

MVSQ Rev. B Micor Volume/Squelch Board

Description:

The Repeater-Builder MVSQ board is an easy way to add the volume and squelch pots required when using a Motorola Micor radio without the factory control head. In addition to providing a clean neat way to install the pots, the board also provides a 1/8" headphone jack for a monitor speaker, PTT test and disable switches, and an on-board COS logic level inverter. By connecting the three interface headers as described in the Hookup section below, this board can be the central connection point for a TS-64/32 tone decoder and repeater controller interfacing.

Installation:

Using double stick tape, mount the board in the position shown in the picture below. To make controller wiring easier, remove the netting "switch" metal from the control board. Doing so will leave a nice hole for getting wires from one side of the control board to the other.

Hookup:

Before wiring the MVSQ board into the radio set, some power jumpers need to be installed on the control head plug. These jumpers are necessary for the radio to run without the control head and cables present. Jumper control head pins 3, 8 and 22 together. These will all



be connected to +12v through a fuse. Jumper control head pins 9, 11 and 17 together. These pins will be connected to chassis ground through pin 9.

The pinouts of the 2 headers are listed below. Pin 1 for each header is marked in the silkscreen on the circuit board.

Pin	Function	Connect to	
1	Speaker Low (ground) Connected to Control Head pin 17 and Groun		
2	Speaker Hi Control Head Connector pin 21		
3	Mic Hi To point Marked 'Mic Audio' on control board lay		
4	PTT Out Point Marked 'PTT' on control board layout		
5	Buffered Discriminator Audio	Audio/squelch board pin 3 (Emitter Follower)	
6	Volume Out	Audio/squelch board pin 5	
7	Active Low COS In	Audio/squelch pin 8	
8	Squelch Out	Audio/squelch board pin 9	

J1 Pinout: (Radio Connections)



J2 Pinout: (Repeater Controller Connections)

Pin	Function	Connect to
1	+12V	Controller 12v / 12v input
2	Ground	Controller Ground
3	Active High COS Out	Controller COS input
4	PTT	Controller PTT In
5	Mic Hi	Controller Tx Audio Out

J3 Pinout: (Tone Board Connections)

Pin	Function	Connect to	TS-64
1	+12v	Tone Board Power Out	Red
2	Ground	Tone Board Ground	Black
3	Discriminator Audio	Tone Decoder Audio Input	Green
4	Active High CTCSS Controller CTCSS Input /		W/bito
5	Out	Tone Board Logic Output	vvnite
6	CTCSS Topo	CTCSS input on exciter /	Yellow
7		Tone Board Tone output	
8	CTCSS Filtered	Controller Audio Input /	Pluo
9	Audio	Tone Board CTCSS Audio Filter Output	Diue
10	CTCSS Encode	Controller CTCSS Encode Enable Output /	Orango
11	Enable	Tone Board CTCSS Encode Enable Input	Orange
12	Ground	Ground Sink	

