SuperSail
Yacht Monitoring

Installation Manual
Alarm Package
Unit-C

ID's for Wireless Sensors:

Remote Control:

Motion Sensor:

Water Sensor:

Shore Power Sensor:

Door Sensor:

Temperature Sensor:

Humidity Sensor:

Getting Started

Congratulations with your new SuperSail product. We hope you will be satisfied with it and we are available for support if you may need it.

We can be contacted here: support@super-sail.dk

Please read the entire installation manual before starting the installation.

Best Regards

SuperSail Support-Team

Unpacking

Before operating the unit, make sure that the packaging does not seem to have been injured during transport, and that the product is complete and without visible signs of damage or overload. If this is not the case, contact SuperSail before using this product.

An alarm package consists of the following. Assembled and configured in SuperSail mobile app:

- SuperSail Marine Alarm, Unit-C
- Siren
- GPS antenna with cable
- GSM and RF antennas
- Power supply cable
- Evt. Motion Sensors, Remote Controls, Water Sensors, cameras, etc.
  Ref. the Installation Manuals for the accessories on www.super-sail.dk/app-support

Installing the Alarm System

The installation includes the following steps:

1. Activate your subscription at SuperSail and get login information, by writing an email to info@super-sail.dk including:
   a. Name
   b. Address
   c. ID of your SuperSail Alarm
2. Download SuperSail mobile app for your cell phone via GooglePlay (Android) or AppStore (iPhone)
3. Install the Alarm and your Wireless Sensors in your boat and connect external power

Login to the app., and start using your new SuperSail Marine Alarm.

Subscription

Your SuperSail Marine Alarm is not activated for use, until your subscription is activated.

Subscription will be invoiced yearly – please contact SuperSail (info@super-sail.dk) to request creation.

Separate subscriptions are needed for the SuperSail Alarm system and for the Camera system, as both system includes individual SIM cards.

Login to the mobile app is created when the subscription is bought.

As soon as you receive an email telling that your subscription has been activated, the alarm is on-line and ready to use. In some cases, activation can take up to 12 hours.

Download and Install the SuperSail mobile App

All SuperSail units are controlled and operated via the SuperSail mobile app. Search it in the AppStore (iPhone) or PlayStore (Android), by searching for "SuperSail" under mobile apps.

Install the app on your mobile phone. If you want the app installed on your iPAD, you must search for the "SuperSail app in AppStore as an "iPhone App" - not as an "iPAD App".

Find User's Manual for the SuperSail system and app, by visiting the Super Sails website: www.super-sail.dk/app-support

Connect to External Power

The Alarm unit must be connected to the boat's battery on the primary side of the main switch. Make sure that there is always power to SuperSail Marine Alarm when you leave the boat. This is a must for the alarm to watch the boat.

The SuperSail Marine Alarm is supplied with 2 meters power cable to be connected to 12V/24V external power.

Red wire must be connected to: +12V/+24V

Black wire must be connected to: GND/0V

If the alarm is connected direct to the boats battery, we recommend installing a 2,5A fuse between the battery and the red wire, to protect against short circuit.

The external power cable must inside the Unit-C, be connected to DC IN (+12V/+24V) and XGND (GND).

Charging internal backup-battery

When the unit is unpacked it can be connected without prior charging of the internal battery.

The automatic charge function in the unit ensures that the internal backup battery are kept fully charged.

The backup battery will be fully charged after approx. 4 hours, but the unit can be used right away.

Installing the antennas

The GPS antenna must be installed with the black side facing up against the satellites. The GPS antenna must NOT be installed underneath metal – glass and glass fiber are no problem.

The GPS antenna must be installed with a minimum distance of minimum 20 cm. to other antennas, to avoid disturbance between them.

In general, we recommend installing the Alarm unit as high above water level as possible, to receive the best GSM signal from the transmitters at shore.

The GSM and RF antennas are mounted direct on the connectors on the Alarm unit.

Alarm Unit connectors:

LTE: GSM Antenna

ISM: RF Antenna

GNSS: GPS Antenna

WL/BT: Not used

Our general recommendations to the values for "Max. Movement" which is found under the Alarm Menu in the app is:

Anchoring	10-25 meters
In harbor	50-100 meters
Close to Buildings	100-200 meters
Indoor	200-300 meters

The GPS position is calculated very precise when signals are received direct from the satellites. If the signals are reflected by hitting a building before reaching the alarm, the position will be calculated with larger deviation.
The calculation of the position is very accurate, when the signal is received direct from the satellites.

Wireless Sensors

The SuperSail Marine Alarm is pre-configured with the Wireless Sensors included in the package.

All you need to do is installing batteries and mounting the Sensors at a proper place, where the wireless signals are not shielded.

Note for the Motion Sensor and Optic Door Sensor!

Make sure that sunlight cannot reach the Sensor, as this might create a false alarm detection – also morning and evening when the sun is hanging low.

For installation of batteries, please refer to www.super-sail.dk/app-support If you are in doubt.

ID for the Wireless Sensors can be found on the front page of this document – save this in case you will have a future need, to re-configure your alarm.

The IDs are pre-configured into the SuperSail Marine Alarm when you receive it. If you need to setup the alarm system again or add/replace sensors, please refer to the installation manual for the wireless sensor at www.super-sail.dk/app-support.

Special DC Outputs

2 Special DC outputs are available in the Unit-C – Output 1 and Output 2.

Output 1 is used for the siren or can be used as a low current 12VDC output (500 mA) for e.g. a LED light.

Setting the "Activate on Alarm" check box in the SuperSail app for Output 1, will active the output is an alarm occur. If the "Activate on Alarm" check box is not set, the output can be activated manually.

Output 2 is used for Immobilizer or for a Blink LED or can be used as a low current 10VDC output (20mA).

Setting the "Immobilizer check box in the SuperSail app for Output 2, will activate the output when the alarm is turned on. If the "Immobilizer" check box is not set, the output can be activated manually. Using the output as an Immobilizer, requires an external 10VDC Relay which can be activated by the Output 2.
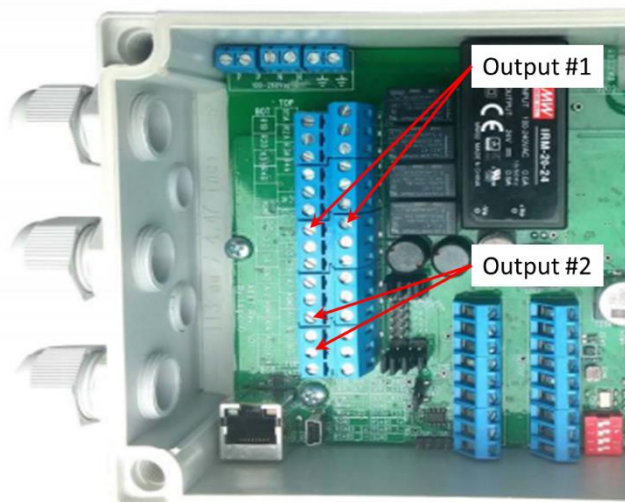
Output #1:

+12V: DC OUT

GND: GND

Output 2:

+10V: A02

GND: AGND

Remote Control Relay Outputs (Option)

4 Relay outputs are available in the Unit-C – Output 3 to Output 6.

All Relay outputs can be controlled from the SuperSail app, and Output 5 and Output 6 can further be activated from the Remote Control.

The Relay outputs are Normally Open (NO) Relay outputs, which means that the two terminals for each output is disconnected until activated from the app or Remote Control.

The Relay outputs can be used to switch e.g. deck light, heater and other equipment which must be remote controlled.

When the Relay output is activated from the app or Remote Control, the two terminals for each output are short circuit and e.g. power for the deck light can be switched on/off.

The Relay outputs can switch up to 5A current and up to 230V.

The Relay outputs are available in the terminal blocks inside the Alarm unit.
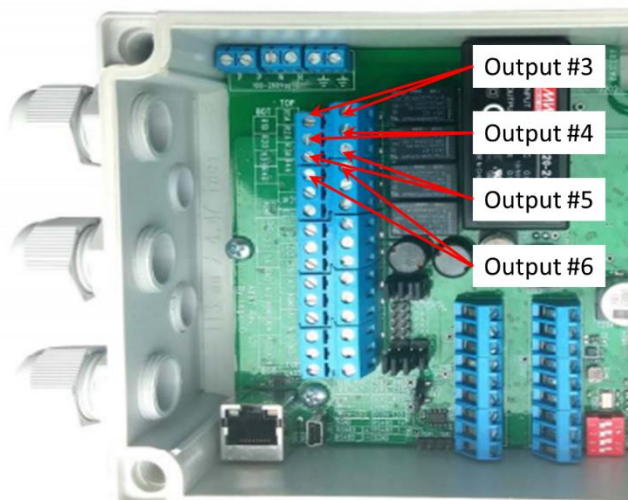
Output #3 switch R1A and R1B

Output #4 switch R2A and R2B

Output #5 switch R3A and R3B

Output #6 switch R4A and R4B

DC Inputs

2 DC inputs are available in the Unit-C – Input 1 and Input 2.

The inputs will activate the alarm if 12VDC/24VDC is registered at the inputs.

Some smoke alarm, gas alarm, bilge pump, etc. which are wired can be monitored via the inputs in the Alarm unit. If e.g. the smoke sensor is activated it will activate an internal relay and source 24V to the input of the Alarm unit, which will activate.

Not all smoke sensors, gas sensors, etc. are able to source 12V/24V output, so check the specification.

Activating Input #1 will trigger an SMS to be sent AND activating the siren – suitable for e.g., smoke sensors, gas sensors, etc.

Activating Input #2 will trigger an SMS to be sent, but NOT activating the siren – suitable for e.g. bilge pump and other equipment to be monitored without activating the siren.
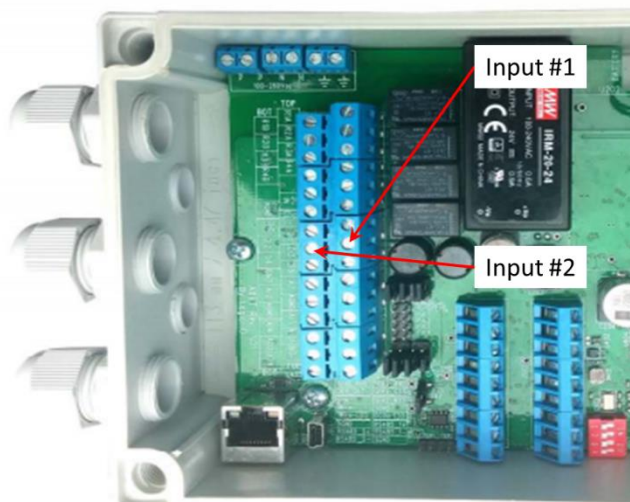
Input #1: DI1

Input #2: DI2

Running Hours (Option)

If running hours needs to be counted for engine and generator, a steady signal must be connected to the below digital inputs, when the engine or generator is active.

As long as the signal is active, the SuperSail server will count running hours, which will be displayed in the app.

Generator active signal must be connected to DI4

Engine active signal must be connected to DI5

Battery Sensor Inputs (requires SuperSail Battery Monitor Sensor)

3 additional Battery Sensor inputs are available in the Unit-C, used for:

Used for	Unit-C Connector
Start #1 Battery Monitoring	AI1
Generator Battery Monitoring	AI2
Bow Thruster Monitoring	AI3
Start #2 Battery Monitoring	AI4

Note!

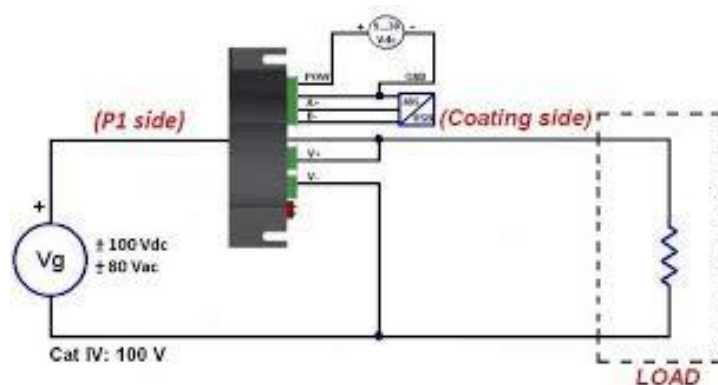**A SuperSail Battery Monitoring Sensor MUST be connected between the battery and the Alarm unit.**

The SuperSail Battery Monitoring Sensor output is connected to Unit-C in the above connector pins.

Connecting Battery direct to the Monitoring Unit will harm the Alarm Unit.
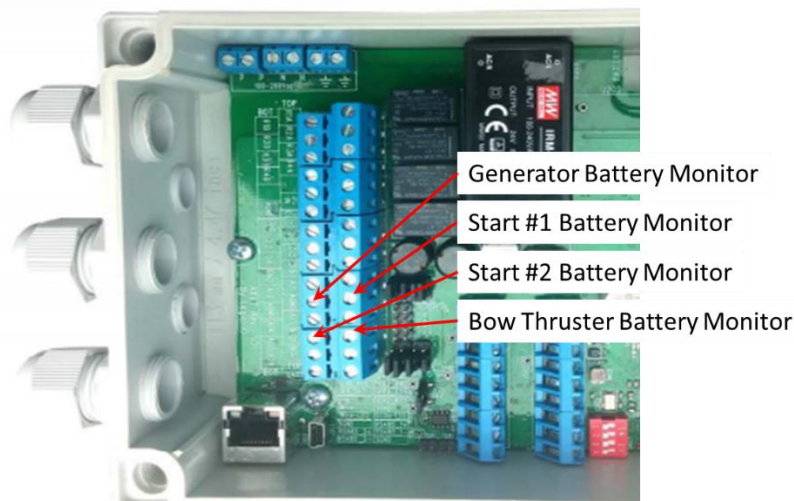
Shore Power Monitoring (Option)

Energy Sensors connected via ModBus

The Energy Sensors are used for current and voltage measurement.

Note!

The Power cable must be drawn through the hole of the sensor (only phase-wire for AC) – the cable from the power source must go in through the smooth side of the sensor, to let current going in from the source in the direction from smooth side to terminal block side.

Voltage is measured by connecting wires to the V- and V+ terminals (only one of each need to be connected).

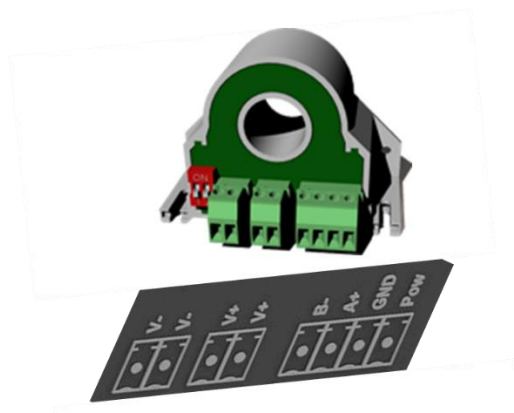The Energy Sensors can be mounted onto DIN Rails.

The Energy Sensors are all marked with the position they are intended for.

B- (ModBus- data signal) and A+ (ModBus+ data signal) must be connected to the ModBus signal wires.

The Energy ModBus units can be powered with 9..30VDC, with power connected to Pow (+) and GND (-).
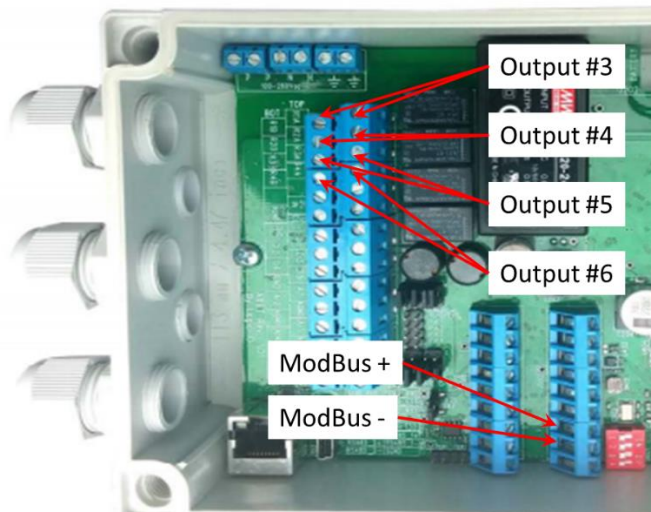
Cable connections is shown below:

The below Energy Sensors are included:

Energy Sensor	Current Level	Voltage Level	ModBus ID
Shore Power #1 AC Current	0..25Amp	0..800VAC	22
Shore Power #2 AC Current	0..25Amp	0..800VAC	25
Shore Power #3 AC Current (option)	0..25Amp	0..800VAC	26
Shore Power #4 AC Current (option)	0..25Amp	0..800VAC	27

Accuracy for Voltage and Current: < 0,5% F.S.

ModBus Cabling

Cabling of ModBus networks must be done like below.

Total cable length for ModBus can be up to 500 meters.
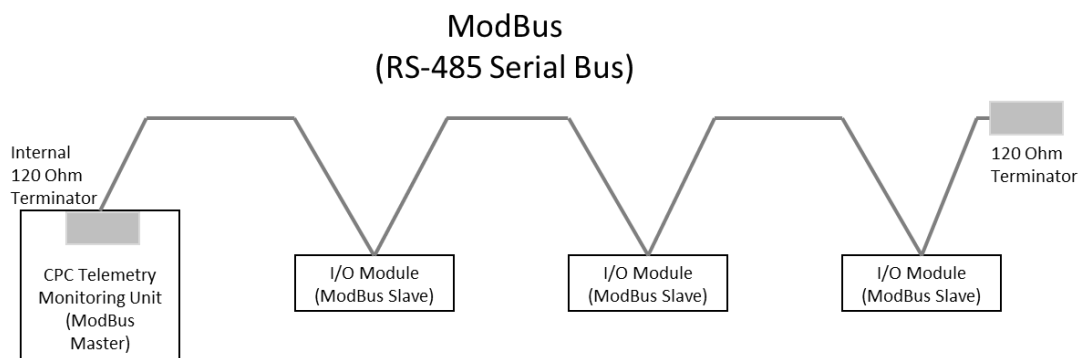
Note: RS-485 serial communications uses a voltage differential signal, that requires proper termination with a 120 Ohm resistor in both ends of the network cable. This follows RS-485 standard for biasing to ensure reliable performance

Maximum 2 ModBus signal cables must be connected into the connectors of a ModBus slave.
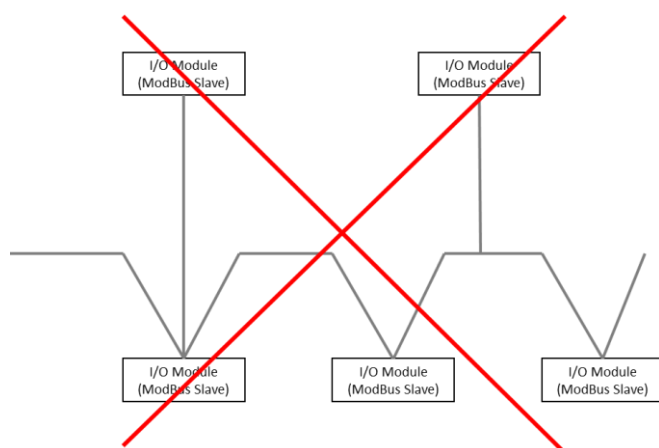
Examples of not allowed ModBus connections.

Disposing

Do not dispose of as household waste.

Electronic equipment must be disposed, in accordance with local rules for electrical and electronic equipment.