

Installation Guide

TBM01/TBM02

Version: 1.3

Safety Instructions

Please read this manual before installation, including important information related to the safety, installation, use and maintenance. Any operation not specified in this manual was not allowed. Improper use may damage the product or even injure people and property.

Please keep this manual properly for the future use.

Considering the possible hazards during the installation and use of the railing machine, please strictly comply with the current standards during installation:

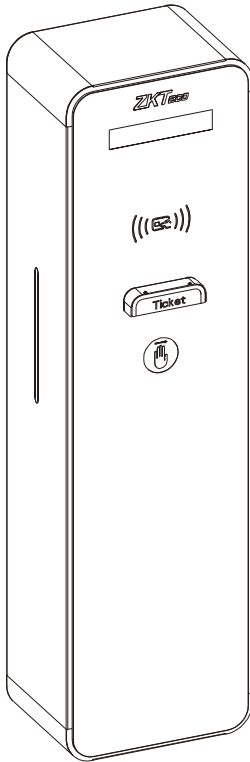
1. Before starting the installation, check whether additional equipment or materials are needed to meet any specific needs. Do not modify any parts, except those which are already described in this manual. Unexplained changes may cause malfunctions. The company does not assume any responsibility for the damage caused thereby.
2. Do not immerse the device in water or other liquids. When installing, make sure that no liquid leaks into the controller or other open devices.
3. Keep away from heat and open flames, otherwise, it may damage the components, and can cause malfunctions, or even fire or other dangerous situations.
4. Please disconnect the power when not in use for a long time.
5. The power supply of the controller must be securely grounded.
6. All operations to open the cabinet must first be disconnected from the power supply.
7. If the switch trips or fuses, please check and troubleshoot before switching on or replacing the fuse.
8. For the barrier rod equipped with the anti-collision release lever device, a protective pile about 50 cm higher than the barrier should be set at 1 meter in front of the barrier machine (the barrier rod removal direction), and the horizontal movement range of the barrier rod should be controlled at 90 degrees. Within the range; and within the range of 90 degrees horizontally in the de-rod direction, it is strictly forbidden to stand pedestrians and place objects to prevent the blocking rod from hurting people or objects when a vehicle hits the rod.
9. When the railing machine is working, it is strictly forbidden to open the lid and door to avoid personal accidents.
10. The railing machine has been wired in the ticket dispenser before leaving the factory. Under normal circumstances, the user cannot change it. It only needs to be connected to the 220V power supply to work.
11. The power supply of the machine must be equipped with leakage breaker $\geq 15A$.

12. It is forbidden to place objects or stand or walk when dropping the pole.
13. This manual is not used as a basis for product style.
14. If there is a problem that cannot be solved using this manual, please contact our company's customer service department.

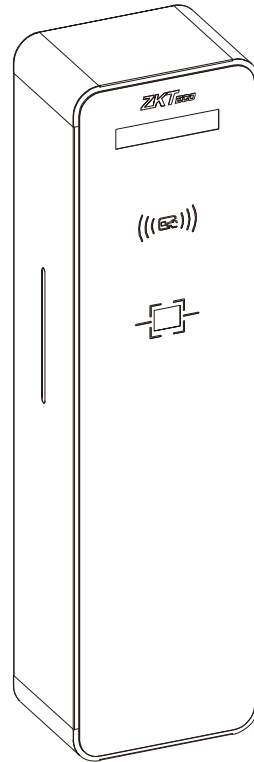
1 Overview

TBM01 and TBM02 are parking lot entrance and export management equipment, which can perform authority management and make records for fixed and temporary parking vehicles entering and exiting the parking lot. Temporary parking vehicles can pick up the tickets from the TBM01 to enter the venue, pay with a small ticket and leave the venue. Fixed cars can enter and exit the venue by swiping cards.

1.1 Appearance



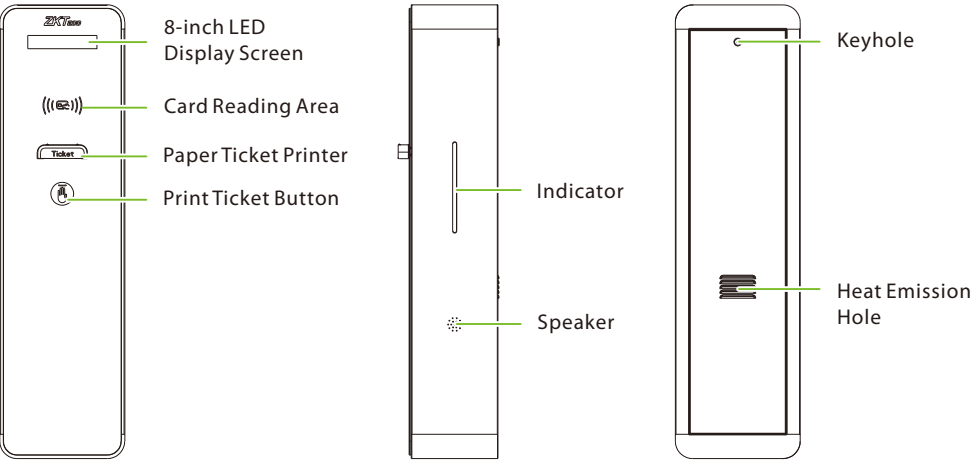
TBM01



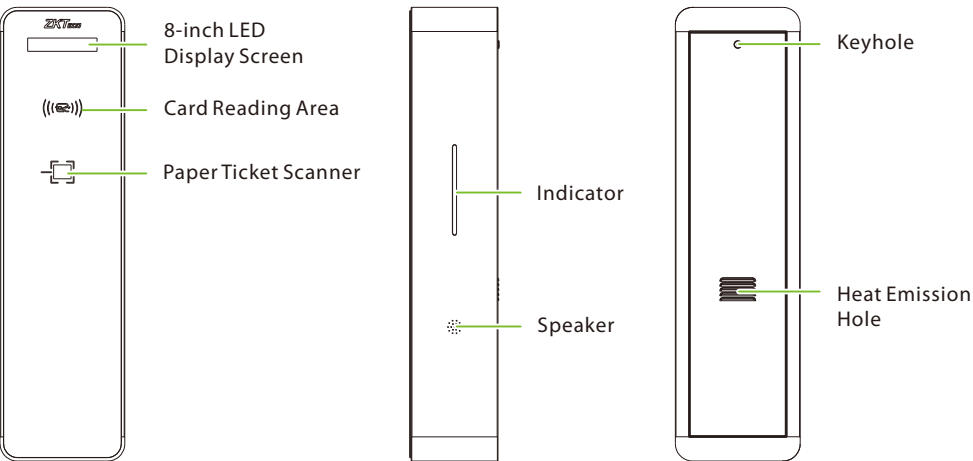
TBM02

1.2 Components

TBM01:








TBM02:



2 Packing List

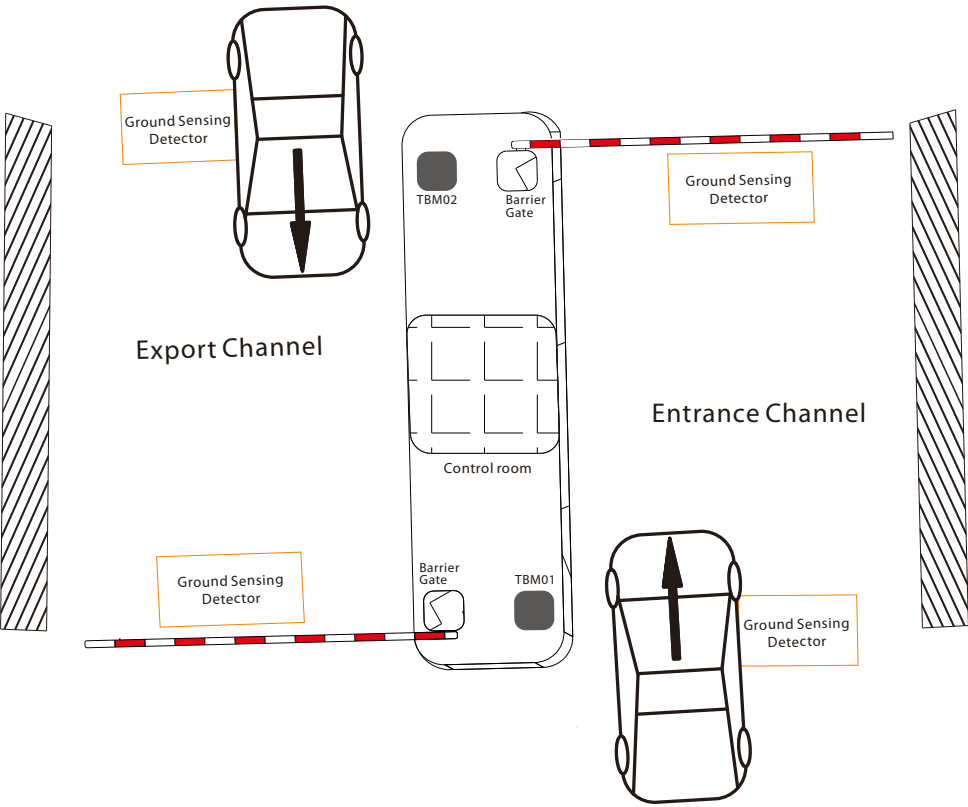
The package consists of the following items:

Accessories	TBM01	TBM02
 Thermal Paper Rolls	1	-
 Power Cable	1	1
 Key	1	1
 Expansion Screw	4 * M12	4 * M12
 Card Reader (optional, comes with an ID card for testing)	1	1

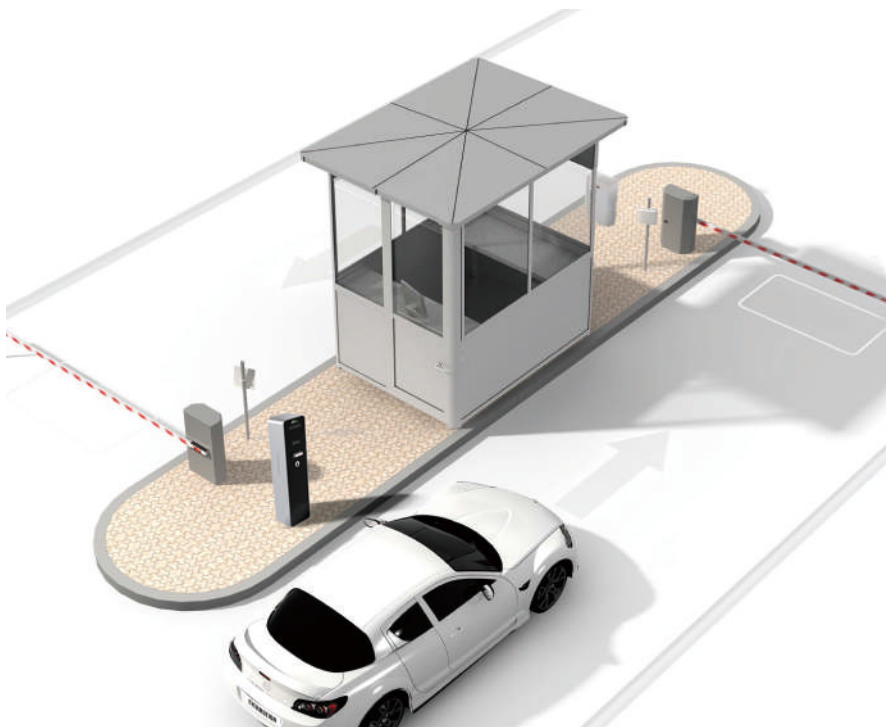
3 Installation and Commissioning

3.1 Specification for Intersection Installation

Taking the safety island as an example, the specification matters of the intersection installation of the parking ticket dispenser are shown below.



Safety island intersection installation specification diagram



3.2 Preparation

To install the device you must have:

- **A Screwdriver:** To remove or install the screw on the device.
- **A Pencil:** To mark the screw hole.
- **A Electric Drill:** To drill holes in accordance to the marked screw holes.
- **A Wrench:** To secure the M12 expansion screw on the device.
- **A Tapeline:** To measure the dimensions that need to be measured during the installation of the device.
- **A Torx Screwdriver:** To remove or install the screw on the device.

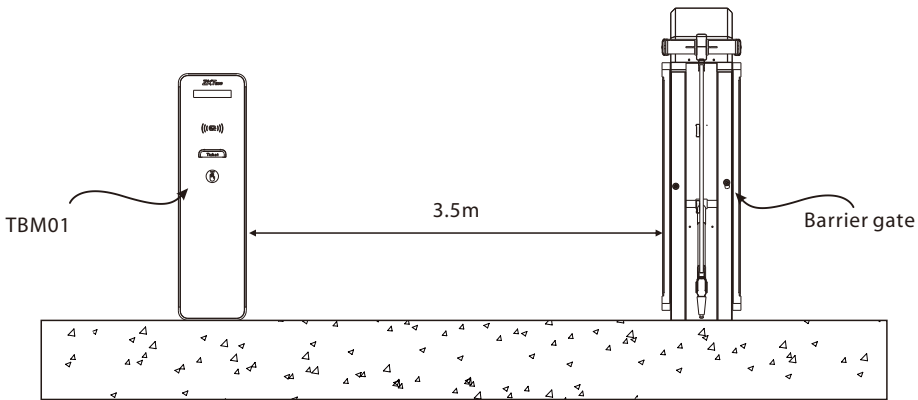


Note: All the above tools need to be prepared by yourself.

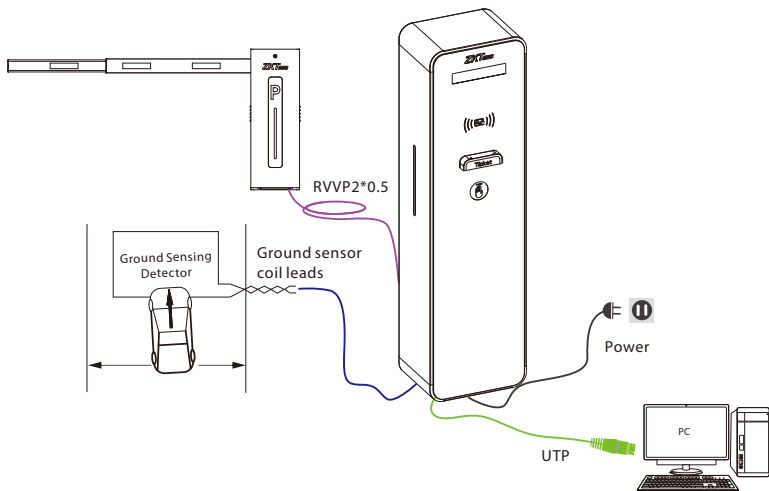
3.3 Installation

The installation of the TBM01 and TBM02 is roughly the same. The following is an example of the installation of an TBM01.

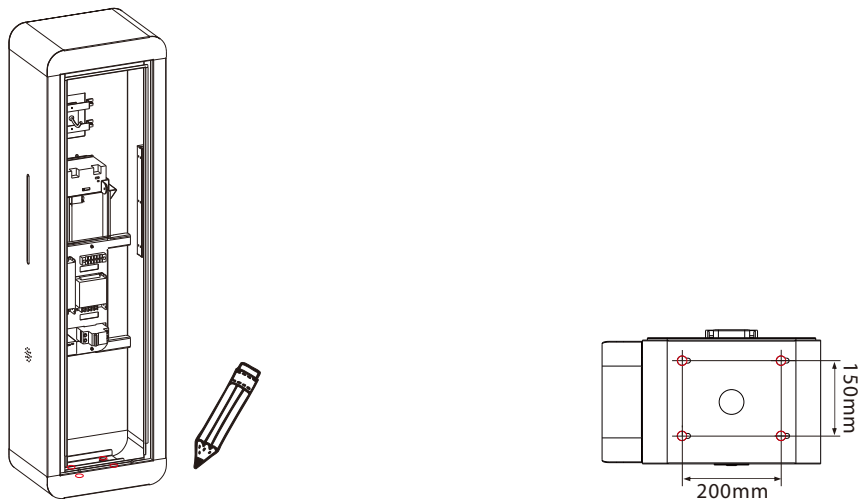
1. Place the device vertically on the concrete floor or on the safety island. According to the customer's requirements and referring to the site conditions, place the device on the installation location (3.5 meters from the device to the barrier gate, the nearest one is not less than 2.5 meters).



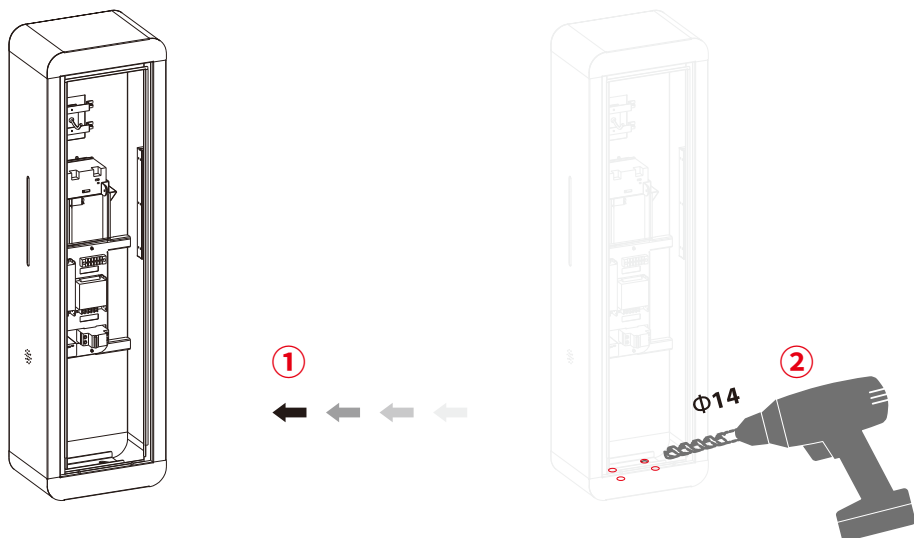
2. Before installing the device, please make sure that after the safety island is built, open the door of the device with the key and access the four lines connecting the device. There are 1 AC220V power cord, 1 UTP, 1 RVVP2*0.5 and 1 ground sensor coil lead respectively.



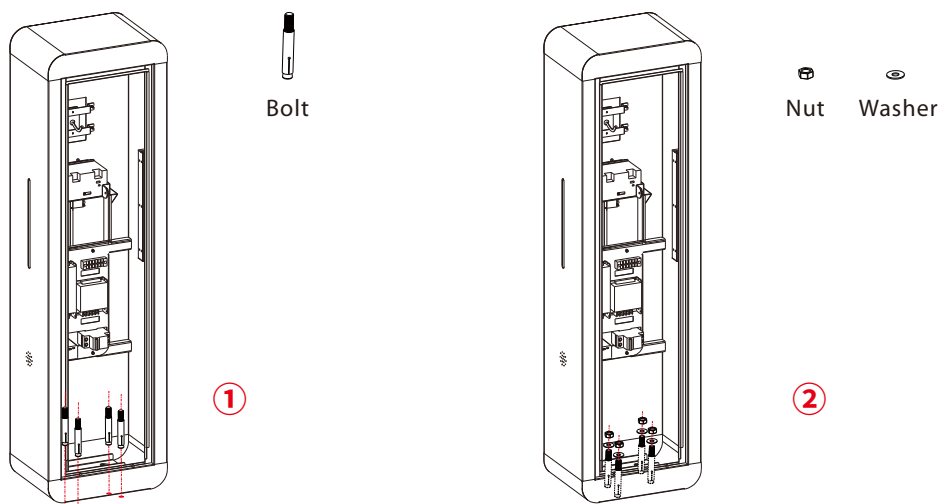
3. Draw the screw hole on the fixed hole with a pencil.



4. Remove the device, and use an electric drill to drill holes according to the marks, the depth of the hole is better than the length of the screw. Clean up the fragments and dust after drilling, then place the device on the installation site again. Check whether the drilled holes correspond to the mark on the device.



- Align the device with the drilled holes. Then, insert the bolts accordingly and fix them with a wrench. Finally, insert the washer and nut, tighten it with a wrench.



3.4 Commissioning

After installing the parking ticket dispenser, please strictly follow the steps below to commission the parking ticket dispenser controller.

Assembly parts inspection

Check whether the components in the parking ticket dispenser are intact and whether the fixing screws are loose.

Check the electrical wiring before power-on

Check whether the entrance parking ticket dispenser, export parking ticket dispenser, barriers, medium and long-distance card readers, computers and other related equipment are connected correctly, and check whether all input and output terminals are loose. If the connection is incorrect or loose, please re-wire to ensure that the connectors are in good contact. After there is no problem, please use the expert network cable tester to test whether the network cable is connected properly, and use a multimeter to check whether the power input and output terminals of each device are short-circuited or open.

Check whether the system dial code setting is correct

- According to the silkscreen on the shell of the TCP parking lot control panel, set the controller's pull code. The entrance DIP1 is OFF, and the export DIP1 is ON.
- Check whether the dialing code of the ID card reader is correct, DIP1 and DIP2 are both set to ON.

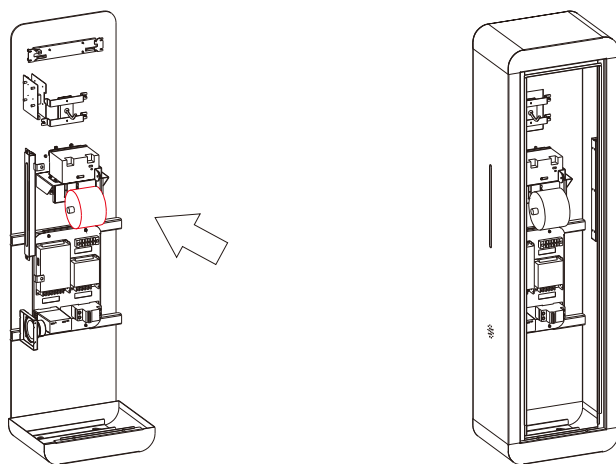
3. Check whether the address of the LED display of the ticket dispenser is correct, DIP1 is ON, DIP2-DIP7 is OFF.
4. Check whether the address of the parking lot display screen is correct, DIP2 is ON, DIP1, DIP3, and DIP4 are all OFF.
5. Check whether the card-issuing machine is set to pre-reading card mode, whether DIP1 of the card machine is ON, and the others are OFF.

Adjust the paper ticker

A paper ticket is a certificate used for temporary parking vehicles to enter and exit the parking lot, which is convenient for the control and management of non-card-swiping vehicles.

1. Put the thermal paper rolls in the designated position of the TBM01.
2. Fix the thermal paper rolls.

Note: The paper ticket specifications used must meet the manufacturer's standards.

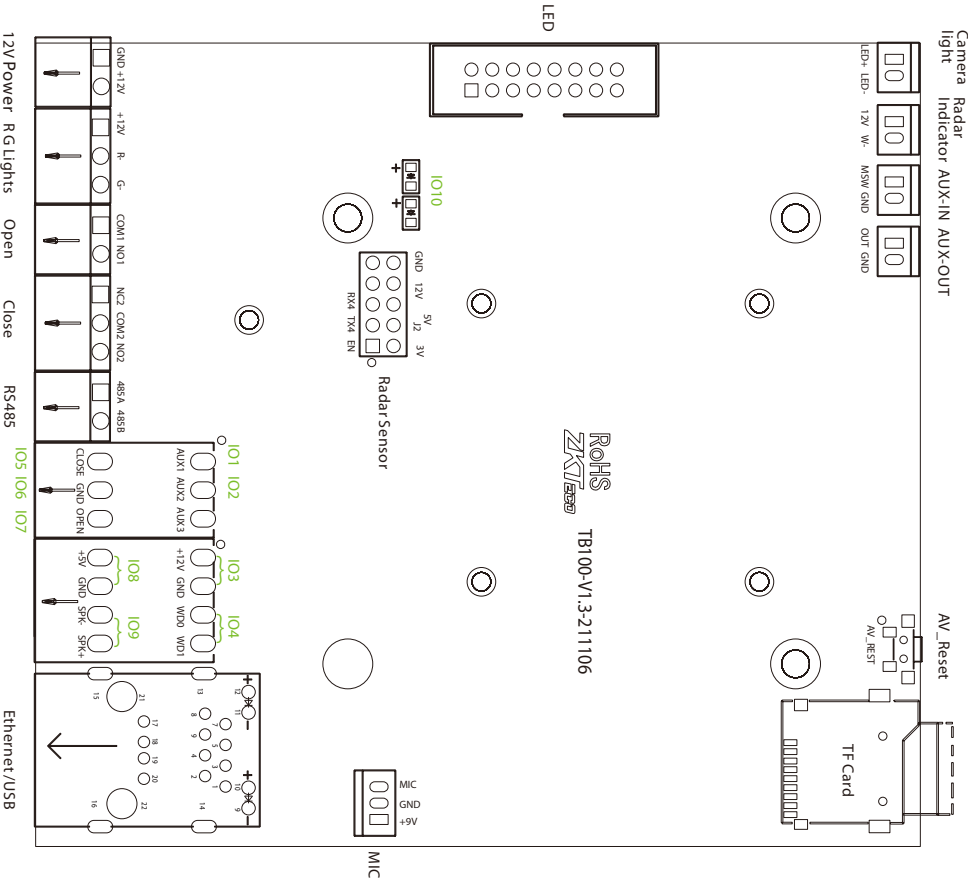


Power-on equipment detection

After checking the electrical wiring, make sure the power supply is free of short circuits and open circuits. Switch on the power switch and observe whether the red power indicator light of each device is on. If it is lit, the power supply of the device is normal.

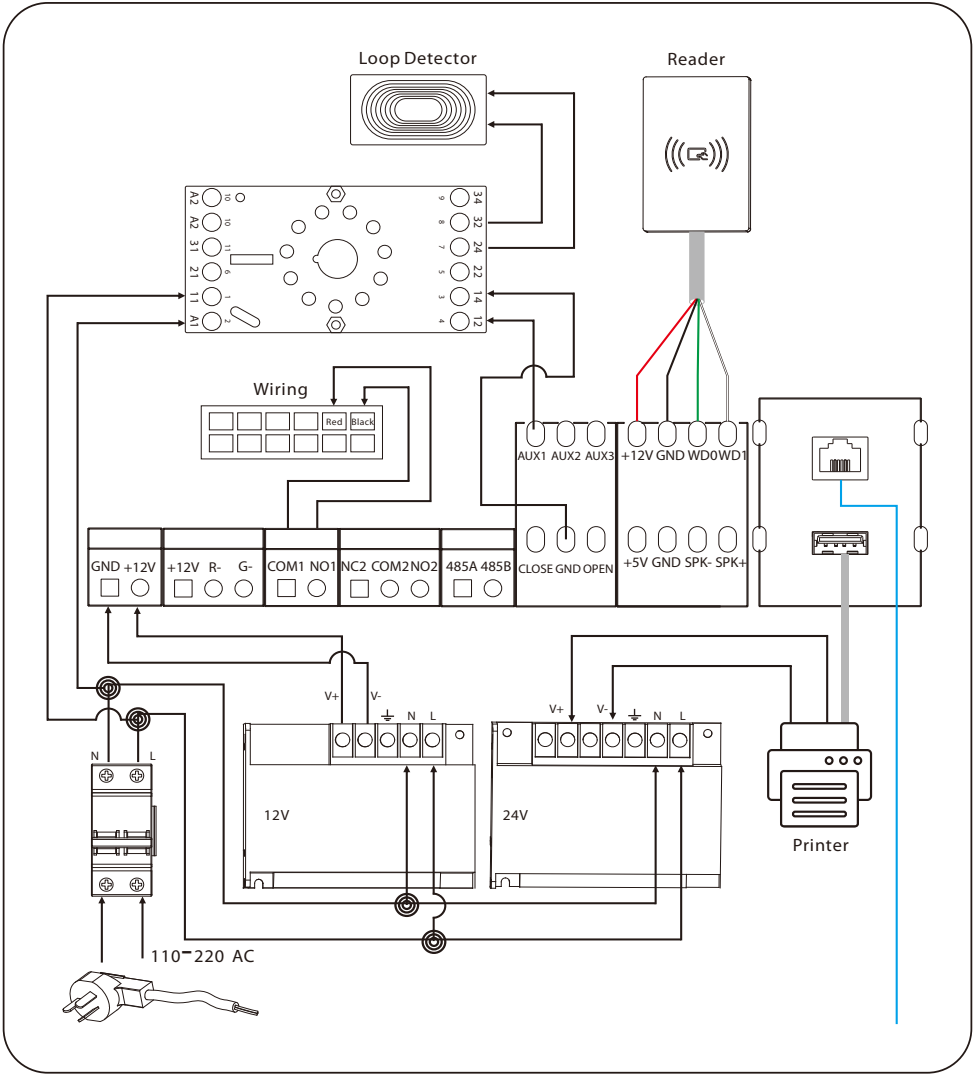
Preliminarily test the equipment function, the entrance and export ticket dispenser LED display can correctly recognizes the license plate information. Place the testing card close to the entrance ticket dispenser, the buzzer will sound, the barrier boom will be raised. Press the print ticket button at the entrance ticket dispenser, the paper ticket can be printed normally, the export ticket dispenser scans the paper ticket and the buzzer will sound, and the barrier will raise the boom normally.

4 Connecting the Wiring Terminal

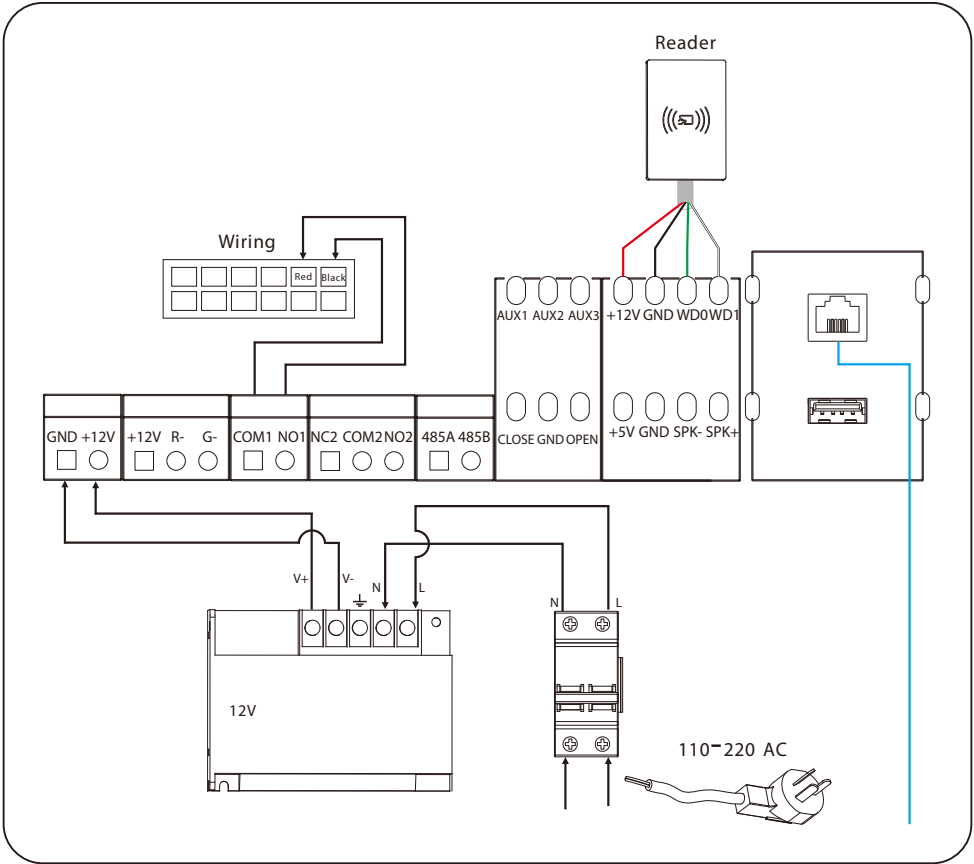


IO1	IO2	IO3	IO4	IO5
Ground sensing detector	Paper ticket print button	Wiegand power	Wiegand out	Close limit of the gate
IO6	IO7	IO8	IO9	IO10
Ground	Open limit of the gate	LED power supply	Speaker	QR code scanner

The wiring diagram of TBM01:



The wiring diagram of TBM02:



5 Connect to the Server

After the system hardware is tested and debugged, please install the server software on the computer, then add each controller in the server management software, and assign the IP address of each controller. After adding the controller to the server management software, you need to modify and confirm the controller's local IP address and server IP address. The specific method is to enter the IP address of the controller in the GOOGLE browser or IE browser (after the TCP parking lot control panel is powered on, the ticket dispenser LED display will scroll the machine IP address and the server IP address, if there is no display screen, please restore the controller IP address to 192.168.1.88 before logging in). After logging in, please follow the prompts to modify the controller IP address.

Username :

Password :

Login

Cancel

The screenshot displays the ZKTeco software interface. On the left is a green sidebar menu with options: System Management, Equipment management, LPR equipment, TicketBox Device, IPC equipment, Entry box setting, and Mfa synchronization. The main area is divided into two panels. The left panel shows a table with device information:

name	IP address
20	192.168.164.194
30	192.168.164.193
40	192.168.1.88
50	192.168.1.89

The right panel is titled 'Query machine' and contains a large empty text area. To the right of this area are two buttons: 'Query machine' and 'Stop the query'. Below the 'Query machine' panel is an 'Add Device' section with the following fields:

- Device name: 50
- IP address: 192.168.1.89
- The port number: 443
- User name: admin
- Password: 123456
- Ticket box mark: 002
- Type of motor vehicle: Car

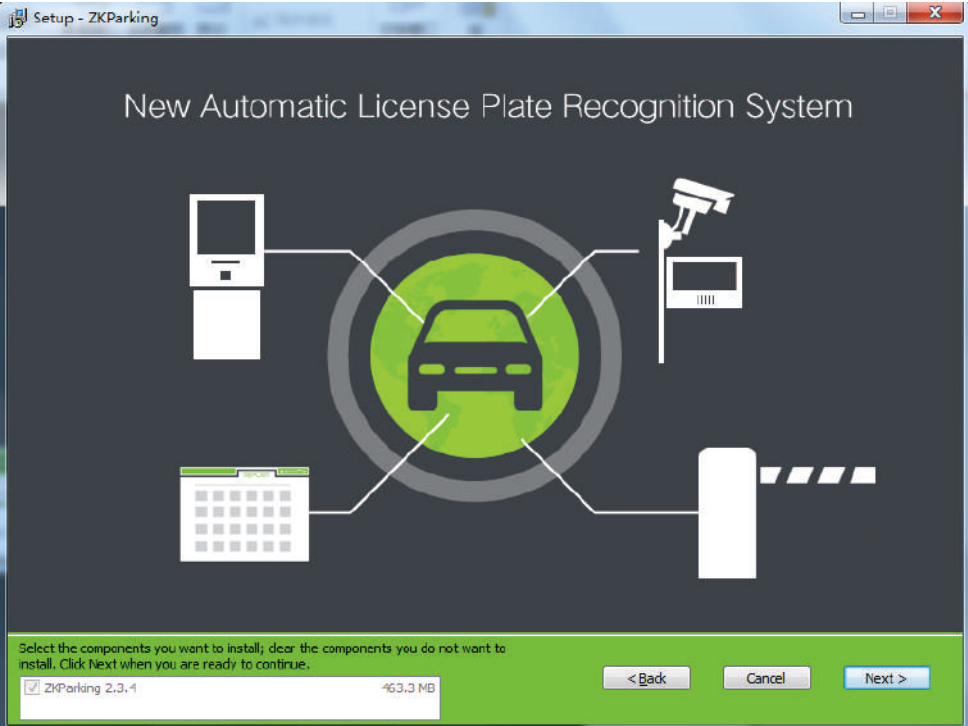
A red rectangular box highlights the 'T21100' device name in the 'Add Device' section.

Note: TBM100 needs to be checked during software debugging.

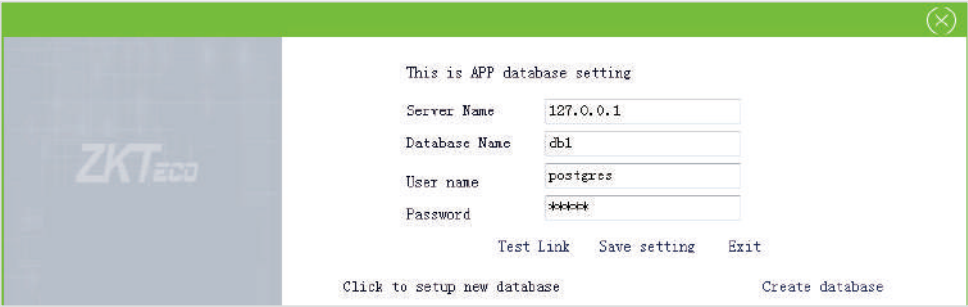
6 The Debugging with ZKParking

After installing and logging in ZKParking, by setting the relevant functions and parameters, you can control and manage the vehicles in the parking lot and maintain an orderly and civilized social phenomenon.

1 Installation the ZKParking.



2. Database Setting: Click [Start] → [All Programs] → [ZKParking] → [Database Set] to open the database setup interface and enter the information.



FAQs

Q: After entering the IP address of the Login Device in the Internet Explorer, the Login interface is not getting connected.

A: To install the plugin and turn on the ActiveX control permissions, click "Internet options" - "Security" -- "Custom level" -- "Enable all ActiveX controls and plugins" in the IE toolbar.

Q: When the card is placed close to the Parking ticket dispenser reader, a "beep" sound can be heard, but it displays "invalid card".

A: The card held is an invalid card (not issued, or not authorized) or the card has been issued and its valid permissions have not been downloaded to the main board.

Q: Parking ticket dispenser can read the card but no voice prompt?

A: Check whether there is a problem with the speaker, line or voice chip, if the problem remains, it may be that the voice potentiometer is not well adjusted, the potentiometer needs to be adjusted.

Q: Parking ticket dispenser display mess?

A: Check whether the display is in the water or too much dust caused a short circuit, then you need to blow dry water or dust, if it is still not solved, please check whether the microcontroller is loose, need to be re-inserted tightly.

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