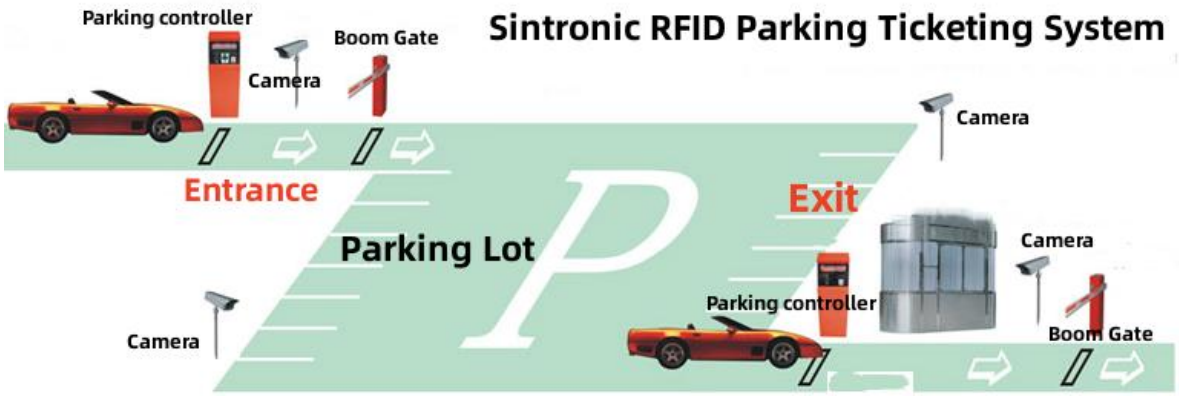
PS-TCP300 Parking Controller User Manual

Version 1.01



一、Pre -project

The parking lot management system is based on the development direction of the industry, organizing a core team, and adopting the leading technologies in the industry and developing mature advanced technologies. Vouchers, modern vehicle charging management systems based on image comparison, and certificate capture as management methods. The system implements a combination of manual and automatic control management models for the parking lot entrance and export equipment, so that management work is both efficient and safe. The system is automatically charged for parking on the field in accordance with the pre -set charging standards. At the same time, the system combines advanced IC or ID card recognition technology with high -speed video images, which makes the safety and comparison of the parking lot charging link The safety of parking vehicles has been greatly improved, thereby protecting the interests of investors and car owners.

The parking lot management system uses ARM chip, full TCP/IP network technology, and real -time embedded operating system, leading the parking lot system to enter a new IP digital era. This parking lot system uses TCP/IP technology from the server to the toll terminal and the ticket box main controller. TCP/IP technology not only brings convenience and fast use for users, but also brings convenience to future upgrades. Compared with the system of ordinary RS485 bus, high cost performance has a qualitative leap in terms of speed and performance. We adhere to the mature technology and excellent quality, create stable products, and solve the needs of customers**.**

二、Systemic

The TCP-300 parking lot system is a new TCP/IP smart parking system launched by our company on the basis of NPS-100. Compared with other parking lot systems in the market, this system has the following characteristics.

1. Full TCP/IP network parking lot system.

This system is a TCP/IP intelligent parking lot system. Its system includes three parts: web server, PC toll terminal and ticket controller. The system uses a classic CS architecture to organically combine the TCP/IP network. On any computer in the local area network, any controller or server can be accessed and controlled by the browser.

2. A set of server software can manage up to 8 parking lots.

This system supports 8 partitions (partitions: different areas, such as ground parking lots, underground parking lots). You can manage up to 8 independent parking lots, and systematically supports first -level partition nested (main sub -field nested). Each partition can set a separate rate and can statistics alone.

3. The entrance terminal equipment is not restricted.

This system can support up to 253 entrance controllers or toll terminals. Each terminal can be tailored and added arbitrarily, and it does not affect each other. The export controller or the entrance controller is set by the dial -switch on the main control board, and the entrance controller can be interchangeable. Each terminal IP address can be set arbitrarily (but must be in the same network segment), and each terminal configuration information is downloaded by the server uniformly according to the terminal IP address.

4. With accurate, flexible, efficient, and diverse parking lot toll management functions.

This system not only supports PC charging terminal charges, but also fully supports charging on the export ticket controller; it can be set to the central charging model, or it can be set to the export charging model or a mixed charging mode; both supports home fees and supports the master of the master. The average charging is charged; the fees can be charged, or the time period can be charged. The charging algorithm can be flexibly selected and replaced according to different regions, and the charging rate can be set arbitrarily. There is a time -to -show time when charging the central government.

5. The system has real -time and clear voice intercom.

The voice intercom function can be achieved between the entrance controller and the toll terminal. The system only needs to install a pickup on the controller and insert the headset on the toll terminal to easily implement the voice intercom function. The charging terminal has a compulsory intercom.

6. Have digital voice prompt function.

Electigate digital voice, you can use the ticket box LED display to play the prompt information synchronously. The charging terminal also has a voice prompt function. When the entrance controller and the charging terminal are connected to be disconnected, they do not affect their respective voice broadcast functions.

7. Upgrade function at the scene.

When the system is used in the process of use, when the function bottlenecks or need to modify the voice, you can send the files to the construction site through the modification of the software or recording the voice. Upgrade. The control board program and voice files are completed through the network remote online upgrade.

8. Rich working mode.

There are many configuration options on the server and toll terminals for users to choose to set up to maximize the unpredictable functional needs of the parking lot.

9. Automatically switching the online and offline work mode.

After the terminal configuration of this system is configured, the departure work is fully supported. When the system is re -connected, each terminal will automatically upload the in -field records generated when the departure will be uploaded. When the server is not online, the charging terminal and the entrance controller can work normally. The ID monthly card automatically converts to repeated access to the field when the departure. ID temporary cards and storage cards do not support the server function.

10. This system supports both IC cards and ID cards.

Each controller has 2 IC card reader interfaces (RS-232) and 2 ID card readers (WG26, WG34, WG44). Not only supports 13.56m Mirare One S50, S70 cards, but also supports 125K EM4001 (ID) cards or 900M long -distance ID cards, and 2.4G Bluetooth cards. This system supports only the IC card mode, as well as the ID card mode, but also the two mixed modes. The data storage sector of the IC card can be selected according to the user's needs.

11. Professional card interface.

Each control board has two independent card machine interfaces, which fully supports the application of double -layer ticket boxes. The entrance controller can connect to the card, and the exit can be configured with the card collection machine.

12. Perfect label interface.

The controller not only has the gate control interface, but also has the gates of feedback interface. The control board has the manual and automatic switching control interface on the gate, which can meet the needs of the system that needs the slump often. All entrances and exits can be concentrated in management and control on the server. The controller has the feedback interface of the gate, and it will automatically capture and save the record when encountering an abnormal opening.

12, rich in card types and various vehicle types.

This system supports VIP cards, free cards, period (month) cards, storage cards and temporary cards. The system can support up to 6 different types of vehicle types. The system can flexibly set the default model of each export card. Whether it is an IC card or an ID card, when the system is connected, the period card supports cardless extension or cardless loss function. Users only need to provide a license plate or user information and can achieve cardless operations.

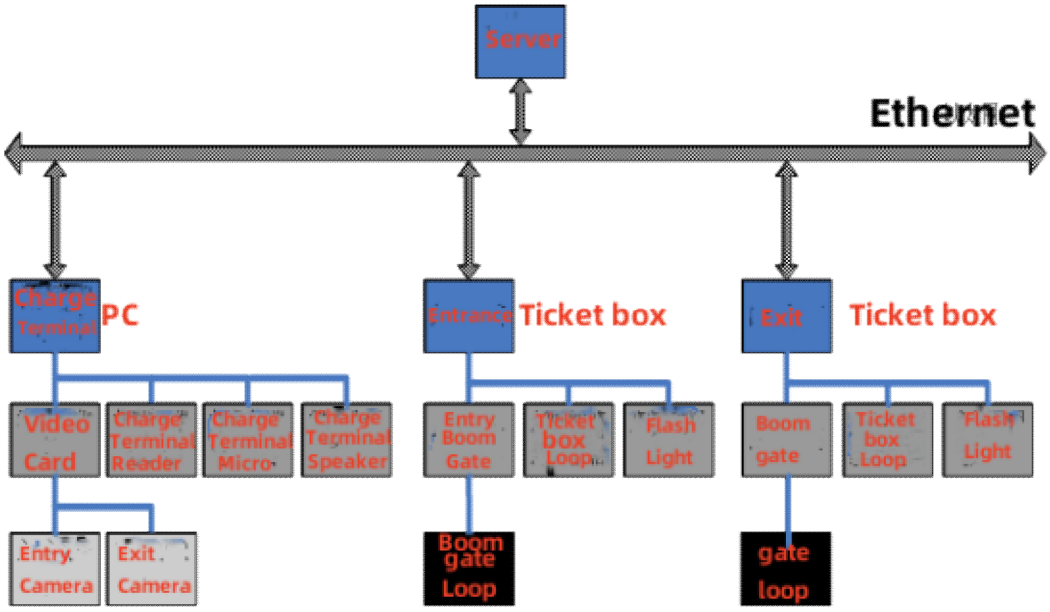
13. Systems support discount management.

The system can support the discount machine discount method, it can also support the small ticket discount function, the toll terminal discount, and also support the discount method such as VIP rolls.

三、System composition

Intelligent parking lot management system v4.xx is a modern management system that coordinated a software and hardware coordinated by hardware equipment and software systems. Software systems mainly include server software and toll terminal software. The server software is generally installed on the management computer in the office. The toll terminal software is generally installed on the computer of the sentry box. They are mainly used to manage the entire parking lot. , Tuning, video collection cards, cameras, lighting lights, audio, microphone and other equipment.

This system adopts the TCP/IP communication protocol. The server, charging terminal, entrance ticket control board ,control board, and exit ticket control boards are used to use the Ethernet LAN connection form. The communication efficiency is high, the performance is stable, the interface form is uniform, and the wiring is simple. The server and the toll terminal can share a computer. The system topology structure is shown in the figure below.



3.1 Hardware equipment configuration list

Entry ticket box: Each entrance is installed. The number of entrance tickets is determined by the number of entrances at the parking lot. The equipment in the entrance ticket has been installed in advance. See the list below:

Device	Qty	Model	Parameters	Remark
controller	1	TCP-300	DC 12V/5A controller interface DC 24V/2Acard dispenser or collector interface	If not connect with card dispenser only need 12v
Card dispenser	1	TCD-720M TCD-820M	DC24V (max current2A,static current 0.1A) Card width 54±0.5 mm Card length 85±0.5 mm Card thickness 0.3–2.5 mm Card capacity 150 张	The TCP-300 controller provides a double-layer ticket interface, that is, you can connect 2 units card dispenser
ID reader	2	TRF-011W TRF-012W Bluetooth reader	DC 12V/500mA Wiegand26, Wiegand34 optional Frequency 125KHz、433M、900M	For card dispenser： TRF-011W For ticket box panel： TRF-012W

IC reader	2	RFM200 RFM300	DC 5V/200mA Read card distance 7—10cm Frequency 13.56MHz	For card dispenser： RFM300 For ticket box panel： RFM200
LED Display	1	TDM-800	Voltage：12V ±5% Current：1.5A（Outdoor） 1A(indoor) Work temperature：-30℃ ～ 70℃	Direct wiring to controller
Speaker	1		4Ohm 8w～4 Ohm20w	
Loop	1	TLD-110	AC220V/AC110V/AC/DC24V/DC12V Optional ， Power：2.5W ，20KHz-170KHz Loop coil：80-300uH include cable connection。	Connect in the front place of ticket box loop coil
Intercom	1		DC12V	Voice intercom
Button	2/3		Select according to the size of the ticket box hole, take card button(1 or 2) and intercom button	Two -layer card machines need to connect two card pick -up buttons
Ac power button	1	DZ47-63	400V~ 63A	Dual -connected air switch
Dc power	1	Sintronic Power	INPUT：220V~ +-20% OUTPUT ：12V/5A 24V/2A	The switching power supply must be well grounded

Exit ticket box: Each exit is installed. The number of exit tickets is determined by the number of exits of the parking lot. The equipment in the exit ticket has been installed in advance. See the list below:

Device	Qty	Model	Parameters	Remark
Controller	1	TCP-300	DC 12V/5A controller interface， DC 24V/2A card collector interface。	If not connect to card collector only need 12v
Card Dispenser	1	TCR-615	DC 24V±10% Max current 2.2A,Static Current 0.1A -40℃ to 85℃ Card collect time 2s	
ID reader	2	TRF-011W TRF-012W Bluetooth Reader	DC 12V/500mA Wiegand26, Wiegand34 Optional Frequency 125KHz、433M、900M	For card collector： TRF-011W+bracket For ticket box panel： TRF-012W
IC reader	2	RFM200 RFM300	DC 5V/200mA Read card distance 7—10cm Frequency 13.56MHz	For card collector： RFM300 For ticket box panel： RFM200
LED display	1	TDM-800	Voltage：12V ±5% Current：1.5A（Outdoor）1A(indoor) Work temperature：-30℃ ～ 70℃	Direct wiring to controller

Loop	1	TLD-110	AC220V/AC110V/AC/DC24V/DC12V optional ， power：2.5W 20KHz-170KHz Loop coil：80-300uH include cable connection -20°C to +65°C	Wiring to exit ticket box front loop coil
Speaker	1		4Ohm8W～4Ohm20W	
Intercom	1		12V	Voice intercom
Button	1		Intercom button	
Ac power switch	1	DZ47-63	400V~ 63A	Dual
Dc Power	1	Sintronic	INPUT：220V~ +-20% OUTPUT ：12V/5A 24V/2A	Muse be grounded well

Toll terminal: Each gangster is installed with a set. A charging terminal can monitor up to 8 exports or entrances (the number of entrances and exits is arbitrarily configured). Now configured according to the standard one in and out, see the list below:

Device	Qty	Model	Parameters	Remark
Pc	1			
Router	1		Interface must be max than entry&exit and toll terminal interface	
Video card or DVR	1	TianminVC4000 Or Hikvision DVR	4 channel real time video	
IC card distributor	1	RFM100	USB or RS232	USE IC CARD
ID card distributor	1	TRF-010	USB or RS232	USE ID CARD
Speaker	1			OPTIONAL
Microphone	1			OPTIONAL

Tunnel: Each entrance or exit is installed, and the number of doors is the sum of the number of entrances and exports.

Camera: Each entrance or exit is installed, and the number of cameras is the sum of the number of entrances and the number of exports.

Lighting: Each entrance or exit is installed. The number of lighting lights is the sum of the number of entrances and the number of exports.

Ground coil: Each entrance or exit is installed, and the source of the ticket box and the gate or the gate of the exit and the gate of the gate is installed. The number of ground sense coils is equal to the total number of imports and the total export number.

Router (or switch): 10M/100M router or switch. The following requirements can be achieved by the level of multiple devices:

Total number of idle ports of routers or switches> = Number of entrance tickets+ number of export tickets+ number of toll terminal computers+ number of server hosts

Toll terminal computer: Each exit is installed. The number of toll terminal computers is equal to export quantity

sum.

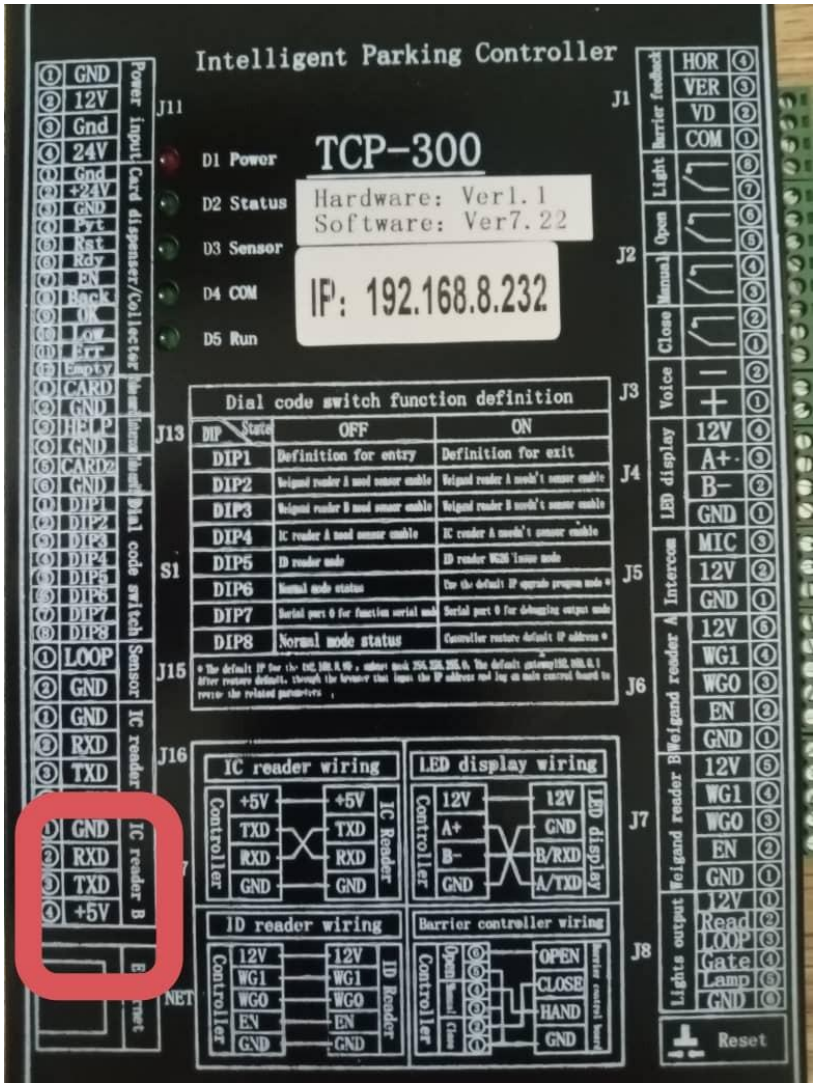
Toll terminal card reader: Each toll terminal computer is installed. Connected to the toll terminal computer by serial port or USB. The number of toll terminal card readers is equal to the total number of toll terminals.

Sound and microphone: Each toll terminal computer is installed. The audio input interface of the sound card is connected to the toll terminal computer to achieve infant care for the entrance controller. The number of toll terminal microphones is equal to the total number of toll terminals.

Video collection card: Each toll terminal computer is installed on a VC4000 video collection card. A VC can monitor up to 4 exports or entrances. The number of video collection cards is equal to the number of toll terminal computers.

Non -contact ID or IC cards: The number of ID or IC cards should be greater than the sum of the number of parking lots in the parking lot.

3.2 TCP-300 Interface descriptions



3.3 Controller dial -switch definition

On the left side of the controller, there is a red thin code switch, a total of 8 digits, DIP1 ~ DIP8. The functional definition of the device is as follows.

Dialing bit \ status	OFF（Down）	ON（Up）
DIP1	Defined to entry	Defined to exit
DIP2	Ticket box ID reader need to enable loop	Ticket box ID reader not need to enable loop
DIP3	Card machine,s id reader need to enable loop	Card machine,s id reader not need to enable loop
DIP4	Ticket box,s ic reader need to enable loop	Ticket box,s ic reader not need to enable loop

DIP5	ID reader work mode	ID readerWG26 issued mode
DIP6	Normal work status	Use the default IP address upgrade program mode
DIP7	Serial 0 is function serial mode mode	Serial port 0 is debugging output mode
DIP8	Normal work status mode	Controller recovery to default ip

DIP1 entrance definition

This bit is defined by the controller type. When the bit dial switch is dialed to the OFF, it must be installed in the entrance ticket box. When the bits are dialed to ON as an outlet, it must be installed in the export ticket. Import and exit control can be replaced arbitrarily.

DIP2 ticket ID ID card reader ground sense enable

When the card reader connected to the fixation card reader interface (J6) must implement the card reader, this position can be ON, so that it can achieve the function of non -parking in and out of the field.

DIP3 card machine ID card reader ground sense enable enable

When the card reader connected by the card machine ID card reader (J7) to realize the card reading card read, you can use this position to ON, so that you can achieve the function of non -parking in and out of the field.

DIP4 Ticket IC IC Card Reader Floor Evaporation Enable

When the card reader connected to the ticket box IC card reader interface (J16) must realize the deck read the card, this position can be ON, which can be used in the export without sense.

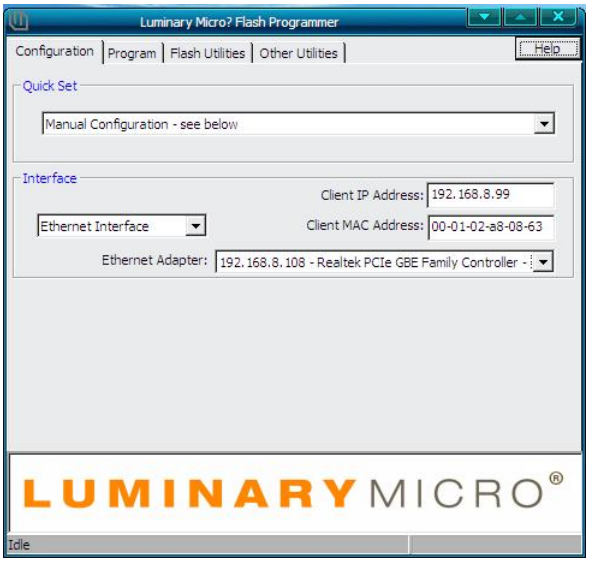
DIP5 ID card reading header work mode setting

The ID card reads the finger of the finger of the finger box ID and the card machine ID. When there is no ID desktop sender (including the Bluetooth desktop hair, the 900m microwave desktop hair) and do not know the card card number, you can use the card reader issuer on the control board. The card will enter the distribution mode. The card number read directly to the server. After the release, it must be changed to OFF to restore the normal working mode.

DIP6 auxiliary upgrade mode

When you do not know the IP address of the controller, or the program's program cannot be upgraded remotely due to certain faults, you can try to use the position as ON and then by default IP (IP: 192.168.8.99, MAC: 00-01 -02-A8-08-63) Upgrade program. After the program is upgraded, the position

must be OFF, and then reset the controller.



DIP7 serial debugging mode

When this position is ON, the control board will print output debugging information through the serial port 0 (ticket IC IC reader interface) to facilitate technicians to analyze the system failure, so as to quickly locate and deal with system failure. This bit must be placed as OFF in normal use.

DIP8 restore the default IP operation

When you do n't know the controller IP address, you can be on the position, then reset the control, wait for 3 ~ 5s, and then then the position as OFF, and then reset the controller. In this way, the IP address of the controller is restored to 192.168. 8.99. The normal working mode must be placed to OFF.

3.4 System workflow

- **Non -temporary entry process**

The driver drops the ID or IC card in the card reading area of the entrance ticket. If the card is valid and allows entry, the entrance monitor takes the picture of the entrance vehicle, the entrance channel is automatically raised, the vehicle is allowed to enter, and the vehicle via the entrance to enter the entrance. After the gate was closed, the gate was closed automatically, preventing subsequent vehicles from entering to ensure that one car and one card. If it is a long -distance card reader, such as 900m microwave read head, 433m long -distance reading head, etc., you can realize without parking

- **Non -temporary exit process**

The driver drops the ID or IC card in the card reading area of the export ticket. If the card is effective, the export monitor takes the picture of the vehicle, and the export charging terminal displays the corresponding vehicle picture of the card. When the image is consistent, the manager clicks the "release" button, the exit gate

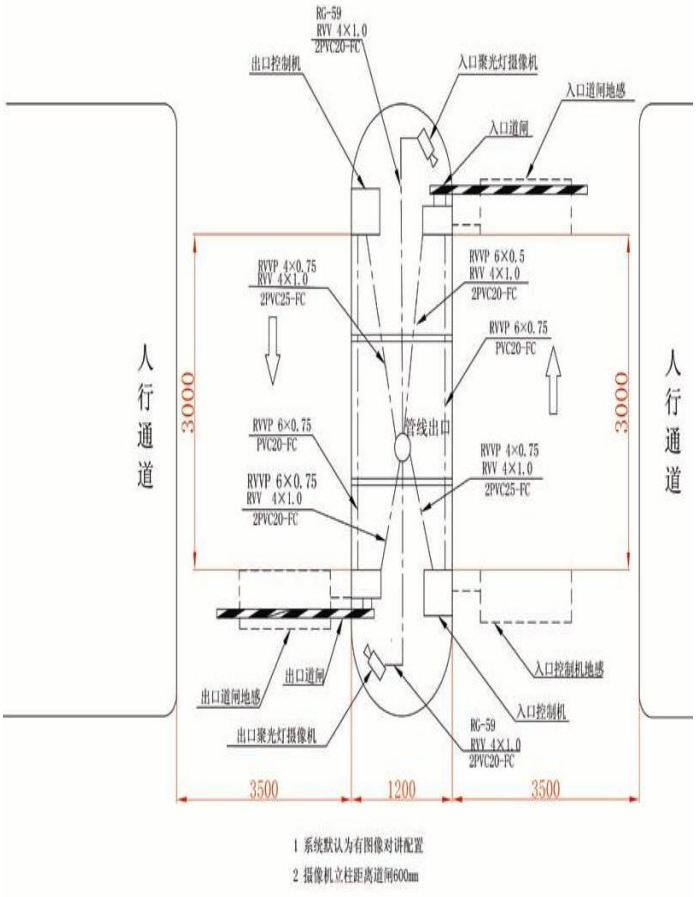
will automatically start, and the vehicle allows the vehicle to appear. After the vehicle passes through the automatic gate, the gate automatically falls out of the exit to prevent subsequent vehicles from appearance. If the ID card is invalid or has already appeared, the export automatic lane gate is still closed to ensure that one car and one card.

- Temporary entry process

After the vehicle detector detects the vehicle, the driver presses the card pick -up button on the entrance ticket, and the card issuer issues a ID or IC card with a card read. After the driver takes the card, the controller will open the entrance channel, and the vehicle will automatically close the gate after entering the field.

- Temporary exit process

After the vehicle detector detects the vehicle, the driver puts the ID or IC card in the card collection machine. The card collection machine automatically completes the card reading and recycling work. After the charging work, click the "release" button to automatically start the pole. After the vehicle is out the exit gate will be closed automatically. If the driver is not a temporary card in the card collection machine, the card collection opportunity will automatically withdraw the card and remind the driver to take the card away.



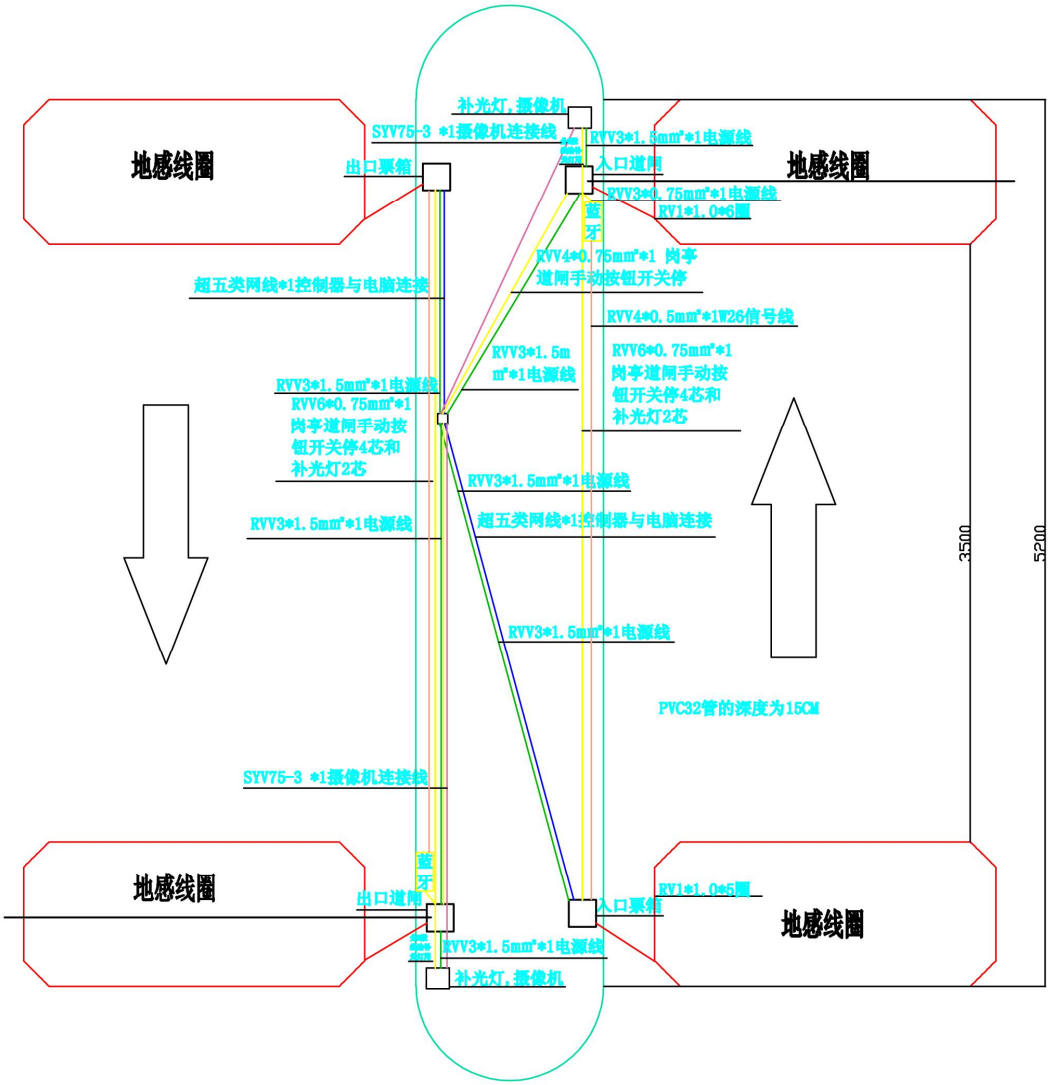
四、System installation debugging

The picture on the right takes the safety island as an example, briefly explaining the smart parking lot management system v4.xx installation location and pipeline diagram.

4.1 Safe Island Wiring Instructions

The safe island of the parking lot management system is equivalent to the base of the building house. It

can not only carry the stress during the equipment work, but also protect the equipment and lines. At the same time, the lanes of the vehicle enter and exit, making the project's appearance more professional. The size and wiring specifications of the safe island are shown
below.



4.2 Ticket box installation debugging

After the safe island is done, make the screw in the place where the ticket is installed, and then fix the box on the screws that are already ready. Then connect the AC power cord, network cable, long -range ID card reader signal line, slide controller line, and ground sensor wire line to receive the specified interface.

The equipment installed inside the ticket is: TCP300 control version, card issuer (entrance), card

collection machine (exit, option), card reader (IC card reader or ID card reader or long -range card reader), LED Display, vehicle detector (ground sense), speakers, pickups (options), buttons, AC power switches, DC power supply, etc.

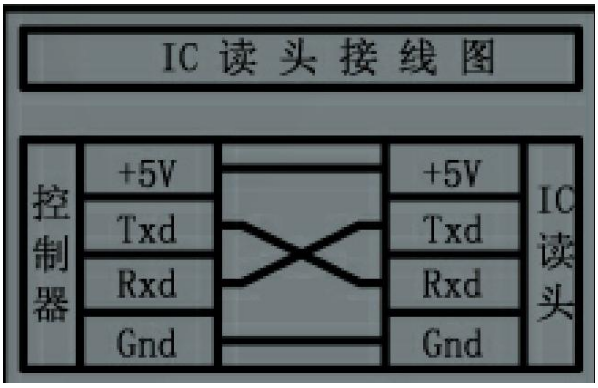
4.3 Card machine installation

The TCP300 main controller provides two interface installation card machines, which can directly support double -layer ticket control. The card interface can connect to both the card (exit) or the card issuer (entrance). When you need to install the card machine, you need to install a power supply of 24VDC-2A, and pay attention to the positive and negative polarity of the 24V power supply.

When the interface is used in the entrance, the TCP300 main controller has integrated support for the TCD720F/TCD820F machine produced by our company. When connecting the card issuer, you only need to connect the control interface of the TCD720F/TCD820F and the J11 (or J9) card machine interface of the TCD720F/TCD820F. The DIP1 dial switch at the bottom of the card must be set to ON). When the interface is used as export, the TCP300 main controller has integrated support for the TCR615 card collection machine produced by our company. When connecting the card machine, you only need to connect the control interface of TCR615 with the 12 -connected connection cable and the J11 (or J9) card machine interface of the TCP300 main controller board.

4.4 Card reader installation

The TCP300 main controller provides 4 card reader interfaces, 2 IC serial reader interfaces, and 2 ID Weigan card reader interfaces. If you use the IC serial port, you must use the professional card reader model designated by our company. The sending and receiving lines of the IC serial reader must be connected.



The ID Weigan Card Reader interface is the standard WG26 or WG34 or WG44 interface, and the Weigen enable signal (EN foot) and the ground sense signal are synchronized (when the ground feel, the pin is low).

4.5 LED display installation

The TCP300 main control board provides an RS485 bus interface, which is dedicated to the LED display. The LED display communication protocol of the former TCP300 main control board supports our company's TED800 and TED530 model LED display. If you use the LED display on the ticket box, choose the TED800 type 4 Chinese character LED display. If you release a special screen or advertise for a parking space, please select the TED530 parking space display.

The TCP300 main controller can support five LED display maximum, which requires the four display screens to have different addresses. The first display is used as a working screen on the ticket box. This screen displays the prompt information when there is a car in and out of the entrance. When there is no vehicle entry, this screen can also display advertising and parking space information.

This screen corresponds to the corresponding screen. This screen corresponds to The address is 0x32, and the first position of the dial -switch S1 on the TED800 display is ON, and the position of 2, 3, and 4 is OFF. The second display is released as a dedicated screen (address 0x33) as a parking space. It is recommended to choose our company's TED530 display (the first and second positions of the dial switch are on) This (Address 0x35) is a special screen for advertising. The fifth is the charging display, which is only used to display the charging prompt information. It is used for the charging of the sentry box. The address is 0x36. Advertising information on the advertisement screen can be set on the server.

4.6 Boom gate connection

According to the customer's requirements and refer to the site situation, place the location of the lane installation, and use a self -attack screw to fix the gate; the pads and spring pads must be installed on each screw. Keep flat and clean.

The TCP300 main control board provides the control interface of the gate. Among them, the J1 is the feedback signal input of the gate state, and the J2 is the gate control signal output.

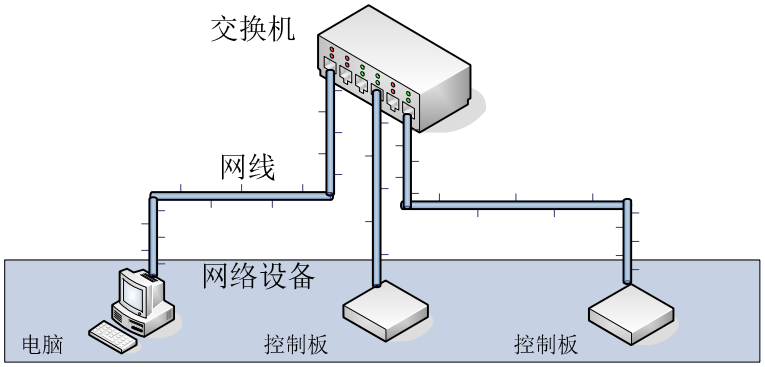
J2 is the output of the gate control signal, including opening control, manual/automatic control and

gateway control. The closing signal of the opening control signal and the closing signal is 1S (the relay is normal for the normal opening signal), the manual/automatic control signal is the switch signal, the manual is closed to the relay, and the relay is automatically turned on (default). The manual/automatic control signal is used to set the long -opening function.

J1 is the feedback signal input of the gate state, including the gate of the gate (VD), the gate is open (VER), and the gate gate is in place (HOR). When the sloping slot is used to open the gate abnormal opening (open the gate with a remote control), this port must be connected. When installing the gate, you need to select the link of the public terminal (J1-4 COM) according to the type (high level or low level) of the signal output of the gate. Dangdao signal output type is high -electricity, and the COM side should pick up the reference place of the gate signal (GND); the exit of the doorsal gate signal is low -power. When the gate output signal is a relay signal, the type external reference place or DC12V power supply based on the type of the gate signal output is required.

4.7 LAN installation debugging

The local area network from the switch (1 or more), a number of 5 categories/super five types of direct network cables (T568B of the RJ45 interface, the pressure line sequence is orange -white, orange, green white, blue, blue, green, brown white, brown white, respectively , Brown) and network devices (computers, exit motherboards, entrance motherboards).



First of all, insert the RJ45 plug on one end of the network cable into the socket of the RJ45 (with multiple RJ45 sockets, select the RJ45 socket with multiple RJ45 sockets), and insert one of the idle

RJ45 sockets on the other end.

Second, the switch is powered on and observes the indicator light corresponding to each network device on the switch. The indicator light is on, indicating that the network physical connection is normal and the corresponding network cable is normal; the indicator light may not be lit, then the network cable is not connected. Please check whether the crystal head of the network cable is correct.

4.8 Installation of vehicle detector

Whether the vehicle detector can work well depends to a large extent on the inductive coil it is connected. Several important parameters of the coils include: coil materials, coil shapes, and whether they are buried correctly. Pay attention to the following matters during installation.

Coils

When the two sensor coils are close, the magnetic field of the two coils is added together, causing interference. This phenomenon is string disturbance. String will cause error detection results and the deadlock of the ring detector. Between the adjacent but different sensors, the following measures can be taken:

Select different operating frequency.

Increase the distance between adjacent coils. The spacing between the detection coils must be greater than 2 meters;

A good shielding of the coil leads to the wire twisted, and the shielding wire must be connected to the end of the detector. It is best to use high temperature resistance to multiple copper wires with high temperature resistance to high temperature resistance. It is best not to have a wiring between the cable and the connector. If there must be a wiring end, it is also necessary to ensure that the connection is reliable, weld them with a soldering iron and placed in the waterproof area. The wire diameter is 0.5-1.5 square millimeters. It is best to use double waterproof high temperature.

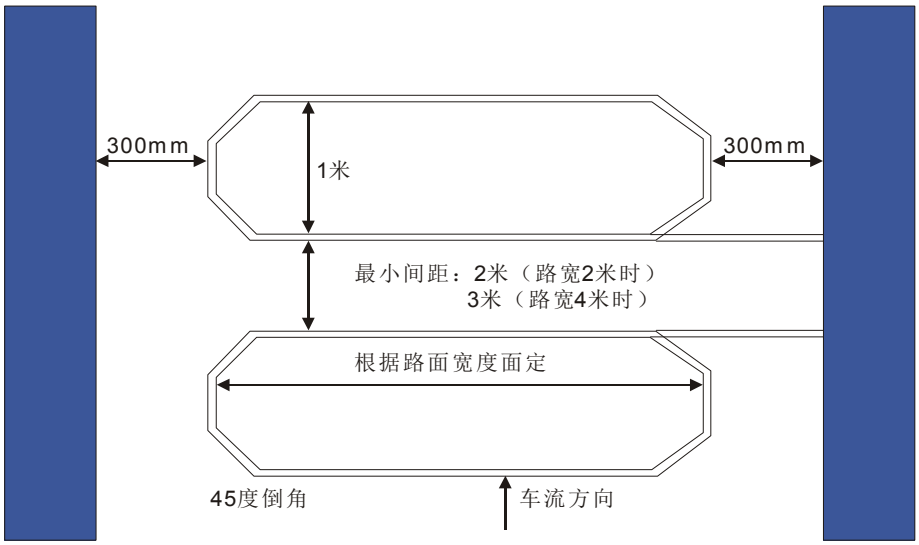
Coil shape and number of turns

Unless the conditions are not allowed, the detection coil should be rectangular. The coil and the metal movement are vertical, and the coil magnetic field is cut as much as possible as possible. The width of the coil is best 0.8-1 meters. The length of the coil depends on the width of the road, usually 0.3 meters narrower than the road distance between the two ends. If the two coils are installed near (less than equal) 2 meters, a good way is to turn any of the two adjacent coils from one more to two turns. The

coil parameters used in most actual on-site on-site are: 1.8-2.5 meters long and 0.8-1 meters in width; the number of circles is 5-6 turns; the amount of inductance is 150-300UH.

Circuit installation essential

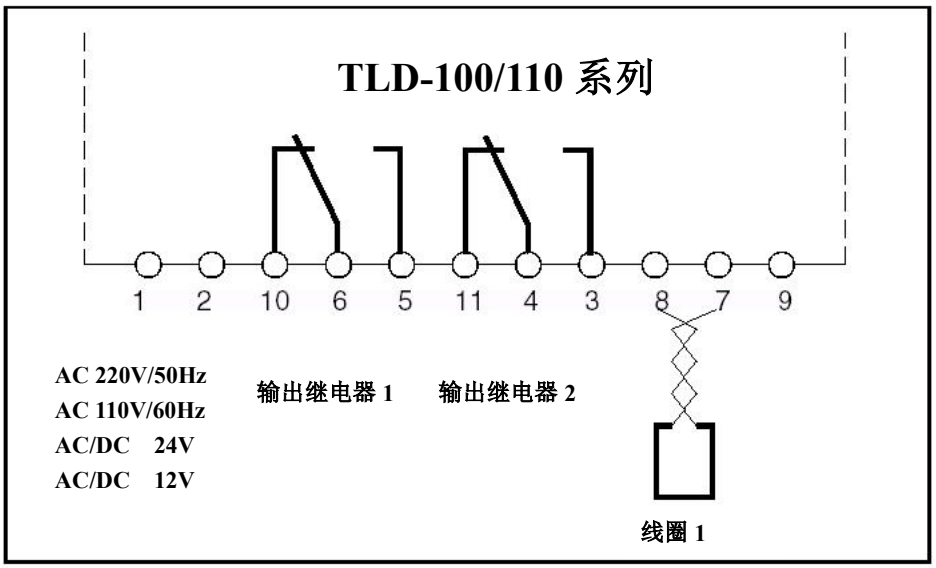
The coils are first cut out of the road with a road cutting machine. Perform 45 degrees backward on the four corners to prevent the sharp and surface of the corner and the surface of the surface. Determine the tank width according to the wire diameter of the buried wire, which is better at 50 to 100 mm. At the same time, cut a slot to the side of the road. Specifically as shown in the figure below.



When burying cables, a sufficient length should be left in order to connect to the loop sensor, and there is no connector in the middle. After the cable around the coil, the cable is led by leading the wire groove. The output lead is a tight twisted form, at least 1 meter twisted 20 times. The maximum length of the lead should not exceed 5 meters. As the sensitivity of the detection coil decreases with the length of the lead, the length of the leading cable should be as short as possible. After burning the coil, seal it with cement or asphalt.

Work debugging

After the installation of the local sensing coil is completed, the leader of the ground coil is connected to the ground sensor detector in the box or the gate box according to the figure below, and the ground sensor is powered on to debug the ground sensor coil.



1) When the detector is powered up, it will automatically detect and adjust it to the connected coil. This process is about 5 seconds. At the same time, the LED on the top panel will flash (0.5 seconds, and 0.5 seconds) several times.

2) In the tuning process, the detector will test the coil. When the inductance of the coil exceeds the allowable range or a short -circuit and short circuit, the LED will continue to shine continuously.

The flashing situation is as follows:

The coil is not connected:

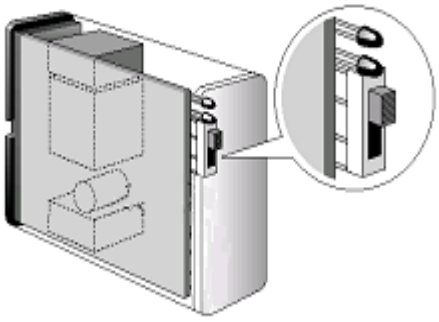
The coil inductance is too small:

The coil inductance is too large:

If the coil tests is normal, the LED on the top panel will no longer flash, and enter the normal working state (at this time, the relay does not sucked).

3) When the detector detects the arrival of a vehicle, it will inhale the corresponding relay corresponding to the standard output, and light up the corresponding LED indicator at the same time; when the vehicle leaves LED indicator light.

4) If the detector does not respond when the coil is sensing, the sensitivity should be adjusted again. Methods as below:



TLD-100/110 Vehicle detector detection sensing sensitivity is divided into three levels. It can be set through the three-bit sliding switch on the top panel (see the picture on the left):

"H" position is the highest sensitivity;

"M" position is intermediate sensitivity;

The "L" position is the minimum sensitivity.

5), by adjusting the sensitivity of the vehicle detector, or increasing or reducing the number of ground coils, and the size and shape of the adjustment of the ground sensor coil, the test of the ground sensor coil is successfully passed, and the installation and commissioning of the entire ground sense coil is installed and commissioned End of work.

4.9 TCP300 main control board settings

Configuration entrance and exit mode

The first place of the dial switch S1 is selected for the entrance controller mode. When the DIP1 of the S1 is dial to OFF, the controller is set to the inlet mode, and the DIP1 of the S1 is set to ON, and the controller is set to the outlet mode. Note that if this setting is changed, you need to restart. The restart method is to turn off the power and turn it on again. Log in to the controller's WebServer through the browser can see the entrance and exit mode of the controller being configured.

Configuration whether the ground sensation mode

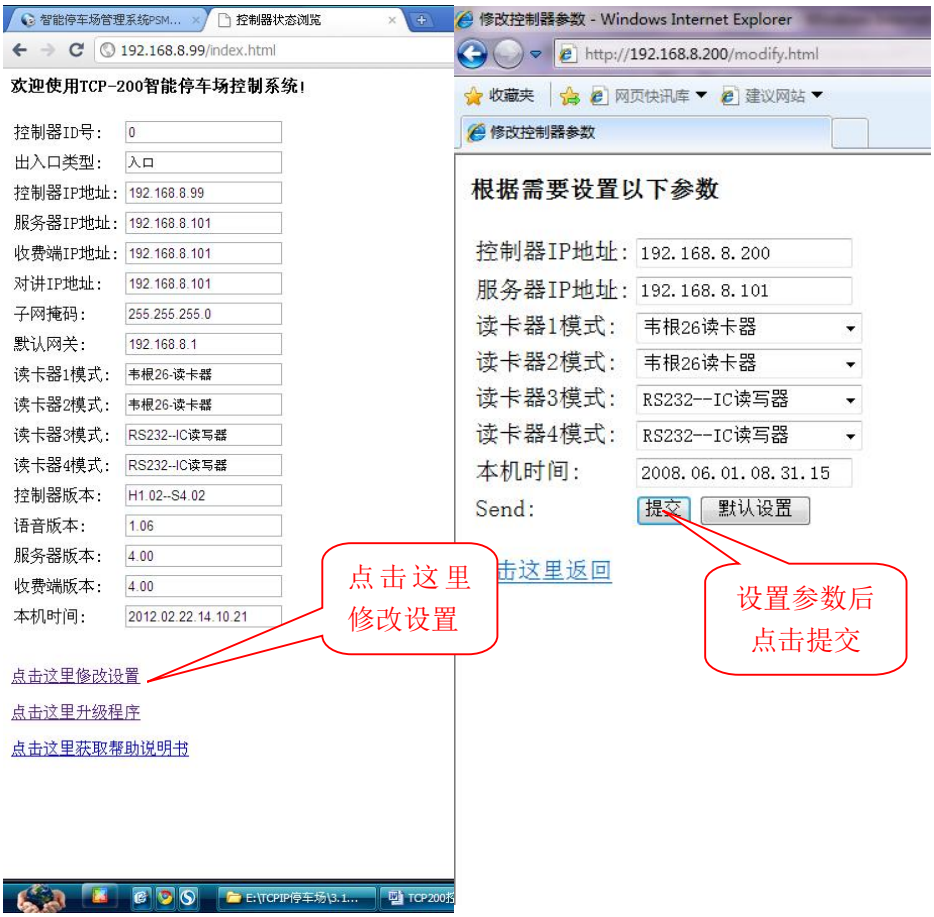
The second, third, and fourth digits of the dial -dial switch S1 are the card read head reading head, the card machine ID reading head, and the IC reading head of the ticket box. Reading the card when the vehicle is crushed. If you dial this bit to ON, the owner does not need to swipe the card to the ground. This can realize the parking lot without parking, especially for the use of the owners of the park.

Get the IP address of the control board

After each time the controller is started, the IP address and server IP address of the machine will be printed on the LED screen without other operations. For example, "This machine IP = 192.168.8.99! Server IP = 192.168.8.8. 101!", Of which 99 was the controller IP and 101 was the server IP. If there is no display screen and do not know the IP address of the controller, you can restore it to 192.168.8.99 through the DIP8 dial -dial -button fiberic controller's IP address of the switch.

Modify the configuration of the control board

The items that must be modified in the configuration item of the controller are the IP address and server IP address of the controller. Only the correct IP address and the correct server address can download the operating parameters and parking lot information of the controller from the login to the controller to the controller. Essence Open the browser of Windows and enter the IP address of the controller on the address bar. For example, 192.168.8.99, you can log in to the controller and modify the IP address according to the prompts.



The time of the controller can be directly modified on the controller. If the online state, the local time of all terminals will be synchronized with the server.

五、Common failures and exclusion of systems

5.1Hardware equipment failure and exclusion

See below for failure and exclusion method of hardware equipment:

Device	Failure acting	Solution	Remark
Controller	The controller has been reset; the LED display has been rolling the IP address; the bee tweet is tweeting at a frequency of 2 seconds.	Check whether the network cable is connected; Check whether the switch is called; Whether the server is opened; Whether the controller IP address and server IP address are filled in correctly;	reason: The server address set by this machine is incorrect; This machine IP is not registered on the server.

	The LED display power indicator is on, but there is no display or only display time.	Please detect whether the address of the LED display is set correctly. The configuration of the ticket display screen must be set to ON. Check whether the A and B lines on the RS485 bus are connected well.	/
	IC card reader swiping card without response	Please check whether the card reader's power indicator becomes red; Please check whether the data cable is cross -connected Please check if the ground feels	/
	Prompt "Network Communication Failure"	A. Open the server B. Connect to the server to the switch network C. Connect to the network from this machine to the switch D. Set the server IP address of the machine to the IP address of the actual server. E. Set the IP address of this machine to make it the same as the server with the server.	reason: A. The server has shut down B. The network from the server to the switch is disconnected. C. The network to the switch is disconnected. D. The server IP set by this machine is not the IP of the actual server. E. This machine and server are not in the same subnet.
	Bee Narrator: Prompt "Dudu -Dudie..."	Re -connect to the network to the switch.	Reason: The network from this machine to the switch is disconnected
	Bee Narrator: Prompt "Dudes -Dudes-."	If there is no configuration of the machine on the server, add the configuration of the machine or modify the configuration of the machine on the server.	reason:This machine is restarting. Under normal circumstances, this process will not be too long. If this process continues, it may occur why the "3" or "4" described. If the above reasons are excluded, there is no configuration of the machine on the server. If there is a configuration on the server, the configuration on the server does not match the configuration of the machine. on the server,

5.2 Failure and exclusion of the parking lot management system web management platform

Failure acting	Reason	Solutions	Remark
When updating the LED information, the configuration of the entrance control host, it is prompted to fail	The reason can be that the system is busy, and the network communication fails	Check whether the network is normal	
Can't log in	1. Whether the IE browser runs normally 2. Login address error 3. Network communication is abnormal	1. Close and reopen IE. 2. Enter the correct login address 3. Check whether the network communication is normal	
Enter the password and cannot log in	Password incorrect	Enter the management from the system administrator to reset the password	
Click the editor in the staff list, prompting "the card can not be edited in the work", but the card is not logged in to the system	The card exits abnormally after logging in to the background system. Abnormal exit may include operating computer abnormal power failure, turn off the browser directly when exiting the system, server abnormalities, etc.	Use the card number or user name that needs to be edited [Note: this card number or user must have the right to log in to the background of the system] to log in to the background, click "Exit the system", and then use other authority to log in to the background system. For the card number to be edited, Information edit	

5.3 Parking lot management system management server software failure and exclusion

Failure acting	Reason	Solutions	Remark
Ticket box prompts "network communication failed"	Server software failure Meson disconnect The server and the ticket	1. Turn off and reopen the server software 2. Restart the server host.	

	box are not in a subnet	3. Check the network cable connection 4. Check the server configuration and ticket box configuration	

5.4 Failure and exclusion of parking lot management system sentry paid terminal software。

Failure Acting	Reason	Solutions	Remark
VC4000 initialization failure" prompt appears	1） 1) The video collection card is not inserted. 2） Unpacking video collection card driver	1） 1) Turn off the toll terminal computer, unplug the video collection card and reintegrate into the motherboard slot. 2） Install video collection card driver	
"Audio Can n't Open" prompt appears	The sound card driver of the system is not installed or installed normally	Re -install the correct sound card driver	
The phenomenon of "image dislocation, upside down" phenomenon	The toll terminal computer uses an integrated graphics card or installed "Storm Video" software	Use independent graphics card and uninstall the "Storm Video" software	
Swipe the card on the card reader, The card reader has sound but the program has no number display	1) 1) Error in serial port configuration 2) 2) The page of background management has been closed 3) 3) Reader and computer terminal host serial port connection loose 4) Card reader disconnect	1) Reconstruction correctly. 2) Open the background management page 3) Re -connecting the card to the string 4) Re -welding card reader connection	