

# Specifications

<b>Environment</b>	70V speaker system distribution over multiple zones																																																																																																																																										
<b>Devices</b>	Bridged amplifier outputs.																																																																																																																																										
<b>Maximum Input Power</b>	100 W from 4 ohms source.																																																																																																																																										
<b>Nominal Output Voltage</b>	70V																																																																																																																																										
<b>Frequency response</b>	20 – 20,000 Hz (+/- 3 dB)																																																																																																																																										
<b>Cabling Requirement</b>	Any gauge speaker wire of 18 AWG or lower.																																																																																																																																										
<b>Connectors included</b>	One (1) removable 4 pin terminal block plug for input, accept 12-24AWG. One (1) removable 2 pin terminal plug for output, accept 12-24 AWG.																																																																																																																																										
<b>Maximum Distance</b>	<table border="1"> <thead> <tr> <th rowspan="3">AWG</th> <th colspan="9">Speaker Cable Transmission Distance as a Function of Conductor Size vs. Loss</th> </tr> <tr> <th colspan="9">Power Loss in Cable (% Loss &amp; dB Loss)</th> </tr> <tr> <th colspan="3">4 Ohm Speaker</th> <th colspan="3">8 Ohm Speaker</th> <th colspan="3">70V Speaker*</th> </tr> <tr> <th></th> <th>11%</th> <th>21%</th> <th>50%</th> <th>11%</th> <th>21%</th> <th>50%</th> <th>11%</th> <th>21%</th> <th>50%</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>277 ft</td> <td>571 ft</td> <td>1930 ft</td> <td>554 ft</td> <td>1141 ft</td> <td>3859 ft</td> <td>13580 ft</td> <td>27965 ft</td> <td>94548 ft</td> </tr> <tr> <td>8</td> <td>174 ft</td> <td>359 ft</td> <td>1214 ft</td> <td>349 ft</td> <td>718 ft</td> <td>2428 ft</td> <td>8546 ft</td> <td>17598 ft</td> <td>64598 ft</td> </tr> <tr> <td>10</td> <td>110 ft</td> <td>226 ft</td> <td>764 ft</td> <td>219 ft</td> <td>452 ft</td> <td>1528 ft</td> <td>5377 ft</td> <td>11072 ft</td> <td>37434 ft</td> </tr> <tr> <td>12</td> <td>69 ft</td> <td>142 ft</td> <td>480 ft</td> <td>138 ft</td> <td>284 ft</td> <td>959 ft</td> <td>3378 ft</td> <td>6962 ft</td> <td>23505 ft</td> </tr> <tr> <td>14</td> <td>43 ft</td> <td>89 ft</td> <td>302 ft</td> <td>87 ft</td> <td>179 ft</td> <td>604 ft</td> <td>2127 ft</td> <td>4380 ft</td> <td>14809 ft</td> </tr> <tr> <td>16</td> <td>27 ft</td> <td>55 ft</td> <td>185 ft</td> <td>53 ft</td> <td>110 ft</td> <td>371 ft</td> <td>1305 ft</td> <td>2687 ft</td> <td>9085 ft</td> </tr> <tr> <td>18</td> <td>17 ft</td> <td>35 ft</td> <td>117 ft</td> <td>34 ft</td> <td>69 ft</td> <td>234 ft</td> <td>823 ft</td> <td>1694 ft</td> <td>5726 ft</td> </tr> <tr> <td>20</td> <td>11 ft</td> <td>22 ft</td> <td>74 ft</td> <td>21 ft</td> <td>44 ft</td> <td>147 ft</td> <td>518 ft</td> <td>1058 ft</td> <td>3610 ft</td> </tr> <tr> <td>22</td> <td>7 ft</td> <td>13 ft</td> <td>46 ft</td> <td>13 ft</td> <td>27 ft</td> <td>91 ft</td> <td>321 ft</td> <td>661 ft</td> <td>2234 ft</td> </tr> <tr> <td>24</td> <td>4 ft</td> <td>9 ft</td> <td>29 ft</td> <td>8 ft</td> <td>17 ft</td> <td>57 ft</td> <td>202 ft</td> <td>417 ft</td> <td>1409 ft</td> </tr> </tbody> </table> <p><small>*The number of feet of cable you can run for a given loss and performance budget.</small></p> <p>Reference only between 12 and 24 AWG wire in the table to determine allowed distances for the 755-AMP-RX and 500217.</p>	AWG	Speaker Cable Transmission Distance as a Function of Conductor Size vs. Loss									Power Loss in Cable (% Loss & dB Loss)									4 Ohm Speaker			8 Ohm Speaker			70V Speaker*				11%	21%	50%	11%	21%	50%	11%	21%	50%	6	277 ft	571 ft	1930 ft	554 ft	1141 ft	3859 ft	13580 ft	27965 ft	94548 ft	8	174 ft	359 ft	1214 ft	349 ft	718 ft	2428 ft	8546 ft	17598 ft	64598 ft	10	110 ft	226 ft	764 ft	219 ft	452 ft	1528 ft	5377 ft	11072 ft	37434 ft	12	69 ft	142 ft	480 ft	138 ft	284 ft	959 ft	3378 ft	6962 ft	23505 ft	14	43 ft	89 ft	302 ft	87 ft	179 ft	604 ft	2127 ft	4380 ft	14809 ft	16	27 ft	55 ft	185 ft	53 ft	110 ft	371 ft	1305 ft	2687 ft	9085 ft	18	17 ft	35 ft	117 ft	34 ft	69 ft	234 ft	823 ft	1694 ft	5726 ft	20	11 ft	22 ft	74 ft	21 ft	44 ft	147 ft	518 ft	1058 ft	3610 ft	22	7 ft	13 ft	46 ft	13 ft	27 ft	91 ft	321 ft	661 ft	2234 ft	24	4 ft	9 ft	29 ft	8 ft	17 ft	57 ft	202 ft	417 ft	1409 ft
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<b>Power requirement</b>	None (passive device)																																																																																																																																										
<b>Temperature</b>	Operating : 32° to 90°F (0° to 40°C) Storage: -4° to 185°F (-20° to 85°C)																																																																																																																																										
<b>Humidity</b>	Maximum 90% (non-condensing)																																																																																																																																										
<b>Enclosure</b>	Steel, painted black.																																																																																																																																										
<b>Dimensions</b>	4.33" x 5.51" x 1.97" (11 x 14 x 5 cm)																																																																																																																																										
<b>Weight</b>	3.08lbs (1.4kg)																																																																																																																																										
<b>Warranty</b>	3 Years																																																																																																																																										
<b>Ordering Information</b>	500755-70V 70V Audio Converter																																																																																																																																										
<b>Compatible Products</b>	500755-AMP-RX and 500217																																																																																																																																										
<b>Accessories</b>	500917 Mounting Brackets. 500920 16-Port Rackmount Transceiver Chassis.																																																																																																																																										



## 70V Audio Converter 500755-70V

### Quick Installation Guide

#### Overview

The 70V Audio Converter (500755-70V) is compatible with the MuxLab Audio/AMP over IP Receiver with AMP 50W/CH (500755-AMP-RX) and the Audio Zone Amplifier 100W (500217). The unit is a passive device and can be easily mounted anywhere near the amplifier that it is to be connected with. It adapts a standard 4 ohm amplifier output that has been configured in bridge mode (mono) to a 70V speaker system. 70V speaker systems allow multiple speakers to be daisy-chained together over much longer distances than traditional 4 ohm speakers can accommodate.

The unit supports a high-pass filter allowing a 70V transformer to connect to any power amplifier, and a low pass filter to reduce noise generate by class-D amplifiers.

#### Applications

Audio Distribution Systems



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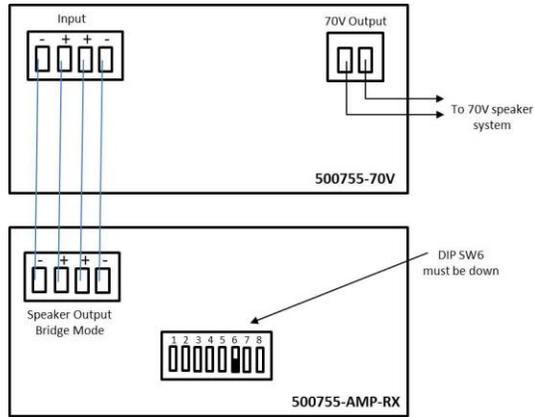
# Installation

The source device can be the MuxLab 500755-AMP-RX, 500217 or any amplifier able to drive a 4 ohm load.

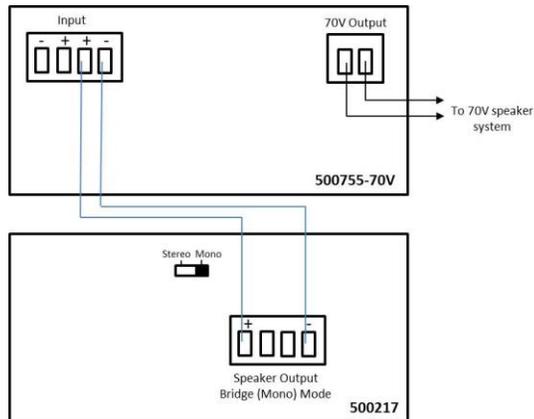
On the 70V output connector, only connect 70V speakers in parallel adding up to a maximum of 100W.

There are no user-serviceable parts inside the unit. Included terminal block plugs can be removed to ease the installation.

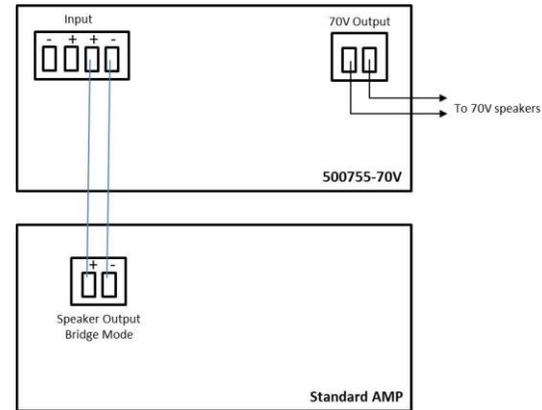
## Typical connection to the 755-AMP-RX:



## Typical connection to the 500217:



## Typical connection to a Standard Amplifier:



1. The amplifier must be turned Off before installing the wiring.
2. Use wires with at least 18 AWG or larger (up to 12 AWG) to connect the amplifier binding posts to the 70V Audio Converter. Any standard speaker or electrical wire is acceptable. Limit the distance to less than 15ft (5m) between the unit and the amplifier.
3. Use of smaller gauge wire to connect 70V speakers is ok. See the specification table for acceptable distances, based on wire gauge.

# Troubleshooting

The following table describes possible symptoms, probable causes and solutions regarding the unit:

Symptom	Probable Cause	Possible Solutions
No audio	No continuity	Check continuity on each pair.
Weak or bad audio	Check amplifier specification. Check speaker transformer.	Be sure that speaker supports a 70V input.

If you still can't diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).