TECWARE TWKB-P87PZT-WBR

TECWARE Phantom+ 87 Key Mechanical Gaming Keyboard User Manual

Model: TWKB-P87PZT-WBR

INTRODUCTION

This manual provides detailed instructions for the setup, operation, maintenance, and troubleshooting of your TECWARE Phantom+ 87 Key Mechanical Gaming Keyboard. Designed for a premium typing experience, this keyboard features customizable RGB lighting, durable PBT keycaps, and hot-swappable switches.

The TECWARE Phantom+ 87 Key Mechanical Gaming Keyboard, showcasing its compact TKL design and vibrant RGB backlighting.

WHAT'S INCLUDED

Verify that all the following items are present in your package:

- TECWARE Phantom+ 87 Key Mechanical Gaming Keyboard
- Detachable 1.8m Braided USB-C Cable
- Switch Puller Tool
- Keycap Puller Tool
- 4 Spare Switches

The complete package contents for the Phantom+ keyboard, including the keyboard, USB-C cable, switch puller, keycap puller, and spare switches.

SETUP

Follow these steps to set up your TECWARE Phantom+ keyboard:

1. **Connect the USB-C Cable:** Insert the USB-C end of the braided cable into the port located on the back of the keyboard.

2. **Connect to Computer:** Plug the USB-A end of the cable into an available USB port on your computer.

3. **Adjust Keyboard Feet:** Flip out the adjustable feet on the underside of the keyboard to achieve your preferred typing angle.

4. **Driver Installation:** The keyboard is plug-and-play. Your operating system (Windows 10 or later recommended) will automatically detect and install the necessary drivers.

A detailed view of the detachable USB-C port and the adjustable feet, highlighting the ease of connection and ergonomic customization.

OPERATING INSTRUCTIONS

Basic Operation

The TECWARE Phantom+ functions as a standard 87-key keyboard for typing and gaming. It features N-Key Rollover, ensuring all keystrokes are registered accurately, even during rapid input.

RGB Lighting Control

The keyboard features 16.8 million color RGB lighting with 18 pre-set lighting modes. These modes can be cycled through directly on the keyboard using function key combinations (refer to the keyboard's printed legends for specific shortcuts). You can also adjust brightness and speed.

Lighting Modes

18 Lighting Effects

- Breathing - Cycle Color
- Breathing - Fixed Color
- Fixed Color
- Reactive - Ripple
- Reactive - Single
- Reactive - Horizontal
- Sine Wave
- Vortex
- Rain Drops

- Horizontal Wave
- Pulse Wave
- Hurricane
- Vertical Wave
- Waterfall
- Swirl
- Diagonal Wave
- Fixed Color
- Ripple

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An illustration of the 18 pre-set lighting modes available on the Phantom+ keyboard, offering a wide range of visual customization.
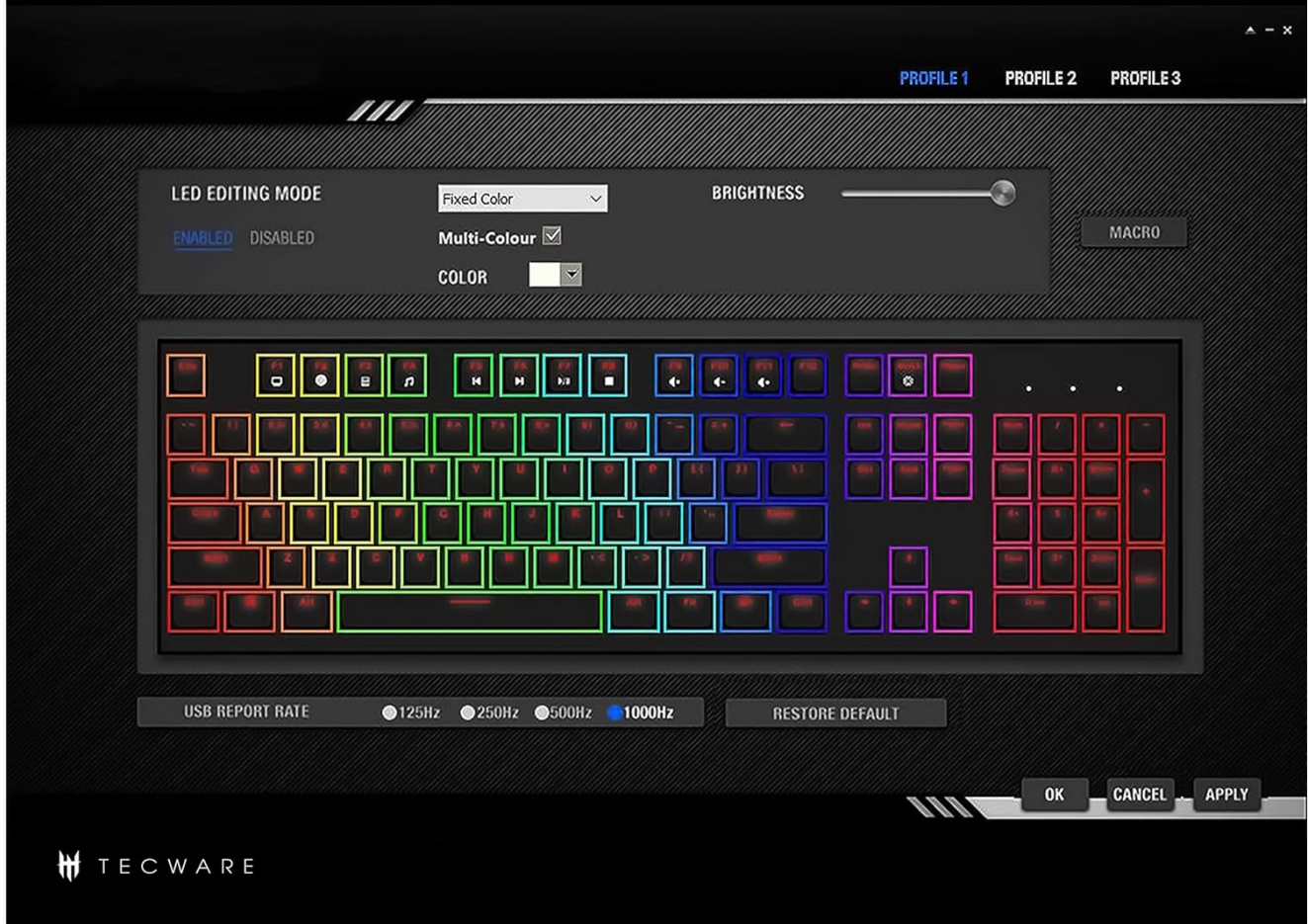
Software Features

For advanced customization, the Phantom+ supports dedicated software. This software allows for:

- Macro Recording and Assignment
- Up to 3 User Profiles
- Customizable Per-Key RGB Lighting
- Adjustable USB Report Rate (up to 1000Hz)

The software interface for the Phantom+ keyboard, demonstrating options for LED editing, brightness control, macro recording, and USB report rate settings.

Key Features Overview

The Phantom+ keyboard incorporates several design and engineering features for enhanced performance and durability:

- **Double-Shot PBT Keycaps:** Resistant to wear and fading, providing long-lasting legends.
- **V3 Stabilizers:** Clipped and lubed for enhanced stability and smoother keystrokes on larger keys.
- **Sound Dampening Technology:** Reduces keyboard noise for a more pleasant typing experience.
- **1000Hz Polling Rate:** Ensures rapid response times for gaming.
- **Windows Lock Feature:** Prevents accidental presses of the Windows key during gaming.

An overview of the Phantom+ keyboard's key attributes, including low latency, various lighting modes, gaming-oriented design, modular keycaps, and customizable software.
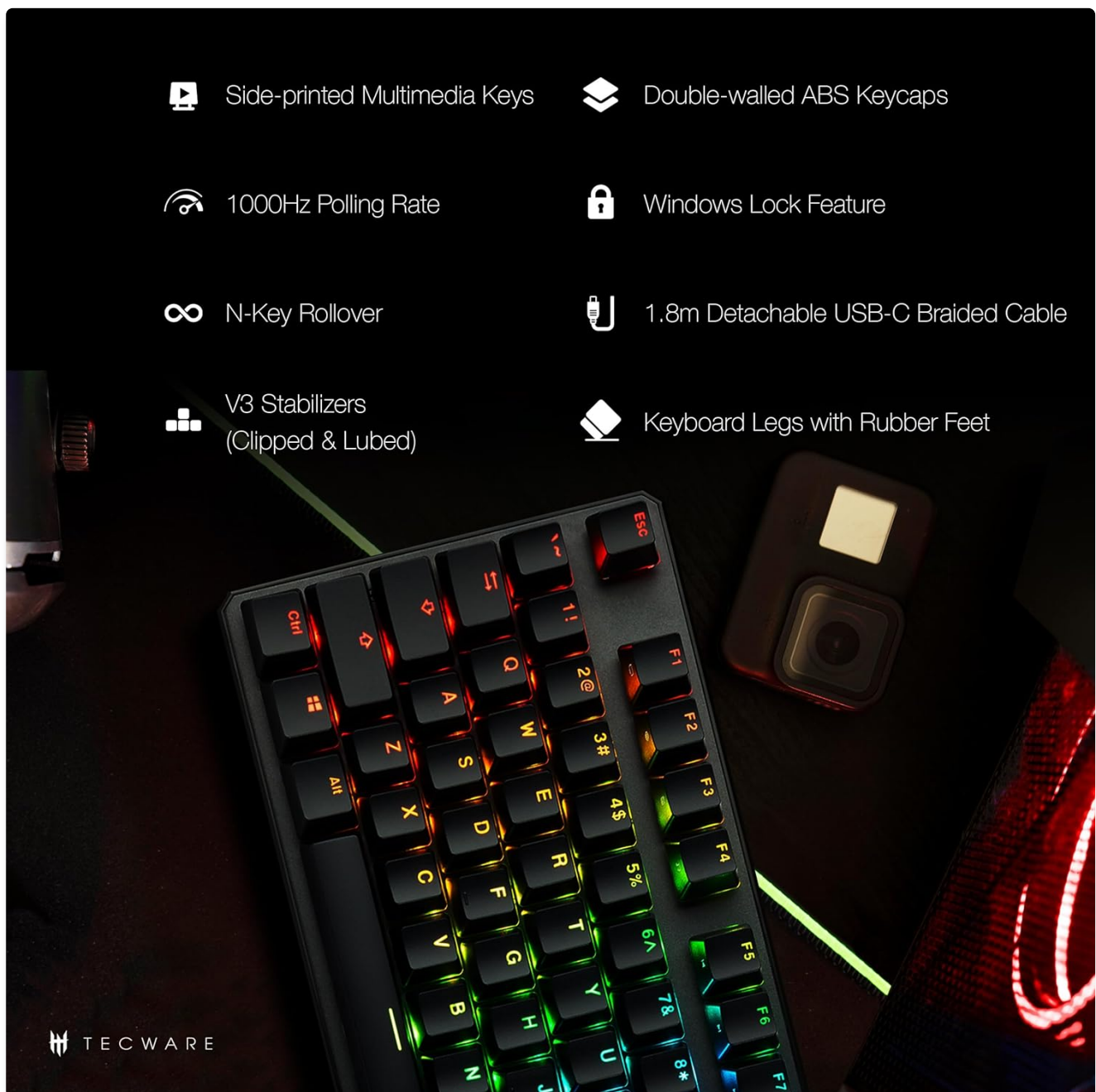
A closer look at the Phantom+ keyboard's advanced features, such as side-printed multimedia keys, double-walled ABS keycaps, 1000Hz polling rate, Windows Lock, N-Key Rollover, V3 stabilizers, and rubber feet.

MAINTENANCE

Cleaning

To clean your keyboard, disconnect it from your computer. Use a soft, dry cloth to wipe down the keycaps and chassis. For deeper cleaning, you may carefully remove keycaps using the provided keycap puller and use compressed air to clear debris from underneath.

Switch Replacement (Hot-Swappable)

The TECWARE Phantom+ features hot-swappable switches, allowing you to replace individual switches without soldering. This is useful for customizing your typing feel or replacing a faulty switch.

1. **Remove Keycap:** Use the keycap puller to gently remove the keycap from the switch you wish to replace.

2. **Remove Switch:** Use the switch puller tool to grasp the top and bottom clips of the switch. Apply gentle pressure and pull the switch straight up to remove it from the PCB.

3. **Insert New Switch:** Align the pins of the new switch with the holes on the PCB. Gently push the switch down until it clicks into place. Ensure the pins are not bent.

4. **Replace Keycap:** Press the keycap onto the new switch until it is firmly seated.

TECWARE PRELUBED SWITCHES	ORANGE	BROWN	PINK	RED
Actuation Force	45g	50g	58g	45g
Bottom Out Force	63g	58g	63g	50g
Total Travel Distance	3.8mm	3.8mm	3.8mm	3.8mm
Type	Tactile	Tactile	Linear	Linear

An exploded view of the keyboard's internal layers and a demonstration of how to easily replace a hot-swappable switch using the provided tool.

TROUBLESHOOTING

If you encounter issues with your TECWARE Phantom+ keyboard, refer to the table below for common problems and solutions:

Problem	Possible Cause	Solution
Keyboard not responding	Loose USB connection, faulty cable, driver issue.	Ensure USB cable is securely connected. Try a different USB port or cable. Restart your computer.
RGB lighting not working or inconsistent	Lighting mode disabled, software conflict, power issue.	Check keyboard lighting controls (Fn + keys). Ensure software is running correctly. Try reconnecting the keyboard.

Problem	Possible Cause	Solution
Specific keys not working	Faulty switch, debris under keycap.	Remove keycap and check for debris. If hot-swappable, try replacing the switch with a spare.
Software not detecting keyboard	Software not installed correctly, USB connection issue.	Reinstall the TECWARE software. Ensure the keyboard is directly connected to a USB port (avoiding hubs if possible). Run software as administrator.

SPECIFICATIONS

Feature	Detail
Model	TWKB-P87PZT-WBR
Keys	87-Key (Tenkeyless)
Switch Type	Wraith Brown (Tactile) - Hot-swappable
Keycaps	Double-Shot PBT
Lighting	RGB (16.8 Million Colors, 18 Pre-set Modes)
Connectivity	Detachable USB-C
Polling Rate	Up to 1000Hz
N-Key Rollover	Supported
Stabilizers	V3 (Clipped & Lubed)
Dimensions (LxWxH)	14.21 x 5.2 x 1.65 inches
Weight	2.71 pounds
Compatible OS	Windows 10 (PC, Laptop, Tablet)

Wraith Switch Specifications

The Phantom+ keyboard comes pre-installed with TECWARE Wraith switches. The specifications for various Wraith switch types are detailed below:

Tecware Pre-lubed Wraith Switches — INSTALLED

Pre-installed with Tecware Wraith switches, fine-tuned by our engineers and pre-lubed so you don't have to.

TECWARE PRELUBED SWITCHES	ORANGE	BROWN	PINK	RED
Actuation Force	45g	50g	58g	45g
Bottom Out Force	63g	58g	63g	50g
Total Travel Distance	3.8mm	3.8mm	3.8mm	3.8mm
Type	Tactile	Tactile	Linear	Linear

Replace switches easily without desoldering.
Tools and spare switches included.

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A table outlining the actuation force, bottom out force, total travel distance, and type (Tactile/Linear) for TECWARE Wraith Orange, Brown, Pink, and Red switches.

WARRANTY AND SUPPORT

For warranty information, technical support, or to access the latest software and drivers for your TECWARE Phantom+ keyboard, please visit the official TECWARE website or contact their customer service.

You can find more information and support resources by visiting the Official TECWARE Store on Amazon.