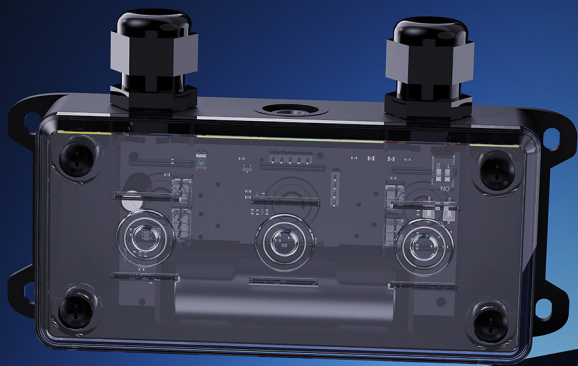


Installation Instruction

User Guides



SE-TX 02

Safety edge transmitter junction box kit

I. Description

1.1 Overview

In the modern era, multifunctional safety devices have become an indispensable part of ensuring safety. This device features a safety edge port capable of integrating with an 8.2K electrical safety edge, optical edge sensors kit, or air switch sensors. Additionally, it is equipped with a slack rope switch detection port and various other safety equipment, offering comprehensive safety protection.

The versatility of this safety device allows it to play a crucial role in homes, industries, and public spaces. Its ability to connect with multiple types of safety equipment ensures a high level of security and peace of mind across different environments.

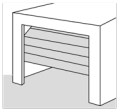
1.2 Features and Advantages

Real-time monitoring: Real-time monitoring of various connected safety devices to provide comprehensive safety protection.

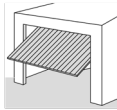
Automatic trigger function: When an abnormal situation is detected, the corresponding safety measures are automatically triggered to achieve real-time safety protection.

Simple installation: The design is compatible with wireless installation in multiple scenarios, making the installation process simple and quick, saving both time and cost.

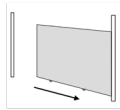
1.3 Scenarios of Use



Sectional doors



Tilting doors



Sliding gates

II. Features and Technical Data

2.1 Features

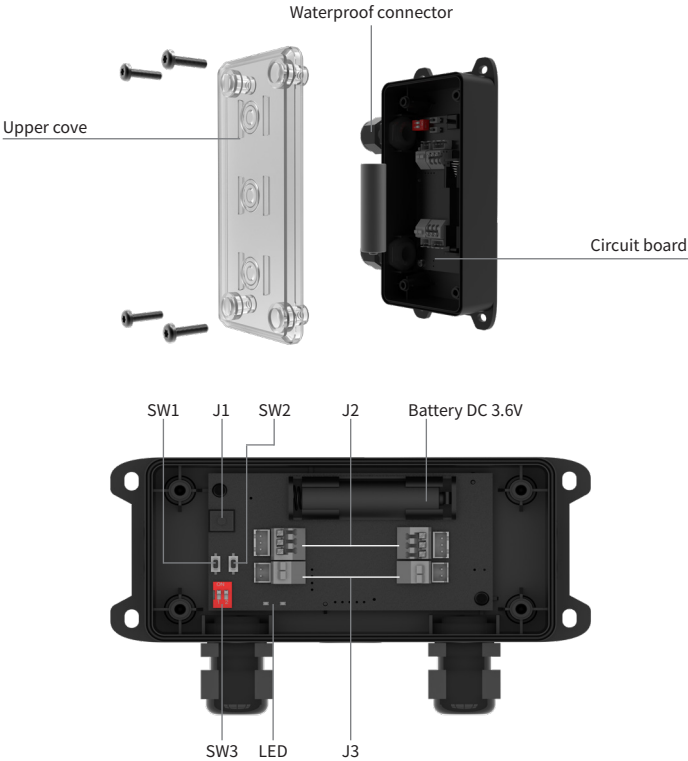
- Trio-Frequency technology for anti-interference
- Signal range (normal): 20 meters
- Multiple modes of safety edge selection
- Power supply: One 3.6V lithium battery.
- Approximate battery life of 2 years.
- Operating temperature: -20°C - + 60°C

2.2 Technical Data

| | | |
|--|---|-------|
| Model | SE-TX 02 | |
| Radio technology | Trio-Frequency technology | |
| Frequency | Multi from 409.025 MHz – 458.4 MHz | |
| Signal modulation | FSK | |
| Signal range | 20 meters | |
| Power supply | 3.6V DC (3.6V lithium battery) | |
| Channels | 2 channels (Reversal & Stop per channel) | |
| Battery capacity | 2600 mAh | |
| Current of different safety margin modes | Optical edge sensor | 9mA |
| | 8.2K | 4.2mA |
| | Air switch | 4mA |
| Standby | 70 ua | |
| IP grade | IP 65 | |
| Operating temperature | -20°C - + 60°C | |

III. Product Composition Display

3.1 Introduction to Components



SW1: Wireless pairing button
SW2: Pairing button for slack rope switch
SW3: Dip switch for different safety devices, SW3-DP1 and SW3-DP2, Switch for optical edge sensor or 8.2k safety edge.
J1: Wiring port for air switch
J2: Wiring port for safety edge device
J3: Wiring port for slack rope switch
LED: Green light for safety edge devices trigger; Red light for slack rope switch trigger
Battery:
Model: 14505,
Voltage: DC 3.6V
Capacity: 2600mah lithium-ion battery.
Note: Do not use batteries with other voltage and capacity instead.

Safety edge type selection

| | SW3-DP1 | SW3-DP2 |
|---------------------|---------|---------|
| Optical edge sensor | OFF | OFF |
| 8.2K resistor | ON | OFF |
| Air switch | ON | ON |



Note: Each time of switch the safety edge type, please make sure the battery has been removed before and make sure the correct DIP switch setting, otherwise the switch will not be effective.

IV. Installation and Configuration

4.1 Tools

In order to quickly and safely install the safety edge transmitter junction box kit, the following tools are recommended:



Pistol drill



Tape measure



Screwdriver



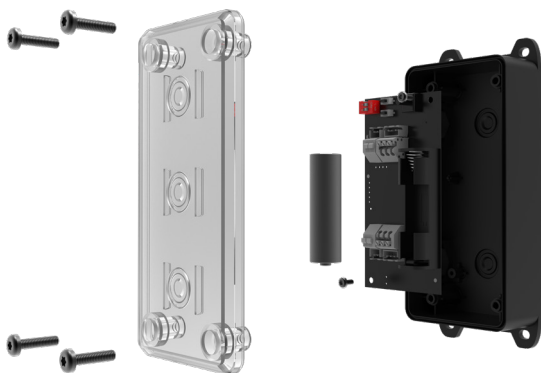
Pencil

4.2 Installation Steps and Operating Instructions

4.2.1 Before installation, first perform a PAIRING TEST to ensure that the product functions normally and avoid the inconvenience of code matching after installation.

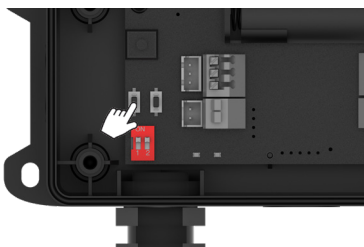
-- Step Instructions:

A. Open the housing component, use a screwdriver to open the cover, and install the appropriate battery.

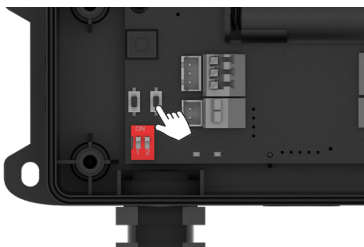


B. Find the **3S** button on the motor you are pairing and press it for 3 seconds and until the LED indicator lights up, signaling that it has entered pairing mode.

Press and hold the Wireless Safety Junction Box pairing button until the LED light of the motor you are pairing flashes quickly. Check that the corresponding indicator lights up to indicate successful pairing (see 5.2 of this manual for the corresponding lights of each device).



Pairing Button for Safety Edge

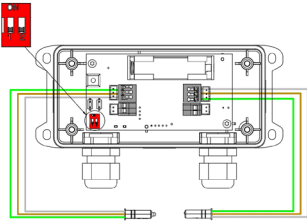


Pairing Button for Slack rope switch

C. Wiring Diagram

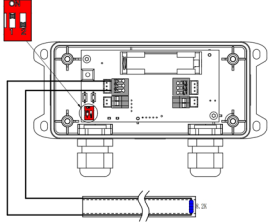
Optical edge sensor

SW3-DP1:OFF SW3-DP2:OFF



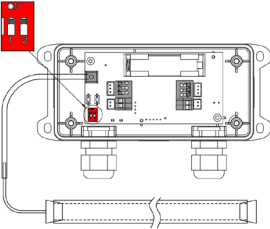
8.2K resistor

SW3-DP1:ON SW3-DP2:OFF

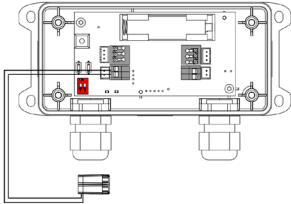


Air switch

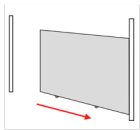
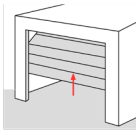
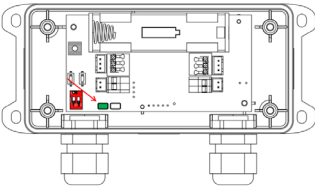
SW3-DP1:ON SW3-DP2:ON



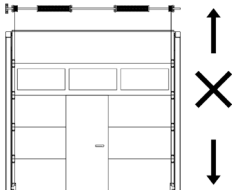
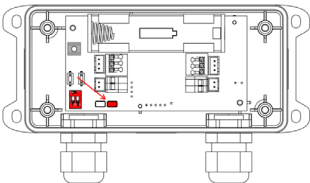
Slack rope switch



D. During the door closing process, if the safety edge port is triggered, check to see if the door reverses direction and opens.

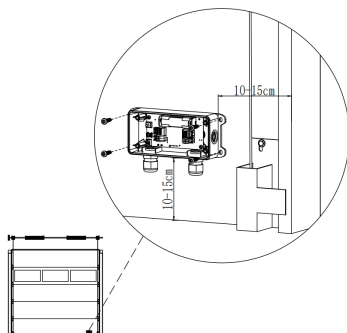


E. During the operation of the door, if the slack rope switch port is triggered, check to see if the door stops and cannot move.



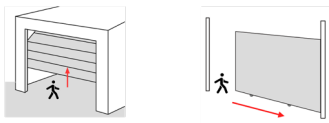
4.2.2 Installation

According to position of the door, suggested installation position is 10-15cm from ground and 10-15cm from door track.



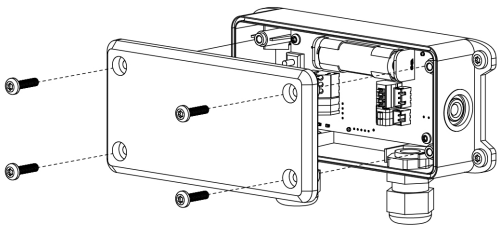
4.3 Setting and adjustment test

During door closing, trigger safety edge rubber seal, door will reverse and open.

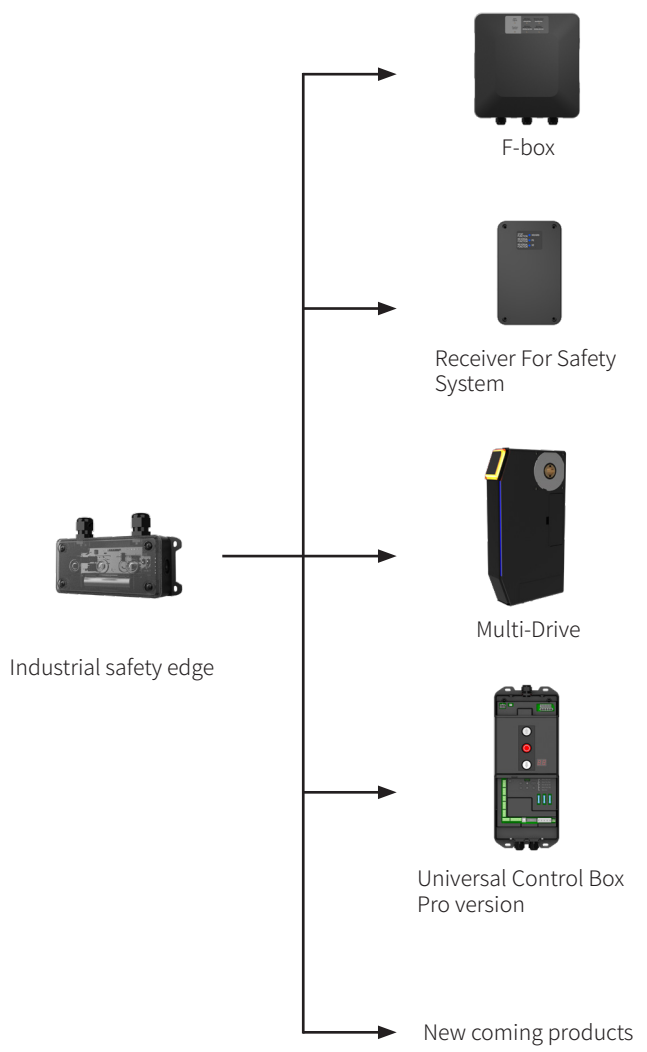


Note: If the door can not work same as above instruction, please check again from step B and Step C in 4.2.1 and finish the test.

4.4 After test is completed, install the upper cover of the safety edge transmitter junction box kit.



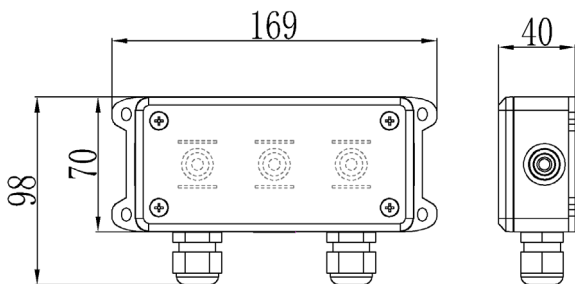
V. Service Devices



VI. Appendix

6.1 Dimensions

Unit of Length: mm



Note:

1.Low Battery Alarm:

If battery in safety edge transmitter junction box kit is low , please check your paired device promptly.


Warning can be in 2 ways: SOUND warning or COURTESY LIGHT warning (For details, please refer to the corresponding instructions)

2. Battery Depletion:

If the battery is too low, when only safety edge sensor is paired, the motor can open the door but cannot close the door.

When both safety edge sensor and slack rope switch are paired, the motor cannot work at all.

3. Deleting Wireless Devices:

To delete a wireless device, long press the  button on your paired motor/device for more than 8s, until the paired device's wireless light turns off, all wireless safety devices paired with the motor/device will be deleted.

If need to reconfigure, need to pair one by one again. (For details, please refer to the corresponding instructions).

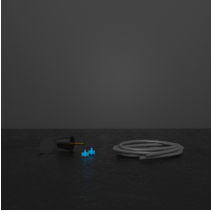
4. Replace battery:

Please use the corresponding tool, open the cover of the device and replace the 14505 Lithium sub-battery.

Notice: Voltage: DC 3.6V, Capacity: 2600mah.

6.2 Accessories List

Air Switch set



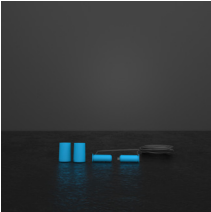
Air Switch set Specification

- DW HOSE with Ø 4 mm, PVC material
- DW connection plug and DW end plug, with TPE material
- DW air hose connector with straight and 90 degrees
- Degree of protection IP67, filled with epoxy resin

Air Switch set Technical data

| | |
|--------------------------------------|------------------------------------|
| DW HOSE | Ø 4 mm |
| DW connection plug external diameter | Ø 22 mm |
| DW end plug external diameter | Ø 22 mm |
| Material of plug | TPE |
| DW air hose connector | Straight and 90 degrees |
| Material of airhose | brass, POM |
| Housing material | Plastic ABS, Lexan, IR transparent |
| IP grade | IP 67 |
| Operating temperature | -20°C - +70 °C |

Optical edge sensor set



Optical edge sensor set Specification

- Universal optoelectronic safety edge
- Suitable for radio modules/spiral cables
- Automatic operating mode recognition radio modules/spiral cable
- Larger door width possible
- High electromagnetic interference immunity
- Resistant against voltage reversal and short-circuits
- Regulated transmit power
- OSE-signal
- Compatible with all common door controls
- Degree of protection IP67, filled with epoxy resin

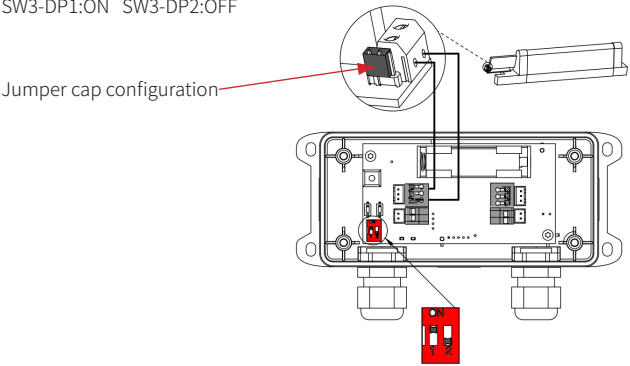
Optical edge sensor set Technical data

| | |
|------------------------------------|---|
| Range | 1.....15m |
| Operating voltage | 2.8V---12V |
| Current consumption | 3.4mA---4.6mA |
| Voltage and transmission frequency | Less than 7V---Frequency 400Hz More than 7V---Frequency 1KHz |
| Housing material | Plastic ABS, Lexan, IR transparent |
| Wire material | PUR, halogen free, acid- and oil-resistant |
| Wire length | TX 6m + RX1m & TX10m + RX1m |
| IP grade | IP 67 |
| Operating temperature | -20°C - +70 °C |

The safety edge transmitter junction box kit also can realize the motor control extension function
If you want to trigger the motor through an external device:
During the closing process of the door, trigger the external device, and the motor will open the door.
For example, you can build a scene by using relays, micro switches, ground sensors, photo beam devices, etc.

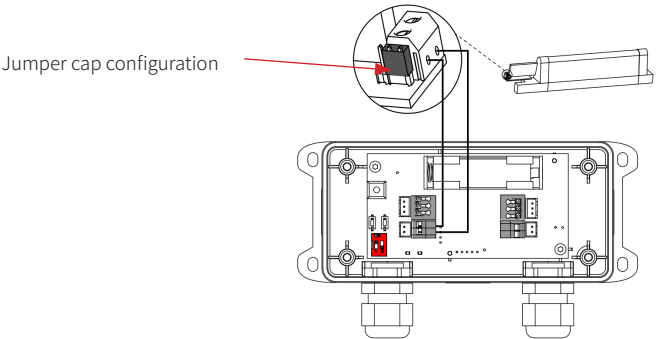
The jumper cap selection is as shown in the figure. The dip switch selects 8.2K mode.

SW3-DP1:ON SW3-DP2:OFF



If you want to trigger the motor through an external device:
During the closing process of the door, trigger the external device, and the motor will stop the door.
For example, you can build a scene by using relays, micro switches, ground sensors, photo beam devices, etc.

When you need to stop the door by safety junction box
The jumper cap selection is as shown in the figure.



Detailed Instructions for Coding with Related Devices

