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ZORNHER ZH980

ZORNHER ZH980 Wireless Mechanical Keyboard User Manual

Model: ZH980

1. INTRODUCTION

This manual provides detailed instructions for the ZORNHER ZH980 Wireless Mechanical Keyboard. Please read this manual thoroughly before using the product to ensure proper operation and to maximize its features. The ZH980 offers a 95% layout, triple-mode connectivity, hot-swappable switches, and customizable RGB lighting.

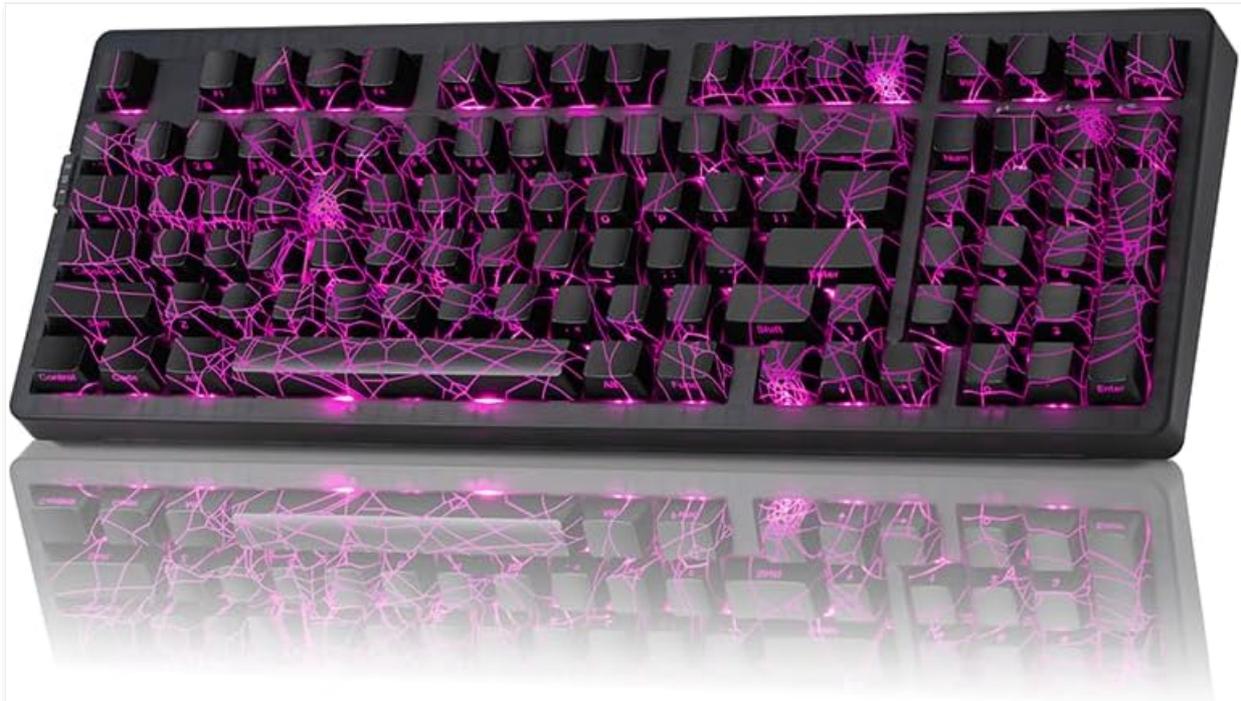


Figure 1: ZORNHER ZH980 Mechanical Keyboard

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Fully Assembled Keyboard
- 1 x Keycap Puller
- 3 x Replacement Switches

- 1 x 2.4GHz Receiver
- 1 x USB Type-C Cable
- 1 x Instruction Manual



Figure 2: Package Contents of ZH980

3. PRODUCT OVERVIEW

The ZORNHER ZH980 features a compact 95% layout, integrating a full number pad and essential function keys while saving desk space. It is designed with IMD PBT keycaps for durability and a gasket-mounted structure for a consistent typing feel.

- **IMD PBT Keycaps:** Made from high-purity PBT, these keycaps resist shine and fading. Side-printed legends are molded for enhanced durability and clear shine-through effects.
- **95% Layout:** Provides full functionality including a number pad, F-row, arrows, and navigation keys in a space-efficient design.
- **Creamy Linear Switches:** Factory-lubed switches offer a soft, audible typing sound.
- **Gasket-Mounted Structure:** Enhances typing feel and sound by isolating the PCB from the case.
- **Transparent Base:** Allows vibrant RGB lighting to shine through, creating an immersive visual experience.
- **Ergonomic Design:** Features a dual-angle kickstand and OEM-profile keycaps for comfortable typing during extended use.

ZH980

95% Layout Custom Mechanical keyboard

Triple Model/ Gasket Structure/ IMD PC keycaps



Battery Capacity:
6000mah



IMD PC keycaps



Hot Swappable



Gasket Structure



Three-modes



22 Lighting Modes



95% Layout



Creamy Sound Switch

Figure 3: Key Features of the ZH980

Gasket Structure

90%
Hollow Sound Removing

20%
Noise Reducing

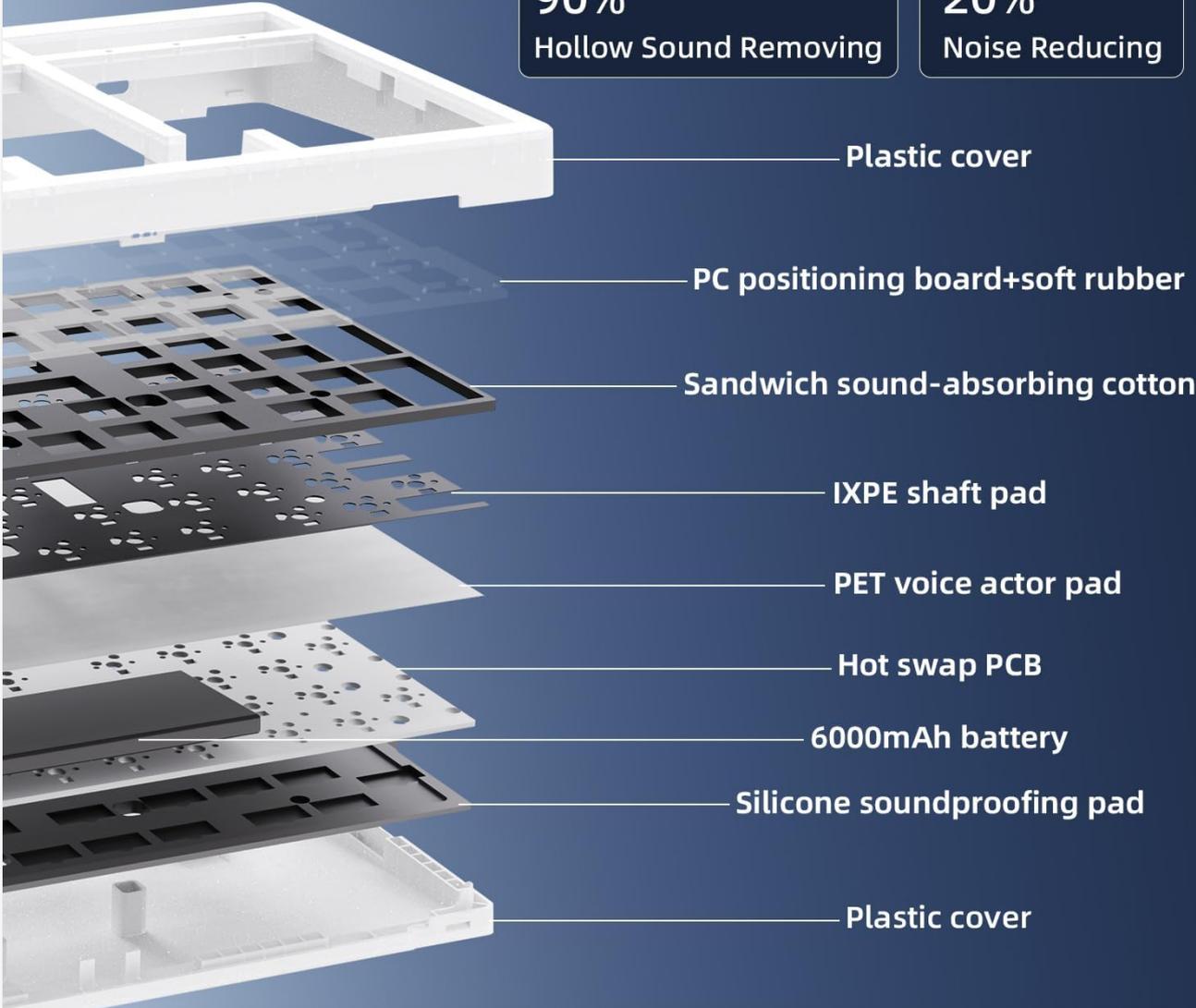


Figure 4: Gasket Structure Diagram

22 RGB Light Effects Macro

Recording & Editing



22 RGB Models
Lighting effects



Macro
Recording & Editing



Music
Audio visualizer effect



Custom Profile
Set up exclusive typing experience



Figure 5: Creamy Custom Switch Details

4. SETUP AND CONNECTION

The ZORNHER ZH980 supports three connection modes: 2.4GHz wireless, Bluetooth 5.0, and USB-C wired.

4.1. Wired Connection (USB-C)

1. Connect the provided USB Type-C cable to the keyboard's Type-C port.
2. Connect the other end of the cable to an available USB port on your computer.
3. The keyboard will automatically be recognized and ready for use.

4.2. 2.4GHz Wireless Connection

1. Locate the 2.4GHz USB receiver (usually stored in a compartment on the keyboard).
2. Plug the receiver into an available USB port on your computer.
3. Turn on the keyboard using the power switch. The keyboard should automatically connect to the receiver.

4.3. Bluetooth 5.0 Connection

The keyboard can connect to up to 5 devices via Bluetooth.

1. Ensure the keyboard is powered on.
2. Press and hold the **Fn** key along with one of the Bluetooth keys (e.g., **Fn + 1**, **Fn + 2**, etc.) for 3-5 seconds until the indicator light flashes rapidly, indicating pairing mode.
3. On your device (computer, smartphone, tablet), go to Bluetooth settings and search for new devices.
4. Select "ZORNHER ZH980" from the list of available devices to pair.
5. Once paired, the indicator light will stop flashing and remain solid.

6. To switch between paired Bluetooth devices, press **Fn + [1-5]** corresponding to the saved device.



Figure 6: Triple-Mode Connection

Your browser does not support the video tag.

Video 1: Demonstration of ZORNHER ZH980 keyboard features and lighting effects.

5. OPERATING INSTRUCTIONS

5.1. RGB Lighting Control

The ZH980 features vibrant RGB lighting with 22 preset modes. Use the following key combinations to control the lighting:

- **Fn + ↑ (Up Arrow):** Increase Main Backlight Brightness
- **Fn + ↓ (Down Arrow):** Decrease Main Backlight Brightness
- **Fn + ← (Left Arrow):** Increase Main Backlight Speed
- **Fn + → (Right Arrow):** Decrease Main Backlight Speed
- **Fn + Backspace:** Cycle through Dynamic Light Direction Switching

- **Fn + Backslash:** Cycle through Lamp Effect Switching (22 preset modes)
- **Fn + Esc:** Restore to Factory Settings (also used for troubleshooting)
- **Fn + Win:** Lock/Unlock Windows Key

RGB Backlight Control

Provide custom lighting software, rich custom lighting modes



- | | | | |
|---|--|---|---|
|  +  |  Main Backlight Brightness+ |  +  |  Dynamic light direction switching |
|  +  |  Main Backlight Brightness- |  +  |  Lamp Effect Switching |
|  +  |  Main Backlight Speed- |  +  |  Restore to Factory Settings |
|  +  |  Main Backlight Speed+ |  +  |  Window Lock |

Figure 7: RGB Backlight Control Functions



Figure 8: RGB Lighting On and Off

5.2. Customization Software

For advanced customization, driver software is available. This software allows you to remap keys, create macros, and tailor RGB effects to your preferences. Refer to the ZORNHER website for software download and detailed instructions.

Package List ZH980



1x Fully Assembled Keyboard



3x Replace Switch



1x Keycap Puller



1x Type-C Cable



1x 2.4GHz Receiver



1x Instruction

Figure 9: Customization Software Interface

6. MAINTENANCE

6.1. Cleaning

To clean your keyboard, power it off and disconnect it from your computer. Use a soft, dry cloth to wipe the surface. For deeper cleaning, use a can of compressed air to remove dust and debris from between the keycaps. A slightly damp cloth can be used for stubborn marks, ensuring no liquid enters the keyboard.

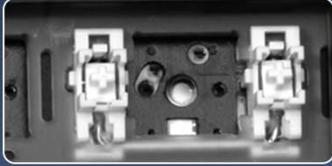
6.2. Hot-Swappable Switches

The ZH980 features a hot-swappable PCB, allowing you to change mechanical switches without soldering. It supports both 3-pin and 5-pin mechanical switches.

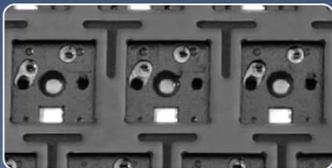
1. Use the provided keycap puller to carefully remove the desired keycap.
2. Use a switch puller (not included, but often comes with replacement switches) to gently extract the switch from the PCB.
3. Align the pins of the new switch with the holes on the PCB and press firmly until it clicks into place. Ensure pins are not bent.
4. Replace the keycap.

Hot-Swappable RGB PCB

Supports 3-pin/5-pin,
98% Switches on the Market



Fine adjustment of satellite axis



Supports 3 pins or 5 pins switches.

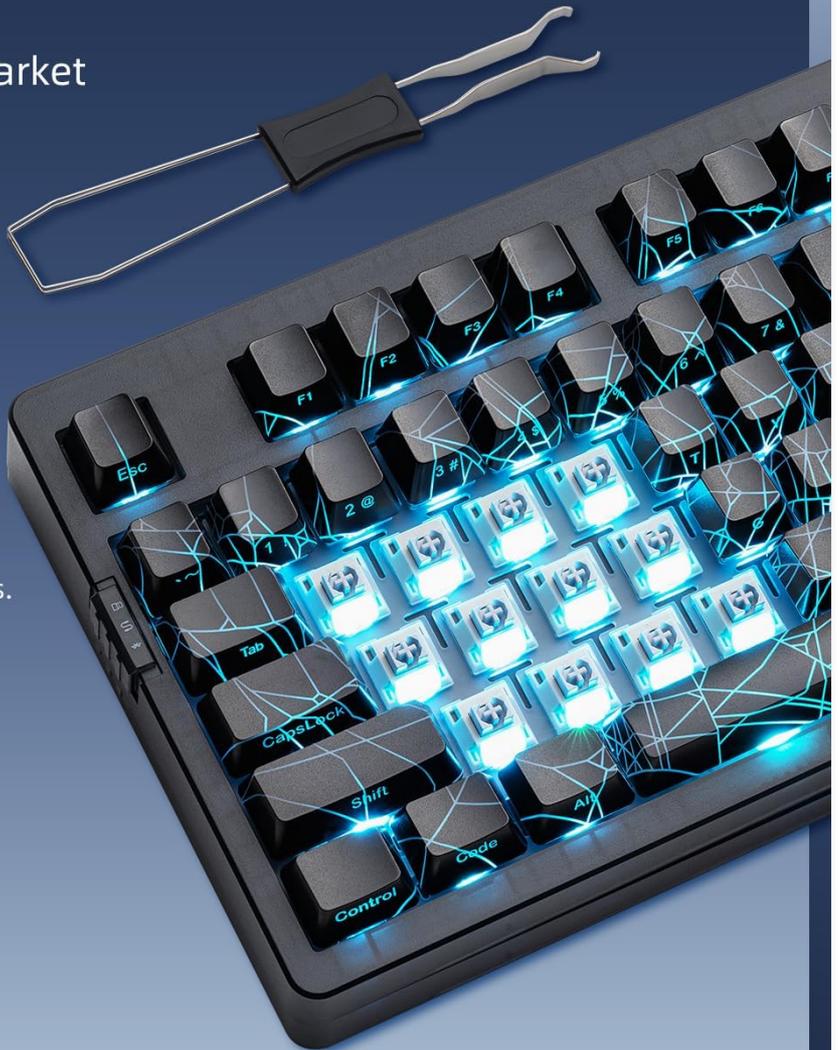


Figure 10: Hot-Swappable PCB

6.3. Battery Care

The keyboard is equipped with a 6000mAh Lithium Ion battery. To prolong battery life:

- Avoid fully discharging the battery frequently.
- Store the keyboard in a cool, dry place when not in use for extended periods.
- Use the provided USB-C cable for charging.

7. TROUBLESHOOTING

If you encounter issues with your ZORNHER ZH980 keyboard, refer to the following common solutions:

- **Keyboard not responding:** Ensure the keyboard is charged and powered on. Check the connection mode (wired, 2.4GHz, or Bluetooth) and ensure it matches your device's connection. For 2.4GHz, ensure the receiver is properly plugged in. For Bluetooth, re-pair the device if necessary.
- **Lights not working or incorrect:** Press **Fn + Backslash** to cycle through lighting modes. Adjust brightness with **Fn + Up/Down Arrow**. Ensure the keyboard is not in a low-power state.

- **Keys typing incorrectly or double-typing:** This can sometimes be resolved by resetting the keyboard to factory settings by pressing **Fn + Esc**. If the issue persists, consider replacing the affected switch using the hot-swappable feature.
- **Bluetooth connection issues:** Ensure your device's Bluetooth is enabled and the keyboard is in pairing mode (**Fn + [1-5]** for 3-5 seconds). Remove and re-add the keyboard from your device's Bluetooth settings.
- **Windows key locked:** Press **Fn + Win** to toggle the Windows key lock.

Your browser does not support the video tag.

Video 2: Overview of the ZORNHER Mechanical Keyboard's design and functionality.

8. SPECIFICATIONS

Brand	ZORNHER
Model Number	ZH980
Product Dimensions	14.96 x 7.99 x 2.75 inches
Item Weight	4.16 pounds
Connectivity Technology	Bluetooth 5.0, 2.4GHz Wireless, USB-C Wired
Keyboard Description	Mechanical
Compatible Devices	Laptop, Mac, PC, Smartphone
Special Features	Backlit (RGB), Hot-Swappable, Rechargeable, Transparent Base
Keyboard Backlighting Color Support	RGB (22 Preset Modes)
Battery	1 Lithium Ion battery (6000mAh, included)

9. WARRANTY AND SUPPORT

The ZORNHER ZH980 Mechanical Keyboard is covered by a 2-year warranty. For warranty claims, technical support, or any inquiries not addressed in this manual, please contact ZORNHER customer service through the official website or your retailer's support channels. Please retain your proof of purchase for warranty validation.

Related Documents - ZH980

	Zornher ZH980 Mechanical Keyboard User Manual Comprehensive user manual for the Zornher ZH980 Mechanical Keyboard, covering wired, Bluetooth, and 2.4G wireless connections, lighting modes, system switching, and specifications.
	Zornher ZH980 Mechanical Keyboard User Manual Comprehensive user manual for the Zornher ZH980 Mechanical Keyboard, covering wired, Bluetooth, and 2.4G wireless connections, lighting modes, system switching, and specifications.



RF TEST REPORT

: Keyboard
: ZH980

Issued For : Dongguan Zornher electronics Co., LTD
Room 204, Building 1, No.91 Shipai Avenue West, Shipai Town,
Dongguan City, Guangdong Province

: Shenzhen LGT Test Service Co., Ltd.
Room 205, Building 13, Zone B, Zhenrong Industrial Park,
No.177 Baoxin West Road, Jishui, Kengzi Street, Pinghu
District, Shenzhen, Guangdong, China

LGT24070H401

Sep. 11, 2024

Sep. 11, 2024 – Sep. 26, 2024

Sep. 26, 2024

The test report is effective only with both signature and specified stamp. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report only apply to the tested samples.
Dongguan Zornher electronics Co., LTD No. 91 Shipai Avenue West, Shipai Town, Dongguan City, Guangdong Province
Room 204, Building 1, No.91 Shipai Avenue West, Shipai Town, Dongguan City, Guangdong Province
Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13, Zone B, Zhenrong Industrial Park, No.177 Baoxin West Road, Jishui, Kengzi Street, Pinghu District, Shenzhen, Guangdong, China

[pdf] Test Report SAR Rating

RF Exposure Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
RF TEST REPORT Product Name: Keyboard Model Name: **ZH980** FCC ID:
2BLF3-ZH980 Issued For : Dongguan Zornher electronics Co., LTD Room 204,
Building 1, No.91 Shipai Avenue West, Shipai Town, Dongguan City, Guangdong
Province Issued By : Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13,
Zone ...

lang:en score:47 filesize: 380.93 K page_count: 9 document date: 2024-10-17

Dongguan Zornher electronics Co., LTD

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046
USA

Date:10/14/2024
FCC ID: 2BLF3-ZH980

Ref. #1: Attestation Statements Part 2.911(d)(5)(i) Filing

Dongguan Zornher electronics Co., LTD certifies that the equipment for which authorization is sought is not "covered" equipment prohibited from receiving an equipment authorization pursuant to section 2.903 of the FCC rules.

Ref. #2: Attestation Statements Part 2.911(d)(5)(i) Filing

Dongguan Zornher electronics Co., LTD certifies that, as of the date of the filing of the application, the applicant is not identified on the Covered List as an entity producing "covered" equipment.

Applicant: Dongguan Zornher electronics Co., LTD
Address: Room 204, Building 1, No.91 Shipai Avenue West, Shipai Town, Dongguan City,
Guangdong Province
Contact Person: Dechun Lin
Tel.: 13602350387
Email: 13602350387@qq.com

Signature:

[pdf]

zhouyongbang Attestation of Cover List Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980

Dongguan Zornher electronics Co., LTD Federal Communications Commission
Authorization and Evaluation Division 7435 Oakland Mills Road Columbia, MD 21046
USA Date:10/14/2024 FCC ID: 2BLF3-**ZH980** Ref. #1: Attestation Statements Part
2.911 d 5 i Filing Dongguan Zornher electronics Co., LTD certifies ...

lang:en score:44 filesize: 176.46 K page_count: 1 document date: 2024-10-14

Dongguan Zornher electronics Co., LTD

Date: 10/14/2024

Product Model Number: ZH980

FCC ID: 2BLF3-ZH980

To whom it may concern,

Re: Product Certification Representative Authorization Letter

We authorize QAI Laboratories Ltd. 3980 North Fraser Way, Burnaby B.C. Canada V5J 5K5 to act on our behalf on all matters concerning the above named equipment.

This shall include the following:

- Testing
- Approval applications and procedures

We declare that QAI Laboratories Ltd. is allowed to forward all information related to the approval project to the applied certification body and to the notification entities and to discuss any issues concerning the approval application. Any and all acts carried out by QAI Laboratories Ltd. on our behalf shall have the same effect as acts of our own.

Signature:

By: Dechun Lin

Contact Listed on FCC Website

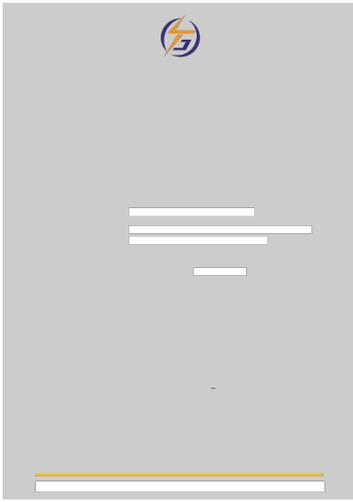
Title: Boss
Email: 13602350387@qq.com
On behalf of: Dongguan Zornher electronics Co., LTD

[pdf] Agent Authorization

TIMCO Engineering Inc admin Agent Authorization Letter Template Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980

Date:10/14/2024 Dongguan Zornher electronics Co., LTD Product Model Number:
ZH980 FCC ID:2BLF3-**ZH980** To whom it may concern, Re: Product Certification
Representative Authorization Letter We authorize QAI Laboratories Ltd. 3980 North
Fraser Way, Burnaby B.C. Canada V5J 5K5 to act on our behalf on...

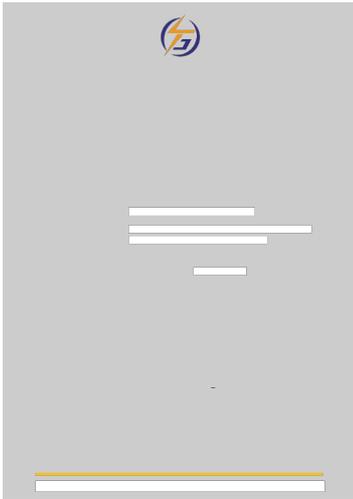
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Test Report Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
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2BLF3-**ZH980** Issued For : Dongguan Zornher electronics Co., LTD Room 204,
Building 1, No.91 Shipai Avenue West, Shipai Town, Dongguan City, Guangdong
Province Issued By : Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13,
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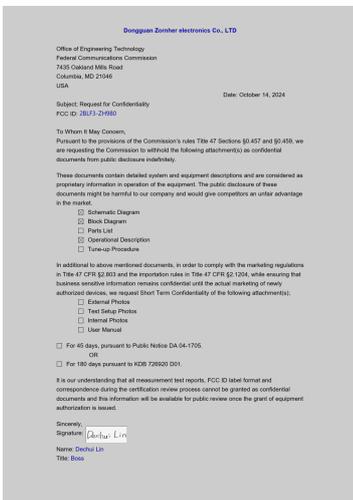
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Test Report Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
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2BLF3-**ZH980** Issued For : Dongguan Zornher electronics Co., LTD Room 204,
Building 1, No.91 Shipai Avenue West, Shipai Town, Dongguan City, Guangdong
Province Issued By : Shenzhen LGT Test Service Co., Ltd. Room 205, Building 13,
Zone B...

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[\[pdf\]](#) Confidentiality Request Letter

emc FCC Short Long Term Confidentiality Request Dongguan Zornher electronics Co LTD ZH980
Keyboard 2BLF3 2BLF3ZH980 zh980

Dongguan Zornher electronics Co., LTD Office of Engineering Technology Federal
Communications Commission 7435 Oakland Mills Road Columbia, MD 21046 USA
Subject; Request for Confidentiality FCC ID: 2BLF3-**ZH980** Date: October 14, 2024
To Whom It May Concern, Pursuant to the provisions of the Commiss...

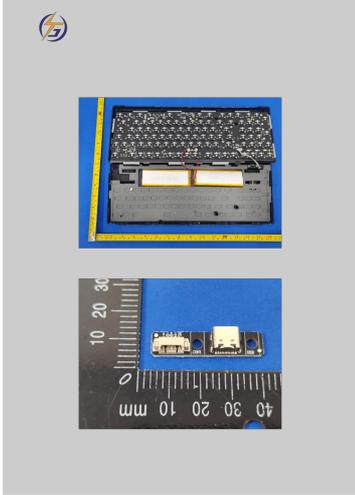
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[Zornher ZH980 Mechanical Keyboard User Manual](#)

Comprehensive user manual for the Zornher ZH980 Mechanical Keyboard, covering wired, Bluetooth, and 2.4G wireless connections, lighting modes, system switching, and specifications.

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Internal Photos Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
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Constructional Details Model: **ZH980** Photo 1 Photo 2 Page 2 of 6 Photo 3 Report No.:
LGT24I070 Photo 4 Page 3 of 6 Photo 5 Report No.: LGT24I070 Photo 6 Page 4 of 6
Photo 7 Report No.: LGT24I070 Photo 8 Page 5 o...

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External Photos Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
Page 1 of 6 Report No.: LGT24I070 Appendix - External Photographs of EUT
Constructional Details Model: **ZH980** Photo 1 Photo 2 Page 2 of 6 Photo 3 Report No.:
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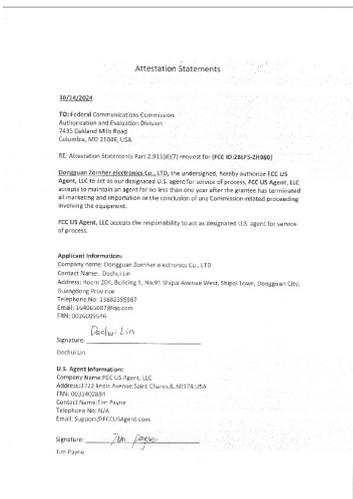
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Test Setup Photos Dongguan Zornher electronics Co LTD ZH980 Keyboard 2BLF3 2BLF3ZH980 zh980
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[\[pdf\]](#) Label

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[\[pdf\]](#) Agent Authorization

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