# CV630-BI/WI/ND3/ND3W

UHD30 NDI® PTZ Camera



## **User Manual**

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### **Precautions**



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, 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.

#### **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 WARNING**

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

#### **KC WARNING**

This equipment is Industrial (Class A) electromagnetic wave suitability equipment and seller or user should take notice of it, and this equipment is to be used in the places except for home.

### **Chapter 1:** Safety Instructions

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

#### 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 in tilted position 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 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 Unplug the product during thunderstorms or if it is not going to be used for an extended period.
- 3.3 Do not place the 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.

### **Chapter 2:** Package Contents

#### PTZ Camera

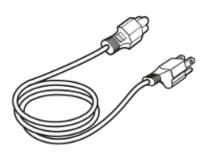
# **Click Here for Product Page:**

#### Installation Instructions Remote Control

https://marshall-usa.com/ cameras/CV630-NDI/

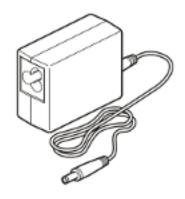


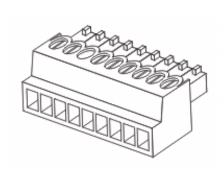
**AC Power Cord** 



Appearance may vary depending on county/ region

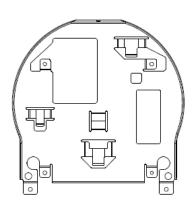
Power Adapter



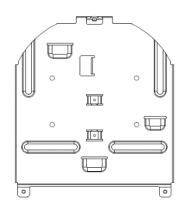


**RS-422 Connector** 

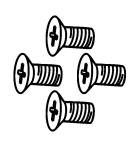
Metal Plate A



Metal Plate B



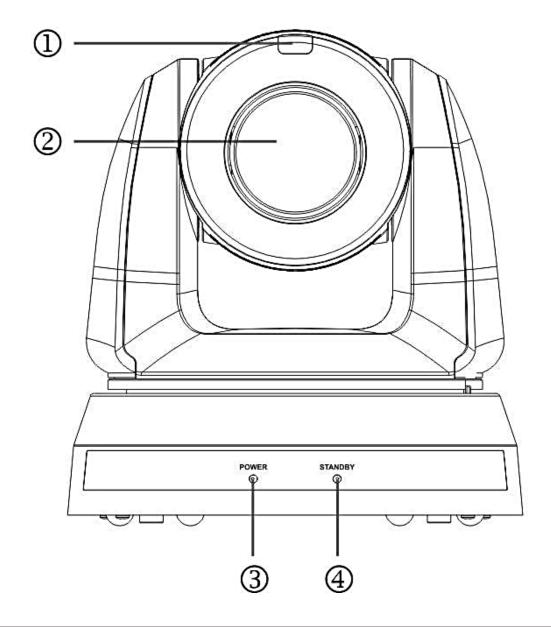
M3 Screws



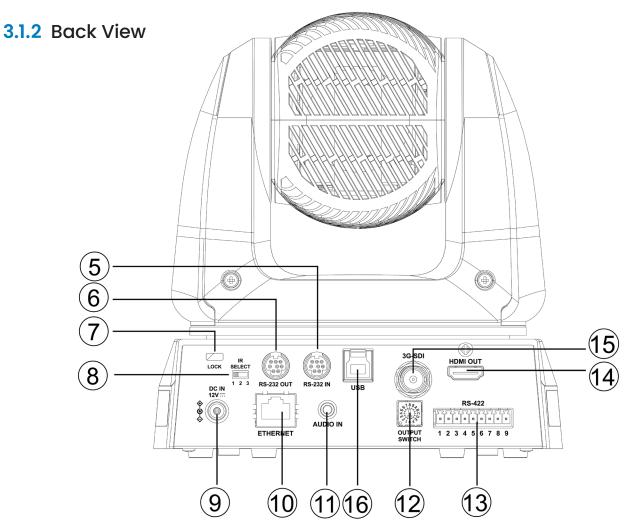
Silver x8/ Black x2

### **Chapter 3:** Function Introduction

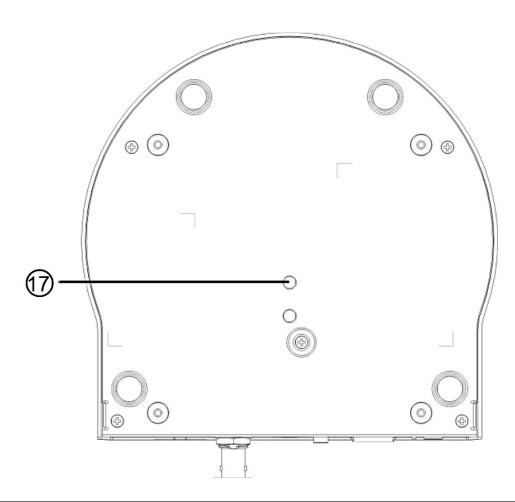
- 3.1 I/O functions Introduction
- 3.1.1 Front View



NO.	Item	Function Descriptions		
1.	Tally Lamp	Display the tally light status of the camera		
2.	Camera lens	30x HD camera lens		
3.	Power LED indicator	Display the status of the camera		
4.	Standby LED indicator	Display the status of the camera		



NO	Item	Function Descriptions		
1.	RS-232 input	RS-232 input port, at most 7 cameras can be connected in a serial connection		
2.	RS-232 output	RS-232 output port, at most 7 cameras can be connected in a serial connection		
3.	Lock hole	Lock hole of safety lock		
4.	IR SELECT	The remote-control ID setting is only controlled after corresponding to the Camera Select on the remote control		
5.	DC 12 V power Port	DC power supply connecting port		
6.	Ethernet port	Network cable port supports routers or hubs of PoE+ (IEEE 802.3at).		
7.	Audio input	Support Line In/Mic In		
8.	OUTPUT Switch	Adjust the resolution setting. The default is 1080p/59.94		
9.	RS-422 Port	RS-422 connecting port, at most 7 cameras can be connected in a serial connection		
10.	HDMI output	HDMI output (Audio output supported)		
11.	3G-SDI output	3G-SDI output(Audio output supported) <remark>Support the audio output of 48 KHz only/resolutions up to 1080p 59.94/50</remark>		
12.	USB 3.0 port	Connect to the USB port of the computer, camera image output via video software <remark> Support up to H.264 2160 29.97p/MJPEG 1080 29.97p</remark>		



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

### 3.2: Description of LED indicator

Status	Power	Standby
Startup in progress (initialization)	Green light	Orange light
In use	Green light	No indicator
In standby mode	No indicator	Orange light

### 3.3: Tally Indicator Light Function Description

The tally indicator light function can be enabled through RS-232 command.

Please refer to RS-232 command set document.

### **Chapter 4: Instruction for installation**

#### 4.1 Preparation before installation

Installation and connection of the 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

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

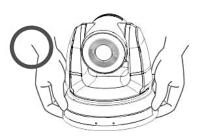
#### 4.2 Instruction for installation

- 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. Please adjust DIP switch at first prior to installation

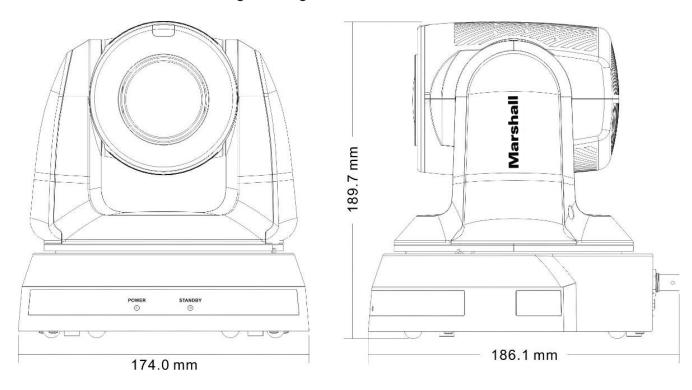
  Please refer to Chapter 7 DIP Switch Setting for the relevant descriptions on DIP switch.
- **2.** Place the camera on a flat desk directly to ensure the normal vertical and horizontal operation of the machine
- 4.2.2 I would like to install the camera on the ceiling
- 4.2.2.1 Prepare for the parts and equipment required during the installation



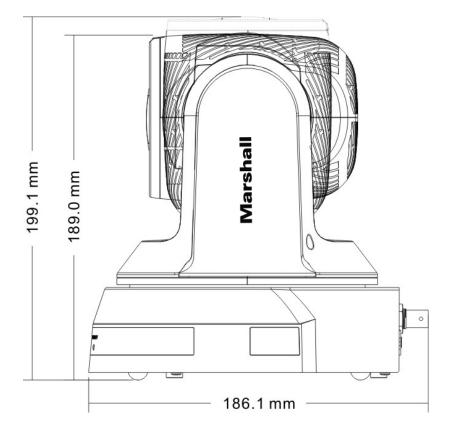
- 1. Accessories in the box (metal plates A, B, M3 screw silver x 8, black x 2)
- 2. Screw for locking on ceiling mounted hanger x 4
- 3. Drilling machine, screwdriver, ladder

#### 4.2.2.2 Camera Size

L x W x H: 174 x 187 x 190 mm Weight: 2.0 Kg



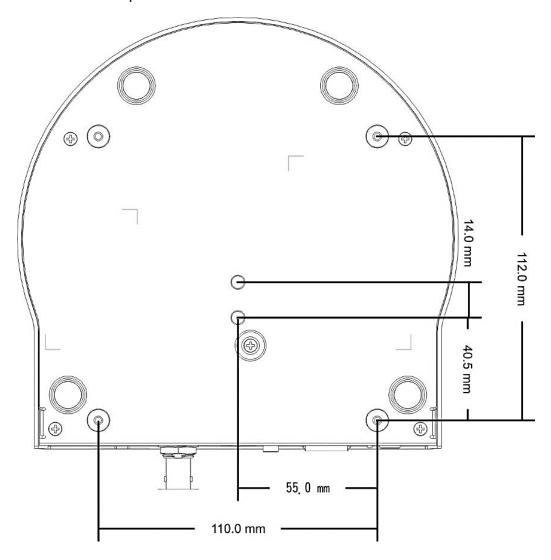
#### 4.2.2.3 Max. rotation dimension of camera



#### 4.2.2.4 Size Diagram

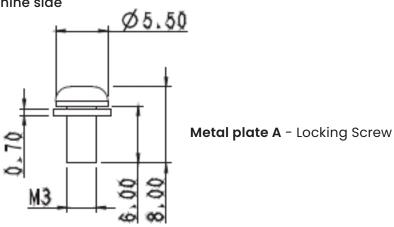
#### 1. Bottom of machine

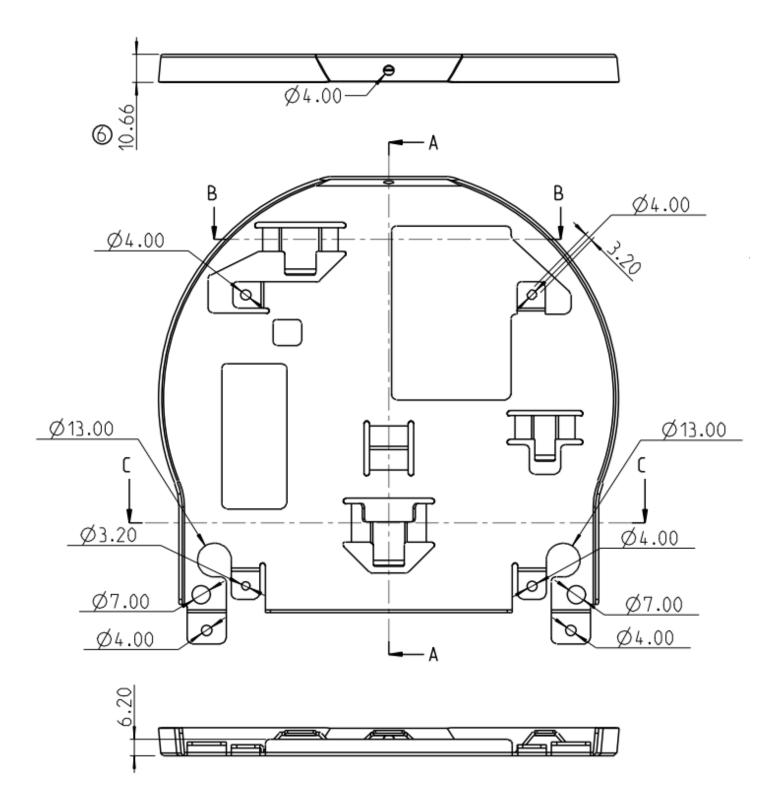
The camera can be mounted on a 1/4", -20 UNC PTZ tripod deck by using the lock holes on the bottom for the tripod.



#### 2. Metal Plate size diagram

• Metal plate A - machine side

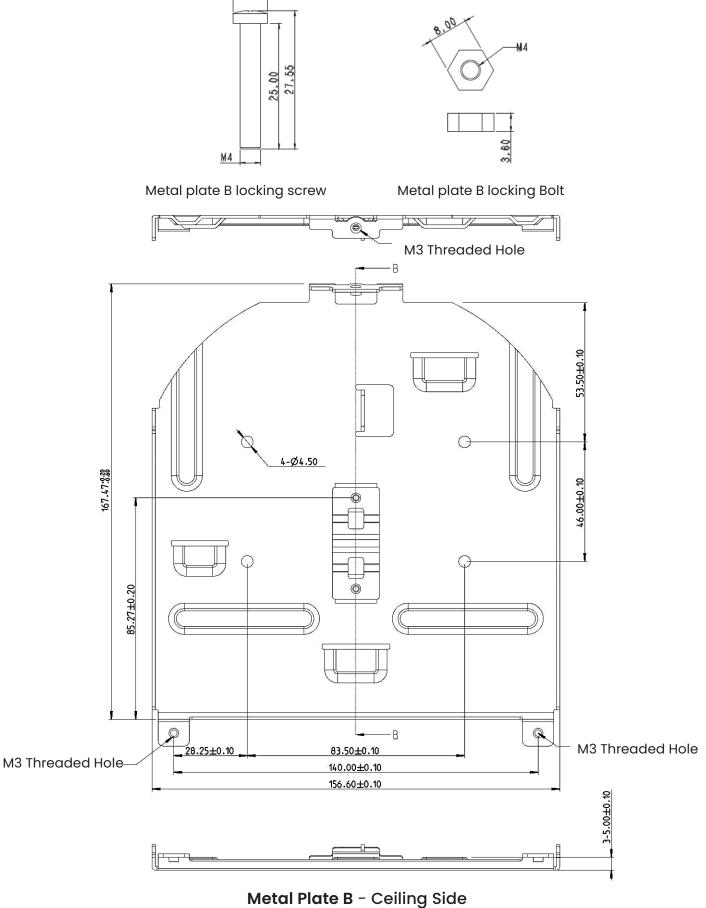




Metal Plate A - Machine Side

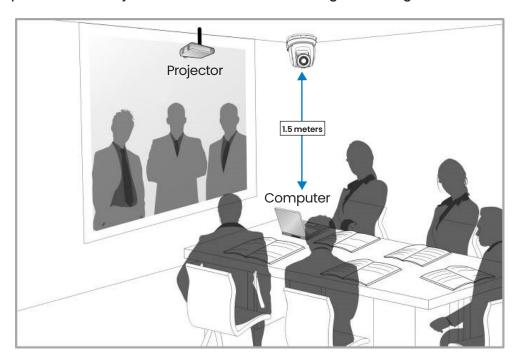
#### Metal Plate B - Ceiling Side

Ø7.00



#### 4.2.2.5 Precautions for installation

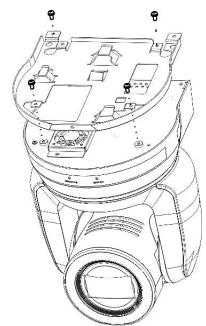
- 1. Before installation, please confirm the orientation of the machine relative to the object to be captured
- 2. It is recommended that the machine should be set at more than 1.5 meter away from the object to be captured. Please adjust for a best distance according to the magnification of the lens



- 3. The machine (including metal plates) weighs about 2.5 kg. If it is to be installed on the ceiling, please use the hanger that has obtained UL security approval to prevent the machine from falling.
- 4. Please check whether the camera is installed securely on a regular basis

#### 4.2.2.6 Installation steps

Please adjust resolution on DIP switch at first
 Please refer to Chapter 7 DIP Switch Setting for the relevant descriptions on DIP switch

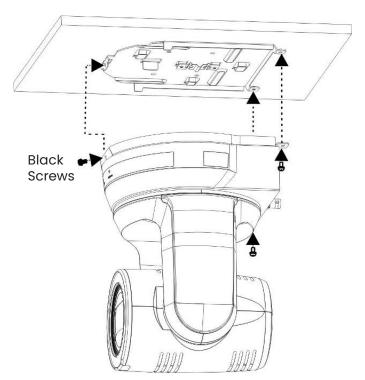


- 2. Fix the metal plate A on the machine base with 4 M3 silver screws
- 3. Lock the metal plate B on ceiling mounted hanger

CAUTION: (1) Please use the hanger that has obtained UL security approval

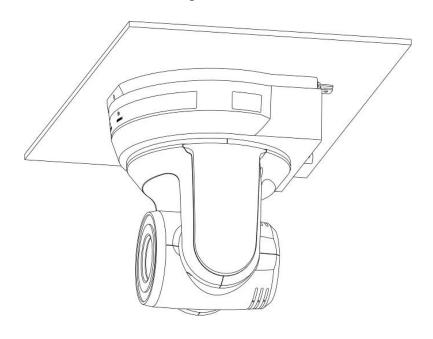
(2) Please reserve the hole for the connecting wires of the camera

- 4. Combine the metal plate A and the metal plate B
  - (1) Push the metal plate A up to the ceiling and then to the right to latch the metal plate B
  - (2) And then secure with 2 M3 silver screws and 1 M3 black screw



#### 4.2.2.7 How to remove

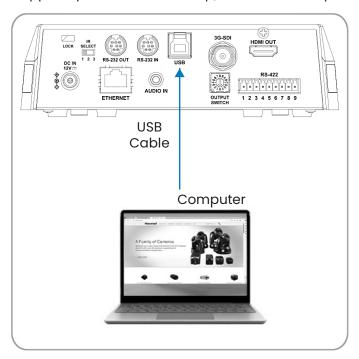
- 1. Remove the connecting wires from the camera
- 2. Uninstall the camera together with the ceiling, loosen the three screws that fix the metal plates A and B and push to the left to remove the machine
- 3. Then remove the screws on the hanger and the machine



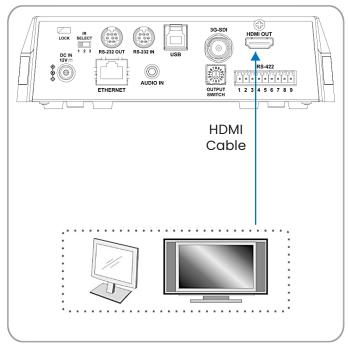
#### 4.3 Connecting devices

# 4.3.1 Connecting to PC (video conference)

Support up to H.264 2160 29.97p/ MPEG 1080 29.97p

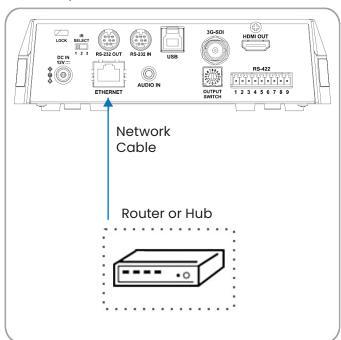


# 4.3.2 Connecting to an HDTV/computer monitor (HDMI)

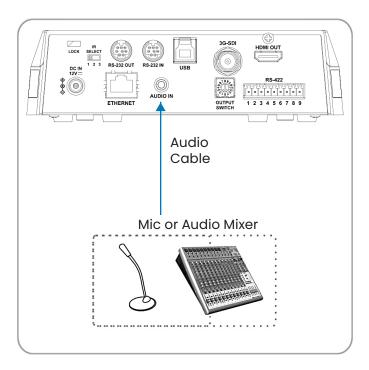


#### 4.3.3 Connecting to Internet

For details of web page connection setting and description, please refer to Chapter 6 Network Function Settings Description

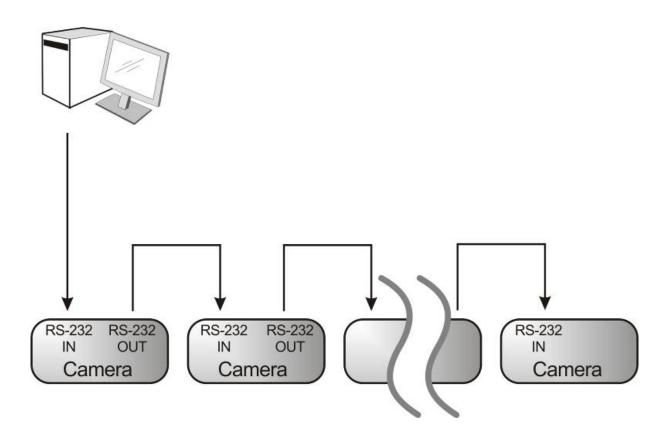


# 4.3.4 Connecting AUDIO IN Set the [Audio In] in the OSD to reflect the input device



#### 4.3.5 Connecting RS-232

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



#### • RS-232 PINS DEFINITION INSTRUCTIONS

#### **▼ RS-232 IN Pins Instructions**



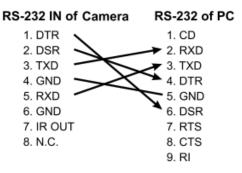
NO	Pins	Signals	
1	DTR	Data Transmission Reade	
2	DSR	Data Set Reade	
3	TXD	Transmit Data	
4	GND	Ground	
5	RXD	Receive Data	
6	GND	Ground	
7	IR OUT	IR Commander Signal	
8	N.C.	No Connection	

### **▼** RS-232 OUT Pins Instructions

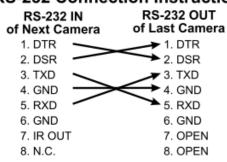


	NO	Pins	Signals	
	1	DTR	Data Transmission Reade	
\	2	DSR	Data Set Reade	
)	3	TXD	Transmit Data	
/	4	GND	Ground	
	5	RXD	Receive Data	
	6	GND	Ground	
	7	OPEN	Reserved	
	8	OPEN	Reserved	

#### ▼ RS-232 Connection Instructions

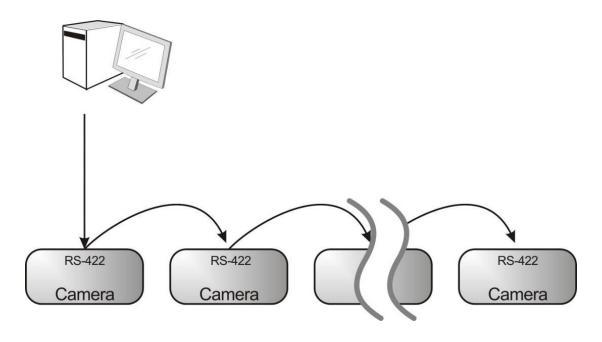


#### **▼ RS-232 Connection Instructions**



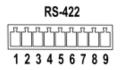
#### 4.3.6 Connecting RS-422

**CAUTION:** When RS-422 connection is being used, do not use RS-232 connection.



#### RS-422 PINS DEFINITION INSTRUCTIONS

#### ▼ RS-422 Pins Instructions

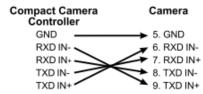


Function	
RXD OUT-	
RXD OUT+	
TXD OUT-	
TXD OUT+	
GND	
RXD IN-	
RXD IN+	
TXD IN-	
TXD IN+	

#### ▼ RS-422 Connection Instructions

-Applicable to

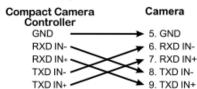
Marshall Compact Camera Controller

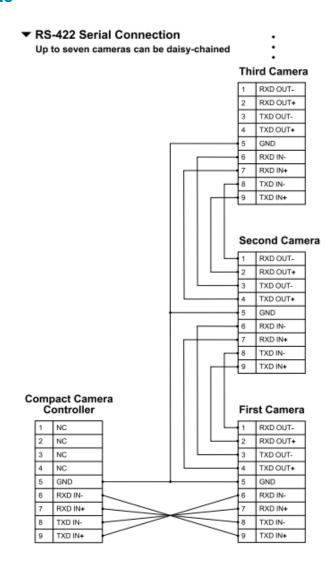


#### ▼ RS-422 Connection Instructions

—Applicable to

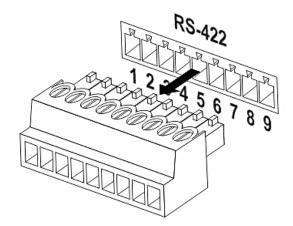
**SONY Compact Camera Controller** 



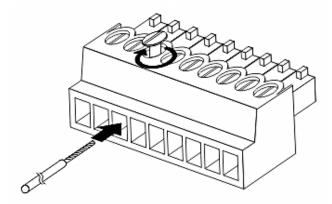


#### • RS-422 CONNECTION INSTRUCTIONS

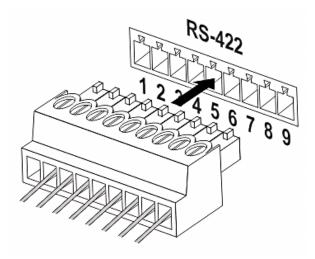
1. Hold the two sides of RS-422 connector and pull out in the direction shown by the arrow in the figure below



2. Peel off a section of copper wire (AWG Nos. 28 to 18) and insert it into the connector hole; then use flat screwdriver to fix it

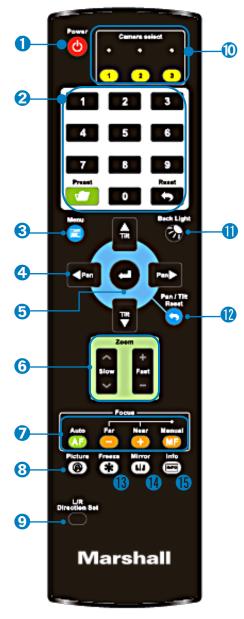


3. Insert the wired RS-422 connector back to the Camera. Now the connection is completed



### **Chapter 5: Remote Control and Setting Menu**

### 5.1 Functions of remote control



No	Item	Description
1	Power	Power Switch
2	Preset	<ul> <li>Numeric Keys 0 - 9: Click to call the preset</li> <li>Preset: Appoint an ID (0 ~ 9) to save the current position data</li> <li>Reset: Appoint an ID (0 ~ 9) to delete the current position data</li> </ul>
3	Menu	Display OSD menu
4	Pan/ Tilt	Move the lens
5	Home-Enter	Go back to the main page / Execute
6	Zoom	<ul><li>Fast: Adjust image size</li><li>Slow: Fine-tune image size</li></ul>
7	Focus	<ul> <li>Auto: Auto focus</li> <li>Manual: Enable Manual Focus</li> <li>Far/ Near: Adjust the focal length in Manual</li> </ul>
8	Picture	Switch image effect (OFF/ Neg/ B&W)
9	L/R Direction Set	L/R Direction / Normal
10	Camera select	Choose camera ID 1 ~ 3
11	Back Light	Turn on/off back light compensation
12	Pan/ Tilt Reset	Clear the Pan/Tilt setting
13	Freeze	Freeze the screen
14	Mirror	Rotate the image (OFF/ Mirror/ Flip/ Rotate)
15	Info	Status information

### 5.2 Setting Menu

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

1st Level Major Items	2nd Level Minor Items	3rd L Adjustme		Function Descriptions
	Mode	<ol> <li>Full Auto</li> <li>Shutter Pri</li> <li>Iris Pri</li> <li>Manual</li> </ol>		Exposure mode setting
	Exposure Comp.	On / <u>Off</u>		AE Level
	Exposure Comp. Level	-5~ <b>C</b> ~5		The value can be adjusted after <b>Exposure Comp.</b> is activated
	Spot Light	On / Off		
	Spot Light Position	X(0~6)Y(0~4)		The value can be adjusted after  Spotlight is activated
Exposure	Shutter Pri	60/30 Mode 1/10000~ <b>C</b>	50/25 Mode	Adjustable when the <i>Exposure</i> mode is set to <i>Shutter Pri</i>
	Iris Pri	F1.6~ <b>C</b> ~F18/ Off		Adjustable when the <i>Exposure</i> mode is set to <i>Iris Pri</i>
	Manual Gain	<u>0</u> ~45dB		Adjustable when the <i>Exposure</i> mode is set to <i>Manual</i>
	Manual Speed	60/30 Mode 1/10000	50/25 Mode ~ <u>C</u> ~1/1	Manually set the shutter
	Manual Iris	F1.6~ <u>C</u> ~F18/ Off		Manually set the iris
	Gain Limit	9~45 dB		Max. limit value of electron gain
	Iris Limit	<b>F3.2</b> ~F11		Max. limit value of iris
	WDR	<u>Off</u> / 1/ 2/ 3		
	Smart AE	On / <u>Off</u>		Available when "Auto Focus Smart AF" is on

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
White Balance	Mode	<ol> <li>Auto</li> <li>Indoor</li> <li>Outdoor</li> <li>One Push WB</li> <li>ATW</li> <li>Manual</li> <li>Sodium Lamp</li> <li>3000K</li> <li>4300K</li> <li>5000K</li> <li>5000K</li> <li>8000K</li> </ol>	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~ <u>C</u> ~128	Adjustable when the white balance mode is set to <i>Manual</i>
	Manual Blue	0~ <u>C</u> ~128	Adjustable when the white balance mode is set to <i>Manual</i>
	Picture effect	Off/ Neg/ B & W	
	Sharpness	0~ <u>C</u> ~14	
	2D NR	Off/ <u>1</u> / 2/ 3	
	3D NR	Off/ Low/ <u>Typ</u> / Max	
	Image Mode	Default/ Custom	The user may customize his/her desired image mode
Picture	Image Mode Load	ENTER	Adjustable when the <i>Image mode</i> is set to <i>Custom</i> . After selected, the corresponding <i>Image mode</i> parameters will be read and applied to <i>Custom</i>
	Brightness	0~ <b>C</b> ~15	Adjustable when the <i>Image mode</i> is set to <i>Custom</i>
	Hue	0~ <u>C</u> ~15	Adjustable when the <i>Image mode</i> is set to <i>Custom</i>
	Saturation	0~ <u>C</u> ~15	Adjustable when the <i>Image mode</i> is set to <i>Custom</i>
	Gamma	0~ <b>C</b> ~3	Adjustable when the <i>Image mode</i> is set to <i>Custom</i>
Pan Tilt	Pan/Tilt Limit	Pan Tilt Pan/Tilt Limit On / Off	

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1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Zoom	Pan Right Limit	0~ <u><b>170</b></u>	Limit the right angle
	Pan Left Limit	<u>-170</u> ~0	Limit the left angle
	Tilt UP Limit	0~ <u><b>90</b></u>	Limit the upward angle
	Tilt Down Limit	<u>-30</u> ~0	Limit the downward angle
	Pan Flip	On / <u>Off</u>	Activate the reverse Pan command
	Tilt Flip	On / <u>Off</u>	Activate the reverse Tilt command
	Preset Speed	5/ 25/ 50/ 80/ 120/ 160/ 200/ 300 deg/sec	Set the rotation speed of the cradle head when Preset is executed
	Preset Mode	Normal/ PTZ Only	■Normal: Call the preset, execute Pan/Tilt/Zoom/Focus + Image parameter setting ■ PTZ Only: Call the preset, only execute Pan/Tilt/Zoom/Focus
	PTZ Speed Comp	On / <u>Off</u>	Set the Pan/Tilt moving speed to vary from the zoom position
	D-Zoom Limit	<b>x1</b> ~x12	Set limits for digital zoom
	PTZ Motion Sync	On / <u>Off</u>	After turning on, operate <b>Preset</b> to achieve PTZ Motion Sync < <b>Remark&gt;</b> This function will refer to the default speed setting, but may automatically adjust the speed due to the difference in PTZ movement range
D-Effect Mirror		Off/ Mirror/ Flip/	Set the mode at which the image
		Mirror + Flip	is turned
	AF Sensitivity	Low/ Middle/ High	For AF triggering speed, the higher the speed is, the faster AF is triggered
Auto Focus	AF Frame	Center Area / All Area / <u>Auto</u>	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

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
	Zoom tracking	Manual / <u>Curve</u> <u>Tracing</u> / Zoom Tracking	It can be set in the Manual Focus (MF) mode The focus mode during lens zooming
	PTZ Assist	On / <b>Off</b>	Check whether auto focus is enabled if there is any changes of PTZ (can be set in "Manual") <remark> When PTZ Assist is enabled and PTZ control is in operation, the focus will be triggered. The focus will not be triggered when the scene changes</remark>
	Preset AF	<u>On</u> / Off	Set whether to perform Auto Focus after Preset
	SMART AF	On / <u>Off</u>	Turn on this function and AF will mainly focus on the face
	DHCP	On / <u>Off</u>	Enable/Disable DHCP setting using left and right arrow keys and press <b>[ENTER]</b> to apply setting.
	IP Address	<u>192.168.100.100</u>	Press <b>[ENTER]</b> to be in modify mode; select the item to be modified using the up and down keys and modify the value using the left and right keys or the numeric keys.
Ethernet	Subnet mask	<u>255.255.255.0</u>	Press <b>[ENTER]</b> to be in modify mode; select the item to be modified using the up and down keys and modify the value using the left and right keys or the numeric keys.
	Gateway	<u>192.168.100.254</u>	Press <b>[ENTER]</b> to be in modify mode; select the item to be modified using the up and down keys and modify the value using the left and right keys or the numeric keys.
	Audio In	Line In/Mic In	Set Audio In
Audio	Audio Enable	On / <u>Off</u>	Turn on/off audio output
	Audio Volume	0~ <b>C</b> ~10	Audio Volume Setting

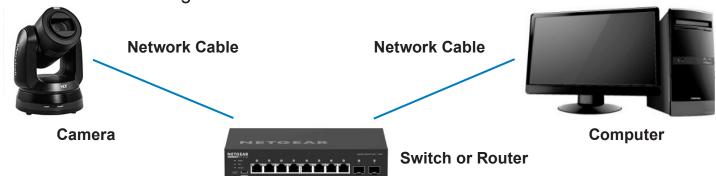
1st Level	2nd Level		
Major	Minor Items	3rd Level	Function Descriptions
Items		Adjustment Values	r direction Bocompaions
	Audio Delay	On / <u>Off</u>	When the audio is not synchronized with the video, enable this function to set the audio delay time <remark> Supported when NDI HX function setting is off</remark>
	Audio Delay Time(ms)	<u>-1</u> ~-500ms	Set audio delay time <remark> Supported when NDI HX function setting is off</remark>
	Encode Type	<b>AAC</b> / G.711	Set audio encode type <remark> Supported when NDI HX function setting is off</remark>
	Encode Sample Rate	1.48 KHz(AAC) 2.44.1 KHz(AAC) 3.16 KHz(AAC) 4.16 KHz(G.711) 5.8 KHz(G.711)	Set the encode type and sample rate <remark> Supported when NDI HX function setting is off</remark>
	Prompt	On / <u>Off</u>	Turn on/off the prompt information on the display
	IR Receive	On / Off	
	Tally Lamp	On / <u>Off</u>	
System	Tally CMMD Mode	General / <u>Link</u>	Set whether the indicator light is linked with RS232 command  General (Not linked): The indicator light switch and mode shall be set separately.  When the indicator light is on, and the default mode is off, additional command is required to set the indicator light mode  Setting the indicator light mode when the indicator light is off will not trigger the indicator light  I Link:  When the indicator light is on, the default mode is red light  Setting the indicator light mode when the indicator light mode when the indicator light is off will turn on the indicator light is off will turn on the indicator light
	Language	English / Chinese	
	Initial Position	<u>Last MEM</u> / 1 <sup>st</sup> Preset	Select the camera lens to return to the last memory position or the 1st Preset position after POWER ON <remark> 1st Preset = Preset 0</remark>
	Control Device	Encoder / Controller	Control Device setting, Controller: for joystick Encoder: for tracking system

### **Chapter 6: Network Function Settings Description**

- 6.1 Connecting Camera to Network
  - **6.1.1** Connecting to Internet

Two common connection methods are shown below

1. Connecting via switch or router



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



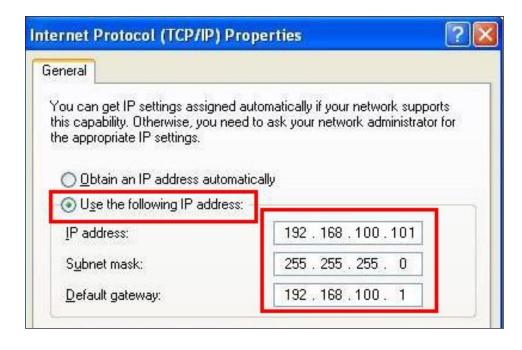
#### **Network Cable**



Camera

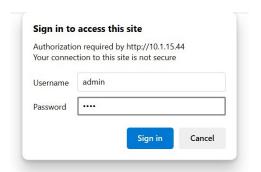
CHANGE NETWORK SETTINGS

Computer



#### 6.1.2 Using the Browser to View the Images

- Open the browser, and enter the URL of camera in the IP address bar e.g.: http://192.168.100.100 (default IP address)
- Enter administrator's account and password
  - \* For the first login, please refer to 6.2.9 Account Management to change the default password



Marshall Network Camera

- Account: admin (Default)
- Password: 9999 (Default)

#### 6.1.3 Using RTSP Player to View the Images

For CV630-ND3/ND3W, to support this function, please turn off NDI|HX (Please refer to 6.2.4 Streaming-NDI) In addition to the browser and VMS, other free software also can be used for RTSP connection, such as VLC, Quick Time and PotPlayer

#### RTSP connection address formats are as follows:

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

Example: Open VLC software, click [Open Network Streaming], and enter a URL: rtsp://192.168.100.150:8557/h264

# 6.1.4 Using NDI Studio Monitor to View the Images

This is only applicable to VC-630-ND3/ND3W. Support when NDI|HX is on

(Please refer to **6.2.5 Setting** - Video)

For NewTek product operation or instructions, please visit the website:

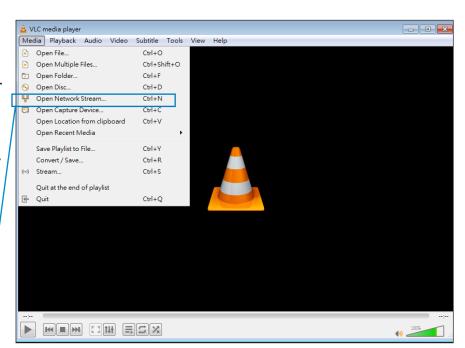
https://www.newtek.com/

To download NDI 4 Tool, click the link: http://new.tk/NDIHX-Driver-Win



Please enter a network URL:

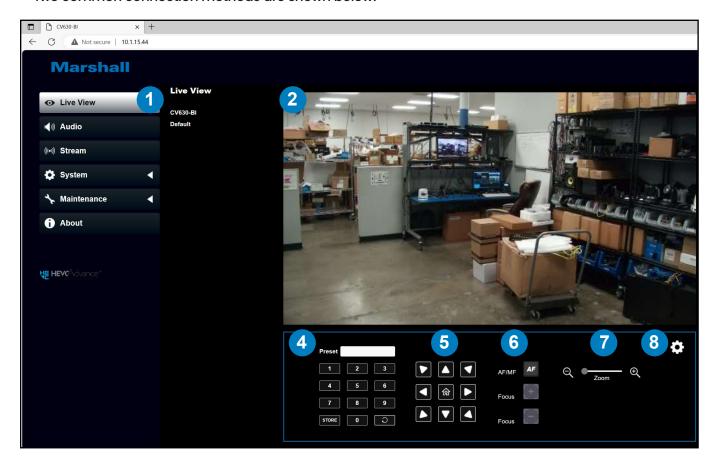
rtsp://192.168.100.150:8557/h264



### 6.2 Web Page Function Description

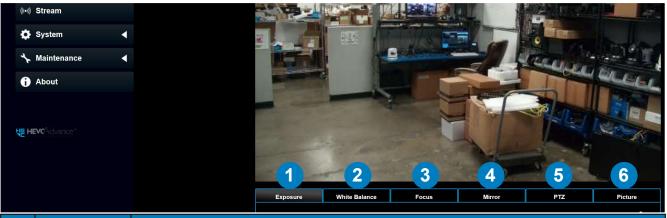
#### 6.2.1 Connecting to Internet

Two common connection methods are shown below:

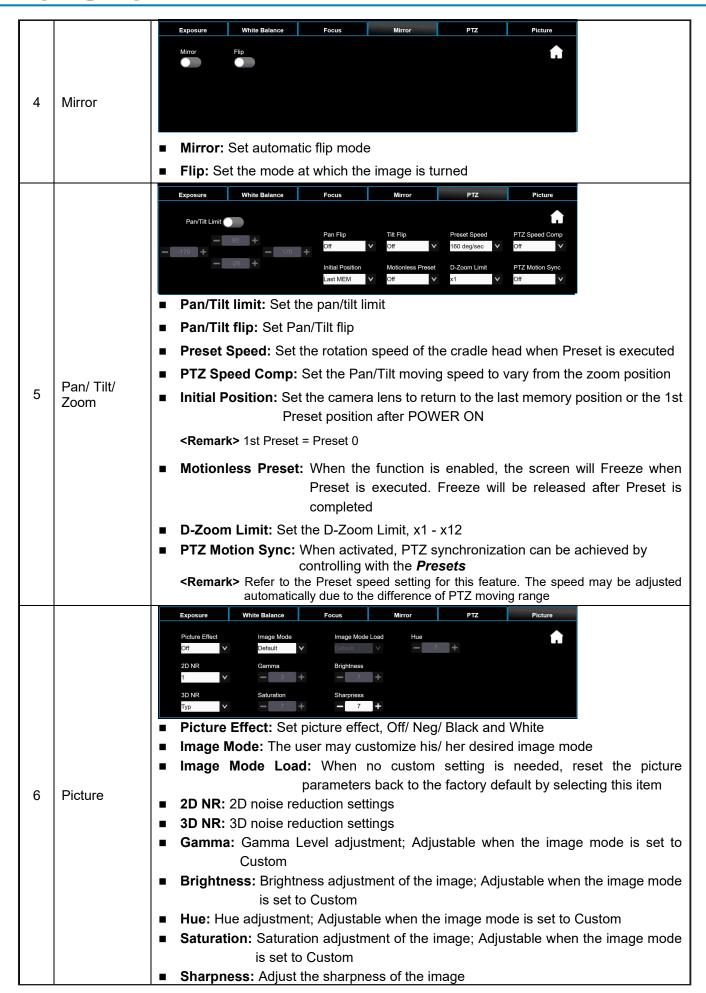


No	Item	Function Descriptions
1	Camera ID/location	Display camera ID/location
		Please refer to <u>6.2.5 System-Device</u>
2	Preview window	Display the screen currently captured by the camera
3	Enlarge the preview window	Zooming in/out the preview image
		Select the number first and then select SAVE or LOAD
		PTZ ONLY Enable/disable PTZ Only
		Zinasio, alcasio i 12 cinij
4	Preset setting	§Disable (Default): Call the preset, execute
		D 177117 15 11 11
		Pan/ Tilt/ Zoom/ Focus + picture parameters setting
		§Enable: Call the preset, only execute Pan/Tilt/Zoom/Focus
5	Pan/Tilt setting	Adjust the Pan/Tilt position of the camera screen
6	A E /A A E	Switch to Auto Focus/Manual Focus. Focus can be adjusted in Manual
6	AF/MF	Focus
7	Zoom ratio	Adjust the zoom-in or zoom-out ratio via scroll bar
8	Camera Setting	Please refer to 6.2.1.1 Camera Setting for relevant settings
9	Language	Support English/ Traditional Chinese/ Simple Chinese
10	Power button	Turn on or turn off the camera power
11	Logout	Log out the administrator screen on the website

### 6.2.1.1 Camera Setting

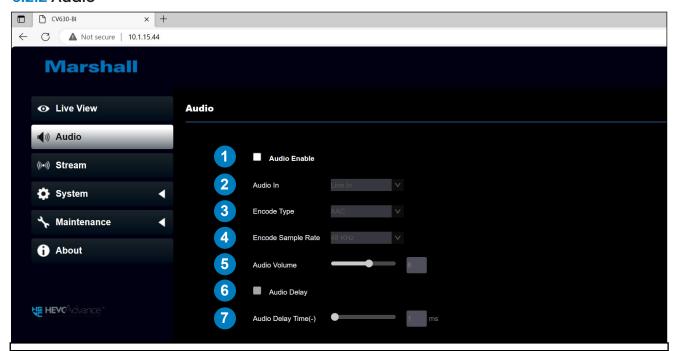


		Exposure White Balance Focus Mirror PTZ Picture			
No	Item	Function Descriptions			
1	Exposure	<ul> <li>Mode: Select exposure mode (Automatic/ Shutter Priority/ Aperture Priority/ Manual)</li> <li>Gain Level: The gain limit is adjustable when the exposure mode is set to "Manual"</li> <li>WDR: Set the level of wide dynamic range (WDR) to obtain better images</li> <li>Exposure Comp. Level: Select exposure compensation level</li> <li>Iris Level: The size of aperture is adjustable when the exposure mode is set to "Manual" or "Aperture Priority"</li> <li>Shutter Speed: The shutter speed is adjustable when the exposure mode is set to "Manual" or "Shutter Priority"</li> </ul>			
2	White Balance	<ul> <li>Mode: Select the color temperature mode</li> <li>One Push Trigger: One push color temperature is adjustable when the white balance mode is set to "One Push Trigger"</li> <li>Manual Red / Blue: Manually adjust blue/red color temperature</li> </ul>			
3	Focus	<ul> <li>AF Sensitivity: Set automatic focus sensitivity</li> <li>AF Frame: Set automatic focus range</li> <li>Zoom Tracking: Set the focus mode during lens zooming in Manual Focus mode</li> <li>PTZ Assist: Check whether auto focus is enabled if there is any changes of PTZ (can be set in "Manual")</li> <li><remark> When PTZ Assist is enabled and PTZ control is in operation, the focus will be triggered. The focus will not be triggered when the scene changes</remark></li> <li>Preset AF: Set whether to perform auto focus after Preset</li> <li>Smart AF: Turn on this function and AF will mainly focus on the face</li> <li>One Push AF: When the manual focus mode is on, click the button to perform one auto focus</li> </ul>			



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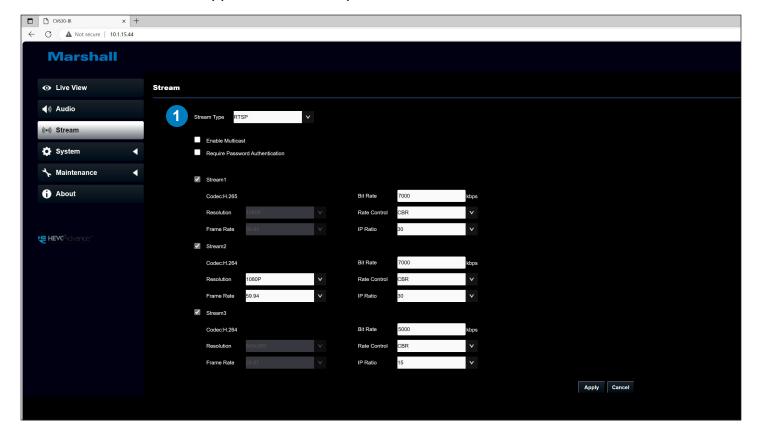
#### **6.2.2** Audio



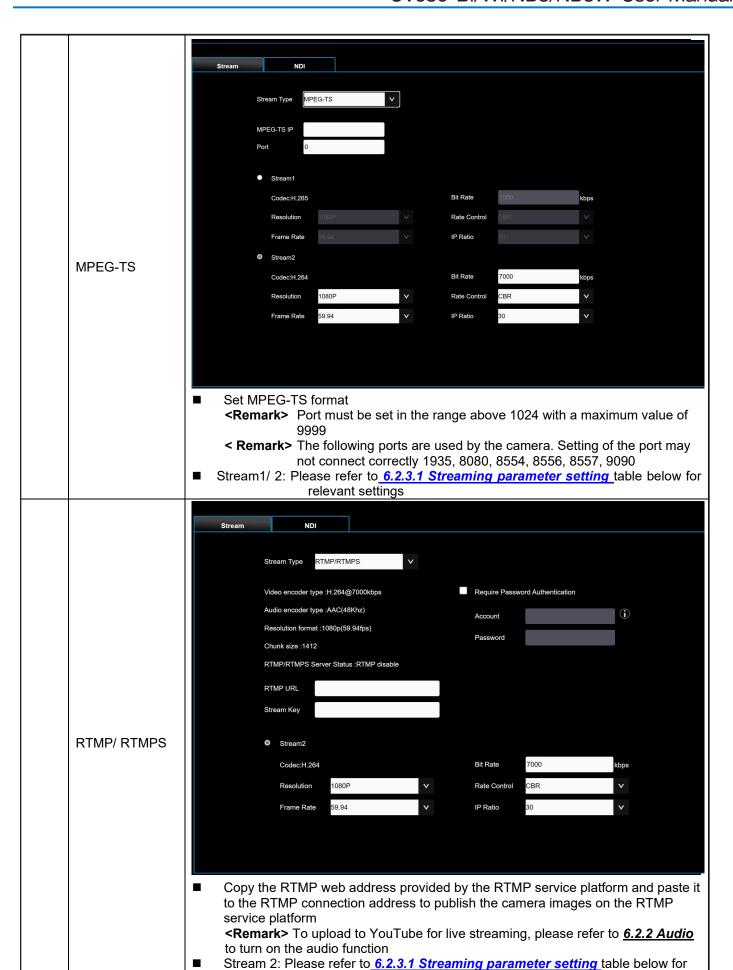
No	Item	Function Descriptions		NDI HX ON
1	Audio Enable	Turn on/ off sound		V
2	Audio in	Set MIC In/ Line In	V	V
3	Encode Type	AAC / G.711	V	
4	Encode Sample Rate	Set Encode sample rate  > 48 KHz (AAC)  > 44.1 KHz (AAC)  > 16 KHz (AAC)  > 16 KHz (G.711)  > 8 KHz (G.711)	V	
5	Audio Volume	Adjust Audio Volume	V	V
6	Audio Delay	Turn on/ off audio delay	V	
7	Audio Delay Time	Set the audio signal delay time (-1 ~ -500 ms)	V	

#### 6.2.3 Stream-Stream

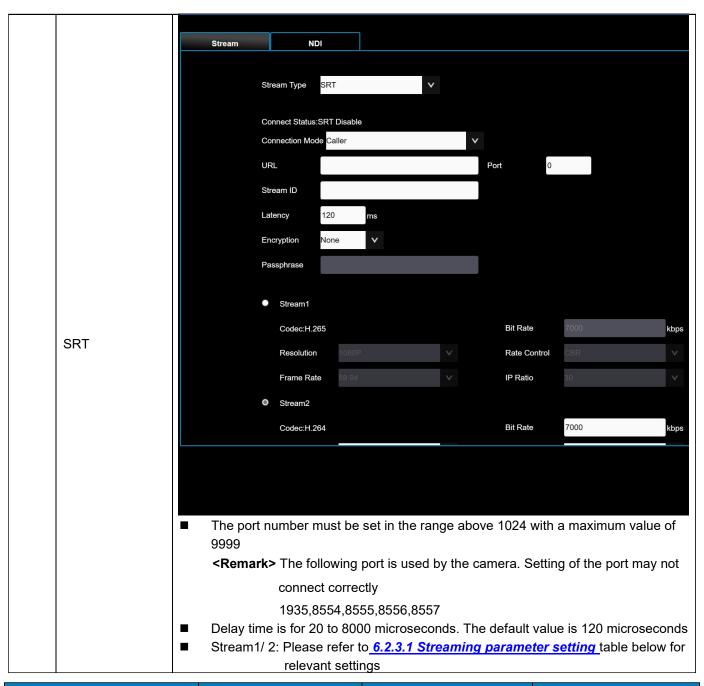
For CV630-ND3/ND3W, to support this function, please turn off NDI|HX



No	Item	Function Descriptions	
1	Stream Type	Support types: MPEG-TS/RTMP/RTMPS/RTSP/SRT	
	RTSP	<ul> <li>Enable / Disable Multicast         It is suggested to enable Multicast when the number of users online watching the image simultaneously is more than 4</li> <li>Enable / Disable Password Authentication</li> <li>RTSP connection format can be found in 6.1.3 Using RTSP Player to View the Images</li> <li>The username/password is the same as the web login password of the camera, please refer to 6.2.10 System User to add/ modify account information</li> <li>Stream1/ 2/ 3: Please refer to 6.2.3.1 Streaming parameter setting table below for relevant settings</li> </ul>	



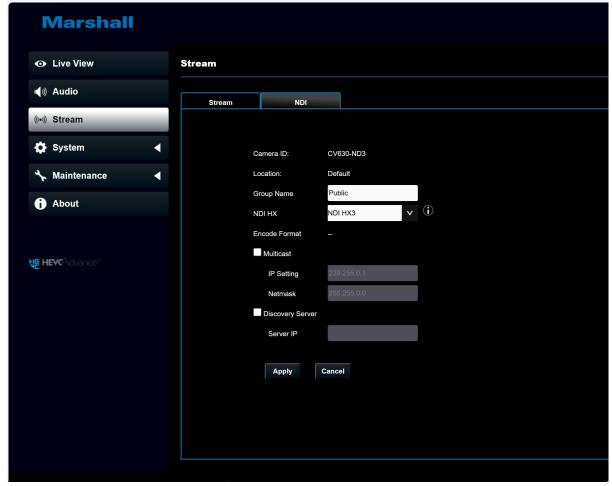
relevant settings



Function		Streaming 1	Streaming 2	Streaming 3
Encode Format		H.265	H.264	
Resolut	tion	4K	1080p / 720p /1080i 4K	
Frame F	Rate	Setting according to the supported resolution		
	2,000~20,0	2,000~20,000	2,000~20,000	512~5,000
Bit Rate(kbps)	00			
	7,000	7,000	7,000	1,000
Rate Control		CBR / VBR		
IP Ratio		Setting according to the supported resolution		

#### 6.2.3 Stream - NDI

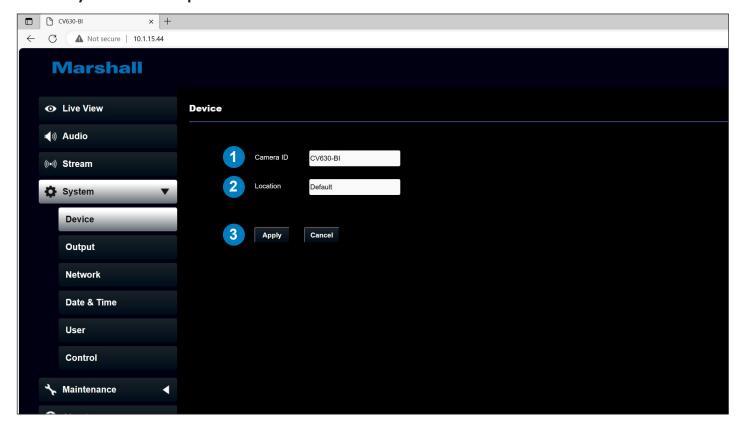
For CV630-ND3/ND3W only; the setting is available when NDI|HX is set to HX2/HX3



No	Item	Function Descriptions		
1	Camera ID/ Location	Displaying ID/location according to [System] > [Device] setting content		
		The group name can be modified here and set with Access Manager -		
		Receive in NDI Tool		
2	Group Name	<ul> <li>If no group is assigned, the machine belongs to Public. As the default of Access Manager includes Public, Studio Monitor can discover this machine</li> <li>If a group is assigned, but this group is not added into Access Manager, Studio Monitor cannot discover this machine</li> <li>If a group is assigned and this group is added into Access Manager, Studio Monitor can discover this machine</li> </ul>		
		<remark> The name can contain commas (,) to distinguish</remark>		
		different groups		
		Example: default, 123, abc means this machine belongs to three groups at the same time (default/ 123/ abc)		
		Set NDI HX 2/ HX3/ Off		
3	NDI HX	<ul> <li>Off: Support RTSP/ RTMP/ RTMPS/ MPEG-TS/ SRT, and ONVIF can find devices but cannot be used with NDI Tool</li> <li>HX2: Support HX2</li> <li>HX3: Support HX3</li> <li>Remark &gt; HX3 only supports 1080p 60/59.94/50 resolutions</li> <li>Remark &gt; ONVIF cannot find devices, and RTSP/ RTMP/ RTMPS/ MPEG-TS/ SRT streams cannot be used when HX2/ HX3 on</li> </ul>		

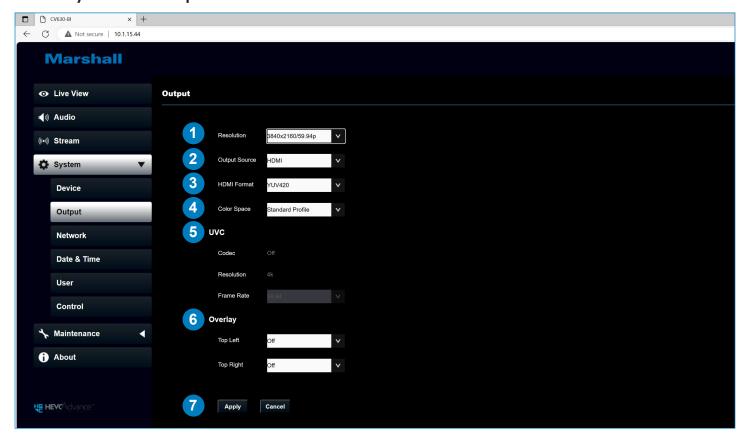
4	Encode Format	Display Encode Format	
5	Multicast	Multicast Setting It is suggested to enable Multicast when the number of users online watching the image simultaneously is more than 4	
6	6 Discovery Serve Check to enter the Server IP address		
7	Apply	After the setting has been modified, select this button to apply the setting	

### 6.2.4 System – Output



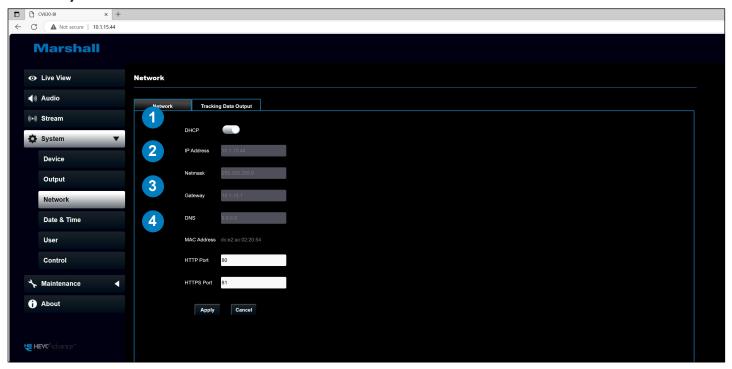
No	Item	Function Descriptions
1	Camera ID	Change camera ID here  ■ Camera IDs are limited to 1 - 12 characters  ■ Please mix uppercase and lowercase letters or numbers for characters. Special symbols such as "/" and "space" cannot be used <remark> Modifying this field will modify the Onvif device name synchronously</remark>
2	Location	Modify the location of the camera, such as Room 1  ■ Camera location is limited to 1 - 11 characters  ■ Please mix uppercase and lowercase letters or numbers for characters. Special symbols such as "/" and "space" cannot be used < Remark > Modifying this field will modify the Onvif device location synchronously
3	Apply	After the setting has been modified, select this button to apply the setting

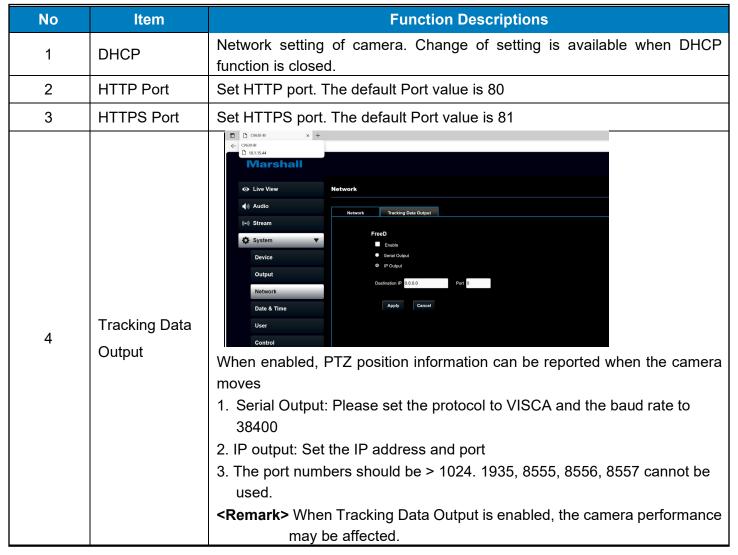
### 6.2.5 System – Output



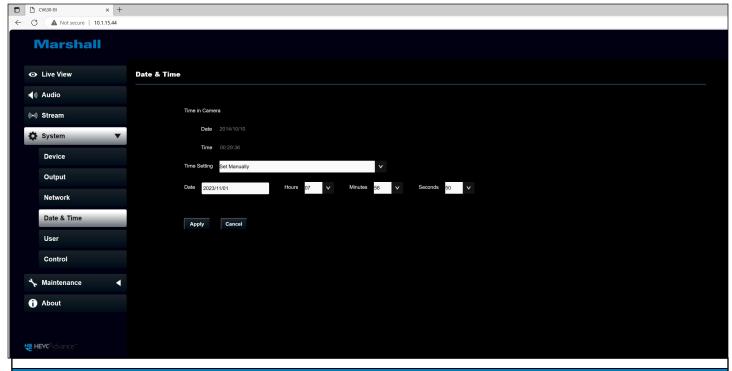
No	Item	Function Descriptions		
1	Resolution	Set the resolution of the camera After switching to the resolution, the camera will restart. Please refresh		
2	Output Source	the browser  According to the output resolution, you can select HDMI+NDI, HDMI + Streaming or HDMI + UVC output <remark> When it is set to UVC output, 3840 x 2160 30p or lower resolutions are supported  <remark> UVC does not support 1080i.</remark></remark>		
3	HDMI Format	Select YUV422 / YUV420 / RGB <remark> When it is set to YUV420, 3840 x 2160 60p/ 59.94p/ 50p resolutions are supported</remark>		
4	Color Space	Set the standard for color gamut Standard Profile/ REC.709/ BT.2020		
5	UVC	Available when <u>System-Output-Output Source</u> is set to HDMI+UVC  n Encode Format:  Ø3840x2160 29.97 / 25 fps: H.264  ØLess than 1080p (inclusive): H.264/MJPEG  n Resolution: It is shown based on <u>System-Output-Output Source</u> Frame Rate: 3840 x 2160 can only select the highest 29.97 fps		
6	Overlay	Set the stream to display "date and time" or "custom content" and to display location		
7	Apply/ Cancel	Apply/ Cancel Setting		

#### 6.2.6 System - Network





#### 6.2.7 System - Date & Time

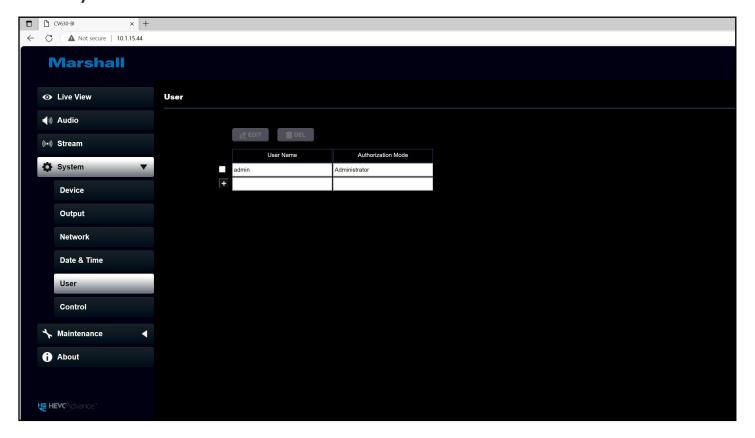


#### **Function Descriptions**

Enable/disable 802.1x protocol, and configure settings when enabled

<Remark> The router must support 802.1x protocol to enable this feature

#### 6.2.8 System - User



#### **Function Descriptions**

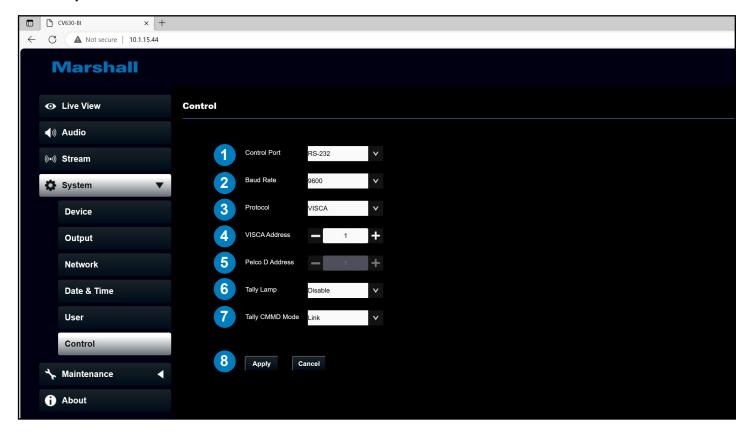
#### Add/ Modify/ Delete user account

- n Supporting 4 ~ 32 characters for username and password
- n Please mix uppercase and lowercase letters or numbers for characters. Special symbols or the underlined cannot be used
- n Authentication Mode: Set the new account management permissions

User Type	Admin	Operator	Viewer
View images	V	V	V
Settings	V	V	Х
Account management	V	х	Х

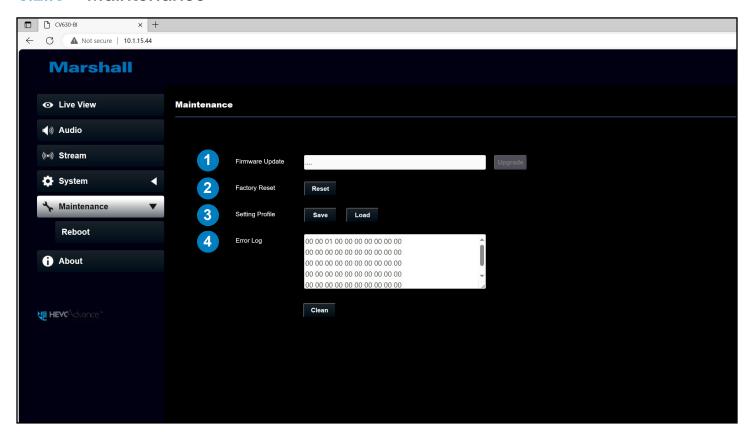
<Remark> When Factory Reset is executed, it will clear the user's data.

### 6.2.9 System - Control



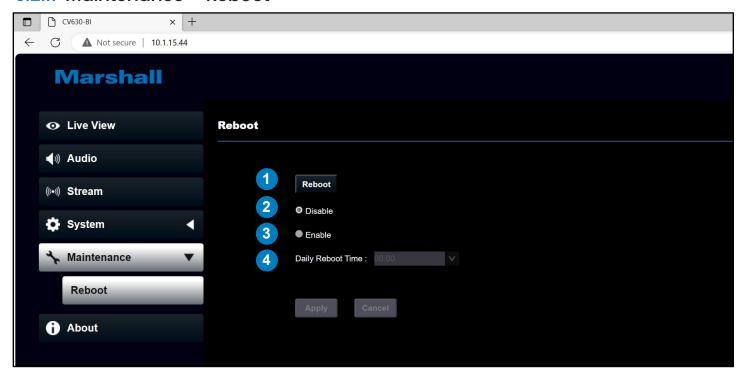
No	Item	Function Descriptions
1	Control Port	RS-232 / RS-422
2	Baud Rate	Choose the transmission speed of the control signal 9600/ 38400
3	Protocol	Support VISCA/ Pelco D Protocol
4	VISCA Address	The camera ID address 0 ~ 7 can be assigned.
5	Pelco D Address	The camera ID address 1 ~ 255 can be assigned.
6	Tally Lamp	Turn On/ Off Tally Lamp
7	Tally CMMD Mode	Set whether the indicator is linked with RS232 command  Ø Normal (Not linked): The indicator light status and mode shall be set separately.  -When the indicator light is on, and the default mode is off, additional command is required to set the indicator light mode  - When the indicator light is off will not trigger the indicator light  ØLink:  - When the indicator light is on, the default mode is red light  - When the indicator light is off will turn on the indicator light
8	Apply/ Cancel	Apply/ Cancel Setting

#### 6.2.10 - Maintenance



No	Item	Function Descriptions
		Click [] to select the firmware file, and click [Upgrade] to update the firmware
1	Firmware Update	<remark> Update takes about 2 - 3 minutes</remark>
		<remark> Please do not operate or turn off the power of the device during the update to avoid firmware update failure</remark>
2	Factory Reset	Select the reset button to resume the factory default setting as the web
		page setting
3	Setting Profile	The web page setting parameters can be exported from the computer and imported/applied to another camera
		If the camera encounters errors, an error code log will be established
4	Error Log	<remark> When an error code appears, the user may try to click</remark>
		to confirm if the error will repeat itself

#### 6.2.11 Maintenance - Reboot



No	Item	Function Descriptions
1	Reboot	Reboot immediately
2	Disable	Disable the reboot settings
3	Daily Reboot	Set the daily reboot time <remark> Please go to 6.2.9 System – Date &amp; Time to complete the SNTP server synchronization to set daily reboot</remark>
4	Timing Reboot	Set the timing reboot time

#### 6.2.12 - About



#### **Function Descriptions**

Display the firmware version, serial number, running time and other related information of the camera For technical support, please scan the QRcode at the bottom right for assistance

### **Chapter 7: DIP Switch Setting**

#### 7.1 DIP Switch

#### 7.1.1 OUTPUT Switch

To switch via the OSD/RS-232 Command is also available based on the last executed action



ID	Resolution	Frame Rate	Remark
0	3840 x 2160p	29.97	
1		25	
2		59.94	
3	1920 x 1080p	50	
4		29.97	
5		25	
6		59.94	
7	1280 x 720p	50	
8		29.97	
9		25	
Α	1020×1090;	59.94	
В	1920x1080i	50	
С	Reserved	Reserved	
D			
E			
F			

#### 7.2 IR Select

When using the remote control, please make sure the settings of IR SELECT and the Camera Select of the remote control are consistent



ID	Setting
1	
2	
3	

### **Chapter 8: Troubleshooting**

This chapter describes problems you may encounter while using CV630-BI/WI/ND3/ND3W. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurs, 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.When using a PoE connection, ensure that the power supply supports POE+ (IEEE 802.3at) hubs
2.	There is no image output from the camera	<ol> <li>1. Check the power supply or PoE supply functions.</li> <li>2. Confirm the output signals are in streaming output.</li> <li>3. Confirm whether the camera resolution can be used together with the monitor equipment</li> <li>If 4k output, confirm the monitor equipment supports 4K output</li> <li>4. Replace the cables and make sure they are not faulty.</li> </ol>
3.	The 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)     2.Please make sure the Baud rate setting is the same as the control equipment
5.	No image for 3G-SDI output resolution 3840x2160 29.97/ 25	Please confirm the screen menu/ Dip Switch setting 3G-SDI supports output resolutions up to 1080p 59.94/50
6.	Whether the Internet can be used for operation	Please refer to <u>Chapter 6 Network Function Description</u> for the Internet usage
7.	ONVIF software cannot locate the machine	Please be sure to use only English alphabets or numbers in [Setting]>[Video]> [Camera](Location) of the webpage. Using special characters and pressing the spacebar will cause the ONVIF software unable to locate the machine.  For VC-A62N, either NDI or ONVIF can be used. Please go to the [Setting] > [Video] > [NDI HX] on the web page to check if it is [Off].
8.	Tally lamp is not working when applying RS232 setting	Please make sure if the <i>Tally lamp</i> function is enabled from the setting menu or web page.  n Setting Menu: System - Tally Lamp n Web page: Setting - Camera - Tally Lamp
9.	The camera does not save the relevant parameters (PTZ, AWB) after reboot	Please make sure if the <i>Initial Position</i> is set to <i>Last MEM</i> from the setting menu or web page  n Setting Menu: System - Initial Position  n Web page: Live View-Setting – Camera Setting  - Pan Tilt  Zoom - Initial Position

### Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Manufacturer: Marshall Electronics Inc.
Product Name: CV630-BI/WI/ND3/ND3W
Model Number: 4K PTZ Video Camera

#### Responsible Party – U.S. Contact Information

Supplier: Marshall Electronics Inc..

20608 Madrona Avenue, Torrance, CA 90503

e-mail: support@marshall-usa.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.

### Warranty

For Warranty information please refer to Marshall website page: https://marshall-usa.com/company/warranty.php