

JuiceBox

Assembly Instructions

Revision 2 Kit

JuiceBox – Amiga USB-C Power Supply

Assembly Instructions

Designed by Hack Build Restore supplied by Flamelily Retro

1. Kit Contents

Your JuiceBox kit contains:

- 1 × Orange aluminium extrusion case
- 1 × Mini rocker power switch
- 1 × Fully assembled & tested JuiceBox main PCB
- 2 × Custom JuiceBox end-cap PCBs

2. Parts You Must Supply

Item	Notes
DP-215 Square Domino DIN plug	Salvaged from original PSU or bought separately. Flamelily cannot currently supply these. See website for suggested supplier
4-core cable	Either original Amiga PSU cable or new 4-core cable. CAT6E recommended.
~6 cm thin speaker cable	For wiring the rocker switch.
Heat-shrink tubing (optional)	For insulating DIN pins & switch terminals.

Cable Recommendation

Hack Build Restore prototypes used **CAT6E Ethernet cable**, using:

- One twisted pair per rail
- Rails: **+5 V, +12 V, -12 V, Ground**
- Shield may be bonded to ground (optional for short cables)

Recommended cable length: 6–9 inches (15–23 cm)

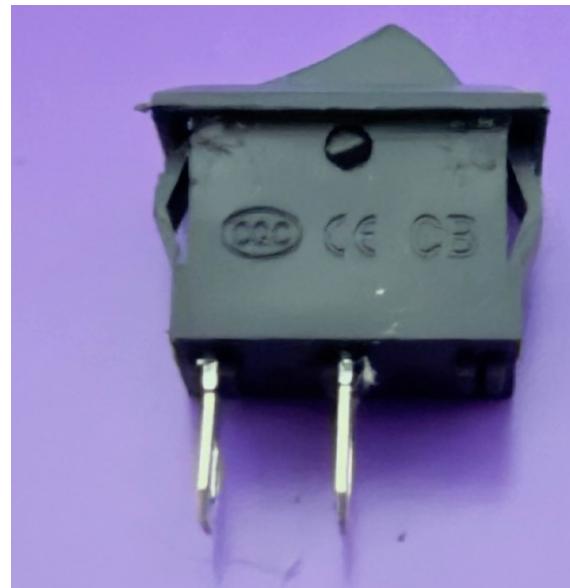
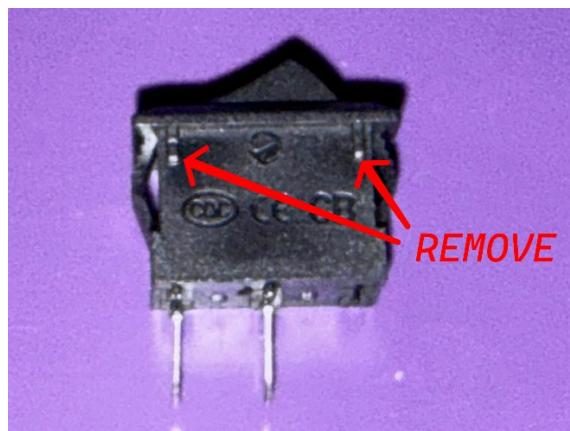
3. Tools Required

- Soldering iron & solder
- Flux (recommended)
- Sharp craft knife
- Multimeter
- Small screwdriver
- Wire cutters / strippers

4. Modify the Rocker Switch

Why: The switch has guide strips that prevent it seating fully.

1. Using a sharp craft knife, remove the **four plastic guide strips** on the switch
 - 2 on each long side.



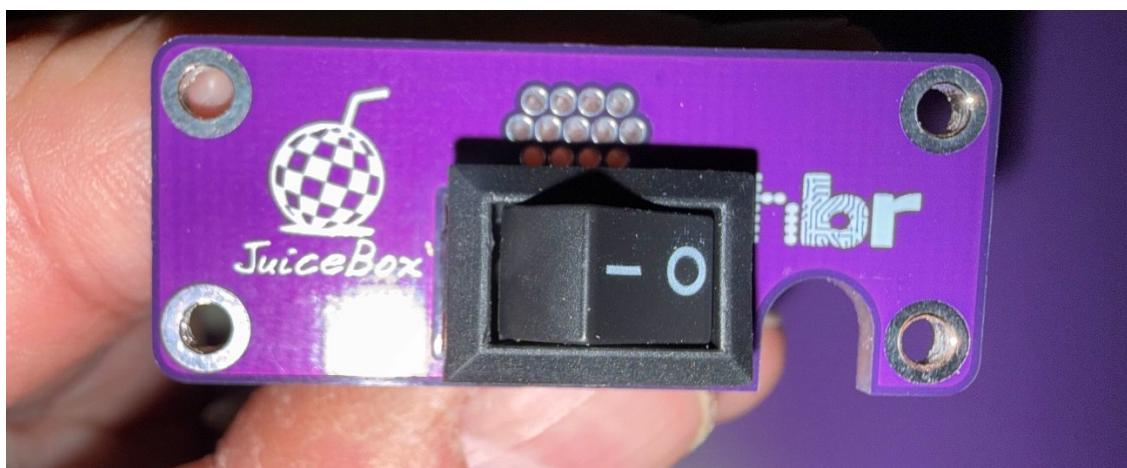
5. Pre-Wire the Switch

1. Cut approx **6 cm** of speaker cable.
2. Solder one end to the two switch terminals.



3. Insert the switch into the **logo end-cap**:

- Orientation:
 - “1” towards the JuiceBox logo
- Do not fully insert yet – only push in until the clips begin to engage.



6. Fit the USB-C End-Cap to the Case

1. Take the end-cap with the **USB-C opening**.
2. Fit it to the aluminium case with:
 - o Cooling fins on top
 - o Case text the correct way up
3. Secure with the supplied screws.



7. Assemble the DIN Plug & Cable

If re-using an original cable, skip to section 8.

DP-215 Pinout (Insertion end facing you)

Pin Position Voltage

Centre -12 V

Top-Left +12 V

Top-Right Ground

Bottom-Right +5 V

Bottom-Left Not connected

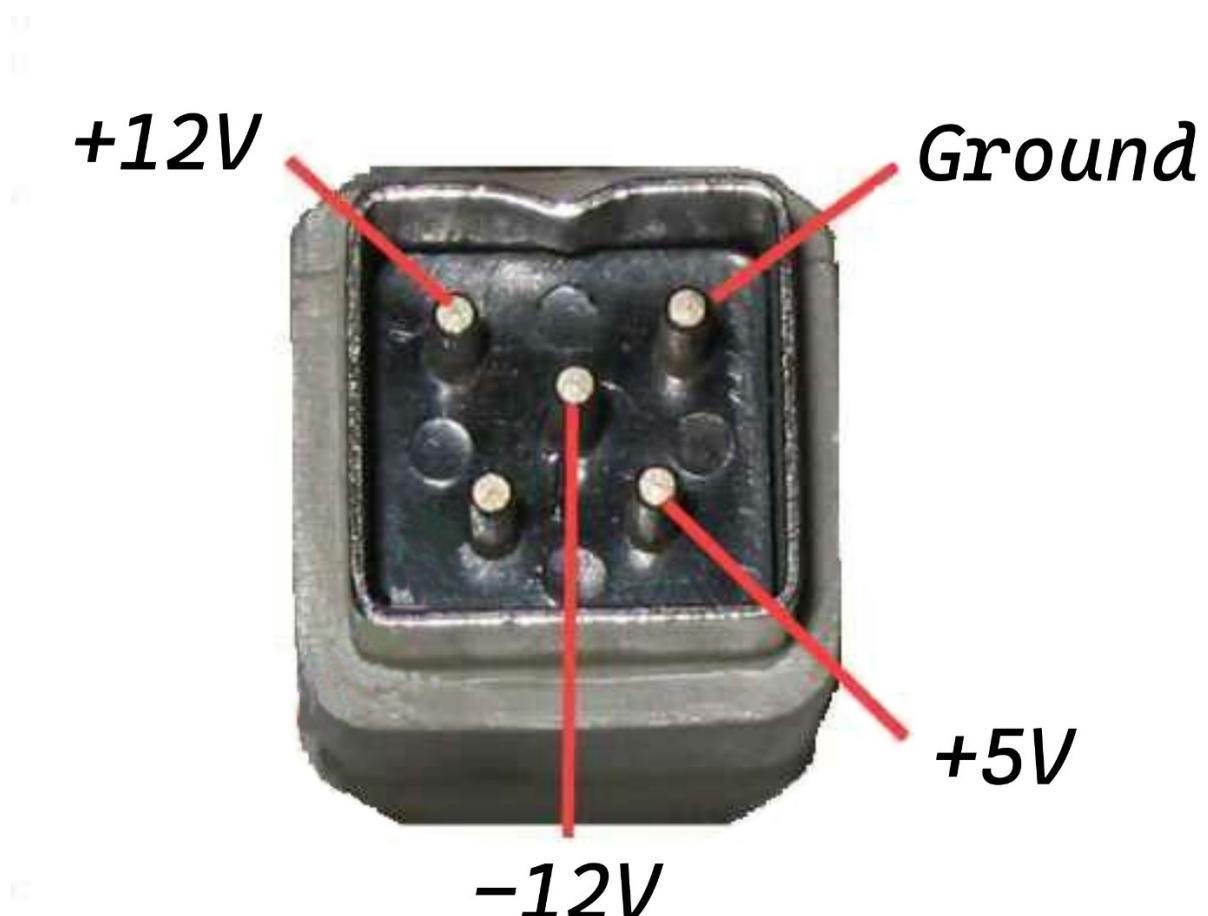


Diagram: DP-215 pin layout

Make a note of your wire colours.

8. Solder Cable to JuiceBox PCB

1. Feed cable through the **USB-C side of the PCB**.
2. The cable should exit over the “**hbr**” logo on the rear of the PCB.



Using Original Amiga Cable (Important)

The +5 V and GND wires are often too thick.

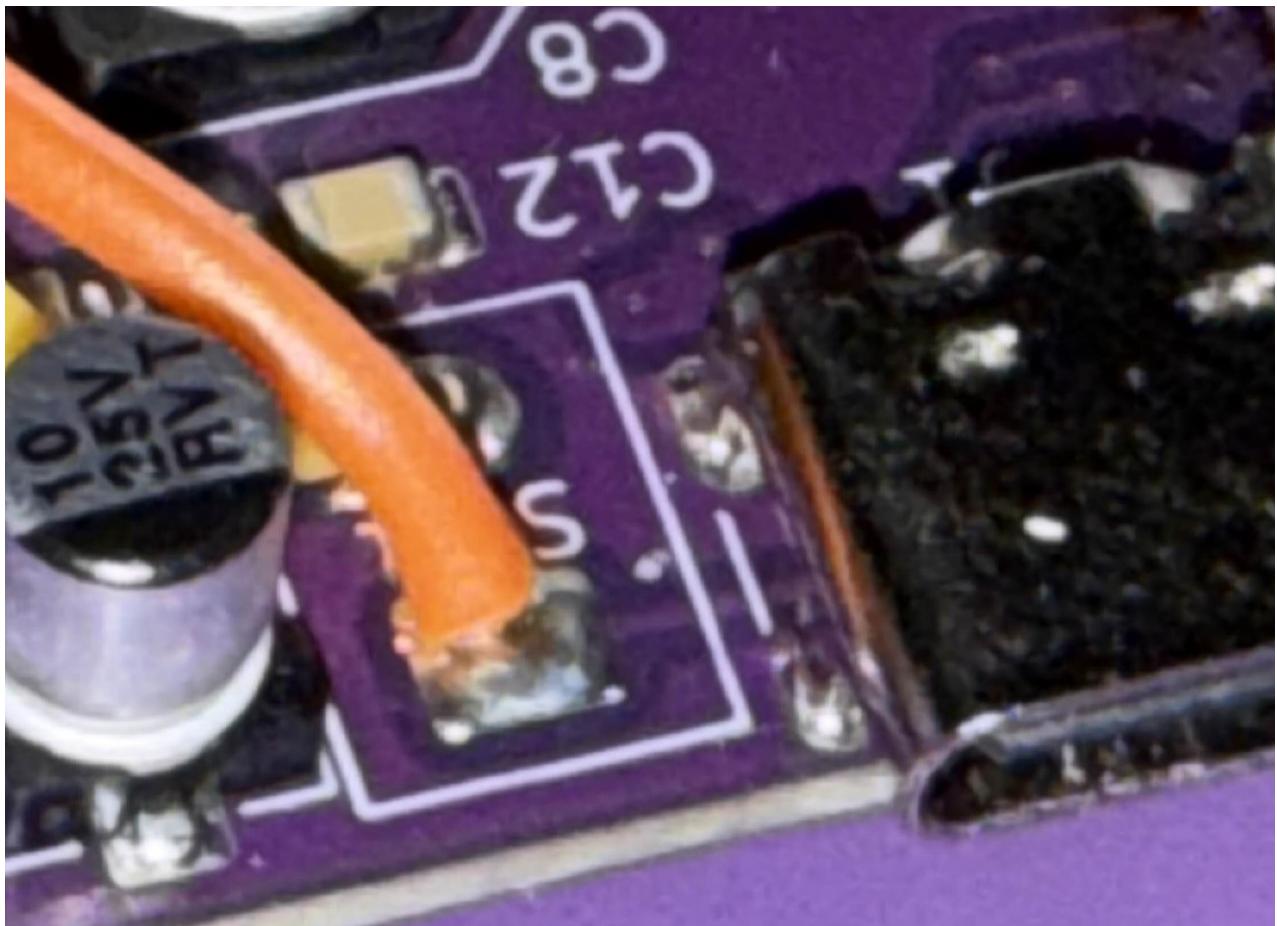
T-Cut Method:

- Trim strands from two opposing sides
- Leave a long centre “T” section
- Solder so the shoulders sit on the oval pad



9. Wire the Power Switch to PCB

Solder the two switch wires to the pads next to the USB-C connector.



Trim excess wire & re-flow joints if needed.

10. Electrical Safety Check

Using a multimeter:

- Confirm no shorts between rails
- Check for stray wires / solder blobs

Only continue once verified.

11. Install PCB into the Case

1. Slide PCB into the case slots

- **Capacitors facing down**
- USB-C facing the installed end-cap

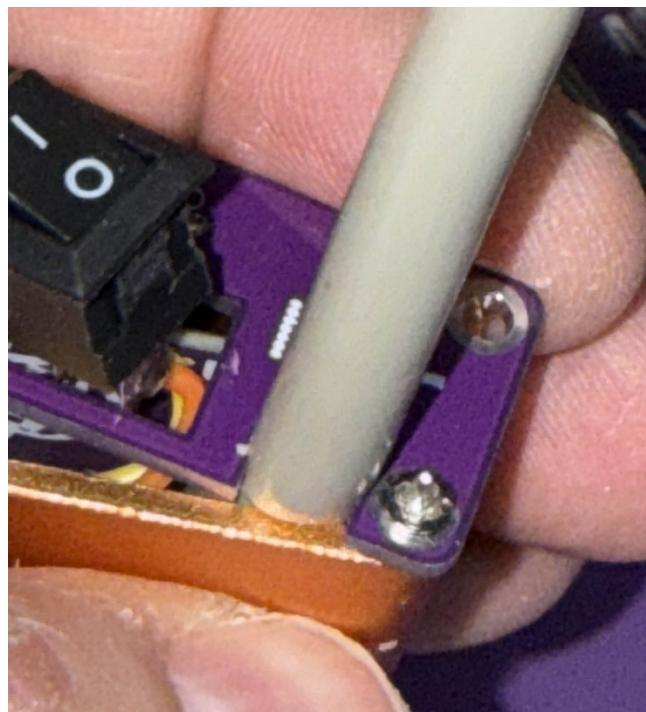


2. Feed cable into the end-cap slot (tight fit = strain relief).



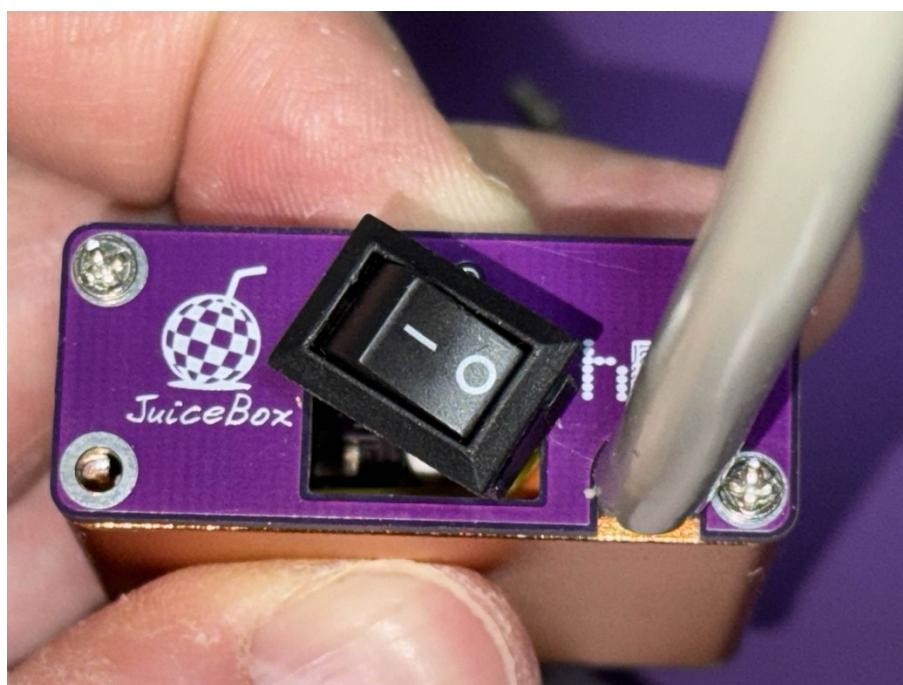
3. Install the corner screw closest to the cable first.

- Fully tighten
- Loosen 1 turn to allow pivoting



4. Install the opposite diagonal screw, then the remaining two.

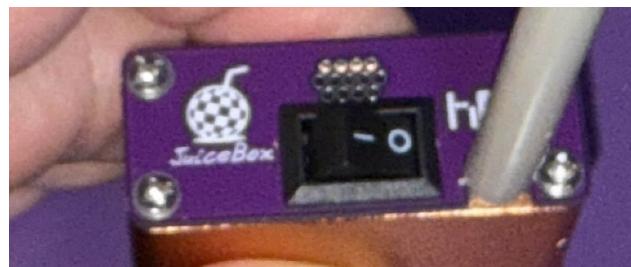
- Tighten only once all screws are seated.



12. Fully Insert the Switch

Push the switch fully into place.

- Orientation:
 - **0 towards cable**
 - **1 towards logo**



13. Final Test

Before connecting to your Amiga:

- Measure +5 V, +12 V, -12 V at the DIN plug
- If unsure — **do not connect**

Incorrect voltages **will damage your Amiga**.

Support

- Retro Hardware Discord <https://discord.gg/T8qrnx2F>
- Flamelily Retro <https://shop.flamelily.co.uk/contact>