lifebuoy™

make your pool safer

Congratulations on the purchase of the Lifebuoy Pool Alarm System

We at Lifebuoy love pools and believe that pools can and must be safer for children and toddlers.

The system was tested in accordance with the ASTM F2208 Standard and is intended to warn of falling into the pool and when the cover is removed.

This guide is intended to review the safety instructions and manner of operating the warning system.

It is recommended to keep this guide handy for future reading.

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Important

Read this guide fully prior to use.

Lifebuoy is exclusively a safety device and is not a lifesaving product.

Under no circumstances should you relate to this product as a substitute for other means of safety, such as a lifeguard, parental supervision, fences, gates and so on.

Without detracting from the aforementioned, your attention is drawn to the fact that the product may not sound a warning in cases of gradual entry into the pool.

Ensure that the system covers the entire area of the pool and if necessary adjust the sensitivity of the system.

Do not leave objects in the pool when the system is activated.

The system warning when opening a pool cover has been tested for vinyl covers that are lightproof. The warning is based on light sensors in the floating unit and will not work properly with a solar cover or any other cover that is not sufficiently lightproof. Furthermore, this mode is not intended for use when the outside lighting is weak (for example, at night).

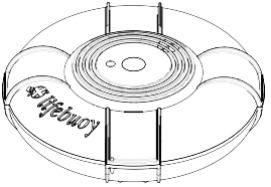
Package Contents

The package was uniquely designed to provide protection for the lifebuoy system until it is purchased. Check the integrity of the packaging prior to initial opening.

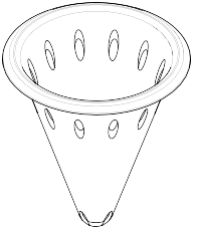
The package contains:

- User's guide including the warranty certificate.
- Floating unit[1]
- Transparent balancing cone[2]
- Control unit[3]

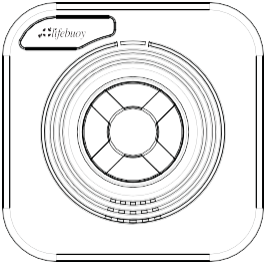
1. Floating unit



2. Transparent balancing cone



3. Control unit (Home unit)



Definitions and Manner of Action in Principle

The Floating unit

- The floating unit contains an alarm serving as a warning and for indication.
- The floating unit contains a broadcasting and receiving processor that serves for communications with the control unit.
- The floating unit contains miniature sensors whose purpose is to identify activity in the pool, such as a fall into the water or opening of the cover.
- A transparent cone is connected to the floating unit and serves to stabilize the system.

The control unit

- The control unit contains an alarm serving as a warning and for indication.
- The control unit contains a broadcasting and receiving processor that serves for communications with the floating unit.
- The control unit contains a broadcasting and receiving processor that serves for communications with a cellular device (smartphone).
- The control unit contains a button in the shape of a life buoy, and this button serves for controlling the system. The possibilities for use of the button are described later in this guide.

Manner of action in principl

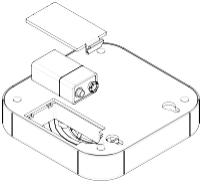
When the system is activated, the sensors in the floating unit operate continuously in order to sense any changes in the environment of the pool. The floating unit's processor analyses the data from the sensors.

If the processing unit determines that there was a fall into the water (and/or opening of the cover) the alarm in the float sounds and a notification is sent to the control unit, which operates the control alarm in response.

Installation

Connect the cone to the floating unit, as shown in the illustration (make sure cone is securely connected), and place the system in the pool.

On the perimeter of the floating unit are two holes through which nylon string can be threaded to secure the system to a specific area of the pool. Instructions for securing the unit appear later in this guide.
Install a 9V battery in the control unit as shown in the illustration:



Pay attention to the proper direction of installation (polarity) of the battery. Incorrect installation could cause harm to the device and void the warranty.

Choose a location for hanging the control unit. **Do not install the control unit at this stage.**

Tips for selecting a location for the control unit:

1. Select a high location, out of the reach of children.
2. Install the unit as close as possible to the floating unit in the pool. The closer the two units are, the longer the battery will last, and the better the communications between the units will be.
3. Choose a location that is easily accessible.
4. The control unit is an indoor unit and is not intended to withstand outdoor conditions or any dampness.

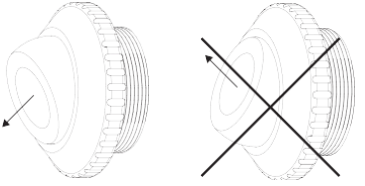
Testing the selected location of the control unit.

In order to ensure that the location is suitable, test the quality of communication between the units:

1. Install the Lifebuoy application (Lifebuoy Alarm mobile app).
2. Secure the floating unit at the desired place at the pool (away from the pool pump).
3. Position the control unit at the selected location.
4. Operate the application.
5. Press on the operating button of the control unit and wait up to 30 seconds for indication of the application describing the quality of the connection between the control unit and the floating unit:
6. If the level of communications is “good" or “great” the control unit can be installed at the selected location. If the communication level is “poor” another location must be selected. Repeat this stage until proper result obtained.
7. Turn off the device by a long push of about 3 seconds and 3 beeps will be sounded by the control unit followed by 3 beeps from the floating unit.

Direction of the outlet of the pump

Direct the opening of the outlet of the pump downwards as shown in the illustration:



Operating the System

The floating unit must be in the pool when the system is activated.
The system has two operating modes:

Pool without a cover: From a shut down state or stand-by, a short push on the control unit button will activate it

- When the button is pushed a single beep will be sounded by the floating unit accompanied by a single beep from the floating unit, while a green light will show for a few seconds on the control unit.
- Afterwards a green light will flash every 2 seconds on the control unit and a green light will flash every 20 seconds on the floating unit.
- The system will activate 15 seconds from the time of operation, and an alarm will sound in the event of a fall into the pool
- This mode should only be operated when the pool has no cover.

Pool with a cover: From a fully shut down state (not stand-by) a long push on the control unit button will activate it.

- Push on the button for 3 seconds until 4 beeps are heard from the control unit, accompanied by 4 beeps from the floating unit and a green light will appear on the control unit for a few seconds.
- Afterwards a green light will flash on the control unit every 6 seconds. No light will flash on the floating unit in this mode.
- The system will activate 15 seconds after operation and an alarm will sound in the event of the cover being opened and/or a fall into the water.
- This mode shall only be operated when the pool is covered.

Shutting Down the System

When the system is operating (with/ without a cover) or during an active alarm.

Short press on the control unit

button transfers to stand-by mode:

- If an alarm is sounded prior to entering stand-by mode, it will be neutralized and cease.
- Two beeps will be heard from the control unit, accompanied by two beeps from the floating unit. The system will move to stand-by. Red and green lights will flash on the control unit every 2 seconds. No light will flash on the floating unit in this mode.
- When the system is in stand-by mode it will not warn of opening the cover and/or falling into the pool.
- Ten minutes after the system has sensed no movement in the pool the system will reactivate and will perform automatic tests upon operation similarly to regular operation (see page 12).
- The system will reactivate to regular mode, also if prior to the button being pushed the operational state of the system was that of a covered pool.

Long push on the button of the control unit for total shut down:

- Push the button for 3 seconds until 3 beeps are heard from the control unit, accompanied by a single red flash. The floating unit will also beep 3 times and the system will shut down.
- In this state the system is not operational and will not warn in the event of a fall into the pool and/or raising the cover.

Transfer to stand-by mode from the floating unit in the pool:

- When the system is switched on and activated, holding the floating unit vertically for a few seconds will transfer the system to stand-

by mode.

- When the unit is raised the system will sound a warning and will cease after a few seconds in a vertical position.
- Both the floating unit and the control unit will sound 2 beeps, and on the control unit red and green lights will flash, as described for stand-by mode.
- In this state the system is inactive and will not sound a warning in the event of a fall into the pool and/or raising the cover.
- If a warning is sounded prior to entering stand-by mode it will be neutralized and cease.
- After 10 minutes of absence of movement, the system will reactivate and a warning will sound in the event of a fall into the pool.
- The system will reactivate to regular state, even if prior to leaving the water it had been in an operational state of a covered pool.

Warning Alarm

In the event of a warning the alarm will sound continuously for 3 minutes from both the control unit and the floating unit.

A steady red light will appear on the control unit.

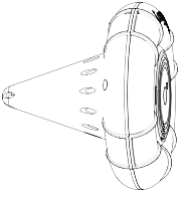
After the alarm is sounded it will cease for 30 minutes during the course of which the system is inactive and will not sound a warning in the event of a fall into the pool and/or raising the cover.

After 30 minutes of inactivity, and providing that during the last 10 minutes the system sensed no movement in the pool, the system will turn on. If the system senses movement the turning on will be delayed until the system senses no movement for 10 minutes similarly to stand-by mode.

If the user turns the system off and on during the 30 minutes of inactivity, the system will return to operation immediately (the system will activate 15 seconds after operation).

Neutralization of the system during the sounding of the alarm can be performed by means of each of the 3 ways of switching the system off:

1. Transfer to stand-by mode by a short push on the control unit button.
2. Full shut down by a long push on the control unit button.
3. Transfer to stand-by mode by holding the floating unit vertically for a few seconds as shown in the illustration:



Automatic Testing When Operating

In order to ensure that the system activates properly after it is operated, the system performs two self-tests when operated:

1. Operating the system when the floating unit is not horizontal

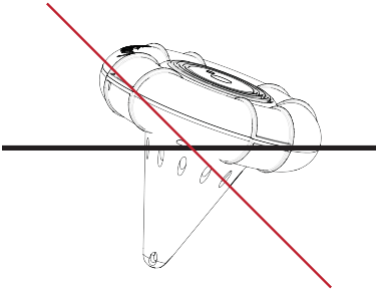
If the floating unit is not in the pool or encounters a physical obstruction (causing it not to be horizontal) the system cannot be operated properly. When operated in this condition the floating unit and the control unit will beep every few seconds to warn that the system is not activated.

In this case the system must be shut down by pushing the control unit button (see “Shutting down the system”). Ensure that the floating unit is floating horizontally in the pool and operate once again.

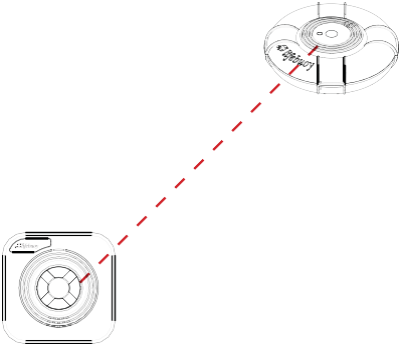
2. Operating the system when there is no communication between the units

When there is no communication between the units (for example when they are too far apart), the system cannot be properly activated. A few seconds after switching on the system, a loud beep will be heard and the system will switch off.

1. Operating the system when the floating unit is not horizontal



2. Operating the system when there is no communication between the units



Automatic Testing when the System is Activated

In order to ensure that the system is working properly, the system performs a number of automatic tests when operated:

Communication test

Every 15 minutes the system checks that communication is in order between the control unit and the floating unit. If the communication test fails, green and red lights will flash on the control unit every 2 seconds.

Batteries test

There are two batteries in the system, one in the control unit and the other in the floating unit. The system tests the levels of voltage in both batteries every hour.

- If the voltage level in the control unit drops below 7 volts, the control unit will sound a single beep every 15 minutes. If this occurs the battery in the control unit must be replaced.
- If the voltage level in the floating unit drops below 7 volts, the control unit will sound two beeps every 15 minutes. If this occurs the floating unit must be delivered to the place of purchase for the battery to be replaced.

Do not open the floating unit. Opening the floating unit will void the warranty of the product and could harm its waterproofness.

Furthermore do not submerge the system in the water or leave it upside down in the pool.

Testing Good Working Order

Mandatory prior to initial operation of the system or replacement of the pool

- The system is designed to warn when a person or pet weighing 9 kilograms (20 lb) or more falls into a pool that is up to 10 meters (32 ft) long.
- To test that the system is in good working order throw a water container of 9 liters (or a six- pack of mineral water in 1.5 liter bottles; 9 liters are equivalent to 20 lb) into the pool from a height of 20 centimeters (6" in), while the floating unit is positioned at the far end of the pool (up to 10 meters or 32' ft). The alarm should sound within a few seconds.
- Switch off the system completely (long push on the button) and then switch on the system 10 minutes later (to ensure that there are no more waves). Repeat the process from a number of different places around the pool.
- Perform this working order test prior to the initial operation of the system and in each of the following instances: If the user chooses to secure the system by anchoring it to a specific area of the pool that has not yet been tested; for every change in the definitions of the software; when the pool has been changed; after changing the batteries and after the system has been stored without use for any period of time.
- If the good working order test fails, in other words the system does not sound a warning, the sensitivity of the system can be calibrated and adjusted to the pool (see the chapter “Adjusting and calibrating the system’s sensitivity”).

Testing Working Order when Operating with a Pool Cover

Mandatory prior to initial operation of the system or replacement of the pool

- If there is no intention of using the system when the pool is covered, you can skip this chapter.
- The warning when the cover of the pool is opened is based on entry of light into the pool when the cover is opened.
- The warning may not work properly if the cover is not sufficiently lightproof.
- The warning is not designed to work when the light outside is weak (for example at night).
- It is recommended to use a vinyl cover or any other completely lightproof cover.
- The test must be performed in daylight.
- Cover the pool while the floating unit is in the pool.
- Operate the system in the covered pool mode, as described on page 9.
- Wait for 20 seconds after activation and then raise the cover to open it partially, as shown in illustration on page 11.
- A few seconds after opening the cover the system should sound a warning from both the floating unit and from the control unit.
- Shut the system down completely and repeat the test process by opening the cover from different sides of the pool.

Adjusting and Calibrating the System'sSensitivity

If the working order test fails (see chapter “Testing good working order”), it is possible to calibrate the system’s sensitivity and adjust it for the pool.

The system has 10 grades of sensitivity with grade 1 being the lowest sensitivity and 10 being the highest.

The default sensitivity setting is 5. If the system did not identify the object being thrown unto the pool during the test, the sensitivity of the system should be increased, for instance to raise it from 5 to 6 and try again.

Changing the sensitivity grade:

The sensitivity grade can be easily changed from the LifebuoyAlarm mobile application (recommended) or from the control unit.

Download on the App Store

Get it on Google play

Following are the instructions for changing the sensitivity grade from the control unit:

1. Operating the system – a green flash should be seen every 2 seconds.
2. Push on the button for 10 seconds – a number of beeps will be heard according to the sensitivity grade (5 beeps is the default). The system enters programming mode. The system will exit programming mode if no action is taken for 10 seconds, therefore move rapidly to the next step.
3. During the additional extended push on the button, beeps will be heard. The pushing on the button should be stopped after the required number of beeps is reached according to the sensitivity grade desired. If you want to reach sensitivity grade 6, stop after 6 beeps.
4. At the conclusion of the action once again a number of beeps will be heard according to the

new sensitivity grade to indicate that the new sensitivity was set.

5. If the button is pressed for more than 10 seconds, a double beep will be sounded and the system will enter stand-by mode (green and red flashing lights every 2 seconds), without a change in the sensitivity threshold.
6. Please note that raising the sensitivity grade could cause false alarms, while lowering the sensitivity may result in decreased detectability of falling into the pool.

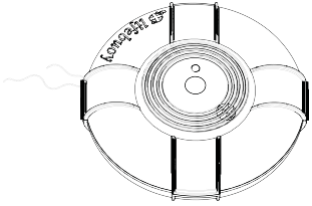
Securing the Floating Unit in the Pool

At the sides of the floating unit are two holes intended for securing the unit.

Securing the unit could prevent false alarms as a result of the proximity of the system to the pump outlet opening or any other local obstruction in the pool.

The location of the securing must be distanced from the source of obstruction in the pool.

Attach nylon string to one of the holes at the side of the unit as shown in the illustration:



The length of the nylon string must be sufficient to enable the system to float freely for a distance of about 30 cm (approximately 12” inches) from the sides of the pool. Attach the nylon string to a stable part of the pool, such as a ladder or uprights.

Entry into Modes and System Indications

Page	Name of mode	Initial mode	Entry into mode
9	Switching on (Without a cover)	Switched off; no sound; no lights; The system is horizontal in the pool	Short push on the control unit button
9	Switching on (With a cover)	Switched off; no sound; no lights; The system is horizontal in the pool	Long push on the control unit button
13	Switching on (With/without a cover)	Switched off; no sound; no lights; The system is **not horizontal** or is out of the pool	Short/long push on the control unit button
13	Switching on (With/without a cover)	Switched off; no sound; no lights; **No communication** between the units	Short/long push on the control unit button
10	Stand-by (From the control unit)	The system is operational (in the mode of with/without a cover) or during an active alarm	Short push on the control unit button
10	Complete shut down	The system is operational (in the mode of with/without a cover) or during an active alarm or on stand-by	Long push on the control unit button
10	Stand-by (From the floating unit)	The system is operational (in the mode of with/without a cover) or during an active alarm	Hold the floating unit vertical for 3 seconds
12	Alarm	The system is operational (in the mode of with/without a cover)	The system identified a fall into the pool and /or raising the cover
14	Communication test	The system is operational (in the mode of with/without a cover)	Automatic communication test fails
14	Batteries test	The system is operational (in the mode of with/without a cover)	Battery is low (control unit or floating unit)

● Green flashing ● Red flashing Beep Loud beep/alarm

	Indication sound and voice
◀●	**Control unit** – Short single beep; green flashing every 2 seconds **Floating unit** – Short single beep; green flashing every 20 seconds
◀●	
◀◀◀◀●	**Control unit** – 4 Beeps; green flashing every 6 seconds
◀◀◀◀	**Floating unit** – 4 Beeps
◀	**Control unit** – Beep increasing in intensity every few seconds for 3 minutes
◀	**Floating unit** – Beep every 10 seconds for 3 minutes
◀●◀	**Control unit** – Single beep, after a few seconds without communication, the system will beep loudly and shut down
–	**Floating unit** – Without indication of sound or lights
◀◀●●	**Control unit** – 2 Beeps accompanied by red and green flashing lights, the system will go over to stand-by mode, red and green lights will flash every 2 seconds
◀◀	**Floating unit** – 2 Beeps
◀◀◀●	**Control unit** – 3 Beeps accompanied by a single red flash
◀◀◀	**Floating unit** – 3 Beeps
◀◀●●	**Control unit** – Double beep, the system enters stand-by and the red and green lights will flash every 2 seconds
◀◀	**Floating unit** – Double beep
◀●	**Control unit** – Loud alarm for 3 minutes, accompanied by continuous red light
◀	**Floating unit** – Loud beeps for 3 minutes
●●	**Control unit** – Green and red lights flash every 2 seconds
–	**Floating unit** – Without indication of sound or lights
◀	**Control unit** – One or two beeps every 15 minutes, respectively
–	**Floating unit** – Without indication of sound or lights

Warranty

The Lifebuoy Company Ltd is hereby responsible for the proper working order of the aforementioned device according to the following conditions:

The warranty for the device is valid for a period of 12 months.

This warranty is valid only if signed by an authorized distributer of the company. We undertake to provide repair service and parts, at no cost, for parts that appear to us to be faulty and which in our exclusive opinion were damaged under proper conditions of use according to the operating instructions accompanying the device.

This warranty does not cover damage caused by falling, breaking, force majeure or negligence.

This warranty is voided if any unauthorized person repairs or attempts to repair the device, except for an authorized technician on behalf of the company, or as a result of incorrect usage, as explained in the instruction manual.

This warranty does not confer any rights or requirements that are not included in this warranty.

The customer is required to bring the device to and from the service laboratory, at his responsibility and at his expense.

This warranty does not cover any damage caused by faulty maintenance. The warranty is only valid upon presentation of the purchase invoice. Read the operating instructions carefully and keep them for future reference.

Date of purchase	Serial no.
Invoice no.	Stamp and signature of the seller

CE

ASTM

MODEL LBPABUOY1/LBPACNTL1 Meets requirements of ASTM Safety Specification F2208.

FCCID: 2AOXNLBPACNTL for the Control Unit
FCCID: 2AOXNLBPABUOY for the Floating Unit

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Lifebuoy Ltd.) could void the user's authority to operate the equipment.

WARNING! *To comply with FCC RF exposure compliance requirements, the device (Control Unit) should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.*

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Made in Israel

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