

NOVASAIL
NS100

Operating Manual

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Introduction

The *NS100* has been designed to provide essential information with a very simple and user friendly interface. Speed, heading, GPS coordinates and man overboard (MOB) functions are all accessible in a simple push of a button and clearly displayed on the backlit LCD, ideal for a night race and making your sailing safer.

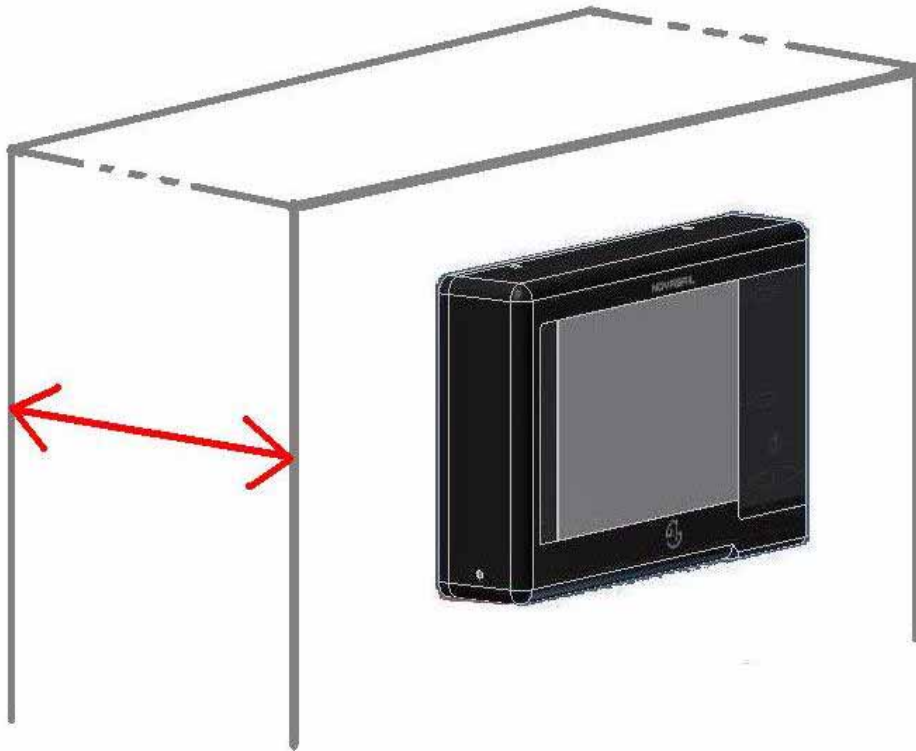


Compact (125 mm x 80 mm x 26 mm) and very intuitive, the *NS100* is a light portable device which is completely waterproof, ultra robust, and made of bombproof polycarbonate and anodized aluminium.

Powered by only one AA battery, the *NS100* gives sailors accurate information for over 30 hours. It can be installed in minutes and there is no need to drill a hole in the hull or use a wired connection.

We hope you enjoy sailing with the *NS100*. We encourage you to read this manual thoroughly to learn about the many features of your exciting new Novasail product.

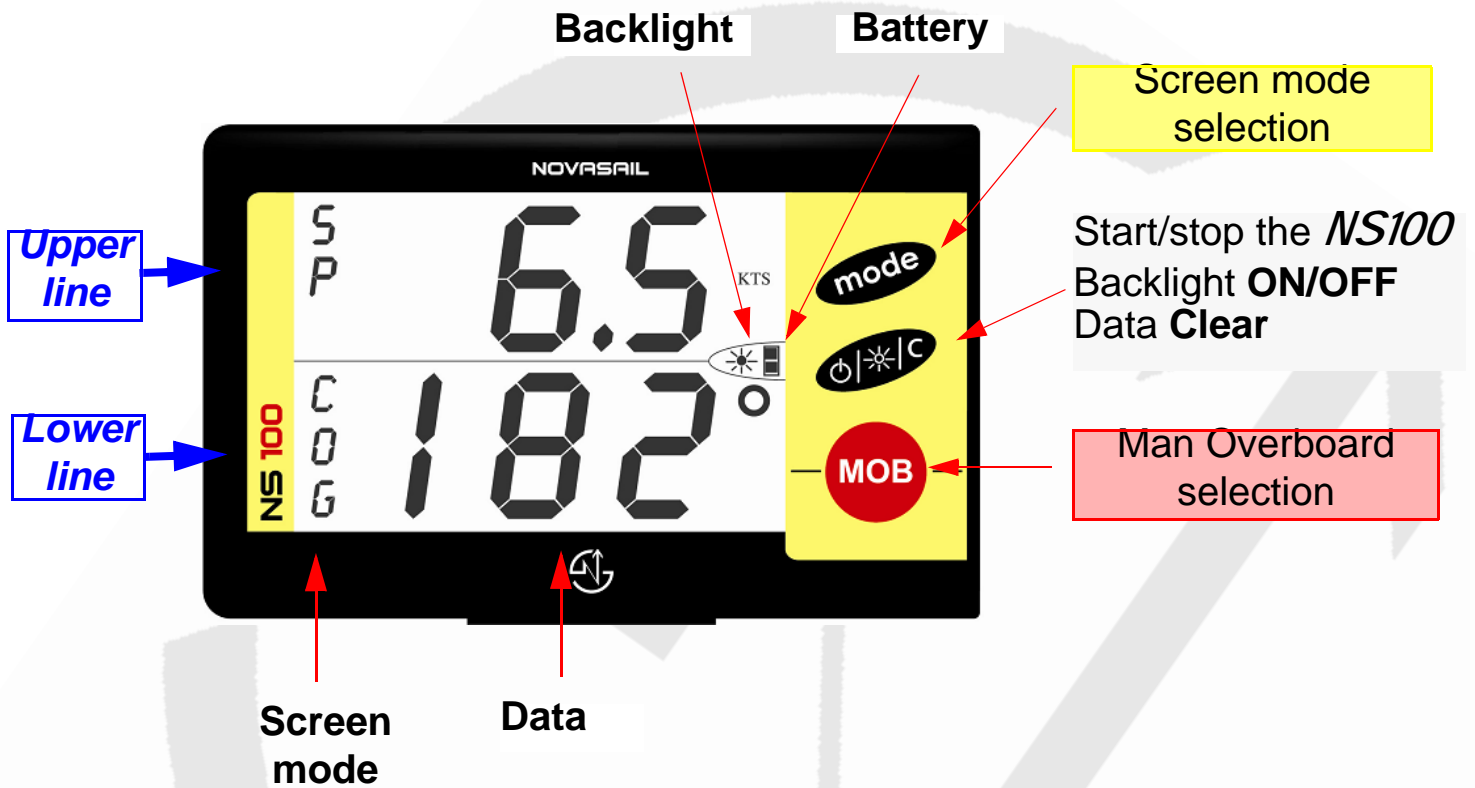
Installation



Wherever you mount the *NS100*, it shouldn't be flush to any thick surface such as the hull, so that the sensitivity of the embedded GPS receiver is not affected. Also a direct mount on a metal surface will reduce the receiver sensitivity.

Controls and display description

Buttons & display

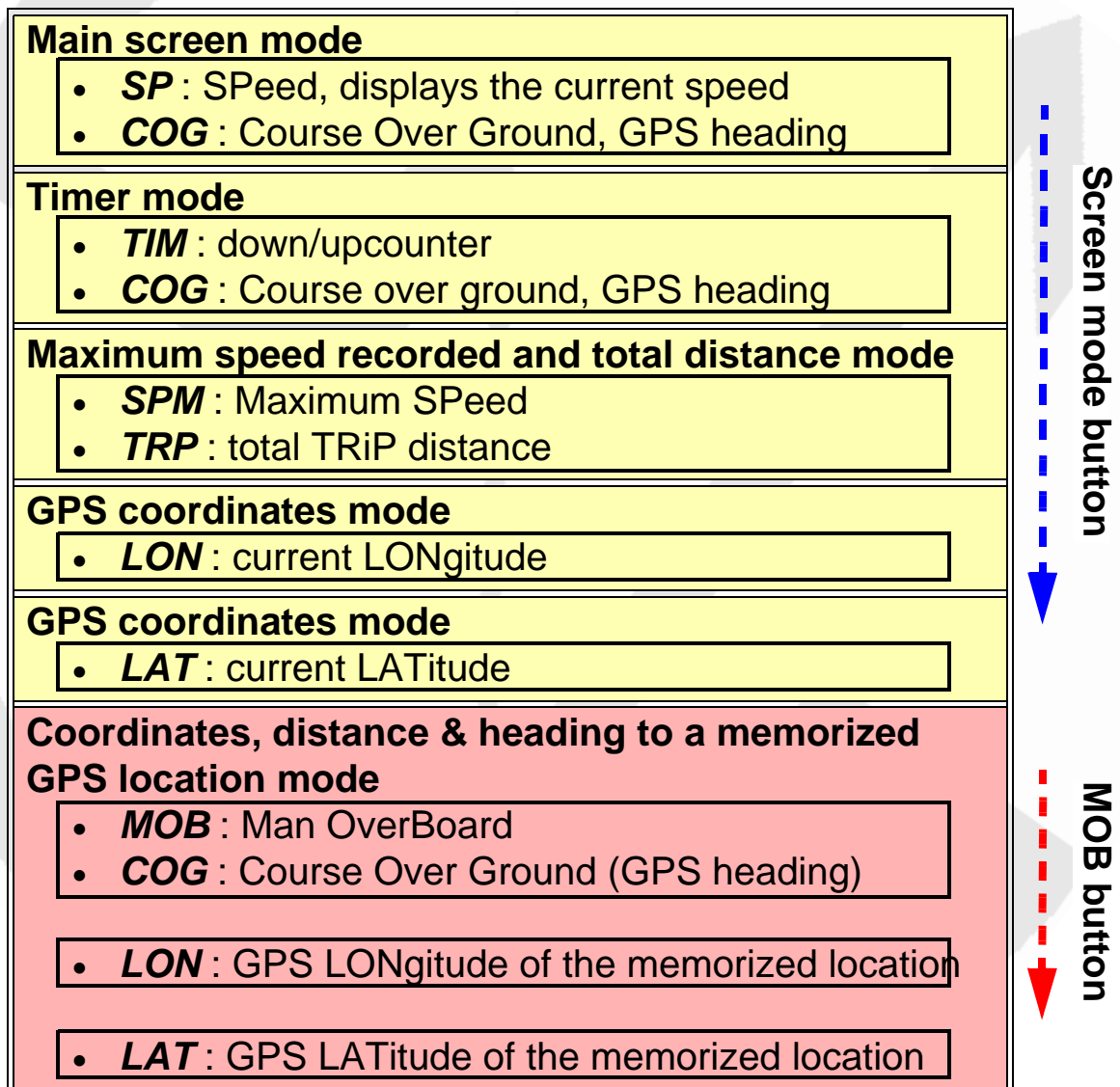


The *NS100* has several modes of operation, each mode is based on information that is displayed on the upper and the lower line. The selection of the different mode functions is made according to the screen mode **mode** and the man overboard **MOB** buttons. The **mode** button allows the modification of data displayed in the selected operation mode.

Operations

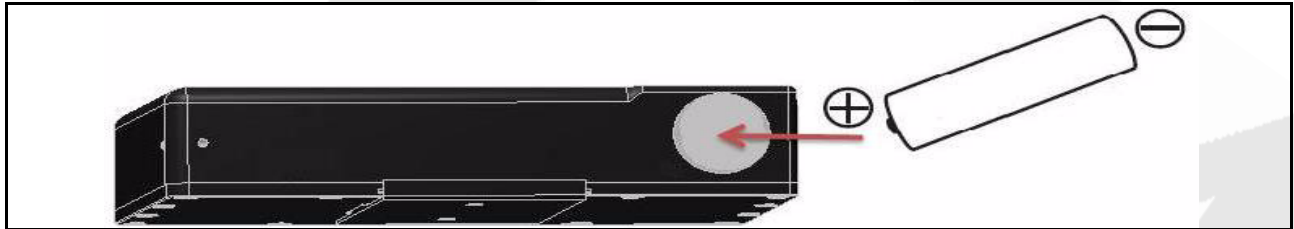
Screen modes



The following table is a summary of the different modes (upper and lower lines).



Switching power on and off

- Make sure the battery is installed with the correct polarity and has enough remaining power (positive pole inserted first)



- Press  to start the device. A beep will be emitted
- Press and hold  for more than 4 seconds until the screen displays OFF and the sequence “3”, “2”, “1” is finished. A beep will be emitted when the device turns off

Note : If the device does not turn on, you need to check if the battery is fully charged, that the battery compartment is dry, and the polarity is correct.






Note : Until enough satellites are locked, the *NS100* is not ready to use. For all the modes requiring the GPS data, the screen will display “---” until it is ready. If the number of satellites is low, the display will blink.

Note : Alkaline batteries should be used in order to result in a maximum lifespan of 30 hours. When using a disposable battery, it is also recommended to remove it if the device is not used for a prolonged period of time (in order to avoid a possible leakage inside the battery compartment).

If using rechargeable batteries, low self discharge rate battery types are preferred, because normal rechargeable batteries lose their stored energy more quickly. Recommended batteries are SANYO ENELoop, GP RECYKO+ or UNIROSS HYBRIO. This kind of rechargeable battery will last for approximately 20 hours.

Operations

Switching backlight on and off

- Press and hold  for more than 1 second until the icon  is displayed on the screen. If the OFF sequence starts, simply release the button  before the sequence “3”, “2”, “1” is finished.
- To turn off the backlight, press and hold  for more than 1 second until the icon  disappears from the screen.

Note : When you press and hold the  button to switch on/off the backlight, you will not make any selection and therefore will not change any parameter.

Main screen


This mode provides the speed and heading of the vessel.



SP, Upper Line : the speed over ground is displayed with a resolution of 0.1 knots (kts). The minimum speed is 1 knot, the maximum speed is 99.9 knots. The value displayed can be averaged, see the SET mode.

COG, lower line : the course over ground (heading in degrees) as measured by the GPS receiver is displayed. The value displayed can be averaged, see the SET mode.


Timer mode


This mode provides an adjustable downcounter and an upcounter timer with the heading of the vessel on the lower line.

TIM, upper Line : The timer starts in downcounting mode, the starting value can be adjusted to count down from 5, 4 or 1 minutes by a long push on the  button.

A push on  will start the downcounter. It can be re-adjusted anytime to 5/4/1 minutes by a long push on , whenever it is stopped or counting.

When the timer reaches 0:00 it will start upcounting and will indicate the time elapsed (hours/minutes).


A short push on the  button can freeze/restart the timer without affecting the timer value.

To reset the timer and restart in downcounting mode, a long push must be applied on  when the timer is stopped.

Note : In downcounting mode, the timer will emit a beep every minute, every 10 seconds below 1 minute, every second below 10 seconds. When it reaches 0:00, the display will switch to the main screen mode.

COG, lower line : the course over ground as measured by the GPS receiver is displayed. The value displayed can be averaged, see the setup mode.

GPS coordinates

This mode provides the current GPS coordinates as measured by the GPS receiver (degrees/minutes decimal). When entering this mode, the longitude is first displayed. As soon as the  button is pushed, the screen switches to the latitude display.


Note : In both longitude or latitude display, the lower line will alternatively show the minute and its associated decimal value (e.g. 1 min and 234 alternatively for 1.234 minute).

Maximum speed and total distance


This mode provides the maximum speed recorded and the total distance.

SPM, upper Line : Speed Max

Operations

The maximum speed is displayed in knots (KTS). This value is saved when the device is turned OFF. It can be reset by pushing the  button.

TRP, Lower line : TRiP distance

The total distance in nautical miles is displayed (NMS). This value is saved when the device is turned OFF. It can be reset by pushing the  button.


Note : both the TRP and SPM value blink until enough satellites are detected.

MOB: Man Overboard

This mode provides the coordinates, the distance in meters and the heading to a GPS location recorded when the MOB button is pushed.

Note : The MOB mode can be entered only if enough satellites are locked, otherwise the **NS100** will emit 6 beeps and the display will remain unchanged.

To memorize the current GPS coordinates

- From any mode push the  button, the device enters the MOB screen mode. The current GPS position is automatically memorized and the display will be as follows:



MOB, upper Line (*blinking*) : Man OverBoard

This line displays sequentially the distance and the heading to follow to track back to the GPS location memorized.


COG, lower line : Course Over Ground

The course over ground as measured by the GPS receiver is displayed. The value displayed can be averaged, see the setup mode.

To display the GPS coordinates memorized

- When the MOB screen mode is engaged, the memorized GPS coordinates can be displayed by pushing  again. The device will display the longitude then the latitude (lon/lat blink). Another push on  will return the device to the MOB screen mode

To return to the main screen mode

- The MOB screen mode can only be exited by a long push on  (3 seconds). The device will return in the main screen mode and a new GPS location can be recorded afterwards (the previous MOB position is lost) .

Note : while using the MOB screen mode, you can still switch on/off the backlight or turn off the ***NS100***.

Operations

SET mode

The **SET** mode allows the adjustment of your *NS100* parameters sequentially as follows :

- Average time for the speed computation (**SP**). The speed is computed based on the average time selected
- Average time for the heading computation (**COG**). The course over ground is computed based on the average time selected

To enter the SET mode :

- Your device must be switched OFF
- Press first **mode** then **mode** simultaneously. The device will enter the setup menu: **SET** will be displayed on the upper line
- **SP** is now displayed on the lower line, the speed average time can be adjusted from 1 to 10 seconds by pushing the **mode** button (the factory default is 1 second, no average). As soon as **mode** is pushed this parameter is memorized and the screen switches to the next menu
- **COG** is now displayed on the lower line, the GPS heading average time can be adjusted from 1 to 10 seconds by pushing the **mode** button (factory default is 1 second, no average). The parameter is memorized when **mode** is pushed; the **SET** mode is exited automatically

Limited warranty

This product meets or exceeds all of Novasail's rigorous quality controls and inspection standards. Complete services will be provided in accordance with the statement of warranty set forth below if any manufacturing defect or natural failure occurs within the warranty period.

Warranty Terms and Conditions

- If any defect arises under normal conditions of use within the warranty period, our customer service center or specified partner will provide the required repair services at no charge, or legally applicable services according to the appropriate consumer protection laws and regulations of the country in which the product was purchased by the warranty holder.
- The product has to be registered using the online service available on the Novasail web site: www.nova-sail.com
- Please submit the proof of purchase (Invoice) when requesting service.
- The actual cost of repair may be charged to the customer or the performance of warranty service may be rendered impossible, even within the warranty period, under the following circumstances:
 - Product failure caused by accident or carelessness
 - Disassembly or modification for purposes other than it was originally intended for
 - Failure caused by a fire, earthquake or flood
 - Damage/failure caused by an impact
 - Failure caused by inappropriate services performed by anyone other than Novasail's customer service center or one of Novasail's service specified partners
- For assistance in obtaining service, please contact Novasail service center:

E-mail: contact@nova-sail.com
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