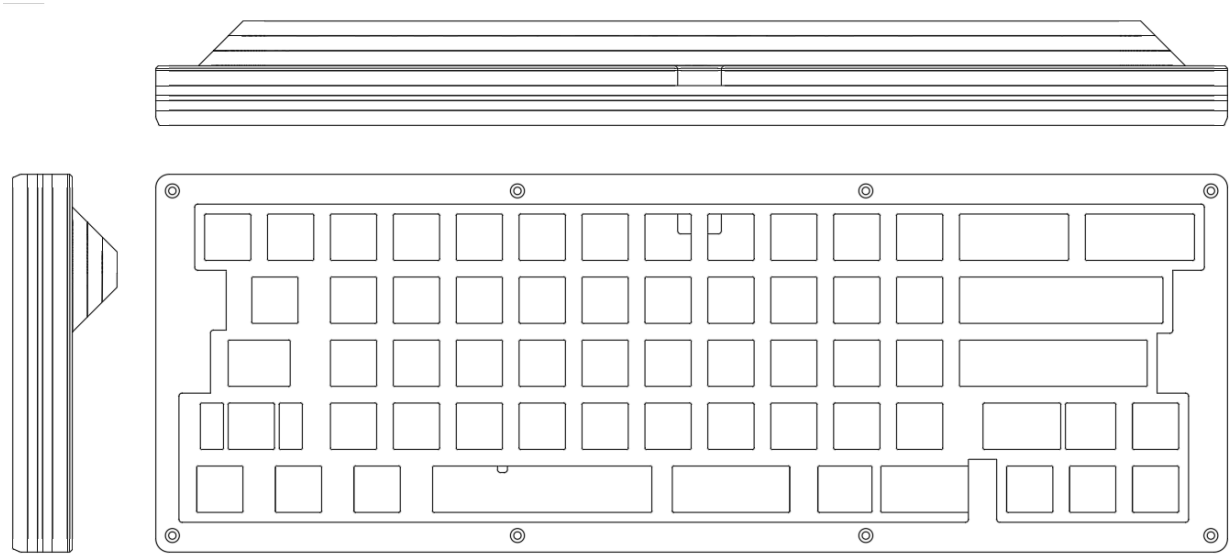
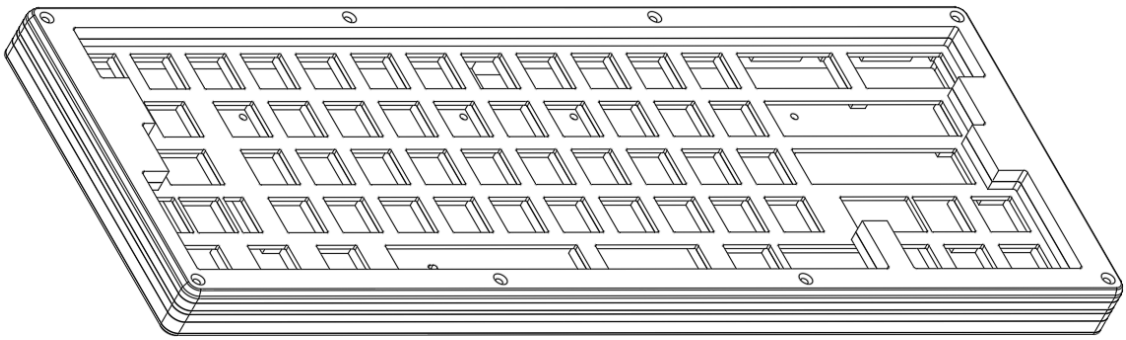
Thank you for your purchase!

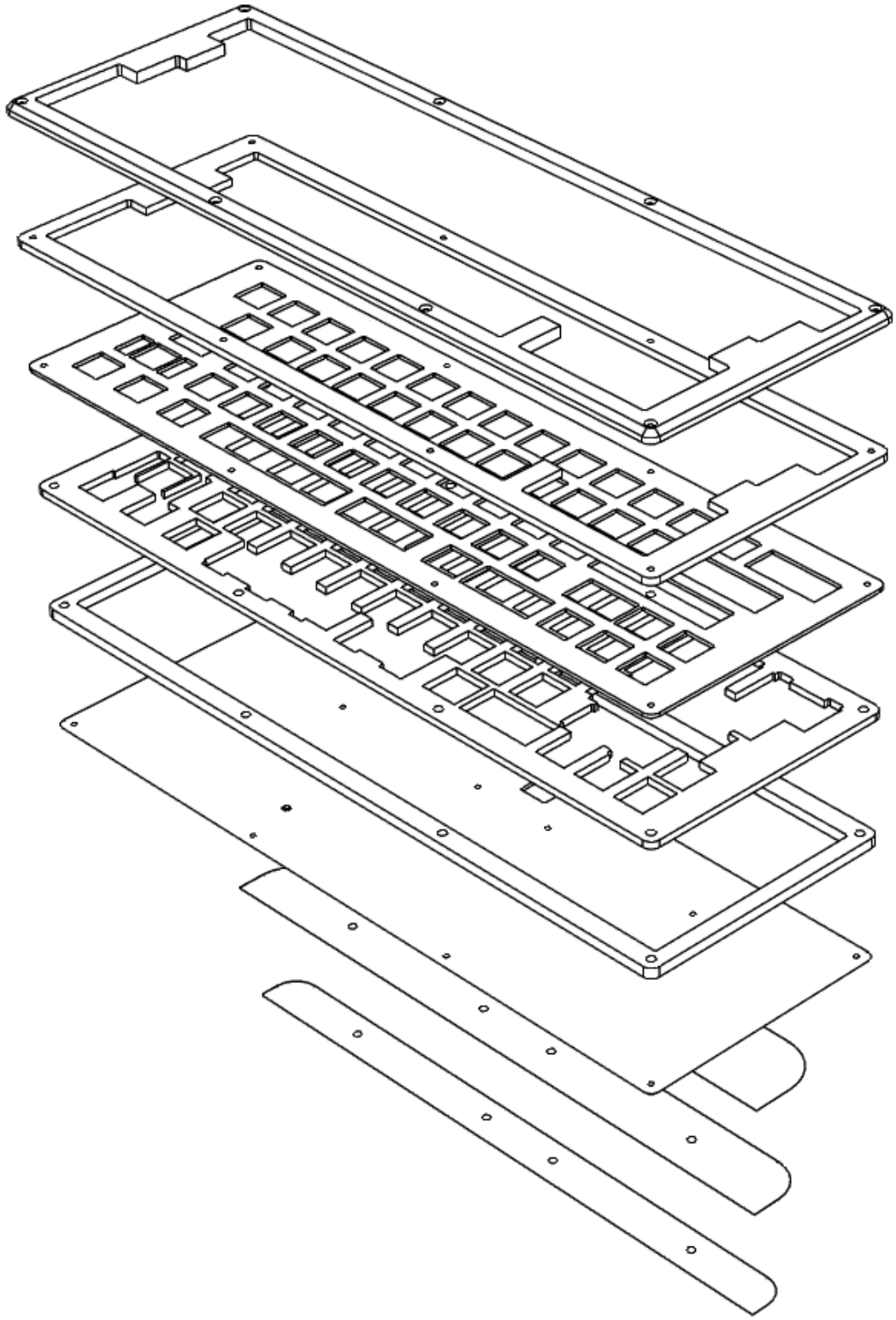
If you have any concerns about your product, you can email me at kradoindustries@gmail.com, or contact me on Discord at Narf#3439.

Maintenance:

Cleaning. Acrylic is a soft plastic and can scuff relatively easily. It will also show fingerprints. I recommend wearing some sort of soft gloves when assembling your acrylic case. To clean and remove fingerprints from your acrylic parts, use warm soapy water and a microfiber cloth. Glass cleaners like Windex are not recommended for acrylic. Compressed air will be useful for dust.



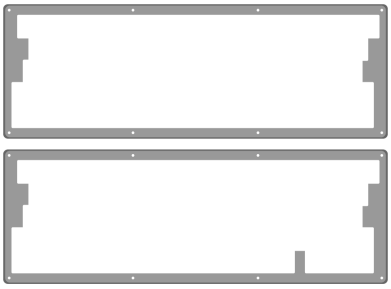




Acrylic Case

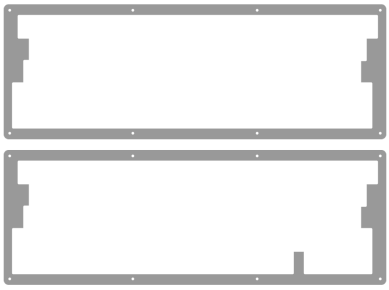
1 (Top)

(Standard and Blocker Variations)

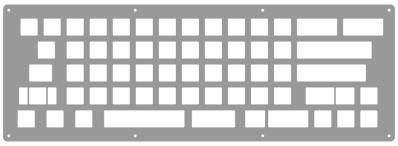


2 (Upper Spacer)

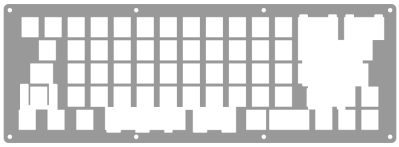
(Standard and Blocker Variations)



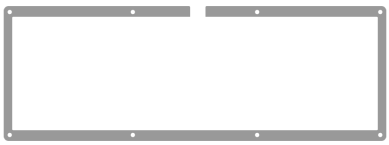
3 (Plate)



4 (Plate Support)

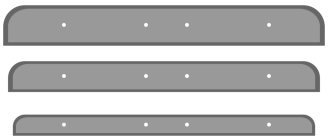


5 (Lower Spacer)



6 (Bottom)

7 (Risers)



1. Top (4.5mm)[1]
2. Upper Spacer (3mm)
3. Plate (1.5mm)
4. Plate Support (3mm)
5. Lower Spacer (4.5mm) / Diffuser (3mm) + Spacer (1.5mm)
6. Bottom (1.5mm)
7. Large, Medium, Small Risers (4.5mm)

- 8x 7mm M2 Threaded Spacers - Brass
- 4x 8mm M2 Threaded Spacers (For 2-tier riser) - Brass
- 4x 12mm[2] M2 Threaded Spacers (For 3-tier riser) - Brass
- 8x 12mm M2 Countersunk Screws - Brass
- 12x 4mm M2 Countersunk Screws - Brass
- 4x 4mm Wide Head M2 Flat Screw -
- 6x SKUF (Silicon Keyboard Universal Feet)

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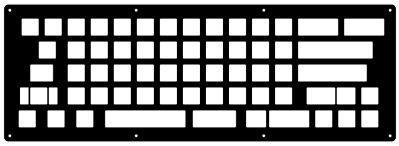
[1] Top and Upper may have their thicknesses flipped depending on materials/color.

[2] 13mm threaded spacers were included in all orders that shipped before Jan 6, 2023. If you would like me to send you 12mm spacers, please DM with order #.

Skeleton Case

- FR4 Plate
- FR4 Bottom
- 8x 7mm M2 Threaded Spacers
- 16x 4mm M2 Countersunk screws
- 6x SKUF (Silicon Keyboard Universal Feet)



Before Beginning

The following items are not included, but are necessary to complete your build.

- PCB-mount Stabilizers
- MX-Style switches (5-pin recommended for hotswap)
- MX Compatible Keycaps (Any keycap set that covers 65% layouts will work)
- USB-C cable
- 1.3mm Allen/hex wrench for screws. Torx T5 will also work.

Getting Started

Sort your parts to make sure nothing is missing.

Before beginning, please connect the PCB to a computer. Test to make sure that each key switch registers by using tweezers or key switches. Some of the keys are programmed to be function (layer) keys, so they will not register a keypress. You can use the Matrix Tester in Vial.

Carefully remove protective film from the acrylic pieces. Glossy acrylic is a fingerprint magnet. I would recommend wearing thin gloves when handling clear acrylic.

Take care when handling the acrylic parts. The thinner pieces, like the 1.5mm plate, and pieces that do not fully connect to themselves like the bottom spacers and diffusers can break easily. Handle these with extreme care and do not bend them too much.

TL;DR Instructions: test pcb on computer; install stabs on pcb; install switches by putting together plate, plate support layer and pcb; test switches on computer; attach SKUF pads one bottom and smallest riser; install risers to the bottom piece; install 7mm threaded spacers on bottom piece with 4mm screws, fit plate/support/pcb assembly to bottom piece; install top pieces with 12mm screws.

Plate and PCB Assembly

Install Stabilizers [PCB, Stabilizers (not included)]

Any key longer than 2u (Backspace, Enter, Left Shift, long Right Shift, and Spacebars) should use stabilizers. Install your stabilizers of choice on the PCB. *Please note that only PCB mounted stabilizers will work*. There are a few layouts where the hotswap sockets interfere slightly with stabilizer clips or screws. I recommend using the felt or plastic washers that come with the stabilizers. You can gently screw the stabilizer in, bending the contact of the hotswap socket slightly. Be careful not to lift the socket. For areas with multiple layouts, there should be indicators on the front side of the PCB designating stabilizer holes locations.

After installing the stabilizers, check to make sure they are working properly by temporarily installing a switch in the designated socket and installing a keycap. Press the key multiple times on all parts of the key (not just the center) to make sure it actuates correctly. Once you are satisfied, remove the keycap and switch and begin mounting the switches to the plate with the support layer (#4) between the plate (#3) and PCB.

Install Switches [PCB, 1.5mm Plate, *3mm Acrylic Plate Support, MX-style key switches (not included)]

Once you have checked your stabilizers, begin to install switches to the switch plate. Place the 3mm acrylic plate support layer between the switch plate and the PCB. The switches should clip into the plate. Be GENTLE. Forcing the switches in or bending the acrylic plate too much may cause the plate to break. The support plate also has many thin bridges, so take extra care with these pieces. If a small part of the plate support breaks, it should still function.

When inserting your key switches, take extra care to make sure that the pins on the bottom or your switches are straight and parallel. DO NOT FORCE a stubborn switch. If a switch with a bent or misaligned pin is inserted, it may bend the pin out of the hole, resulting in no signal when pressed. Or even worse, if the pin is straight, but misaligned with the socket and it pressed straight down on the mouth of the socket, it may push the socket off the board, lifting the pad and making that switch location unusable. If the switch will not insert, check to make sure the pins are clean and not bent, and make sure that the upper and lower housings of the switch are properly seated. Some switches may have tighter fitment than others. It is recommended that you press up on the bottom of the hotswap socket while inserting the switch. Continue until all of your switches are installed. I would recommend plugging the board into a computer again and checking to make sure the switches register a keypress.

If you opt for the aligned right mod layout where the Enter key and quote/apostrophe key are swapped, the 1u switch location on the right is rotated 90 degrees to not interfere with the 2.25u key's stabilizer holes. This will cause the switch to not clip into the plate. It should still stay in the pcb with a friction fit. Some switches, such as Khail Box switches may not sit on the plate at all because they do not have plate flanges on the sides of the switch. There is an optional solderable switch location here if the hotswap socket is an issue.

There are no threaded spacers to hold the plate and PCB together, so please be sure that all switches are completely seated. Five-pin switches are preferred over three-pin for additional friction retention.

Case Assembly

***For Skeleton Cases:**

Simply install screws and threaded spacer to connect the plate and bottom piece. Make sure that all screws are tightly fastened. Apply the SKUF (Silicon Keyboard Unified Feet) to your preferred location on the bottom of the board. There are also countersunk holes to install CNC aluminum keyboard feet (not included). (Examples: AliExpress, KBDFans, Amazon)

Assemble the Bottom Case (Risers, Bottom, Lower Spacer, 13mm or 8mm threaded spacer, 4mm countersunk screws, 4mm wide head screws)

I would recommend installing the SKUF (Silicon Keyboard Universal Feet) pads on the bottom of the case and bottom of the smallest riser at this time. You can also do this after you finish assembling the case. There is no specific location that is best for the SKUF pads, but they should be installed so that no part of the acrylic is touching your desk.

There are three risers in the acrylic case kit. When using all three risers, use the 13mm threaded spacers*[3]. When using only two risers for a lower typing angle, use the 8mm threaded spacers. (Be careful not to mix up the 8mm and 7mm threaded spacers.) Attach the four threaded spacers to the underside of the bottom acrylic piece using four 4mm countersunk M2 screws. Be careful not to over tighten the screws.

Put the bottom acrylic layer top side down with the threaded spacers pointed up. Slide the stacked risers onto the threaded spacers. The risers should be orientated with the rounded corners towards the side with the USB cutout.

Install the wide head M2 flat screws to secure the bottom of the risers.

Install the eight (8) 7mm threaded spacers at each of the 8 holes around the perimeter of the bottom piece using 4mm M2 countersunk screws. Screws should be installed from the bottom. Do NOT overtighten or you might crack the acrylic.

Stack the 4.5mm (3mm + 1.5mm diffuser) lower spacer(s) on top of the bottom piece, fitting the threaded spacers through the holes. For black and white cases, the translucent diffuser layer should be between the bottom piece and other lower spacer piece. .

Complete the Case

Stack the plate and PCB assembly on top of the lower spacer, inserting the 7mm threaded spacers that you installed on the bottom piece into the perimeter holes of the 3mm plate support piece (#4). The 7mm threaded spacers should be captured by the bottom piece (#6) and plate (#3).

[3] The acrylic risers are cut from 3/16” (4.5mm) acrylic. The acrylic thickness may have slight variances, resulting in the 13mm threaded spacers protruding slightly. You can either use sandpaper or a file to shave the brass down slightly.

Finally, take the top two pieces (#1, #2) and place them on top of the plate. The piece with the beveled edges should be on the top. Align the perimeter holes and screw the 12mm countersunk M2 screws into the 7mm threaded spacers.

To best align the stacked acrylic layers, slightly loosen the perimeter screws, adjust the layers until they are aligned and retighten the screws. The layers may not perfectly line up due to manufacturing tolerances.

Install the SKUF (Silicon Keyboard Universal Feet) pads on the bottom of the case and bottom of the risers.

Install keycaps.

Setting up your layout, programming

The Krado66 pcb is powered by QMK firmware, and comes with Vial compatible firmware preflashed. Simply plug in your keyboard and either download and open Vial on your computer, or use the web-based configurator. If you would prefer to use VIA you can download the .hex file from the #resources channel on Discord and flash it using QMK Toolbox. Until the Krado66 is added to the QMK master directory, you must upload the via.json file in the Design tab. (Settings>Toggle “Show Design Tab”>Design>Upload via.json file. The JSON file can also be found on the Discord in the #resources channel. More advanced users can find my QMK branch under qmk-firmware/krado66/krado66v2 (also linked in the #resources channel. The default firmware file can also be found on the Discord server.