



Lumens VC-BC701P 4K UHD Box Camera User Manual

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Lumens VC-BC701P 4K UHD Box Camera



To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens http://www.MyLumens.com/support

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Safety Instructions

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

Operation

- Please use the product in the recommended operating environment.
- Do not place the product in a tilted position.
- Do not place the product on an unstable trolley, stand or table.
- Do not use this product near water or sources of heat.
- Use attachments only as recommended.

- 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.
- 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.
- Do not overload wall sockets, extension cords or multi-way plug boards to avoid potential risks.
- Do not block the slots and openings in the case of the product. They provide ventilation and prevent the product from overheating.
- Except as specifically instructed in this User Manual, do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
- 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.

Installation

• 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.

Storage

- 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.
- Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the product.
- Unplug this product during thunderstorms or if it is not going to be used for an extended period.
- Do not place this product or accessories on top of vibrating equipment or heated objects.

Cleaning

• Unplug all the cables before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.

Remote control (if the accessories are equipped with remote control)

• Using an incorrect battery type in the remote control may result in a 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.



Caution Risk of Electric Shock Please do not open it by yours



Caution: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel.



This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock.



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, under 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.

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.

EN55032 (CE Radiation) Warning

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

Package Contents

VC-BC701P

Power Cord

Power Adapter



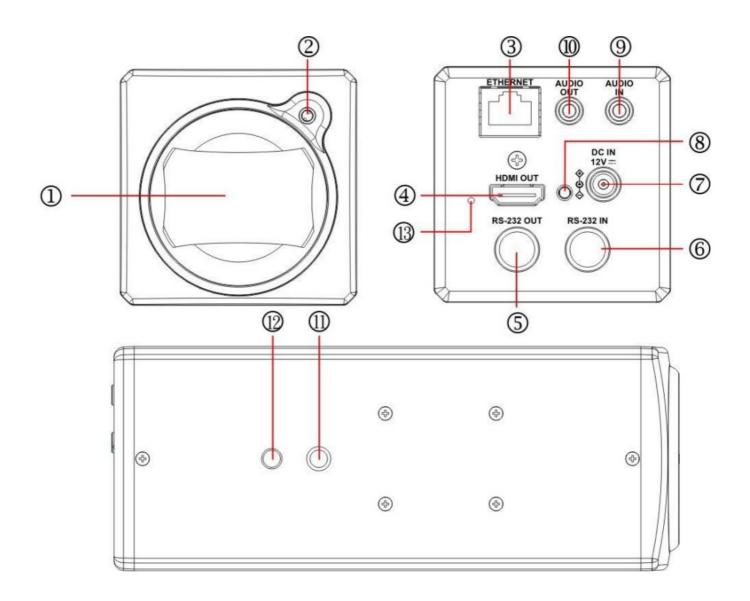


Appearance may vary depending on country/region



Function Introduction

I/O functions Introduction



NO.	Item	Function Descriptions	
1.	Lens	30x HD camera lens	
2.	Tally indicator light	Display the tally light status of the camera	
3.	Network port	Network port. Support routers or hubs (IEEE 802.3 af) with PoE power supply support	
4.	HDMI output	The factory output resolution is 4K/30. Please make sure that the connected di splay device supports 4K resolution	
5.	RS232 output	RS232 output port. At most 7 cameras can be connected in a serial connection	
6.	RS232 input	RS232 input port. At most 7 cameras can be connected in a serial connection	
7.	DC 12 V power connector	AC power supply connecting port	
8.	Power indicator light	After power is on, the indicator light will display in red	
9.	Audio input	Support Line In / Mic In	
10.	Audio output	Support 3.5 mm audio input	
11.	Tripod screw holes	The camera is mounted on a (specification) 1/4", 20 UNC tripod deck or install ed on VC-WM11 (optional)	
12	Locating holes	Ø5; depth 2 mm	
13	Reset button	Hold the button to reset the camera settings	

Tally Indicator Light Function Description

The Tally light function may be enabled through the control of the RS232 command. Please refer to the VC-BC701P RS-232 command set document

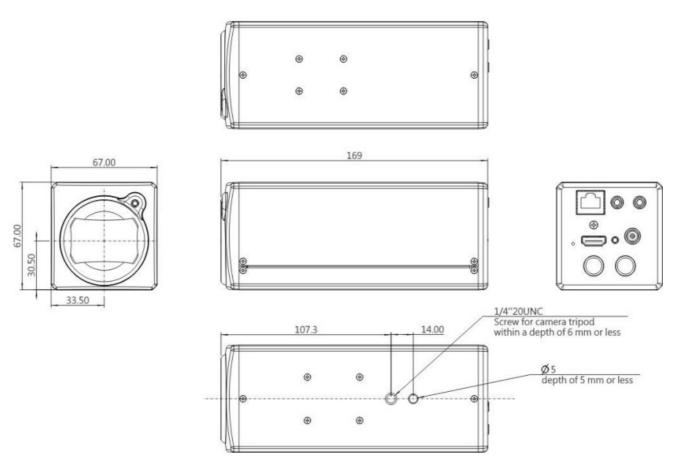
Instruction for installation

Basic Devices

1. VC-BC701P size

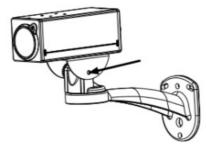
Length x Width x Height: 169 x 67.0 x 67.0 mm

Weigh: 0.5 Kg



2. Installation method

1. Wall-mounted frame: The camera is installed on the wall, using Lumens VC-WM11 (optional) wall-mounted frame.

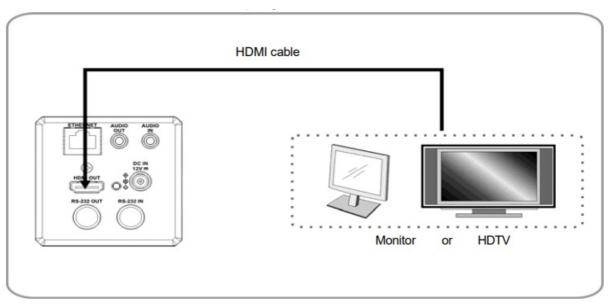


2. Tripod: The camera is mounted on a 1/4", 20 UNC PTZ tripod deck.

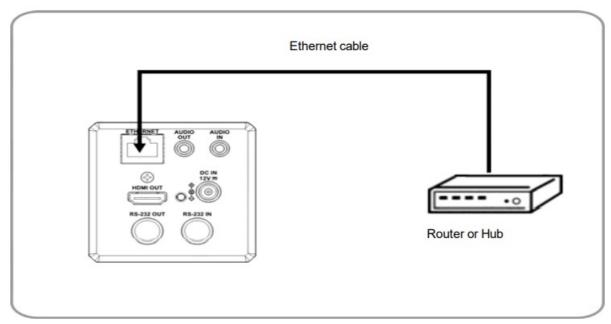


Connecting devices

1. HDMI connection to TV/display screen

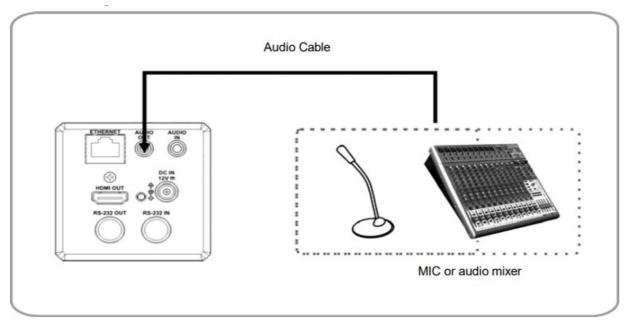


2. Connecting to Internet



<Remark> For details of web page connection setting and description, please refer to Chapter 5 Network Function Settings Description.

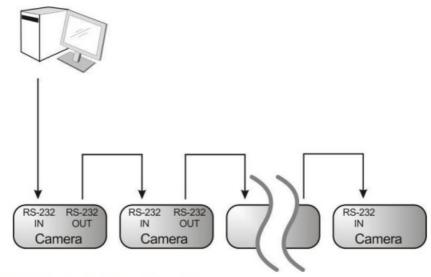
3. Connecting AUDIO IN



4. Connecting RS-232

• RS-232 serial connection

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



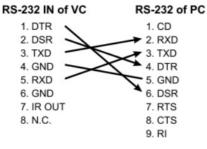
■ RS-232 pin definition description

▼ 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 Connection Instructions



▼ 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
	1 2 3 4 5 6 7	1 DTR 2 DSR 3 TXD 4 GND 5 RXD 6 GND 7 OPEN

▼ RS-232 Connection Instructions

RS-232 of Next Ca		RS-232 OUT of Last Camera
1. DTR		→ 1. DTR
2. DSR		2. DSR
3. TXD	_	3. TXD
4. GND	\rightarrow	4. GND
5. RXD		5. RXD
6. GND		6. GND
7. IR OUT	Γ	7. OPEN
8. N.C.		8. OPEN

Network Function Settings Description

Web System Requirements

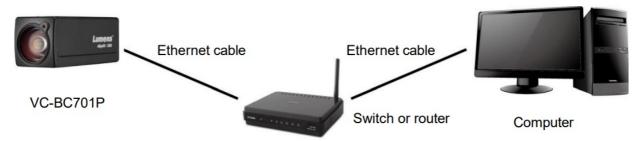
· Web Browser:

- Internet Explorer 11 or above
- Firefox 66.0.3 or above
- Chrome 73 or above
- Edge 42.17134 or above
- Safari 12.1 or above

Connecting Camera to Network

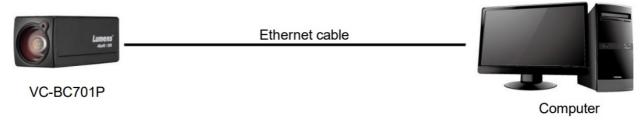
· Connecting to Internet

1. Connecting via switch or router

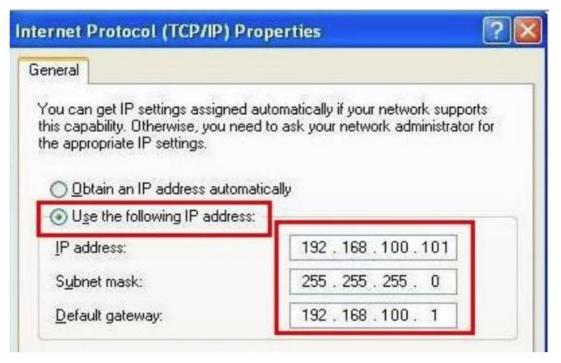


2. If the camera is connected to the computer directly, the computer IP address must be modified to have the same network segment as the camera

For example, the factory-preset default IP address of VC-BC701P is 192.168.100.100. The computer IP address must be set with the same subnet, such as 192.168.100.101 so that the computer can be connected correctly with the camera



Change network settings

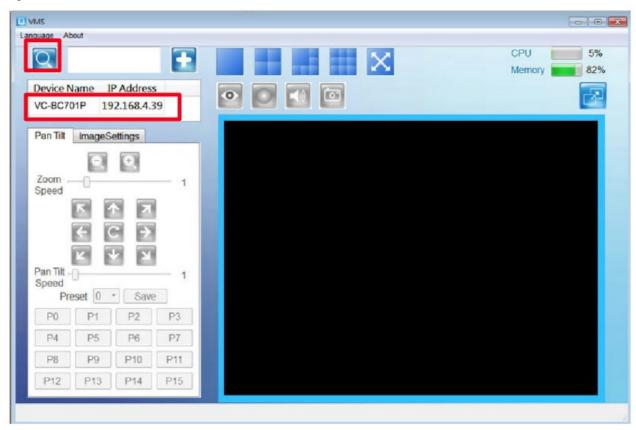


Using Lumens VMS Software to View the Images

- The VC-BC701P DHCP initial setting is ON. If VC-BC701P is connected to the local area network (LAN), the camera IP can be retrieved via the following methods
- Install Lumens VMS software (Please download from the Lumens official website, http://www.mylumens.com/support)
 - Open LUMENS VMS software
 - Search for the camera: Press [automatically search for the device] button to locate the VC-BC701P

camera

Click VC-BC701P in the list and start operation after connecting to the network
 Note> When using automatic search, the camera and computer must be in the same network segment,
 e.g.: 192.168.4.X



Using the Browser to View the Images

- Open the browser, and enter the URL of VC-BC701P in the IP address bar e.g.: http://192.168.100.100 (default IP address)
- Enter the administrator's account and password Account: admin (Default) Password: 9999 (Default) < Remark> For a first-time login, please refer to 5.3.3 Account Management to change the default password.



Using RTSP Player to View the Images

Besides the browser and VMS, other free software also can be used for RTSP connection, such as VLC Quick Time PotPlayer and other free software

RTSP connection address formats are as follows:

- RTSP Stream 1 => rtsp://camera IP:8554/hevc
- RTSP Stream 2 => rtsp://camera IP:8557/h264
- RTSP Stream 3=> rtsp://camera IP:8556/h264

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

• RTSP Stream 1

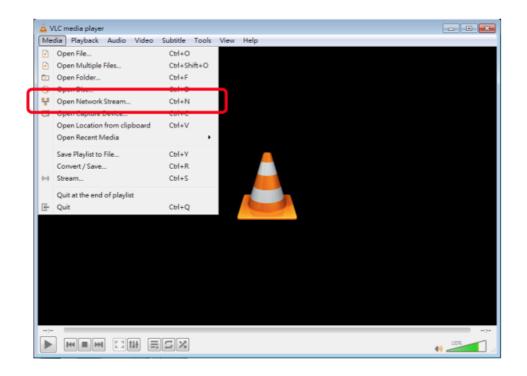
rtsp://Username: Password@VC IP address: port/hevc

• RTSP Sub1/ Sub2 Streaming

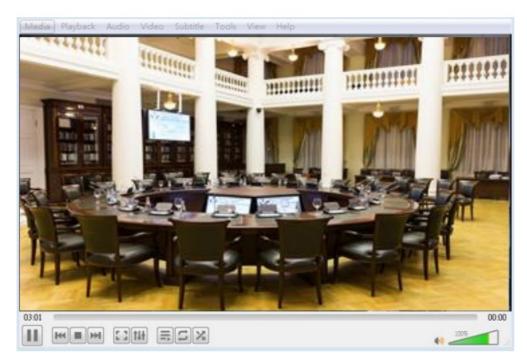
rtsp://Username: Password@VC IP address: port/h264

• To enable password authentication function, please refer to 5.3.9 Setting-Network

Example: Open VLC software and input the URL: rtsp://192.168.100.150:8557/h264







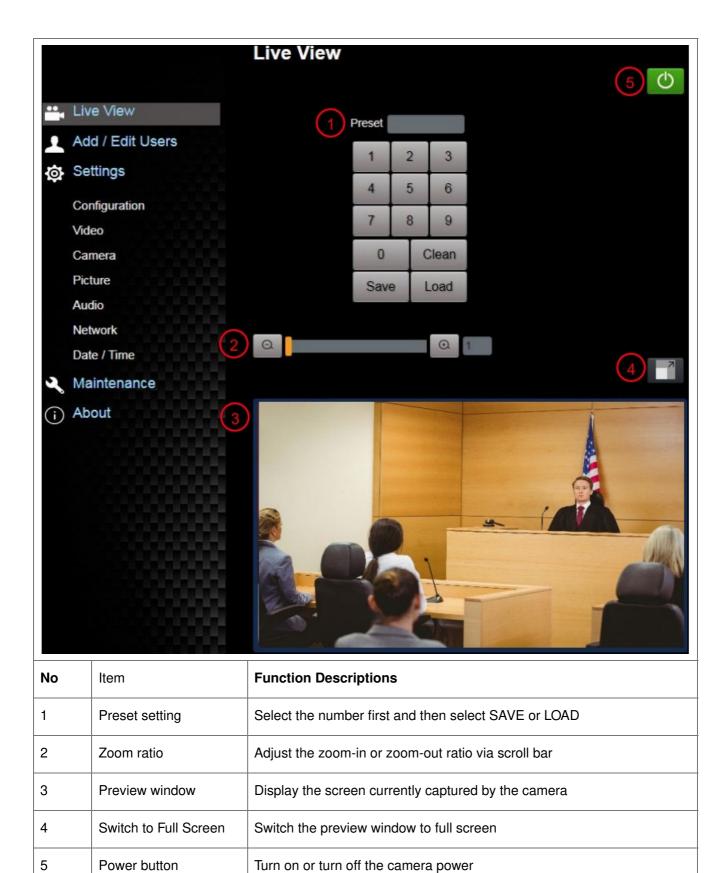
Web Page Function Description

1. Login Screen

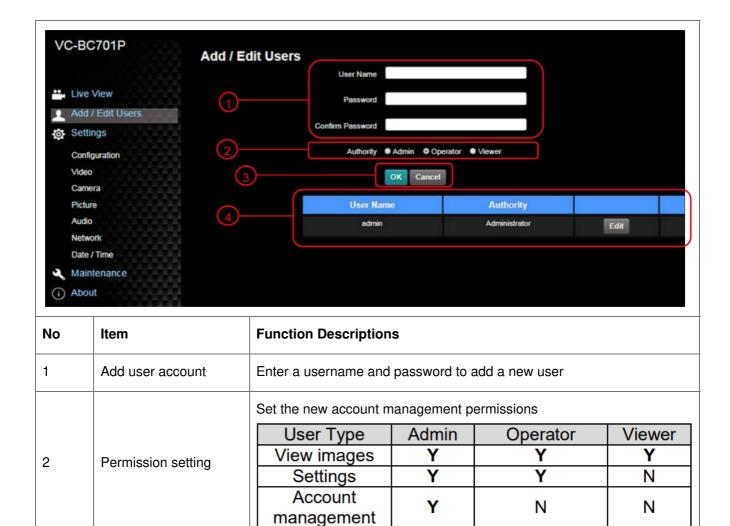


No	Item	Function Descriptions	
1	Username	Enter user account name (default: admin)	
2	Password	Enter user password (default: 9999) <remark> For a first-time login, please refer to 5.3.3 Account Manage ment to change the default password</remark>	
3	Language selection	Currently, the system supports English, Traditional Chinese and Simplifie d Chinese	
4	Remember password	Save user account name and password to the browser. When you login n ext time, there is no need to re-enter them	
5	Login	Log into the administrator screen on the website	

2. Viewing In Real Time



3. Account Management



Add the newly created user to the account list

account

Edit: Modify the user password and permissions Delete: Delete the user

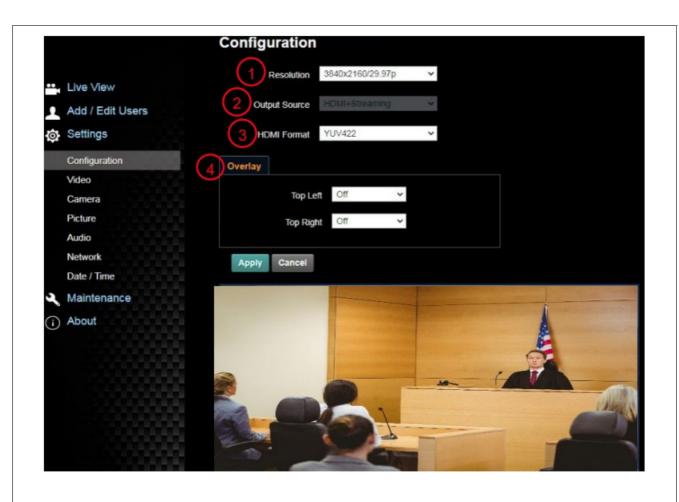
4. Setting-System Setting

Applying setting

List of accounts

3

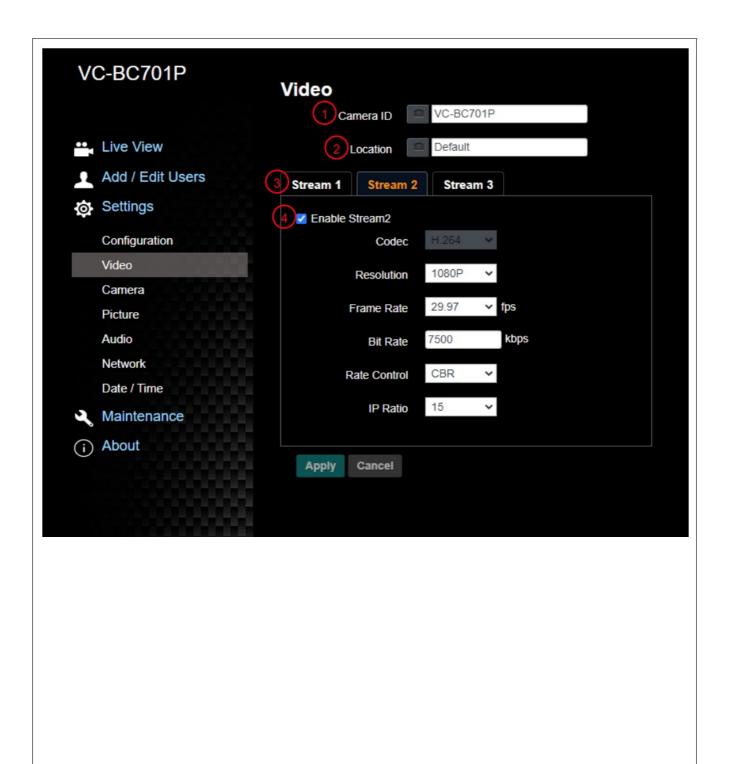
4



No	Item	Function Descriptions	
		Set the resolution of the camera. Resolutions supported by the camera a re as follows:	
		3840x2160P 60/ 59.94/ 50/ 30/ 29.97/ 25 fps	
		1080P 60/ 59.94/ 50/ 30/ 29.97/ 25 fps	
1	Resolution	720P 60/ 59.94/ 50/ 30/ 29.97/ 25 fps	
		1080i 60/ 59.94/ 50 fps	
		After switching to the resolution, the camera will restart. Please refresh the browser	

	Output signal	According to the output resolution, selections are available for HDMI output, streaming output, or HDMI + streaming output. For output signals supported by different resolution, please refer to the following table:		
		Resolution	Available output modes	
2		3840×2160 60/ 59.94/ 50	HDMI or streaming single o	
		3840×2160 30/ 29.97/ 25	Simultaneous HDMI and st reaming outputs	
		1080p 60/ 59.94/ 50/ 30/ 29.97/ 25		
		720p 60/ 59.94/ 50/ 30/ 29.97/ 25		
		1080i 60/ 59.94/ 50		
	HDMI Format	Select YUV422, YUV420 or RGB		
3		Remark> YUV420 is only available for these two resolutions, 3840×216 0/59.94p and 3840×2160/50p and remains in display mode for all other		
		resolutions		
	Overlay	Set the stream to display "date and time" or "custom content" and to		
4		display "location"		
		<remark>"Custom Content" supports บุ</remark>	o to 30 characters	

5. Setting-Video



Function Descriptions

No

Item

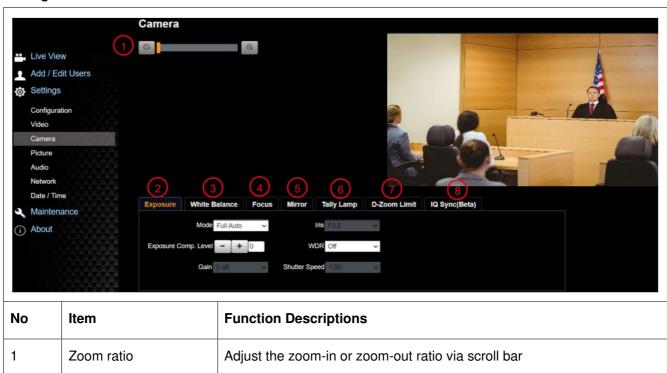
1	Camera ID	Modify the camera name n Camera names are limited to 1-12 characters n Please use a camera name by mixing uppercase and lowercas e letters and numbers. Do not use "/" and "space" or special symbols <note> Modifying this field will modify the Onvif device name sync hronously</note>
2	Location	Modify the location of the camera, such as Meeting Room 1 n Camera locations are limited to 1-11 characters n Please use a camera name by mixing uppercase and lowercas e letters and numbers. Do not use "/" and "space" or special symbols <note> Modifying this field will modify the Onvif device location synchronously</note>
3	Streaming 1 / Streaming 2 / St reaming 3	VC-BC701P supports 3 streaming outputs. Please refer to <u>5.3.5.1</u> <u>Streaming Parameter Setting</u> for relevant settings
4	Open streaming	Confirm the streaming function

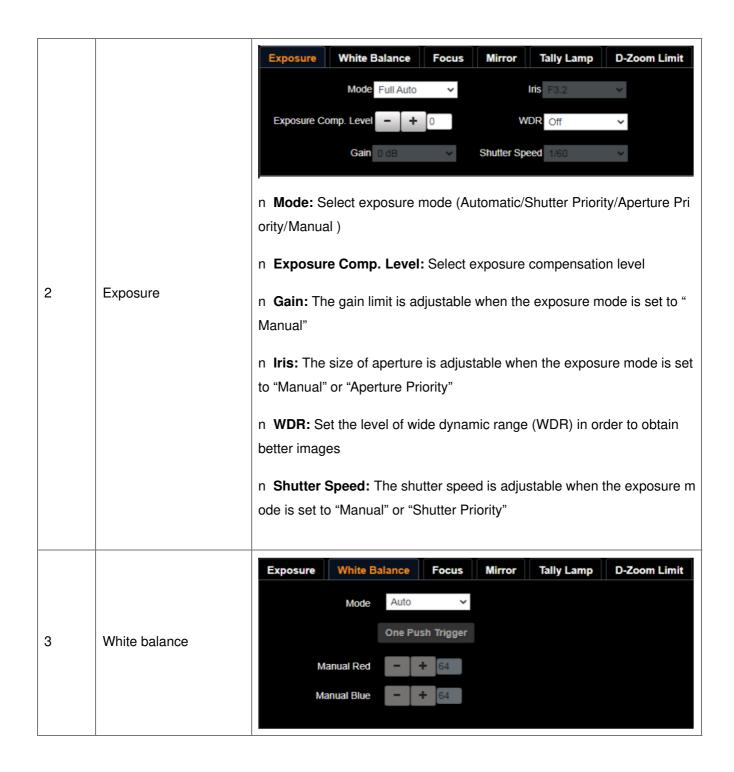
1. Streaming parameter setting

Function	Streaming 1	Streaming 2	Streaming 3
Encode Format	H.265	H.264	
Resolution	4K /1080P / 720P	1080P / 720P/ 1080i	D1
	Setting according to th	e supported resolution	
Frame rate <remark> Only suppo</remark>		orts 59.94/ 50 when the s	tream 2's resolution is 108

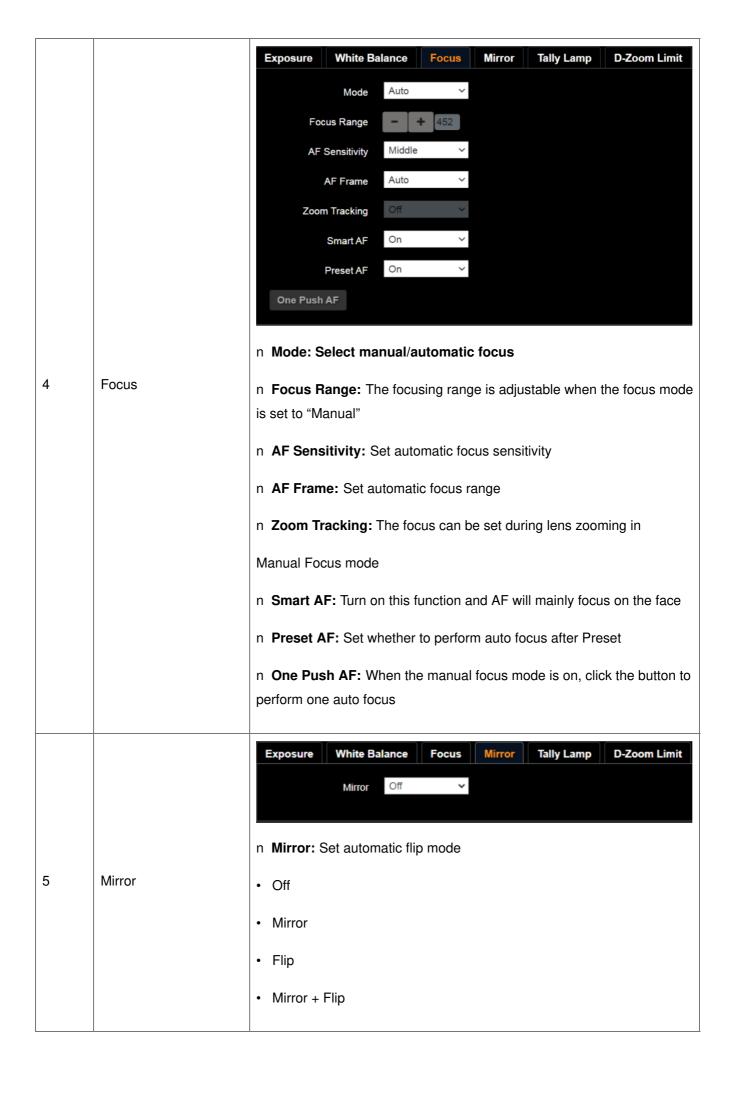
Bit Rate(kbps)	Range	2,000~20,000	2,000~20,000	512~5,000
	Factory d efault	15,000	7,500	1,000
Rate control		VBR / CBR		
IP ratio		Setting according to the supported resolution <remark> Only supports 15 / 25 when the resolution is 1080i</remark>		

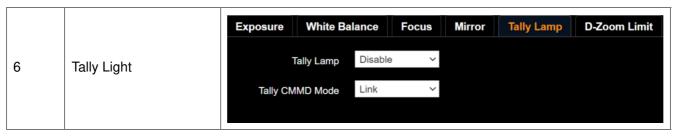
6. Setting-Camera

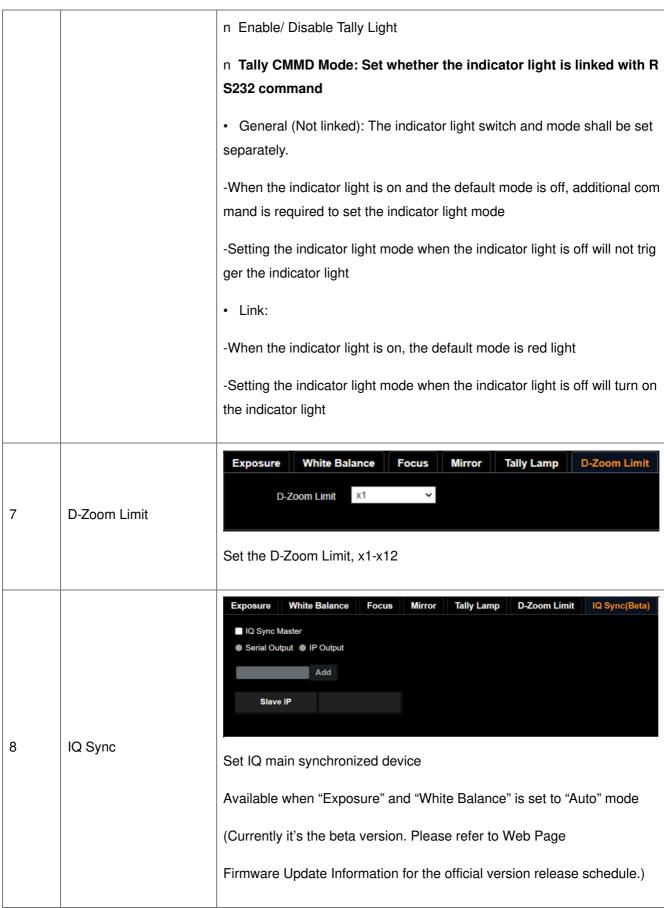




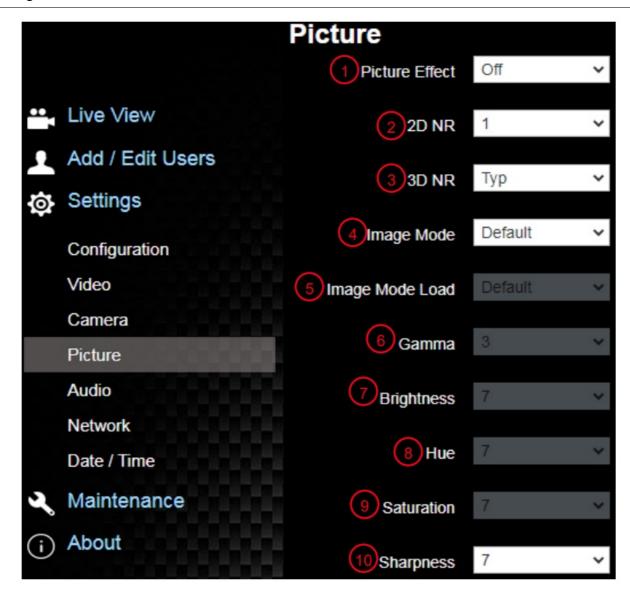
	n Mode: Select the color temperature mode
	• Auto
	• Indoor
	• Outdoor
	One Push WB
	• ATW
	Manual
	Sodium Lamp
	• 3000K/ 4300K/ 5000K/ 6500K/ 8000K
	n Open Push Trigger: One push color temperature is adjustable
	when the white balance mode is set to "One Push Trigger"
	n Manual Red/Blue: Manually adjust blue/red color temperature
I	







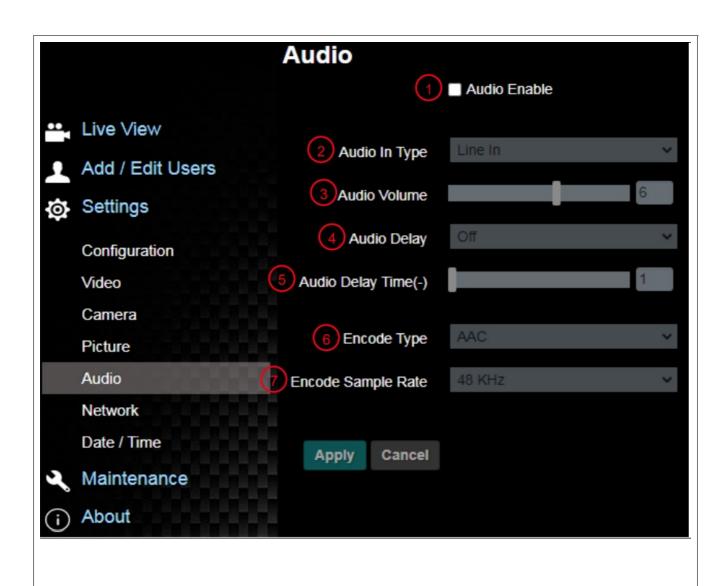
7. Setting-Picture



No	Item	Function Descriptions
1	Picture effect	Set picture effect, Off / Film / Black and White
2	2D noise reduction settings	2D noise reduction settings
3	3D noise reduction settings	3D noise reduction settings
4	Image mode	The user may customize his/her desired image mode
5	Image mode load	When no custom setting is needed, reset the picture parameters back to the factory default by selecting this item

6	Gamma	Gamma Level adjustment; Adjustable when the image mode is set to Cu stom
7	Brightness	Brightness adjustment; Adjustable when the image mode is set to Custo m
8	Contrast	Contrast adjustment; Adjustable when the image mode is set to Custom
9	Saturation	Saturation adjustment; Adjustable when the image mode is set to Custo m
10	Sharpness	Adjust the sharpness of the image

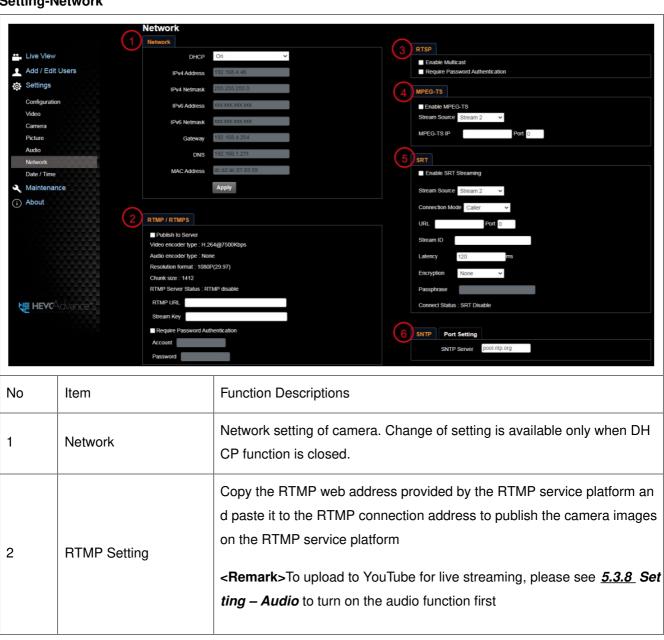
8. Setting-Audio



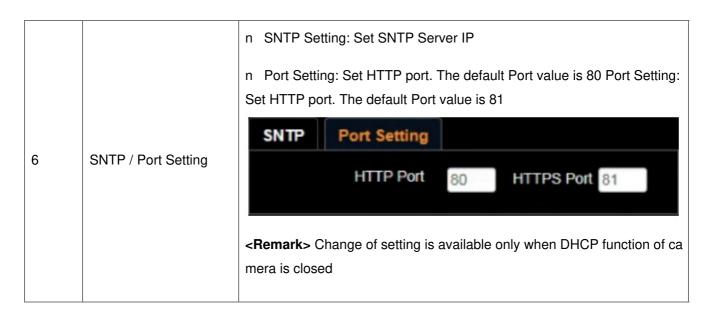
No	Item	Function Descriptions
1	Open audio	Turn on / off sound
2	Audio In Type	Set MIC In / Line In
3	Audio Volume	Adjust Volume

4	Audio Delay	Turn on / off Audio Delay
5	Audio Delay Time	Set the audio delay time (-1~-500ms)
6	Encode Type	AAC / G.711
7	Encode Sample Rate	Set Encode sample rate
		• 48 KHz(AAC)
		• 44.1 KHz(AAC)
		• 16 KHz(AAC)
		• 16 KHz(G.711)
		• 8 KHz(G.711)

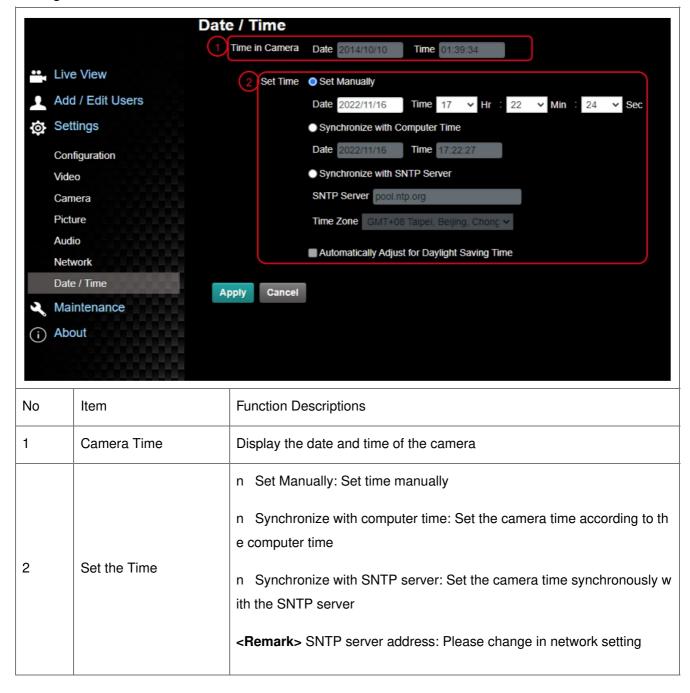
9. Setting-Network



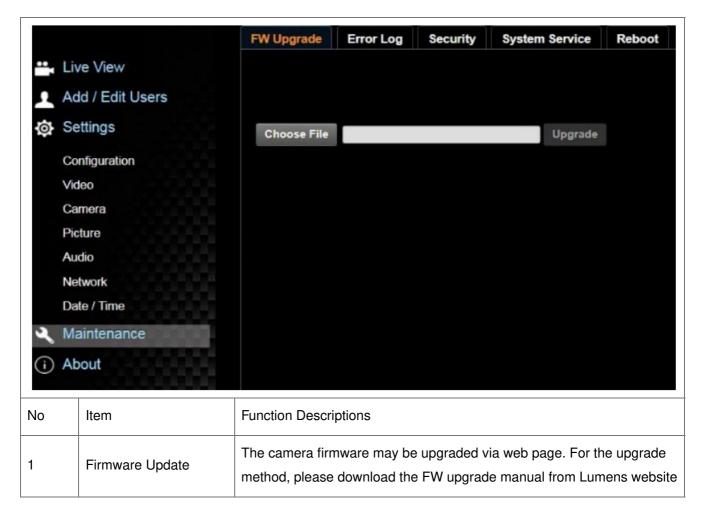
	n Enable/Disable Multicast.
RTSP Setting	It is suggested to enable Multicast when the number of users online watching the live image simultaneously is more than 4 n Enable/Disable Password Authentication
	RTSP connection format can be found in 5.2.4 Using RTSP Player t o View the Images
	The username/password is the same as the web login password of the camera, please refer to 5.3.3 Account Management to
	add/modify account information
MPEG-TS Setting	The port number must be set in the range above 1024 with a maximum v alue of 9999
	<remark> The following port has been used by the camera. Setting of the port may not connect correctly</remark>
	8554, 8556, 8557, 8080, 9090, 1935
SRT Setting	Set the field of SRT and then check the item to open SRT streaming After the SRT streaming is opened, it will be connected automatically upon startup
	2. The port number must be set in the range above 1024 with a maxim um value of 9999
	The following port number has been used by the camera. Setting of the p ort number may not connect correctly
	8554/ 8557/ 8556/ 8555/ 1935
	3. Delay time is for 20 to 8,000 microseconds. The default value is 120 microseconds
	MPEG-TS Setting



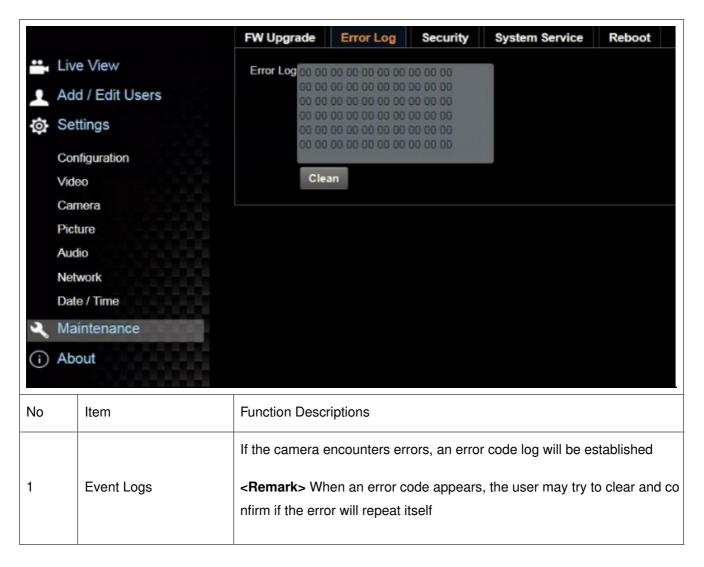
10. Setting-Time



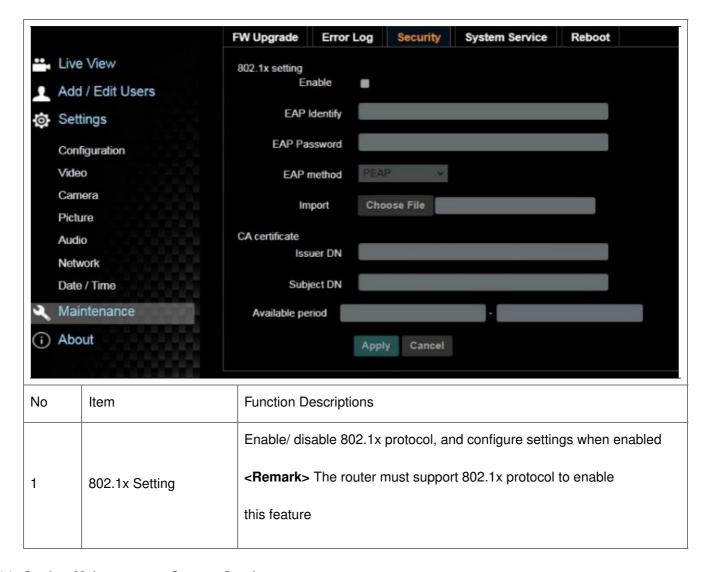
11. Setting-Maintenance – Upgrading Firmware



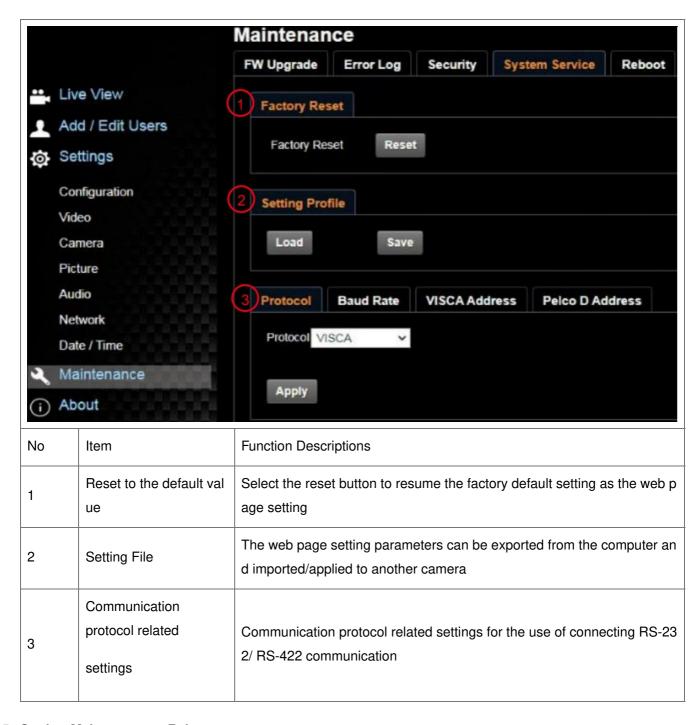
12. Setting-Maintenance - Incident Log



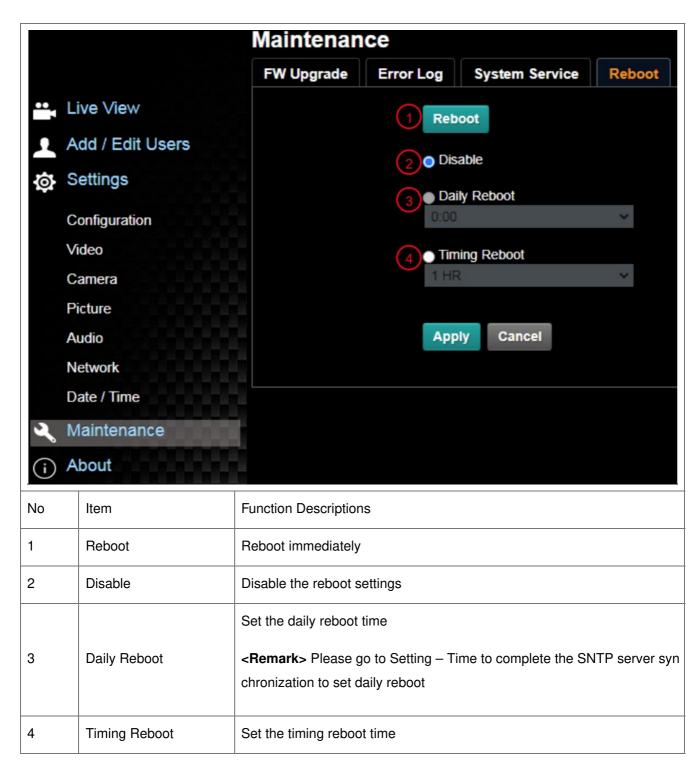
13. Setting-Maintenance - Security



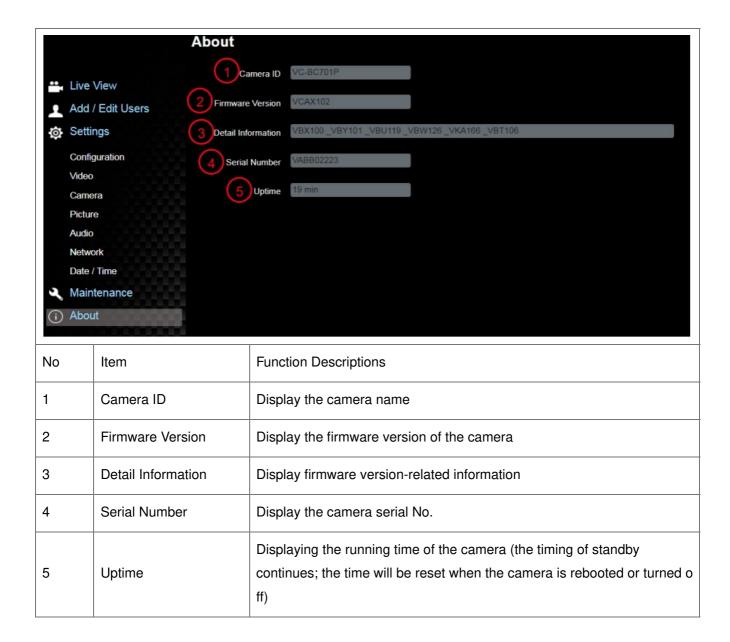
14. Setting-Maintenance – System Service



15. Setting-Maintenance - Reboot



16. About



Troubleshooting

This chapter describes problems you may encounter while using VC-BC701P. 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 sign al	 Make sure you have plugged in the power cord. When using a PoE connection, ensure that the power supply supports I EEE 802.3af hubs
2.	There is no image output from VC-BC701P	 Check the power supply or PoE supply functions. Confirm the output signals are in streaming output. If the camera is connected to a monitor, confirm the monitor equipment s upports 4K output Replace the cables and make sure they are not faulty.
3.	VC-BC701P image is sev erely delayed	Please use 4K, 1080p or 720p 60/50 Hz signals rather than 25/30 Hz signal s.
4.	RS-232 cannot be contro lled	 Confirm the connection is correct (RS-232 Input / Output) 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 <i>Chapter 5 Network Function Description</i> for the Internet u sage
6	The ONVIF software cann ot find the machine	Please go to Setting – Video – Camera Location in the webpage and mak e sure that the ID is only made up of English letters or numbers. The ONVIF software cannot find the machine if you use special characters and space.
7	Tally light is not working when applying RS232 setting	Please go to Setting – Camera – Tally Light in the webpage to check if the function is on.

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

• Manufacturer: Lumens Digital Optics Inc.

• Product Name: VC-BC701P

• Model Number: UHD Box 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.

Documents / Resources



<u>Lumens VC-BC701P 4K UHD Box Camera</u> [pdf] User Manual VCAX105, VC-BC701P, VC-BC701P 4K UHD Box Camera, 4K UHD Box Camera, UHD Box Camera, Box Camera, Camera

References

• User Manual

Manuals+, Privacy Policy

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