

User Manual

(Access Control Unit, Model#:FM1000series)

Manufacture

: Brain Tech Co., Ltd

Sale & Technical support

: Fingcas Corp.

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1. Direction before Using

1.1 Direction for safety usage

- ◆ Do not move or reinstall the system arbitrarily.
: In case of arbitrarily moving or installing the system, the system may not work or be broken down due to an electrical shock or inadequate connection. In this case, call the operator.
- ◆ Do not place the equipment around places where high voltage flows.
: The system may receive electrical effect due to high voltage.
- ◆ Do not open/close or repair the system arbitrarily.
: This system is a high-precision electronic product. So, it can be damaged if you arbitrarily open/close or repair it. Make sure to call the sales company or operator if needed.

1.2 Product packing and contents

- a. Fingerprint In/Out Control device 1 ea.
 - b. Connector (11p, 9p, 4p) 3 ea.
 - c. Screw 2 type 5 ea.
 - d. Basic software of In/Out Control System and User Manual CD 1 ea.
 - e. RF Card 3 ea
- * Optional Item (Sales product by order) : AC Power Adapter(DC 12V, 2.5A)

1.3 Parts name and function

- LCD : Display current operation status.
- Fingerprint identification device : Put the registered finger on this device.
- Contact point of RF-CARD : Point of contact RF-CARD (Maximum under 10cm).
- Keypad : 0-9 numbering key button, *button, #button
- Function key : Different function by key.
- Speaker : Beep sound and voice comment by step.



1.4 Voice comment and Explanation of Key

1.4.1 Voice comment

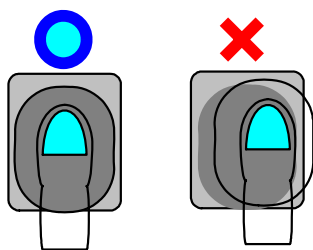
Ok, you can pass	The screen approves entrance and exit
Please contact security manage	The screen doesn't approve entrance and exit
Have a nice meal	The screen displays the normally selected menu.
Please enter your fingerprint	The screen requests for fingerprint recognition.
Selected "menu"	The screen displays the selected menu.
Attendance	The screen is in attendance mode.
Leaving Office	The screen is in leaving office mode.
Go Out	The screen is in go out mode.
Return Office	The screen is in return office mode.

1.4.2 Explanation of Key function

Number(0-9) button	The button is used when keying in a number and selecting a menu.
* BAK button	The button is used when canceling a number.
# ENT button	The button is used when completing the input of a number and entering a fingerprint.
F1 button	The button is used when returning to the

	previous screen and selecting the attendance mode.
F2 button	The button is used when selecting the leaving office mode.
F3 button	The button is used when selecting the go out mode.
F4 button	The button is used when selecting the return office, manager mode and menu.

1.5 Fingerprint identification process



Picture 1



Picture 2

- ☺ Finger should be kept clean, so that a correct recognition is possible.
- ☺ If the finger is wet, recognition may be impossible.
- ☺ Make sure that there is no alien substance on the fingerprint recognizer.
- ☺ Place the finger correctly at the center of the fingerprint recognizer as shown in <Picture 1>.
- ☺ All fingerprint should be touching the fingerprint recognizer as shown in <Picture 2>.

2. Manager Registration

- ☺ The manager password is not registered when you open the package box and operate the product for the first time.

<p>No Register</p> <p>Master Password</p> <p>Please type Password []</p> <p>[]</p> <p>* Back # NEXT</p> <p>F1 Cancel F4 Ok</p>	<p>1. When the power is on for the first time, a window for setting the manager password will pop up as shown in the left screen.</p>
<p>No Register</p> <p>Master Password</p> <p>Please type Password [*****]</p> <p>[]</p> <p>* Back # NEXT</p> <p>F1 Cancel F4 Ok</p>	<p>2. Use the number buttons to enter the manager password (above 5 figures) and press the # button.</p> <ul style="list-style-type: none"> ◆ If you entered the wrong number! <ul style="list-style-type: none"> * Press the button and reenter the number.
<p>No Register</p> <p>Master Password</p> <p>Please type Password [*****]</p> <p>[*****]</p>	<p>3. Enter the same password (above 5 figures) in the below blank and save it by pressing F4.</p> <ul style="list-style-type: none"> ◆ Precautions! <p>If you fail to enter the password with the given time, the screen goes back to its</p>

* Back # NEXT F1 Cancel F4 Ok	original state.
OK !!! Master Password Registered	4. After successfully registering the manager password, the left-sided screen appears.
Password Length Less than 5 Please try again	5. If you enter a password (below 5 figures), the left-sided screen appears. In this case, please reenter your password (above 5 figures).

3. Manager Menu Calling

☺ Press F4 to enter into the manager menu.

1. **Controller Setup:** Control the equipment setup.
2. **User Management:** Add/delete the user or manage the entrance/exit.
3. **DB Management:** Manage the equipment data base.
4. **Password change:** Change the manager password.
5. **Door Operation:** Setup the door operation method.

* Manager Menu Calling

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Enter into the Controller Setup menu by pressing the number key, '1' from the manager menu window on the left.
Controller Setup 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup F1 Cancel F4 OK	2. Select the date and time setup items by pressing the number key, '1' from the Controller Setup menu.
Date/Time Setting Year Month Day [] [] [] Hour Minute Second [] [] [] * Back # Next F1 Cancel F4 OK	3. You can see a window for setting up the year, date, hour, minute and second as shown in the left-side picture.
Date/Time Setting Year Month Day [2006] [] [] Hour Minute Second [] [] [] * Back # Next F1 Cancel F4 OK	4. Enter the year by using a number button. After the 4 figures are entered, the cursor automatically moves to the month blank.
Date/Time Setting Year Month Day [2006] [] []	5. Enter the month by using a number key. After entering the month (1 figure), press the # button to move the cursor to the date blank.

Hour Minute Second [] [] [] * Back # Next F1 Cancel F4 OK	◆ If you entered the wrong number! * Press the button and reenter the number.
Date/Time Setting Year Month Day [2006] [10] [20] Hour Minute Second [12] [10] [35] * Back # Next F1 Cancel F4 OK	6. After entering both the date and time, press the F4 button to save the registered date and time.

4. Controller setup

4.1 Date and Time Setup

◆ Example of Date and Time Setup (Enter 9 o'clock 37 min. 52 sec. on October 8 th 2006) <ol style="list-style-type: none"> 1. Press F4 for a few seconds from the initial window and enter the manager password to call the manager menu. 2. Press the number key, '1' two times from the manager menu screen to enter into the date and time setup menu. 3. If you press the number keys, '2, 0, 0, 6', the year will be entered. Then, the cursor will automatically move to the month blank. 4. If you press the number keys, '1, 0', the month will be entered. Then, the cursor will automatically move to the date blank. 5. If you press the number key, '8' to enter the date and press the # button, the cursor will move to the time blank. 6. If you press the number key, '9' to enter the time and press the # button, the cursor will move to the minute blank. 7. After pressing the number keys, '3, 7' to enter the minute, the cursor will automatically move to the second blank. 8. After pressing the number keys, '5, 2' to enter the seconds, the date and time setup will be finished and the screen will return to the Controller Setup Screen. 9. If the second is one figure, press the number and # or F4 button to complete the input.

4.2 ACU Number Setup

MAIN Menu <ol style="list-style-type: none"> 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the manager menu screen on the left to enter into the Controller Setup menu.
Controller Setup <ol style="list-style-type: none"> 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup 	2. Press the number key, '2' from the Controller Setup menu to select the Network Setup item.

F1 Cancel F4 OK	
Network Setup 1. ACU Number 2. Network Mode 3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	3. Press the number key, '1' from the Network Setup menu to select the ACU Number item.
ACU Number Curr [001] New [_] * Back # OK F1 Cancel F4 OK	4. You can see the ACU Number setup screen. Curr indicates the ACU Number that is currently setup.
ACU Number Curr [001] New [255] * Back # OK F1 Cancel F4 OK	5. Use the number keys to enter the ACU Number (3 figures) in the New blank. You can enter a number within the range from 001 to 255.
Invalid ACU Number Please try again	6. If you enter a number out of the range from 001 to 255, The left-side error screen will appear and go back to the ACU Number setup screen.
OK ACU Number Successfully Changed	7. If you entered a number within the range of 001 to 255, you can confirm the successfully revised ACU Number from the left-side screen.
Network Setup 1. ACU Number 2. Network Mode 3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	8. After the ACU Number is entered, the screen goes back to the Network Setup Screen. If you press F4 from the left-side screen, the ACU Number will be revised.
Network Setup Changed!! Restarting ~~ Wait a moment!!!	9. If you press the F4 button, the left-side screen will appear and the equipment will restart to revise the Network setup.

4.3 Network Mode 설정

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the left-side manager menu screen to enter into the Controller Setup menu.
Controller Setup	2. Press the number key, '2' from the Controller

1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup F1 Cancel F4 OK	Setup menu to select the Network Setup item.
Network Setup 1. ACU Number 2. Network Mode 3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	3. Press the number key, '2' from the Network Setup menu to select the Network Mode item.
NET MODE 1. No LAN 2. Wire LAN MODE 3. WL-LAN infrastru 4. WL-LAN Ad-hoc [No LAN] F1 Cancel F4 OK	4. The screen for setting up the network mode appears. You can select the mode you want by using the number key. The selected mode is indicated below.
NET MODE 1. No LAN 2. Wire LAN MODE 3. WL-LAN infrastru 4. WL-LAN Ad-hoc [Wire LAN] F1 Cancel F4 OK	5. After pressing the number keys to select the Network Mode you want and pressing F4 button, the Network Mode will be saved and the screen will go back to the Network Setup screen. Refer to the terminology guideline to be informed of the Network Mode.
Network Setup Changed!! Restarting ~~ Wait a moment!!!	6. If you press F4 button from the Network Setup screen, the left-side screen appears and the equipment will restart.

4.3.1 LAN Setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the left-side manager menu screen to enter into the Controller Setup menu.
Controller Setup 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup F1 Cancel F4 OK	2. Press the number key, '2' from the Controller Setup menu to select the Network Setup item.
Network Setup 1. ACU Number 2. Network Mode	3. Press the number key, '3' from the Network Setup menu to select the LAN Setup item. ◆Precautions!

3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	Only if the Network mode is set up as Wire LAN Mode, selection is possible.
Curr Network 1. I P 192.168.000.100 2. GW 192.168.000.001 3. SM 255.255.255.000 4. DNS000.000.000.000 1-4 EDIT address F1 Cancel F4 OK #:.	4. If you select the LAN Setup menu, the left-side screen appears. Use the number keys from 1 to 4 to select the item that will change the address. ◆ Refer to the terminology guideline to be informed of IP, GW, SM, DNS address.
Curr Network 1. I P _ 2.GW 192.168.000.001 3.SM 255.255.255.000 4.DNS000.000.000.000 1-4 EDIT address F1 Cancel F4 OK #:.	5. If you want to change the IP address, press the number, '1'. The existing IP address will completely be deleted and the cursor will appear at the first blank of IP address.
Curr Network 1. I P _ 2.GW 192.168.000.001 3.SM 255.255.255.000 4.DNS000.000.000.000 1-4 EDIT address F1 Cancel F4 OK #:.	6. Use the number keys to enter the new IP address. Use the # button to enter (.) in the middle of the numbers.
Curr Network 1. I P 199.000.000.000 2.GW 192.168.000.001 3.SM 255.255.255.000 4.DNS000.000.000.000 1-4 EDIT address F1 Cancel F4 OK #:.	7. After finishing the input and pressing F4 button, the input will be completed and the screen will go back to the Network Setup screen. ◆If you don't enter the new address for more than 10 seconds, the existing address will be indicated again.
Network Setup Changed!! Restarting ~~ Wait a moment!!!	8. If you press the F4 button from the Network Setup screen, the revised address will be saved and the equipment will be restarted.

4.3.2 UART Speed Setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the left-side manager menu screen to enter into the Controller Setup menu.
Controller Setup 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup	2. Press the number key, '2' from the Controller Setup menu to select the Network Setup item.

F1 Cancel F4 OK	
Network Setup 1. ACU Number 2. Network Mode 3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	3. Press '5' from the Network Setup menu to select the UART Speed item. ◆ Refer to the terminology guideline to be informed of UART in detail.
UART Speed Change CUR : 57600 1.1200 6.28800 2.2400 7.38400 3.4800 8.57600 4.9600 9.115200 5.19200 0.230400	4. A screen for setting up UART Speed appears. The number next to CUR indicates the currently registered UART Speed. You can select the speed you want by using the number key.
Network Setup 1. ACU Number 2. Network Mode 3. LAN Setup 4. WL-LAN Setup 5. UART Speed F1 Cancel F4 OK	5. If you select the UART Speed, you will go back to the previous screen as shown on the left. If you press F4 to save UART Speed, the setup of UART Speed will be completed.
Network Setup Changed!! Restarting ~~ Wait a moment!!!	6. If you press F4 to save the revised UART Speed, the equipment will restart to apply the revised setup.

4.4 Manager Mode Setup

4.4.1 Network/Stand-alone setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the left-side manager menu screen to enter into Controller Setup menu.
Controller Setup 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup F1 Cancel F4 OK	2. Press the number key, '3' from Controller Setup menu to select the Manage Mode item.
Manage Mode 1. Stand-alone 2. Network Only [Stand-alone] F1 Cancel F4 OK	3. Press the number key to set up the Manage Mode. The selected Manage Mode is indicated below. Press F4 to save the Manage Mode. ◆ Reference Stand-alone: Setting with a stand-alone menu Network Only: Setting into a manage

	computer.
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4.4.2 BEEP Setup ☺ Set up the beep sound.

<p>ETC Setup</p> <ol style="list-style-type: none"> 1. Beep Setup 2. Voice Setup 3. LED Setup 4. Comm Security <p>F1 Cancel F4 OK</p>	<p>1. Press '1' from ETC Setup screen to select the Beep Setup menu.</p>
<p>Beep Mode</p> <ol style="list-style-type: none"> 1. Beep ON 2. Beep OFF <p>CUR BEEP OFF F1 Cancel F4 OK</p>	<p>2. Press the number key from 1~2 to select the Beep mode.</p> <p>The selected mode is indicated below. If you press F4 button to save the mode, you will go back to the previous screen.</p> <p>◆ Reference</p> <p>Beep ON: When you press the button, the beep sound will ring.</p> <p>Beep OFF: When you press the button, the beep sound will not ring.</p>

4.4.3 Voice Setup ☺ Set up the voice guidance sound.

<p>ETC Setup</p> <ol style="list-style-type: none"> 1. Beep Setup 2. Voice Setup 3. LED Setup 4. Comm Security <p>F1 Cancel F4 OK</p>	<p>1. Press '2' from ETC Setup screen to select the Voice Setup menu.</p>
<p>Voice Mode</p> <ol style="list-style-type: none"> 1. Voice MAX 2. Voice MID 3. Voice LOW 4. Voice OFF <p>CUR Voice MAX F1 Cancel F4 OK</p>	<p>2. Press the number key from 1~4 to select the Voice mode.</p> <p>The selected mode is indicated below. If you press F4 button to save the mode, you will go back to the previous screen.</p> <p>◆ Reference</p> <p>Voice MAX: Set the voice guidance sound at maximum.</p> <p>Voice MID: Set the voice guidance sound at medium.</p> <p>Voice LOW: Set the voice guidance sound at minimum.</p> <p>Voice OFF: Set the voice guidance sound at mute.</p>

4.4.4 LED Setup ☺ Set up the LED movements of the button.

<p>ETC Setup</p> <ol style="list-style-type: none"> 1. Beep Setup 2. Voice Setup 3. LED Setup 4. Comm Security <p>F1 Cancel F4 OK</p>	<p>1. Press '3' from ETC Setup screen to select the LED Setup menu.</p>
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<p>LED Mode</p> <ol style="list-style-type: none"> 1. Always OFF 2. ON at KEY 3. Always ON <p>CUR ON at KEY F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 2. Press the number key from 1~3 to select the LED mode. The selected mode is indicated below. If you press F4 button to save the mode, you will go back to the previous screen. <p>◆ Reference</p> <p>Always OFF: The button LED will always be turned on.</p> <p>ON at KEY: LED will be turned on whenever you press the button.</p> <p>Always ON: LED is always turned on.</p>
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4.4.5 Comm Security ☺ Set up the computer security.

<p>ETC Setup</p> <ol style="list-style-type: none"> 1. Beep Setup 2. Voice Setup 3. LED Setup 4. Comm Security <p>F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 1. Press '4' from ETC Setup screen to select the Comm Security menu. <ol style="list-style-type: none"> 1) FTP/TELNET ON/OFF: Set up FTP/TELNET. 2) Packet Encryption: Set up the packet password. 3) Encryption ON/OFF: Turn on/off the packet password.
<p>COMM Security</p> <ol style="list-style-type: none"> 1. FTP/TELNET ON/OFF 2. Packet Encryption 3. Encryption ON/OFF <p>F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 2. Press the number key from 1~3 to select the menu you want to control.
<p>FTP/TELNET ON/OFF</p> <ol style="list-style-type: none"> 1. FTP/TELNET ON 2. FTP/TELNET OFF <p>CUR FTP/TELNET ON F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 3. If you select FTP/TELNET item, you can see the left-side screen. After pressing the number key to set up FTP/TELNET and pressing F4, the set up will be saved and you will go back to the previous screen.
<p>ENC KEY Setup</p> <ol style="list-style-type: none"> 1. KEY1 [0] 2. KEY2 [0] 3. KEY3 [0] <p>F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 4. If you press '2' from the COMM Security screen, you can see the left-side screen. You can set up the packet password or press the number key from 1~3 to select the password key you want to enter.
<p>ENC KEY Setup</p> <ol style="list-style-type: none"> 1. KEY1 [_] 2. KEY2 [0] 3. KEY3 [0] <p>F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 5. If you press '1', you can enter KEY1. Use the number key to enter the 5 figure password. Then, press F4 button to save the password. You will go back to the previous screen.
<p>Encryption ON/OFF</p> <ol style="list-style-type: none"> 1. Encryption ON 2. Encryption OFF <p>CUR Encryption OFF</p>	<ol style="list-style-type: none"> 6. If you press '3' from the COMM Security screen, you can see the left-side screen. After pressing the number key to set up the packet password and pressing F4 button, the set up will be saved and you will go back to the previous screen.

F1 Cancel F4 OK	
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4.4.6 Door Setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press the number key, '1' from the left-side manager menu screen to enter into the Controller Setup menu.
Controller Setup 1. Date/Time 2. Network Setup 3. Manage Mode 4. ETC Setup 5. Door Setup F1 Cancel F4 OK	2. Press the number key, '5' from the Controller Setup menu to select the Door Setup item.
Door Setup Hold Time [003] Alarm Time [005] * Back # NEXT F1 Cancel F4 OK	3. You can set up the door operation. After entering the item you want and pressing F4 to save the time, you will go back to the previous screen. Time will be set up in seconds. ◆ Reference Hold Time: Meaning that the door is opened. Alarm Time: Setting up the alarm ringing time.

5. User Management

5.1 User Addition

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press number key 2 in administrator menu screen as like left and enter to User Management menu.
User Manager 1. Add User 2. Delete One User 3. Delete All User 4. Check User 5. Pass Method F1 Cancel F4 OK	2. Press number key 1 in User Manager menu and select Add User article

<p>1. ID [00000] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [061013] 5. End Date [321231] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>ID : User ID USR/MST/SPR : User type Passwd1 : User password Passwd2 : Password re-input Start Date : Application point of user information End Date : User information expiration point FP[3] : Whether or not fingerprint registration (present, 3 registered) RF[7486F23S] : Registered RF card number</p>
<p>1. Passwd1 [*****] 2. Passwd2 [*****] 3. StartDate [061013] 4. ID [_] 0. [USR] 5. End Date [321231] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>3. Can input user ID if press number key 1. Input five seat numbers using number key</p>
<p>1. ID [01234] 0. [USR] 2. Passwd1 [_] 3. Passwd2 [*****] 4. StartDate [061013] 5. End Date [321231] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>4. Can input user password if press number key 2. If press F4, input is ended after input number fewer than 8 seats.</p>
<p>1. Passwd1 [*****] 2. ID [01234] 0. [USR] 3. Passwd2 [_] 4. StartDate [061013] 5. End Date [321231] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>5. Presses number key 3 and re-input user password. In case of input other number different with number inputting at Passwd1, error message should be registered and input again.</p>
<p>1. ID [01234] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [_] 5. End Date [321231] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>6. Can input ready time to apply user information if press number key 4. Year, end two seats – month – in order of work input Ex) Input October 20, 2006 by 061020</p>
<p>1. ID [01234] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [061020] 5. End Date [_] FP[N] RF[00000000] 1-5, # Finger, F4 OK</p>	<p>7. If press number key 5, can input point that User information is expired. Input by method such as ready time</p>
<p>1. ID [01234] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [061013] 5. End Date [301201] FP[1] RF[00000000]</p>	<p>8. Can input fingerprint if press # button. Refer to fingerprint realization method of previous page, put fingerprint on fingerprint reader. If fingerprint was realized, character N of FP side changes by number.</p>

1-5, # Finger, F4 OK	
1. ID [01234] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [061013] 5. End Date [321231] FP[2] RF[00000000] 1-5, # Finger, F4 OK	9. In case of input fingerprint additionally, press # button and put finger to fingerprint reader. When it is realized normally, number of FP side increases. Fingerprint can register to 10 per user.
1. ID [01234] 0. [USR] 2. Passwd1 [*****] 3. Passwd2 [*****] 4. StartDate [061013] 5. End Date [321231] FP[2] RF[7479F60E] 1-5, # Finger, F4 OK	10. In case of wishing to register RF card, if put close to RF card contact part of device external, RF card value is registered and registration is ended.
Register User Successfully Finished	11. If press F4 button after input all user information, screen appears such as left and user information is saved. After save, screen returns by user management menu

5.2 User Deletion

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. In administrator menu screen such as left, press number key 2 and enter to User Management menu
User Manager 1. Add User 2. Delete One User 3. Delete All User 4. Check User 5. Pass Method F1 Cancel F4 OK	2. Press 2 in User Manager menu and select Delete One User article
USER-ID [.] Date - FP[.] RF [.] 0-9 search by ID F1 Cancel F3 Delete F4 OK	3. If input user ID to delete by using number key, user information appears and if press F3, relevant user information is deleted. Can return to previous screen if press F1 or F4

5.3 All Users Deletion

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management	1. press number key 2 in administrator menu screen such as left and enter to User Management menu.
----------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------

4. Passwd change 5. Door Operation F1 Cancel F4 OK	
User Manager 1. Add User 2. Delete One User 3. Delete All User 4. Check User 5. Pass Method F1 Cancel F4 OK	2. press 3 in User Manager menu and select Delete All User article.
Delete All User 1. Yes 2. No	3. All user information are deleted if press 1 and message "All User Deleted" is registered and return by previous screen. If press 2 "Delete" is cancelled and returns to previous screen.

5.4 User confirmation

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. press number key 2 in administrator menu screen such as left and enter to User Management menu
User Manager 1. Add User 2. Delete One User 3. Delete All User 4. Check User 5. Pass Method F1 Cancel F4 OK	2. Press 4 in User Manager menu and select Check User article
USER-ID [.] Date - FP[. .] RF [.] 0-9 : search by ID # search by Finger RF search by Card F1 Cancel F4 OK	3. If input user ID using number key, relevant user's information is registered. If press # button, can confirm user with fingerprint, and if contact RF card, it is possible also to confirm by card. Can return to previous screen if press F1 or F4.

5.5 Entrance/Exit Setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press number key 2 in administrator menu screen such as left and enter to User Management menu
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<p>User Manager</p> <ol style="list-style-type: none"> 1. Add User 2. Delete One User 3. Delete All User 4. Check User 5. Pass Method <p>F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 2. Press 5 in User Manager menu and select Pass Method article
<ol style="list-style-type: none"> 1. Method for USER 2. Group [1] Single 3. PIN Only [*] 4. Card Only [*] 5. Finger Only [*] <p>Press 1-5 for toggle F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 3. Can make toggle each article by pressing 1~5. If press 1, can change group to setup exit and entrance method. It will be changed in order of User – Master – Super
<ol style="list-style-type: none"> 1. Method for USER 2. Group [1] Single 3. PIN Only [*] 4. Card Only [*] 5. Finger Only [*] <p>Press 1-5 for toggle F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 4. If press 2, can set exit and entrance method of selected group. It will be changed in order of Single – Dual – Triple. Can set up to 1~3 the element needed in exit and entrance approval.
<ol style="list-style-type: none"> 1. Method for USER 2. Group [1] Single 3. PIN Only [*] 4. Card Only [*] 5. Finger Only [*] <p>Press 1-5 for toggle F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 5. Can set available exit and entrance method by pressing 3~5. * is registered to available method. <p>◆ PIN : Exit and entrance by ID and password Card : Exit and entrance by RF card Finger : Exit and entrance with registered fingerprint</p>
<ol style="list-style-type: none"> 1. Method for USER 2. Group [1] Single 3. PIN Only [*] 4. Card Only [*] 5. Finger Only [*] <p>Press 1-5 for toggle F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 6. After completion of setting, press F4 button to save setting and to return to previous screen.

◆◆(Illustration of exit and entrance method setting)

User group can set to exit and enter by using fingerprint and password, RF card and fingerprint.

<ol style="list-style-type: none"> 1. Method for USER 2. Group [1] Single 3. PIN Only [*] 4. Card Only [*] 5. Finger Only [*] <p>Press 1-5 for toggle F1 Cancel F4 OK</p>	<ol style="list-style-type: none"> 1. Press 1 in exit and entrance method setting screen after select group by user, and change exit and entrance method from Single to Dual by pressing 2.
<ol style="list-style-type: none"> 1. Method for USER 2. Group [2] Dual 3. CARD + PIN [*] 4. CARD + Finger [*] 5. Finger + PIN [*] <p>Press 1-5 for toggle</p>	<ol style="list-style-type: none"> 2. Cancel selection of CARD + PIN item by pressing 3. User group is set to take in and out only using RF card and fingerprint or fingerprint and password.

F1 Cancel F4 OK	
1. Method for USER 2. Group [2] Dual 3. CARD + PIN [] 4. CARD + Finger [*] 5. Finger + PIN [*] Press 1-5 for toggle F1 Cancel F4 OK	3. Can return to previous screen if save pressing F4 button after completion set. User group can take in and out by Card and fingerprint, fingerprint and password.
Please Touch Finger	4. After changing method taking in and out, it is available to take in and out only by changed method. Can see screen that requires fingerprint input as like left if contact RF card in initial screen
14 Oct 2006 21:37:44 Thank You	5. When input right fingerprint, screens such as left is registered and "Ok You can pass" opens door with guidance sound
14 Oct 2006 21:37:44 No Trespassing	6. Screen such as left is registered in case of input wrong fingerprint or do not input fingerprint within 5 seconds saying guidance sound of "Please Contact your security Manager"
Please Touch Finger	7. Taking in and out is possible by fingerprint and password. Screen such as left is registered if # press button and input fingerprint to fingerprint reader that has registered beforehand.
Need Password check [] * Back # Next F1 Cancel F4 OK	8. Can input password after input fingerprint. If input correctly set password and press F4, then the door opens ◆Caution !!! Registered exit and entrance method should be enforced sequentially . !!! Ex) In case of selection Card + PIN to Dual menu, must input password after RF card contact, and can not take in or out in case of input first password. In case set Triple menu, according to order input of RF card contact password input fingerprint

6. DB Management

6.1 Setup Initialization

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. In administrator menu screen such as left press number key 3 and enter to DB Management menu.
DB Management 1. Init config	2. Database management screen appears as like left. Press 1 for setting initialization and select Init Config

2. Init Event F1 Cancel F4 OK	article
Init Config 1. Yes 2. No	3. Device setting is initialized if press 1 in left screen and returns to previous screen. Can return to previous screen without initializing setting if press 2.

6.2 Event Initialization

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. In administrator menu screen such as left, press number key 3 and enter to DB Management menu.
DB Management 1. Init config 2. Init Event F1 Cancel F4 OK	2. Database management screen appears as like left. Press 2 and select Init Event article
Init Event 1. Yes 2. No	3. if press 1 in left screen, event is initialized and returns to previous screen. Can return to previous screen without initializing setting if press 2.

7. Revision of Manager Password

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. Press number key 4 in administrator menu screen such as left and enter to Passwd change menu
Change Master Password Please type Password [] [] * Back # NEXT F1 Cancel F4 OK	2. If press # button after input administrator password more than five seat using number key, cursor moves to space below
Change Master Password Please type Password [*****]	3. If press F4 button after input correctly inputting administrator password once again, changing administrator's password is completed.

[* Back # NEXT F1 Cancel F4 OK	
O K !!! Master Password Successfully Changed	4. If administrator password is changed normally, screen such as left appears and returns to previous screen
Password Length Less than 5 Please try again	5. When input password less than five seats, error message such as left is registered and returns to password input screen
Not Match Two Password Please Try Again	6. In case of input password is not correspondent each other, error message such as left is registered, and returns to password input screen.

8. Door Operation (open/close) Setup

MAIN Menu 1. Controller Setup 2. User Management 3. DB Management 4. Passwd change 5. Door Operation F1 Cancel F4 OK	1. In administrator menu screen such as left, press number key 5 and returns to Door Operation menu
Door Mode Setup 1. Normal Mode 2. Close 3. Open 4. Schedule Close 5. Schedule Open [Normal] F1 Cancel F4 OK	2. Select wanted mode using number key 1~5 - Normal Mode : Normalcy mode - Close : Always closed - Open : Always opened - Schedule Close : Closed at specifying time - Schedule Open : Opened at specifying time
Schedule Open S: Y[1970] M[01] D[01] S: H[06] M[57] S[04] E: Y[1970] M[01] D[31] E: H[00] M[00] S[53] * Back # NEXT F1 Cancel F4 OK	3. In case of select Schedule Open or Schedule Close mode, can set date on screen such as left.
Schedule Open S: Y[1970] M[01] D[01] S: H[06] M[57] S[04] E: Y[1970] M[01] D[31] E: H[00] M[00] S[53]	4. S displays point of ready time that Schedule mode is applied and E displays point that application is ended. Input sequential year, month, day, time, minute, second using number key. If press # key, go over to next shell, If

* Back # NEXT F1 Cancel F4 OK	press * key, Can correct already input number
Schedule Open S: Y[2006] M[10] D[22] S: H[12] M[00] S[00] E: Y[2006] M[10] D[22] E: H[12] M[15] S[30] * Back # NEXT F1 Cancel F4 OK	5. Door opens compulsorily from 12 o'clock, October 22, 2006 by 12 : 15 : 30 same day. If press F4, setting is saved and returns to previous screen. ◆Caution!! Forced Close mode or in point that Schedule Close mode is applied, please take care of impossibility for taking in and out by all methods with registered RF card and fingerprint !! Must open entrance by setting entrance action with Normal mode or Forced Open mode

9. Usage by Entrance/Exit Method

9.1 In case of fingerprint use

☺ It is available to use that Finger Only article in exit and entrance method setting was selected !!

Please Touch Finger	1. Can input fingerprint if press # button. Input registered fingerprint to fingerprint reader.
14 Oct 2006 21:37:44 Thank You	2. when input right fingerprint, screen such as left is registered and the door is opened with guidance sound of "Ok You can pass"
14 Oct 2006 21:37:44 No Trespassing	3. In case of input wrong fingerprint or do not input fingerprint within 5 seconds, screens such as left is registered and comes out guidance sound of "Please Contact your security Manager".

9.2 In case of card use

☺ It is available to use Card Only article in exit and entrance method setting was selected !!

RF CARD Recognition	1. if put close registered RF card on RF card contact part of device, card is realized.
14 Oct 2006 21:37:44 Thank You	2. When input right card, screen such as left is registered and comes out guidance sound of "Ok You can pass".
14 Oct 2006 21:37:44 No Trespassing	3. Occasion recognized wrong card, error message such as left is registered and comes out guidance sound of "Please Contact your Security Manager".

9.3 In case of password use

☺ It is available to use Pin Only article in exit and entrance method setting was selected !!

Enter ID & Password User ID [0] Password [] * Back # NEXT F1 Cancel F4 OK	1. if press number button in initial screen, there appears screen to be input user ID and password as like left.
Enter ID & Password User ID [012] Password [_] * Back # NEXT F1 Cancel F4 OK	2. If press # button after input registered user ID using number key, can input password
Enter ID & Password User ID [012] Password [*****] * Back # NEXT F1 Cancel F4 OK	3. If press F4 after input user password, the door opens. In case of input wrong, can correct registered number by pressing * button

9.4 In case of card + password use

☉ It is available to use Card + PIN article in exit and entrance method setting was selected !!

RF CARD	1. If put close Registered RF card on RF card contact part of device, card is realized.
Need Password check [_] * Back # NEXT F1 Cancel F4 OK	2. When input right card, screen as like left that can input password is registered. After input password, the door opens if press # or F4 button.
14 Oct 2006 21:37:44 No Trespassing	3. Occasion that input wrong password or do not input password more than 3 seconds, error message such as left is registered.

9.5 In case of card + fingerprint use

☉ It is available to use Card + Finger article in exit and entrance method setting was selected !!

RF CARD	1. if put close registered RF card on RF card contact of device, card is realized.
Please Touch Finger	2. When input right card, screen that can input fingerprint as like left is registered. When input correct fingerprint, the door opens.
Need Password check [_] * Back # NEXT F1 Cancel F4 OK	3. Taking in or out method setting, in case of the Card + PIN item and Card + Finger item are selected all, password input screen is registered after card input. In this case, can input fingerprint if press # button without password input.

9.6 In case of fingerprint + password use

☺ It is available to Finger + PIN article in exit and entrance method setting was selected !!

Please Touch Finger	1. Can input fingerprint if press # button. Input fingerprint registered in fingerprint reader.
Need Password check [_] * Back # NEXT F1 Cancel F4 OK	2. Can input password as like left when input correct fingerprint. If press # or F4 button after input password, the door opens
14 Oct 2006 21:37:44 No Trespassing	3. When input wrong fingerprint or password or do not input password more than 3 seconds, error message is registered as like left.

9.7 In case of card + password + fingerprint use

☺ It is available to Card + PIN + Finger article in exit and entrance method setting was selected !!

RF CARD	1. if put close registered RF card on RF card contact part of device, card is realized.
Please Touch Finger	2. When input right card, screen that can input fingerprint as like left is registered. When input correct fingerprint, password input screen is registered.
Need Password check [_] * Back # NEXT F1 Cancel F4 OK	3. if press # or F4 button after input exactly password, the door opens. If password does not conform, error message is registered and the door does not open.

10. Selection and Use of Entrance/Exit Control Mode

10.1 Attendance Mode

☺: select Attendance mode pressing F1 key

22 Oct 2006 12:11:11 Attendance	1. Select Attendance Mode pressing F1 key. After selection input card + fingerprint + password. ◆ card, fingerprint, password input refer to previous page
14 Oct 2006 21:37:44 Thank You	2. When Attendance mode operates normal, screen such as left is registered. ◆ When registered only fingerprint !! Input fingerprint pressing # key after press F1 key
14 Oct 2006 21:37:44	3. Card, fingerprint, password input were wrong, error message such as left is registered.

No Trespassing	
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10.2 Leaving Office Mode

☉: Select Leaving Office mode pressing F2 key

22 Oct 2006 12:11:11 Attendance	1. Select Leaving Office mode pressing F2 Input card + fingerprint + password after selection ◆ Card, fingerprint, password input refer to previous page
14 Oct 2006 21:37:44 Thank You	2. When Leaving Office mode operates normal , screen such as left is registered ◆ Occasion that only fingerprint is registered !! Input only fingerprint pressing # key after press F2 key
14 Oct 2006 21:37:44 No Trespassing	3. If input of card, fingerprint, password are wrong, error message such as left is registered.

10.3 Go Out Mode

☉: Select Go Out mode pressing F3 key

22 Oct 2006 12:11:11 Go Out	1. Select Go Out mode pressing F3 Input card + fingerprint + password after selection. ◆ Card, fingerprint, password input refer to previous page
14 Oct 2006 21:37:44 Thank You	2. When Go Out mode operates normal , screen such as left is registered ◆ Occasion that only fingerprint is registered !! Input fingerprint pressing # key after press F3 key
14 Oct 2006 21:37:44 No Trespassing	3. Input of Card, fingerprint, password are wrong, error message such as left is registered

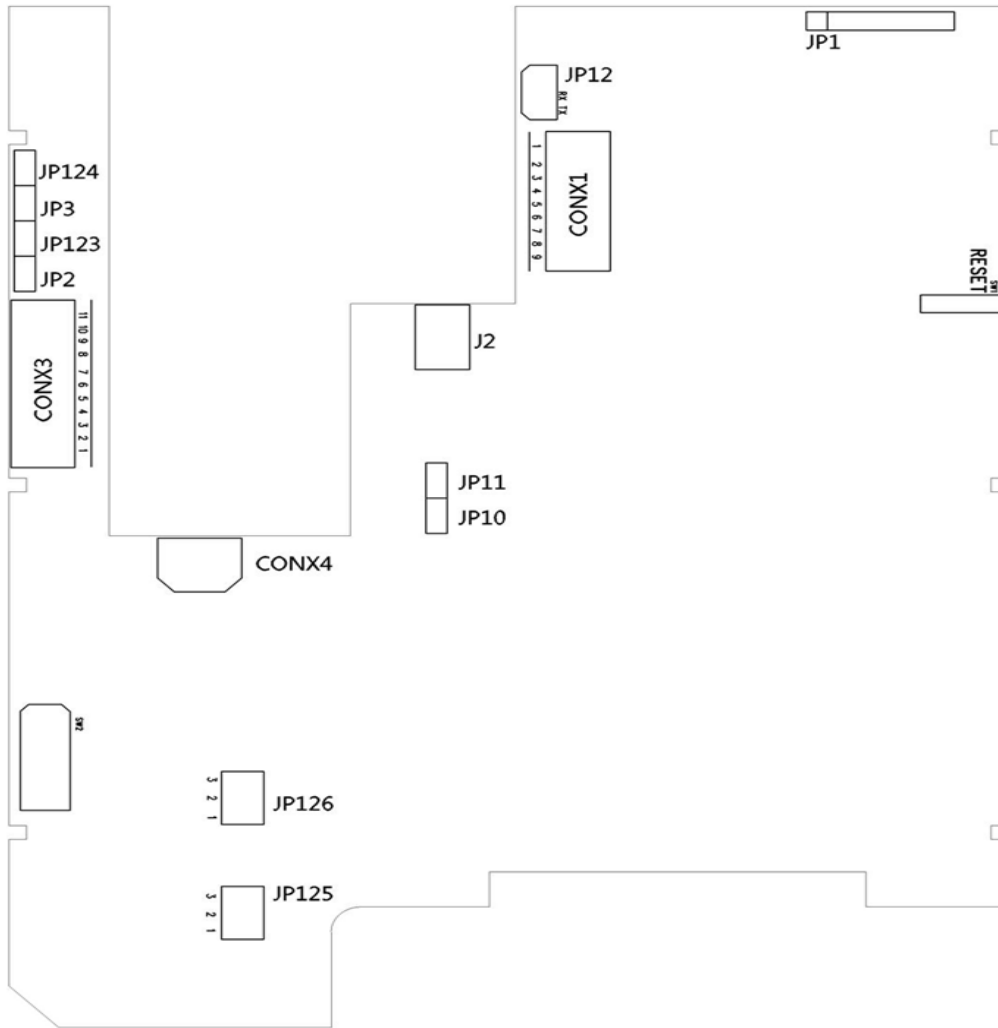
10.4 Return Office Mode

☉: Select Return Office mode pressing F4 key

22 Oct 2006 12:11:11 Return Office	1. Select Return Office mode pressing F4. After selection input card + fingerprint + password ◆ card, fingerprint, password input refer to previous page
14 Oct 2006 21:37:44 Thank You	2. When Return Office mode operates normal, screen such as left is registered ◆ Registered only fingerprint!! pressing # key register only fingerprint after press F4 key
14 Oct 2006 21:37:44 No Trespassing	3. In case of card, fingerprint, password input are wrong as like left, there comes out error message.

11. Installation and Connection

11.1 Jumping Option Setup



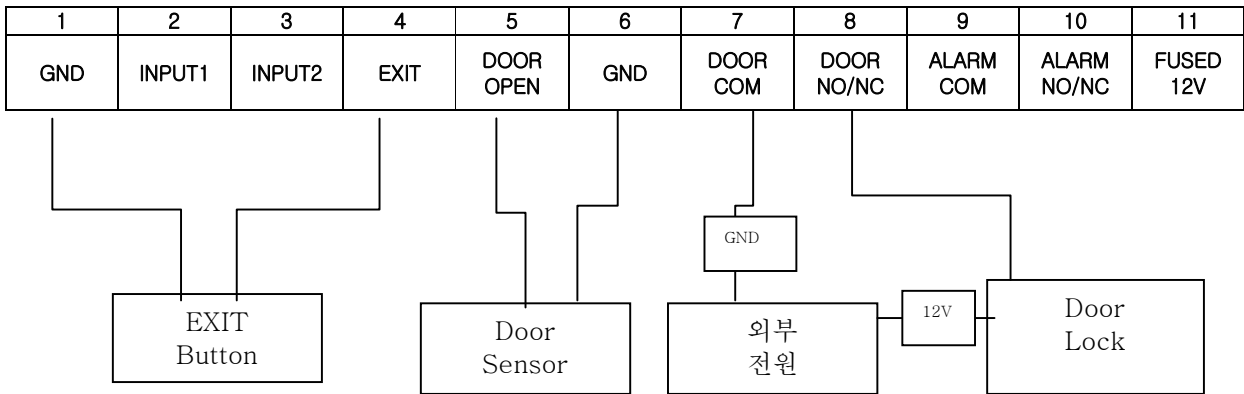
Jumper	Action	Result	비고
Jp10, Jp11	Open	422TX Termination Off	
	Close	422TX Termination On	
Jp123	Open	Alarm_COM Open	Decide COM of Alarm whether will open or connect on GND
	Close	Alarm_COM GND	
Jp124	Open	Lock_COM Open	Decide COM of Lock whether will open or connect on GND
	Close	Lock_COM GND	
Jp125	1번2번	Alarm_Nc	Decide Nc or Nc connection according to Lock type
	2번3번	Alarm_No	
Jp126	1번2번	Jumping -Lock_Nc	Decide Nc or Nc connection according to Lock type
	2번3번	Jumping -Lock_No	
Jp3	ON	Pass under Voltage Lock	Counter electromotive force interception that was produced at Lock On/Off
Jp2	ON	Pass under Voltage Alarm	Counter electromotive force interception that was produced at Alarm On/Off

11.2 Installation Method

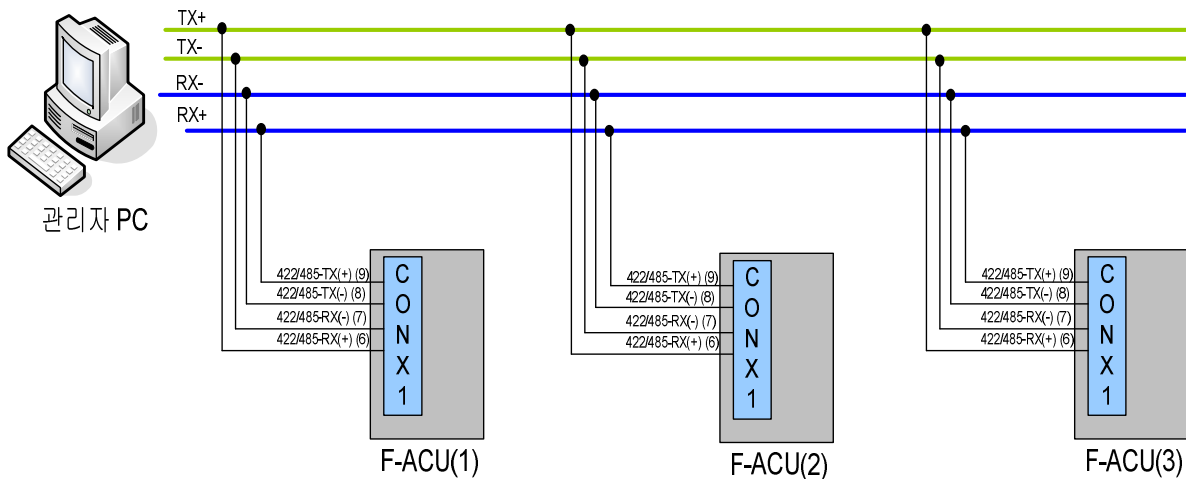
11.2.1 Connection to External Interface

- ◆ **Sensor kinds** - #2(Input1), #3(Input2), #1(GND) connection of Conx1 connector
- ◆ **Exit button** - Connect with #4(Exit) and GND(#1 or #6) of Conx1 connector
- ◆ **Door Lock** - Connect with (Dr _ no/nc) #8 and (Fuse _ 12V) #11 of Conx1 connector and do jumping JP125 according to LOCK type
- ◆ **Door open sensor** - Connect with (Dr-Open) #5 and (GND) #6 of Conx1 connector.
There is occasion that Lock and Door open sensor are together according to Door.
- ◆ **Alram** - Connect with (alarm -no/nc)#10 and (Fuse-12 V) #11 of Conx1.
Do jumping JP126 according to alarm type.

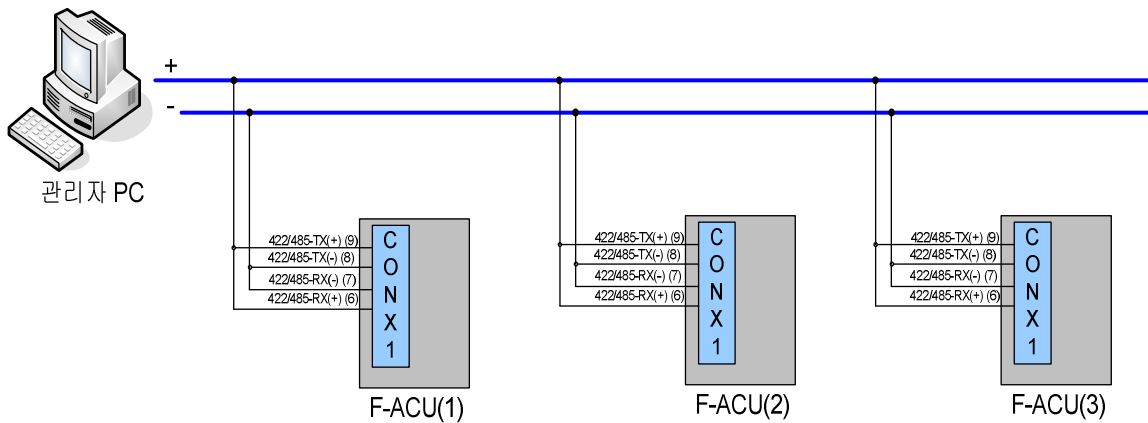
CONX3



11.2.2 422/485 Multi-drop Connection power and LAN conjunction, re-booting



422 Multi-drop 결선방법

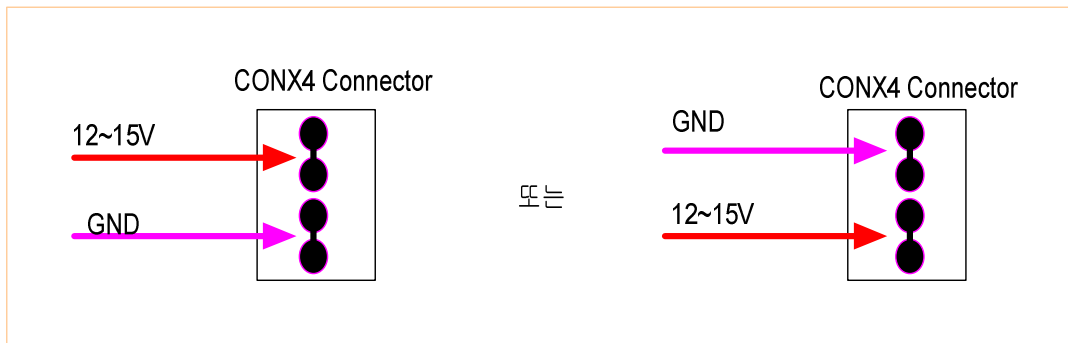


485 Multi-drop 결선방법

When it connect to 422/485 port, termination (JP10/JP11) needs to be connected to both ending points depend on the methods of connection. If the case of administrator's PC is one end point and F-ACU is another end point like above figure, administrator's PC is to be terminated and do the termination only at F-ACU(3). Just in case to connect to 485, it needs to be terminated one of JP10/JP11.

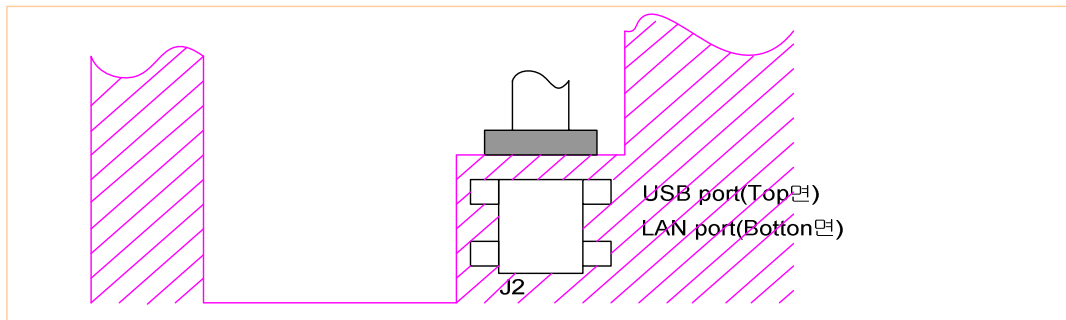
11.2.3 Power Cable Connection

☺ Connect DC power supply 12~15 V to Conx4 regardless of direction



11.2.4 LAN Cable Connection

☺ Connect to RJ-45 connector under J2 port



11.2.5 Rebooting Method ☺ Press RESET switch inside device

11.2.6 Product Initialization

If it does not work normally in various reasons, pull out power connector from main PCB. Then insert power connector in the status of pressing reset switch.

Once you take off reset button after 3 seconds later, it will be reset as newly receiving status (factory exit mode) by initializing various configurations on the product.

11.3 Product Specification

Power Consumption	DC 12 ± 3 V 700 mA
Communication Interface	RS232, RS485/RS422, USB, 10/100 base ethernet
Sensor Type	Optical Sensor
1:1 Verification Time	800 ms
1: 1,000 Identification Time	970 ms
Template Size	256 ~ 384 Bytes (configurable, 384 Bytes default)
Template Capacity	1,900 at 1 MB flash (option: 9,500 at 4 MB flash)
RF Card Interface	Max. 65,356 User Register
Event Log	Max. 100,000 Event can Log to Flash Memory (Power Fail Safe)
LCD Display	128 X 64 pixels graphic LCD
Keypad	16 Numeric key and 4 function key : back lighting
Memory	16MB RAM, 16Mb flash Memory, 2MB boot ROM
CPU	32 Bit RISC CPU
Signal Interface	2 Output (lock, alarm, etc) 4 Input (door/lock status) Wiegand Output
System Software	Access Control and Time Attendance
Operating Environment	-20 ~ 50°C / Lower than 90% RH(Non-Condensing)
RF Reader	Built in 125 KHz RF reader or 13.56 MHz RF reader
Dimensions(Unit: mm)	125(W) x 163(H) x 48(D)
Weight	430g

11.4 Checking Matters before request for A/S

- ◆ input does not act well or response speed is slow
 - Check whether there is moisture in finger
 - Check whether Alien substance is on the surface of fingerprint reader
 - Check whether fingerprint was input exactly

- ◆ Fingerprint registration does not act
 - Confirm fingerprint registration availability
 - Confirm fingerprint registration method
 - Confirm state of fingerprint reader

11.5 Terminology explanation

◆ LAN (Local Area Network)

LAN is linked with communication line fewer than 300m, and it means linkage of PC, main frame, workstation. LAN is distance that electric current or radio signal can be passed correctly between computer and LAN is linked high speed communication network established in building of a certain

organization so that employees can use computer equipments most effectively

◆ **IP address**

It is Internet Protocol Address of 32 bits that provided as the concept agreeing with physical network address, on the Internet, to make Routing efficiently

◆ **Gateway(GW)**

It is a network point that act as entrance which enter other network

◆ **Subnet Mask(SM)**

Subnet is abbreviated word of "sub-network", it is network that is belonged to certain organization but it means network that can be realized to a part detached apart.

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 interference to 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.

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 interference received,
including interference that may cause undesired operation

**** CAUTION ****
Changes or modifications no expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.