Kentix SmartAccess user manual

Here you will find basic information on handling and maintaining your Smart Access systems. We will guide you step by step through the most important points. Our aim is to offer you not just a product, but a comprehensive solution that meets your security requirements and simplifies your operations at the same time.

Battery-operated components

The Kentix door knobs and door handles are battery-operated devices that are connected wirelessly to KentixONE via an access point. The wireless standards 2.4 GHz Bluetooth Low Energy and SRD short-range devices with 868 MHz are available.

The battery supply offers decisive advantages. The components can be retrofitted without great effort. Scaling within the system is usually possible at any time without great effort.

The lithium batteries used offer numerous advantages, but also have some special features that need to be considered.

The lithium batteries used in Kentix devices have special physical properties that must be taken into account when determining the state of charge. It is therefore recommended that you do not rely on the charge level display, especially for critical doors, and that you change the battery once a year in a timed cycle.
For external doors, it is recommended that this change is carried out at the beginning of the cold season in October. Further maintenance work must be carried out after the battery has been changed. You can find more information on this point in the “Maintenance” section.

Why it is difficult to monitor 100% of the capacity of lithium batteries:
Flat voltage curve during discharge:With lithium-ion batteries, the voltage changes only minimally over a large part of the discharge process. This means that it is difficult to make an accurate estimate of the state of charge (SoC) based on the voltage. The voltage remains relatively constant in the middle of the discharge process, so that the voltage alone does not provide any precise information about the current state of charge.

Discharge curve of lithium cells

1. Battery level good
2. Battery level empty

Further information and important points about the batteries can be found under the following links:
Battery management of Kentix devices

How does the low battery warning work for Kentix components in KentixONE?

Emergency opening in the event of battery failure or mechanical failure

Although a wireless access management system has many advantages, there are also special features that can affect the operation of such a system. For example, a wireless system is always more susceptible to interference than a wired system. This also applies to battery-operated components and is in the nature of things. Faults and malfunctions can only be prevented to a limited extent by system messages. It is therefore important to prepare for possible failures and implement processes for a fail-safe access system.

With a battery-operated access solution that is connected to an access management system by radio, certain scenarios can lead to failure of the access solution:

- Network can fail
- PoE supply can fail
- The battery’s charging capacity is suddenly exhausted
- Hardware defect

As mentioned above, it is therefore essential to have an emergency solution implemented for these situations. This includes the following measures:

Emergency access
Emergency access can be set up for selected users in the Kentix AccessManagement system. If emergency access is activated for a user, the respective identification number (RFID UID) of the user is stored locally in the radio knob or door handle. If the wireless connection between the wireless knob or door handle and the AccessManager fails, user verification is carried out locally. This gives users with emergency access access even if there is no online connection. This is particularly useful for ensuring access in critical situations.

Ensure overlocking
With electronic locking systems, it is important to ensure mechanical overlocking. This means that you should always have an alternative way of opening the door if the electronic system fails. This can be done using a mechanical key or a backup system.

- Compatibility: Ensure that the mechanical locking components are compatible with the AccessManagement system.
- Maintenance: Regular maintenance of mechanical parts is important to ensure smooth operation. This includes lubricating locks and checking for wear.
- Emergency access: In the event of a system failure, plan emergency access to ensure that authorized persons can still gain access.
- Security: Make sure that mechanical overlocking does not compromise the security of the entire system. This can be achieved by using high-quality locking components.
- Documentation: Keep detailed documentation on the mechanical components and their maintenance so that you can react quickly if necessary.
- Regular checks: Make sure that all components of the locking system are regularly checked for

functionality to ensure smooth operation.
- Notification of battery level
- Persons responsible for maintaining the access management system should receive messages about the battery level
- Stock of batteries
- As batteries can fail at any time, it is important to always have spare batteries to hand. This prevents a door lock from no longer working due to a battery failure.

Daily backups
Automated daily backups of the logbooks and configuration content should be created. In the event of a device failure, all configurations can be restored quickly. A so-called satellite can take over the manager function if the manager fails in order to maintain operation.

UPS backup
The AccessManagement System can be backed up against power failure via a UPS.

Opening with LowPower adapter (KN1/2 only)
A LowPower adapter can be used for emergency opening of the KN1/2 (DoorLockBASIC). The low-power adapter is available in the Kentix store.

https://kentix.com/de-de/low-power-adapter-fuer-kentix-doorlock-dc-basic-tuerknauf/kxc-bat2

User training

Radio-based access management systems offer many advantages. The components are easy to understand and often intuitive to use. Nevertheless, there are a few special features to consider compared to a classic access system. Employees should therefore be trained in how to use a smart access system. In addition to the correct operation (booking behavior) of the Smart Access System, this also includes the maintenance of the system.

Correct booking at the door

The mechanical components of Kentix DoorLocks are exposed to stresses that do not occur in conventional locking systems due to the special nature of the locking process. In order to protect these parts as much as possible, appropriate behavior must be observed during booking and subsequent access.

If an RFID transponder is held against a door knob or door handle to open the door, this is acknowledged by a flashing LED and an acoustic signal if the user is authorized to do so. You should wait until the DoorLock component has been coupled by the mechanism. This coupling is usually audible. Alternatively, wait for a short moment (approx. 1 s). First turn the door handle or press the door knob.

Turning or pressing too quickly before the mechanism has engaged can damage it and thus impair the function of the component.

The DoorLock’s radio antenna (BLE or 868 MHz) is located directly behind the cover, where the RFID

medium is also held for booking.

Provision of RFID media

The DoorLock’s Bluetooth antenna is located directly behind the cover, where the RFID medium is also held for booking.

Position RFID Reader

The RFID medium has a coil for communication and power supply (inductive). Due to its physical properties, this coil blocks the Bluetooth signal. This can have an impact on the booking process.

Media read orientation

Kentix therefore recommends holding the RFID medium at a slight angle, as shown in the following

image, without completely covering the DoorLock cover.

Bookings with encrypted media

If Kentix or a user-defined encryption for the RFID media is activated in KentixONE, the DoorLock needs a little more time to carry out the booking. In this case, the RFID medium may have to be held against the DoorLock for a little longer to allow access. Successful booking is then signaled by the orange LED flashing quickly and the blue LED flashing once at the end. A short signal tone sounds at the same time.

Actuation of the mechanism after booking

It is essential to wait until the DoorLock component has been coupled by the mechanism. Only then may the door handle be turned or the door knob pressed.

Turning or pressing too quickly before the mechanism has engaged can damage it and thus impair the function of the component.

Maintenance

Maintenance intervals

Maintenance, including battery replacement, should be carried out at the beginning of the cold season and at least once a year, particularly for important doors, especially outdoors.

The DoorLock components require regular maintenance due to their mechanical components. As the system messages for critical doors, particularly with regard to the battery charge status, are not an absolutely reliable source, maintenance should not be based on these messages but should be carried out according to a fixed schedule. For critical doors and doors in outdoor areas in particular, maintenance including battery replacement should be carried out at the beginning of the cold season in October.

Responsibilities

Persons responsible for planning must be appointed and trained accordingly. The certified Kentix partner companies are recommended to conclude corresponding maintenance contracts with the end customers. This is also recommended for end customers. Alternatively, end customers can have their employees certified in the Kentix Academy for the correct use of the smart Smart Access System from Kentix.

Battery change

Only use the battery types recommended by Kentix.

Avoid overlapping batteries.

Smooth running of the components

Mechanical components always require a certain amount of care, which includes lubrication with a suitable precision mechanic’s oil. A suitable product is available in the Kentix webshop. This ensures that the components run smoothly at all times and prevents damage.

https://kentix.com/de-de/multi-spray-pflegeoel-fuer-kentix-doorlock-mechanikprodukte-50ml/kxc-pls50ml

Seals

The DoorLock seals must be replaced every time the battery is changed. A set of seals is available in the Kentix webshop.

DoorLock LE

https://kentix.com/de-de/doorlock-le-dichtungssatz-ip55-66/kxc-le-seal-ip66

DoorLock BASIC

https://kentix.com/de-de/doorlock-dc-basic-dichtungssatz-ip66/kxc-dcbasic-seal-ip66

DoorLock PRO

https://kentix.com/de-de/doorlock-dc-pro-dichtungssatz-ip66/kxc-dcpro-seal-ip66

Software updates

Within the responsibilities we recommend to regulate the check for updates of the Kentix system. The responsible party should regularly check the system for updates. Information about updates is provided on the Kentix homepage or via the Kentix newsletter.

With a corresponding KentixPlan license, KentixONE checks whether updates have been released for the main system and the components. Furthermore, it is recommended to conclude an additional support contract. Information on this can be obtained from Kentix Sales.

Stock spare parts

It can happen – albeit rarely – that access components fail relatively suddenly. In order to be able to react quickly in the event of an access component failure, it is recommended that replacement devices and maintenance resources are kept in stock. Whether and to what extent replacements should be kept in stock depends on the size of the system. For important access doors, replacement devices should be kept in stock that allow access even without electronic components, at least temporarily. (see point “Ensuring overlocking”)
After installation and commissioning of the system, a list of useful spare parts should therefore be drawn up with the partner carrying out the work, depending on the size of the system and taking into account the respective doors.

Kentix Academy

Kentix-Professional Training

The Kentix Professional Training provides all the knowledge required to work independently and autonomously with KentixONE and to fulfill the desire for complete security with minimum effort.

After participating in the training, participants will have the know-how to install and commission KentixONE in their own company.
The training is recommended for all Kentix managers who are involved in the setup and operation of KentixONE and the installation of Kentix components.
The dates and contents of the Professional Training can be found on the Kentix homepage -> https://kentix.com/de-de/hilfe-kontakt/academy/kentixone-expert-training-buchen/

End User Online Training

The end user online training provides the necessary knowledge for the use of KentixONE in approx. 3 hours and is aimed at the employees in the company who are responsible for the configurations for the smooth functioning of the software.

The necessary knowledge for creating users and configuring alarm lines is taught.

The dates and contents of the online traning can be found on the Kentix homepage https://kentix.com/de-de/hilfe-kontakt/academy/kentixone-expert-training-buchen/

Checklist

The following checklist is for documentation purposes:

		Ansprechpartner	E-Mail	Telefonnummer	Status
1	Wartung/Wartungsintervalle				
2	Wartungsmaterial				
3	Ersatzteile				
4	Kentix Academy				
5	Notfallzutrittsplan				
6	Systemeinweisung Mitarbeiter				
7	Software Updates				