USER’S MANUAL

STAR FINGER007
Access Controller

ID-TECK CO., LTD.
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1. Important Safety Instructions

When using your STAR FINGER007 Single door controller, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons. In addition, the following safety guides should also be followed:

1. Fully read and understand all instructions and follow them completely.
2. Follow all warnings and instructions marked on the product.
3. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning. If necessary, use mild soap.
4. Do not use this product near water.
5. Only operate this product using the type of power source indicated. If you are not sure of the type of power supplied to your installation site, consult your dealer or local power company.
6. Never insert objects of any kind into the product or through the cabinet slots as they may touch voltage points and/or short circuit parts possibly resulting in fire or electric shock. Never spill liquid of any kind on the product.
7. Never disassemble this product by yourself; take the unit to a qualified service center whenever service or repair is required. Opening or removing the covers may expose you to dangerous voltages or other risks. Also, incorrect reassembly can cause electric shock when the unit is subsequently used.
8. Unplug this product from the Direct Current (DC) power source and refer to qualified service personnel under these conditions:
   a. When the power supply cord or plug is damaged or frayed.
   b. If liquid has been spilled on the product.
   c. If the product does not operate normally after following the operating instructions in this manual. Adjust only those controls that are covered by the operating instructions in this manual. Improper adjustment of other controls that are not covered by this manual may damage the unit and will often require extensive work by a qualified technician to restore normal operation.
   d. If the product exhibits a distinct change in performance.

2. General

The STAR FINGER007 is a highly advanced, intelligent single door controller with a powerful 32bit and dual 8bit microprocessor to meet the market requirement for a robust integrated solution for access control and time & attendance. The unit is designed to be flexible and reliable as well as provide the ultimate in biometric high security at a reasonable cost. This user-friendly device allows you to register up to 720 fingerprint IDs (optional 2,000/4,500); add / delete user IDs conveniently; store up to 5,200 transactions in its event buffer; easily report and archive information to Excel or Access databases; and ultimately successfully manage all access control and time & attendance issues. With a built-in 4” RF reader, keypad for Personal Identification Numbers (PIN), and a sophisticated biometric fingerprint analyzer, the FINGER007 offers up to three levels of ID verification. Any combination of prox, PIN, and biometric may be used and different verification levels can be custom programmed for each user or user group. Four independent input ports can be utilized for a wide variety of controls including exit buttons, door contacts, PIR sensors and fire detection equipment. Actions to be taken and time settings can be programmed with the front keypad or via the intuitive Windows based software program. The FINGER07 can be used both as a stand-alone system and also be networked. All control setting values such as ID numbers, inputs/outputs, real-time clock, time schedules, and event transaction reports can be uploaded and/or downloaded to and from the host computer. The compact and contemporary unit is easily installed and programming requires no significant knowledge of access control or time & attendance. The Three-LED indicator lights inform you of the systems operating status at real time and the digital display acts as a programming aid as well as a regulation time clock. By bundling the ultimate in high security access control and comprehensive employee management tools into a compact user friendly unit, the field proven STAR FINGER007 has made real what until recently was thought only to be possible in science fiction.
3. Features

- Single door controller for access control and time & attendance, network capable, up to 32 units in a string
- Built-in Proximity Reader with up to 4" of read range with IDC 170 Card
- 720 fingerprint users (optional 2,000/4,500) with storage of up to 5,200 events
- 4 independent input ports (EXIT, Door Contact, AUX1, AUX2)
- 4 output ports including 2 Form-C Relays and 2 TTLs
- All I/Os actions and associated timing functions are programmable via keypad or the application software
- Door Lock and Unlock functions
- Configurable for Normal/Secure mode of operation (Secure Mode requires using external sensor(s) and alarm/siren)
- RS-232 and RS-422 communication port for interfacing with the application software
- Baud rate 4800, 9600 (default), 19200bps
- 3 LEDs (red, green, and yellow) for system operation status
- 2 line x 16 character LCD

4. Specification

| CPU | One 32 bit and Dual 8bit Microprocessor |
| Memory | Program memory(64KB ROM) Data memory(128KB RAM : battery backup) |
| Power | DC 12V/ 300mA max. |
| Proximity reader | Built-in Proximity reader with up to 4” of read range with IDC 170 Card |
| Card Holders/Event buffers | 720(optional 2,000/4,500) Card holders / 5,200 Event buffers |
| Reader ports/Data format | 1 Extra port, 1 Internal port / wiegand format |
| Input/Output | 4 Inputs(EXIT, Door Contact, AUX1, AUX2), max. rating at DC12V/20mA 2 Relay outputs : DC12V~24V/2A max. 2 TTL outputs : DC5V/20mA |
| Communication | One RS-232 port and one RS-422 port / 4800, 9600 (default), 19200 bps Baud Rate, Address selectable up to 32ea |
| Keypad | 16 Numeric Keypad(back lighting) |
| LCD | 1x LCD module, 2Lines x 16ch, 65.6 x 13.8mm view area |
| LED | 3 LEDs (red, green, and yellow) |
| Operating environment range | -15°C to +40°C, 10% to 90% Humidity |
| Light source | LED (finger unit) |
| Mounting | Wall mounted |
| Weight | 525g |
| Dimensions | 161.6×122.6×36.5 mm |
| Color | Dark pearl gray |
| Material | Polycarbonate |
| Format | 26-bit Wiegand |
| Self diagnostic | Yes |
| Reset | Power on reset & watch dog timer |
| Certification | FCC Class A part 15, UL294 |
5. Front Panel Description

Please unpack and check the contents of the box.

6. Identifying Supplied Parts

Please unpack and check the contents of the box.

- Main Unit (1)
- Wall Mount (1)
- O-Ring (5)
- Manual (1)
7. Installation of the Product

7-1. Tear off last page and use the provided template to drill two 6-32 holes and one 1/2" hole on the proper location of the wall to mount the Wall Mount bracket as shown below. (If the gang box is already installed on the wall then skip this step.)

7-2. Using 2 screws, install wall mount to the wall.

* CAUTIONS*
Before mounting the STAR FINGER007 unit to the Wall Mount bracket, an operational test of the unit should be completed, because the locking pins will lock the unit to the Wall Mount. Removing the unit from the Wall Mount bracket after it has been snapped in place may cause damage to the bracket and prevent reattachment.

7-3. Insert 5 O-rings to the wall mount as indicated, then run the cable from the main unit through the center hole and snap in place the main unit to wall mount. Make sure that the main unit is securely locked in place with wall mount.
# 8. Color Coded & Wiring Table

<table>
<thead>
<tr>
<th><strong>I/O PORT NAME</strong></th>
<th><strong>SIGNAL NAME</strong></th>
<th><strong>COLOR CODED</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POWER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Power (+12V)</td>
<td>+12V</td>
<td>Red wire</td>
</tr>
<tr>
<td>Power Ground</td>
<td>GND</td>
<td>Black wire</td>
</tr>
<tr>
<td><strong>OUTPUT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door RELAY(COM)</td>
<td>COM(1)</td>
<td>Gray wire with Red stripe</td>
</tr>
<tr>
<td>Door RELAY(NC)</td>
<td>NC(1)</td>
<td>Blue wire with White stripe</td>
</tr>
<tr>
<td>Door RELAY(NO)</td>
<td>NO(1)</td>
<td>White wire with Red stripe</td>
</tr>
<tr>
<td>Alarm RELAY(COM)</td>
<td>COM(2)</td>
<td>White wire</td>
</tr>
<tr>
<td>Alarm RELAY(NC)</td>
<td>NC(2)</td>
<td>Purple wire with White stripe</td>
</tr>
<tr>
<td>Alarm RELAY(NO)</td>
<td>NO(2)</td>
<td>Purple wire</td>
</tr>
<tr>
<td>TTL Output1</td>
<td>TTL1</td>
<td>Orange wire with White stripe</td>
</tr>
<tr>
<td>TTL Output2</td>
<td>TTL2</td>
<td>Brown wire with White stripe</td>
</tr>
<tr>
<td><strong>INPUT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exit Button</td>
<td>EXIT</td>
<td>Orange wire</td>
</tr>
<tr>
<td>Door Sensor</td>
<td>CONTACT</td>
<td>Yellow wire with Red stripe</td>
</tr>
<tr>
<td>Aux Input #1</td>
<td>IN#1</td>
<td>Green wire</td>
</tr>
<tr>
<td>Aux Input #2</td>
<td>IN#2</td>
<td>Green wire with White stripe</td>
</tr>
<tr>
<td><strong>WIEGAND INPUT / OUTPUT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wiegand Data 0</td>
<td>DATA0</td>
<td>Pink wire</td>
</tr>
<tr>
<td>Wiegand Data 1</td>
<td>DATA1</td>
<td>Cyan wire</td>
</tr>
<tr>
<td><strong>RS232 INTERFACE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS232-TX</td>
<td>TXD</td>
<td>Black wire with White stripe</td>
</tr>
<tr>
<td>RS232-RX</td>
<td>RXD</td>
<td>Red wire with White stripe</td>
</tr>
<tr>
<td><strong>RS422 INTERFACE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS422-TX(-)</td>
<td>TXD(-)</td>
<td>Yellow wire</td>
</tr>
<tr>
<td>RS422-TX(+)</td>
<td>TXD(+)</td>
<td>Grey wire</td>
</tr>
<tr>
<td>RS422-RX(-)</td>
<td>RXD(-)</td>
<td>Blue wire</td>
</tr>
<tr>
<td>RS422-RX(+)</td>
<td>RXD(+)</td>
<td>Brown wire</td>
</tr>
</tbody>
</table>
9. System Wiring for Typical Application

9-1. Power Connection
- Connect (+) wire of DC 12V power to Red wire
- Connect Power GND (-) wire of DC 12V to Black wire

9-2. Door Lock Connection
9-2-1 Connection of POWER FAIL SAFE : Door Lock
- Connect Door RELAY(COM), Grey/Red stripe wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (+) wire of Door Lock to Door RELAY (NC), Blue/White stripe wire of main unit.
- Connect (-) wire of Door Lock to Power GND(-) wire of main unit.

9-2-2 Connection of POWER FAIL SECURE : Door Lock
- Connect Door RELAY(COM), Grey/Red stripe wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
- Connect (+) wire of Door Lock to Door RELAY(NO), White/Red stripe wire of main unit.
- Connect (-) wire of Door Lock to Power GND(-) wire of main unit.
9-3. Alarm Device Connection
   - Connect Alarm RELAY(COM), White wire to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
   - Connect (+) wire of Alarm Device to Alarm RELAY(NO), Purple wire of main unit.
   - Connect (-) wire of Alarm Device to Power GND(-) wire of main unit.

9-4. Exit Button Connection
   - Connect one of the wires of Exit Button to Exit Button Input, Orange wire.
   - Connect the other wire of Exit Button to Power GND (-) wire.

9-5. Door Contact Sensor Connection
   - Connect Door Contact sensor (COM) wire to Door Contact Input, Yellow/Red stripe wire.
   - Connect Door Contact sensor (NO) wire to Power GND (-) wire.

9-6. Auxiliary Input Device Connection (Applied to AUX Input #1, #2)
   - Connect one wire of the Auxiliary Input Device to the AUX Input wire.
     (AUX Input #1: Green wire, AUX Input #2: Green/White stripe wire).
   - Connect the other wire of Auxiliary Input Device to Power GND (-) wire.

9-7. Wiegand Input Connection From Another Compatible Wiegand Reader
   - Connect (+) wire of Reader to DC +12V (be sure that the existing power supply has enough capacity to support this accessory or upgrade to a sufficient one.)
   - Connect (-) wire of Reader to Power GND (-) wire.
   - Connect Wiegand output DATA0 wire of the additional Reader to DATA0, Pink wire.
   - Connect Wiegand output DATA1 wire of the additional Reader to DATA1, Cyan wire.

9-8. RS-232 Communication Port Connection
   9-pin connector (COM Port, female) is required to connect serial communication RS-232 between Main Unit and Personal Computer.
   - Connect RS-232-TX, Black with white stripe of Main Unit to pin number 2 of 9-pin connector.
   - Connect RS-232-RX, Red with white stripe of Main Unit to pin number 3 of 9-pin connector.
   - Connect GND, black wire of Main Unit to pin number 5 of 9-pin connector.
   - Plug in 9-pin connector to COM1 or COM2 Port of Personal Computer.
   - Install and run Application Software.

9-9. RS-422 Communication Port Connection
   RS-422/RS-232 converter is required to connect serial communication RS-422 between Main Unit and Personal Computer.
   - Connect RS-422-TX(-), Yellow wire of Main Unit to RX(-) port of converter.
   - Connect RS-422-TX(+), Gray wire of Main Unit to RX(+) port of converter.
   - Connect RS-422-RX(-), Blue wire of Main Unit to TX(-) port of converter.
   - Connect RS-422-RX(+), Brown wire of Main Unit to TX(+) port of converter.
   - Plug in RS-232 9-pin connector of RS-422/RS-232 converter to COM1 or COM2 Port of Personal Computer.
   - Install and run Application Software.
10. Wiring for Network

11. Functions

11-1. Standalone Operation.

The STAR FINGER007 is capable of having two readers (entry and exit). The unit receives card data signals from the RF readers and determines whether or not to unlock the door. When an input signal is sent, for example from an activated sensor or if the exit button pressed, the controller generates and logs an appropriate response. All events are kept in its own memory and sent to the host computer. The access controller is a true standalone device that in the event of a malfunction, will not affect other units, even if used in conjunction with one another.

11-2. Operation with Host Computer

All event data can be managed via the host computer. The data transmitted from the controller can be displayed and stored on the host PC.

11-3. Keypad

In the event that a host PC is not used, the integrated keypad and LCD can also be used for the entire programming process.

11-4. Cooperation with Fire Detection Equipment

The STAR FINGER007 access controller and fire detection equipments can cooperate to unlock the door in case of fire.
11-5. Anti-Pass-Back
Using an additional RF reader for exiting, the Anti-Pass-Back mode can be utilized. Anti-Pass-Back prevents a registered user from exiting if the user did not properly register when entering. Likewise if the user has exited without verification by the unit, the user will not be allowed entry on their next attempt.

11-6. Data Backup
The controller retains all user information and event data for over a week, even if the event of loss of power. Using a battery back up the unit can operate normally for a significant time period, depending on the power of the battery used.

11-7. Inputs/Outputs
The STAR FINGER007 access controller has four input ports and four output ports (two relay output ports and two TTL output ports), which can be used to manipulate a wide variety of controls.

11-8. Tamper Alarm
While in operation, if someone attempts to damage or pry the STAR FINGER007 from its cabinet, an alarm will sound and alarm messages can be sent in a variety of ways. The alarm may be canceled by presenting a registered card, the master card, or through the host computer.

11-9. Time Schedule
You can set periods of time when each person (ID number) can access the door. There can be ten schedules which covers a week and the days you register, and every card (or PIN) that is registered is to have its own one, without exception. You are to register certain days of the year like legal holidays except Sundays. Also you can set periods of time about output following input, and only output (see 14.2.3), the former correspond to Input, the latter correspond to Output. So, you can set Input and Output according to each T/S. All these can be defined through the setup menu or application program.

11-10. Output Behavior Setup
You can determine the behavior of outputs, two relay, two TTL, buzzer sound, etc. That is, the matter whether they will be activated or not, or how long they will be activated, in response to an input, can be set through the setup menu (see 14.2.3 ) or the application program.

11-11. Door Open by Compulsion and Door Open Alarm
When door is opened by compulsion, Door Contact output (see 14.2.3) is generated. And, when the door is being opened by normal operation, after 20 sec. door-open alarm (blink buzzer) will be generated until the door is closed.

11-12. Duress Mode
You can select Duress Mode enable or disable (14.1.6). If you select Duress Mode enable, in case of Duress, enter the 2 digit Duress Password and press <ENT> and open the door using general process. If you registered ID, then duress output (see 14.2.3) will be generated.
12. Operation

12-1. Normal Operation Mode (Safe Mode)
When the Main Unit operates in standby mode (waiting for ID), the red LED is lit.

12-2. Open the Door
When a registered card (or PIN) and Fingerprint (using fingerprint) are read, the Door will open for 3 seconds.

12-3. Exit (Open the Door)
To request for exit from the inside, an Exit Button (or Exit Reader) can be used to open the door.

12-4. Action And Alarm Caused by Unregistered Card (or PIN)
When an unregistered card (or PIN, Fingerprint) is read, the access is denied and the Alarm can be activated for 3 seconds along with a buzzer sound.

*Unregistered Card (or PIN)*

(If you do not want to activate the Alarm in case of unregistered access attempt, then you can change this setting as shown in section 14.2.3.)
13. BASIC SETTING

13-1. Basic operation

If you turn on the system power after connected 3 wires (pink, cyan and black(GND)), you can enter system initialize mode.

In the system ready, LCD display model name, current date and time.

In the system ready, LCD display model name, current date and time.

You can select output of each status in "setup menu F2".

P/W, T/S, Door, Finger, APB etc...
13-2. H/W reset

You can H/W initialize using extra reader port. First, turn off the system power and connect 3 wires (pink, cyan and black(GND)), and turn on the system power. Then you can hear “Initialize beep(• ••)” and display 1 picture.

And then, Please execute “System Initialize” through command of LCD window.

1. ① : If you want H/W initializing, enter key <1>.
2. If you enter key <1>, then LCD window show picture ②. Enter initial master password(<3141>).
3. Picture ③ is showing initializing.
4. ④ : After initializing – Main power OFF and separate 3wire(pink, cyan and black(GND)) and main power ON again.
13-3. Enter into setup menu

INITIAL DISPLAY (MODEL NAME, CURRENT TIME)

ID INPUT?

MASTER ID?

DISPLAY ERROR STATUS

WAITING MASTER P/W

OPERATE GENERAL MODE

RIGHT?

INITIAL MASTER?

WAITING MASTER FINGERPRINT

RIGHT?

THE INITIAL MASTER ID IS "0000000" AND P/W IS "3141"

SETUP MODE
13-4. Setting the date and time (See 14.1.2)

Select ‘Time setting’ in “Setup menu1” and enter the data of year /month /date /hour /minute /second /day (15digit) as the illustration below shows. You will see the adjusted time on the LCD when finished.

For example, <200106071330253> for Tuesday, June 7, 2001 01:30:25PM.
13-5. Registering Cards(IDs)

You can register Cards(or PIN) to the system. (See, 14.3.1)
Select 'ID REGISTRATION' in Setup menu F3, follow through illustration below shows.

1) Flowchart

1. ID REGISTRATION (setup mode F3) → 'ENT' FINGER007 → REGISTRATION SELECT (FINGER007)
   - CARD or KEY?
     - CARD → ENTER NEW ID (4 DIGIT)
       - KEY → WAITING CARD
       - ERROR DISPLAY
     - 'ENT' FINGER007P
       - MASTER ID?
         - NO → INPUT P/W, T/S, DOOR_FLAG, FINGER_FLAG
           - FINGER_FLAG = 1?
             - USE FINGERPRINT?
               - YES → EXIST ID?
                 - YES → CERTIFICATION OLD ID'S FINGERPRINT
                   - SUCCESS?
                     - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                       - SUCCESS?
                         - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                           - SUCCESS?
                             - YES → ID REGISTRATION END
                           - NO → SUCCESS?
                             - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                               - SUCCESS?
                                 - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                                   - SUCCESS?
                                     - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                           - NO → SUCCESS?
                             - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                               - SUCCESS?
                                 - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                                   - SUCCESS?
                                     - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
                            - YES → INPUT NEW ID'S FINGERPRINT SECOND TIME
                              - SUCCESS?
                                - YES → ID REGISTRATION END
                      - NO → SUCCESS?
                        - YES → INPUT NEW ID'S FINGERPRINT FIRST TIME
                          - SUCCESS?
2) ID Registration

Initial display:

FINGER_007 [F1]
MM/DD hh:mm:ss

Master Card(PIN)/Password/Fingerprint

Select ID Registration menu (Setup menu F3)

Initial Master pin(<00000000>)/Initial password(<3141>)

ID REGISTRATION

1 - Card, 2 - Key

1. Registration by RF Cards (Only Finger007)

Using Fingerprint (FP:1)

To Register FP
Put Your FP On.. Input fingerprint first time

Using Fingerprint

Not using Fingerprint (FP:0)

Approach card reader1

Input PW/TS/RD/FP

Put ID CARD Scanning...

To Register FP
Put Your FP On..

Lift and Put FP Waiting...

Display false message, and return Registration mode.

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint second time

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint first time

Put Your FP On.. Input fingerprint first time
2. Registration by Keypad (Finger007 & Finger007P)

When registering cards,

1. After ID Registration complete, return initial display by enter <ESC> Key.
2. When register more than one ID, register first ID and continuously register other IDs.
3. If the ID number has a fingerprint already, in case of re-registration, the current fingerprint should be scanned first.
4. The ‘PW’ is for password input the password is needed to access doors when the controller is operating in RF+Finger(P/W) or RF+P/W+Finger mode. But regardless of the operating mode, it is necessary to input a password when registering.
5. The ‘TS’ is for Time Schedule index(01~10). To control the accessible periods of time for each card, set Time schedules first(see 14.2.1) and enter the Time Schedule index number here. If there is no need to apply the Time Schedule(anytime accessible with the cad), enter ‘00’ for the value.
6. The ‘RD’ is for selecting accessible reader for the card. Usually ‘3’ (both the readers) is used when using both enter and exit reader. If ‘1’ is entered for the value, only reader 1 will recognize the card and reader 2 will deny access, indicating ‘ACCESS DOOR ERR’ on the LCD (this is also the choice when using a one reader 2 is accessible with that card and reader 1 access will be denied. And again, both readers are accessible when ‘3’ is entered for the ‘RD’ value.
7. The ‘FP’ is for using fingerprint. If ‘1’ is entered for the value, the user has to register fingerprint. And the user certification of fingerprint in RF+Finger(P/W) and RF+P/W+Finger mode. If ‘0’ is entered for the value, fingerprint substitute by password.
14. Setting Changes

1. Enter into setup menu

Note: There are four main setup menus. You need to press <F1> key for setup menu F1, <F2> key for setup menu F2, <F3> key for setup menu F3 and <F4> key for setup menu F4. The keys <4>, <6>, <2> and <8> are used to change submenus or to select values, <ENT> to select and set, <ESC> to go to upper step or to leave setup mode. When selecting mode or setting values is completed, in all kind of menu, the figure on the LCD returns to the first figure of that menu. Then, for the next setting, use <4> and <6> keys (searching key).
14.1 Setup Menu F1

SETUP F1 MENU

- MODE SELECTION
  - RF Only (ID Only)
- TIME SETTING
  - RF+FINGER(P/W) (ID+FINGER(P/W))
  - RF+B/W+FINGER (ID+B/W+FINGER)
- TYPE SELECTION
  - STAND ALONE
  - FINGER_007P
- APB SETUP
  - NOT USE
  - USE
- COMM ID SETTING
  - ALL CLEAR
- DURESS MODE SET
  - NOT USE
  - USE
- BAUD RATE
  - 4800
  - 9600 (Default)
  - 19200
  - 38400
- EVENT CLEAR
  - YES
  - NO
- MASTER ID CHANGE
  - YES
  - NO
- SYSTEM INITIALIZE
  - YES
  - NO
- ID CLEAR
  - YES
  - NO
- TIME SCHE CLEAR
  - YES
  - NO
- RF_PIN_INPUT
  - ENABLE
  - DISABLE
- SEARCHING KEY
  - YES
  - NO
- DURESS P/W
  - SEARCHING KEY
  - ALL CLEAR
14.1.1 Changing Operating Mode

This menu is to select operating mode. You can choose whether to use password (or fingerprint) to each access or not. The lower line on the LCD indicates the current operating mode. Press <ENT> key to change the mode.

MODE SELECTION

RF Only (ID Only)

SELECT KEY

RF+FINGER(P/W) (ID+FINGER(P/W))

SELECT KEY

RF+P/W+FINGER (ID+P/W+FINGER)

MODE SELECTION

RF ONLY

MODE SELECTION

→→RF ONLY

MODE SELECTION

→→RF+FINGER(PIN)

MODE SELECTION

→→RF+PIN+FINGER

Note

RF only : The door is accessible with the card alone.
(Finger007P : ID only)
RF+FINGER(PIN) : To access the door, the card and the fingerprint(P/W) is needed.
(Finger007P : ID and fingerprint(P/W))
RF+PIN+FINGER : To access the door, the card and password and fingerprint(P/W) are needed.
(Finger007P : ID and P/W and fingerprint)
14.1.2 Time Setting

The lower line on the LCD indicates present time. To set time, press <ENT> key.

Enter the correct information of the year, month, date, hour, minute, second, day code in due order, then the setting is finished. If the input information is out of range, an error message appears on the LCD and the current time value is to be kept.

**Day code**

For example, <200106071330253> for Tuesday, June 7, 2001 01:30:25PM.

14.1.3 Type Selection

You can select whether the Stand Alone is used or not. The lower line on the LCD indicates the current mode. Press <4> or <6> to toggle the mode, from NOT USE to USE or the reverse, and finish selecting by pressing <ENT> key.

**NOTE:** If you select NOT USE, then system does not display event full message.

You can select whether the Finger007P is used or not. The lower line on the LCD indicates the current mode. Press <4> or <6> to toggle the mode, from NOT USE to USE or the reverse, and finish selecting by pressing <ENT> key.
14.1.4 Anti-Pass-Back Setup

You can select whether the Anti-Pass-Back (APB) is used or not. The lower line on the LCD indicates the current mode. To change mode, press <ENT> key.

Press <4> or <6> to toggle the mode, from NOT USE to USE or the reverse, and finish selecting by pressing <ENT> key. Then the figure on the LCD returns to the first figure of that menu, which indicates the selected mode now. Then, for the next setting, use <4> and <6> keys.

**NOTE**: If you select All Clear, then system ignores all registered ID’s APB flag only once.
14.1.5 Setting Communication ID

This is communication ID setting menu. To change the communication ID, press <ENT> key.

The number on the LCD is the current communication ID (Device No.). Press <ENT> key again to set a new communication ID.

When the cursor is blinking, enter a new ID (two-digit number), then the setting is completed. For the next setting, use <4> and <6> keys. Possible ID is between 00 - 31 inclusive.
14.1.6 Setting Duress Mode

You can select whether the Duress mode is used or not. The lower line on the LCD indicates the current mode. To change mode, press <ENT> key.

- DURESS MODE SET
  - NOT USE
    - 'ENT'
    - SELECT KEY
      - NOT USE
      - USE
        - IF USE DURESS MODE
          - DURESS P/W
            - DISPLAY CURRENT P/W
              - 'ENT'
              - ENTER NEW P/W

If you select USE, then system displays current DURESS P/W. To change P/W, press <ENT> key.

**NOTE**: You can setting duress output in setup menu F2(in/out define). In case of Duress, enter the 2 digit Duress Password and press <ENT> and open the door using general process. If you registered ID, then duress output (see 14.2.3) will be generated.
14.1.7 Adjusting Communication Speed

The number on the LCD is the current communication speed in Baud rate. Press <ENT> key to adjust the speed.

Available speeds are 4800 bps, 9600 bps, and 19200 bps, and the default value is 9600 bps. Press <4> or <6> to change speed, and finish selecting by pressing <ENT> key. Then, for the next setting, use <4> and <6> keys.
14.1.8 Clearing Event Data Buffer

Used to erase ALL of the event data such as the permitted access and denied access records. If you want to do so, press <ENT> key.

When this figure appears on the LCD, press <1> key to clear and <0> key to cancel the operation.

CAUTION: Be careful in using this operation, or you may lose important data.

14.1.9 Changing Master ID
14.1.10 Initializing the System

**SYSTEM INITIALIZE**

Press **<ENT>** key to change the current Master ID. You should use the new Master ID to access the setup menu since the change is finished.

A fingerprint for the new Master card is needed to be scanned. **If there has been a Master ID already, the fingerprint of the ID should be scanned first.**

The reader is waiting for an 4 digit which is to be registered as a new Master ID. Press new Master ID(4digit)( In case of FINGER007P).

The reader is waiting for an RF card which is to be registered as a new Master card. Present a new Master card to the reader(FINGER007). After reading the card, the following figure shows on the LCD.

Enter a new Master password(four digit) and finish changing Master ID.

The figure indicates that changing Master ID is finished successfully, and soon will return to the first figure of this menu. For the next setting, use <4> and <6> keys.

**SYS INITIALIZE**

This operation will initialize the FINGER007. Press **<ENT>** key, if an initialization is needed (first time installation or resetting in the event of a malfunction). **CAUTION:** Initializing will erase all stored data incl. registered IDs event data.

When this figure appears on the LCD, press <1> key to clear and <0> key to cancel the operation, then the LCD displays the first figure of this menu.

This message appears while the system is being initialized. When finished, you will be automatically returned to the setup menu.
14.1.11 Clearing Card Ids

<table>
<thead>
<tr>
<th>ID CLEAR</th>
<th>YES ('1' KEY)</th>
<th>'ENT'</th>
<th>NO ('0' KEY)</th>
</tr>
</thead>
</table>

Used to erase ALL the card ID data and fingerprint data stored in the device. If you want to do so, press <ENT> key.

Card ID Clear
1 – Yes, 0 - No

When this figure appears on the LCD, press <1> key to clear and <0> key to cancel the operation, then the LCD displays the first figure of this menu.

CAUTION: This function will remove ALL registered ID cards and fingerprint.

14.1.12 Clearing Time Schedule

<table>
<thead>
<tr>
<th>TIME SCHE CLEAR</th>
<th>YES ('1' KEY)</th>
<th>'ENT'</th>
<th>NO ('0' KEY)</th>
</tr>
</thead>
</table>

Used to erase ALL the time schedules. If you want to do so, press <ENT> key.

Time Sche Clear
1 – Yes, 0 - No

When this figure appears on the LCD, press <1> key to clear and <0> key to cancel the operation, then the automatically returns to the start menu.

CAUTION: This function will erase ALL programmed time schedules.
14.1.13 Selecting ID Input mode

You can enable PIN(card number) to be input through the keypad, so that someone who doesn't carry RF cards with him can access the door. When it is disabled, accessing the door by keypad will be denied.

The display shows the current mode.

Press <ENT> key to toggle the mode.

**CAUTION:** The default Master number, “00000000”, must be replaced with a new Master card number before disabling keypad input, or you CANNOT access the setup menu again.

In case of that, the only thing you can do is hardware initializing.

**Do not use** this menu in FINGER007P.
14.2 Setup Menu F2

The keys <4>, <6>, <2> and <8> are used to change menu, <ENT> to select and set, <ESC> to go to upper step or to leave setup mode.
14.2.1 Registering and Changing Time Schedule

You may program time schedules to grant and restrict access for each user. There can be up to ten different schedules. A minimum of one schedule must be defined. If only one schedule is programmed the most common setting allows access for all users 24 hours / day. A time schedule can be programmed for each day of the week and holidays (see 14.2.2), and five shifts can be defined for each day. To set time schedules, press <ENT> key from this menu.

Press <2> key or <8> key to adjust the Time Schedule (T/S) number (1~10) and the day of the week (Mon-Sun and ‘HOL’). Define which shift of the day (1~5), using the <4> key and <6> key. ‘HOL’ refers to specific holidays you will register(see 14.2.2). Press <ENT> key, and the cursor will blink, then enter the beginning time of the period, in the form of hour (2-digit):minute(2-digit) and the ending time in the same form. Then the lower line will indicate the defined period. For more schedules, repeat the process. To end time scheduling, press <ESC> key.

Possible values for time scheduling
1) Time schedule number : 01 ~ 10 (Needed when IDs are registered)
2) A day of the week: MON, TUE, WED, THU, FRI, SAT, SUN, HOL
3) Index : 1 ~ 5(referred to the five periods of time of a day)
14.2.2 Registering and Changing Holiday Time Schedule

- **HOLIDAY T/S**
  - 'ENT'
  - **DISPLAY CURRENT T/S**

- **SELECT T/S NUMBER AND INDEX**
  - (USE "2","8","4","6" KEY)
  - 'ENT'

- **ENTER T/S (4 DIGIT)**
  - (MM:DD)

- **COMPLETE?**
  - YES
  - 'ESC'
  - NO

You can register up to 32 specified “holidays”, per year for each schedule setting. There can be 10 other registration sets created, meaning holidays can be set for up to 10 years.

Press <ENT> to register the days.

With <2> key and <8> key, select the date registration set number (1~10), and with <4> key and <6> key, select the index for the days (1~32). Then, press <ENT> key, and the cursor will blink, then enter the date, in the form of Month(1~12):date. Then the LCD will indicate the defined date. Now, a day has registered. For further registration, repeat the process. To end registering the days, press <ESC> key, and you will see the first figure of the menu.

1) Holiday Time schedule(Date registration set) number : 01 ~ 10(10 years)
2) Index for the days : 01 ~ 32(32 days)
14.2.3 Defining Outputs in Compliance with Inputs

You can set each output to be generated or not and how long they will last in seconds, respectively. There are default values as seen in the table 1 below. To set the values, press <ENT> key.

Select input sources by changing index No. with the keys <4>, <6>, and press <ENT> key, and you’ll see a cursor blinking at the first digit, from the left, of the five couples of digit, which corresponds to relay1, relay2, TTL1, TTL2 and buzzer, respectively. Then enter the delay times (refer to the table below) one by one. Now, an inputs/outputs definition has completed. For further definition, repeat the process. To end defining inputs/outputs, press <ESC> key, and you will see the first figure of the menu.

**NOTE:** The five couples of digit of [15], Output T/S and [16], Input/Output T/S are time schedule indexes.
Table 1: The relation between index(source, Input and Output(default))

<table>
<thead>
<tr>
<th>Index No</th>
<th>Relay1</th>
<th>Relay2</th>
<th>TTL1</th>
<th>TTL2</th>
<th>Buzzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Exit button</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[2] Door contact</td>
<td>00</td>
<td>03</td>
<td>03</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>[3] AUX1</td>
<td>00</td>
<td>03</td>
<td>03</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>[4] AUX2</td>
<td>03</td>
<td>00</td>
<td>03</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>[6] R1 ID OK</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[7] R1 ID Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[8] R1 T/S Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[9] R1 APB Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[10] R2 ID OK</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[11] R2 ID Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[12] R2 T/S Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[13] R2 APB Error</td>
<td>00</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[14] DURESS MODE</td>
<td>00</td>
<td>03</td>
<td>03</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>[15] Output T/S</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>[16] IN/OUT T/S</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

**Note:**

1) The relation between index number and input is shown in the table above.
2) The inputs of index No. 3~4 are signals from extra equipments, such as PIR sensor, fire sensor and etc, connected to the controller.

   The index No. 5 corresponds to the tamper switch input (activated when the controller has a physical damage).

   The messages of the No. 6 ~ 13 is generated after reading a card.

3) The second line of the LCD shows the output status.(see the table)

   (00: No operation, 99: Always on, 01~98: Activated for given seconds long)

4) Relay 1 (Lock Door), Relay 2 (Alarm)

5) The index No. 15 ~ 16 are not output time but time schedule number.
14.2.4 Setting Holiday Index

You should choose which Holiday time schedule (date registration set) is to be applied. The default index is “00”. Choose the schedule you programmed (1~10). If necessary, press <ENT> key.

Enter Index number (00~10) and press <ESC> key to finish selecting. You will then automatically be returned to the setup menu.

14.2.5 Setting Mode Index

The function to apply the Time schedule to operating mode, which must be applied. The default index is “00”. If necessary, press <ENT> key.

Enter Index number (0~10) and finish. During the period of time the applied T/S indicates, your controller will operate in RF only mode and for the rest of the time, in RF card + fingerprint (four digit password) or RF card + four digit password + fingerprint mode. Press <ESC> key to end the selecting, then automatically be returned to the setup menu.
14.3 Setup Menu F3

On setup menu F3, there are functions to register additional IDs, to delete registered IDs and to display the registered IDs.
14.3.1 Registering IDs

ID REGISTRATION

REGISTRATION SELECT
(FINGER007)

CARD or KEY?

CARD or KEY?

ENTER NEW ID
(4 DIGIT)

MASTER ID?

NO

INPUT
P/W, T/S, DOOR_FLAG, FINGER_FLAG

FINGER_FLAG = 1?

USE FINGERPRINT?

YES

EXIST ID?

YES

CERTIFICATION OLD ID'S FINGERPRINT

SUCCESS?

NO

SUCCESS?

YES

INPUT NEW ID'S FINGERPRINT
FIRST TIME

SUCCESS?

YES

INPUT NEW ID'S FINGERPRINT
SECOND TIME

SUCCESS?

YES

ERROR DISPLAY

'ENT'
FINGER007

APPROACH CARD

'ENT'
FINGER007P

ID REGISTRATION END

ID REGISTRATION END
This is ID registration menu.
To register additional ID, press <ENT> key.

ID Number is registered in the controller by RF cards or through the keypad.
For RF cards, Press <1>key, the keypad, <2>key, or you can quit the registration by pressing <ESC>key.

In case register by RF card, the reader is waiting for an RF card which is to be registered. The following figure will appear with a beep as the card is read.

This figure appears When you press the <2>key for through-keypad registration(or FINGER007P), then you are to enter a four-digit ID number. <0000> will be attached in front of the number automatically, so the ID number entered through the keypad is to be stored in the form of <0000xxxx>.

This figure appears, indicating the ID number you just entered on the upper line, and you are to enter the following information for the ID number: Four-digit password, two-digit Time Schedule number, Reader number(see the NOTE below) and FP flag(enter <1> to register a fingerprint, <0>, not to.). If you enter <0> for the FP flag, the message ‘ID Registered’ will be shown for a moment and the controller waits for another PIN number to be input. You can register other PINs in the same way. Press <ESC> key to quit the registration. (You can change the TS, the RD and the FP flag in the same way as the new registration)

If you enter <1> for the FP flag to register a fingerprint for the ID number, you will see this figure showing and the red light fleshting in the fingerprint input window. As the fingerprint should be scanned twice, Put a finger to the window, according to the message displayed, lift the finger off briefly and put it again. The first figure of 13.3.1 sill appear when there is no finger input for some period of time.

NOTE: 1. The fingerprint registration needs two a little different images of a fingerprint. For that reason, after the first scan, the finger must be lifted off briefly. 2. When a ID number using fingerprint is re-registered for changing options, the current fingerprint is needed to be scanned. If the current fingerprint is not available, delete the ID number first, and register it again.

<table>
<thead>
<tr>
<th>Key Input ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card ID : _</td>
</tr>
</tbody>
</table>

XXXYYYYYY
PW_____TS__RD_FP_

1) **PW**(password) : The password used in RF + fingerprint(password) and RF + password + fingerprint mode.
2) **TS**(Time schedule)
   - 00 : Anytime accessible, 01 ~ 10 : Accessible according to each T/S index
3) **RD**(Reader code)
   - 1 : for using reader 1 alone, 2 : for using reader 2 alone, 3 : for using both reader 1 and 2.
4) **FP**(Fingerprint flag)
   - 1 : To register a fingerprint for the ID number being registered.(If the ID number has a fingerprint already, in case of re-registration, the current fingerprint should be scanned first.)
   - 0 : When the ID don’t need a fingerprint registered. If the controller is set to operate in RF+FINGER(P/W) or RF+P/W+FINGER mode, it will operate in RF+P/W(Password) mode.
14.3.2 Deleting IDs

To delete some registered IDs, press <ENT> key.

Enter the eight-digit ID number or approach card that you want to delete. Then the following message will show on the LCD. You can quit the deletion by pressing <ESC> key.

If use Finger007P, enter the four-digit ID number you want to delete.

The display shows on the LCD for a second, indicating that the deletion is finished successfully, and then waiting for a next ID.
14.3.3 Listing Registered IDs

If you want to list the registered IDs, press <ENT> key in this menu.

This message is displayed when there is no registered users.

An ID number, the password, the applied T/S, the reader code and the fingerprint flag are displayed on the LCD, and you can display next ones with <4> and <6> keys. Press <ESC> key when you finished to return to the setup menu.

This message will appear momentarily when scrolling back to the top of the list (using the <4> key). After a few seconds the ID for the first user reappears.

This message will appear momentarily when scrolling forward (using the <6> key). After a few seconds it disappears revealing the very first ID number.
14.3.4 ID Count

This menu displays the total number of registered IDs.

14.3.5 Event Count

This menu displays the number of stored current event.
On setup menu F4, there are self-diagnosis functions to test the performances of the operations. To test, press `<ENT>` key.
14.4.1 F/W Version

The version of the controller's firmware is displayed on the LCD. Press <4> or <6> key to look for other menus of setup menu F4.

14.4.2 Testing SRAM

The version of the controller’s firmware is displayed on the LCD. Press <4> or <6> key to look for other menus of setup menu F4.
14.4.3 Testing Outputs

To test the memory, press <ENT> key.

This message would indicate the SRAM (KM68100C) has problems. In this event, contact technical support. Press any key to return to the setup menu. Use <4> key and <6> key for testing other performances.

This message appears when the SRAM is operating normally. Press any key to return to the setup menu. Use <4> key and <6> key for testing other performances.

---

<table>
<thead>
<tr>
<th>OUTPUT TEST</th>
<th>‘ENT’</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELAY 1 TEST (REPEAT ON/OFF TWO TIMES)</td>
<td>RELAY 2 TEST (REPEAT ON/OFF TWO TIMES)</td>
</tr>
<tr>
<td>TTL OUTPUT 1 TEST (REPEAT ON/OFF TWO TIMES)</td>
<td>TTL OUTPUT 2 TEST (REPEAT ON/OFF TWO TIMES)</td>
</tr>
<tr>
<td>BUZZER TEST (REPEAT ON/OFF TWO TIMES)</td>
<td>OUTPUT TEST END</td>
</tr>
</tbody>
</table>

This test is applicable to Relay1 and blue led.

This test is applicable to Relay2 and yellow led.

This test is applicable to TTL1 output.

This test is applicable to TTL2 output.

This test is applicable to Buzzer output.

---

The diagram illustrates the testing sequence for various outputs in the system.
To test the output performances, press <ENT> key. If the output performance has no problems, the test will proceed as follows:
First, the green LED blinks twice as the relay is being shorted and opened twice. The relay ticktack as it works, you can hear the sound.
Second, the yellow LED blinks twice as the relay is being shorted and opened twice. The relay ticktack as it works, you can hear the sound.
Third, the LCD changes its figure, <ON, OFF, ON, OFF>. There’s no other presentation you can see.
Fourth, the buzzer beeps twice.

This figure means that the test has finished. Press any key to return to the setup menu. Use <4> or <6> key to scroll to perform other tests.

14.4.4 Testing LCD

To test the performance of the LCD, press <ENT> key. As the test proceeds several characters will move quickly from right to left.

This means the test has finished. The first figure of the menu appears when any key is pressed. Use <4> or <6> key for testing other performances.
14.4.5 Testing Keypad

To test the performance of the keypad, press <ENT> key.

When operating normally, pressing the keys on the keypad will display the corresponding letter on the LCD.

Note: The letters on the LCD, A, B, C, D, E and F are referred to <F1>, <F2>, <F3>, <F4>, <ESC> and <ENT> key, respectively.
To test the performance of the reader, press <ENT> key.

**NOTE**: In case Finger007P, you don’t using this menu.

The reader is waiting for an RF card to read. Present an RF card to the reader.

The test has completed successfully if the LCD displays the ID card number (example shown to left).
14.4.7 Testing Input port

To test the performance of input ports, press <ENT> key.

The lower line on the LCD indicates the status of the five input signals.

**Note:**
1. Input 1~4 − <1>: No signal, <0>: Exist signal
2. Input 5 − <0>: No signal, <1>: Exist signal

14.4.7 Testing Communication port

Before this communication test, connect the RS-232 Rx, Tx wires to each other. And to begin the test, press <ENT> key.
14.4.8 GET GAIN IN FDA

You can see the current fingerprint recognition sensitivity at this menu. Press <ENT> key to see the sensitivity.

14.4.9 SET GAIN IN FDA

You can adjust the fingerprint recognition sensitivity at this menu. Press <ENT> key to adjust the sensitivity. You can enter 1, 2, 4 (default) or 8 as the value. Enter 8 when the highest security is needed, and use 1 or 2 for the easier access.
15. FCC Registration Information

FCC REQUIREMENTS PART 15

Caution: Any changes or modifications in construction of this device which are not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

NOTE: 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.

This equipment has been tested and found to comply with the limits for a Class A Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to 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 radio or television off and on, the user is encouraged to try to correct interference by one or more of the following measures.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on another circuit.
4. Consult the dealer or an experienced radio/TV technician for help.
16. Warranty and Service

STAR FINGER007 warranty is 2 years from the shipped date; returns must have an RMA (Return Material Authorization) number. The customer is to provide a description of the specific problem. The customer is to include serial numbers, formats, and model numbers with the items to be returned.

Contact Technical Support

In the United states
RF LOGICS Inc. Service Center
3026 Scott Blvd.,
SANTA CLARA, CA95054
Tel.: (408)980-0001
Fax.: (408)980-8060
E-mail: rflogics@rflogics.com
Web-site: www.rflogics.com

Outside of the United states
ID TECK CO., LTD. Service Center
5F Ace Techno Tower Bldg.,
684-1 Deungchon-dong, Kangsuh-gu,
SEOUL 157-030, KOREA
Tel.: +82(2) 659-0055
Fax.: +82(2) 659-0086
E-mail: webmaster@idteck.com
Web-site: www.idteck.com

NOTE: Damage occurring during shipment is deemed the responsibility of the carrier, and claims should be made directly to the carrier.
17. TEMPLATE

- 6-32 hole
- 1/2" hole
- 6-32 hole