Manual

125 kHz and 13.56 mHz card time recorder, fingerprint and PIN with LAN WIFI IC WIEGAND 4G

TimeLok-400NWEPBI4G

Table of contents

HDWR Hardware for business
hdwrglobal.com

HDWR Hardware for business
hdwrglobal.com

Specifications:

- **Warranty:** 1 year
- **Model:** TimeLok-400NWEPBI
- **Material:** ABS
- **Verification Type:** Fingerprint, Card, PIN
- **Operating frequency:** 125 kHz, 13.56 mHz
- **Max number of employees in the database:** 3000
- **Max. number of fingerprints in the database:** 1000
- **Max. number of entries in the database:** 1000
- **Max. log capacity in the database:** 100,000
- **Number of buttons:** 16
- **Display:** 2.4 inch TFT LCD
- **Menu language:** English
- **Power supply:** 12V
- **Communication:** USB+WiFi, WEB, P2P, IC Wiegand, LAN, 4G
- **Error rate:** 1/1,000,000
- **Operating Temperature:** -10~60
- **Operating Humidity:** 20~80%
- **Device dimensions:** 19 x 13.5 x 4 cm
- **Package dimensions:** 19.5 x 15 x 10.5 cm
- **Device weight:** 350 g
- **Weight of the device with packaging:** 450 g

Set contents:

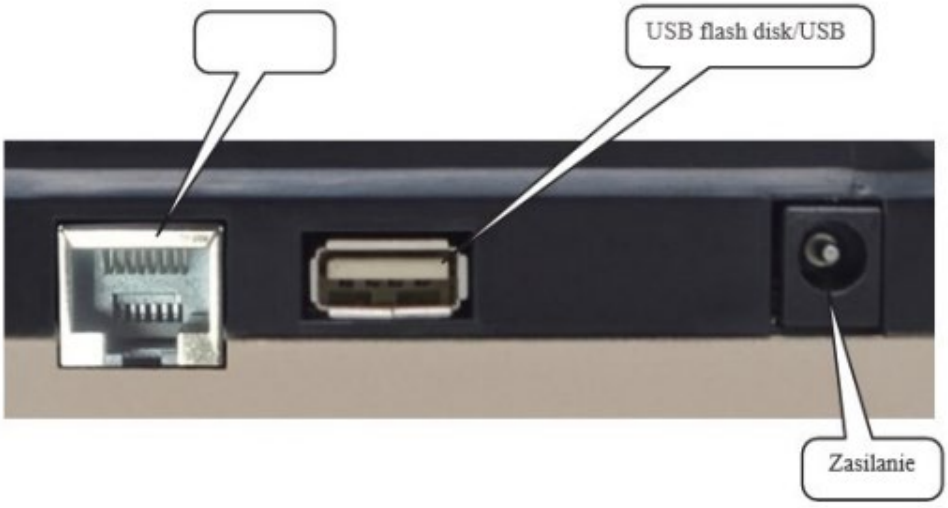
- Rejestrator czasu pracy TimeLok-400NWEPBI4G
- AC Adapter
- Access Control Cable Harness
- Mounting screws

Introduction

This manual is intended to introduce the functions of the fingerprinting device. After reading this manual, the user knows how to use and manipulate this fingerprinting device. This manual provides a detailed explanation of each function with its corresponding graphics for easy understanding.

Communication with a computer

There are two types of communication. These are TCP/IP and USB flash disk.



Power Management

When you plug in the power adapter and press the in/out button, the device will be turned on. If you have automatic switch-off activated, the machine will be switched off automatically after a predefined idle time in minutes. To switch off the machine manually, simply press and hold the in/out

HDWR Hardware for business
hdwrglobal.com

button for more than 4 seconds. We can also turn the machine on or off through the computer.

User management

The machine operator can be divided into 2 types. One is the administrator and the other is the user. The user can only verify on the device, while the administrator can operate the device menu. The administrator's role is to save or delete the fingerprint, password, or contactless card for the user.

User registration

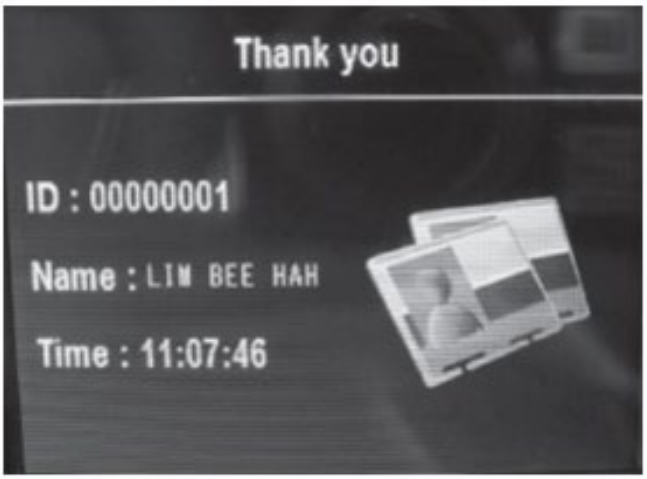
There are 3 types of registration in a fingerprint machine. These are: fingerprint, password, and contactless card (optional). Each user can register up to 3 fingerprints, 1 password and 1 proximity card (optional). The password has a maximum of 4 highlights, ranging from I to 9999.

User ID and password

Each user or administrator must have a unique user ID. It ranges from I to 99999999, 8 digits. This user ID is intended to match the user ID in the attendance software.

Machine Working Status

The machine has 3 types of statuses. These are: attendance status, work status, and prohibition of attendance status. In the presence status, you can press your finger into the fingerprint sensor or enter the user ID and password, or swipe the proximity card for the machine to start verification. If it is passed, the corresponding user will appear on the display. In addition, the punching record will be saved in the flash memory of the machine. In addition, the door lock signal will be released to open the door. In operational mode, we can add, modify, or delete records, machine settings, and transaction requests. If the machine has at least one administrator, access to the menu system requires administrator verification.



Attendance record

Various data is stored in the machine. These are glog, slog, and enroll information data. Gloggage is entry and exit transactions. A slog is a log of changes to the machine settings. Registration information is the records of each user. It stores your user ID and verification information such as fingerprint, card, and password. Since these records are stored in flash memory, a power outage will not result in data loss. However, the user is encouraged to retrieve data from the machine at least twice a month to have a backup in desktop software.

HDWR
Hardware for business
hdwrglobal.com

Slog and Ghawthorn content

Typ rekordu	Operacja	Pola zapisu
Rejestr zarządzania	Enrolluscr	Dme. Time. Tcmiinal. Operator User ID. Enrolltx! User ID
	Usuń użytkownika	Date. Time. Tcmiinal. Operator User ID. Deleted User ID
	Usuń wszystkie zapisy	Date. Time. Tcm1inal. Operator User ID
	Zaawansowane zarządzanie	Date. Time, Tcm1inal. Operator User ID
	Ustawienie czasu	Date, Time, Temiinal. Operator User ID
	Zapytanie ofertowe	Date, Time, Terminal. Operator User ID
Obecność Record	Weryfikacja użytkownika	Date. Time, Tcmiinal. Verified User ID

Advanced management

Advanced management allows you to change advanced device settings.

Terminal Setup

Setting the terminal allows you to change the device number. The default device number is If you have more than one machine on your network, each device requires a unique device number. The range of the device number is from I to 255. When you communicate the device through the computer software, the software device number must be the same as the hardware machine.

Manager Count

Set the number of managers allowed on write-up. The default is 5.

HDWR Hardware for business
hdwrglobal.com

Language

Use this item to set the display language of the device. The default options are English, Traditional Chinese, and Simplified Chinese. To display a different national language, you must negotiate.

Power 011'

This is the 10 idle time setting for the IO machine shuts down automatically. The default value is "no" - when changing the setting, you need to enter the idle time. The range is from 1 to 9999 minutes.

Date and time

If you find that the date and time of the device are not correct, you can correct them using this menu item. You can also correct it using computer software.

Sound

The fingerprinting device will make "thank you" or "please press your finger again" sounds for positive or negative verification, respectively. If you don't want to hear this voice, you can turn it off in this menu item. If the sound is off, even pressing the device's keyboard will have no sound. When the user passes the verification, the display can only be relied upon for the phrase "thank you". In the event of a failure, the message "Access denied, press finger again" will appear on the display. The default value is "yes" with sound output.

Factory reset

Selecting this item will restore all settings to factory defaults. Please use caution when using this item.

Temperature drop warning

Set the remaining log records to display the warning. When the remaining space is less than the number of warnings, the device will alert the user by voice or on the display. The default value is 100 records. You can set AND up to 255 records. If you set it to "no", there will be no warning. After the log is full, delete the log records.

GLng Warning

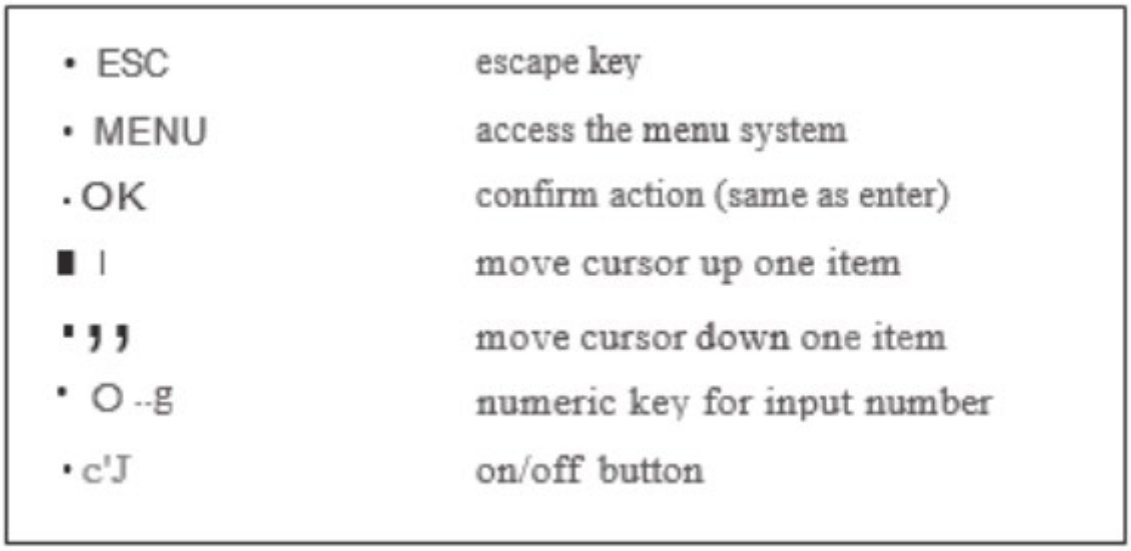
When the remaining amount of unused records is less than the glog warning, the device warns the user by voice or on the display. If you are alerted to this case, download the in-out records as soon as possible. The default value is 1000. It can be set from 1 to 1500 or "no". "No" means no warning.

Re-verification time

Used to prevent a user from performing verification more than once in a given period of time. You can enter a range from I to 255 minutes. If you enter 3 minutes, a user verifying a second time within 3 minutes will be rejected to save the transaction. The default value is "no".

Keyboard

The keypad allows you to enter a user ID and password to verify or perform device settings. The layout of the keys is as follows:

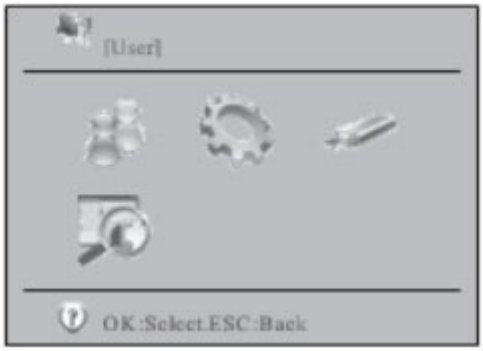


DVR menu

The menu structure of the fingerprint machine is grouped into different categories so that you can easily find the targeted information.

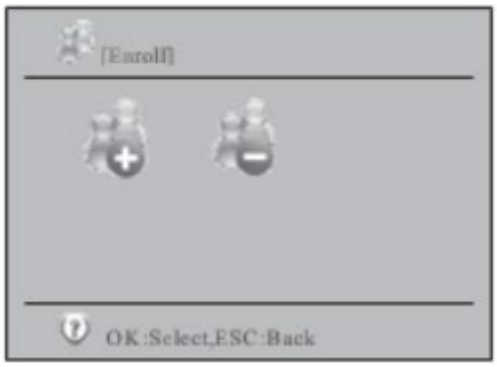
We have divided our menu items into 4 categories. These are: operation, settings, USB drive and status. The operating category is used to manage users. The settings category is used to set different arguments for the device. A USB drive is used to send or download data from or to a USB flash drive. The Status category is used to check the status of the device.

When you press the "menu" button, you will be taken to the main menu of the system. It consists of 4 icons that represent the first-level menu. These are: user management, device settings, USB drive, and system information. Each menu level has its submenus.

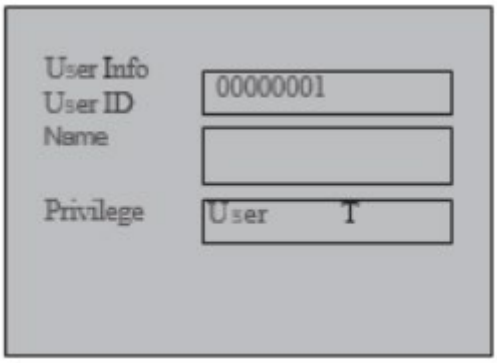


User management

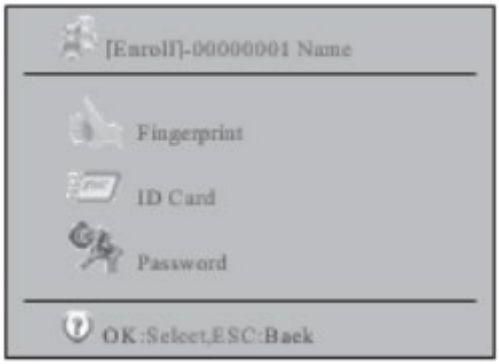
The first item in the main menu is user management. It consists of two sub-points. These are "Subscribe" and "Delete".



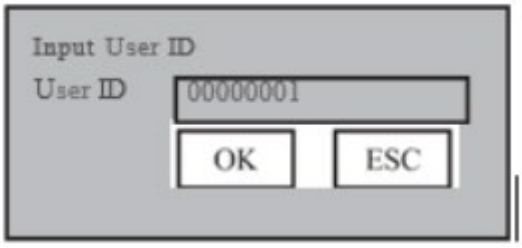
Once you select "enroll", you will be presented with an input screen. Enter your user ID. You can then change the default "user" permission to "manager" or "s.manager". "s.manager" stands for "super manager". To change the privilege, move the cursor in the area and press the "ok" button. You can then use the "up" or "down" arrow to switch between the different arguments. If you enter an existing user ID, the corresponding user name is displayed, provided the user has a name.



To add a user, you must choose to save the fingerprint, card, and password. The ID card is an optional feature. For fingerprint enrollment, you need to press your finger 3 times to get the best template. For an ID card, swipe the card to enter the card number. Use the "A", "T" button to move the cursor up or down and press the "ok" button to confirm.



In User Management, when you select the "delete" icon and press "ok", you will see the user ID input screen. Enter the desired user ID and press the "ok" button to select the user to delete.

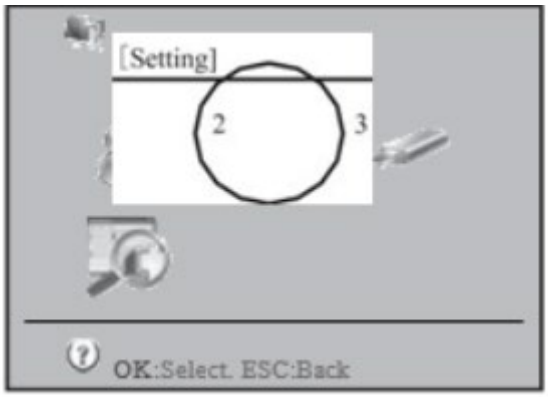


HDWR
Hardware for business
hdwrglobal.com

After that, you will see another screen to choose from that shows which verification mode is to be removed. You can choose to remove your fingerprint, card, password, or all of them.

Settings

Setting is a first-level menu that allows you to change the arguments of the fingerprinting machine.

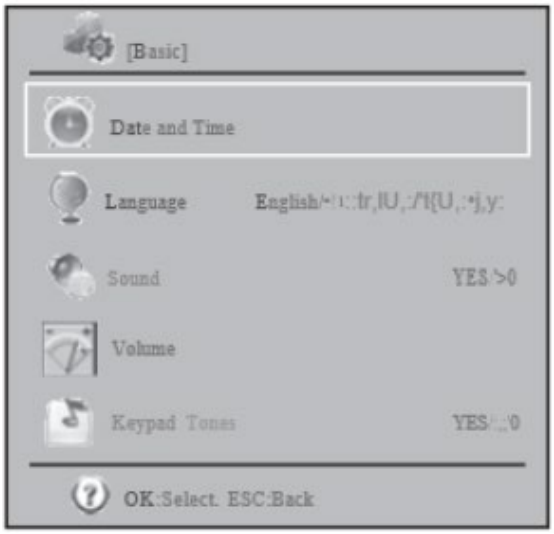


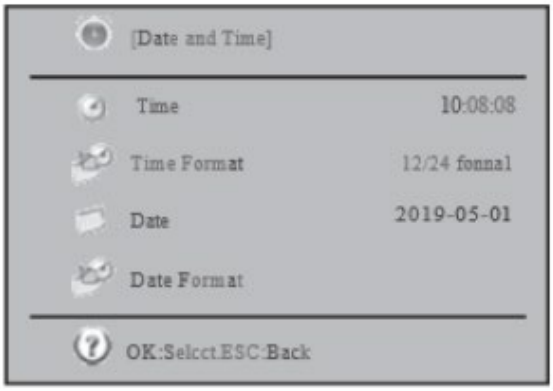
When you select the "Setting" menu item, another sub-menu will be secured. It has 7 icons. These represent basic settings, advanced settings, power management, communication settings, log settings, access control settings, and auto test.

HDWR Hardware for business
hdwrglobal.com

Basic settings

In the basic settings, you can change the date and time of the device, the display language, turn the voice on or off, the voice level, and whether pressing the button causes a sound.





In the date and time we can correct the date and time of the machine. Besides, you can change the format of the displayed date and time. In Language, you can change the displayed language between English, Traditional Chinese, and Simplified Chinese. For other language, please negotiate with the supplier. If the voice is enabled, we will hear "thank you" when we pass the verification, and when the verification fails, we will hear "please press your finger again".

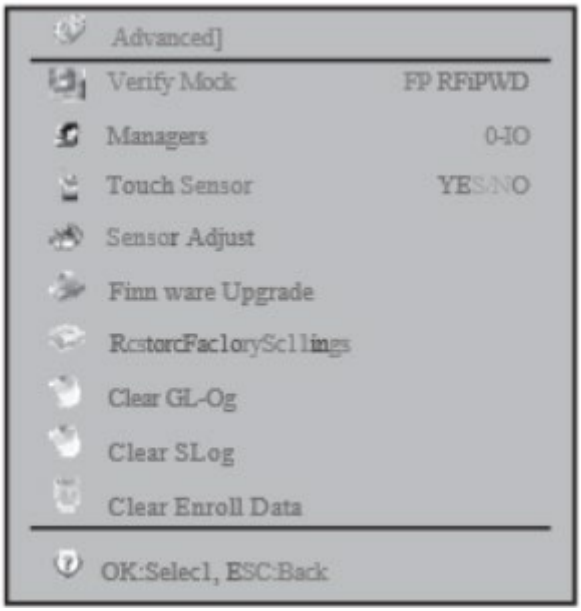
HDWR Hardware for business
hdwrglobal.com

For voice level, you can tune the volume of your voice. If the voice is off, this position cannot be adjusted.

For the voice of the button, you can turn it on or off If it is on, you can hear a sound button for each button press.

Advanced settings

In the advanced settings, we can fine-tune the more important arguments for the fingerprint machine.



The first element is the verification mode. When you select fp/card/pwd, the user can verify using both methods. When you select fp+pwd, the user needs both the fp and the password to be verified. Options include fp/rf/pwd, rf+fp, fp+pwd, rf+pwd, fp+rf+pwd.

The second item is the number of administrators. You can select a value from Oto 10. The default value is 5. Too many administrators will cause a security problem. So you have to choose a compromise between comfort and safety.

The third element is to turn the "touch sensor" on or off. When the "touch sensor" is on, the fingerprint sensor will be disabled after

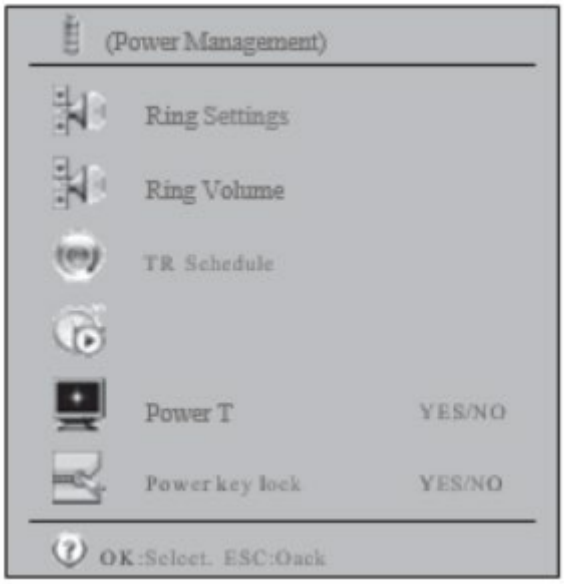
the idle time has elapsed. When you place your finger on the fingerprint sensor, it will be turned on automatically. This is to extend the life of the fingerprint sensor. The next item is to adjust the sensor. When you select this position, the sensor will adjust to the current light intensity to provide the most accurate sensitivity. When you find that the fingerprint sensor is not sensitive enough, you can choose this position lo adjust the fingerprint sensor. The fifth item is a firmware update. If necessary, you can use the USB drive to update the firmware by adding more features or debugging it. For example, you can set 23:05:10 as the time for the automatic power off.

The sixth item is "Restore Factory Settings". It is used to restore all settings to factory values. This will not affect your registration data and our transaction.

The ninth item is to delete all saved data. Be careful when using this entry, because deleted records cannot be restored. The eighth element is the deletion of all management log entries. When management log entries are close to full, you can use this entry to delete all management log entries.

Power management

In power management, we can change the argument related to the power of the machine.



The first item is "ringtone settings". You can set the doorbell up to 12 times per day. This setting can also be made using the included attendance software.

No.	STime	Use/No Use
1	00,00	Disable
2	00,00	Disable
3	00,00	Disable
4	00,00	Disable
..	00,00	Disable

The second item is the "ring count". It is used to set the number of times the bell repeats. The permissible range is from I to 255. If you set the ringing time and the number of rings is zero, the ringtone will not ring. For the ringtone to ring at a specific time, the number of rings should be>= I.

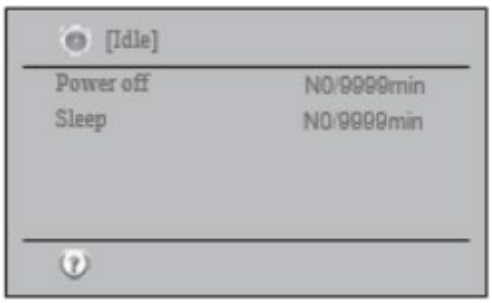
The third item is the "TR Schedule". Here you can set 10 time zones for different verification statuses. There are 6 statuses for you to choose from. These are: duty on, duty off, overtime on, overtime off, go out on and go out off. When retrieving data from

HDWR Hardware for business
hdwrglobal.com

a machine, there is a flag in our transaction indicating the status of the record.

No.	STime	ETime	Status
1	08,00	11,59	Duty On
2	12,00	13'00	Duty On
3	00,00	00,00	Duty On
4	00,00	00,00	Duty On
5	00,00	00,00	Duty On
6	00,00	00,00	Duty On
7	00,00	00,00	Duty On
8	00,00	00,00	Duty On
9	00,00	00,00	Duty Off
10	00,00	00,00	Duty Off

The fourth position is the idle setting. It consists of two sub-points - shutdown and sleep. You can set the number or minutes of idle time for the device to turn off or go to sleep. When your device goes to sleep, you can press your finger on the fingerprint sensor or press any button on the keyboard to wake it up. The DVR has been turned off, you can press the power button to turn it on again.



The fifth item is to turn off the power. With this item you can set the time for the device to be automatically switched off.

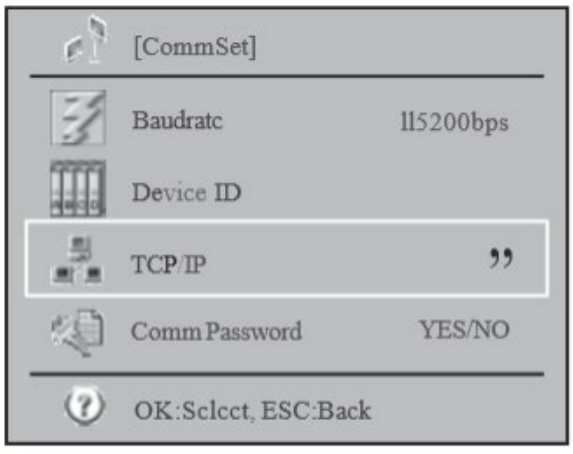
You can enter the time up to one second. The default value is no power-off schedule.

HDWR Hardware for business
hdwrglobal.com

The last item is the "power key lock". When you set "power key lock" to yes, you cannot turn off the device using the power button, but you can use it to turn on the device. In this case, the only way to turn off the device is to unplug the power supply. When the fingerprint machine is used for access control, we will tum on the "power key lock" to prevent the machine from being shut down by mistake.

Communication settings

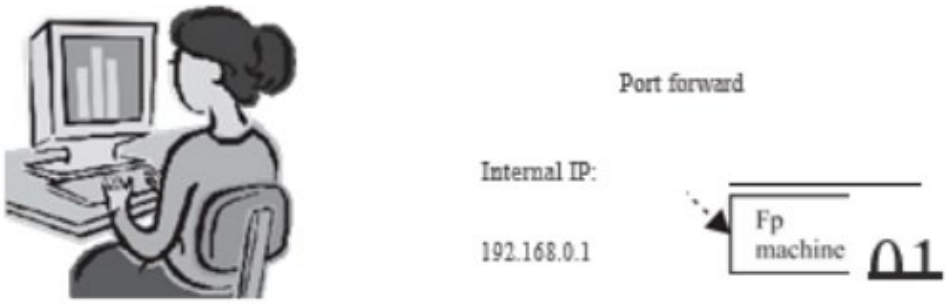
It is a change in the configuration of the fingerprint machine in terms of communication with computer software. First of all, we need to know what type of physical communication is used.



This fingerprint machine can have communication or TCP/IP and USB cable. For the network, we need to configure a TCP/IP

HDWR Hardware for business
hdwrglobal.com

element that consists of an IP address, a subnet mask, a gateway, whether to use dynamic IP assignment and port number. If you have set a forward port on your router for an external computer to connect to an internal fingerprinting device, you need to set the gateway IP address. If you have a DHCP server on your network, you can enable dynamic IP address assignment to get a dynamic IP address from the DHCP server. The port number acts as a mobile phone number that listens for a service request.



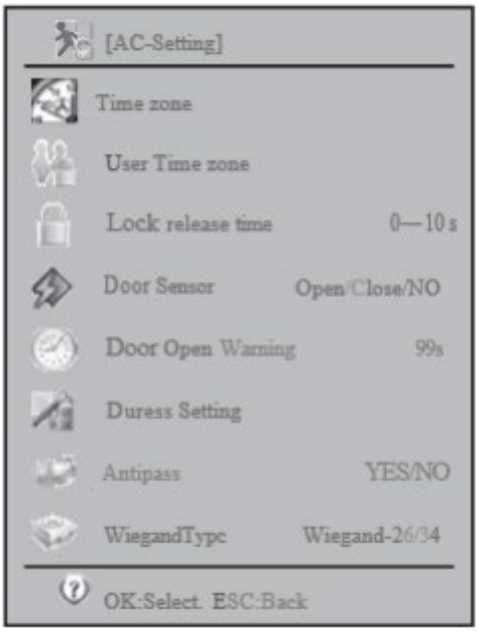
The last parameter is the communication password. It is used to prevent communication with other people. We will change the communication password the first time we use it.

Login settings

HDWR
Hardware for business
hdwrglobal.com

Control at.'ct.'" S (Optional)

Access control consists in setting a parameter in the door opening control. The first parameter is the time zone setting. Time zone means the period with entry time and exit time. You can set 50 time zones on your device. For each time zone, you can set the entry and exit times for days from Monday to Sunday and holidays.



Time Zone (50 sets)

Time zone
1
2
....

Day	Time
	00:00-23:59
Monday	00:00-23:59
Tuesday	00:00-23:59
Wednesday	00:00-23:59
Thursday	00:00-23:59
Friday	00:00-23:59
	00:00-23:59
Holiday	00:00-23:59
M 0 0	

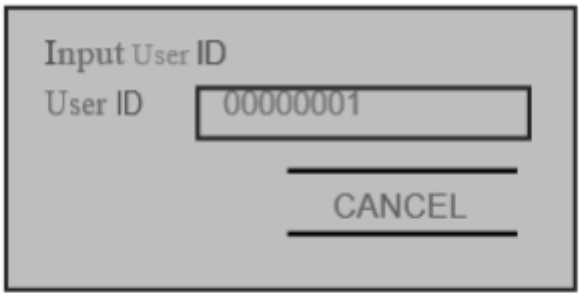
HDWR Hardware for business
hdwrglobal.com

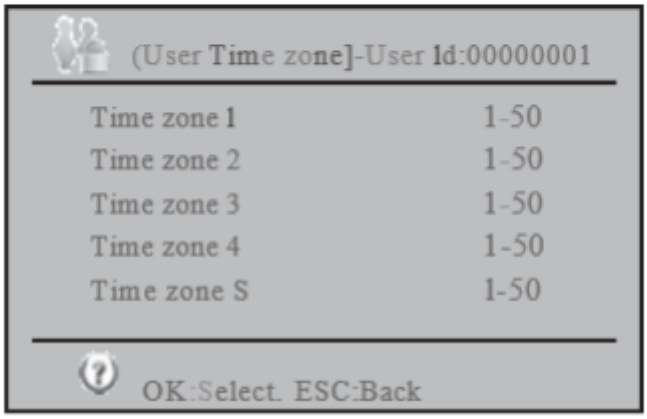
In user access control, we can assign a time zone to each user. Each user can have a maximum of 5 time zones. If you assign more than time zones I, time zones are additive. For example, we have time zone 1 and 2.

Time zone	Day or Week	Time Range
	Mon	9-18
	Mon	19-23

When user 11 has these 2 time zones assigned, they can enter on Monday from 9 a.m. to 6 p.m. and 7 p.m. to 11 p.m.

When you make an assignment, you must first enter the user ID. You can then enter time zones from 1 to 50 time zones to a 5-user time zone.





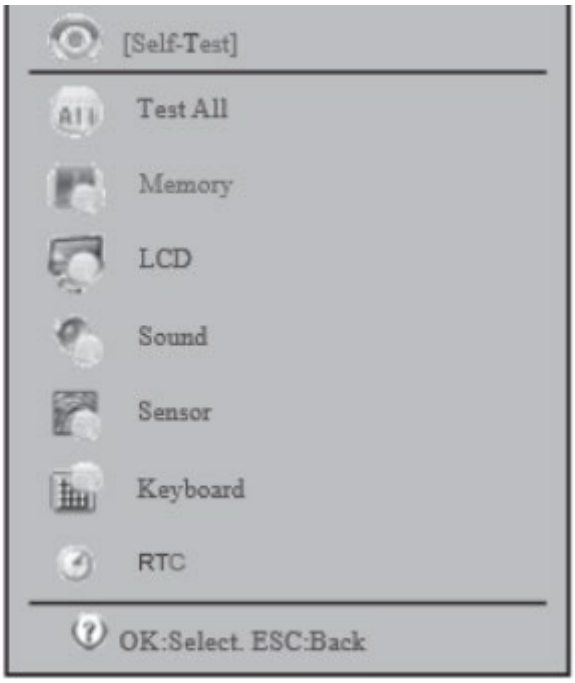
When you connect the fingerprint machine to the door sensor to detect the door opening condition, you need to tell the machine what type of door sensor you are using. There are normal open type and normal closed type.

HDWR Hardware for business
hdwrglobal.com

An open door alarm is the time to keep the door open, which will cause the alarm to fire. This is to prevent someone who is not authorized to enter the house. So, when someone enters the door, the door must be locked within a certain time frame.

Auto Test

It is used when problems are found in the use of the device. For example, a user presses a button on the keyboard without responding. Then you should run a self-test to see if the keyboard has a problem. You can test all hardware components or just one of them. The components that can be selected are memory, LCD, voice, fingerprint sensor, keyboard and real-time clock.



USB Flash Drive Management

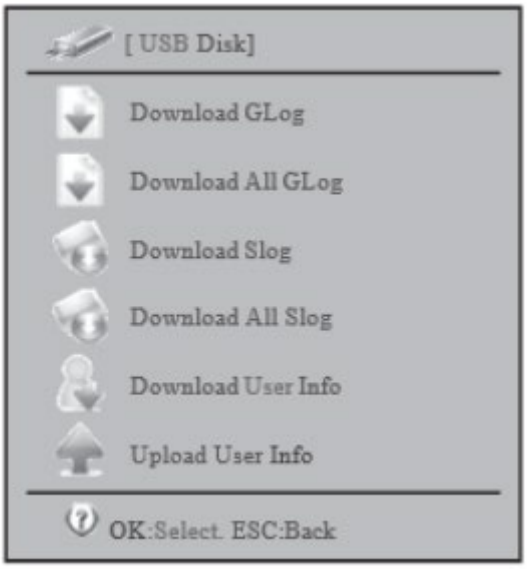
Contains a list of items for downloading/uploading data to/from a USB flash drive. Through this menu we can download the registration data (all or by user ID) to a USB flash drive. The save file is encrypted, it cannot be seen by opening. It can only be read by other FP machines. We can also download the

HDWR Hardware for business
hdwrglobal.com

entire/part of the management log record to a USB stick. A management log file is a text file. It can be viewed using a regular editor like Notepad. First, can we retrieve all entry/exit transactions or by range?

These transactions can be read by the included frequency software to write the write verification. The file is in a text format that can be read by a regular editor.

A system query includes system information, device information, and an advanced query. You can use the status of different figures in the system information.



For example, the use of a fingerprint template is 1/1000. This means that the total number of fingerprints on the device is 1000, and only one has been used.

In the device information, we can check the date of manufacture, serial number, manufacturer, device warehouse name, device model, fingerprint algorithm and firmware version. The most important thing is the serial number. It is used for maintenance by the seller. The fingerprint algorithm is useful for

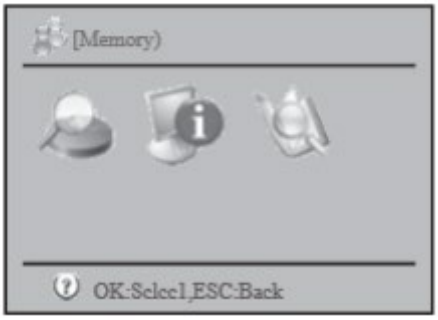
HDWR Hardware for business
hdwrglobal.com

verifying that a fingerprint is compatible with another fingerprint model.

In advanced queries, we can use different input criteria to query the record of I/O transactions, management log, and logging.

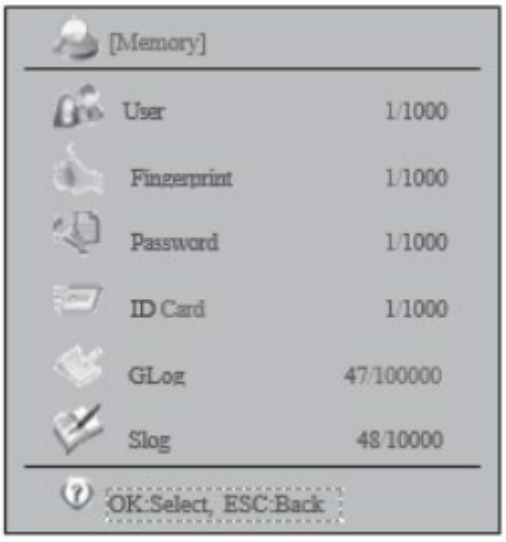
System information

The fourth item in the main menu is system information. Here you can check the memory, device information, operation, and perform an advanced search for registration and verification records.



Memory

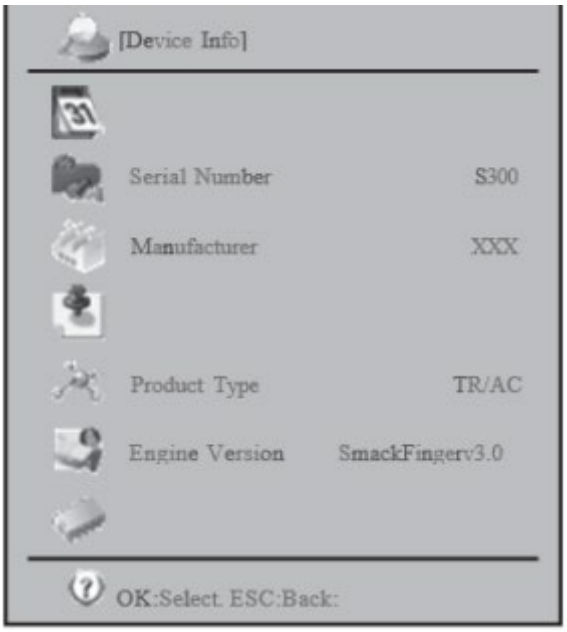
For example, the use of a fingerprint template is 1/1000. This means that the total number of fingerprints on the device is 1000 and 1 template has been used.



HDWR Hardware for business
hdwrglobal.com

Device Information

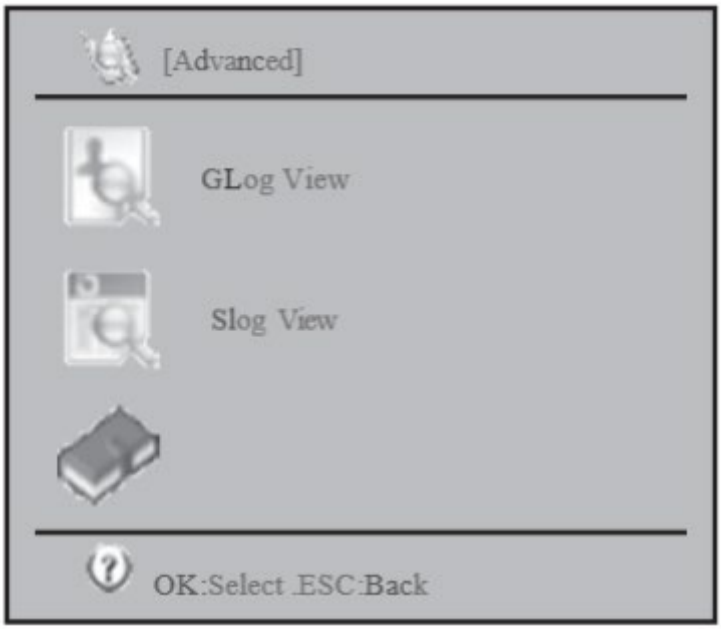
In the information about the device, we can check the date of manufacture, serial number, manufacturer, name of the company's software, device model, fingerprint algorithm and version of the company's software. The most important thing is the serial number. It is used for maintenance by the seller. The fingerprint algorithm is useful to check if a fingerprint is compatible with another fingerprint model.



Advanced

In the advanced query, we can use various input criteria to query the input/output transaction record, management log, and records.

HDWR Hardware for business
hdwrglobal.com



Questions and answers

1. **We are unable to verify the fingerprints of some users.**

This may be because the fingerprint is polished, has many folds, or is heavily peeled. The solution is to delete the fingerprint and type another fingerprint. A person will almost have all 10 fingerprints failure in registration or verification. Besides, the fingerprint machine has a 1:1 matching method.

2. **Unable to communicate with the fingerprint machine.**

First, check if the com port of the software is equal to the corn port of your computer. To check your computer's corn port, right-click on the "my computer" icon and select "manage". In the left panel, select "device management" and explore the right panel "corn and lpt". Check the com port number. Also check if the baud rate in the machine and in the software are the same. Besides, check whether the fingerprint machine is turned on. The device number on the machine must also match the one entered in the software. Finally, we can check if the connected

cable and converter are normal. For the connected cable, we can use a cable tester to see if it is suitable.

3. **When you turn on the fingerprint device, the LCD guidance is displayed or only half of the screen is displayed.**

Try replacing the LCD screen with a new one and see if the problem is resolved. If so, then the LCD has a problem. If it still can't display normally, the motherboard may have a problem. Then we can replace the problematic LCD screen with another machine and see if it works.

4. **How to bypass the administrator**

Sometimes we don't have access to the fingerprint machine menu because it requires verification by the administrator. The administrator may have left. We can use the frequency software to remove the administrator. It will change the admin user to a regular user. This can be found in the download module - clear admin.

5. **When you turn on your fingerprint device, you get the message "please press your finger again".**

The fingerprint sensor may be dirty. Use some alcohol to clean it. Or the fingerprint sensor cable is loose. Disassemble the machine and check if it is not. Finally, it could be due to the motherboard's chip kit. In this case, you should send the disc back to the dealer.

6. **When you use a serial cable for communication, you get the registration data from the fingerprinting machine, but not the data.**

Reduce the bitrate and try again. Be sure to shrink both your fingerprint device and the software.

7. **Using TCP/IP, you can retrieve several days of data from a remote location. When downloading 2 weeks of data, the download fails.**

This is due to the router waiting time too short again.

8. **When the fingerprint machine is hooked against the wall, a large part of users cannot sign up or perform verification.**

This is normal when the appliance is placed elsewhere. Because the fingerprint sensor uses optical image algorithm, strong light shines on the fingerprint sensor, the performance will be greatly degraded. Try placing the device in a lower area.

Addition

Power

This fingerprint machine has a free power adapter. Simply connect the adapter to 220V AC Power and connect the adapter head to the fingerprint machine. Then press button 10 and the machine will be turned on. Until then, the machine is in stand-by mode. You can either do the registration or verification.

Communication with a computer

We can communicate with the fingerprint machine through PC software in 2 ways USS Ethernet cable For Ethernet to work, the device must have an IP address. The network part of the IP address must be the same as the computer's, e.g. the

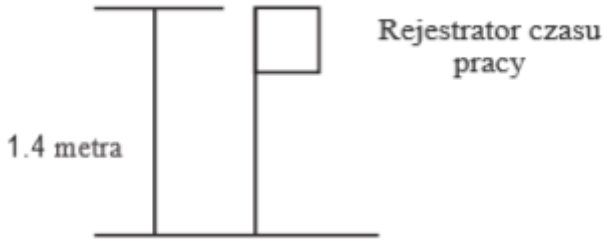
computer's IP: I 92.168.0.100, the IP of the fingerprinting machine: 192.168.0.224.

External Balance Reader Connection (FP Reader)

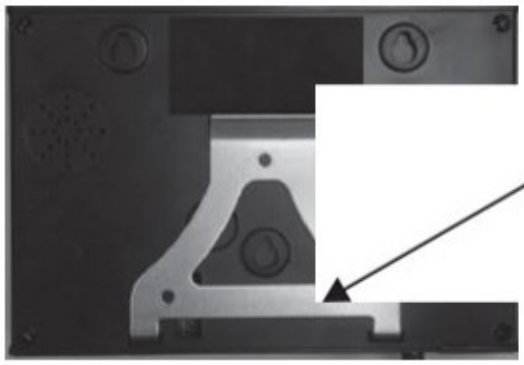
The first 3 numbers represent the network. They must be the same. To connect the fingerprint machine with the computer directly, we need a 10/100 Base-T Ethernet cross over cable. To connect them via a hub/switch, we need a 10/100 Base-T Ethernet straight cable.

Installation

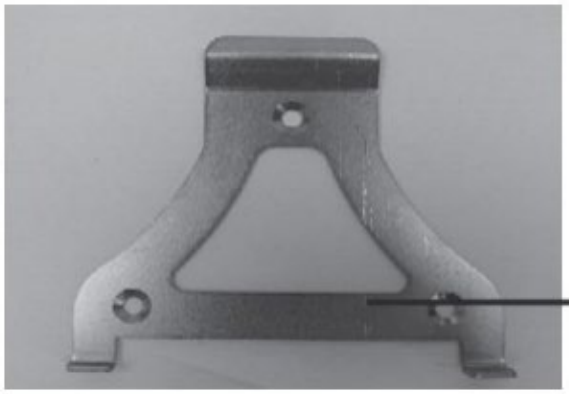
We used to install T6 in the wall. That's because it can avoid the strong light shining on the fingerprint optical sensor. This will seriously affect the fingerprint recognition ability of the device. Normally, we will mount the device to the wall at about 1.4 meters high.



There is a metal rack on the back of the device that you can use to mount the fingerprint device on the wall.



Stelaż metalowy



Użyj śruby, aby zamontować uchwyt do ściany

HDWR Hardware for business
hdwrglobal.com