

Installation Instructions

1. **Select Location-** Select a convenient location in each room or area that speakers are desired. You will need one volume control for each pair of speakers. The most common height is the same level as the electrical light switches in your home or office.

CAUTION: Be certain that there are no electrical wires, water pipes, heat or cold air return ducts in the planned installation area before you start cutting into the wall. If there is an electrical outlet any where nearby, turn off the circuit breaker to avoid possible injury. Use of an electrical wire finder and/or stud finder (found at most home center stores) may be of assistance.

2. **Mounting Box-** The volume control is made to be mounted into a standard single duplex electrical box (also found at most home center stores). Mount the box using the instructions provided.
3. **Speaker Wire-** Use UL approved CMR, CL-2 or CL-3 jacketed speaker wire when possible. Use minimum 16 gauge wire on runs under 100 feet and 14 gauge on runs over 100 feet. You should run one, 4 conductor wire from the amplifier location to each volume control, this is called "home run" wiring. Next, run a 2 conductor wire from the volume control to each speaker location.
4. **Connector hookup-** Remove the green speaker PCB connectors from the back of the unit. Loosen the set screws in the connector.

When hooking up the speaker wires to the connectors be sure to observe the correct polarity. This is very important because improper polarity will cause unwanted frequency response aberrations. It is also important to make sure that the wires from the amplifier are connected to the "Input" and the speaker wires are connected to the "Output".

Leave approximately 6-8 inches of wire length inside the box. For future reference, mark the wires inside the box with their location using a permanent marker. Remove 2" of the jacket from the speaker wire. Using wire strippers remove about 1/4" of insulation from each wire. Twist the strands of wire tightly before inserting them into the connectors (for the best possible connection, you may want to tin the wires if you have a soldering iron available). Insert the speaker wires into the connectors and tighten the set screws.

5. **Attach connectors-** Push the green connectors with wire attached onto the posts on the PCB.
6. **Installing the control-** Install the control in the single duplex gang box by gently pushing the wires into the box and mounting the control using the two 1" flathead screws supplied. DO NOT OVERTIGHTEN.
7. **Reinstall wall trim plate-** With the two 1/4" screws removed earlier reinstall the trim plate.
8. **Setting Impedance-** Set the volume control to the proper impedance using the chart listed above.
9. **Finishing Touches-** At the amplifier location you should install a Speaker Distribution Panel (SDP4 or SDP10). Mount the distribution panel using the instructions provided.
10. **Amplifier hookup-** The binding posts on the front of the speaker distribution panel will accept up to 10 gauge wire and single or double banana plugs. As with any sound system, always observe correct polarity from the amp to the speakers.



Impedance Protected Stereo Volume Control



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VRS100

***Congratulations** on your purchase of the Dayton Audio® In-Wall Impedance Protected Volume control. This product was manufactured with the highest quality components and designed to deliver superior performance.*

Features:

The Dayton Audio® in-wall impedance protected volume controls were designed for fast and easy installation in new construction and existing homes, offices and commercial buildings. They were designed to be used in conjunction with the Dayton Audio® in-wall speaker distribution panels (SDP4 or SDP10). The volume control gives you the ability to connect up to 16 pairs of speakers (1 pair per volume control) to a standard home/office entertainment center without the need for speaker switching devices. Packaged with the volume control you will find three different color inserts. Removal and installation is carefully accomplished by depressing and releasing the rear tabs.

The removable PCB wiring connectors accepts up to 14 gauge wire and allows you to pre-wire your system during new construction before the drywall stage, reducing the risk of damage to the unit. The connectors make installation fast after construction. These stereo controls feature 12 steps of attenuation.

Specifications:

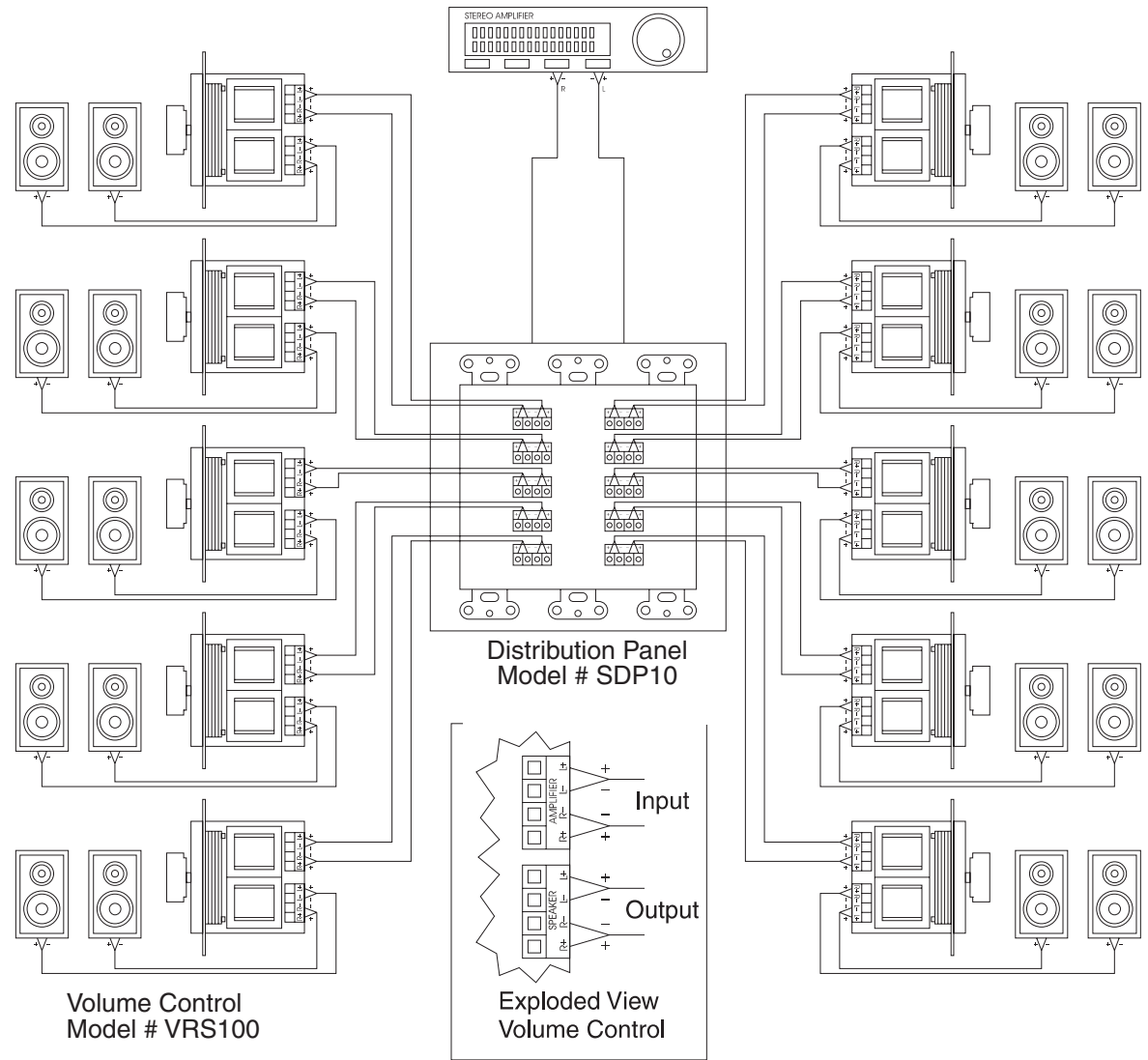
- Power Handling: 100 Watts per channel max
- Input/Output wire specifications: Up to 14 ga. (compression quick connects)
- Impedance protection: Protects up to 16 pairs of 8ohm speakers
- Mounting configuration: Standard single duplex electrical box
- Dimensions: 4-1/8" H x 1-1/2" W x 3" D (depth in wall 2-3/4")

Setting the proper impedance:

Use the chart to the right to determine the proper jumper setting for your applications.

NOTE: Make sure that you select the proper jumper setting for both right and left channels.

Typical Wiring Diagram



IMPEDANCE CHART

The total number of speakers listed is for both Left and Right Channels (Pairs)

Jumper Settings For 8Ω (Per Channel)

Impedance At Amplifier

Speaker Ohms	X1	X2	X4	X8
8	1 Pair	2 Pair	3-4 Pair	5-8 Pair
4	-	1 Pair	2 Pair	3-4 Pair

Jumper Settings For 4Ω (Per Channel)

Impedance At Amplifier

Speaker Ohms	X1	X2	X4	X8
8	2 Pair	3-4 Pair	5-8 Pair	9-16 Pair
4	1 Pair	2 Pair	3-4 Pair	5-8 Pair