ZaryMax

ZaryMax CORE Mechanical Keyboard User Manual

I. Product Overview

(I) Device Naming Specifications

- Wired mode device name: CORE
- Bluetooth 5.0 mode device name: ZaryMax CORE 1.0 5.0
- 2.4G wireless mode: Default is based on hardware identification

(Ⅱ)CORE Configuration Identification

Connection Mode	Corresponding Key	Identification Function
Bluetooth 1 (BT1)	Q key	Bluetooth Channel 1 connection and pairing indicator
Bluetooth 2 (BT2)	W key	Bluetooth Channel 2 connection and pairing indicator
Bluetooth 3 (BT3)	E key	Bluetooth Channel 3 connection and pairing indicator
2.4G Wireless	R key	2.4G channel connection and code-matching indicator

II. Quick Start: Connection and Pairing Guide

(I) Bluetooth 5.0 Connection (Supports 3 Independent Channels)

1. First-time Pairing Operation

1. Ensure the keyboard is powered on and toggle the switch to wireless mode;
2. Press and hold the combination key Fn + corresponding Bluetooth key (Q/B1, W/B2, E/B3) for 3 seconds. The indicator light of the corresponding key flashes rapidly, and the keyboard enters pairing mode (all other lights turn off, only the pairing channel indicator flashes);
3. Turn on the Bluetooth function of the device to be connected (mobile phone, tablet, computer, etc.), search f or "ZaryMax CORE1.0 5.0" in the device list, and select the corresponding channel for pairing;
4. After successful pairing, the indicator light of the corresponding channel switches to "display with light effect", and the keyboard light effect returns to normal;
5. Pairing Timeout Description: If pairing is not completed within 1 minute, the channel indicator light turns off, and the keyboard automatically enters sleep mode. The pairing process needs to be triggered again.

2. Secondary Reconnection Operation

1. Briefly press Fn + corresponding Bluetooth key (Q/W/E), the indicator light of the corresponding channel flashes slowly, and the keyboard starts automatic reconnection;
2. After successful reconnection, the indicator light displays with the light effect;
3. Reconnection Timeout Description: The reconnection time is 20 seconds. If the connection is not successful within 20 seconds, the indicator light turns off, and the keyboard enters sleep mode;
4. Channel Memory Function: When Bluetooth mode is turned on, the keyboard automatically remembers the last used Bluetooth channel and prioritizes attempting to reconnect to that channel's device.

(II) 2.4G Wireless Connection

1. First-time Code-matching Operation

1. Insert the 2.4G wireless receiver into the device's USB port;
2. Press and hold the combination key Fn+R for 3 seconds. The R key indicator flashes rapidly, and the keyboard enters code-matching mode (all other lights turn off);
3. The receiver and keyboard automatically complete code-matching. After successful code-matching, the R key indicator displays with the light effect;
4. Code-matching Timeout Description: The code-matching time is 20 seconds. If code-matching is not completed within 20 seconds, the R key indicator turns off, and the keyboard enters sleep mode. The code-matching process needs to be triggered again.

1. Secondary Reconnection Operation

1. Briefly press Fn+R key, the R key indicator flashes slowly, and the keyboard starts automatic reconnection;
2. After successful reconnection, the R key indicator displays with the light effect;
3. Reconnection Timeout Description: The reconnection time is 20 seconds. If the connection times out, it enters sleep mode.

(II) Wired Connection

1. Use a USB data cable to connect the keyboard to the device (computer, power bank, etc.);
2. The keyboard automatically switches to wired mode, no additional pairing is required, and the device name is displayed as "Core";
3. Wired Mode Features: When inserted into a PC USB port, the keyboard lights turn off synchronously with the computer's sleep state; when inserted into a power bank, the backlight remains on.

III. Lighting System: Detailed Explanation of Light Effects and Illumination Control

(I) Main Keyboard Area RGB Backlight System

1. Light Effect Control Operations

Control Function	Operation Method	Special Instructions	
Switch Light Effects	Press Fn+	| key	Cycle through 16 light effects and remember the last used light effect
Adjust Speed	Fn + Left Arrow Key (Decelerate) Fn + Right Arrow Key (Accelerate)	speed levels in total, f actory default is level 3; when adjusted to the highest/lowest level, the backlight flashes 3 times to confirm	
Adjust Brightness	Fn + Up Arrow Key (Increase Brightness) Fn + Down Arrow Key (Decrease Brightness)	5 brightness levels in total, factory default is maximum brightness; supports remembering user settings, and the backlight flashes 3 times to confirm when adjusted to the extreme value	
Turn Lights On/Off	Press Fn+X key	Toggle lights on/off (power-saving mode); only the indicator function is retained after turning off	

2. Light Effect Rules for Power-on and Wireless Modes

- Wired connection to PC: After inserting into the USB port, the lights turn off synchronously with the computer's sleep state and automatically recover when the computer wakes up;
- Wired connection to power bank: The backlight remains on continuously after insertion, not affected by sleep;
- Wireless mode (Bluetooth/2.4G): After turning on the switch, the light effect is on for 2 minutes during reconnection and code-matching. If there is no operation within 2 minutes, the lights automatically turn off and enter sleep mode.

3. Light Bar Control Operations

Control Function	Operation Method	Special Instructions
Switch Modes	Press Fn+CAPS key	Cycle through 5 modes and remember the last used mode
Switch Colors	Press Fn+A key	Only effective in "Streamer", "Neon", and "Seven-Color Breathing" modes; cycle through color schemes

(III) Custom Light Effect Recording Function

1. Recording Process

1. Press Fn+1 key to enter the custom light effect mode. At this time, the AWSD keys and 4 direction keys light up in blue, indicating entry into the recording preparation state;
2. Press Fn+~ key to enter the recording state. The ~ key light flashes continuously (other light effects are paused during recording);
3. Set the color for the target key: Press the same key continuously to cycle through RGB colors (supports full-spectrum color selection) until the desired color is selected;
4. Complete the color configuration of all keys that need to be set in sequence;
5. Press Fn+~ key again to complete recording and storage. The ~ key light turns off, and the custom light effect takes effect automatically;
6. Exit Custom Mode: No additional operation is required. Switching to other light effect modes or turning off the lights will exit, and the custom light effect will be saved automatically.

2. Notes

- Custom light effects only support backlight settings for the main keyboard area, not including the light bar;
- Custom light effects support the memory function and will be retained after restarting the keyboard;
- After restoring factory settings, the custom light effect will be cleared and restored to the default light effect "Wave Flow".

IV. Function Keys and Comprehensive Analysis of Shortcut Operations

(I) System and Connection Control Shortcut Keys

Combination Key	Function Description	Operation Feedback
Fn+Q	Short press: Switch to Bluetooth Channel 1 Long press for 3 seconds: Bluetooth Channel 1 pairing	Short press: Q key blue light flashes slowly (reconnection) Long press: Q key blue light flashes rapidly (pairing)
Fn+W	Short press: Switch to Bluetooth Channel 2 Long press for 3 seconds: Bluetooth Channel 2 pairing	Short press: W key yellow light flashes slowly (reconnection) Long press: W key yellow light flashes rapidly (pairing)
Fn+E	Short press: Switch to Bluetooth Channel 3 Long press for 3 seconds: Bluetooth Channel 3 pairing	Short press: E key white light flashes slowly (reconnection) Long press: E key white light flashes rapidly (pairing)
Fn+R	Short press: Switch to 2.4G channel Long press for 3 seconds: 2.4G channel code-matching	Short press: R key green light flashes slowly (reconnection) Long press: R key green light flashes rapidly (code-matching)
Fn+L_Win	Lock/unlock WIN key (only valid for Windows systems)	Lock: WIN key light stays white Unlock: WIN key light displays with light effect
Fn + Space Bar	Press and hold for 3 seconds to restore factory settings	Clear all Bluetooth pairing IDs (retain 2.4G code-matching ID), restore light effects to default, and the backlight flashes 3 times to confirm

(II) Encoder Function (Side/Top Encoder of the Keyboard)

Operation Method	Function Description	Applicable Scenarios
Rotate Left	Decrease volume	Universal for all systems
Rotate Right	Increase volume	Universal for all systems
Press	Mute switch	Universal for all systems
Switch Control Modes	Long press the encoder (or cooperate with combination keys)	Switch to system switching mode (subject to actual hardware design)

(III) Cross-system Multimedia Shortcut Keys (Supports Windows/Mac)

Combination Key	Windows System Function	Mac System Function	Function Description
Fn+F1	Decrease brightness	Decrease bright-ness	Reduce device display bright-ness, supports multi-level adjustment
Fn+F2	Multi-screen display (Win+Tab)	Increase brightness	Windows: Switch multi-screen display mode; Mac: Increase display brightness
Fn+F3	Task View (Ctrl+Up)		Windows: Open Task View; Mac: No corresponding function
Fn+F4	App switching (Alt+Tab, Alt delay 300ms)	App switching (Win+Tab, Win delay 300ms)	Cycle through open apps, delay design to avoid misoperation
Fn+F5	Search	Search (Win+Space)	Windows: Open system search; Mac: Open Spotlight search
Fn+F6	Input method switching (Win + Space)	Input method switching (Ctrl + Space)	Quickly switch the system default input method
Fn+F7	Previous track	Previous track	Play the previous multimedia trac
Fn+F8	Play/Pause	Play/Pause	Control multimedia playback and pause
Fn+F9	Next track	Next track	Play the next multimedia track
Fn+F10	Mute	Mute	Turn off system sound output
Fn+F11	Decrease volume	Decrease volume	Reduce system volume
Fn+F12	Increase volume	Increase volume	Increase system volume
Fn+HOME		INS (Insert mode switching)	Mac system-specific insert mode switching function

(IV) Battery Level Query Function

1. Operation Method

Press the combination key Fn+BackSpace (this function is invalid in wired mode, only supported in wireless mode).

2. Display Rules

- After triggering the query, the backlight of the main keyboard area turns off temporarily. The number keys 1-0 correspond to 10 battery levels (each level represents 10% battery capacity);
- Battery level display color distinction: 1-2 levels light up in red (low battery warning), 3-5 levels light up in yellow (medium battery), 6-10 levels light up in green (high battery);
- Display Duration: The battery level display automatically restores the previous light effect state after 5 seconds.

V. Indicator System: Detailed Explanation of Status Identification

(I) Connection Status Indicators

Indicator Position	Corresponding Mode	Status Type	Indication Method	Meaning Explanation
Q key (BT1)	Bluetooth 1	Reconnection	Blue light flashes slowly (1 time /second)	Trying to reconnect to the paired device of Bluetooth Channel 1
Q key (BT1)	Bluetooth 1	Pairing	Blue light flashes rapidly (0.5 times/second)	Bluetooth Channel 1 enters pairing state, waiting for con-nection
Q key (BT1)	Bluetooth 1	Connection Successful	Display with light effect	Bluetooth Channel 1 has successfully connected to the device
W key (BT2)	Bluetooth 2	Reconnection	Yellow light flashes slowly (1 time/second	Trying to reconnect to the paired device of Bluetooth Channel 2
W key (BT2)	Bluetooth 2	Pairing	Yellow light flashes rapidly (0.5 times /second)	Bluetooth Channel 2 enters pairing state, waiting for connection
W key (BT2)	Bluetooth 2	Connection Successful	Display with light effect	Bluetooth Channel 2 has successfully connected to the device
E key (BT3)	Bluetooth 3	Reconnection	White light flashes slowly (1 time /second)	Trying to reconnect to the paired device of Bluetooth Channel 3
E key (BT3)	Bluetooth 3	Pairing	White light flashes rapidly (0.5 times /second)	Bluetooth Channel 3 enters pairing state, waiting for connection
E key (BT3)	Bluetooth 3	Connection Successful	Display with light effect	Bluetooth Channel 3 has successfully connected to the device
R key (2.4G)	2.4G Wireless	Reconnection	Green light flashes slowly (1 time /second)	Trying to reconnect to the code-matched device of 2.4G channel
R key (2.4G)	2.4G Wireless	Code-matching	Green light flashes rapidly (0.5 times /second)	2.4G channel enters code-matching state, waiting for connection
R key (2.4G)	2.4G Wireless	Connection Successful	Display with light effect	2.4G channel has successfully connected to the device

(II) Function Status Indicators

Indicator Position	Corresponding Function	Status Type	Indication Method	Meaning Explanation
Space Bar Light	Battery Status	Low Battery Warning	Red light flashes slowly (1 time/second)	In wireless mode, the battery voltage ≤3.3V, need to charge
Space Bar Light	Charging Status	Charging	Red light stays on	The keyboard is charging, charging current ≤1A
Space Bar Light	Charging Status	Fully Charged	Display with light effect	The battery is fully charged, can disconnect the charging cable
CAPS Key Light	Caps Lock	Locked	White light stays on	Caps lock function is enabled
CAPS Key Light	Caps Lock	Unlocked	Display with light effect	Caps lock function is disabled
WIN Key Light	WIN Key Lock	Locked	White light stays on	WIN key is locked to prevent misoperation (only for Windows systems)
WIN Key Light	WIN Key Lock	Unlocked	Display with light effect	WIN key is available normally

VI. Power Management and Battery Life

(I) Battery Parameters and Low Battery Protection

Battery Status	Voltage Range	Device Performance	Operation Suggestion
Normal Battery	＞3.3V	All functions are normal, no restrictions on lights	Use normally
Low Battery Warning	≤3.3V and ＞3.0V	Forcibly turn off the backlight (key functions are normal), space bar light flashes red slowly	Charge as soon as possible
Automatic Shutdown	≤3.0V	Automatically shut down in wireless mode, cannot be turned on	Must connect wired charging to recover

(II) Charging Instructions

- Charging Method: Charge by connecting the keyboard to a computer, charger, or power bank via a USB cable;
- Charging Current: Maximum support ≤1A, it is recommended to use a compliant charger of 5V/1A or higher;
- Charging Time: Depending on the battery capacity (subject to actual test data);
- Charging Status: The space bar light stays red when charging, and switches to display with light effect after being fully charged.

(III) Intelligent Sleep Settings

Sleep Type	Trigger Condition	Indication Method	Meaning Explanation
Light Sleep (Lights Off)	No operation for 2 minutes	All backlights and light bars of the main keyboard area are turned off, and the indicator function is retained	Any key operation or encoder operation
Deep Sleep (Low Power Sleep)	No operation for 30 minutes	Enter low power state, turn off all non-essential functions	Any key operation or toggle switch to restart
Pairing/ Code-matching Timeout Sleep	Pairing/code-matching timeout (Bluetooth: 1 minute, 2.4G: 20 seconds)	Indicator light turns off, enters low power sleep	Trigger the pairing/ code-matching process again

VII. Test Mode and Troubleshooting

(III) Intelligent Sleep Settings

1. Manual Trigger Method

Press and hold the L_Ctrl key, and at the same time connect the keyboard to power (wired mode) or turn on the switch (wireless mode). The keyboard automatically enters the light inspection mode. All LED lights (including the main keyboard area, light bar, and indicators) are turned on, and automatically return to normal mode after 30 seconds.

2. Software Trigger Method

Through the supporting PC driver software, find the "LED Test" function, click to start the full inspection mode, and the operation logic is consistent with the manual trigger.

3. Test Purpose

Quickly troubleshoot hardware problems such as damaged or non-illuminated LED lights. If the lights in a certain area are not turned on, it may be a lamp bead failure or a line problem.

(II) Common Troubleshooting

Fault Phenomenon	Possible Causes	Troubleshooting Methods
Unable to Pair/ Code-match	1. Not entering pair ing/code-matching state; 2. Bluetooth/wireless function of the device not turned on; 3. Too far distance	1. Press and hold the corresponding combination key for 3 seconds to confirm the indicator light flashes rapidly; 2. Turn on the Bluetooth/wireless function of the device; 3. Shorten the distance between the keyboard and the device (recommended ≤1 meter)
Reconnection Failure	1. Bluetooth/wireless of the paired device is turned off; 2. The device has deleted the pairing record; 3. Exceeding the connection range	1. Turn on the Bluetooth/wireless function of the device; 2. Re-pair the device; 3. Move the keyboard to the vicinity of the device
Lights Not Working	1. Lights have been turned off; 2. In low battery state; 3. Entered sleep mode; 4. Hardware failure	1. Press Fn+X key to turn on the lights; 2. Check the battery level or charge; 3. Wake up by key operation; 4. Start the LED full inspection mode for troubleshooting
Keys Unresponsive	1. Connection not successful; 2. In deep sleep state; 3. Keyboard failure	1. Confirm the connection status indicator; 2. Wake up or restart by key operation; 3. Test by changing the connection mode. If it is still unre-sponsive, contact after-sales service
Abnormal Battery Level Display	1. Not calibrated just after turning on the machine; 2. Battery aging; 3. Incorrect function triggering	1. Query the battery level multiple times for cali-bration; 2. Contact after-sales service to test the battery; 3. Ensure to trigger Fn+BackSpace to query in wireless mode

VIII. Driver and Advanced Configuration

(I) Driver-supported Functions

The supporting PC driver software supports the following advanced configurations (subject to the actual driver version):

- Main Backlight Settings: Custom light effect editing, refined adjustment of light effect speed/brightness, sched-uled light off;
- Light Bar Settings: Custom light color, flow direction, speed adjustment;
- Key Sensitivity: Adjust key trigger force and response speed (suitable for gaming scenarios);
- Sleep Settings: Customize light sleep/deep sleep duration, independent sleep settings for Bluetooth/2.4G;
- Configuration Layer Management: Supports 3 independent configuration layers and 1 FN custom layer, which can save configurations for different usage scenarios (such as gaming, office, entertainment);
- Macro Definition: Supports on-board macro recording and editing, assigned to any key (requires driver support);
- Firmware Upgrade: Obtain the latest function updates and bug fixes.

(II) Configuration Layer Switching

Switch 3 configuration layers through the driver software or use combination keys (the specific combination keys are subject to the driver instructions). Different configuration layers can independently set light effects, shortcut keys, macro definitions, etc., to meet diverse usage needs.

IX. Notes and After-sales Instructions

(I) Usage Notes

1. When using Bluetooth and 2.4G modes for the first time, code-matching/pairing is not performed by default. You need to trigger the code-matching/pairing mode by pressing the corresponding combination keys;
2. After restoring factory settings, the Bluetooth pairing IDs will be cleared, the 2.4G code-matching ID will be retained, and the light effects and custom settings will be restored to default;
3. In wireless mode, avoid using it in environments with strong interference (such as near routers and microwave ovens) to avoid affecting connection stability;
4. Use a compliant charger when charging, and avoid using high-voltage and high-current chargers to cause device damage;
5. Avoid liquid spills and heavy object impacts on the keyboard. Store it in a dry and ventilated place to prevent electrostatic damage (on-board electrostatic points have been protected by design);
6. The driver software only supports PC use. For Mac systems, function settings need to be performed through keyboard combination keys.

Package List

1. One Type-1.5m charging data cable
2. One 2.4G receiver
3. One switch puller
4. Three spare switches
5. User manual

FCC Statement

1.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference.
(2)This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note:This equipment has been tested and found to comply with the limits for a class B digital device,pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and,if not installed and used in accordance with the instructions,may cause harmful interference to radio communications.However,there is no guarantee that interference will not occur in a particular installation,if this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on,the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement.
The device can be used in portable exposure condition without restriction.