ACI 126I Impedance Matching Volume Control

*Power Handling: 126 Watts (40W RMS)
*12-Step 43dB total attenuation
*Impedance Matching
* Accommodates 14awg wire
*Requires single gang junction box at least 3” deep, plastic box recommended

Electrical Box: We recommend using a plastic junction electrical box, 3 3/8” deep. Never use the volume control in a box containing 110V devices! Some municipalities don’t require a junction box. Please check with your local building codes. Install the volume control away from light switches with dimmers to reduce the chance of picking up “humming” from the dimmer transformer

Wire: Use 18, 16, or 14awg wire, depending on the length of your run. A longer run will have less signal loss with a larger wire. Use stranded type speaker wire and check with local building codes to see what type of wire is allowable. Take care to insure that bare speaker wires don’t touch each other to touch a metal junction box. Route the wires away from dimmer switches and other electrical wires to reduce the chance of picking up “humming “ or “buzzing” sounds.

Impedance Matching: Determine the minimum impedance that your amplifier or receiver can handle. Determine the impedance of your speakers. Most are either 4 ohm or 8 ohm. Determine the number of pairs of speakers you will be using on a single volume control. Use the charts below to determine the correct jumper setting to use. Change both jumpers on the side of the volume control. (Labeled 2X, 4X and 8X) Both jumpers must be on the same terminals.

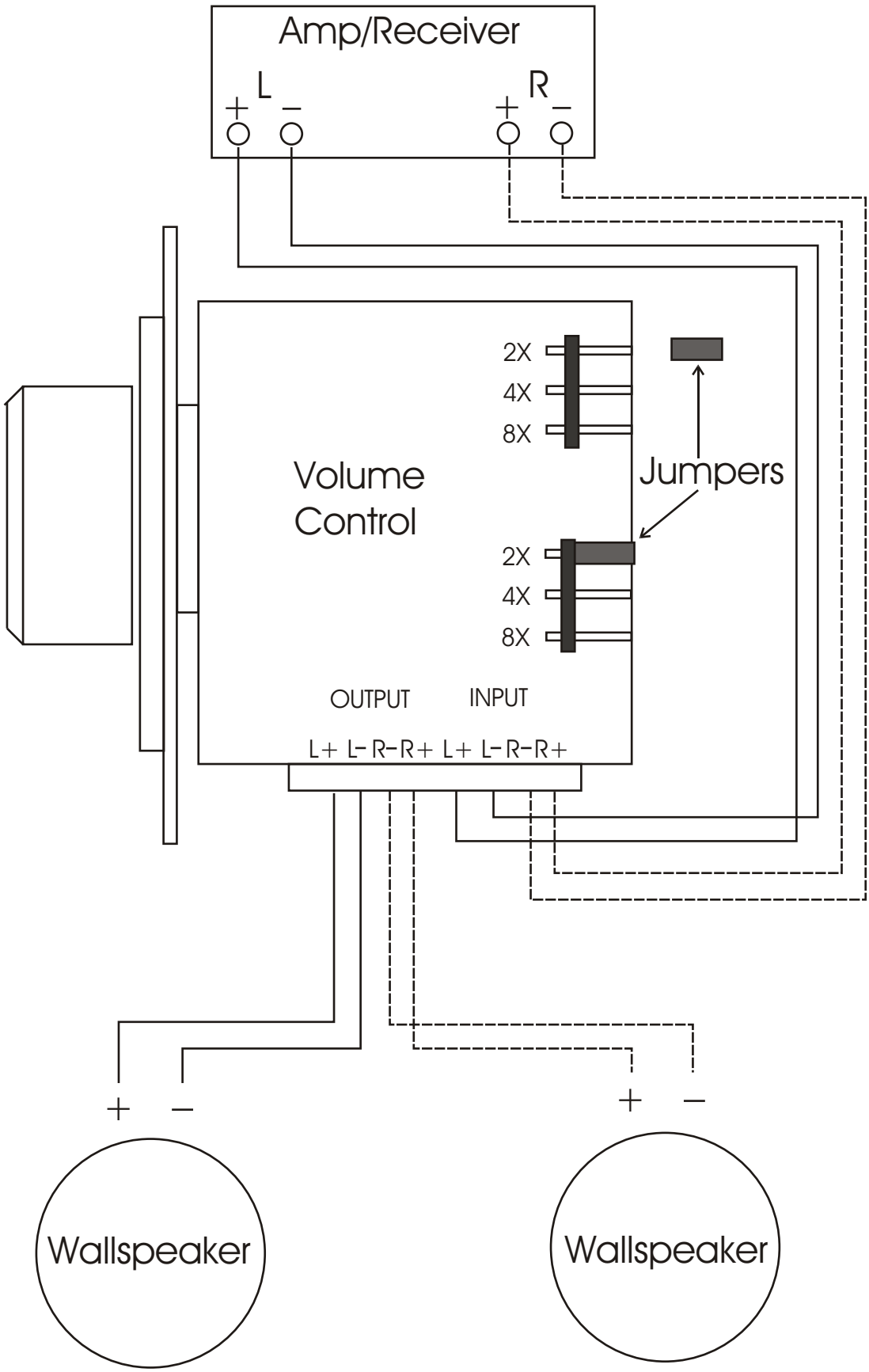
Wiring Instruction: Strip all wires to be connected to the volume control 1/8”. Twist or solder the wires to keep from fraying and shorting on other wires. Thread all wires through the back of the outlet box. Connect the wires from the amplifier to the **Input** terminal of the volume control by inserting the wire and screwing down to tighten. Keep L, R and +, - consistent with the amplifier. Connect the speaker wires to the **Output** terminals. Take care in inserting the volume control into the box. Look carefully to assure that no wires were pulled out of the volume control during insulation.

Impedance Matching for 4 Ohm Amps/Receivers
8 Ohm Speaker Pairs

	Pairs	0	1	2	3	4	5	6	7	8	9	10	11
4	0	0	2X	2X	2X	2X	4X	4X	4X	4X	8X	8X	8X
O	1	2X	4X	4X	4X	4X	4X	4X	8X	8X	8X	8X	8X
h	2	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X
m	3	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X	
	4	4X	8X	8X	8X	8X	8X	8X	8X	8X			
P	5	8X	8X	8X	8X	8X	8X	8X					
a	6	8X	8X	8X	8X	8X							
I	7	8X	8X	8X									
r	8	8X											

Impedance Matching for 8 Ohm Amps/Receivers
8 Ohm Speaker Pairs

	Pairs	0	1	2	3	4	5	6	7	8
4	0	0	2X	2X	4X	4X	8X	8X	8X	8X
O	1	2X	4X	4X	8X	8X	8X	8X		
h	2	4X	8X	8X	8X	8X				
m	3	8X	8X	8X						
	4	8X								


Amp/Receiver
L
R
+
–
+
–
2X
4X
8X
Volume
Control
Jumpers
2X
4X
8X
OUTPUT
INPUT
L+ L- R- R+ L+ L- R- R+
+
–
+
–
Wallspeaker
Wallspeaker