

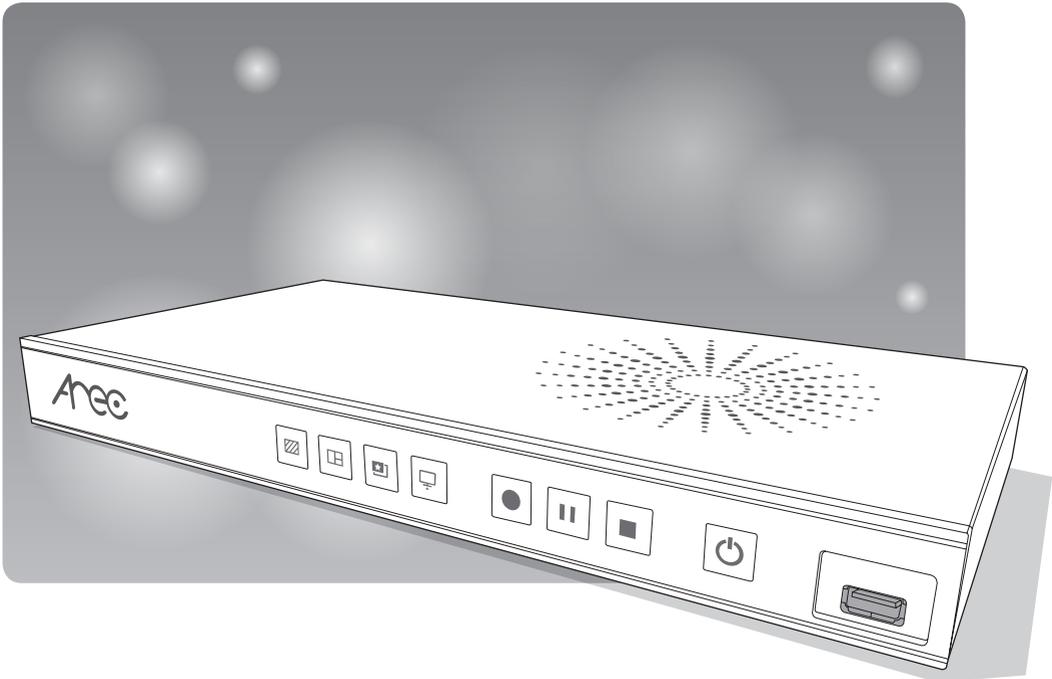


# LS-300

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## Media Station

User Manual | English



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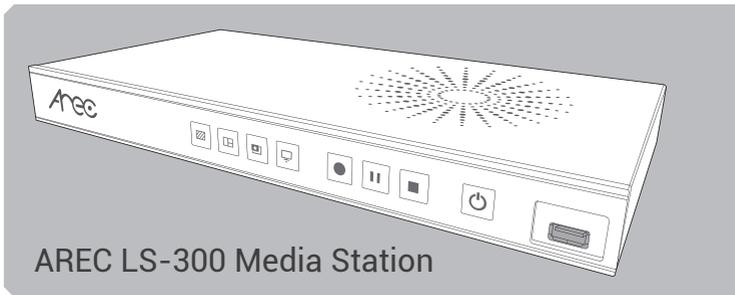
## Introduction

Featuring a compact and stand-alone design, AREC LS-300 Media Station consists of diverse features and functionality, including multi-signals capturing, recording synchronously, codec, streaming online, live broadcasting, and web-based monitor page, providing complete presentation or lecture capture solution.

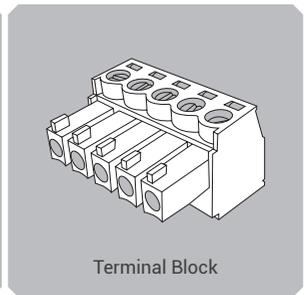
## Specifications

Product Name	Media Station
Model Name	LS-300
Dimension	354mm(L) x 188.2mm(W) x 46mm(H)
Weight	1710g
Power Requirement	12V/2A
Power Consumption (Max.)	24W (Max.)
Operating Temperature / Humidity	0°C ~ 40°C / 90%
Maximum normal load description	Insert 1 IP CAM to LAN port and insert 2 video signals (either HDMI or VGA input). Using external USB flash to record the transcoded video/audio. And output the transcoded video/audio to both HDMI and VGA port.

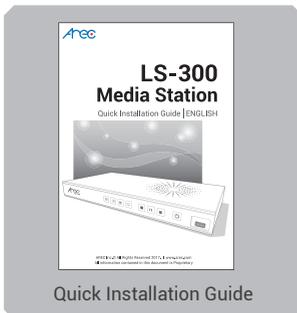
## Package Contents



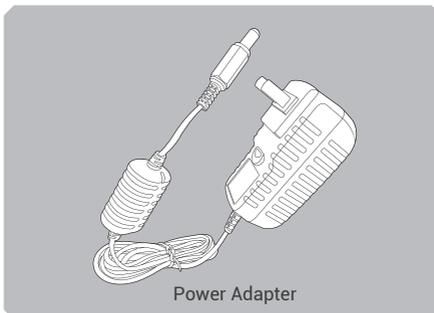
AREC LS-300 Media Station



Terminal Block



Quick Installation Guide

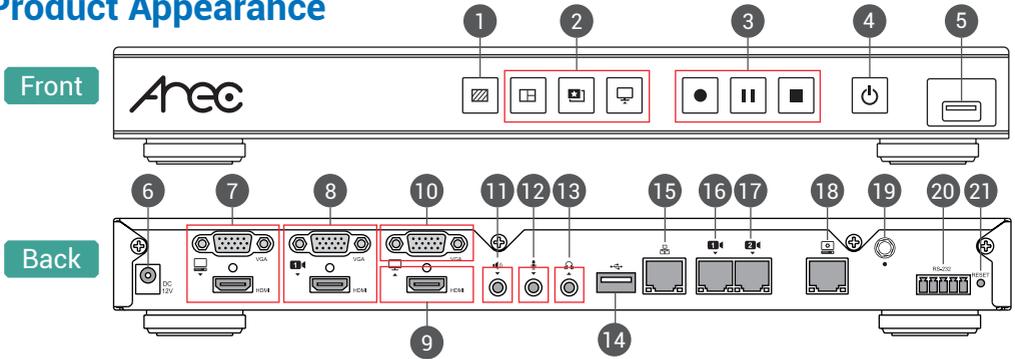


Power Adapter



Wireless Mic. Antenna

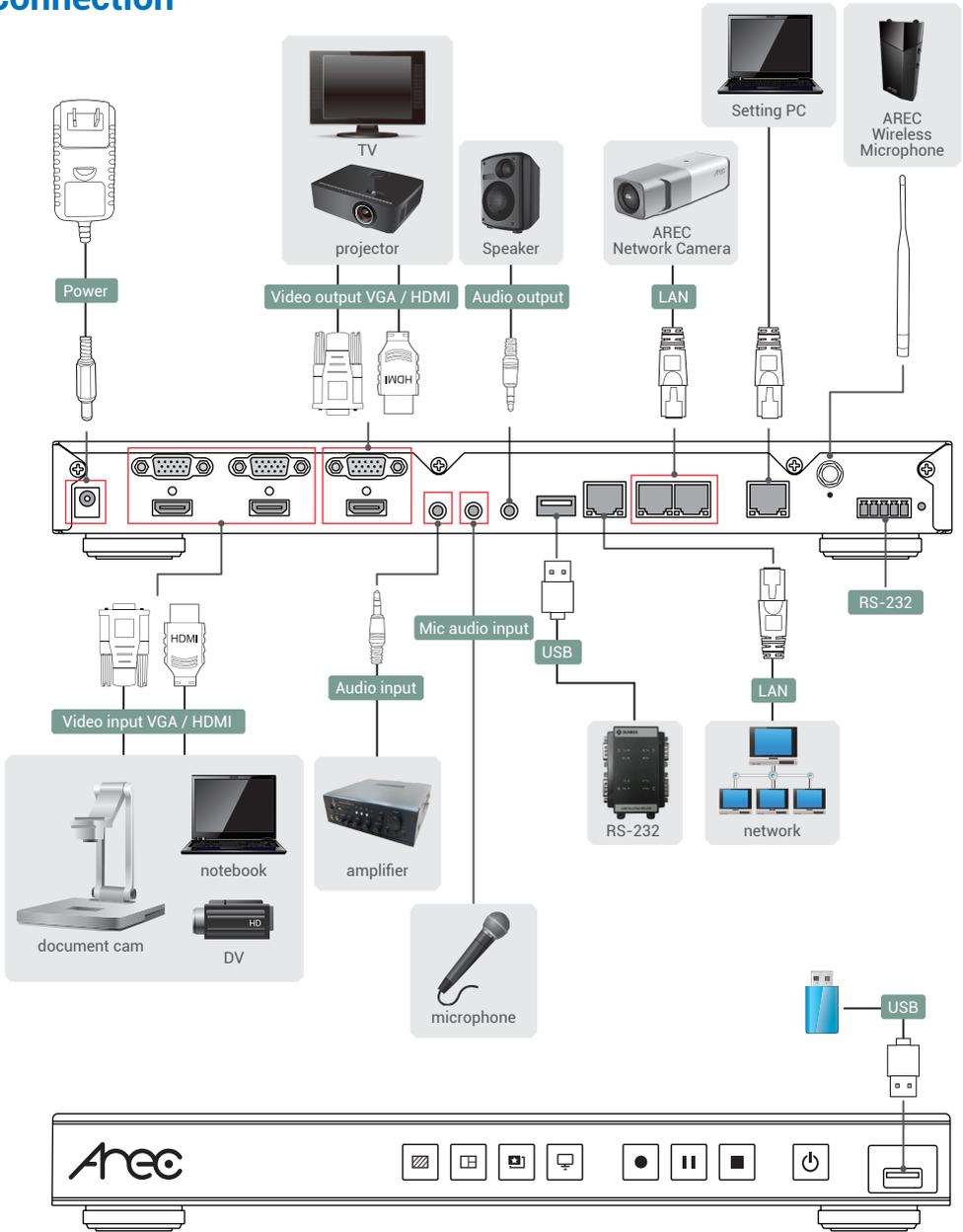
## Product Appearance



No.	Name	Brief introduction
1	Background function key	Control the Background function
2	Layout function keys	Control the Layout function
3	Record function keys	Control the Record, Pause, Stop function
4	Power	Power on/off the device
5	Front USB port	For external USB storage device* Firmware update through USB disk
6	Power port	12V / 2A
7	Video input	VGA / HDMI input source for PC [  ]
8	Video input	VGA / HDMI input source for camera [  ]
9	Video output	HDMI preview output
10	Video output	VGA loop thru from input [  ]
11	Audio input	Line audio input
12	Audio input	Mic audio input
13	Audio output	Line audio output
14	Back USB port	USB interface for camera control over RS-232
15	Network port	RJ-45 Ethernet connector for network connection
16	Network camera input 1	RJ-45 Ethernet connector for network camera input source
17	Network camera input 2	RJ-45 Ethernet connector for network camera input source
18	Setting port	RJ-45 Ethernet connector for device configuration and control
19	Antenna port for Microphone	Connected to antenna for wireless microphone
20	RS-232	Captive screw connector for control over RS-232
21	Reset button	Restoring devices to its factory default state

NOTE: The LS-300 can detect and record to USB storage devices using FAT32, NTFS file systems.

# Connection



## Front Panel Buttons and Indicators

Button	Brief introduction
 Background / Layout / Overlay	Change Background / Layout / Overlay cycling.
 Display	See full screen video.

Button	Display method of indicator	Product status
 Record / Pause / Stop	Record button glows red continuously.	Recording in progress.
	Record button flashes red rapidly.	Recording is paused.
	Record button flashes red slowly.	Recording is being finalized.
 Power	Solid red.	Device is powered, yet not booted up.
	Green and red light flash alternately.	Device is booting up.
	Solid green.	Boot up completed.
	Fast flashing red.	Device is shutting down.
	Fast flashing green.	Firmware updating.
	Slow flashing red.	Fan is abnormal.

## Getting start

Connect PC to the setting port of Media Station with standard network cable. Open up the browser, and input 192.168.11.254 in the browser page. Log in Administrator  with default username admin and password admin, then entering the LS-300 system Administrator webpages.

## Overview of the Web Interface

LS-300 web interface has three user types, which are described in detail in the following chapters :

	Online Director	For quick start recording, log in Online director from the initial login page with default username director and password director. This user also has access to Video Manager web pages.
	Administrator	To setup the device, log in Administrator with default username admin and password admin, then entering System Administrator webpages. The admin account provides the user all three type of privileges.
	Video Manager	If you only need to access to the recordings, log in Video Manager with default username video and password video

### Online Director

---

Username

Password

save the username and password

Log in

### Administrator

---

Username

Password

Save the username and password

Log in

### Video Manager

---

Username

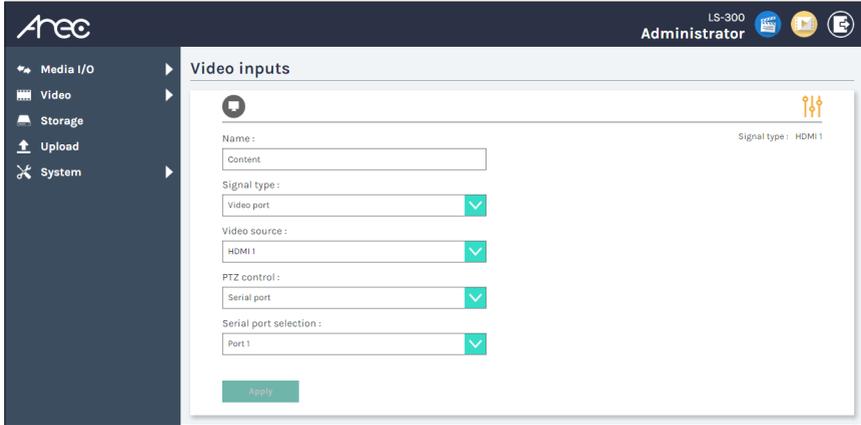
Password

Save the username and password

Log in

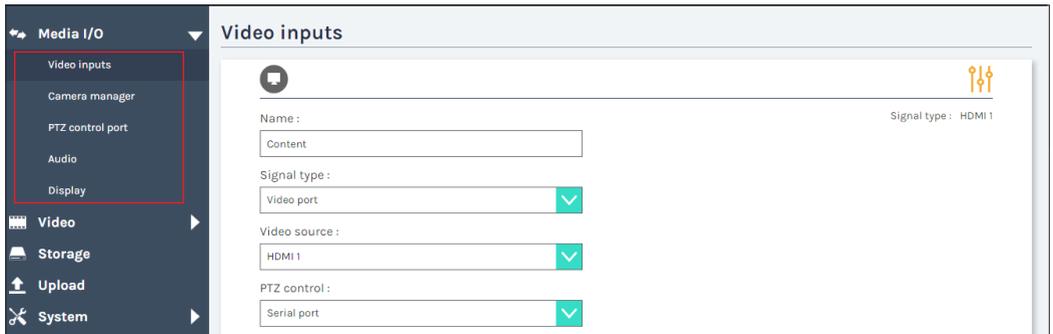
## Chapter 1 Administrator

The Administrator web pages provide a system administration interface of the LS-300: it can perform [Media I/O](#), [Video](#), [Storage](#), [Upload](#), [System](#) settings and confirm operations. The [Media I/O](#) settings make sure each input source are properly connected, and adjust the audio volume. The [Video](#) setting pages configure the recording, streaming, and other functions which define the content being recorded. [System](#) are pages contain basic settings and information of this device.



### 1.1 Media I/O

The pages within [Media I/O](#) include the following :



Video inputs	Select the signal type, video source and PTZ control method for each input.
Camera manager	List out all the connected network cameras.
PTZ control port	Set LS-300 back USB-to-RS-232 serial port to drive PTZ cameras.
Audio	Adjust the volume and select the audio input source.
Display	Set the LS-300 on screen display language.

### 1.1.1 Video inputs

The LS-300 is capable to process up to three video inputs. The name of these inputs are user configurable; by default are Content, Cam 1 and Cam 2.

<div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; font-weight: bold; font-size: 1.2em;">❏</div> <p>Name : <input type="text" value="Content"/></p> <p>Signal type : <input type="text" value="Video port"/> <span style="float: right;">▼</span></p> <p>Video source : <input type="text" value="HDMI 1"/> <span style="float: right;">▼</span></p> <p>PTZ control : <input type="text" value="Serial port"/> <span style="float: right;">▼</span></p> <p>Serial port selection : <input type="text" value="Port 1"/> <span style="float: right;">▼</span></p> </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; font-weight: bold; font-size: 1.2em;">1</div> <p>Name : <input type="text" value="Cam 1"/></p> <p>Signal type : <input type="text" value="Network Camera"/> <span style="float: right;">▼</span></p> <p>IP address : <input type="text" value="10.2.50.160"/> <span style="float: right;">▼</span></p> <p>PTZ control : <input type="text" value="Over IP"/> <span style="float: right;">▼</span></p> </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; font-weight: bold; font-size: 1.2em;">2</div> <p>Name : <input type="text" value="Cam 2"/></p> <p>Signal type : <input type="text" value="Encoder"/> <span style="float: right;">▼</span></p> <p>Protocol : <input type="text" value="RTSP"/> <span style="float: right;">▼</span></p> <p>Primary URL : <input type="text" value="rtsp://192.168.11.202/h264"/></p> <p>Secondary URL : <input type="text" value="rtsp://192.168.11.202/h264"/></p> <p>PTZ control : <input type="text" value="Not set"/> <span style="float: right;">▼</span></p> </div>
--	---	---

#### 1.1.1.1 Content ❏ / Cam 1 1 / Cam 2 2

- **Signal type** can be choose from **Network Camera**, **Encoder** or **Video port**. The last option is available only for the first two video inputs.

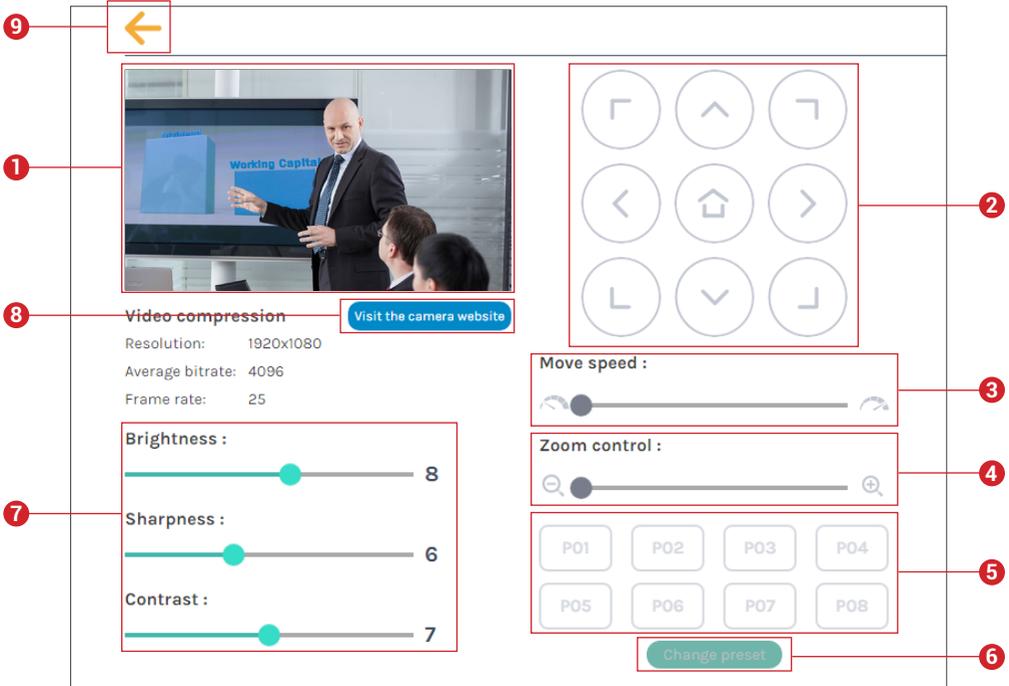
Video port	Select Video source: The LS-300 provides VGA and HDMI input options for video port. If only one of those is connected, the system would detect and automatically switch to source of signal. If both options are connected, select one in between.
Network Camera	Select IP address: Select from the camera ip address drop list of those available. Note: A login authentication with the camera might be required. See Media I/O\ Camera manager for more details.
Encoder	Select Protocol: The available options are UDP, RTP, RTSP, or RTMP. Enter the primary and secondary url/port number.

- **PTZ control** : The LS-300 is highly integrated with PTZ cameras and provides two control methods, Over IP or via Serial port.

Serial port	Select this option when the appointed camera uses RS-232 PTZ control protocol. Then complete the Serial port selection from drop list Port 1~4. See Media I/O\ PTZ control port for more details.
Over IP	The option is available when the specified signal type is a network camera. Select this option if that camera supports networking PTZ control.

### 1.1.1.2 Advanced configuration

A preview use and further configuration of the video input is provided. After the video input setting is successfully applied, click  to enter the advanced configuration page. In the case of a PTZ camera, the direction control panel, zoom in/out control bar, and up to 8 preset positions are enabled.



1. The video input preview.
2. Direction control panel: Click the arrow buttons to move the camera.
3. Movement speed: Move leftward or rightward to set slower or faster the camera is moving.
4. Zoom in/out: Click the buttons or drag on the control bar.
5. Preset positions: Click the buttons to command that the camera go to the preset position.
6. Change preset: Click the button to modify the preset positions. Select any of the P01~P08, move the camera to the desired position by using the direction control panel or using the zoom in/out control. Click Save button to complete the change or click Cancel button to give it up.
7. Brightness, sharpness, and contrast: Slide the adjust bar leftward or rightward to change the camera image settings.
8. Visit the camera website: Click this [Visit the camera website](#) button to enter the webcam management web site, input the verification code as prompted.
9. Click  button at upper left corner to return to the last page.

### 1.1.2 Camera manager

The system automatically scans and lists the network cameras connected to the Media Station once entering the [ Camera manager ] page. You may click Refresh button to scan again. Click Login button and the login authentication dialog pop out. Enter the username and password of the camera to complete the authentication. Take AREC network camera for example, enter the default username and password admin/ admin. The status then changes to OK, which indicates it is available for video input selection.

Note: If you fail to find your camera by clicking on "Refresh", please select "Signal type" to "Encoder" in the "Video Inputs" and fill in your camera information.

The screenshot shows the 'Camera manager' page in the AREC LS-300 Administrator interface. The left sidebar contains navigation options: Media I/O, Video inputs, Camera manager (selected), PTZ control port, Audio, Display, Video, Storage, Upload, and System. The main content area is titled 'Camera manager' and features a 'Refresh' button. Below it is a table of network cameras.

Host name	IP address	MAC	Manufacturer	Status
ipnc	10.2.50.133	E4:77:D4:00:D6:38	CIPNC	OK
Sony	10.2.50.172	AC:9B:0A:EE:1F:85		Login
AREC	10.2.50.143	00:D0:89:0E:51:64	AREC	OK
CI-200	10.2.50.139	BC:BA:E1:A0:00:30	CI-200	OK
CI-200	10.2.50.138	00:D0:89:14:EF:6B	CI-200	OK
In	10.2.50.135	F9:FC:D5:8C:D5:01		Login
VIVOTEK	10.2.50.115	B0:AA:5A:DF:65:4F		Login
VIVOTEK	10.2.50.154	3E:AE:9A:59:AE:A4		Login
AREC	192.168.11.75	BC:BA:E1:A0:00:1B	AREC	OK
AREC	10.2.50.157	00:D0:89:0D:0A:14		Login

This screenshot shows the same 'Camera manager' page, but with a 'Login authentication' dialog box overlaid. The dialog box has a close button (X) in the top right corner and contains two input fields: 'User name :' and 'Password :'. Below the fields is an 'Authentication' button. The background table of cameras is dimmed.

### 1.1.3 PTZ control port

The LS-300 facilitate the web-based users control PTZ cameras using RS-232 protocol. Connect an USB-to-RS-232 adapter to the LS-300 back USB port in advance. Before making any changes to this page, please get to know about the RS-232 settings of the desired PTZ camera. The following configurations must be identical to the external device settings.

- Protocol : Available options are VISCA, PELCO-D, and PELCO-P;
- Address : Set according to the camera address for RS-232 communication. VISCA: 1-7, PELCO D/P: 1-255;
- Baud rate : 2400, 4800, 9600, and 115200

Note: Support USB to RS-232 serial port adapter with chip PL2303 or FT4232H.

The screenshot shows the 'PTZ control port' configuration page. On the left is a navigation menu with 'Media I/O' expanded to show 'PTZ control port'. The main content area is titled 'PTZ control port' and contains a section for 'Port 1'. Below this, there are three configuration fields: 'Protocol' set to 'VISCA', 'Address' set to '1', and 'Baud rate' set to '9600'. Each field has a green checkmark icon to its right, indicating it is correctly configured.

### 1.1.4 Audio

Adjust volume and select the audio input source.

The screenshot shows the 'Audio' configuration page. On the left is a navigation menu with 'Media I/O' expanded to show 'Audio'. The main content area is titled 'Audio' and contains two sections: 'Volume control' and 'Audio settings'.  
 The 'Volume control' section has a 'Default' button in the top right. It features four sliders: 'Content (Line in/ HDMI)' at 100, 'Mic in' at 100, 'Wireless Mic' at 14, and 'Output' at 100. A 'Current volume' meter is shown on the right.  
 The 'Audio settings' section has an 'Audio shift' slider set to '200 ms' and an 'Audio input (Content):' dropdown menu set to 'Line in and HDMI 1'. An 'Apply' button is at the bottom.

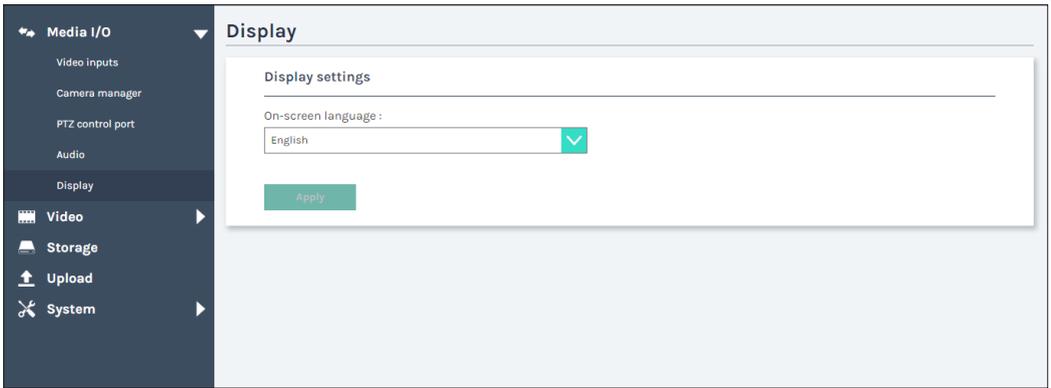
Volume control- Tune the recorded volume from each audio input and adjust the audio output volume. Configurable range of sound input is 0-125, of AREC wireless microphone 0~15. The nearby volume meter indicates the encoded audio volume.

Audio settings- Set AV synchronization and configure the source from each audio input.

- Audio shift: Adjust the delay of sound after video transmission. Synchronize the video and audio with consistency.
- Audio input selection: Select among Line in / HDMI 1 / Line in and HDMI 1 to set the source for audio input 1(Content).

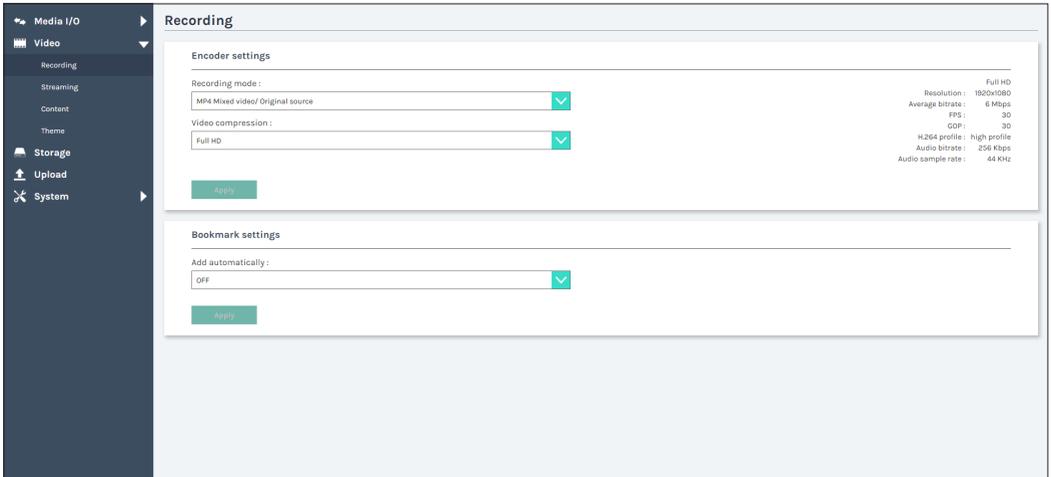
### 1.1.5 Display

Set the LS-300 on screen display language.



### 1.2 Video

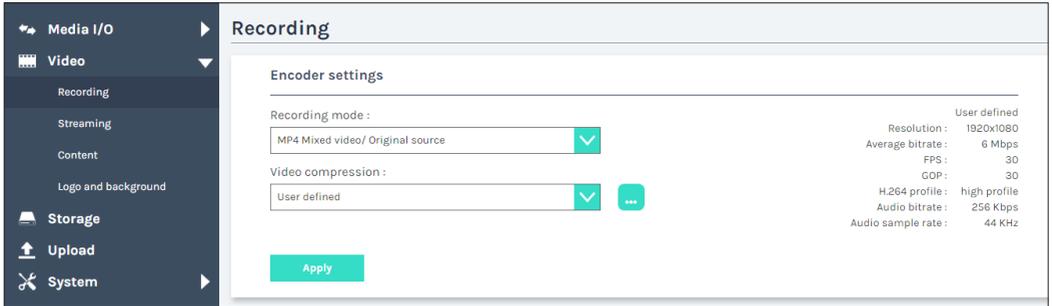
The pages within Video construct a collection of settings that defines the operating characteristics for a streaming/recording, include:



Recording	Configure Encoder settings and Bookmark settings for recording.
Streaming	Configure Encoder settings for streaming.
Content	Edit the information of the content that will be recorded.
Theme	Set the overlay files, background images and theme types.

### 1.2.1 Recording

Set up the [Encoder settings](#) and [Bookmark settings](#) for recording.



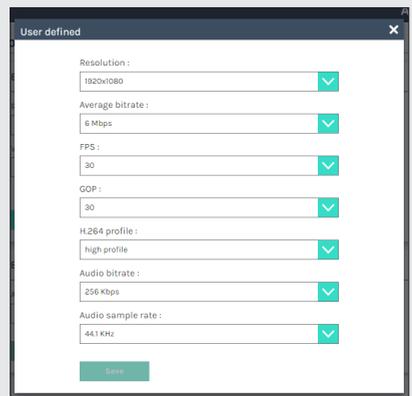
#### Encoder settings

- Recording mode: Available options are MP4 Mixed video and MP4 Mixed video/ Original source.
- Video compression: There are 7 preset recording video compression profiles for different resolution and bitrate. Select one to see the option details on the right side. You may customize your own user defined option.

Profile name	Video Resolution/ Bitrate	Application description
Full HD	1080p/ 6Mbps	Dynamic scene and large local hard disk recording.
Internet Full HD	1080p/ 4Mbps	General scene and medium local hard disk recording.
HD	720p/ 3Mbps	Static scene and small local hard disk recording.
Internet HD	720p/ 1Mbps	Live broadcasting through the Internet.
Internet	480p/ 800kbps	Static scene for live broadcasting through the Internet.
Mobile	480p/ 500kbps	Live broadcasting for portable mobile devices watching.

Click button to open customization window as shown below, and click Save button to make the option changed.

#### User defined



Bookmark settings- Select to add bookmark automatically at a regular period of time, or whenever the layout is changed during recording.

Click Apply button at the bottom corner when finished to apply the settings.

**Bookmark settings**

---

Add automatically :

OFF 



## 1.2.2 Streaming

The page provides user to change streaming settings. It is essential that the configurations follow the streaming protocol and recommended settings your server system supports.

**Encoder settings**

Live streaming :  on

Protocol :

Video compression :  ✓ ⋮

Apply

User defined	
Resolution :	1280x720
Average bitrate :	1 Mbps
H.264 profile :	high profile
Audio bitrate :	256 Kbps
Audio sample rate :	44 KHz

Live streaming: Select ON/OFF to enable/ disable live streaming ability.

Protocol – The available protocol on the LS-300 are RTP and RTMP.

RTMP	In the protocol setting field, copy and paste the Server or Stream URL and Stream name provided by you CDN or server administrator in the format <code>rtmp://serverurl/streamname</code> .
RTP	Enter the destination IP address and the port number where the streaming is played in the format <code>rtp://@ip:port</code> . For example, <code>rtp://@226.10.24.32:7000</code>

Video compression profile – There are 7 streaming video compression profiles for different resolution and bitrate. Select one to see the option details on the right side. You may customize your own user defined option. Click ⋮ button to open customization window as shown below, and click Save button to make the option changed.

Click Apply button at the bottom corner when finished to apply the settings.

Note: The resolution for streaming cannot be larger than that for recording.

**User defined** ✕

Resolution :  ✓

Average bitrate :  ✓

H.264 profile :  ✓

Save

Followings are some popular examples for streaming settings.

Streaming to Facebook Live

Copy the contents of the Single Field, Server or Stream URL, and paste in the LS-300 streaming protocol setting field.

**Create Live Video** ✕

This will create a live video, streamed directly from your professional video equipment or encoding software. This is not for creating live videos from your computer's webcam.

**Secure connection (SSL)**  
 A secure connection is better, but it may not work with all encoders.

Depending on your streaming software, you will use either the Single Field or Separate Fields option below. Copy the contents of these text fields into your video streaming software's set-up fields. [Learn more about live video](#)

**Single Field**

Server or Stream URL

Streaming to Ustream

Combine the contents of both fields: RTMP URL and Stream Key, insert a slash between them. Paste this string into the LS-300 streaming protocol setting field. For example: rtmp:1.15059865.fme.stream.tv/ustreamVideo/15059865/5gmbz4RCa2Hgt9SwTcYUCct6qS137Nar

**Stream Key:**

5gmbz4RCa2Hgt9SwTcYUCct6qS137Nar

**Flash Media Encoder**

Import this file when using

[Download the Flash Media](#)

### Streaming to YouTube Live

Combine the contents of both fields: Primary Server URL and Stream Name, insert a slash between them. Paste this string into the LS-300 streaming protocol setting field.

### Streaming to a media player on a PC in the same LAN with the LS-300

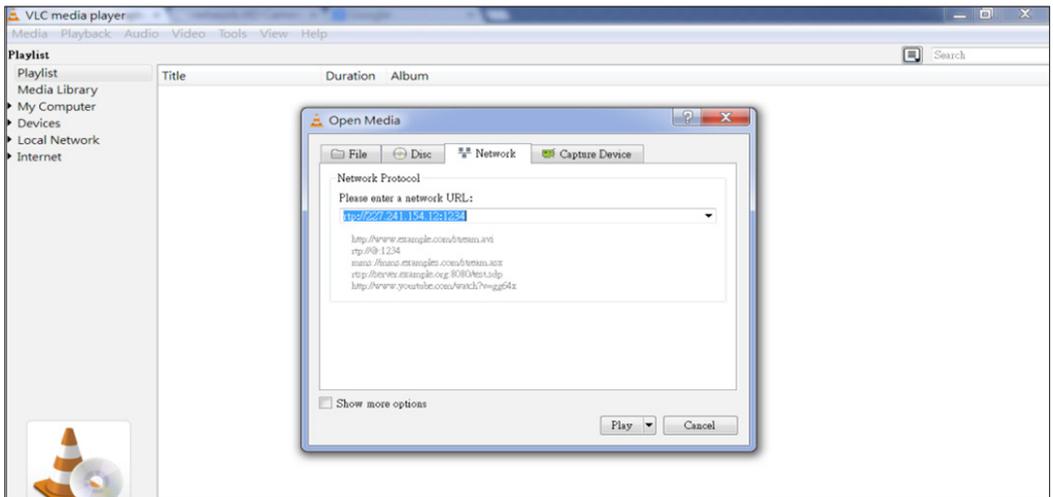
Enter the destination IP address and the port number where the streaming is played in the format `rtp://@ip:port`.

Unicast: For a single point connection, the destination IP must be set to the location where the stream is played.

Multicast: The destination IP must be multicast IP address where it can be shared with multiple viewers.

The LS-300 use IP address: 239.0.0.1 and port number: 5004 as the stream default. The available range of port number is 1024 to 65535.

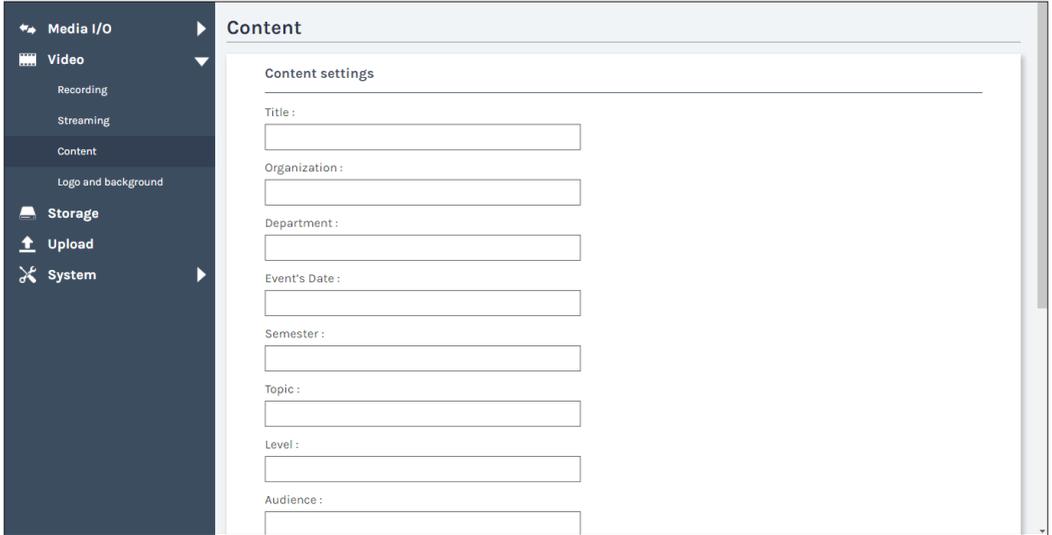
To view the stream from a media player, open the URL in a media player, such as:



### 1.2.3 Content

The LS-300 contains up to 15 user-configurable elements for describing content. These elements and texts will be saved in the recording data of the newly created content. Enter text in the content settings fields if desired. Click Apply button at the bottom corner when finished to apply the settings.

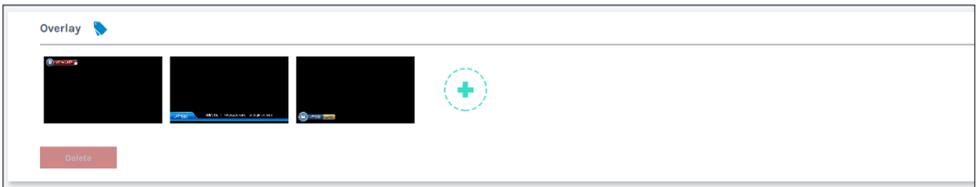
Note: These updates do not apply to the existing recordings. To edit the existing recording information, see Video Manager.



### 1.2.4 Theme

LS-300 by factory default provides three overlays, three backgrounds and four themes.

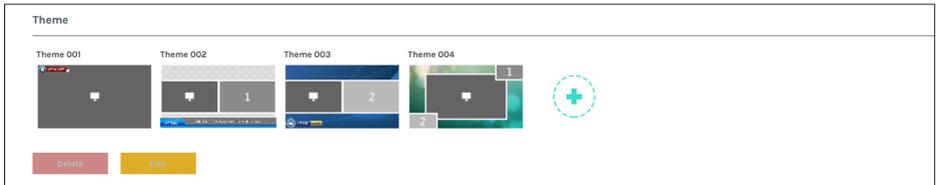
**Overlay :** Select and delete the overlay. Click [ + ] button and select the desired file in the Open dialog box. The file name would appears with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click [ Delete ] Cancel to give it up. Note: The overlay file must be in BMP format, maximum size 1920px\*1080px.



**Background** : Select and delete the background. Click [  ] button and select the desired file in the Open dialog box. The file name would appear with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click [  ] Cancel to give it up. Note: The background file must be in BMP format, maximum size 1920px\*1080px.



**Theme** : Theme is integrated with "Overlay", "Background" and "Layout". KL-3W by factory default provides four themes by different types of overlays, backgrounds and layouts. Click [  ] to set the theme type. Input the theme name, and select the desired type of overlay, layout and background. Click Apply button at the bottom corner to apply the settings.



## 1.3 Storage

The recording files produced by the LS-300 are stored on its own internal hard drive. This page provides user to set loop recording of internal storage drive and reveals the disk information in the lower section.

**Storage**

**Record disk settings**

Local storage :  
Internal

Front USB recording :  
on

Loop recording :  
on

Apply

**Disk information**

Interface	Disk name	Manufacturer	Capacity	Total	Format
SATA	Internal	ATA SAMSUNG HD160JJ	646.90 MB	146.71 GB	Format

Record disk settings-

- Local storage: The internal hard drive of LS-300 is preset for storing the recorded files.
- Front USB recording: Set ON/OFF to enable/disable LS-300 front USB recording function. Make sure the front USB drive connected can be normally read and written and have enough space for the recorded files.
- Loop recording: Set ON/OFF to allow/prevent that the device automatically delete the oldest recordings to make enough space for new recordings.

Click Apply after setup is completed. New setting takes effective from next recording being created.

Disk information- Displays disk information, available storage space and total capacity. Click "Format" to clean up the internal storage drive. A dialog box opens asking you to confirm the disk formatting. Click Confirm to permanently delete all recording packages.

## 1.4 Upload

The LS-300 is able to automatically upload recordings from its internal drive to a network server. In this page, user can configure the upload destination and tests the connection.

The screenshot shows the 'Upload' configuration page. On the left is a navigation menu with options: Media I/O, Video, Storage, Upload (selected), and System. The main content area is titled 'Upload' and contains 'Upload settings' with the following fields:

- Auto upload: A dropdown menu set to 'After recording is completed' with a green checkmark.
- Mode: A dropdown menu set to 'FTP' with a green checkmark.
- IP address: A text input field containing '10.2.50.188'.
- Port: A text input field containing '21'.
- Folder: A text input field containing 'KL3W' with a clear 'X' button.
- Authentication: A dropdown menu set to 'Normal' with a green checkmark.
- User name: A text input field containing 'admin'.
- Password: A text input field with masked characters '\*\*\*\*\*'.

At the bottom left of the settings area is a green 'Apply' button. On the right side of the settings area is a blue button labeled 'Connection test' with a cloud and server icon.

Auto upload- Select from the drop-down list. Start uploading "after recording is completed", or turn "OFF" the function. Followings to be configured according to the upload destination.

- Mode: Select network server type.
- IP address, port, or domain name: Configure these fields according to the upload destination.
- Folder: Enter the folder name of the upload destination.
- Authentication: Configure this section according to the upload destination authentication method.

Connection test- Click the Connection test button to validate upload settings.

Click Apply after setup is completed. New setting is effective from next recording being created.

The upload status/result of the corresponding recordings is denoted in the Video Manager web pages.

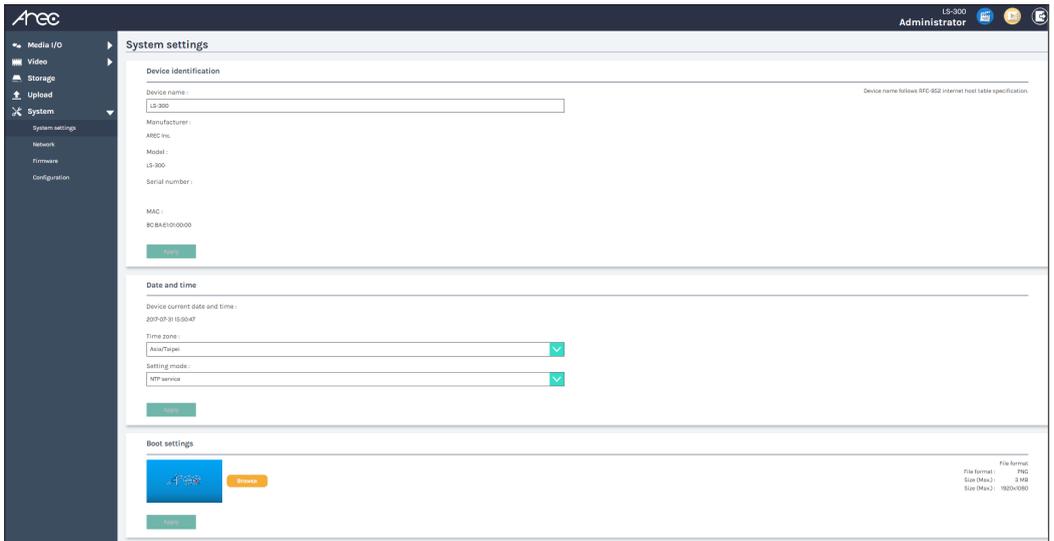
## 1.5 System

The pages within System include the following:

<b>System</b> <ul style="list-style-type: none"> <li>System settings</li> <li>Network</li> <li>Firmware</li> <li>Configuration</li> </ul>	System settings	Contains device identification, date and time configuration, and booting settings.
	Network	The device IP assignment in the networking.
	Firmware	Displays the current firmware version, and provides web-based user a way to update firmware for the device.
	Configuration	Export / Import the configuration.

## 1.5.1 System settings

The basic information and initial date/time of this device are configured here.



Device identification – Set the name (host name) for this device.

Date and Time – Set the device date, time, and time zone manually/ be synchronized to PC, or with an external NTP (network time protocol) server.

Boot settings – Change the boot screen image. The boot screen is the image you will see when you boot up the device.

Click Browse button and select the desired file in the Open dialog box. The file name would appear with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click **Cancel** Cancel to give it up.

Note: The boot screen file must be in PNG format, maximum size 1920x1080px.

## 1.5.2 Network

By default LS-300 uses DHCP to obtain an IP Address via a router or any DHCP server. To use a static IP address for your device, configure the network settings in this webpage.

The screenshot displays the Arec LS-300 web interface. The top right corner shows 'LS-300 Administrator' with several status icons. The left sidebar lists various system settings, with 'Network' selected. The main panel, titled 'Network', contains a 'Network settings' section. A warning message indicates that the system will reboot after changes. The settings include: IP assignment (set to DHCP), IP address (10.0.0.107), Subnet mask (255.255.255.0), Default gateway (10.0.0.254), and DNS server (Primary DNS: 10.0.0.1). An 'Apply' button is visible at the bottom left of the settings area.

IP assignment – Select DHCP to have IP address be allocated by a router or any DHCP server being connected; or Select Static IP and enter the required network settings including IP address / subnet mask / default gateway/ DNS server.

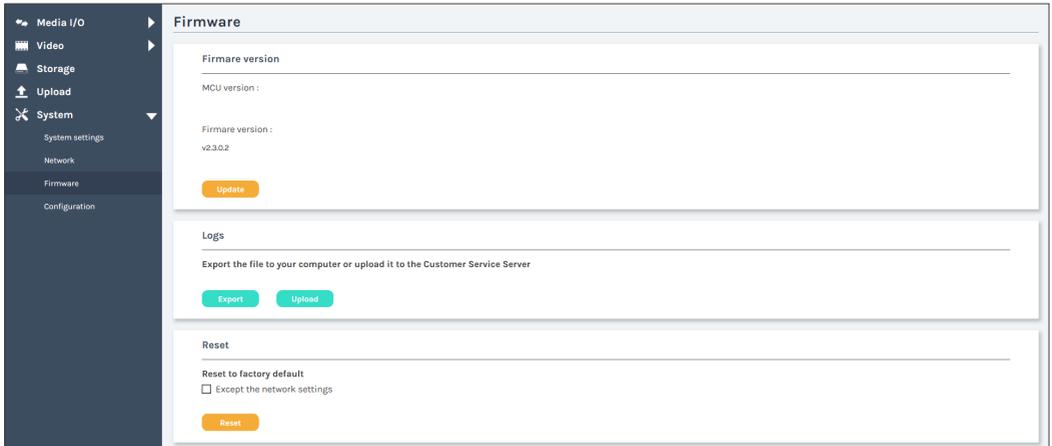
Click Apply at lower right corner, click Confirm in popup dialog box.

Note: The system will automatically reboot to complete the network settings. Login the updated IP address after the system restarts.

### 1.5.3 Firmware

This page displays the device firmware version. To update the firmware, click "Update" and a dialog box opens asking you to select the file. Select the desired file and click "Open", the dialog box closes and the file name appears underneath. Click "Apply" to start firmware update. Click "Cancel" if the uploaded file is no longer wanted.

Note: System will reboot automatically when the firmware update is completed. It might takes a few minutes. Do not shutdown/ power off the system during firmware updating.



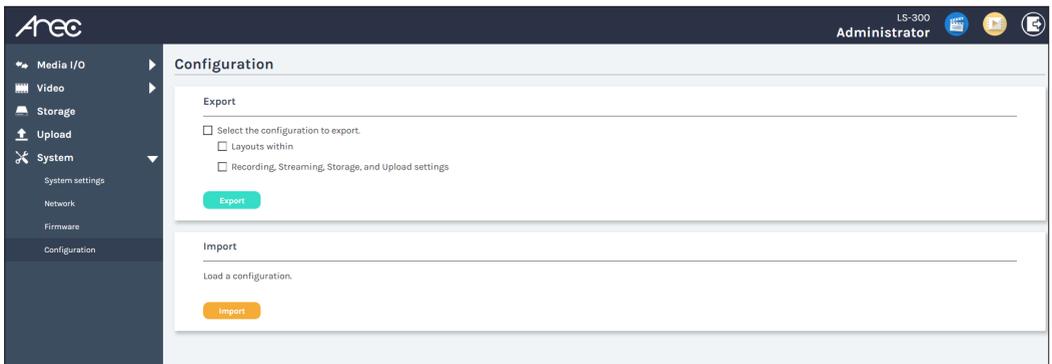
**Log** : Export the log file to your computer or upload it to the Customer Service Server. Input the file name, and then click "Export" or "Upload".

Note : The length of the string is 0~16 characters, allowing letters, numbers, symbols 11(~!@\$%^&\*+~\_).

**Reset** : Reset to factory default. Check if you want to keep your network settings, and click "Reset". The dialog pop out and ask you "System will reboot after setting update, continue?" Click "Confirm" to start reset.

### 1.5.4 Configuration

You can export or import the configuration in this page:



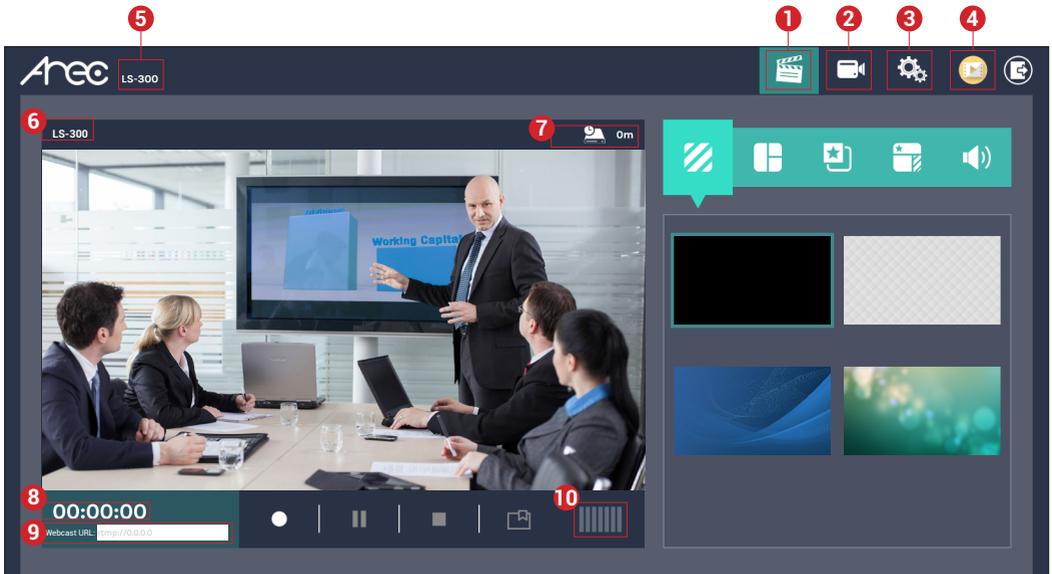
**Export** : Select the configuration to export and click "Export".

**Import** : Click "Import" to load a configuration.

## Chapter 2 Online Director

The LS-300 embedded Online Director web pages allow user to control recording and have a live stream view of the output video. This director control panel makes it easy to apply layout, select background, and control the audio recorded during the recording process.

Entering the Online Director webpage via [Administrator] by clicking the  button and opening a new tab; or login Online Director from the initial login page with default username director and password director. Both ways lead to the Online Director control panel for web-based users.

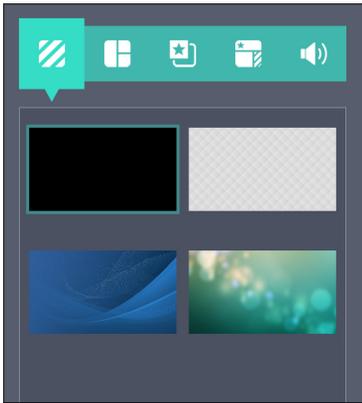


These Web pages provide the following features and information about:

1. A live view window and a control panel of the LS-300 recording and streaming.
2. A simplified setting page to configure the content that is going to be recorded and streamed.
3. A visual sources monitoring exclusive panel which allow user to control and monitor the cameras providing the video source.
4. A Video Manager hyperlink to manage the content stored in the LS-300.
5. Device description, which is configurable for system Administrator, indicates the device location...etc.
6. Title of the content that is being/ or going to be recorded and streamed.
7. Storage capacity which is converted into remaining time for recording.
8. Recording/ Streaming status and timer.
9. Webcast URL displayed in this section is configured in the setup page for live streaming service.
10. Audio volume meter indicates the audio volume of the content being recorded and streamed.

## 2.1 Recording controls panel

There are three tab panels for quickly switching recording background, layout, and adjusting volume.



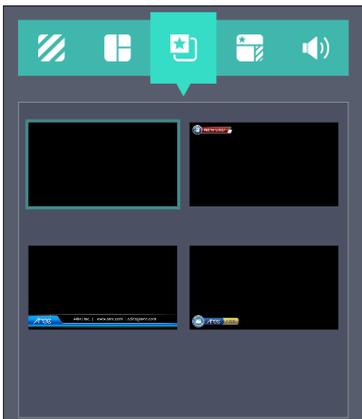
### 2.1.1 Background

Display the available background images for Online Director controlling. Click the background thumbnail to apply it to the video. LS-300 by factory default provides one plain black background and three user-configurable backgrounds. See Administrator \ Video \ Theme for more detail.



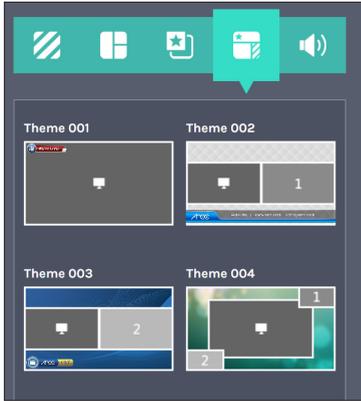
### 2.1.2 Layout

There are layout templates which are factory default layouts and pre-defined into three groups. User can apply layout to the live view window, recording session, and web streaming all at once. Click the layout template to select the desired layout.



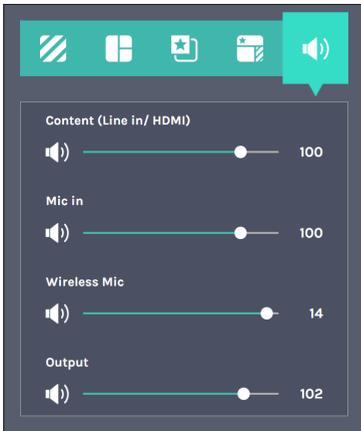
### 2.1.3 Overlay

LS-300 by factory default provides one plain black layout and three user-configurable layouts. Click the overlay thumbnail to apply it to the video. See Administrator \ Video \ Theme for more details.



### 2.1.4 Theme

Theme is integrated with "Overlay", "Background" and "Layout". LS-300 by factory default provides themes by different overlays, backgrounds and layouts. See Administrator \ Video \ Theme for more details.



### 2.1.5 Volume control

The audio control bar is to adjust the recorded volume from each audio input and adjust the output volume. Adjustable range of sound input is 0-125, AREC wireless microphone 0~15.

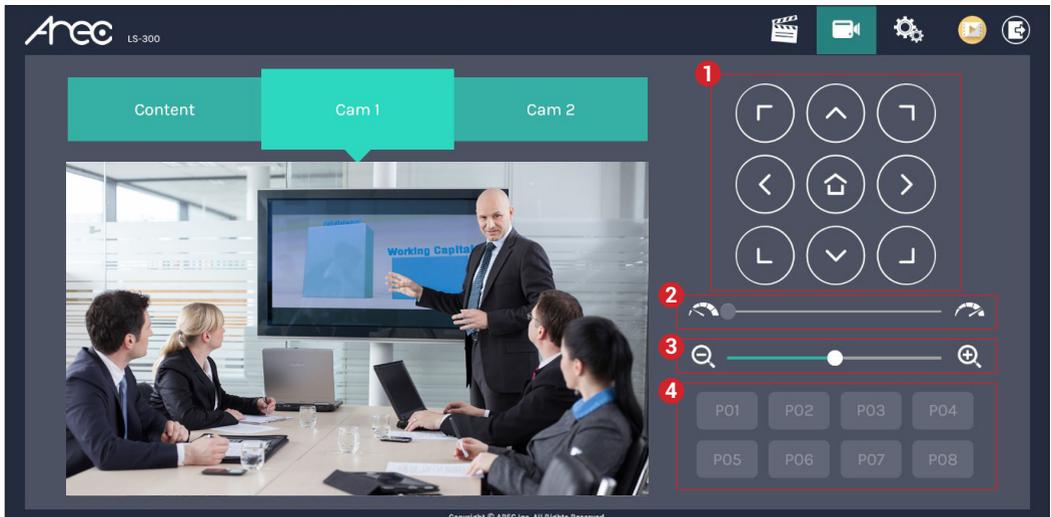
## 2.1.6 Recording control buttons

Buttons are:

	Record	Click Record and recording begins. The Record button is red to indicate active recording.
	Pause	Click Pause to pause recording. The preview and the output video are also suspended while recording is paused. To resume recording, click Record.
	Stop	Click Stop to end a recording
	Bookmark	Click Bookmark to add bookmark during recording.

## 2.2 Visual Sources Monitoring

It makes easy for user to control and monitor each video input. Click the tab with the video input name on it to switch the monitoring window. In the case of a PTZ camera, the direction control panel, zoom in/out control bar, and up to 8 preset positions are enabled.



The screenshot displays the Arec LS-300 software interface. At the top, there is a navigation bar with 'Content', 'Cam 1', and 'Cam 2' tabs. The main video window shows a meeting scene with a man presenting to a group of people. On the right side, there is a control panel with four numbered sections:

- 1. Direction control panel:** A grid of nine arrow buttons (up, down, left, right, and center) for moving the camera.
- 2. Movement speed:** A horizontal slider with a play button icon on the left and a stop button icon on the right.
- 3. Zoom in/out:** A horizontal slider with a magnifying glass icon on the left and a zoom-out icon on the right.
- 4. Preset positions:** A grid of eight buttons labeled P01 through P08.

1. Direction control panel: Click the arrow buttons to move the camera.
2. Movement speed: Move leftward or rightward to set slower or faster the camera is moving.
3. Zoom in/out: Click the buttons or drag on the control bar.
4. Preset positions: Click the buttons to command that the camera go to the preset position.

## 2.3 Recording/Streaming setup

The page provides user to change settings for recording, streaming, content, logo and bookmark adding.

The screenshot shows the Arec LS-300 settings interface. It is divided into three main sections: Recording settings, Streaming settings, and Content settings. The top navigation bar includes the Arec logo, the model number LS-300, and several icons for video, settings, and user management.

**Recording settings:**

- Recording mode: MP4 Mixed video/ Original source (dropdown menu)
- Video compression: Full HD (dropdown menu with an information icon)

**Streaming settings:**

- Live streaming: OFF (dropdown menu)
- Video compression: Internet HD (dropdown menu with an information icon)
- Protocol: rtmp://0.0.0.0 (text input field)

**Other settings:**

- Bookmark settings (Auto): OFF (dropdown menu)

**Content settings:**

- Title: (text input field)
- Organization: (text input field)
- Department: (text input field)

Additional elements include a "more ..." button and an "Apply" button at the bottom right. A small copyright notice "Copyright © AREC Inc. All Rights Reserved." is visible at the bottom center of the interface.

### 2.3.1 Recording settings

- Recording mode: Available options are MP4 Mixed video and MP4 Mixed video/ Original source.
- Video compression: There are 7 preset recording video compression profiles for different resolution and bitrate. Click  to see the details. The user defined profile can be configured by system Administrator only. See [Administrator \ Video \ Recording for more details](#).
- Record storage: The internal hard drive of LS-300 is preset for the record storage. Select "Internal drive only" for storing the recorded files; or select "Auto" which means the files will be stored in both the internal storage and the external front USB drive.

Note: Make sure the front USB drive is properly connected and with enough space for the recorded files.

### 2.3.2 Streaming settings

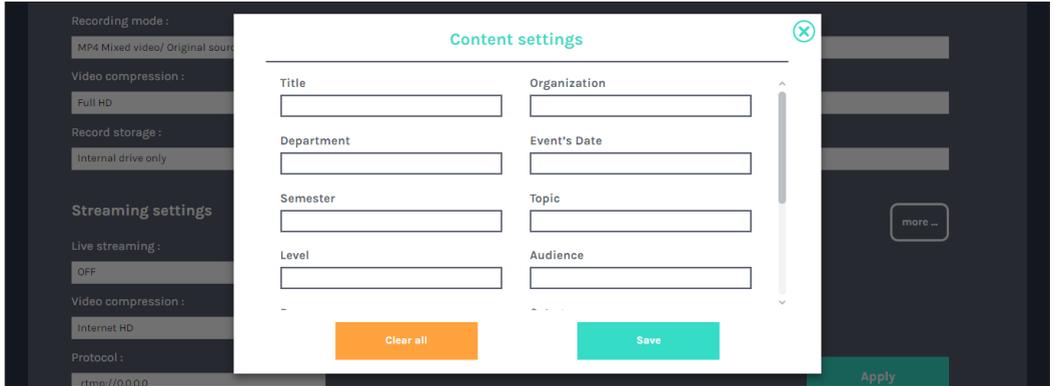
- Live streaming: Select ON/OFF to enable/ disable live streaming ability.
- Video compression: There are 7 preset recording video compression profiles for different resolution and bitrate. Click  to see the details. The user defined profile can be configured by system Administrator only. See [Administrator \ Video \ Streaming](#) for more details. Note: The resolution for streaming cannot be larger than that for recording.
- Protocol: Copy and paste the destination Server URL and Stream name provided by your CDN or server administrator, in the format rtmp://serverurl/streamname.

### 2.3.3 Other settings

- Bookmark settings (Auto): Add bookmark automatically at a regular period of time, or whenever the layout is changed during recording.

### 2.3.4 Content settings

The LS-300 contains up to 15 user-configurable elements for describing content. These elements and texts will be saved in the recording data of the newly created content. Enter text in the content settings fields if desired. Click **more ...** to open more elements of content description. Click **Clear all/ Save** to temporarily erase/ preserve the texts in the field; These texts will not be validated until that the **Apply** button on the previous page is clicked and executed.



The screenshot shows a 'Content settings' dialog box overlaid on a dark-themed settings page. The dialog box has a title bar with a close button (X) in the top right corner. It contains two columns of text input fields. The left column includes fields for 'Title', 'Department', 'Semester', and 'Level'. The right column includes fields for 'Organization', 'Event's Date', 'Topic', and 'Audience'. At the bottom of the dialog, there are two buttons: 'Clear all' (orange) and 'Save' (teal). The background settings page shows various options like 'Recording mode', 'Video compression', 'Record storage', 'Streaming settings', 'Live streaming', and 'Video compression'.

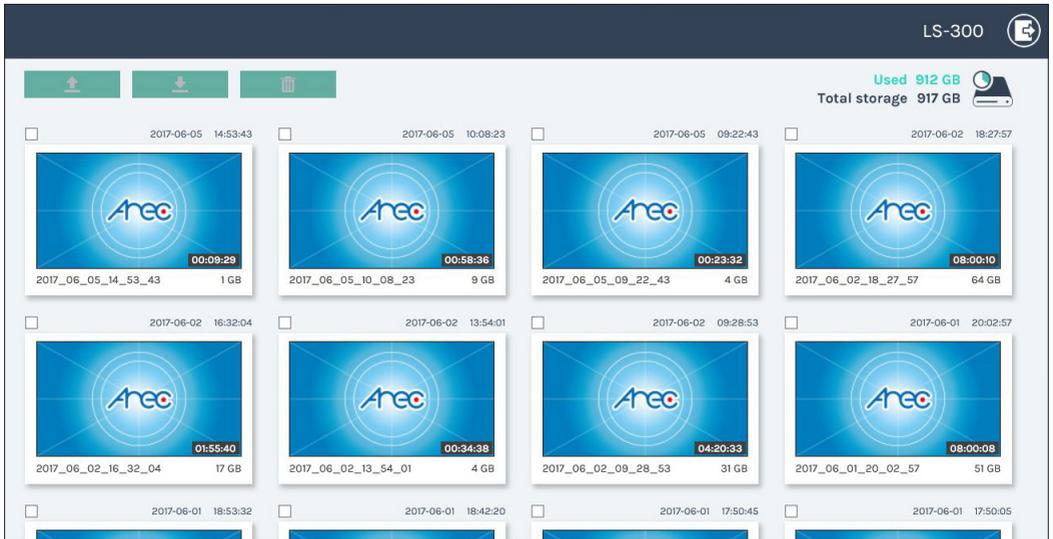
Note: These updates do not apply to the existing recordings. To edit the existing recording information, see Video Manager. Click **Apply** button at the bottom corner when finished to apply the settings.

## Chapter 3 Video Manager

The LS-300 embedded Video Manager provides access to recordings produced by LS-300 itself and stored in the internal storage drive. The video list is in descending order by the time of occurrence.

Entering the Video Manager webpage via [Administrator] or [Online Director] by clicking the  button and opening a new tab; or log in Video Manager from the initial login page with default username video and password video.

The Video Manager includes the following features:upload, download, delete, playback the recording and edit the recording information.



### 3.1 Upload the recording

Select the desired recording and click  to add it in the upload queue. The upload destination is pre-configured by system administrator. See [Administrator\ Upload](#) for more details. The LS-300 arranges the upload sequence automatically and indicates the upload status/result on the corresponding recordings. The following indicators are used:



Icon	Upload Status
	The recording package are uploaded successfully.
	The recording upload is failed.
	The recording is in the upload queue.
	The recording is uploading at this moment.

### 3.2 Download the recording

Select the desired recording and click . Select Save if offered the choice to Open or to Save the package. The recording packages are downloaded to your computer in the form of a .mp4 file. These are typically saved to the default download location used by your browser.

The recording package may contain more than one .mp4 files if that is recorded in MP4 Mixed video/ Original source recording mode.

To separately download the files in the recording packages, click on the recording thumbnail and access those in the Content information page.

### 3.3 Delete the recording

Recording packages can be deleted manually to make room for new recordings.

Select the recording and click . A confirmation dialog box opens asking you to confirm the deletion. Click Confirm to permanently remove the recording packages. The list may not update immediately. Refresh the list by reloading this webpage.

### 3.4 Playback the recording

Click on the desired recording and you will be directed to the content information page. Use the player controls at the bottom of the window to watch the video.

There might be more than one files listed under the window if the content is recorded in MP4 Mixed video/ Original source recording mode. Select the video for playback by clicking on the image of the desired one.

The title used for Mixed video is "Movie", and those for Original source(s) are the name of the corresponding video input(s); by default are Content, Cam 1 and Cam 2. To separately download MP4 Mixed video/ Original source files, select the desired file and click Download. The file size being download is shown within the button.

1. Title of the video file being played
2. Recording date and time
3. Edit the content fields
4. Playback window
5. Playback controls
6. Video files and data set (files containing metadata, thumbnail images, and bookmarks.)
7. Download button

### 3.5 Edit the recording information

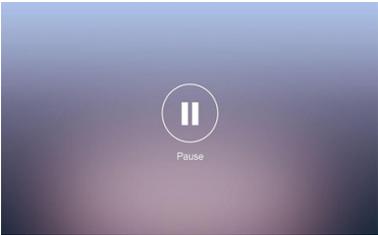
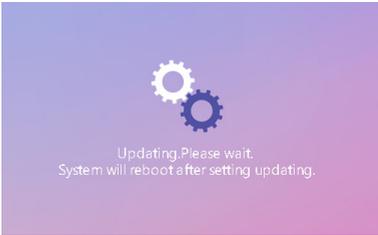
If you require to edit the information of a recording, click on the desired recording and you will be directed to the content information page. Replace the existing text or enter new information in the content fields. Click APPLY to save the changes.

## Table of On Screen Display Icons

The LS300 provides a HDMI preview output for recording monitoring. On screen display there are recording/streaming indicators, event icons and sometimes the error operation warnings.

<p>00:00:15</p> <p>Recording/ Streaming timer</p>	<p>IP address</p> <p>Device WAN IP Address</p>	<p>Audio volume meter</p>	
<p>Recording in progress</p>	<p>Manually add Bookmark</p>	<p>Disk full</p>	<p>Network connection failure</p>
<p>Live Streaming and recording in progress</p>	<p>Auto add Bookmark</p>	<p>Wireless microphone connected</p>	<p>Display failure</p>
<p>Live Streaming</p>	<p>Live Streaming error</p>	<p>Audio output mute</p>	<p>Recording is paused</p>

 <p>Front USB recording error</p>	 <p>HDCP protected source</p>	 <p>Operation is denied</p>	 <p>Front USB recording</p>
 <p>Disk failure</p>	 <p>Uploading</p>	 <p>Front USB drive mount</p>	

 <p>Recording is paused</p>	 <p>Firmware updating</p>
 <p>Firmware update failure</p>	 <p>Fan failure</p>
 <p>Shutdown confirmation</p>	



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