Filter by ID uses wildcards. Only IDs in the air that match to one of the up to 8 filter values will be transmitted. For example, setting filter to "12FFFFFF" will apply for all devices, which serial number starts with "12".

All these settings can be made only through radio interface of WMBRP and special software. User should also have an USB radio transceiver (like WMR-IoT) in order to communicate with WMBRP through the air. Each repeater have unique ID number, on which it communicates with setting software. Software is made by Gineers.

3. Replacing the batteries

To replace the batteries do the following:

1) Open WMBRP box - 4 screws at the back of enclosure

2) remove old batteries and place new ones. Batteries should be non-chargeable 1.5V batteries, size D. We use Duracell LR20

5. Warranty

The warranty of the device is limited to 2 years from the date of sale. If the device shows any defect or malfunctions during that period, the manufacturer is obligated to repair the device in its own service for manufacturer's expense, or, if the repair is impossible, to replace the device with new one. The transportation costs to the manufacturer's service are due to the client. The warranty voids if this manual' instructions are not met, warranty seals are removed or the device was opened by unauthorized by the manufacturer personnel.

Date of sale:..... Signature:.....

6. The package contains

- WMBRP-bat - 1 pc.
- 868MHz RF 1/4 antenna, external
- Instruction manual - 1 pc.

7. Manufacturer

Gineers Ltd.
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Wireless m-bus repeater **WMBRP-bat** **WM-BUS Series**

Instruction manual

WMBRP is a wireless m-bus repeater, intended to re-transmit data from various devices, working in modes T, S or C according to wireless m-bus standard (EN13757-4). WMBRP has the following main features and characteristics:

- radio interface in 868MHz range for communicating with external device (computer, communication device/controller, etc.)
- quarter-wave antenna with centre frequency 868MHz
- battery powered, 4 batteries x 1.5V/size A

1. General technical data

RF band	– 868 - 870 MHz
Wireless m-bus modes	- **T, S or C**
power supply	– 3.0 - 3.6Vdc
max. power consumption	– < 0.1W
ambient temperature, operating	– -20÷+50 °C
ambient temperature, storage	– -50÷+85 °C
air humidity, operating & storage	– 40÷90 %
dimensions (L/W/H)	– 168/119/60 mm (without antenna)
protection class	- IP65
weight	– 0.900 kg with batteries

2. WMBRP operation

WMBRP starts work immediately after power supply is plugged in. To save batteries device is following algorithm:

- for some period it works in **Receive mode**. This means that each received telegram is saved in internal RAM memory and re-transmitted;
- when this period passes - device starts to work only in **Transmit mode**. This means that it starts continuously to transmit all saved telegrams in RAM memory.

This repeater can memorize and re-transmit up to 256 slave meters. When memory is filled with 256 different telegrams - no new meters are added for repeating. So, if the user is in an area with many wM-bus meters it is a good idea to use smart capabilities of WMBRP repeater (look further below).

By default device accepts, saves and re-translates all valid wireless m-bus telegrams in the air without delay. WMBRP does not transform in any kind received telegrams before re-transmitting them, except setting "repeat" bit in status byte of the telegram. This is due to EN 13757 standard and is necessary in order all other devices to know this telegram is repeated.

If the user wants to make more sophisticated settings of WMBRP then the following can be done:

- filter by Mediums can be set
- filter by Manufacturer can be set
- filter by ID can be set