

# ForwardScan™ Sonar

## User guide

### Installation

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#### Connecting the transducer

The ForwardScan™ transducer can be connected to the StructureScan port on the SonarHub or the NSS evo2, leaving the sonar port open for a CHIRP transducer. Refer to the ForwardScan installation manual for transducer installation instructions.

**⚠ Warning:** It is the owner's sole responsibility to install and use the equipment in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

**⚠ Warning:** Do not rely on this equipment as your principle source of [navigation](#) or hazard detection.

#### Sonar performance

The accuracy of the sonar depth display can be affected by many factors, including the type and location of the transducer and water conditions. Never use this equipment to gauge depth or other conditions for swimming or diving.

The choice, location, and installation of transducers and other components of the system are critical to the performance of the system as intended. If in doubt, consult your dealer.

To reduce the risk of misusing this equipment, you must read and understand all aspects of the supplied documentation.

#### Sharing ForwardScan data

ForwardScan data can be shared with NSO evo2, NSS evo2 or Zeus<sup>2</sup> displays by connecting the forward-looking transducer to a SonarHub on your Ethernet network.

You can also connect the transducer to a NSS evo2 to share ForwardScan data with multi-function displays on your Ethernet network.

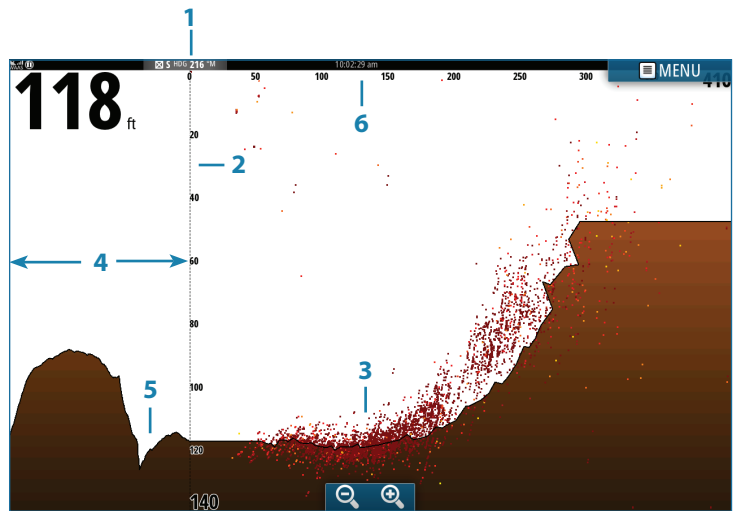
→ **Note:** We do not recommend operating different brands of multi-function displays on the same network.

# Operation

ForwardScan™ forward-looking sonar is a navigational aid that helps you monitor the depth in front of your vessel.

ForwardScan features are available in the latest software update for your multi-function display. Refer to your display's brand website to download the latest update.

→ **Note:** Screen captures in this document are from a NSS evo 2 unit. The look of your unit may differ slightly, but it will operate in a similar manner.



Key	Description
1	Transducer location shown as the origin on the screen
2	Depth range scale/Boat position
3	Point data
4	Depth history
5	Bottom
6	Forward range scale

## Accessing ForwardScan

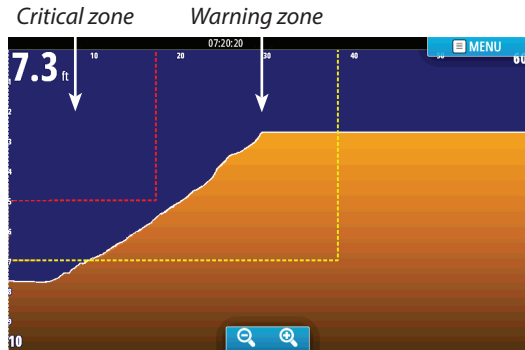
ForwardScan sonar can be displayed full screen or in a multi-panel page. Refer to your operation manual for information about setting up a multi-panel page.

## ForwardScan setup

### Critical forward range and Critical depth

Critical Forward Range and Critical Depth are user-selected thresholds that define a critical zone forward of your vessel.

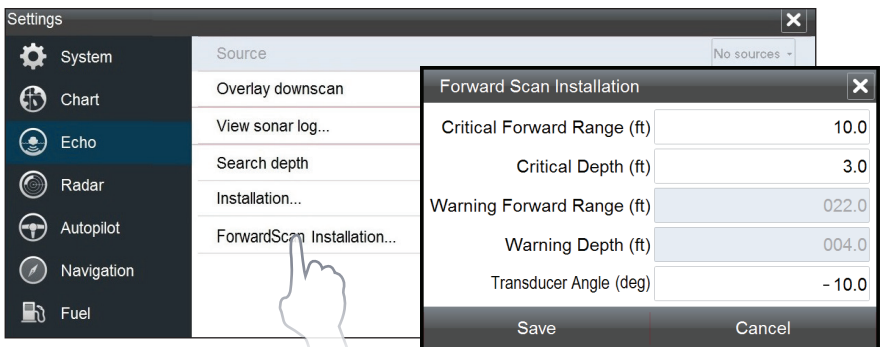
If you travel into water shallow enough to cross into the critical zone, the Critical Zone alarm is activated. You can display the critical and warning zones by activating Show zones.



ForwardScan display with Show zones active

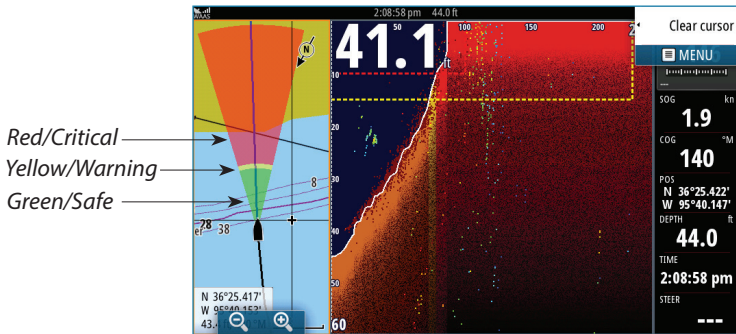
Warning Forward Range and Warning Depth values are based on the selected Critical Forward Range and Critical Depth values.

- **Note:** To receive Critical Zone alerts, enable ForwardScan alarm on the Alarm settings tab. Refer to your unit's operation manual for information on enabling alarms.



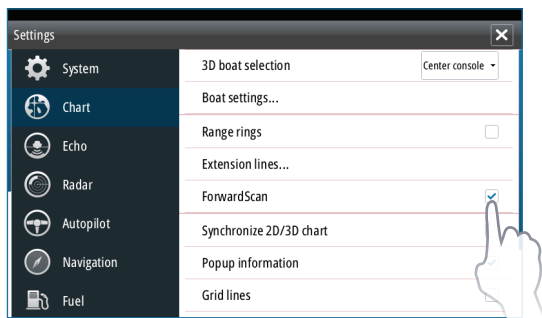
## Heading extension

You can use the heading extension to monitor ForwardScan on the chart panel. Heading extension colors are based on ForwardScan alarm values.



ForwardScan extension	
Green	Safe
Yellow	Warning
Red	Critical

Select ForwardScan in the Extension lines options dialog to view ForwardScan heading extension on the chart panel.



## Transducer angle

We recommend installing the transducer vertical to the waterline. In cases where that is not possible, the Transducer Angle setting helps offset the difference between the transducer angle and the waterline.

If the transducer is angled toward the front of the vessel, a positive value (0 to +15°) is entered in the Transducer angle dialog. If the transducer is angled toward the rear of the vessel, a negative value (0 to -15°) is entered in the Transducer angle dialog.

**⚠ Warning:** Adjustments to the transducer angle value should be done with caution. Large variations in the transducer angle value can distort depth data, increasing the risk of striking underwater obstructions.

## ForwardScan options and settings

### Depth

Controls depth range. Depth range is set to auto mode by default.

### Forward range

Controls the forward looking range. Maximum Forward range is 300' (91 m).

### Noise Rejection

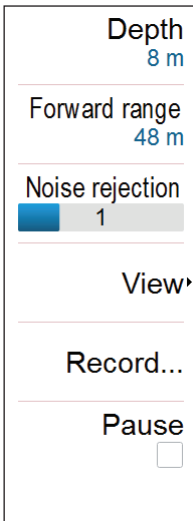
Filters out signal interference and reduces on-screen clutter.

### Record

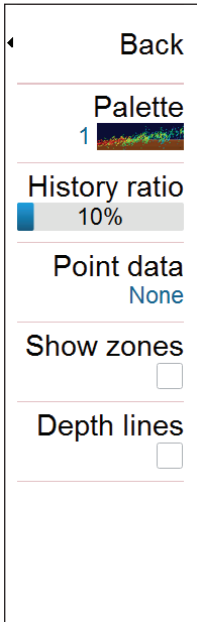
Used to record ForwardScan sonar logs.

### Pause

Pauses ForwardScan sonar transmissions.



A vertical menu of settings for ForwardScan. The items are: 'Depth' with a value of '8 m'; 'Forward range' with a value of '48 m'; 'Noise rejection' with a blue progress bar and the number '1'; 'View' with a right-pointing arrow; 'Record...' with a right-pointing arrow; and 'Pause' with an unchecked checkbox.



## View

### Palette

Several display palettes are available for a variety of water conditions.

### History ratio

Controls how much of the screen is used to show sonar history on the ForwardScan image. The higher the ratio, the more history will be shown.

### Point data

By default, ForwardScan only shows the bottom. Access the Point data menu to view all sonar data points, or only points (Objects) in the water column.

### Show zones

Displays warning zones (yellow) and critical zones (red) on the screen.

### Depth lines

Lines on the screen that make it easier to quickly estimate depth and the underwater objects.