



VuM-16 Assembly guide

Please read the “DIY guide” before beginning.

Print or open the following documents :

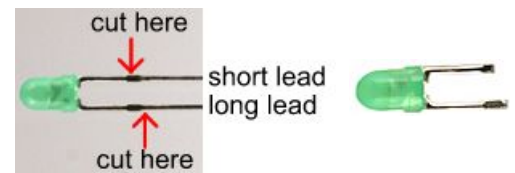
- VUM16 Schematics
- VUM16 Components layout
- VUM16 Parts list
- VUM16 Circuit options

Follow this guide from item number 1 till the end, in this order. The assembly order is based on components height, from low to high profile, in order to ease the soldering process : The component you are soldering is always taller than the previously assembled ones and it is pressing nicely against the work area foam.

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1. LEDs

For each one of the 16 LED's cut the short leg (cathode) at 5mm from body and cut the long leg (anode) at 6mm.



Then insert the first green LED on the PCB, long leg (anode) on top. Make sure that the leg is perfectly parallel to the pad. Solder the anode but leave the cathode free for now. The position is still easy to adjust until both legs are soldered.

Insert and solder the next LED and repeat until the 16 LEDs are in position.

Make a last visual check and correct LED's that are not perfectly lined up, then solder the cathodes on the PCB back side.



2. Diodes

Add D17 and D18. Use a lead forming tool to cleanly bend the leads at 0.4”.

Warning : Make sure to respect the direction of the diodes which is marked by a ring on the component and a double line on the PCB marking.



3. Resistors

Add R1 to R23. Control the resistor values with a digital multimeter. Bend the leads at 0.4” with a lead forming tool.

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4. Integrated Circuits

Insert U1, U2, U3, U4 and U7 and solder. You will need to bend the pins slightly inwards before inserting. Make sure you are not charged with electrostatic electricity before handling the IC (or remove your shoes).

Warning : Make sure to respect the IC direction, marked by a dot.



5. Trimmer potentiometers

Add P1.



6. Ceramic capacitor

Add C3.



7. Electrolytic capacitors

Add C1, C2, C4, C5.

Warning : The +lead must go into the +hole. Do not reverse (they may explode !)



8. Regulator IC's

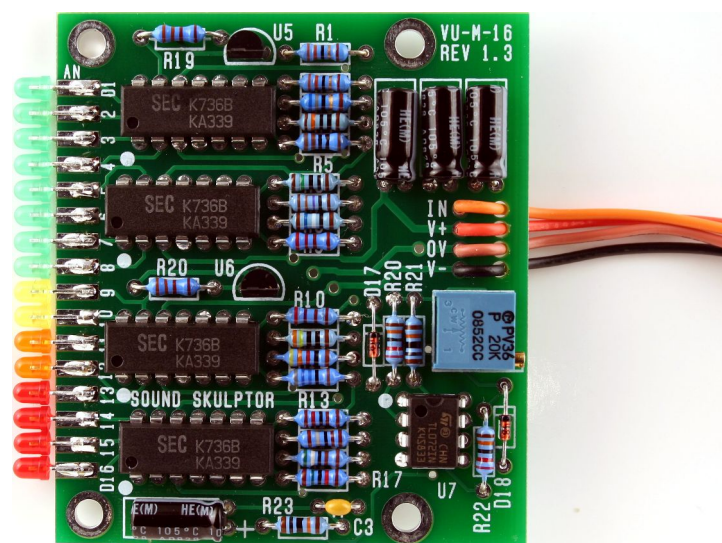
Add U5 and U6. Press the IC's down as far as possible in order to keep the components height low.

Warning : Watch out the IC direction.

9. Wiring

Install and solder the wires that come from the driving board. The wires are inserted from below the card through 4 holes and from top into 4 pads for soldering.

If the driving board is the Stereo Tape Simulator, connect orange to IN, red to V+, Brown to OV, black to V- and remove the yellow wire.



10. Setup

Adjust P1 in order to let D16 light up a few dB before clipping.