

BrunataNet GateGPRS with built-in power supply

Installation guide

Edition 1.1

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Brunata a/s is a Danish owned company. We have more than 90 years of experience within developing and producing meters, heat cost allocators, consumption accounts, meter services and latest substations. Today meters are often remotely read with access to the internet. We have a quality control system fulfilling DS/EN ISO 9001 and 14001.

Brunata



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Appendix: BrunataNet List of Components

1 Introduction

A GateGPRS is used for remote reading of the GateReceivers in BrunataNet. The GateGPRS collects data from a GateReceiver and forwards the readings to Brunata's database server over the GSM-net. The GateGPRS can be employed where GSM-net coverage is available and where the GSM-net supports GPRS.

1.1 Important - List of Components

It is important that the service employee/technician fills in the list of components found at the back of this installation guide - incl. ID no. and address - and send it to Brunata. The list of components is the basis for recording the components in WebBill and for locating the GateGPRS-box in question to the place it is installed.

1.2 Text message commands

There are several commands to the GateGPRS, which can be sent by text message. The text message must consist of the following 3 parameters divided by a space:

<Password> <Text message command> <value>

If you leave out <value> GateGPRS will reply with the value it is programmed with.

More than one command can be sent in the same text message, however, the parameter <password> is only necessary in the first line of commands:

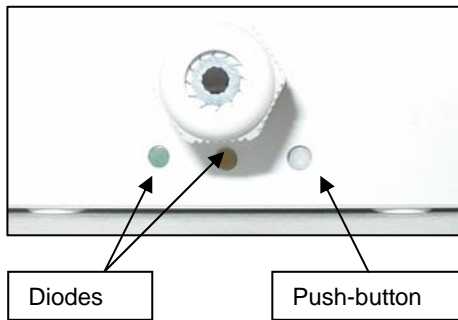
<Password> <Text message command> <value>
<Text message command> <value>
<Text message command> <value>

<Password> has the default setting **dokfaw**.

Text message command	Description
uploadnow	GateGPRS begins to collect new data from the GateReceivers and afterwards sends data to Brunata WebMon via GPRS
reboot	Reboots the GateGPRS
uptime	Minutes the GateGPRS has run
units	A list of GateReceivers which the GateGPRS has found
module_id	Serial number of the GateGPRS
meters	A list of the meters the GateGPRS has found
gprs_apn	Setup parameter determining which APN the GateGPRS uses when transmitting data
gprs_username	
gprs_password	

1.3 Status diodes and on/off button

On the button of GateGPRS there are two status diodes, which show the status of the GateGPRS. To the right of the two status diodes there is a little push-button, which can be activated by a pencil.



Status diodes	Button pressure	Description
Turned off	Short push	If GateGPRS is in sleep mode the green diode will start flashing
	Long push	Turns on the GateGPRS
On	Long push	Turns off the GPRS

Green status diode	Description
Flashing 	Green flashes mean that the GateGPRS is searching for the GSM-net
Single short flash 	Short single flashes indicate that GateGPRS has found the GSM-net
Short double flashes 	Short double flashes indicate that data is transferred via GPRS
Turned off 	The module is either turned off or in sleep mode

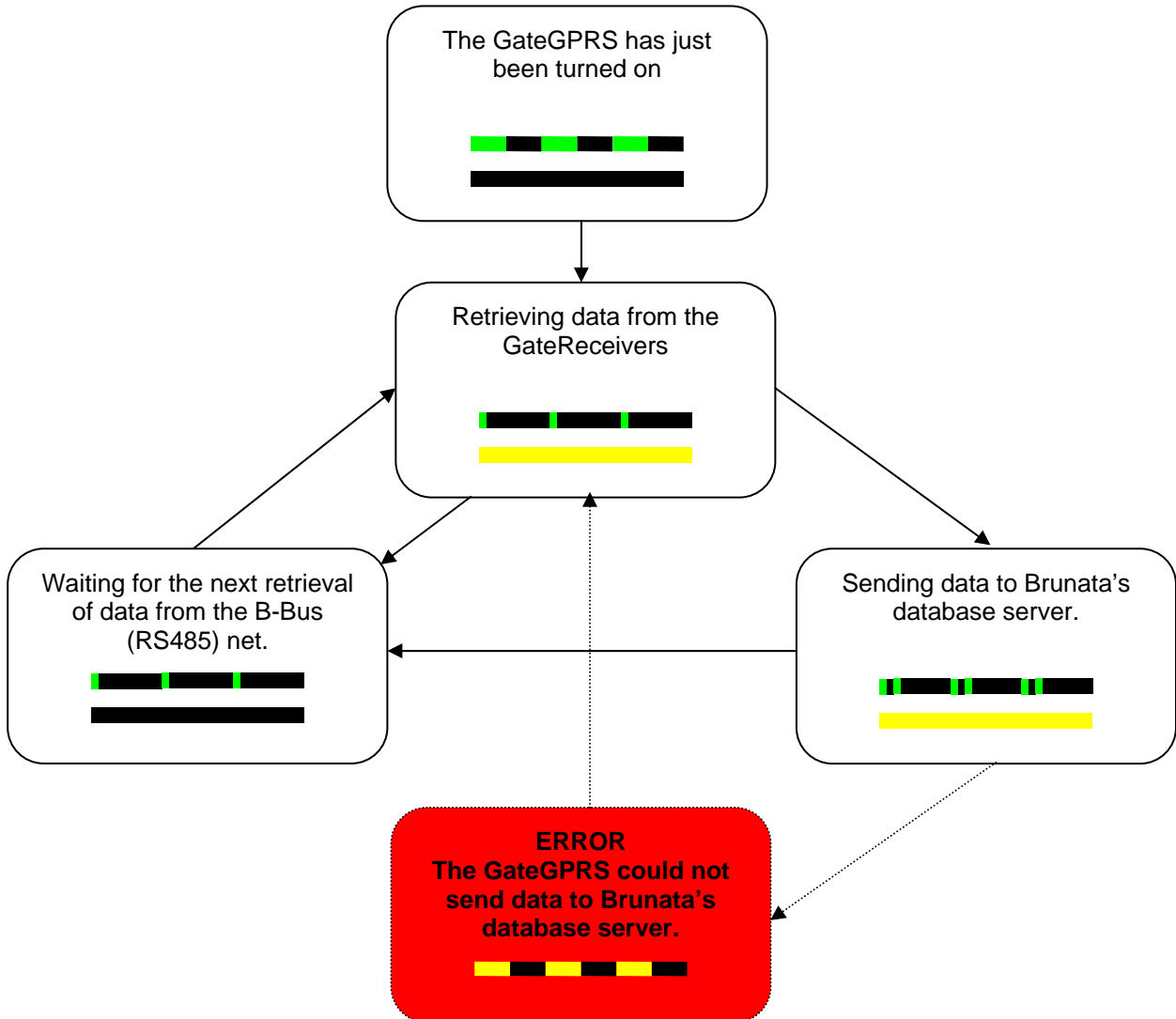
Yellow status-diode	Description
Turned on 	Data is send to the Brunata database server
Turned off 	The module is either turned off, in sleep mode or waiting for the next program run
Flashing 	Has not found any GateReceiver, or it has not been possible to send data to the Brunata database server

After 3 - 5 minutes the GateGPRS will turn off the status diodes, partly to save power and partly to avoid drawing attention to the box if it is installed in a public place. With a short push (less than one sec.) of the button to the right of the status diodes, you can reactivate the diodes, and the status of the GateGPRS will be shown again.

If the status diodes do not turn on by the short push, it means that the GateGPRS is turned off or that no power is supplied to the box.

GateGPRS will automatically start up when power is connected.

1.4 An example of a program flow in GateGPRS



2 SIM card

2.1 Requirements for the SIM card

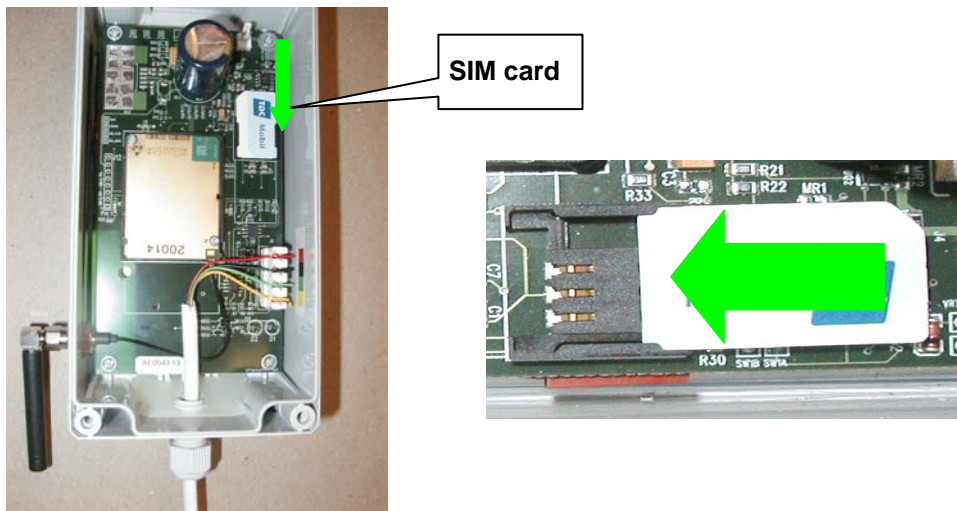
The SIM card must uphold the following standards:
GSM/GPRS/text message. The PIN code must be switched off.

REMEMBER: If using a Danish SIM card abroad, you must make sure that the telephone operator of the country in which the GateGPRS is installed supports GPRS roaming.

2.2 Installation of SIM card

The GateGPRS unit can be ordered with the SIM card installed at delivery. Please check that the card is installed. Brunata can not be held responsible for theft and/or abuse of the SIM card.

If the unit is delivered without a SIM card, the SIM card must be installed before the unit is used. GateGPRS is opened by removing the four screws in the lid. The SIM card is then installed with the "cut-off" corner in the upper left-hand side and the chip facing down towards the print. When the SIM card is installed and GateGPRS is closed correctly, the power is turned on (see paragraph 1.3) If the green diode is flashing, GateGPRS is connected to the GSM-net.



When GateGPRS is on, the APN, log-in and password are set up so they correspond with the operator of the SIM-card. This is done by sending a text message to the GateGPRS. Below is shown an example from the Netherlands:

Text message command:
dokfaw gprs_apn office.vodafone.nl
gprs_username Vodafone
gprs_password Vodafone

Text message reply:
ok

Get GateGPRS to send data to Brunata's database server with the following text message command:

Text message command:
dokfaw uploadnow

Text message reply:
ok

When GateGPRS has sent data to the server, please check that the GateGPRS components are received in WebMon.

3 Installation of GateGPRS

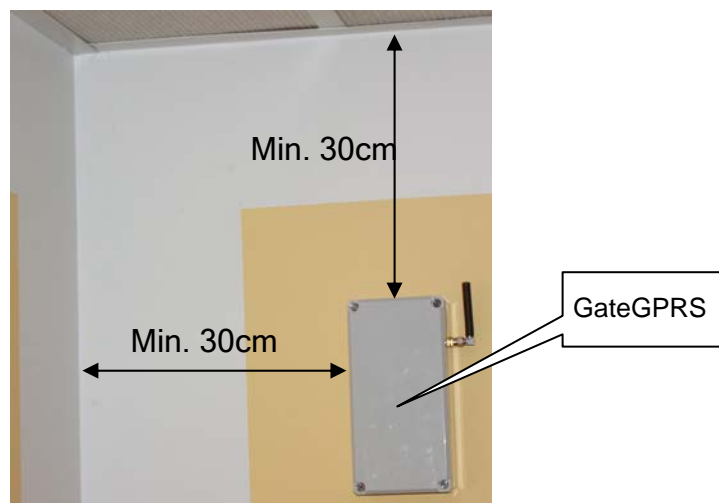
3.1 Power

The GateGPRS is connected to a 230V AC socket. When the power is turned on, the GateGPRS will automatically start up.

3.2 Placement

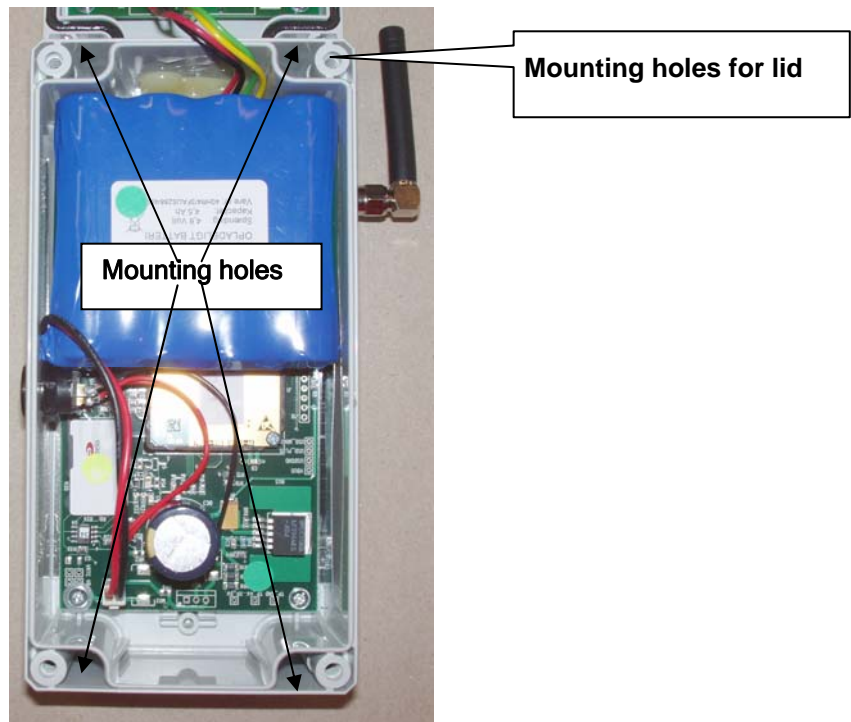
The GateGPRS must be installed at a place with undistorted connection to the GSM-net. This is achieved by observing the following rules:

- The GateGPRS should always be placed as far away from a corner as possible. Never closer than 30 cm. If the GateGPRS is moved from 30 cm to 50 cm away from the corner, there will be a significant improvement of reception conditions. If moved further than 50 cm, the improvement in reception conditions will not be notably better.
- Always install the GateGPRS as high up as possible.
- Never place the GateGPRS in a metal cabinet.
- The GateGPRS should never be placed next to a refrigerator or other cabinets with large metal surfaces, which can block the radio telegrams from the allocators.
- A GateGPRS should not be placed closer than two metres to an allocator. If the GateGPRS is installed closer than two m to a transmitting meter, check that the GateGPRS is receiving signals from the meter.



3.3 Installing GateGPRS on a wall

Under the lid of GateGPRS 4 mounting holes enable the GateGPRS to be installed on a wall.



4 Test and registration of installation

4.1 What does the test consist of?

After the network has been installed, it is tested for correct function. The test consists of two parts:

- Has GateGPRS found its receivers?
- Can GateGPRS send data to Brunata's database?

4.2 Has GateGPRS found all the GateReceivers?

By sending the following text message command to the GateGPRS, you can check whether all GateReceivers are found.

Text message
dokfaw units

Text message reply
4167

4.3 Can GateGPRS send data to the Brunata database?

The power supply is turned off and on again. Check GateGPRS-status diodes, verify their flashing in the correct order as shown in paragraphs 1.3 and 1.4.

If the yellow status diode is flashing at the end of the program flow, GateGPRS could not deliver its meter telegrams to Brunata's database server. This could either be caused by failing GateGPRS connection to its receivers or by failing access to the GPRS-network.

4.4 Registration of components in the network

In order to monitor the network, it is **very important** to record all the components in the network. In the attached form, "BrunataNet List of Components", the ID numbers of the GateGPRS, Brunata GateReceivers as well as their location in the building must be noted. If necessary, the composition of the network can be drawn on the back of the form.

Please hand in the form to Brunata, who will make sure that the component data are entered in WebMon.

5 Technical support

If you have any questions concerning the above, you are more than welcome to contact Brunata's TA Service at:

Tel. +45 7777 7000

Fax +45 7777 7001

E-mail service@brunata.dk

