THUNDEROBOT 2BFDF-G50S Wireless Gaming Controller User Manual

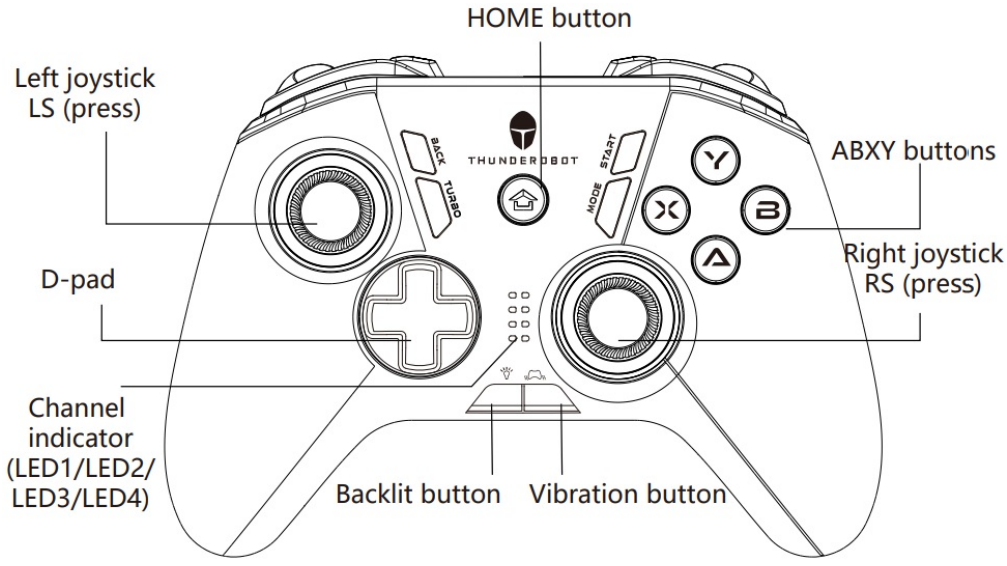
THUNDEROBOT 2BFDF-G50S Wireless Gaming Controller User Manual

Contents

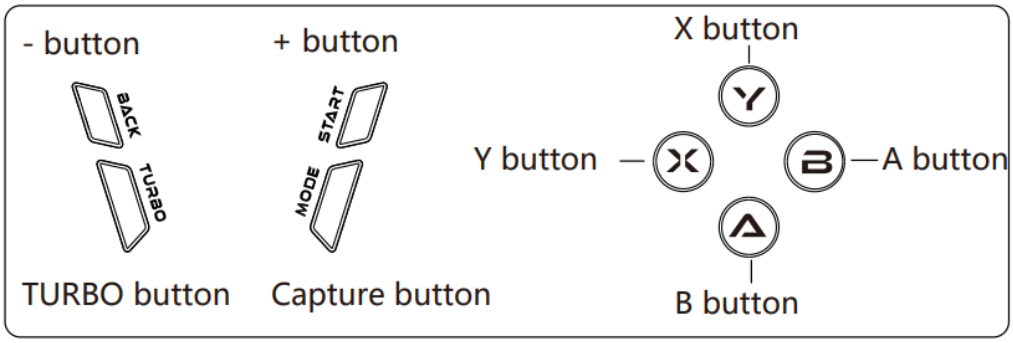
SECURITY INFORMATION

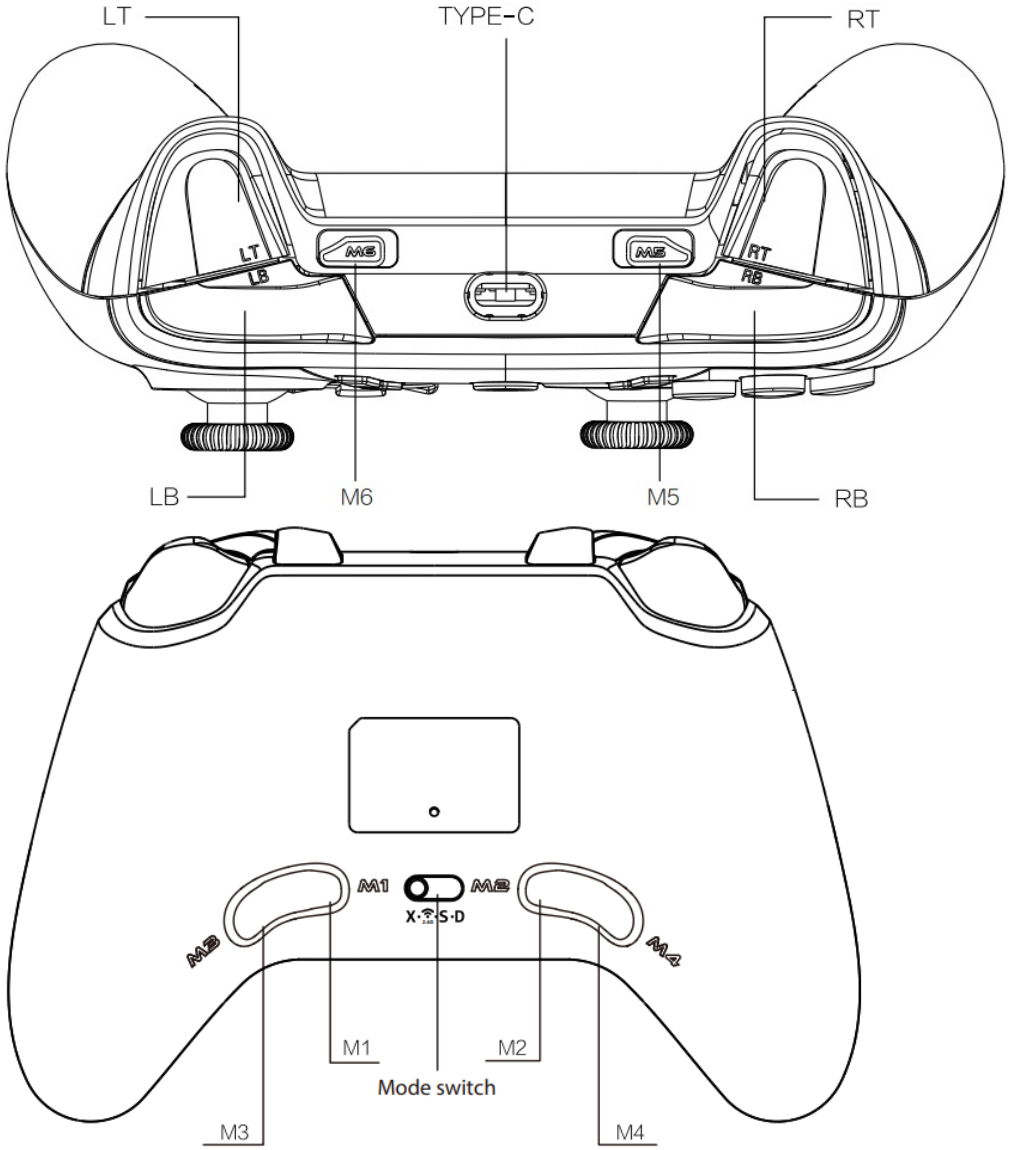
1. BEFORE USING AND OPERATING THE EQUIPMENT, PLEASE READ AND FOLLOW THE PRECAUTION BELOW TO ENSURE THAT THE EQUIPMENT IS PERFORMING BEST AND TO AVOID DANGEROUS OR ILLEGAL SITUATIONS.
2. Please use this device within a temperature range of 0°C to 40°C and store the device and its accessories within a temperature range of -10°C to +40°C. Extreme high or low temperatures may cause device malfunctions.
3. This device and its accessories may contain small parts, please keep them out of reach of children. Children may unintentionally damage the device and its accessories, or swallow small parts leading to choking or other dangers.
4. Please avoid exposing the device and its accessories to rain or moisture, as it may cause re or electric shock hazards.
5. Please keep the device and its batteries away from heat sources, high temperatures, and direct sunlight. Prohibit throwing the batteries into re, dismantling, dropping, squeezing, or modifying the batteries, prohibiting foreign objects from being inserted or puncturing the batteries, and prohibit immersing the batteries in water or other liquids, to avoid external impact and pressure on the batteries, in order to prevent battery leakage, overheating, re, or explosion.
6. Do not dismantle or modify the device (including replacing the built-in battery) and accessories without authorization, otherwise, the device and accessories will not be covered by our company's warranty.
7. Please dispose of this device, batteries, and other accessories according to local regulations. Do not treat them as household waste. Improper battery disposal may lead to battery explosion.

LAYOUT



Button layout in Switch mode:





NOTES: In Switch mode, the – key corresponds to the BACK button, the + key corresponds to the START button, and the MODE button corresponds to the screenshot button. Long press the MODE button to activate the recording function.

II. PACKING AND ACCESSORIES

GAMEPAD *1, USB CABLE *1, USER MANUAL *1, 2.4G DONGLE *1

III. GAMEPAD FUNCTIONS

1. Wired connection to Windows PC
    1. Connect the controller to the USB port on the computer using a USB data cable. The controller will automatically connect to the PC, and the 1st and 2nd channel indicator lights on the controller will stay on. Once the controller is connected, it will default to Xinput mode.
    2. PC mode switch: The default mode for PC connection is Xinput. Press and hold the “MODE” button on the controller for 5 seconds to switch between Xinput, Dinput, and Switch modes. You can use the wired Switch mode to connect to a computer and enable motion control assistance in games through the Steam software.
2. Wired connection to Switch console:
    1. Enable the communication function for the Pro wired controller in the system settings of the Switch console.
    2. Place the Switch console in the dock and connect the dock to the display device.

3. When the controller is powered o, connect it to the USB port on the side of the dock using a USB data cable. The controller will automatically connect to the Switch console. Once connected, the channel indicator lights on the controller will stay on, indicating that it is being used as a wired Switch controller. In this mode, the ABXY characters and Switch operations are reversed.

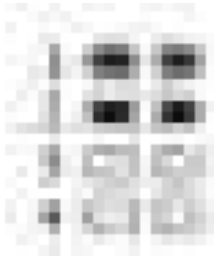
3. Wired connection to Android/projector/TV devices:
   When the controller is powered o, connect it to the USB port of the Android deviceusing a USB-C data cable. The controller will automatically connect to the Android device. Once connected, the LED2 light on the controller will stay on, supporting HID standard mode for Android TV devices.
4. Bluetooth connection to Windows PC:
   1. When the controller is powered o, set the switch on the back of the controller to the “X” position, then press and hold the HOME button on the controller for about 3 seconds until the 2nd and 3rd channel indicator lights on the controller ash rapidly, indicating pairing mode.
   2. On the Windows PC, open the Settings and go to “Bluetooth & other devices” to add a Bluetooth device.
   3. Find and click on “Xbox Wireless Controller” in the list of Bluetooth devices. Once connected, the 2nd and 3rd channel indicator lights on the controller will stay on, indicating successful pairing.
   4. The controller has Bluetooth memory function. When used next time, simply press the HOME button for 1 second to wake up the controller, and it will automatically reconnect to the previously paired Windows PC.
5. Bluetooth connection to iOS/Android mobile devices:
   1. When the controller is powered o, set the switch on the back to the “X” position, then press and hold the HOME button on the controller for about 3 seconds to enter pairing mode. During pairing, the 2nd and 3rd channel indicator lights on the controller will ash rapidly. Open the Bluetooth settings on the iOS/Android device and search for the Bluetooth device named “Xbox Wireless Controller”. Click to pair, and once connected, the 2nd and 3rd channel indicator lights on the controller will stay on, indicating successful connection.
   2. Only supports iOS MFi games and native Android controller games.
   3. This mode supports some car stereo systems.
6. Bluetooth connection to Switch console:
   1. Initial connection to the console: On the main menu of the Switch console, select “Controllers” and click on “Change Grip/Order” to enter pairing mode.
   2. When the controller is powered o, set the switch on the back to the “S” position, then press and hold the HOME button on the controller for about 3 seconds until the channel indicator lights on the controller ash rapidly, indicating search mode. Once paired, the 4th channel indicator light on the controller will stay on. Press the HOME button to return to the main menu for operation. In this mode, the ABXY characters and Switch operations are reversed.
   3. Bluetooth connection to Switch console supports one-touch wake-up and native six-axis gyroscope.
7. Bluetooth connection to Android/TV/projector/emulator devices:
   1. When the controller is powered o, set the switch on the back to the “D” position, then press and hold the HOME button on the controller for about 3 seconds to enter pairing mode. The 3rd and 4th channel indicator lights on the controller will ash rapidly. Open the Bluetooth settings on the Android device, search for the Bluetooth device named “G50S”, and click to pair. Once connected, the 3rd and 4th channel indicator
      lights on the controller will stay on. The controller will enter Android HID standard mode, but does not support virtual touch game operations.

2. This mode supports some car stereo systems.

8. G dongle connection to PC/Switch/Android devices: Only supports connecting with the dongle receiver in the 2.4G mode. The dongle receiver can automatically identify and match devices and protocols.
    1. Set the switch on the back of the controller to the 2.4G position, then press and hold the HOME button on the controller for about 3 seconds until the channel indicator lights on the controller start ashing rapidly in a back and forth pattern, indicating pairing mode.
    2. Insert the receiver into the USB port of the Windows PC/Android/Switch device. The receiver's LED indicator will slowly ash.
    3. Keep the controller close to the receiver and wait for automatic recognition and connection. Once connected, the receiver's indicator light will stay on, and the channel indicator lights on the controller will stay on according to the connected protocol.
    4. This mode supports some car stereo systems.

    Controller Connection to PC/Host Device Summary

    Wired connection device (supports wired PC, Android, Switch)

MODE	Xin put	Din put	Nintendo Switch
WIRED	USB 2.0/3.0	USB 2.0/3.0	USB2.0
ENABLED	Automatically	Automatically	Automatically
CHANNNEL INDI CATION			Follow the 8-channel indication rul es
VIBRA	V	x	V
TURBO	V	V	V
MACRO	V	V	V
OTHERS	Long press the M ODE button to switch b etween Dinput and NS pr otocols	Long press the MODE button to switch to Xinput	Six-axis motion sensing/ screenshot recording

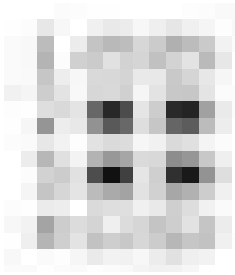
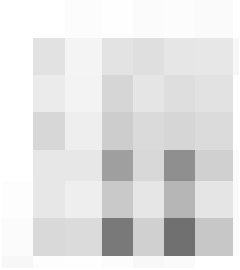
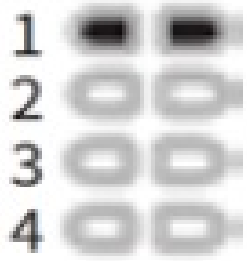
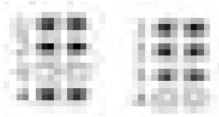
    1. Switch to Din put mode and long press for 5 seconds, accompanied by a vibration + LED1 + LED3 lights on, indicating successful mode switch (Android phones need to support OTG wired connection).

       Note: Key values are based on Android Din put key values.
    2. Switch to Xin put mode and long press for 5 seconds, accompanied by a vibration + LED1 + LED2 lights on, indicating successful mode switch.

3. Switch to NS mode and long press for 5 seconds, accompanied by a vibration + LED1 lights on, indicating successful mode switch.
4. The USB 2.0 interface of the Nintendo Switch base supports wired controllers, the USB 3.0 interface does not support wired controllers (tested with original base).
5. Six-axis sensing supports SWITCH console games, an optional feature, with relevant component interfaces reserved.
6. Short press the MODE button to take a screenshot, long press to start or stop recording.

9. Wireless connection device (supports wireless PC, iOS, Android, Switch)
    1. Toggle the switch (from left to right: X-2.4G-S-D, corresponding to [Bluetooth PC/PC 2.4G/Bluetooth SWITCH/Bluetooth Android])
    2. Toggle the gear switch to the corresponding mode, long press the “HOME” button for 3 seconds to enter pairing mode, the indicator light ashes according to the corresponding mode.

MODE	**X: (Xinput)**	**D: (Dinput)**	**S: Nintendo Switch**	**2.4G:2.4G (Xinput/Dinput/NS)**
Bluetooth	Bluetooth2.1	Bluetooth2.1	Bluetooth2.1	Bluetooth2.1
Pairing method	Move the gear to X[xinput]. Long press the HOME button for 3 seconds, the channel light will flash, entering pairing mode.	Move the gear to D[Dinput]. Long press the HOME button for 3 seconds, the channel light will flash, entering pairing mode.	Move the gear to S[NS]. Long press the HOME button for 3 seconds, the channel light will flash, entering pairing mode.	Move the gear to 2.4G. Long press the HOME button for 3 seconds, the channel light will flash, entering pairing mode.
Reconnect method	Short press HOME to automatically reconnect when turning on •Enter pairing mode when no device is stored.	Short press HOME to automatically reconnect when turning on *Enter pairing mode when no device is stored.	Short press HOME to automatically reconnect when turning on *Enter pairing mode when no device is stored.	Short press HOME to automatically reconnect when turning on *Enter pairing mode when no device is stored.

CHANNEL INDICATION	LED2+LED3 flashing, pairing successful. LED2+LED3 lights stay on. 	LED3+LED4 flashing, pairing successful. LED3+LED4 lights stay on. 	Follow the 8-channel indication rules 	Automatic identification of 2.4G receiver signal 
DEVICE NAME	Xbox Wireless Controller	G5OS	Pro Controller	/
VIBRA	V	X	V	V
TURBO	V	*V*	*V*	*V*
MACRO	V	*V*	*V*	*V*
OTHERS	Key swapping	Key swapping	6-axis motion sensing Screenshot recording Button wakeup Key swapping	Key swapping

Lighting management

1. If there is no button pressed within 10 minutes of wireless connection, all backlight will be automatically turned o, and the controller will automatically shut down.
2. If there is no button pr in 10 minutes of wired connection, all backlight will be automatically turned o, and the controller will go into sleep mode. Press any button to wake it up.
3. Short press the lighting button to cycle through 5 levels of brightness adjustment: 0%, 25%, 50%, 75%, 100% (A/B/X/Y lights. Right joystick has red and blue dual-color lights). The default is 75%.
4. Long press the lighting button for 5 seconds to turn o/on all lights. To reopen, use the previous brightness settings.
5. **Charging indication:** When the controller is powered on without being connected or paired, the color ring of the right joystick will breathe with a blue light. When fully charged, the light will turn o. After connecting and pairing, the color ring of the right joystick will breathe with a blue light, and it will stay constantly lit when fully charged. Dual motor vibration adjustment
    1. There are 5 gears for motor adjustment: 1 – 100% vibration, 2 – 75% vibration,
    2. 50% vibration, 4 – 25% vibration, 5 – vibration o. The default gear is 75%.
    3. Short press the vibration button, the channel light indicates the current gear, and the strength of the motor cycles from gear 1 to 5.

       Note: The vibration light indication is the same as the battery level indication. When the vibration is at gear 1 with 100% intensity, LED1-LED4 will be on, when at gear 2 with 75% intensity, LED2-LED4 will be on, and so on. When at gear 5, no lights will be displayed.
6. This function has memory function.

Programmable macro key setting

1. **Programmable macro keys:** M1/M2/M3/M4/M5/M6
2. **Default values for macro keys:**
   M1 – Directional down key M4 – Directional left key
   M2 – Directional up key M5 – Right joystick press down
   M3 – Directional right key M6 – Left joystick press down
3. **Recordable keys:** A, B, X, Y, LB, LT, LS (left joystick press down), RB, RT, RS (right joystick press down), directional keys (up/down/left/right), joysticks (cannot simulate linear quantity, can only record one-way values), multiple key combinations or setting a single key, can be set as empty value (setting an empty value means clearing the corresponding M1/M2/M3/M4/M5/M6 macro function).
4. **Macro recording method:**
   I. Long press MODE + M1/M2/M3/M4/M5/M6 for 3 seconds, at this time, the joystick will turn purple, indicating the start of macro programming and recording mode.
   II. Enter the keys and joystick movements you want to record, with support for recording time intervals.

1. This function has memory function.

Programmable macro key setting

1. **Programmable macro keys:** M1/M2/M3/M4/M5/M6
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   M1 – Directional down key M4 – Directional left key
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    1. a single key, can be set as empty value (setting an empty value means clearing the
        1. corresponding M1/M2/M3/M4/M5/M6
            1. macro function).
4. **Macro recording method:**
   I. Long press MODE + M1/M2/M3/M4/M5/M6 for 3 seconds, at this time, the joystick will turn purple, indicating the start of macro programming and recording mode.
   II. Enter the keys and joystick movements you want to record, with support for recording time intervals.
   III. After completion, lightly press M1/M2/M3/M4/M5/M6 to end the recording. The recording will automatically end after a certain time. The color of the joystick light will return to its previous color, indicating that the combination is set successfully.
5. A macro key mode is a sequence of key presses, saving the time and interval of each key press, ensuring correct execution of various actions.
6. Xinput, Dinput, Switch, and Android macro key data can be shared.
7. This function has memory function; there will be a vibration reminder when entering macro programming and after programming is completed.
8. Long press M5 + M6 for 10 seconds to restore macro programming to factory default settings, with

vibration reminder.

Setting of TURBO function

1. Hold down the TURBO button and press the button you want to set as the TURBO function. The red light on the joystick will ash at the corresponding frequency, indicating a successful setting. For example: if the TURBO key set in the game is held down, it can achieve a rapid hitting function and the light on the right joystick will ash rapidly.
2. The TURBO function is triggered by default when pressed; When holding down the TURBO button without releasing it, pressing the designated TURBO button again will adjust the function to automatic TURBO mode; Repeating the same operation will cancel the current TURBO for the button.
3. **The buttons that can be set for TURBO are:** A, B, X, Y, LB, LT, RB, RT, the D-pad, BACK, START, and the six macro buttons M1 to M6.
4. This function has memory function; there will be a vibration reminder after the above operations are successful.
5. **Long press MODE +** TURBO button for 3 seconds to clear all TURBO functions that have been set.
6. **TURBO speed adjustment:** It supports three adjustable levels. By holding TURBO and pressing the left joystick up or down, you can adjust the TURBO speed to fast or slow. The adjustment range is between 5Hz, 10Hz, and 15Hz, with a default setting of 10Hz.

Gamepad special features and combination keys

FEATURES	COMBINATION KEYS	REMARK
Activate zero dead zone for left and right joysticks	Press and hold BACK+START for 5 seconds	After enabling the zero dead zone mode for the left/right joystick, there may be a slight drift within a 3% deviation, which is normal. Repeat the operation to restore the previous settings.
Activate zero dead zone for the left joystick	Press and hold BACK+ START+ push down the left joystick for 5 seconds	
Activate zero dead zone for the right joystick	Press and hold BACK+ START +push down the right joystick for S seconds	
Switch the output curve trajectory for the left joystick	Press and hold MODE +push down the left joystick together, then release it	The joystick output trajectory will switch between pure circle and square. It is recommended for shooting game players to use the left square and right circle curve. Repeat the operation to restore the previous settings.
Switch the output curve trajectory for the right joystick	Press and hold MODE + push down the right joystick together, then release it	
Switch between the left joystick and the D-pad	Press and hold TURBO + push down the left joystick together for 3 seconds Th	The left joystick will map the values of the D-pad, and the D-pad will map the nonlinear values of the left joystick. Repeat the operation to restore the previous settings.
Set the TURBO function for button rapid fire	Press and hold TURBO+ABXY/D-pad/ programming keys MI — M6 together, then release them.	The TURBO combination supports rapid fire of the buttons and can switch between three rapid fire modes. When the programming keys are mapped as a single key value, it is a single-key TURBO. When the programming keys are mapped as macro instructions, TURBO is not supported.
Restore the factory settings for TURBO functio	Press and hold MODE+TURBO for 3 seconds	Clear all the TURBO functions that have been set.
Set programming keys M1 — M6	Press and hold MODE+programming keys M1 — M6 for 3 seconds	After long-pressing the combination of MODE and programming keys, the controller will vibrate and the purple LED ring will stay on, indicating that it is currently recording the programmed keys.Press the programmed key again to end the recording. Programming keys support single key mapping and macro instructions.
Restore the factorysettings for programming keys M1 — M6	Press and hold M5+M6 keys for 10 seconds	Restore the macro programming keys M1 — M6 to the factory default values.

Resetting the Controller (RESET)

1. If the controller is unresponsive or experiences other abnormal issues during operation, you can reset the

controller.

2. Use a paperclip or toothpick to insert into the RESET hole on the back of the controller until you hear a “click” sound, indicating that the power to the controller has been turned o and the reset is successful.
3. In addition, if rmware upgrade fails, you can also try resetting the controller and then attempting again.
4. Resetting will not delete any settings information in the controller (macro programming/vibration level/backlight brightness).

SPEC

JOYSTICK	**2 (hall sensor)**
D-PAD	1, ALPS metal dome
GAMING FUNCTION KEYS	12:A/B/X/Y; LB/RB/ LT/RT;BACK(SELECT/-)START(+) LS/RS
FUNCTION KEYS	6: HOME/TURBO/MODE /Light keyNibration key/Pairing gear switch (4 gears)
MAC KEYS	6: M1 /M2/M3/M4/M5/M6
VIBRA MOTOR	2: (Independent control)
EXTENTION	Native NS six-axis motion sensing, one-key wake up NS.

Calibration of Joysticks, Triggers, and Six-axis

1. Long press BACK + HOME to turn on the controller, channels 1, 2, 3, and 4 will ash alternately.
2. Lay the controller at and press the START button once. The channel 3 light will stay on, entering joystick and board calibration mode.
3. Press the triggers (LT/RT keys) on both sides to their bottommost state for 2-3 consecutive times.
4. Rotate the left and right 3D joysticks clockwise or counterclockwise for 2-3 circles, recording the values of the joystick and trigger.
5. Press the START button to complete the calibration and turn o the controller.

IV. SPECIFICATION

- **DIMENSIONS**
  152mm * 106mm * 56mm
- **CURRENT REFERENCE**

CURRENT	
Sleep current	15 + 5uA
Paring current	34mA + 5mA
Working current	35mA + 5mA
Dual motor vibra curren**t**	145mA + 10mA

- **ELECTRICAL SPECIFICATION**

V.SPECIAL INSTRUCTIONS

- All information provided in this manual is accurate and reliable.
  The company assumes no responsibility for any consequences caused by unauthorized operations and usage.
- If there are unpreventable factors such as ocial system updates, game updates, or changes in game platforms that result in the inability to connect or operate certain games, the company will assist in resolving these abnormal issues. The company reserves the right to provide the nal interpretation.
- If there are any changes to the specications mentioned in this manual, a written explanation will be provided.
- This manual supersedes all previous information provided.
- FCC Warning
  This equipment has been tested and found to comply with the limits fora 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.
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, and (2) this device must accept any interference received, including interference that may cause undesired operation.
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Documents / Resources

	THUNDEROBOT 2BFDF-G50S Wireless Gaming Controller [pdf] User Manual 2BFDF-G50S Wireless Gaming Controller, 2BFDF-G50S, Wireless Gaming Controller, Gaming Controller, Controller

References

- User Manual