



DIO2 Assembly guide



Safety warning

The kits are main powered and use potentially lethal voltages. Under no circumstance should someone undertake the realisation of a kit unless he has full knowledge about safely handling main powered devices.

Please read the “DIY guide” before beginning.

Print or open the following documents :

- DIO2 Schematics
- DIO2 Components layout
- DIO2 Parts list
- SKMP Assembly guide
- DIO2 Test guide

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. Diodes

Add D1 to D6. 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.



2. Resistors

Add R1 to R26.

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



3. Inductors

Add L1 to L4.



4. Ceramic capacitors

Add C11, C12, C17, C18, C19.



5. Film capacitors

Add C1 and C6.

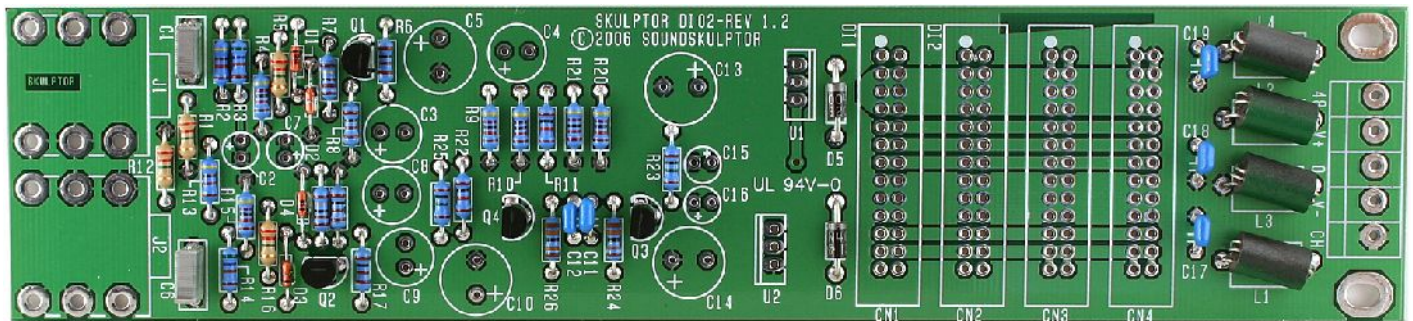
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6. Transistors

Add Q1, Q2 and Q3,Q4.

Warning : Watch out the transistor direction.



7. Connectors

Add CN1 to CN4. Start soldering one pin, check the position, then solder the other pins.

Warning : Check the position of the slot, it must not be mounted backwards.



8. Small electrolytic capacitors

Add C2, C7, C15, C16.

Solder one lead first, adjust vertically then solder the second lead.

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



9. Terminals

Add CN5 and CN6. They must be assembled together with the lateral dovetail. Screw down the terminals all the way before soldering.

Warning : the wire apertures should point towards the outside of the board !



10. Jack sockets

Add J1 and J2. The position of the sockets is critical for a good front-plate matching. They must sit flat on the PCB. Press firmly the socket on the PCB and solder one of the pins. Check position then solder the other pins.



11. Regulators

Add U1 and U2. Insert them as far down as possible, solder one pin, adjust the verticality, then solder the two other pins.

Warning : Watch out the direction, the metal tab at the back of the device is symbolized by a double line on the PCB marking. U1 and U2 are different, do not mix them up.



12. Large electrolytics

Add C3, C4, C8, C9, C5, C10, C13, C14.

Solder one lead first, adjust vertically then solder the second lead.

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

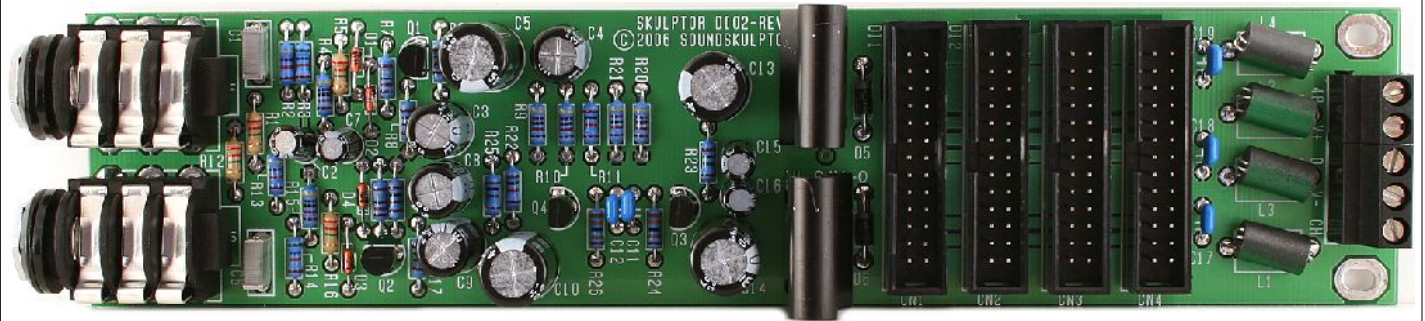


13. Heatsinks

Clip the heatsinks on the two regulators.



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After your board has been stuffed, brush the solder side with a hard tooth brush to remove any remaining solder bits.

Make a full visual check. Any missing component on the board ? Any remaining component in the box ?

Your DIO2 is now ready for testing. Please follow instructions in the “DIO2 test guide” document.