FINGERPRINT LOCK
Operator's Manual

Features

› Audible rapid beep low battery warning

› State of the art optical 560 DPI scanner insures quick & reliable fingerprint authentication

› Runs on any brand name 4 AA batteries.

› Fits doors 1 3/8" - 2 1/2" thick

› Add / delete individual users directly on the lock

› Fingerprint, pin or key access methods

› All weather - operating temp: -4 ° to 140 ° F

› Sliding weather cover triggers sensor to power on automatically

› Fingerprints will not be lost if batteries fail

Technical Specifications

Item	Description
Sensor	Optical
Resolution	560DPI
Scanning time	<1s
FRR(False Rejection Rate)	<0.01%
FAR(False Acceptance Rate)	<0.0001%
Battery	4 AA Alkaline battery
Working current	150-300mA
Standby current	30uA
Display	Blue LCD
Identification mode	Fingerprint, Pin, Key
Working temperature	-4 ° to 140 ° F
Working humidity	10%-97%

Fingerprint Recognition Notes

> ⚠ Proper fingerprint placement is important when using any biometric device. Please be sure to use the tips below when using your fingerprint to authenticate with the lock.

Tip 1: Choosing The "Best" Finger

Use either your Index, Middle or Ring finger, when enrolling and verifying your fingerprint. Avoid using the Thumb and Pinky finger, as it is typically difficult to align them properly and consistently.

Tip 2: Locating The Fingerprint "Core"

The "core" of a fingerprint is defined as the point located within the inner most recurving ridge. It is extremely important that this area is identified, and placed on the fingerprint scanner during the enrollment and verification of your fingerprint.

Fingerprint Core

Tip 3: Prepare The Finger For Enrollment

When enrolling and verifying with your fingerprint it is important that your finger be clean. It is also recommended that the finger be relatively undamaged and without scars.

Hint: Washing your hands with moisturizing soap and using hand lotion will also improve accuracy!

Tip 4: Finger Placement

When placing your finger on the scanner, make sure that the location of the "core", located in Tip 2, is making direct contact with the scanner. Apply medium pressure, or just enough to flatten the skin on your finger.

BAD

GOOD

Enrolling Fingerprint & Password Users

When Entering Users into the Lock you have 3 Options:

You can enroll fingerprints at random.

You can enroll as an ID# (+) fingerprint user.

You can assign users a pass code.

ALL pass codes MUST be 8 digits long!

Examples of Different Enrollment Options

Enroll at Random

If you are using the lock on a home & the primary users will be your immediate family & you do not have any reason to think you will need to delete them from the lock in the future, we suggest you use this type of enrollment. You can store several scanned templates of several fingers. (ex. 3 scans of 2 fingers on each hand for each user)

ID# with Fingerprint User

If you are using the lock on a small business door or at home & you need the ability to delete a user without deleting all users, this type of enrollment is best. You will assign a 3 digit ID# to each scanned template per user. For example, you have 2 temporary workers named Mary & Adam. You make Mary user 101 & scan her index finger. The lock will scan the fingerprint twice per template. If you want to enroll another finger for Mary you create another ID# for that new finger. You do the same procedure for Adam. You make him user 102. If you want to delete the user you simply delete the user ID# & their fingerprints are out of the system.

Pass Code Users (Not the Master Pass Code!)

You can create a series of pass codes to gain entry. If a person has damaged fingerprints you can assign them a pass code. You can also set up pass codes for your shift managers. A common use is to create a pass code you can give out in case of emergencies. For example; you are out of town & need to let a neighbor into your house. You tell them the pass code. When you get home you simply delete that pass code.

*You can use any combination of all three enrollment options!

NOTE: The lock will automatically exit out of Programming Mode after 15 seconds. Please be sure to wait 15 seconds after enrolling, modifying or deleting a user before using the lock

1.1 Changing Master Code

PRESS:

0 + * + Default Master Code + New 8 Digit Master Code + New 8 Digit Master Code + #

NOTE: The default Master Code is: 11111111

NOTE: When successful the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

HINT: When the Master Code has been changed, close the scanner, open it up & try the code to confirm your new code is working.

1.2 Enroll Fingerprint Users at Random (No User ID's)

PRESS:

1 + # + Master Code + #

NOTE: At this point you will see the scanner light up.

FIRST SCAN: Place the 1st finger on the scanner and remove when scanner light turns off.

SECOND SCAN: Replace the same finger when scanner lights up for the second time. You will hear a single beep if the enrollment is successful.

REPEAT: You can keep adding fingerprints one after another at this stage.

HINT: If a scan fails you will hear 3 beeps & the scanner goes off. Just repeat the 1st step above.

1.3 Enroll Fingerprint Users with User ID's

PRESS:

1 + # + Master Code + 3 digit User ID + #

NOTE: At this point the scanner will light up.

FIRST SCAN: Place the 1st finger on the scanner and remove when scanner light turns off.

SECOND SCAN: Replace the same finger when scanner lights up for the second time. You will hear a single beep if the enrollment is successful.

REPEAT: To add another finger for this user or any other users please repeat the process stated above. (A fingerprint ID# can NOT be the same as a pass code ID#)

1.4 Enroll Pass Code User

PRESS:

1 + * + Master Code + 3 Digit ID + New 8 Digit Pass Code + New 8 Digit Pass Code + #

NOTE: A pass code ID# can NOT be the same as a fingerprint ID#.

HINT: When successful the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

HINT: When the new pass code is enrolled, close the scanner, open it up & try the code to confirm your new code is working.

2.1 Unlocking Door with Fingerprint

FIRST: To open with an enrolled fingerprint simply slide the cover up & place the finger gently on the scanner.

NOTE: You will hear a beep and the deadbolt will retract.

2.2 Unlocking Door with a Pass Code

PRESS:

8 Digit Pass Code

NOTE: Do not enter the 3 digit user ID

NOTE: You will hear a beep and the deadbolt will retract.

2.3 Locking/Unlocking Door from the Inside

FIRST: To open the lock from inside your home or business simply turn the knob or push the Lock/Unlock button (above knob).

2.4 Locking Door from the Outside

PRESS:

*

3.1 Deleting a Fingerprint Users with a User ID's

PRESS:

2 + # + Master Code + Users 3 Digit ID + Users 3 Digit ID Again + #

NOTE: When successful the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

3.2 Deleting ALL Fingerprint Users

HINT: This procedure will delete all fingerprint users - both those with user ID's and those without user ID's!

PRESS:

3 + # + Master Code + #

NOTE: When successful the scanner light may come on and the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

3.3 Deleting Pass Code Users with User ID's

PRESS:

2 + * + Master Code + Users 3 Digit ID + Users 3 Digit ID Again + #

NOTE: When successful the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

3.4 Delete ALL Pass Code Users

PRESS:

3 + * + Master Code + #

NOTE: When successful the lock will make a solid single beep. If unsuccessful it makes 3 quick beeps.

4.1 Frequently Asked Questions

1) Where does the key go?

You remove the decorative cover from the keyway using the black Magnetic Key Cover tool that came with the lock.

2) Can I get more keys made for my lock?

This lock comes with 4 KW1 keys. Normal hardware stores will be able to cut new keys if necessary.

3) How do I change the batteries?

On the back lock body (the side of the lock without the scanner) find the battery cover. Take the screw out & replace the batteries.

4) What kind of batteries should I use?

Any 4 AA batteries will work. We suggest for 1st time users get brand name new batteries like Energizer or Duracell.

5) How often should I change the batteries?

If in a conventional home setting you will be able to get several thousand uses out of a set of batteries. Though not required we do recommend you change batteries at the same time you change them in your smoke detectors or when you change your clocks. It's best to keep the batteries as fresh as possible.

6) If I take the batteries out, will I lose the information in the lock?

No! The lock stores the information even with no batteries!

7) How do I know if the batteries are getting low?

When you slide the scanner cover up it will make a series of very quick beeps. That is the low power warning. It sounds much different than the chime you get normally.

8) Is there a way to purchase a lock that has a scanner on both sides of the door?

No! This question is asked a lot by parents of special needs children who have special security requirements. There are legal limitations to selling anything that locks on both sides of a door.

5.1 Troubleshooting the Lock

1) Be Sure You Are Using Fresh Brand Name Batteries!!

The Lock's internal circuitry and scanner requires a good source of power which is provided by the 4 AA batteries. Even when the audible low battery alarm is not enabled, occasionally the lock may not perform well due to insufficient power. Since the internal power meter cannot always accurately determine the power level of the batteries, it is advised that the batteries are replaced with fresh, name brand batteries anytime a decrease in lock performance is noticed!

2) If the scanner is not reading certain fingerprints well:

- Try re-enrolling the user's fingerprint. Certain characteristics of a fingerprint may change over time requiring re-enrollment.

- When you are enrolling your fingerprint templates please remember to do the following:

* Make sure you are putting the "Core" of your fingerprint on the scanner. (Refer to page 2 for more information)

* When enrolling multiple templates, try to slightly changing the way you rest your finger on the scanner with each scan. This will help the scanner detect slight variations in the way to place your finger on the scanner.

* Simply **Place** your finger on the scanner, do not **Press Down** too hard! Pressing too strongly will cause the ridge patterns to flatten out, making it more difficult for the scanner to match the fingerprint!

* If it's cold outside, blow on your hands and rub them together. This will warm up your fingers causing the ridge patterns of your fingerprints to stand out more.

3) If the scanner lights up solid blue, but never accepts or rejects any fingerprint, and simply turns off after 10-20 seconds:

Please perform a Factory Default of the lock. (see page 10)

6.1 Performing a Factory Default

FIRST: Please remove the back lock body cover

NEXT: Disconnect the power cable from the battery pack.

NEXT: Remove the front lock body off the door.

NEXT: Remove the back lock body off the door.

NEXT: Reconnect the front & back lock bodies by reconnecting the power cable.

NEXT: Find the "Reset" button on the back of the front lock body.

NEXT: Press & hold down the small button labeled "Reset".

NEXT: While holding the "Reset" button down, use your other hand to slide the scanner cover up.

NOTE: After about 15-20 you will hear a long beep indicating the lock has been reset.

HINT: To confirm, slide the cover up & enter the default Master Code 11111111. It will open the lock.

Preparing a Standard US Preparation for Lock Installation

This manual assumes that the door has been prepared for a US standard deadbolt lock. If the door has not been prepared, please refer to the documentation that came with the door cutting hardware.

With the bolt extended (A), locate the stamped "UP" in the top back corner of the bolt (B). Insert the bolt into the prepared hole on the door being sure that the "UP" arrow is pointed upwards. Now, ensure that the cross slot (C) is centered vertically (x-axis) of the hole.
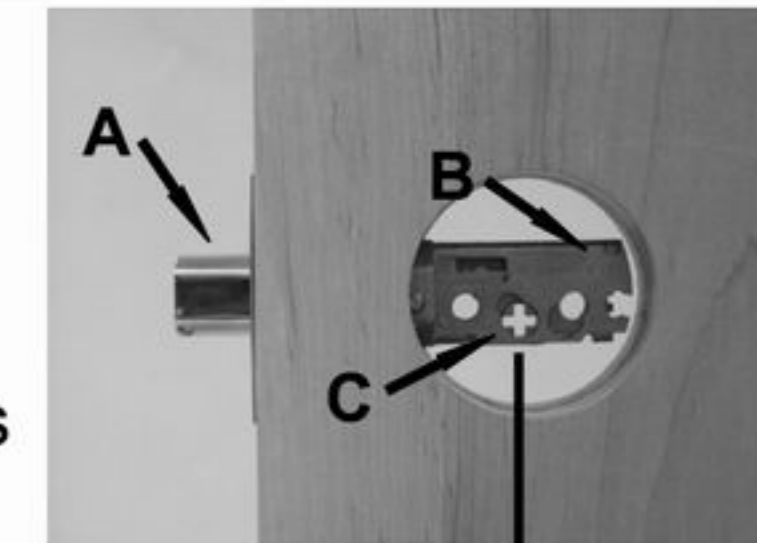
Using the supplied screws, attach the bolt to the door.

Adjusting the Tailpiece for the Proper Door Thickness

Measure the thickness of the door. The Lock often requires the tailpiece that turns the deadbolt be the trimmed to the appropriate length for the thickness of the door.

Identify the amount of the tailpiece that will need to be trimmed based on the following:

✎ 2 1/4" - 2 ½"   =   Use Full Tailpiece (A)
✎ 1 3/4" - 2 1/8"   =   Trim 2 Notches (B)
✎ 1 3/8" - 1 5/8"   =   Trim 4 Notches (C)
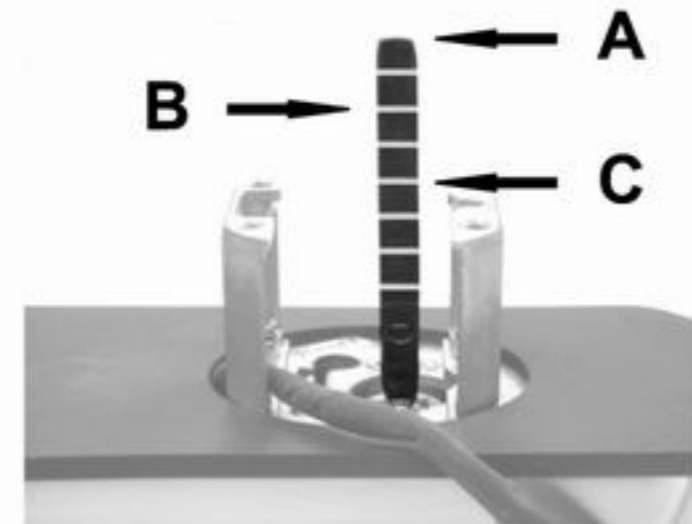
With two pairs of plyers, use one pair (A) to hold the tailpiece just below necessary notch (B)

Using the second pair of plyers (C), grab the upper portion of the tailpiece and slightly bend the top portion of the tailpiece being careful NOT TO MOVE THE BOTTOM PAIR OF PLYERS (A)!!

Continue to slightiy bend the tailpiece **back and forth** until the top potion of the tailpiece breaks off at the desired notch (B).
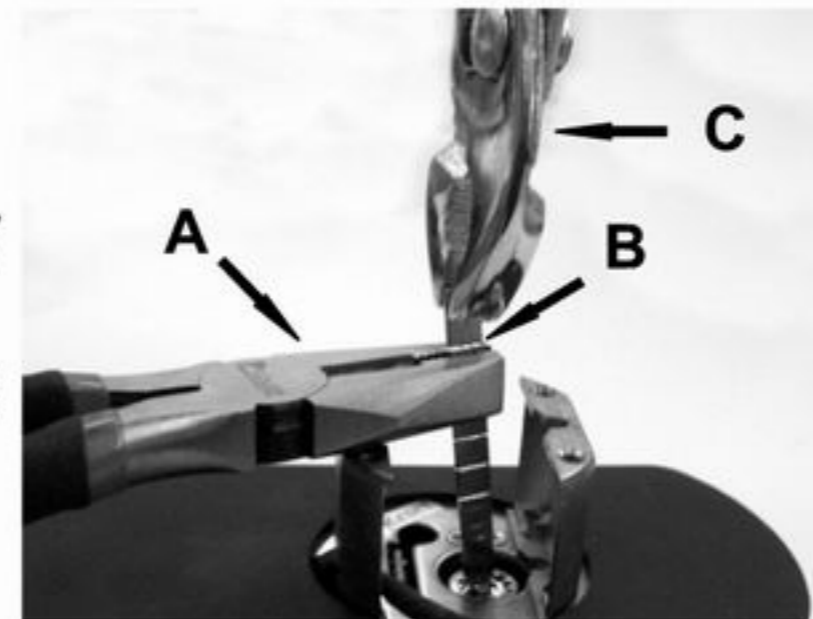
Before proceeding with final installation:

Fit the front and back lock bodies together on the door to ensure the tailpiece does not hinder the flush placement of both bodies to the door. If there is ANY gap due to the length of the tailpiece (A), remove one more notch from the tailpiece and repeat this step until the front and back lock bodies join without any gap.
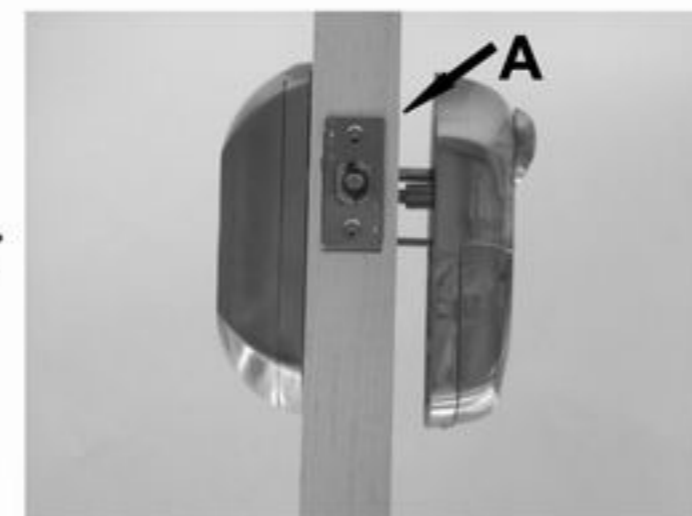
**DO NOT FORCE FRONT AND BACK LOCK BODIES TOGETHER!**

WARNING: Forcing the front and back lock bodies together may damage the internal motor drive <u>VOIDING THE WARRANTY!!</u>

Installing the Lock on a US Standard Preparation Door

Place the Rubber Gaskets (A) on the rear potions of the front and back lock bodies. A small lip should surround the lock bodies. The potion of the gasket that makes contact with the door should be smooth and flat.

With the gasket attached, place the front lock body (the side with the scanner) through the door hole. Be sure to align the tailpiece (A) vertically through the deadbolt cross slot (E). Only a small portion, if any, of the tailpiece should extend through the door width (A).
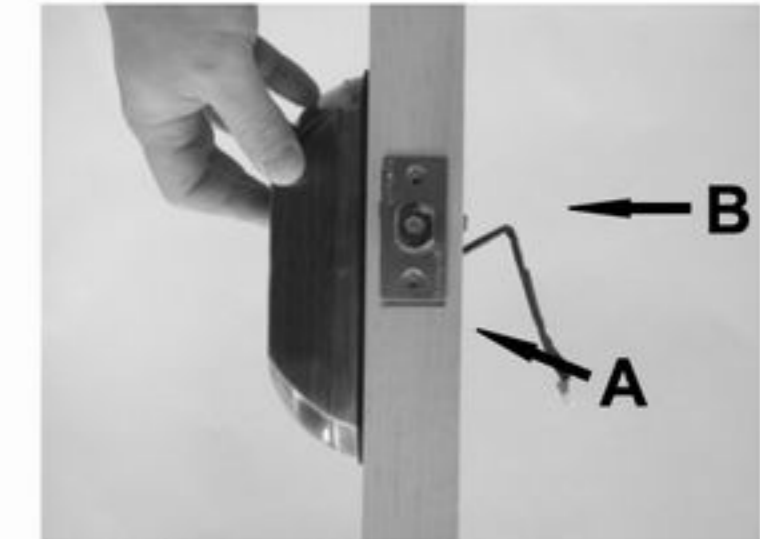
Also, be sure to pass the Control Cable (B) through the hole.

With the front lock body held against the door with the tailpiece aligned vertically (A), verify that the Motor Drive Coupler (D) is also aligned vertically.
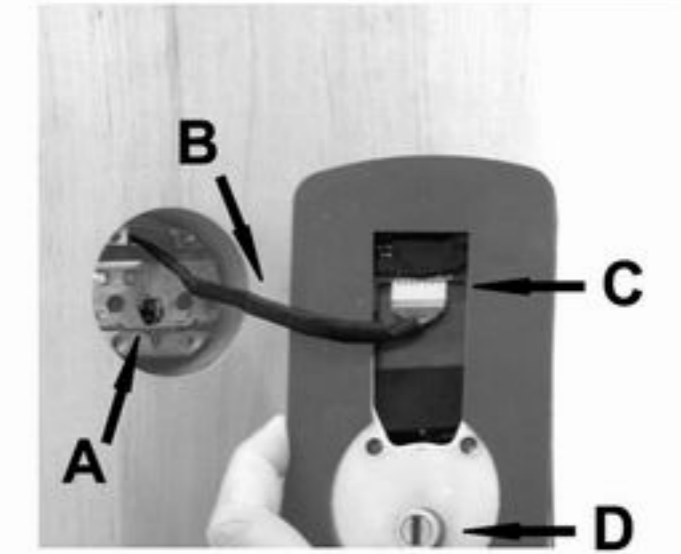
Now, connect the Control Cable (B) to the corresponding Control Connector (C) on the back lock body.

Align the front and back lock bodies so they are straight on the door. Insert the two bolts in the corresponding holes and try to thread them into the front lock body.

Locate the Bolt Direction Switch (A) just under the batteries. Make sure the Bolt Direction Switch corresponds with the direction that the bolt extends (B). In the example to the right, the bolt extends out of the left side of the door. Therefore the switch should be moved to the