

Model No.

VCS8 Series

Impedance Matching Stereo Volume Control

For home/residential systems use only.

NOT for use in:
25V/70V/100V systems or for amplifiers with more than 50W per channel output.

INCLUDES:

- 50W home stereo attenuator
- 1-gang decorator-style wall plate (white or almond)
- Rotary knob (white or almond)



IMPEDANCE MATCHING CONTROL with one-gang decorator-style wall plate connects multiple pairs of stereo speakers to a home stereo amplifier (or home stereo receiver/amplifier). **Each pair of speakers must be wired to a separate home stereo volume control.**

FEATURES

DESCRIPTION: Impedance matching control can be used to connect multiple pairs of stereo speakers to a home stereo amplifier (or home stereo receiver/amplifier). Each pair of speakers must be wired to a separate home stereo volume control. The left channel inputs of the home stereo volume control (VCS) can then be wired in parallel to the left output channel of the home stereo amplifier, and the right channel inputs of the home VCS can then be wired in parallel to the right output channel of the home stereo amplifier.

NOTE: The home stereo amplifier can have no more than 50 watts per channel maximum output.

POWER RATING: 50W per channel

ATTENUATION: 3dB per step

TERMINATION: Phoenix style plug-in screw termination strips for pre-wire convenience

WIRE CAPACITY: Up to 14-gauge

SWITCH TYPE: Rotary knob, white or almond

SWITCH POSITIONS: Non-continuous rotation (stops at off and maximum)

WALL PLATE: One-gang decorator-style wall plate, white or almond. 2.75 in. x 4.5 in.

USAGE: For use with one pair of 8 ohm or 4 ohm speakers. The volume control will fit a standard one-gang E.O. box with minimum inside dimensions of 1.875-in.W x 3-in.H x 2.5-in.D.)

COUNTRY OF ORIGIN: China

A&E SPECIFICATIONS

The impedance matching home stereo volume control for use with 8 ohm or 4 ohm speakers and a typical home stereo amplifier or amplifier/receiver (maximum amplifier output of no more than 50W per channel), shall be Lowell model _____ (VCS8-DW, VCS8-DA) with 50W power rating, 3dB per step attenuation, and phoenix style plug-in screw termination strips for pre-wire convenience (wire capacity up to 14-gauge). The volume control shall include a circuit board mounted slide switch that is used to set the proper impedance matching. It shall also include a one-gang decorator style _____ (white, almond) wall plate and rotary switch with stops at off and maximum. The unit shall be able to mount in an E.O. box that has minimum inside dimensions of 1.875-in.W x 3-in.H x 2.5-in.D.

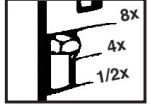
OPTIONS

P1X: One-gang surface-mount steel wall box with knockouts and white powder epoxy finish. Includes U-clips.

INSTALLATION GUIDE

Perform the following steps to install one or more volume controls to your stereo system. These instructions assume that you have already installed all speaker pairs at the desired locations.

1. Refer to your amplifier's manual to determine the minimum impedance level that can be safely connected to each channel. In most cases, the minimum impedance is 4, or 8 ohms.
2. Determine how many home stereo volume controls are to be connected and the nominal impedance of the speakers. **Note that only a single pair of speakers should be connected to each home stereo volume control.**
3. Refer to the following tables to determine the switch settings for each volume control, depending on the minimum impedance load of your amplifier, then set the switches on all volume controls to the indicated value.



Each 50W impedance matching home stereo volume control can be installed in a standard single-gang low-voltage outlet box. The number of home VCS' (each feeding one pair of speakers) that can safely be fed from the home stereo amplifier, depends on the impedance of each speaker, and the output impedance capability of the home stereo amplifier as described in the charts below:

*Amplifier with Stereo 8ohm Capable Outputs	
Number of Home VCS', each feeding one 8ohm left and one 8ohm right speaker	Set slide switch to this position on each of the Home VCS'
1-4	4X
5-8	8X
More than 8	Not Recommended

*Amplifier with Stereo 8ohm Capable Outputs	
Number of Home VCS', each feeding one 4ohm left and one 4ohm right speaker	Set slide switch to this position on each of the Home VCS'
1-4	4X
More than 4	Not Recommended

*Amplifier with Stereo 4ohm Capable Outputs	
Number of Home VCS', each feeding one 8ohm left and one 8ohm right speaker	Set slide switch to this position on each of the Home VCS'
1	1/2X
2-8	4X
9-16	8X
More than 16	Not Recommended

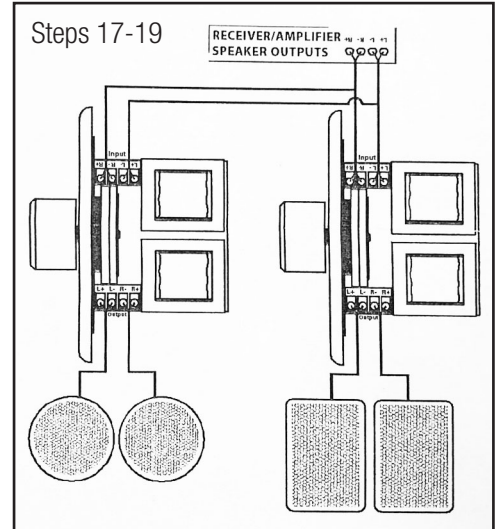
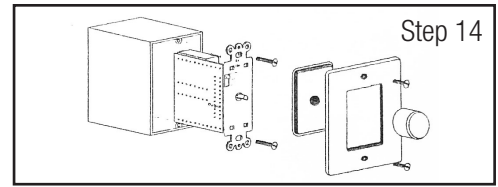
*Amplifier with Stereo 4ohm Capable Outputs	
Number of Home VCS', each feeding one 4ohm left and one 4ohm right speaker	Set slide switch to this position on each of the Home VCS'
1-4	4X
5-8	8X
More than 8	Not Recommended

*NOTE: An "8ohm capable" amplifier output means that according to the amplifier specification sheet, the amplifier can safely feed an 8ohm (or greater) speaker load. A "4ohm capable" output means that according to the amplifier specification sheet, the amplifier can safely feed a 4ohm (or greater) speaker load.

4. Run an in-wall rated speaker wire from the left-channel speaker to the home stereo volume control intended for use with this speaker pair.
5. Connect the wire to the left channel speaker, taking note of the wire colors or markings used for the **positive (+) and negative (-) connections**. For best results, always use the same wire colors or markings for the positive and negative connections.
6. Connect the other end of the left-channel speaker wire to the **L+ and L- Output** terminals on the volume control, taking care to match the polarity.
7. Run an in-wall rated speaker wire from the right-channel speaker to the home stereo volume control intended for use with this speaker pair.
8. Connect the wire to the right channel speaker, taking note of the wire colors or markings used for the **positive (+) and negative (-) connections**.
9. Connect the other end of the right-channel speaker wire to the **R+ and R- Output** terminals on the volume control, taking care to match the polarity.
10. Run an in-wall rated speaker wire from the home stereo volume control intended for use with this speaker pair to the amplifier. Mark the wire as the left-channel wire at the amplifier end.
11. Connect the left-channel amplifier wire to the **L+ and L- Input** terminals on the volume control, taking note of the wire colors or markings used for the **positive (+) and negative (-) connections**.

(continued on next page)

12. Run a second in-wall rated speaker wire from the home stereo volume control intended for use with this speaker pair to the amplifier. Mark the wire as the right-channel wire at the amplifier end.
13. Connect the right-channel amplifier wire to the **R+ and R- Input** terminals on the volume control, taking note of the wire colors or markings used for the **positive (+) and negative (-) connections**.
14. Install the home stereo volume control, taking care to ensure that the wires do not come loose from their connections or become pinched or shorted.
15. Repeat steps 4–14 for each additional speaker pair, and home stereo volume control.
16. Ensure that the amplifier is powered off and unplugged from the power source.
17. At the amplifier, use a terminal block or wire nut to connect all the **left-channel negative (-) wires** and a short length of speaker wire together.
18. Connect the negative lead on the short length of speaker wire to the **left-channel negative (-) terminal** on the amplifier.
19. Repeat steps 17–18 for the **left-channel positive (+) lead**.
20. Repeat steps 17–19 for the **right-channel negative (-) and positive (+) leads**. The image to the right illustrates a proper connection for two volume controls.
21. Determine which room or speaker pair you want to be the loudest, then turn the volume control fully clockwise to the maximum position. If all zones are to be the same volume level, set all volume controls to the maximum level.
22. Set the volume control on the amplifier to the minimum level.
23. Plug in and power on the amplifier.
24. Start audio playback, then slowly increase the volume control on the amplifier until the volume level in the selected room(s) are at the maximum level you will want with no distortion. If distortion can be heard, reduce the volume level until distortion can no longer be heard.
25. Leave the volume control on the amplifier at the set position, then use the individual zone volume controls to set the volume in each zone to a comfortable listening level.



TYPICAL HOOK-UP

