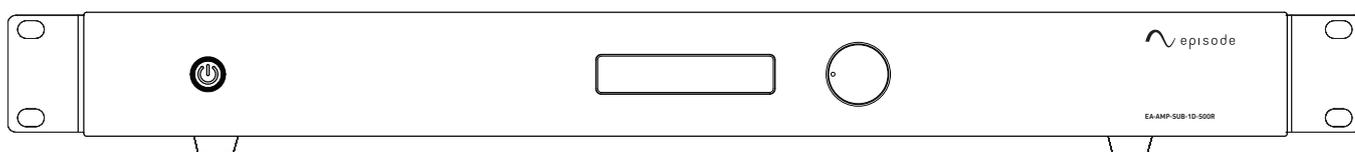


 episode

**INSTALLATION MANUAL**  
**EA-AMP-SUB-1D-500R**



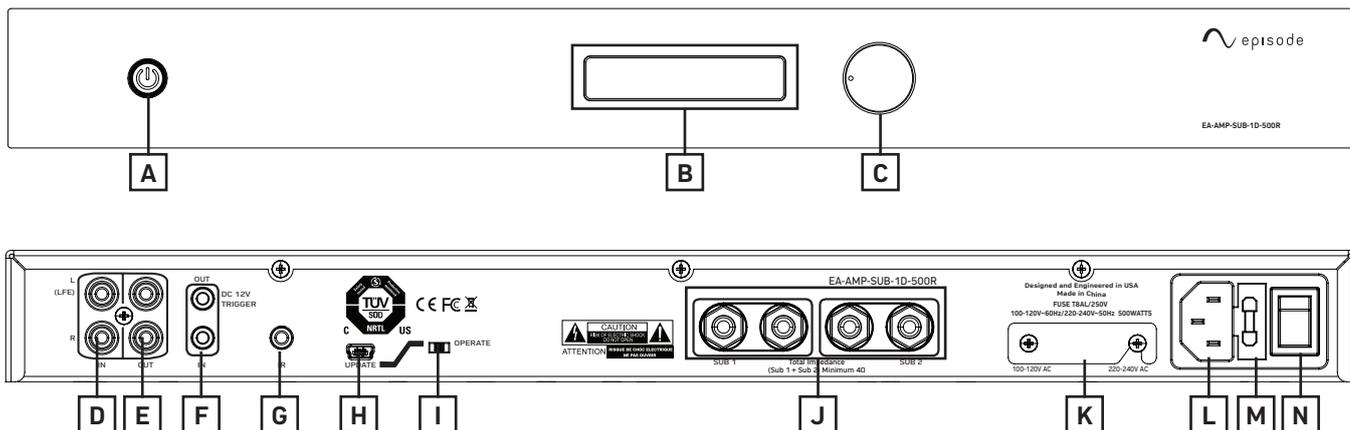
**REAL. LIFE. SOUND.**



	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 to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- A. Read these instructions.
- B. Keep these instructions.
- C. Heed all warnings.
- D. Follow all instructions.
- E. Do not use this apparatus near water.
- F. Clean only with dry cloth.
- G. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- H. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- I. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide bladed or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- J. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- K. Only use attachments/accessories specified by the manufacturer.
- L. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- M. Unplug this apparatus during lightning storms or when unused for long periods of time.
- N. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.
- O. The equipment shall be used at maximum 45 degree C ambient temperature.
- P. To reduce the risk of electrical shock, do not open the equipment. For safety reasons it is only allow to the opened by qualified service personnel.
- Q. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Additionally, the apparatus shall not be exposed to dripping or splashing and no objects filled with liquids shall be placed on the apparatus.
- R. The mains plug is used as the disconnect device and shall remain readily operable.
- S. The product shall be used on open bench.
- T. No naked flame sources, such as lighted candles, should be placed on the apparatus.
- U. The apparatus should be connected to a mains socket outlet with a protective earthing connection.
- V. Ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.
- W. This apparatus is suitable for use in tropical climates.

## FEATURES

**A. POWER**

Red: Off/Standby  
Blue: On/Operating

**B. STATUS DISPLAY MENU**

Displays current function/setting.

**C. SELECTION KNOB/ROTARY ENCODER**

Navigates and controls menu display functions.

**D. RCA LINE LEVEL INPUTS**

**LFE IN:** Connects the left female RCA input to an LFE output connection on a receiver or pre-amp processor.

**L/R IN:** Connects the left and right female RCA input to the left and right front output connections on a receiver or pre-amp processor.

**E. RCA LINE LEVEL OUTPUTS**

**OUT:** Connects additional amplifiers.

**F. 12V TRIGGER IN/OUT**

**12V TRIGGER IN:** Turns on the amp when a 12V signal is received from another 12V trigger device.

**12V TRIGGER OUT:** Sends a 12V signal to another 12V trigger device.

**G. IR PORT**

Connects IR device.

**H. MINI USB PORT**

Reserved for future use.

**I. OPERATION MODE SWITCH**

**UPDATE:** For future use only.

**OPERATE:** Normal function.

**J. SPEAKER OUTPUTS**

Connects the speaker wires to the binding posts.

**NOTE:** Total impedance (SUB 1 + SUB 2) should not be less than 4Ω.

**K. VOLTAGE SELECTOR**

Selects the appropriate input voltage setting: 100V or 220V.

**L. AC POWER IN**

IEC power cord.

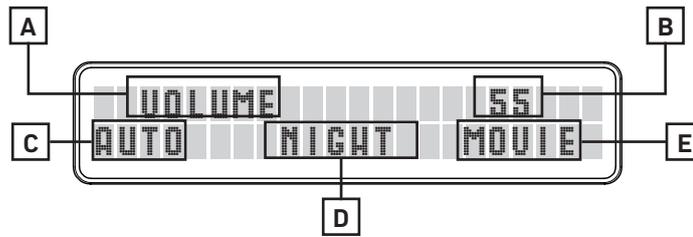
**M. FUSE**

Additional fuse included for servicing.

**N. MASTER POWER SWITCH**

Switch between on/off.

## MENU DISPLAY



### A. VOLUME DISPLAY

### B. VOLUME LEVEL

Displays the volume level.

**NOTE:** Lock mode overrides power mode.

### C. POWER MODE

Displays the power control mode for the amplifier. No display if FRONT PANEL power control mode is selected.

**NOTE:** Only the volume level can be adjusted while on the main menu screen.

### D. NIGHT MODE

Displays if night mode is ON. No display if night mode is OFF.

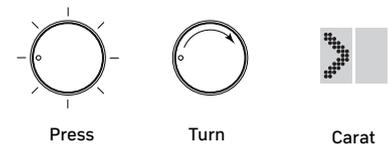
### E. SOUND MODE

Displays the current sound mode setting. No display if sound mode is set to BYPASS.

## MENU FUNCTION SCREEN

- Press the selection knob to enter the function sub menu.
- Turn the selection knob to cycle through each sub menu option.
- Press the selection knob to adjust the menu function.
- A carat will appear when levels can be adjusted.
- Press the selection knob again to exit the adjustment menu and turn the knob to advance to the next sub menu function.
- Repeat to set all functions.
- Once reaching the last option in the function sub menu, press to exit to the main menu.

Selector Knob



**NOTE:** The sub menu will scroll continuously in both directions until the knob is pressed to exit once reaching the "Menu Exit" screen.

### A. CROSSOVER: 40Hz–250Hz/LFE

Selects the low pass filter for the amplifier

**NOTE:** Set LFE when using the LPF on an AVR.

**DEFAULT:** LFE

### B. SPEAKER EQ: FLAT/DUAL8/BSUB12/HSUB10

Selects the EQ mode for the amplifier.

**FLAT:** 0 reference setting (unmodified sound).

**DUAL8/BSUB12/HSUB10:** Preset values optimized by subwoofer type. See *Fine Tune* section on page 8.

**DEFAULT:** FLAT

### C. PHASE: 0–315° (45° steps)

Contours subwoofer performance to match speaker performance and acoustic environment.

**DEFAULT:** 0°

### D. SOUND MODE: BYPASS/MUSIC/MOVIE

Selects media preference.

**BYPASS:** Reference

**MUSIC:** Boosts +1.5dB @ 50Hz

**MOVIE:** Boosts +3dB @ 30Hz

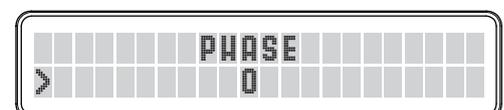
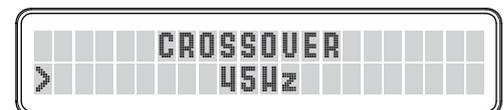
**DEFAULT:** BYPASS

### E. NIGHT MODE: ON/OFF

**ON:** Limits high and low sound threshold for night time viewing. Reduces maximum power to 250W and relative sub level by 3dB.

**OFF:** No limiting

**DEFAULT:** OFF



**F. POWER CONTROL: FRONT PANEL/12V TRIGGER/AUDIO SENSE**

Sets the power on state.

**FRONT PANEL:** Always on. Amplifier does not turn off automatically. Turn until ON/OFF using the front panel power button.

**12V TRIGGER:** Amplifier turns on when 12V signal is detected and off when 12V signal is absent.

**AUDIO SENSE:** Audio Sense enabled. Amplifier turns on when audio signal is detected. Unit enters standby mode if no signal is detected after 15 minutes.

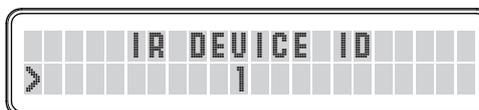
**DEFAULT:** FRONT PANEL



**G. IR DEVICE ID: 1/2/3/4**

Assigns an IR ID for each amplifier appearing in a system set up. Refer to the support tab of the product page to download the Control Protocol.

**DEFAULT:** 1



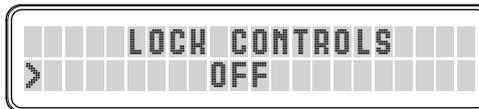
**H. LOCK CONTROLS: ON/OFF**

Locks the controls to prevent accidental changes in settings. Press and hold knob for 10 seconds to unlock.

**ON:** Locks controls

**OFF:** Allows adjustment of settings

**DEFAULT:** OFF



**I. FACTORY RESET**

Resets all functions to default settings. Push the knob to enter the reset menu, turn the knob once to select firmware reset, then push once more to reset to factory settings.

**NOTE:** Firmware version is displayed on screen when selected.



**J. MENU EXIT SCREEN**

Press the selection knob to exit to the main menu screen, or turn the selector knob to scroll to the beginning of the sub menu. The selector knob will advance the sub menu continuously in both directions until the knob is pressed to exit once returning to the "Menu Exit" screen.

**NOTE:** The volume level can be adjusted immediately once exiting the sub menu to the main menu.

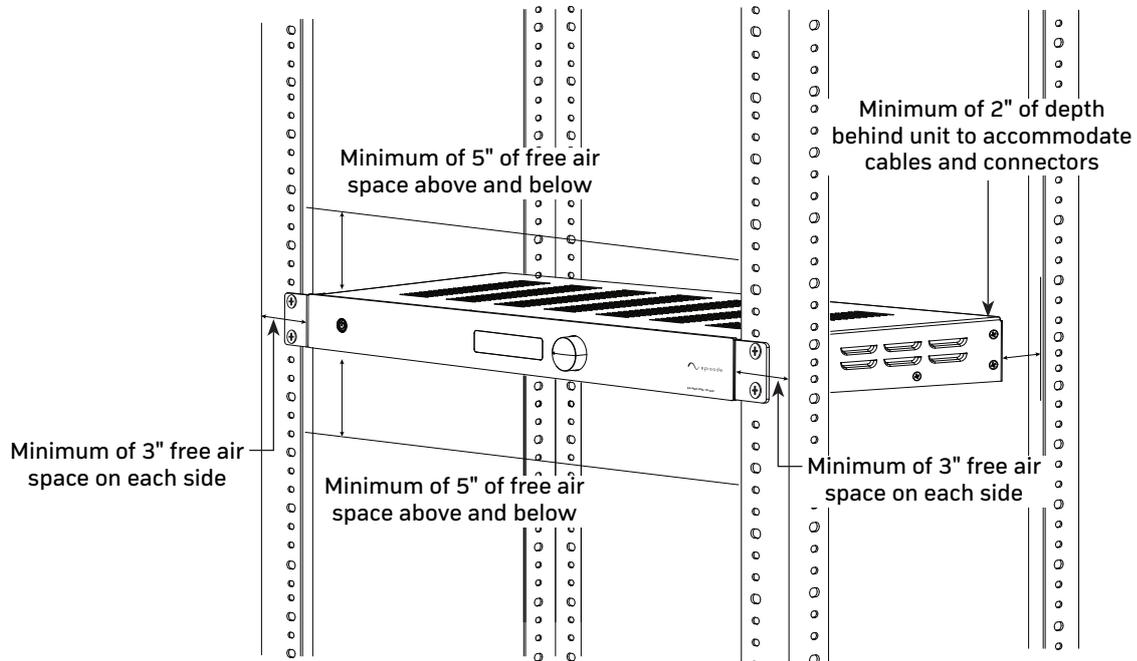


## SETUP

### Amplifier Positioning

Placing the amplifier can have a large impact on performance and longevity. Please take the following guidelines into consideration:

- Ensure that the unit is in a well-ventilated area that provides adequate cooling.
- A minimum of 5" should be allowed above and below the amplifier for optimum performance.



### Installation

- Attach ears to the amplifier if mounting into rack.
- Bottom feet on the amplifier chassis may be removed if necessary.

## CONNECT

**CAUTION:** All connections and switching must be done with the amplifier turned off. Connect the power cord last to ensure that the amplifier is off during all the connections and set up.

### RCA Line Level

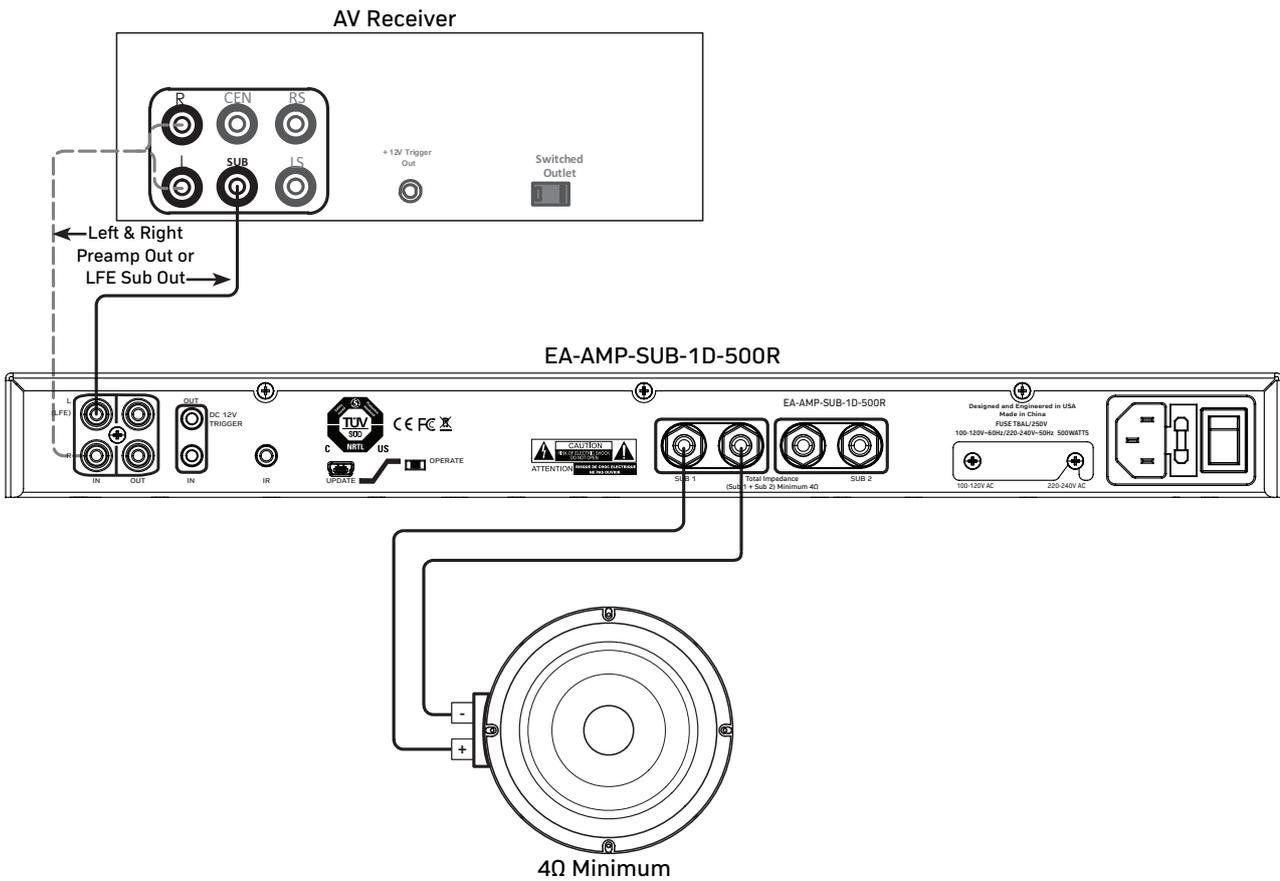
Use high-quality RCA cables that feature low impedance with adequate shielding and high-quality connectors.

### Speaker Outputs

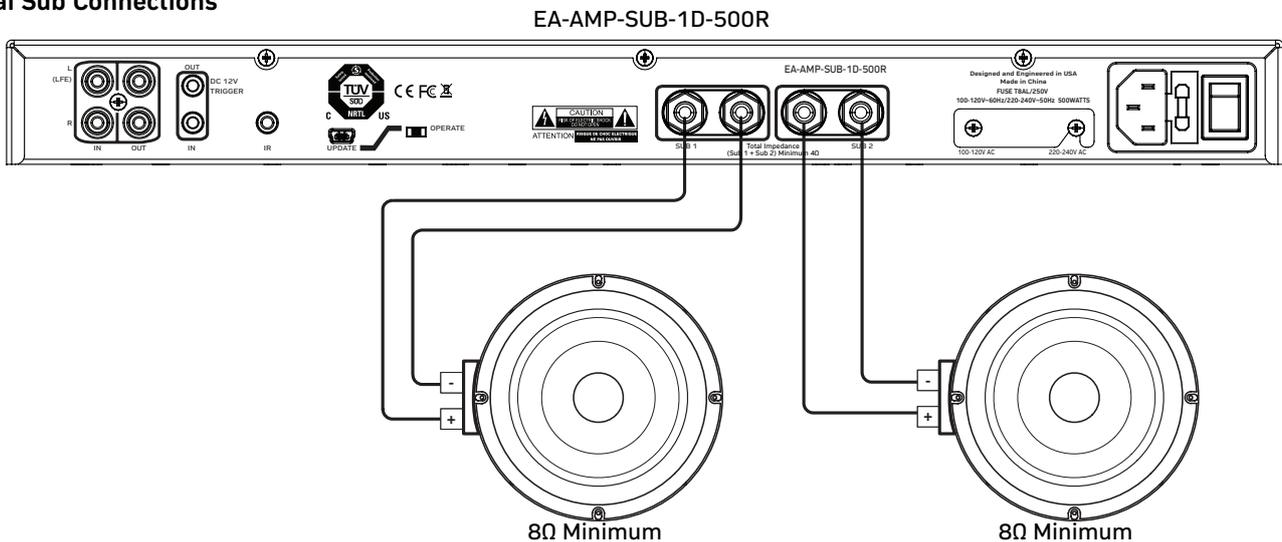
Use 14 or 16 gauge stranded two-conductor speaker wire. Connect the appropriate conductor to each screw terminal, observing correct polarity.

**CAUTION:** When two subwoofers are connected in parallel, the nominal impedance of each subwoofer should not be less than 8Ω.

### Single Sub Connections

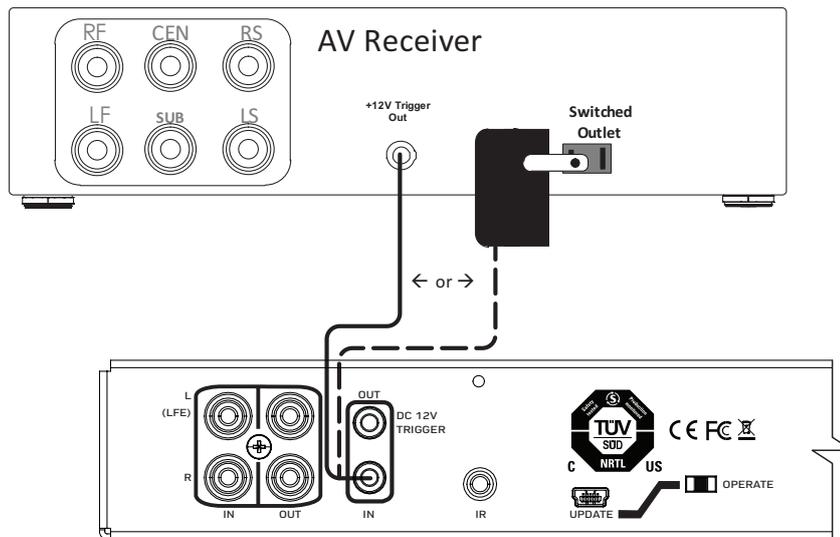


### Dual Sub Connections

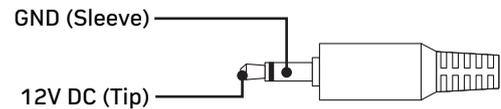


### 12V DC Trigger

Connect the 12V trigger output of another device to the 12V trigger input of the amplifier using a high quality mono cable.

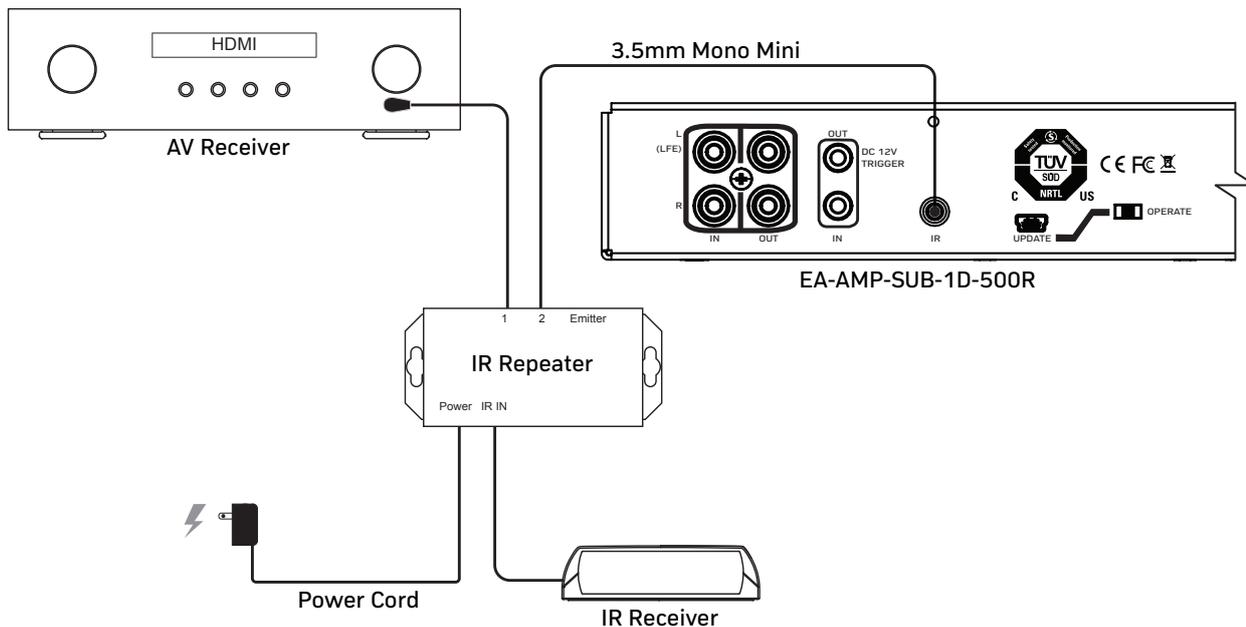


If the receiver does not have a 12V trigger output, using a 12V power supply plugged into a switched outlet on the receiver provides the same functionality. Connect the appropriate conductor to each screw terminal, observing correct polarity.

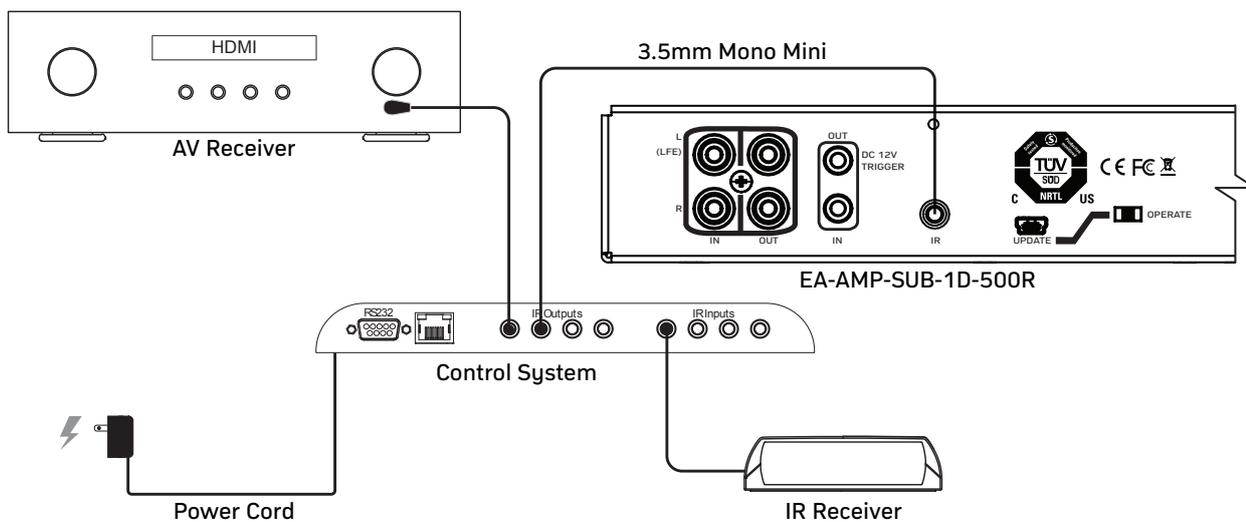


## IR Port

### IR Repeater Connections



### Control System Connections



## FINE TUNE

After making all connections and calibrating the speakers, fine tune the subwoofer as instructed below. See pages 4–5 for more on menu functions.

**NOTE:** When using an AV receiver and the LFE input, set the subwoofer calibration level to the factory setting, and select LFE for CROSSOVER.

1. Ensure that the subwoofer is plugged in.

During initial setup, set the POWER CONTROL to FRONT PANEL. Once calibration is complete, switch to AUDIO SENSE to enable the automatic power-saving mode. For reference, the different modes are as follows:

**FRONT PANEL:** Always on. Amplifier does not turn off automatically. Turn the unit ON/OFF using the front panel power button.

**12V TRIGGER:** Amplifier turns on when 12V signal is detected and off when 12V signal is absent.

**AUDIO SENSE:** Audio Sense enabled. Amplifier turns on when audio signal is detected. Unit enters standby mode if no signal is detected after 15 minutes.

2. Select the desired EQ setting or set to FLAT (unmodified sound). Set the controls to positions that will enable tuning for maximum performance.

FLAT: Unmodified Sound	
Setting	Value
Initial Volume	50
Initial Crossover	Set to 170Hz, or set to LFE if LFE input is used
Initial Phase	0°

**NOTE:** If deeper bass is desired, adjust the CROSSOVER control toward the lower frequencies. Experiment with different frequency settings until finding one that sounds best. When using the LFE input, set to LFE and make any crossover adjustments in the preamplifier or receiver crossover settings.

DUAL8: Optimized for use with Dual 8" In-Wall Subwoofer		
Setting	Use Case	Value
Initial Volume	(1) ES-SUB-IW-DUAL8	53
	(2) ES-SUB-IW-DUAL8	50
Crossover		LFE*
Initial Phase		0°

**NOTE:** \*AVR bass management, usually @ 80Hz for most in-wall/in-ceiling speakers with open back volume.

BSUB12: Optimized for use with Burial Subwoofer		
Setting	Use Case	Value
Initial Volume	(1) ES-LS-BSUB-12-CPR and (2) ES-LS-SAT-6-BRN (8Ω)	50
Crossover	ES-LS-SAT-4-BRN	120 Hz
	ES-LS-SAT-6-BRN	110Hz
	ES-LS-SAT-8-BRN	100Hz
Initial Phase		0°

HSUB10: Optimized for use with Hardscape Subwoofer		
Setting	Use Case	Value
Initial Volume	(1) ES-LS-HSUB-10-BLK and (2) ES-LS-SAT-6-BRN (8Ω)	53
Crossover	ES-LS-SAT-4-BRN	120 Hz
	ES-LS-SAT-6-BRN	110Hz
	ES-LS-SAT-8-BRN	100Hz
Initial Phase		0°

3. Play a movie scene or music track and set the system volume to an average level. Listen to the bass level from the preferred listening position. Adjust the VOLUME control as desired.
4. Continue listening to music and movie sources using the settings chosen for volume and crossover.
5. Experiment with the PHASE until finding the best setting. Depending on the subwoofer placement, the bass may sound louder or deeper when the phase has been optimized. In some cases, adjusting phase will make no discernible difference.

## SPECIFICATIONS

Continuous Power Output	250 watts RMS at 8 ohms 500 watts RMS at 4 ohms (< 0.5% THD)
Input Sensitivity	100 mV for 500W output 4 ohms
Input Impedance	15,000 ohms
S/N Ratio	88 dB (5 kHz bandwidth relative to 500W @ 4 ohms)
Frequency Response	-1.1dB at 300 Hz (Flat EQ, LFE Crossover Setting) -1.5dB at 20 Hz
Distortion	< 0.2%
Auto On Sensitivity	< 5.5 mV (Left) < 22 mV (Right)
External Trigger Voltage	12V +/-1.2V no load 10.5 V with 100 mA load
12V Trigger Threshold	2.6 V
Current Limit Threshold	2.7 ohms (4 ohm minimum nominal speaker load)
Front End Overload	3.6 V RMS (L + R, 20 Volume, 40 Hz Signal, Flat EQ, LFE Crossover)
Dimensions	16.9" W (19" including rack mounts) 1.75" H (2.1" including feet) 8.1" D (front switch to rear chassis) 8.9" D (front switch rear speaker connector)
Weight	8.5 lb
Certification	TUV Listed and tested under UL/EN60065 for US and Canada

## TROUBLESHOOTING

Episode amplifiers are designed to function trouble-free. Most problems that occur are due to simple issues. If having trouble, check the list of simple fixes below. If the problem persists, contact Episode technical support at 866.838.5052.

No audio output	<ul style="list-style-type: none"> <li>• Audio cable to the source component is not connected properly, connection to output or the cable is defective. Check connections or replace cable with one that has been verified as good.</li> <li>• Amplifier is in standby mode and needs to be turned on (blue LED).</li> <li>• Check the connections of the speaker wire at both the speaker and amplifier.</li> <li>• The level adjustment is turned down. Slowly turn the dial to the right to raise the volume.</li> </ul>
Hum or buzzing sound is heard	<ul style="list-style-type: none"> <li>• Check RCA input cables by removing them one at a time and verify connections.</li> </ul>
Amplifier will not turn on	<ul style="list-style-type: none"> <li>• Ensure the amplifier is plugged into a live outlet.</li> <li>• Ensure the power switch on the front panel is on (blue LED).</li> <li>• Fuse is blown. Replace with 8AL fuse type.</li> <li>• The power mode may be set to the wrong mode for the system's configuration or setup.</li> </ul>
Unable to control menu	<ul style="list-style-type: none"> <li>• Ensure amplifier is not in Lock Mode. Hold for 10 seconds to unlock menu.</li> </ul>

## **WARRANTY**

### **2-Year Limited Warranty**

Episode® Amplifiers have a 2-Year Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products that have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to a designated service center with an assigned return authorization (RA) number. Contact technical support at [support@episodeaudio.com](mailto:support@episodeaudio.com) for an RA number.

## **CONTACTING TECHNICAL SUPPORT**

866.838.5052

[support@episodeaudio.com](mailto:support@episodeaudio.com)



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