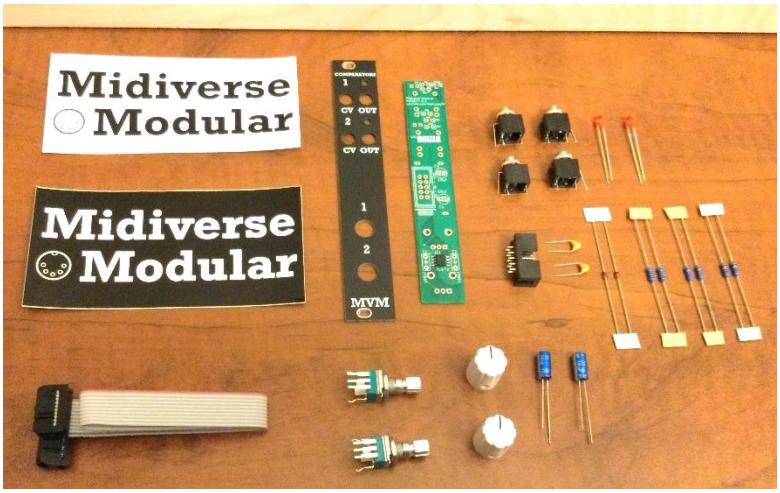
Midiverse Modular

MVM017 – Comparators Build Guide

Thanks for supporting Midiverse Modular! This guide provides basic instructions to build your MVM017 Comparators module.

Size: 4HP
Depth: 30mm
Draws 5mA from the +12V rail and 4mA from the -12V rail



For this build, basic soldering equipment is required. This module is recommended for intermediate builders. The guide provides a list of the parts in the DIY kit and some key instructions for success.

This kit comes with the following parts:

Reference	Qty	Value	Notes
Comparators Panel	1		
Comparators Board	1		
R1, R2	2	100K	Orange, orange, black, brown, brown
R3, R4	2	20K	Red, black, black, red, brown
R5, R6	2	1K	Brown, black, black, brown, brown
D1, D2	2	1N4148	
C1, C2	2	100nf	Ceramic
C3, C4	2	10uf	Electrolytic
IC1	1	TL072	SMD; already soldered on board
VR1, VR2	2	B100K	9mm potentiometer
CV1, CV2, OUT1, OUT2	4	3.5mm Jacks	THONKICONN
LED1, LED2	2		3mm red
J1	1	2x5 shrouded header	10 pin Power Connector
Knobs	2		White
Power Cable	1	10 pin – 16 pin	

Build Instructions:

The board will come with the SMD TL072 pre-soldered. Populate and solder the resistors, diodes, capacitors, and power header. **DO NOT** solder the jacks, potentiometers, and LEDs on the board yet.

The resistors should be soldered in standing up (see photo). Be sure to pay attention to the orientation of the diodes, electrolytic capacitors, and the power header. The black line on the diodes should align with the white line on the PCB. The long leg of the 10uf electrolytic capacitor should go through the pad with the + sign. The notch on the power connector should align with the white notch on the board (facing the electrolytic capacitors).

Once all the above-mentioned parts have been soldered on the board, reflow all the solder joints and make sure that all connections are good. Finally, populate the jacks, potentiometers, and LEDs, and attach the front panel. Push the LEDs through the hole in the panel and bend the legs to secure their position. Now solder these components in place.