

SuperSail

Marine Alarm

User's Manual SuperSail System

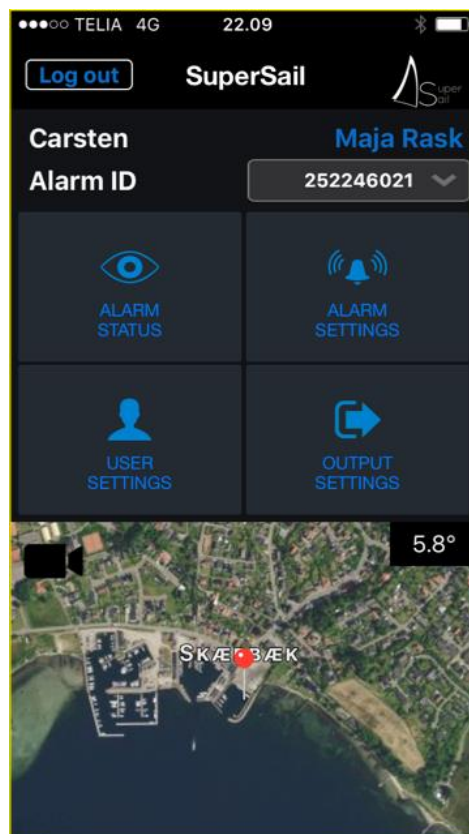


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1 Introduction

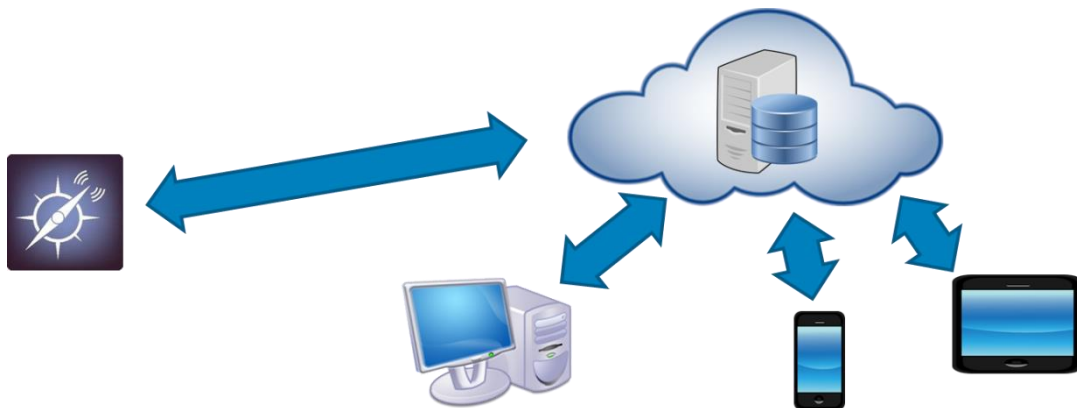
This User's Manual is about the daily use of the SuperSail Alarm System. The system consist of GPS Trackers used for alarm systems and for data collection. Data are stored on a central hosted server and a mobile application (App) for accessing the trackers. The SuperSail mobile App is available for iOS (AppStore) and for Android (Google Play).

SuperSail Marine Alarm is developed for fixed mounting in dry environment inside a larger boat. The SuperSail Marine Alarm must be connected to external power supply and the antenna must be placed where the best signal is achieved. Alarm sensors can be connected wired or wireless. A small internal battery ensures that the alarm continues operation if external power is interrupted.

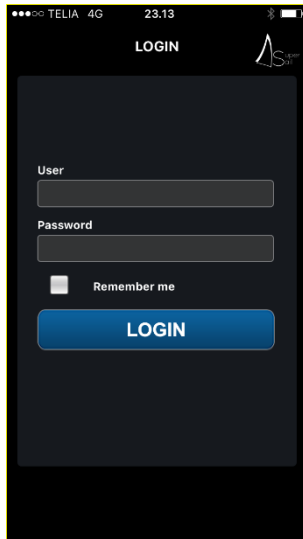
The SuperSail Alarms are available in the following configurations:

- SuperSail Marine Alarm is a complete alarm with all alarm features except for the possibility of connecting wireless sensors. The alarm has 1 (optional 2) outputs which can be controlled automatically by the alarm (e.g. for connecting a siren) og manually via the app. Further it has 1 (optional 2) inputs for connecting e.g. an outboard engine or a wired sensor.
- SuperSail Marine Alarm Wireless is the extended version of the above with full integration of up to 50 wireless sensors and up to 8 cameras.

The system is operated via your Smartphone.



2 Login Menu



As a user, you are setup with your email address as your user login and a personal password. Your email and password gives you access to the relevant features in the mobile app.

Key in your email address in the Email field. Touch the field to have the keyboard displayed.

When the email is typed in, press Ok or Enter on the Keyboard and the focus is moved to the Password field. Type in your personal password and press Ok or Enter on the Keyboard, which then disappears.

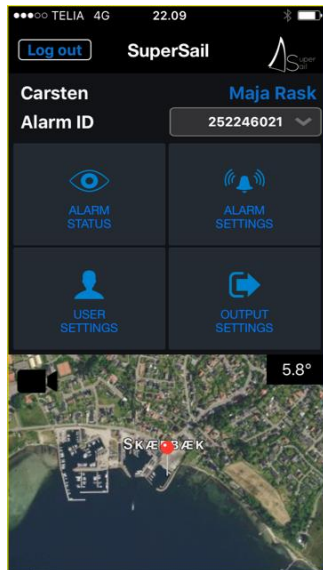
If you have typed something wrong, you only touch the field and start over again.

If you are using your own mobile phone, it is recommended to mark the field "Remember Me". Next time the app is started you don't have to type in the login information – unless you have logged out before closing the app.

This feature should only be used on a personal mobile phone, as it gives direct access to your system.

After having typed in the correct data, press "Log in", and the application will collect your data and start the application.

3 Main Menu



In the main menu you have access to all relevant functions.

At the top your name and your boats name are displayed. Your boats name is used in alarm SMS's, where it is included in the text. Next the ID of the alarm is displayed.

The "Log out" button should only be used if you want to leave the application and type in your email address and password again.

The four buttons give access to the functions in the system.

If the alarm is turned on, this will be indicated by green text and green icon on the button.

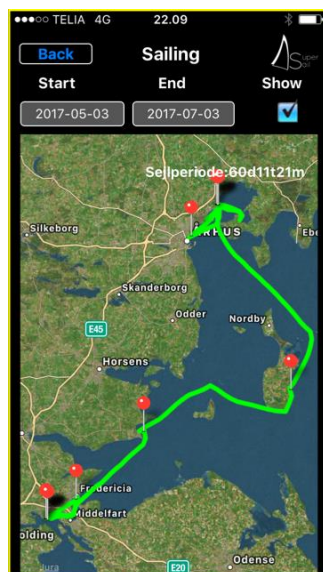
At the bottom a map is shown, showing the latest position of the alarm.

If a temperature sensor is connected to the alarm, the current temperature is shown in the upper right corner of the small map.

If one or more cameras are connected, a camera icon is shown in the upper left corner of the small map. Pressing the camera icon, opens the camera image window.

Pushing the map shows the Full Screen Map as shown below.

3.1 Full Screen Map



The latest position of the alarm is shown by a pin in the location.

If dates are specified and "Show" is marked, the tracking for the period between the dates are shown.

If a period of several dates are selected, a pin is set in the first registered position for each day.

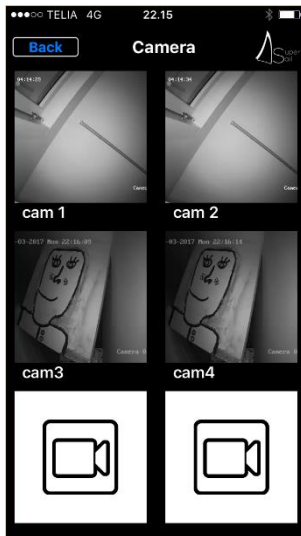
The Sail Period is the time from first to last registration within the selected dates.

If Start and End is set to the same day, the tracking's for this day is shown. The Sail Period will show the sailing time including stops.

The alarm will only register tracks when the boat is actually moving. If the boat is not moving for a day or more, no tracks will be registered.

It is possible to zoom and rotate the map, using your fingers.

3.2 Camera Window



Pressing the camera icon (if available), opens the Camera image window, which shows the current still picture for each camera connected.

If a camera is not connected or the login information is not valid, a standard camera icon is shown instead of a still picture from the camera.

When entering the window a “loading carrousel” is shown for each camera until the app has connected and retrieved a still picture. This might take several seconds depending on the data connection from the mobile phone.

Pressing one of the camera still images, open the full screen live streaming window.

3.3 Camera Full Screen Live Streaming

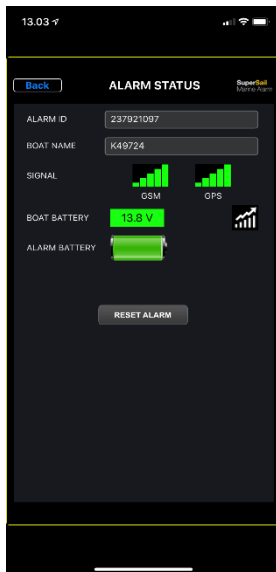


The Camera full screen live streaming window shows live streaming from the selected camera. The live streaming takes some bandwidth of the mobile phones data connection and depending on the SIM card provider live streaming can be costly.

Please be aware not to leave the live streaming window open if not in use, to save the cost of data traffic used for streaming. The connection to the camera is closed when the window is closed.

4 Alarm Status Menu

From the main menu it's possible to monitor your alarm status, by selecting the "Alarm Status" button.



Pushing the "Back" button returns to the main menu without changing tracker settings.

At the bottom you find the "Reset Alarm" button, which executes a hard reset of the alarm. This is done by sending a SMS to the alarm forcing it to reset and restart. Your settings are NOT affected.

The boat name can be changed by selecting the field. When the field is selected, the keyboard is automatically displayed. The boat name is used to identify the tracker in SMS's and regatta data.

The Signal levels shows the actual measured GPS and GSM signals. When entering the menu, the fields will show "Measuring" for 15 seconds and then be blanked until the actual measured levels are reported by the alarm – this can take up to 30 seconds.

Selecting the Alarm ID field, shows a list of all trackers for which you are allowed as user. If the alarm you search for is not found, contact your System Administrator or support@super-sail.dk, who can help to create you as user for a specific tracker.

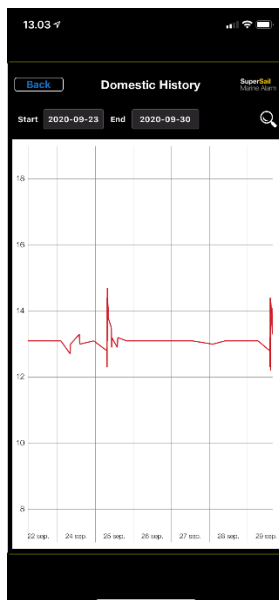
Battery level for the boat battery is shown in the External Battery field, and the battery level for the internal backup battery in the alarm is shown in the Internal Battery field.

The Internal battery level is divided into steps of 20%, where the level of the internal battery is considered critical if it drops below 20%.



History levels for battery can be shown in a graph, by pressing the graph icon.

The voltage graph for the battery shows:



5 Alarm Settings Menu

From the main menu it's possible to activate alarms that monitor your boat even during your sailing or when you leave your boat, by pushing the button "Alarm Settings".

This function is intended for sailors who wants to ensure that their boat is not been robbed or stolen. Furthermore water intrusion or fire can be monitored by connected sensors. It's also possible to turn on/off external units like e.g. the heater.

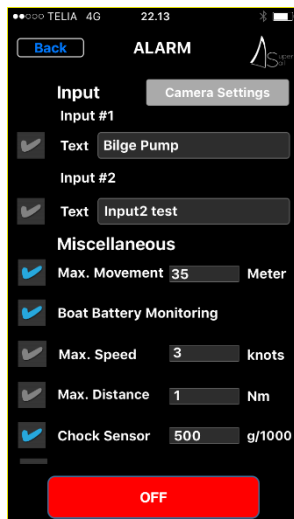
Pushing the "Back" button returns to the main menu without activating the alarm.

The alarm function is turned on/off independent of other functions, which enables you to use the alarm even if you are sailing.

The alarm functions are a safety for you and your boat, where up to 4 mobile numbers can receive messages in case of alarms.

Your personal password can be changed in the "User Settings" menu.

5.1 Functions



The Alarm Menu contains the following functions:

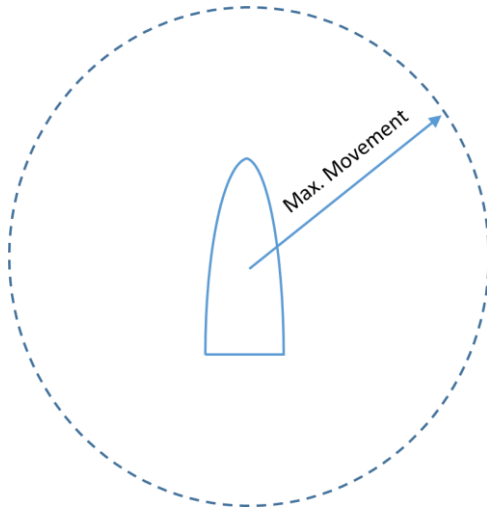
- Camera Setting, which opens the Camera Setting window
- Input alarms that can be activated individually
- Monitoring of maximum movement – e.g. theft or anchor guard
- Monitoring of 12V or 24V
- Monitoring of maximum speed
- Monitoring of maximum distance
- Chock Sensor which monitor e.g. grounding, hitting the jetty, while moored or collision
- Temperature alarm if a temperature sensor is connected
- Wireless Sensors which can be activated individually

5.2 Inputs

SuperSail Marine Alarm has 1 (optional 2) configurable input. To the inputs external sensors like e.g. a smoke alarm or float switch can be connected, or a wire to an outboard engine can be connected for monitoring this. In the text field you can write a text that identifies the connected units. Same text is included in the SMS alarm text.

5.3 Maximum Movement

Maximum Movement Alarm with configurable alarm distance, which functions like a GPS fence. The function can be used as a theft monitoring or as an anchor guard.



The figure shows the principle in the maximum movement alarm, where the boat are in the center of a circle indicating the maximum movement before the alarm is activated.

A GPS which is steady will register some movement in all directions, caused by reflected signals from the satellites. Reflections occur when the signal from the satellite hits something in the way to the tracker.

Even that the GPS in the tracker is very precise, reflected signals will be received from time to time, which gives the tracker a wrong position for the boat.

To prevent wrong positions from activating a false alarm, it is recommended to set the Maximum Movement distance to minimum 25-35 meters. Our

experience is that this value prevents most false alarms in most harbors. If the boat is placed near buildings or other constructions creating reflections, it might be necessary to set a higher value for the Maximum Movement alarm.

It is recommended to test the value for some days to ensure that no false alarm are sent due to reflections from the surrounding environment.

5.4 12V or 24V Monitoring

Monitors if external 12V supply is interrupted or drops below 10,5V, or if 24V supply drops below 21V.

5.5 Maximum Distance

Same function as described for Maximum Movement paragraph 5.3.

Typically used by charter boat companies or if your boat is being used by others than yourself. You can receive an alarm if the boat comes too far from the starting point.

5.6 Maximum Speed

Maximum speed with a configurable maximum speed in the unit of knots.

Typically used by charter boat companies or if your boat is being used by others than yourself. If the speed indicates that the boat are transported over land, you will be noticed by an alarm.

5.7 Chock Sensor

Maximum chock effects with a configurable alarm limit in unit 1/1000 g (g=gravity).

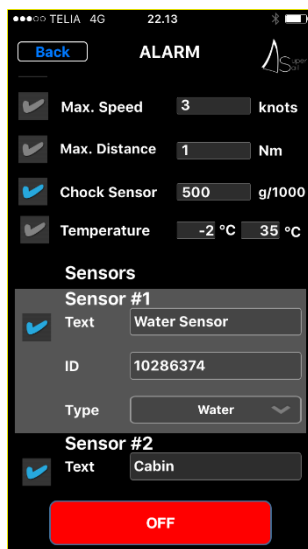
The Marine Alarm must be fixed mounted in the boat, to register the chock effect correct.

Experience has shown that a value of 500 (500/1000 g ~ ½ of gravity) is normally suitable. This value will normally not activate the alarm when the boat is moored, but will activate the alarm if the boat hits the jetty.

The setting can be tested by activating the alarm and then bouncing on the deck. A strong bounce corresponds that the boat hits the jetty and will force the alarm to be set.

If the chock sensor is used for e.g. charter boats, the value can be set higher if you only want alarms in case of grounding.


5.8 Wireless Sensors



Up to 50 wireless sensors can be connected to the alarm system as needed. The following wireless sensors can be connected:

- Motion Sensor, which monitor the temperature difference in the environment. If a living creature enters the boat an alarm will be set.
- Water Sensor, which monitor water or moisture in the boat.
- Door Sensor, which monitor if a door/window is opened.
- Remote Control, which can turn the alarm on/off without using the mobile app.
- Shore Power Sensor, which monitor if the shore power is interrupted longer than 5 minutes.
- Temperature Sensor, which measures the temperature in the boat.

The wireless sensors are connected to the alarm system by entering their ID, choosing the sensor type and giving them a descriptive text. The text will be included in the alarm SMS's, why it's important that it identifies the individual sensors.

The alarms are activated individually, by setting 

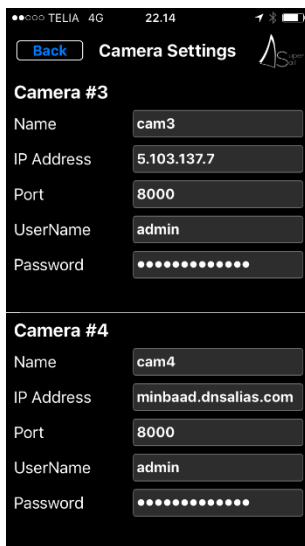
Activating the individual alarms is not done before the alarm is turned on, by pressing the red button, which change to green with the text "On". Hereby all connected alarms are activated.

The alarm is turned off, by pressing the green button, which change to red with the text "Off".

When the alarm is turned on/off, an SMS message is sent to the alarm receivers, telling the status of the alarm – this normally takes a few seconds.

If external 12/24V power supply is lost while the alarm is active, the alarm system automatically enters energy mode to save the internal battery power. In this condition the alarm will continue at least 12 hours without external power supply. In energy mode, the alarm will monitor the alarm sensors every 15 minutes and sleep in-between. The alarm system automatically enters normal operation when external power is restored.

5.9 Camera Settings



The screenshot shows the 'Camera Settings' screen in the SuperSail Marine Alarm app. It displays two camera configuration sections: 'Camera #3' and 'Camera #4'. Each section includes fields for Name, IP Address, Port, UserName, and Password. The 'IP Address' field for Camera #4 contains a Dynamic DNS address.

Field	Camera #3	Camera #4
Name	cam3	cam4
IP Address	5.103.137.7	minbaad.dnsalias.com
Port	8000	8000
UserName	admin	admin
Password	••••••••	••••••••

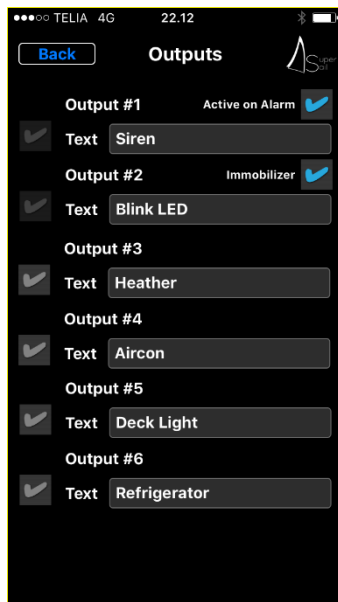
Up to 8 IP cameras can be configured into the Alarm system. For each camera the following data must be entered:

- Name of the camera – to remember the location
- The external IP Address of the camera in the router
- The external Port number of the camera connection in the router
- The UserName used to log into the camera for streaming
- The Password used to log into the camera

If the router of the boat is not given a fixed IP address, a Dynamic DNS can be used instead of an IP address.

The Dynamic DNS is written into the IP Address field instead of an IP address.

6 Output Settings Menu



SuperSail Marine Alarm Wireless has 1 (optional up to 6) configurable outputs, where e.g. switches to activate external units can be connected. The units can be activated independent and individually. In the text field you can write a text that identifies the unit connected.

If the “Activate on Alarm” check box is marked for Output #1, this indicates to the alarm system that e.g. a siren is connected to Output #1. The alarm system will automatically activate Output #1 if a theft alarm is activated. The Output #1 remains activated 5 minutes after the theft alarm is activated.

Turning off the alarm also turns off the Output #1.

Output #1 is activated by the following alarms:

- Max. Movement Alarm, which indicates that the boat is being stolen
- Motion Sensor which indicates break in to the boat
- Door Sensor which indicates break in to the boat
- Input #1 activation – Input #1 can e.g. be used to monitor an outboard engine.

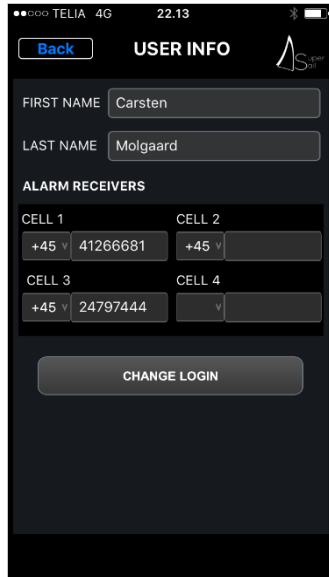
Setting the “Immobilizer” check box for Output #2, automatically sets Output #2 to 12/24V when the Alarm is turned on.

All Outputs can be used as manual activated Outputs by using the check boxes to the left of each Output.

7 User Settings Menu

From the main menu it's possible to change your user settings, by pushing the button "User Settings".

Pushing the "Back" button returns to the main menu.



Changing your name will update the main menu, where your first name is shown.

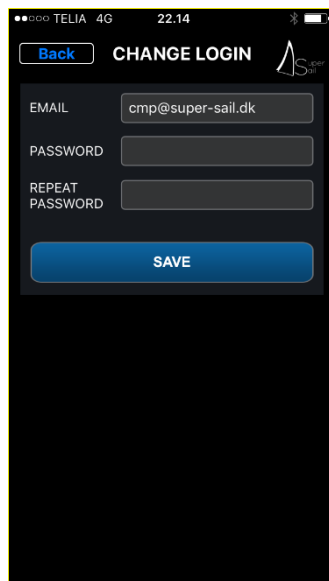
Up to 4 cell phones can be connected to the alarm, which makes all SMS status and alarms send to all cell phones.

The country code for the individual cell phones can be chosen between the countries included in your subscription.

If you want to delete a cell phone from the list, just delete the number and leave the country code unchanged.

Pushing the Change Login button opens the Change Login menu.

7.1 Change Login



In the Change Login menu, you can change the Email address and password used for logging in to the app.

Both email and password must be entered to change one or both of them.

Only when 2 equal passwords are entered, the Save button will accept the change.

The new login data will take effect next time you log in to the app.

Pushing the "Back" button returns to the main menu without changing the data, unless the Save button has been pressed and new login data has been accepted.

8 Marine Alarm Hardware



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Wireless

8.1 Charging

The alarm system is available in a number of versions with different accessories used for larger boats. The alarm system must be connected to the power from the boat and is active as soon as it is connected. Charging of the internal battery is performed automatically to ensure full capacity. An intelligent internal charger ensures maximum life time for the internal battery.

8.2 Operation

The tracker is started by the SuperSail server, which means that the GSM network connection is always active.

If the external 12/24V supply for the alarm system is removed while the alarm is active it enters energy mode and reduces the monitoring of theft to 15 minutes' intervals. When the 12/24V supply is reestablished the alarm system automatically enters normal operation. In energy mode the alarm can operate on internal battery for at least 12 hours, where the position of the boat is monitored every 15 minutes and reported if changed.

8.3 LED's in Unit

On the front of the alarm system 2 blinking diodes are seen. One indicates communication on the GSM network and the other one indicates that the software is running correct. These are only to be used in case of service and troubleshooting.

The third diode under the GPS antenna connector, lights green when the alarm system has a reliable GPS signal. If it changes to red, this means that the GPS signal is poor or disappeared. After connecting the alarm system the diode will be updated after a few minutes when the GPS signal has stabilized. If the diode lights red it is recommended to move the GPS antenna to a place with more optimal reception. Never place the antenna under a metal surface and make sure that it is mounted with the black top side up (please refer to the installation manual for correct installation).