

**BACHMANN****DESK2 | DESK | DESK RAIL | DESK2 ALU BLACK | POWER FRAME****with iotspot module: LTE-M, GSM, BLE****User Manual**

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## Foreword

Before using iotspot integrated in an BACHMANN connection panel product for the first time, please read through the complete user manual and observe all operating and safety instructions to ensure safe operation. This manual does not describe the use of the BACHMANN connection panel or the sockets or network and media technology modules - only the functionality of the iotspot module.

The information in this document has been compiled to the best of our knowledge. Although regular revision and updating are carried out to ensure that the content is correct, complete and up to date, no guarantee can be given that it is absolutely error-free or complete.

If you have any problems or questions regarding the user manual, please contact our customer service.

### Copyright protection

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All rights reserved. The contents of this manual are protected by copyright. BACHMANN GmbH reserves the right to make changes within this user manual without prior communication.

Assembly instructions for our products can be found on our homepage:

<https://www.bachmann.com/en/downloads/technical-documents/>

### After-sales service



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## Safety symbols



Safety instructions in this user manual are identified by a symbol. The safety instructions are introduced by signal words which express the extent of the hazard.



Extra information. View extra information in designated documents and/or web addresses.



Special instructions. Complying with the special instructions prevents damage to or malfunctioning of the product.

# 1. Risk and security declarations

## 1.2 General safety instructions

The following general safety instructions apply when handling the connection panel product (in addition to the specially listed safety instructions):

- The use of the BACHMANN connection panel product is only permitted in a faultless condition. In the event of any damage, problems or malfunctions, the product must be immediately switched to a de-energized state and the BACHMANN customer service must be contacted.

Ensure that all cables are routed in such a way that they do not present any danger to persons or can be damaged.

Protect cables and connections from liquids. For example, do not place power cords and power supplies near washbasins, bathtubs, toilets or on floors that are cleaned with liquids. Liquids can cause short-circuits, especially if the cable or power supply has been subjected to excessive stress due to improper use. Liquids may also cause gradual corrosion of the power cord connections and/or power supply cord ends. This can eventually lead to overheating.

Do not use cables that show corrosion damage to the plug and/or damage caused by overheating (e.g. deformed plastic parts) to the plug or other components of the cable.

Do not use cables where the electrical contacts at one end show signs of corrosion or overheating or are damaged in any other way.

## 1.3 Residual hazards



Despite the consideration of all safety-relevant conditions and extreme accuracy and conscientiousness in the design and production of all BACHMANN GmbH products, residual hazards may exist.

## 1.4 Liability

The information in this user manual only describes the properties of the BACHMANN connection panel product with iotspot functionality, but without assuring them. All information without guarantee.

The BACHMANN connection panel product with iotspot functionality was developed according to the current state of the art and complies with the currently valid safety and health regulations. However, dangers and risks may arise due to incorrect operation or misuse.

BACHMANN GmbH is not liable for damage to property or personal injury resulting from the following points:

- No intended use of the product
- Failure to follow the operating instructions
- Changes to the product made by persons with inadequate qualifications
- Changes to the product without the express written permission of BACHMANN GmbH have been made
- Improper Use
- Use of the product despite damage or soiling of the product
- Catastrophes, foreign bodies and force majeure

The BACHMANN GmbH is not liable for damages which are directly or indirectly attributable to the delivery, performance or use of these operating instructions.

## 1.5 User requirements

**WARNING!**



Only persons who can be expected to carry out installation, assembly or modification work reliably and faultlessly are permitted to carry out all work. Users must have read and understood the accompanying operating instructions carefully and completely. This manual assumes the following qualifications of the persons listed below for the various tasks (in particular installation or assembly tasks):

- Basic knowledge of electrical engineering - imparted by technical training or relevant professional experience
- Basic mechanical knowledge - imparted through technical training or relevant professional experience

The BACHMANN connection panel with integrated iotspot functionality must be kept away from children.

## 1.6 Safe condition

**WARNING!**



The BACHMANN connection panel product with iotspot functionality is in a safe condition if the following terms are met:

- The connected and installed components are undamaged
- The connected and installed components function and are unchanged
- The connected and installed components are clean and dry
- The connected and installed components do not show any signs of damage or contamination

## 1.7 Work area and environment

**WARNING!**



The BACHMANN connection panel product with iotspot functionality are designed for use in offices and conference rooms (interiors) and are not protected against all environmental influences.

If the components of the BACHMANN connection panel product with iotspot functionality are exposed to certain environmental influences, they can catch fire or explode. Persons can be seriously injured or killed. Property damage can occur.

- Only use the components of the BACHMANN connection panel product with iotspot functionality in dry and closed rooms
- Protect the components of the BACHMANN connection panel product with iotspot functionality from direct sunlight
- Do not expose the components of the BACHMANN connection panel product with iotspot functionality to dripping or splashing water
- Keep the components of the BACHMANN connection panel product with iotspot functionality within the permitted temperature range (see chapter "Technical data")

## 2. Product description

### 2.1 Scope of delivery

The BACHMANN connection panel product or socket strip with integrated iotspot modul functionality.

### 2.2 Intended Use

The BACHMANN connection panel product is intended to be mounted on desks and/ or meeting rooms. The connection panel product is intended for use in dry and closed rooms (protection class IP20). The intended use is stationary supply of electrical voltage (via different socket types and/or network and media supply). Use for offices and similar purposes, excluding construction and installation work. Use only in clean indoor areas at a maximum ambient temperature of 5°C, to/or occasionally 35°C. Do not use in the immediate vicinity of chemical emissions (e.g. oil mist, solder fumes) or dust sources. The product must not be opened and/or modified or extended! A different use than the intended use, as well as the change of the product, can lead to damage of the product, serious material damage and personal injury!

The iotspot functionality will indicate the availability status of these resources in an office environment. The availability status, as indicated by a RGB-LED coloring scheme, is 'communicated' to the product by means of a GSM connection with the cloud computing infrastructure or a Bluetooth connection with the presence sensor(s). The foreseeable use of the iotspot functionality is that of an internet access hub for Bluetooth monitoring devices, i.e. sensors of third-party manufacturers in and outside of an office environment.

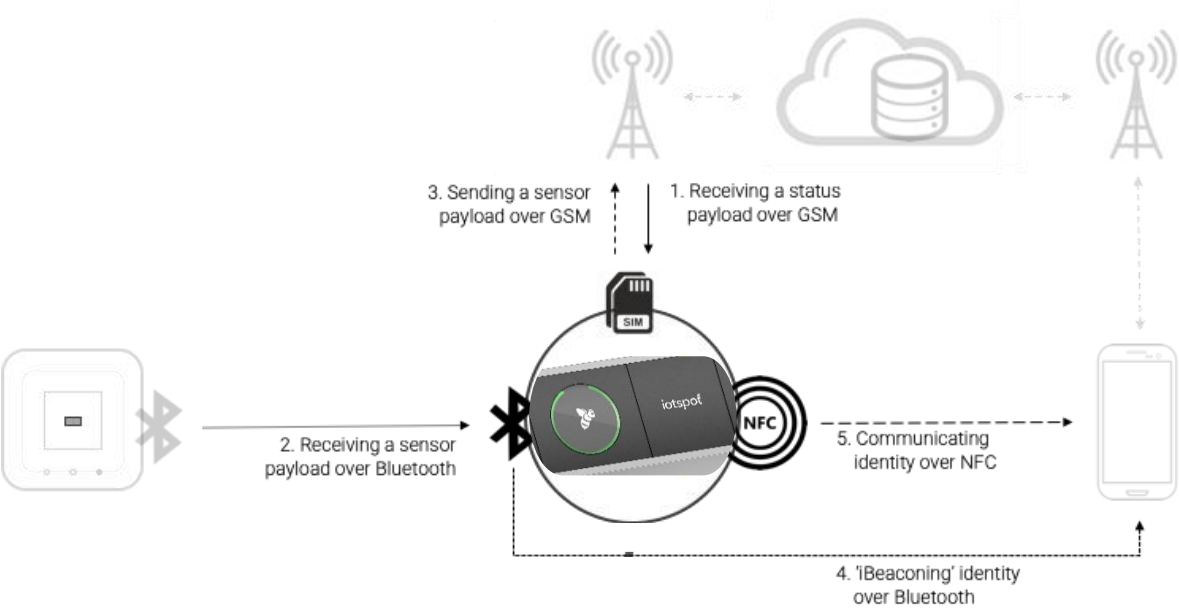
## 3. Operation conditions of the iotspot module

### 3.1 Product functioning - only regarding the iotspot module

The product's function is sixfold:

1. Receiving a 'status' payload over LTE-M or 2G connectivity, as generated in the iotspot back-end software;
2. Receiving a 'sensor' payload over Bluetooth connectivity as generated by the Bluetooth connected sensors;
3. Sending the 'sensor' payload over LTE-M or 2G connectivity to the iotspot back-end software;
4. 'Beaconing' its 'identity' to smartphones that have the iOS or Android app of iotspot active; and
5. Communicating its 'identity' using the passive NFC chip to smartphones that have the iOS or Android app of iotspot active;
6. Displaying the 'status' through a color indication as emitted by eight RGB-LEDs in a semi-circle;

Figure 1 below visualizes the product and its six functions for a better understanding.



**Figure 1. The iotspot module and its six functions explained.** The iotspot module and the three communication components; GSM, Bluetooth and NFC, are depicted in black, while the ancillary devices and infrastructure are shown in light grey.



### 3.2 Technical data BACHMANN connection panel product with iotspot module

#### Environmental conditions

<b>Maximum height</b>	0 - 2000m
<b>Surrounding temperature during mounting and use</b>	5°C – 35°C
<b>Protect from direct sunlight.</b>	
<b>Surrounding temperature during transport and storage</b>	-25°C - 60°C
<b>Relative humidity (non-condensing)</b>	5 – 95%
<b>Protection type</b>	IP20

#### EU Declaration of conformity

BACHMANN hereby declares that this connection panel DESK2 | DESK | DESK RAIL | DESK2 ALU BLACK | POWER FRAME with iotspot module: LTE-M, GSM, BLE is in compliance with the essential requirements and the other relevant provisions of the 2014 /53/EU (Radio Equipment Directive).

A complete CE declaration can be found under:

<https://www.bachmann.com/en/downloads/technical-documents/>

<b>Essential requirement</b>	<b>Directive</b>
Health and safety	EN 62368-1:2014/A11:2017 EN 62311:2008 IEC 60884-1 / DIN VDE 0620-1 (VDE 0620-1):2010-02
Radio frequency safety	ETSI EN 300 328 V2.2.0 (Bluetooth) ETSI EN 301 511 V12.5.1 (2017-03) (GSM900, GSM1800 – 2G) ETSI EN 301 908-13 V11.1.2 (2017-03) (LTE-M)
EMC	ETSI EN 301 489-1 V2.2.1 (2019-03) ETSI EN 301 489-17 V3.2.0 (2017-03) ETSI EN 301 489-52 V1.1.0 (2016-11) ETSI EN 301 489-17 V3.2.0 (2017-03) ETSI EN 303 446-1 V1.1.0 (2017-03)

#### Label Position

The label position of the BACHMANN connection panel product is either on the back or on the bottom of the product.

### 3.3 Technical data iotspot module

Aforementioned communication protocols operate according to the mode and band with associated output power of the table below.

#### Frequency Band and mode of communication protocols

##### **iotspot Module**

Table and room booking system

##### **LED colours**

with 7 RGB LEDs

green, red, blue, orange

##### **Radio frequency bands and max. transmission power**

**LTE-M (Cat M1) 1.4 MHz**

23 dBm

**EGSM 900 MHz**

33 dBm

**EGSM 1.800 MHz**

30 dBm

**Bluetooth 2.4 GHz**

4 dBm

**NFC 13.56 MHz**

Passive

## 4 Commissioning and configure the iotspot module

The iotspot module is configured, using an Android based smartphone app ('iotspot setup-app'). In essence this app allows you to specify and categorize the product to among others your 'logical' office layout, furniture types, desk or room identification.

Once the configuration of the product(s) is finalized, you commission the product(s) by turning it to active in the setup-app.



*Authorization to the setup-app is granted to your organization upon procurement of the product. Please get in touch with your BACHMANN contact person in Indoor Sales.*

### 4.1 Corrective action in case of malfunctioning

If the product is frozen and unresponsive after about 5 minutes, please unplug the connection panel product from the power and re-power the product to restart it.



Any updates on corrective action opportunities can be viewed at the website <https://www.iotspot.co/support>

## 5 Customer Service

In case of troubleshooting or technical problems, please contact our customer service:

### Contact:



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