

CONNECT **SERIES** TOUCH

USER GUIDE



EU Declaration of Conformity

Brand Name:

LEA LLC

Product Family:

Connect Series

Models:

Connect Series Touch

LEA CS Touch-WHT, LEA CS Touch-BLK

Equipment Type/Intended Use:

PoE - Powered Wall Controller / Control Unit

The object of the declaration is in conformity with the relevant statutory requirements:

- 2014/35/EU Low Voltage Directive (LVD)
- 2014/30/EU Electromagnetic Compatibility Directive (EMC)

The following UK designated standards and technical specifications have been applied:

- EN 62368-1:2014 - Audio/video, information and communication technology equipment - Safety requirements
- EN 55032:2015 - Electromagnetic compatibility of multimedia equipment - Emission requirements
- EN 55035:2017 - Electromagnetic compatibility of multimedia equipment - Immunity requirements

Headquarters:

635 S. Lafayette Blvd

Building 113, Suite 109

South Bend, IN 46601 U.S.A.

Signed: _____

Jeremy Bules

Jeremy Bules

Vice President of Engineering & Operations



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The object of the declaration is in conformity with the relevant statutory requirements:

- 2016 No. 1101 - Electrical Equipment (Safety) Regulations 2016
- 2016 No. 1091 - Electromagnetic Compatibility Regulations 2016

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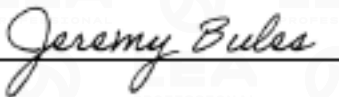
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Signed:



Jeremy Bules

Vice President of Engineering & Operations

**UK
CA**

Important Safety Instructions

CAUTION: RISK OF ELECTRIC SHOCK. DO NOT OPEN.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To prevent injury, this apparatus must be securely attached to the rack in accordance with the installation instructions.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings, install in accordance with the manufacture’s instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Unplug this apparatus during lightning storms or when unused for a long period of time.
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as if the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
13. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.

WEEE, RoHS, & Additional Warnings



Once your Connect Series Touch has reached the end of its useful life, please ensure that its recycled in a proper manner.

WEEE

- “The WEEE Regulations 2013 are the UK interpretation of the EU WEEE Directive and aim to reduce the quantity of waste electrical and electronic equipment (WEEE) disposed of in the UK”.
- EEE producers are required to pay for the reuse, recycling and recovery of the products by registering as an EEE producer which requires them to join a producer compliance scheme.
- LEA Professional has been registered with producer compliance scheme Comply Direct since 2015 ensuring 100% compliance with the WEEE regulations 2013.
- Our WEEE Producer Registration Number is WEE/HG5453ZY.
- Old electrical equipment can be recycled along with its metal enclosure. Our products are marked with a crossed-out wheeled bin symbol on the rear of the product.
- Please do not throw any electrical equipment (including those marked with the crossed out wheeled bin symbol) in your general waste bin.
- LEA Professional is able to arrange WEEE collections for our customers through a trusted network of WEEE recycling facilities made available by Comply Direct. We are able to arrange collection and transportation of your WEEE to reprocess and recycle ensuring the minimum goes to landfill.

RoHS

- The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2011/65/EU).
- LEA Professional products are RoHS compliant, and are available for export as lead-free and RoHS compliant.
- LEA Professional is committed to eliminating the use of hazardous substances in the materials, manufacturing and packaging of our products in strict accordance with the RoHS directive.
- With regards to the RoHS Directive 2002 / 95 / EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, we declare that to the best of our knowledge, all products meet and fulfill all the requirements of the aforementioned directive.

Additional Warnings

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received including interference that may cause undesired operation.



Only to be used at altitude below 2000 meters

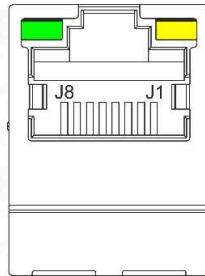


Only to be used in non-tropical climate regions

Installation - Electrical and Mechanical

ELECTRICAL INSTALLATION INSTRUCTIONS:

The Connect Series Touch uses power over ethernet (PoE) to operate. The power requirements are 48VDC, 0.07A with a maximum load of 3.5W. The pin assignment for PoE is shown below:



J4 & J5: +, J7 & J8: -

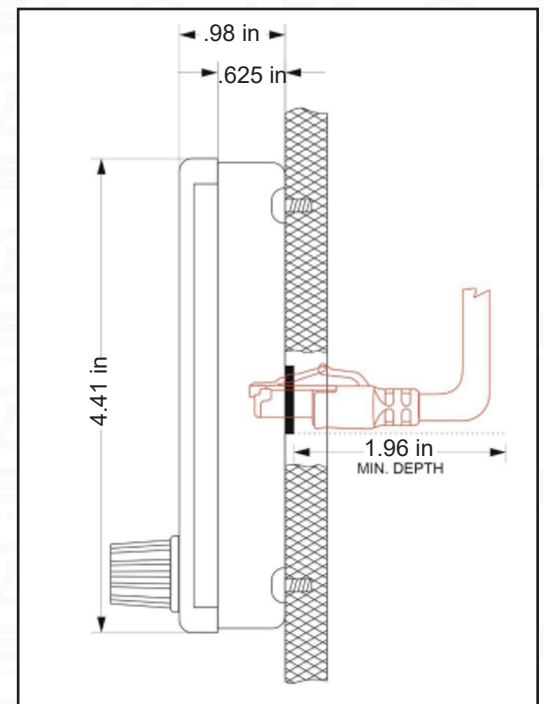
Note that PoE type networks connected to these ports are for intrabuilding use only and should not be connected to lines that run outside of the building in where this product is located.

MECHANICAL INSTALLATION INSTRUCTIONS:

The Connect Series Touch is designed to fit into the provided bracket, and is secured with two countersunk screws into the top and two underneath at the bottom (supplied). The bracket is surface mounted onto the wall with four screws. Please use the template overleaf to position screw holes. Please use the screws provided to secure the bracket to the wall to ensure that the Connect Series Touch will fit into the bracket correctly.

Note that the top and bottom holes (assuming portrait mounting) are spaced to align with US single gang light switch /socket back boxes (83mm/3.281" spacing). The other two holes (60mm spacing) are spaced to align with UK or EU single gang light switch/socket back box.

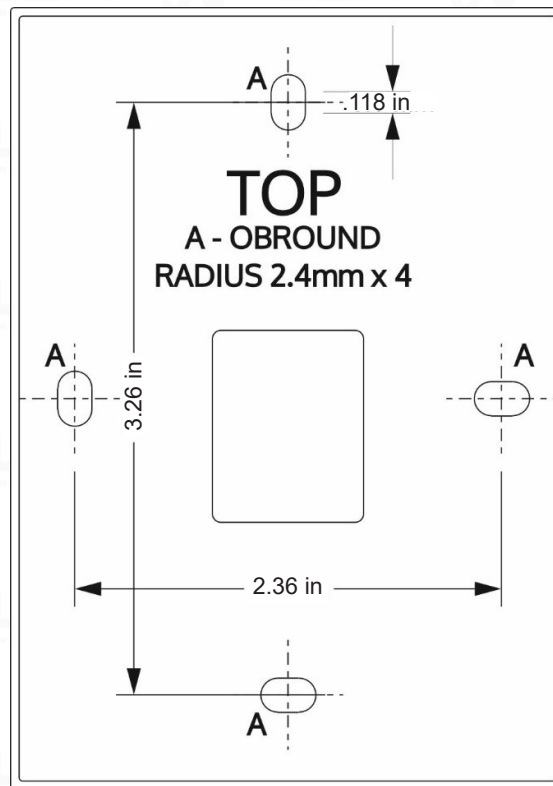
The Connect Series Touch will also require a hole in the wall with sufficient size to accommodate the network socket and sufficient depth to accommodate the network cable. Be aware that network cables are variable in their depth requirements – our recommendation is at least 50mm/2 inches behind the wall surface to ensure that the cable is not bent beyond its specification. The Connect Series Touch should be mounted at a height of less than 2m/78.75 inches.



Installation - Mounting Instructions

MOUNTING INSTRUCTIONS:

1. Remove the 4 phillips head screws on the top and bottom of the Connect Series Touch
2. Pull the touch screen out of the mounting chassis
3. Using the 4 mounting holes, secure the chassis using the desired mounting holes
4. Install the ethernet cable to the Connect Series Touch
5. Press the Connect Series Touch into the mounting chassis and secure the 4 Phillips head screws on the top and bottom



Important Notes

- The Connect Series Touch only controls volume and source selection for LEA Connect Series Amplifiers. 3rd Party control is not currently supported.
- The Connect Series Touch supports DHCP and static IP addressing. For quicker setup, a DHCP server is recommended on the network for initial set up of the CS Touch.
- The Connect Series Touch is a Master/Slave device. Therefore, you must have at least one Connect Series Amplifier and one Connect Series Touch on the network to configure your Connect Series Touch.
- The Connect Series Touch is powered by PoE. You must have the Connect Series Touch connected to a network switch port with PoE enabled. You cannot connect the Connect Series Touch directly to the Connect Series Amplifier network port.
- Please make sure your Connect Series Amplifier is on the latest firmware version. The Connect Series Touch will not show up in the WebUI if you have outdated firmware. The latest firmware can be found here: <https://leaprofessional.com/downloads/>



System Configuration

Note 1. The Connect Series Touch must be used in conjunction with a Connect Series Amplifier. The Connect Series Touch will not display in the WebUI without a Connect Series Amplifier on the same network as the Connect Series Touch.

Note 2. The Connect Series Touch can control large systems, however, there are some limitations. If you are designing a large system with a Connect Series Touch and receive an error message when saving the Connect Series Touch file – you may have reached it's maximum configuration limit.

There are an infinite amount of configurations, but here are the general limits:

- * 100 amplifier channels of volume control
- * 65 amplifier channels of source select
- * Combination of 80 amplifier channels of volume control and 65 channels of source select.

Note 3. The Connect Series Touch communicates with the amplifier via UDP on port 7076 and 7077. If you are installing the CS Touch on a large network and experience latency issues with the Connect Series Touch performance you may want to prioritize the Connect Series Touch traffic on your managed switch or put the Connect Series Touch and Connect Series Amplifiers on their own network.

Network Setup

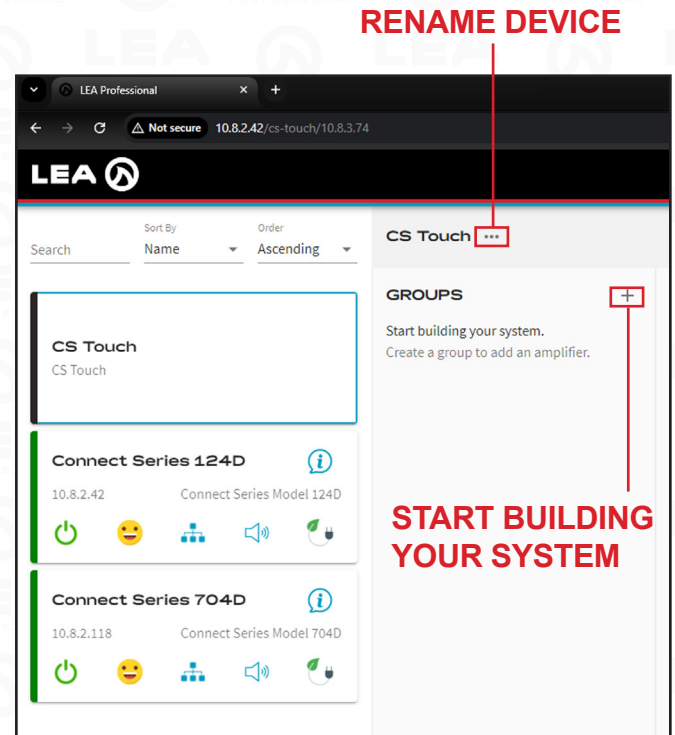
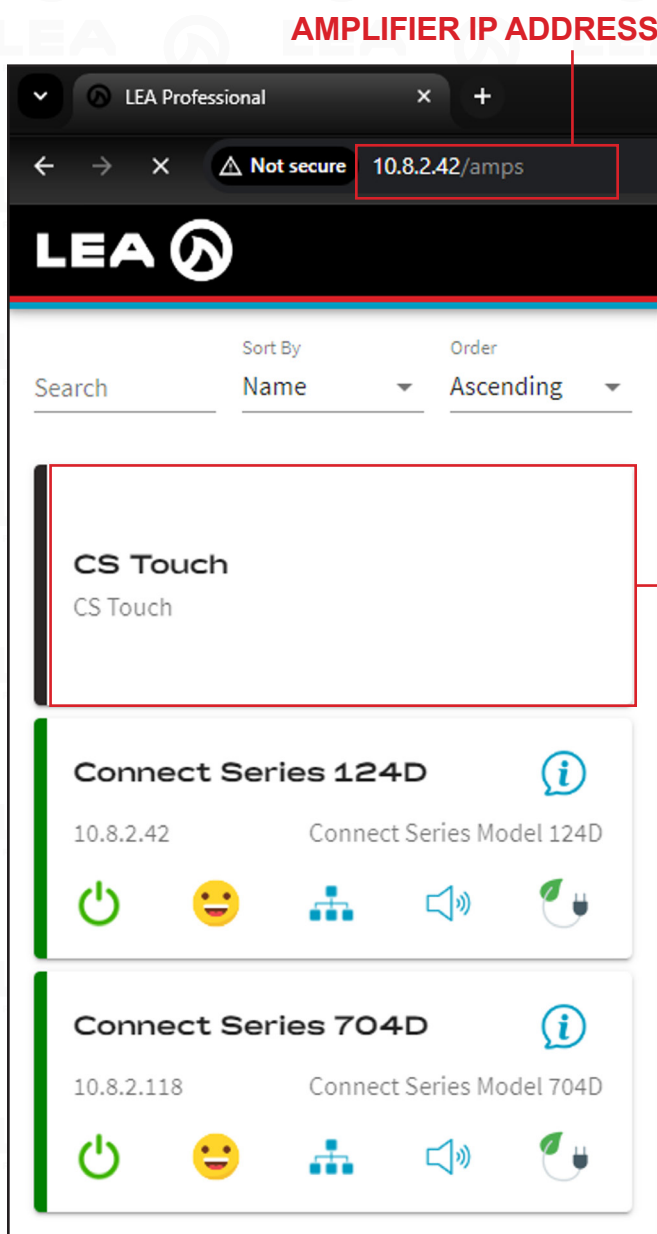
- To set-up the Connect Series Touch, an LEA Connect Series Amplifier is required, along with a network switch/router capable of providing PoE (Power over Ethernet).
 - * A PoE power injector can be used when connecting the CS Touch to a non-PoE LAN switch port.
- An LEA Connect Series Amplifier must be connected to the same network as the CS Touch.
- The CS Touch requires PoE power. The LAN port on a Connect Series Amplifier does not provide the necessary PoE power for the CS Touch.
- CS Touch Static IP: <https://youtu.be/Z0LNupGF490>



Setting Up Your System

SET UP INSTRUCTIONS:

1. Open your browser and type in the IP address of the Connect Series Amplifier. You will notice all amplifiers on the network show up and on the top, any Connect Series Touch devices that are on the network will also populate.
2. Click on the Connect Series Touch. Click the '...' next to the name to rename the Connect Series Touch or click '+' to start your system design.



CONNECT SERIES TOUCH ON NETWORK

Setting Up Your System

SYSTEM SETUP OVERVIEW

The Connect Series Touch is very flexible. You can control multiple Volume Control Groups and Multiple Source Select Groups from a single Connect Series Touch. The Connect Series Touch has the ability to control an entire system's volume and source from one screen or you can create and control multiple zones individually from one Connect Series Touch.

There are 3 main functions you can program.

VOLUME GROUP

A volume group allows you to group the amplifier channels you want to have one control on the Connect Series Touch to adjust that group's volume. You can control multiple groups from one Connect Series Touch. An example of this is you have a restaurant with multiple zones and you want one volume control for the entire restaurant.

VOLUME SUBGROUPS

Volume subgroups gives the user operating the Connect Series Touch the ability to adjust specific zones within the volume group but also retain the Volume Group control. An example of this would be if your have a restaurant with multiple zones being controlled by a volume group, but the staff wants the ability to turn down the Dining Area only, but still retain the entire restaurant's group volume control. A Volume Subgroup for the Dining Area would allow the Connect Series Touch user to adjust the Dining Area volume but still retain the Volume Group level adjustment. Any adjustment made on the Dining Area Subgroup would then remain at that volume difference when the Volume Group is adjusted up or down.

NOTE

If you would like to have zone volume offsets, but not give the Connect Series Touch user the ability to adjust that zone's offset, you can do that in the Volume Group setup.

SOURCE GROUPS

Source groups give you the ability to group and name sources so the Connect Series Touch user can easily select the source they want the amplifier to change to.

Setting Up Your System

SET UP INSTRUCTIONS:

3. Once you've clicked '+' you'll be able to create a volume group or a source group.

CREATING A VOLUME GROUP - Click + Add Volume Group

During this step, you will name your group and select the amplifier channels you want a single volume control on the Connect Series Touch. The name you assign will show up on the Connect Series Touch as this Name.

VOLUME GROUP NAME YOU WANT TO DISPLAY ON CONNECT SERIES TOUCH SCREEN

Volume Group CANCEL DONE

AMPS & CHANNELS
Select amp channels for this group

Volume Group Name

Connect Series 124D 10.8.2.42
Connect Series Model 124D

Channels

① Dining Room 1 ② Dining Room 2 ③ Entry Way ④ Lounge Area

Connect Series 704D 10.8.2.118
Connect Series Model 704D

Channels

① Bar 1 ② Bar 2 ③ Patio ④ Banquet Room

Setting Up Your System

CREATING A VOLUME GROUP - SELECTING AMPLIFIER CHANNELS

Now, you will want to select the amplifier channels you want to assign to this volume group by simply clicking which channels you want to group together. Once you are done, you can click 'Done' in the top right corner.

NOTE

The amplifier name and channel name show up in this step. It is highly recommended you name your amplifier and amplifier channels prior to configuring the Connect Series Touch to make this step easier for you. Amplifier name can be edited by clicking on the 'i' icon next to the bold 'Device Name' and channel name can be edited by clicking on the gear icon on the amplifier channel configuration.

Volume Group

CANCEL

DONE

AMPS & CHANNELS

Select amp channels for this group

Volume Group Name

Master Volume

 **Connect Series 124D**

10.8.2.42

Connect Series Model 124D

Channels

1 Dining Room 1

2 Dining Room 2

3 Entry Way

4 Lounge Area

 **Connect Series 704D**

10.8.2.118

Connect Series Model 704D

Channels

1 Bar 1

2 Bar 2

3 Patio

4 Banquet Room

Setting Up Your System

CREATING A VOLUME GROUP - SETTING RANGE AND OFFSET

Once you've created a Volume Group, you now have the option to set the range of the Volume Group and you can also set volume offset for each channel. Once you've set your Range and Offset. Click 'Save' in the upper right corner. Once you click 'Save' your Connect Series Touch will now display this Volume Group on the screen.

RANGE

When this setting is at 80.0 dB, the Connect Series Touch has the ability for the end user to adjust the full volume range. If you want to limit the volume adjustment on the Connect Series Touch to not be able to adjust the full volume range, you can adjust this setting.

Example: If you only want to give the user the ability to adjust the volume from full to -12 dB, you would set the Range to -12 dB.

OFFSET

If you want specific zones volume levels to be adjusted lower, you can adjust the 'Offset'. In the example shown, the Entry Way and Lounge Area volume levels are adjusted lower than the other zones. When this Volume Group is adjusted from the Connect Series Touch, the Entry Way and Lounge Area will retain their volume offset levels.

The screenshot displays the LEA Professional software interface for configuring a Master Volume group. The interface is divided into several sections:

- Left Panel:** Lists the connected devices: "CS Touch" (CS Touch), "Connect Series 124D" (10.8.2.42, Connect Series Model 124D), and "Connect Series 704D" (10.8.2.118, Connect Series Model 704D).
- Master Volume Section:** Shows the "Master Volume" group. The "Range" is set to -12 dB. A red box highlights the "Range" label, and a red line points to the "Range" value.
- Channels Section:** Displays the channels for the Master Volume group. The channels are: Dining Room 1 (Offset: 0.0 dB), Dining Room 2 (Offset: 0.0 dB), Entry Way (Offset: -3.0 dB), and Lounge Area (Offset: -6.0 dB). A red box highlights the "Offset: -6.0 dB" for the Lounge Area, and a red line points to it.
- Right Panel:** Contains a "SAVE" button and a "CANCEL" button.

Setting Up Your System

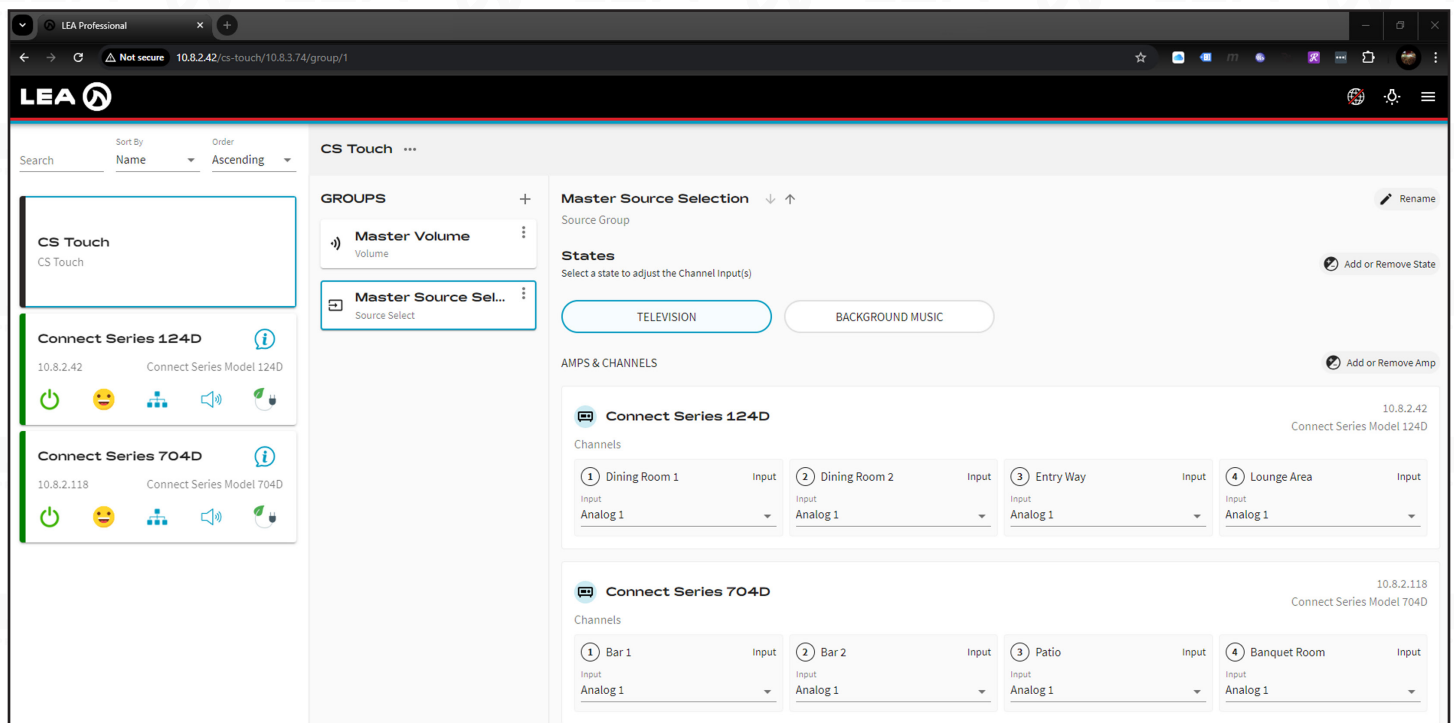
CONGRATULATIONS!

You've created a Volume Group that can now be adjusted from the Connect Series Touch.



**MASTER VOLUME GROUP
ON CONNECT SERIES TOUCH**

**MASTER VOLUME GROUP
CONFIGURATION IN WebUI**



Setting Up Your System

SET UP INSTRUCTIONS:

4. Once you've clicked '+' you'll be able to create a volume group or a source group.

CREATING A SOURCE GROUP

1. Click '+ Add Source Group'
2. Name your Source Group. This is the name that will show up on the Connect Series Touch, so make sure the user of the Connect Series Touch will understand what they are selecting.
3. Creating States. States are what Sources the end user will select from the Connect Series Touch. Example, if you have a Television Source and a Background Music Source, you'll want to name these states something the end user will understand. Click '+Add a State (Required)'
4. Then click '+ Add Another State' and name as many states/sources that your system has and click 'Done'.

STEP 4

Source Group

CANCEL DONE

Source Group Name

States

CANCEL DONE

State Name
Television

DELETE ↑ ↓

State Name
Background Music

DELETE ↑ ↓

+ ADD ANOTHER STATE

STEP 3

LEA Professional

Not secure 10.8.2.42/cs-touch/10.8.3.74/group/1

LEA

Search Sort By Name Order Ascending

CS Touch

GROUPS

Master Volume

Master Source Sel...

Source Select

Master Source Selection

Source Group

States

Select a state to adjust the Channel Input(s)

+ ADD A STATE (REQUIRED)

Connect Series 124D

10.8.2.42 Connect Series Model 124D

Connect Series 704D

10.8.2.118 Connect Series Model 704D

Setting Up Your System

CREATING A SOURCE GROUP - CONTINUED

5. Select the State you have created, then select 'Add or Remove Amp'.
6. In the Source Group window, select the Amplifier Channels you want to change the source on and click 'Done'.

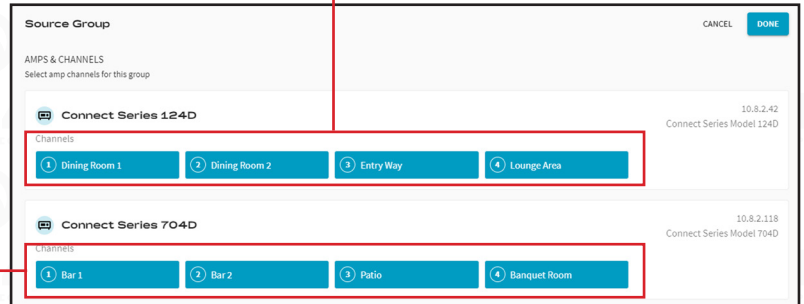
7. You will now notice, you can select what amplifier input you want to switch to for that State/Source. In the example shown, the Television is Analog Input 1 on both amplifiers.

NOTE

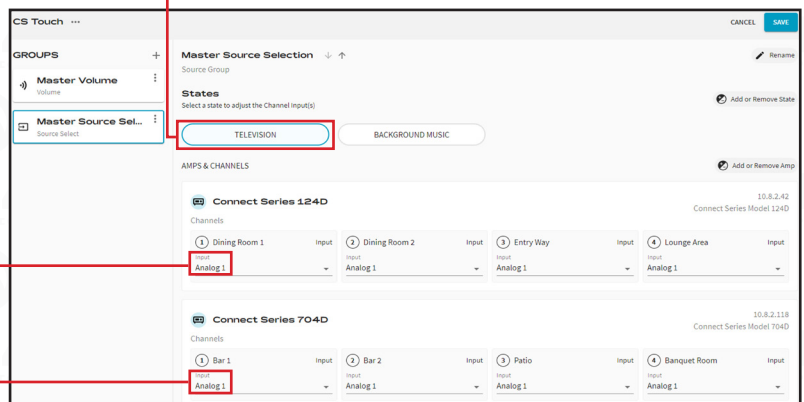
Input Summing (Analog 1+2, Analog 3+4 as an example) is not yet supported, but will be supported in a future firmware update.

8. Repeat Steps 6 and 7 for each State you have created.
9. When you are done creating your states and selecting the appropriate inputs, click 'Save' in the top right. Once you click 'Save' the information will be sent to the Connect Series Touch and you can now change State Sources from the touchscreen.

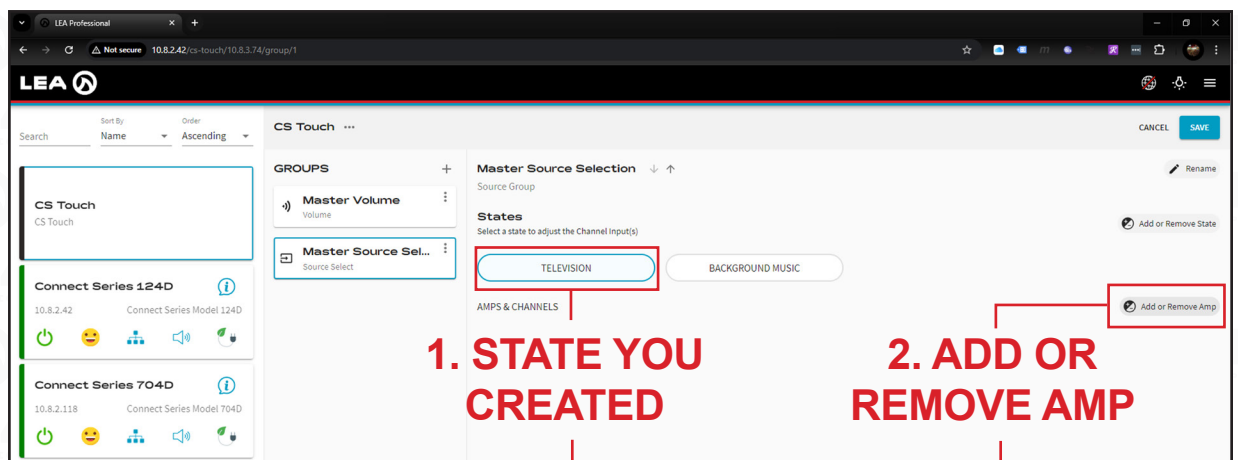
STEP 6



STEP 7



STEP 5



Setting Up Your System

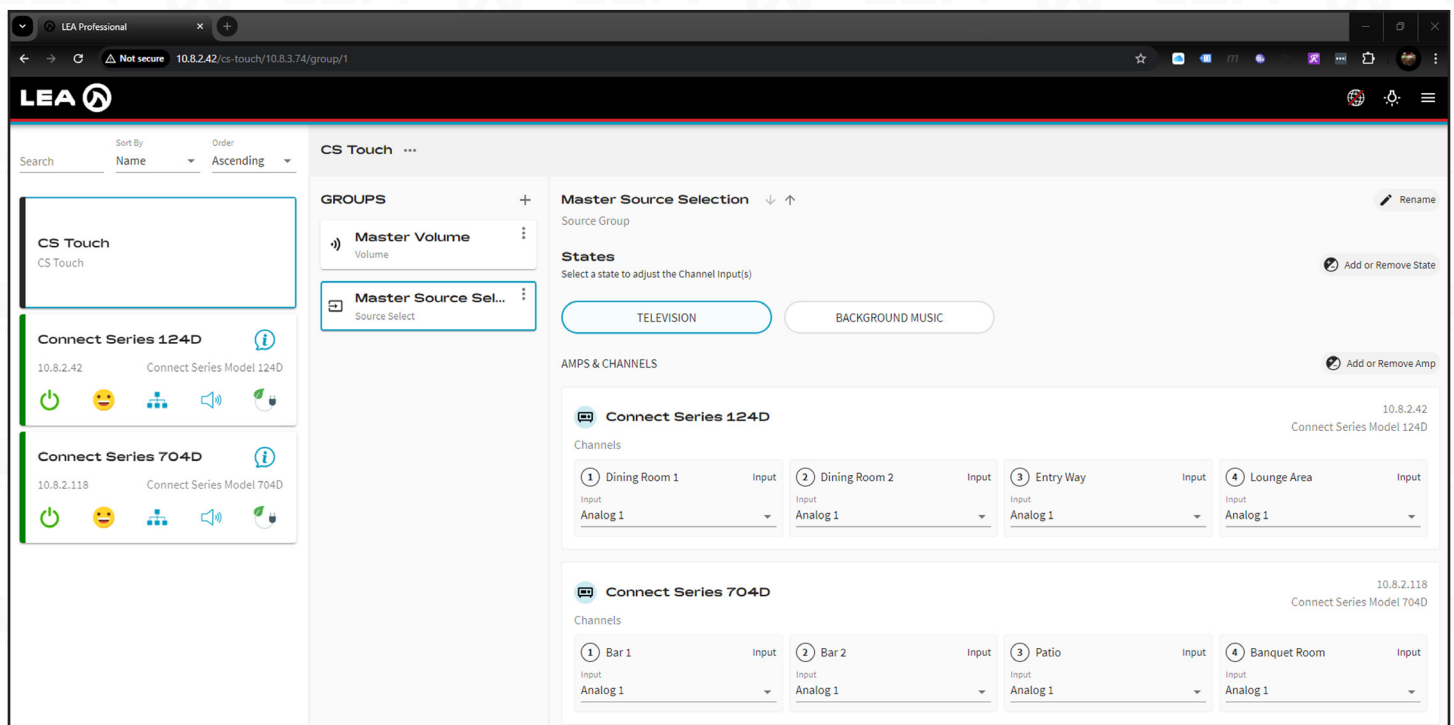
CONGRATULATIONS!

You've created a Source Group.



**MASTER SOURCE GROUP
ON CONNECT SERIES TOUCH**

**MASTER SOURCE GROUP
CONFIGURATION IN WebUI**



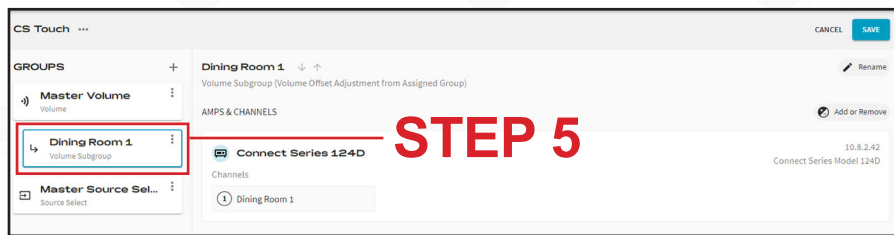
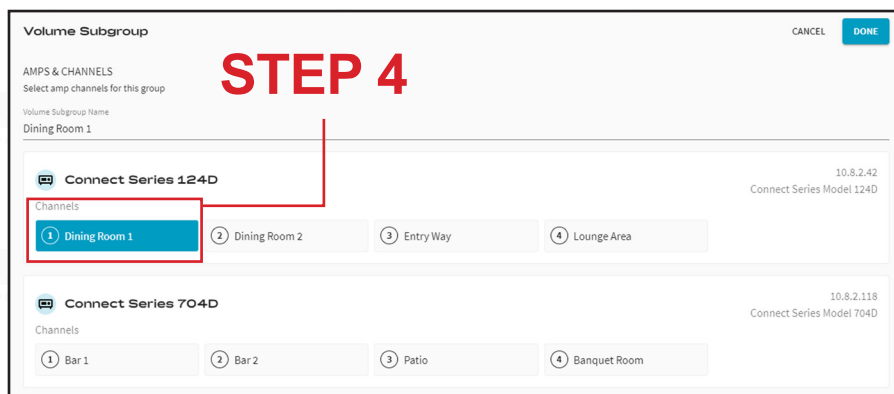
Setting Up Your System

SET UP INSTRUCTIONS:

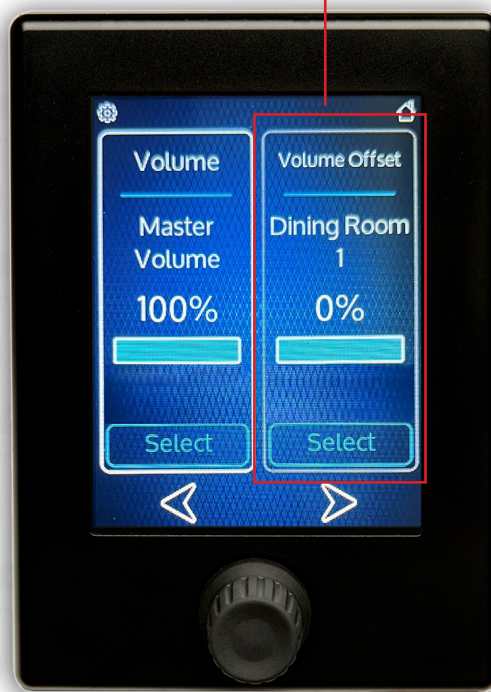
5. Volume Subgroup - You can only create Volume Subgroups after you've created a Volume Group.

CREATING A VOLUME SUBGROUP

1. Select the Volume Group you have already created then click on the three dots next to the name.
2. Click '+ Add Volume Subgroup'.
3. Name the Volume Subgroup something the Connect Series Touch user will understand.
4. Select the Amplifier Channel(s) you want the Connect Series Touch user to be able to adjust volume from the touch screen then click 'Done'.
5. You will notice, you now have a Volume Subgroup below your Master Volume Group.
6. Click 'Save' in the top right corner. This Volume Subgroup will now show up on the Connect Series Touch screen.
7. You have now created a Volume Subgroup that will allow the Connect Series Touch user to be able to adjust volume for that Subgroup.



STEP 6



Navigating CS Touch User Interface

The Connect Series Touch user interface was designed for end users which may have little to no audio expertise. With that in mind, Volumes are displayed in % and not dB.

VOLUME GROUP - A

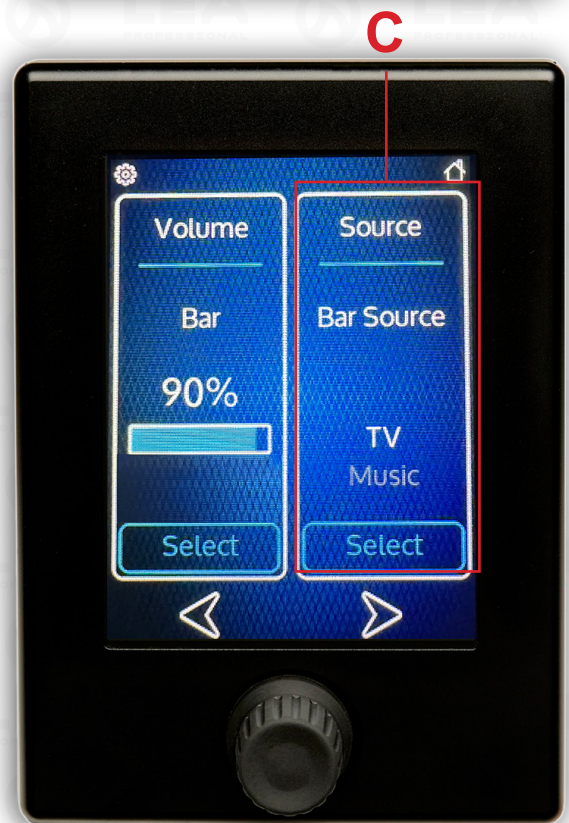
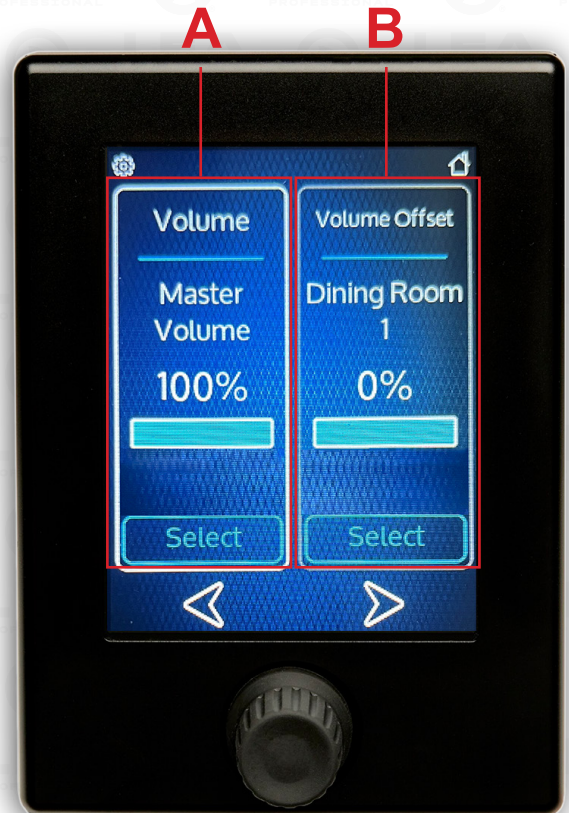
0% would indicate the volume control is turned all the way down. 100% would indicate that the system is at full volume. To adjust a volume group select on the volume group box you want to adjust and turn the knob up or down.

VOLUME SUBGROUP - B

The % shown on the screen is how much lower that subgroup is from the Group Volume Control. So if the subgroup shows -10% as an example, that means that subgroup has 10% less volume than the Group Volume it is associated with. Subgroup's show up on the Connect Series Touch with the heading "Volume Offset" on the touchscreen. To adjust the volume subgroup you want to adjust, select the volume offset box you want to adjust and turn the knob up or down.

SOURCE GROUP - C

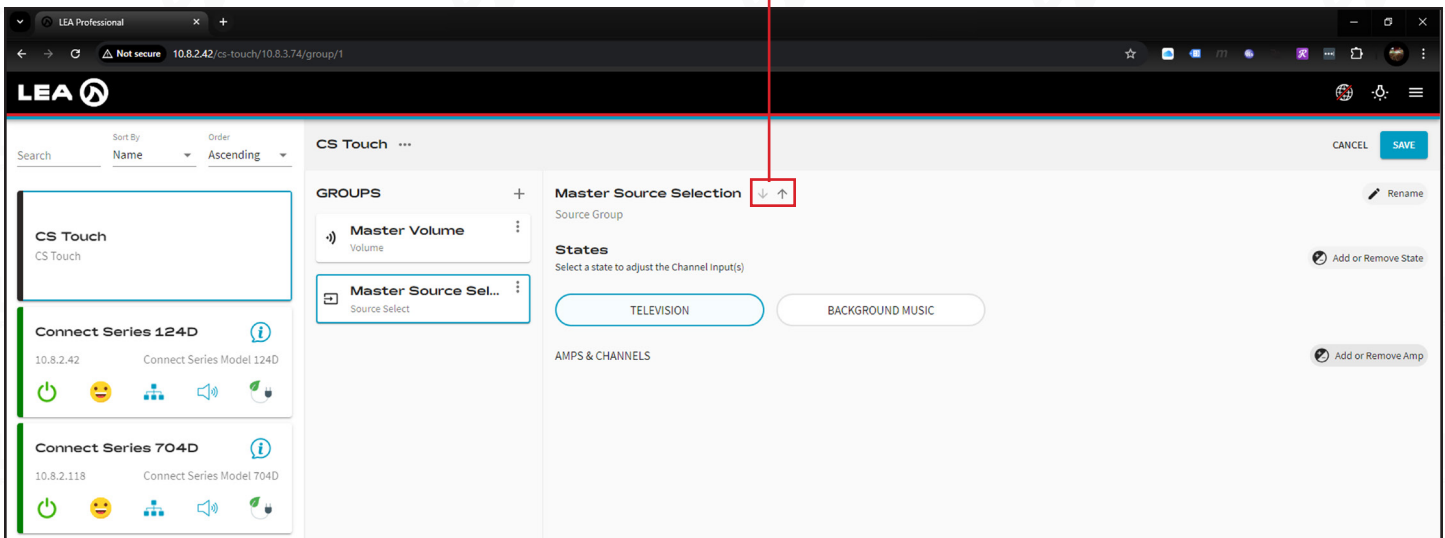
Source Groups give the user the ability to easily change input sources based on the source name. To adjust the source group, select the source group box, touch the source you want to select OR turn the knob to highlight the source you want to select then select "Recall".



Navigating CS Touch User Interface

VOLUME AND SOURCE GROUP ARRANGEMENT ON CS TOUCH DISPLAY

If you wish to rearrange the order in which the CS Touch volume and source groups show up (example: putting the most important volume groups first), in the WebUI Select the CS Touch, then select the Group you would like to move then click on the up or down arrows to move them up or down the list. The CS Touch will display the groups at the top of the list first.

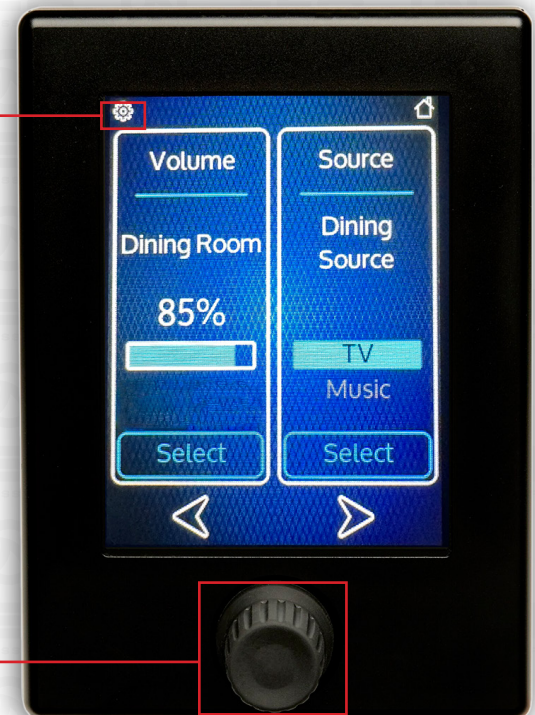


Network Information – Click on the gear icon on the top left to see the IP address, MAC Address, Device Name, and firmware version.

Adjusting the screen brightness – Click on the gear icon on the top left, touch 'LCD' and adjust the knob up to increase and down to decrease the screen brightness.

Adjusting the Side LEDs – There is an LED strip on the left and right of the Connect Series Touch. To adjust the brightness of these LED's, click on the gear icon in the top left, touch 'LED' and adjust the knob up to increase the brightness or left to decrease or turn off the LEDs. In a future firmware update, the LED colors will be able to be customized.

Rebooting the CS Touch – To reboot the CS Touch, click on the gear icon on the top left corner, click the LEA SharkFin logo, then click 'OK'. The unit will now reboot.



Future Improvements

The Connect Series Touch is a very versatile tool for the AV Integrator's Toolbox. At LEA Professional, we felt it important to get this tool into the field so that our customers can benefit from the functionality the Connect Series Touch offers. LEA Professional will continue to add features to the Connect Series Touch which will be available with future firmware updated.

NEW FEATURES IN DEVELOPMENT

- Ability to adjust input level volume.
- Ability to upload a custom logo to replace the LEA Shark Fin Logo.
- Ability to upload a custom background image.
- Password Protection – Type in a password before being able to access the CS Touch controls.
- Ability to assign colors to groups – Example – Group 1 = Red, Group 2 = Blue, etc.
- Adjust the screen timeout so the screen stays on as long or as short as you want after a selection is made.

