

episode

**OWNER'S MANUAL**

**>> VOLUME CONTROL**

**EVC-100R, EVC-100S**



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## **CONGRATULATIONS ON SELECTING AN EPISODE™ VOLUME CONTROL.**

Episode is one of the most highly-regarded brands of electronics and speakers available today. We appreciate your business and we stand committed to providing our customers with the highest degree of quality and service in the industry.

The Episode EVC-100R and EVC-100S are 12-step stereo volume controls that feature selectable impedance-match settings of 1X, 2X, 4X, and 8X. This allows you to connect multiple speakers to an amplifier without overloading the amplifier.

## **PRE-CONSTRUCTION**

Both the EVC-100R and the EVC-100S fit easily into the majority of 18 cubic inch single-gang boxes and rings available today. If local building code allows, use of a ring provides for the easiest installation as the full depth of the wall is accessible. Some building codes allow low voltage devices such as volume controls to be enclosed in the same electrical boxes as 110 volt devices. Episode does not recommend this type of installation as interference may be introduced to the audio signal. For the same reason, take care not to install volume controls next to high wattage light dimmers.

## WIRING

The EVC-100R and the EVC-100S can accommodate 14 to 22-gauge speaker wire. The longer your run, the thicker the wire should be. All in-wall and in-ceiling wire installations are subject to local code fire ratings. Never use lamp or zip cord for an installation where the wire will be in a wall or ceiling. Always use multi-strand copper speaker wire for your installations. UV protected wire should be used for outdoor installations.

- Check your local building and fire rating codes for low voltage device installation & wiring requirements before you begin your installation.
- In existing construction installations, check for obstructions such as any pipes, conduit or wiring before cutting into drywall.

## SETTING THE IMPEDANCE SWITCH

A single switch on the EVC-100R and the EVC-100S changes the impedance setting of the volume control. Three factors determine the correct setting:

- 1) *The minimum impedance rating of the amplifier being used.*
- 2) *The number of speakers being connected to the amplifier channel.*
- 3) *The impedance of the speakers being connected to the amplifier channel.*

Carefully determine the system impedance. Once that is done, the switch settings for the volume control are easy to make.

Two simple equations will determine the system impedance:

- 1) Impedance Rating of Speakers divided by the number of speakers connected to channel = System Impedance

$$Is/N=It$$

- 2) Amplifiers Minimum Impedance Rating / by System Impedance = Impedance Match Switch Setting

$$Im/It=X.$$

## **EXAMPLE**

If the amplifier's minimum impedance rating = 8 ohms and you wish to connect four 8 ohm speakers to a single amplifier channel:

*8 ohm speakers / by 4 speakers = 2 ohm system impedance*

*8 ohm amplifier / by 2 ohm system impedance = 4X switch setting*

Most speakers are rated at 4, 6 or 8 ohms. If connecting speakers of different impedances to an amplifier, an average impedance must be determined; 6-ohm speakers should be entered into the equation as 4-ohm speakers. All volume controls connected to the amplifier should always have the same impedance match setting. Never go below an amplifier's minimum impedance rating as this can cause damage to the amplifier. Both the EVC-100R and EVC-100S have minimum impedance ratings of 4 ohms. If connecting more than one speaker to the EVC-100R or EVC-100S, make sure not to exceed this minimum.

## **INSTALLATION AND WIRING**

The removable connectors allow for easy termination of speaker wire to the volume controls.

1. Strip back 1/4" of insulation from each wire that is to be connected to the volume control. Twist the exposed conductors tightly so that there are no stray strands.
2. To make connecting wires to the volume control quick and easy, your Episode volume controls use connectors that allow wire connection without the need for additional tools such as screwdrivers. Simply flip the levers on each connector up before inserting the appropriate wire. Insert the wires then snap the levers down.

- The spring-loaded mechanism will hold the wires in place.
3. Connect the wires going to each speaker to the connector labeled SPEAKERS. Make sure to maintain proper polarity.
  4. Check that the amplifier or receiver being used is turned off and then connect the wire coming from the amplifier to the connector labeled AMPLIFIER.
  5. Once all conductors are inserted in to the connectors, visually inspect each of your connections to ensure that there are no stray strands that might short and that there is not an excessive amount of exposed wire outside of the connector. Also be sure that the connector is tightened down on bare wire and not insulation. Install the connectors back on to the volume control circuit board. Please be sure that the connectors are in the correct place on the volume control.

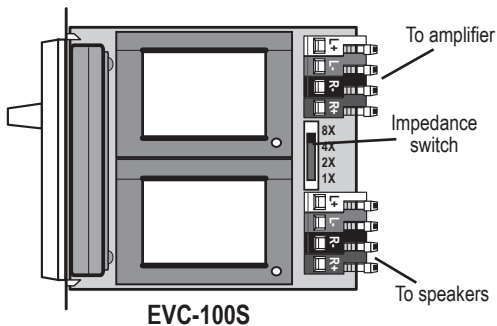
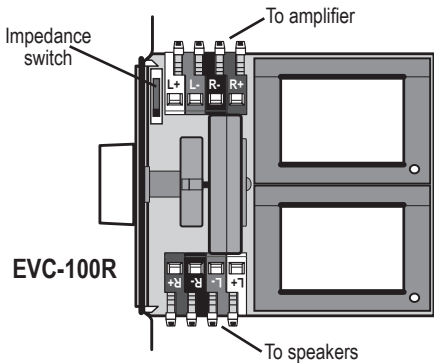
*REVERSING THE AMPLIFIER & SPEAKER CONNECTORS WILL LIKELY CAUSE DAMAGE TO THE AMPLIFIER, VOLUME CONTROL AND THE SPEAKERS AND IS NOT COVERED UNDER WARRANTY.*

6. An optional step is to change the color of the trim plate on the face of the volume control. This is done easily by pressing on the two tabs (only one tab for slider volume control) of the plate on one end of the volume control and pushing towards the knob shaft or slider lever. Rotate out the plate and replace with the color of your choice. Your volume control is supplied with white parts installed and almond parts included for an easy and fast change. These are available for both the knob and slider style volume controls. When the plate change is complete, push the knob into place. When installing the slider plate, be sure to align the slider knob with the slider mechanism.

7. Install the volume control in the box or ring using the two longer screws provided. Be careful not to force the volume control into the ring or box as this will cause the connectors to become loose or may result in wires being forced out of the connectors.
8. Place Decora plate over volume control. Insert and tighten short color-matched screws until the cover is tight and flush with the wall.

*DO NOT CONNECT THE WIRES FROM THE AMPLIFIER TO THE VOLUME CONTROL UNTIL YOU HAVE CHECKED THE FOLLOWING:*

- Measure the resistance between the + and – of each pair of wires that is to be connected to the amplifier's speakers outputs using an Ohm Meter. Under no circumstances should this value be below 3.5 Ohms. A reading of less than 3.5 Ohms may mean that the wiring input and output connectors on the volume control have been reversed. An open reading likely indicates a polarity reversal.
- Confirm that the amplifier is powered down before connecting any volume control wires to it.



## SPECIFICATIONS

Power Rating	100 Watts continuous or 200 Watts Peak Music Power per channel
Frequency Response	20 - 20KHz, +/- 0.5 dB into 8 ohms
Total Harmonic Distortion	<1%
Impedance Settings	1x, 2x, 4x, 8x
Speaker Load Impedances	4, 6, or 8 ohms
Dynamic Range	54 db

## Lifetime Limited Warranty

*All Episode Volume Controls have a Lifetime 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 which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to the SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).*



### Episode

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