Installation Instructions

XV 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 or 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, XVC100, 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 ±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 will all local building codes.

  Installation requires only a screwdriver and wire strippers.
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**XANTECH VOLUME CONTROLS**

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**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 ±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 ⅛” slotted screwdriver, a ¼” 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)

<table>
<thead>
<tr>
<th>Speaker Impedance</th>
<th>Jumper Settings</th>
<th>8 Ohm</th>
<th>6 Ohm</th>
<th>4 Ohm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x1</td>
<td>x2</td>
<td>x4</td>
<td>x8</td>
</tr>
<tr>
<td>8 Ohm</td>
<td>1 PAIR</td>
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<td>4 PAIRS</td>
<td>8 PAIRS</td>
</tr>
<tr>
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CHART A: 8 Ohm Minimum Amplifier

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<td>8 PAIRS</td>
</tr>
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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.

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How to use the impedance jumper setting chart:
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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)

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CHART A: 8 Ohm Minimum Amplifier

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<td>1 PAIR, 2 PAIRS, 4 PAIRS, 8 PAIRS</td>
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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.
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 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.
Multiple Zone, Single Speaker Pair Volume Control Application

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

Note: Applies to Model XVCD100IR, XVCS100IR only
Multiple Zone, Single Speaker Pair Volume Control Application

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

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: 11-¼" x 1-¼" x 1-¼".

Warranty Statement

Xantech 5 Year Limited Warranty
(Effective for products sold after July 1, 2006)
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