



DB9000

USER MANUAL



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REGULATORY COMPLIANCE

The 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.

FCC WARNING STATEMENT

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

1. Introduction

DB9000 is a smart lock with Bluetooth, NFC, MiFARE, and Touch Keypad capabilities.

2. Compatible cards and phones

2.1. Cards

Support MiFARE Classic, MiFARE Ultralight, MiFARE DesFire, or ISO/IEC 14443 type A with fixed UID.

2.2. Phones

- iPhone 4S or above with iOS 8.0 or above
- Android 4.3 or above with Bluetooth Low Energy capability. NFC capability is required for using the NFC feature

3. App

Download K3 Connect on App Store or Google Play, and register an account. For Android users if NFC is available, use K3 Connect+ instead of K3 Connect. Always update the App to the latest version.

4. Door L/R Learning

The deadbolt lock can be installed on a left handed or right handed door. Firsthand, it needs to learn if the handing is left or right for it to operate correctly according to the door handing.

Follow these steps to do L/R learning:

1. Keep pressing the setup button until 4 consecutive beeps are heard.
2. The lock will start to learn whether the door is right handed or left handed. The motor will drive the deadbolt locked/unlocked several times in the learning process.
3. If the lock learned the handing successfully, it will beep and flash green once. If the lock fails to learn the handing, it will beep and flash red 3 times. Please re-install the lock correctly and re-try from step 1.

5. Door L/R Undecided Warning

If door L/R learning has not been done successfully after first time of installation or after the procedure of return to factory default, the following warning will prompt the user to run door L/R learning.

5. Door L/R Undecided Warning (Continuation...)

1. Upon unlocking/locking request, there are 3 short beeps and 3 red flashes, then one second pause, 3 short beeps and 3 red flashes again, following the unlock/lock request indication.
2. There will be 3 short red flashes every 10 seconds while the lock is idle.

6. Obtaining Locked/Unlocked Status after Battery Replacement

The system may lose the locked/unlocked status information after replacing batteries (especially if you turn the thumb-turn while the lock has no batteries). This may cause the deadbolt to rotate the motor to the wrong direction.

Follow this procedure to obtain the correct locked/unlocked status after battery replacement:

1. Wait until the lock beeps and flashes green after battery installation.
2. If the deadbolt is locked, then manually turn the thumb-turn to unlock it. If the deadbolt is unlocked, manually turn the thumb-turn to lock the deadbolt.

7. Management

7.1. By Phone

A compatible phone with App installed can be used as Admin of Locks. Management tasks can be performed in the App. An Admin can manage multiple Locks, but one Lock can only have one Admin at a time. Other phones can be Clients of the Lock.

7.2. By Keypad

If Admin phone is not available, the Keypad can also be used for selected management tasks. See later section for the full specification.

8. Phone Operations

8.1. Pairing to Become the Admin

Follow these steps to set up a phone to be a lock's Admin:

1. In K3 Connect, press the “+” on the top-right corner of the Locks page
2. Fill-in the DIN (db9000) and your selected Lock name, then confirm and put the phone close to the Lock (within 1 meter)
3. Push the setup button inside the back cover.
4. After Pairing, the phone is the Admin of the Lock

8.2. Unlocking

Admin or Client can do Unlocking in multiple ways:

8.2.1. Bluetooth Manual Unlocking

In K3 Connect, go to the LOCKS page, click on the tab of your Lock name to trigger it.

8.2.2. Bluetooth Auto Unlocking

In K3 Connect, go to the LOCKS page, slide-left on the tab of your Lock name, select “Info” and navigate into the menu to enable the Auto Unlocking features.

*There are 2 kinds of Auto Unlocking: trigger by touch, or trigger by location. See the App UI for more description.

8.3.3. One-Touch Door Locking

If the bolt is at unlocked position, just touch the front face, the door will be locked.

8.4. Management

The App can do the following management tasks and more:
(suggest only put minimum App UI in this manual; App is constantly improved and more features or better UI will be designed in the future)

- Set Names of Locks
- Lock parameters setting (such as Passage Mode or Mute)
- Add/Delete Clients (including other phones, cards, or CODEs)
- Set Client access rights
- Set Client Nick-names
- Generate VARICODE
- View Audit Trail
- Check Lock Battery status
- Update Lock Firmware

9. Keypad Operations

9.1. Wake up

Before any keypad operations, make sure the bolt is at locked position and then touch the Lock front face to wake up the keypad.

9.2. Setting the Management Code (MC)

Important: There is a default MC of 12341234 in the beginning or after return-to- factory-default.

The MC length is between 6 to 12 digits. Set the MC first by the following steps:

1. Press the Setup Button
2. Wake up keypad
3. Enter the new MC followed by *
4. Enter the new MC again and followed by *

9.3 Keypad Menu

9.3.1. Add Code (new CODE length is between 6 to 12 digits)

MC + ***** + **1** + **1** + **NEW CODE** + ***** + **NEW CODE** + *****

9.3.2. Add RFID Card / Key Fob

MC + ***** + **1** + **2** + **TAP CARD OR KEY FOB**

9.3.3. Delete Code

MC + ***** + **2** + **1** + **CODE** + ***** + **CODE** + *****

9.3.4. Delete Card

MC + ***** + **2** + **2** + **TAP CARD OR KEY FOB**

9.3.5. Delete All Codes (exclude Management Code)

MC + * 3 + 1

9.3.6. Delete All Cards

MC + * 3 + 2

9.3.7. Delete Code

MC + * 3 + 3

9.3.8. Delete All Codes (include Management Code)/ Cards/Phones

MC + * 3 + 4

9.4 CODE Unlocking

Wake up touchpad, enter CODE followed by *

9.4 VARICODE Unlocking

VARICODE is a time specific temporary code that can be generated in the App.

9.4 VARICODE Unlocking (Continuation...)

VARICODE can be generated in the App anywhere; no need to be in front of the Lock.

VARICODE can be obtained in the App:

- In the Clients page, press the “+” on the top-right corner, and select Type as VARICODE to see the UI. Once generated, send the VARICODE to the users.

For VARICODE Unlocking:

- Wake-up keypad, enter *, enter VARICODE

10. Card Operations

10.1. Card Unlocking

Put the card in front of the sensing area, and wait until the LED flashes and the lock beeps.

11. Low Battery Warning

There are 2 types of indications when the batteries get low:

- After unlocking successfully, the lock will beep 5 times.
- If the battery gets extremely low, after successful authentication you will hear the unlocking failed warning, followed by 5 beeps.

**These warnings will stop once batteries are replaced

12. Wrong-try Lock-out

After 3 succeeding unsuccessful unlock attempts within 1 minute, the Lock will be non-responsive for 1 minute.

13. Return to Factory Default

Follow these steps to reset lock to factory default:

1. Remove battery cover and take-out one battery
2. Keep setup button pressed
3. Replacing the battery while pressing the setup button
4. Wait for 4 beeps then releasing the setup button.
All previous created users and Admin will be deleted.
5. Replace the battery cover.

14. Events, Beeps and LED

Events	Beeps	LED
Setup Button Pressed	2 short beeps	Green flash once
Exit Setup Mode	1 long beep	Green flash once
During Setup Mode	-	Red light on
Pairing Success	4 beeps ascending tone scale	Green flashes once

Events	Beeps	LED
Pairing Fail	3 short beeps	Red flashes 3 times
Successful Unlocking	2 short beeps, followed by another beep which indicates successful door unlock	Green flashes twice, followed by 1 green flash
Successfully authenticated but unlocking failed due to door jam or other mechanical error	2 short beeps, followed by 3 short led flashes	Green flashes twice, followed by 3 short red flashes
Successfully authenticated but unlocking is ignored due to extreme low battery	2 short beeps, followed by 5 short red flashes which indicates extreme low battery	Green flashes twice, followed by 5 short red flashes which indicates extreme low battery
Successful authenticated but unlocking is ignore owing to undecided door L/R	2 short beeps, followed by 3 short beeps, then one second pause, 3 short beeps again	2 red flashes, followed by 3 red flashes, then one second pause, 3 red flashes again
Successful Locking	1 beep, followed by another beep after the bolt locked successfully	Green flashes once, followed by 1 green flash which indicates the bolt is correctly at locked position

Events	Beeps	LED
Locking unsuccessfully due to door jam or mechanical error	1 beep, followed by 3 short beeps	Green flashes once, followed by 3 short red flashes
Locking operation is ignored owing to extreme low battery	1 beep, followed by 5 short beeps which indicates extreme low battery	Green flash once, followed by 5 short red flashes which indicates extreme low battery
Locking operation is ignored owing to undecided door L/R	1 short beep, followed by 3 short beeps, then one second pause, 3 short beeps again	1 red flashes, followed by 3 red flashes, then one second pause, 3 red flashes again
Access Denied	3 short beeps	Red flash 3 times
Low Battery During Locking/Unlocking Attempt	5 beeps after locking/unlocking attempt either successful or unsuccessful	Red flash 5 times after locking/unlocking attempt either successful or unsuccessful

Successful Menu Operation	4 beeps ascending tone scale	Green flash once
Failed Menu Operationt	3 short beeps	Red flash 3 times
Enter Wrong-try lock-out	3 short beeps followed by a long beep for 5 seconds	Red flash 3 times followed by red light on for 5 seconds
During Wrong-try lock-out period	-	Continuous Red flash twice every 5 seconds

15. Technical Specifications

- User Counts: maximum 1 Admin + 49 Client Phones, and 50 Codes, and 50 Cards
- Audit Trail entry number: 4000 on lock
- Powered by 4x AA Batteries
- Operation Temperature: -20°C to 70°C
- Storage Temperature: -30°C to +80°C
- Radio Frequency: NFC/MiFARE: 13.56MHz, Bluetooth: 2.4GHz

16. Troubleshooting

PROBLEM	SOLUTION
Administrator phone becomes an invalid user	<p>The Admin may lose the administration rights when any of the following happened:</p> <ol style="list-style-type: none">1. Another Phone was setup as a new Admin2. Operation of “Deleted All Phones” or “Delete All Codes (exclude Management Code)/ Cards/Phones including Admin” are performed on keypad3. Return-to-factory-default
Lock is working but no audible sound	Check if parameter setting is in Mute mode
Lock no responding	Change battery and try again

<p>Bluetooth communication with the Lock seems no working (For Bluetooth Pairing, Unlocking, or Sync) but other function of Lock is still working</p>	<ol style="list-style-type: none"> 1. For the App to close, then launch the App and try again 2. If still not working, turn-off Bluetooth function on the phone and turn-on again, then try again 3. If still not working, reboot the phone and try again
<p>NFC unlocking is not working but other function of Lock is still working</p>	<ol style="list-style-type: none"> 1. For the App to close, then launch the App and try again 2. If still not working, turn-off NFC function on the phone and turn-on again, then try again 3. If still not working, reboot the phone and try again
<p>Motor not rotating and, after lock/unlocking request, the lock beeps and red flashes 3 times, then beeps and flashes 3 times again after one second pause.</p>	<p>Door L/R learning not done yet or L/R learning failed. Please run door L/R learning again.</p>