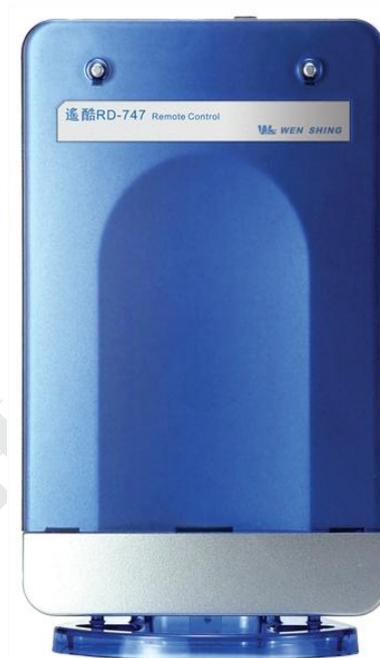


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**Active RFID Garage Door Control System (Home Use)**

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**Version History**

<b>Version</b>	<b>Date</b>	<b>Changes</b>
V1.01	Jan.16, 2009	1 <sup>st</sup> Edition
V1.02	May. 05, 2009	2 <sup>rd</sup> Edition
V1.03	Jul.15, 2009	3 <sup>rd</sup> Edition

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## **Important Event**

- This product is in general use for the equipment on the premise of the development, design, manufacture. Do not use that require high security purposes, such as machinery or medical, aviation equipment, machinery and transport-related deaths are directly or indirectly related to the system.
- This product should be in this brochure by the instructions of the types and rated voltage power under the current proper use. If violation of this statement by the safety records of the supply operation, I am afraid our company cannot afford any of the responsibility.
- Do not self-decomposition, alteration, repair of the products also will cause fire, electric shock, fault, and dangerous. In addition, their decomposition, alteration, repair the product, failure is not within the scope of warranty.
- The products are not waterproof, so please do not use and touch water. Take off and on also please note. Rain, spray, drinks, steam, sweat may be a failure.
- Use of this product, please be sure to use according to the statement recorded by the use of methods to operate. Please do not violate particular attention to the matter reminded to use.
- Please respect this statement recorded by the note. When consumers in contravention of this statement recorded note of the operation, I am afraid our company could not shoulder any responsibility.
- Products are defective, the Company will be responsible for free to amend the flaws, or to the same flawless product or its equivalent products in exchange. However, the Company does not assume based on the requirements of the flaw and loss responsibility.
- The Company reserves the right to retain without notice to users of the cases, the product of hardware / software (version upgrade) is with the right to edit.

## **Declaration**

This product provides different frequency for user selection to meet different telecommunication regulation and FCC/CE on different countries.

## **Warranty**

The warranty time is within one year from purchased date. The warranty scope are used in normal situation and none vandalism. (Some function harmful out of warranty scope and Vandalism are Un-warranty).

## **Un-warranty Scope Description**

- Because the natural disaster, accident or human factor to cause the bad damage.
- Violate the product instruction manual to cause the damage of the products.
- The improper assemble causes damage.
- The products used the unsanctioned accessory to cause damaged.
- Overstep the allowed used environment to cause the products damaged.

## **Contact Us**

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## **Product Instruction**

Active RFID Garage Door Control System (contracted as RD-747) and TX-800 Wireless remote control (contracted as TX-800) is the newest wireless RFID technology system to control the rolling shutter (garage door). Do not need to spend time for key finding and it can automatically open the garage door or light by remote control to save your time and electronic power.

RD-747 has a special designed for 95V~230V widely operating voltage and built-in 4 groups of relays (12A/250Vac) also provide diversify using ways, switch design is a user-friendly functional to let you set the mode you required. It also provides an integrated line link so that it can significantly decrease lower error rate and difficulty of construction. Wide application, such as difference types of rolling door, elevators, lighting control products are applicable.

## **Feature**

- ❶ When you get in/out of the house, it can automatically remote control garage door, light and so on.
  - RFID automatically sensor
  - Use key of remote control
- ❷ Long effective distance
- ❸ Low power consumption
- ❹ No need to find your key
- ❺ Can set effective distance yourselves.
- ❻ Light warning

## **Application**

- ❶ Rolling shutter, Garage door, Elevator
- ❷ Automatic light on/off control

## Product Instruction

Item	Specification	Remark
<b>RD-747 Active RFID Host</b>		
Power	95V~230V	
Frequency	925~928MHz	
Output Power	10mW	
Sensitivity	-110 dBm	Packet error rate is 1%
Action Temperature	-10°C ~+70°C	
Storage Temperature	-20°C ~+90°C	
Dimension	153 × 87.5 × 64 (mm)	
Weight	243.4 (g)	
<b>TX-800 Wireless Remote Control</b>		
Power	CR-2032	
Frequency	925~928MHz	
Output Power	10mW	
Transmission Distance	Open space $\geq$ 100m	
Sensitivity	-110 dBm	Packet error rate is 1%
Action Temperature	-10°C ~+70°C	
Storage Temperature	-20°C ~+45°C	
Relative Humidity	$\leq$ 60%	
Dimension	66 × 33.5 × 12.3 (mm)	

## Every Part of RD-747 Description

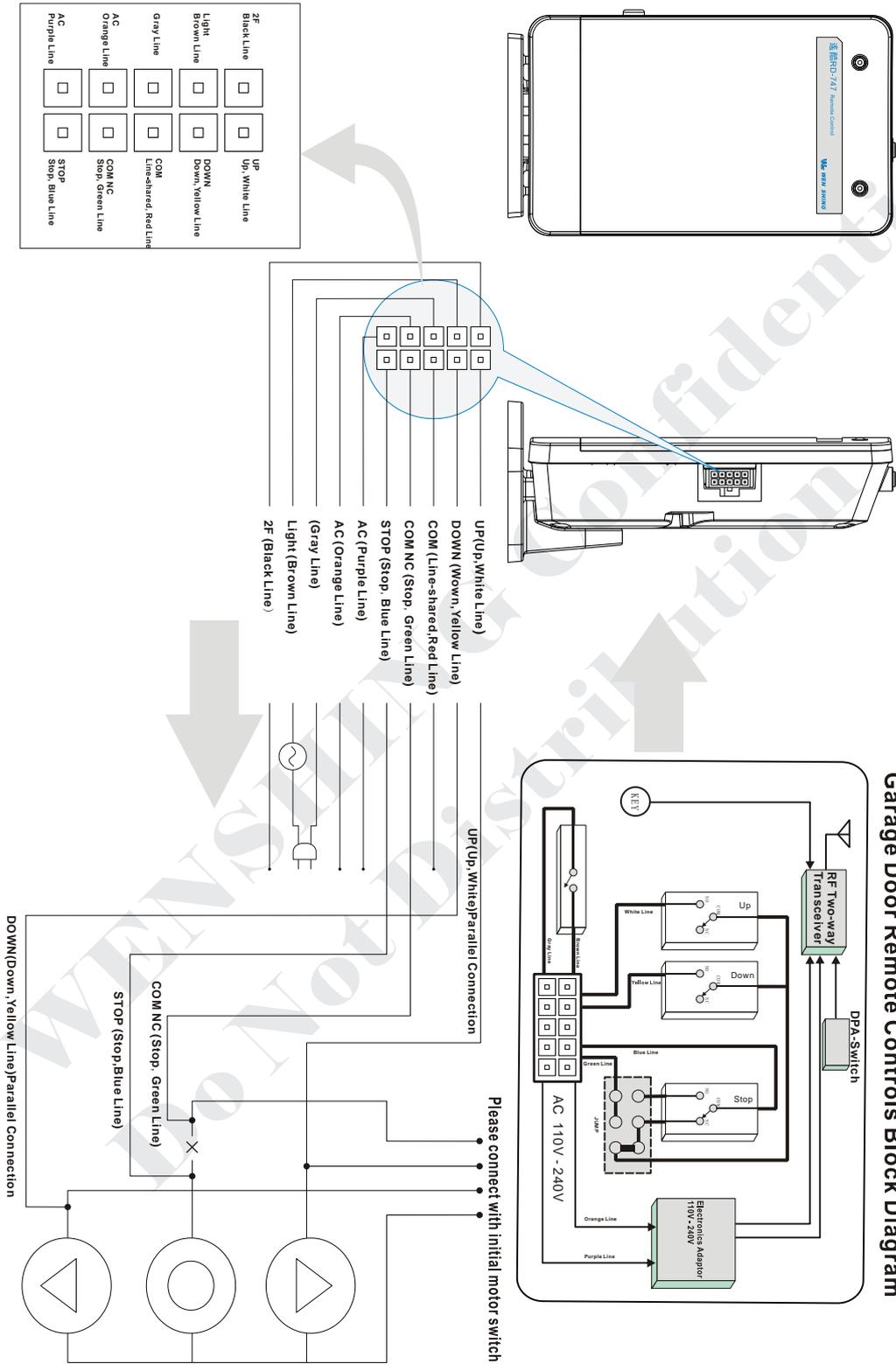


Surface location No.	Name	Description
1	Function set key	Link with remote control
2	Switch	Use switch to adjust the mode you required.
3	Integrated connector	Voltage and signal input and output.

# RD-747 Garage Door Remote Controls Wiring Diagram

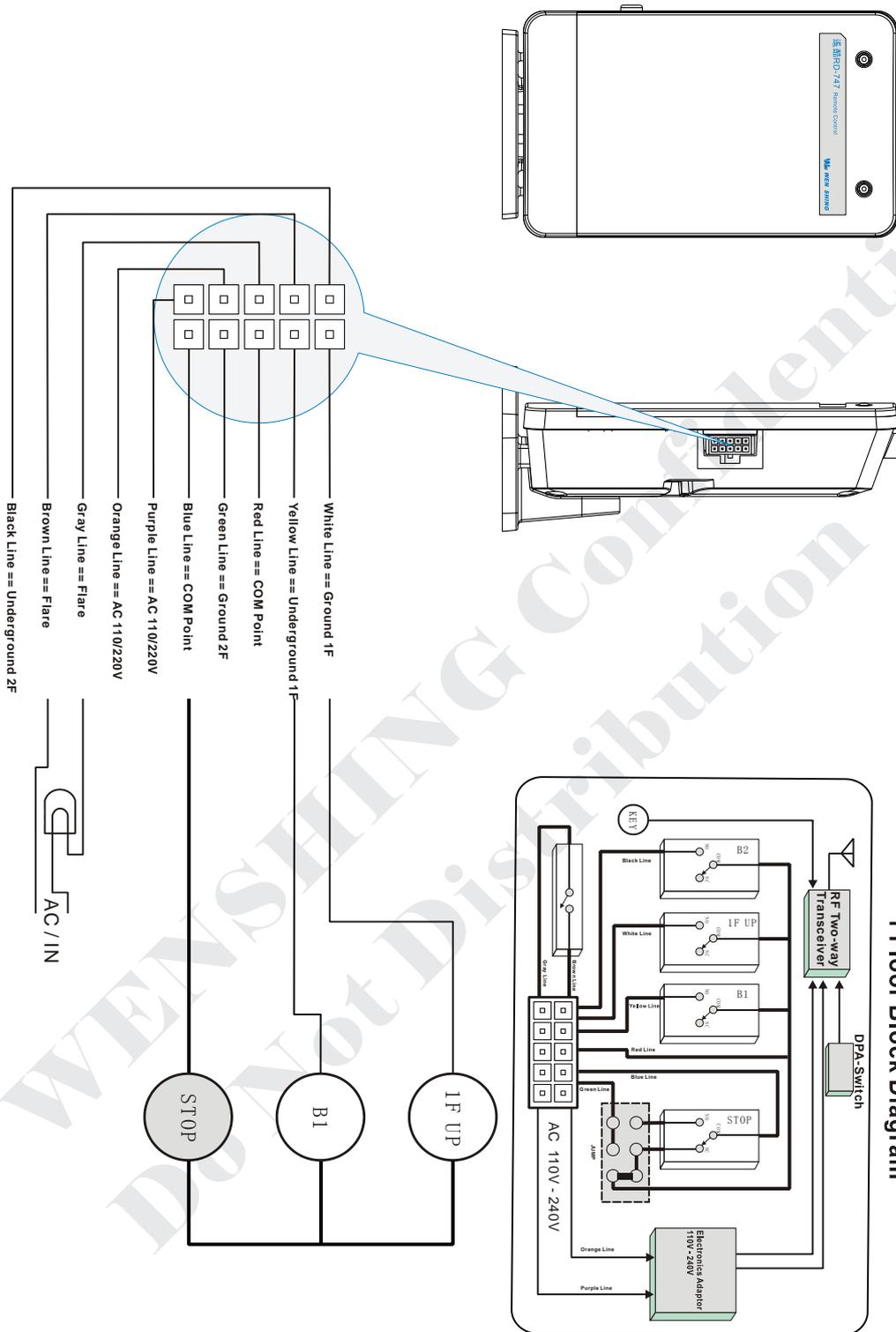
## Wiring Diagram

### ● RD-747 Rolling Shutter Wiring Diagram



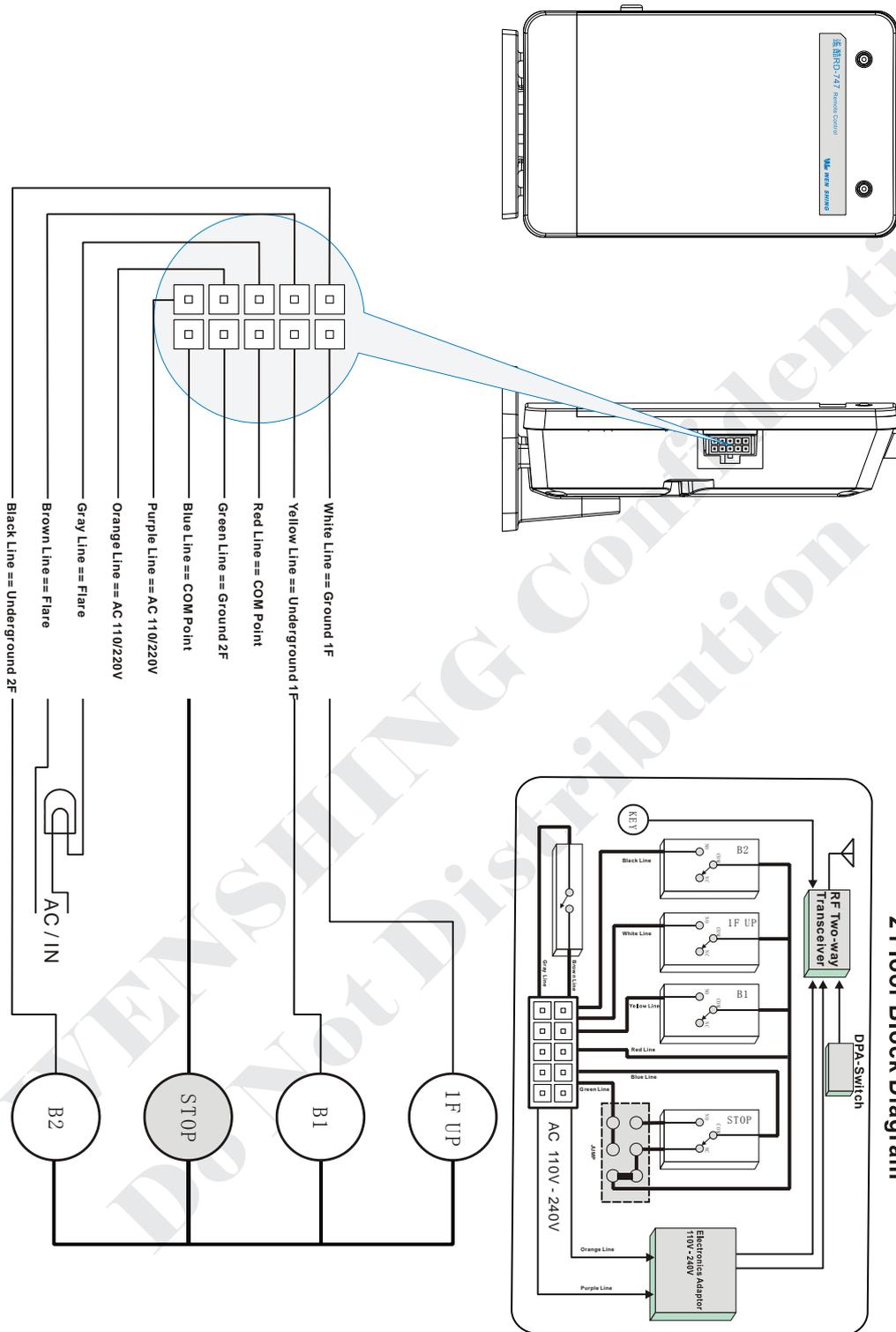
# RD-747 Elevator 1F B1

● RD-747 Elevator 1F/B1



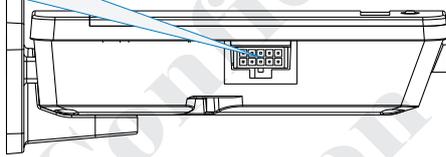
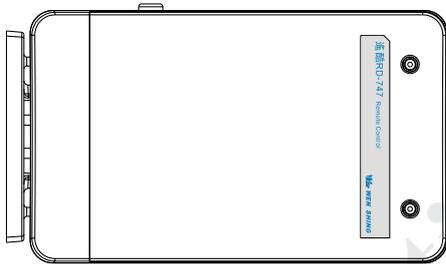
# RD-747 Elevator 1F B1 B2

● RD-747 Elevator 1F/B1/B2

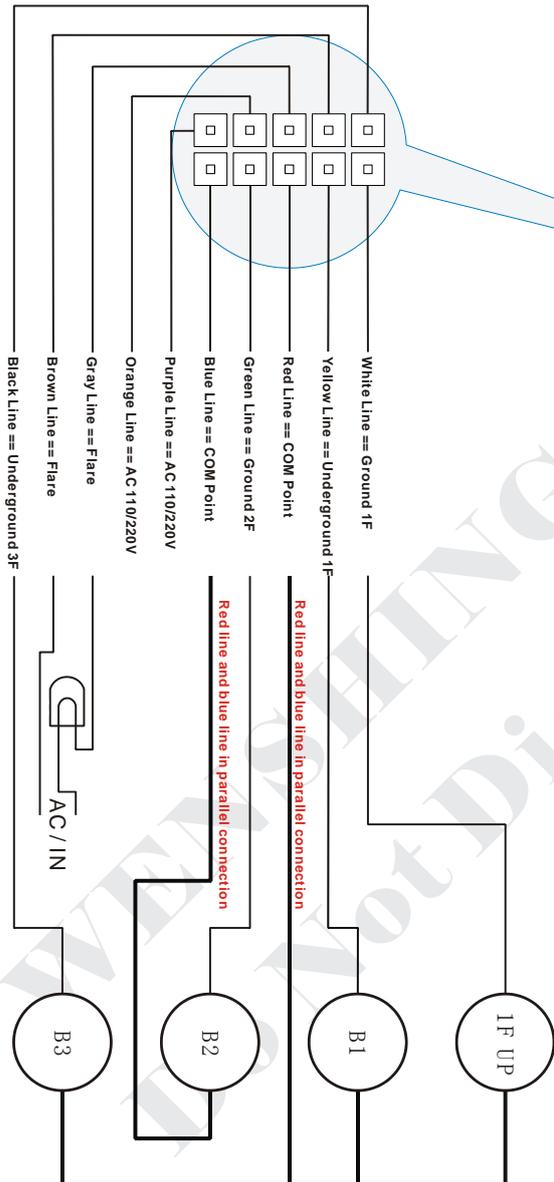
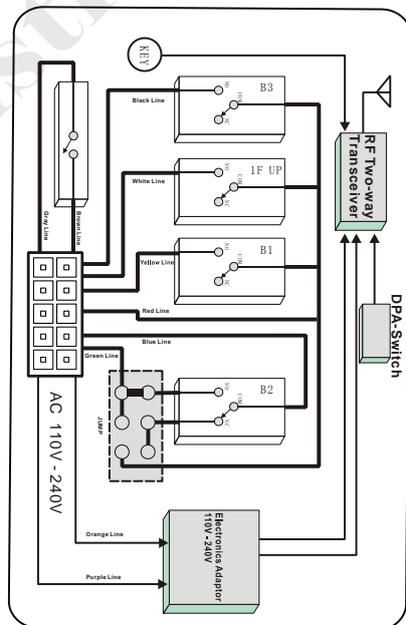


# RD-747 Elevator 1F B1 B2 B3

## ● RD-747 Elevator 1F/B1/B2/B3



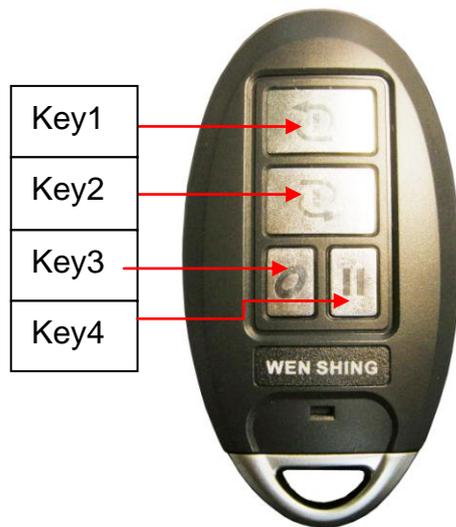
3 Floor Block Diagram



## Every Part of TX-800 Description

- Key1 : Open
- Key2 : Close
- Key3 : Stop
- Key4 : Cut of power supply or light open.

For light open, original setting is 15mins. When time is 15mins, it will be off automatically. (In the meanwhile, it will automatically open for 15mins and followed by this cycle.)

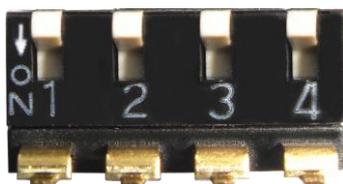


## RD-747 Switch Function Description

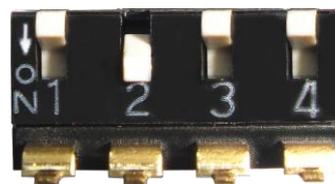
Function	Operation	Switch 1	Switch 2	Switch 3	Switch 4
1	Open/Close by hand	OFF	OFF	OFF	OFF
2	TX-800 automatically opens when you hold TX-800 and near door.	OFF	ON	OFF	OFF

● Switch Diagram :

Function 1



Function 2



### RD-747 Install Steps

- Please select line connection way to install according to P.7~P.10 wiring diagram in this instruction manual.
- After the installation is complete, RD-747 LED indicator light flashes and it is entered the normal working condition.

### RD-747 Voltage Requirement

Voltage from AC 95V~230V is available. RD-747 can adjust the voltage automatically. General occasions can be successfully installed and don't need to worry about voltage difference question.

### TX-800 Boot Tips

- ❶ When it boot, you heard one sound from buzzer and it will has a record of one host inside TX-800.
- ❷ When it boot, you heard two sounds from buzzer and it will has a record of two hosts inside TX-800.
- ❸ When it boot, you heard three sounds from buzzer and it will has a record of three hosts inside TX-800.
- ❹ When it boot, you heard four sounds from buzzer and it will has no record of host inside TX-800.

### RD-747 & TX-800 Pairing Setting (Normal Mode)

- ❶ Before RD-747 electricity, host need to adjust the switch according to the function you required.
- ❷ After host power settings finished, press function key around 2~3 seconds to enter pairing mode. (LED flashing rapidly at this time)
- ❸ After pressing key four of TX-800 over 5 seconds, you will hear **one sound** from TX-800 and please release the button at the same time and RD-747 will entry paring selection.

If you heard **one sound** from TX-800 without release the key and time passed 8 seconds TX-800 will has **a long sound** and then you don't release key, the sound will continue and LED will keep lighting. You need to release the button until LED light off, it will entry the set mode again and continue pair setting with RD-747.

- RD-747 entry the pairing list, if you don't press any key over 10 seconds, X-800 will quiet pair list.
- RD-747 entry the pairing list, key1, key2 and key3 can separate record three hosts.
  1. If key1 record host A and host A is already under paring mode, you press key2 or key3 from paring list and it will result **one sound** from TX-800 also showed error and then leave.
  2. If key2 record host B and host B is already under paring mode, you press key1 or key3 from paring list and it will result **two sounds** from TX-800 also showed error and then leave.

3. If key3 record host C and host C is already under pairing mode, you press key1 or key2 from pairing list and it will result **three sounds** from TX-800 also showed error and then leave.
4. During pairing process, you will hear **four short sounds** from TX-800 and leave when service ID is different.
5. After you press the key from pairing list and it is still failure for 10 seconds, it will has **a long sound** from TX-800 and leave.
6. If TX-800 pair RD-747 successful, it will has **two long sounds** and then leave.

### **RD-747 & TX-800 Pairing Setting (Automatically Open )**

- 🔘 Before electricity, host need to adjust the switch side according the function you required.
- 🔘 After host power settings finished, press function key around 2~3 seconds to enter pairing mode. (LED flashing rapidly at this time)
- 🔘 After pressing key four of TX-800 over 5 seconds, you will hear **one sound** from TX-800 and please release the button at the same time and RD-747 will entry pairing selection.

If you heard **one sound** from TX-800 without release the key and time passed 8 seconds, TX-800 will has **a long sound** and then you don't release key, the sound will continue and LED will keep lighting. You need to release the button until LED light off, it will entry the set mode again and continue pair setting with RD-747.

- RD-747 entry the pairing list, if you don't press any key over 10 seconds, TX-800 will quiet pair list automatically.
- RD-747 entry the pairing list, key1, key2 and key3 can separate record three RD-747.
  1. If key1 record host A and host A is already under pairing mode, you press key2 or key3 from pairing list and it will result **one sound** from TX-800 also showed error and then leave.
  2. If key2 record host B and host B is already under pairing mode, you press key1 or key3 from pairing list and it will result **two sounds** from TX-800 also showed error and then leaves.
  3. If key3 record host C and host C is already under pairing mode, you press key1 or key2 from pairing list and it will result **three sounds** from TX-800 also showed error and then leave.
  4. During pairing process, you will hear **four short sounds** from TX-800 and leave when service ID is different.
  5. After you press the key from pairing list and it is still failure for 10 seconds, it will has **a long sound** from TX-800 and leave.
  6. If TX-800 pair RD-747 successful, it will has **two long sounds** and then leave.
  7. After finished pairing, please take TX-800 to the auto-door (when you arrival the assigned place, the door will be open automatically after 4

seconds. Suggest you to expend memory location of door.) which you hope to open and press the key1. When you heard **two long sounds** from TX-800, it is meaning finished setting, and please press key3 to leave setting mode.

❶ TX-800 Automatically open conditions :

- Bring TX-800 entry to the zone which you set to open; it will open automatically after 4 seconds.
- Bring TX-800 leave the zone which you set to open around 4 seconds and entry the open zone again, it will open the door automatically after 4 seconds. Otherwise, the door will not open again.
- Bring TX-800 under signal unstable zone; it will not open the door automatically.

### Copy TX-800

- ❶ Entry the paring list, press key four and two pieces of TX-800 can copy each other. But it has a condition: both of TX-800 must be the same service ID, otherwise, it will be failure copy.
- ❷ If A will copy the content from B, please check following operation details:
1. B entry paring mode and then press key4.
  2. After A entry paring mode and press key4 to start to copy. If you hear **two long sounds**, it is meaning copy successful and B will has **seven sounds** also leave from setting.
  3. If A entry into paring mode and heard B has **seven sounds** before you press Key4 (include you still not entry paring mode). In the meanwhile, you can't press key4 and need to repeat step1.
  4. If A entry into paring mode again and press key4, you will heard B has **seven sounds**. If there are not **two long sound** from A, please repeat step1.
  5. If you heard **four sounds** from A, it is meaning service ID is different.

### Condition for Paring and Copy Each Other

- This product had been finished service ID setting for every customer.
- TX-800 includes service ID: it can copy from the same service ID or TX-800 without service ID. It also can paring with RD-747 which has the same service ID or doesn't has any ID.
- TX-800 without service ID: you can copy from TX-800 without service ID and paring with RD-747 which is without service ID.
- If service ID is different, it is not allow to copy or pair.
- After TX-800 copy each other, original ID will not cover.

## **CE Caution Note (European Union)**

Symbol of  it accords with EMC regulation (89/336 / EEC) to represent this device, and the low-voltage regulation of European Union (73/23/EEC). It represents to follow the following standard regulations of European Union (The bracket is a reciprocal international standard reciprocal international standard and regulation).

- EN 60950/A11: 1997/(IEC 60950/A4: 1996),The ones that includes information science and technology of apparatus of e-commerce safe.
- EN 55024: 1998 (IEC 1000-4-2, 1000-4-3, 1000-4-4, 1000-4-5, 1000-4-6, 1000-4-8, 1000-4-11) - ' scientific and technological apparatus of information - The characteristic of interfere avoided - Restrain and test method '
- Chapter 2 -Static release (ESD) Demand
- Chapter 3 -Radiate the static field demand
- Chapter 4 -The electron is transmitted / produced and washed (EFT) fast Demand.
- Chapter 5 -surge demand
- Chapter 6 -Resistance demand caused in field of wireless frequency.
- Chapter 8 -Magnetic field demand of electric frequency.
- Chapter 11 –Shortly cut off the demand of making a variation with the voltage transiently under the voltage.

EN 55022:1998/(CISPR 22:1997) ,Class B, ' “To assess information scientific and technological apparatus wireless restriction and way of interfering with the characteristic.”

## **FCC Consistent Declaration ( U.S.A. Only)**

Attention: FCC rule regulation, modified and changed must allowed by WENSHING Electronics company, otherwise that would make you operate this apparatus invalid. This apparatus adopted test, according to chapter 15 that FCC regulation, accord with Class B digital restrictions of device. These limits are designed to provide reasonable protection, avoid to having harmful interference at home's environment.

This device may have radiated wireless frequency energy. If don't allow the instruction manual, then may will interfere wireless communication. However, there is no any way to guarantee, it will not be interfered in particular installed. If this device really causes harmful interference, (It could be confirmed by turning on or off this device.) Advise you to try to use the following ways modifying the interference situation.

- Relocation receiving antenna or altering its direction.
- Increase the distance between device and receiver.
- Please connect this device to the outlet in the circuit different from the receiver.
- The following manuals is published by Federal Communications Commission, they must be helpful to all users.
- How to Identify and Resolve Radio-TV Interference Problems. (This manual can be obtained by relevant departments of publication of the U.S. government.)
- Government Printing Office, Washington D.C., 20402. Stock No. 004-00398-5