说明书

Instructions

产品名称：Switch 蓝牙手柄

Product name: Switch Bluetooth Controller

产品编号：TNS-0163   版本：A1.1
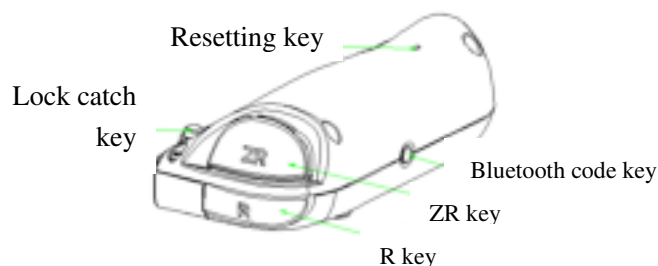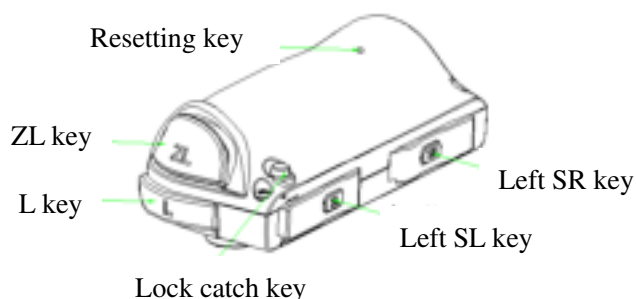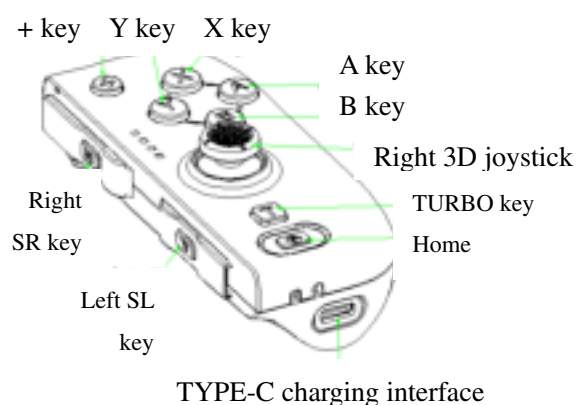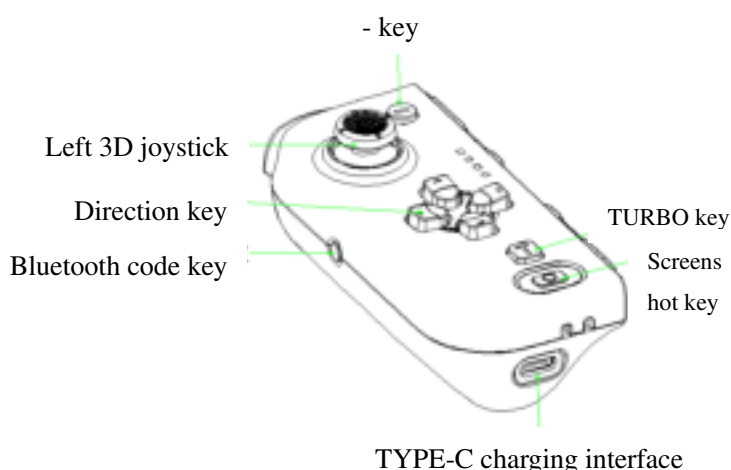
Product No.: TNS-0163   Rev.: A1.1

1、产品简介：
1.Production Introduction:

支持蓝牙跟 Switch 主机连接；有功能键连发设定-Turbo 功能键、截屏键、陀螺仪重力感应、振动、NFC 感应、手柄唤醒主机等功能；

It supports the connection between the Bluetooth and Switch console, and it is designed with continuous firing settings in functions keys (Turbo function keys), screen shot key, gyroscope gravity induction, vibration, NFC induction and console wake-up with controller, etc.

2、产品图解：
2. Product Diagram:

- key

Left 3D joystick

Direction key

Bluetooth code key

TURBO key

Screens hot key

TYPE-C charging interface

+ key   Y key   X key

A key

B key

Right 3D joystick

TURBO key

Home

Right SR key

Left SL key

TYPE-C charging interface

Resetting key

ZL key

L key

Left SR key

Left SL key

Lock catch key

Resetting key

Lock catch key

Bluetooth code key

ZR key

R key

3、产品特点：
3. Product Features:

3.1、支持蓝牙跟 Switch 主机平台无线连接。

3.1 Support Bluetooth wireless connection with Switch host platform.

3.2、设计有 Turbo 设置功能、可改变 Turbo 速率，有截屏键、陀螺仪重力感应等功能。

3.2 It is designed with Turbo setting function, variable Turbo rate, screen shot key and gyroscope gravity induction and other functions.

3.3、具有双振子振动功能。

3.3 It is designed with vibration function of double vibrators.

3.4、支持 NFC 感应。

3.4 Support NFC sensing.

3.5、支持主机唤醒功能、对码键连接。

3.5 It supports console awakening function and connection of the code matching key.

3.6、充电指示灯。

3.6 Provide the charging lamp.

4、功能图表：

4 Function Chart:

功能名称 Function Name	是否有功能 Available or not	备注 Remarks
USB 有线连接 USB wired connection	无 No	
蓝牙连接 Bluetooth connection	支持 Support	
连接模式 Connection mode	Switch 模式 Switch mode	
主机唤醒功能 Host wake-up function	支持 Support	
六轴重力感应 Six-axis gravity sensing	有 Yes	
A、B、X、Y、-、+、L、R、ZL、ZR、HOME、十字、TUBRO、SL、LR 键 A key, B key, X key, Y key, - key, + key, L key, R key, ZL key, ZR key, HOME, cross key, TURBO key, SL key, LR key	有 Yes	
截屏键 Screenshot key	有 Yes	
3D 摇杆（左 3D 摇杆功能） 3D joystick (left 3D joystick function)	有 Yes	

L3 键（左 3D 摇杆下压按键功能）	有	
L3 key (left 3D joystick press function)	Yes	
R3 键（右 3D 摇杆下压按键功能）	有	
R3 key (right 3D joystick press function)	Yes	
充电指示灯	有	
Charging lamps	Yes	
振动功能	有	
Vibration function	Yes	
NFC 读取功能	支持	
NFC reading function	Support	
手柄升级	支持	
Controller upgrade	Support	

5、模式与配对连接说明：

5 Mode and Pairing Connection Instructions:

5.1、Switch 无线连接模式：

5.1 Switch Wireless Connection Mode:

①在使用无线连接之前，请确认 Switch 主机的系统进入：'手柄'->'更改握法/顺序'处于配对状态;

Before using the wireless connection, please make sure that the system of the Switch host enters: 'Controller' -> 'Change Grip/Order' and is in the pairing state.

②长按手柄对码键约 3 秒进入蓝牙搜索模式，LED 指示灯由"1-4-1"灯跑马式闪烁，连接成功后相对应的通道指示灯常亮。

Long press the controller code key for about 3 seconds to enter the bluetooth search mode, the LED lamp will flash from "1-4-1" in a marquee style, and the corresponding channel lamp will always be on after the connection is successful.

5.2 开机说明、回连模式：

5.2 Boot Instructions and Back Connection Mode:

①休眠状态下，短按 1S 唤醒手柄；短按蓝牙对码键手柄关机。

①Short press for 1s to wake up the controller under the dormant state; short press the Bluetooth code matching key to shut down the controller.

②按下任意按键（除 Turbo 外）唤醒手柄，被唤醒后会自动连接与之前配对的主机回连，如 8 秒回连不成功则自动休眠。

②Press any key (except for Turbo) to wake up the controller; the controller will automatically back connect to the

console paired previously; if the back connection is not successful within 8 seconds, it will enter into the auto sleep status.

③在主机和手柄休眠时，按 HOME 键可唤醒主机，如果没有唤醒成功，可再次按下 HOME 按键唤醒主机和手柄。

③Press the HOME key to wake up the console when the console and controller are in dormant state; if not successful, you can press the HOME key again to wake up the console and controller.

6、NFC 功能：

6 NFC Function:

6.1、因 NFC 感应区在右手柄 3D 处，读卡时需将 NFC 卡贴在右手柄 3D 帽正上方，读取时间 5-8 秒。

6.1 As the NFC induction zone is at the right controller 3D, you should make the NFC card cling right above to the right controller 3D cap, and the read time is 5-8s.

7、充电指示与充电特性：

7. Charging Indication and Charging Characteristics:

手柄充电时：充电 LED 指示灯亮起,充满电后 LED 灯灭灯。

When the controller is charging: the charging LED lamp lights up, and the LED light turns off when it is fully charged.

8、自动休眠：

8 Automatic Sleep:

8.1、连接 Switch 模式：

8.1 Connection Mode to Switch:

Switch 主机屏幕关闭或关机,手柄自动断开连接进入休眠。

Turn off or power off the screen of the Switch host to make the controller automatically disconnect and sleep.

8.2、蓝牙连接模式：

8.2 Bluetooth Connection Mode:

短按蓝牙对码键后蓝牙断开连接进入休眠。

The bluetooth is disconnected and enters sleep mode after the bluetooth code key is pressed shortly.

8.3、5 分钟之内手柄没有任何按键按下则自动进入休眠(包括重力感应不动)。

8.3 If any key of the controller is not pressed within 5 minutes, it will automatically go to sleep (including the gravity sensor does not move).

9、电池低电量报警：

9 Low Battery Warming:

9.1、电池低电量报警：当前连接通道 LED 指示灯快速闪烁。

9.1 Low battery warming: The LED lamp of the current connection channel flashes quickly.

备注：当主机提示低电时手柄 LED 指示灯也会快速闪烁几下，不会一直持续闪烁

Remarks: When the host indicates low power, LED lamp of the controller will flash a few times quickly instead of continuous flashing.

10、Turbo 功能（连发快打设置）：

10 Turbo Function (burst setting):

10.1、半自动 TURBO 功能设置：按住 TURBO 键,再按需要设置为 TURBO 功能键的按键，就能轻松设置成功。

10.1 Semi-automatic TURBO function setting: press TURBO key and then set it as the TURBO function key as required, then you can complete the settings successfully.

10.2、全自动 TURBO 功能设置：按住 TURBO 键，再按已设置过半自动 TURBO 功能的按键即设置成功。

10.2 Full-automatic TURBO function setting: press TURBO key and then press the key which as been set up with the semi-automatic TURBO function.

10.3、可以设置 TURBO 功能的按键：A 键、B 键、X 键、Y 键、L 键、R 键、SL 键、SR 键、ZL 键、ZR 键"十字"键（上下左右）、L3 键（左 3D 摇杆下压按键）、R3 键（右 3D 摇杆下压按键）。

10.3 Keys available for TURBO function settings: A key, B key, X key, Y key, L key, R key, SL key, SR key, ZL key, ZR key, "cross" key (up, down, left and right), L3 key (left 3D joystick press key) and R3 (right 3D joystick press key).

10.4、清除已设置 TURBO 功能按键：

10.4 Clear TURBO function keys that have been set:

①单个键的 TURBO 功能清除：按住 TURBO 键+已设置 TURBO 功能的按键就能快速清除。

①Clear TURBO function of single key: press TURBO key + key set up with TURBO function for quick clear.

② 全部键的 TURBO 功能清除：左手柄按住 TURBO 键加"-"， 右手柄按住 TURBO 键加"+"
后即全部清除。

②Clear TURBO function of all keys: press TURBO key and "-" of the left controller, and press the TURBO key and "+" of the right controller.

Then, the clear is successful.

10.5、Turbo 功能无 LED 指示。

10.5 No LED indication for Turbo Function

10.6、Turbo 速度调整：

10.6 Turbo Speed Adjustment:

按下 Turbo 按键不放，把 3d 往上拨，Turbo 速度：5Hz->12Hz->20Hz 变化

Press and hold the Turbo key, pull the 3d upward; Turbo speed: 5Hz->12Hz->20Hz change

按下 Turbo 按键不放，把 3d 往下拨，Turbo 速度：20Hz->12Hz->5Hz 变化

Press and hold the Turbo key, pull the 3D downward; Turbo speed: 20Hz->12Hz->5Hz change

备注：上电默认 turbo 速度为 20Hz

Note: The default turbo speed is 20Hz after power-on.

10.7、手柄休眠清除所有按键 Trubo 功能。

10.7 The Turbo function of all keys is cleared when the controller is under dormancy state.

11、拍照（截屏）功能：
11. Function of Photographing (Screen Shot):

11.1、Switch 模式：按下拍照键后，Switch 主机截屏成图片保存。

11.1 Switch mode: After the camera key is pressed, the screen of the Switch host will be saved as a picture.

12、电气参数：
12. Electric Parameters:

12.1：Bluetooth：5.0 协议

12.1: Bluetooth：5.0 protocol

12.2：工作温度：-40°C - 80°C

12.2: Operating temperature: -40°C - 80°C

12.3：工作电压：3.4V

12.3: Operating voltage: 3.4V

12.4：电池电压：3.5-4.2V

12.4: Battery voltage: 3.5-4.2V

12.5：休眠电流 ：1uA-2uA

12.5: Dormancy current: 1uA-2uA

12.6:工作电流：30-50mA

12.6: Operating current: 30-50mA

14、3D 摇杆说明：
14. 3D Joystick Instruction:

14.1、本产品 3D 摇杆不需在 Switch 主机上手动效准，每次连接 Switch 主机时，会自动效准 3D 摇杆。

14.1 The 3D joystick of this product is not required to be calibrated manually on Switch console; the 3D joystick will be calibrated automatically every time the Switch console is connected.

14.2、本产品在使用时如 3D 摇杆有漂移现象时，请重新连接手柄，也可在主机上进行手动校验后再使用，注意重连手柄时，不要碰到 3D 摇杆。

14.2 If the 3D joystick drifts in use, please reconnect the controller; you can also carry out manual calibration on the console before use; do not touch the 3D joystick when reconnecting the controller.

15、环境条件：

15. Environment Conditions:

序号 No.		项目 Item	技术指标 Technical indicators	单位 Unit	备注 Remarks
1		工作温度 Working temperature	-40~80	℃	
2		储存温度 Storage temperature		℃	
3		相对温度 Relative temperature			
4		散热方式 Heat-dissipating method	自然风冷 Natural air cooling		

16、升级说明：先长压手柄 3D 下压键，待手柄上的指示灯亮起直到灯所有灯息灭后，再松开手，此时再插入 USB 连接电脑点击升级工具加载相应的程序进行升级（左、右手柄方法相同）备注：升级线只能用黑色 TYPE-C 端子，白色 TYPE-C 端子仅供充电用。

16. Upgrade instruction: long press the 3D pushing key of the controller, then release your hand when the indicator light on the controller is on until all the lights are off. Then insert the USB to connect the computer and click the upgrade tool to load the corresponding program for upgrading (the same method is used for left and right controllers). Note: The upgrade line can only use black Type-C terminal, and the white Type-C terminal is only used for charging.

17、注意事项：

17. Matters Needing Attention:

17.1、本产品在不使用时，应将存放好。

17.1 This product shall be stored in good environment.

17.2、本产品不能在潮湿的环境里使用、存放。

17.2 This product cannot be used and stored in humid environment.

17.3、本产品在使用或存放时，应尽量避开灰尘、重压，以免影响使用寿命。

17.3 This product should be used or stored by avoiding dusts and heavy loads to guarantee its service life.

17.4、本产品因使用不当而造成浸水、撞坏或摔坏，出现电气性能问题，请停止使用。

9.4 Do not use the product which is soaked, crashed or broken or with electrical performance problems caused by improper use.

17.5、不要用微波炉等外部加热设备对其进行干燥处理。

17.5 Do not use external heating equipment such as microwave ovens for drying.

17.6、如有损坏请及时送维修部门处理，切勿自行拆卸。

17.6 If it is damaged, please send it to the maintenance department for disposal. Do not disassemble it by yourself.

17.7、儿童用户请在家长指导下合理使用本产品，请勿痴迷游戏

17.7 Children users shall use this product properly under the guidance of parents, and do not be addicted to the game.

制作：阮开松　　　　　　　　　　　　　　日期：2020-11-25
Prepared by: Ruan Kaisong　　　　　　　　　Date: November 25, 2020

FCC Caution：

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.

Any 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.