YACHT SENTINEL

User Manual

Sailing through the YS PRO set up process

Congratulations
on your purchase of the Yacht Sentinel PRO

This Manual will provide everything you need to get your YS PRO up and running.
For more detailed information please visit our website www.yacht-sentinel.com or contact our support team on support@yachtsentinel.com

THE ULTIMATE CONNECTED EXPERIENCE

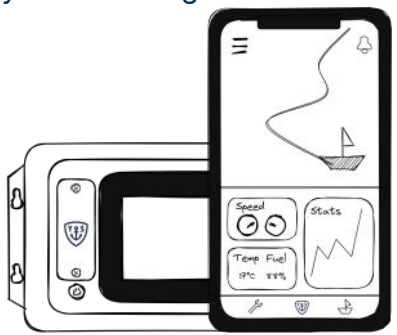
Welcome to the user manual of the YS PRO by Yacht Sentinel. This product is a state-of-the-art boat monitoring and security system. It will bring you a revolutionary boating experience as well as peace of mind when you are away from your vessel.

Monitoring
Remotely monitor battery status, fuel level, location, engine status and more.

Security
Secure your boat through integrated alarms and additional wireless accessories.

Maintenance
Get notified of any unusual data or maintenance alert to enjoy worry-free boating.

Connectivity
Stay in touch with your boat through YS PRO connected features.



Yacht Sentinel Team wishes you a safe boating experience

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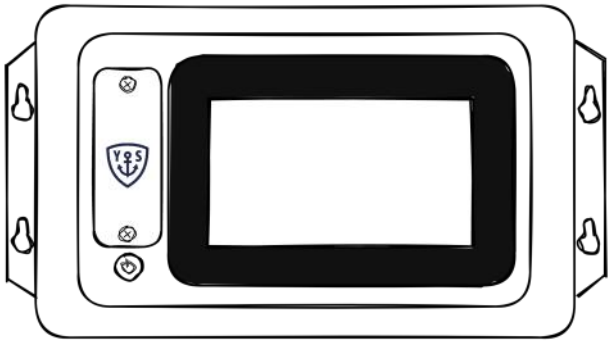
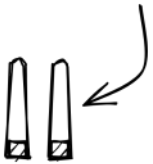
INCLUDED MATERIAL

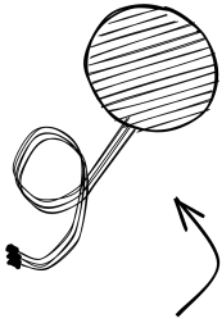


YS PRO Central Unit

Cellular Antenna



x2 Zigbee/WI-FI Antennas



4G/GPS Antenna

Power cable

Voltage detector

Ethernet Waterproof mounting

x4 Stainless Screws

YS PRO FEATURES

Integrated Alarms
YS PRO Internal alarms including geofencing, tilt, and G-shock alarms.

Battery Status
Keep an eye on your batterie consumption and receive low battery alerts.

Digital Switching
Fit-for-all digital switching solution using Wi-Fi, Zigbee 3.0, NMEA 2000, CZone or Modbus.

Full NMEA Monitoring
Receive available data on the NMEA 2000 network (tanks, engine, temperature, etc.).

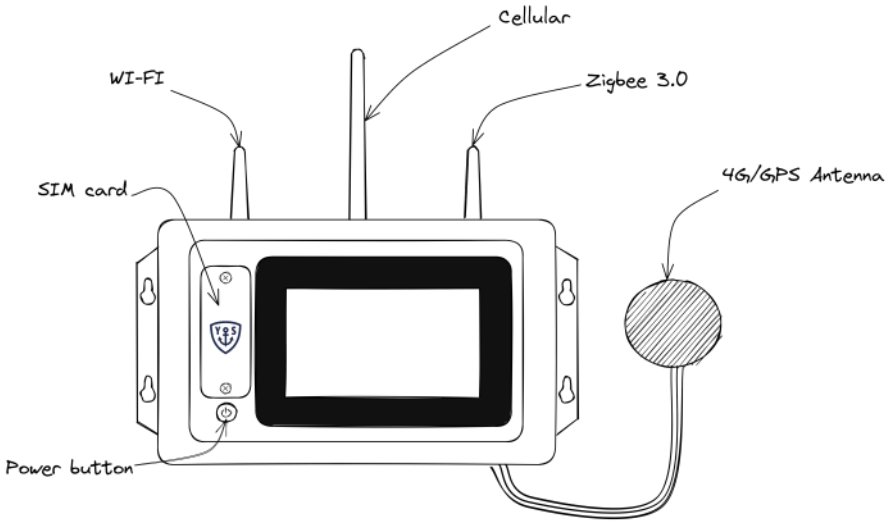
24/7 Voltage Monitoring
24/7 monitoring of any equipment with up to 3 voltage detectors.

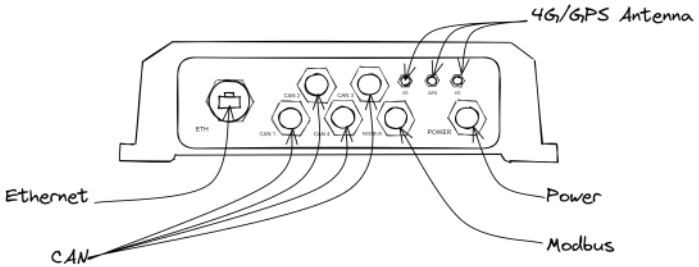
Smart Maintenance Schedule
Visualize past and future maintenance based on the actual use of each equipment.

WI-FI Hotspot
Add personal SIM-card and get access to a fast internet connection on your boat.

Sensors Customization
Large selection of wireless premium sensors with extended battery life.

YS PRO INTERFACES





IMPORTANT TO KNOW

YS PRO collects real-time data from your boat and relays it via 3G/4G. During app activation you will be asked to choose a 3G/4G subscription depending on your geographic location.
Prices and details of each subscription are shown page 27.

YS PRO can also be connected to a large number of wireless accessories. These accessories can be added during installation or later. YS PRO is programmed to run only Yacht Sentinel© accessories. *List of accessories is shown page 20.*

YS PRO can be powered by 12V, 24V or 48V. In case YS Pro is disconnected from the main battery, its internal battery lasts 24 to 48h.

When the boat is not in use, YS PRO has a low power consumption while monitoring 24/7:
- up to 2 battery banks
- integrated alarms
- up to 3 voltage detectors.
- all the wireless accessories

YS PRO has an internal relay to remotely update NMEA 2000 data on the app.
Please refer to page 23 for more details about the battery consumption.

When the boat is in use, YS PRO sends up to 5,000messages/day to ensure a precise monitoring.

GETTING STARTED

Before starting installation, make sure that you have all the included materials with you.

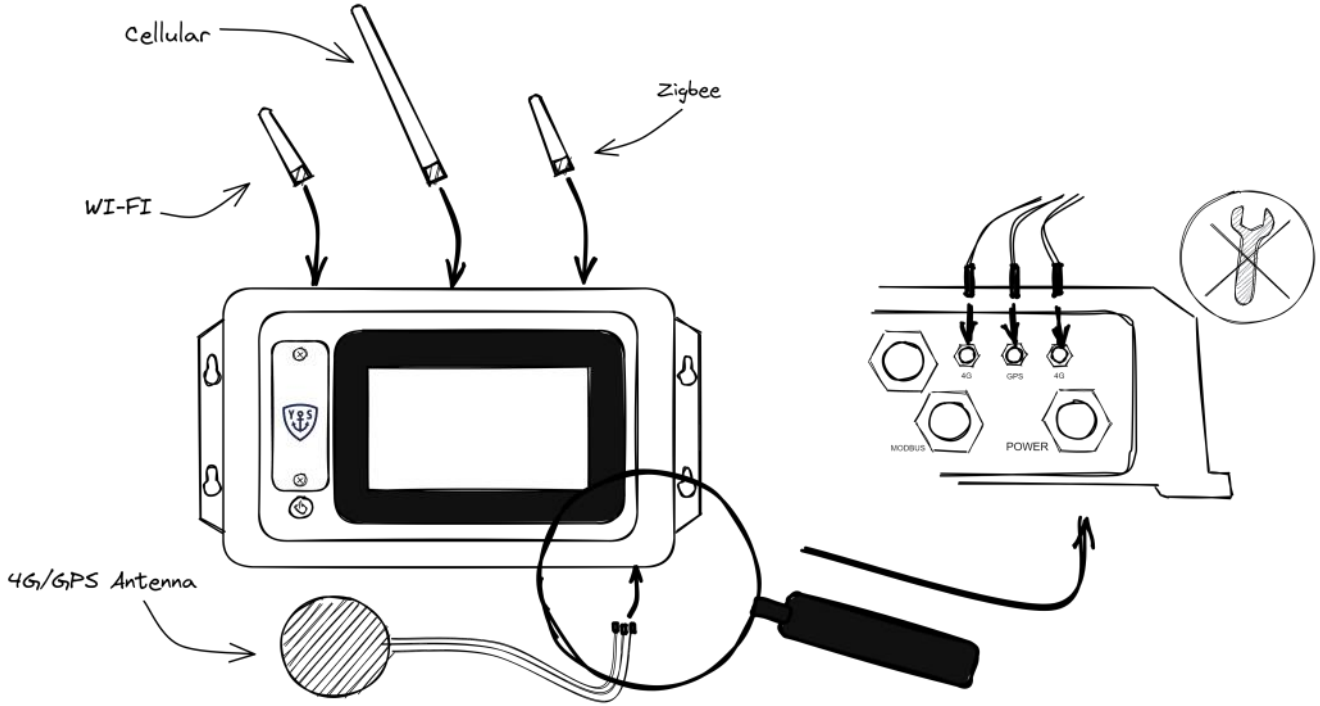
We recommend YS PRO to be installed in a covered area (in a cabinet if possible) where you can have access to NMEA 2000 and to the distribution board. The screen will help you during set-up.

YS PRO is in “shipping mode” to save battery before its first activation. The device will be activated when wired to a boat battery.

All the connectors should be hand tightened. Do not use a tool to tight the connectors.

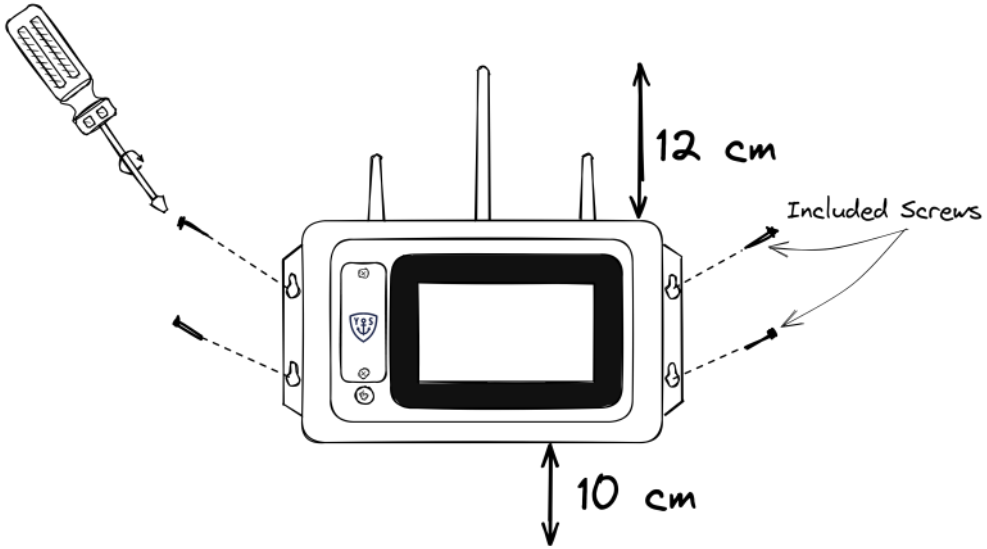
Installation Guide

INSTALL ANTENNAS



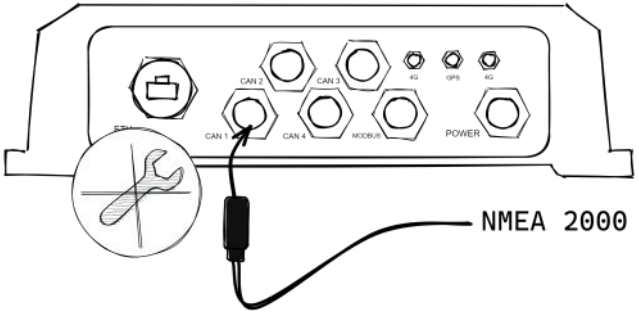
ATTACH YS PRO TO YOUR BOAT

We recommend that YS PRO is installed in a covered area (in a cabinet if possible) where you can have access to NMEA 2000 and to the distribution board. Use the 4 screws to attach the YS PRO vertically as below. Make sure to leave enough space at the top (12cm / 5inch) for the antennas and at the bottom (10cm / 4inch) for the cables.



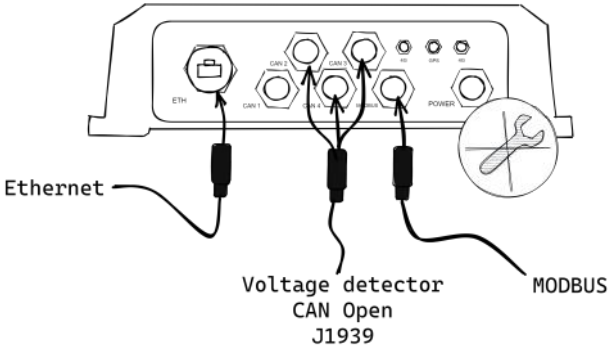
CONNECT THE CENTRAL UNIT TO NMEA 2000

We recommend connecting YS PRO to NMEA 2000. No manual set-up is required, It will automatically identify the different NMEA sources and autoscale the information on the app.
Please refer to page 25 for the list of collected data.



CONNECT TO OTHER CAN BUSES (OPTION)

In addition to NMEA 2000, YS PRO is able to collect data from a voltage detector or from four other protocols: CAN Open, J1939, Ethernet and Modbus.



IMPORTANT: All protocols (including NMEA 2000) will have to be registered later on the boat monitoring menu. Please refer to the YS PRO menu page 18.

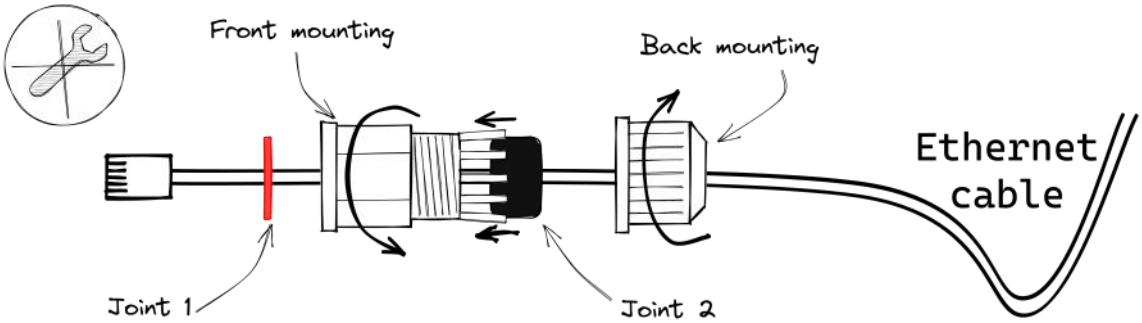
VOLTAGE DETECTOR SET-UP

The voltage detector is used to detect the voltage of electric devices such as bilge pumps, generators, water makers or engines. Voltage detection allows users to visualize 24/7 if the equipment is on or off, how long it has been used, and notifies you when maintenance is due.

Connect the red cable to the voltage detection and the black cable to the ground (battery (-)).
The connection will have to be registered later on the boat monitoring menu, Please refer to the YS PRO menu page 18.

ETHERNET SET-UP

A water resistant ethernet mounting is provided to protect it from harsh environments.



POWER CONFIGURATION

The power cable is composed of 5 wires: black / red / white / green / yellow. YS PRO must be wired to your main battery. Other configurations are optional, depending on the needs of you and your boat.

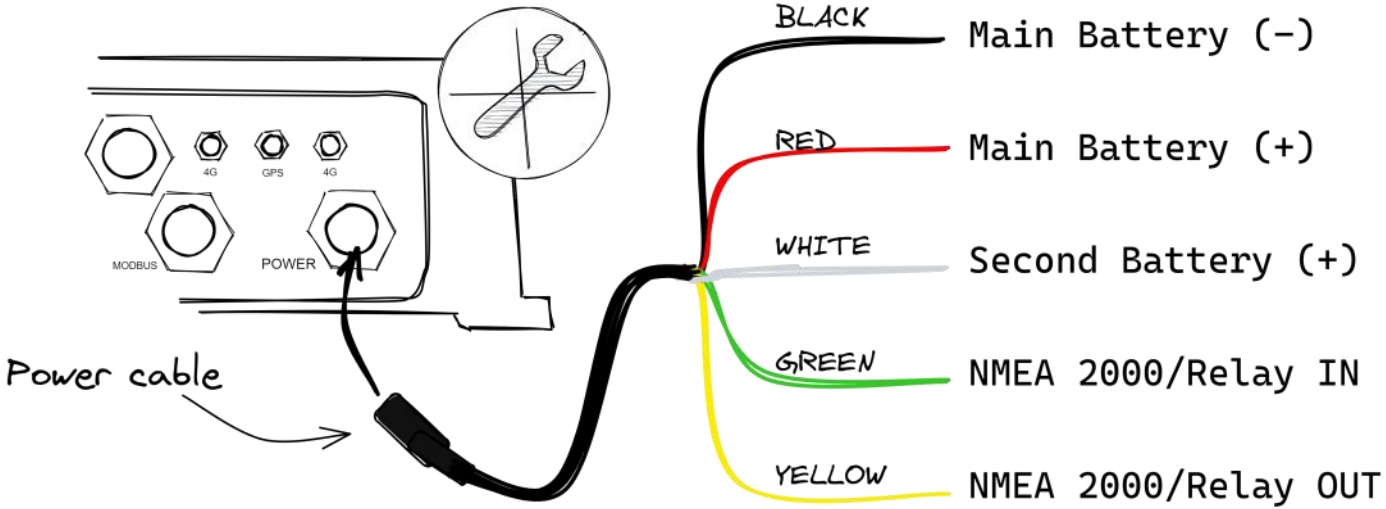
Please refer to the power diagram page 15.

Required: Connect to main battery
Plug the black and the red cable into your main battery. YS PRO average consumption stays under 0,3W in low consumption mode. Main battery monitoring is available 24/7.
Find more information about the battery consumption page 23.

Optional: Monitor a second battery
The white cable will allow you to monitor a second battery. No additional power consumption will be drawn. Second battery monitoring is available 24/7.
If there is no need for second battery monitoring, please cut the wire short and cover it with electrical tape.

Optional: NMEA 2000 Relay
By plugging the green and yellow cable to the NMEA 2000, you will be able to turn off NMEA 2000 when away and acquire data when needed (turn on and off).
If you wish not to use the relay, please cut the wires short and cover them with electrical tape.

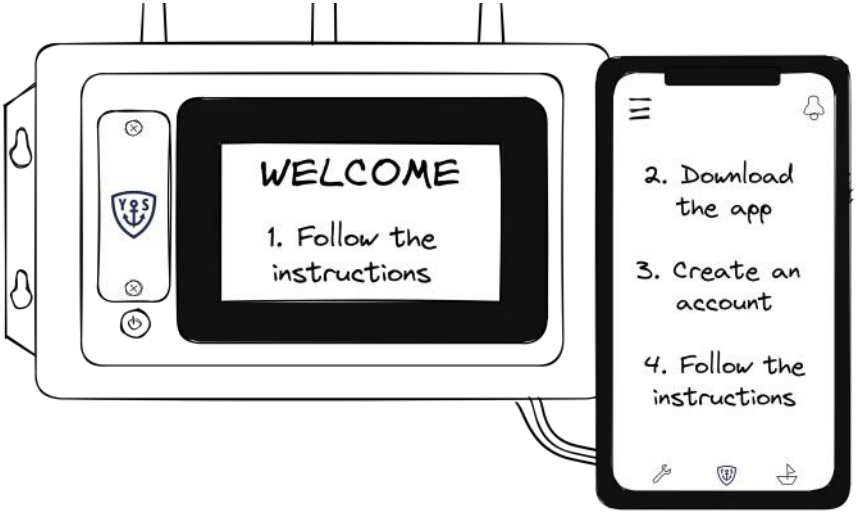
POWER DIAGRAM



INITIALIZATION

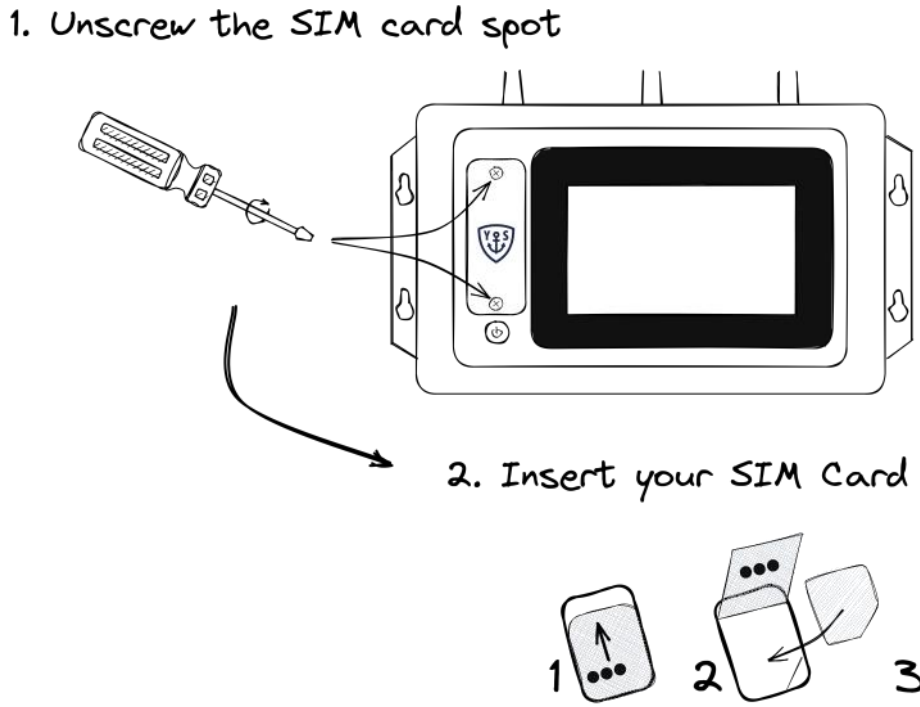
When wiring is complete, your YS PRO will turn on. Please follow the instructions on the screen. You will be asked to download the user app and pair the device to your phone. Make sure that you have an internet connection before proceeding.

Note: during the initialization, You will be asked if you wish to use the YS PRO as a WI-FI hotspot. If you already have a SIM card you can insert it following next page instructions. You can also add this option later.

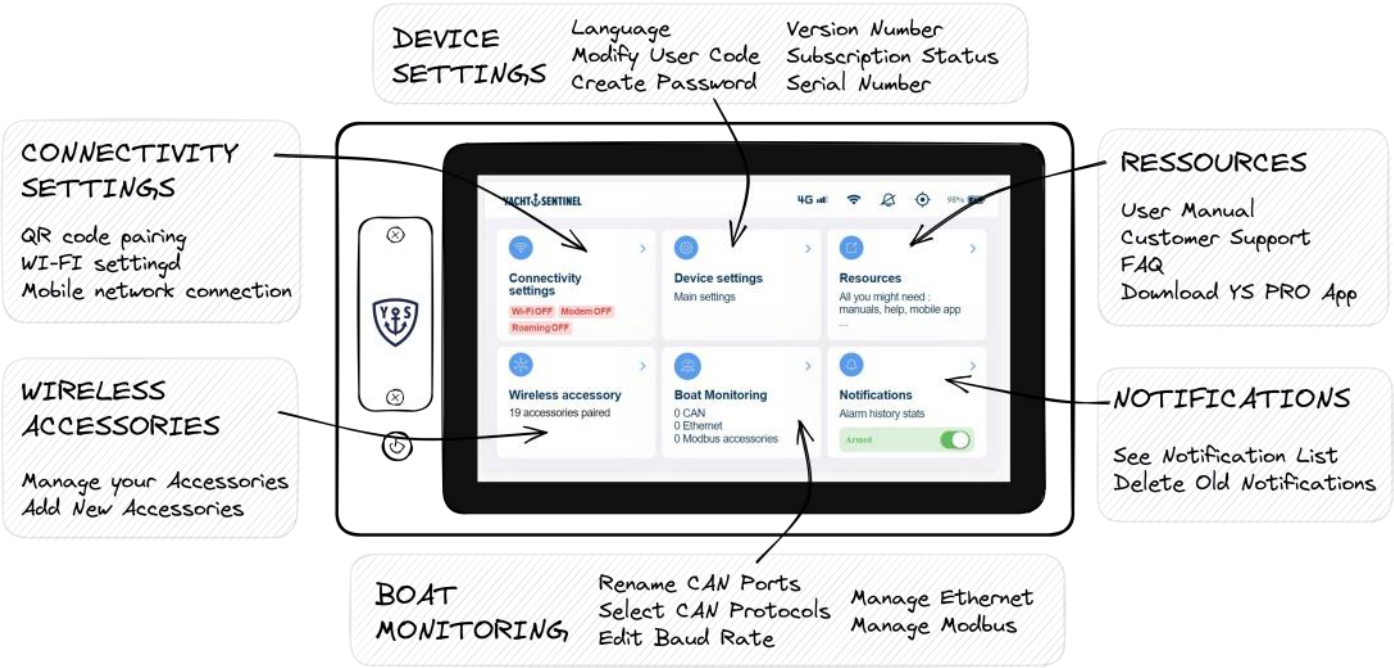


SET-UP YOUR WI-FI HOTSPOT (OPTIONAL)

Before proceeding, please make sure that your SIM card is working in your current location. Also ensure that your SIM card is not protected by a PIN code.



YS PRO MENU


DEVICE SETTINGS
Language
Modify User Code
Create Password
Version Number
Subscription Status
Serial Number
CONNECTIVITY SETTINGS
QR code pairing
WI-FI settingd
Mobile network connection
RESSOURCES
User Manual
Customer Support
FAQ
Download YS PRO App
WIRELESS ACCESSORIES
Manage your Accessories
Add New Accessories
NOTIFICATIONS
See Notification List
Delete Old Notifications
BOAT MONITORING
Rename CAN Ports
Select CAN Protocols
Edit Baud Rate
Manage Ethernet
Manage Modbus
YACHT SENTINEL
Connectivity settings
Wi-Fi OFF
Modem OFF
Roaming OFF
Device settings
Main settings
Resources
All you might need : manuals, help, mobile app
Wireless accessory
19 accessories paired
Boat Monitoring
0 CAN
0 Ethernet
0 Modbus accessories
Notifications
Alarm history stats
Armed

PAIRING ADDITIONAL ACCESSORIES

YS PRO only accepts Yacht Sentinel Accessories, purchased via our distributors or directly from our website.

On the YS PRO Menu, Select “Wireless Accessories”.

The list of all the paired accessories appears. To pair a new one, click on the “+” button on top right of the screen.

Turn your sensor into pairing mode and wait until YS PRO finds your accessory. Refer to the installation guide included in every accessory package.

Once your sensor is paired, it will be automatically added to the accessories list. You can rename it or change its zone by selecting the 3 dots.

Exception: The sentinel Cam2 doesn't need to be paired to YS PRO. Please follow the instruction manual provided with the camera.

List of Wireless Accessories

ADDITIONAL WIRELESS ACCESSORIES

Sentinel Cam2
Waterproof camera with a high definition (1080p) and intelligent motion sensor.

Entry Sensor
Ensure that your boat is never left unsupervised.

Smoke Sensor
Smoke and temperature monitoring for optimal fire detection.

Heat Sensor
Temperature monitoring for optimal fire detection.

Air quality Sensor
Monitoring of VOC levels, humidity, and temperature.

Motion Sensor
Detection of occupancy through light and temperature.

Bilge Sensor with Probe
Protect your boat from sinking and water damage.

Shore Power Sensor
Monitor shore power connection & range extender capabilities.

Humidity Sensor
Supervising indoor climate.

Keyfob
Secure access control to your YS PRO.

All accessories are wireless. Range is 7 to 15 meters. Sensors are monitored 24/7.
Battery level and signal strength of each sensor can be monitored via the YS PRO touchscreen.
Alerts from any sensors will automatically turn on the 85db built-in siren included in the Bilge Sensor, the Smoke sensor and the Heat sensor.

You can purchase our sensors from our distributors or directly from our website:
https://yacht-sentinel.com/ys-pro-accessories/.

ARMED/DISARMED MODE

YS PRO security system can be armed/disarmed via the user app or the keyfob (see page 21).

Arming

When leaving your boat, simply arm YS PRO. It will activate the following alarms:

- Geofencing
- Tilt
- G-shock
- Sentinel Cam2 (additional accessory)
- Entry Sensor (additional accessory)
- Motion sensor (additional accessory)
- Shore power (additional accessory)

If something wrong is detected, it will automatically turn on the 85db built-in siren included in the Bilge Sensor, the Smoke sensor, and the Heat sensor. You will be notified through the app.

Disarming

Before entering your boat, simply disarm YS PRO to disactivate these alarms.

Note: All other alarms are by default activated. They can be manually disactivated via the user app.

BATTERY CONSUMPTION

YS PRO is composed of two processors to ensure low power consumption.

Normal state

In normal state, at least one of the CAN bus is active which automatically keeps the main processor awake. In this state, YS PRO will keep all features running and will send data via 3G/4G at high frequency.

Power saving state

If all the CAN buses are inactive, YS PRO will automatically turn off the main processor and enter in a power saving state. YS PRO will keep a power consumption under 0.3W. All the security alarms will still be active (geofencing, battery, tilt, G-shock, wireless accessories, etc.). If something wrong is detected, YS PRO will awake the main processor in order to trigger the alarm and send an alert.

Exception: WI-FI hotspot

If the WI-FI hotspot feature is used, YS PRO will stay in normal state. To turn the YS PRO in power saving state, the WI-FI hotspot needs to be turned off via the YS PRO touch-screen.

COLLECTED DATA

YS PRO only sends data when it has a 3G/4G signal. All data can be recorded for months and sent later if it is out of range. YS Pro collects 4 types of data:

Internal YS PRO data

It includes internal alarms (geofencing, battery, tilt, temperature and G-shock alarms), 3G/4G & GPS signal strength and Wi-Fi statistics and settings. This data is collected and sent 24/7.

Data from power cable and voltage detector

YS Pro power cable can monitor the voltage of up to 2 batteries. Alarms can be configured if the voltage in any of these 2 batteries drop below a pre-set level.
Voltage detection allows users to visualize if the equipment is on or off. The user app allows to know for how long it has been used and to be notified when maintenance is due.
This data is collected and sent 24/7.

Data from optional wireless accessories

Any triggers from a sensor will result in an alarm being sent by YS Pro to the app. YS Pro also collects the Zigbee signal strength and the battery level of each sensor multiple times per day. This data is collected and sent 24/7.

Data from NMEA 2000 and other CAN bus

If connected to a CAN bus (NMEA 2000, CANOPEN, J1939), YS Pro collects any data from the bus when the bus is turned on. The range of NMEA 2000 data is given page 25.

RANGE OF NMEA 2000 COLLECTED DATA

Manufacturer's Alarms

Check Engine
Over Temperature (Engine)
Low Oil Pressure (Engine)
Low Oil Level (Engine)
Low Fuel Pressure
Low System Voltage
Low Coolant Level
Water Flow
Water In Fuel
Charge Indicator
Preheat Indicator
High Boost Pressure
Rev Limit Exceeded
EGR System
Engine Emergency Stop Mode
Power Reduction
Engine Comm Error
Sub Or Secondary Throttle
Neutral Start Protect
Engine Shutting Down
Check Transmission
Over Temperature (transmission)
Low Oil Pressure (Transmission)
Low Oil Level (Transmission)
Sail Drive

Engine Parameters

Rpm
Boost pressure
Tilt/trim
Oil pressure
Oil temperature
Engine Temperature
Alternator Potential
Fuel Rate
Engine Hours
Engine Coolant Pressure
Fuel Pressure
Engine Load
Engine Torque

Power Parameters

State of charge
Time remaining
Current
Battery Case Temperature
State of Health
Voltage

Temperature & Humidity

Sea temperature
Inside temperature
Engine room temperature
Main Cabin Temperature
Refrigeration Temperature
Wind Chill Temperature
Freezer Temperature
Exhaust Gas Temperature
Outside Temperature

Fluid Level Alarms

Fuel tank capacity
Oil tank capacity
Fresh water capacity
Black water capacity
Waste water capacity
Live well water capacity

Others

GPS Coordinates
COG SOG SOW
Wind Speed
Water depth

DOWNLOAD THE APP

Scan the QR code
to download the app

Download on the App Store

GET IT ON Google Play

SUBSCRIPTION ZONES

We created five geographical zones to give you the best pricing based on the location of your boat. You can review the countries included in each zone on:
https://yacht-sentinel.com/3g-4g-coverage.

Standard: (10€ / month)
Europe Union + United States

Zone J: (15€ /month)
Standard + Australia + Japan + South Africa

Zone I: (20€ /month)
Standard + Asia + Latin America + Others
(Please check your country availability on the website before proceeding)

Zone H: (25€ /month)
Standard + Rest of Europe + Others
(Please check your country availability on the website before proceeding)

Zone A1: (50€ /month)
Standard + Africa + Others
(Please check your country availability on the website before proceeding)

Prices may be updated without notice.

SAFETY INSTRUCTIONS

Operate your YS PRO per the user manual. Do not use your YS PRO for any other purpose that is not described in the user manual.
You should not use this system as a navigation system.
Yacht Sentinel Limited and its affiliates are not liable for any damage whatsoever arising from the use of YS PRO.
Inspect the central unit and accessories before first use. Report any damaged or missing items to your supplier immediately.
Do not try to open or insert any object into the central unit.
Do not modify any product or add attachments not approved by Yacht Sentinel Limited.
Do not submerge the central unit or any sensors under water.
Do not spill food or liquids on any products.
If your central unit or sensors do not operate normally, immediately contact an authorized dealer or Yacht Sentinel Limited customer support.
Do not attempt to repair the sensors or the central unit.
Do not try to open the sensors unless you are changing the batteries, otherwise your warranty will be void.
Do not open the central unit, otherwise your warranty will be void.
Do not operate the central unit or any sensors if any damage is visible or suspected.
Do not connect to the boat's battery or distribution board without knowledge.
YS PRO is not suited to be used by anyone under 18 years old.

DISCLAIMER

If a technical issue persists, please contact us via email at : support@yacht-sentinel.com.

The use of YS PRO is at the user's own risk. Please visit our website : www.yacht-sentinel.com to review our Terms and Conditions.
All new goods supplied by Yacht Sentinel Limited, Yacht Sentinel France and its licensed dealers have a 12 month warranty from the date the goods were delivered (unless otherwise stated). This warranty does not affect your statutory rights as a consumer. If your unit develops a defect within the 12 month warranty period, please contact us for warranty service.

Please note that the warranty does not cover you for any defects in the goods arising from abnormal wear and tear, willful damage, accident, negligence by you or any third party, use otherwise than in accordance with its intended use. Failure to follow the manufacturer or suppliers' instructions, or any alteration or repair carried out without Yacht Sentinel Limited or Yacht Sentinel France prior written approval will void the warranty.

ENJOY A SAFE BOATING EXPERIENCE

Yacht Sentinel Team

YACHT SENTINEL