

DIY Control Panel Drilling Guide

GuitarPCB Pro-Grade Aluminum Control Panels include precision drill crosshairs aligned to GuitarPCB drill templates to help builders accurately drill their enclosures.

Recommended Drill Sizes

<u>Component</u>	<u>Typical Final Hole Size</u>
LED indicators (5 mm LED)	5.2 mm (bezels require larger diameter)
DPDT Toggle switches	6.5 mm
Potentiometers	8 mm
3PDT footswitch	12 mm (drill last)

Recommended Method – Permanently Mount Panel First

Many builders prefer to permanently mount the panel to the enclosure before drilling.

Common mounting options include:

- Small amount of clear silicone adhesive
- E6000 adhesive
- Thin double-sided adhesive sheets (3M 467MP / 468MP)
- Thin craft double-sided tape

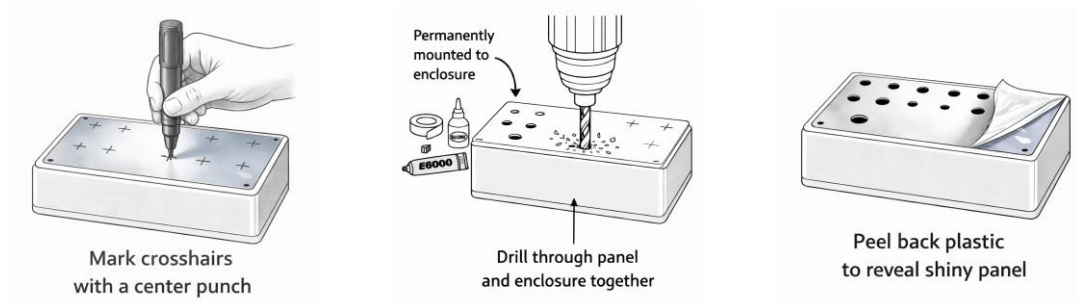
Silicone and E6000 allow a short adjustment period so the panel can be aligned carefully before curing.

Once aligned and secured, drill through the panel and enclosure together using the crosshair marks.

Drilling Procedure

1. Align the panel carefully on the enclosure.
2. Use a center punch to mark each crosshair location.
3. Drill pilot holes using a 5.2 mm bit at all locations. (This assures accurate hole placement)
4. Enlarge holes to their final sizes as needed.
5. Drill the 3PDT footswitch holes LAST after the other holes are completed.
6. Deburr the holes lightly so components seat cleanly. Always deburr from the backside of the panel or inside the enclosure - never from the artwork side.

Tip: Use moderate-low drill speed and light pressure when drilling aluminum. Let the drill bit cut gradually to prevent grabbing as it breaks through the material.



Alternative Method – Temporary Alignment

If you prefer not to permanently mount the panel first, it can be aligned using **painter's tape as a hinge around the panel edges**.

Secure the corners first to ensure proper visual alignment.

After drilling two spaced-apart potentiometer holes, temporarily install loose pots and lightly tighten the nuts. This locks the panel to the enclosure and prevents movement while drilling the remaining holes.

Drilling the Panel Separately (Optional)

The panel can also be drilled separately using a **flat wooden backing board**.

Always support the panel with wood while drilling to prevent bending.

Place the panel on scrap wood and secure the edges with painter's tape before drilling.

Protective Mask

Panels ship with a **transparent protective mask** applied.

Leave this mask in place during drilling and installation to protect the artwork.

Once the build is complete, peel away the mask to reveal the finished **glossy surface**. If desired, apply a light coating of **guitar polish** using a clean microfiber cloth before installing hardware. Do **not** use Armor-All or other silicone-based products.

Why Use a Control Panel?

GuitarPCB control panels are designed to give complex multi-control builds a clean, professional appearance while clearly identifying each function.

Advanced NostalgiTone projects include numerous controls, and properly labeled panels help builders quickly understand and adjust their circuits during use.