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Transformers TF-Crystal 85

Transformers TF-Crystal 85 Keys Mechanical Keyboard User Manual

1. INTRODUCTION

This manual provides detailed instructions for the setup, operation, maintenance, and troubleshooting of your Transformers TF-Crystal 85 Keys Mechanical Keyboard. Please read this manual thoroughly before using the product to ensure proper functionality and longevity.



Image 1.1: Transformers TF-Crystal 85 Keys Mechanical Keyboard with its packaging, showcasing the transparent design and RGB lighting.

2. PRODUCT OVERVIEW

2.1 Key Features

- **85-Key Layout:** Compact 75% design retaining essential functions, arrow, and navigation keys.
- **Tri-Mode Connectivity:** Supports Bluetooth 5.0, 2.4GHz wireless, and USB-C wired connections.
- **Hot-Swappable PCB:** Compatible with most 3-pin and 5-pin mechanical switches, allowing for easy customization and replacement.
- **Linear Switches:** Pre-lubricated switches with a 50 million keystroke lifespan for durability and smooth operation.
- **Gasket Structure:** Incorporates high-quality gasket materials and a silicone pad to absorb vibrations and reduce typing noise.
- **Customizable RGB Backlight:** Features 20 built-in backlight modes, 16.8 million color options, and dynamic music rhythm effects.
- **Programmable Driver:** Enables macro customization, key function remapping, and advanced lighting control.
- **Long Battery Life:** Equipped with a 4000mAh battery, providing up to 240 hours of continuous use in 2.4GHz mode without backlighting.
- **Wide Compatibility:** Supports Mac, Windows, iOS, Android, PC, Laptop, Smartphone, Tablet, Switch, Xbox, and PlayStation.
- **Transparent Design:** Features transparent keycaps and base for enhanced aesthetic appeal.

3. SETUP

3.1 Charging the Keyboard

Before initial use, fully charge the keyboard. Connect the provided USB-C cable to the keyboard's USB-C port and the other end to a powered USB port (e.g., computer, wall adapter). The charging indicator will show the charging status.

3.2 Connecting via 2.4GHz Wireless Mode

1. Locate the 2.4GHz USB receiver, typically stored in a compartment on the keyboard.
2. Plug the USB receiver into an available USB port on your computer.
3. Toggle the mode switch on the keyboard to the **2.4G** position.
4. The keyboard will automatically connect to your device.

3.3 Connecting via Bluetooth 5.0 Mode

1. Toggle the mode switch on the keyboard to the **BT** position.
2. Press and hold **Fn + 1** (or **Fn + 2**, **Fn + 3**) for 3-5 seconds until the indicator light flashes rapidly, indicating pairing mode.
3. On your device (computer, tablet, smartphone), enable Bluetooth and search for new devices.
4. Select "TF-Crystal 85" from the list of available devices to pair.
5. Once paired, the indicator light will stop flashing and remain solid. You can pair up to three Bluetooth devices using **Fn + 1**, **Fn + 2**, and **Fn + 3**.

3.4 Connecting via USB-C Wired Mode

1. Connect the provided USB-C cable to the keyboard's USB-C port.

2. Connect the other end of the USB-C cable to an available USB port on your computer.
3. The keyboard will automatically switch to wired mode and function without battery power.



Image 3.1: Diagram illustrating the three connection modes: Bluetooth 5.0, 2.4GHz wireless, and USB-C wired, compatible with various devices.

4. OPERATING INSTRUCTIONS

4.1 Switching Between Modes

Use the physical switch located on the keyboard to select between **BT** (Bluetooth), **2.4G** (2.4GHz wireless), and **USB-C** (wired) modes.

4.2 RGB Backlight Control

The keyboard features customizable RGB backlighting. Use the following key combinations to adjust:

- **Fn + Ins**: Cycle through 20 different backlight effects.
- **Fn + Del**: Switch backlight colors within certain modes.
- **Fn + ↑ / ↓**: Adjust backlight brightness (5 levels).

- **Fn + ← / →**: Adjust backlight effect speed (5 levels).
- **Fn + Esc (hold for 3s)**: Reset backlight settings to default.



Image 4.1: Visual guide for controlling RGB backlight effects, brightness, and speed using Fn key combinations.

4.3 Programmable Driver Usage

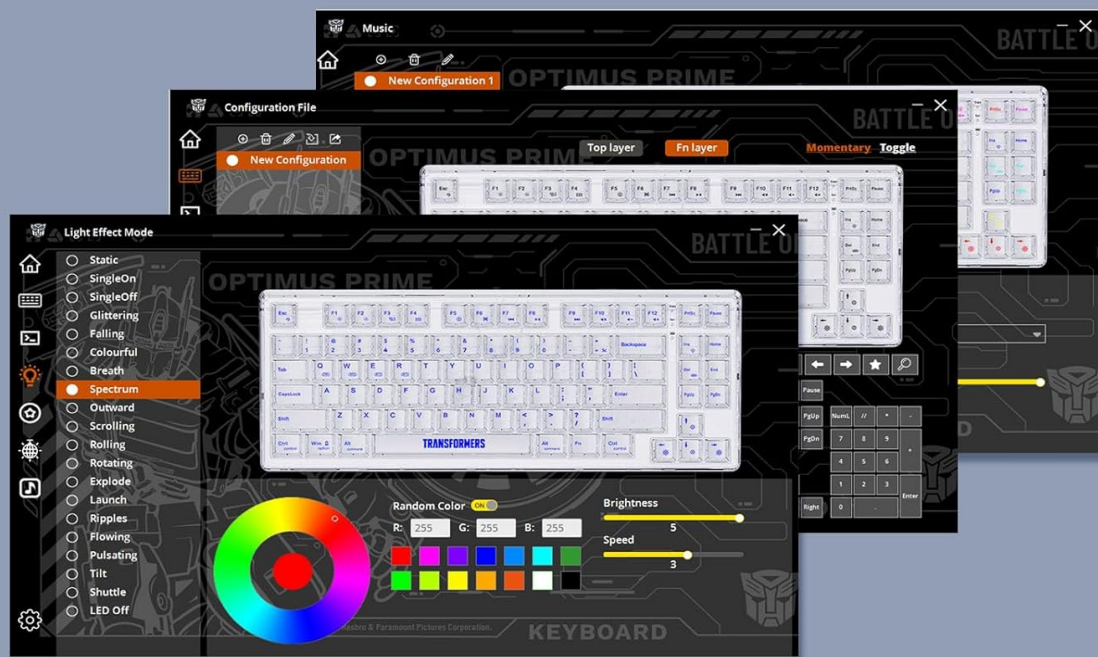
The keyboard includes a programmable driver for advanced customization. This driver allows you to:

- **Macro Editing:** Record and edit complex key sequences.
- **Key Redefinition:** Customize the function of individual keys.
- **RGB Effect Customization:** Fine-tune lighting modes, colors, and speeds, including music rhythm lighting effects.

Refer to the software's dedicated user interface for detailed instructions on using these features.

CUSTOM PROGRAMMABLE

Personalize your keyboard and customize the function of each key



Macro Editing

Combine multiple shortcuts in one key



RGB Effect

Customize your own light mode and speed



Key Redefine

Personal customize improve efficiency



Music Rhythm

Responds in real time to changes in music or game sound effects

Image 4.2: Screenshot of the programmable driver interface, showing options for macro editing, RGB effects, and key redefinition.

4.4 Hot-Swapping Switches

The TF-Crystal 85 keyboard features a hot-swappable PCB, allowing you to change mechanical switches without soldering. This supports most 3-pin and 5-pin mechanical switches.

1. Power off the keyboard or disconnect it from your device.
2. Use the provided keycap puller to carefully remove the desired keycap.
3. Use the provided switch puller to gently grip the switch from its top and bottom clips, then pull it straight up to remove it.
4. Align the pins of the new switch with the holes on the PCB. Ensure the pins are straight.
5. Gently press the new switch into place until it clicks securely. Do not force it.
6. Replace the keycap.



Image 4.3: Illustration of the hot-swappable feature, showing how to remove and insert 3-pin/5-pin switches and the linear switch specifications.

5. MAINTENANCE

5.1 Cleaning the Keyboard

- Disconnect the keyboard from all power sources before cleaning.
- Use a soft, lint-free cloth slightly dampened with water or a mild cleaning solution to wipe the keycaps and chassis.
- For dust and debris between keys, use compressed air or a small brush.
- Avoid using harsh chemicals or abrasive materials that could damage the keyboard's surface.

5.2 Battery Care

- Avoid fully discharging the battery frequently.
- Store the keyboard in a cool, dry place when not in use for extended periods.
- If the keyboard will not be used for a long time, charge it to about 50% before storage.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Keyboard not responding in wireless mode.	Low battery, incorrect mode selected, receiver not connected, Bluetooth not paired.	Charge the keyboard. Ensure the mode switch is set correctly (2.4G or BT). Re-insert the 2.4G receiver. Re-pair Bluetooth.
Keys not registering or double-typing.	Faulty switch, debris under keycap, software issue.	Clean under the keycap. Try hot-swapping the switch with a known working one. Restart your computer.
RGB backlight not working or incorrect.	Backlight turned off, incorrect settings, software conflict.	Adjust brightness using Fn + ↑ . Cycle modes with Fn + Ins . Reset backlight with Fn + Esc (hold 3s) . Check programmable driver settings.
Keyboard not charging.	Faulty USB-C cable, power source issue, keyboard port damage.	Try a different USB-C cable. Use a different USB port or power adapter. Ensure the cable is fully inserted.

7. SPECIFICATIONS

Feature	Detail
Model Number	TF-Crystal 85
Key Layout	85 Keys (75% Compact)
Connectivity	Bluetooth 5.0, 2.4GHz Wireless, USB-C Wired
Switch Type	Pre-lubricated Linear Mechanical Switches
Switch Lifespan	50 Million Keystrokes
Hot-Swappable	Yes (3-pin/5-pin compatible)
Backlight	RGB (20 modes, 16.8 million colors)
Battery Capacity	4000mAh
Battery Life (2.4G, no light)	Up to 240 hours
Battery Life (Backlit ON)	Approximately 22 hours
Dimensions (L x W x H)	34.7 cm x 14 cm x 4.5 cm
Compatibility	Mac, Windows, iOS, Android, PC, Laptop, Smartphone, Tablet, Switch, Xbox, PlayStation

LONG BATTERY LIFE



4000mAh









Image 7.1: Visual representation of the keyboard's battery life: 240 hours with backlight off, 22 hours with backlight on, powered by a 4000mAh battery.

8. WARRANTY AND SUPPORT

Transformers is committed to providing exceptional customer service. If you encounter any problems with your TF-Crystal 85 Keys Mechanical Keyboard, our after-sales support team is available to assist you. This includes technical support, exchanges, or installation guidance.

Please contact our customer service for assistance. We guarantee a hassle-free service experience.

	<p><u>TRANSFORMERS TF-GK03 CYBERTRON SWITCH Gaming Mechanical Keyboard User Manual</u></p> <p>Official user manual for the TRANSFORMERS TF-GK03 CYBERTRON SWITCH Gaming Mechanical Keyboard, detailing features, specifications, function key operations, and regulatory compliance in multiple languages.</p>
	<p><u>Transformers TF-T26 Pro BT Earphones User Manual</u></p> <p>User manual for the Transformers TF-T26 Pro BT earphones, detailing product features, operation, specifications, and warranty information.</p>
	<p><u>Transformers TF-T18 Bluetooth Earphones User Manual</u></p> <p>User manual for the Transformers TF-T18 Bluetooth earphones, detailing FCC compliance, operating instructions, and safety information.</p>
	<p><u>TRANSFORMERS TF-Y16 Wireless Speaker: User Manual and Specifications</u></p> <p>Comprehensive user manual for the TRANSFORMERS TF-Y16 wireless speaker. Includes setup instructions, features, technical specifications, troubleshooting tips, and warranty details from Shenzhen Demicea Trading Co., Ltd.</p>
	<p><u>TF-T06 True Wireless Bluetooth Headset User Manual</u></p> <p>User manual for the TF-T06 True Wireless Bluetooth Headset by Shenzhen Qishun Innovation Technology Development Co., LTD. Includes product specifications, operating instructions, touch controls, charging information, warranty details, and FCC compliance.</p>
	<p><u>TF-T51 True Wireless BT Headphones User Manual</u></p> <p>User manual for the TF-T51 True Wireless BT Headphones, providing product specifications, usage instructions, and regulatory compliance information.</p>