EC Plates Specification

The documentation will assume an assembly with tapped plate holes.

Material

Given the need of tapping the holes in the plate to screw in the screws for compression, a plate material not too soft is needed.

Materials from the following list are well-suited and have been tested:

- Stainless steel (highly recommended)
- Copper
- Brass

The use of Aluminum plates, while not impossible, is generally discouraged. This is because the material has demonstrated a lack of property in retaining good mechanical threads under the thicknesses and tensions to which the plate is subjected.

Compared to MX assemblies, the plate material, while still playing a role in sound and feel, has less of an impact in EC assemblies, given the sheer ammount of screws and dampening offered by the domes.

Thickness

The mainstream plate thickness for EC is **1.2mm**.

This thickness will allow for proper clipping of the housings and other components into the plate when using OEM-style components.

OEM-Style components include any EC component resembling Topre OEM parts, namely:

- OEM Topre™
- DESKEYS™
- KLC™
- PBB

For the parts listed above, the use of 1.2mm plates is mandatory.

In the case you are using DYNACAP™ parts, the default plate thickness is **1.5mm**.

The DYNACAP™ parts were designed to work with 1.5mm plates since plate producers for general users have tapping options for 1.5mm but not for lower thicknesses.

That being said, if you have a 1.2mm plate, it can still be used with DYNACAP™ parts through the addition of the DYNACAP™ GASKETS. The gaskets will make up for the difference in thickness.

Plate Thickness Compatability	1.2mm	1.5mm
OEM Topre™	✅	❌
DESKEYS™	✅	❌
KLC™	✅	❌
PBB	✅	❌
DYNACAP™	⚠️ USE DYNACAP™ GASKETS	✅

Switch Type

The plate maker offers 2 options:

- General OEM-Style
- Dynacap Style

The Dynacap Style switch type opening exists to offer a specialized and controlled hole type for the custom shape of the DYNACAP™ housings.

Refer to the following table for compatibility:

Switch Type Compatability	General OEM-Style	Dynacap Style
OEM Topre™	✅	❌
DESKEYS™	✅	❌
KLC™	✅	❌
PBB	✅	❌
DYNACAP™	✅	✅

Tapped Holes Specifications

Tapped holes for custom keyboards supporting EC switches mainly use 2 specs:

- ISO M2
- ISO M2.5

For both specifications, a *right-hand* thread is used, as well as their respective *standard coarse thread pitches*.

Note about holes in DXF outputs

The plate maker produces plate DXF with screw hole locations marked by circles having a diameter of 2mm.

The purpose of these holes is to provide a centering reference for the tapping operation. Their presence does not enforce or imply a mandatory M2 thread specification.

Because of that, automated order processing through plate producers defaults to an M2 tap size. For M2.5 threads, explicit instruction is required in the order documentation.

Note about DYNACAP™ provided screws

The DYNACAP™ Ecosystem defaults to M2 screws.

When placing an order for DYNACAP™ parts through Authorized Retailers, either for a Standalone SKU, as part of DYNAPACK™, or parts bundled in a keyboard bundle with DYNACAP™ support, you will receive M2 screws.

Therefore, it is suggested for consistency to produce plates with M2 tapped holes specification if you plan to use DYNACAP™ parts and screws.

This is important in scenarios where you want to self-produce plates for a layout that was not provided at purchase time for a DYNACAP™-equipped keyboard.