



Fingerprint & Digital Lock

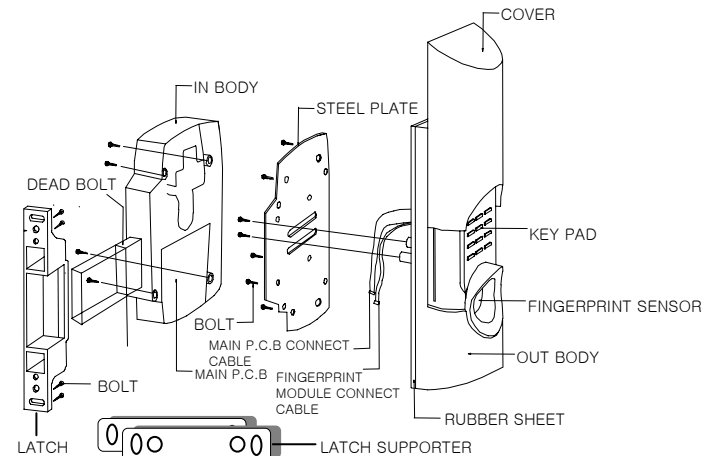
# User's Guide

Advanced Biometric Access Control System



## Contents

1. Features	3 page
2. Specifications	4 page
3. How to Install	5~8 page
4. Detailed Designation	9 page
5. Changing Password	10 page
6. Fingerprint Registration/Deletion	11 page
7. Opening the Door Using Fingerprint	12 page
8. Opening the Door Using Password	12 page
9. How to Enroll Fingerprint	13 page
10. Wrong Case of Enrollment	13 page
11. Setting the Automatic/Manual/Forced Locking	14 page
12. Setting the mute mode	14 page
13. Notes/Caution	15 page
14. F.A.Q	16~18 page
15. Warranty	19 page
16. Warranty Card	19 page



## 1. Features



### Opening by Fingerprint

Encryption Technology of Biometrics Identification  
User can open the door by fingerprint.



### Opening by Password

User can open the door by password.



### Convenient Operation

The system is controlled by one touch operation.



### Self-Diagnosis

The system has a self-control function and it notice on system error.



### Simple Operation

All functions are informed by melody sound and user can operate it easily without User's Guide



### Strong 12-key Buttons

The 12-key buttons are designed to withstand the external shock.



### Low Battery Warning Alarm

When the unit makes beep sound, replace old battery with new one.



### Emergency Battery Terminal

When the battery is run out, user can open the door using the emergency battery terminal.



### Prevent from Compulsive Opening

When the door is opened abnormally, the system warns an alarm.



### Power Cut-Off Function

The power will be cut off for 30secs in case of entering wrong passwords in 5 times.



### Password/Fingerprint Memory Function

User's password and fingerprint data information will not erased even though the battery is run out.



### Dual Security Locking Function

Permanent locking switch is located on the inside unit and provides more strengthen safety.

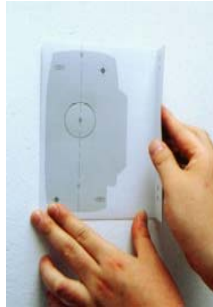
## 2. Specifications

Fingerprint sensor parts	
Fingerprint Recognition	Optical Method
Verification Speed	Less than 1 sec
F.R.R (False Rejection Rate)	Less than 0.1%
F.A.R (False Acceptance Rate)	Less than 0.001%
Registration Capacity	50 Fingerprints
Configuration	
Materials	Aluminium die-casting
Color	Silver
Dimensions	Outside Unit : 205(H)×70(W)×50(D) Inside Unit : 175(H)×105(W)×38(D)
Environments	
Battery	1.5V Alkaline Battery 4 pcs. (AA)
Battery Life	More than 5,000 times of use
Operating Temperature	-20℃ ~ 50℃
Humidity	10% ~ 90%

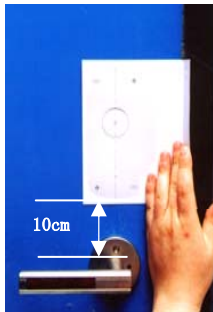
※ The specifications above might be subject to change without any prior notice.

### 3. How to Install

1) In case there is no existing auxiliary door lock



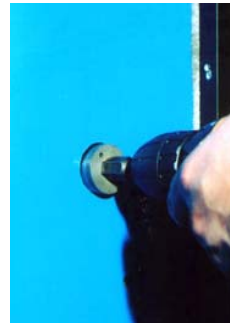
After determining whether the door is a right-hand or left-hand door, fold the template to fit the hole by an angle of 90 degrees. This product can be used regardless of whether you have a right-hand or left-hand door.



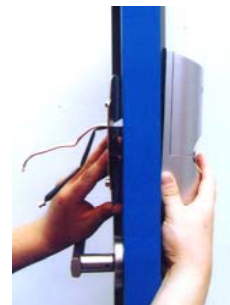
Put the folded part against the doorframe, then position the template about 10cm above the door handle.



Mark the center hole position of the template and the bolt position of the latch with a pen or center punch.



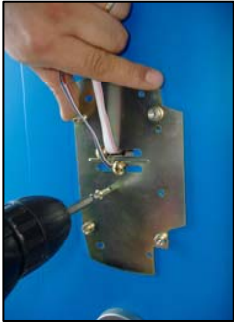
Punctuate a hole using 30~32mm hole drill. The position of the front and back holes may have some tolerance.



Insert the outside unit's wire (Main P.C.B connect cable and Fingerprint module connect cable) to the above hole, and insert it to the steel plate hole of the inside unit.



Fix the steel plate of the inside unit and the outside unit using two bolts, but do not tighten them fully. After confirming that the inside unit and outside unit are aligned, tighten them fully.



Fix the steel plate of the inside unit using 2 screws. Place the screws diagonally at the position close to the center hole.



Insert the batteries into the inside unit and connect the main P.C.B Connect cable and Fingerprint Module connect cable of the outside unit to the inside unit.



Tighten the two bolts to fix the inside unit and the steel plate in a diagonal direction. Confirm that the numeric button, start switch and motor are working normally. If they are not working normally, check the cable. Otherwise, tighten fully the rest of the bolts.



Close the door to see if the closing sensors will work normally after inserting a latch between the inside unit and the door frame. In case there is a wide gap, adjust the gap using the provided latch supporter.



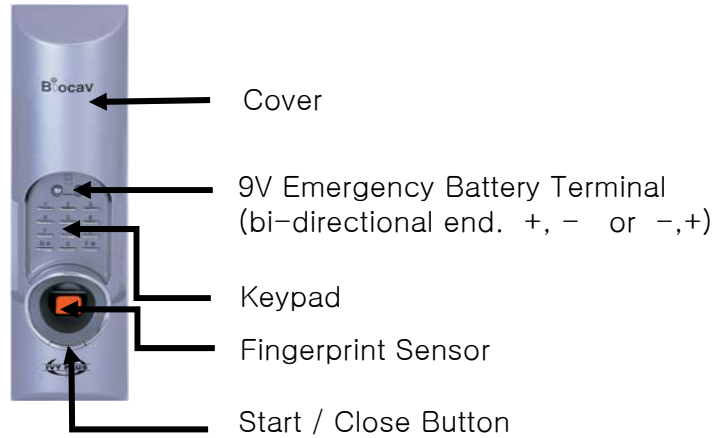
If the gap is appropriate, fix the latch onto the screw hole that had already been marked. Check if the door lock automatically locks when the door is closed.

**2) In case there is an existing auxiliary door lock**

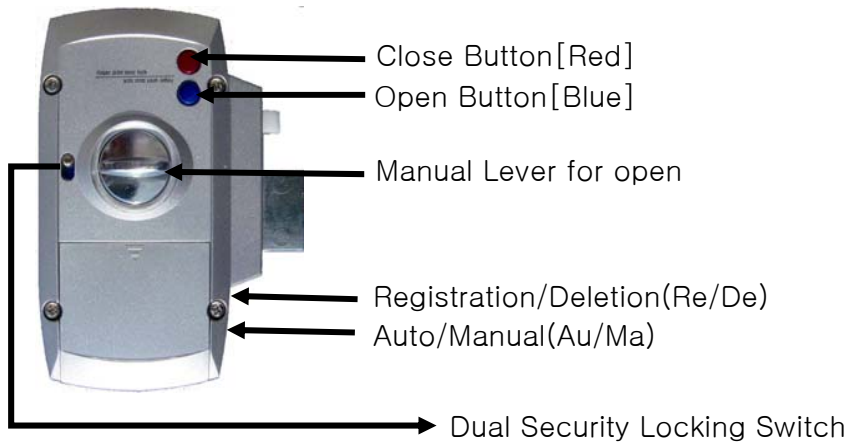
- (1) Remove the existing auxiliary door lock and its parts from the door.
- (2) Fold the template to fit the hole by a 90-degree angle and put the folded part against the doorframe. Then, align the central hole of the template with the existing hole.
- (3) Mark the screw position of the latch using a pen or a center punch.
- (4) From here on, follow the procedures indicated in the installation guide for cases where there is no existing auxiliary door lock.

## 4. Detailed Designation

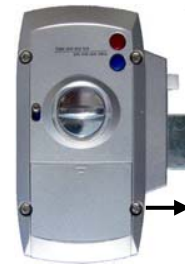
### 1) Outside Unit



### 2) Inside Unit



## 5. Changing password



Please press Registration/Deletion Button shortly.  
Wait for the Short melody sound



The button is on the Inside Unit.



Please press '\*' button → select 3 to 19 digits  
Password → Press '\*' button

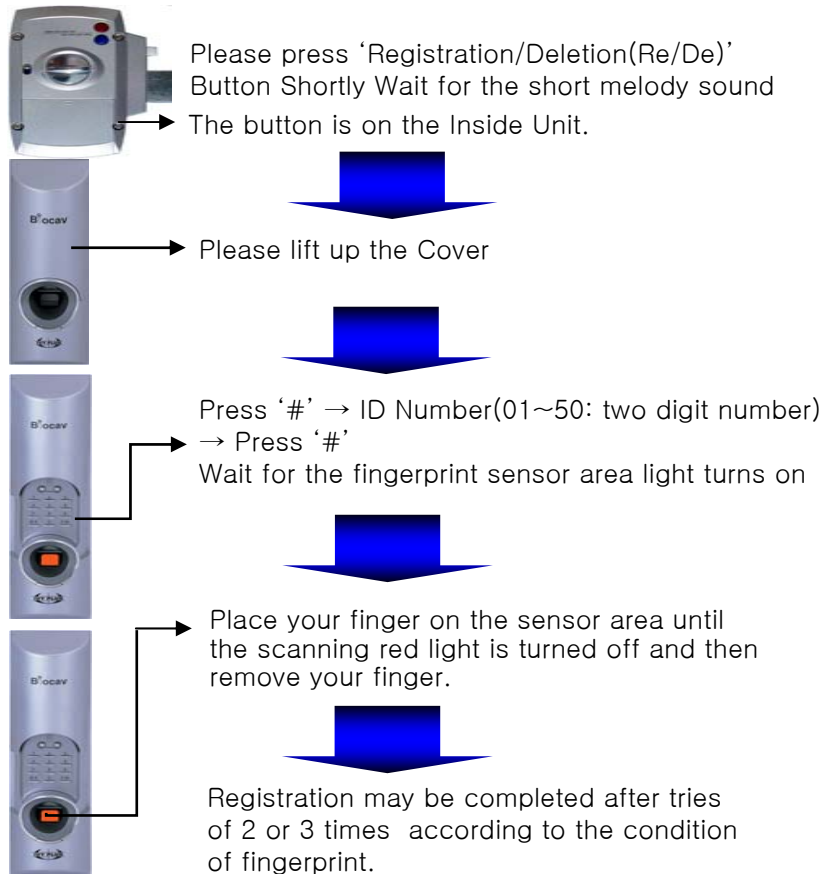
The initial password is 1,2,3,4,5,6,7,8,9,0.  
Please change to new password for security.



**The setting of Password has been completed**

## 6. Fingerprint Registration/Deletion

### 1) Fingerprint Registration



### 2) Fingerprint Deletion

#### (1) Deletion through individual ID

Press 'Registration/Deletion (Re/De)' button for 1 second (longer melody sound)

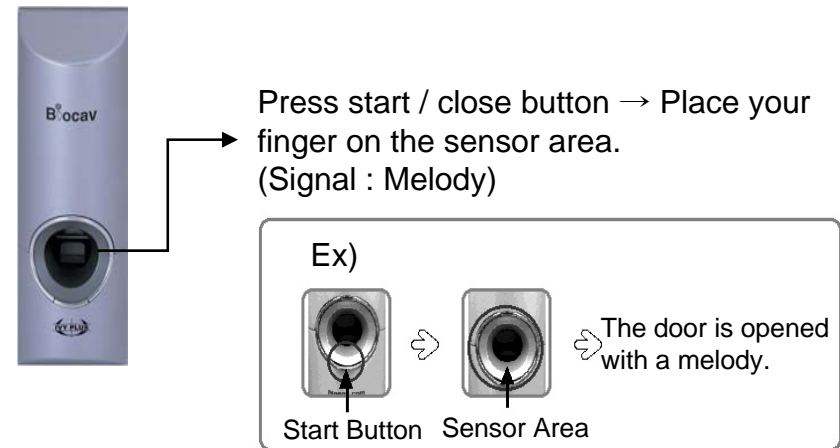
Press '#' -> ID number to delete -> Press '#'

#### (2) Delete all fingerprint data

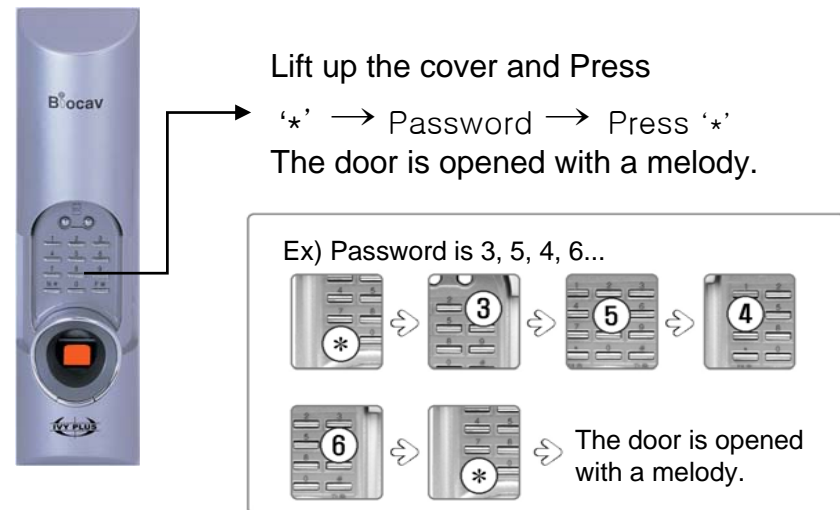
Press 'Registration/Deletion (Re/De)' button for 1 second (longer melody sound)

Press '#' -> Press '99' -> Press '#'

## 7. Opening the door using Fingerprint



## 8. Opening the door using Password

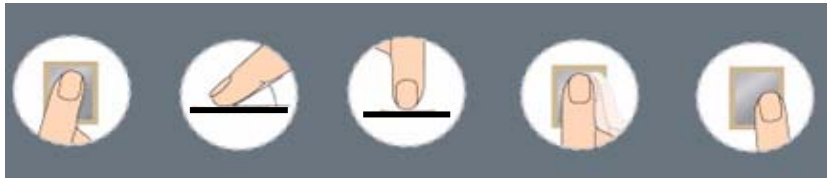


## 9. How to Enroll Fingerprint



- Put your finger on the sensor area.
- Your finger has to contact the surface of the sensor flatly.
- The center of fingerprints (core area) must match with the center of the sensor.

## 10. Wrong Case of Enrollment



- Slanted finger
- Separated finger from the sensor
- Tip of finger touches the sensor
- Movement and rotation of finger
- Finger put on the corner of sensor

## 11. Setting the Auto/Manual/Forced Locking

### 1) Auto / Manual Locking system

- By pressing the Auto/ Manual button once, the system is set to Auto or Manual locking system. (Auto: longer melody sound/ Manual : short melody sound)
- In the Auto mode setting, the door will lock automatically when the door is closed.
- In case of Manual mode setting, the door is locked only after pressing the CLOSE button. If visitors constantly come and go, set the locking system to the Manual mode.

### 2) Setting the Forced Locking from Inside

- You can set the system to Forced Locking by turning the security-locking switch on the Inside Unit (Lock:RED, Unlock:BLUE)

### 3) Setting the Forced Locking from Outside

- Press the START/CLOSE button for 5 seconds. The Forced Locking system is set. An intruder cannot open the door through a letter drop.

※ You can cancel the Forced Locking setting by using a fingerprint or password.

## 12. Setting the mute mode

### 1) When visitors constantly come and go, or when it is necessary to be quiet, the product can be set to Mute mode so it will not emit a beeping sound. Here's how to set to Mute Mode :

- Press the "Registration / Deletion" button briefly and wait for the short melody.
- Press the '\*' button, then press '11' and '\*' button again.

### 2) Repeat the above procedure if you want to cancel Mute Mode.

### 13. Notes / Caution

- 1) Do not install the product in a place where it will be directly exposed to snow or rain.
- 2) If more than 80% of the battery power is used up, the alarm will sound. Replace the battery with a new one.
- 3) When the unit is out of power, use a 9V battery to connect to the emergency battery terminal. You can only open the door with a password if the unit is connected to a 9V battery. Fingerprint recognition may fail in that case.
- 4) Pressing some buttons at random will cause system error.
- 5) Do not disassemble the unit. If there is any problem with the unit, please call your retailer for service information.
- 6) Please contact your retailer for installation support.
- 7) If there are children in your home, register their fingerprints once or twice yearly.
- 8) The product cannot be installed on a safety glass door, rugged door, aluminium door or sliding door.
- 9) The door where the product is to be installed should have a thickness of 35mm~48mm.
- 10) The product will not acknowledge an unauthorized fingerprint because it is equipped with a tamper-resistant sensor.
- 11) Some persons may have fingerprints that are not recognized easily or do not register well. In such case, register these persons' fingerprints 2~3 times each.
- 12) Mind not to let anyone else notice your PIN when operating the product.
- 13) The product can register up to 50 fingerprints. When trying to register more, the sensor area will not emit a light.

### 14. F.A.Q

**The initial password is "1.2.3.4.5.6.7,8,9,0". Please change the password after installation for security.**

- 1) **Should I punctuate any holes on the door when I install the product?**  
Not always. This product is designed for installation on the existing auxiliary door lock. You can install it after removing the existing auxiliary door lock.
- 2) **Can I take it off and bring it when I move?**  
Yes. When you remove the existing door lock, you must repair or replace the door because the door will have severe scratches or holes. This product, however, does not leave any scratches because it can be installed on standardized holes, so you can bring it with you when you move.
- 3) **Should a specific engineer install it?**  
No. This product is designed for DIY (Do-It-Yourself) installation. If your door already has an auxiliary door lock, you can even install the product with the use of a screwdriver alone. If there is no existing auxiliary door lock, it may be difficult for you to install the product because you will need to punch some holes. In this case, you may need to contact an installer for safe installation.
- 4) **The digital keys or fingerprint recognition is not working normally.**  
After the product is installed, it can happen when a circuit wire or module wire had not been fully inserted. Open the inside unit and check the status of the wire connections. The unit should now work normally.
- 5) **The door locks by itself erratically.**  
When the unit is installed, the improperly placed circuit wire or module wire may push the motor that activates the lock. Open the inside unit and check if the two wires in both sides are properly placed. The unit should now work normally.



**6) The door does not lock automatically.**

The product has an automatic mode as well as a manual mode to allow for the comings and goings of many visitors. When in manual mode, the door does not automatically lock even when it is closed. Change the mode by pushing the automatic/manual button once.

**7) The fingerprint does not register well.**

When you register your fingerprint, it is necessary to properly put your finger on the sensor. This will ensure a better registration of your fingerprint.

(See "9. How to Enroll Fingerprint" part in this manual)

**8) My fingerprint is not recognized well.**

- 1) If the position of your finger on the sensor is different from its position the first time you registered, the door lock may not work normally. Register your finger several times (3~5 times) in various positions so that the acceptance rate will be higher.
- 2) If your fingerprint has had some damages or is stained with dirt, recognition by the sensor may not work well. Clean your finger first, then try again.
- 3) When the fingerprint you had registered has been damaged, you will not be able to open the door lock with your fingerprint. Use your PIN to unlock the door.

**9) When I open the door with the inside handle, it emits a beeping alarm.**

If the alarm on this product begins to beep, it means the door is being opened by force or abnormally, meaning all other ways except by electric signal. In order to cancel the beeping alarm, press the "\* + password + \*" buttons or have your fingerprint recognized on the outside unit. If you press "# + password + #" button on the outside unit, you can cancel the function for forced opening.

**10) If I change the password, will the lock recognize my password?**

Yes, the door lock will recognize your new password (Since the button for changing the password is on the inside unit, it is impossible to change it from outside.)

**11) The door lock does not work after the batteries are replaced.**

Make sure that you did not insert several kinds of batteries, with different brands. If you did, the batteries will usually not work normally. Use four batteries of the same brand at any one time.

**12) Batteries are discharged.**

If there is nobody home, you can open the door lock using a 9V battery (rectangular type). Place the battery on the emergency terminal, then enter your password. Don't forget to replace the discharged batteries with new batteries from the same brand (1.5V Alkaline Battery 4 pcs-AA type) right after opening the door lock.

**13) Fingerprint has changed because of eczema, abrasion etc.**

The door lock cannot be opened using a damaged or altered fingerprint. If your registered fingerprint has changed, unlock the door using your password or another registered fingerprint. To prepare yourself for such eventualities, you had better register multiple fingerprints at home.

**14) Password is forgotten.**

It is impossible to find out the password in this product or change the password while closing the door lock. After opening the door lock using your fingerprint, enter your new password. When a new password is entered, it is not necessary to enter the existing password.

**15) The door is not locked automatically.**

The product has an automatic mode and manual mode. Verify what mode it is operating in at the moment. When in automatic mode, the door locks automatically after it is closed. In case visitors constantly come and go, set the locking system to manual mode so it does not lock automatically when the door is closed. When in manual mode, push the "Start/Close" button after closing the door. The door will lock automatically.

### 15. Warranty

- 1) This product is guaranteed for three years from your purchase date.
- 2) In case of any problem with unit, please contact your retailer for service information.
- 3) This warranty is not covered in case of the following conditions.
  - Damaged by consumer's carelessness.
  - Damaged by natural disaster
  - Damage caused by not authorized repairman's service
- 4) Consumer must keep the original receipt and below warranty card for warranty service.

### 16. Warranty Card

Model	Biocav	Seller	
Installation date		Installer	
State		Installer signature	
Customer			
Address			
Name		Phone Number	
Serial Number		Warranty Period	1 years after installation

### Biometric Access Control System



[www.ivyplus.co.kr](http://www.ivyplus.co.kr)

Tel +82 31 475 4343

Fax +82 31 475 4345