

MOBWATCHER

SAFETY



MOBWATCHER SAFETY
Scale 1:1

The Man overboard system which gives you security at sea.

Mobwatcher onboard is wireless safety equipment which gives you complete freedom of movement. If you should fall into the water the engine stops immediately which prevents the boat from travelling away from, or running over you.

Two different units communicate with each other onboard using radio waves. One is kept in your pocket and one is connected to the engine. If you fall overboard the unit in the boat senses that communication is broken and stops the engine.

If you wish to fend off, prepare to make fast, fish or fetch something onboard you can do so without compromising your safety.

Mobwatcher provides freedom of movement and safety, wherever you are and whatever you do onboard.

When does man overboard happen?

If you are in a boat there is always a risk of falling overboard. If the wave pattern changes and the boat suddenly pitches it is easy to lose your balance. In stressful situations and in bad weather the risk is increased.

What can happen?

Anyone falling overboard risks injury from the propeller or being run over by the boat. If the boat disappears you will quickly become chilled which increases the danger of drowning.

A pilot less boat can also injure other people on/in the sea, and cause material damage.

Frequency

The radio communication between the boat unit and the helm unit is carried on the licence free frequency band 433 MHz. The frequency has good range and good penetrative qualities through materials. However 433 MHz is effectively absorbed by water.

Radio communication

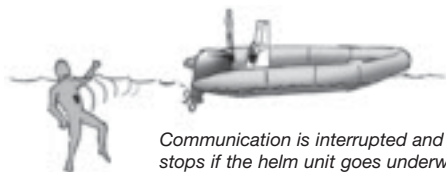
The boat unit transmits a message to the helm unit 3 times per second. The helm unit, which is carried by the user, responds by transmitting a reply to the boat unit equally often. When the driver is onboard the radio communication functions between the units and the engine can be run. Neither hull components, windscreens, rain, spray or waves affect the radio communication between the units.



The units communicate with each other via radio waves.

Man overboard

If the helmsman falls overboard the helm unit goes under water. The radio messages between the units cannot penetrate the water, communication is interrupted and the engine stops automatically.



Communication is interrupted and the engine stops if the helm unit goes underwater.

Restart

After the engine has stopped the system permits the engine to start after 5 seconds without the units regaining contact. If there are others on board they can start the engine and locate the helmsman in the water.

Reliability

To ensure optimum reliability in the radio communication the system changes frequency automatically in the event of external radio interference by the communications radio for example.

Double security

If the helmsman does not go under water, the radio communication is also broken when the helmsman is out of range (approx 50 m). This makes the helmsman doubly safe, on the one hand the water interrupts communication, on the other hand air causes the interruption.

Remote shut off

Using the remote On/Off switch on the helm unit the helmsman can remotely shut off the engine if the boat has run aground or there is no time to reach the controls to shut off the engine. The helmsman has an easily accessible mobile emergency stop.

Personal safety becomes theft prevention

Your safety increases, the risk of theft is reduced. The boat cannot be started without the correct radio code being transmitted by the Mobwatcher unit. As helmsman you cannot forget the safety equipment. For the same reason it will be a short trip if anyone decides to "borrow" the boat without permission. Both the keys and Mobwatcher with the radio code for your boat are required to start the engine.



The helm unit is secured by a carrying strap.

Technical specification

	Helm unit	Boat unit
Dimensions	94 x 45 x 27 mm	120 x 120x 40 mm
Weight	83 g	145 g
Protection class*	IP X7	IP X6
Cable		5 x 0.75 mm ² (5 pin)
Operating temperature	-15°C to +70°C	-15°C to +70°C
Radio frequency	433 MHz	433 MHz (1.5MHz bandwidth)
Transmission effect	4 mW (6 dBm)	4 mW (6 dBm)
Internal power source	2 x AAA (1.2 V or 1.5 V)	
Operating time**	90 hrs	
Operating voltage***		12 V DC (6-14 V)
Current consumption		10 mA Irms
Engine shut-down		
Petrol		Earthing the engine current
Diesel		Signal to electronic stop

*Protection class IP X7 - submersible IP X6 — water resistant

**Operating time using 2 x AAA 1.5 V Ultra batteries

***For boats with 24 V a DC/DC converter is available as an accessory

The helm unit is powered by 2 x AAA batteries.



R&TTE Directive (Radio and teleterminal equipment)
ETSI EN 300 220-1
ETSI EN 300 220-3

EMC Standards (Electromagnetic compatibility)
ETSI EN 301 489-1
ETSI EN 301 489-3

Accessories
DC/DC converter 24 V input- to 12 V output voltage
The helm unit is powered by 2 x AAA batteries.