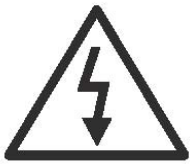
CABLETRONIX™

INSTALLATION MANUAL

AT-VC35, AT-VC50, AT-VC100
and AT-VC4100
Impedance Matching Stereo Volume Control

IMPORTANT INFORMATION



The lighting 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.

WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

PACKAGE CONTENTS

This package contains:

One AT-VC* Impedance Matching Stereo Volume Control
Installation Hardware and Wall Plate
One AT-VC* installation manual

PRODUCT DESCRIPTION

The Cabletronix AT-VC* series Impedance Matching Stereo Volume Control connects between the speaker level output of an amplifier, receiver, or speaker selector and a pair of speakers. These are high quality stereo autoformers designed for wide range frequency response at all volume levels. The AT-VC* connect terminals allow for simple and secure wire connections. A multiple room switch provides easy impedance adjustment when multiple speakers are connected to a single amplifier.

The AT-VC35, AT-VC50, and AT-VC100 are rated respectively at 35, 50, and 100 watts, and are designed to support one pair of speakers. The AT-VC4100 is rated at 100 watts, and can control up to 4 pairs of speakers.

SPECIFICATIONS

Power Rating	35, 50, 100 watts depending upon model
Frequency Response	20Hz to 20kHz
Total Attenuation	42 dB maximum
Depth:	2” to 2.5” behind plate depending upon model
Mounting	Fits nearly all standard single-gang junction boxes and plaster rings

INSTALLATION AND OPERATION

NOTE TO INSTALLER

System installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding. If you do not understand any part of these instructions, contact your Cabletronix dealer or consult a professional installer. Improper wiring could cause damage to your audio system.

1. UNPACKING and HANDLING

Each unit is shipped assembled and factory tested.

Ensure that all accessories are removed from the container before discarding packing material

2. MECHANICAL INSPECTION

Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no connectors are broken, damaged, or loose. If equipment appears to be damaged or defective please contact your distributor or Cabletronix at 1-610-429-1511 for assistance. **Never use damaged parts. Never install damaged or defective equipment.**

3. SELECTING PROPER LOCATION FOR THE VOLUME CONTROL

The primary listening area and ease of running wire from your audio system to the volume control are key criteria for selecting the location for installing the AT-VC*.

Never place the AT-VC* into the same box as a 110V AC circuit (e.g., light switch, electrical outlet, etc.) as speaker wires can act as an antenna and pick up electrical noise that will be heard through the speakers. If the AT-VC* must be located near electrical devices such as light switches, dimmer switches, etc. then you must use a separate electrical box.

Once the location is selected, install a standard single-gang plaster ring or a single-gang electrical box.

4. WIRING

All audio equipment must be powered off before installing the AT-VC*.

The AT-VC* volume controls feature a removable wire block terminal for easy installation. If needed, remove the wire block terminal from the control.

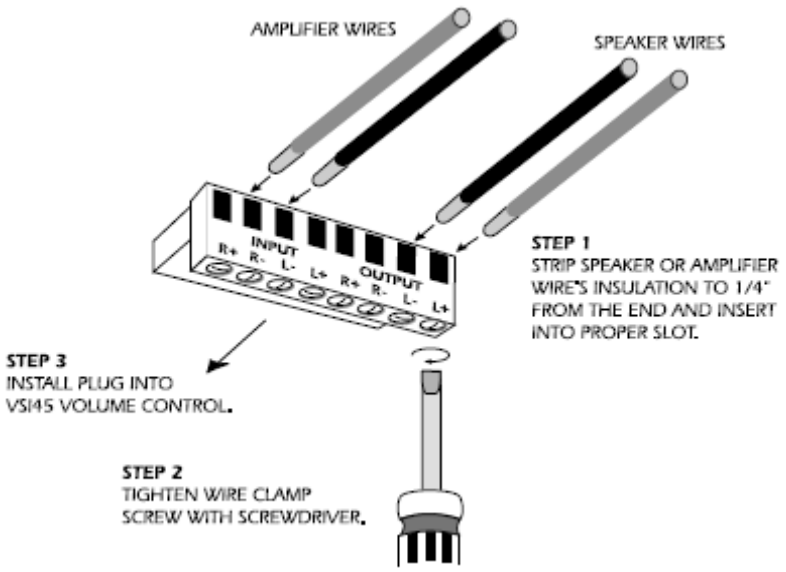


Figure 1

Strip the speaker wire no more than ¼" from the end. As shown in Figure 1, loosen the screws on the bottom of the wire block terminal so the wire can be pushed completely into the opening. Tighten the screws to secure the wire. Once all wires have been connected, replace the wire block terminal onto the volume control. Wires may be removed by loosening the screws on the bottom of the wire block terminal.

As shown in Figure 2, connect the amplifier or receiver's left speaker output to the left input terminals on the removable wire block terminal. Be sure the proper polarity of the connection is maintained, that is, + from the amplifier/receiver to + input on the volume control. Repeat this step for the right side.

Connect the wires from the left speaker to the left speaker to the left speaker output terminals on the removable wire block terminal. Again, be sure the proper polarity of the connection is maintained, that is, + speaker to + output. Repeat this step for the right speaker connection.

CAUTION: If the input and output connections are reversed, the minimum setting on the AT-VC* will cause a short across the amplifier or receiver output terminals resulting in serious damage to your amplifier/receiver. Be sure the polarity for the above connections is correct. Double and triple check your connections.

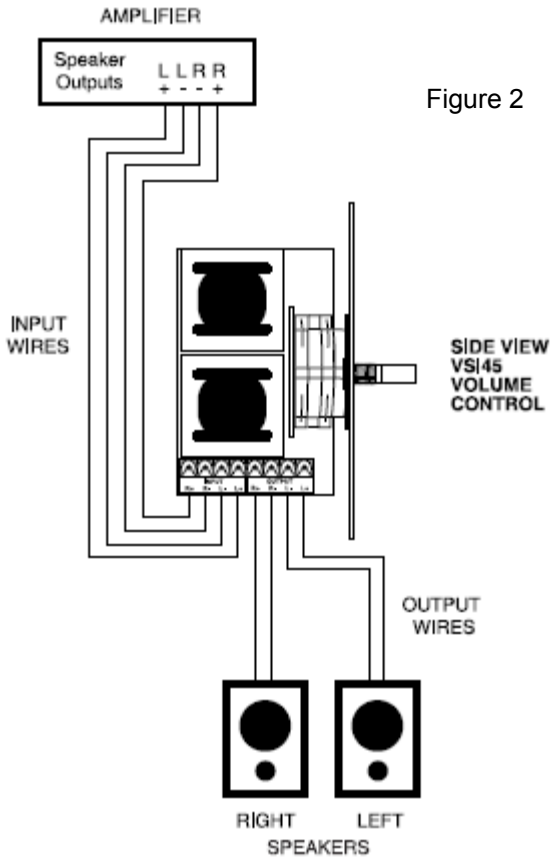


Figure 2

5. MULTIPLE SPEAKERS

CAUTION: The AT-VC35, AT-VC50, and AT-VC100 are designed to support a single pair of speakers. Attempts to drive multiple pairs of speakers with any one of these controllers may cause damage to the amplifier or receiver.

CAUTION: Regardless of the AT-VC model you are installing the volume control unit cannot be connected in series with another volume control.

If you are installing the **AT-VC4100** you can control multiple pairs of speakers without damaging the amplifier/receiver. Selection of speaker pairs is made by using bridge clips that can be easily changed. Both bridge clips must have the same setting (i.e., 1x, 2x or 4x). **CAUTION: Failure to properly set the bridge clips may result in damage to the amplifier/receiver.** Figure 3 represents proper bridge clip settings for the **AT-VC4100**.

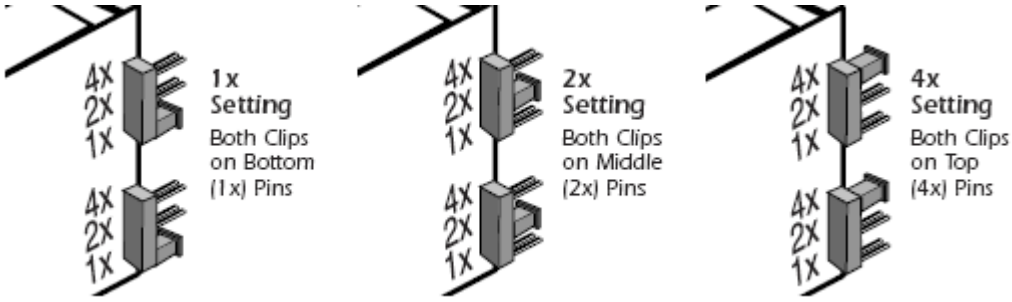


Figure 3

Use the chart below to determine the maximum number of speaker pairs that can be connected to the amplifier/receiver, and the appropriate bridge clip setting (1x, 2x, or 4x) to use on the AT-VC*.

Number of 8ohm Speaker Pairs

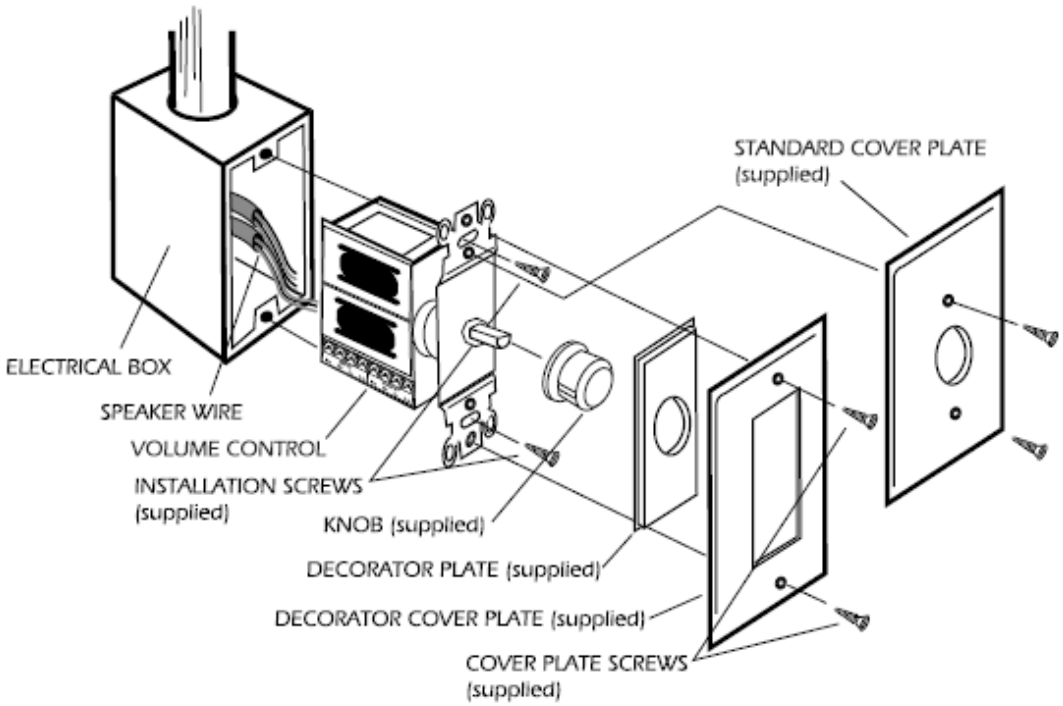
Minimum Amplifier Impedance Capability

	1	2	3	4	5	6	7	8	9
8ohm	1x	2x	4x	4x	4x				
6ohm	1x	2x	4x	4x	4x	4x			
4ohm	1x	1x	2x	2x	4x	4x	4x	4x	4x

In the first column, determine the minimum impedance capability of your amplifier/receiver. Move across the row to the number of 8Ω speaker pairs you wish to use. The resulting number (1x, 2x or 4x) is the bridge clip setting appropriate for your configuration. **Both bridge clips must have the same setting**. The gray area indicates a setting that is slightly below the amplifier/receiver's minimum impedance but will most likely work.

6. MOUNTING

With wiring completed the AT-VC* is ready for mounting in the wall. Using Figure 4, place the components of the AT-VC* into the wall in the order illustrated. Use the enclosed screws to hold the components in place. Note that the rotary switch is shipped with the control turned as far counterclockwise as it will turn off. If you changed this, return it to the full counterclockwise position before starting installation.



Further troubleshooting assistance can be found on-line at www.cabletronix.com in addition to support from Cabletronix sales engineers at 1-610-429-1511.