

*INSTALLATION INSTRUCTIONS*

**XANTECH VOLUME CONTROLS**



**XVCD50  
XVCD100**

**XVCD100IR**



**XVCS50  
XVCS100**

**XVCS100IR**



**XVC50  
XVC100**

**XVCO100**



# Installation Instructions

## XVC Series Volume Controls

Xantech's premier product line of XV volume controls are in-wall mountable stereo speaker volume control with impedance matching capability. From one to eight pairs of stereo speakers may be driven from one stereo power amplifier, using an equal number of XV volume controls. It maintains correct impedance matching between the amplifier and the speakers by the use of instant setting jumpers on the control. This eliminates the need for separate impedance matching components in multi-room installations.

### Features and Benefits

- XVC50, XVD50, XVC50  
Power handling: 50 Watts continuous, 150 Watts peak
- XVC100, XVD100, XVCS100, XVCO100, XVCD100IR, XVCS100IR  
Power handling: 100 Watts continuous, 300 Watts peak

- All Models

Adjustable impedance matching for up to 8 speaker pairs (1, 2, 4, 8 pairs)

Attenuation: 11 steps plus Off; max 42 dB

Frequency response: 20Hz-20kHz  $\pm 1$  dB

Speaker Terminals: 16 gauge, Quick Connect (detachable)

Mounting: Minimum 20 cu. in. J-box or Mud Ring.

*Note: Be sure to check fit before choosing J-boxes!*

Isolated left- and right-channel grounds ensure safety with any bridged amplifier.

Fluid, pop-free switching during volume adjustments.

Compatible with 4-, 6-, or 8-ohm speaker systems.

UL Listed to comply with all local building codes.

Installation requires only a screwdriver and wire strippers.

## Installation Requirements

You will need at the very least, a  $\frac{1}{8}$ " slotted screwdriver, a  $\frac{1}{4}$ " slotted screwdriver, wire cutters and wire strippers.

The recommended speaker wire to be used is 16-gauge stranded copper speaker wire. For runs longer than 100 feet, we recommend 14-gauge stranded copper speaker wire. Never use solid-core wire such as aluminum or Romex wire.

Most installations in the United States require a special fire rated wire (CL-2 or CL-3) for speaker wire installed within a wall. Consult your local building codes to find out what kind of wire is required.

Be sure to observe proper polarity when connecting a system. The positive terminals should always be connected to the positive wire. The negative terminals should always be connected to the negative wire. Failure to do so will result in poor phasing and possible system malfunctions.

Some areas allow the installation of the volume control to be placed in the same junction box as a high voltage connection (120VAC) and divided by a low-voltage partition. This is not recommended as the speaker wires may pick up interference from the high voltage (120VAC) power lines. Again, consult your local building codes to verify the proper way to install the product.

# Impedance Jumper Settings for Identical Impedance

How to use the impedance jumper setting chart:

- 1) Determine the minimum amplifier impedance (typically either 4- or 8-Ohm). This information can usually be found next to the speaker outputs located on the receiver or amplifier. If in doubt, consult the receiver and/or amplifier instruction manual.
- 2) Next, determine the impedance of a single speaker that will be used. Use the left-most column.
- 3) Move to the right of the chart and find the number of speaker pairs that you plan to connect to the volume control.
- 4) Finally, move up the column to the very top row. This row will provide the jumper setting solution. Change the jumper on the volume control to complete the impedance jumper setting procedure. Both jumpers must be changed appropriately (see diagram in Fig. 1)

|                   |       | Jumper Settings |         |         |         |
|-------------------|-------|-----------------|---------|---------|---------|
|                   |       | x1              | x2      | x4      | x8      |
| Speaker Impedance | 8 Ohm | 1 PAIR          | 2 PAIRS | 4 PAIRS | 8 PAIRS |
|                   | 6 Ohm | -               | 1 PAIR  | 2 PAIRS | 4 PAIRS |
|                   | 4 Ohm | -               | 1 PAIR  | 2 PAIRS | 4 PAIRS |

**CHART A: 8 Ohm Minimum Amplifier**

|                   |       | Jumper Settings |         |         |         |
|-------------------|-------|-----------------|---------|---------|---------|
|                   |       | x1              | x2      | x4      | x8      |
| Speaker Impedance | 8 Ohm | 1 PAIR          | 4 PAIR  | 8 PAIRS | -       |
|                   | 6 Ohm | 1 PAIR          | 2 PAIRS | 4 PAIRS | 8 PAIRS |
|                   | 4 Ohm | 1 PAIR          | 2 PAIRS | 4 PAIRS | 8 PAIRS |

**CHART B: 4 Ohm Minimum Amplifier**

**Example 1:**

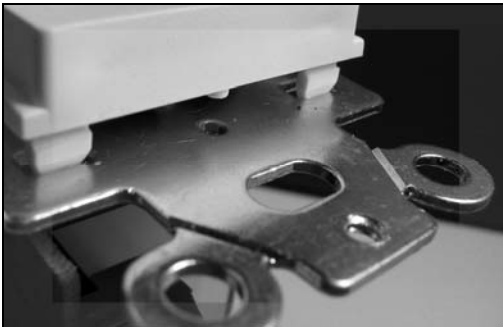
Two pairs of 8 Ohm ceiling speakers are to be used with two volume controls, all driven by a single amplifier rated for 8 Ohm minimum safe operating load impedance.

- 1) Refer to “CHART A”, 8 Ohm Minimum Amplifier.
- 2) In the first column, find “8 Ohms”.
- 3) Follow the row to the right until you find “2 PAIR”.
- 4) Follow the column up to the very top row and find that the jumper setting should be set to “x2” for both volume controls.

**Installation Tip – Setting the Volume**

- 1) Set your receiver and/or amplifier to the lowest possible volume setting.
- 2) Turn all the volume controls to maximum volume (up position for slider volume controls, full clockwise position for rotary volume controls).
- 3) Turn up the receiver and/or amplifier volume setting until you reach the maximum listening level desired.
- 4) Finally, lower the volume control level. Volume setting is now complete.

**Changing the Face Plate**

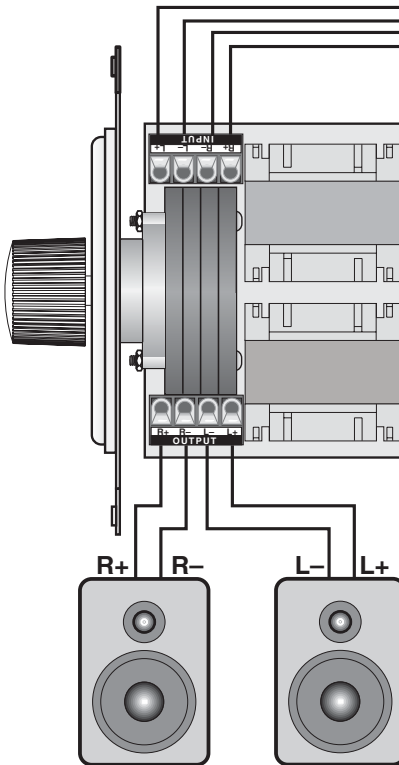


- 1) Gently press the tabs up on all four corners.
- 2) Lift the face plate off the metal frame and remove.
- 3) Replace with the correct color face plate.

# Single Zone, Single Speaker Pair Volume Control Application

**1X SETTING**

Xantech PA series amplifier or equivalent



**Jumper Settings  
(Jumpers on Back)**

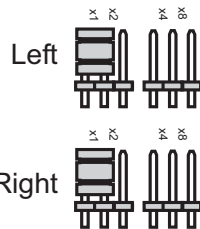


Fig 1.

Right

Left

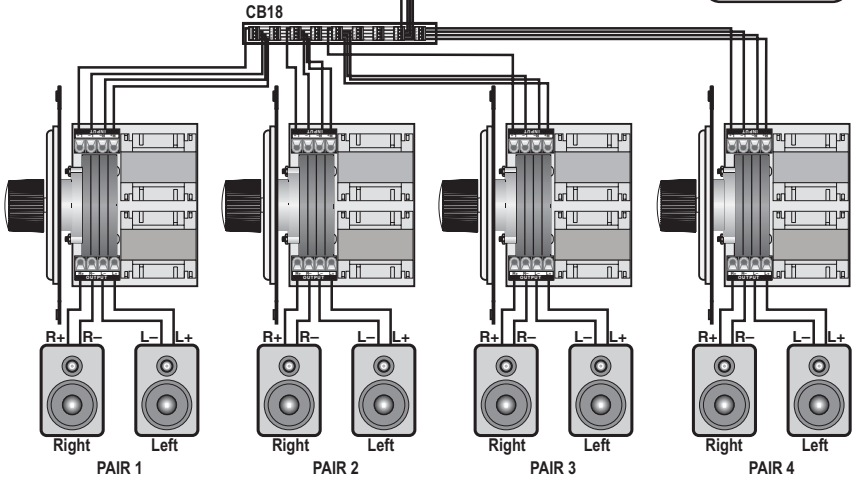
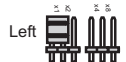
# Multiple Zone, Single Speaker Pair Volume Control Application

Fig 2.

4X SETTING

Xantech PA series amplifier or equivalent

Jumper Settings  
(Jumpers on Back)

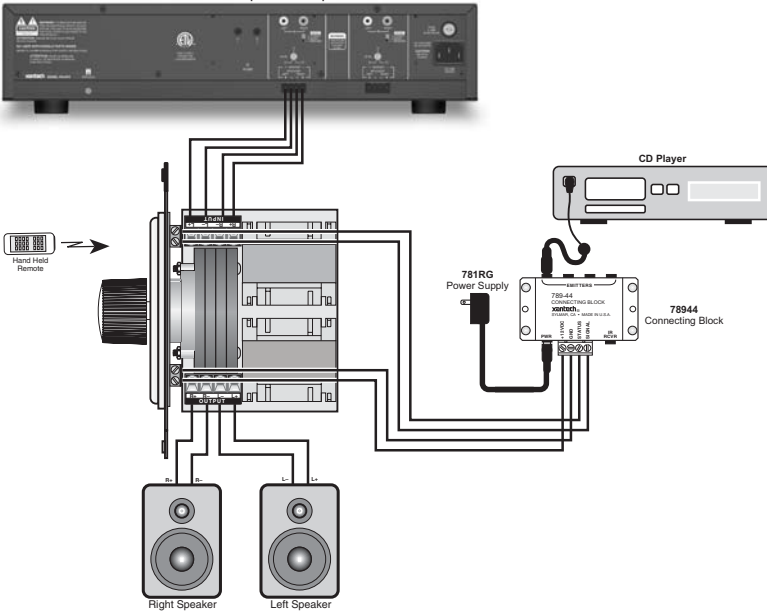


# Single Zone, Single Speaker Pair Volume Control and IR Receiver Application

Fig 3.

1X SETTING

Xantech PA series amplifier or equivalent



**Note: Applies to Model XVCD100IR, XVCS100IR only**



## CB18 Connecting Block (not included)

The CB18 provides a convenient way to parallel many wires onto a 4 conductor bus. You can easily connect many home run leads from volume controls to the output terminals of a main amplifier.



The CB18 features the following:

- Nine 4-terminal plug-in connectors on a 4-conductor bus.
- One-in eight-out or eight-in one-out capability.
- Adhesive backed labels are included for attachment to the plug-in terminals so that the speaker lead connections can easily be identified.
- High current design allows amplifiers rated as high as 500 Watts to be used.
- Screw terminals handle wire sizes from 24 to 12 gauge.
- Dimensions: 11- $\frac{1}{4}$ " x 1- $\frac{1}{4}$ " x 1- $\frac{1}{4}$ ".

# Warranty Statement

## Xantech 5 Year Limited Warranty

(Effective for products sold after July 1, 2006)

Xantech Corporation ("Xantech") warrants to the holder of a valid proof of purchase as the first end-user purchaser ("You"), its products to be free from defects in materials and workmanship for the periods specified above from the date of purchase. This limited warranty extends only to You for product purchased and used in the United States of America. For product purchased outside of the United States of America, the terms of this warranty apply EXCEPT that You must contact the Xantech authorized distributor in your region for warranty services. Product is not intended for end user installation. If within the applicable warranty period above You discover such item was not as warranted above and You promptly notify Xantech in writing, Xantech shall repair or replace the items at its option. Xantech may elect which remedy or combination of remedies to provide in its sole discretion. Xantech may use functionally equivalent reconditioned/refurbished/pre-owned or new products or parts under this limited warranty. This warranty shall not apply (a) to product which shall have been installed by other than an authorized Xantech installer, (b) to installed product which is not installed to Xantech's specifications, (c) to product which shall have been repaired or altered by others than Xantech, (d) to charges for installation or set up or adjustment of customer controls, (e) to product that has suffered normal cosmetic deterioration (f) to product which shall have been subjected to negligence, misuse, abuse, accident, or damage by circumstances beyond Xantech's control, including, but not limited to, lightning, flood, electrical surge, tornado, earthquake, or any other catastrophic events beyond Xantech's control, or (g) to product which shall have been subjected to improper operation, connected equipment failure or malfunction, inadequate packing or shipping damage, maintenance or storage, or to other than normal use of service. The foregoing warranties do not cover reimbursement for labor, transportation, shipping, removal, installation, or other expenses which may be incurred in connection with repair or replacement. All claims for product shipping damage must be processed within 3 days of receipt by You. A Xantech Return Authorization (RA) must be obtained from Xantech by You, your installer or your distributor for Product covered under this warranty. Covered product must be sent to Xantech together with proof of purchase, RA number, prepaid and insured to Xantech. Freight collect shipments will be refused. Risk of loss or damage in transit is borne by the sender. Xantech's warranty does not cover Products which have been received improperly packaged, altered, or physically damaged. Products will be inspected upon receipt. Except as may be expressly provided and authorized in writing by Xantech, Xantech shall not be subject to any other obligations or liabilities whatsoever with respect to equipment manufactured or sold by Xantech or services rendered by Xantech.

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