DAREU EK87PROTKL & A950

DAREU EK87PROTKL Wireless Mechanical Gaming Keyboard and A950 4K Polling Rate Wireless Gaming Mouse Combo User Manual

Model: EK87PROTKL (Keyboard) & A950 (Mouse)

1. INTRODUCTION

This manual provides comprehensive instructions for the DAREU EK87PROTKL Wireless Mechanical Gaming Keyboard and the DAREU A950 4K Polling Rate Wireless Gaming Mouse. Please read this manual carefully before using the products to ensure proper setup and operation. Keep this manual for future reference.

2. KEYBOARD FEATURES OVERVIEW (EK87PROTKL)

- **Gasket Mount & PCB Single Key Slotting:** Features a gasket structure with a 1.2mm thick FR4 PCB and single key slotted design for enhanced resilience, stability, and a softer, more responsive feel. Six-layer padding reduces noise and provides a focused, crisp sound.
- **Tri-Mode Connection:** Supports Bluetooth 5.1, 2.4GHz wireless, and USB-C wired connections. Connects to up to five devices simultaneously.
- **Hot-Swappable:** Equipped with a hot-swappable PCB supporting almost all 3-pin or 5-pin mechanical switches on the market. Comes with pre-lubed Cloud linear switches.
- **South-Facing RGB Lighting:** Offers up to 26 backlight modes and 16.8 million colors. Brightness and speed are adjustable via the driver software.
- **Long Battery Life:** Features a 4000mAh battery, providing up to 45 days of playtime in lights-off mode.

GASKET STRUCTURE

6-layer padding & pcb single key slotting
Eliminate noise, clearer sound and more stable click

PBT keycaps

Customized switch

Top Cover

Center Frame

PC Positioning Plate

Latex Foam

IXPE Under Shaft Pad

Silicone Sleeve

PCB circuit board
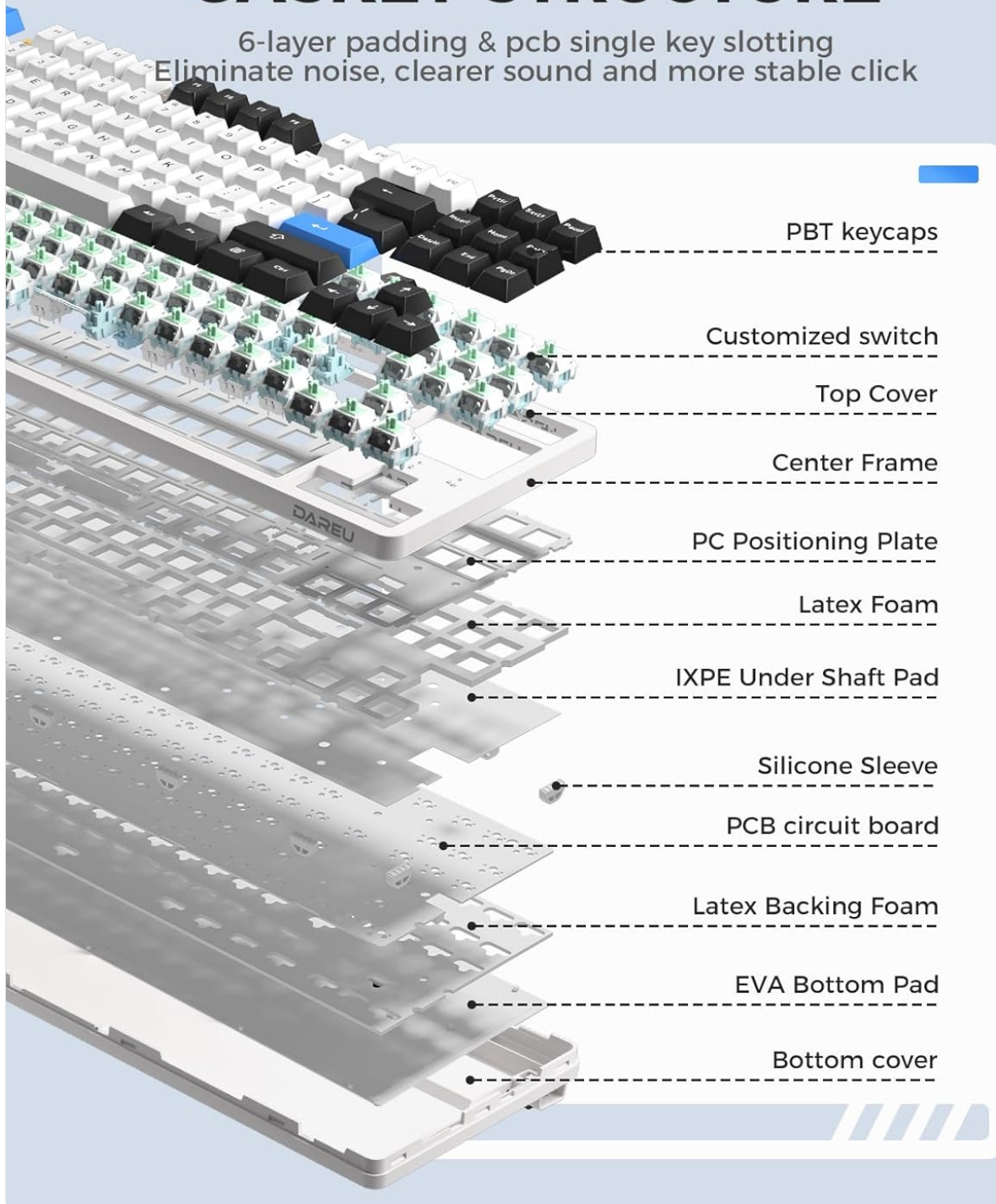
Latex Backing Foam

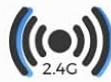EVA Bottom Pad

Bottom cover

DAREU

Figure 2.1: Keyboard Gasket Structure Diagram. This image details the layered construction of the keyboard, highlighting components that contribute to its sound and feel.

Figure 2.2: Keyboard Tri-Mode Connection. This image illustrates the three available connection methods and how to switch between them using Fn key combinations.

16.8MILLION RGB LIGHTING

26 lighting modes and 16.8 Million color can be set via the driver
Support music rhythm RGB lighting effects via software

Figure 2.3: Keyboard RGB Lighting Controls. This image shows various RGB lighting modes and the Fn key combinations for adjusting brightness and color.
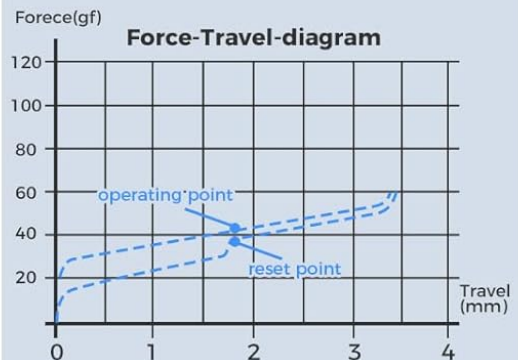
CLOUD SWITCHES & STABILIZERS

Pre-lubed steel stabilizers enhance large key consistency

Force-Travel-diagram

Forece(gf)

operating point

reset point

Travel (mm)

Initial Force: **42±5gf** Bottom Force: **48+8gf**

Pre Travel: **1.8+0.4mm** Total Travel: **3.4±0.4mm**

Pre-lubed
steel stabilizers

Figure 2.4: Cloud Switches and Stabilizers. This image details the characteristics of the pre-lubed Cloud linear switches and steel stabilizers.

4000Hz REPORT RATE

Equipped with a 4KHz receiver

0.25ms to send a signal to the computer

4 X faster than other gaming mouse

Figure 2.5: Hot-Swappable PCB Socket. This image illustrates the hot-swappable design, allowing users to easily change switches.

3. Mouse Features Overview (A950)

- **4K Polling Rate:** Equipped with a 4KHz receiver, sending signals to the computer in 0.25ms, which is four times faster than standard gaming mice.

- **PAW 3395 Optical Sensor:** Features a high-precision PAW 3395 sensor with up to 26000 DPI, 650 IPS tracking speed, and 50G acceleration for accurate tracking.

- **Kailh Black GM8.0 Switches:** Utilizes durable Kailh black GM8.0 mouse switches, rated for 80 million clicks.

- **Tri-Mode Connection & Programmable:** Supports multiple connection methods and offers programmable buttons via software.

- **Lightweight Design:** Weighs 54g for comfortable and agile use.

- **Fast Charging:** 300mAh battery with 30-minute fast charging to reach 90% power. Provides approximately 37 days of use in BT5.1 mode and 6 days in 2.4G mode (based on 4 hours of connection per day).

PAW3395 OPTICAL SENSOR

The excellent accuracy can capture the minute movement of the mouse
Accurately synchronize to the computer pointer without losing frames

26000DPI | 650IPS | 50G

Figure 3.1: Mouse 4K Report Rate. This image shows the mouse and its 4K receiver, emphasizing the high report rate for responsiveness.

Figure 3.2: Mouse PAW3395 Optical Sensor. This image focuses on the mouse's sensor capabilities, including its high DPI and tracking speed.

Figure 3.3: Mouse Fast Charging Technology. This image provides details on the mouse's battery life and quick charging feature.

4. SETUP INSTRUCTIONS

4.1 Keyboard (EK87PROTKL)

1. **Wired Connection:** Connect the keyboard to your computer using the provided USB-C cable. The keyboard will be automatically recognized.

2. **2.4GHz Wireless Connection:**

- Locate the 2.4GHz USB receiver.
- Plug the receiver into an available USB port on your computer.
- Turn on the keyboard and switch it to 2.4GHz mode (refer to the keyboard's mode switch or Fn key combination). The keyboard should connect automatically.

3. **Bluetooth 5.1 Connection:**

- Ensure the keyboard is in Bluetooth mode (refer to the keyboard's mode switch or Fn key combination, typically **Fn + 1/2/3**).
- On your computer or device, go to Bluetooth settings and search for new devices.
- Select "DAREU EK87PROTKL" from the list of available devices to pair.
- The keyboard can store up to three Bluetooth connections. Switch between them using **Fn + 1**, **Fn + 2**, or **Fn + 3**.

4.2 Mouse (A950)

1. **Wired Connection:** Connect the mouse to your computer using the provided USB-C cable. The mouse will function immediately.

2. **2.4GHz Wireless Connection:**

- Plug the 4K USB receiver into an available USB port on your computer.
- Turn on the mouse and switch it to 2.4GHz mode. The mouse should connect automatically.

3. **Bluetooth Connection:**

- Ensure the mouse is in Bluetooth mode.
- On your computer or device, go to Bluetooth settings and search for new devices.
- Select "DAREU A950" from the list of available devices to pair.

4. **Charging:** Connect the mouse to a computer USB port using the USB-C cable for charging. The mouse supports fast charging.

5. OPERATING INSTRUCTIONS

5.1 Keyboard (EK87PROTKL)

- **RGB Lighting Control:**

  - **Fn + Up Arrow:** Increase brightness.
  - **Fn + Down Arrow:** Decrease brightness.
  - **Fn + { :** Change backlight color.
  - **Fn + } :** Change backlight mode.

- **Operating System Switch:** Use **Fn + 1** (for Windows) or **Fn + 2** (for Mac) to switch between operating system layouts.

- **Driver Software:** For advanced customization of RGB lighting, macros, and key assignments, download and install the official DAREU driver software from the DAREU website.

5.2 Mouse (A950)

- **DPI Adjustment:** The mouse typically has a dedicated DPI button or can be adjusted via software. Refer to the DAREU driver software for precise DPI settings.

- **Programmable Buttons:** Utilize the DAREU driver software to customize button functions, create macros, and adjust other performance settings.

6. MAINTENANCE

6.1 General Cleaning

- Disconnect both the keyboard and mouse from your computer before cleaning.
- Use a soft, lint-free cloth slightly dampened with water or a mild cleaning solution to wipe down the surfaces.
- For the keyboard, use compressed air to remove dust and debris from between the keycaps.
- Avoid using harsh chemicals, abrasive cleaners, or spraying liquids directly onto the devices.

6.2 Keyboard Switch Replacement

- Ensure the keyboard is disconnected from power.
- Use a keycap puller to carefully remove the desired keycap.
- Use a switch puller to gently grip and pull the switch vertically out of the PCB.
- Align the pins of the new 3-pin or 5-pin mechanical switch with the holes on the PCB.
- Press the new switch firmly into place until it clicks. Ensure it is seated correctly and not bent.
- Replace the keycap.

7. TROUBLESHOOTING

7.1 Keyboard Issues

Problem	Possible Solution
Keyboard not responding (wired)	Check USB-C cable connection. Try a different USB port or cable.
Keyboard not connecting (2.4GHz)	Ensure the keyboard is in 2.4GHz mode. Re-insert the USB receiver. Try a different USB port. Ensure the keyboard battery is charged.
Keyboard not connecting (Bluetooth)	Ensure the keyboard is in Bluetooth pairing mode (Fn + 1/2/3). Forget the device on your computer and re-pair. Ensure the keyboard battery is charged.
RGB lighting not working/incorrect	Adjust brightness/mode using Fn key combinations. Check settings in the DAREU driver software. Ensure the keyboard battery is charged.
Keys not registering	Check if the switch is properly seated. If hot-swappable, try re-seating or replacing the switch.

7.2 Mouse Issues

Problem	Possible Solution
Mouse not responding (wired)	Check USB-C cable connection. Try a different USB port or cable.
Mouse not connecting (2.4GHz)	Ensure the mouse is in 2.4GHz mode. Re-insert the 4K USB receiver. Try a different USB port. Ensure the mouse battery is charged.
Mouse not connecting (Bluetooth)	Ensure the mouse is in Bluetooth pairing mode. Forget the device on your computer and re-pair. Ensure the mouse battery is charged.
Mouse cursor erratic or not moving	Clean the optical sensor. Ensure the mouse pad or surface is clean and suitable. Check DPI settings.
Mouse not charging	Ensure the USB-C cable is properly connected. Try a different USB port or charging cable. Use a computer USB port for charging, not a wall adapter.

8. SPECIFICATIONS

8.1 DAREU EK87PROTKL Keyboard

- **Structure:** Gasket Mount, PCB Single Key Slotting
- **PCB:** FR4 material, 1.2mm thick, hot-swappable (3/5 pin switches)
- **Switches:** Pre-lubed Cloud Linear Switch
- **Stabilizers:** Pre-lubed Steel Stabilizers
- **Connection:** Bluetooth 5.1 / 2.4GHz Wireless / USB-C Wired (Tri-Mode)
- **Battery:** 4000mAh
- **Lighting:** South-Facing RGB, 26 modes, 16.8 million colors
- **Keys:** 87 keys, N-key rollover (all keys conflict-free)

8.2 DAREU A950 Mouse

- **Sensor:** PAW 3395 Optical Sensor
- **Polling Rate:** 4KHz (with 4K receiver)
- **DPI:** Up to 26000 DPI
- **Tracking Speed:** 650 IPS
- **Acceleration:** 50G
- **Switches:** Kailh Black GM8.0 (80 million clicks)
- **Weight:** 54g
- **Connection:** Bluetooth / 2.4GHz Wireless / USB-C Wired (Tri-Mode)
- **Battery:** 300mAh, 30-minute fast charging (90% power)

9. Warranty and Support

DAREU products come with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official DAREU website. For technical support, troubleshooting assistance, or driver downloads, please visit the DAREU official support page or contact DAREU customer service.

Official DAREU Website: www.dareu.com