



RCM - B Series Room Combining Matrices

digitally controlled
room combining

4 or 8 combining
inputs/outputs

two program busses

signal level constant
when switching
between groups

ESD Protected

The RCM - B series of Room Combining Matrices provide simple combining for divisible, multi-purpose meeting rooms. With the push of a switch they can combine the audio between rooms. The RCM-42B can combine up to four rooms, and the RCM-82B can combine up to 8 rooms.

Each room connected to an RCM-42B or RCM-82B may have its' own independent audio source or it can share either of two groups in combination with other rooms. This grouping may be changed at any time via remotely wired control switches (RCM-S or RCM-KS). These switches can be placed in any convenient location. Magnetic or optical switches can also be used in sliding door pockets to automatically combine rooms when doors are opened. Wiring can be unshielded low voltage control wiring.

The RCM-42B and RCM-82B are unity gain devices. There is no change in signal level as rooms are switched in or out of a group. These matrices use standard balanced inputs, and can be used with any preamp/amplifier combination.

The new B-series has been enhanced with switch common mode rejection, de-bouncing, ESD protection, and an LED on indicator. It now includes a 24VDC wall-mount power adapter.

Specifications:

Power Requirement	24VDC @ 45mA (42B) / 24VDC @ 90mA (82B)
Gain	0 dB
Frequency Response	20 Hz to 20 kHz +0/-1 dB
Number of Inputs/Outputs	RCM-42B: 4 RCM-82B: 8
Input Impedance	36 K ohms
Output Impedance	100 ohms
Crosstalk	-87 dB (ref 1 VRMS input)
Dimensions	RCM-42B: 6.6" W X 3.7" H X 1.75" D RCM-82B: 6.6" W X 7.4" H X 1.75" D
Weight	RCM-42B: .625 lbs. RCM-82B: 1.4 lbs.

Architects'/Engineers' Specifications:

The Room Combining Matrices shall have four (RCM-42B) or eight (RCM-82B) inputs and outputs, each of which may be combined with any other inputs/outputs in either of two groups. All connections shall be removable screw terminal connectors. All inputs shall be balanced, and all outputs shall drive balanced inputs. The units shall have unity gain, and a frequency response of 20 Hz to 20 kHz. The units shall have physical dimensions of 6.6" W X 3.7" H X 1.75" D (RCM-42B) or 6.76" W X 7.4" H X 1.75" D (RCM-82B). The Room Combining Matrices should have switchcommon mode rejection, de-bouncing, ESD protection, and an LED on indicator. It should also include a 24VDC wall-mount power adapter. The Room Combining Matrix shall be either an Emtech Electronics RCM-42B or RCM-82B.

Warranty:

Emtech Electronics, Inc. warrants the Room Combining Matrices for a period of one year, from the original date of purchase, against defects in parts and workmanship. If a defect occurs, the unit(s) will be repaired or replaced, at our option, free of all charges if delivered prepaid to the factory. Warranty does not extend to the finish, appearance, abuse or defects due to the misuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Repair by anyone other than Emtech will void the warranty.

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