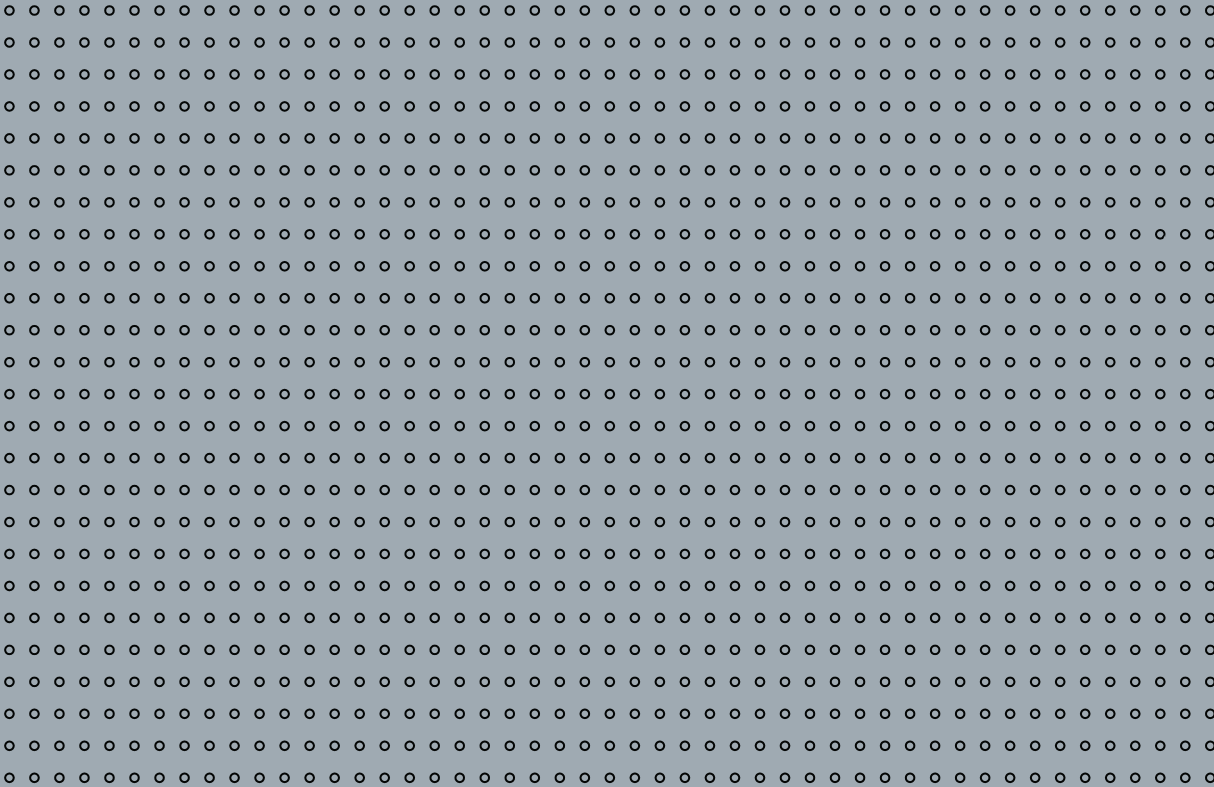




Addendum

Simrad NSE8 and NSE12
For NSE Software V3.0 Features

English



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About this Addendum

(Applicable to units with software version 3.0 and higher)

This addendum documents changes and additions that effect the Simrad NSE8 and NSE12 operations manual (NSE8-12-MFD_OM_EN_988-0175-02_A) and NSE2.0 addendum (NSE8-12_AD_EN_988-0181-02_A).

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Feedback from you

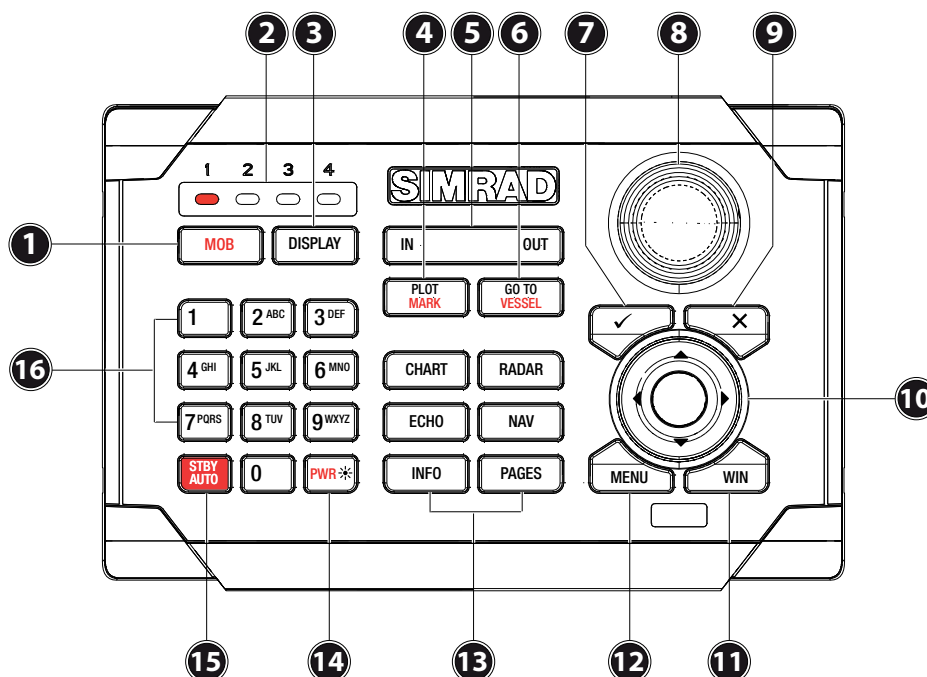
Your feedback is important and helps Navico ensure that this manual is a valuable resource for all marine technicians. E-mail your comments or suggestions about this manual to the following address:

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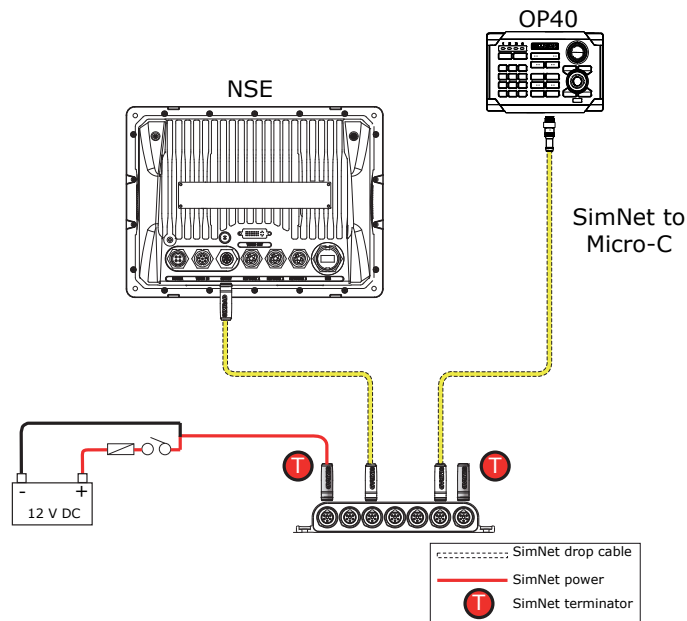
OP40 Control of NSE

NSE 3.0 software version includes OP40 support, enabling you to operate many of the NSE functions with the OP40 Controller.



Key	Description
1	MOB (Man Overboard). A long press will position a Man Over Board (MOB) waypoint at the vessel's current position
2	Unit under command LEDs. Indicates which unit the OP40 is controlling.
3	DISPLAY: Changes which NSE unit the OP40 is controlling
4	PLOT/MARK key. A short press activates the Plot menu, a long press positions a waypoint at the vessel position
5	Zoom IN zoom OUT buttons for radar, echosounder and chart pages
6	GOTO/VESSEL key. A short press activates the Goto menu, a long press centers the chart to vessel position
7	✓ key — Activates/confirms current selection
8	Rotary knob. The function of the knob is depending on active context
9	X key cancels changes and returns to previous menu level
10	Cursor keypad used to move the cursor on the display, and to maneuver in the menu system
11	WIN key, used on multiple panels pages. A short press toggles between the panels, a long press expands active panel to a full page panel and back again
12	MENU key. Used to display the context menu for the active panel/overlay, and for selecting options in edit mode. 2 x MENU for accessing system settings menu
13	Direct Access Keys (DAK). Provide direct access to a page. Repeated presses of each DAK cycles through several different pages that relate to the DAK
14	The PWR / Brightness button can bring up options to adjust brightness and change day / night mode. It can turn off the NSE but cannot turn it on. To turn on a NSE you must use the power button on each specific NSE unit you wish to use.
15	STBY AUTO: Autopilot Auto steer / Stand-By
16	Alpha numeric keypad used for entering numbers and text in dialog boxes

OP40 Connection diagram



Turning your OP40 on for the first time

From the factory the OP40 controller is not assigned to control any NSE unit and will not be responsive until it has been assigned to control a NSE unit on the network.

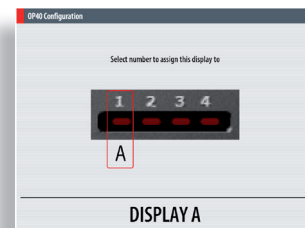
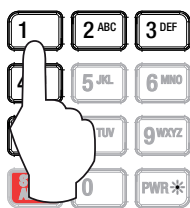
NSE displays will need to be turned on using their PWR button (if not already switched on by the yellow power control wire). When in OP40 configuration mode, all four OP40 LEDs will be lit red. *Once connected and powered up the OP40 configuration wizard can be entered into at any time with a 5 second press of the DISPLAY key.*

Assigning an OP40 control of a single display

Press 1, 2, 3 or 4 to assign DISPLAY A to LED position 1, 2, 3 or 4 respectively.

DISPLAY A is now assigned to LED position 1 of this OP40

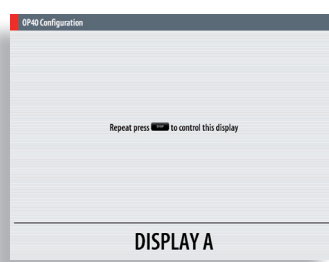
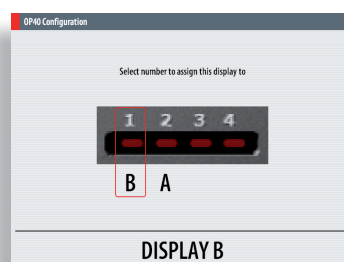
Example user presses 1



Assigning an OP40 to control multiple displays

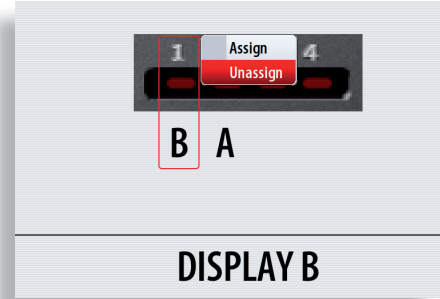
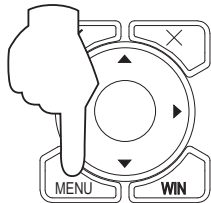
Press **DISPLAY** key until the display to be assigned shows the active display page.

Displays connected to other NSE units will show the inactive selection page



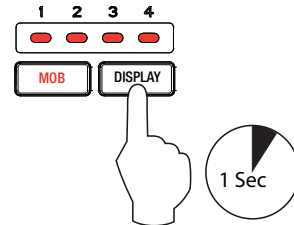
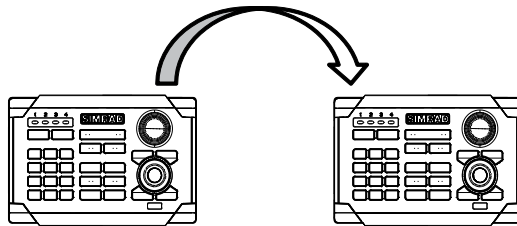
It is logical to assign LED(s) 1 through 4 (left to right) to units moving from left to right.
 Note: During assignment the letters assigned to each display (for assignment purposes only) are random and are not in any particular order.
 Assign each display to an LED number by selecting a number one through four.

Unassign a display from an OP40



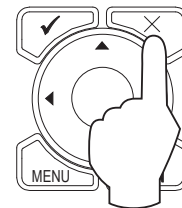
Configure the next OP40

To take command of another OP40 in configuration mode press and hold the DISPLAY key for 1 second

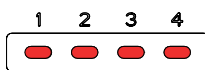
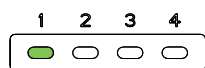
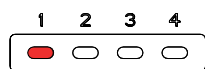


Finish OP40 configuration

To Exit out of OP40 configuration mode press **X**



OP40 LED sequences



Steady Red: Processor assigned to LED position 1 powered OFF

Steady Green: Processor assigned to LED position 1 powered ON

All LEDs steady RED: System started but the OP40 is not assigned to any display

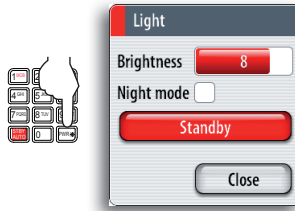
Turning on / off: Normal operation

Normal operation mode of turning the unit on /off after OP40s have been configured

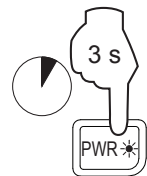
POWER ON



STAND BY



POWER OFF

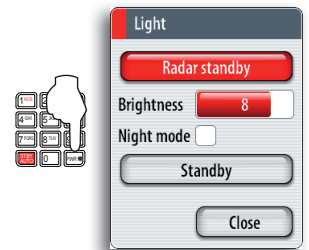


A quick press of the PWR button will start the system: note it may take a few seconds for something to appear on the screen.

If you turn the unit ON when no external equipment is connected you will be asked to run in simulator mode.

When you turn ON the system after the first-time initialization, the system will start with the same page and with settings that were activated when the system was turned OFF.

Pressing standby will turn off the backlight to conserve power. All other functions remain in operation.

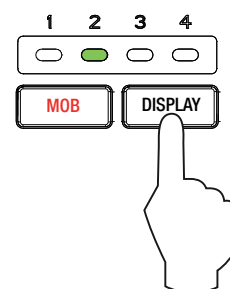
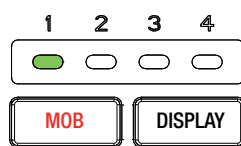


If the radar is transmitting you can turn it to standby mode from within the Light dialog.

Note: When turning off the system: The Marine Processor will take approximately 20 seconds to shut down after the display has turned off. It is recommended NOT to remove power from the system until the processor has shut down completely and the OP40 is indicating a red LED

Display control selection: Normal OP40 use

In normal operation mode a green LED indicates which display is being controlled. To take control of the next display press the DISPLAY key. A short press of the DISPLAY key will toggle control through to the next assigned Display LED. The OP40 will only toggle through LED positions that have been assigned to processors.



Charts

Simrad NSE comes preloaded with regional cartography.

US Versions include InsightHD Cartography for the entire US with Shaded Relief. Europe and Rest Of World Versions include Navionics Coastal Cartography.

All Versions are compatible with Navionics Platinum Plus via SD Card.

Radar

Operational modes

The radar's operational modes are controlled from the NSE unit. The following modes are available:

Off

The power to the radar scanner is turned off

Standby

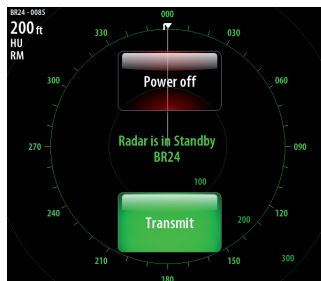
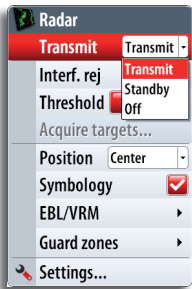
The power to the radar scanner is on, but the radar is not transmitting.

Transmit

The scanner is on and transmitting signals to detect surrounding targets.

It is possible to turn the radar on or off via **Light** dialogue.

If the radar is off or in standby mode you have the option to turn the radar on or off from the radar screen.



Dual Radar

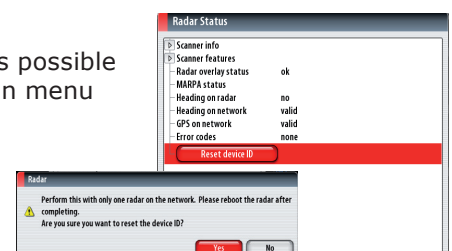
With dual radar capability in NSE it is possible for two radar sources to be displayed simultaneously. Connect either two Broadband Radars or two Pulse Radars and see both radar images at the same time.



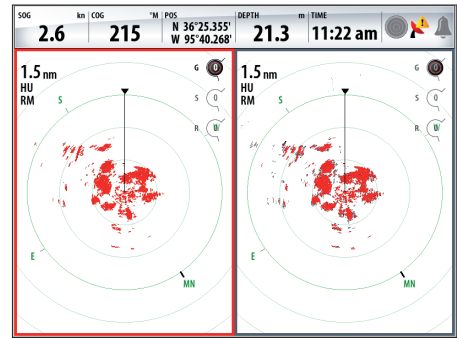
Interference while using Broadband Radar™ on most ranges will be seen when a pulse radar and a Broadband Radar™ are transmitting at the same time on the same boat. It is Navico's recommendation to only transmit one radar at a time: e.g. Broadband Radar™ for typical navigational usage, or pulse radar to locate weather cells, defined coastlines at a distance, and to trigger Racons.

Reset Device ID

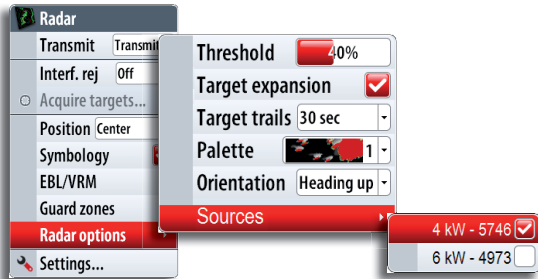
When replacing a radar or adding a second radar it is possible to reset the Radar device ID via the Radar installation menu (Radar status).



Set the radar screen to show two radar panels.

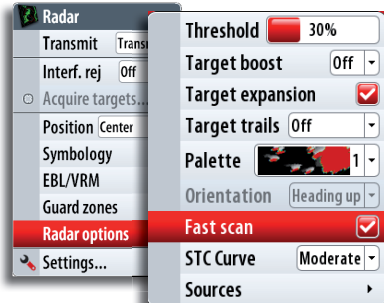


Highlight a radar panel and select which radar you require from the sources menu.



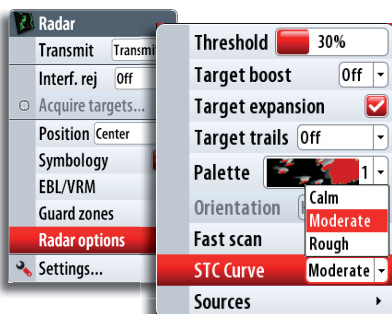
Fast scan (Broadband Radar™ only)

Increases the speed of the radar scanner when the range is set to 2 nm or less. This option gives faster updates on target movements within this range.



STC curve (Broadband Radar™ only)

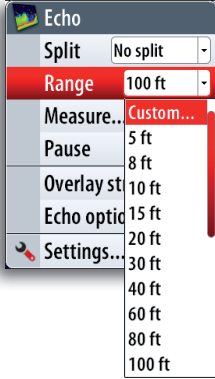
The STC (Sensitivity Time Control) controls the sensitivity of the radar signal close to your vessel. The STC curve option has 3 settings. Your selection should be based on the current sea conditions.



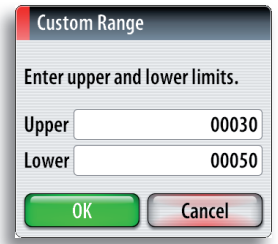
Echosounder

Upper and lower limits

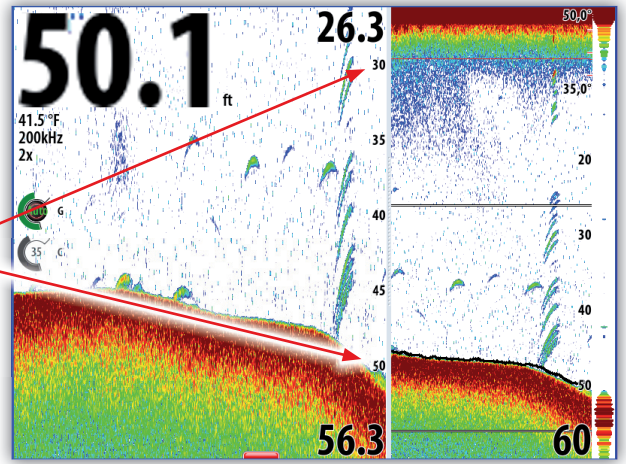
Controls the depth range (lower limit), and lets you choose upper and lower limits anywhere along the water column. The Upper and Lower limit must be at least 1.5 meters (5 feet) apart.



Normally range is controlled by the IN and OUT Keys, you can swap these keys to enable them to adjust zoom by ticking 'Swap range/zoom controls in the System, Settings, Advanced Echo menu.



**UPPER LIMIT IS 30 FEET
LOWER LIMIT IS 50 FEET**



NMEA2000 Depth

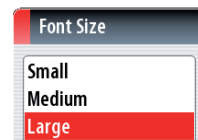
If you do not have a compatible echosounder connected to your NSE, the echo page will still display a clearly colored depth contour based on depth data received from either a NMEA0183 or NMEA2000 depth sensor.



NMEA received depth will not display fish returns/echoes.

Adjustable depth digits

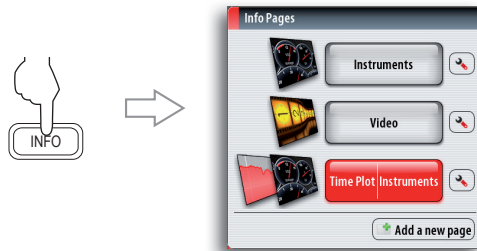
You can adjust the size of the depth digits to small, medium or large by changing the setting in Advanced Echo in System, Settings menu. As standard these digits are set to large.



Info Panel

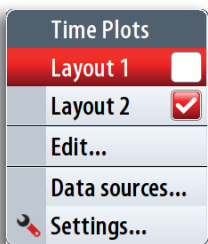
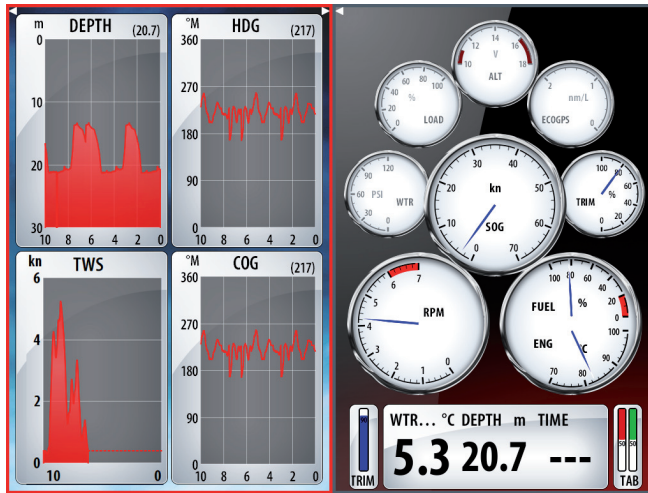
Time Plots

The INFO page group includes a configurable set of screens representing live data from the vessel.

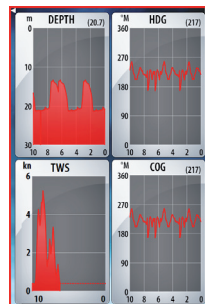


The system can present data history in different plots, and data selection can be defined by the user.

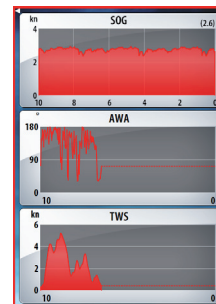
The plots can be set up as single panel layouts, or combined in one panel as shown below.



The Time plot panel consists of two predefined layouts. You switch between the layouts by using the left and right arrow keys or by selecting the dashboard from the menu when the Time plot panel is active.



Layout 1, 4 data sets



Layout 2, 3 data sets

Missing Data

If instrument data is unavailable, the time plot will turn into a dashed line and flatten out at the point data was lost. When data becomes available again a dashed line will join up the two points showing an average trend line bridging the missing data.

Autopilot

SG05 SimNet-EVC Gateway

The Simrad SG05 is a gateway for interfacing the NSE system to a Electronic Vessel Control (EVC) system.

 For more information refer to the SG05 installation guide.

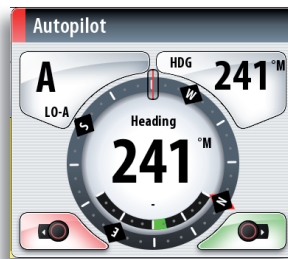
Operation

When the NSE is connected to an EVC system via the SG05, you can take manual control of the steering irrespective of the autopilot mode.

The mode indicator on the pilot pop-up will be replaced by a dash to indicate EVC override.

The system will return to NSE control in standby mode if no rudder command is given from the EVC system within a predefined period.

A = Autopilot is in auto mode



Dash indicates manual steering via a EVC System

