



GETTING STARTED WITH YOUR

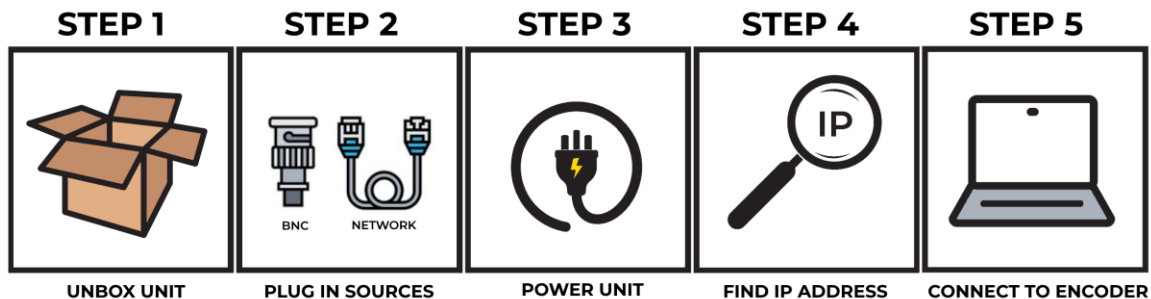
LEXI VIEWER (AV610)

Contents

Introduction	Error! Bookmark not defined.
Network Setup	4
Setting a Static IP address on Lexi Viewer.	4
Accessing the Web Interface of the Unit.	6
Connecting the Video Source and / or Audio source for the Lexi Viewer.	7
Front Panel	9
Web Interface Pages	10
Display Tab.	12
iCap Tab.	15
Lexi Tab.	16

Quick Setup Guide

This guide will indicate how to initially setup your AV610 encoder.



STEP 1

Remove the AV610 from the box or crate.

Within the shipment you will also find the following:

- 1 x IEC to IEC power cable & 1 x IEC to (UK or EU) power cable.

Place the AV610 within a Rack Frame or suitable area and proceed to STEP 2.

STEP 2

Plug an Ethernet Cable/RJ45 connector (Provided by the customer) into your network infrastructure and then into the back of the AV610 Unit.

SDI BNC cables (depending on the workflow, up to 4 cables may be required. (to the source signal to the unit and to connect the destination from the unit).

STEP 3

Using the provided and appropriate cable (From STEP 1), plug the IEC Cable into the back of the AV610. This will turn on your AV610 Encoder.

STEP 4

To find the IP Address of your Unit, we must use the Arrows on the Front Panel.

Go to System Setup -> Network -> IPV4 -> IP Address

(Press the Green Tick to go into the menu option where you see a “->” above)

STEP 5

Go to a web browser on a laptop or PC (Customer Provided), that is connected to the same network as the Encoder and type in the IP Address of the AV610 in the address bar. <http://XXX.XXX.XXX.XXX>
Press ENTER.

Network Setup

To use iCap or Lexi and to access further features on the Lexi Viewers's web interface, you must first select Network Settings from the front panel LCD menu and setup the unit on your network. Also, the unit will require internet access to connect to the eegcloud.tv and eegicap.com domains for both Lexi ASR captioning and / or Human captioning. If the venue has a firewall in place that is restrictive on outbound traffic, the following Ports and IP addresses will need to be allowed out from the unit for full functionality. Failure to do this, will result in the Lexi Viewer not connecting to the required services to provide the caption generation.

Here are the ports and IP addresses required to be opened for the Lexi Viewer.

Port	Protocol	Destination (Required)	Destination (Optional)
9736	TCP	54.235.150.124, 54.84.222.79, 54.193.101.112, 52.11.108.94	54.85.144.87, 54.193.41.201, 44.229.71.136, 18.236.34.114, 13.52.203.48, 54.206.1.214
9738	TCP		
9744	TCP		
6900-6910	UDP		

The unit will have been shipped preconfigured for Dynamic Host Control Protocol (DHCP). If there is a DHCP server on the network, the Lexi Viewer will try and obtain an IP address, Subnet Mask and Gateway address.

To check the IP address of the unit, on the LCD Panel, go to Network Settings, (IPv4) IP Address. This will be the IP address of the Lexi Viewer and is the IP address that is to be used to access the Web Interface to continue to setup the unit.

If your network does not have a DHCP server, then configuration of a Static IP address on your network is required.

Setting a Static IP address on Lexi Viewer.

Setting the IP address on Lexi Viewer can only be done from the Front Panel. To set a Static IP address on the Lexi Viewer:

Goto Network settings on the unit, go to (IPv4) Set Config, and change the config from DHCP to Static.

Then go to IP address and using the LCD buttons, input the required IP address. Once complete, press the Green Tick button. NOTE: IP address will does require 3 digits per octet, therefore if inputting an IP address or 192.168.10.10, you would need to input 192.168.010.010

Next, go to Subnet mask, and input the subnet mask for your network. Once complete, press the Green Tick button.

Next, set the Gateway IP address. Again, this uses 3 digits per octet, therefore if inputting an IP address of 192.168.10.1 as the Gateway address, you will need to input 192.168.010.001. Once completed, press the Green Tick.

Finally, Goto DNS Servers, and input the DNS servers for the network. Once complete, press the Green Tick. Note: The Lexi Viewer unit uses Name Resolution to connect to the eegcloud.tv and eegicap.com services, so a valid and working DNS address must be configured on the unit.

Accessing the Web Interface of the Unit.

Once the unit has been successfully configured to your network (either via DHCP or a static address), using a browser from another computer, goto the IP address of the unit. For Example, <http://192.168.0.10>

You will then be presented with the following Screen.

The screenshot shows the EEG AV610 web interface. The top header includes the EEG logo, 'ai media', the unit ID 'AV610 - ID', and navigation buttons for 'Main' and 'Modules'. The sidebar menu on the left contains options like 'Main', 'Alarms', 'Audio Settings', 'Clone', 'Date/Time', 'Display', 'iCap', 'Lexi', 'Logs', 'Network', 'Product Info', 'Serial Ports', 'Startup Settings', 'Streaming', 'Telnet', 'Terminal', 'Text Server', 'Update', and 'Video'. The main content area is titled 'General System Information & Status' and displays various system metrics in a table format. Red boxes and numbers highlight the following areas:

- 1. iCap Status: Connected to remote server (Active)
- 2. Video Inputs: Main: none Aux: none
- 3. Test Captions: Not running (with a 'Switch Test captions On' button)
- 4. Video Tab in the sidebar menu
- 5. Display tab in the sidebar menu
- 6. iCap tab in the sidebar menu
- 7. Lexi tab in the sidebar menu

v0.1.30 - Page generated in 0.27 seconds

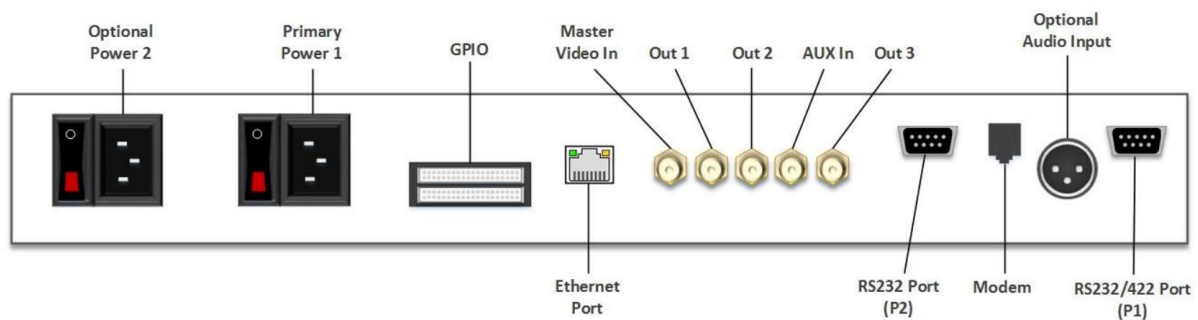
The above highlighted areas are the main areas you will need to take notice of / interact with.

1. iCap Status – This field indicates the status of the unit in connection to the eegicap.com service. The above shows a good connection where the unit has logged in and is available. If this is showing as not connected, then you will need to check the settings in '5 iCap'.
2. This shows if the unit is receiving a Valid SDI signal. If a valid signal is present on the Main input, here is where the resolution and frame rate will be shown.
3. This is where you can enable and disable Test captions from the unit. This can be useful in verifying the output of the unit in the workflow.
4. Video Tab. This is where you can see the input video the unit is receiving. This is a very low frame rate, and the image is updated once every 5 seconds.
5. Audio Settings Tab. This is where you configure the audio source the unit will be captioning.
6. Display Setting Tab. This is where you will configure the output and 'look' of the captions the unit will be overlaying.
7. iCap Tab. This tab details the configuration required for connecting the unit to the iCap service. This will be preconfigured on your rental unit for you.
8. Lexi Tab. This allows you to start and stop the Lexi client on the unit.

Connecting the Video Source and / or Audio source for the Lexi Viewer.

The Lexi Viewer unit accepts only SDI video in and produces SDI video out with captions. Depending on the Display Mode the unit is configured for, will depend on which output is required to be connected to the destination.

Below is a diagram of the Back panel of the unit.



Primary Power 1 – The power connector that is to be used if only connecting a single power source to the unit.

Optional Power 2 – The power connector that can be used in addition to the primary power source connector.

GPI In and Out – Two blocks of 8 GPI input switches and 8 GPO output notifications. Switch functions vary based on software configurations. Not required for normal operation.

Ethernet Port – Required to be connected to your network for the unit to receive caption data from eegcloud.tv and iCap network (both Lexi and Human Captioners). The unit will be reachable on your network using the Static or DHCP IP address set in the front panel configuration menu. (See Network Setup)

Master Video IN – Input for the Main SDI Source. Will accept 3G-SDI, HD-SDI and SD-HDI signals.

Out 1 – Relay-bypass protected Master Video Output.

Out 2 – Non Relay-bypass protected copy of the Master Video In Signal.

Aux In – Optional SDI Video in source.

Out 3 – Replay-Bypass protected Aux Video Output.

Note: In Caption Decoder and Scaler modes (See Display Section for further information) a valid SDI signal is required to be present on the Master Video In BNC connector. The captioned output will be available on the Out 1, Out 2 and Out 3 BNC connectors. If the unit is in Background or Full screen Mode, the Caption output will be available on Out 3 only.

Note: If the audio required to be captioned is embedded in the SDI signal, and the Lexi Viewer unit is set to Background or Full Screen Mode, a valid SDI signal containing the Audio will still need to be connected to the unit via the Master Video In connection.(see Audio Settings Section for further information).

In Background and Full Screen Modes, the captioned output is available on the Out 3 BNC connector.

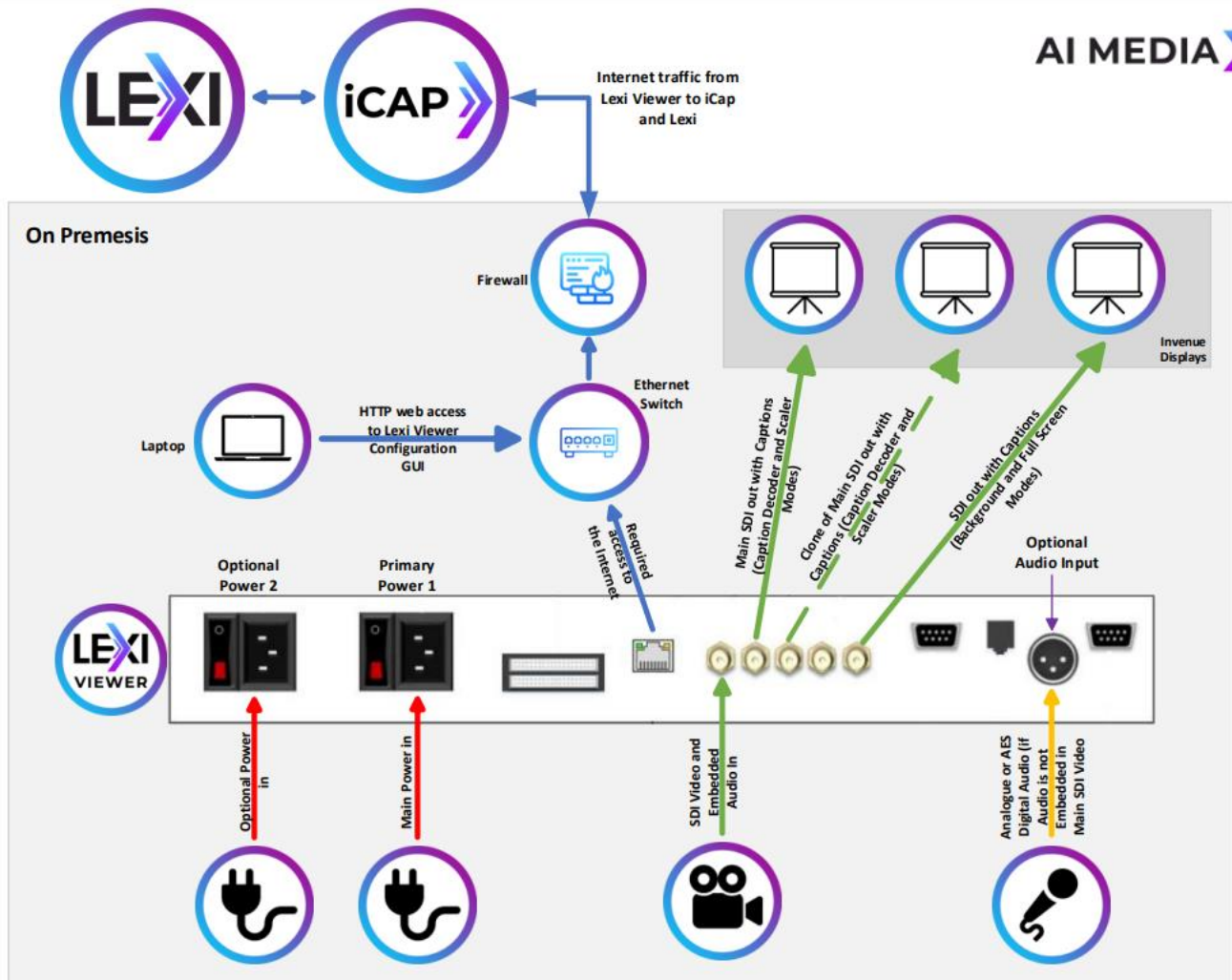
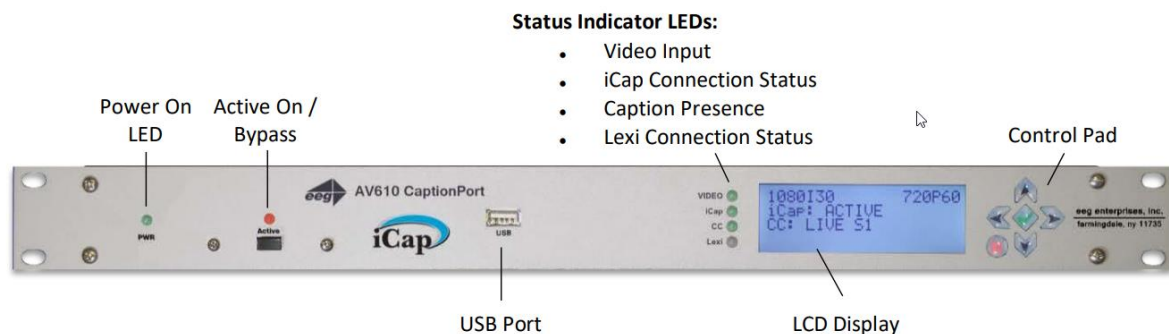


Diagram of typical connections made to the rear panel of Lexi Viewer.

Front Panel



The front panel of the unit gives a visual indication to the status of inputs and services the unit is connected to.

Power Switch – There is one power switch on the rear panel for each of the power cables connected.

Power ON LED – There is one Power LED for each power supply connection provided to the unit.

Active On LED – The Active On LED will be lit Green if the unit is in Active mode (creating captions). The LED will be off if the unit is in Relay Bypass Mode.

Active button – This enables and disables the captions on the output. If the LED above the button is off, then the unit is not in Active mode but in Relay Bypass mode. In this mode, the input signal of the Master Video In Connector is routed directly to the Master Video Out Connector (Out 1), and also, the signal (if connected) present on the Aux In Connector, will be routed directly to the Out 3 Connector. (See Connecting the Video Source and / or Audio source for the Lexi Viewer.)

Status Indicator LEDs – There are 4 Status indicator LEDs next to the LCD Panel. These are (from Top to Bottom):

Video Input – If there is a Valid SDI signal present on the Master Video In connector, this will be lit Green. If the LED is Red, this indicates that there is either no SDI signal present or is not of a format recognised by the unit.

iCap Connection Status – If the unit has successfully logged into the iCap network, this LED will be Green. (See the iCap Page on the unit's Web Interface)

Caption Presence – If the unit is receiving caption data, this LED will be Green

Lexi Connection Status – If Lexi details have been configured, this LED will be Green if the unit has successfully logged into eegcloud.tv for Lexi captions. (See Lexi Page on the unit's Web interface)

LCD Screen - The LCD Screen provides access to the unit's front panel configuration menu. Status information is displayed when the menu is not in use. Press the 'check mark' (green tick) button to enter the menu at any time.

Control Pad - The Control Pad provides menu navigation for the front panel configuration menus. The control pad buttons are: ENTER (marked by a check), CANCEL (marked by an 'X'), LEFT, RIGHT, UP, and DOWN.

Web Interface Pages

Audio Settings Tab:

From the Web GUI of the Lexi Viewer unit, you have the option to select the source Audio from which the captions to be displayed.

Going to the Audio Settings Tab of the encoder will display the following page:

Audio Settings

Audio Settings	
Input Select	Embedded
Program 0	
Audio Group	1
Audio Mix	Stereo
Stereo Channel	1 & 2
Mono Channel	1
Scale Audio	0 dB
Peak Level	-95 dBFS 0%

Save Settings

Reset Settings

Default Settings

The Lexi Viewer unit can accept audio from 1 of 3 different sources (Input Select). The options available are:

Embedded – If the Audio required to be captioned is present on the Master Video In SDI connector, then this is the option you will need to select.

Analog – If the audio source required to be captioned is supplied to the unit via the optional Audio

input on the rear panel (XLR) and is Analog, then this is the option would need to be selected.

AES digital – If the audio source required to be captioned is supplied to the unit via the optional Audio input on the rear panel (XLR) and is AES Digital, then this is the option would need to be selected.

Audio Group: If the Lexi Viewer is set to Embedded, then use this field to select the correct Audio Channel (Default is 1)

Audio Mix – Default is Stereo. Options available are Surround, Stereo and Mono.

Stereo Channel: Only Available if the Audio Mix is set to Stereo. Select from 1&2 or 3&4.

Mono Channel: Only available if the Audio Mix is set to Mono. Select from 1-4.

Scale Audio: Allows for the boosting or attenuation of the incoming video. Options available are from +12dB to -12dB in 6dB steps.

Peak Level - A VU meter showing the level of the Audio being received for the configured source.

Note: Any changes made on this page will require the user to click on the Save Settings button before becoming active. Moving off this page before clicking on the Save settings will result in all changes being lost.

Display Tab.

This page allows you to configure the output of the Lexi Viewer unit to suit your needs.

There are 4 display types available. These are:

Caption Decoder, Scaler, Background and Full Screen.

Caption Decoder

Display Configuration

Mode	Caption decoder ▼	
Font	Serif ▼	Delete this font
New font	Choose File No file chosen	
Text size	Standard ▼	
Color	Default ▼	

Caption Decoder – This option will display the captions in a ‘traditional’ style (overlaid onto the video like your home TV style). The options for the mode of operation are:

Font – Allows you to select any font that is installed on the unit. Default options are Serif, Sans Serif, Monospace Serif and Monospace.

New Font – Allows you to upload a font that can assist in the branding etc of the event. This will then appear in the font option.

Text Size – Allows you to adjust the size captions. Options available are Default (Standard), Small, Standard and Large.

Color – Allow for the changing of the color of the text. Available Options are Default (White) Blue, Cyan, Grey, Green, Magenta, Red, White and Yellow.

Scaler Mode

Display Configuration

Mode	Scaler ▼	
Text position	Below video ▼	
Text alignment	Center ▼	
Font	Serif ▼	Delete this font
New font	Choose File No file chosen	
Color	Gray ▼	

Scaler mode is a mode where the Main Video is scaled by 75% to allow for the display of captions that do not cover the Video.

Options available in this mode are:

Text Position – Allows for the positioning of the captions to be Above or Below the Scaled Video.

Text Alignment – Allows for the justification of the captions on the screen. Options available are Left, Centered and Right. Note: Right Justification primary use for the display of Languages are read from Right to Left such as Hebrew and Arabic.

Font – Allows you to select any font that is installed on the unit. Default options are Serif, Sans Serif, Monospace Serif and Monospace.

New Font – Allows you to upload a font that can assist in the branding etc of the event. This will then appear in the font option.

Color – Allow for the changing of the color of the text. Available Options are Default (White) Blue, Cyan, Grey, Green, Magenta, Red, White and Yellow.

Background Image Mode

Display Configuration

Mode	Background image (default_bg.png) ▼
New background	Choose File No file chosen
Text position	Base row 15 ▼
Text alignment	Center ▼
Font	Serif ▼ Delete this font
New font	Choose File No file chosen
Text size	Small ▼
Color	Gray ▼

Background Image Mode is a mode that can be used when there is only Audio being presented to the unit via the XLR connection, or the client wishes to display captions over a Corporate / Brand Image. Options available in this mode are:

New Background – Allows for the uploading of a custom background image to be displayed, where the captions will be overlaid.

Text Position – Allows for the positioning (vertically) of the captions over the Image. Ranges from 2 (top of the screen) to 15 (bottom of the screen)

Font – Allows you to select any font that is installed on the unit. Default options are Serif, Sans Serif, Monospace Serif and Monospace.

New Font – Allows you to upload a font that can assist in the branding etc of the event. This will then appear in the font option.

Color – Allow for the changing of the color of the text. Available Options are Default (White) Blue, Cyan, Grey, Green, Magenta, Red, White and Yellow.

Full Screen Mode

Display Configuration

Mode	Full screen ▼
Font	Serif ▼ <button>Delete this font</button>
New font	<button>Choose File</button> No file chosen
Text size	Small ▼
Line spacing	Single ▼
Color	Gray ▼

Full screen mode is a mode where the entire screen is filled with the caption data, scrolling upward on the screen from the bottom. (output is similar to that of a teleprompt, but scrolling upwards rather than down. (new lines inserted at the bottom rather than the top).

Options available in this mode are:

Font – Allows you to select any font that is installed on the unit. Default options are Serif, Sans Serif, Monospace Serif and Monospace.

New Font – Allows you to upload a font that can assist in the branding etc of the event. This will then appear in the font option.

Text Size – Allows you to adjust the size captions. Options available are Smallest, Small (default), Medium, Large and Largest.

Line Spacing – The distance between the lines of caption data on the screen (similar to line spacing as found in Word). Options available are Single (default), 1.5 and Double.

Color – Allow for the changing of the color of the text. Available Options are Default (White) Blue, Cyan, Grey, Green, Magenta, Red, White and Yellow.

iCap Tab.

The rental Lexi Viewer unit has been preconfigured to connect to the iCap network using AIMedia's details for the unit. To view the iCap details on the Lexi Viewer, click on the iCap Tab located on the left of the Main window on the Web GUI.

iCap Web-based Configuration

1 Login

Company Name: AIMedia

User Name: 610ren2054

Password: *****

Server Name

Remote Server: eegicap.com

☐ Use SSL

iCap Status

Status	Connected
Server Type	Broadcast Plus
Audio Packets Sent	0
Relay ID	5048821
Version	4.6.2
iCap Running	Yes

[View iCap Admin](#)

Optional Integrations

Remote Encoder 1 Status	Off
Remote Encoder 2 Status	Off
ComCC Status	Off

iCap Client

Miscellaneous

☐ Signal Lexi Speaker Changes on GPI-H

Speaker GPI Delay Compensation:

☐ Signal Lexi Speaker Changes on UDP port 6520

☐ Monitor connection to server on GPIO 3

☐ Monitor S1 caption activity on GPIO 4

☐ Allow 708 S3-S6 Languages

☒ Send high frame rate video to captioners

Remote Encoder Connection 1

☐ Enable remote connection 1

IP Address:

Port:

Remote Encoder Connection 2

☐ Enable remote connection 2

IP Address:

Port:

1. Login. This area displays the credentials required for logging into the iCap network. There should be no need to change these details., unless instructed by AIMedia's Technical team.

2. iCap Status. This indicates if the unit has been successfully connected to the iCap network. This will also be indicated via the iCap LED on the front panel of the unit (green). If the status is Not running, then the iCap client will need to be started. If the Status is Unauthorised, then the Login details are incorrect and need to be amended (usually down to a bad username or password).

3. iCap Client. This is where you can start (connect to iCap) or stop (disconnect from iCap) the iCap client. By default, this should always be started.

Note: Any changes made to this page, other than the starting / stopping of the icap client require the user to hit the Apply button first. If you do not, and move off the page, all changes will be lost.

Lexi Tab.

If you have indicated that you require Lexi ASR generated captions, the Lexi Viewer unit will have been preconfigured with your requirements. To view the Lexi configuration information, click on the Lexi Field on the left hand side of the Web GUI. This will display the following information.

Lexi™ Automatic Captioning

How to administer Lexi settings: **Jobs**

1

2

3

4

5

Apply Settings

1. There are 2 modes in which the Lexi Client can operate in. These are Jobs mode and Instances Mode. The main difference between these modes is that in Jobs mode, the required settings for the Lexi can be configured on the encoder directly (point 5) where as in Instances mode, these are preconfigured via the your eegcloud.tv website account.

2. Lexi Status. This indicates if the Lexi Client is running on the encoder. By using a combination of (point 1) and (point 3) Enable Lexi, you have full control on the settings and when the Lexi (Instance or Jobs) is active. Note: If you have your own eegcloud.tv account, and are controlling the Lexi instance via that web interface, then the Lexi Client does not need to be active to receive the captions generated.

3. Lexi Client. The main field that is required here, if using the encoder to control the starting and stopping of the Lexi generated captions, is the Enable Lexi field. If you wish to start Lexi and generate captions from the audio that the unit is configured to receive, then click the Enable Lexi tick box and click the Apply settings button. This will start the Lexi instance and start to send captions to the unit.

4. The rental unit will be preconfigured with a working set of credentials. If you have your own eegcloud.tv account this is where you would configure all of the relevant details.

5. Speech recognition. The Lexi client on the unit can work in 2 modes; Jobs mode and instances mode. In in Jobs mode, the encoder can be used to configure the parameters for the Lexi 'instance'.

- Engine: This will be Lexi 3.0
- Language: The language of the audio that the unit will be receiving
- Topic Model: If the rental has been configured for your own account, then this option allows you to select a Topic model that further enhances the accuracy of the Lexi ASR output.
- Safe Language Filter (profanity): If you do not wish swear words to be captioned, then this should be enabled. It is enabled by default.
- Caption Service: This will always be set to CC1/S1.
- Number of Rows: This configures the number of rows of captions that will be displayed on the output of the unit (in Caption Decoder, Scaler or Background Display modes). 2 – 4 are the options available.
- Vertical Position: Defines where on the output the captions will be displayed. 15 is bottom, and 2 is top. (Note: This option has no effect in Scaler or Full Screen modes.)
- Horizontal Position: The amount of 'indent' required from the left where the captions will appear. Note: This setting is overridden by the Text Alignment field in the Display tab of the unit, unless the unit is in Caption Decoder mode.
- Force Capital Letters: Enables or disables the display of captions in Capitals Letters.
- Use Lexi Vision Positioning (Caption Decoder mode only): Allows for the Lexi to determine the best position of the captions to avoid banners / tickers and / or faces.
- Column width: The number of characters per row to be displayed. Range 16-36 characters. Default 32 characters.

Note: Changes can only be made to these fields when in Jobs mode and the Lexi Client is not enabled. If you require to change any of these settings, you will need to stop the Lexi client, make the necessary changes, click the Apply Settings button and then enable the Lexi Client again. Changes to these fields in Instances mode can only be done via the eegcloud.tv platform.

Troubleshooting Guide.

I have no Video Signal coming out of the Lexi Viewer.

Please check the following:

1. Is there a valid SDI signal present on the Main Video in of the Lexi Viewer (see rear panel diagram for location). From the Web GUI of the Lexi Viewer, go to the main page and check Video Inputs, Main has the correct value. Also, the Video Input LED will be Green if a valid SDI signal is present.
2. Check that the Active LED is Red on the front panel. If this is not lit, press the Active button and the LED will turn red, and Video will appear on the output.
3. Check that you have connected the right SDI output from the Lexi Viewer to the destination. In Caption Decoder and Scaler Modes, this will be Out 1 and / or Out 2 BNC connection on the rear panel.

During the initial setup and testing of the video path, it is recommended that the test captions are enabled as this will help determine the output of the Lexi Viewer. This can be done from the main page of the Web GUI and pressing 'Switch Test Captions On'. Once the output has been verified, press the button again to turn off the test captions.

Note: If in Background and Full Screen Display Modes, the Lexi Viewer will generate it's own SDI video output at 1080i60. This output will appear on the Out 3 BNC connector on the rear panel.

The Lexi Viewer is not connecting to the iCap network.

Check that the IP address, Subnet Mask and the Gateway address are correctly displayed on the front panel of the unit. To test if the Lexi Viewer is reachable, from laptop, see if the Web Interface of the Lexi Viewer is reachable, or if you can 'ping' the IP address of the Lexi Viewer.

If you can reach the Web GUI , check on the iCap Page of the encoder that the iCap client has been started. If not, then click the start button and the status should change to connected.

If that still is not working, although the encoder has come preconfigured, check the details on the iCap page of the Web GUI of Lexi Viewer.

In some venues, Network Firewalls may be preventing the Lexi Viewer from connecting to the iCap network. Please refer to the Network Setup section for a list of Ports, Protocols and IP addresses that are required by the Lexi Viewer to communicate with, and ask the venue IT team if they can open up these outgoing ports.

Advanced Test: To check if the firewall is indeed the issue, using powershell, you can test connection to a TCP port for the iCap IP addresses.

Open up a Powershell or Terminal window, and type the following command:

Test-NetConnection <ipaddress> -p <portnumber>

For example. To Test connection to IP address 54.235.150.124 on Port 9736 type:

Test-NetConnection 54.235.150.124 -p 9736

If successful, you will see a similar message to the following:

```
ComputerName      : 54.235.150.124
RemoteAddress     : 54.235.150.124
RemotePort        : 9736
InterfaceAlias    : WiFi
SourceAddress     : 192.168.1.99
TcpTestSucceeded  : True
```