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Access Interface

Lock_NO	Lock signal NO port	12V	+12V power output
Lock_COM	Lock signal commen port	WG_IN 1	WG input positive
Lock_NC	Lock signal NC port	WG_IN 0	WG input negative
Button	Exit	GND	Land
GND	Land	D_Sensor	Door magnetic input port
WG_Out 1	WG output positive	GND	Land
WG_Out 0	WG output negative	Alarm+	External electronic
GND	Land	Alarm -	doorbell
Bell+	External algebric described	GND	Land
Bell+	External electric doorbell	12V Power	Power input

1. Notice

Please don't leave the equipment in the light shine. Light has an obvious effect on fingerprint acquisition. (The fingerprint would not be verified)

In summer, try not to use outside. The temperature range of fingerprint machine is 0-40 $^{\circ}$ C. Using in outdoor long term fever, the machine is likely to be slow.

If you must use in outdoor, recommend the use of sunshade and heat radiating device.

1.1 Keypad & Connection Port

1.1.1 Keypad (Fig. 2)

1_	2 ABC	3 DEF	ESC
4	5	6	MENU
GHI	JKL	MNO	←
7	8	9	A
PQRS	TUV	WXYZ	
BELL	0_	ок	•

(Fig. 2)

Index

Keypad 0 - 9 input number, alphabet or select menu options "0" = space

ESC Exit

MENU Enter Menu Status
OK Enter (Confirm)

▲ Cursor Upward

▼ Cursor Downward

À

BELL After link a external doorbell indoor, user can

press this button when he need to enter the door,

then the doorbell indoor will ring

2. Basic concept

2.1 Basic concept

This part includes the basic concept of the definition and description, which includes:

- Enroll user
- User Verification
- > The safety grade
- Authority

There are two different important functions: enroll user and user Verification

2.1.1 Enroll User

The stored template to compare with the current scan finger, the fingerprint template is used to confirm the identity of the user is a registered user can achieve attendance in attendance machine specially designated, the attendance process takes about 1 seconds. The same IDnumber can register up to ten different fingerprints, so that the user can have multipleauthentication choice.

Theoretically, you can enroll two diffrent finger, when user's fingershurt, user can use another finger In general, user shuld enroll at least two fingers, such as: left index finger and right index finger.

2.1.2 User verification

When the user push finger on fingerprint Scanner, or input a ID number and then push finger, the fingers would be successfully identified or not. If successful verification, a records would be stored in fingerprint machine.

2.1.3 The user ID number

The user is assigned a use ID number. The ID number is used to correlate the fingerprint template or password.

2.1.4 Initial interface

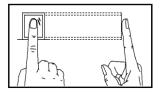
When the machine is power on and opened, the first interface displayed on the screen as below:

08: 08 2016-12-01 Thursday

(Fig. 1)

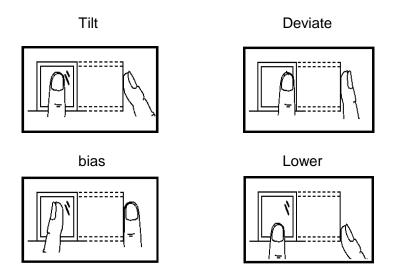
2.2 How to push finger

1) The right way:



Press the finger on the flat, the finger heart as far as possible right on the centre of the flat

2) The wrong way:



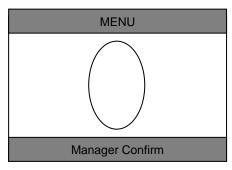
Note: please press the finger right on the centre of the fingerprint scanner flat.

3. Enroll and verification

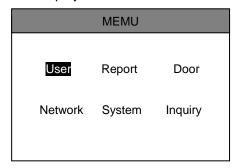
Through this section to Enroll user, View user & delete user.

3.1 Enroll user

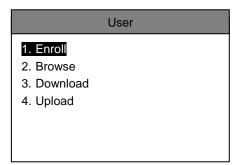
There are three Authentication methods: fingerpring, ID card,password. Push menu key, and then push administrator finger, in the menu.



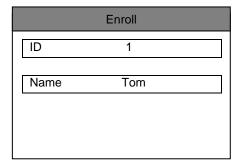
Note: Press menu key in to the menu without manager enrolled. The screen display as follows:



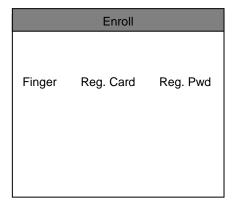
Choose 【User】item, and then click ok, as follows:



Choose [1. Enroll] and click ok to enroll user, as folloes:



Choose user ID, then click OK. And use the keypad input users name, and then click OK, as follows:



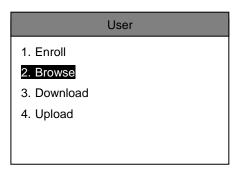
Each User can register Fingerprint or Password or ID Card

- 1. Select or input the staff ID number.
 - (ID number within 1-9999999)
- 2. Selete the "Finger" item to Register Fingerprint, you must press the same finger three times.
- 3. Selete the "Pwd" item to Register Password, you must input the password namber two times.
- 4. Selete the "Card" item to Register Card, swipe the cade close to the induction zone.
- 5. Selete the "Admin" item to set the staff Privilege.
- 6. Selete the "Delete" item to delete the user.

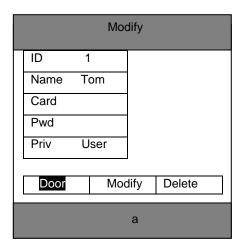
3.2 Browse user

Through this section to check, edit and delete user information.

Choose [2.Delete] item, and then click ok, as follows:



Use ▲ ▼ on the keypad to select the staff id number , then press OK.



Index:

ID	1	Staff ID number
Name	Tom	Staff name, use the keypad to input
Card	Unset / Set	No ID Card setting for this staff, can
		register new ID Card directly from
		here. Once setting, it will show "Set".
		Maximum 10 ID Card can be set.
Pwd	Unset / Set	No password setting for this staff,
		can register new password or re-write
		password directly from here. Once
		setting, it will show "Set".
Priv	User/Manager/Registor	Showing the current status of this
		staff, Initial setting is User for all
		registers, press OK to change to
		Admin if necessary.

Note: Priv means Privilege, user are normal user only can register finger can not enter the menu of the machine, Manager can operate the machine with all function, Registor only can regist new user.

Door Each user has a grouped, three time periods.

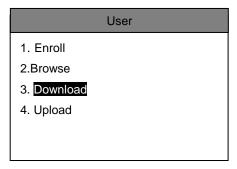
When a user verifies the identity (fingerprint or password), the fingerprint access control machine first determines the staff of the three time periods, if the conditions are satisfied, then open the door; if the conditions are not satisfied, then determine the staff belongs to the group of three time periods. If it is satisfied to open the door.

Modify User can reregister the finger, card and password

Delete Delete user

3.3 Download User Data

Download the user ID no., Fingerprint& Password& ID card to USB Flash Drive in DAT format.



Choose [3.Download], Confirm the USB Flash Drive is inserted into the machine, and then click OK, the screen display as follows:

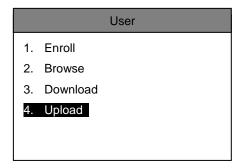


If the USB Flash Drive is not detected, the screen display as follows:

None-connect U-disk OK

3.4 Upload Register Data

Upload the user ID no., Fingerprint& Password& ID card to machine from USB Flash Drive in DAT format.



Choose [4.Upload], Confirm the USB Flash Drive is inserted into the machine, and then click OK, the screen display as follows:

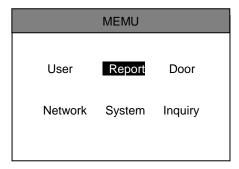


If the USB Flash Drive is not detected, the screen display as follows:

None-connect U-disk OK

4. Report

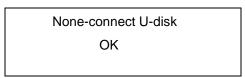
Through this section user can download the attendance report from the machine from USB Flash Drive in TXT format.



Choose [Reprot], Confirm the USB Flash Drive is inserted into the machine, and then click OK, the screen display as follows:



If the USB Flash Drive is not detected, the screen display as follows:



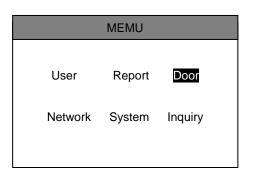
5. Door

Through this section to set the prioed, group, user group, door sensor delay, door sensor type, etc.

To unlock the lock, the enroll time should be in the effective time of user time zone or group zone.

- The current unlock time should be in the effective time of user time zone or group zone.
- The group where use is must be in access control(or in the same access control with other group, to open the door together).

The system default the new enrolled user as the first group, default group zone as "1", access control as the first group, and the new enrolled user is in unlock(if user has modified the related setting of machine, the system will be changed with user's modification).



LockCtrl		
1. Time Setting		
2. Lock Group Set		
3. Unlock Group		
4. Lock Type Set		
5. Access Mode		

5.1 Time zone Setting

Time zone is the minimum unit of access control option. The whole system can define 50 time zones. Every time zone defines seven time sections (namely a week). Every time section is the effective time zone within 24 hours every day. Every user can set 3 time zones, "or" exists

among the three zones. It is effective if only one is satisfied. Every time section format is HH:MM-HH:MM, namely, accurate to minute. If end time is smaller than start time (23:57-23:56), the whole day is forbidden, if end time is bigger than start time (00:00-23:59), it is effective section.

Effective time zone for user unlocking:00-23:59 or the time zone when end time is bigger than start time.

Notice: system default "time zone 1" as whole day open (namely, the new enrolled user is unlocking).

Press [Menu] - [LockCtrl] - [Time Setting] – [Period No.]
-------------------------------	------------------------------

	Start Time	End time
SUN	00:00	23:59
MON	00:00	23:59
TUE	00:00	23:59
WED	00:00	23:59
THU	00:00	23:59
FRI	00:00	23:59
SAT	00:00	23:59

Input time zone number. If the enrolled time zone has number already, then the time zone setting will display automatically. Press OK to move the cursor to the input box, press numeric key on keyboard to input value. Then press OK to save it and press ESC to exit

5.2 Time group setting

Every group can hold three time zones. The new enrolled user belong to goup 1 by default. He can also be allocated to other groups.

Time Group Set				
1. Group1	01	00	00	
2. Group2	01	00	00	
3. Group3	01	00	00	
4. Group4	01	00	00	
5. Group5	01	00	00	

In the Group time Zone interface, select the group to be edited. Press OK and then input the "Time Group Zone NO." directly or press ▲, ▼ change the "Time Group Zone NO.".

5.3 Unlock Group

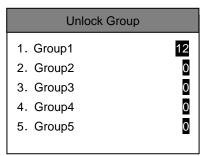
Make various groups into diffrent access controls to achieve multi-verification and improve security. An access control can be made 10 groups as most

Door	
Time Setting Time Group Set	Unlock Group
3. Unlock Group4. Lock Type Set5. Access Mode	1. Group1 1 2. Group2 0 3. Group3 0 4. Group4 0 5. Group5 0

Press [Menu] – [LockCtrl] – [Unlock Group]

In the Unlock Groups interface, press ▲, ▼ and select the combination and input the group zone no.

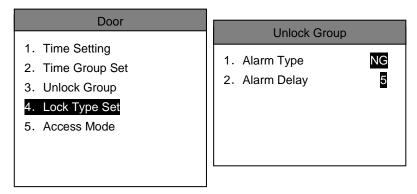
For example: to add an unlocking combination that needs the verification of both group1 and group2, as shown below:



5.4 Lock Type Set (Door sensor Delay)

Through this section to set door sensor type, delay time.

Press [Menu] – [LockCtrl] – [Lock Type Set]



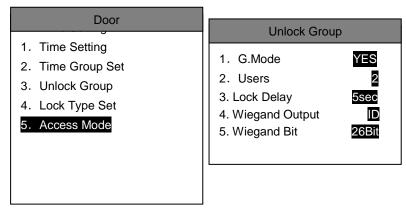
Alarm Type: it includes NG, NC and NO. NG means there is no door sensor. NC means the door is closed normally, NO means the door is open normally.

Alarm Delay: After the door is open, delay the time to check sensor. If door sensor is diffrent from normal state of door sensor type, alarm will be given off. This time is called Alarm Delay.

5.5 Access Mode

Through this section to set G-mode, Users(the number of users) and WieGand mode.

Press [Menu] – [LockCtrl] – [Access Mode



G.mode: If the function is open, device can open the door when 2 or more users be recognized at the same time one by one.

Users: The numbers of users about the G.mode function.

Lock Delay: Delay time when the door open.

Wiegand Output: ID NO. or card NO. signal when wiegand output.

Weigand: user is recognized, the device Weigand signal will be given off using 26Bit or 34Bit.

6. Network

Through this section to set server and the machine network parameters: IP adress, subnet mask, ,Port No, etc.

	MEMU			Network
			1. Device NO	1
User	Report	Door	2.ETH	192.168.001.224
			3. WLAN	
Network	System	Inquiry	3.Server Set	
			4.Port NO	5005
			5.Net Pwd	0

Index

Device NO. is the machine NO. in your local network, this need to be unique.

Port NO. is the network port NO.

Net Pwd If user set password here, then when user link machine with software, need to input this password in the software.

6.1 Network setting

Through this section to set the Machine ethernet parameters: IP address, subnet mask, default gateway, Port No, etc.

Network			
1. Device NO	1		
2. ETH	192.168.001.224		
3. WLAN			
4. Server Set			
5. Port NO	5005		
6. Net Pwd	0		

ETH		
1. Enable	Yes	
2. DHCP	NO	
3. IP Address	192.168.001.224	
4. Netmask	255.255.255.00	
5. Gateway	192.168.000.001	
6. DNSServer	192.168.000.001	
7. MAC Address 60:78:ca:75:43:27		
I		

Choose the items to edit the Parameters.

Index

Enable Choose "yes" can use local network, choose "NO"

can not use

DHCP Open the DHCP function or not, choose "yes"machine

can get IP address automatically. Choose "NO" need

to input IP address manually.

IP Address Press OK to check the machine IP address &change

the figures

6.2 Set WIFI

Though this section to set WIFI, "Search" means user can choose WIFI, input the password, and when it show "Connected", it means

the WIFI set is success

Network		
1 Device NO	1	
2. ETH	192.168.001.224	
3. WLAN	192.168.111.205	
4. Server Set		
5. Port NO	5005	
6. Net Pwd	0	

WLAN	
1. Enable	Yes
2. Search	
3. DHCP	Yes
4. IP Address	192.168.111.205
5. Netmask	255.255.255.000
6. Gateway	192.168.111.001
7. DNSServer	202.096.134.133
7. MAC Address	

Index

Search Search WIFI in the local network. When input password,

press "MENU" key means delete, press " ▲" key can

change the input methord.

6.3 Server Set

Through this section to set network server parameters

The fingerprint machine would set records to the server (PC)

Network		
1. Device NO	1	
2. ETH	192.168.001.224	
3. WLAN		
4. Server Set		
5. Por NO	5005	
6. Net Pwd	0	

Serv	ver Set
1. Server	192.168.0.109
2. ServerPort	80
3. Server Req	NO.

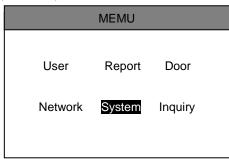
Index

Server Set the server IP Address
Server Port Set the server Port No.

Server Req Transform the data from the machine to the server

7. System

Through this section to set Machine ID, Lanuage, Data Format, Voice out & Volumn, Contast, Auto Off & Record Delete ect.



7.1 General

Through this section to set the Machine ID, Lanuage, Data Format, Voice out & Volumn ect.

1. General 2. Advanced 3. Time 2. Volume	e English
4. Rec. Rule 3. Result Til 5. Init 4. Protect S 6. Test Dev 5. Set Bell 6. Background	5 ne 0sec creen 60sec

Index

Language: Press OK &" ▲ "" ▼ " to select language.

Volume: Press OK &" \blacktriangle "" \blacktriangledown " to select voice volumn Initial setting is 5, Volumn from 1 – 8, 1 is the smallest and 8 is the largest

Result Time: Press OK &" ▲"" ▼ "to select the automatic back to menu interface time. Value from 1 to 30 seconds, 'Menu' key means delete.

Protect Screen: Press OK &" ▲"" ▼ "to set the screen saver time.

Set Bell: Press OK &" ▲"" ▼ "to set door bell time for the machine. After set this machine will ring at the set time. Choose 'NO' means no bell ring.

Background: Press OK &" ▲"" ▼ "to select the background picture user like for this machine.

7.2 Advanced

Through this section to delete all records, delete all enroll data, restore initialization settings & update firmware.

Press [Menu] - [System] - [Advanced].

System	Advanced	
 General Advanced Time Rec. Rule Init Test Dev 	 Max Mngr Verify Mode Wiegand Output Set Default 	5 FP/P/C User ID

Index

Max Mngr: Press OK & "▲""▼" and input number key to set the maximum manager NO. The default NO. is 5, the value from 1 to 255. Here keypad 'MENU' is delete, 'OK' is confirm. After press 'OK' user need to press 'ESC' and then choose OK to save the value.

Verify Mode: Press OK & "▲""▼" to choose the verify mode. There are 4 modes. And FP/P/C means fingerprint or password or card, when choose this mode user can use any way to verify. P+FP means password and fingerprint, when choose this way user need to input password first then verify fingerprint . C+FP means card and fingerprint, when choose this way user need to punch card first then verify fingerprint.

Wiegand output: Press OK &" ▲ "" ▼ "to choose Wiegand output information. User can choose 'User ID' or 'ID Number'.

Set default: Press OK &" ▲ "" ▼ " select Yes or No to restore initialization settings

7.3 Time Setting

Through this section to set the device data, time, NTP IP address and Time zone.

Press [Menu] -[System] - [Time].

System	Time	Time
 General Advanced Time Rec. Rule Init Test Dev 	1. Time 2. NTPServer 202.120.2.100 3. Time Zone GMT+8	2009 — 09 — 20 09 : 05 : 20

Index

Press "▲""▼"& OK to adit the Date & Time, and press OK.

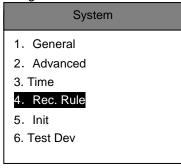
NTP Server: Network Time Protocol, Is a kind of through the

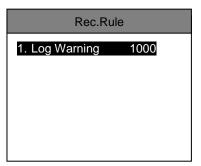
Internet service in the computer clock time synchronization protocol.

Time Zone: The time zone where the device is in

7.4 Rec.Rule

Through this section to set the log warning value and need photo or not





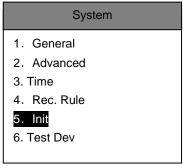
Index

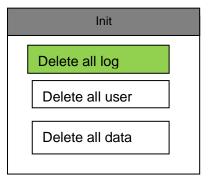
Log Warning: Press "▲""▼"& OK to set the log warning value of

memory space, the machine will provide warning to remind for data download. 0 = ``NO'' indicate no warning needed, value set from 1 - 1000, 1000 means memory space only left 1000 memories can be used.Initial setting is "1000", when memory space left 1000 records; the machine will give alarm signal.

7.5 Init

Through this section to delete all log, delete all user and delete all data.





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Delete all log: Press OK & "▲""▼" to select Yes or NO to delete all the records.

Delete all user: Press OK & "▲""▼" to select Yes or NO to delete all the user in this machine.

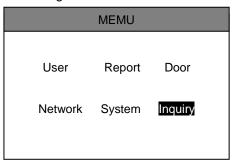
Delete All Data: Press OK & "▲""▼" select Yes or No to delete both Attendance record & Registers' data.

7.6 Test Dev

Through this section to test the finger image and calibrate for the device.

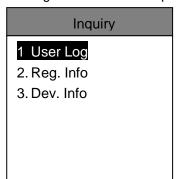
8. Inquiry

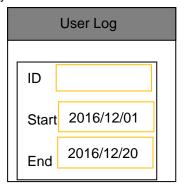
Through this section to inquiry user log, register information, device information and usage.



8.1 User LOG

Through this section to inquiry the record.





Index

Input the user ID, start and end date you need to inquiry, then press 'OK', user can see the original record for the user

8.2 Reg. Info

Through this section to check User Register, Admin Register,

Fingerprint, Password, Card, User Record, Admin Record, Free Space Information & All Space Information.

Inquiry	Reg. Info	0	
1. User Log	1. Users quantity	1	10000
2. Reg. Info	2. Admin quantity	0	5
3. Dev. Info	3. Finger quantity	0	3000
0. 500. 11110	4. Card quantity	0	10000
	5. Password quantity	0	10000
	6. Log quantity	9	200000
	7. All log quantity	9	200000

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User quantity: No. of User has been registered and the totally user quantity for this machine

Admin quantity: No. of Admin has been registered and totally administrator quantity for this machine.

Finger quantity: No. of Finger has been registered and totally finger quantity for this machine

Password quantity: No. of Password has been registered and totally password quantity for this machine.

Card quantity: No. of Card has been registered and totally card quantity for this machine

Log quantity: NO. of the user attendance record and the attendance record this machine can stored.

All log quantity: NO. of the all records and the records this machine can stored.

8.3 Dev. Info

Through this section to check the Manufacturer name, Website, Release Time, Serial Number, Engine Version, Software Version & Update Firmware details.

Inquiry	
1. User Log	
2. Reg. Info	
3. Dev. Info	
S. Dev. IIIIO	

Dev. Info		
1. Manufactur	е	
2. Website		
3. Serial NO	2016122045	
4. Released	2016-12-20	
5. Model		
6. Firmware		
7. Engine		
8. Engine		

<u>Index</u>

Manufacturer Showing Manufacturer name and website

Website Showing manufacturer website Serial No. Showing Machine serial number

Release Showing Release time

Model Showing Machine model number.

Firmware Showing firmware version for the machine

Engine Showing machine engine version