

TEKZIPARK ON GROUD DEVICE PREPARATION & INSTALLATION

Abstract

This document details the manual step-by-step installation of the on-ground variation of the TEKZIPARK Devices.



TEKZIPARK Terms of Usage

The device is designed to be used for detecting parking space occupancy states. This product is not intended for incorporation into finished appliances that are made commercially available as single functional units to end users.

This product uses the WISOL Sigfox module which is SIGFOX verified.

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur, and reliability may be affected.

Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



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1. APPLICABILITY

This installation guide is applicable only for TEKZIPARK model # **TEKZ-SIG-X¹-PKSUF**

⁽¹⁾X is the operating zone

X=1-> RCZ1 868Mhz

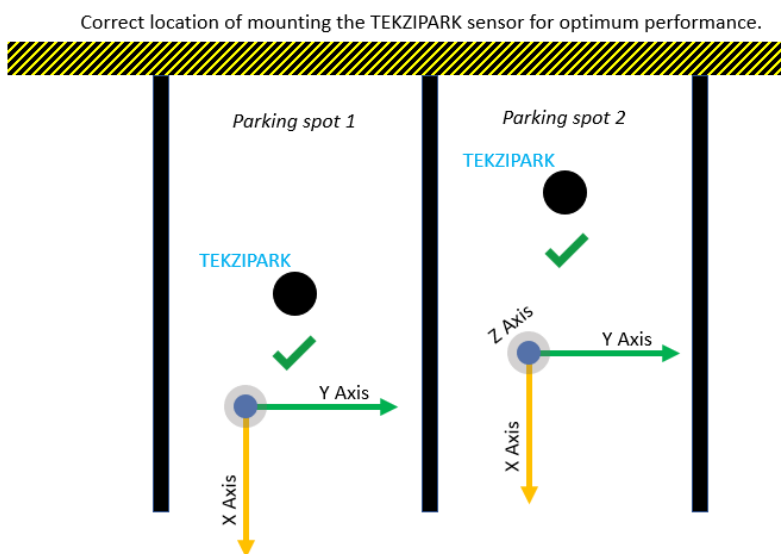
X=2-> RCZ2 902Mhz

X=3-> RCZ3 923Mhz

X=4-> RCZ4 920Mhz

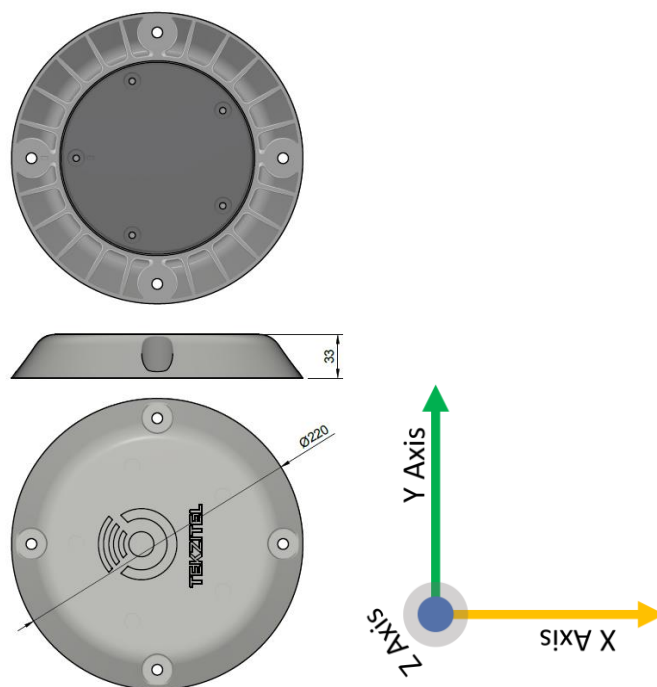
2. FIELD REQUIREMENTS

The installation of the TEKZIPARK Node will need the area of construction to be cleared, this is an important step as objects in sight might deflect and decrease signal strength and accuracy. Multiple tests domestically and internationally have shown that placing the device in alignment with the below image will ensure optimal performance and a better outcome.





3. DEVICE INSTALLATION



1. Mark 4 holes in the asphalt. You should place the enclosure in the final location and use the 4 holes as a reference to drill 4 little marks in the ground. You can also draw 4 dots with ink.
2. Drill the holes. The drill diameter must be 10 mm maximum to prevent the anchor bolt from rotating freely in the hole. Try to drill as vertical as possible, to enable the best enclosure installation. The length of the hole must be about 50 mm. Remove all the dust and little rocks inside the 4 holes, created during the drilling operation. This is important to allow the anchors go all the way down. You can clean each hole mechanically and then use a bottle of spray duster (high-pressure air bottle). Make sure that the real depth of the hole is enough.
3. The anchor bolts used to fix the device are metallic expansion anchors.
4. Install the node in its final position and screw the 4 anchor bolts provided.

4. COMPLETING THE FINAL STEP

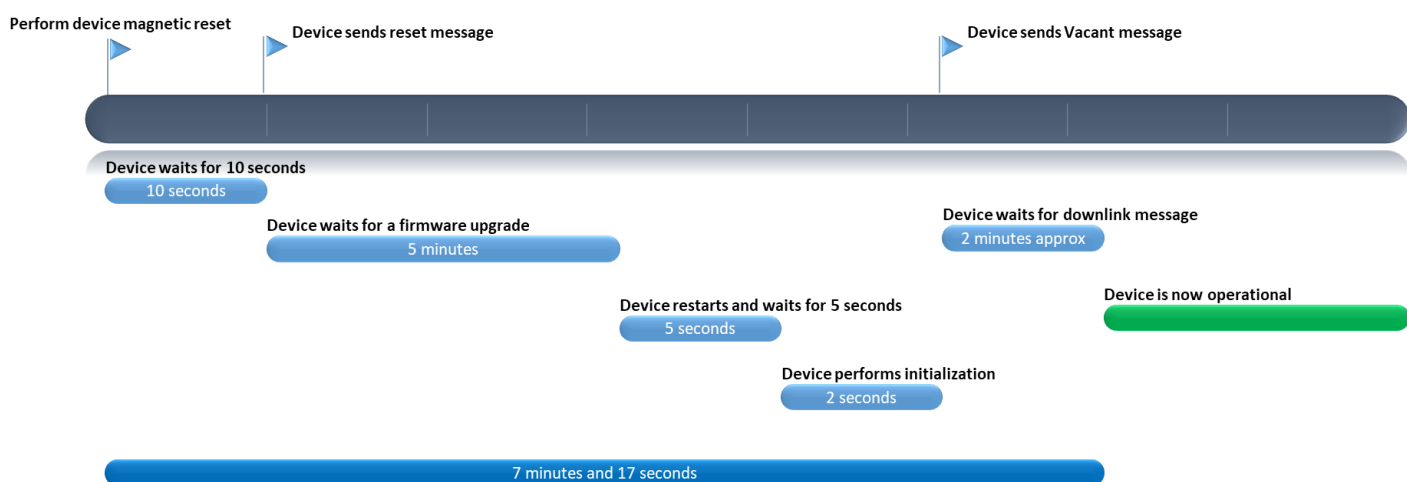
MAGNETIC RESET

Once the TEKZIPARK Node has been correctly installed, you will then need to complete a magnet reset, this information is provided below:

1. Place a strong magnet on top of the casing at the location as shown (yellow circle) and keep it there for 5 seconds. This step will reset the device and initialize it to its current location and orientation.
 - A magnetic reset can be done at any time.



2. After completing a successful reset, the device will send a reset frame to the Sigfox backend and go into BLE advertising mode for 5 minutes to allow for any new firmware upgrade.
 - Refer to the 'TEKZIPARK – OTA Firmware Upgrade' document for further details on how to upload a new firmware.
3. After the BLE advertising finishes, the device will then initialize and adjust to the new environment.
4. The below timeline of events happen after a magnetic reset is done.



5. Once the device is done initialization, it will send a message frame denoting vacant status of the parking slot to the cloud, an example is shown below. The device will wait for downlink configuration, if any, and then start normal operation.

From date:

To date:

RESET **FILTER**

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Time	Data / Decoding	LQI	Callbacks	Location
2019-04-02 19:58:40	201102			
2019-04-02 19:58:23	e01109bc0001			
2019-04-02 19:57:24	200f00			
2019-04-02 05:44:06	e01307b40002			



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