

SDB Series

Dual Source Speaker Selectors
Installation Manual

PRODUCT DESCRIPTION / CONNECTIONS

Description

The SDB-2.1, SDB-4.1 and the SDB-6.1 are high-power, dual-source, autoformer-based speaker selectors with individual volume controls for 2, 4 or 6 areas/rooms. Dual-source operation means either one of two different amplifiers/receivers can be chosen to power selected speakers independently. For example, you can choose to listen to jazz music in a couple of rooms and classical music in all the others. Each room has its own input selector, volume control and on/off switch, located on the front of the unit. The SDB speaker selectors work with all speakers rated from 4 to 8 ohms, and amplifiers rated for 4 to 8 ohm loads.

Setting the Impedance

The impedance of the autoformers in SDB speaker selectors is set at the factory to be proper for most applications. The SDB-2.1 comes set at 2X; the SDB-4.1 at 4X; and the SDB-6.1 at 8X. However, if certain applications require changing the impedance setting, simply remove the cover of the unit and re-position the jumpers on the autoformers to the necessary impedance-matching setting. Russound SDB Speaker Selectors autoformers can be set to impedance-matching settings of 2X, 4X or 8X.

1. Determine the amplifier's minimum impedance. Consult the individual product specifications or the back panel of the amplifier near the speaker terminals. AC impedance is measured in ohms.
2. Identify the correct impedance-matching chart below according to your amplifier's minimum impedance: either for a 4 ohm amplifier or an 8 ohm amplifier. If your amplifier is 6 ohm stable, use the 8 ohm chart.
3. Determine the impedance for each pair of speakers (see its manual).
4. Determine the total number of 4 ohm pairs of speakers (rows on charts).
5. Determine the total number of 8 ohm pairs of speakers (columns on charts).
6. Use the appropriate row and column to determine jumper settings.

Connections

All SDB models have 4-pole screw down removable terminals for speaker and amplifier connections. These accept wire up to 12 gauge.

Remove the terminal by firmly pulling it out of its 4-pole connector. Strip about 3/8" of insulation from the ends of all wires to be connected. If necessary, twist the exposed conductor to insure that no loose strands exist. Insert the wire ends into the screw down connector, being careful to observe proper channel and polarity. Tighten the screws on the connectors. Connect the amplifier(s) and each speaker pair to the appropriate connector.

Speaker connections can support multiple speaker pairs wired in parallel or series, provided their combined impedance is a minimum of 4 ohms.

Setting System Volume

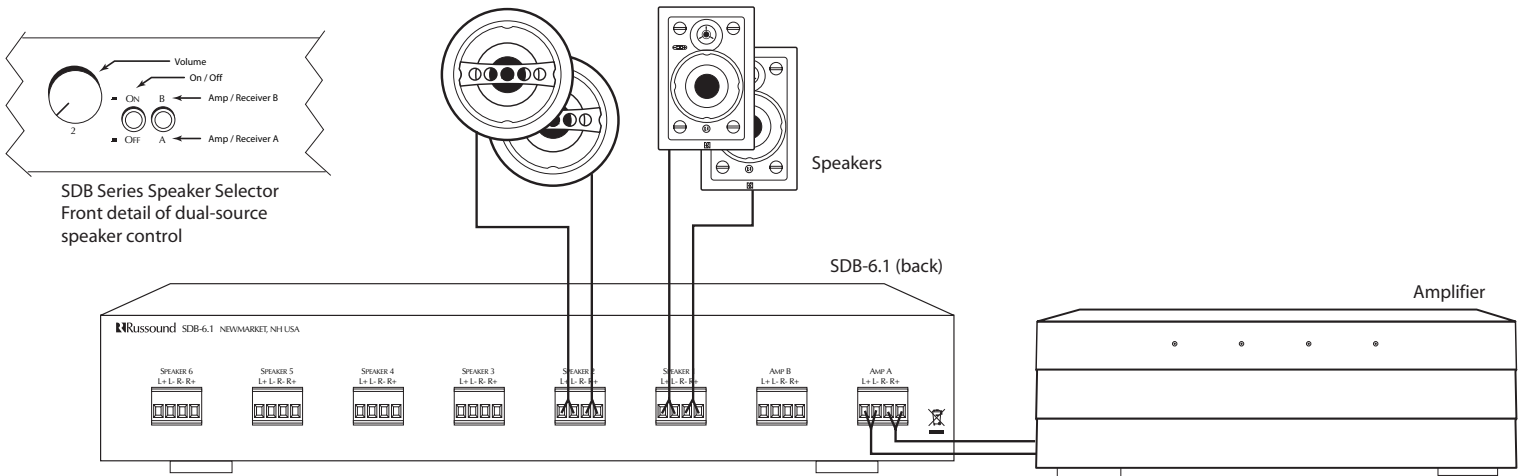
It is important to properly adjust an impedance-matching system to avoid distortion or DC clipping (DC voltage will be produced from an amplifier that is overworked or that has an improper load). These can cause an amplifier/receiver to go into protection, and can cause autoformers on volume controls to heat up, damaging system components. To set up the system, the amplifier/receiver volume should be at its lowest setting, and the selector volume control should be at the highest setting. Slowly adjust the amplifier/receiver volume to a level that is acceptable for the amplifier to produce without clipping.

Operation

To operate the SDB speaker selector, simply power the amplifiers and select a source for each amplifier. At the speaker selector, turn on the selected pair of speakers and select AMP A or AMP B. Set the volume by rotating the control clockwise to increase volume or counter-clockwise to decrease volume. The SDB speaker selectors allows operation of any combination of speakers selected to either amplifier A or B.

		8-ohm Pairs								
		0	1	2	3	4	5	6	7	8
4-ohm Pairs	0	-	1X	2X	4X	4X	8X	8X	8X	8X
	1	2X	4X	4X	8X	8X	8X	8X	8X	
	2	4X	8X	8X	8X	8X				
	3	8X	8X	8X						
	4	8X								

		8-ohm Pairs																
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4-ohm Pairs	0	-	1X	1X	2X	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X
	1	1X	2X	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X		
	2	2X	4X	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X				
	3	4X	4X	4X	8X	8X	8X	8X	8X	8X	8X	8X						
	4	4X	8X	8X	8X	8X	8X	8X	8X	8X								
	5	8X	8X	8X	8X	8X	8X	8X										
	6	8X	8X	8X	8X	8X												
	7	8X	8X	8X														
	8	8X																



SDB speaker selector diagram showing connection of speaker and amplifier (Not to scale)

Technical Specifications

SDB-2.1

Power : 100 watts per channel RMS continuous
 200 watts per channel average
 300 watts per channel peak

Volume Control: 42 dB attenuation, 12 positions

Impedance Matching: Russound Ultra-Match™ Autoformers

Wire Size: up to 12 gauge wire

Dimensions: 8.5" W x 3.0" H x 6.25" D
 (21.6 x 7.6 x 15.9 cm)

Weight: 4 lb (1.8 kg)

SDB-6.1

Power : 200 W per channel RMS continuous
 400 W per channel average
 600 W per channel peak

Volume Control: 42 dB attenuation, 12 positions

Impedance Matching: Russound Ultra-Match™ Autoformers

Wire Size: up to 12 gauge wire

Dimensions: 17.0" W x 3.0" H x 6.25" D
 (43.2 x 7.6 x 15.9 cm)

Weight: 10 lb (4.5 kg)

SDB-4.1

Power : 150 W per channel RMS continuous
 300 W per channel average
 450 W per channel peak

Volume Control: 42 dB attenuation, 12 positions

Impedance Matching: Russound Ultra-Match™ Autoformers

Wire Size: up to 12 gauge wire

Dimensions: 17.0" W x 3.0" H x 6.25" D
 (43.2 x 7.6 x 15.9 cm)

Weight: 9 lb (4.05 kg)

Warranty

The Russound SDB Series is fully guaranteed against all defects in materials and workmanship for ten (10) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This Warranty does not cover:

- Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
- Power surges and lightning strikes
- Normal wear and maintenance
- Products that have been altered or modified
- Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed.

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to: **Russound**, ATTN: Service, 5 Forbes Road, Newmarket, NH 03857

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.



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