

## Product Manual

Thanks for purchasing J&S's innovative products!

For better user experience, please take time to read the instruction manual carefully in order to acquire full knowledge and understanding of our products before you start.

### Declaration

- ◆ The specifications and information stated in this manual is for your reference only, and further updates may be released without advanced notice.
  
- ◆ All content in this manual contains no guarantees or warranties for any particular purpose. Considering the fast-paced technological developments as well as the complexity of its operating systems, there exist some mistakes or outdated information, or some information that may not be applicable to certain situations. Our company and subordinate employees could thus obtain no obligation for such discrepancies.

### Warnings:

- ◆ 2.4 GHz wireless transmission is applied to the product. This is considered to be harmless to human body (less radiation than mobile phones). It meets European R&TTE Directive 1999/5/EC requirements. However, wireless transmission generates electromagnetic wave somehow, so use with caution where cardiac pacemakers or other relevant assisting medical equipments be applied.
- ◆ Do not expose the product to liquid or moist environment.
- ◆ When there is a dramatic change in the surrounding temperature, cursor may drift for several seconds.
- ◆ Please do not attempt to dismantle and repair the device on your own.
- ◆ 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.

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## PRODUCT INFORMATION

### Introduction

Facing the new generation of smart TVs or PCs applications, the traditional control products such as the table mouse, keyboard and infrared TV remote have become increasingly inadequate. J&S's controller product solutions provide users with smart and full-functional interfacing capabilities with smart TVs or PCs. The innovations of developing and integrating state-of-the-art control technologies into smart control products can deliver versatile control methods, as well as user-friendly interfacing experience.



**3D engine delivers precise control up in the air**  
A built-in 3D engine can capture your gestures accurately and allow you to surf easily on the TV screen.



**2.4GHz wireless transmission**

Uses 2.4GHz wireless transmission, allows wireless free control within 30 meters without any angle confine or any interference.



**Ease of use with shortcut keys**

Design with dedicated Android multimedia and shortcut keys.



**Battery**

Rechargeable lithium battery.

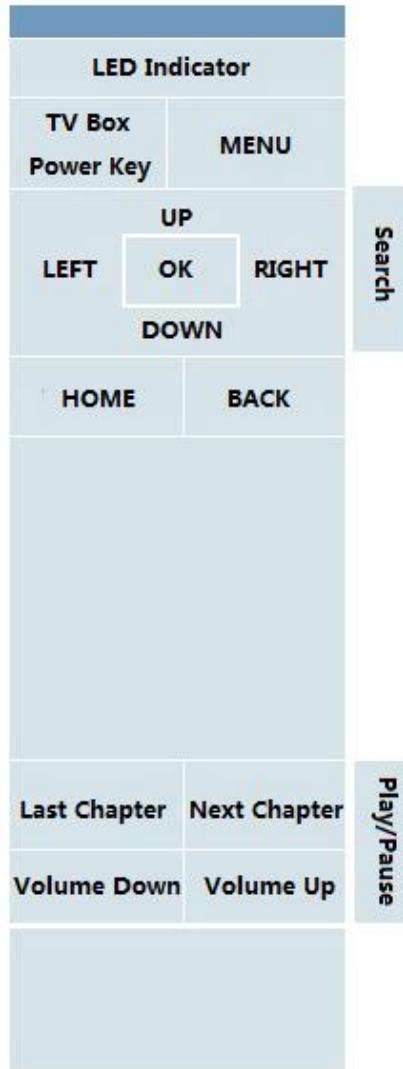
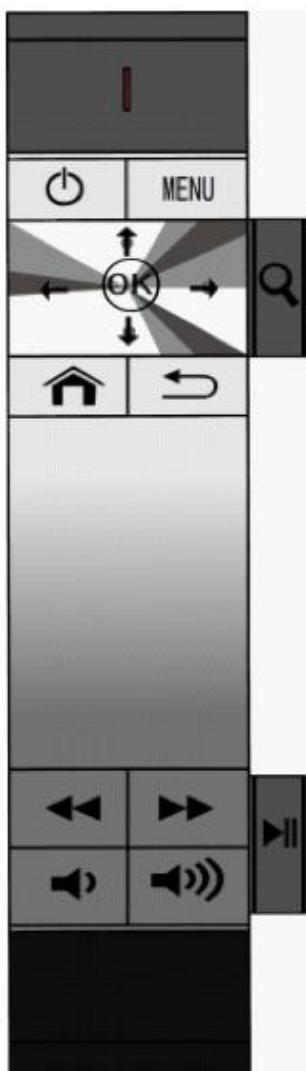
## Package

The packaging box contains the following items:

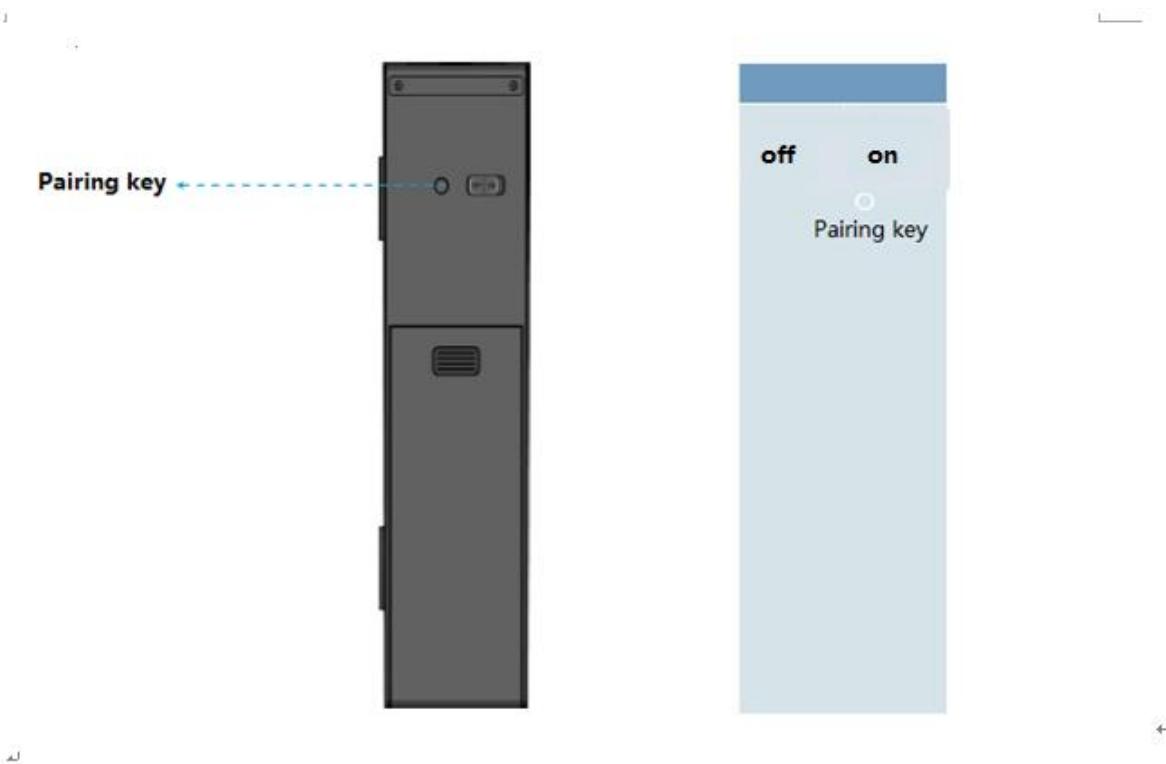
- 3D Motion-Sensing Smart TV Controller
- Rechargeable Lithium-ion Battery
- USB Receiver (stored under the back cover of controller)
- User Manual
- USB Cable (For charging)
- Production Certification

## Product ID Outlook

### Front view



## Back View



## Quick Guide to Motion Sensing TV Controller

### ◆ Connect with TV Box with a USB dongle

The USB dongle is stored at the battery container of the device. Uncover the battery container in the back, take out the dongle and plug it into the TV box intended to connect with.

### ◆ Turn ON/OFF

Turn on the control device. Power ON/OFF switch is on the back of the controller, switch ON or OFF to turn on or off the control device, respectively.

### ◆ Power On

Keep the device to face-up position and stable for a few second till the led indicator lights on in blue. The led indicator will stay on in blue light for 30 seconds, if it is turn on properly.

### ◆ Pairing

If the pairing key is pressed accidentally, the led indicator will flash in red for 60 seconds.

Please wait with patient, once the red flashing light goes off, the device get ready for use.

#### ◆ **Active Mode**

Under Active Mode, when there is any detectable movement associated with the device, the led indicator will keep flashing in blue; and when there is no movement, the blue light goes off automatically.

#### ◆ **Air Mouse Control Function**

This product performs precise and stable mouse control function by hand movements (a more effective way, as suggested, is to control by wrist instead of by arm movements). It can also perform drag function by moving the cursor to the selected object, then press and hold the OK button. Release the OK button when the object is dragged to the intended position.

#### ◆ **Calibration**

It is due to the nature of motion sensing mechanism. While using the controller, sometimes you may find the cursor is not well placed in accordance with the position you want. For example, you want the cursor to keep moving to the right while your wrist reaches its maximum range to the right. At this point, you just need to give the controller a little shaking horizontally. The controller will then recalibrate itself and the cursor should resume to the position you feel comfortable with.

#### ◆ **Sleep Mode and Wakeup Mode**

The device turns into Sleep Mode automatically once the device is left in no use for a while, and the device can be woken up any time when it is picked up. However, there exit chances that some movements might be too weak to activate the device. When it is the case, a little shake should help wake it up.

#### ◆ **Charging**

With Power Switch on, the device starts being charged when it is connected with the TV box via a USB cable or to any power adaptor with USB plug-in. The led indicator should keep flashing in blue light during the course of charging, and the blue light should keep on till the USB cable is disconnected.

#### ◆ **Low Battery**

Anytime when the device detects low battery power (<10%), the led indicator should start flashing in red light for 30 seconds in every 3 minutes.

#### ◆ Surrounding Temperature

When there is dramatic change in the surrounding temperature, it may cause the cursor drifting somehow. For example, when the device is brought into an air-conditioned room from hot outside, a few seconds of cursor drifting may occur to the device.

## INSTRUCTION

### Turn on the TV box and Controller

- Turn on the motion-sensing smart TV controller, the switch-on button is located at the back of controller;



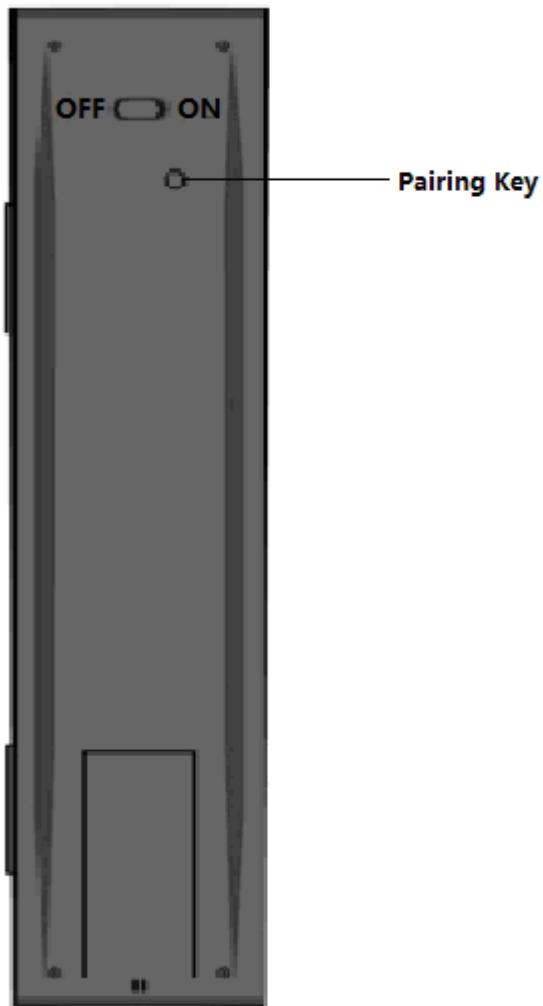
- Click the TV box power button to turn on the Android TV box. The power control key is located at the top left side of the controller.

### Receiver

The accompanied USB receiver is stored in the slot section under the battery cover. Plug the USB receiver into the USB port in the TV box.

### Manual Connection

In case that the controller is not automatically connected to the box after turning the unit on, press the pairing key and the Led indicator will begin flashing; unplug the receiver and re-plug it into the box. Once it connects successfully, the Led light indicator on the front of controller will stay blue for 30 seconds.



### Battery

This product is equipped with 800mAh lithium-ion battery. It is only partially charged before delivery. Please fully charge the battery before initial use. It is suggested that the battery be fully charged and discharged the first several times for longer battery life.

1. Connect the Controller via the USB cable with the TV box to get charged.
2. The Controller can also be charged by connecting it to a PC via the USB cable.
3. It normally takes 4-5 hours to fully charge the battery from a complete discharge. It takes longer to fully charge if the controller is in use while charging.

For information about battery level or charging status, please refer to the "Led Light Indicator" section.

## Led Light Indicator

The dual colored LED indicator (Red/Blue) is located in the upper front of the controller. The light indications of different status are described as follows:

Condition	Color	Description
Active Mode (with operations)	Blue	Stable blue light
Active Mode (with no operation)		Off
Battery level less than 10%	Red	Flash per 0.5 second for five times with 5 min interval;
Battery level less than 5%	Red	One flash every 1 second
Charging	Blue	Flash every 2 seconds
Fully charged	Blue	Stable light until disconnection
Battery level more than 10% & Turn on the controller	Blue	Keep flashing for 15 seconds
Batter level less than 10% & Turn off the controller	Red	Flashing for 15 seconds
Connecting manually	Blue	Rapid flashing every 250ms
Manual connection success	Blue	Stable light for 5 seconds
Manual connection failure	Red	Stable light for 5 seconds
Battery level more than 10% & Wake-up status	Blue	Stable light for 10 seconds
Battery level less than 10% & Wake-up status	Red	Flashing for 10 seconds

**Total: 8 Led Light Indicator Mode**

## Mouse Control Function

The controller is built in with a 3D motion sensing engine, a motion capture system used for input devices. It adopts a 3-axis gyroscope and a 3-axis accelerometer to calculate projected X and Y displacement, roll angle, rotation intensity and force intensity. By fusing the gyroscope and accelerometer outputs, an adaptive reduced filter algorithm is also used to

compensate for the most significant inertial sensor errors in attempt to achieve precise and stable motion control in the air.

This product performs precise and stable mouse control function by hand movements (a more effective way, as suggested, is to control by wrist instead of by arm movements). It can also perform drag function by moving the cursor to the selected object, then press and hold the OK button. Release the OK button when the object is dragged to the intended position.

### Calibration

It is due to the nature of motion sensing mechanism. While using the controller, sometimes you may find the cursor is not well placed in accordance with the position you want. For example, you want the cursor to keep moving to the right while your wrist reaches its maximum range to the right. At this point, you just need to give the controller a little shaking horizontally. The controller will then recalibrate itself and the cursor should resume to the position you feel comfortable with.

### Hibernation/Wake-up/Active Mode

**Hibernation:** Goes on hibernation after 30 seconds rest;

**Wake-up:** The device can be woken up any time when it is picked up. However, there exit chances that some movements might be too weak to activate the device. When it is the case, a little shake should help wake it up.

**Active Mode:** The blue LED indicator is on when moving the controller.

## SPECIFICATIONS

System support	Android 2.2/2.3 to 4.0
Control technology	3D Motion Sensing Control technology; equipped with a 3-axis gyroscope and a 3-axis acceleration sensor
Connection	2400MHz-2483MHz
Interface type	Micro USB
Battery	800mAh lithium battery; charging battery using USB connection
Operating distance	10m
Length	158mm
Width	42mm
Thickness	12.4mm
Weight	80g~85g
Voltage	Less than 20mA @ 3.3V & Working Status About 250uA & Hibernation Status
Environmental specifications	Low standby power consumption

## CONTACT INFORMATION

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