QR50 QR Code Access Control Reader

User Manual

Version：V1.0 Date：2021.04.01

Important statement

Copyright Notice

Thank you for choosing this product. Before use, please read this installation guide and instruction manual (hereinafter referred to as the instruction manual) carefully to ensure that the product is used correctly, has a good use effect and verification speed, and avoids unnecessary damage to the product.

Disclaimer

Due to the continuous update of the product, the company cannot promise that the information is consistent with the actual product, and it is not responsible for any disputes caused by the inconsistency of the actual technical parameters with this information. Any changes will not be notified in advance. The company reserves the right of final modification and interpretation.

Revision Record

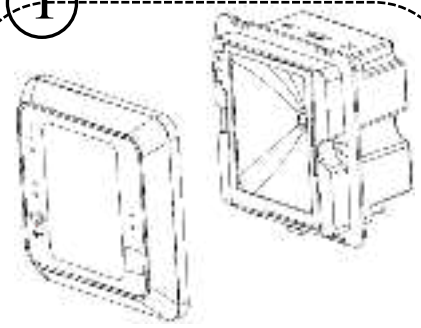
Version	Revision Content	Revision Date
V1.0	**All New**	**2021/04/01**

Contents

1、Install Equipment

Installation notes: In order to ensure the normal use of the equipment, users are requested to strictly follow the installation instructions

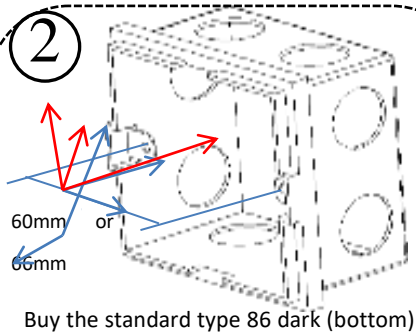
①



Face shell (with panel)

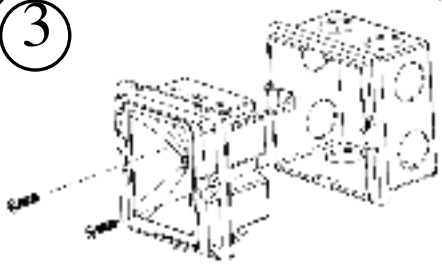
Remove the cover (with panel) from the device. It is necessary to gently remove the panel from the USB port side to avoid damage to the LED light when removing it

②



Buy the standard type 86 dark (bottom) box from the market, and the installation hole distance is 60mm or 66mm. The installer digs a hole on the wall surface according to the length, width and depth of the standard 86-type dark (bottom) box to place the dark (bottom) box and fix it with cement sand

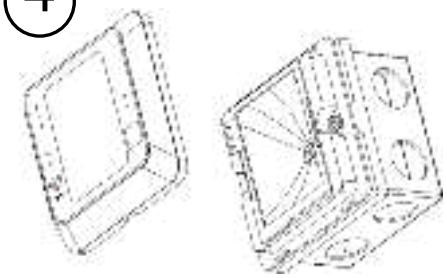
③



The device has this boss facing downwards during installation

When installing, connect the wire and debug it, then put the device into the 86-type concealed (bottom) box as shown in the figure, and fix the device with two M4*15PB mechanical screws. Pay attention to the downwards on the device with the boss.

④



The panel is printed upright, and the notch under the shell is aligned with the boss under the device

First find the right alignment point, and then buckle the shell (with panel) into the device (as shown in the figure), pay attention to the assembly direction during installation and check whether the printing on the rear panel is upright.

2、Product Introductions

The QR code access control card reader is a new generation of smart access control card reader developed by our company. The product has high-end appearance, fast scanning speed, high recognition rate, strong compatibility, and can be connected to any access control controller that supports Wiegand input. It adapts to various application scenarios, supports identification of RFID radio frequency cards and QR codes, and can be used in community management, visitor management, hotel management, unmanned supermarkets and other fields.

The characteristics of the QR code reader as followed：

- Development of new QR code access control technology.
- The card reader comes with a card reader antenna, the working frequency is 13.56MHz.
- Support ID，MF，CPU，NFC (analog card)，Desfire EV1，and QR code.
- Support Wiegand，RS485，USB (upgrade use).

3、Wiring Instructions

3.1 Wiring Definition

From the reverse side (pictured above) from left to right：

DC(+12V)	GND	485A	485B	WG0	WG1	NC	NC	NC	NC
VCC	GND	RS485 Port		Wiegand Port		/	/	/	/

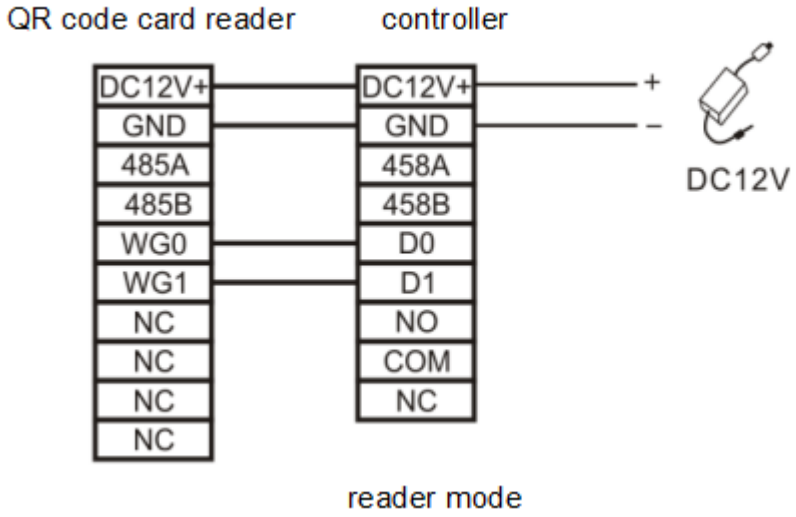
3.2 Operating Instructions

Note: During use, please follow the wiring definition of the QR code reader to connect with other devices. In addition, what is mentioned below is only part of the wiring between the QR code reader and the controller, and does not represent all the wiring definitions of the controller. Please refer to the actual controller wiring definitions.。

1.Wiegand or RS485 Communication

①First, connect the QR code reader to the controller via Wiegand or RS485, and then connect the +12V power supply.

The QR code reader does not need to be connected to the lock body when it is used as a reader. The controller in the figure only lists part of the wiring. In addition, there are many ways to connect between the machines. Refer to the following figure for the common connection methods of Wiegand or RS485:

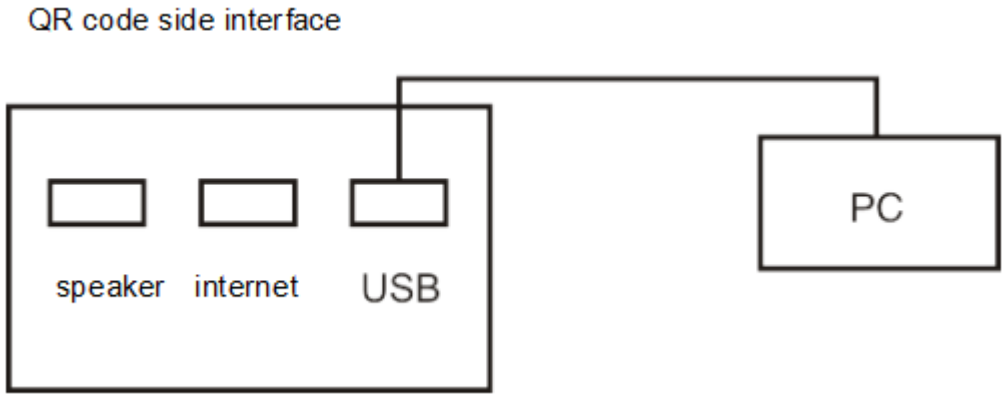


reader mode

②Then, put the card or QR code (paper, electronic, mobile phone) into the recognition range of the card reader, and the card reader will automatically obtain and transmit the information carried by the card or QR code to the controller.

2.USB Communication

①First, connect the QR code reader to the PC through the USB interface.



②Then, open the "HID keyboard" in the DEMO software settings, and then put the card or QR code (paper, electronic, mobile phone) into the recognition range of the card reader, the card reader will automatically obtain the information carried by the card or QR code And transmit to the PC terminal, can demonstrate through the text document.

4、Operation and Setting of Card Reader

Introduce how to configure the card reader through Demo software.

4.1 One-key Configuration

Operation steps

1. Connect the QR code reader to the computer with a USB cable, open the Demo software, select the USB port, click "OK", the connection is successful. (Note: If you choose serial port connection, the default baud rate is 115200)

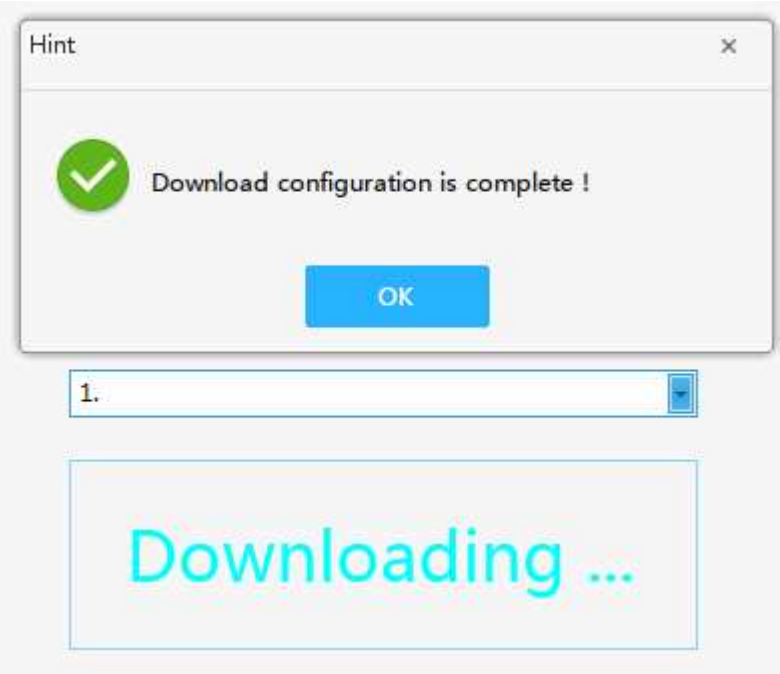
   Note: Support Connection Configuration tool via USB and serial port。

   USB: Connect to the configuration tool via USB communication。

   COM: Connect the configuration tool through RS485 communication。

2. Successfully connected, click download in the download configuration area below。

3. Prompt that the download configuration is complete, and the QR code reader configuration can be completed with one click, the operation is simple。

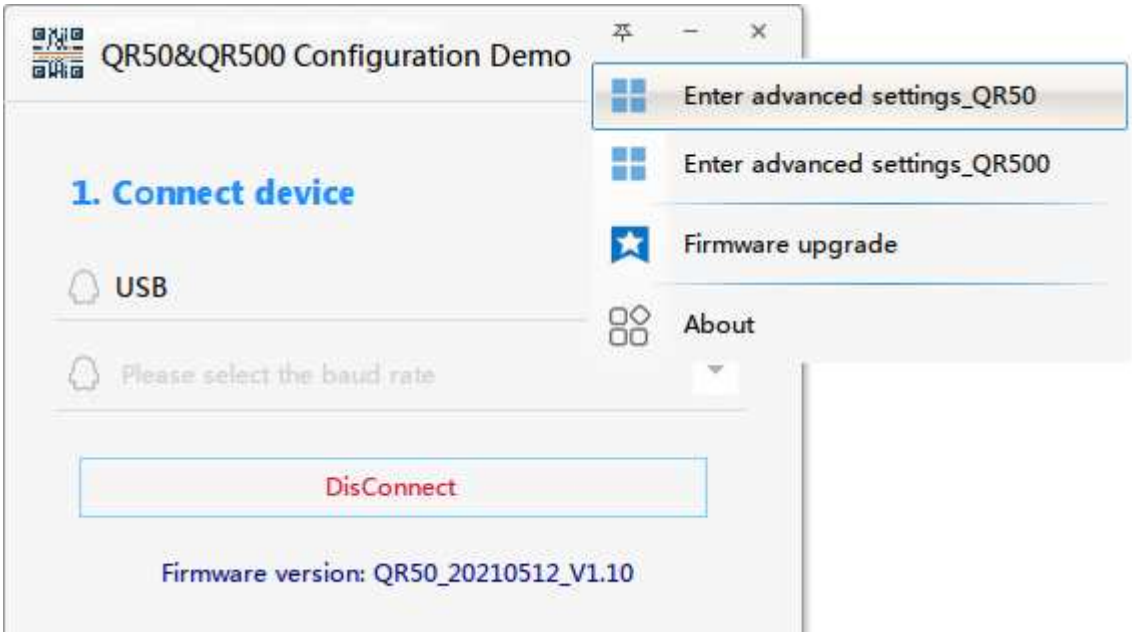


-----The End

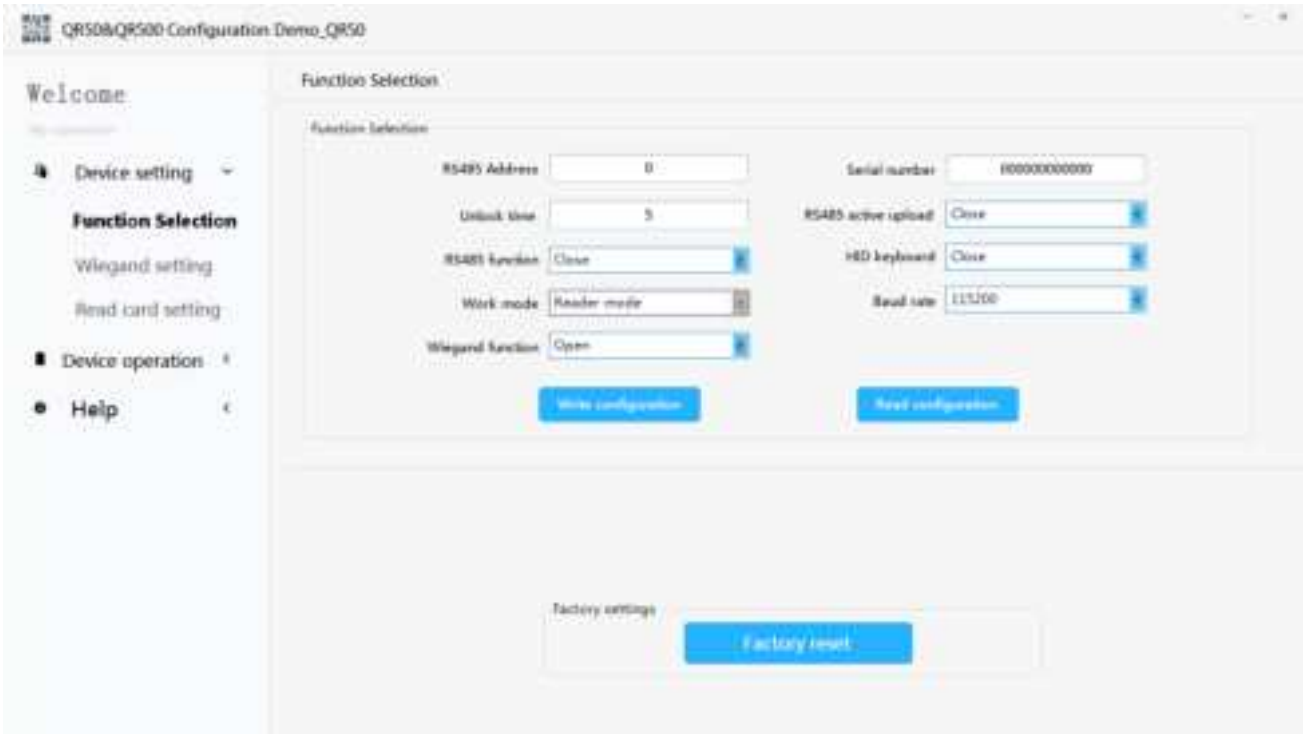
4.2 Basic Operation of Card Reader

Operation Steps

1. If the user needs to set the parameters of the QR code reader by himself, open the Demo software, after the connection is successful, enter the QR50 advanced settings page in the upper right corner of the page。



2. Enter the main page of advanced settings。



3. On the "Reader operation" page, set the configuration parameters of the card reader as required。

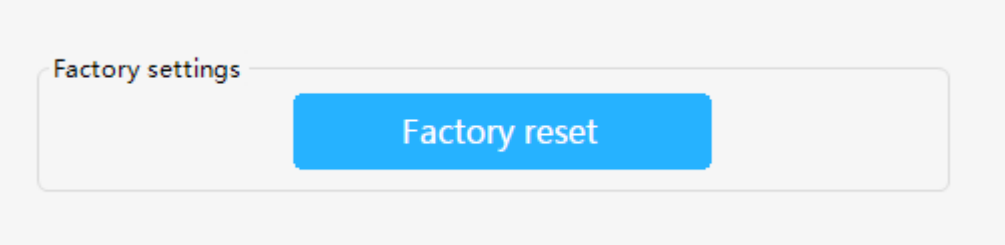
   a) Click "Function Selection" on the "Function Selection" interface to view the configuration information of the current card reader。

b) The user can set the parameter information of the card reader by himself, and then click "write configuration" to configure the parameter information of the QR code reader。

Params	Description
RS485 address	0: Broadcast address, that is, no matter the machine's 485 address is set to 0~255, it can be connected by communication. If the 485 address of the machine is set to 1~255, fill in the corresponding, and it can also be connected by communication。
Unlock time	When the card reader is directly connected to the door lock and the card/QR code with normal door opening permission is swiped, the door opening time。
serial number	Device serial number of the card reader。
RS485 Function	Turn on/off the RS485 communication mode of the card reader. The configuration tool can still be connected through 485 when closed。
RS485 Active upload	When it is turned on, the card reader data is automatically uploaded to the server under the 485 interface. When closed, the card reader data will not be uploaded to the server。
Wiegand Function	Turn on or off Wiegand mode. Note: The DEMO switch has no effect. Wiegand output is also available when the Wiegand mode is turned off。
Work mode	Reading head mode: When connecting a card reader, select the reading head mode, and set the parameters of the reading head through the DEMO software. Note: Only reader mode is supported!
HID keyboard	When it is turned on, the USB communication can transfer the card number (the card does not support)/QR code data to the computer (such as a text file). When closed, the card/QR code will have normal feedback, but the USB will

	not transfer the card number/QR code data to the computer。
Baud rate	If you choose a serial port connection, you can set the baud rate。
Write configuration	When the above parameters are modified, click "write configuration" to make the new configuration effective。
Read configuration	Get the current configuration of the card reader and display it。

Support resetting the card reader to factory settings。



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4.3 Wiegand setting

Operating Steps

1. On the "Wiegand Parameter Settings" page, set Wiegand related parameters。

Params	Description
Wiegand Mode	Can choose Wiegand 26、34、66。
Output format	When Wiegand outputs the card number, the card number can be output in Positive/reverse direction。
Parity check	Whether to transmit Wiegand parity bit, optional output/non-output。
Pulse Width	Wiegand pulse width, optional (1~99)*10ms
Pulse interval	Wiegand pulse gap, optional (0~89)*100+1000ms。
Write configuration	After setting the above parameters, click "write configuration" to make the new configuration effective。
Read configuration	Get the current configuration of the card reader and

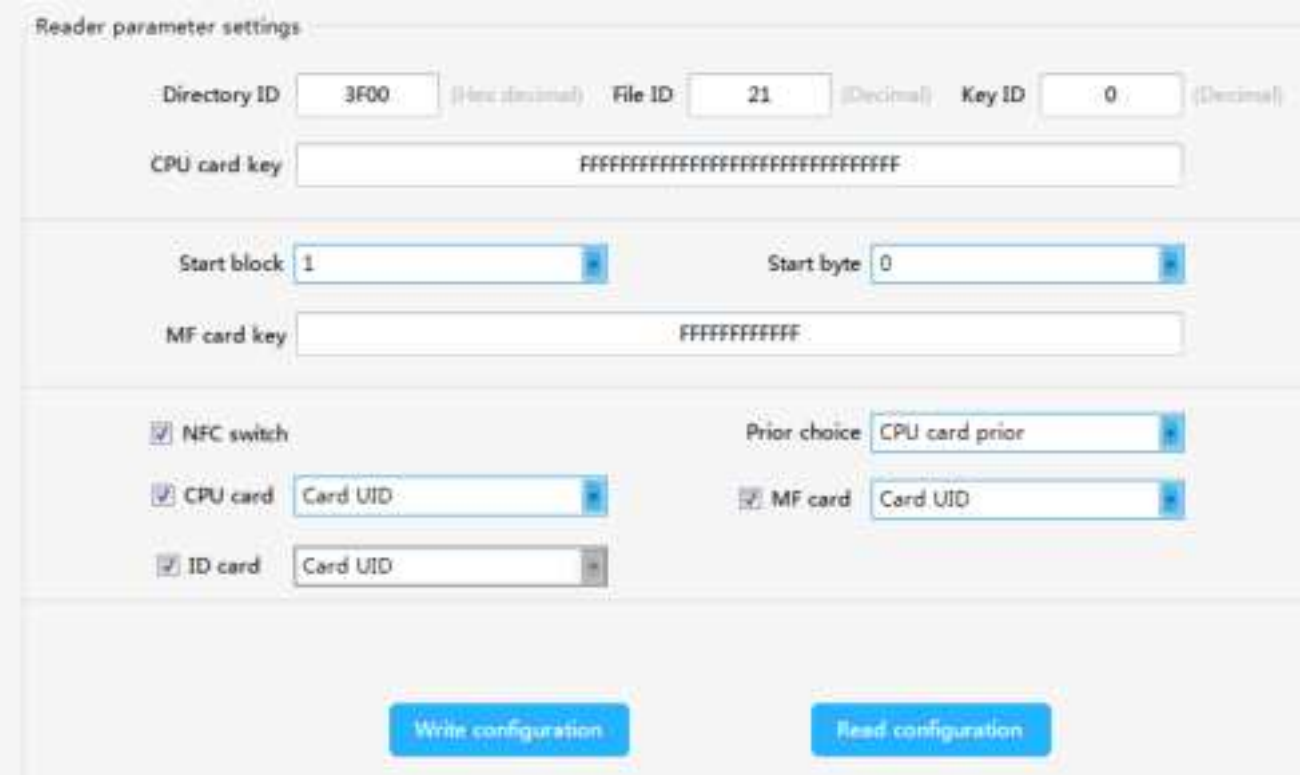
	display it。

-----The End

4.4 Read card setting

Operating Steps

1. On the "Reader parameter settings" page, set the reading parameters of the card reader。



Params	Description
Card reader mode	Custom settings to read the CPU card physical card number, MF physical card number

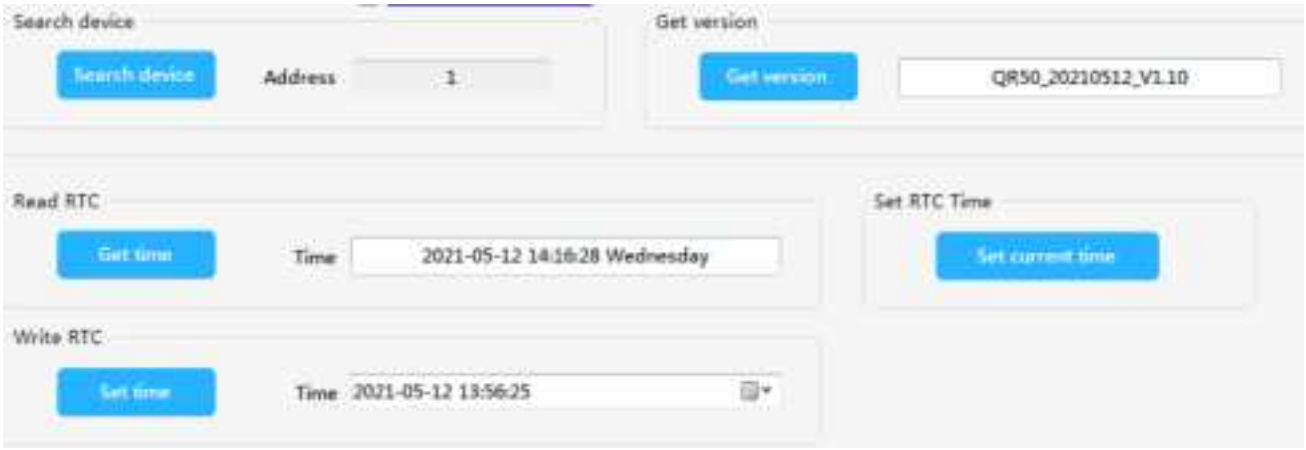
2. After setting the parameters, click "write configuration" to write the information into the card reader。
3. Click "Read Configuration" to display the configuration information of the card reader。

-----The End

4.5 Reader operation

Operating Steps

1. On the "Reader Operation" page, set the relevant parameters of the card reader。



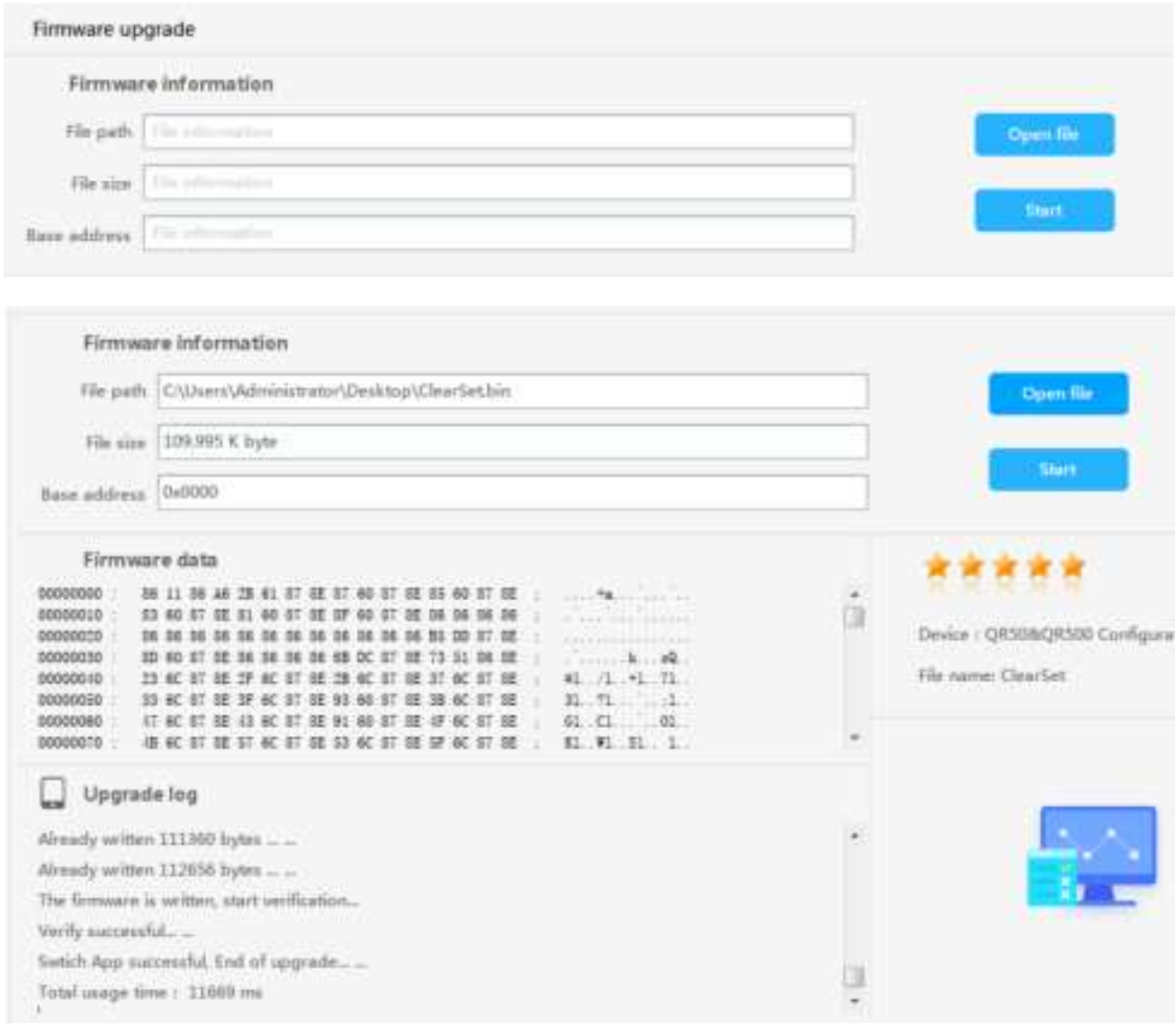
Params	Description
Search device	Click "Search device" to view the communication address of the card reader。 Note：If you select the RS485 address, you can click "Search device" to get the correct device address before you can perform other operations。
Get version	Click "Get Version " to view the version number information of the card reader
Read RTC	Get the time of the card reader。
Write RTC	Set the time of the card reader.
Real-time write RTC	The time when the card reader is connected to the PC.

-----The End

4.6 Upgrade Firmware

Operating Steps

1. On the "Firmware Upgrade" page, click "Open File", select the upgrade program, click the "Start Upgrade" button, unplug and plug the USB to reconnect the machine to the computer, check the prompt message, and the upgrade is successful.


Firmware upgrade
Firmware information
File path
File size
Base address
Open file
Start
Firmware information
File path
C:\Users\Administrator\Desktop\ClearSet.bin
File size
109.995 K byte
Base address
0x0000
Open file
Start
Firmware data
Device : QR500&QR500 Configura
File name: ClearSet
Upgrade log
Already written 111360 bytes ... ...
Already written 112656 bytes ... ...
The firmware is written, start verification...
Verify successful... ...
Switch App successful, End of upgrade... ...
Total usage time : 11669 ms

FCC Warning:
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any inte rference received, including interference that may cause undesired operation.

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interferenceto radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

The End