



EPOMAKER EK21 20 Percent Triple Modes Hot Swappable RGB VIA Programmable Keyboard User Guide

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Should you require more assistance please email us at support@epomaker.com

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REPLACING KEYCAPS AND SWITCHES

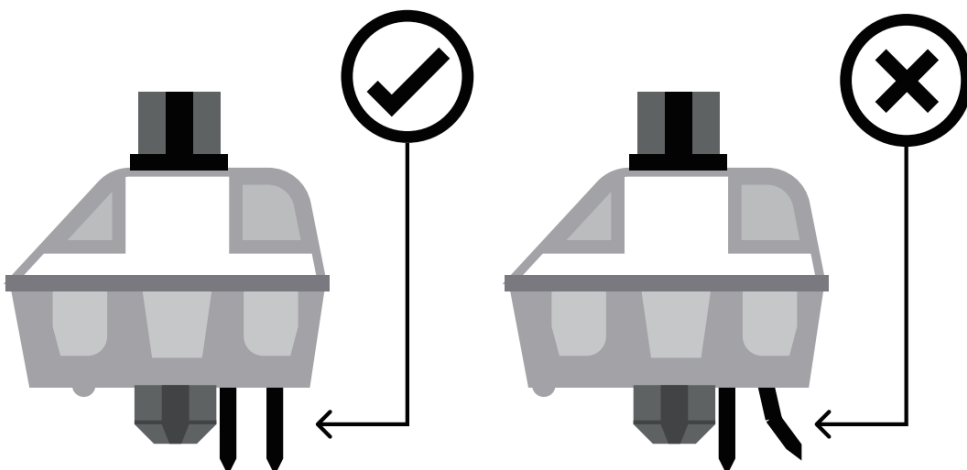
For a full guide on how to remove keycaps and switches scan the QR Code or type in your browser:

<https://epomaker.com/blogs/guides/diy-guide-how-to-remove-andreplace-your-mechanicalkeyboard-switches>



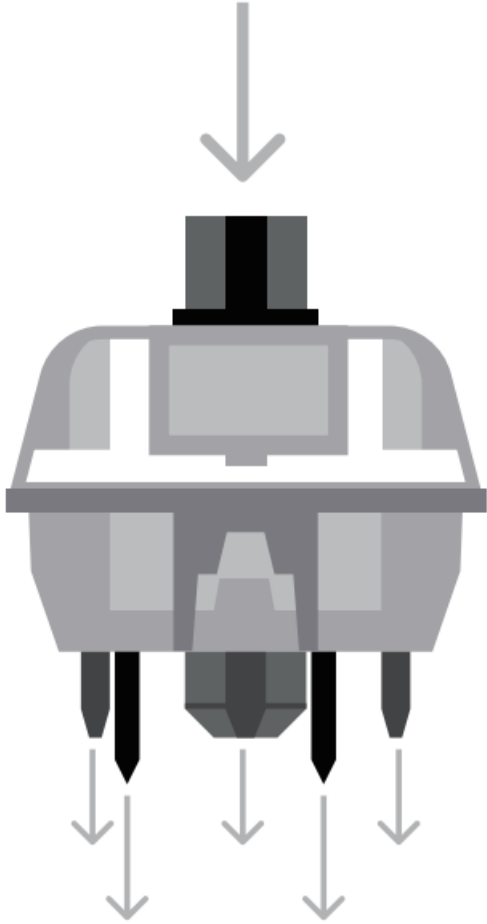
Installing Switches

Before installing switches, be sure the pins are clean and straight, you may damage the switch otherwise.



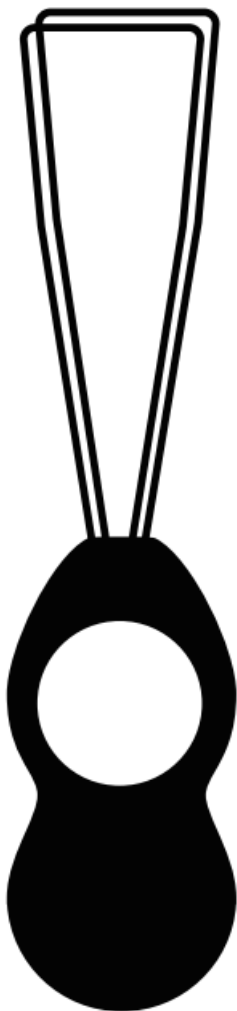
Push Straight Down

Please be gentle. Be sure the pins are aligned with the slots.

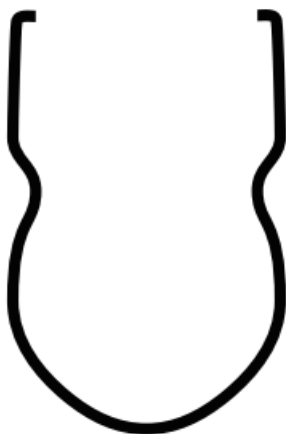


Included Tools

Keycap Puller

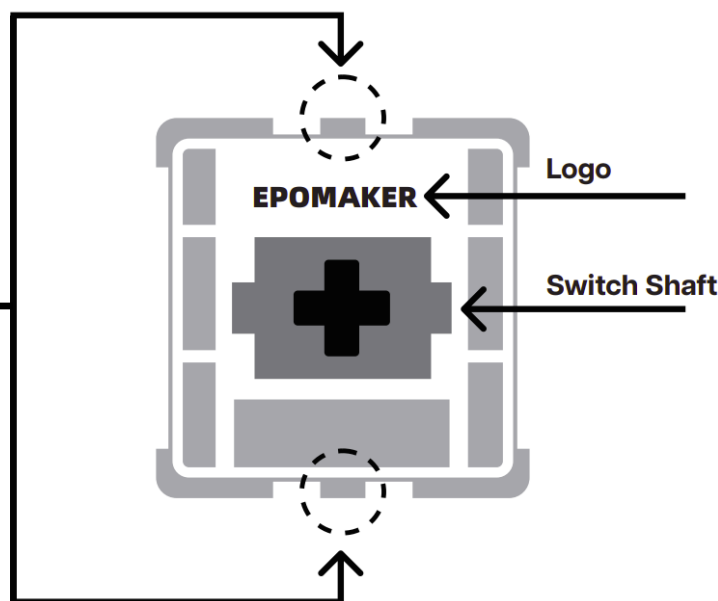


Switch Puller



Mechanical Switch

Example of a switch as seen from top after you remove the keycap to prepare for switch removal.



Using the Switch Puller

The Switch Puller tool aligns Vertically to the mechanical switch to unclip the plastic securing the switch to the plate.

Remove Switches

1. Grab your Switch Removal Tool and align the gripping teeth vertically (on the Y-Axis) at the center of the switch, as shown in the example graphic above.
2. Grab the switch with the Switch Puller and apply pressure until the switch releases itself from the plate.
3. Using firm but gentle force pull the switch away from the keyboard using a vertical motion.

Install Switches

1. Check that all the switch metallic pins are perfectly straight and clean.
2. Align the switch vertically to have the Gateron logo facing north. The pins should align themselves to the keyboard PBC.
3. Press the switch down until you hear a click. This means your switch clips have attached themselves to the keyboard plate.
4. Inspect the switch to ensure it's properly attached to your keyboard, and test it.



Note: If the key doesn't work its possible you may have bent one of the switches while installing it. Pull the switch out and repeat the process.

Pins may be damaged beyond repair and need replacement if this process is not done correctly. Never apply excessive force when replacing keycaps or switches. If you cannot remove or install keycaps or switches please contact customer service as soon as possible to avoid damage to the keyboard due to operating errors.

FUNCTION KEY COMBINATIONS

Fn + Enter	Toggle Backlight Effect
Fn + 0 (Hold 3s)	Reset the numpad
Fn + 1	Short Press to Switch to BT1; Long Press to Pair Devices
Fn + 2	Short Press to Switch to BT2; Long Press to Pair Devices
Fn + 3	Short Press to Switch to BT3 Long Press to Pair Devices
Fn + 4	Short Press to Switch to 2.4G Mode; Long Press to Pair Devices
Fn + 5	Backlight Sat +
Fn + 6	Backlight Sat –
Fn + 7	Backlight Speed –
Fn + 8	Backlight Speed +
Fn + +	Backlight Brightness +
Fn + –	Backlight Brightness –
Fn + /	Backlight Hue –
Fn + *	Backlight Hue +

Fn+ Backspace

Turn on/off Backlights (Numlock indicator stays on and cannot be off)

PAIRING BLUETOOTH

Toggle the switch to the left, make sure that the keyboard is under the wireless mode:

1. Hold Fn+1/2/3 for 3-5 seconds till the indicator flashes fast in blue, the numpad is ready to pair.
2. Turn on your Bluetooth device and find 'Epomaker EK21-1/2/3', then connect. When the numpad is connected to the Bluetooth device, the indicator stops flashing, the connection is done.
3. Press Fn+1/2/3 to toggle between the Bluetooth devices 1/2/3.

PAIRING WIRELESS 2.4GHZ

Toggle the switch to the right, make sure that the numpad is under the 2.4g wireless mode:

1. Hold Fn+4 for 3-5 seconds till the 4 key flashes fast in green, the keyboard is ready to pair.
2. Insert the 2.4G dongle to your device, the indicator stops flashing and the connection is done.

WIRED MODE

Toggle the switch to the middle, and the numpad enters to the wired mode successfully.

Note: The battery charges under either wireless or wired mode, as long as it is plugged.

BATTERY INDICATOR

- **Low battery:** Fn indicator flashes red
- **Charging:** Fn indicator stays in red
- **Fully charged:** Fn indicator off

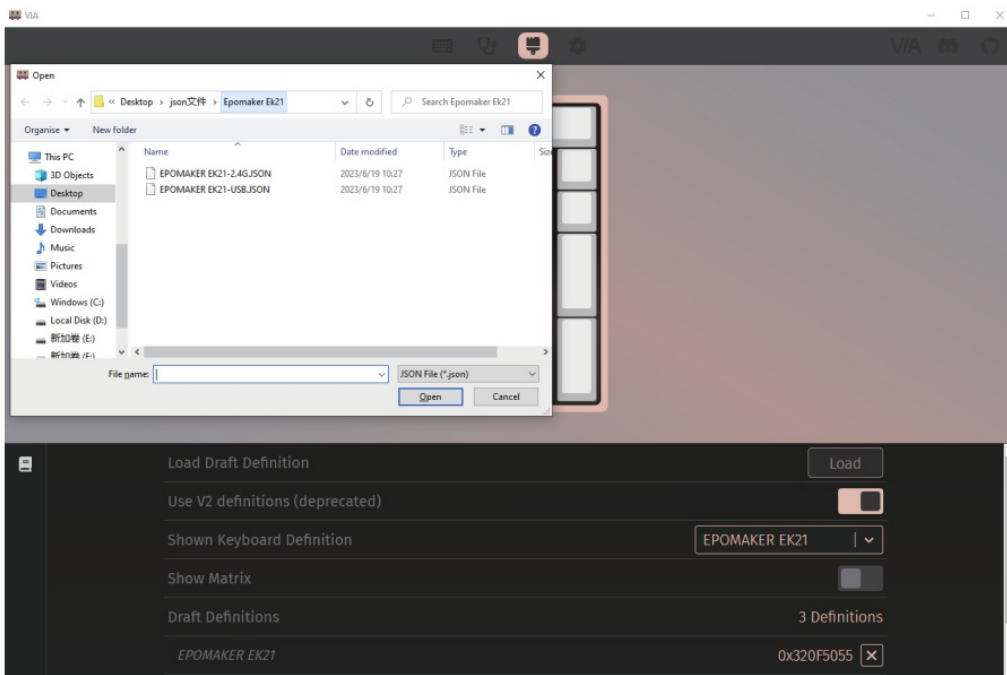
TECHNICAL ASSISTANCE

For technical assistance, please email to support@epomaker.com with your purchase order number and a detailed description of your issue.

We normally respond to enquiries within 24 hours. If you purchased your keyboard from a distributor or not from any official store of Epomaker, please contact them directly for any additional help.

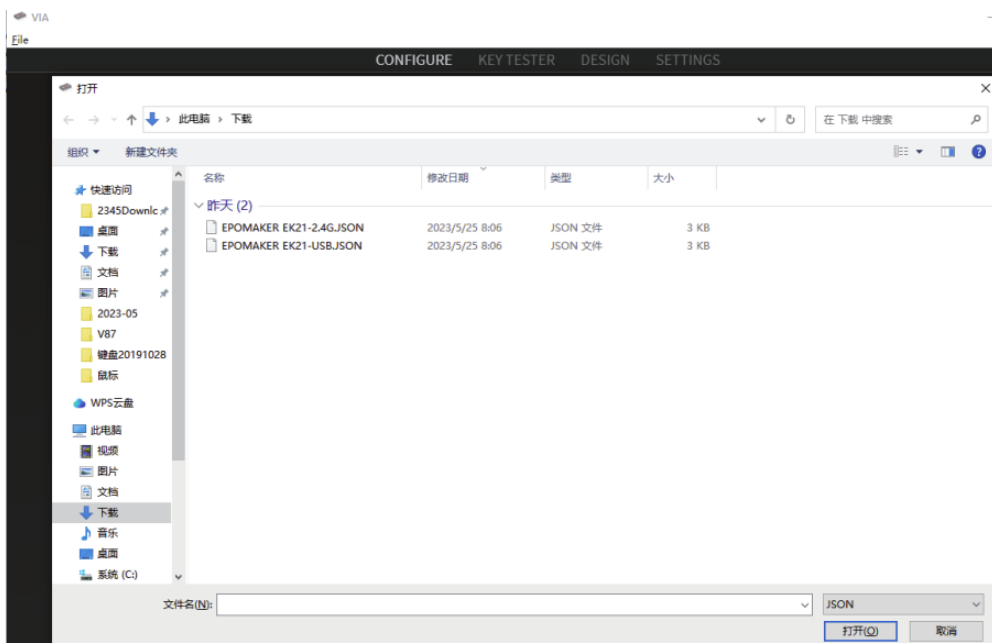
HOW TO USE VIA

1. Please visit “<https://github.com/WestBerryVIA/via-releases/releases>” to download the latest VIA application for your computer’s OS. Turn on the button of “Use V2 definitions (deprecated)”

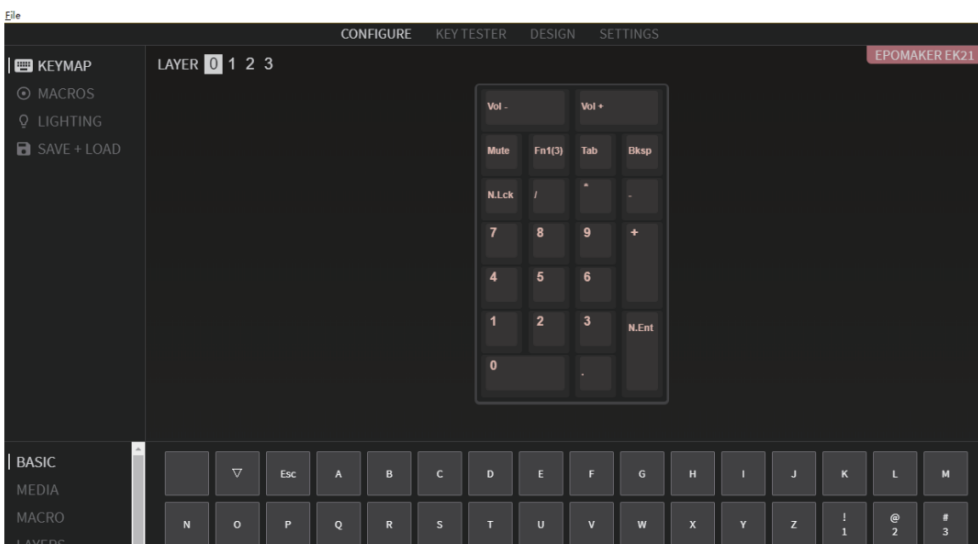


2. **Import the JSON File to VIA**

If the numpad is under the wired mode: download Epomaker EK21 USB json file via <https://epomaker.com/blogs/qmk-via/epomaker-ek21-usb-via-json> and load the file; If the numpad is under 2.4G mode, download Epomaker EK21 2.4G json file via <https://epomaker.com/blogs/qmkvia/epomakerek21-24g-via-json> and load the file.



3. When the loading is completed, the “Configure” Tab displays the layout and programmable functions.



MODEL:	EPOMAKER EK21 VIA
KEYS AMOUNT:	20 Keys + 1 Knob
STABILIZER TYPE:	Plated-mounted
PCB TYPE:	3/5-pin Hotswap PCB
CONNECTIVITY:	Type-C Wired, Bluetooth, 2.4G Bluetooth
ANTI-GHOST KEY:	NKRO
POLLING RATE:	1000hz under Wired and 2.4G Mode; 125hz under Bluetooth Mode
BATTERY CAPACITY:	1000mAh
POLLING RATE:	WINDOWS/MAC
DIMENSION:	About 93mm*138mm*29mm
WEIGHT:	Around 0.2kg

WARRANTY

EPOMAKER's Warranty covers any factory defects that might affect the proper functionality of your purchase. It doesn't cover any damage that may occur from normal wear and tear. If your product is defective we will send you a replacement unit. Replacement units might require you to send the defective unit back to Epomaker.

We provide a 1 year warranty for our products when bought from our website (EPOMAKER.com). Your item will not be covered by your 1 year warranty if the inspection shows any sign of modification or changes unsupported by the original product, these include: Changing internal components, Assembling and reassembling the product, Replacing Batteries, etc.

We will ONLY cover the item if it is bought from our ofcial stores. You do not have a warranty with us .if you bought the item from another reseller or likewise. Please contact the store that you bought your product from to resolve issues.



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Web: www.epomaker.com



RoHS
COMPLIANT










Documents / Resources



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References

-  [Epomaker](#)
-  [Epomaker](#)
-  [Epomaker EK21 VIA 2.4G JSON File](#)
-  [Epomaker EK21 VIA USB JSON File](#)
-  [Releases](#) · [WestBerryVIA/via-releases](#) · [GitHub](#)

[Manuals+](#).