LC300_LC300S

CaptureVision Station

User Manual - English



Version LCB021

[Important]

To download the latest versions of the Quick Start
Guide, multilingual user manual, software, driver,
etc., please visit Lumens

https://www.MyLumens.com/support



Table of Contents

Copyright I	nformation	3
Chapter 1	Safety Instructions	4
Chapter 2	Package Contents	5
Chapter 3	Product Appearance and Connection	6
3.1Pro	oduct Appearance	6
3.2Pro	oduct Connection	7
3.3 RS	-232 I/O Pin Description	7
Chapter 4	Function Description	8
4.1Re	al-Time Operation Menu	8
4.2We	ebpage Login Interface	8
4.3 Pai	rameter Setting	9
4.40n	lline Director	25
4.5 File	e Management	29
Chapter 5	Troubleshooting	33
Addendum	1	34



Copyright Information

Copyrights © Lumens Digital Optics Inc. All rights reserved.

Lumens is a trademark that is currently being registered by Lumens Digital Optics Inc.

Copying, reproducing or transmitting this file is not allowed if a license is not provided by Lumens Digital Optics Inc. unless copying this file is for the purpose of backup after purchasing this product.

In order to keep improving the product, the information in this file is subject to change without prior notice.

To fully explain or describe how this product should be used, this manual may refer to names of other products or companies without any intention of infringement.

Disclaimer of warranties: Lumens Digital Optics Inc. is neither responsible for any possible technological, editorial errors or omissions, nor responsible for any incidental or related damages arising from providing this file, using, or operating this product.



Chapter 1 Safety Instructions

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

1 Operation

- 1.1 Please use the product in the recommended operating environment, 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 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.

4.3 Warning

The following situations must be avoided:

- Replace batteries that may affect the security protection due to errors in their form;
- Throwing batteries into flames or ovens, or subjecting batteries to mechanical squeezing or cutting that may cause an explosion;
- Place the battery in a high-temperature environment that may cause explosion or leakage of flammable liquids or gases;
- The battery is subjected to extremely low air pressure that may cause explosion or leakage of flammable liquid or gas.

■ 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 (label displayed on the bottom of the device)

Warning: To avoid electromagnetic interference, this product should not be installed or used in residential environments



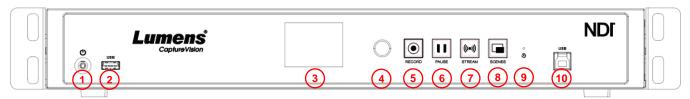
Chapter 2 Package Contents

LC300/LC300S	Power Adapter (DC 19V)	Power Cord	3-PIN to 2-PIN Connector
ò → Lemper C		Appearance may vary depending on country/region	(For Japan only)
USB 3.0 Cable (2M) (Type B to Type A)	RS-232 Connector (x2)	Mounting Metal Plate (x2)	M3 Metal Plate Screw (4x4)
			(1) 111110 (1) 111110 (1) 111110 (1) 111110
Cable Holder-1	Cable Holder-2		
	(e)		

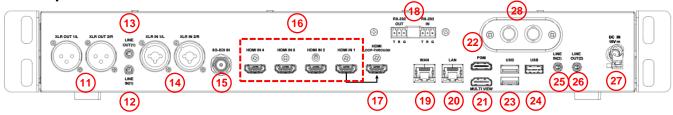
Chapter 3 Product Appearance and Connection

3.1Product Appearance

■ Front panel



■ Rear panel



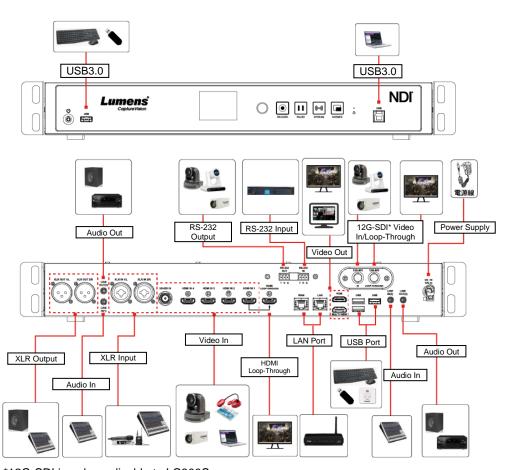
Note 12G-SDI is only applicable to LC300S

No	Name	Function Descriptions
1	Power	On/Off the device
2	USB3.0 Port	Can connect keyboard/mouse/USB flash drive/USB camera
3	LCM Screen	Display PGM screen / LCM menu / prompt message
4	Knob	 Left/Right rotation: Adjust parameters and navigate the menu Press: Perform "confirm" action
5	Record	Start/Stop recording
6	Pause	Start/Pause recording
7	Stream	On/Off image streaming
8	Scenes	Switch the theme scene to the PGM screen. If there are multiple scenes, switch them in order
9	Reset	Reset the device (long press for 3 seconds to trigger it)
10	USB3.0 Port	Connect the computer to convert PGM audio and video into USB signal for use with video software • Video/Audio source name: Lumens LC300(S) Processor
11	XLR Out	Balanced line output
12	Line In(1)	Line In audio source input
13	Line Out(1)	PGM audio output
14	XLR In	Balanced line input
15	3G-SDI	3G-SDI signal source input
16	HDMI In (4 CH)	HDMI signal source input HDMI 1 supports 4K resolution
17	HDMI Loop Through	Output HDMI 1 video screen
18	RS-232 Port	IN: Control the device through RS-232 OUT: Control the camera through RS-232
19	LAN	Connect to LAN, support searching for network cameras



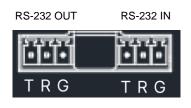
20	WAN	Connect to WAN	
21	HDMI 1 Multi View	Operation interface output; display the settings menu and image management	
22	HDMI 2 Program	Main screen output, display the recording or streaming screen and layout	
23	USB 2.0 Port	Can connect keyboard/mouse/USB flash drive/USB camera/LC-RC01	
24	USB 3.0 Port	remote control panel	
25	Line In(2)	Line In audio source input	
26	Line Out(2)	Multi View audio output	
27	DC IN 19V	DC 19V power connector	
28	12G-SDI In/ 12G-SDI Loop-through	Note For LC300S only 12G-SDI signal source output/input	

3.2Product Connection



*12G-SDI is only applicable to LC300S

3.3 RS-232 I/O Pin Description



■ RS-232 IN/ OUT

	Function	
TX+		
RX-		
GND		



Chapter 4 Function Description

4.1 Real-Time Operation Menu

Connect the HDMI Multi View 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		Configuration	Perform the system network setting, recording/streaming encoded setting
2		Director management	Input signal source selection, audio source management, recording/streaming control, output version selection, and network video camera control
3	5	File management	Conduct the video file content management, including the following functions: upload, download, delete, replay video files
4	<u>.</u>	About	Display the current firmware version and relevant production information of device
5	NA	Device IP	When WAN connects to the router, the current assigned device IP address will be displayed

4.2Webpage Login Interface



No	Item	Function Descriptions
1	User Login Account	Enter user login account (default: admin)
2	User Password	Enter user password (default: admin) For a first-time login, please refer to 4.2.1 Account to change the default password
3	Language	Supporting English/Traditional Chinese/Simplified Chinese
4	Login	Log in to the administrator screen on the website

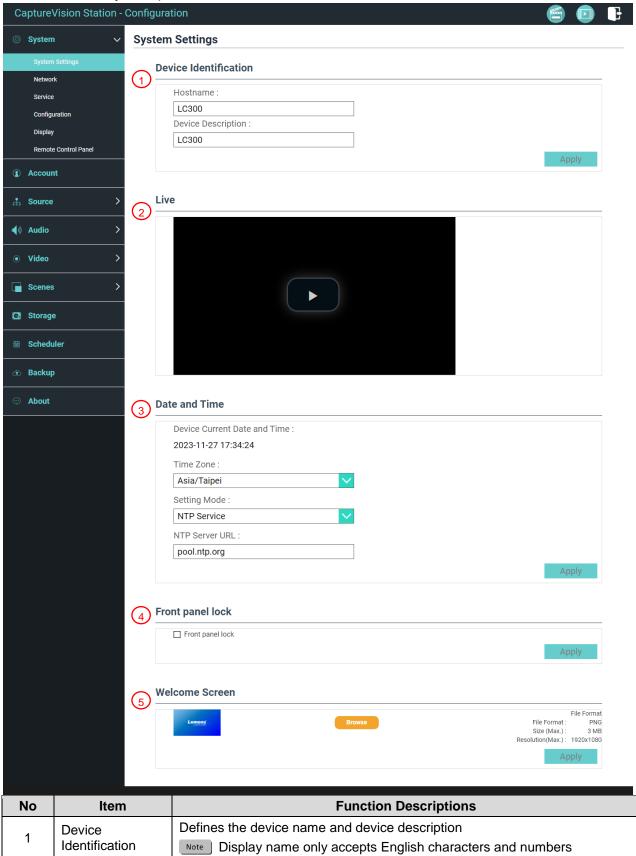
4.3 Parameter Setting

This Section provides descriptions of the web-based interface to control the display items. HDMI Multi View only provides item settings of [System Settings] > [Internet].

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.



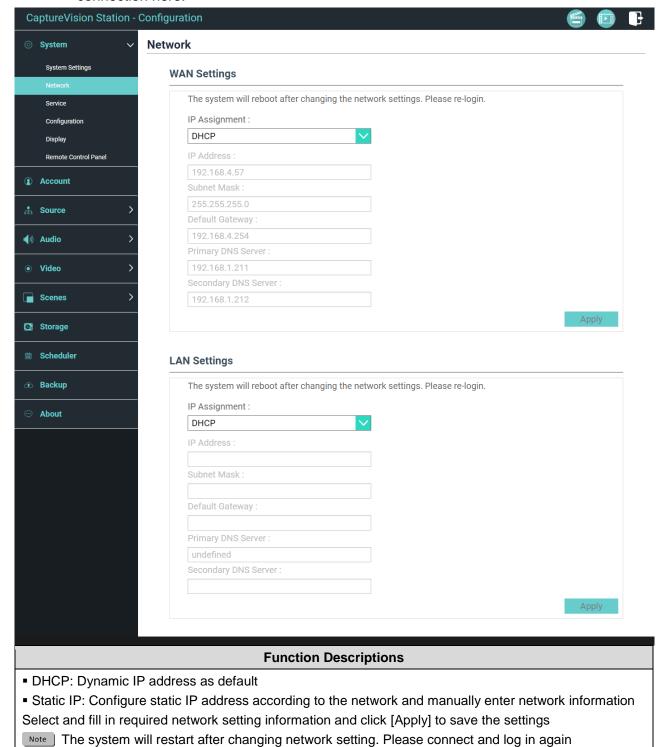


2	Live Streaming	Preview real-time PGM screen
		Supports different time zone setting. It can synchronize time with NTP service (default) and manual setup
	Data 9 Times	■ Time Zone: Select the correct time zone according to current location
3	Date & Time	■ Configuration Mode:
		NTP service: Synchronizes time with a network server
		Manual Setup: Sets time manually
		Select to enable Front Panel Lock
4	Front Panel Lock	■ After rebooting the device, it will remain locked.
		■ To disable this function, please log in to the web page to uncheck this item
		You can customize a welcome image for device
		Click [Browse] and select a file to upload. Once done, a thumbnail will be generated
	Welcome Screen	※File format:
5		File format: PNG
		➤ File size (Max.): 3 MB
		Resolution size (Max.): 1920 x 1080
		Click [Apply] to save this change. If you need to select another file, click [Cancel] and reselect a file



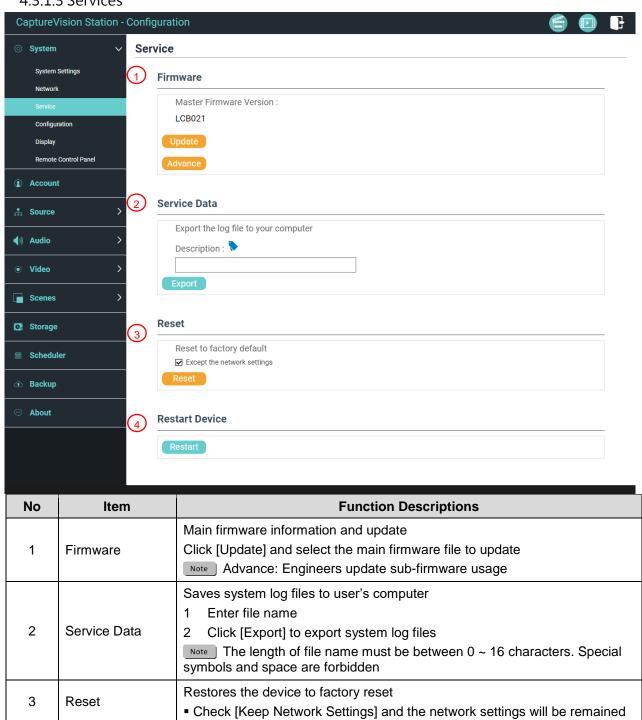
4.3.1.2 Network

The factory setting is DHCP. If you want to use a static IP address, please configure the connection here.





4.3.1.3 Services





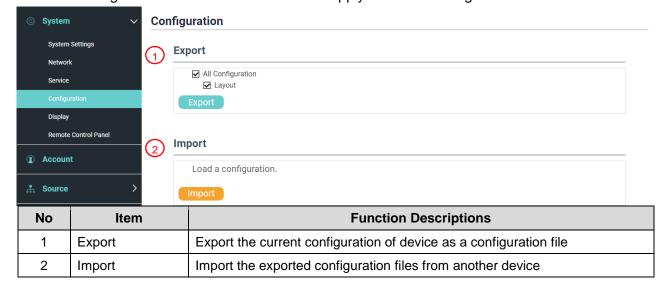
4

Restart Device

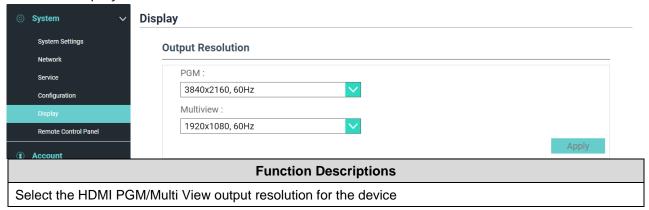
Restart the device

4.3.1.4 Configuration

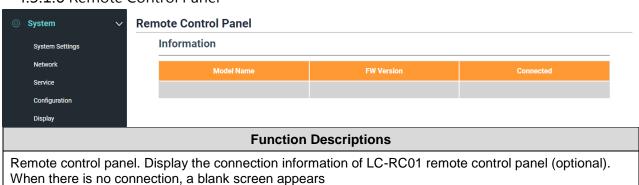
You can export the configuration files of the device to a computer, and import the configuration files to another device to apply the same configuration.



4.3.1.5 Display

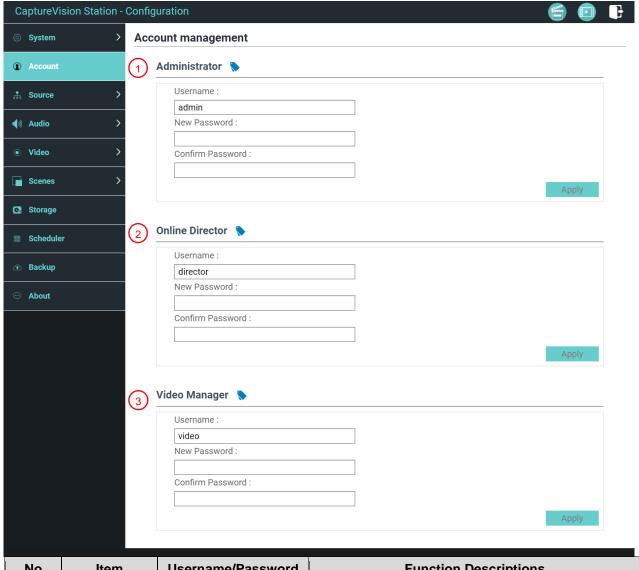


4.3.1.6 Remote Control Panel



4.3.2 Account

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



No	Item	Username/Password	Function Descriptions
1	Administrator	admin / admin	Top authority. Set up the permission of main system management
2	Online Director	director / director	Online Director function permissions, can manage playback and some basic video settings
3	Video Management	video / video	Views the permission of file storage and playback

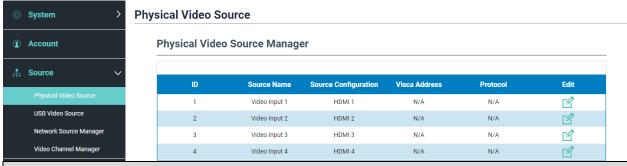
Note

- The length of username must be between 4 ~ 16 characters. {}()'&@~^\$%"|,`:?<>*\#; symbols, and space are forbidden
- The length of password must be between 8 ~ 16 characters. {}()'~^"|,`:?<>*\/; symbols, and space are forbidden
- Duplicate username is forbidden



4.3.3 Source

4.3.3.1 Physical Video Source Manager

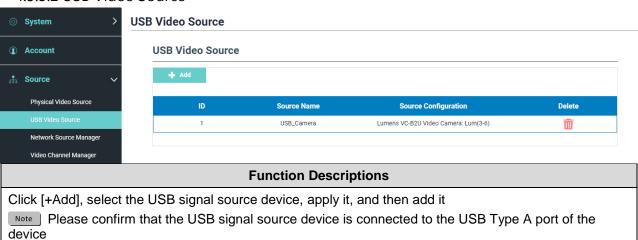


Function Descriptions

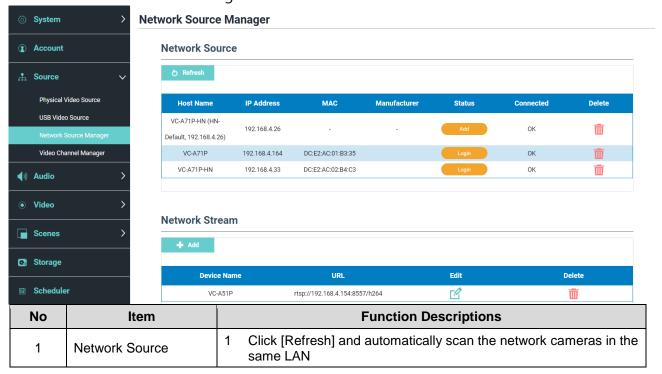
Click [Edit] to edit the HDMI signal source name and resolution

- 3G-SDI video, can switch signal sources on the Video Input 4 edit page
- LC300S supports 12G-SDI signal sources and can switch signal sources on the Video Input 1 edit page

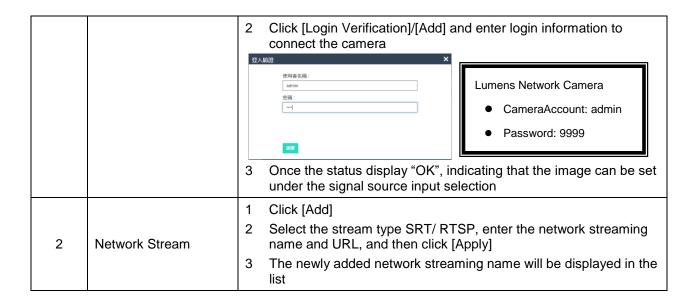
4.3.3.2 USB Video Source



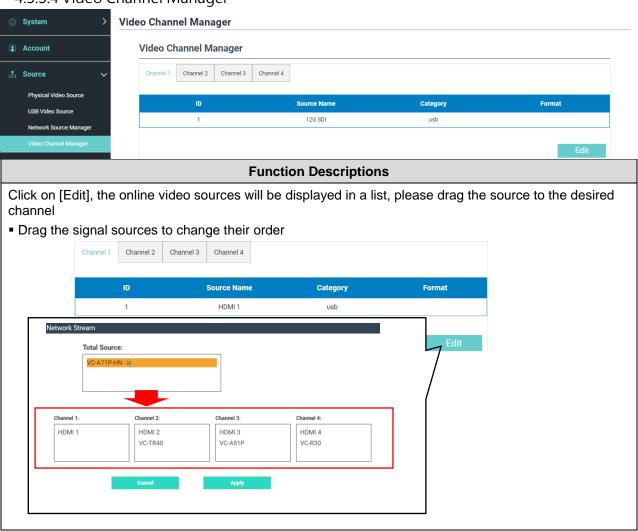
4.3.3.3 Network Source Manager





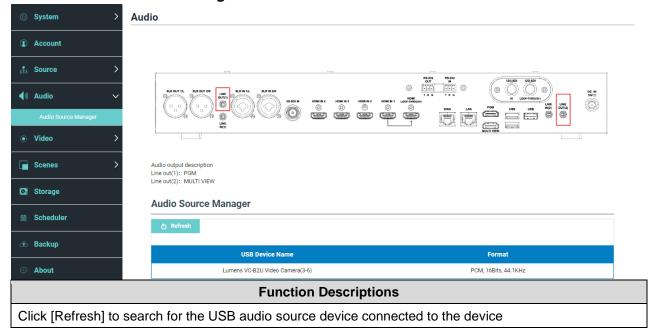


4.3.3.4 Video Channel Manager





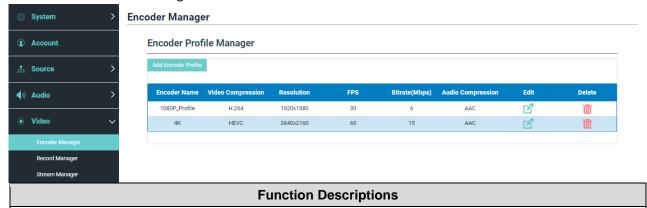
4.3.4 Audio Source Manager



4.3.5 Video

Support flexible recording configurations, administrators can choose to record a single PGM (mixing video) screen or record 2 to 4 signal source screens, different videos can be set with different encoding settings

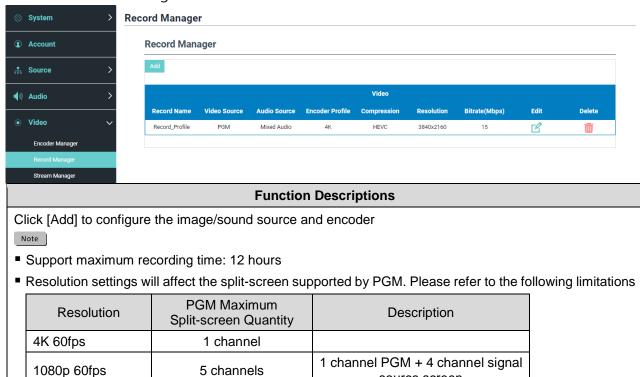
4.3.5.1 Encoder Manager



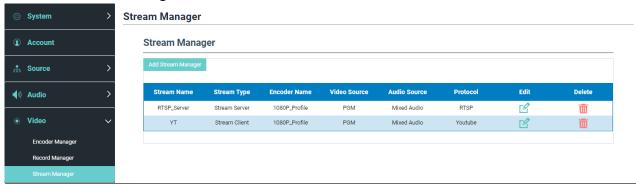
Click [Add Encoder Profile] to configure compression format/resolution/bit rate/audio sampling frequency settings



4.3.5.2 Record Manager



4.3.5.3 Stream Manager



source screen

Function Descriptions

Click [Add Stream Manager] to allow users to add stream settings.

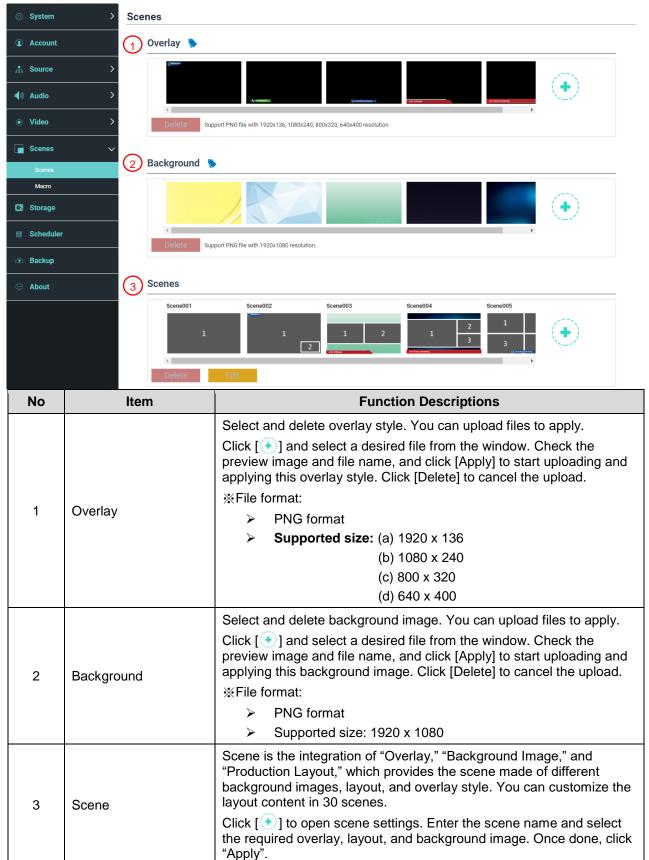
Related settings must follow the streaming protocol and the settings recommended by server system support.



4.3.6 Scene

4.3.6.1 Scene

Provides 5 overlay styles, background images, and scenes. You can also add your own styles.

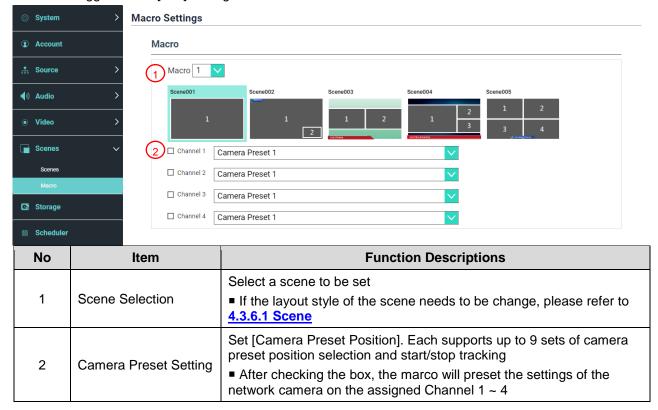




4.3.6.2 Macro

Supports 9 sets of macros, users can quickly switch themes, while the camera moves to the specified default position.

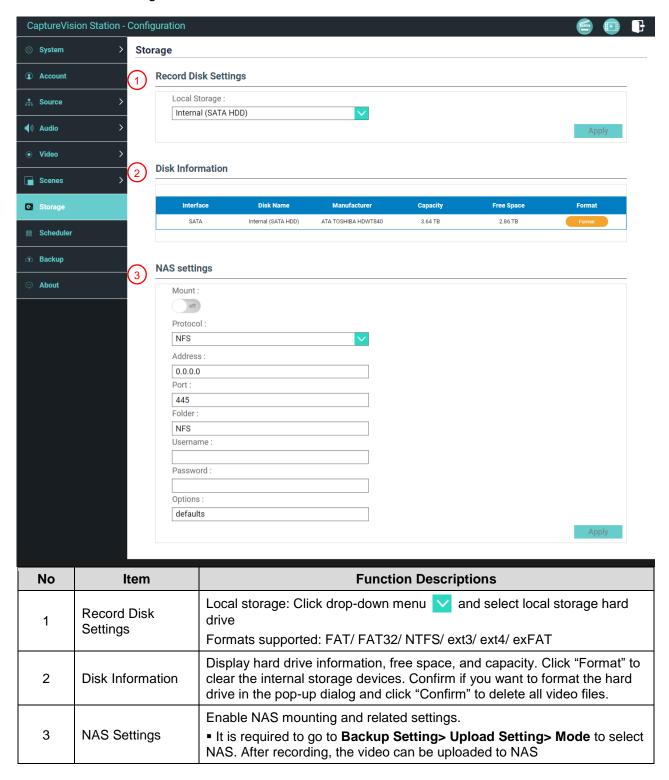
With the use of the LC-RC01 extension control panel (optional), the [1~3] buttons on the panel can trigger macro [1~3] settings.





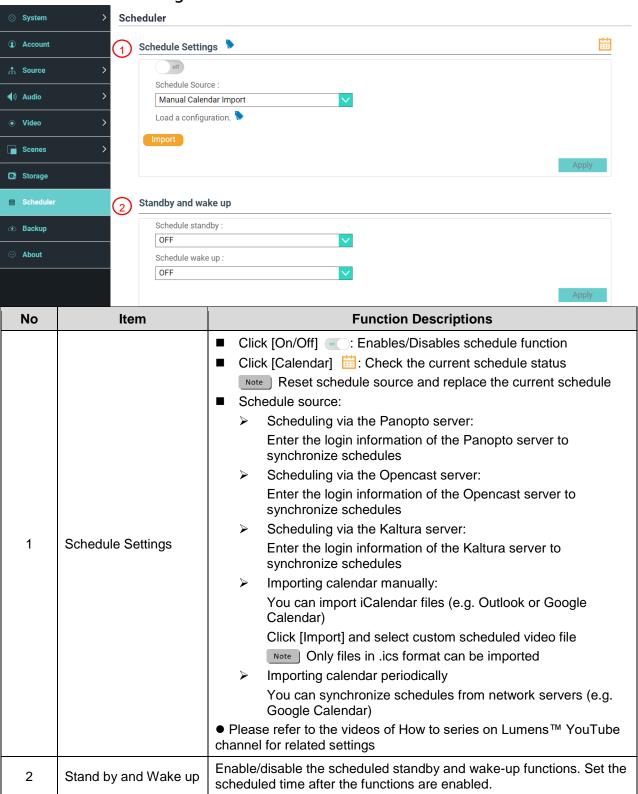
4.3.7 Storage

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





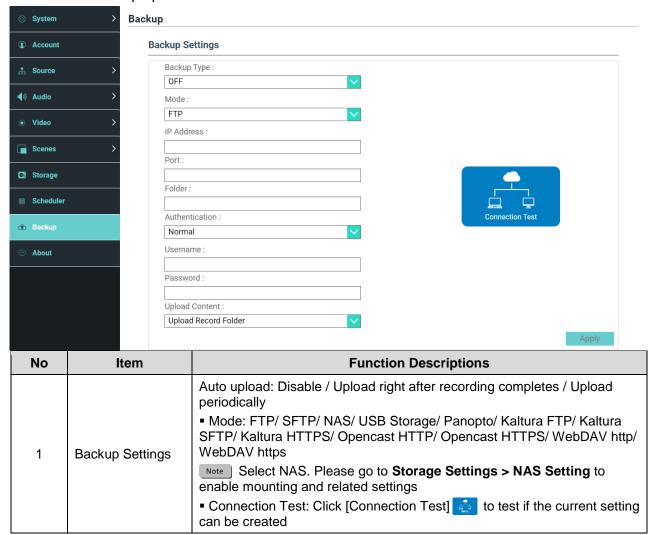
4.3.8 Schedule Setting





4.3.9 Backup

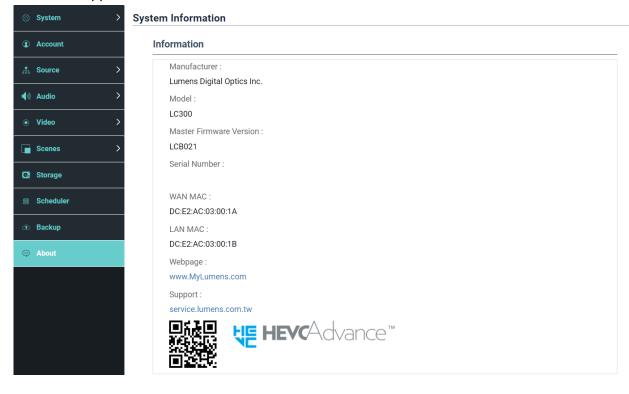
Auto backup service, which can upload videos to a designated space automatically. You can set up upload destination and test the connection here.





4.3.10About

Display device-related Information: Firmware version, device serial number, and technical support link





4.4Online Director

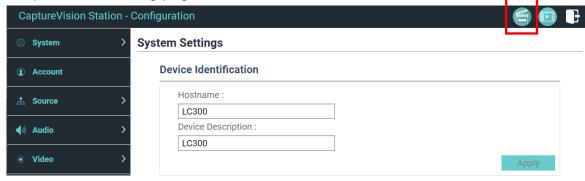
LC300_LC300S is built in Online Director, which allows you to monitor recording and preview the output video from streaming director.

Three login methods below are available:

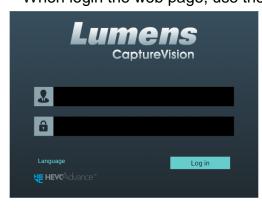
■ Select Online Director from the HDMI Multi View real-time operation menu

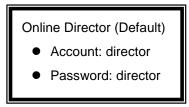


■ When login the web page, select the Online Director icon at the upper right corner on the parameter setting page

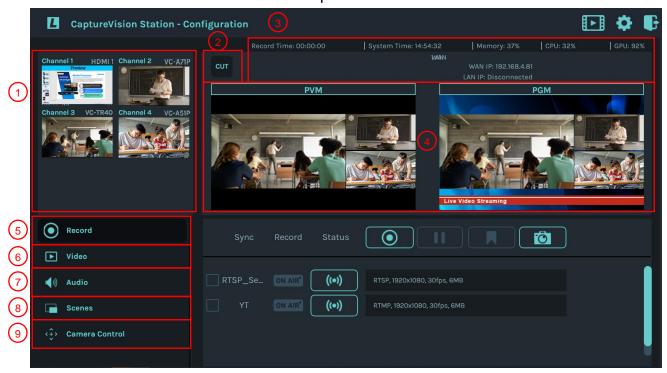


■ When login the web page, use the Online Director account



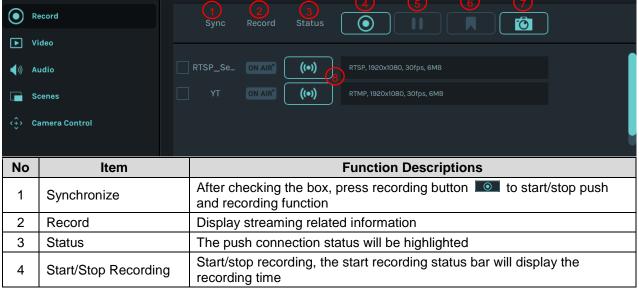


Online Director related feature description as below:



No	Item	Function Descriptions
1	Channel	Video source screen output, display source screen preview
2	CUT	Switch the PVM screen to the PGM screen
3	Status	Displays current recording status, hard disk capacity and Internet connection status, etc.
4	PVM/PGM	Display preview (PVM) and actual output (PGM) screen
5	Record	Start/stop recording; also select whether to synchronously stream or not
6	Video	Select video signal, HDMI signal, network camera, streaming, or USB signal source screen
7	Audio	Manage the input and output audio sources; adjust the audio recording volume
8	Scenes	Fast select the required production layout, or customize the background and scene style
9	Camera Control	Provide video camera/PTZ control

4.4.1 REC Record Setting





5	Pause	Pause Recording
6	Index	Timestamp can be added after the recording starts
7	Capture	Capture a photo
8	Single-channel Push Button	Push right away without starting recording function

4.4.2 Video



Function Descriptions

Preview Channel 1 \sim 4 signal sources screen, click on the screen to select the output signal source

■ Please refer to 4.3.3.4 Image Distribution Management for adding video sources. 4.4.3 Audio (7)Audio Out Leve Input8 Record **▶** Video 100 100 100 100 📢 🕦 100 📢 🐧 100 📢 🐧 100 📢)) Audio Camera Control No Item **Function Descriptions** Set audio delay time Set Delay Time 1 Audio Source 2 Select an audio source 3 Audio Volume Display current audio volume scale 4 Volume Control Adjust the volume of audio input Mute/ Unmute Mute/ Unmute audio output 5 On/Off the +48V phantom power 6 +48V phantom Power The output volume control of the software mixer affects the volume of 7 **PGM Level** PGM recording/streaming PGM HDMI: Set PGM HDMI volume

MutltiView HDMI: Set Multi View HDMI volume

recording/streaming volume

Note Line out (2) volume synchronized Multi View HDMI volume

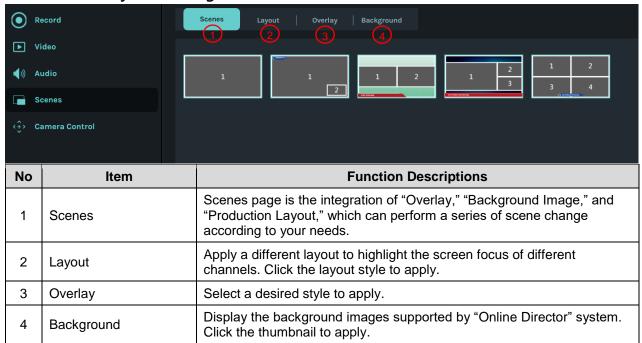
Line Out(1) & XLR: Set the volume for Line Out (1) & XLR
 Note This field adjusts the volume and does not affect the



Audio Out Level

8

4.4.3 Scenes Layout Setting



4.4.4 Camera Control Record Camera Channel1 ▼ AF Audio Scenes Q <⊕> Camera Control No Item **Function Descriptions** 1 Camera Select a desired camera to control 2 Preset Click number buttons to perform preset setting and calls Move the center point to control the shooting direction **Direction Control** 3 Note Web interface do not support trackball controls. Please use arrow buttons to adjust the image direction Zoom In/ Out Zooms in/out the lens 4 5 Focus Set up auto or manual focus Set the tracking function on/off 6 Tracking Note This function is only applicable to tracking camera

Set up the moving speed of Pan Tilt Zoom



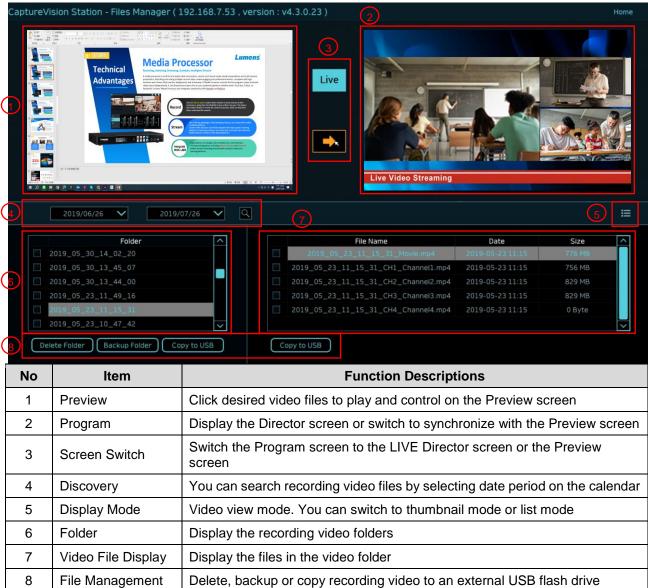
7

PTZ Speed

4.5 File Management

Perform the following functions via the file management interface: Upload, download, delete, replay video files and edit recording information.

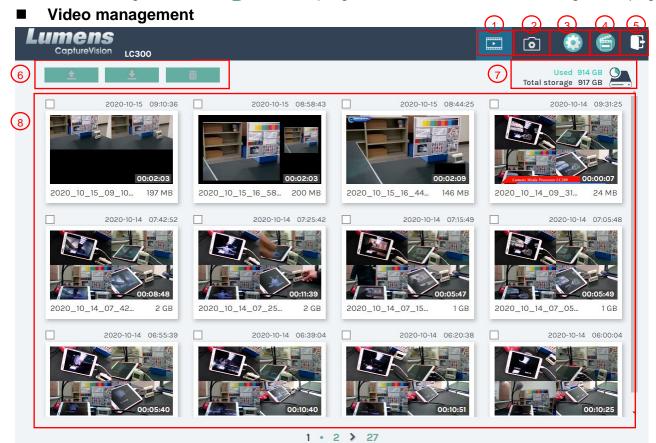
4.5.1 Multi View Output Interface





4.5.2 Webpage Interface

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



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	Configuration	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 the used file 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 [1] 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
1	Videos are uploaded successfully		Videos are queued for upload
18	Fail to upload videos	1	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.

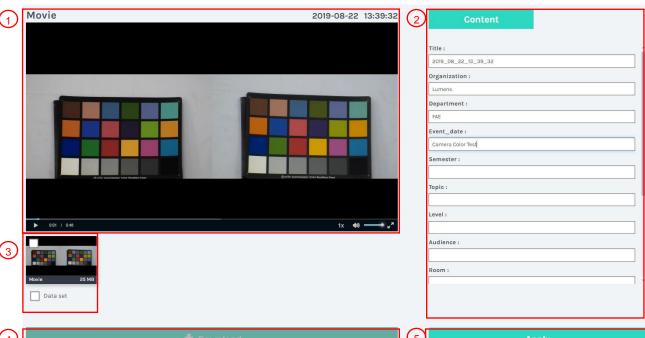
If only video files are needed, you can click the video thumbnails and access video playback page to download the video files only.

Delete

Check the thumbnails of the videos to delete. Click [iii] 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



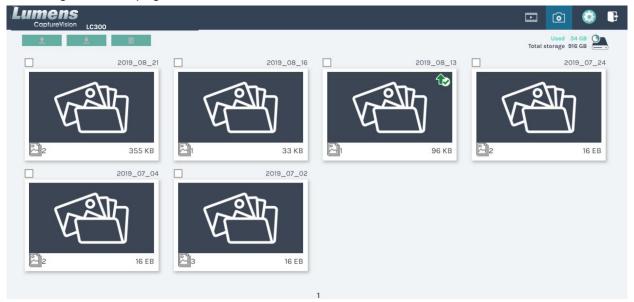
4	<u>*</u>	Download Spply	
No	Item	Function Descriptions	
1	Video Control Window	Play back and control recording videos	
2	Video Content	Edit and modify video content	
3	Video File and Dataset	Select the video files or datasets to download	
4	Download	Click this button to download the checked video files or datasets	
5	Apply	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 LC300_LC300S. 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	Please confirm that the power cord used is of DC 19V specification	
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. LC300/LC300S cannot record video from a video output including HDCP format 6. Confirm whether the machine is in standby mode. Tap any button on the device panel to wake the machine (*Note 1)	
3.	The panel buttons are not responding	The panel become non-functional when logging into the system	
4.	LC300/LC300S cannot perform camera control after connecting to a camera	Please make sure the dial setting of Camera Address Selector is 0. Device cannot identify camera correctly if it is not 0	
5.	You cannot log in the web page administration interface if you forget the password Press the Reset button on the front panel to reset the device (hold press for 3 seconds)		
6.	Webpage login failed	1. Confirm whether the machine is in standby mode. Tap any button on the device panel to wake the machine (*Note 1) 2. Please confirm whether the password is correct. If you forget your password, please refer to Troubleshooting #5.	
7.	1. Please link to the webpage of the camera to make sure [Setting] > [Video] > [Camera ID]/[Camera Location] in webpage uses only English letters or numbers. The device cannot find the machine if you use special characters and space. 2. When the device is connected to a switch and the switch IGMP function is on, it will not be able to search for camera in the local area network. Please disable the IGMP function first and then search for cameras again.		
8.	LC300/LC300S supports maximum recording time	The maximum recording time which LC300/LC300S supports is 12 hours. 24/7 recording is not supported.	

^{*} Note 1: Standby Mode: Enable via RS232/TCP command.



Addendum 1

■ Frequently used port No.

Port No.	Description	
1935/TCP	Applicable for RTMP push to most platforms, such as YouTube,	
1955/101	Vimeo, and Twitch	
80/TCP	Applicable for RTMP push to Periscope	
443/TCP	Applicable for RTMPS push to Facebook	
1935/TCP	Applicable for RTMP push to LinkedIn	
1936/TCP	Applicable for K fivir push to Linkeum	
2935/TCP	Applicable for RTMPS push to LinkedIn	
2396/TCP		
	Applicable for platforms with built-in HTTPS security	
443/TCP (HTTPS)	authentication, such as YouTube, Facebook, Ustream,	
	Livestream, and Twitch	
53/UDP (DNS)	Applicable to services of changing DNS IP address	

