

KPREPUBLIC GK21S

KPREPUBLIC GK21S Mechanical Keyboard Numpad Kit User Manual

Model: GK21S

1. INTRODUCTION

This manual provides detailed instructions for the KPREPUBLIC GK21S Mechanical Keyboard Numpad Kit. It covers setup, operation, maintenance, troubleshooting, and product specifications to ensure optimal performance and user experience.

The GK21S is a hot-swappable, dual-mode (wired USB Type-C and Bluetooth 5.1) 21-key mechanical numpad kit featuring RGB lighting, custom macro programming, and compatibility with various MX-style switches.

2. WHAT'S IN THE BOX

Upon unboxing your KPREPUBLIC GK21S kit, please verify that all components are present:

- GK21S PCB (Printed Circuit Board)
- Keyboard Case (White)
- USB Type-C Cable
- Keycap Puller
- (Note: Keycaps and mechanical switches are not included and must be purchased separately.)

3. SETUP GUIDE

3.1 Installing Mechanical Switches

The GK21S features hot-swappable Kailh connectors, allowing for easy installation and removal of mechanical switches without soldering. Ensure your switches are compatible with MX-style sockets (3-pin or 5-pin).

1. Align the pins of the mechanical switch with the corresponding holes on the PCB.
2. Gently push the switch straight down until it clicks into place. Do not force the switch if it does not align easily, as this may bend the pins.
3. Repeat for all 21 switch positions.



Image: The GK21S numpad kit showing the hot-swappable sockets ready for switch installation. The illuminated RGB LEDs indicate power is supplied to the PCB.

3.2 Installing Keycaps

Once switches are installed, place your desired keycaps onto the switch stems. Ensure they are firmly seated.

3.3 Connecting the Numpad

The GK21S supports dual-mode connectivity: wired USB Type-C and Bluetooth 5.1.

3.3.1 Wired Connection

1. Locate the USB Type-C port on the numpad.
2. Connect one end of the provided USB Type-C cable to the numpad and the other end to an available USB port on your computer or device.

3. The numpad will be automatically recognized and ready for use.

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Image: A detailed view of the GK21S numpad's side, highlighting the USB Type-C interface for wired connection.

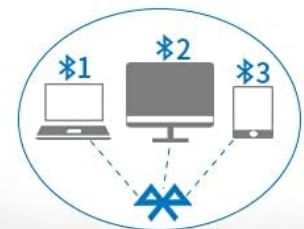
3.3.2 Bluetooth Connection

The GK21S can connect to up to three Bluetooth devices simultaneously.

1. Ensure the numpad is powered on.
2. Press the designated key combination (refer to the software manual for specific key bindings, typically Fn + 1, 2, or 3) to enter Bluetooth pairing mode for the desired profile. The RGB lighting may indicate pairing status.
3. On your device (laptop, desktop, mobile), navigate to Bluetooth settings and search for new devices.
4. Select "GK21S" or a similar name from the list of available devices to pair.
5. Repeat for additional devices using different Bluetooth profiles (e.g., Fn + 2 for device 2, Fn + 3 for device 3).
6. To switch between connected Bluetooth devices, press the corresponding key combination (e.g., Fn + 1, Fn + 2, or Fn + 3).

5.0 Bluetooth GK21S kit

USB wired+bluetooth wireless dual mode
one key switch.



Connect 3 devices at
the same time

Image: The GK21S numpad illustrating its Bluetooth 5.0 dual-mode capability, allowing simultaneous connection and easy switching between up to three devices.

4. OPERATING INSTRUCTIONS

4.1 Basic Numpad Functionality

The GK21S functions as a standard 21-key numpad for data entry and calculations. Its compact design makes it ideal for users requiring a dedicated numeric input device.

4.2 Customization Software

The GK21S supports comprehensive customization through its dedicated driver software. This software allows you to:

- Customize all key functions.
- Program custom macros.
- Manage and apply various RGB lighting effects.
- Download and update light effects.

- Define up to three layers of key configurations.

Please refer to the software's built-in help or the manufacturer's website for detailed instructions on using the customization software.

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Driver Software

All keys could be customized

Support massive light effect download update and DIY custom light effect

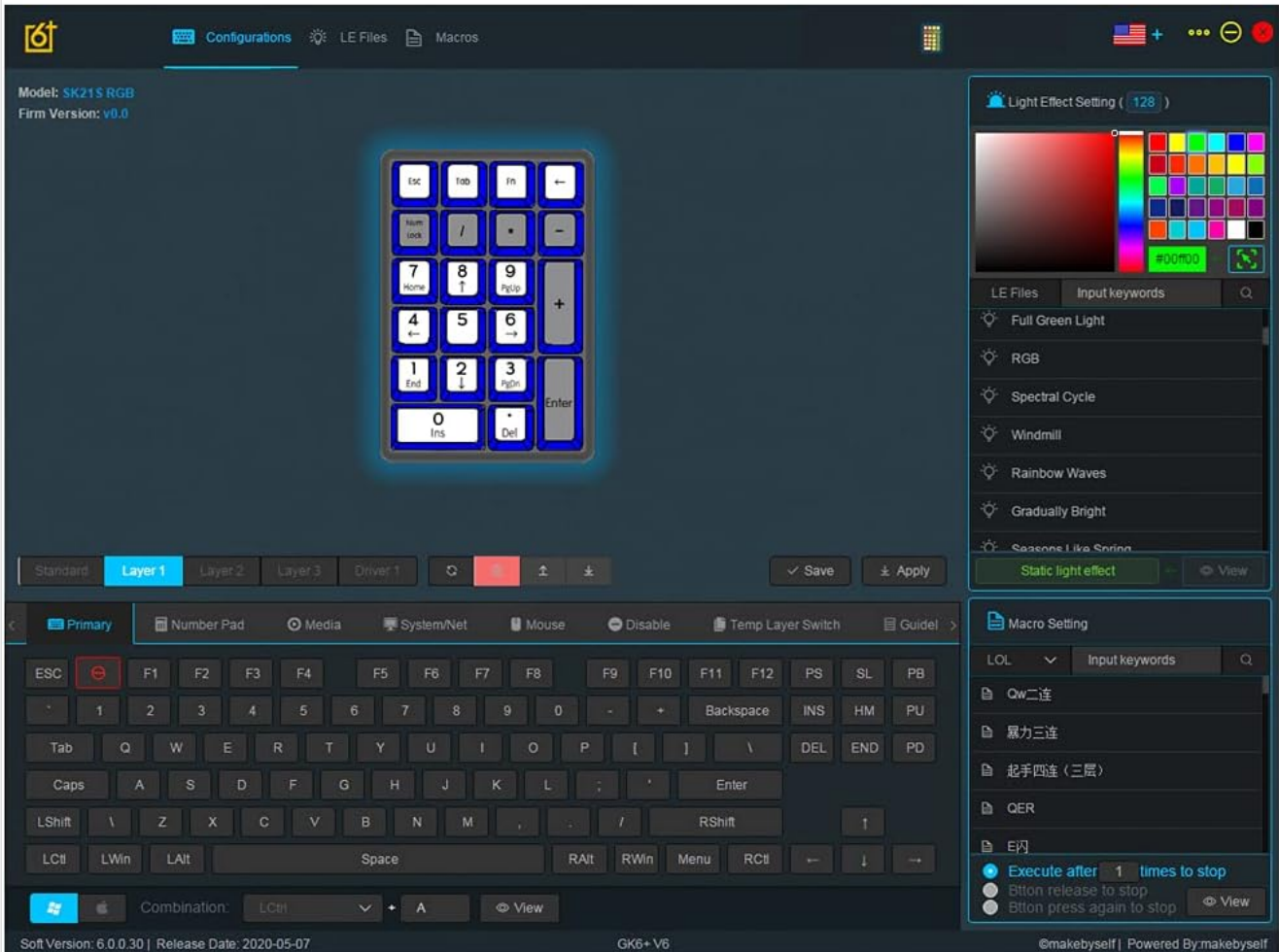


Image: A visual representation of the GK21S driver software, demonstrating its capabilities for key remapping, macro creation, and extensive RGB lighting control.

4.3 RGB Lighting Control

The numpad features 16.8 million colors RGB SMD switch LEDs. Lighting effects can be controlled and customized via the driver software. The numpad also supports music rhythm and sound control for dynamic lighting effects.

4.4 Dual Mode Switching

To switch between wired and Bluetooth modes, use the designated switch or key combination on the numpad. This allows seamless transition between desktop and mobile use.

5. MAINTENANCE

Proper maintenance ensures the longevity and performance of your GK21S numpad.

5.1 Cleaning

- **General Cleaning:** Use a soft, lint-free cloth slightly dampened with water or a mild cleaning solution to wipe the case. Avoid harsh chemicals.
- **Keycap Cleaning:** Remove keycaps using the provided keycap puller. Clean them with warm soapy water, rinse thoroughly, and ensure they are completely dry before reattaching.
- **Under Keycaps:** Use compressed air to remove dust and debris from between the switches and PCB.

5.2 Switch Replacement

Thanks to the hot-swappable design, individual switches can be replaced if they malfunction or if you wish to try different switch types. Use a switch puller (not included) to carefully remove the switch, then insert a new one, ensuring pins are aligned.

6. TROUBLESHOOTING

If you encounter issues with your GK21S numpad, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Numpad not responding (Wired)	Loose cable connection, faulty USB port, driver issue.	Ensure USB Type-C cable is securely connected. Try a different USB port or cable. Restart your computer. Check device manager for driver issues.
Numpad not connecting (Bluetooth)	Numpad not in pairing mode, device Bluetooth off, interference, low battery.	Ensure numpad is in pairing mode (refer to section 3.3.2). Verify Bluetooth is enabled on your device. Charge the numpad battery. Try re-pairing.
Keys not registering	Switch not fully seated, faulty switch, software conflict.	Press down firmly on the keycap to ensure the switch is fully seated. If issue persists, remove and re-insert the switch. If still problematic, replace the switch. Check customization software for remapped keys.
RGB lighting not working or incorrect	Software settings, firmware issue.	Check RGB settings in the customization software. Ensure the software is up to date. Try resetting the numpad (refer to software manual for reset procedure).
Battery not charging or holding charge	Faulty cable, USB port, or battery.	Try a different USB Type-C cable and USB port. Ensure the numpad is connected to a powered USB port. If the issue persists, the battery may need service.

7. SPECIFICATIONS

Detailed technical specifications for the KPREPUBLIC GK21S Mechanical Keyboard Numpad Kit:

Feature	Detail
Model	GK21S
Keys	21-key Numpad

Feature	Detail
Connectivity	Dual Mode: USB Type-C Wired & Bluetooth 5.1
Hot-Swappable Sockets	Yes, Kailh connectors (compatible with Cherry, BOX, G axis, 3-pin/5-pin MX switches)
MCU	32-bit MCU
Flash Memory	Built-in 8M Flash
RGB Lighting	16.8 Million Colors, SMD Switch LEDs, Music Rhythm & Sound Control
Customization	Driver software for custom macro programming, key remapping, 3 definable layers, light effect customization.
Stabilizers	PCB support plate mount stabilizer
Battery	750mAH Li-Battery
Compatible Devices	Laptops, Desktops, Mobile Devices
Material	Acrylonitrile Butadiene Styrene (ABS)
Item Weight	8 ounces (approx. 227 grams)
Package Dimensions	3 x 3 x 3 inches
Manufacturer	KPREPUBLIC

Super hardware architecture

32-bit M3 MCU

8M Flash memory

Independent RGB color management chip

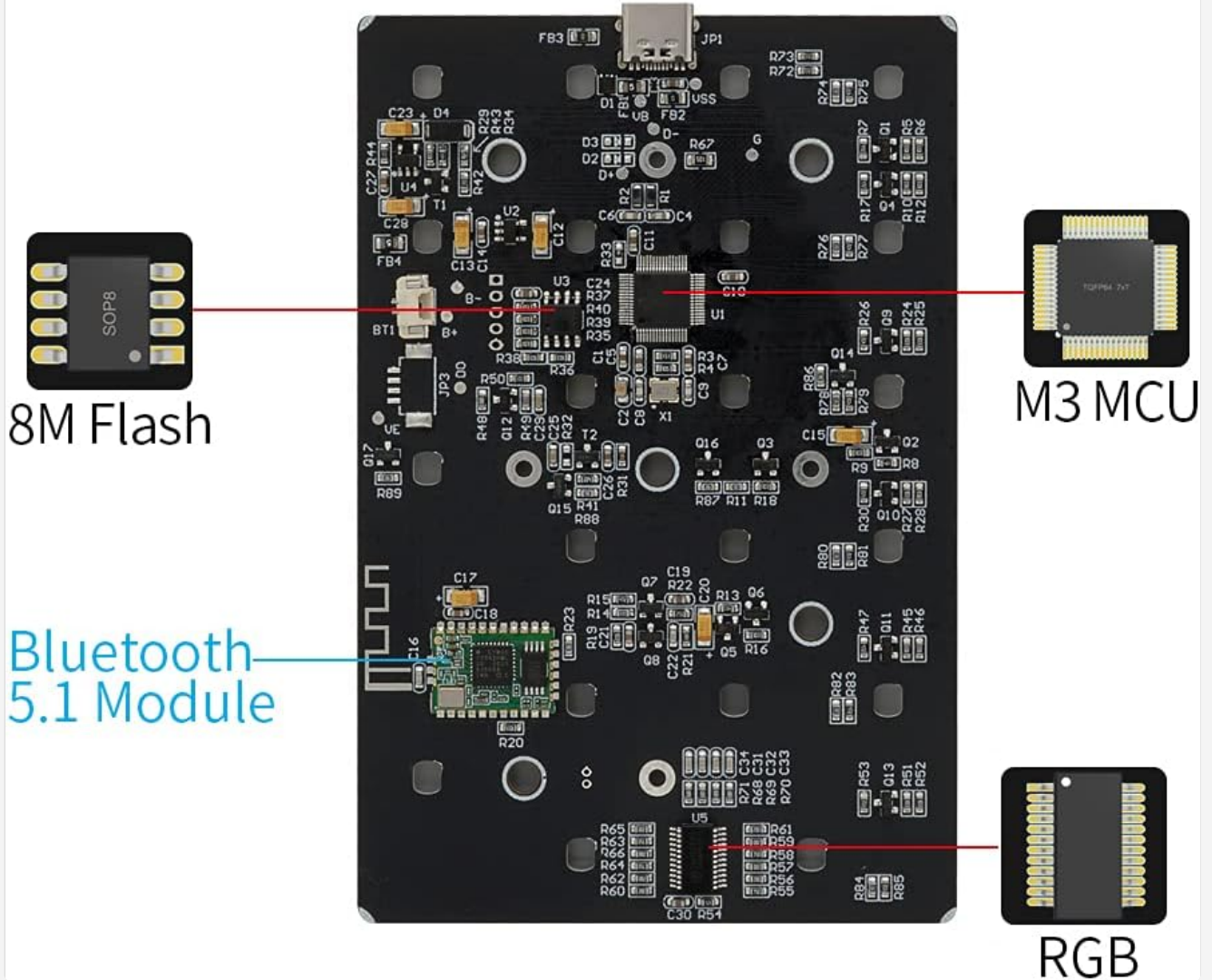


Image: An internal view of the GK21S PCB, detailing key components such as the 32-bit MCU, 8M Flash memory, and the Bluetooth 5.1 module, which contribute to its advanced functionality.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your KPREPUBLIC GK21S Mechanical Keyboard Numpad Kit, please refer to the warranty card included with your purchase or visit the official KPREPUBLIC website. Support resources, including driver downloads and FAQs, are typically available on the manufacturer's product support pages.

Manufacturer: KPREPUBLIC

Website: Please refer to your product packaging or search online for the official KPREPUBLIC support website.

