac OS X 10.10 or earlier.

