KEYCOOL K21

KEYCOOL K21 Mechanical Number Keypad User Manual

Model: K21

| Introduction | Setup | Operation | Customization | Maintenance | Troubleshooting |
| Specifications |

1. INTRODUCTION

This manual provides instructions for the KEYCOOL K21 Mechanical Number Keypad. The K21 is a versatile 21-key numeric keypad designed for enhanced productivity across various operating systems. It features triple-mode connectivity, hot-swappable switches, customizable RGB lighting, and programmable keys.

Figure 1: Front view of the KEYCOOL K21 Mechanical Number Keypad showcasing its RGB lighting.

2. SETUP

2.1 Package Contents

Before proceeding, ensure all items are present:

- KEYCOOL K21 Mechanical Number Keypad
- USB-C Cable
- 2.4GHz USB Receiver
- Keycap Puller
- Switch Puller
- Spare Switches (if included)
- User Manual (this document)
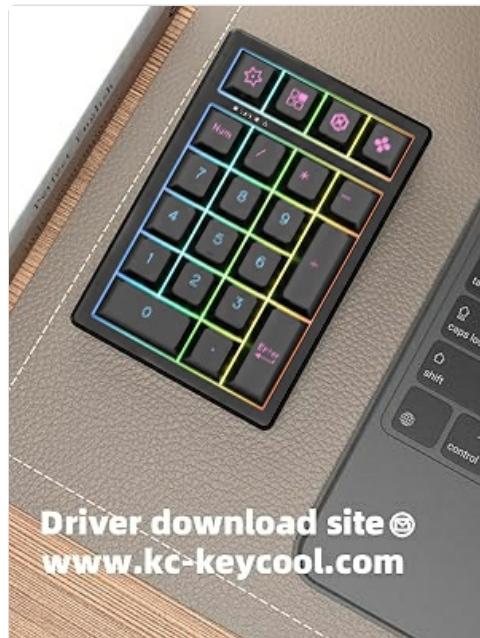
Figure 2: Standard accessories included with the K21 keypad.

2.2 Charging the Keypad

The K21 keypad is equipped with a 1500mAh battery. For optimal performance, fully charge the keypad before first use.

1. Locate the USB-C port on the keypad.
2. Connect the provided USB-C cable to the keypad and to a power source (e.g., computer USB port, USB wall adapter).
3. The charging indicator light will illuminate. It will change or turn off once fully charged.

2.3 Connectivity Modes

The K21 supports three connection modes: Wired, 2.4GHz Wireless, and Bluetooth 5.0.

Figure 3: Location of connectivity components on the K21 keypad.
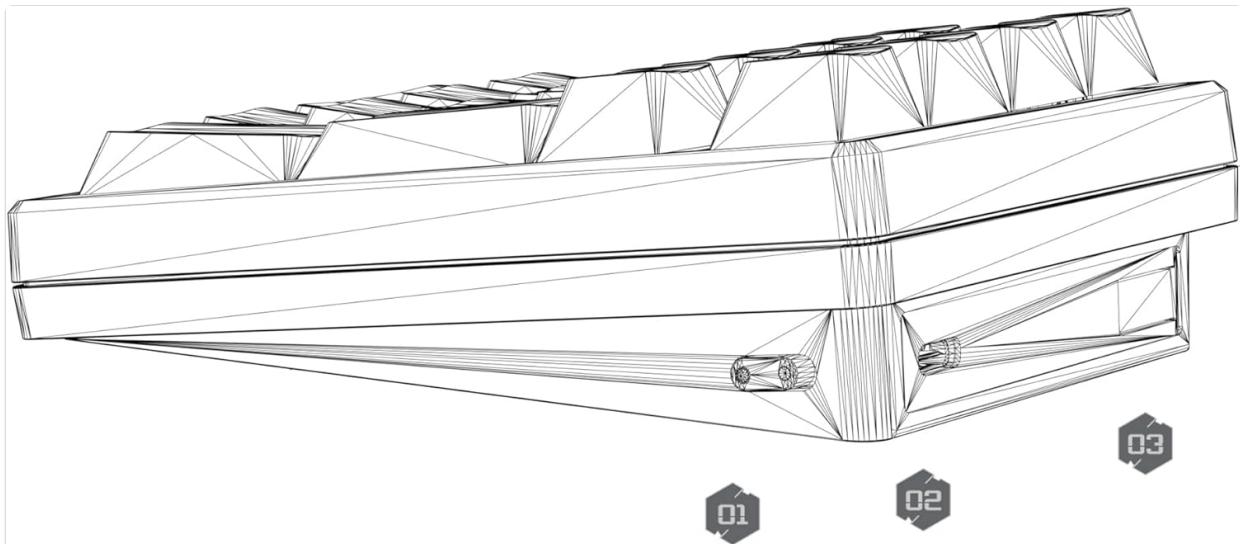
Figure 4: Detailed diagram of the keypad's connection points.

2.3.1 Wired Mode

1. Ensure the keypad's ON/OFF switch is in the "OFF" position.
2. Connect the USB-C cable to the keypad's Type-C port and to your computer.
3. The keypad will be automatically recognized by your system.

2.3.2 2.4GHz Wireless Mode

1. Locate the 2.4GHz USB receiver, usually stored in a dedicated slot on the keypad.
2. Plug the 2.4GHz USB receiver into an available USB port on your computer.
3. Turn the keypad's ON/OFF switch to the "ON" position.
4. The keypad should connect automatically.

2.3.3 Bluetooth 5.0 Mode

The K21 can connect to up to three Bluetooth devices.

1. Turn the keypad's ON/OFF switch to the "ON" position.
2. Press and hold the Bluetooth pairing key (refer to the keypad layout for specific key, often indicated by a Bluetooth icon or a combination with Fn).
3. The indicator light will flash, indicating pairing mode.
4. On your device (Laptop, Mac, Win, iOS, Android), go to Bluetooth settings and search for "KEYCOOL K21" or similar.

5. Select the keypad to pair. Repeat for other Bluetooth profiles if desired.

2.4 Ergonomic Design

The K21 wireless numeric keypad features a sloped design for comfortable use and includes silicone bottom cushions for stability.

Figure 5: Ergonomic design and dimensions of the K21 keypad.

3. OPERATION

3.1 Basic Key Functions

The K21 is a 21-key numeric keypad. Standard numeric and arithmetic functions are available. Some keys may have secondary functions accessible via the Function (Fn) key.

Figure 6: Overview of the K21 keypad's features.

3.2 RGB Lighting Control

The K21 features adjustable RGB lighting effects.

- **Fn + Back**: Turn ON/OFF the backlight.
- **Fn + 6**: Switch between different lighting effects.
- **Fn + 7**: Switch between different lighting colors.

Figure 7: Key combinations for controlling RGB lighting and hot-swappable switch design.

3.3 Volume Roller

The integrated volume roller allows for quick adjustment of system audio. Rotate the roller to increase or decrease volume. The roller may also have a press function for mute/unmute.

4. CUSTOMIZATION

4.1 Hot-Swappable Switches

The K21 keypad supports hot-swappable 3-pin/5-pin mechanical switches, allowing users to change switches without soldering. This enables customization of typing feel and sound.

1. Using the provided switch puller, carefully remove the desired switch by gripping it firmly and pulling upwards.
2. Align the pins of the new switch with the holes on the PCB.
3. Gently press the new switch into place until it clicks. Ensure it is seated properly and not bent.

Figure 8: Illustration of a hot-swappable switch being installed.
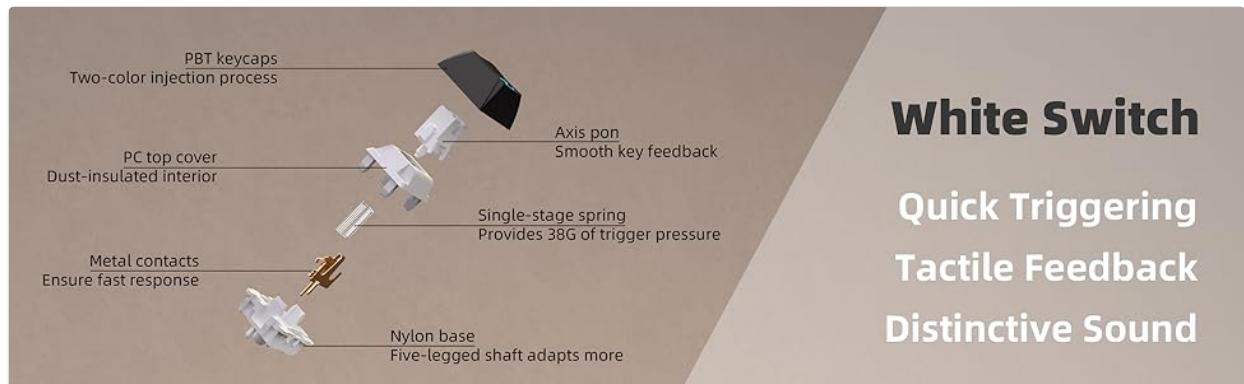
Figure 9: Components and characteristics of a typical mechanical switch.

4.2 Programmable Keys and Software

The K21 keypad features programmable keys, allowing users to customize key functions, macros, and lighting effects via dedicated software.

1. Download the official KEYCOOL K21 software from the manufacturer's website:www.kc-keycool.com.

2. Install the software on your Windows or Mac computer.

3. Connect the K21 keypad to your computer via wired mode.

4. Launch the software to access customization options for key remapping, macro creation, and RGB lighting adjustments.
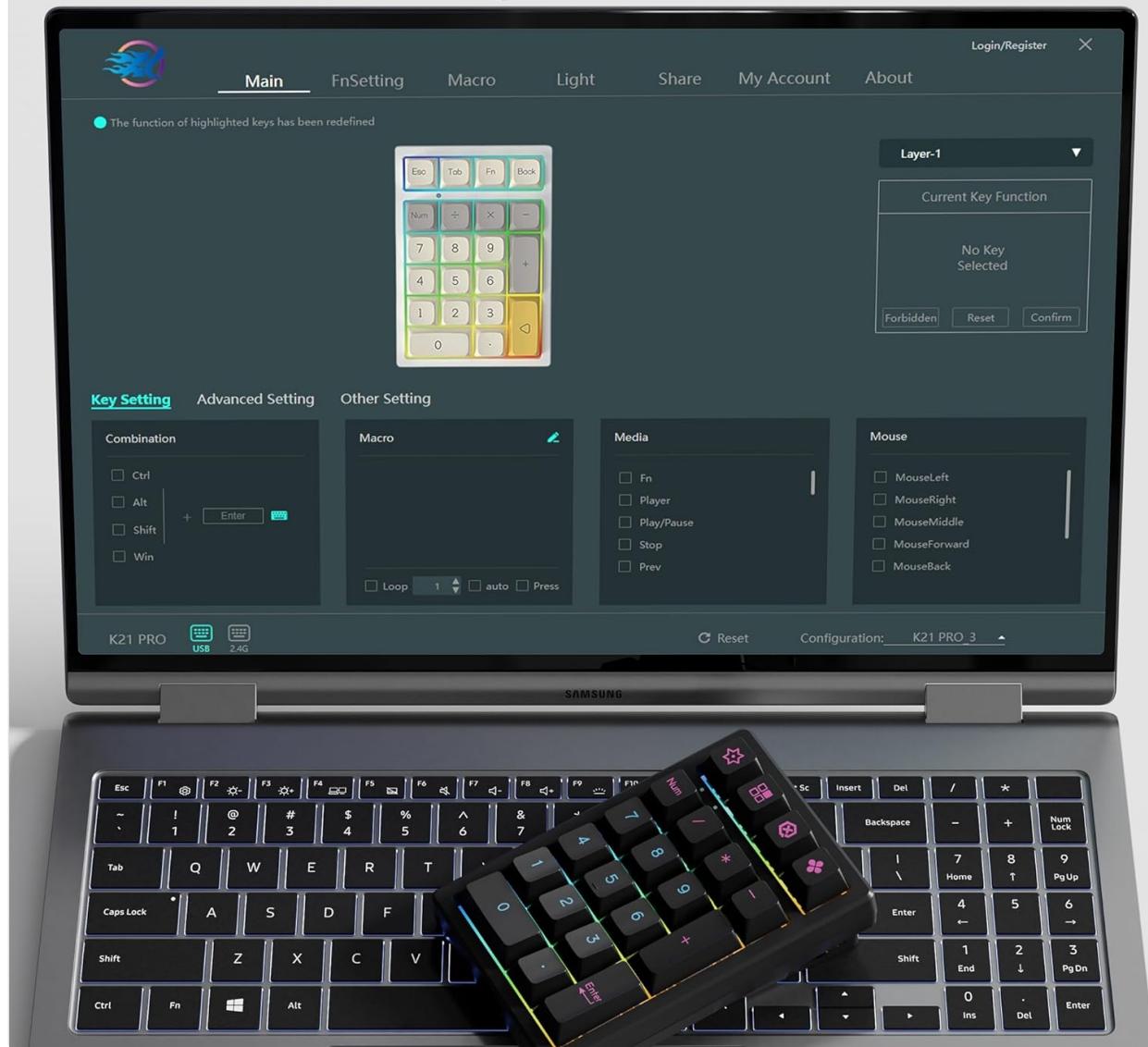
Figure 10: Software interface for personalizing key functions and lighting.
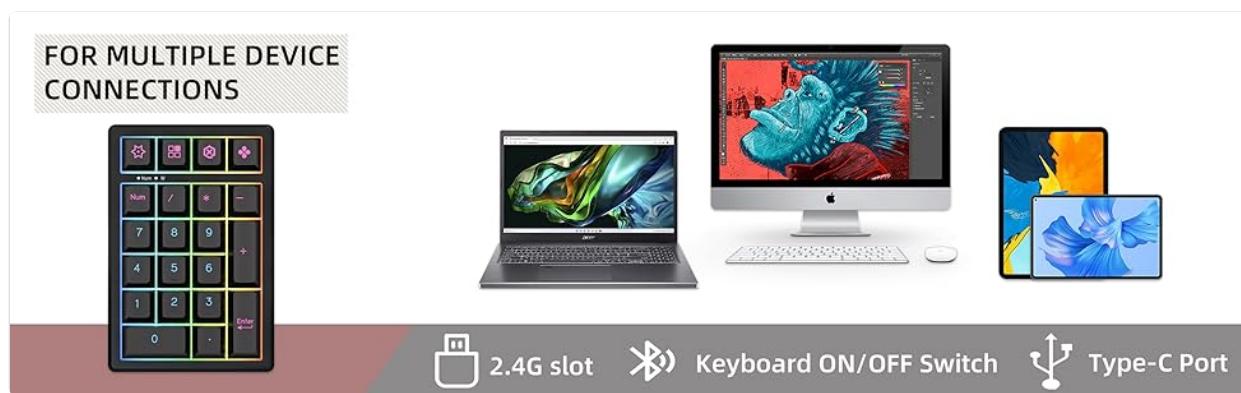

Figure 11: Further views of the customization software.

5. MAINTENANCE

5.1 Cleaning

To maintain the keypad's appearance and functionality:

- Disconnect the keypad from all power sources and devices.
- Use a soft, lint-free cloth dampened with a small amount of water or a mild cleaning solution to wipe the keycaps and casing.
- For dust and debris between keys, use compressed air or a small brush.
- Avoid using harsh chemicals or abrasive materials.

5.2 Switch and Keycap Care

The PBT keycaps are durable. If removing keycaps or switches for cleaning or replacement, use the provided tools to prevent damage.

6. TROUBLESHOOTING

6.1 Keypad Not Responding

- **Wired Mode**: Ensure the USB-C cable is securely connected to both the keypad and the computer. Try a different USB port or cable.
- **2.4GHz Wireless Mode**: Verify the 2.4GHz USB receiver is properly inserted into a USB port. Ensure the keypad's ON/OFF switch is in the "ON" position.
- **Bluetooth Mode**: Check if the keypad is paired correctly in your device's Bluetooth settings. Ensure the keypad's ON/OFF switch is in the "ON" position. If the keypad goes to sleep, the first key press might not register; press a key twice to wake it up and ensure connection.
- **Battery**: Ensure the keypad is sufficiently charged. Connect it via USB-C to charge.

6.2 RGB Lighting Issues

- If RGB lighting is not working, ensure it is turned on using **Fn + Back**.
- If specific keys are not lighting up, check if the switches are properly seated or if there's a software configuration issue.

6.3 Software Not Detecting Keypad

- Ensure the keypad is connected via wired mode when using the software.
- Verify that you have downloaded the correct software version for the K21 model from the official KEYCOOL website.
- Try restarting your computer and the software.
- If the device is listed as "Unknown Device" in Device Manager (Windows), try reinstalling the driver or checking for driver updates.

6.4 Poor Battery Life

- High RGB brightness and continuous wireless usage can reduce battery life. Consider adjusting brightness or using wired mode when possible.
- Ensure the keypad is fully charged before use.

7. SPECIFICATIONS

Feature	Detail

Model	K21
Brand	KEYCOOL
Connectivity	Bluetooth 5.0, 2.4GHz Wireless, USB-C Wired
Keyboard Type	Mechanical
Key Count	21 Keys
Switches	Hot-Swappable (3-pin/5-pin compatible)
Keycaps	PBT (Heat-sublimation)
Backlighting	RGB (Customizable)
Battery Capacity	1500mAh
Polling Rate	1000Hz
Compatible Systems	Windows, Mac, Linux, Android, iOS
Special Features	Backlit, Hot-Swappable, Portable, Volume Roller, Gasket Mount
Product Dimensions	3.62 x 5.35 x 1.61 inches (approx.)
Item Weight	12 ounces
Material	Plastic, Polybutylene Terephthalate

Table 1: Technical specifications of the KEYCOOL K21 Mechanical Number Keypad.
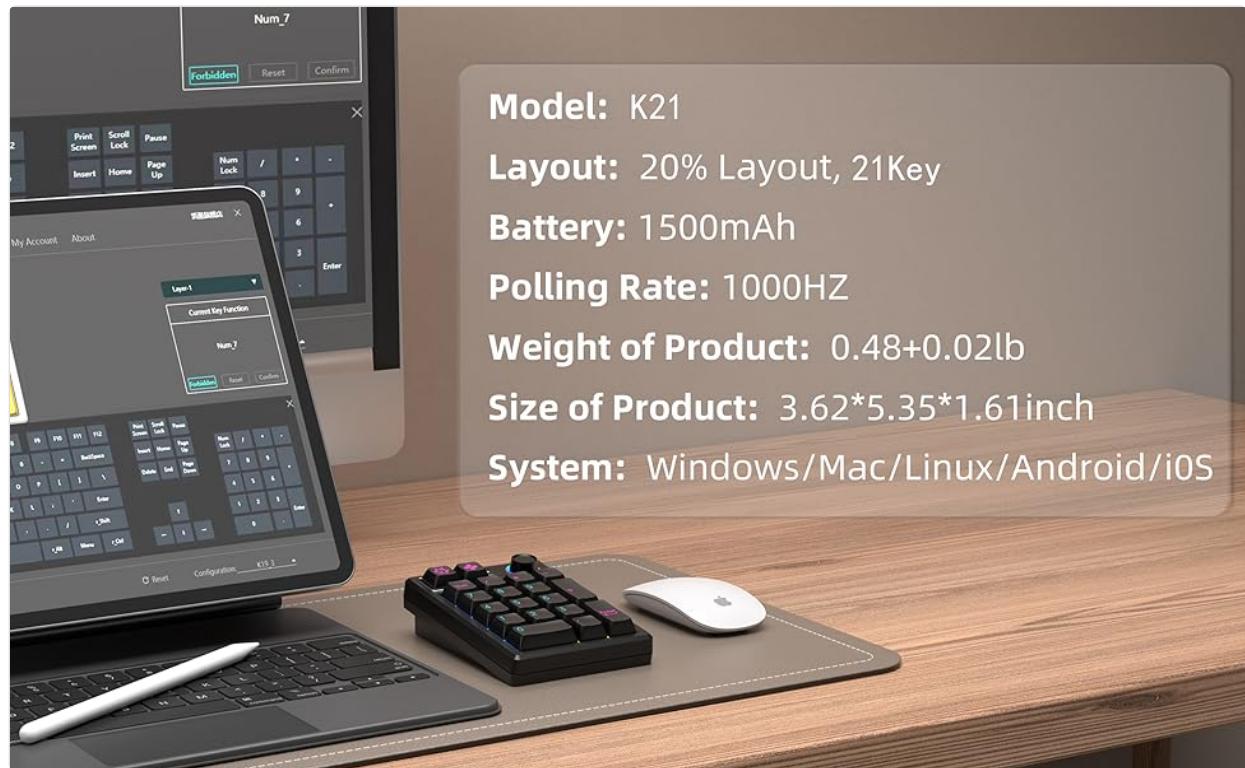
Figure 12: Visual representation of KEYCOOL K21 specifications and multi-device compatibility.
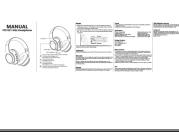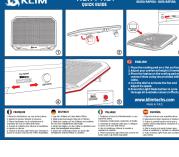
8. VIDEO DEMONSTRATION

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Video 1: An official demonstration video showcasing the unboxing, switch replacement, and typing sound of a KEYCOOL mechanical keyboard. This video provides a visual guide to the product's features and user experience.

Related Documents - K21

	[Keycool K19 Keyboard User Manual](#) Comprehensive user manual for the Keycool K19 keyboard, covering setup, connectivity (Bluetooth, 2.4G, wired), shortcuts, backlight customization, and keycap/switch replacement.
	[EPOMAKER x LEOBOG K21 Numpad Quick Start Guide](#) Learn how to set up and use your EPOMAKER x LEOBOG K21 20% Hot-Swappable Numpad. This guide covers connectivity options (2.4G, Bluetooth, Type-C), function key combinations, FN key indicators, secondary functions, and detailed specifications.
	[LIRDAY K21 Wireless Lavalier Microphone User Manual](#) User manual for the LIRDAY K21 Wireless Lavalier Microphone system, providing instructions on setup, operation, specifications, and FCC compliance information.
	[FFZ K21 Kids Headphone User Manual](#) User manual for the FFZ K21 Kids Headphone, detailing features, operation, specifications, and safety information.
	[KLIM K21 Laptop Cooling Pad Quick Start Guide](#) Get started quickly with the KLIM K21 laptop cooling pad. This guide provides step-by-step instructions for setup, fan speed adjustment, and light mode control.