

# OrangeBox

Installation Guide and  
User Manual



[www.bekey.dk](http://www.bekey.dk)

V 1.0 August 2016

**Congratulations**  
on acquiring  
**BEKEY OrangeBox.**

**BEKEY OrangeBox** is an access control device destined for both corporate and private use.

As a corporate client you will have complete control and overview over access management for your properties and business. Run your daily operations more efficiently by taking advantage of the following benefits:

- Manage access remotely from your desktop.
- Send digital keys to employees, contractors and guests.
- Pre-set time limited or standard access according to the needs of your business.
- Create virtual electronic key bundles that will save you time and resources.
- Administrate an unlimited number of users, keys and BEKEY devices through NETKEY.
- Gain access to detailed reports regarding access management.
- Have your data protected with a highly secured encryption between OrangeBox, mobile devices and NETKEY platform.

As a private customer you will now get to experience how easy it is to open your gate or door with a simple touch on your phone. Some of the advantages are:

- Fast and smooth door openings.
- Send and receive electronic keys on the cell phone.
- Easy distribution of standard and time limited keys.
- Send digital keys to up to 20 users via BEKEY mobile app.
- Due to its small size, the unit can be embedded in the existing system, thus making it invisible from outside.
- High security 128 bit encryption.

\*Be sure to read this guide completely before installing and using BEKEY OrangeBox.

\*We recommend that the OrangeBox unit is installed by a professional electrician.

In this manual you will find a step by step guide on how to install the unit, set up the user account and distribute keys.

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# 1. BEKEY OrangeBox product specification

## 1.1 Product description

The BEKEY OrangeBox is a Bluetooth®LE device designed to operate on 6V-24V AC/DC. The device is installed behind a door entry phone or other type of gate systems. Based on unlock commands from cell phone/tablet, the unit opens the door/gate. The unit is compatible with electric strikes, gate systems, mag-lock systems, garage doors etc.

Electronic keys are distributed via NETKEY for corporate users or via BEKEY app for private users. Upon an open command, the OrangeBox will pull the relay, thus supplying the electric strike and opening the door. The unit may be used for other kinds of locks that can be opened through the relay function.



## 1.2 Product specifications

Dimensions	87 mm x 13 mm x 31 mm (L x W x H) 3.43 in x 0.51 in x 1.22 in (L x W x H)
Supply voltage range	6V-24V AC/DC
Maximum current drawn through the relay	Max. 24V 1.0A
Average current consumption	15 mA average
Wiring	50 cm (1.64 ft) cord for relay and power supply connection  The BEKEY OrangeBox should be connected to a wire of maximum 30 m (≈ 98 ft.) to ensure a proper functioning of the device.
Power consumption	0.1 W – 0.4 W
Temperature range	-10 °C to 50 °C (14 °F to 122 °F)
Humidity	Range should be between 30% - 90% relative humidity

## 2. Requirements for installing BEKEY OrangeBox

### 2.1 Power supply

Connection to a power supply that provides 6V-24V.

### 2.2 Supported operating systems

BEKEY OrangeBox is operated via Bluetooth®LE and is supported by the following systems:

#### Apple

- iPhone 4S or newer
- iPad 3 or newer
- iOS 7 or newer



#### Android

- Android version 4.3 or newer



\*The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc., and any use of such marks by BEKEY is under license. Other trademarks and trade names are those of their respective owners.

### 3. Downloading the BEKEY app

BEKEY app can be downloaded free from Google Play, if you have an Android phone or App Store if you have an iPhone.

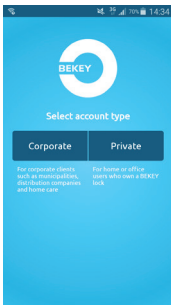
Make sure your cell phone has a stable internet connection, while downloading and installing the BEKEY app.

BEKEY app can be configured for corporate clients or private customers.

***The private account will be managed through BEKEY app.***

***The corporate account will be managed through BEKEY app and NETKEY.***

\*There might be slight variations in the text of the app between iPhone and Android.



### 4. BEKEY OrangeBox for corporate clients

After downloading the BEKEY app, select corporate account type. The user is required to log in with a user name, customer account number and password. These login credentials are sent automatically through sms to every user that is created by the administrator in the NETKEY platform. After creating the corporate account, proceed with the installation of the unit, section 6.

NETKEY is a cloud based platform that allows the corporate clients to:

***Create and edit users***

***Send or delete keys***

***Create and edit key bundles***

***Have access to different type of reports: battery status, statistics regarding openings, user logs etc***

***Order installation or removal of BEKEY units***

\*A user manual for NETKEY will be provided separately for corporate customers.



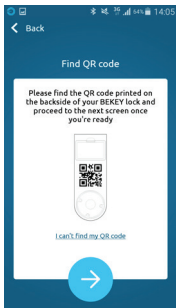
## 5. BEKEY OrangeBox for private customers

After downloading the app on your cell phone, please select “private” account. Follow the steps in the app to create and configure your user account.

After the creation of the user account or having logged in, the app will ask you to scan the QR-code of the device that you wish to install.

The QR-code can be found on the back side of the OrangeBox unit and scanned by holding the QR-code in front of the camera of the phone. If the QR code is not found or cannot be scanned, see section 9.

After you have scanned the QR code on your BEKEY OrangeBox, proceed with the installation of the unit.

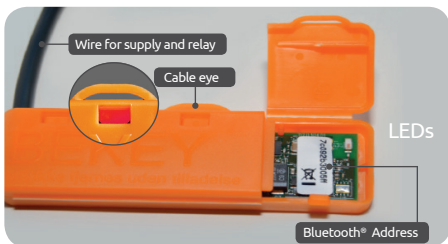


\*After scanning the QR code, the app will direct you to close the door and lock it in order to test the functionality of the OrangeBox unit. Before you can proceed to this step, you need to install the unit.

## 6. Technical guide for installing BEKEY OrangeBox

### 6.1 Mechanical installation

The OrangeBox can be mounted with double sided tape or using a cable tie through the cable eye on the box. The cable eye might be removed with a cutter if there is no need for it. When making a visible assembly of the door unit, place it indoor, in a membrane can, or a similar box.



### Electrical Installation

The door unit is mounted with 50 cm ( $\approx$  1.64 ft.) cable with four leads.

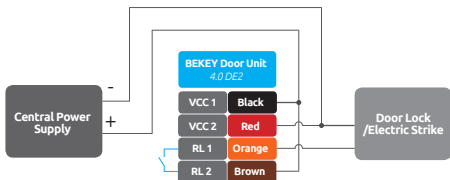
Two leads (red and black) for voltage supply and two leads (orange and brown) to activate the door lock.

The supply voltage (VCC1 and VCC2) can be both direct current (DC), regardless of polarity, and alternating current (AC).

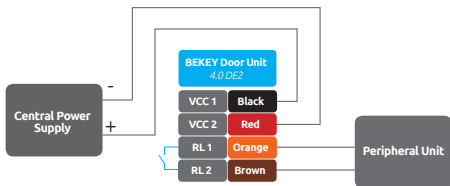
- VCC 1 Black**
- VCC 2 Red**
- RL 1 Orange**
- RL 2 Brown**

The door lock is activated via a potential free normally open contact (RL 1 and RL 2).

### 6.2.1 Wiring diagram Model 1 (this covers the most common use cases).



### 6.2.2 Wiring diagram Model 2



### 6.3 Safety instructions

In order to work properly the unit needs to be protected from humidity and extreme weather conditions.

1. Do not disassemble the unit.
2. Do not spray water on the indoor unit. Do not keep the unit where it will be exposed to moisture.
3. Do not overload power supply and relay.
4. Do not drop or shock the unit.
5. Do not place any naked flames (e.g. lighted candles) near the apparatus.
6. Do not cover the ventilation holes with clothing, paper, curtains etc.
7. This apparatus is designed for moderate climates. Do not use in high humidity, dusty or dirty areas.
8. Do not use solvents for cleaning
9. To disconnect or isolate the unit, switch off at the power supply.

### 6.4 BEKEY OrangeBox during operation

OrangeBox unit is connected to the power supply

A red LED will flash, indicating that the CPU is running

Bluetooth® communication is established

A yellow LED will flash

The relay is being pulled

A green LED will flash

After the first opening command is sent through the app, the LEDs will turn off automatically.

## 7. Digital key distribution

### 7.1 Digital key distribution and access management for corporate clients.

For corporate accounts, access management and key distribution is controlled through NETKEY. Request the NETKEY User Manual at [operations@bekey.dk](mailto:operations@bekey.dk).

### 7.2 Share keys with family and friends as a private customer



\*Slide the screen to the left.

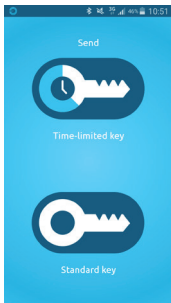
#### 7.2.1 Type of keys

##### 1. Time-limited key

The person who receives the key will have access to your home just on the days and time interval you specify.

##### 2. Standard key

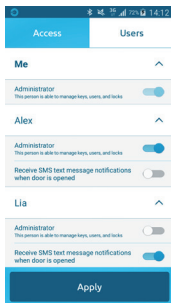
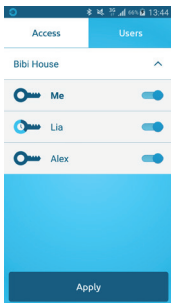
This type of key is suited for family members and persons who you wish to have regular access to your home.



## 7.2.2 Administrate the keys for your OrangeBox.

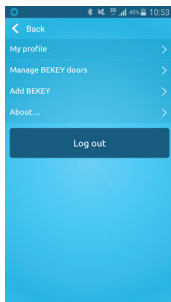
Slide the screen to manage access.

Here you have an overview over who currently has a key to your door. You can remove users, upgrade or downgrade their access.



## 7.2.3 Settings

In settings you can edit your profile, manage BEKEY doors (if you have multiple BEKEY devices attached to your cell phone) and add a new BEKEY unit.



## 8. Administrate multiple BEKEY units

As a corporate client, you are allowed to manage an unlimited number of BEKEY units through NETKEY. Check the NETKEY user manual or contact us at [operations@bekey.dk](mailto:operations@bekey.dk) for more details.

As a private user, you can manage up to 5 BEKEY products such as OrangeBox, SmartLock and KeyBox units, from your cell phone, to add another BEKEY unit to your account, go to settings and press "Add BEKEY".

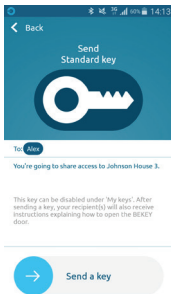
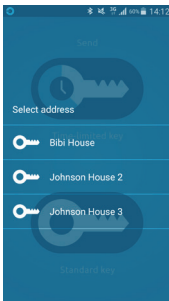
You will be required to scan the QR code of your product and follow the steps in the installation manual for that specific unit.

### 8.1 Door openings

When multiple BEKEY products are connected to the same user account and are within range, when a "Search and open door" command is activated, the user will be asked which unit (door) he wants to open.

### 8.2 Sending keys

When sending keys, the user will be required to specify for which address (unit) he wants to send standard or time-limited keys.



## 9. Install your BEKEY OrangeBox without the QR code. For private customers

If you cannot find or scan the QR code, you can still install and configure your BEKEY OrangeBox. After creating your user account in the BEKEY app, proceed with the mechanical and electrical installation, see section 6. When pressing open for the first time on the BEKEY app, your BEKEY OrangeBox will be connected to the user on your phone.

## 10. Troubleshooting

### Solving a problem with door opening

**Step 1:** Check that the wires are properly connected and the unit has a stable voltage supply.

**Step 2:** Check that the app is searching for doors.

**Step 3:** Hold the phone closer to the BEKEY unit.

**Step 4:** Update the keys by pressing "Reactivate keys".

**Step 5:** Check that Bluetooth® is activated.

## 11. Warranty

This BEKEY product comes with a two-year manufacturer's warranty (from the original date of purchase). Proof of purchase must be presented before the warranty can be honoured.

The warranty only covers material defects and errors in the manufacturing of this product. The warranty does not cover errors or defects in the product caused by incorrect use, misuse, damp, heat, human error, faulty installation and any other factors referred to in sections 1.2 and 6.3. The warranty only covers those cases referred to and/or approved by BEKEY. The warranty will not be valid if the product is used or set outside the specifications laid down in this manual (temperature range, voltage, etc.).

BEKEY is not responsible for damage caused by third-party products.

If the warranty is invoked, BEKEY reserves the right to repair the product or replace it with a new or correspondingly renovated product.

The product can be returned to the distributor it was purchased from and in accordance with the regulations set forward by the respective distributor.



## FCC:

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
- (2) this device must accept any interference received, including interference that may cause undesired operation.

No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment.

BEKEY4.0 DE2.0 has been designed and complies with the safety requirements for portable (>0.5cm) RF - exposure in accordance with FCC rule part §2.1093 and KDB 447498 D01. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operation in conjunction with any other antenna or transmitter.

## Industry Canada:

This device complies with RSS-247 of the Industry Canada 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 complies with IC radiation exposure limits set forth for an uncontrolled environment.

Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada aux appareils radio exempts de licence.

Son fonctionnement est sujet aux deux conditions suivantes:

- (1) le dispositif ne doit pas produire de brouillage préjudiciable, et
- (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.

## Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the product and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product to designated collection points where it will be accepted free of charge.

Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.



### For business users in the European Union.

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

### Information on Disposal in other Countries outside the European Union.

This symbol is only valid in the European Union. If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

### BEKEY OrangeBox CE conformity:

This product is compliant with the relevant requirements in Council Directive RED 2014/53/EU.

The corresponding declaration of conformity can be found on <http://www.bekey.dk>





**BEKEY Customer Support**

Email: [operations@bekey.dk](mailto:operations@bekey.dk)

[www.bekey.dk](http://www.bekey.dk)