***Dynamic Face Recognition Access Control System***

*User manual V 4 .0*

*Please read this guide carefully before use*

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**I. Product parameters**

|  |  |  |
| --- | --- | --- |
| **Screen information** | **Screen** | 8.0 inch vertical, HD HD 800\*1280, capacitive touch screen |
| **Press button** | Touch virtual keys |
| **Infrastructure configuration** | **Operating system** | LINUX 3.10 |
| **CPU** | Dual-core Cortex-A7AI Neural Network Accelerated Chip |
| **Running memory RAM** | **1GB DDR3** |
| **ROM of storage space** | **eMMC Flash 16GB** |
| **Binocular camera** | 200W color WDR wide dynamic + infrared live camera |
| **Punch record capacity** | 200,000 |
| **Face Registration** | **Registration** | Face registration, photo U disk importSoftware Operation: Photo Import Registration, Camera Photo Registration |
| **Recognition performance** | **Verification comparison** | Face, password, ID/IC card (extensible fingerprint) |
| **Full registered capacity** | **20000 faces ,20000 passwords ,20000 cards (1000 extensible fingerprints)** |
| **Recognition speed** | Up to 0.3 seconds |
| **Identification distance** | Activate biopsy 0.3~1.5 m |
| **In vivo testing** | Dynamic double-shot anti-counterfeiting, put an end to all kinds of black and white color photos, video on various carriers of deception |
| **Face Recognition** | Dynamic Face Detection and Tracking Based on Video Stream ,1: N Recognition Algorithm |
| **WDR Wide Dynamic** | Ultra wide dynamic range, strong light, inverse light, dark light imaging clear, accurate identification |
| **Interface** | **U disc opening** | USB2.0x 1, import and export data U disk |
| **Power outlet** | DC12V terminal on the back |
| **Speaker interface** | Support extension |
| **Communications network** | Standard: TCP/IP wired, WIFI wireless communications; customizable 4 GSupport C/S LAN communication, support B/S WAN cloud communication |
| **Attendance function** | **No software attendance** | U Export Attendance Statistics EXCEL Report |
| **Shift and Scheduling** | Class setup is supported, U disk is imported into schedule |
| **Background management software** | Support computer software to manage data through network connection devices |
| **Professional Access** | **Access control function** | Unclosed door alarm, forced door alarm, alarm linkage and output, a group of open door signals, a group of alarm signals, time authority control, personnel authority control, external access control head, Wegan 26/34 output, extensible RS485 and RS232 |
| **Working environment** | **Environmental adaptability** | Operating temperature :-15℃~+45℃(storage temperature -40℃~+65℃),Working humidity :20%~90%(storage humidity 20%~90±2%),Darkness: LED soft light automatic lighting (automatic control according to ambient light)Environmental light adaptation: Lux 0-50,000 |
| **Other parameters** | **Broadcast and ringing** | Support name display, voice broadcast name, built-in commuter ring |
| **Automatic recharge** | Support infrared light, support dark light white light automatically lit up |
| **Power supply requirements** | **Working current** | Standby current :600 mA, Working current :800 mA |
| **Working voltage** |  DC12V |
| **Installation mode** | **Installation mode** | Standard: Wall MountingOptional: Gate support, floor column |
| **Protection level** | **Protection level** | IP65 |
| **Size Specifications** | **Equipment dimensions** | 268x126x28mm  |

**II. PRODUCT STRUCTURE:**

White light

Infrared patch

Infrared camera camera

Color camera camera

LCD screen

Card

**CARD**

Front

Screw position

U disk slot

Reset

 Bottom

Access control

Back side

Speaker

**Ⅲ.Menu Description:**

**3.0 Menu Introduction**

|  |  |  |  |
| --- | --- | --- | --- |
| Level 1 menu | Secondary menu | Level 3 menu | Level 4 menu |
| User  | Create user |  |  |
| Batch Import of users |  |  |
| Query |  |  |
| Report  | Attendance table output |  |  |
| Shift Schedule export |  |  |
| Shift Schedule import |  |  |
| Original record export |  |  |
| Attendance  | Save photos |  |  |
| Repeat confirmation time |  |  |
| Check attendance records |  |  |
| Attendance Shift  |  |  |
| Allowing tardiness |  |  |
| Allow early departure |  |  |
| Network  | Communications settings | Device No. |  |
|  password |  |
| Port number |  |
| Ethernet settings | IP address |  |
| Subnet mask |  |
| Gateway  |  |
| DNS  |  |
| DHCP |  |
| Wi-Fi settings | WI-FI on / off (click View IP option to set static IP, to display WIFI name when open) | IP address |
| Subnet mask |
| Gateway  |
| DNS |
| DHCP |
| Access control settings | Wiegand output | Employee ID |  |
| Card Number |  |
| Wigan Output Format | 26bit34nit |  |
| Open door delay (relay) |  |  |
| Door contact | Remain closed, Remain open,None |  |
| Door alarm time delay |  |  |
| Open door alarm |  |  |
| Duration settings |  |  |
| Bell |  |  |  |
| System  | Time settings | Automatic  |  |
| Manual configuration |  |
| Timezone settings |  |  |
| Volume setting |  |  |
| Fill-flash settings |  |  |
| Language settings |  |  |
| ALG | Liveness |  |
| Multiple identification |  |
| Administrator  |  |  |
| Reset password  | Old password |  |
| New password |  |
| Confirm password |  |
| Sleep |  |  |
| About | Device name |  |  |
| System version |  |  |
| Algorithm version | Click on the algorithm 5 times into the factory test mode, press the return key factory test mode automatically hidden (test, do not open this function) | LCD screen test |
| Speaker test |
| Camera testing |
| WIFI testing |
| BT testing |
| RCT testing |
|  |  | Ethernet testing |
| Testing of infrared lights |
| Light sensor testing |
| White light test |
| Camera calibration |
| Touch screen testing |
| Relay testing |
| RS485 testing |
| Wegan test |
| Storage  | User registered capacity |  |
| Attendance Record Capacity |  |
| Password used |  |
| Amount of face |  |
| Number used |  |
| System update |  |  |
| Reset |  |  |
| Clear user data |  |  |
| Clear record data |  |  |

**3.1 User management**

**3.1.1 Register Users**

**1) Registered Users: Go to the main menu-User-Create user**

1. Click on the right input box to enter the employee number or use the current default number;
2. Click on the "name" right input box to enter the employee name;
3. Click "add face" to enter the input window, voice prompt "ok" click save, complete face input;

2) View users: in the main menu interface click on "user ", and then select" Query "to display the current user information, can be viewed by page, or by registration number or name to accurately find users;

3) user editing: click on the user list to edit the user information (can modify the user name, department and re-change the registered induction card number, registration password, registered face and other information)

**3.1.2, user information export and import**

1) information export: enter the main menu click on "user ", then select" Query"click on the list of" export ", screen prompt "export user success" can be completed

2) information import: upload the backup personnel information in the U disk to this device, the personnel information can be sourced in two ways :1, directly export information from the device and import the device or another device ;2, edit the information on the computer in a certain format and import the device

Mode 1: Export user information to the U disk according to the first point above, insert the U disk into another device, enter the main menu click "user management ", then select" batch import user ", click "import ", click" OK "after the import is completed

Mode 2: edit the user information in the following format and save it to the U disk, and then import the device according to method 1

Bulk Import Format: Create a folder and name REG》：

A、 create a new file in the file named "DCIM》, to store photos of people who need to register, the photo named xxx.jpg ;". The

B、 new excel form is named "person.xls》： set up the registered person information in the form, the person information includes: person number, name, registered photo name (photo name to the corresponding person, xxx to the name of the person, the corresponding photo named xxx.jpg)

Tip: import format template REG》 and DCIM》、《person.xls》 can be exported from the device, export the same way as user information export, the device needs to register at least one user when exporting, and finally edit the personnel information according to the template to upload to the device

**3.1.3 View Users**

1) View users: in the main menu interface click on "user ", and then select" Query "to display the current user information, can be viewed by page, or by registration number or name to accurately find users;

2) user editing: click on the user list to edit the user information (can modify the user name, department and re-change the registered induction card number, registration password, registered face and other information)

**3.2 Report settings**

**3.2.1 attendance table output:** insert the U disk into the interface of the attendance machine, select "report " and then select "attendance table output ", then select the date that needs to export attendance, point confirmation output can export attendance report;

**3.2.1 Shift schedule export:** select report settings and then select shift schedule export to export schedule for setting schedule time on other computers;

**3.2.3 shift schedule import:** select report settings and select schedule import to import the scheduled schedule information into the device

**3.2.4 original record export:** select report Settings and then select original record Export to download the original attendance report**;**

**3.3 Attendance settings**

**3.3.1 save photos:** when saving photos open, when viewing attendance records, display the right card punch photos, do not display photos when closed

**3.3.2 repeated punch interval:** set the effective time of punching, only one punch record is produced in the set time, repeated punch does not produce punch record, time setting range :0-600 seconds

**3.3.3 view attendance :** check the original card record of all employees, if you turn on the photo saving function, you will display the photo of the card punch person

**3.3.4 attendance shift:** up to 20 shifts can be set, each shift can be set up a maximum of 3 time periods, after setting the shift time personnel can set the shift time card attendance

**3.3.5 allow tardiness:** after setting the allowed time, if you do not go to work according to the prescribed time, indicate the late time in the attendance list, time range :0-60 minutes

**3.3.6 allowed early departure:** after setting the allowed time, if you do not work according to the prescribed time, you will be prompted to leave early in the attendance list, the time range is :0-60 minutes

**3.4 Network settings**

**3.4.1 communication settings:** can set the local device number, communication password and port number, setting range: device number 1-999999, communication password 1-999999, port number 1-9999

**3.4.2 Ethernet settings:** the device can automatically obtain the IP address, subnet mask, gateway address, DNS, and information can not be modified after DHCP the open state is inserted into the network line to connect to the network; the closed state can set any legal IP address, subnet mask, gateway address, DNS

**3.4.3 Wi-Fi settings:** WIFI open state can automatically search and display the wireless network router name (WIFI); select any name can be connected normally, if the wireless network password needs to enter password, click WIFI characters to view the WIFI IP address, subnet mask, gateway address, DNS, and information can not be modified;

WIFI off status, click WIFI characters, then close DHCP you can set any legitimate IP address, subnet mask, gateway address, DNS

**3.5 Access control**

**3.5.1 Wiegand output:** select the number of Wiegand output

**3.5.2 Wigan output format:** Wigan output 26 bit or 34 bit format

**3.5.3 Open door time delay:** after setting the door delay time, the successful subsequent electrical appliances automatically jump, to the set delay time automatically closed, door delay time range :0-600 seconds

**3.5.4 Door contact:** set door contact type, can set three modes: remain closed, remain open, none.

When the 1) is normally closed, when the door magnetic induction block is successfully opened A there is no synchronous shift door magnetic induction block B, when the time arrives to set the door magnetic delay time horn alarm sound

When the 2) setting is often opened, the door magnetic induction block A not synchronously close to the door magnetic induction block when the verification is successfully opened B, and when the time arrives, the door magnetic delay time horn makes an alarm sound

3) set to no time, door magnetic action

**3.5.5 door alarm time delay:** set door magnetic delay time, door magnetic type settings often open or close to play a role, can be added or subtracted by the button setting time, time setting range :1-255 seconds

**3.5.6 Open door alarm:** set open or close door magnetic alarm function

1) the opening mode door magnetic timeout does not sense the closing or opening signal when the horn alarm

2) closing mode door magnetic timeout does not sense closing or opening signal the horn does not make alarm sound

**3.5.7 Duration settings:** used to set up access control function open time period, can set up 3 time groups, each time group can set up 1 time period, that is, allow open door time period, such as: set 8:00-12:00 means this time period is allowed to open door, other time period can not open door

**3.6 Bell settings**

Can set 24 groups of ringing time, time point can be set at will, after setting the time to open the right switch button, when the time to ring time, the horn ring such as: set 8:00, when the ring switch time to 8:00, the horn automatically ring

**3.7 System setup**

**3.7.1 time setting:** sets the current time of the device manually or automatically synchronously

1) turn off the auto-set switch, can adjust the date and time: year, month, day, time, minutes, seconds

2) turn on the auto-set switch when connected to the network

**3.7.2 time zone settings:** set the location time of the equipment, can automatically synchronize the time of different regions, the settings are: Beijing, Tokyo, New York, London, Paris, Berlin

**3.7.3 volume setting:** adjust the output volume of the horn, volume level :0-10 level 0 level horn does not output sound, level 10 maximum volume 0-10 level volume gradually increased

**3.7.4 Fill-flash settings:** set up light supply switch function

On state: when the device detects the face in the dark environment and senses the lack of light, it can automatically turn on the light, the light will always be lit when the face is not removed, and can automatically turn off 60 seconds after the detection of the face is removed. Closed state: the light can not be turned on automatically in any environment

**3.7.5 Language Settings: Chinese, English**

3.7.6 algorithm parameter setting :

1) Liveness: after opening face recognition can only recognize the real face, not other people's head image, video image or photos (including: black and white, color photos)

2) multi-person recognition: turn off this function when brushing face can only recognize one face at a time, after opening up can recognize up to 5 faces at the same time

**3.7.7 administrator settings:**

open state: enter the system menu need administrator password to enter; close state: click on the menu icon can directly enter the system menu (administrator original password is :917328, can be modified at will, If forget administrator password can contact customer service to obtain super password)

**3.7.8 Reset password:** login password can be arbitrarily modified to 6 digits, you need to enter the old password before changing the password

**3.8 About device**

**3.8.1 Device Name: Display Device Name**

**3.8.2 System Version:** Display Device Current System Firmware Version Number

**3.8.3 Algorithm Version: Display Device Current Algorithm Version Number**

**3.8.4 storage capacity:** display user capacity and punch record capacity

1) shows the total user capacity and residual consumption, full registered capacity

2) record total capacity and recorded amount

3) number of password users, number of face registration, number of card number registration

**3.8.5 system update: for U disk upgrade system firmware**

**3.8.6 reset:** restore all system settings to factory settings, including clearing user data, card records and management login password, careful use of this function, the recovery of factory settings will restart the equipment, is a normal phenomenon

**3.8.7 clear user data: clear all registry data information**

**3.8.8 clear record data: clear all credit card records**

**3.9 Other functions**

**3.9.1 doorbell function:** ring the access wiring diagram to connect the doorbell, then click on the main interface doorbell icon, the doorbell rings

**3.9.2 reset function:** only for restarting the device, if you need to restart the device, you can use the tool to gently press the device bottom reset key, you can restart the device

**3.9.3 attendance management system software connection:** for background management equipment attendance data and set up equipment part of the function

1) first install attendance management system software on the computer;

2) equipment and computers using management software need to be in the same network segment (that is, the same router or switch output network segment)

Device number and port number should be the same as the device when the 3) attendance system is connected

**IV. Installation instructions**

 1) equipment installed indoors, if used outdoors, avoid direct sunlight and rain, avoid infrared and strong light camera

 2) power cord, network cable and access control wiring as short as possible to avoid interference.

 3) installation height can be installed according to the use of the scene, using face recognition distance of about 30-150 cm, avoid too close or too far away

 If you 4) a person's face, you should keep the light even, you can see the face clearly, you can avoid registration in a strong light or dark environment, and if you register a person's face, you will have problems such as recognition error or non-recognition

5) installation method:

A) first put the wall panel on the wall to confirm the position of 4 screw holes (height 1.2-1.5 meters)

B) drill the screw hole with electric drill and put the rubber C in the screw hole position) use 4 3/10 MM self-tapping screws to fix the wall hanging plate

D) fasten the machine to the wall board and lock the machine with a 3\*8 wire screw at the bottom of the machine

Fix back panel on the wall



Installation of wall mounted panels

Fix wall mounting screws

**V. Installation terminal pin description**

Select Advanced Settings, Machine Settings, alarm Settings, press the OK key to enter the number on the keyboard to set the bell time, and finally press the OK key to open the bell.

The machine will ring at the set time.

1. Access control interface CON2(12 P interface on the back of the device) definition:

|  |  |  |  |
| --- | --- | --- | --- |
| Line sequence | Definition | Function Description | Wire Color |
| 1 | ALARM- | Alarm signal | Yellow Line |
| 2 | ALARM+ | Alarm signal | Green Line |
| 3 | NO | The door lock begins | Blue Line |
| 4 | COM | Door Lock Public | Purple |
| 5 | NC | Door locks are often closed | Grey line |
| 6 | OPEN | Open signal positive | Brown Line |
| 7 | GND | Open the floor | Green Line |
| 8 | SEN | Gate magnetic signal | Blue Line |
| 9 | BELL- | Bell signal | Yellow Line |
| 10 | BELL+ | Ring signal positive | White Line |
| 11 | FIRE1 | Fire input alarm 1 | Black lines |
| 12 | - | Empty foot | Red Line |

1. Network interface CON1(4 P interface on the back and bottom of the device) definition:

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | RJ-45-1 | TCP\_TX+ signal foot | Blue Line |
| 2 | RJ-45-2 | TCP\_TX- signal foot | Yellow Line |
| 3 | RJ-45-3 | TCP\_RX+ signal foot | White Line |
| 4 | RJ-45-6 | TCP\_RX- signal foot | Green Line |

(3) Access control interface CON4(2 interfaces P the back and bottom of the device) definition:

|  |  |  |  |
| --- | --- | --- | --- |
| 1 |  +12v  | 12 V power supply foot | Black and white lines |
| 2 | GND | Power ground | Black lines |

1. Communication interface CON3(8 P interface below the back of the device) definition:

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | D1-OUT | Wiegand signal output 1 foot | Purple |
| 2 | D0-OUT | Wiegand signal output 0 feet | Grey line |
| 3 | GND | Ground ground | Brown Line |
| 4 | D1-IN | Wigan signal input 1 foot | Green Line |
| 5 | D0-IN | Wigan signal input 0 | Blue Line |
| 6 | GND | Ground ground | Yellow Line |
| 7 | 485A | 485- A (expandable) | White Line |
| 8 | 485B | 485- B (expandable) | Black lines |

1. Access Control Diagram


#  Warranty card

**Warranty Notes**

**In order to protect your interests, relieve your worries. The company in accordance with the national three guarantees of electronic products, for you to provide one year of quality warranty services!**

Product failure or damage, whether or not during the free warranty period, is not included in the free warranty:

● failure or damage caused by the assembly, repair, modification or disassembly of our service agencies and personnel (machine anti-disassembly labels have been removed, damaged or lost);

● failure or damage caused by the use of unincorporated parts;

● failure or damage caused by the use of non-company special product functional software;

● failure or damage caused by force majeure such as natural disasters, such as earthquakes, fires, etc;

#  Certificate

Inspector :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of production :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The product has been tested to meet the factory quality standards, permitted to leave the factory

Please keep this certificate properly