

LANSEN

QUICK INSTALLATION GUIDE

BATTERY REPEATER WITH OPTIONAL USE FOR EXTERNAL
ANTENNA

LAN-WMBUS-R4-B(E)-(LR)-A1/A2-(X)



READ THE INSTRUCTIONS

Read and understand this manual and its safety instructions before using this product. Failure to do so can result in severe injury or death. Follow all instructions to avoid hazards like fire, explosions, or electric shocks.

Only use the product if you have fully read and understood the user manual. Ensure every user reads and follows these instructions before use. Keep safety information for future reference and pass it on to subsequent users. The manufacturer is not liable for damage or injury caused by incorrect handling or non-compliance with safety instructions.

Your safety and the device's proper functioning depend on adhering to these guidelines.

Explanation of symbols



Important information regarding instructions or recommendations for installation of devices.



Indicates a mandatory action to follow.



Warning, risk for bodily harm if handled without care.



The CE symbol is confirmation by Lansen Systems AB that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU and RoHS Directive 2011/65/EU (EU) 2015/863.



This symbol on the product or its packaging means that it should not be disposed of with your other household waste. It is your responsibility to dispose of your waste equipment separately from the municipal waste stream. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.

Important safety information



Warning: Contains Li-SOCl₂ battery. Risk of fire, explosion, and severe burn hazard. Do not recharge, disassemble, heat above 100°C, incinerate or expose contents to water. Do not drop or otherwise physically abuse the battery. Only use batteries specified by Lansen.



Only store, transport, and use the product and any included battery under the conditions described in this user guide.



Do not attempt to alter or repair the device. If you are experiencing malfunction, make sure to contact your place of purchase or visit our website.



Use ESD protection when handling the product with the PCB exposed to prevent potential damage to the electronics.

Disclaimer



Lansen Systems are not responsible for any damage, malfunction, or non-compliance resulting from the use of unauthorized accessories or modifications to this device.

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Lansen Systems AB is not responsible for any errors or omissions in this manual. The information provided is believed to be accurate and reliable, but Lansen Systems AB makes no warranty of any kind, express or implied.

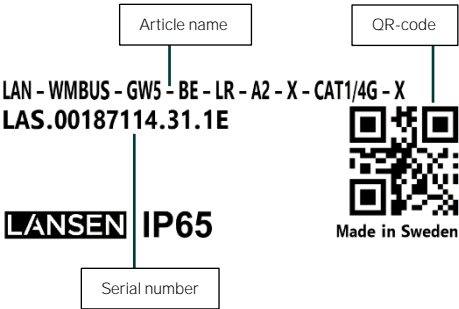
INTRODUCTION

The battery powered wireless M-Bus repeaters from Lansen are highly configurable plug-and-play devices used for extending the range between meters and a collector/gateway. The enclosure is chosen to make the repeater as discrete as possible. The device has a sleek and discrete design with high security and performance.

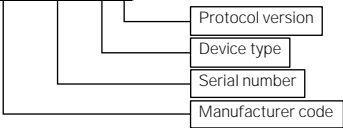
For more information, go to our website: www.lansen.io.

LABEL INFORMATION

The label on the repeater gives useful information about your device, see example below.



Article name: Full article name code of the device.
QR-code: Includes the wM-Bus serial number of the device.
Serial number: Full device information (example above:
LAS.00187114.31.1E)

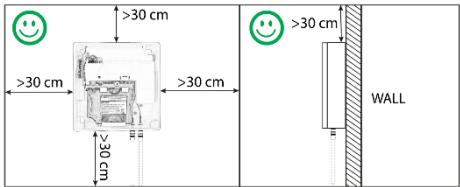


Specifications

Frequency band(s)	wM-Bus: M: 868,000 MHz to 868,600 MHz N: 868,700 MHz to 869,200 MHz
Output power (ERP)	< 14 dBm / < 25 mW
Usage conditions	-20 to 60 °C
Storage conditions	-20 to 60 °C
Transport conditions	-20 to 60 °C
Configurable	Yes, with a Lansen USB dongle. For more information, refer to the configuration manual.
Battery	B: 2x34615 LI-SOCL ² Nominal voltage: 3.6 V Nominal capacity: 38000 mAh BE: 2xER34615+SPC1550/W LI-SOCL ² Nominal voltage: 3.6 V Nominal capacity: 38000 mAh

MOUNTING INSTRUCTIONS

- (A1) It is recommended to install the device indoors to a wall. It can also be installed to a ceiling.
- (A2) It is recommended to install the device upright on a wall, pole, or pipe. It can also be installed to a ceiling.
- It is highly recommended to mount the device as show in the picture below.

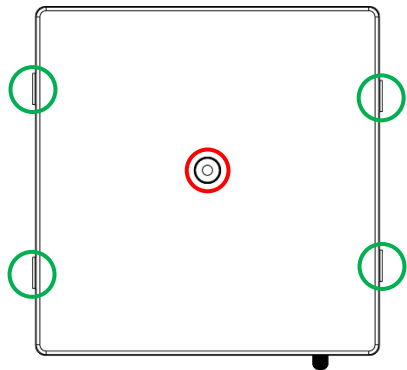


Installing and mounting

Opening the housing:

Needed equipment: Screwdriver with security Torx T20H.

Unscrew the center screw (Torx T20H) and remove the cover by pushing the clips at both sides of the cover.

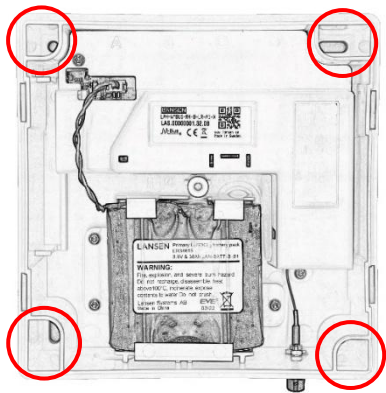


Mounting the device:

There are two mounting options:

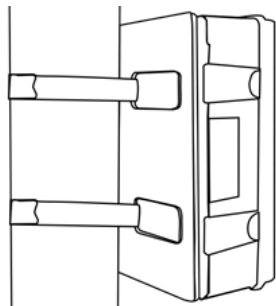
a) Wall mounting:

1. Hold the device where it is going to be mounted.
2. Mark the holes with a pencil.
3. Pre-drill if necessary and mount the device by using four screws suited for the wall material (not included).
4. Continue to Device startup.



b) Pole mounting:

Install the Lansen pole mounting kit (art. nr LAN-910-0066) on the back of the device. Pull the mounting straps through the holes. Wrap the straps around a pole or pipe. Tighten the straps until the device is securely mounted.



Device startup:

Connect the battery cable to the battery connector (green circle). Three beeps will be heard during startup and a red LED seen on the PCB (red circle) will start blinking once for every packet the repeater retransmits.

Note: If more beeps are heard a few seconds (~5s) after the first beeps, this indicates a problem with the device. Please contact place of purchase.

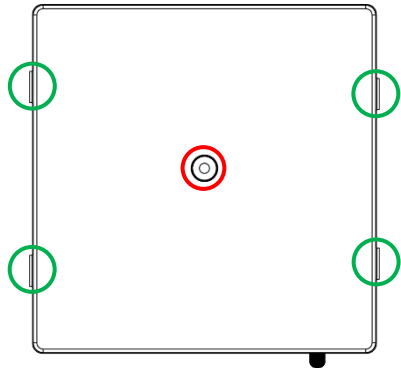


Closing the housing:

Needed equipment:

Screwdriver with security Torx T20H.

1. Attach the cover and make sure the clips are firmly attached.
2. Mount the center screw.



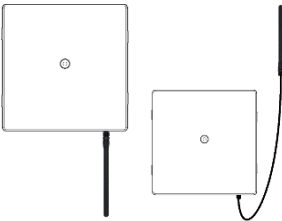
Installing an antenna:

Some variants of this device support an external antenna. To install, attach the antenna directly to the SMA connector (left picture below) or with an antenna cable (right picture below).

If your device does not support an antenna, installation is now complete.



Always make sure that the output power is within the regulatory limits of your region when using an external antenna. The output gain can be adjusted through the Lansen Configurator tool. This parameter can be found under the “Basic” tab.



Lansen Systems AB
Rörkullsvägen 7
SE-302 41 Halmstad, Sweden
+46 35 50 520
www.lansen.io

SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Lansen Systems AB declares that the radio equipment type defined by article name on the sticker is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.lansen.io/DOC

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