



# LOKASET R

WIRELESS TANK FULL ALARM

Installation and  
Operation Instructions

D18067Ae



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## 1. Lokaset R – Introduction

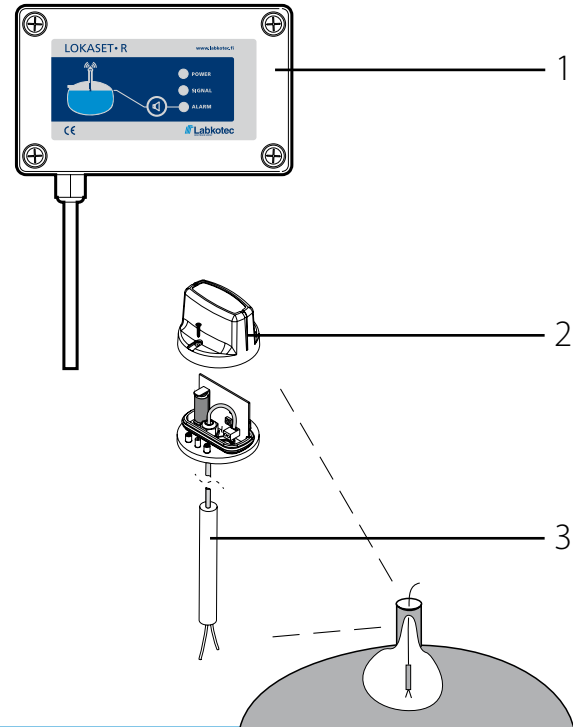
Lokaset R is designed for use as a high level alarm in liquid tanks. It can be used for instance to indicate that a closed septic tank is full. Lokaset R is equipped with visual and acoustic alarm indicators as well as an alarm relay.

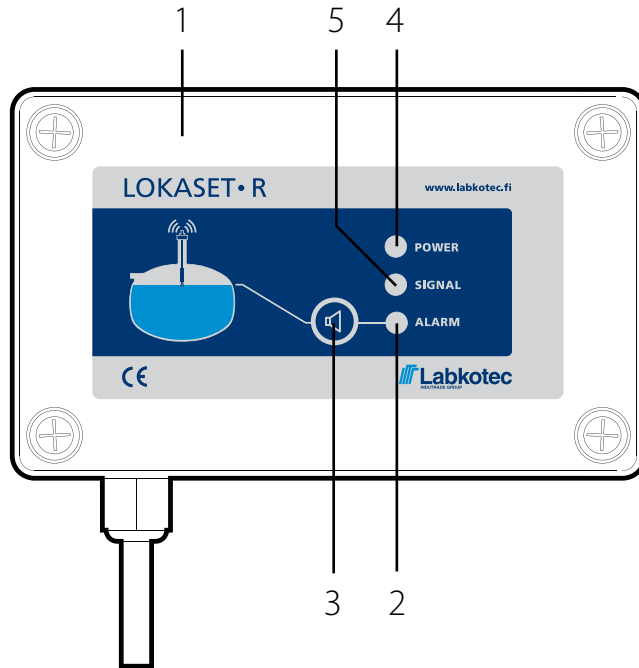
The Lokaset R device consists of a central unit (1), transmitter (2) and a probe (3). The central unit is used for controlling and monitoring device operation. The enclosed transmitter transmits the alarm signal wirelessly from the probe to the central unit. Lokaset R can be installed in new and existing tanks without excavation works.

Similarly to many Labkotec products, also Lokaset R can be connected to the versatile and easy-to-use LabkoNet system enabling automated tank emptying.

Keep these Operating Instructions near the central unit. To view these Operating Instructions in electronic form, please visit [www.labkotec.fi](http://www.labkotec.fi).

Thank you for choosing reliable Labkotec technology.





## 2. Lokaset R – Operation

Lokaset R is designed for use as a tank full alarm for septic tanks. The principle of operation is that when the probe comes into contact with liquid, the transmitter transmits a signal to the Lokaset R central unit. The signal is sent every 10 minutes and the alarm is activated by two consecutive notes from the probe. The relay will de-energize in case of an alarm.

The central unit (1) signals the alarm with a buzzer sound and an alarm indicator light (2). The buzzer is silenced by the alarm reset button (3). The alarm mode can be deactivated by emptying the tank. The probe should be installed in the tank at the height of the liquid alarm level.

The central unit is plugged to the mains (230 V). When the power is connected, the green power light (4) and the radio signal indicator (5) are on. The transmitter is battery-powered. The battery is supplied with the device. In normal use, the battery life is at least 10 years. The central unit signals an alarm when the transmitter is not powered or the battery needs to be replaced.

The Lokaset R probe (SET/LV) is not suitable for measuring explosive or corrosive liquids.

### 3. Lokaset R – Installation

The Lokaset R central unit (Figure 1) is installed in a dry indoor location. A good installation location enables easy reading and control of the device. Do not cover the central unit as this may interfere with signal reception from the transmitter. The Lokaset R central unit is mounted on a wall with screws through the holes at the bottom of the device. The lid of the housing must be opened for installation. The device is plugged to the 230 V mains via the power cord.

Operation of the probe and the transmitter should be tested during installation in order to ensure that the radio signal can travel freely. Activate the transmitter test mode (see Service instructions, p. 9). Immerse the measuring head momentarily in water. If the central unit is operational, the blue light (SIGNAL) should turn off every 8 seconds and the alarm should be signalled within 8 seconds.

Installation of the Lokaset R transmitter is illustrated on the adjacent page. The transmitter is installed on the cover (1) of the tank's outlet pipe using the provided plate screws (2); 4 pcs, 2.9–3 x 25 mm.

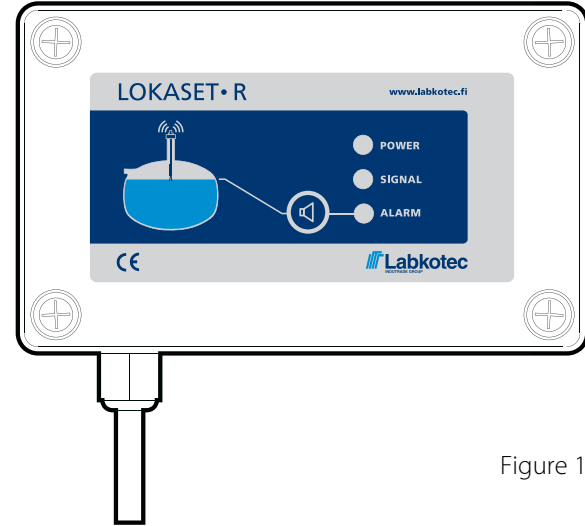
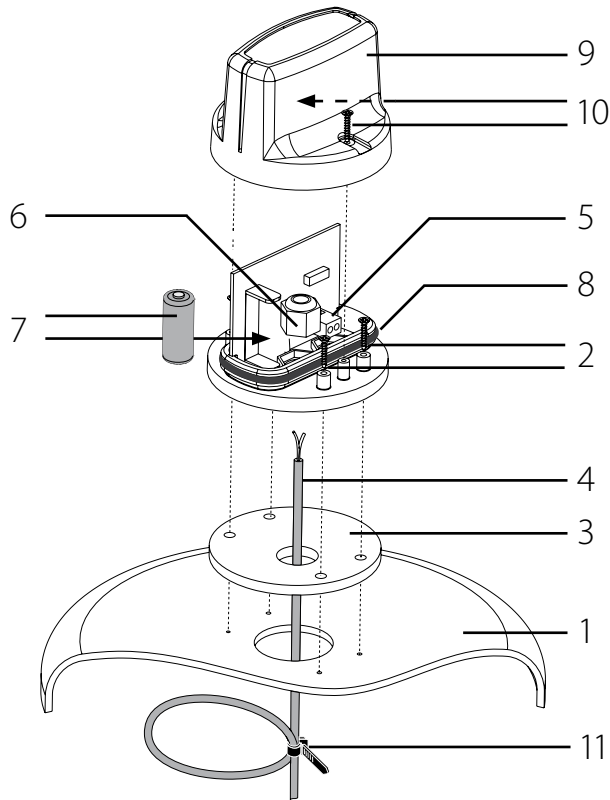


Figure 1.

Place the rubber gasket (3) between the transmitter and the cover. The cover of the transmitter must be opened for installation. Make a lead-through for the cable (4) or for the entire probe in the cover of the outlet pipe.



Connect the probe cable conductors to the screw terminals (5) on the transmitter circuit board. The polarity of the cable connection has no significance to device operation. Tighten the probe cable gland (6). Install a cable tie above the cable gland as a cable clamp. Place the supplied battery CR123A in the battery compartment (7) with the positive pole (+) facing upward. Correct installation of the probe cable and battery is illustrated on page 9.

Ensure that the tightening O-ring (8),  $\varnothing 69.5 \times 3.0$  mm NBR70, is seated properly in the groove. Close the protective cover (9) with the supplied stainless steel screws (10); 2 pcs, 3 x 16 mm.

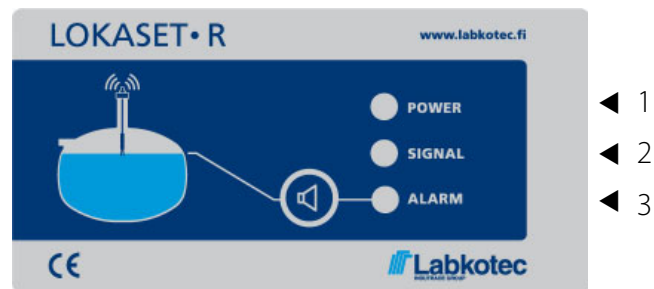
Note! Proper seating of the O-ring and tightness of the cable gland are important in ensuring the tightness of the transmitter enclosure. If the cover cannot be properly secured, ensure that the O-ring is installed correctly.

The Lokaset R transmitter is supplied with a 3 metre cable. The height of the probe may be adjusted using the provided cable tie. Make a loop in the probe cable. Secure the loop with the cable tie (11). This facilitates height adjustment of the probe. Do not leave the probe in the tank during vacuum disposal. Do not secure the probe cable to tank walls.

## 4. Lokaset R – Operating Mode

The Lokaset R central unit has three indicator lights and one button. The green light (POWER) is the power indicator, the blue light (SIGNAL) the wireless transmission indicator and the red light (ALARM) the alarm indicator. The button is used for resetting the buzzer alarm.

The Lokaset R transmitter transmits a signal to the central unit every 10 minutes. The central unit interprets whether the probe is in the air (normal mode), in water or damaged (alarm mode). When the unit signals a tank full alarm, the red light is on. If there is a malfunction, the red light flashes. In case of an alarm or fault, the relay is de-energized (closing poles 1 and 2).



### 1. GREEN

### 2. BLUE

### 3. RED

●	●	○	Normal operation mode	
●	●	●	Alarm > Buzzer signal > Tank full	Reset the buzzer > Arrange disposal
●	●	◐	Malfunction > Probe failure	Check probe connection
●	◐	◐	Malfunction > Communication failure	Check transmitter operation
◐	◐	◐	Central unit cannot recognise transmitter	Pair devices > p. 10
○	○	○	No power	Connect the device to the mains

- On
- ◐ Flashes
- Off

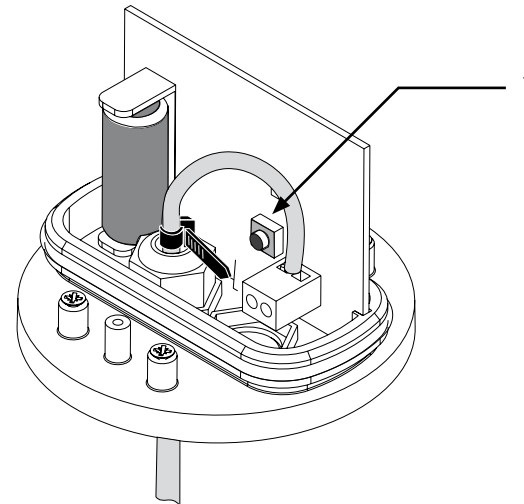


## 5. Lokaset R – Maintenance and Repairs

The best way to maintain proper operation of the Lokaset R device is to ensure that the probe is clean and that the radio communication between the transmitter and the central unit is unobstructed. All barriers, such as leaves, debris, snow, ice or vehicles may interfere with the reception of the radio signal. If the battery ceases to discharge power, the central unit will signal an alarm. The easiest way to clean the Lokaset R probe is during tank emptying. The probe may be cleaned using running water.

Operation of the Lokaset R device can be checked in conjunction with maintenance by activating the transmitter test mode. Activate the test mode by pushing the function button (1) on the transmitter. When the test mode is activated, the blue indicator (SIGNAL) of the central unit flashes every 8 seconds during test transmission. The device returns to the normal operating mode after running the test mode for 5 minutes.

The Lokaset R central unit does not include serviceable parts. In the event of damage, please contact the supplier. The power cord of the central unit may only be replaced by the device manufacturer or an authorised service organization.



The Lokaset R central unit and transmitter form a device pair. Any subsequent spare part deliveries require re-pairing.

Pair the devices by simultaneously pressing the alarm reset button and powering the central unit. All lights on the central unit will flash, indicating that the devices are being paired.

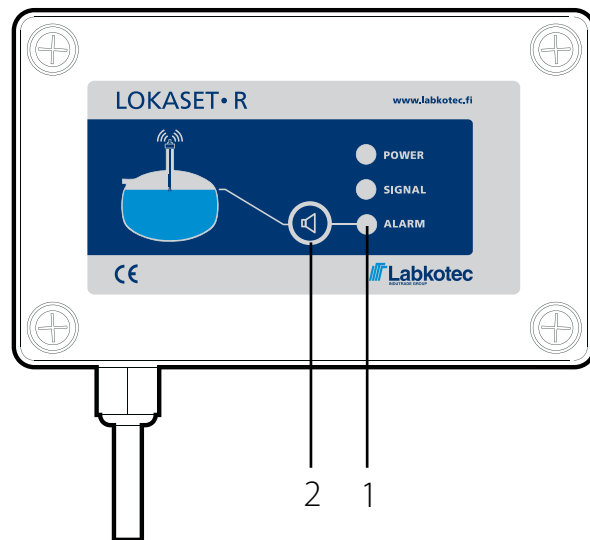
Press the function button (p. 9) on the Lokaset R transmitter. The green light (POWER) and red light (ALARM) are on and the blue light (SIGNAL) flashes. Complete the process by pressing the central unit reset button again. The blue light (SIGNAL) remains on and flashes every 8 seconds to indicate the test mode. The Lokaset R central unit and transmitter are now paired. The device returns to the normal operating mode after 5 minutes.

## 6. Lokaset R – Alarms

### Tank full alarm:

#### Red light (1) is on (continuous buzzer sound)

- a) Reset the alarm (2)
- b) Arrange tank disposal



## 7. Lokaset R – Technical Specifications

<b>Central Unit</b>	
Type/model	Lokaset R Receiver
Manufacturer	Labkotec Oy, Myllyhaantie 6, 33960 Pirkkala, Finland
Supply voltage	230 VAC, 50/60 Hz, 1 VA
Operation method	Wireless receiver, 433 MHz
Relay output	De-energised on alarm, potential-free switching contacts ( $\mu$ ). Max. connection values: 250 V / 4 A / 100 VA
Dimensions: hxwx d	35 x 130 x 80 mm
Installation and operation class	Class II, Indoor use only
Operation	Green, blue and red indicator light, buzzer
Approvals	R&TTE approval, CE Marking

<b>Transmitter</b>	
Type/model	Lokaset R Transmitter
Manufacturer	Labkotec Oy, Myllyhaantie 6, 33960 Pirkkala, Finland
Supply voltage	3 V battery, CR 123A
Operation method	Wireless transmitter, 433 MHz
Dimensions: h x $\emptyset$	75 x 95 mm
Operating radius	150 m, max. transmission range 650 m
Installation and operation class	Class III, indoor and outdoor use, ambient temperature -30 ... +60°C
Protection class	IP 67
Approvals	R&TTE approval, CE Marking

<b>Probe</b>	
Type/model	SET/LV
Operation method	Conductivity-operated

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