

ADEL® OFFICE SECURITY INTELLIGENT LOCK

Keypad lock

Model: ADEL 747GS

USER GUIDE

(WIN95/98)



SHENZHEN IDEAL MICROELECTRONICS CO., LTD.

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Introduction

Established in 1993 Shenzhen Ideal Microelectronics Co. Ltd. has achieved a respected name throughout China as a manufacturer, supplier and designer of hotel locks, home locks, office locks and security related products. It has developed dozens of hi-tech product including IC card locks, TM card locks, RF card locks and Digital Patrol Controller, etc. and has got many national patents.

In today's world, electronic access control has become the preferred choice among security professionals. It offers increased security and flexibility, superior key control and all the advantages of an audit trail. The ADEL-747 office lock series including TM card lock, RF card lock and keypad lock, which are intelligently designed to meet the need for more security, convenience and efficiency of your house and office.

The 32 codes keypad lock is our newly developed product. It can be widely used in flat, villa, office, warehouse, stores and so on. Using it, the same lock can be opened by up to 32 persons with 32 different codes. It also features the time-control function. Each code can be set into different unlock time limit, by which the invalid excess will not be granted. The attached software can be used to view the open records at any time. The auto-check and auto-repair function can alarm automatically in abnormal state, which guarantee 100 percent safety.

ADEL-747GS KEYPAD LOCK USER GUIDE

1 Components

1.1 Door Lock Components

Note: take 747GS3000 for example.

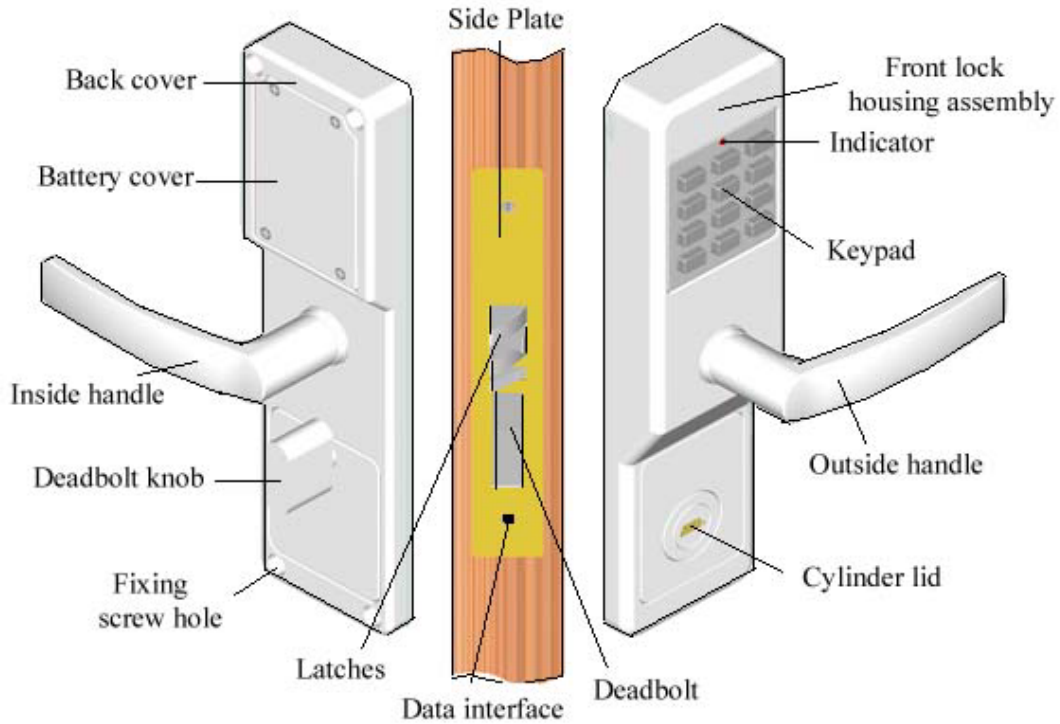


Fig.1 Exploded View

Front lock housing assembly	Keypad, indicator, handle, PCB, cylinder with lid
Back cover	Handle, deadbolt knob, battery box
Side plate	Data interface
Strike and Strike plate	
Mortise	With five-bolt and signal output
Accessories	2 big square shafts, 1 small square shaft, 4 AA batteries, 4 fixing screws, 2 pan screws, 4 tapping screws

1.2 Office Lock Management System

- IBM PC XT/AT586 (16MB RAM, 20MB available hard disk space)
- 3.5 inch floppy drive
- WIN 95/98 operation system
- One serial port, one serial wire

- ADEL-747 software

1.3 Working Voltage

6V DC (Standard No.7777 mortise)

2 Features

- ✧ Open with a code instead of the key, secure and convenient.
- ✧ The code features one advanced code and 31 user codes.
- ✧ Advanced code as the only advanced authority code can be used in any time to cancel the user code, set the time control of the user code, and open the deadbolt.
- ✧ User code can be changed by general user.
- ✧ The 'black box' in the lock stores open records, which can be viewed, saved and printed at any time using ADEL-747 software.
- ✧ The 'black box' stores 864 latest open records.
- ✧ The auto-check and auto-repair function in the lock can alarm the user in abnormal state.
- ✧ Only to be installed in wooden door, with the thickness over 40mm, and door case with the width over 120mm.

3 Performance Index

Power Supply	4 standard AA alkaline batteries
Static Consumption	<15 μ A
Dynamic Consumption	150mA~300mA
Emergency unlocking	The door can be opened even if the deadbolt works.
Battery life	About one year in normal state.
Open time	Turning the handle to open the door after inputting the code is valid just once within 10 seconds, after that the door will be locked again automatically. The buzzer in the lock will beep to warn the user if the door isn't closed after opening the door within 15 seconds.
Low voltage warning	When CPU working voltage is less 4.5V, the indicator will be in red when inputting the code, the lock can still be opened dozens of times before the batteries are replaced.
Mechanical Key	The separate emergency mechanical structure will allow the opening by the mechanical key in emergency.
Installation request	Only to be installed in the wooden door, with the thickness between 38mm and 55mm, and if the door surface is decorated, the distance between the decorative edge and the edge of the door must be over 120mm.

4 Processing Technology & Finishes

The 747G type lock is used the most advanced stainless cast-steel integrative structure with no rivet and plastic parts inside. This product features stable, strong anti-destructible structure that fits public very well.

Available in a variety of standard finishes, the office lock series meet the demands of today's market for aesthetics as well as performance. The most popular is satin chrome

5 About the Code

- ✧ The code features one advanced code and 31 user codes.
- ✧ Each code includes 2 digit group number and 1-8 digit code number. If the code is less 8 digits, press “#” button to end. E.g. 011234#, or 0112345678.
- ✧ The group number of the advanced code is “00”(can not be changed), and the group number of the user code is “01” to “31”.
- ✧ Advanced code as the only advanced authority code can be used in any time to cancel the user code, set the time control of the user code, and open the deadbolt.
- ✧ The owner of the advanced code can set the time control of the user code.
- ✧ The user code can be changed by the general user at any time.
- ✧ After the wrong code being inputted 4 times continuously, you must wait 10 seconds if you want to try again.

6 Operation Instructions

Note: The advanced code must be set firstly before using door lock.

6.1 How to enter the setup status?

Note: Setting the code, canceling the code, setting the time and viewing the open record etc. all must enter the setup status at first.

Method 1: Turn the mechanical key clockwise and press “#” button. (Alarm: If there have been many codes in the lock, they would all be erased.)

Method 2: Press “#” button, the indicator turns green, input the advanced code (If the code is less 8, do not forget to press”#” to end). If the code is right, a long beep will be heard.

Note: Press “*” button 3 times continuously, and the setup status would be out.

6.2 How to set the clock?

Note: Before setting the user code, you must set the clock to the current time. Or the time control of the user code would be invalid.

Step 1: enter the setup status; the indicator turns green.

Step 2: enter “40#”; the indicator turns red.

Step 3: enter the current time, e.g. 0103021030, means March 2, 2001, 10:30am.

Note: Press “*” button 3 times continuously, and the time setting would be out.

6.3 How to set the code?

Step 1: enter the setup status; the indicator turns green.

Step 2: enter the group number (from “00” to “31”), press “#” button, a long beep will be heard.

Step 3: enter 1-8 digit code, if less 8, press “#” button to end; an ascending long beep will be heard, the indicator turns yellow.

Step 4: enter the beginning date and time; a descending long beep will be heard; e.g. 0103020930, means March 2nd, 2001, 9: 30 am. **Note**, the first two numbers means the year from 2000 to 2099.

Step 5: enter the end date and time; two short beeps will be heard; the indicator turns green. Finish.

Note: (1) When entering the group number “00”, you’ll be setting the advanced code without the procedure of time control.

(2) If you don’t want to set the time control of the user code, after the indicator turns yellow, press “#” button 2 times continuously, and the code will be set with no time limit.

6.4. Change the user code (It can be done by the general user)

Step 1: press “#” button, the indicator turns green.

Step 2: enter the group number (from “01” to “31”); enter the former code (If less 8, do not forget to press “#” button to end); a long beep will be heard.

Step 3: enter the new code (no need the group number); two short beeps will be heard.

Step 4: to confirm the code, enter the same new code again; a long beep will be heard. Finish.

6.5 Cancel the user code (Only for the administrator)

Step 1: enter the setup status; the indicator turns green.

Step 2: enter the group number that you want to cancel (from” 01” to “31”).

Step 3: Press the “*” button, the user code will be cancel.

6.6 Change the advanced code (Only for the administrator)

Method 1: turn the mechanical key and press “#” button at the same time. Be careful: You have erased all the codes in the lock, so you must set them again.

Method 2:

Step 1: enter the setup status; the indicator turns green.

Step 2: enter the group number “00”; press “#” button; a long beep will be heard.

Step 3: enter the new code (If less 8, do not forget to press “#” button to end); a long beep will be heard. Then you have changed the code.

6.7 How to open the door?

Step 1: enter the group number and the code directly.

Step 2: If the code is right, the door could be opened. Two short beeps will be heard; the indicator turns green.

Note: (1) The green indicator will flash over 10 seconds when the door is opened; a long beep will be heard to end. The lock only permits one time to pen the door.

(2) If you want to open the door freely, after you enter the code, press any button before turn the handle. If you want to cancel, there are two methods.

Method 1: turn the deadbolt knob.

Method 2: enter the same code again.

(3) The door must be opened within 10 seconds, after that, the door would be locked again automatically with no open record.

(4) At any time when the battery power is not enough or someone lock the door inside with the deadbolt, you can use the mechanical key to open the door, and the open record will be stored in the lock.

6.8 The function of the advanced code

The advanced code is one of the methods to enter the setup status; using it you can cancel the user code, open the dead bolt and set the time control of the user code. It owes to the administrator.

6.9 The importance of the mechanical key

You should keep the key safely as it is one of the methods to enter the setup status, and it is the only way to open the door if you forgot the code.

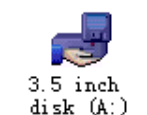
7 Software Operation Instructions

7.1 Function of Software

You can set the room number, the clock, customer's name and read the open record in the computer. Using it can make you more convenient, quickly.

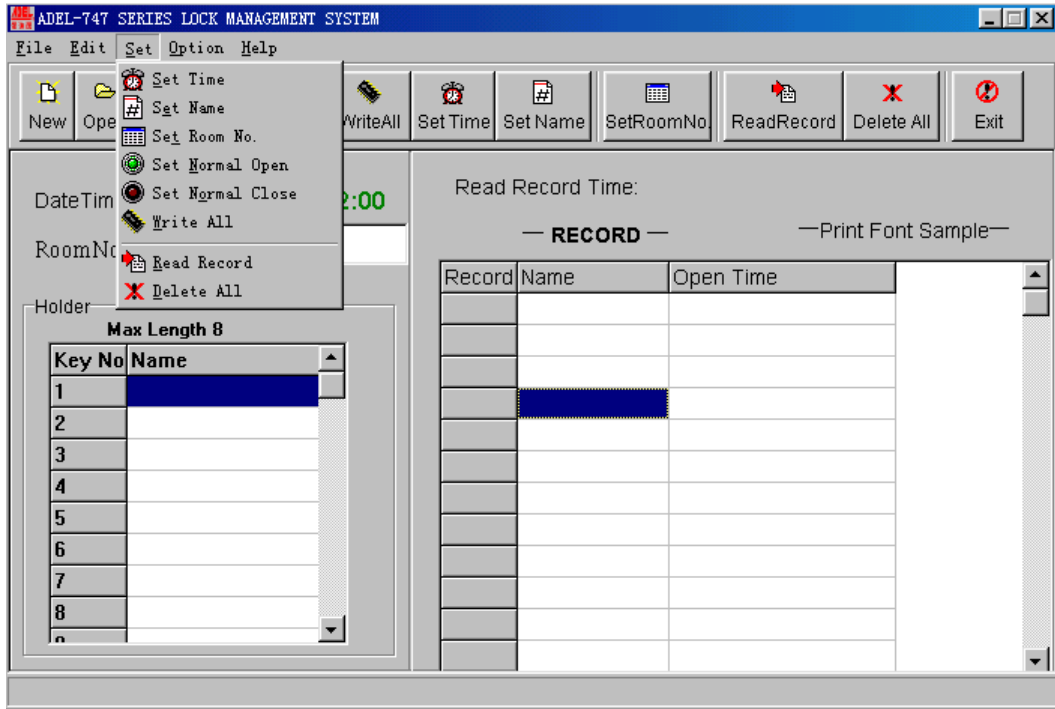
7.2 Installation

Insert ADEL-747 software disk in the A: drive in the WIN95/98 operating system; double click "My computer" icon with the left key of the Mouse; double click "3.5 inch disk" icon; copy the software to the hard dish; set the "ADEL-747" hot key in the desk.



7.3 Run the software at first time

Double click "ADEL-747" icon; the interface of the system is on the screen as Picture 1. Select "communication point" in the "Option" menu; click "Check



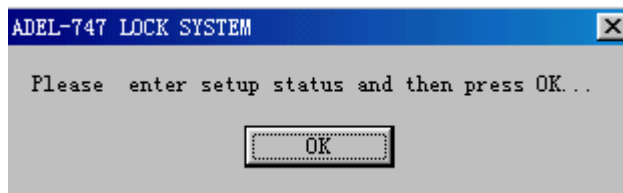
Picture 2

7.4.3 Setting the room number

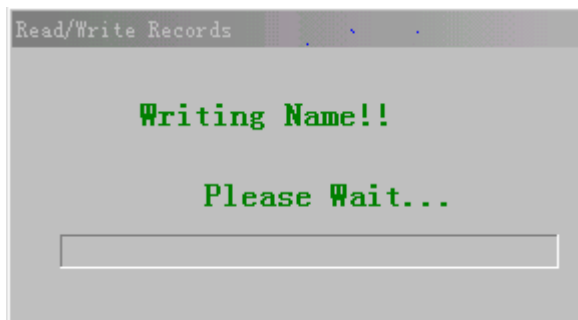
Method 1: input the room number in the according field, click “Set Room No.” button in the toolbar directly.

Method 2: input the room number in the according field, select “Set Room No.” in the “Set” menu.

The screen shows two dialog boxes as picture 3, 4, then the room number has been entered the lock by the system automatically.



Picture 3



Picture 4

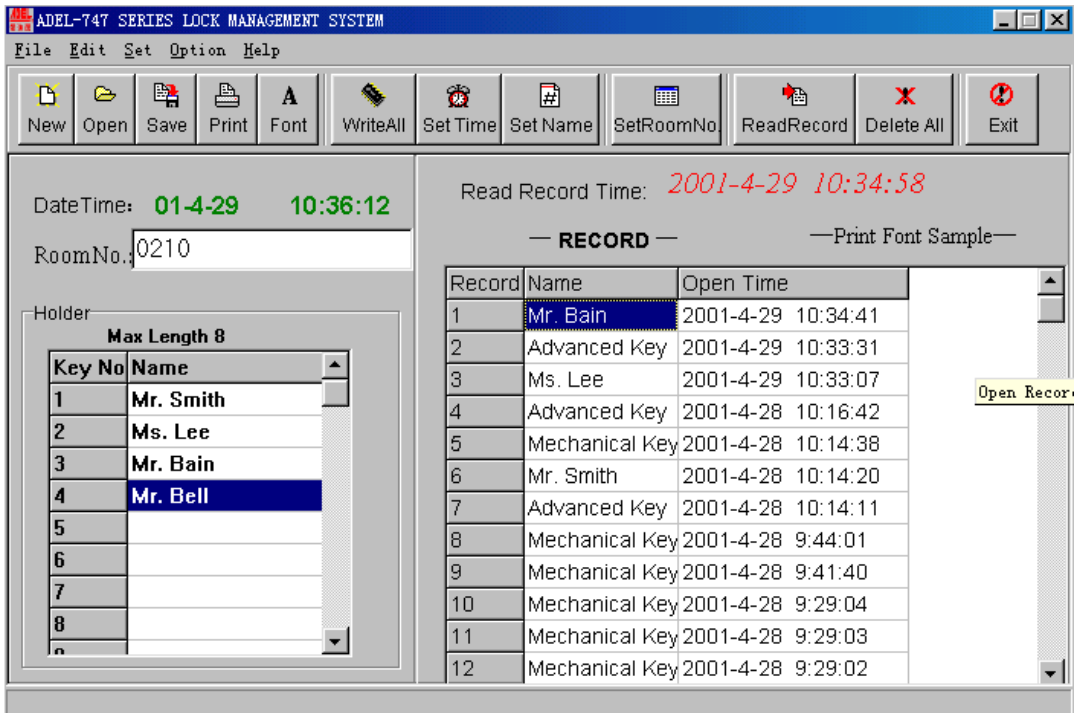
The above three settings can be operated at the same time. Firstly input the room number and each user's name in respective field, click "Write All" button in the toolbar, or select "Write All" in the "Set" menu. The screen shows a dialog box – Please wait, then the current time, the user's name and room number have been entered the lock by the system automatically.

7.5 Read and Delete the Open Record

Firstly link the lock with computer through the serial wire, and enter the setup status of the lock; run ADEL-747 software.

7.5.1 Read the record

Click "Read Records" button in the toolbar, and you can see the open record on the screen; click "Save", you can store them in the Myrecord.rec file, and you can also read and print them later.



Picture 5

7.5.2 Delete the record

Click "Delete All" button in the toolbar, the system could erase all the records in the lock.

- Note:**
- (1) The open record includes the group number, open date and time.
 - (2) Latest 864 records can be stored in the lock.
 - (3) If you reset the advanced code with the mechanical key, the former open record will lose.

8 Installation

Because ADEL-747GS 32 codes keypad lock is a hi-tech product, it needs high

quality installation technology and accuracy. The installation can affect the lock's security and life directly. So our company could assign the professional to install and adjust the lock.

8.1 Requirements for Wooden Door

- Door thickness: 38mm~50mm available.
- If the door surface is decorated, the span from the decorative edge to the edge of the door must be over 120mm.
- If the door is empty inside, the wood battens must be filled up around the lock mortise. Its purpose is to protect the lock mortise against extruding.

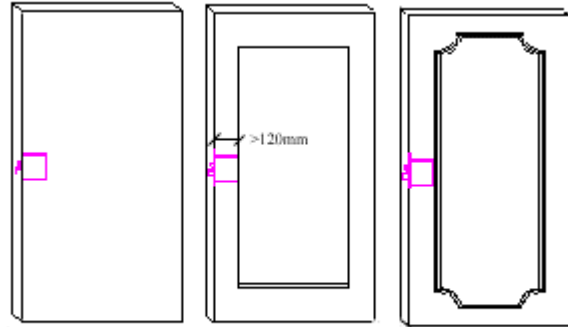


Fig.2 Request for the Door Size

8.2 Special Tools Needed

- Electric drill: to drill holes (Note: there are two switches, lash switch and normal switch. Before operation the normal switch must be set.)
- Bits: $\Phi 12-13\text{mm}$, to drill the 4 fixing-screw holes and 2 small holes in the exterior door;
 $\Phi 22\text{mm}$, to drill the mortise pocket.
 $\Phi 35-40\text{mm}$, to drill the cylinder hole.
- Electric scroll saw: to make a large opening in the exterior door, the length of the sawtooth is 70mm.
- Chisel: to repair the pocket for the mortise.
- Hammer: to assist other tools.
- Round file for wood: to repair the round holes.
- Whetstone: to grind the chisel.
- Template and pencil: to draw lines.
- Angel square
- Tape measure: to measure the centerline.
- Supply socket with wire
- Electroprobe

8.3 Installation Steps

Step 1: Draw the handle baseline on the door face according to the user's requirement, or the suggested height is 1000mm above the finished floor. Correctly aim the two lines, one on the template, and one is just set on the door, then paste the template on the two sides of door face, and draw 7 circles and one rectangle. Paste another template on the side door, and draw 4 lines, as figure 3.

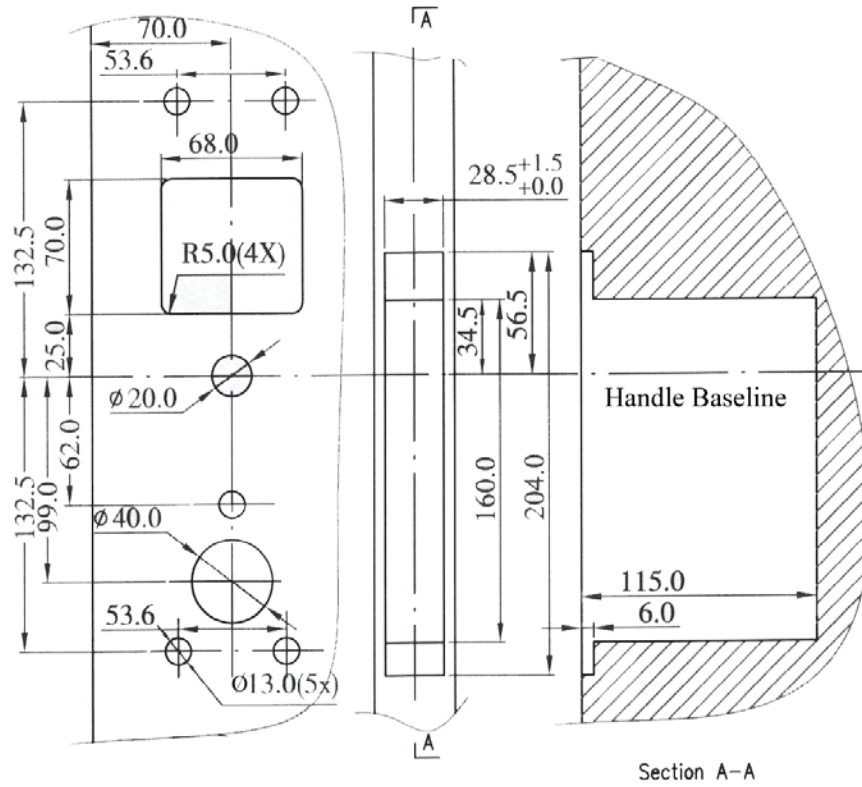


Fig.3 Template Size View

Step 2: Drill all the holes.

1. Drill the mortise pocket using a $\Phi 22\text{mm}$ bit and chisel. The pocket should be drilled 115~120 deep. Check to be certain the pocket will accommodate the lock. The concrete steps as figure 4, 5.

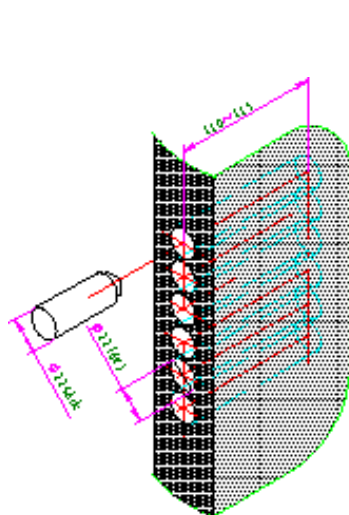


Fig.4

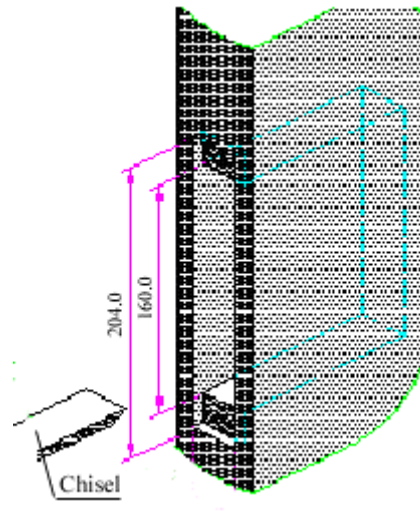
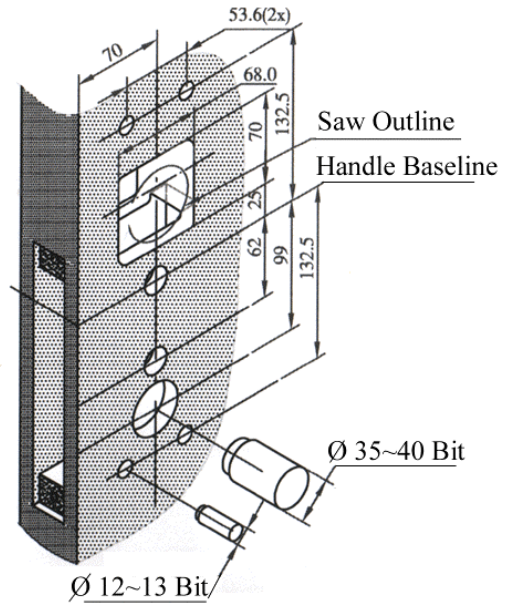


Fig.5

2. With $\Phi 11-12\text{mm}$ bit, drill the six holes on two sides of the door.
3. Saw the rectangular hole with the electric saw, as picture 6.
4. Drill the hole for the cylinder with $\Phi 35-40\text{mm}$ bit, use the file to repair the burrs around the hole, as picture 6.



Step 3: Put the mortise into the door, and tighten it with two tapping screws, as figure 7.

Step 4: Install the front cover assembly, the rectangular hole must aim at the big square shaft, the round hole must aim at the cylinder.

Fig. 6 Drill View

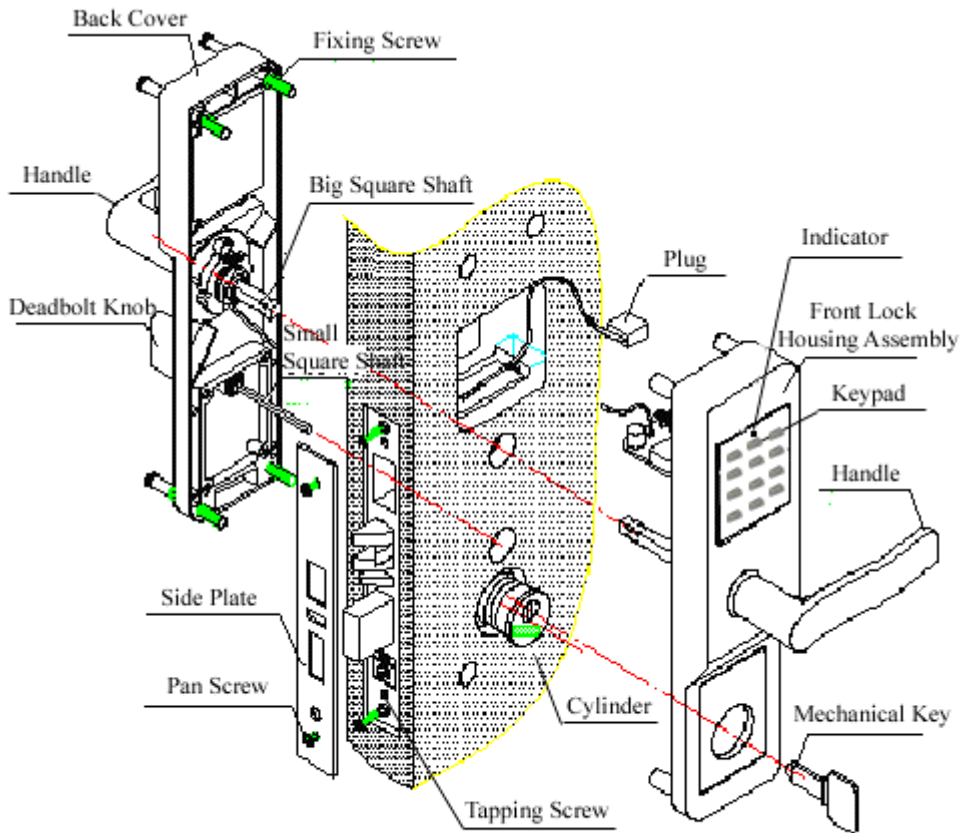


Fig.7 Installation View

Step 5: Insert the plug of the motor in the mortise in the socket on the PCB

assembly; insert the data terminal of the mortise in the front cover's data interface.

Step 6: Install the back cover assembly, insert the small square shaft into the deadbolt's knob; put 4 fixing screws into the holes of back cover; tighten the fixing screws.

Step 7: Insert the mechanical key in the cylinder, turn the cylinder and make the trademark ADEL to be horizontal; then use the screwdriver to tighten the cylinder.

Step 8: Tighten the side plate with two M4X5 pan screws, as figure 7.

Step 9: Place the batteries into the battery box, tighten the battery cover.

Step 10: Drill the hole for installing the strike according to the drawn lines, as picture 8,9,10; tighten the strike with two tapping screws.

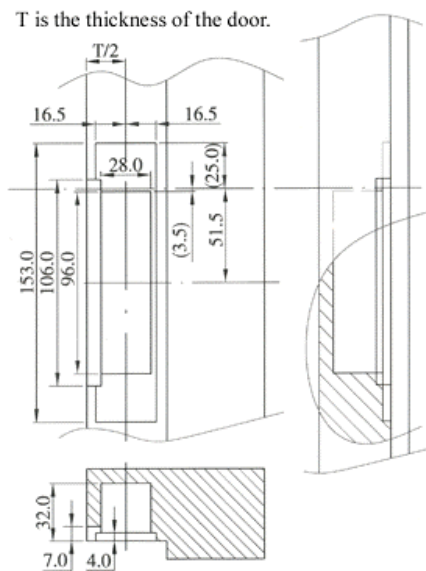


Fig.8 Strike Size View

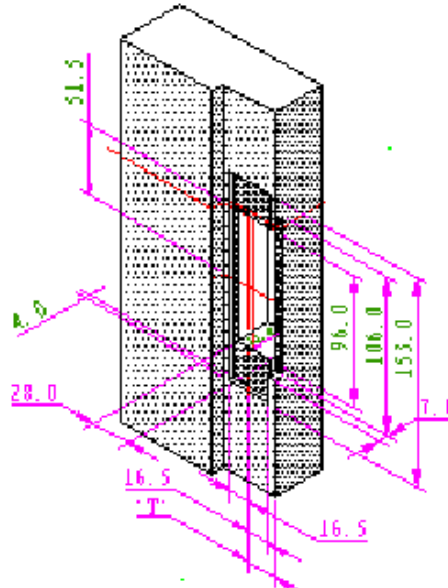


Fig.9 Strike View

Step 11: Test all the functions

1. Check the flexibility of the latch, auxiliary latch and deadbolt. They should get in and out smoothly;
2. Use the code to check all the functions for the lock;
3. Unlock with mechanical key and check whether the latches and deadbolt get in and out smoothly.
4. After installing, the space in the closed door must be less 2mm.

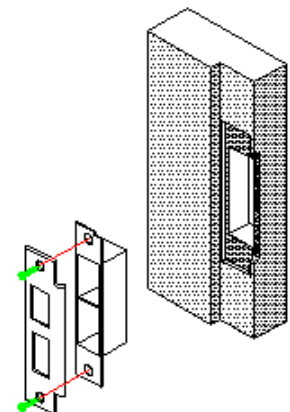


Fig.10 Strike View

9 Maintenance & Attention

9.1 Maintenance

- ✧ Keep the surface clean. If the lock surface is dirty, you should use the soft paper or cloth to clear it. Note, the hard or corrosive mustn't be used.
- ✧ Calibrate the clock in the lock termly: the software can be used to calibrate the clock to assure the clock's accuracy.
- ✧ Check whether fixing screws and handles are loose or not: if they are loose, they must be fixed tightly.
- ✧ Replace the battery: unscrew the back cover; replace the batteries according to its positive pole and negative pole.
- ✧ Add lube to the lock. If the lock is not turned flexibly, the user should ask the professional to add the lube to the lock or inform our maintenance department to dispose it.

9.2 Attention

- ✧ The corrosive are forbidden to touch the surface of the lock to avoid destroying the layer and glossiness.
- ✧ Do not suspend something on the handles, for its mobility can directly affect the use of the lock.
- ✧ Whiling replacing the batteries, do not make wrong the poles direction.
- ✧ If the door is distorted and the frictional force is too big and the latch can't stretch completely when they are inserted. The lock will alarm. The user must adjust the position of the strike plate.

9.3 Security function

When the latch or the latch rabbet is destroyed by someone on purpose, the latch can't be inserted in the rabbet, and the door is easy to be prized. However, the lock will send out alarm signal.

10 Frequently met troubles

10.1 Input code, then indicator turns red.

After inputting the code, you'll heard a beep and indicator turns red, but the lock can't be opened, the probably reasons are:

No.	Reasons	Suggestion
1	The code is an illegal code.	Input the legal code.
2	The door is locked by the deadbolt.	Open the door with the advanced code or mechanical key.
3	The code has been canceled.	Use the right code or reset the code.
4	Press the keypad lightly.	Input the code again with the right strength.

10.2 Input code, then indicator turns green, but the lock can't be opened.

After inputting the code, the buzzer beeps and the indicator turns green, but the

lock can't be opened, the probably reasons are:

No.	Reasons	Suggestion
1	The motor clutch doesn't work.	Change the clutch.
2	The location of the turbo and spring in the motor is not right.	Change the motor.
3	The sheet copper in the motor is jammed by something.	Clean the sundries.
4	The sheet copper in the motor is jammed by the "horn", because the square shaft is not vertical to the "horn" during the installation. When the "horn" moving, it couldn't return to its location.	Adjust the location of the square shaft and 'horn'.
5	The sheet copper in the motor is jammed by the reason of the small space in the mortise pocket.	Repair the mortise pocket to have a right space.
6	The joint of the plug of the battery box and the socket in the PCB is not very well.	Insert the plug in the socket again.
7	The joint of the plug of the motor and the socket in the PCB is not very well.	Insert the plug in the socket again.

10.3 Input the code, no reaction.

After inputting the code, the indicator and the buzzer has no reaction, the lock can't be opened, the probably reasons are:

No.	Reasons	Suggestion
1	No batteries in the lock.	Using the mechanical key to open the door, then install the alkaline batteries.
2	The plug of the battery box isn't insert in the socket of the PCB.	Insert the plug in the socket.

10.4 Low voltage indication.

If the indicator turns red and the buzzer beeps 4 times after input a valid code, it shows the voltage of the battery is low. Although you could also open the door several ten times, the battery should be replaced as soon as possible.

10.5 After inputting the code, the indicator turns green shortly then turns red, and two short beeps will be heard. The main reason is one battery in wrong direction.
Suggestion: replace the battery at once.

If the user meets with problems can't be solved, please contact our Services Center or one of our branches that near to you. Note, to avoid the more destroying, do not take apart the lock optionally.

The telephone of Shenzhen Ideal Microelectronics Co., Ltd. service center is 86 755
393 0716.

Appendix 1: Explain for the professional terms.

According to the direction of the opening of the door, there are four styles of the door lock, left-hand lock, right-hand lock, left-hand-reverse lock and right-hand-reverse lock. All locks require specification of door handing. To determine the hand, face the door from the outside and select the corresponding diagram below.

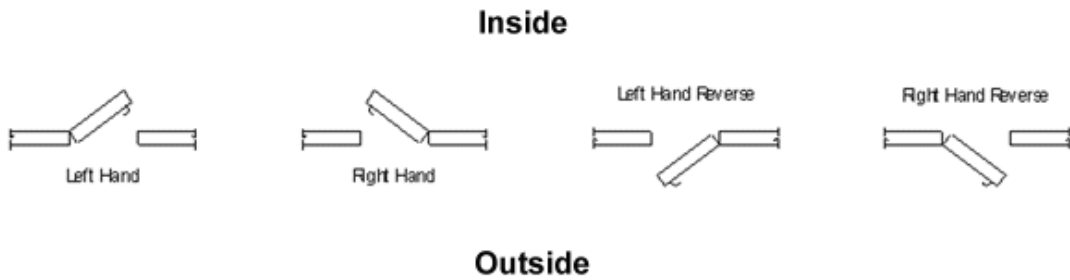


Fig.11

Appendix 2: Packing list

No	Item	Quantity
1.	Front lock housing assembly	1
2.	Back cover	1
3.	Strike	1
4.	Strike plate	1
5.	Side plate	1
6.	Mortise	1
7.	Cylinder	1
8.	Cylinder lid	1
9.	Mechanical key	2
10.	Unlocking tool	1
11.	Big square shaft	2
12.	Small square shaft	1
13.	AA alkaline battery	4
14.	Fixing screw	4
15.	Tapping screw	4
16.	Pan screw	2
17.	Acceptance certificate	1

Remark: In one carton containing 6 styrofoam boxes of one lock each.