

INSTALLATION MANUAL

MyBoat

Real time remote control and alarm management
device for boats

EN

CE



SENECA s.r.l.

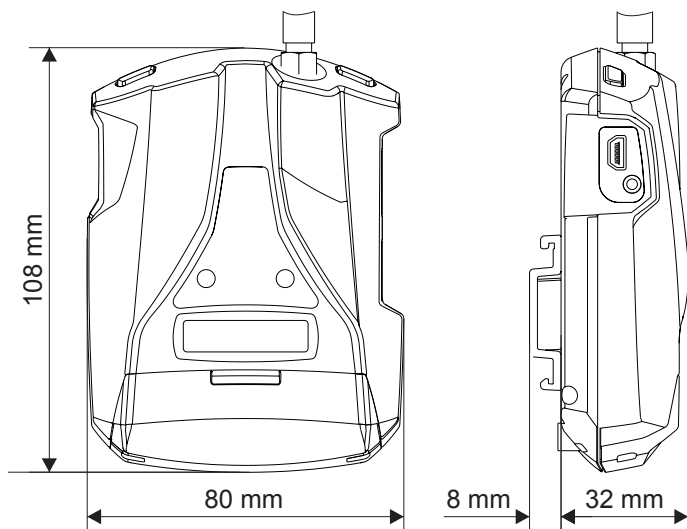
Via Austria, 26 – 35127 – PADOVA – ITALY

Tel. +39.049.8705355 - 8705359 - Fax +39.049.8706287

For manuals in other languages and the configuration software, visit www.seneca.it/myboat

MODULE LAYOUT

CASE DIMENSIONS



SYMBOLS ON THE ENCLOSURE

	ON / OFF power button
	GPS antenna
	Menu access button
	Slot for mini SIM
	Slot for micro SD card
	Micro USB connector

Weight	150 g	Case	Polycarbonate / ABS material
---------------	-------	-------------	------------------------------

SIGNALS VIA LED ON FRONT PANEL

LED	STATUS	LED meaning
GSM (Yellow)	Slow flashing	GSM network registration successful, but internet connection not active
	Fast flashing	Network search / no signal / SIM card with incorrect PIN
	Medium flashing	Network access successful; APN correct; registration to the GPS network active
PWR (Green)	ON	Device ON
	OFF	Device OFF

PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol indicates conditions or actions that put the user's safety at risk. The word **ATTENTION** preceded by the symbol indicates conditions or actions that might damage the instrument or the connected equipment.

The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

	WARNING: The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available at www.seneca.it/myboat
	The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	Important: Obstructing ventilation slots with any object is prohibited. Installing the module next to devices that generate heat is prohibited.
	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection centre authorized to recycle electrical and electronic waste.

TECHNICAL SPECIFICATIONS

POWER SUPPLY	
Voltage	6 – 15 Vdc, 500 mA Max.
Internal battery absorption	3.5 W Max. Lithium Ions 3.7 V - 1100 mAh, rechargeable non-replaceable.
DIGITAL INPUTS	
Type	4 inputs Reed, contact, PNP, Pulsecap
Maximum frequency	30 Hz
Threshold OFF	0 - 3 Vdc, I < 1mA
Threshold ON	6 - 24 Vdc, I > 3mA
ANALOGUE INPUTS	
Type	2 inputs Voltage 0 - 30 Vdc / Current 0 - 20 mA
Precision	0.1% of full scale
VOLTAGE OUTPUT:	+12 Vdc 50 mA (maximum current)
TEMPERATURE SENSOR	NTC thermistor internal (as standard), external (option)
USB PORT	1 reserved micro USB port
DISPLAY	128 x 32 LCD Dots with visible area of 39 mm x 8.6 mm
CONNECTIONS	Spring clamps, 3.5 mm pitch, connector for Micro USB and SMA connector for GSM Antenna
CPU	ARM 100 Mhz 32 bit
INTERNAL MEMORY	FLASH 2 MByte (log)
Micro SD slot	Push-Push for SD card and SD HC card / max 32GB
SIM slot	Push-Push for mini SIM (15 x 25 mm)
GSM	Quad band (850 / 900 / 1800 / 1900 MHz)
MMCX CONNECTOR	External GPS antenna connector (optional)
ENVIRONMENTAL CONDITIONS	Seneca recommends use at 0 to 45 ° C for correct operation.
Temperature	With the power supply present: -20 .. +55°C With use of the battery (when discharged): -20 .. +45°C Charging is possible in the range: 0 .. +45°C
Humidity	30%– 90% non condensing.
Storage temperature	from -20°C to +20°C < 1 year; from -20°C to +45°C < 3 months; from -20°C to +60°C < 1 month
Protection rating	IP20

GPS CARD SPECIFICATIONS (OPTION)

RECEIVER	22 channels
SENSITIVITY	-165 dBm
FIX TIME	32 s usually
ACCURACY	Up to 2.5 m

RECEIVER AND SENSOR SPECIFICATIONS

TECHNOLOGY	LoRa ®
POWER SUPPLY	CR2 3V battery (replaceable)
FREQUENCY BAND	863 ÷ 870 MHz
SENSITIVITY	up to -146 dBm
RF POWER	+14 dBm

RELAY EXPANSION CARD SPECIFICATIONS (OPTIONAL)

TECHNOLOGY	2 outlets Relay 3 A max - 250 V SPST (with shared terminal)
-------------------	---

REFERENCE STANDARDS

STANDARDS	ETSI EN301 489-7; EN301 511; EN301 489-1; IEC / EN 60950; IEC 60086
------------------	---

INITIAL POWERING ON OF THE DEVICE

MyBoat is supplied in “*shipping mode*”. This mode prevents any unnecessary discharge of the battery during transport as well as any accidental switch-ons.

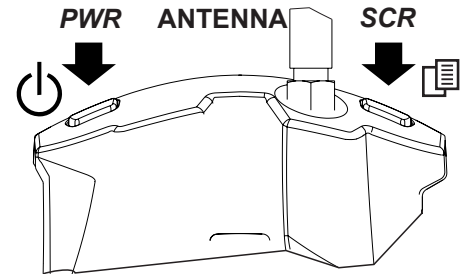
When switched on for the first time, power the device with the power cord supplied; this allows “shipping mode” to be exited.

N.B.: During “*shipping mode*” the power button is disabled.

ON/OFF BUTTON AND SCROLL DISPLAY BUTTON

MyBoat is equipped with a PWR button located on the top left side (front panel view). Pressing this button turns the module on and off. To switch it off, hold the PWR key down for a few seconds.

MyBoat is also equipped with a SCR button, located on the top right side (front panel view). Pressing this key displays the parameters.



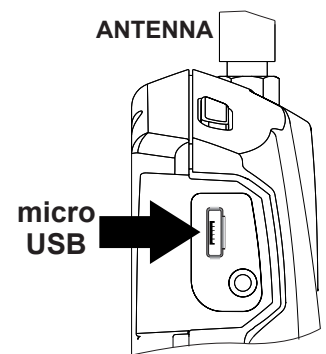
MICRO USB PORT AND POWER SUPPLY

The device has a micro USB connector on the left side of its enclosure, which can be used for configuration, firmware updates and to recharge the internal battery.

To recharge the internal battery, use:

- the 12 V power supply (supplied) by connecting the cables to the + and - terminals (GND).
- a PC via the micro USB port with a standard cable.

Power supply through the USB jack is not suitable for fixed installations, or configurations where relays and/or digital inputs are used.



AUTO POWER-OFF

If the display shows “**LOW BAT**”, it means that the internal battery is low, after 60 seconds the device switches off automatically.

To restore the battery charge to an appropriate value, recharge the device using one of the recommended modes.

INSERTING THE SIM CARD AND SD CARD

INSERTING THE SIM CARD

MyBoat has a slot for mini SIM located in the right side of the enclosure.

To insert the card in its corresponding slot, make sure the metal contacts are facing right (as seen in the figure).

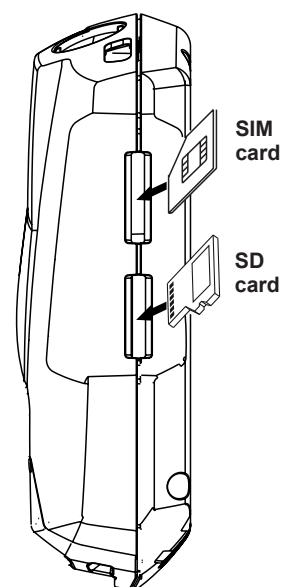
INSERTING THE SD CARD

MyBoat is equipped with an SD card input that can be used to update the device's firmware and the information and connection parameters with the world's best known telephony operators.

Note: DO NOT REMOVE THE CONTENT OF THE SD CARD PROVIDED. THIS MAY RESULT IN FAILED DATA CONNECTION WITH THE MyBoat SERVICE.

The input for micro SD card is located on the right side of the enclosure.

To insert the SD card in its corresponding slot, make sure the metal contacts are facing right (as seen in the figure).



ASSEMBLY REGULATIONS

For optimal reception of the GPS signal given by the satellites, MyBoat should be positioned in an area not covered by metal structures. If this is not possible or if the satellite reception is no good, an optional external antenna with 3m cable (code A-GPS) is available. Follow the procedure supplied with the package for the installation of the external antenna.

SAFETY INFORMATION

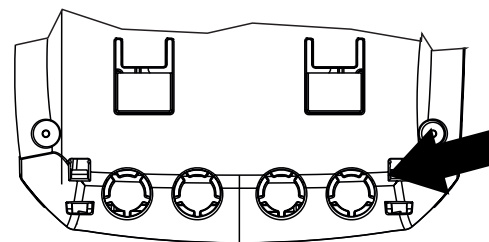
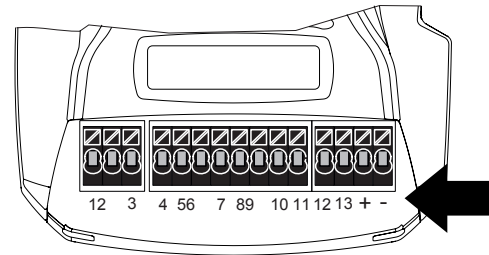
The MyBoat control unit has a terminal block inside its enclosure.

To access the internal terminal block of the device, unscrew the screw at the centre of the black cover positioned at the bottom of the enclosure and lift up. In the side figure, the cover has been removed.

IMPORTANT: With the relay card, mobile wiring of cables connected to terminals is not permitted.

To make the cables from the terminals safe, use the break-out passages in the back of the enclosure.

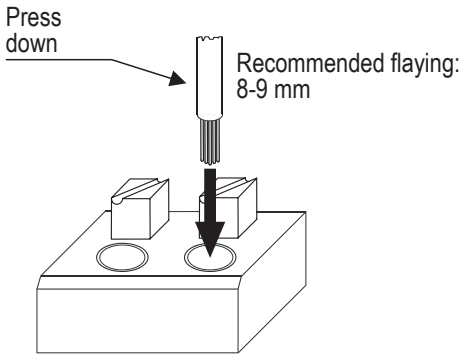
When the wiring is complete, fasten the protective cover on the device with the screw to prevent any accidental contact.



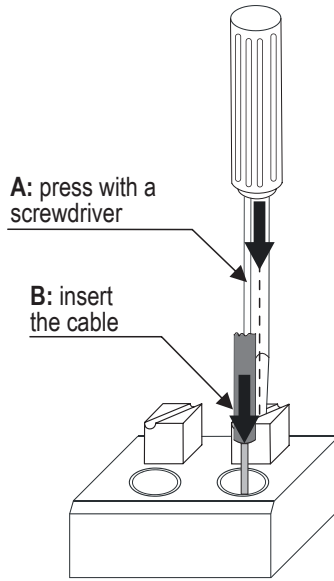
ELECTRICAL CONNECTIONS

INSERTION AND EXTRACTION FROM TERMINALS WITH A PUSH-WIRE CONNECTION

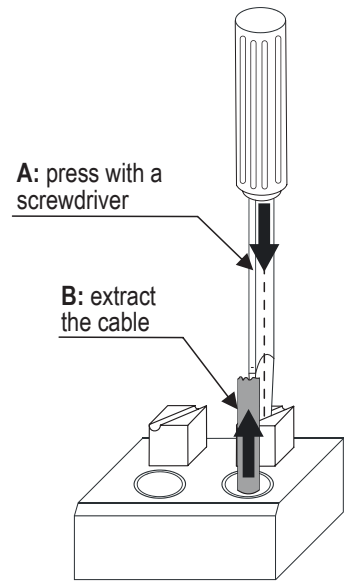
Insertion of a rigid cable



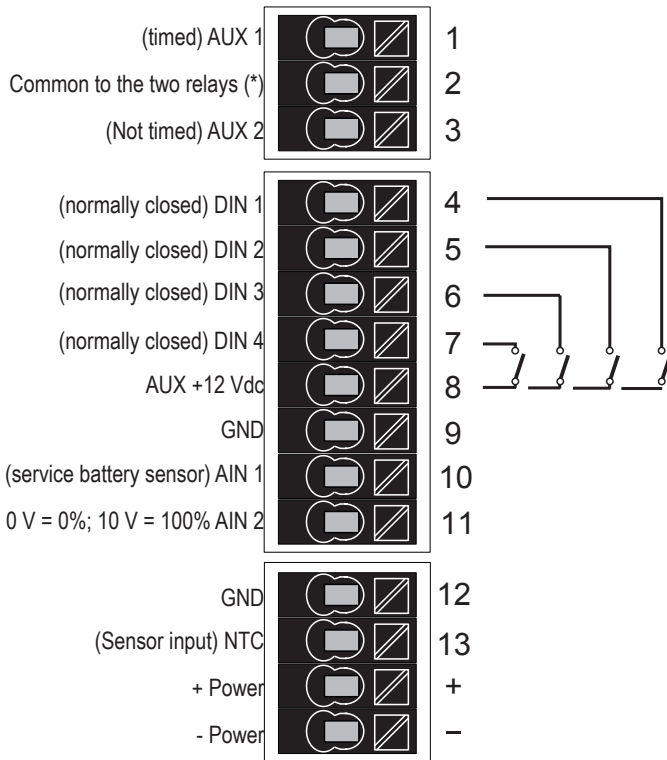
Insertion of a thin cable



Extraction of a rigid cable



PUSH-WIRE TERMINAL BLOCK



BATTERY REPLACEMENT

Use a Phillips screwdriver and remove the screws (reference 1 and 2).

Open the top cover, remove the battery and insert a new CR2 battery, with the correct polarity (see following image).

Replace the cover and tighten the screws firmly all the way.

Do not overtighten the screws to avoid breaking the cover.

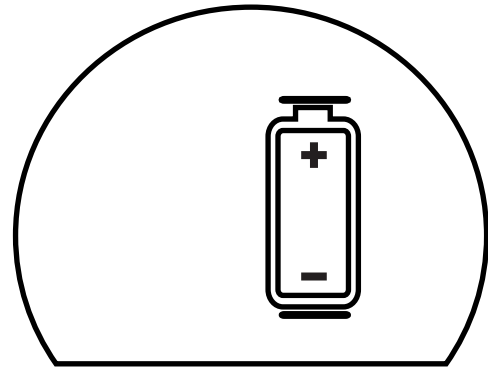
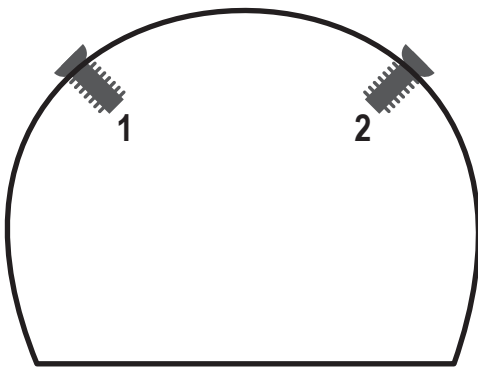
Pairing begins automatically and the Rx led starts flashing.

Note:

- Do not lose the cover and screws.

- The battery supplied at the time of purchase may have a shorter life span, as it is installed at the factory to check performance

REFERENCE IMAGE:



CAUTION

Do not use sharp objects to remove the battery.

Old batteries cannot be disposed of in household waste, it is mandatory to return them to the appropriate collection place, prepared by the municipality or point of sale.

Spent batteries contain heavy metals or material harmful to the environment and health. Since they also contain important elements such as iron, zinc, manganese and nickel, they can be recycled.

We recommend using batteries of the same type inside a device, the use of batteries of different types could cause liquid leakage or battery breakage, or damage the device in use.

Always replace the battery or batteries of the device used with batteries of the size and type specified by the manufacturer.

Do not apply pressure or shocks to the battery, this might damage it and cause liquid leakage or breakage.

Do not expose the instrumentation to extreme, high or low temperatures or pressures, this might cause an explosion or leakage of flammable liquids or gases.

In the presence of odours, swellings, cracks or loose or missing caps, the batteries must be considered "damaged". Damaged batteries can release dangerous chemicals and require a special disposal process. Contact the manufacturer's customer service for advice on treating damaged batteries.

ACCESSORIES

OPTIONAL ACCESSORIES	
A-GPS	External GPS antenna with 3 m cable
A-GSM/QUAD-N	External GSM / QUAND-N antenna with 5 m cable
SPARE ACCESSORIES	
CPS-TIP-MP	Spare cigarette lighter power supply
MYBOAT-S1	Replacement sensor for access control
MYBOAT-S2	Replacement sensor for bilge monitoring
MYBOAT-S3	Replacement sensor for access control
MYBOAT-S4	Replacement sensor for battery monitoring
MYBOAT-S5	Replacement sensor for battery monitoring
MYBOAT-S6	Replacement sensor for bilge monitoring
MYBOAT-S7	Replacement sensor for access control
MYBOAT-S8	Replacement sensor for access control

CONTACT INFORMATION

Technical support	support@seneca.it	Product information	sales@seneca.it
-------------------	--	---------------------	--

**This document is the property of SENECA srl. Copies and reproduction are prohibited unless authorised.
The content of this document corresponds to the described products and technologies.
Stated data may be modified or supplemented for technical and/or sales purposes.**