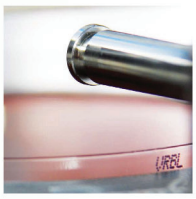
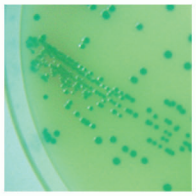
Quick Start Guide





Radio transmitter

LABGUARD3D

BIOMÉRIEUX

bioMérieux SA
69280 Marcy l'Étoile/France
RCS Lyon 673 620 399
Tel: + 33 (0)4 78 87 20 00
Fax: + 33 (0)4 78 87 20 90

www.biomerieux.com

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Document history

VERSION	DATE	MODIFICATIONS
A	05/11/2013	Creation

User manual - Pictograms

	Note
	Equipment optimization tip
	Prohibited action notice
	Noteworthy point warning
	Danger or potential risk warning
	Reminder of the pre-requisites for implementation of the next instructions

Labguard™ is one of bioMérieux's registered trademarks.

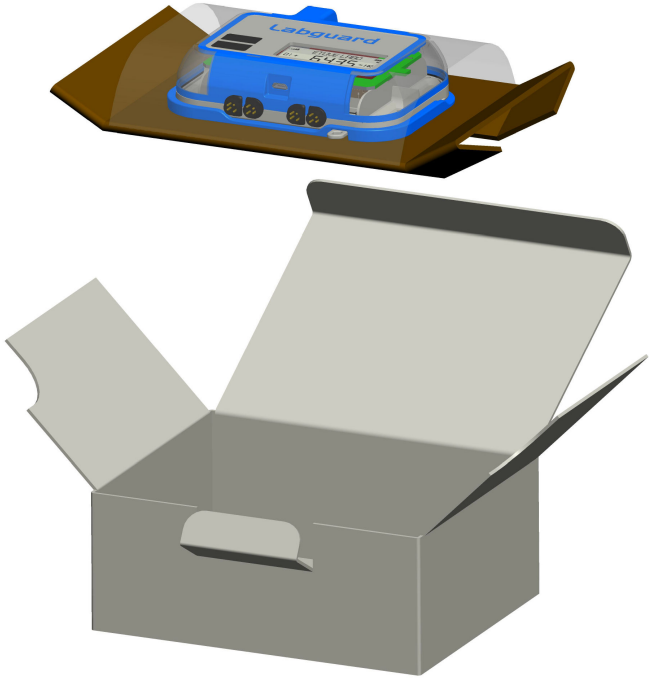
The information and graphs contained in this manual are not binding. bioMérieux therefore reserves the right to implement changes to the document without prior notice.

bioMérieux will not approve any modifications whatsoever to the equipment implemented by the user. bioMérieux shall under no circumstance be held liable for any direct or consequential injury or damage whatsoever suffered by the user or by any third party, as a result of modifications to the equipment.

- This equipment is for professional use only.
- Users are required to read all the accompanying documents, including the statutory information, before using the equipment.

Contents

1 Unpacking the device



Check that the device has not been damaged during transport. Then check that all the accessories listed below are present.

Transmitter
• Unit • Unit support

2

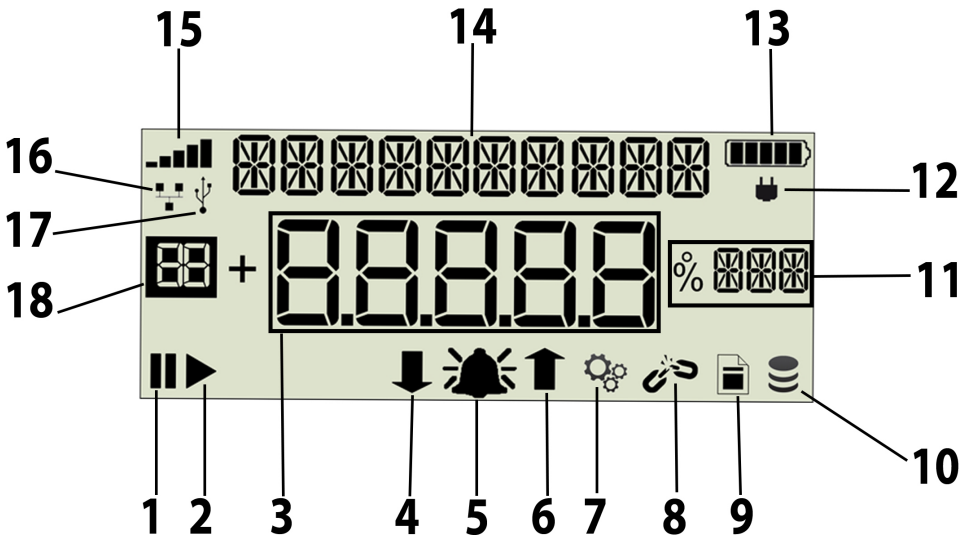
Learning about the equipment

Labguard 3D™ equipment

With Labguard 3D™ equipment, you can:

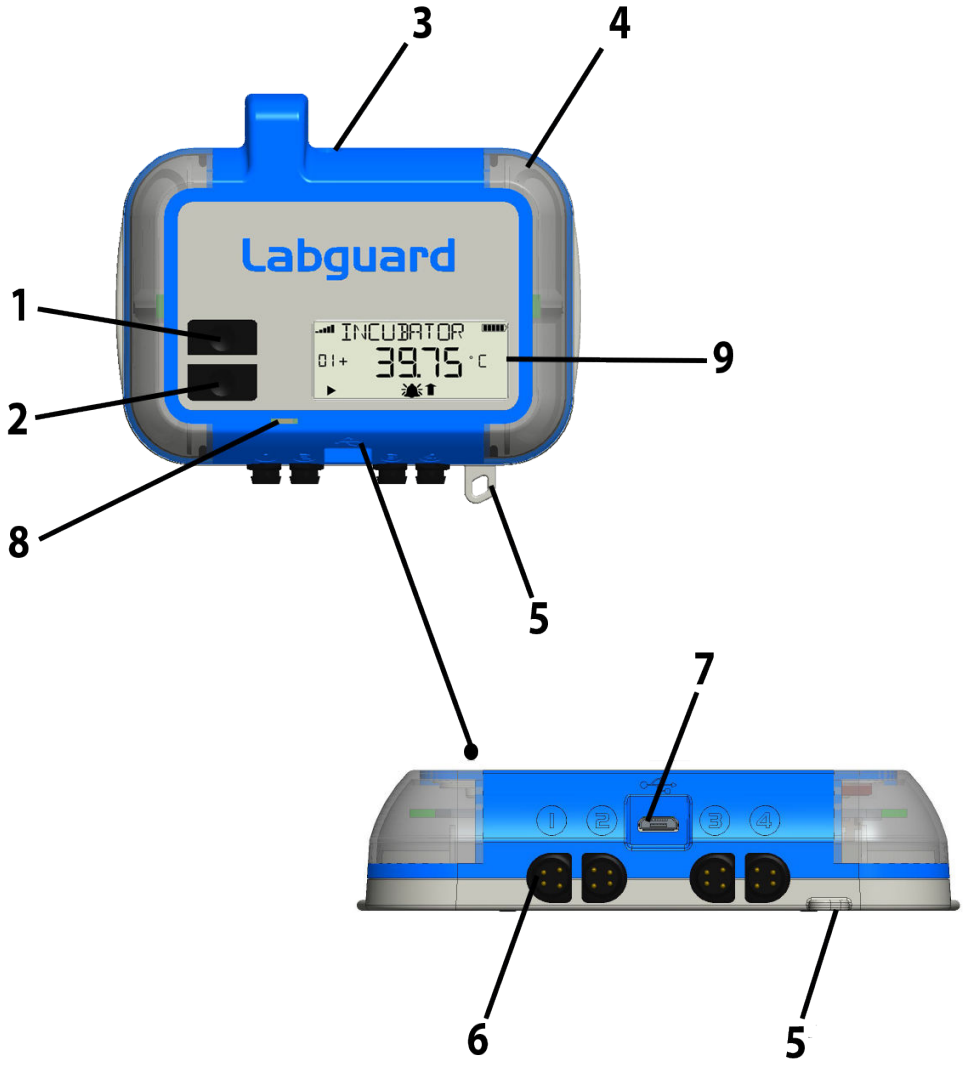
- Simultaneously measure the different physical parameters of the laboratory (temperature, humidity, CO2).
- Provide alerts with visual alarms in real time in case of anomalies.
- Save and transfer data and alarms to the Labguard® software.

The screen



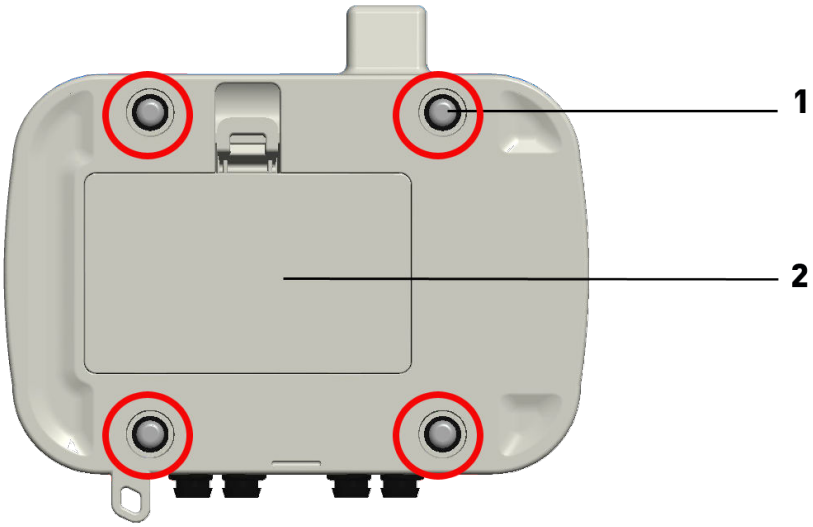
1	Acquisition paused
2	Acquisition in progress
3	Value measured
4	Lower threshold alarm
5	Time threshold alarm
6	High threshold alarm
7	N/A
8	Sensor absent
9	Certificate expired
10	Memory full
11	Measurement unit
12	Device powered by mains supply
13	Battery level
14	Channel name
15	Radio signal power
16	Device Ethernet connected
17	Device USB connected
18	Number of sensor connector

Front



1	ON/OFF button
2	Multi-function button
3	Alarm signaled
4	Alarm indicator
5	Ring for padlock
6	Sensor connector
7	MicroUSB connector
8	Status indicator
9	Screen

Rear

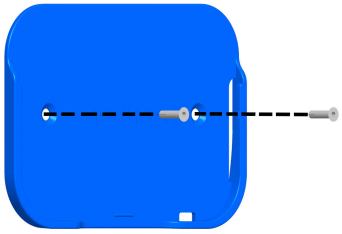


1	4 screws
2	Battery compartment

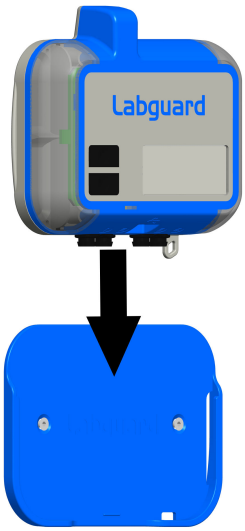
3 Installing the device

The device must be placed in a vertical position in order to avoid any interference.

1. Fix the transmitter support to the wall or to the unit to be monitored using the four screws or adhesive strips at the rear of the support.



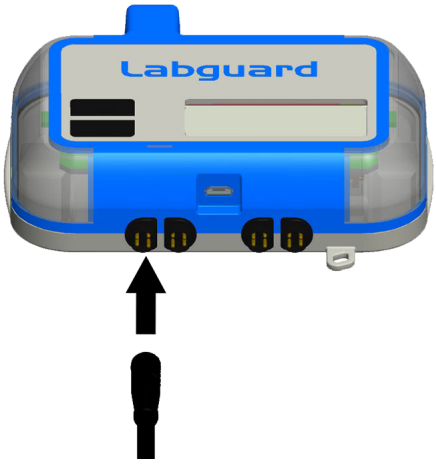
2. Slide the device into the support.



In the case where the device is installed on a metal surface, make sure the antenna extends beyond the surface to improve radio performance.

3. For greater security, you can add a padlock.

4. Connect the sensors.



5. If you wish, connect the device directly to the mains power supply using the microUSB connector.

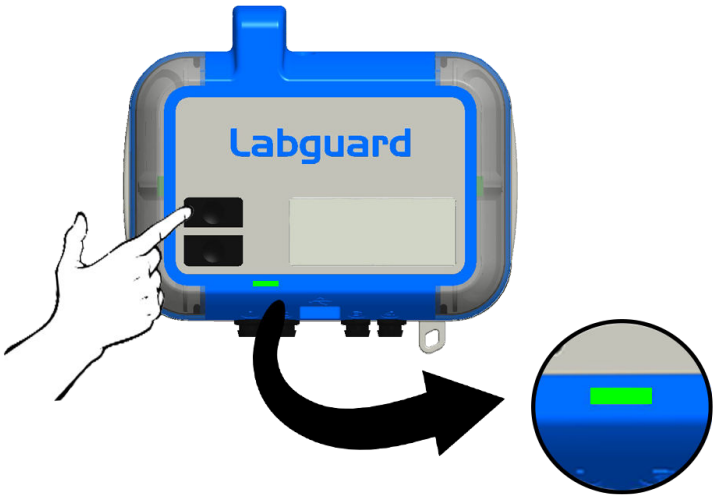
4

Switching the equipment on / off

Turning the device on

To turn the device on, press and hold the ON/OFF button for 5 seconds.

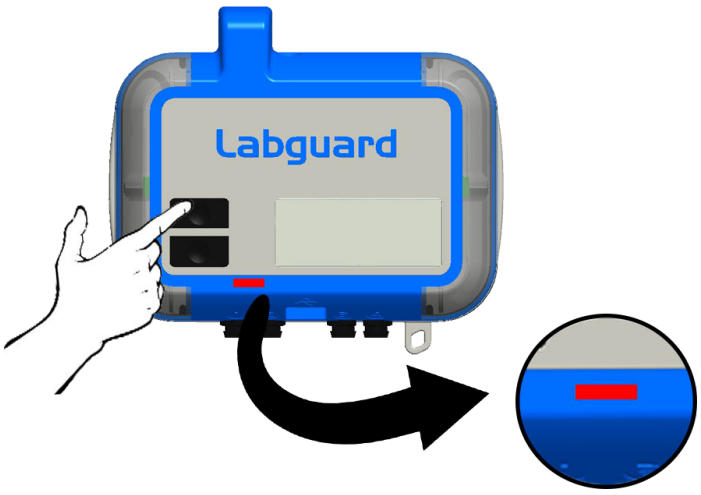
The status light turns green.



Turning the device off

To turn the device off, press and hold the ON/OFF button for 5 seconds.

The status light turns red.



Managing the sensors

Detecting a sensor

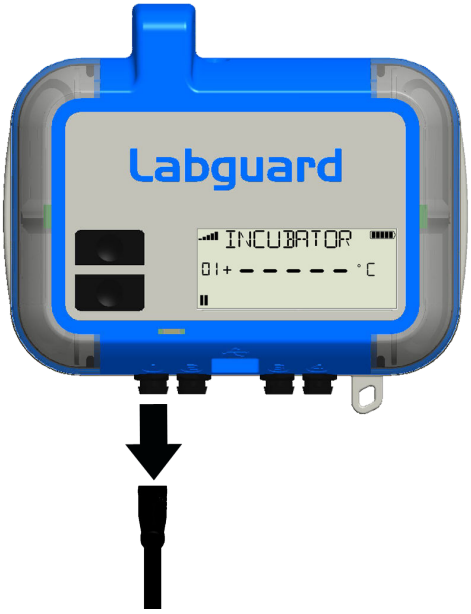
You have connected a sensor to the device.

1. Press the multi-function button.

2. The channel you have just connected is displayed.

Validating disconnection of a sensor

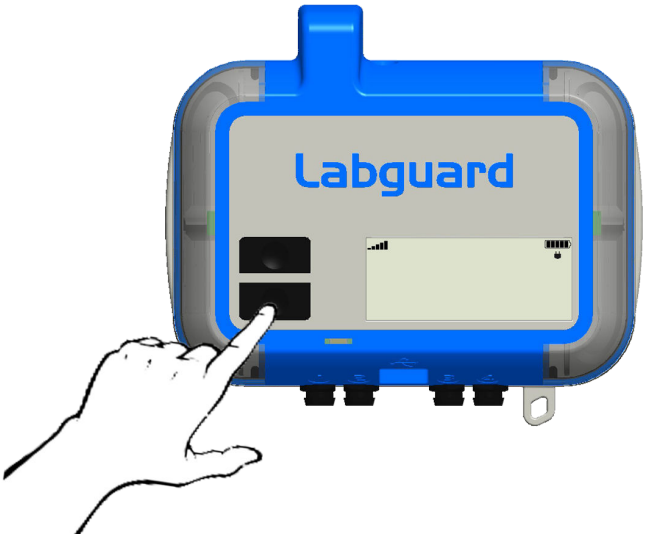
1. Disconnect the sensor.
This screen is displayed:



2. To validate disconnection, press the multi-function button.

If another sensor is connected, the screen displays its status.

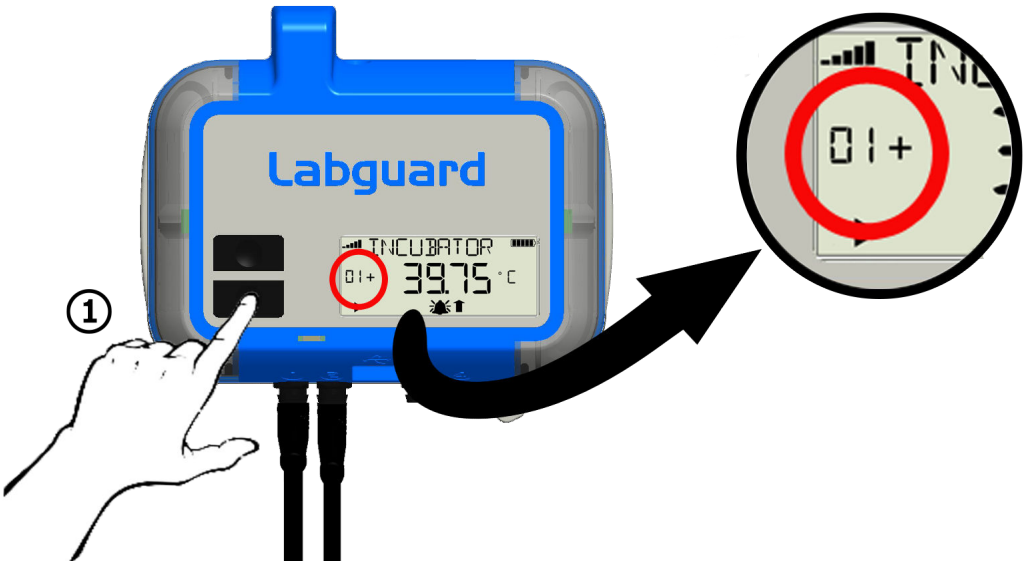
If no other sensors are connected, then this screen is displayed:



Navigating from one channel to another

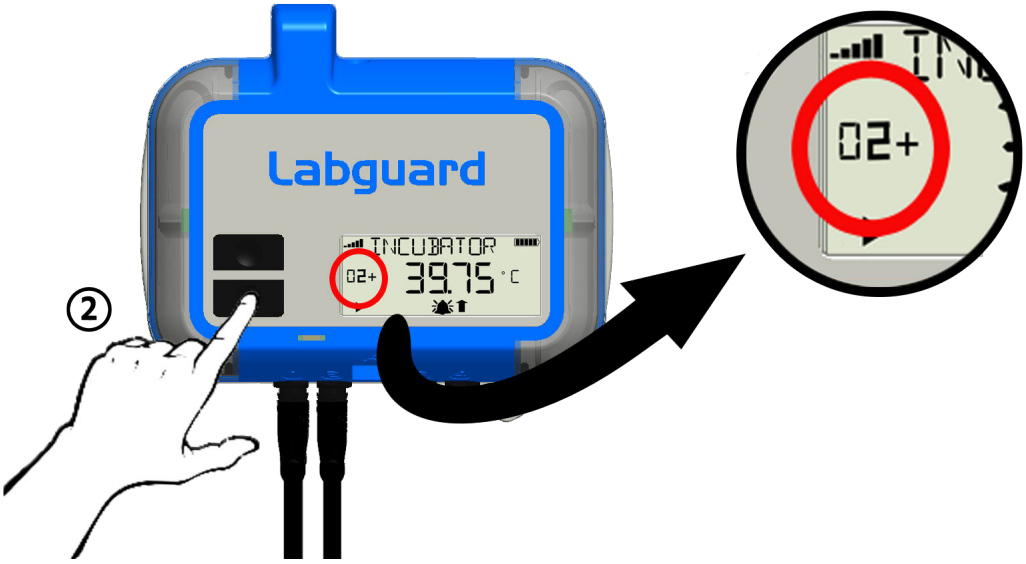
1. Press the multi-function button.

The status for channel 1 is displayed.



2. Press the multi-function button again.

The status for channel 2 is displayed.



6

Understanding the indicator lights

Alarm indicators

The transmitter signals technical problems or measurement problems via alarms.

The alarm signaled is visible in red on the wall or on the ceiling.

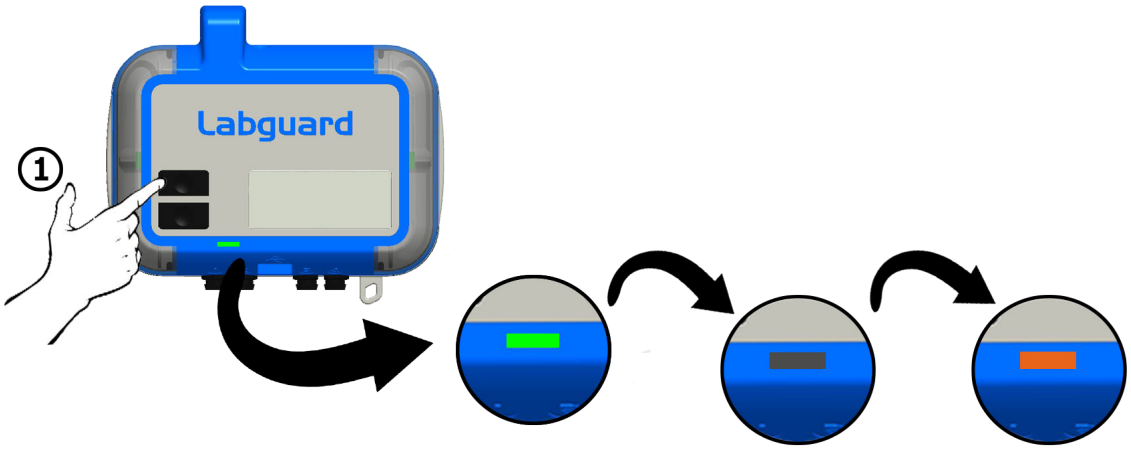
The alarm indicators specify the type of alarm:

Indicator lights	Color	Alarm origin	Type of alarm
	Red	Sensor	Time threshold exceeded.
	Orange	Sensor	Threshold exceeded.
	Purple	Sensor	Sensor absent.
	Blue	Transmitter	Communication absent.
	Yellow	Transmitter	Mains power supply absent.

Status indicator

Check the status of the battery and the power of the radio signal by pressing the ON/OFF button for one second:

- The status indicator lights up and indicates the battery status.
- The status indicator lights up again and indicates the power of the radio signal status.



Indicator lights	Status
	Good.
	Average.
	Poor.

The indicator is blue when the device is connected to the mains power supply.

Indicator light	Status
	Device connected to mains power supply.

7 Technical characteristics

Environmental conditions	Altitude	up to 2,000 m	
	Temperature	from 0 to 40°C max.	
	Relative humidity (Rh)	from 10 to 80 %	
	Mains power supply	Input: 100-240 VAC; 50/60 Hz; 0.3 A	Output: 5V ⎓ ; 1 A; 5 W
	Product power supply	Mains power: • 5V ⎓ ; 0.5 A; 2.5 W	Battery: • 2 Li Socl2 AA batteries 3.6V; 2,600 mAh, compliant with standard: CEI 60086-4
	Pollution level	2	
Atmospheric pressure		700 hPa to 1,100 hPa	
Installation category		Type II according to Directive CEI 664	
Device dimensions (W x H x D)		Device (mm): • 123 x 107 x 31	Device in packaging (mm): • 167 x 133 x 74
Device weight		Device (g): • 190	Device in packaging (g): • 265
Connectivity		• USB • Labguard 3D sensor	
Leak-tightness		IP65	
Wireless		Emission bandwidth: • 865 to 868 Mhz, 60 channels • 868 to 868.8 Mhz, 12 channels • 902 to 912 Mhz, 20 channels • 433.05 to 434.79 Mhz, 8 channels	Range: • 100 m inside • 400 m outside

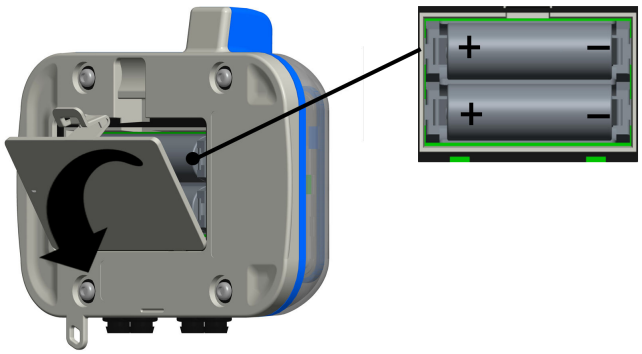
Maintenance

Changing the batteries

Risk of explosion:

- Do not place the battery the wrong way round.
- Do not short circuit.
- Do not use damaged or leaking batteries.
- Do not incinerate, recharge, dismantle, crush or expose to water.

1. Remove the battery compartment from the rear of the device.



2. Remove the batteries carefully and replace them making sure the positive (+) and negative (-) terminals are correctly positioned.

3. Replace the battery compartment.

Only use recommended models to replace the battery.

Disposal

Recycle the lithium batteries in accordance with enforceable regulations.

Dispose of them by the appropriate means put in place.

Cleaning the device

Clean the equipment using a cloth dampened with ethanol or any other common disinfectant. However, avoid using formol, solvents, heat greater than 80°C (flames, autoclaving) or cleaning by dipping or spraying.

9 Options and accessories

Use the following options and accessories for optimum use of the device.

Reference	Designation
416053	Mains power supply µUSB_EU
416055	Mains power supply µUSB_UK
416054	Mains power supply µUSB_US
416056	Mains power supply µUSB_AU/CN
416057	Sensor extension cable 1 m
416070	µUSB/USB cable 2 m
416074	USB protective cap (3 u)
416075	Connector protection (10 u)

10

Equipment conformity

FCC compliance

This equipment has been declared in compliance with FCC regulations, section 15, applicable to class B digital equipments. These regulations are designed to provide adequate protection against harmful interferences in a residential installation. This equipment generates, uses and may emit radio-electric waves. It can generate interferences that may be harmful to radio-communications if it is not installed or used according to the instructions. Using this equipment in a specific installation may generate harmful interferences, in which case the user may need to correct the interference using one or all of the following methods:

- Redirect or move the receiver aerial
- Move the equipment away from the receiver
- Plug the equipment into a different socket from the one used for the receiver
- Contact the distributor or get help from a radio / TV technician.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- this device may not cause harmful interference.
- this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC's radiation exposure limis set forth for an uncontrolled environment under the following conditions:

- This equipment should be installed and operated such that a minimum separation distance of 20cm is maintained between the equipment and user's/neraby person's body at all times.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible fr compliance. Such modifications could void the user's authority to operate the equipment.

Industry conformity Canada (IC)

This class B digital equipment complies with Canadian standard NMB- 03.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions :

- this device may not cause interference.
- this device must accept any interference, including interference that may cause undesired operation.

EC compliance

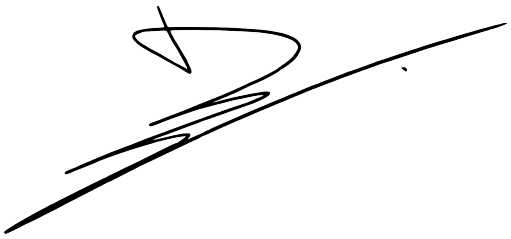
This class B numeric equipment complies with the relevant EC directives and standards listed in the accompanying certificate(s). Class B equipment is equipment suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes. Class B equipment shall meet class B limits.

Compliance statement CE

Via this statement, we	bioMérieux SA 69280 MARCY l'ÉTOILE- FRANCE

hereby declare that the product designated hereafter - as a result of its design and its type as well as the model that we have put into circulation - meets the fundamental health and safety requirements defined by the EC directive concerned.

This statement shall be rendered invalid by any modification not approved by us.

Machine designation:	**Monitoring hardware**
Model and reference type:	**Radio transmitter**
Applicable EC directives:	• **EC low voltage Directive (2006/95/EC)** • **EC-ECM directive (2004/108/EC)** •
Harmonized standards applied in particular:	**EN 61010-1 (Ed. 2010): 2010, EN 61326-1 (Ed. 2006):** 2006, EN 301 489-3 (Ed. 2002 V1.4.1): **2002 V1.4.1 EN 300-220-2 V2.4.1 EN 62479: 2010**
The technical documents were written by:	**Mr Develon** **(Authorized person for documentation)**
Date / Manufacturer's signature:	**13 June 2013** 
Signatory's position:	**Instrument R & D Manager**

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bioMérieux SA

Route de Dol,
35270 COMBOURG - FRANCE
Tel : +33 (0)2 23 50 12 12
Fax : +33 (0)2 23 52 12 00

contact@aeschemunex.com
www.aeschemunex.com

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BIOMÉRIEUX