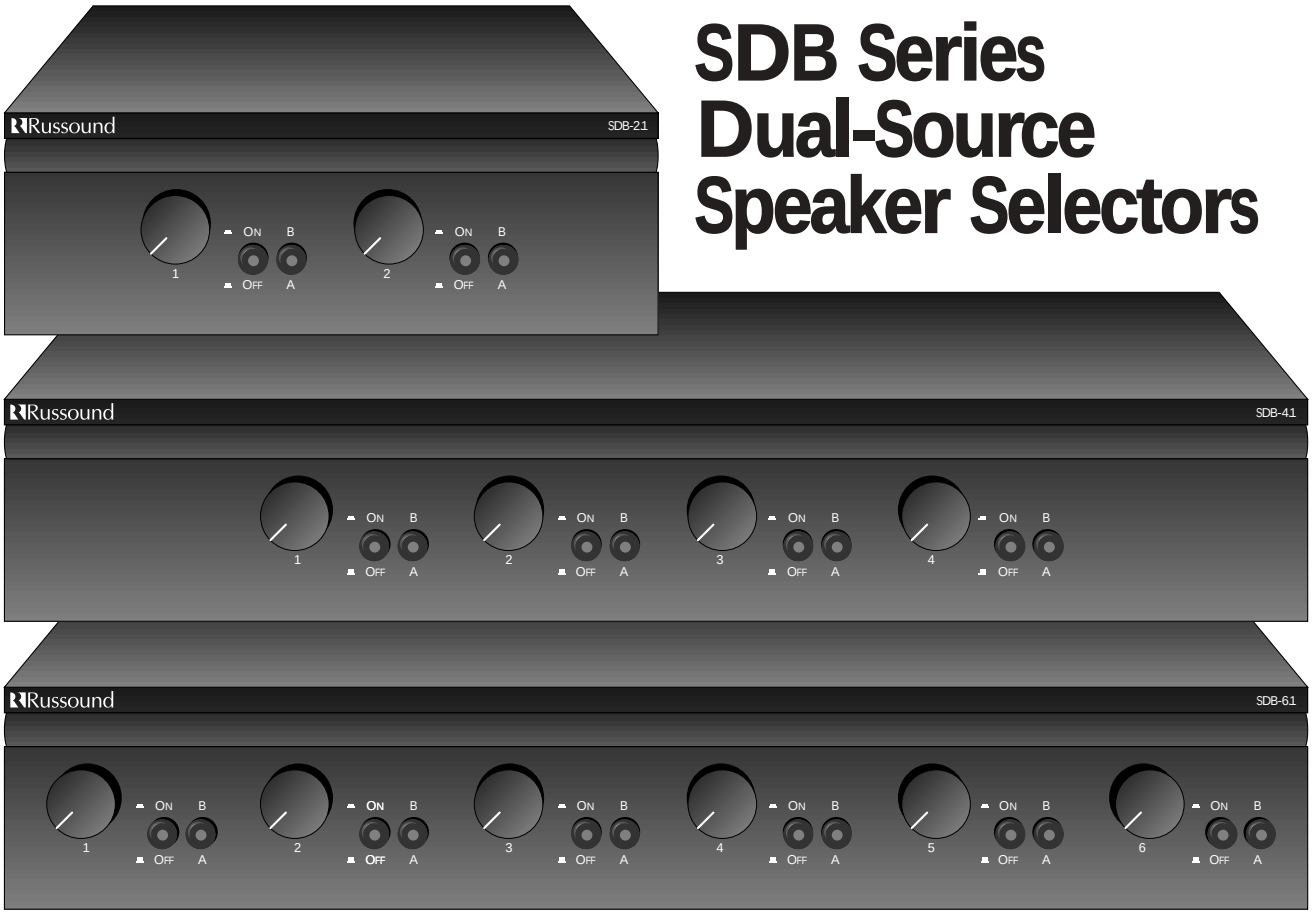
Russound®

A / V D I S T R I B U T I O N & C O N T R O L S Y S T E M S

SDB-21 / 41 / 61

Instruction Manual



SDB Series Dual-Source Speaker Selectors

REV.2

1. 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.

2. Connections

All SDB models have removable modular snap connectors that provide color-coded wire terminations without the need for set-screws. These connectors accept wire up to 14 gauge. 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. Remove the AMP A connector by firmly pulling it out of its 4-pole connector. Lift the wire locking lever on connector. Insert the wires from amplifier A output, being careful to observe the polarity, then lower the lever with a "snap." In the same way, connect the amplifier B output to the AMP B connector, and connect each pair of speakers to the appropriate SPEAKER connector, observing proper channel and polarity. Speaker connections can support multiple speaker pairs wired in parallel or series, provided their combined impedance is a minimum of 4 ohms.

3. Setting the Impedance

The impedance of the autoformers in the 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, it can easily be done by removing the cover of the unit and re-positioning 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. The amplifier's minimum impedance is usually found following Wattage and Frequency Response in the amplifier's specification page of its manual. It may also be listed on 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 by referring to 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. Follow the appropriate row and column to determine jumper settings.

Impedance Matching For 4 Ohm Amplifiers

4 Ohm Pairs \ 8 Ohm Pairs	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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																

Impedance Matching For 8 Ohm Amplifiers

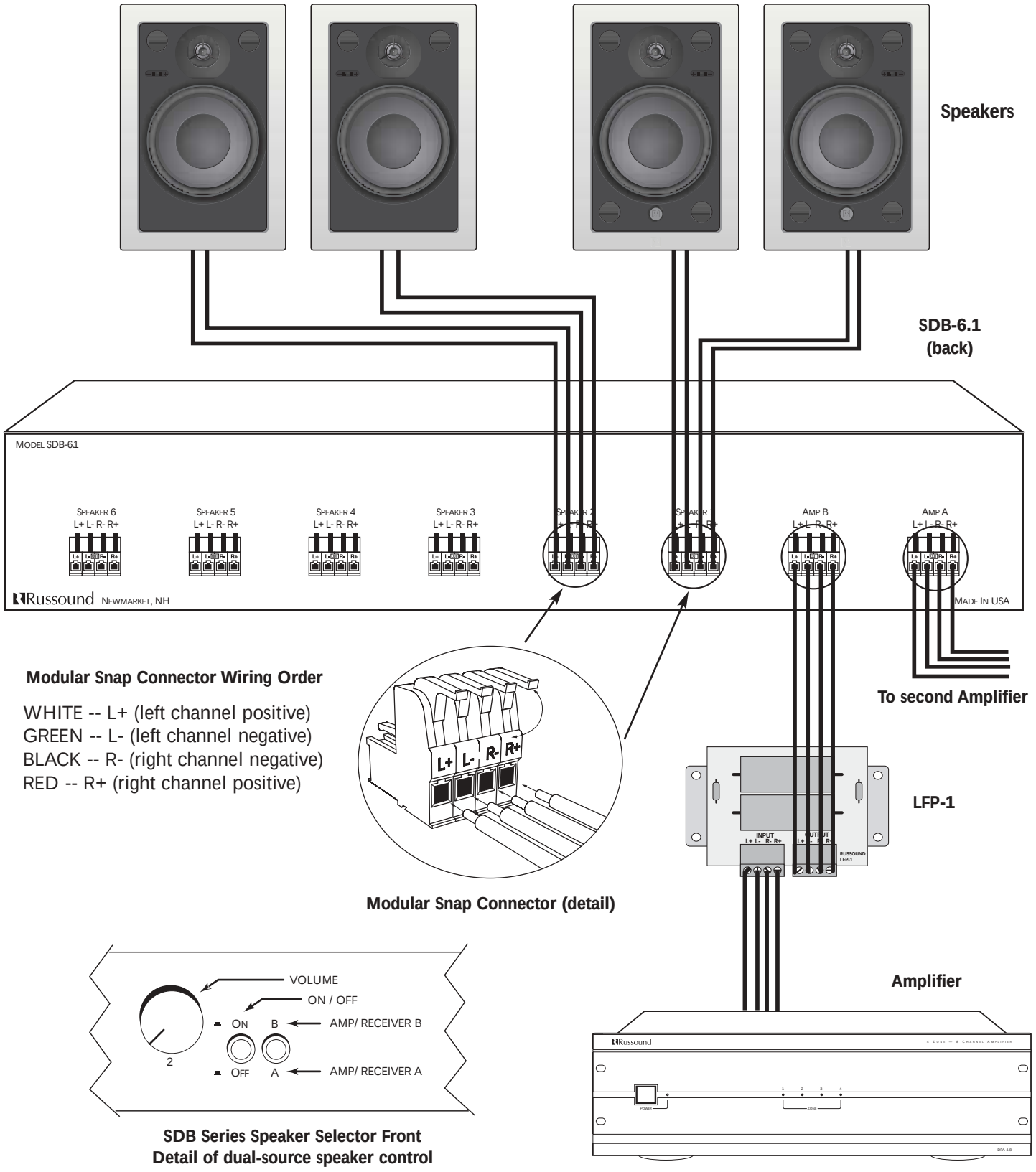
4 Ohm Pairs \ 8 Ohm Pairs	0	1	2	3	4	5	6	7	8
0	-	1X	2X	4X	4X	8X	8X	8X	8X
1	2X	4X	4X	8X	8X	8X	8X		
2	4X	8X	8X	8X	8X				
3	8X	8X	8X						
4	8X								

4. 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.

5. Operation

To operate the SDB speaker selector, simply turn on 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.



Connection Diagram for Russound SDB Series Dual-Source Speaker Selectors (Not to scale)

6. 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 14 gauge wire
Dimensions:	8 1/2" W x 3" H x 6 1/4" D
Weight:	4 lb

SDB-4.1 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 14 gauge wire
Dimensions:	17" W x 3" H x 6 1/4" D
Weight:	9 lb

SDB-6.1 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 14 gauge wire
Dimensions:	17" W x 3" H x 6 1/4" D
Weight:	10 lb

7. Warranty

The Russound SDB Series is fully guaranteed for Ten (10) years from the date of purchase against all defects in materials and workmanship. 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 under the terms of the warranty. Russound assumes no responsibility for defects resulting from abuse or servicing performed by an agency or person not specifically authorized in writing by Russound. Damage to or destruction of components due to improper use voids the warranty. In these cases, the repair will be made at the owner's expense. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of the service required. Be sure to pack in a corrugated container with at least 3 inches of resilient material to protect the unit from damage in transit.

Russound sells product 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.

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the right connection