

# BrunataNet

## GateLAN Bbus/RS485

Installation Guide

Edition 1.0

UK-QB 10.1474 / 18.12.2009

*Brunata is a 100% Danish owned company. We have more than 90 years of experience within developing and producing heat cost allocators, heating accounts and meter service. Our quality system meets DS/EN ISO 9001 and 14001. Read more at [www.brunata.dk](http://www.brunata.dk) or contact us at +45 77 77 70 00*

# Brunata



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## Appendix: BrunataNet Components' List

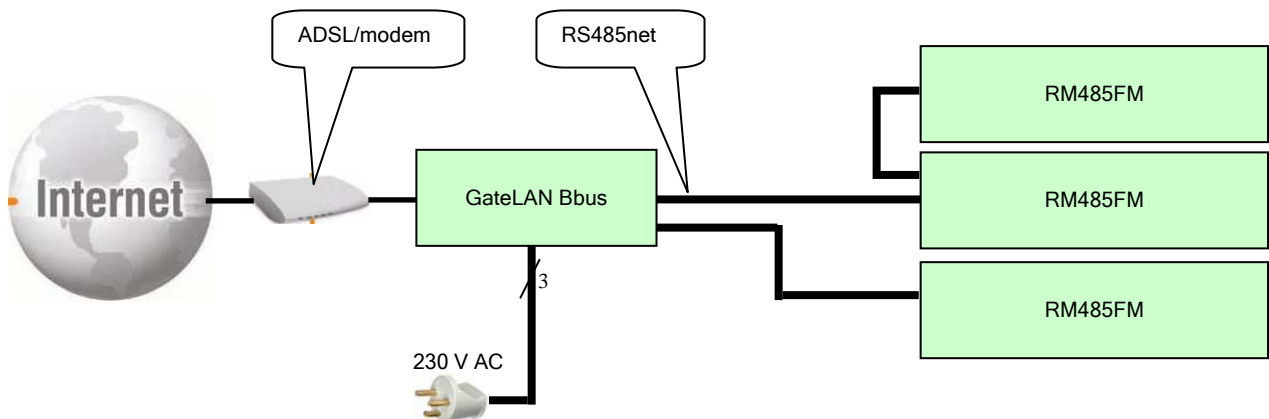
## 1.0 Introduction

### 1.1 General description

The GateLAN Bbus/RS485 is plugged in to 230V and an Ethernet through which access to the internet can be achieved.

Up to 40 receivers can be connected to the GateLAN Bbus/RS485, as long as the total cable length does not exceed 1000m.

In addition, the supply voltage to the last receiver on a network must not drop below 14V.



### 1.2 Tools

To install the cable to the RS485net in the GateLAN Bbus/RS485 a LSA-tong must be used.

Brunata recommends the Krone LSA Plus tong (no. 061040C).



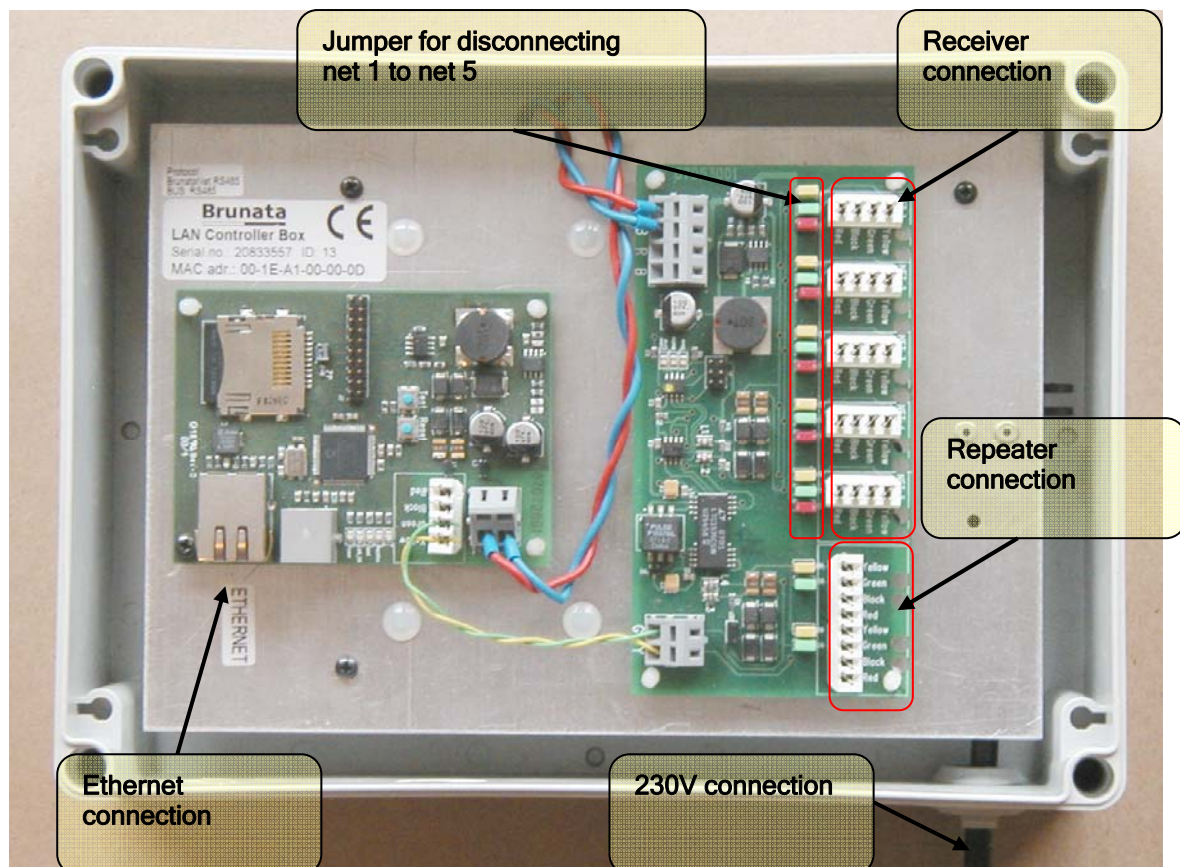
### 1.3 Connecting the GateLAN Bbus/RS485

The local network or the internet is connected to the Ethernet plug.

The receivers are connected to the five LSA terminals.

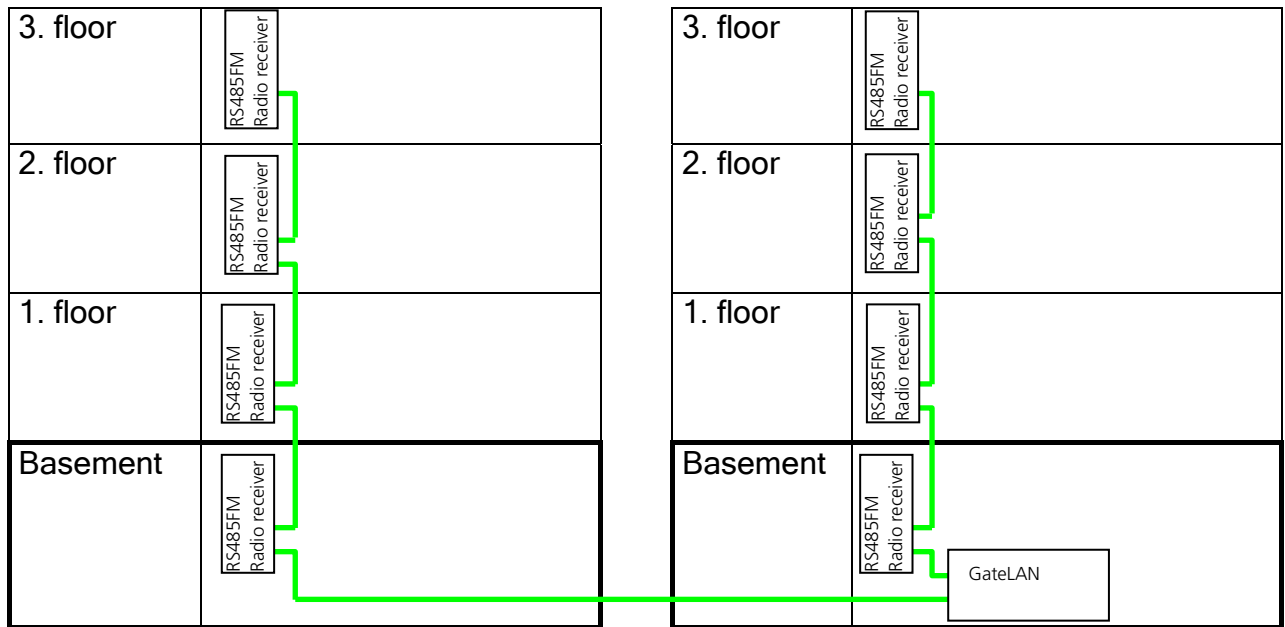
The eight-pole LSA terminal is used to connect repeater boxes.

When all the meters are connected, the GateLAN Bbus/RS485 is plugged into a 230V power point.



## 2.0 An example of a Brunata RS485net with GateLAN Bbus/RS485

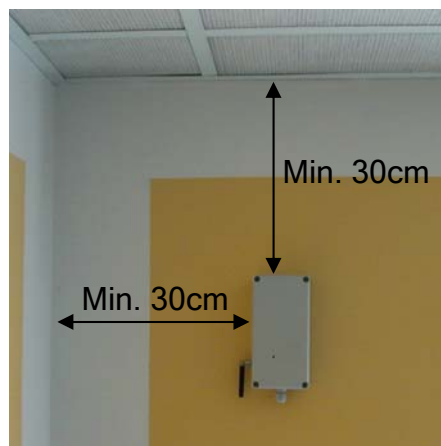
The sketch below shows an example of how a Brunata RS485net with GateLAN Bbus/RS485 can be established in two buildings with three floors.



### 3.0 Placement of the RM485FM radio receivers

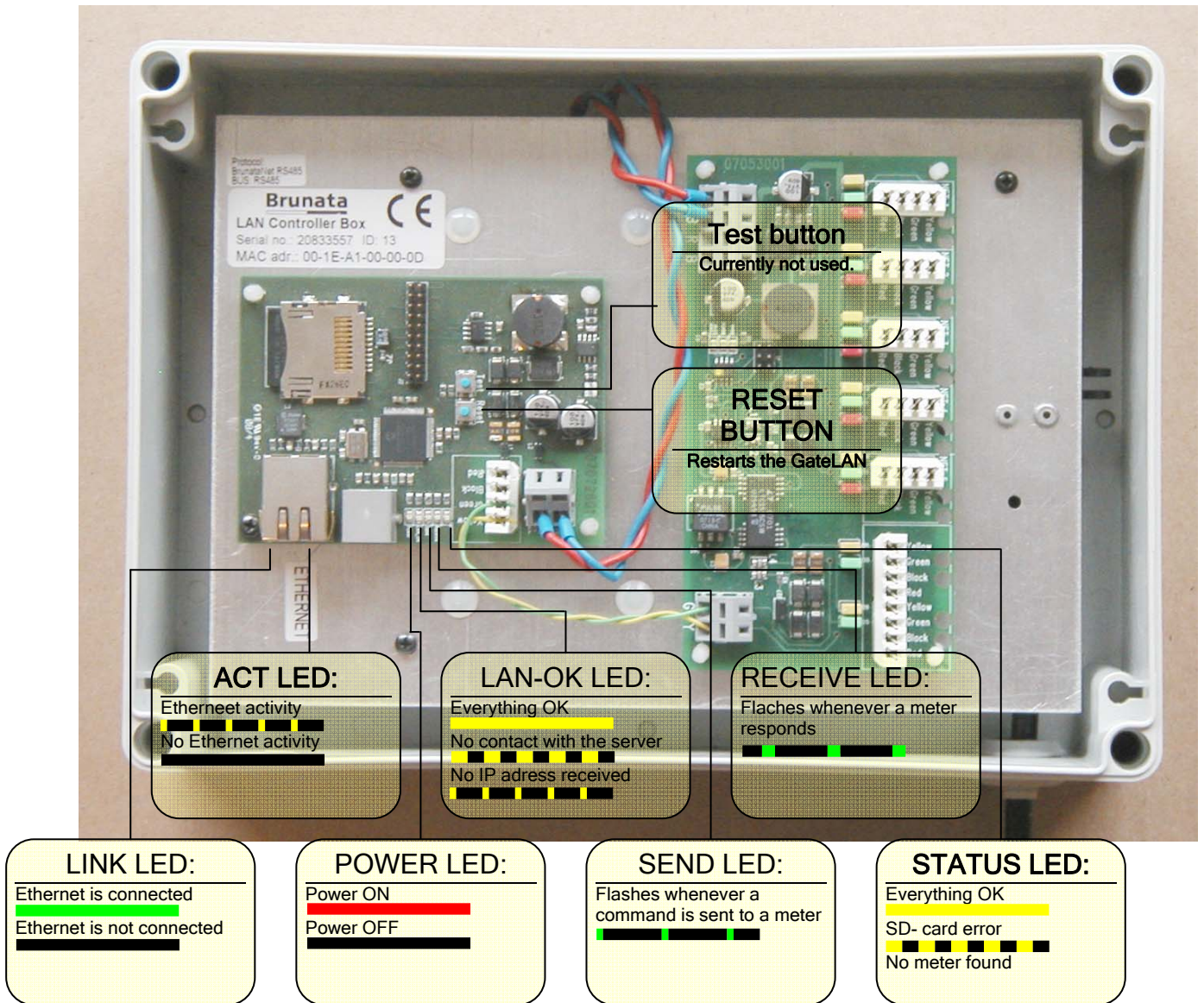
The radio receivers must be placed in a way so that they can receive radio telegrams in the best possible way. This is achieved by observing the following rules:

- The box should always be placed as far away from a corner as possible. Never closer than 30 cm. There will be a significant improvement of reception conditions if the radio receiver is moved from 30 cm to 50 cm away from the corner. If moved further than 50 cm the improvement in reception conditions will not be essentially better.
- Never place it in a closed iron cabinet.
- The GateLan-box should never be placed next to a refrigerator or other cupboards with big iron surfaces, which can block the radio telegrams from the allocator.



This picture shows an example of a GateLan box with a radio receiver.

**4.0 LEDs and buttons on the GateLAN Bbus/RS485:**



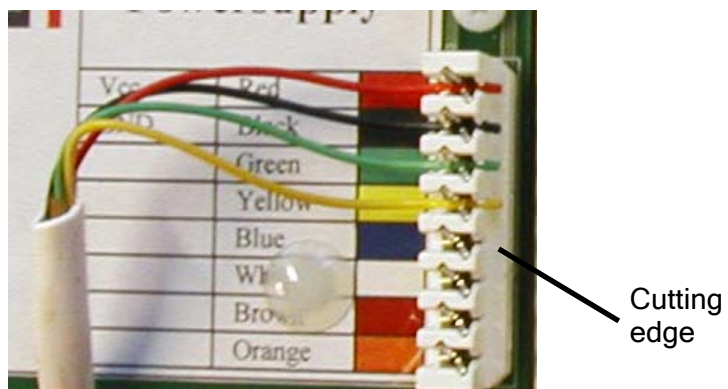
## 5.0 Fitting of cables

The Brunata RS485net cable consists of 4 conductors with the colours: Red, black, green and yellow.

A label showing how to connect the different conductors is attached next to the LSA connector in all the components of the network.



The conductors must be connected with the LSA-connector with conductors turning towards the cutting edge on the LSA-connector.



## 6.0 SMS Text commands to the GateLAN Bbus/RS485

If the GateLAN is correctly connected to the internet and has contact with Brunata's server, when LAN-OK LED is lit constantly, various text commands can be sent to the box.

These SMS text commands are sent to telephone number: **+45 27 80 88 24**

The text command must be constructed as follows:

[password] [ID no. of the box] [command]

The default password is "dokfaw".

An example of a text command is shown below:

### **dokfaw 10 version**

The above text command will enquire about the software version in LDC 10. A possible reply to this text may be:

**10**  
**1.11**

### Standard commands:

Text command	Description
hardboot	Restarts the GateLAN Bbus/RS485 immediately
version	Enquires about the software version in the GateLAN Bbus/RS485
meters	Makes the GateLAN Bbus/RS485 search for meters and within a few minutes replies with meter numbers
units	Writes out a list of the receivers found by the GateLAN Bbus/RS485
status	Writes out various status flags. These describe roughly the same facts as can be read on the LEDs if you have physical access to the GateLAN Bbus/RS485.

## 7.0 Check and register

### 7.1 Which elements does the check contain?

When the network is established, you must check that it works. The check consists of two parts:

- Does the GateLAN Bbus/RS485 have contact with the server at Brunata?
- Did the GateLAN Bbus/RS485 find all the receivers?

### 7.2 Does the GateLAN Bbus/RS485 controller have contact with the server at Brunata?

First check if LAN-OK LED is lit constantly. Then send a text command to the GateLAN Bbus/RS485. If these two checks are successful, the GateLAN Bbus/RS485 can send data to the database at Brunata.

### 7.3 Did the GateLAN Bbus/RS485 find all the receivers?

The following text command is sent to the GateLAN Bbus/RS485 to check if it has found all the receivers included in the network. In the example shown, the GateLAN Bbus/RS485 has ID no. 10.

Text command	Text reply
dokfaw 10 units	10 4167 4105 5623

## 8.0 Registration of components in the network.

In order to monitor the network, it is **very important** to register all the components in the network. The ID numbers of the GateLAN box, the receivers and their location in the building are noted in the form "BrunataNet Component List". A sketch of the composition of the network can be drawn on the back of the form, if required.

The form is passed to your local department, which will make sure that the component data are registered in WebMon.

## 9.0 Technical support

If you have any questions with regard to the points above, please do not hesitate to contact TA Service at:

Tel. +45 7777 7170  
Fax +45 7777 7001  
E-mail [service@brunata.dk](mailto:service@brunata.dk)

