How is an update for wireless MultiSensors (BLE wireless) carried out?

Overview

An update of the MultiSensors (BLE radio) can improve the radio stability of the connection and the sensitivity of the sensors. The MultiSensor-DOOR (BLE radio) and the MultiSensor-ROOM (BLE radio) can be updated using the method described here. A smartphone and the Nordic Semiconductor nRF Connect app are required to update the MultiSensors. The app can be used to connect the cell phone to the MultiSensor and transfer the update file. The update file is provided by Kentix Support.

If connection alarms occur despite good RSSI values (Received Signal Strength Indication), an update to the latest software version of the MultiSensors (BLE radio) is recommended.

Update process

Step 1: Receiving the update file

To obtain the update file, Kentix Support must be contacted. To do this, open a corresponding support ticket on the Kentix homepage. The update files for KMS-DOOR-BLE and KMS-ROOM-BLE are different. Please let Support know which file is required.

Step 2: Install the nRF Connect app

A smartphone is required to update the MultiSensors' software, as the cell phone must be within radio range of the MultiSensor for the update. The nRF Connect application from Nordic Semiconductor is required to update the MultiSensors. This application is available in the Google Play Store or the Apple App Store.

Step 3: Set MultiSensor (BLE radio) to update mode

The next step is to set the MultiSensor to update mode. To do this, press and hold the teach-in button on the MultiSensor for approx. 15 seconds until the MultiSensor beeps three times in quick succession. The MultiSensor is then in update mode and the status LED flashes red. The position of the teach-in button can be found in the relevant MultiSensor operating instructions.

If the teach-in button has not been pressed long enough and the MultiSensor does not acknowledge the update mode acoustically, the teach-in mode of the MultiSensor may have been activated. In this case, the MultiSensor must be taught into the system again.

Step 4: Connect the MultiSensor to the Bluetooth-enabled device

To connect the MultiSensor to the cell phone, open the nRF Connect app. The app allows you to scan

your surroundings for Bluetooth-enabled devices. A list of devices within radio range appears. The MultiSensors (BLE radio) only appear in the list after activating update mode. This can be filtered depending on the operating system and makes it easier to find Kentix devices. The MultiSensor-DOOR (BLE radio) is displayed as KMS_DOOR and the MultiSensor-ROOM (BLE radio) as KMS_ROOM.

Step 5: Transfer the update file to the MultiSensor

As soon as the MultiSensor and the smartphone are connected, the MultiSensor can be updated via the DFU menu (Device Firmware Upgrade). To do this, the corresponding update file must be selected in the document picker. Confirm only" must be selected as the upgrade mode. The upload process is started by pressing the corresponding button in the app. A window appears with the transfer speed and the progress of the upload. The update process is completed after approx. 40 seconds.

If the upload process does not progress after 20 seconds, the update process, including setting the MultiSensor to update mode, must be restarted.

Step 6: Completing the update process

A completed update can be checked by briefly pressing the teach-in button (maximum one second). The update is complete as soon as the MultiSensor acknowledges this acoustically with a short beep after pressing the teach-in button.

If the teach-in button has been pressed for too long, the teach-in mode of the MultiSensor may have been activated. In this case, the MultiSensor must be taught into the system again.

In addition, the software version of the MultiSensor can be queried via the web interface of the central management unit of the Kentix system (SiteManager or AlarmManager).