Manual

Moodbox
NB-IoT

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IMBuildings B.V.

2022

v1.1

Preface

Revision history

Version, Date, Author(s)	Changes
v1.1 30-11-2021 M. Spijker	Preliminary release

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Safety instructions

To avoid damage or malfunction, please take the following into consideration.

- Do not expose to water,moisture,and conductive surfaces.

- Do not expose to heat from any source, the product is designed to work under normal ambient temperatures.

- Take care when handling the device,to prevent damage to the mechanical or electrical components.

- Avoid handling the circuit board while the device is powered, to minimize the chance of electrostatic damage.

Ambient operating temperature	-20 to 65°C at 0-95% non condensing humidity.
Power supply	2x 3.6V lithium batteries*

*The manufacturer's instructions for the respective batteries need to be observed

The capabilities,system requirements and / or compatibility with third party products described herein are subject to change without notice.

1. Product introduction

The NB-IoT moodbox allows the capture of customer satisfaction.

1.2 Principle of work

A button is pressed representing the feelings of the customer.
This information is then processed.

1.3 Communication

The created data is communicated from the internal algorithm microprocessor to the internal gateway microprocessor. The internal gateway processor communicates this information to the internal NB-IoT module which takes care of the communication with the NB-IoT network.

Settings for the NB-IoT interface are done via NFC memory.

1.4 Specifications

For the main technical specification please refer to the product sheet.

Technical specifications	
Power supply	2x 3.6V lithium batteries
Protection degree	IP20

Image: The moodbox

2. Configurable settings

The table below shows the settings which can be configured using the NFC Memory.

Table 1:

Setting	Info	Default Value EU868
Send interval	1 to 240 minutes	15 minutes
Confirmed message	On, Off or first 2	off
Event enable	Yes,No	No
Event Count	1 to 200	1
Event Timeout	1 to 200	1
Enable payload metadata	Yes,No	Yes
Payload type	Refer to the integrator guide for all options	2
Payload variation	Refer to the integrator guide for all options	6
Heartbeat enable	enable a heartbeat from the counter	OFF
heartbeat port	1 to 223	2
heartbeat payload type	Refer to the integrator guide for all options	2
heartbeat payload variant	Refer to the integrator guide for all options	6
heartbeat interval	1 to 240 minutes	60
APN	Provider APN information	-
Operator	Provider operator information	-
NB-IoT Band	Provider band information	-
UDP Listen Port	Source port	7000
Destination Server	IP address of the server	-
Destination Port	Port of the server	-
Button delay time	interval between button presses	500 Ms

These settings may influence the working of the device.

To set up the device an Android device/phone with NFC is required. For our partners we have an App available.

3. Contents of delivery

When the product is ordered it will be shipped with the following

Contents of a single NB-IoT Moodbox.

- NB-IoT Moodbox.

Note: batteries are not included.

4. Installation Tools

For installing this product only a few simple tools are required.

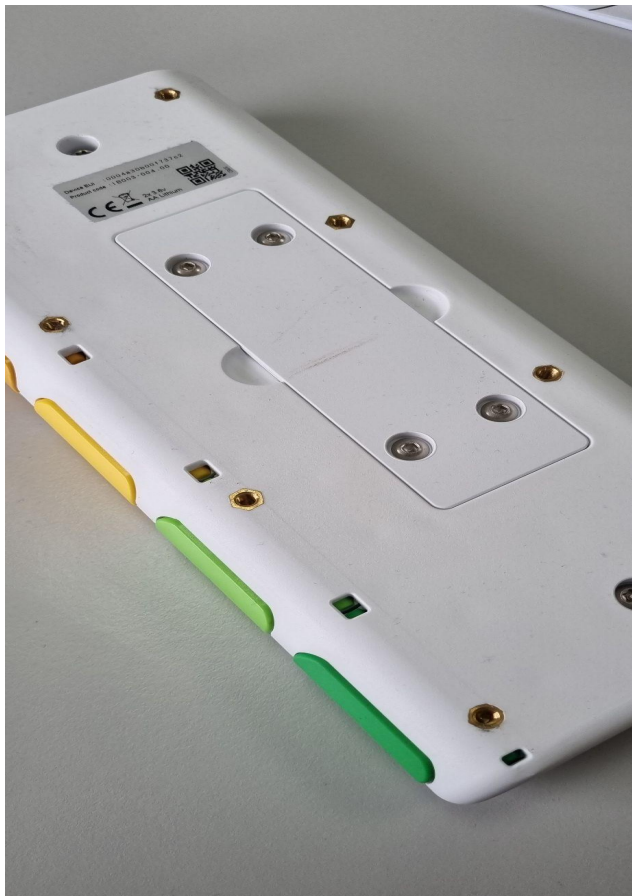| Task	Tool
Close the battery cover	Screwdriver
Device configuration	Android device with NFC

5. Accessories

Mounting bracket.

6. Installation

Before installing the device physically on the desired location we recommend setting up the NB-IoT settings in advance. This includes the setup needed within your software platform.

And placing the Sim Cards in the devices.

Always be aware where which device is placed. Each device has an IMEI which can be used as a reference.

6.1 Handling the housing

Image: Removing the battery cover

Remove the four hex key screws to access the battery compartment.

7. Power on

7.2.1 Power On:

LED is orange for 2 seconds	used batteries are detected at power up
LED is blue	No or incomplete settings. The device halts here
LED is blinking blue	Building connection with the NB-IoT network
LED is green for 2 seconds	Connected.

8. Ordering information

All items do have a product code. These codes are on the back side of the product.

Below a list of related products and their product codes:

8.1 Moodbox

Product code	Product name
IB003-006.00	NB-IoT Moodbox White
IB003-007.00	NB-IoT Moodbox Grey

Caring for the environment by recycling.

Do not dispose of the product with residential or commercial waste.
IMBuildings B.V. can take care of the correct way of recycling the product.
For more information contact IMBuildings B.V.

Please recycle product packaging and this document.

Disclaimer

IMBUILDINGS has taken reasonable measures to provide information in this manual that is complete and accurate,however IMBUILDINGS reserves the right to change any information and/or specification without prior notice.

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Notes

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