

Mobile Bluetooth Sensor

User Manual

This manual does not contain the full content of the function of the mobile Bluetooth sensor, please prevail in kind. Future changes to the contents of the manual will no longer be individually informed of the user. Please read the entire manual carefully and follow the instructions.

Product model: ITL-DK6500A

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Chapter I Summary

1.1 Product Introduction

Mobile Bluetooth Sensor using Bluetooth 4.0 Technology to realize the access control for door and elevator through data communication with Mobile APP.



Pic 1.1 Product diagram

1.2 Specifications

- Power supply: DC 24V.
- Working Currents: <100mA.
- Usage Environment:
 - Temperature: -10~60°C.
 - Relative Humidity: 20% ~90% non-condensing.
- Storage Environment:

Temperature: -20~70°C.

Relative Humidity: 20%~90% non-condensing.

- System Version: Android4.3 +, IOS7.0+
- Communication Distance: 0~10M, there are some errors in different environment
- Responsive Speed: 0~3S for IOS, Android is related to mobile phone.
- RS485 external communication interface, Transformat : 9600bps, 8, N, 1.
- External Dimension: L120*W100*H21.34mm.

Chapter II Hardware Instruction

2.1 P1—connect with Access Controller Interface

This interface is connected via shielded cables to the 24V power terminals and to the access control elevator or door, as described below:

Chart 2.1 Connected with access controller interface

P1	Interface Instruction
GND	Negative Power output
24V	Positive Power Input
485G	485 Ground Port
485A	485 A port
485B	485 B Port

2.2 SW1— Device DIP Setting

The DIP SW1.1 and SW1.2 are used to set the Mobile

Bluetooth Sensor number, if the access controller connected with two or more sensors, The setting of SW1 of each device are different, specific setting described as below:

Chart 2.2 Device DIP setting

SW1.2	SW1.1	Implication
OFF	OFF	1 st Sensor
OFF	ON	2 nd Sensor
ON	OFF	3 rd Sensor
ON	ON	4 th Sensor

SW1.3 and SW1.4 are reserved to extension function, factory default is OFF.

2.3 LED1/LED2—Indicator Light instruction

Chart 2.4 LED instruction

LED1/LED2	Implication
The light is always on	Unauthorized device or device fault
Light Flash Rapidly (100ms/ times)	Failed communication with the controller
Light Flash Slowly (1S/time)	The device Bluetooth is working properly

Chapter III User APP Instruction

Mobile Bluetooth Sensor using Bluetooth 4.0 technology, it requires the mobile version should be Android 4.3 above or IOS 7.0 above.

Users need to download our APP for application, you can directly scan the following QR code or search “Jia-R” in the Application Store for download and installation.



Pic 3.1 Jia- R App QR Code

Chapter IV Instruction

After connecting the main controller with the mobile Bluetooth Sensor , power on the main controller, initialize the device, and download the corresponding parameters

Device Authorization

The mobile Bluetooth sensor have to be authorized again after its first use and initialization. The authorized operation setting by APP and completed under the guidance of our engineering staff.

Installation and Register of App

After the installation of user APP, open the APP and register through user's mobile number and verification message, we suggest that user using current mobile number for registering

Authorization via Administrator

For registered users, you must be authorized by the administrator in the background through the cloud user rights information which will be synchronized to the phone terminal, you can see the device permissions. If you can not see the authorized device icon after authorization, you can quit the App to log in again.

Access modes

The APP supports three access modes : Manual click, Auto-sensing and shake mode , Login the APP and enter the setting menu and do the modification of access mode as you like.

- **Manual Click:** When user enters area around the mobile Bluetooth Sensor, the mobile app can detect the device, and the icon of the corresponding device is lighten, just manually click the icon, then the App will connect with the device and send the control signal to the sensor device to approve the access
- **Auto-sensing:** After user turns on the auto-sensing mode, he or she enters area around mobile Bluetooth Sensor, the APP can detect the device and automatically connect and send the control signal to the device for access approval. **NOTE:** it will automatically turn on the device once from Non-sensing area into the sensing area, if you need to

open repeatedly, you can use manual click or shake mode.

- **Shake Mode:** Shake mode and manual click mode are similar, but the trigger from click to shake mode.

Chapter V Device Installation and Debug

5.1 Precautions

- Mobile Bluetooth sensor can be used for access control or elevator equipment, it can be mix used with the standard split access reader or elevator reader, controlling the same door or same elevator and does not affect the original functions of elevator.
- As to the RS-485 communication, in order to ensure the communication quality, it requires double-shielded twisted-pair RVVP * 0.75mm² cable, the connection distance with controller should be limited within 50 meters
- Due to the Bluetooth interfered by the metal environment, please try to install the device away from the metal environment.

5.2 Device Installation Position

The Mobile Bluetooth Sensor can be installed in the exposed position or hidden installation. It depends on the construction site and customer requirements.

- Normally the device installed around gate for access control.

- Device installed around the elevator Hall for calling elevator system.
- Device installed hidden on the top of lift for floor access control.

5.3 Wiring and Debug

P1 is connected with the controller interface, the P1 is connected to the controller 485 reader interface. NOTE: 485A and 485B do not reverse.

Re-power the equipment after connection, other connections and debugging can refer to the previous indication

Chapter VI Trouble-shootings

Here are some possible phenomena and simple ways to check them. Please cut off power before any operation on the hardware.

Symptom 1: App is unable to detect device normally

Possibility:

- Please confirm if the device is authorized or not, if not, please do the authorization for device by APP.
- If the indicator LED flash rapidly, it maybe the abnormal state of controller communication, please check the wiring, if it is working abnormally, try to connect the terminal resistance.
- The mobile version too low with poor Bluetooth compatibility, please try to change another mobile phone for testing.
- Bluetooth signal is interfered or blocked by

environment, please try to change the installation site or search device closely.

Symptom2: Manual click unsuccessfully or open failed

Possibility:

- No authorization, please confirm you click device is authorized.
- Out of the sensing range (Display icon is in black color), gradually close to the device (till the display icon turn into white color)
- Mobile system version too low with poor Bluetooth compatibility, try to change another mobile phone.
- Restart mobile phone

Chapter VII Regulatory

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

Caution:Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warning: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.