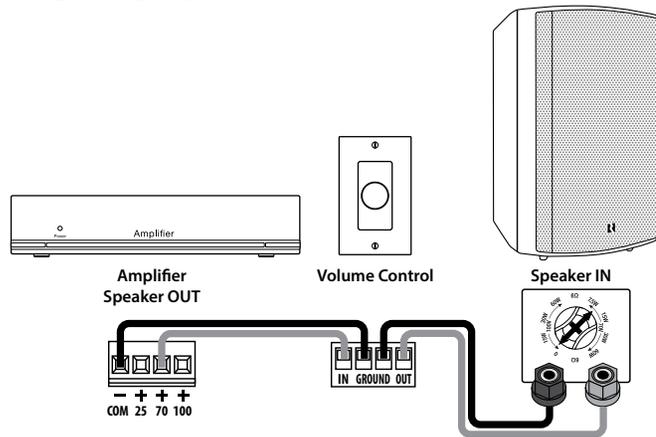
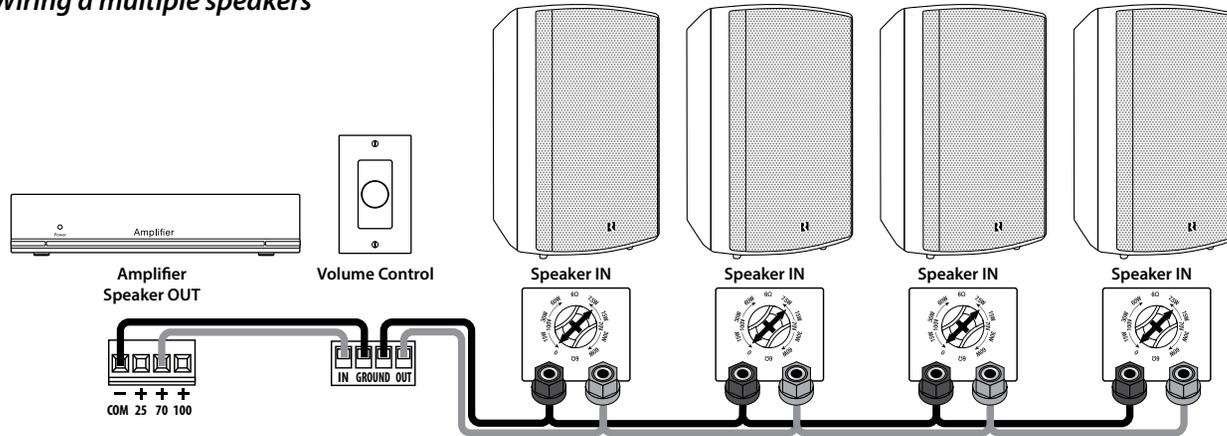


Wiring a single speaker



Wiring a multiple speakers



Specifications

Power Handling: Up to 50 Watts total

Number of Steps: 11

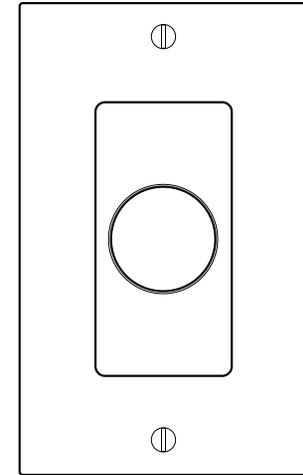
Wire Gauge: Up to 12 ga AWG

Insertion Loss: <0.5 dB

Included Colors: White, light almond, ivory

Fits 1 Gang UL/CSA Approved 18 ci Junction Box

Russound



ALT-70V-50 Volume Control Installation Manual

Introduction

Thank you for purchasing the ALT-70V-50 volume control from Russound. The ALT-70V-50 is designed to work with commercial audio systems using either 70V or 100V amplification. It's manufactured with a high-quality autoformer design for long life, excellent frequency response, low heat build-up, in an easy-to-install package

Considerations

Amplifier Type – The ALT-70V-50 can only be used with 70V or 100V amplifiers
Wattage Rating – The maximum wattage for speakers being controlled by the ALT-70V-50 is 50 watts. For example, if controlling 4 speakers tapped at 7.5 watts each, the total would be 30 watts which is acceptable. If those same 4 speakers were tapped at 15 watts each, the total would be 60 watts and this would exceed the power rating of this volume control.

Installation Location – The ALT-70V-50 is designed for indoor use but may be installed outdoors if used with a properly designed weatherproof device cover.



Warranty

The Russound ALT-70V-50 Volume Control is guaranteed against all defects in materials and workmanship for two (2) 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, 1 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.

©2016 Russound. All rights reserved.

All trademarks are the property of their respective owners. Specifications are subject to change without notice. Russound is not responsible for typographical errors or omissions.

Russound, Inc.
1 Forbes Road, Newmarket, NH 03857
tel 603.659.5170 • fax 603.659.5388
email: tech@russound.com www.russound.com

10.21.16

Installation

Type of Speaker Cable

Wiring speakers for 70V/100V systems is simple and easy. A single run of 2-conductor, stranded wire is run to every speaker location leaving a small loop (2-3 feet is usually more than sufficient depending on the speakers and their mounting type) at each speaker location. You can place additional loops for future expansion or for making speaker location changes if needed.

Note: This is very different from typical low-impedance wiring used for residential audio installations where a dedicated run of wire goes from each speaker back to the amplifier/receiver. 70V/100V wiring uses much less wire and the wire used can be a much higher gauge (thinner wire) even though it is used in a longer run.

Here is a chart showing some of the differences possible among wire lengths for both low impedance (4Ω-8Ω) and high impedance (70V/100V) systems:

Speaker Cable Length for Various Gauges at Low and High Impedance						
AWG	Power Loss in Cable (% Loss & dB Loss)					
	8 Ohm Speakers			70V Speakers		
	11%	21%	50%	11%	21%	50%
	0.5 dB	1 dB	3 dB	0.5 dB	1 dB	3 dB
6	554'	1141'	3859'	2.6mi	5.3mi	18mi
	169m	348m	1.2km	4.14km	8.5km	29km
8	349'	718'	2428'	1.6 mi	3.4 mi	11.3 mi
	106m	219m	740m	2.6km	5.5km	18.1km
10	219'	452'	1528'	1 mile	2mi	7mi
	67m	138m	466m	1.6km	3.4km	11.4km
12	138'	284'	959'	3376'	1.3 mi	4.5mi
	42m	87m	292m	1km	2.1km	7.2km
14	87'	179'	604'	2127'	4380'	2.8mi
	27m	55m	184m	648m	1.3km	4.5km
16	53'	110'	371'	1305'	2687'	1.7mi
	16m	38m	113m	398m	819m	2.8km
18	34'	69'	234'	823'	1694'	1mi
	10m	21m	71m	251m	516m	1.75km
20	21'	44'	147'	518'	1068'	3610'
	6m	13m	45m	158m	331m	1.1km
22	13'	27'	91'	321'	661'	2234'
	4m	8m	28m	98m	201m	681m
24	8'	17'	57'	202'	417'	1409'
	2m	5m	17m	62m	127m	429m

Note: Unlike traditional residential audio, 70V/100V systems are typically run in mono sound so that only a single two-conductor wire run is necessary for the speakers. If you want to use multiple wire runs for zoning speakers or other purposes, each 2-conductor wire needs to be independently run back to its own amplifier or amplifier terminals if using a multi-channel amplifier.

When using a volume control with 70V speakers, the volume control will control all speakers that are wired to the "Out" connections of the volume control. Because of the parallel wiring used for 70V/100V systems, it is possible to have speakers on a wire run that are controlled by the volume control and speakers that are not. It is also possible to use more than one volume control so that "zones" can be configured easily with different volume control levels in each zone.