LC100/LC100N
CaptureVision Station

User Manual - English

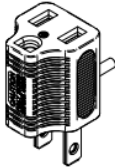**Lumens**®

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Chapter 1   Package Contents

LC100/LC100N	Power Adapter	Power Cord	3-PIN to 2-PIN connector
		Appearance may vary depending on country/ region	(For Japan only)
Quick Installation Guide	**RS-232/RS-485 Connector (x2)**	**Mounting Metal Plate (x2)**	**Mounting sheet metal screws (M3 x 6 x 4)**
Cable holder-1	**Cable holder-2**		

Chapter 2　Product Overview

The LC100/LC100N CaptureVision Station uses the Linux operating system and an ARM architecture processor to provide stable recording services. It supports video recording, mixing and switching from various input signal sources. It enables voice, image, and data in bidirectional transmission through the public network and support pre-scheduled recording and uploadi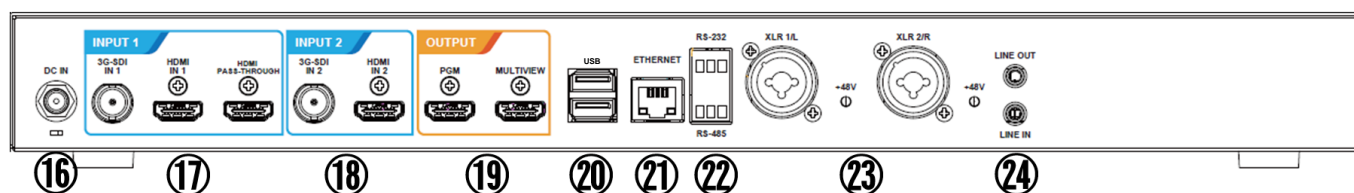ng. You can start recording automatically without being on site. LC100/LC100N is widely used in education, corporate meetings, government agencies, etc., for live or recorded environments.

● Front panel
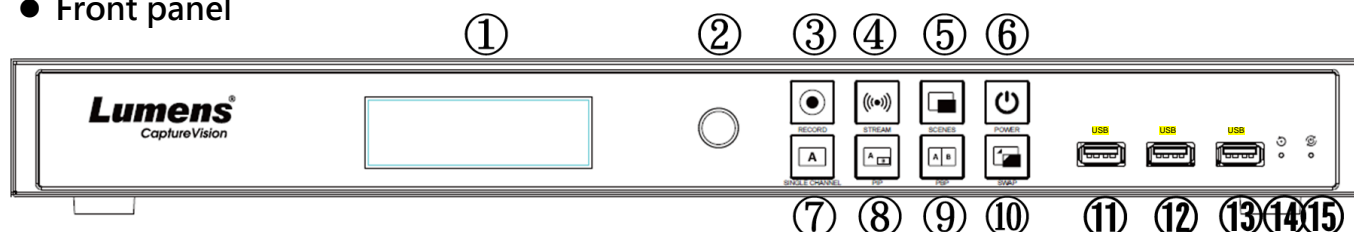
● Rear panel

NO	Name	Function Descriptions	NO	Name	Function Descriptions
1.	LCM	Display Menu and Information	16	DC IN 12V	DC 12 V power connector
2.	Knob	LCM knob	17	Input1	HDMI input 1 ■ 3G-SDI input 1 ■ HDMI Passthrough
3	Record	Start/Stop recording Press and hold for 3 seconds: Pause Recording ■ Blue LED light: Is connected to power source for recording ■ Red LED light: Recording in progress ■ Blue + Red LED light: Recording paused, press again to resume recording			
			18	Input2	■ HDMI input 2 ■3G-SDI input 2
4	Stream	On/Off image streaming ■ Blue LED light: Is connected to power source for streaming ■ Red LED light: Streaming in progress, press again to stop streaming	19	Output	■ PGM: Main screen output, display the recording or streaming screen and layout ■ Multiview: Operation interface output; display the settings menu and image management
5	Scene	Switch templates			
6	Power	On/Off the device power Press and hold for 6 seconds: Force to reboot	20	USB 3.0 port	Supporting the following devices: ■ USB video/audio devices

7	Single Channel	Display a single channel screen			■ External storage disk
8	PIP	Switch to PIP (picture in picture)			■ Keyboard/mouse device
					■ LC-RC01 (optional) USB connection
9	PBP	Switch to PBP (picture by picture)	**21**	Ethernet	Connect to Ethernet
10	SWAP	Switch CH1/CH2 signal channels			
11	USB 3.0 port	External storage disk			
12	USB 3.0 port	External storage disk			
13	USB 2.0 port	External storage disk	**22**	RS-232/ RS-485 port	Connect to AV control equipment
14	Factory Reset	Reset all configurations to factory default settings	**23**	XLR audio in	Connect to a microphone or audio mixer
15	Restart	Reboot the machine	**24**	Line In/Out	Audio In/Out

2.1 RS-232/RS-485 I/O pin description
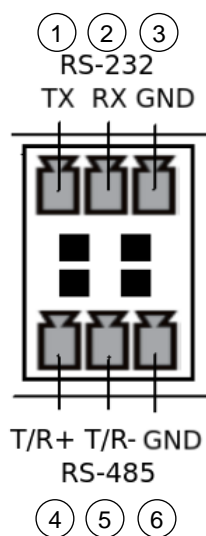
■ **RS-232**

Pin NO.	Function
1	TX+
2	RX-
3	GND

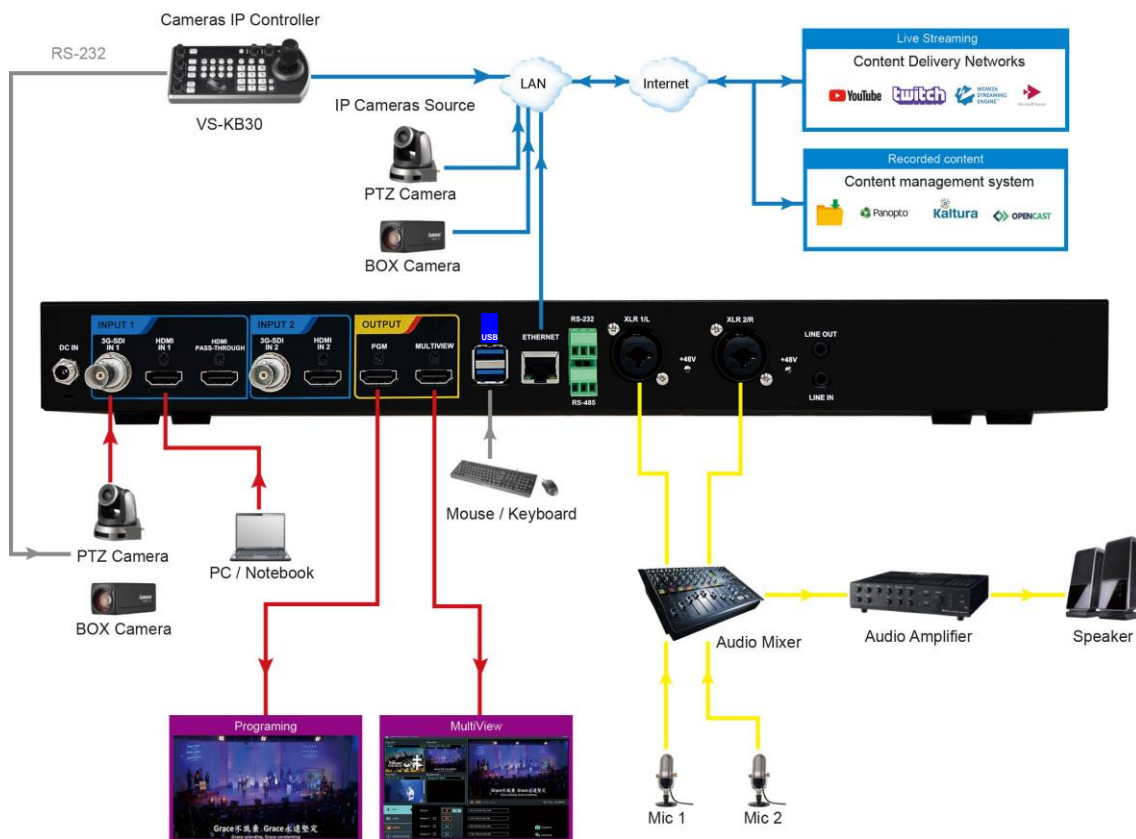■ **RS-485**

Pin NO.	Function
4	T/R+
5	T/R -
6	GND

Chapter 3 Instruction for installation

3.1 Product connection diagram
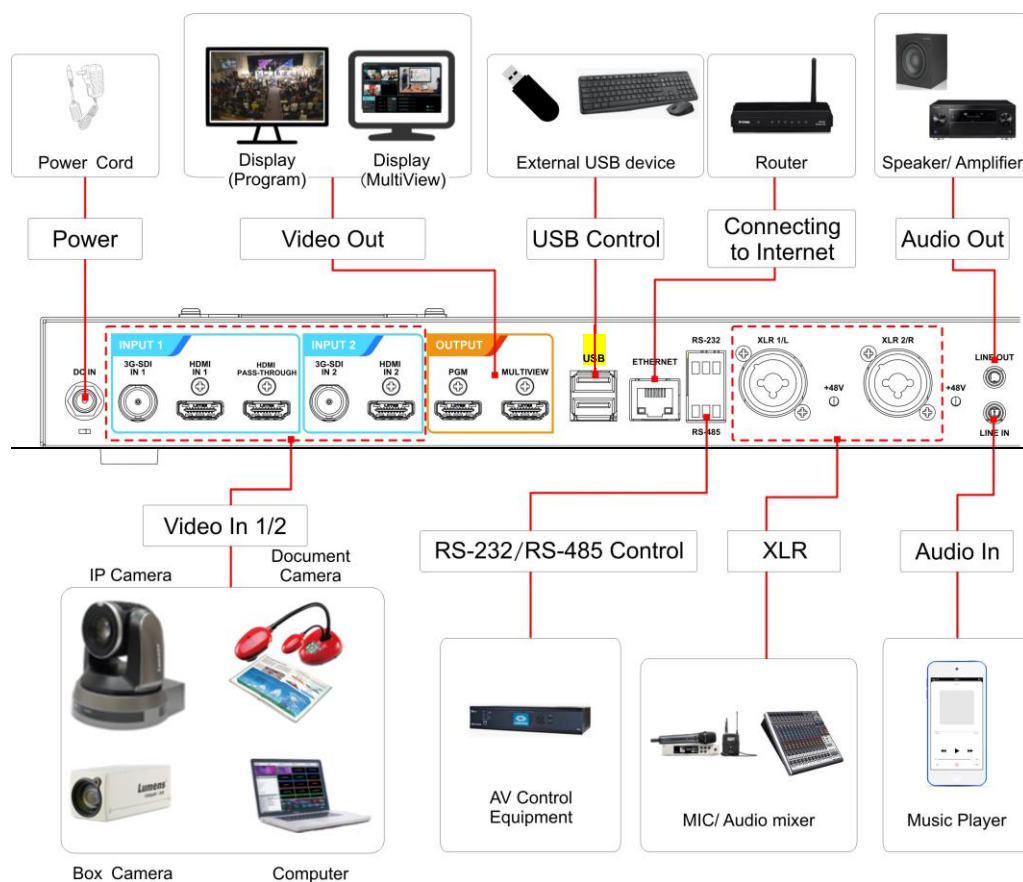
3.2 Live Streaming Application Diagram

Chapter 4   Function Description

4.1 LCM Screen

4.1.1 Setting Menu

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Information	IP/ FW/ Mode/ SN/ MAC		Display the current system information
Video Source	Ch 1/ CH2	1. HDMI1 or HDMI2 2. SDI1 or SDI2 3. USB Video 4. Source Name 6 5. Source Name 7 6. Source Name 8	Select the video source of CH1/CH2
Audio Level	PGM Audio Level		Display PGM volume level
	PGM Volume	0~125	Set PGM volume
	PGM Mute	Mute/ UnMute	Set PGM Mute on/off
Mode Settings	RC(Record)	Full HD 60/ 50FPS 6Mbps Full HD 30/ 25FPS 4Mbps Full HD 30/ 25FPS 3Mbps HD 30/ 25FPS 2Mbps HD 30/ 25FPS 1.5Mbps SD 30/ 25FPS 800Kbps SD 30/ 25FPS 500Kbps User Defined	Set up the recording encoded format
	ST(Stream)	Full HD 4/ 3Mbps HD 2/ 1.5Mbps SD 800/ 500Kbps User Defined	Set the streaming encoded format
IP Configuration	IP Assignment	DHCP/ Static IP	Set dynamic/static host
	IP	192.168.100.150	IP address
	SM	255.255.255.0	Subnet Mask
	GW	192.168.100.254	Gateway
	DNS1	192.168.1.211	Domain name 1
	DNS2	192.168.1.212	Domain name 2
	Edit	Edit/ Save	Click Edit to modify the relevant IP settings, and then click Save to save the settings
Storage	System Storage		Shows USB or SATA based on the storage location

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1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
	Remaining space		Shows the remaining space and total space

4.1.2 Message Description

Item	Message	Description
1.	USB Disk Insert	USB flash drive or USB HD is inserted into LC100/LC100N
2.	USB Disk Remove	USB flash drive or USB HD is removed from LC100/LC100N
3.	No Storage	There is no HDD or USB disk when recording
4.	No Enough Storage	There is no enough recording space when the recording is activated
5.	Record Error	Recording failure or abnormality when the recording is activated
6.	Update Firmware …	FW updating
7.	Front panel lock	Front panel lock is on

4.2 Real-time operation menu

Connect the HDMI1 MultiView output to the display panel to show the real-time operation menu

Connect the keyboard/mouse through the USB port and use the keyboard/mouse to select the menu settings
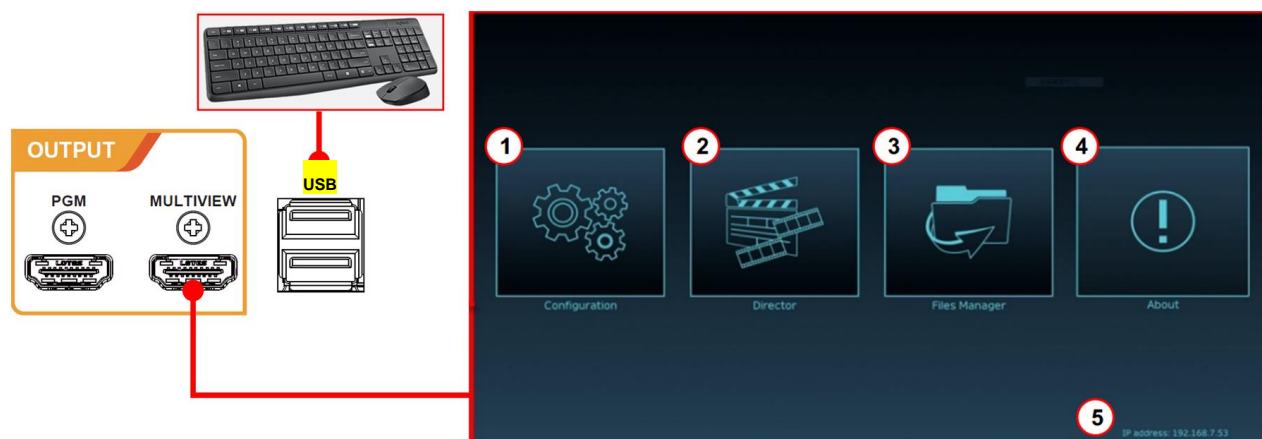
No	Icon	Name	Function Descriptions
1		Parameter setting	Perform the system network setting, recording/streaming encoded setting
2		Casting management	Input signal source selection, audio management, recording/streaming control, output version selection, and network video camera control
3		File management	Conduct the video file content management, including the following functions: Upload, download, delete, replay video files
4		About	Display the current firmware version and relevant production information of LC100/LC100N
5	NA	Device IP	When connecting to the router, the current assigned device IP address will be displayed

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4.3 Parameter setting

This Section provides descriptions of the web-based interface to control the display items. HDMI MultiView only provides items of [System Settings] and [Video Settings].

4.3.1 System Settings

4.3.1.1 System Settings

You may set up the device's basic information, initial date and time, and others here.

No	Item	Function Descriptions
1	Device Identification	Defines the device name and device description for LC100/LC100N **<Remark>** Display name only accepts English characters and numbers
2	Live	Displays the real-time PGM screen
3	Date & Time	LC100/LC100N supports different time zone setting. It can synchronize time with NTP service (default) and manual setup ■ Time Zone: Select the correct time zone according to current location ■ Configuration Mode: ➢ NTP service: Synchronizes time with a network server ➢ Manual Setup: Sets time manually
4	Front Panel Lock	After checking the box, no action will be triggered when any front panel button is pressed
5	Welcome Image	You can customize a welcome image for LC100/LC100N 1 Click [Browse] and select a file to upload. Once done, a thumbnail will be generated File format: ➢ File format: PNG ➢ File Size (Max.): 3 MB ➢ Resolution Size (Max.): 1920 x 1080 2 Click [Apply] to save this change. If you need to select another file, click [Cancel] and reselect a file
6	Intermission Image	You can customize an intermission image for LC100/LC100N 1 Click [Browse] and select a file to upload. Once done, a thumbnail will be generated File format: ➢ File format: PNG ➢ File Size (Max.): 3 MB ➢ Resolution Size (Max.): 1920 x 1080 2 Click [Apply] to save this change. If you need to select another file, click [Cancel] and reselect a file

4.3.1.2 Network

The factory setting of LC100/LC100N is DHCP. The IP address is assigned by the router. If you want to use a static IP address, please configure the connection here.

No	Item	Function Descriptions
1	Ethernet Setting	■ DHCP: Dynamic IP address as default ■ Static IP: Configure static IP address according to the network and manually enter network information Select and fill in required network setting information and click [Apply] to save the settings **<Caution>The system will restart after changing network setting. Please connect and log in again**

4.3.1.3 Services

No	Item	Function Descriptions
1	Main Firmware	Main firmware information and update Update Select the master firmware file you want to update, and then click [Apply] to update it Advance Engineering mode, for Lumens engineers only
2	Service History	Saves system log files to user's computer 1 Enter file name 2 Click [Export] to export system log files

		<Remark> The length of file name must be between 0 ~ 16 characters. {}()'&@~^$%"|,`:?<>*\/#; symbols, and space are forbidden
3	Reset	Restores LC100/LC100N to factory reset **<Remark>** Check [Keep Network Settings] and the network settings will be remained
4	Restart the device	Restart the LC100/LC100N

4.3.1.4 Setting File

You can export the configuration files of the device to a computer, and import the configuration files to another device to apply the same configuration.

No	Item	Function Descriptions
1	Export	Exports the current configuration of LC100/LC100N as a configuration file
2	Import	Imports the exported configuration files from a LC100/LC100N to another LC100/LC100N

4.3.1.5 Display Settings

No	Item	Function Descriptions
1	Output Resolution	Select LC100/LC100N HDMI output: 50Hz/60Hz

4.3.1.6 Extension control panel

No	Item	Function Descriptions
1	Extension control panel	Display the connection information of LC-RC01 extension control panel (optional). When there is no connection, the blank appears on the information field

4.3.2 Account

You can manage accounts for 3 kinds of user mode here: modify the user name and password to [System Management], [Director], and [Content Management].

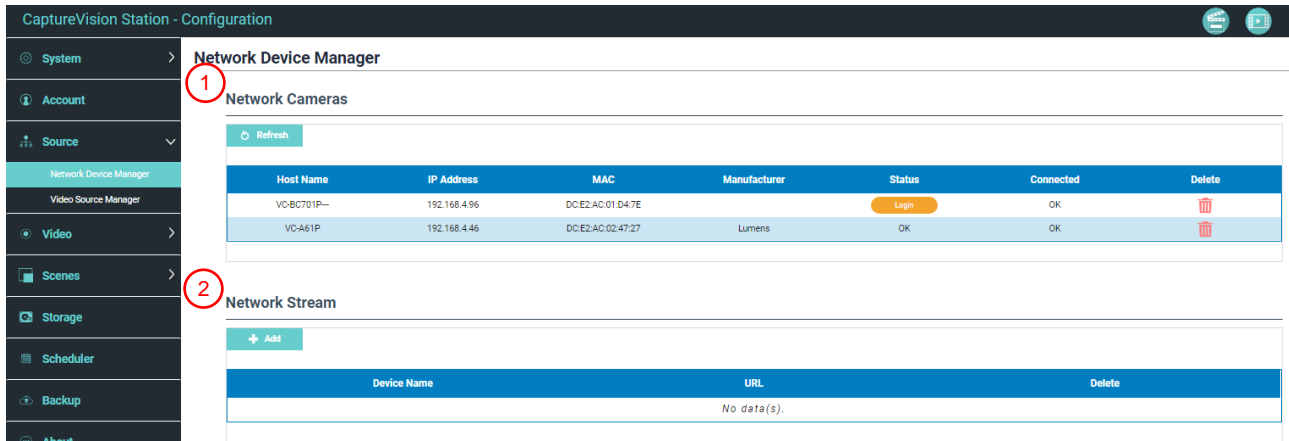| No	Item	Username/Password	Function Descriptions
1	System Management	admin / admin	Sets up the permission of main system management
2	Online Director	director / director	Manages playback and changes simple basic image settings and the permission of Director
3	Content Management	video / video	Views the permission of file storage and playback

[Caution]

• The length of user name must be between 4 ~ 16 characters. {}()'&@~^$%"|,`:?<>*\/#; symbols, and

space are forbidden
- The length of password must be between 8 ~ 16 characters. {}()'~^"|,`:?<>*V; symbols, and space are forbidden
- Duplicate username is forbidden

4.3.3 Video Source
4.3.3.1 Network Device Management

No	Item	Function Descriptions
1	Network Camera	1 Click [Refresh] and automatically scan the network cameras in the same LAN 2 Click [Login Verification] and enter login information to connect the camera Login Verification Username: admin Password: •••• Verification Lumens Network Camera ● Account: admin ● Password: 9999 3 Once the status display "OK", indicating that the image can be set under the signal source input selection <**Remark**> LC100N only supports the NDI|HX2-source camera. If the camera source is NDI|HX3, please go to the web page of the camera and set it as the NNDI|HX2 output
2	Network Streaming	1 Click [Add] 2 Enter the network streaming name and URL, and then click [Apply] Network stream Name: VC-A50P URL : rtsp://192.168.4.50:8557/h264 Cancel Apply 3 The newly added network streaming name will be displayed in the list

4.3.3.2 Video communication source management

No	Item	Function Descriptions
1	Video communication source management	Display the video communication source information for users to edit the source name and order **<Caution>**ID1-4 are fixed as HDMI 1 / HDMI 2 / SDI 1 / SDI 2 (not removable) **<Remark>** Source name supports 2 ~ 16 characters, and can have the English letter/number/blank/underline/- entered

4.3.4 Video Settings

4.3.4.1 Record Settings

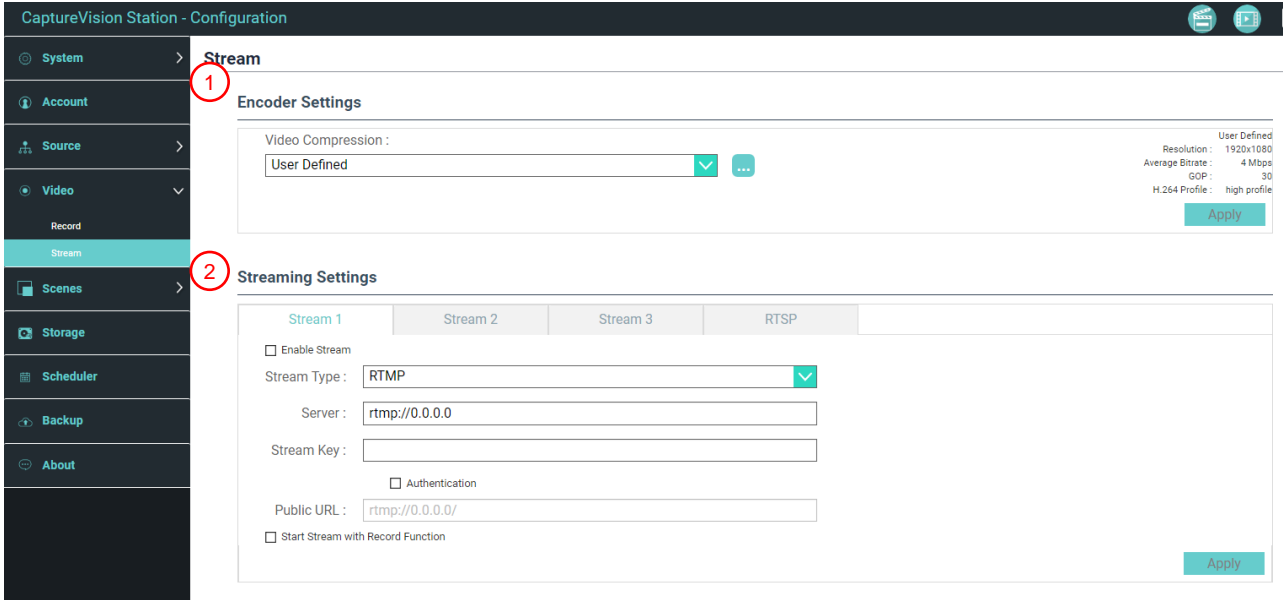| No	Item	Function Descriptions

1	Encoder Settings	■ Recording Mode: You can select Movie Mode (MP4) and Movie/Resource Mode (MP4)
		  ➤ Movie Mode: Only record the single PGM 2-channel composite screen
		  ➤ Movie /Resource Mode: Can record the single PGM 2-channel composite screen and 2 signal source screens
		■ Encode Profile: Default recording encoded formats are available to be selected by resolutions and average bitrates (Please refer to the Instruction on Encode Profile). You can also set user-defined image quality.
		■ Preferentially record to front USB hard drive: Videos or pictures will be preferentially recorded to the USB flash drive which has already been

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		connected to the front and rear USB port ■ Cycling Record: Enabling the cycle record function can prevent recording error when storage device is full
2	Audio Settings	■ Audio Delay Adjustment: 0 ~ 600 ms ■ Audio source: Set the audio source for Channel recording files **<Remark>** The selection of non PGM Audio may increase CPU loading. Users may check out CPU information on the Director page of real-time operation menu under MultiView.
3	Video File Name Setting	Customizes the prefix name of video file

■ Instruction on Encode Profile

Name	Video Resolution/ABR	Description
Full HD	1080p / 4 - 6 Mbps	Dynamic scene; Large film site; Local drive recording
Internet Full HD	1080p / 3 Mbps	General scene, Medium film site, Local drive recording
HD	720p / 2 Mbps	Static scene, Small film site, Local drive recording
Internet HD	720p / 1.5 Mbps	Suitable for online live-stream
SD	480p / 800 kbps	Static scene, suitable for online live-stream
Mobile network SD	480p / 500 kbps	You can watch the LC100/LC100N live-stream screen on a mobile device.
User-Defined	Click ... to open User-Defined. Once done, click "Save".	

4.3.4.2 Streaming Settings

You may change the streaming settings here. Related settings must follow the streaming protocol and the settings recommended by server system support.
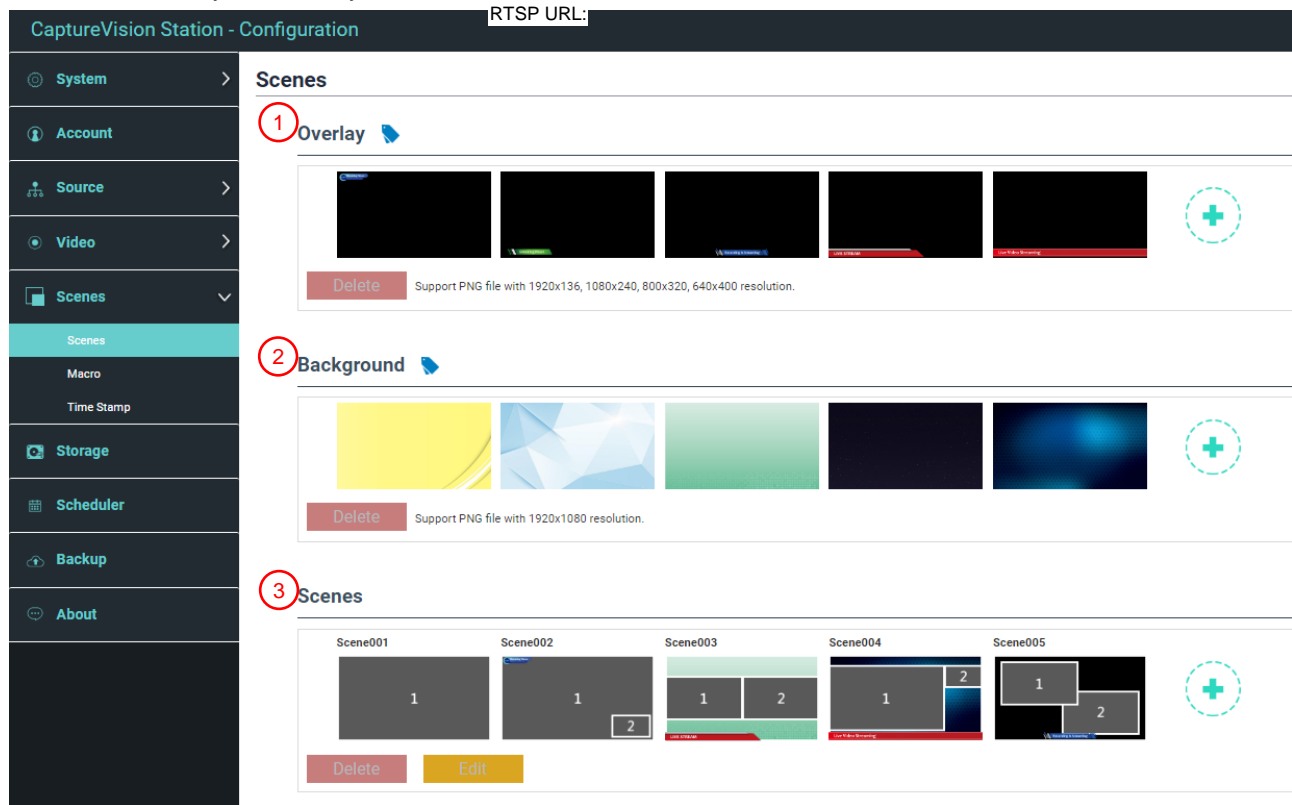

No	Item	Function Descriptions
1	Encoder Settings	Encode Profile: Default recording encoded formats are available to be selected by resolutions and average bitrates (Please refer to **4.2.4.1 Record Settings_ the Instruction on Encode Profile**). You can also set user-defined image quality.
2	Streaming Settings	■ Streaming 1 / Streaming 2 / Streaming 3: You can customize 3 push addresses of network streaming Supported streaming type: RTMP / RTMPS / RTP / YouTube / YouTube_Gaming / Facebook Live / Twitch / SRT

		■ Streaming server (RTSP/NDI|HX): you can customize the real-time streaming path of LC100/ LC100N Stream Server ▪ Default RTSP location: rtsp://LC100 _IP_address:554/pgm

4.3.5 Scene

4.3.5.1 Scene

LC100/LC100N provides 5 overlay styles, 5 background images, and 5 scenes. You can also add your own styles.

No	Item	Function Descriptions
1	Overlay	For overlay style setting, you can adjust the order by dragging the mouse left and right. Users can upload their own files for application. Click [➕] and select a desired file from the window. Check the preview image and file name, and click [Apply] to start uploading and applying this overlay style. Click [Delete] to cancel the upload. ■ Supports 30 groups of overlay styles ■ File format: ➢ PNG format ➢ Supported size: 1920 x 136 /1080 x 240 / 800 x 320 / 640 x 400
2	Background Image	For background image setting, you can adjust the order by dragging the mouse left and right. Users can upload their own files for application. Click [➕] and select a desired file from the window. Check the preview image and file name, and click [Apply] to start uploading and applying this background image. Click [Delete] to cancel the upload. ■ Supports 9 groups of background images ■ File format: ➢ PNG format ➢ **Supported** size: 1920 x 1080
3	Scene	Scene is the integration of "Overlay," "Background Image," and "Production Layout," which provides the scene made of different

| | | background images, layout, and overlay style. You can customize the layout content in 30 scenes.
Click [➕] to open scene settings. Enter the scene name and select the required overlay, layout, and background image. Once done, click "Apply". |

4.3.5.2 Macro

Use together with LC-RC01 extended control panel (optional) to set scene/preset position setting, camera start and stop tracking.

Macro [1 ~ 3] settings correspond to [1 ~ 3] keys on the extension control panel

No	Item	Function Descriptions
1	Scene Selection	Select a scene to be set. Each supports up to 30 sets of scene ■ If the overlay style of the scene needs to be change, please refer to **4.3.5 Scene**
2	Camera Preset Position Setting	Supports 9 groups of preset position setting, camera start and stop tracking **<Remark>** After checking the box, the Marco will proceed the setting of the network camera on Channel 1 ~ 2.

4.3.5.3 Time Stamp

No	Item	Function Descriptions
1	Enable Time Stamp	Turn on/off Time Stamp **\<Remark\>** When the Time Stamp function is enabled, other overlays cannot be applied
2	Format	Time display format
3	Color	Color setting
4	Size	Font size setting
5	X / Y Position (0 ~ 100)	X: Time Stamp display position (left and right) in the PGM screen 0: The leftmost / 100: The rightmost Y: Time Stamp display position (up and down) in the PGM screen 0: Top / 100: Bottom

4.3.6 Storage Settings

You can set up recording storage, cycle recording, and display hard drive information and NAS setting here.

No	Item	Function Descriptions
1	Recording Hard Drive Setting	Local storage: Click the drop-down menu and select SATA HDD or USB HD for the local storage hard drive Please refer to **2. Hard Drive Information** below for formatting the hard drive. **<Remark>** Formats supported: exFAT/ EXT4 **<Caution>**To ensure proper storage and playing of recorded files, please remove the USB flash drive 30 seconds after the recording is finished
2	Hard Drive Information	Display hard drive information, free space, and capacity. Click "Format" to clear the internal storage devices. Confirm if you want to format the hard drive in the pop-up dialog and click "Confirm" to delete all video files.
3	NAS setting	Enable NAS mounting and related settings. It is required to go to **Backup Setting> Upload Setting> Mode** to select NAS. After recording, the video can be uploaded to NAS.

4.3.7 CMS Setting

No	Item	Function Descriptions
1	CMS Settings	1. Server Type: Kaltura / Panopto / Opencast Choose the appropriate type, then enter the login information to enable the LC100 to synchronize scheduling data with the corresponding server. 2. Connection Test: Click [Connection Test] to verify if the current configuration successfully establishes a connection. For detailed configuration support, please contact Lumens technical support.

4.3.8 Schedule Setting

No	Item	Function Descriptions
1	Schedule Setting	■ Click [On/Off] (on): Enables/Disables schedule function ■ Click [Calendar] 📅 : Check the current schedule status: **<Remark>** Reset schedule source and replace the current schedule ■ Schedule Source ➢ Importing calendar manually: You can import iCalendar files (e.g. Outlook or Google Calendar) Click [Import] and select custom scheduled video file **<Remark>** Only files in .ics format can be imported ➢ Importing calendar periodically You can synchronize schedules from network servers (e.g. Google Calendar) **<Remark>** Please refer to the videos of How to series on Lumens™ YouTube channel for related application settings
2	Cancel Recording	Click [Stop] to stop the current scheduled recording
3	Stand by and Wake up	Enable/disable the scheduled standby and wake-up functions. Set the scheduled time after the functions are enabled

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4.3.9 Backup Setting

LC100/LC100N provides an automatic backup service which can upload videos to a designated location.

No	Item	Function Descriptions
1	Backup Setting	■ Backup Type: Back up after recording / Schedule daily backup ■ Mode: FTP / NAS / SFTP / USB storage / WebDAV **<Remark>** To select NAS, please go to **Storage Settings > NAS Setting** to enable mounting and related settings. ■ Connection Test: Click [Connection Test] to verify if the current configuration successfully establishes a connection. **<Remark>** Please refer to the videos of How to series on Lumens™ YouTube channel for related application settings

4.3.10   About

LC100/LC100N Device-related Information: Firmware version, device serial number, and technical support link

4.4 Online Director

LC100/LC100N is built in Director, which allows you to monitor recording and preview the output video from streaming director.

Three login methods below are available:

■ Select online Director from the HDMI1 MultiView real-time operation menu

■ When login the web page, select the online Director icon at the upper right corner on the parameter setting page
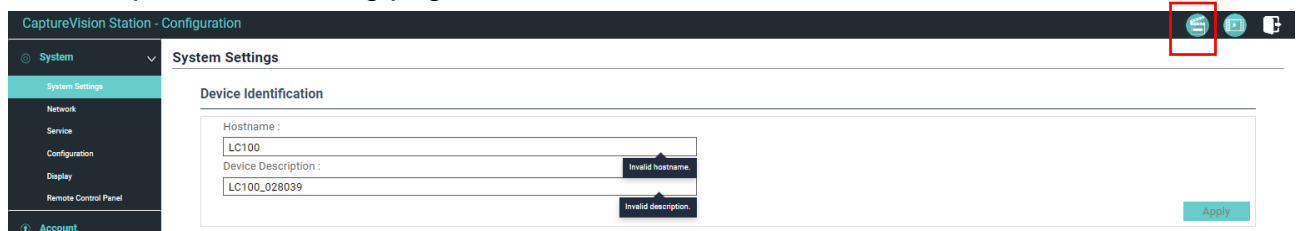
■ When login the web page, use the online Director authority account.

Online Director (Default)
- Account: director
- Password: director

Online Director related feature description as below:
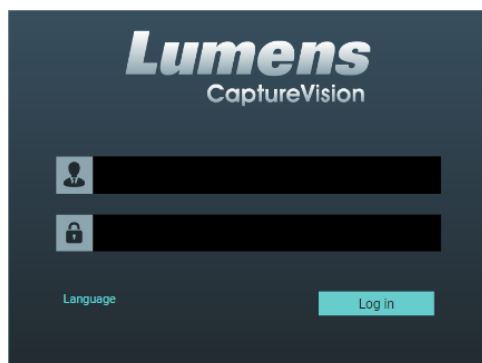

No	Item	Function Descriptions
1	Channel Signal Source Selection	Drop down to select the image signal source
2	REC Record Setting	Start or stop recording; also select whether to synchronously stream or not
3	Audio Source Management	Manage the input and output audio sources; adjust the audio recording volume
4	Scenes Layout Setting	Fast select the required production layout, or customize the background and scene style
5	Camera Control	Provide IP video camera/ PTZ control
6	Main Screen Output	Displays the program out video
7	Recording Progress Bar	Displays current streaming /recording status and hard disk capacity <Remark> Please refer to **4.4.1 Status Icon Description** for details

4.4.1 Icon Description of Status Display Bar

	Off	On	Error	
Network				
Record				
Streaming 1 / 2 / 3				
	Off	**On**	**Fail to write in**	**Storage is full**
Hard Drive (SATA HDD)				

Hard Drive (USB)				
USB Device				
	Operation Invalid	**Snapshot Fail**		
Others				

4.4.2 REC Record Setting

No	Item	Function Descriptions
1	Recording while Push	After checking the box, press recording button to start push and recording function
2	Enable/Stop/Pause Recording	: Enable/Stop Recording : Pause/Keep Recording
3	Single-channel Push Button	Push right away without starting recording function
4	Index	Timestamp can be added after the recording starts
5	Live image	Switch to live image
6	Intermission screen	Switch to intermission screen
7	Photo Capture	Capture a photo

4.4.3 Audio Source Management
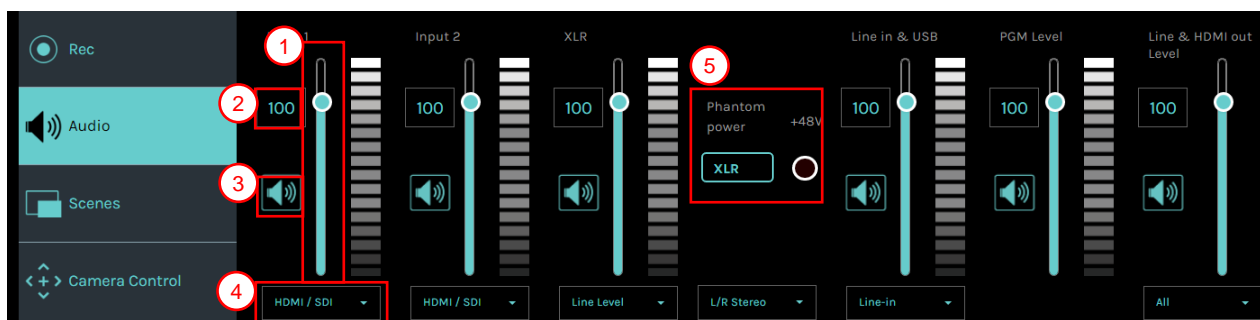
No	Item	Function Descriptions
1	Volume Control	Adjust the volume of audio input
2	Audio Volume scale	Display current audio volume scale
3	Mute button	Mute audio output
4	Audio Source Setting	Select an audio source
5	XLR 48V Phantom Power	Turn on/off 48V Phantom Power

4.4.4 Scenes

No	Item	Function Descriptions
1	Scenes	Scenes page is the integration of "Overlay," "Background Image," and "Recording Layout," which can perform a series of scene change according to your needs.
2	Layout	Apply a different layout to highlight the screen focus of different channels. Click the layout style to apply.
3	Overlay	Select a desired style to apply
4	Background	Display the background images supported by "Director" system. Click the thumbnail to apply

4.4.5 Camera Setting
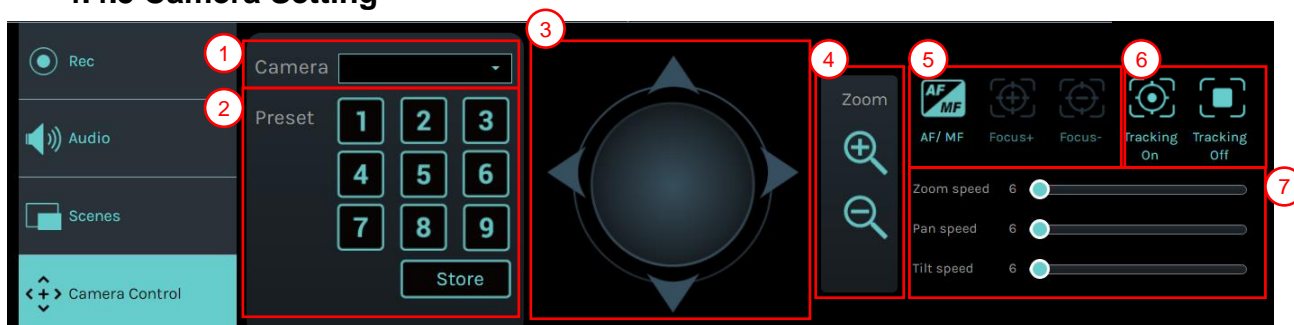
No	Item	Function Descriptions
1	Camera	Select a desired camera to control
2	Preset Setting and Call	Click number buttons to perform preset setting and calls
3	Direction Control Panel	Move the center point to control the shooting direction **<Remark>** Web pages do not support trackball controls. Please use arrow buttons to adjust the screen direction.
4	Zoom In/Zoom Out	Zooms in/out the lens
5	Focus Setting	Set up auto or manual focus
6	Tracking Setting	Set the tracking function on/off **<Remark>** Only tracking camera is supported.
7	PTZ Speed Setting	Set up the moving speed of Pan Tilt Zoom

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4.5 File management

LC100/LC100N provides file management feature which can perform the following functions via the file management interface: Upload, download, delete, replay video files and editing recording information.
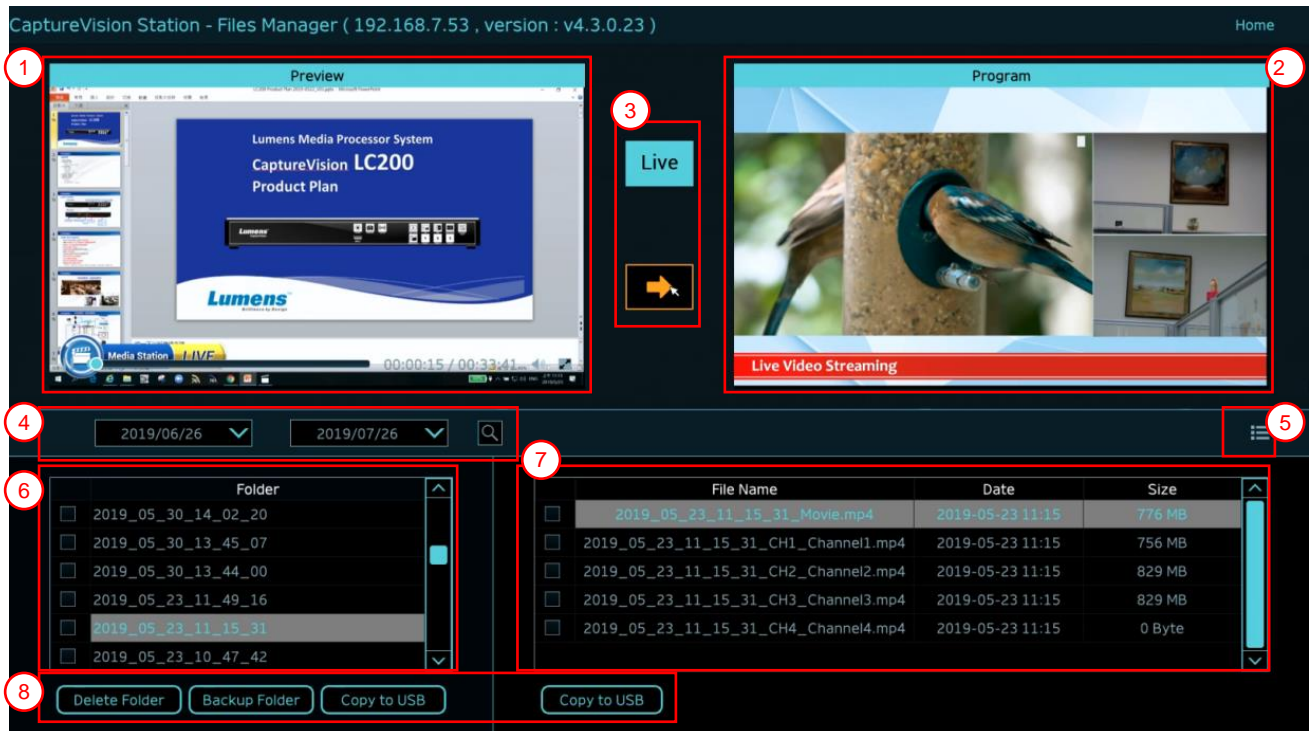
No	Item	Function Descriptions
1	Preview screen	Click desired video files to play and control on the Preview screen
2	Program screen	Display the Director screen or switch to synchronize with the Preview screen
3	Screen Switch Button	Switch the Program screen to the LIVE Director screen or the Preview screen
4	Discovery	You can search recording video files by selecting date period on the calendar
5	Display Mode Switch	Video view mode. You can switch to thumbnail mode or list mode
6	Folder Display	Display the recording video folders
7	Video File Display	Display the files in the video folder
8	File management	Delete, backup or copy recording video to an external USB flash drive

4.5.1 Web Page Interface

The default page after accessing LC100/LC100N web page is system setting page. Click the video management icon on the top-right corner to access video management page.

■ **Video management**
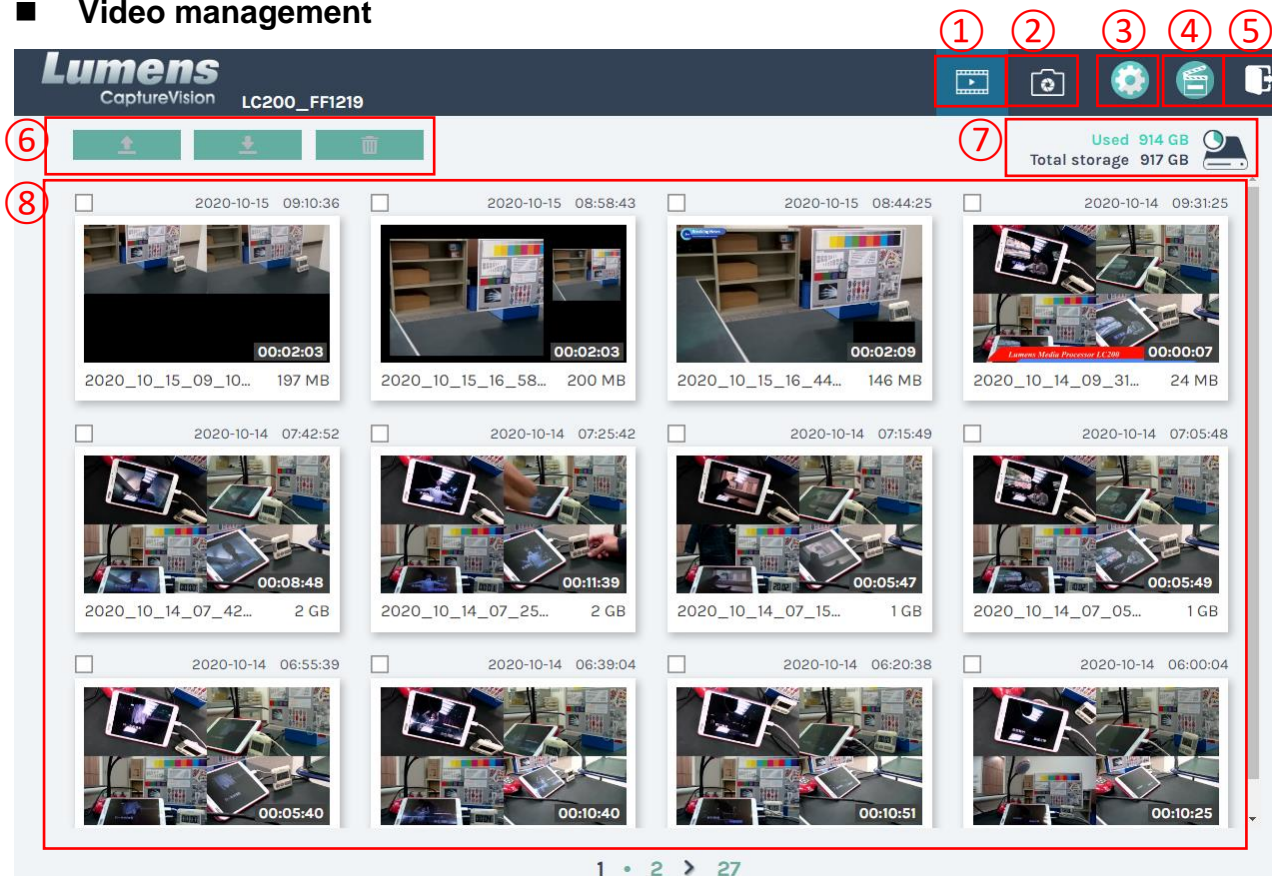
No	Item	Function Descriptions
1	Video management	Click to access the video management page
2	Photo Management	Click to access the picture management page
3	System settings	Click to access the system setting page **<Note>** Log in the web page with admin/admin to display system setting subpage If you log in the web page with video/video, you will not find the system setting subpage and you can only manage videos and photos
4	Online Director	Click to enter the Online Director page
5	Logout	Click this icon to log out the web page interface
6	File management	Upload, download and delete the checked video files
7	Hard Drive Status Display	Display the used space and the capacity of the current hard drive
8	Video File Display	List information, including the file names of recording videos, thumbnails, capacity, and date

■ File Management Description

➤ **Uploading**

Check the thumbnails of the videos to upload. Click [🔼] and the videos will be uploaded to the location set in Upload Settings. Please refer to [System Management/Upload Settings] for related settings.

Upload Status Description:

Icon	Upload Status	Icon	Upload Status
✅⬆	Videos are uploaded successfully	🕐⬆	Videos are queued for upload
❌⬆	Fail to upload videos	⬆	Videos are uploading

➤ **Downloading**

Check the thumbnails of the videos to download. Click [⬇] and the videos will be saved as MP4 video files and datasets.
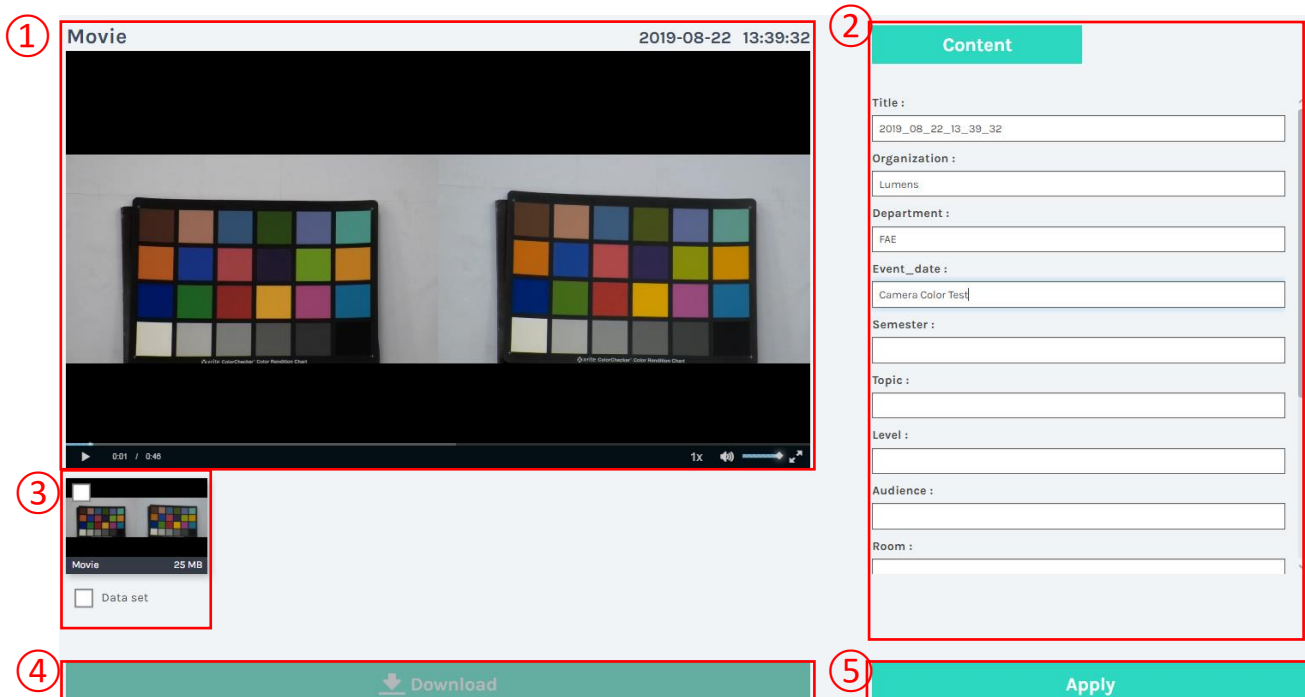
If only video files are needed, you can click the video thumbnails and access video playback page to download the video files only.

➤ **Delete**

Check the thumbnails of the videos to delete. Click [🗑] and the video files will be deleted permanently.

■ Video Playback

Right-click video to preview the video, edit the related content data, and download the video file and dataset

No	Item	Function Descriptions
1	Video Control Window	Play back and control recording videos
2	Video Content	Edit and modify video content
3	Video File and Dataset	Select the video files or datasets to download

4	Download Button	Click this button to download the checked video files or datasets
5	Apply Button	After editing and modifying the video content, click this button to apply

■ Photo Management

You can manage the photo files captured by pressing SNAPSHOT. Folders will be named with the shooting date automatically; all photos shot in the same date will be stored in the same folder.

Just like Video Management, you can also upload, download, and delete photos in Photo Management subpage.
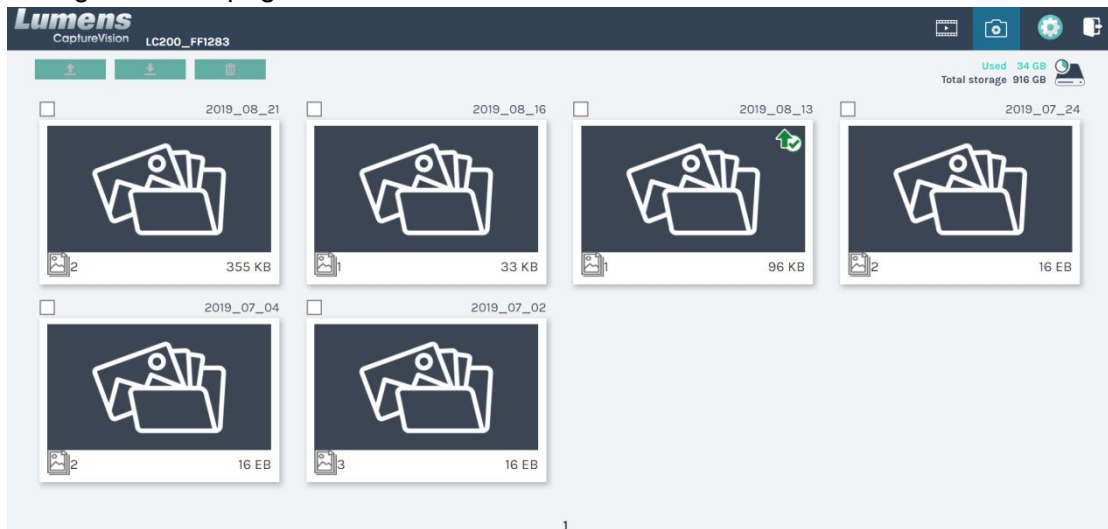
Chapter 5   Troubleshooting

This chapter describes problems you may encounter while using LC100/LC100N. 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**	Make sure you have plugged in the power cord
2.	**No image output**	1. Check the power 2. Check if the input/output device cables are loose 3. Replace the cables and make sure they are not faulty 4. Make sure if the signal source connects to the device correctly 5. Confirm whether the machine is in standby mode. Tap LC100/LC100N Power button to wake the machine 6. Check if HDCP is activated on the video output of the source. If it is, the LC100/LC100N cannot display the video input.
3.	**The panel buttons are not responding**	Confirm **[System Settings] > [System Settings] > [Front Panel Lock]** function setting on the web page, and turn off (uncheck) the front panel lock to use the front panel operation
4.	**LC100/LC100N cannot perform camera control after connecting to a camera**	Please make sure the dial setting of Camera Address Selector is 0. LC100/LC100N cannot identify camera correctly if it is not 0
5.	**You cannot log in the web page administration interface if you forget the password**	If you forget the default password, please press the Reset button on the panel to restore the factory setting
6.	**Webpage login failed**	1. Confirm whether the machine is in standby mode. Tap LC100/LC100N Power button to wake the machine 2. Please confirm whether the password is correct. If you forget your password, please refer to Troubleshooting #5
7.	**LC100/LC100N cannot find the camera**	1. Please link to the web page of the camera to make sure that **[Setting]> [Video]> [Camera ID]/[Camera Location]** in the web page uses only English letters or numbers. LC100/LC100N cannot find the machine if you use special characters and space. 2. When the LC100/LC100N is connected to a switch and the switch IGMP function is on, it will not be able to search for cameras in the local area network. Please disable the IGMP function first and then search for cameras again 3. LC100N only supports the NDI|HX2-source camera. If the camera source is NDI|HX3, please go to the web page of the camera and set it as the NNDI|HX2 output.
8.	**Recording to a USB storage device. The video file of the USB flash drive cannot be played normally**	1. Confirm USB flash drive format. The supported formats are: ex FAT/ EXT4 2. Please use LC100/LC100N for formatting, please refer to *4.3.6 Storage Settings - Hard Drive Information* 3. To ensure proper storage and playing of recorded files, please remove the USB flash drive 30 seconds after the recording is finished

Lumens®

Chapter 6   Safety Instructions

Always follow these safety instructions when setting up and using the LC 100 CaptureVision Station:

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

2   Storage
2.1 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.
2.2 Unplug this product during thunderstorms or if it is not going to be used for an extended period.
2.3 Do not place this product or accessories on top of vibrating equipment or heated objects.

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

4   Batteries (for products or accessories with batteries)
4.1 When replacing batteries, please only use similar or the same type of batteries
4.2 When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products

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

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

■ **IC Warning**
This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.
Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe A prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

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

■ **BSMI Warning**
Warning to users:
This is a Class A information technology product which may cause radio frequency interference when used in a residential environment, in which case the user will be required to take certain appropriate measures.

Addendum 1

■ Frequently used port No.

Port No.	Description
1935/TCP	Applicable for RTMP push to most platforms, such as YouTube, Vimeo, and Twitch
80/TCP	Applicable for RTMP push to Periscope
443/TCP	Applicable for RTMPS push to Facebook
1935/TCP 1936/TCP	Applicable for RTMP push to LinkedIn
2935/TCP 2396/TCP	Applicable for RTMPS push to LinkedIn
443/TCP (HTTPS)	Applicable for platforms with built-in HTTPS security authentication, such as YouTube, Facebook, Ustream, Livestream, and Twitch
53/UDP (DNS)	Applicable to services of changing DNS IP address

Copyright Information

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

Manufacturer：**Lumens Digital Optics Inc.**

Product Name：**LC100/LC100N**

Model Number：**CaptureVision Station**

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.