

Tubbutec OrganDonor

Installation manual for Kawai SX-210



Tools you will need:

- Soldering iron
- Wire stripper
- Metal drill 3.5mm (or similar)
- Metal drill for a 15mm hole (stepping drill for example)
- Center punch
- Screw driver

Included in the kit:

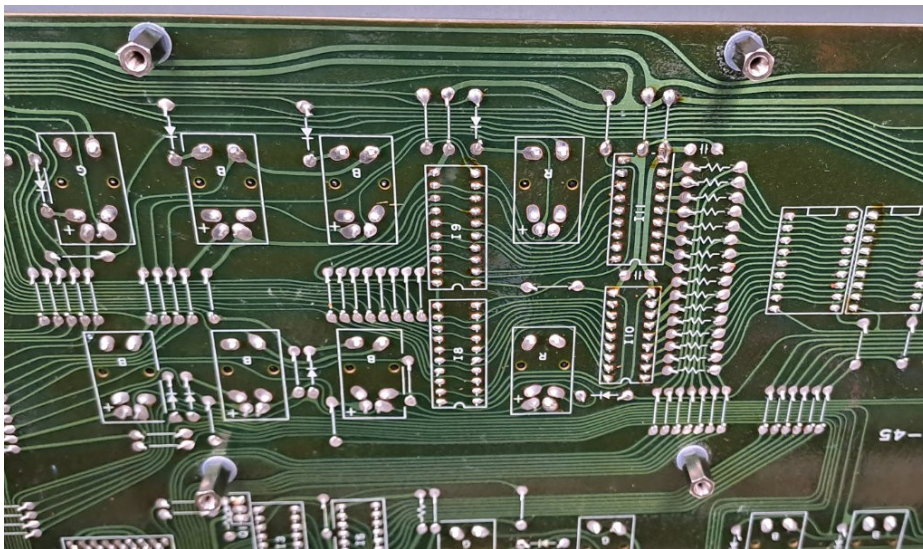
- OrganDonor Main Board
- OrganDonor 8x8 Matrix Interface Board
- Analog switch connection: 1x16 – 55cm
- Interconnect cable 22cm
- Midi connector assembly
- Power connector
- Learn button
- 8x M3x10mm standoff
- 4x M3 nylon washer
- 4x M3x6mm bolt
- 4x M3 nut
- Midi socket drill guide
- 2x M3x8 bolt, 2xM3 nut for midi socket

Principle of operation

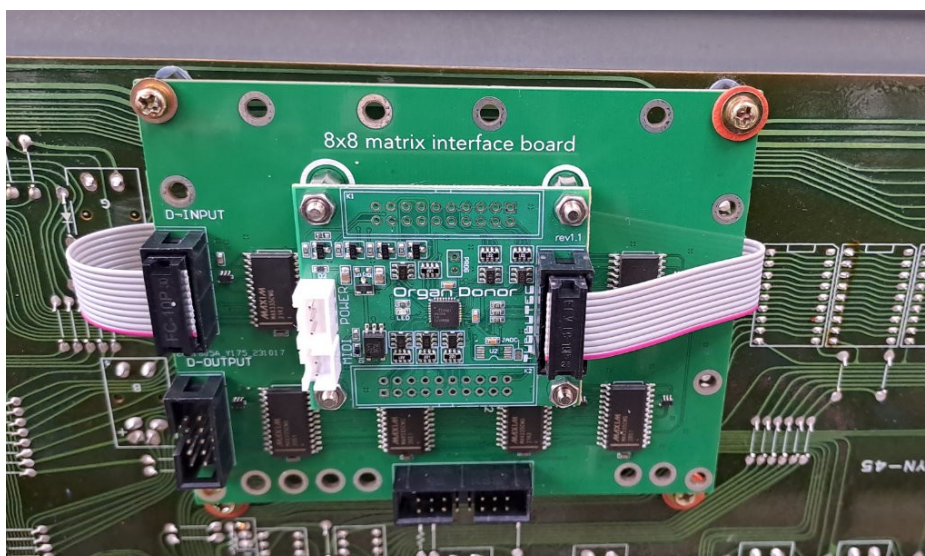
OrganDonor uses analog switches to simulate keyboard presses directly. The Kawai SX-210 uses a matrix keyboard, and therefore we created the special 8x8 matrix board. That means you have to solder just 16 wires.

Installation

Remove the 4 screws from the top left pcb and install 4 10mm standoffs and the 4 nylon washers.



Mount the mainboard on top of the 8x8 matrix board using 4 of the 10mm standoffs, the 4 M3x6 bolts and 4 M3 nuts. Connect the 10pole ribbon cable as shown. Use the 4 screws you just removed from the top panel to secure the matrix board on the 4 standoffs.

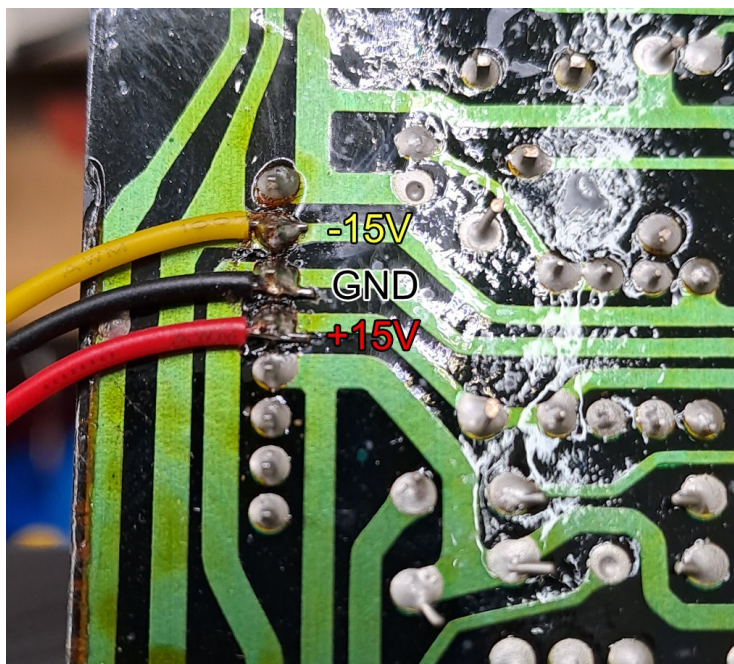


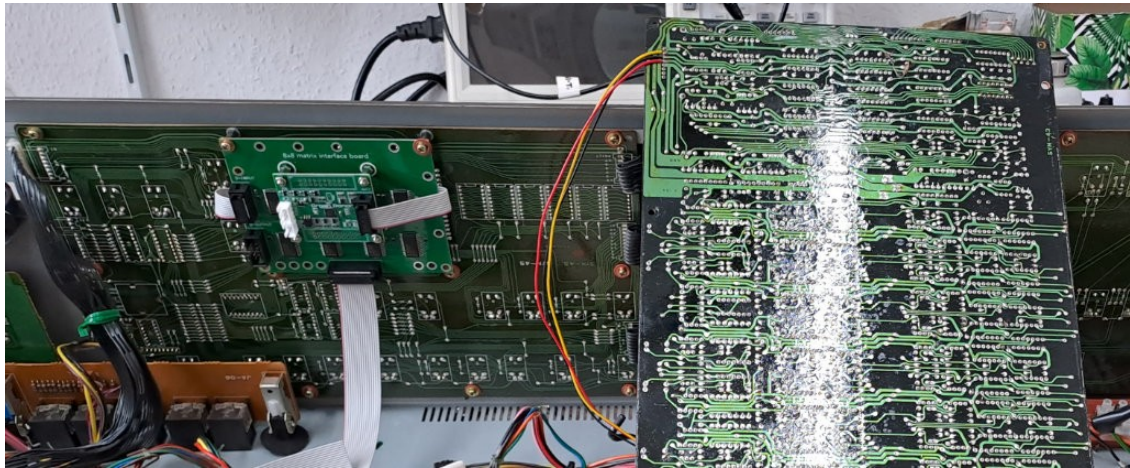
Power connections

Locate the power header on the top left corner of the voiceboard.



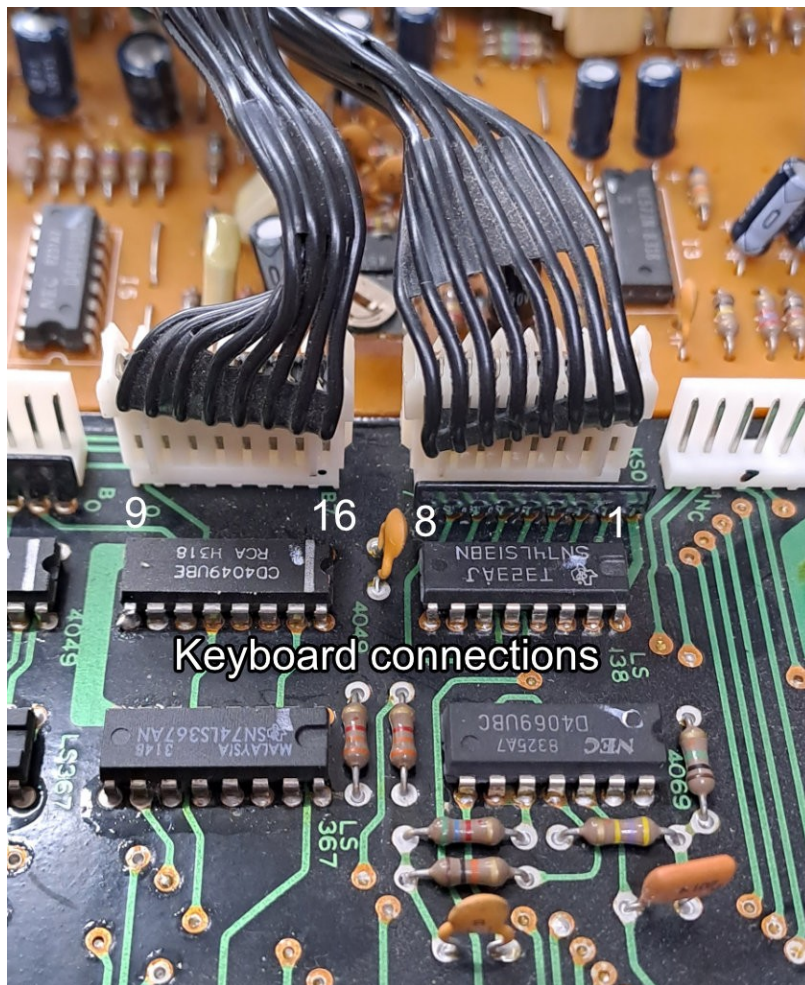
Remove the voiceboard, take care not to damage the plastic standoffs. Flip the voiceboard. Solder the power connections wires to the bottom side like shown. Plug the power wire assembly in the mainboard.



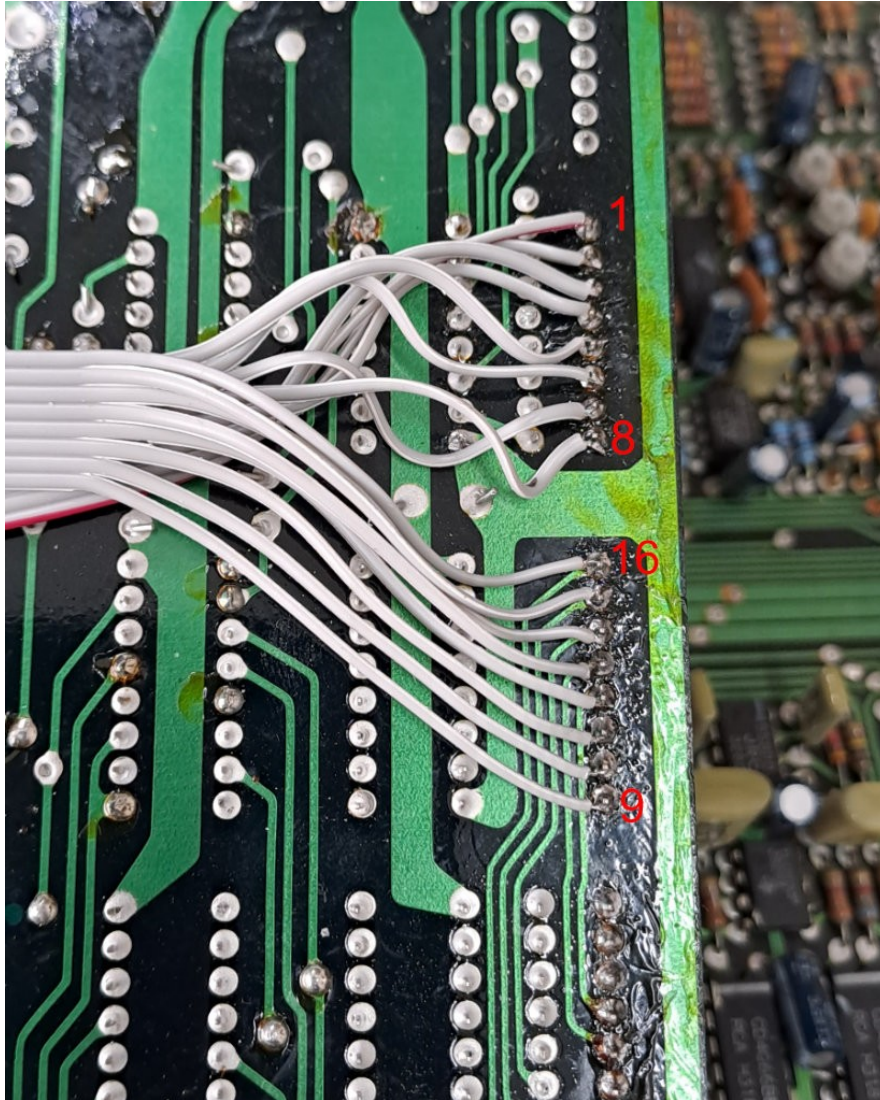


Keyboard connections

Locate the 2 keyboard connection headers on the left side of the mainboard.



Remove the mainboard from the case and flip it. Plug in the 16pole ribbon cable to the matrix board. Solder the 16 wires of the ribbon cable to the bottom side as shown. Wire one is the one with the red stripe.



MIDI connection

Attach the drill aid to the case and use a center punch to mark the drill holes. We placed the MIDI jack to the right of the Kawai logo on the back side.



Drill the holes. 2X 3,2mm for the mounting holes, 15mm for the MIDI jack. For the 15mm hole you can either use a step drill or a screw hole-punch. Install the MIDI jack and plug it in the main board.



Use cable ties to tidy up the wire assemblies. The completed installation should now look like this:

