

SIMRAD®

B&G®

Echo

App Guide

English

Software version: 2.1



NSS® 4 | Zeus® SR

NSX® | Zeus® S

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More information

Document version: 001

This document was prepared using software version 2.1.

Features described in this document may vary from your unit due to connected devices, settings, brand, and continuous software development.

For the latest version of this document in supported languages, and other related documentation, visit www.simrad-yachting.com/downloads or www.bandg.com/downloads.

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OVERVIEW

The **Echo** app displays an image of the water and sea floor beneath your vessel, allowing you to detect fish and examine the structure of the sea floor.

It detects objects under water by sending and receiving sound pulses from a transducer.

REQUIREMENTS

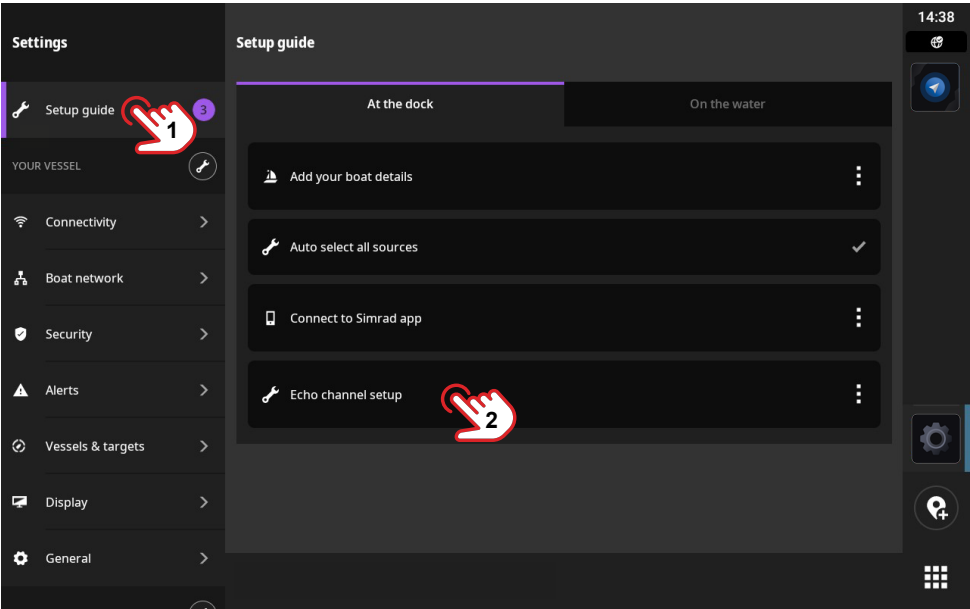
To use the app, you need a compatible transducer connected to your system.

This guide describes features and options for a variety of supported transducers. The features and options available to you depend on the transducer you are using.

TRANSDUCER SETUP

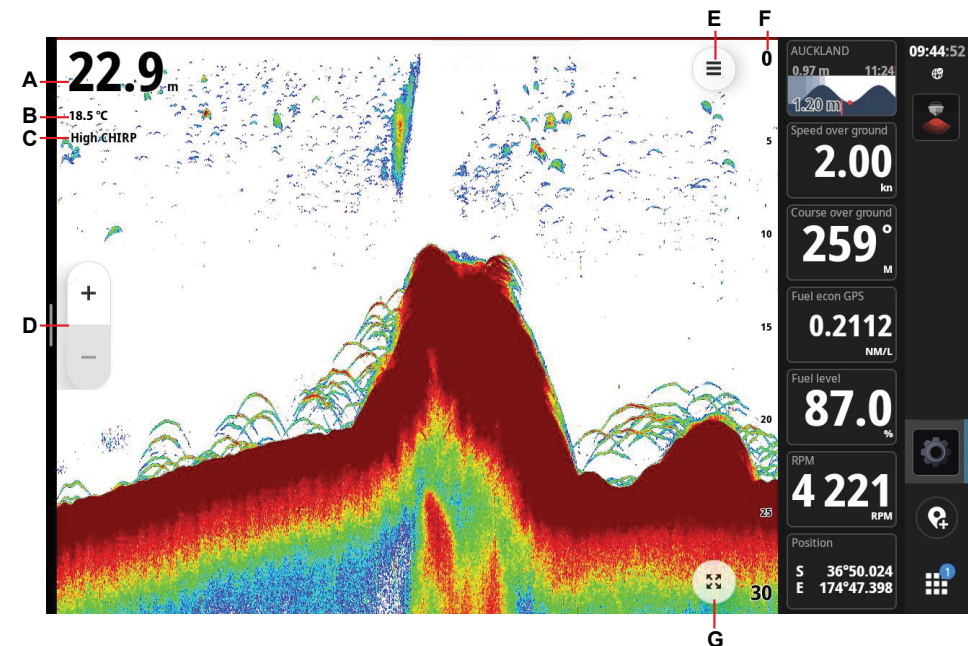
When you connect a transducer to the system, it will need to be set up before use.

On the **Settings** screen, select **Setup guide**, then **Echo channel setup** and follow the on-screen prompts.



To change the settings for an existing transducer, on the home screen select **Settings > Boat network > Devices**, then select the transducer to modify settings.

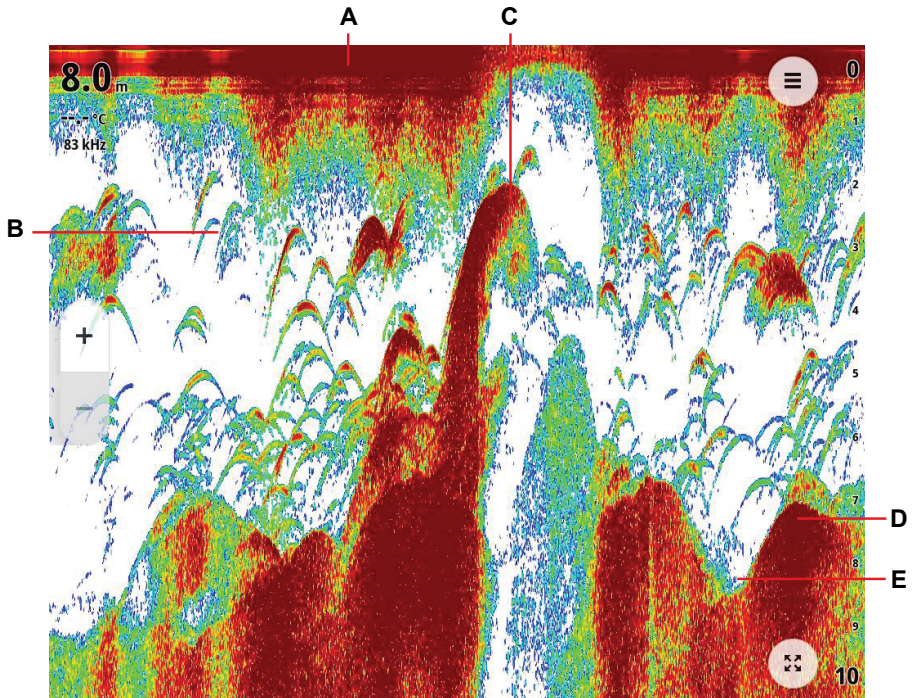
ECHO SCREEN



- A Depth — depth to the bottom from either the water line, bottom of the boat or the custom depth offset point. Select to adjust the depth font size.
- B Temperature — indicates water temperature at the transducer.
- C Transducer frequency
- D Zoom or range buttons
- E Echo settings button — select to access echo settings.
- F Depth scale
- G Full screen button

ECHO IMAGE

The following is an example of an echo screen image.

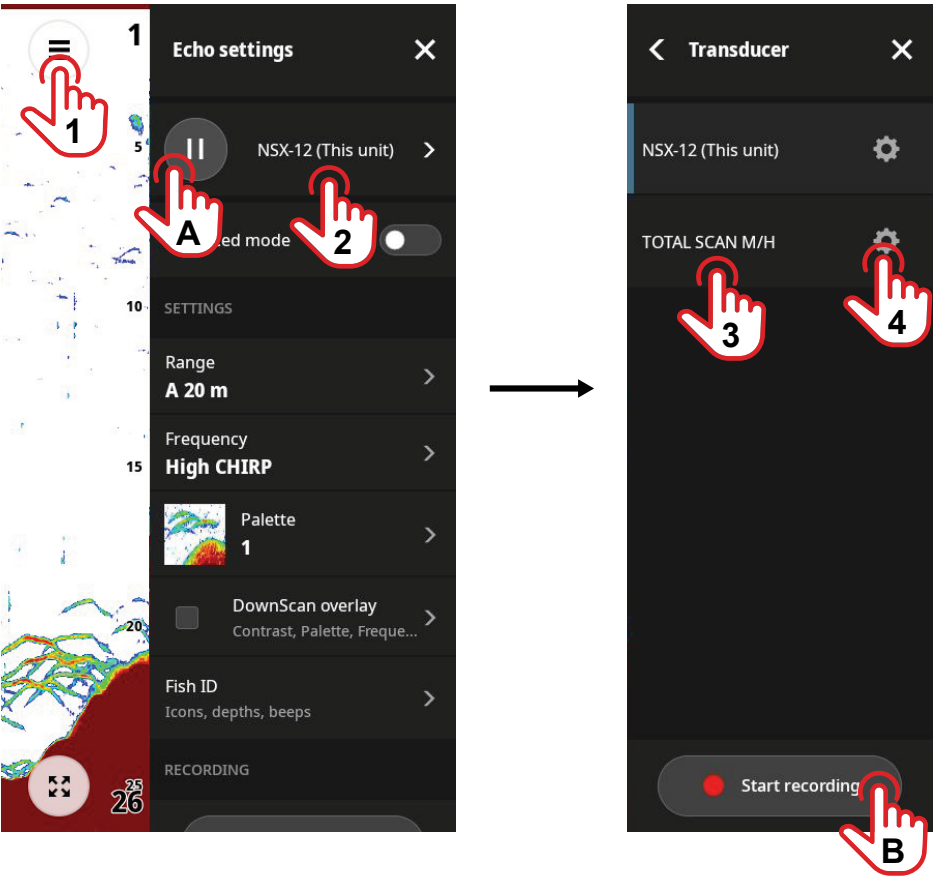


- A Surface or at transducer depth.
- B Fish arch — fish arches represent fish or other objects.
- C Bottom structure, possibly brush pile
- D Bottom structure, possibly a rock or hump on the bottom
- E Bottom

SOURCE SELECTION AND PAUSE PINGING

You can select a transducer connected directly to your display unit or one connected to your network.

Select the settings menu button (1), select the transducer (2), select any available transducers (3), select the cog icon (4) to configure transducer settings.

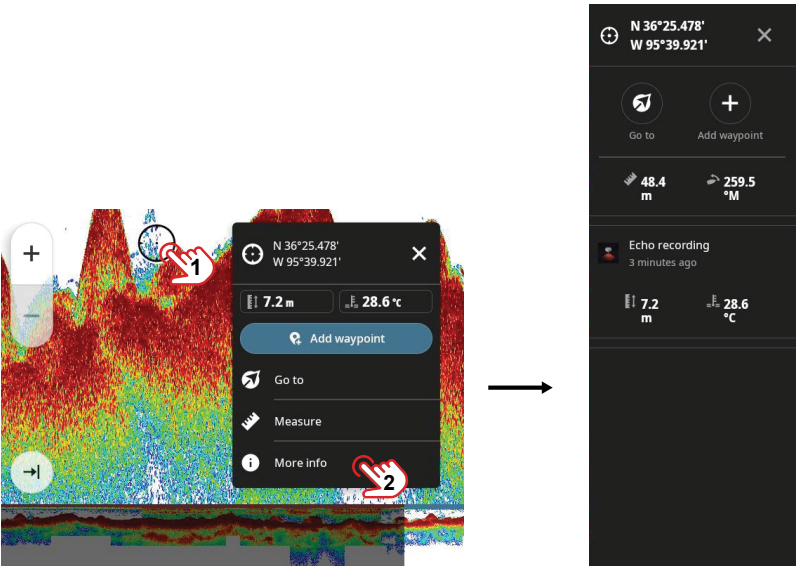


Select the pause button (A) to pause the transducer from pinging. Data is not collected when the transducer is paused.

- **Note:** We recommend you pause the transducer when it is out of the water or when it is not in use for extended periods of time.
- **Note:** Select (B) to start/stop recording from the selected transducer.

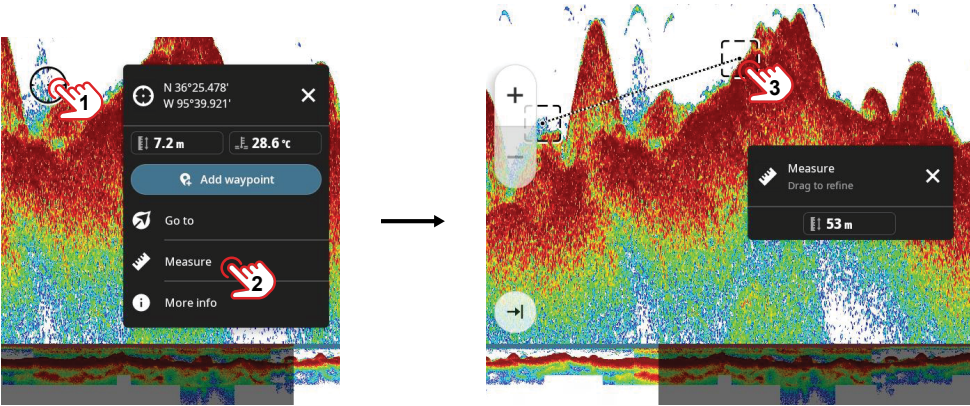
CURSOR POSITION DETAILS

When you select a location (1) on the screen, basic information like location, depth at the cursor position, and water temperature displays in a pop-up. To see detailed information select **More info** (2).



Measure

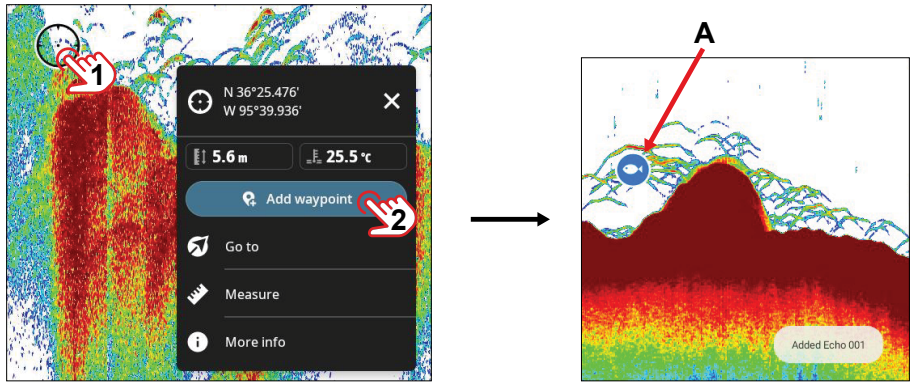
Use this tool to measure the distance between two points on the image. Select a point you want to start measuring from (1), select **Measure** (2), then select the end point (3). Drag the end point to another position on the screen to refine the measurement.



→ **Note:** You can also select another position on the screen without dragging the current end point.

Add waypoint

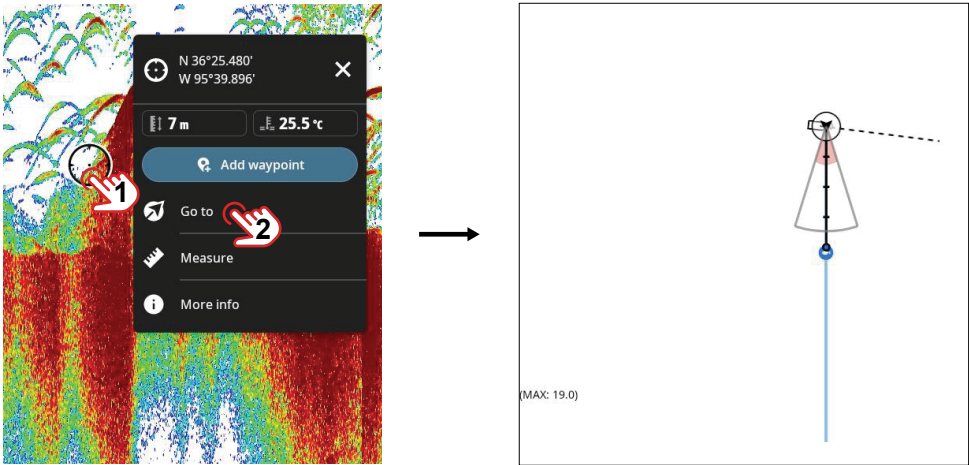
Select a position on the screen, and then select **Add waypoint (2)** on the pop-up. A waypoint marker (A) is added with a fish icon at the cursor location.



Navigate to a waypoint

You can navigate to a waypoint by positioning the cursor on a waypoint or other location (1), then select **Go to (2)**.

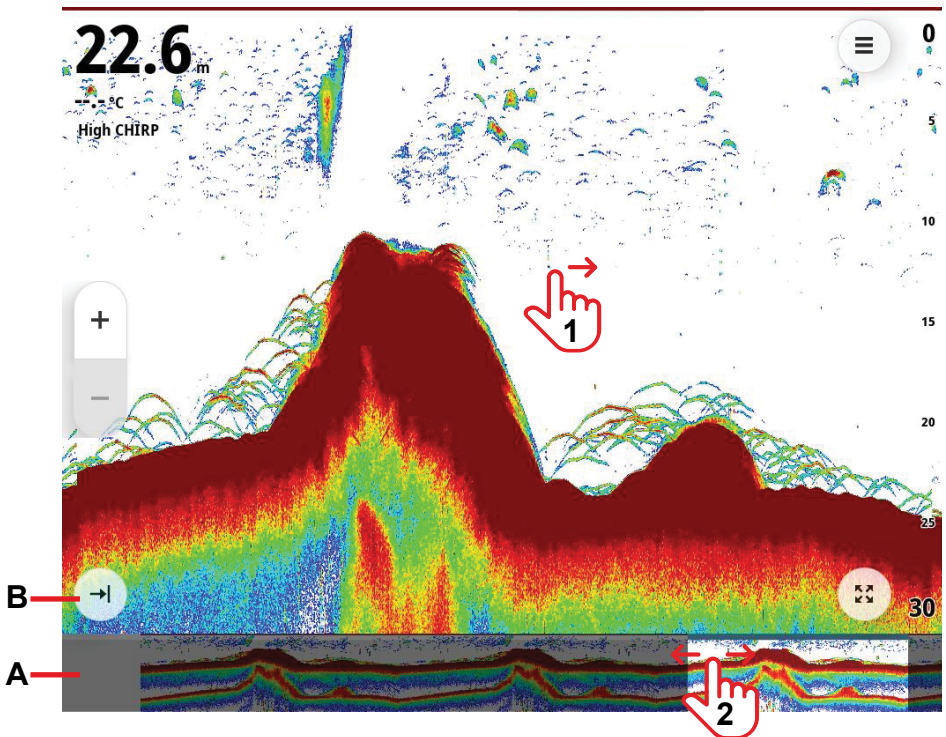
This loads the **Chart** app and autorouting to the waypoint starts.



→ **Note:** Autorouting will only start if the vessel setup is complete and autorouting information is available.

VIEWING HISTORY

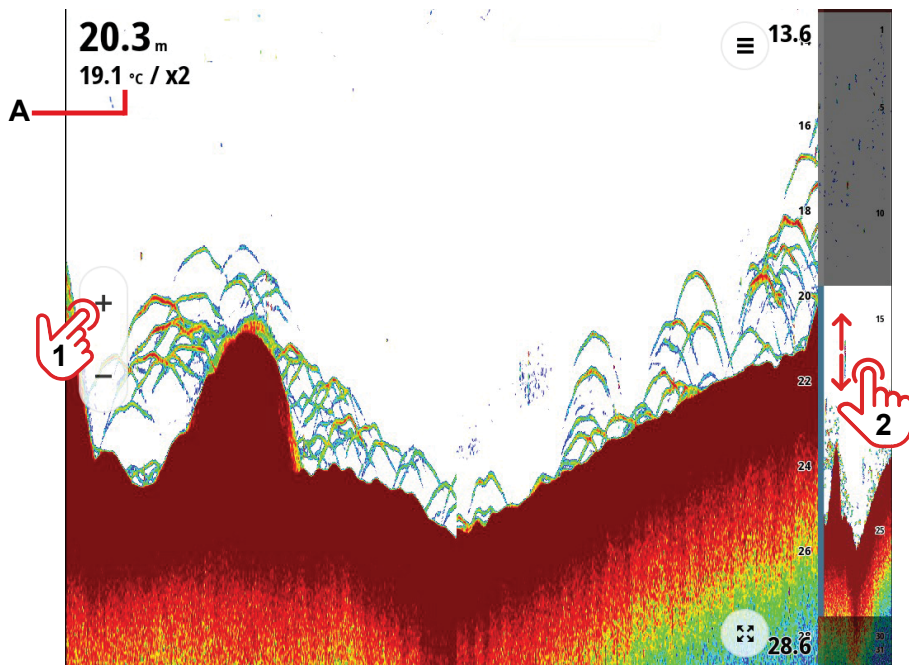
When the transducer is playing (pinging), the image moves from right to left on the screen. The far right of the image shows the most current echos and everything to the left of that is historical.



Select and drag the screen to the right to view sounding history (1). Dragging the screen stops the main image from moving and the history bar (A) displays at the bottom of the screen.

The history bar continues to move and highlights the historical area of the echo image. To view other areas of history, drag the highlighted area (2) on the history bar to the left or right. Select the return button (B) to return to the current echo image, and hide the history bar.

ZOOM AND RANGE CONTROLS



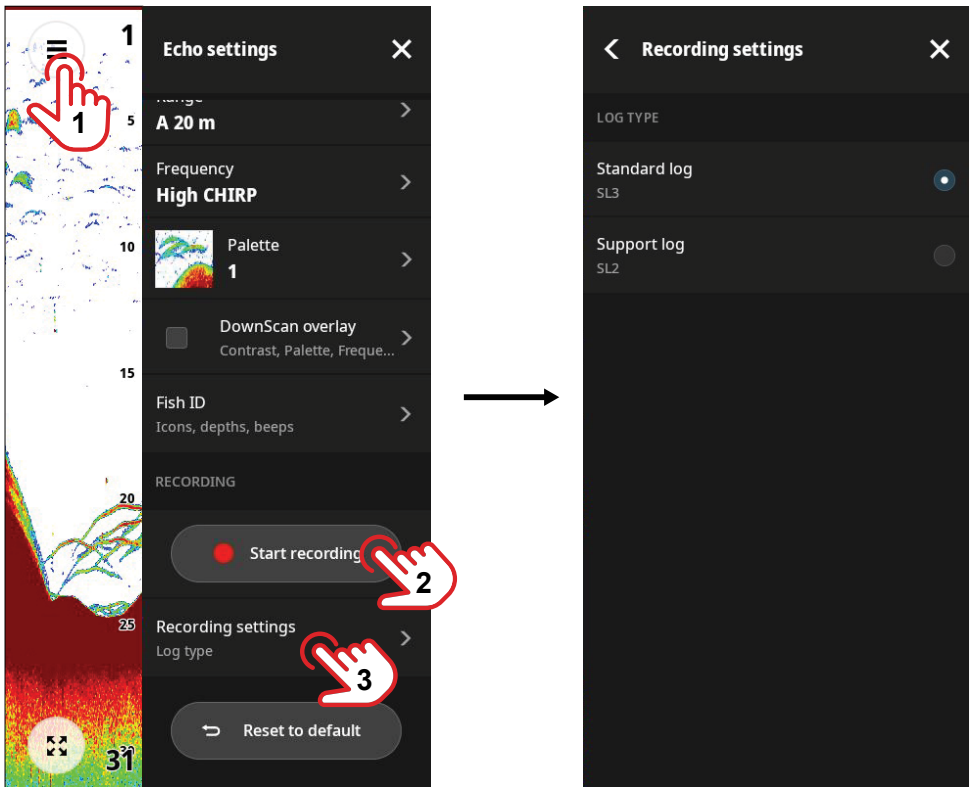
Select the zoom button (1) to see the scan image in detail. A vertical bar appears next to the depth scale. Select and drag the depth scale up/down to view an area of the zoomed image. The zoom level (A) displays next to the water temperature. While zoomed in, the image continues to move from the right to left on the screen. Select the zoom out button (–) to return to the normal echo view.

Range controls adjust the echo depth, select **Settings > Advanced mode > Show more > Zoom & range controls**.

→ **Note:** If the cursor is active, the system zooms in where the cursor is positioned.

RECORDING ECHO

To create an echo recording, open the settings menu (1), swipe down to the bottom of the **Echo settings** panel, select **Start recording** (2). When recording is active, the button changes to **Stop recording**.



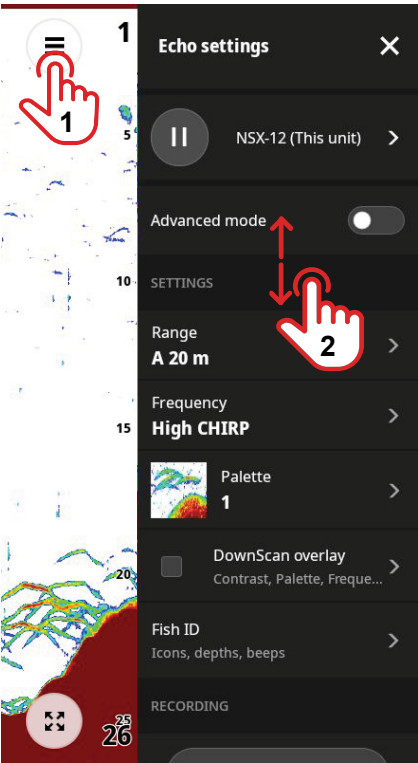
- **Note:** A red dot flashes to indicate recording is active.
- **Note:** To save recordings, insert either a microSD® card or USB storage device into the unit. Recordings cannot be saved to the unit's internal storage.

Recording settings

On the settings menu, select **Recording settings** (3) to specify the log file type.

ECHO SETTINGS

The settings menu gives you access to echo options and settings. By default, most settings on the unit are automated. Some menu options are only visible when **Advanced mode** is turned on.



→ **Note:** Only some of the options are described in this guide as these will vary depending on the hardware connected to the unit.

Range

The range setting determines the water depth that is visible on the screen.

→ **Note:** Setting a shallow range in deep water may cause the system to lose track of the bottom.

Auto mode or Manual mode

Manual mode is used to view a specific vertical depth scale range that never changes. **Auto** is used to cover the full water column from surface to bottom.

In most cases, you should use auto range. However, there might be situations when manual mode is better, such as when you are looking for fish in the top 50 meters (164 ft) of the water column, or you are looking for a change in bottom type. In this case, an image below the bottom can show you the second echo and tell you the bottom type.

Frequency

Available frequencies depend on the connected transducer. Lower frequency gives the best depth performance and higher frequency gives the best resolution.

A lower frequency has a wider beam angle than a higher frequency. Select a lower frequency to get a wider beam angle for a larger search area, or to produce larger fish arches on the screen.

Depending on the transducer, high frequency runs out at about 100 - 200 meters (328 - 656 ft) and medium frequency at about 400 - 500 meters (1312 - 1968 ft). For depths over 1000 meters (3280 ft), use lowest CHIRP or 28 kHz if available.

CHIRP vs. Non-CHIRP

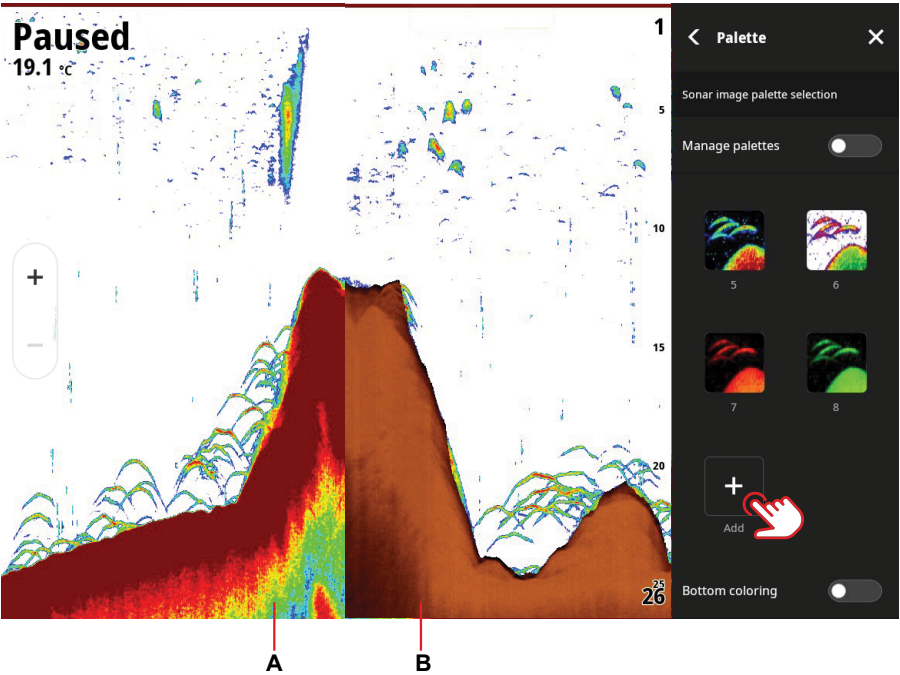
Compared to fixed frequency (Non-CHIRP), CHIRP technology increases and decreases the frequency with time. CHIRP helps you identify fish, structure and the bottom with greater clarity.

Palette

Choose a color palette to suit your requirements from 8 presets, or create your own custom color palette.

Select **Add +** to create a custom color palette. Turn on **Manage palettes** to view, create, and manage (edit, rename, import, export) all custom color palettes.

You can also turn on bottom coloring for added image contrast. In the below image, bottom color is off (A) and bottom color turned on (B).



DownScan Overlay

Turn on to add a DownScan Overlay on top of the echosounder image. You can further adjust the overlay settings for the overlay contrast, palette, frequency and TVG (Time Variable Gain) receiver sensitivity.

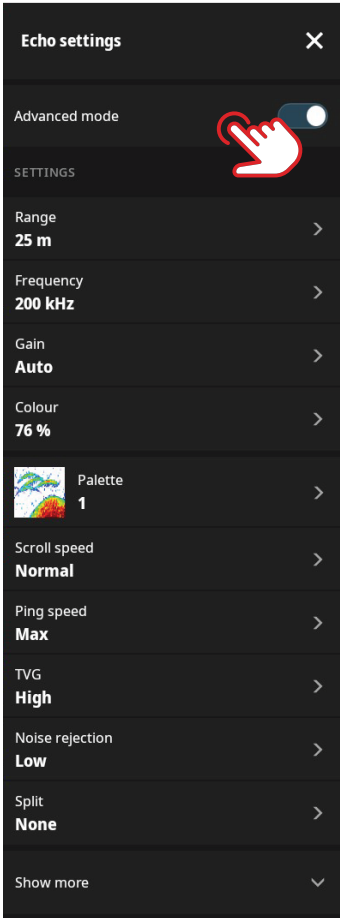
→ **Note:** Use TVG to control the sensitivity of the receiver near the water surface. Adjust the slider to make changes.

Fish ID

Use this setting to annotate fish icons on the fish arches. You can also annotate depth on the fish and get the system to sound a beep when a fish is recognized.

Advanced mode

Turn on **Advanced mode** for granular control over the echo screen image. The following settings are now available:



Gain

Increasing gain shows more detail on the screen, decreasing gain displays less. Too much detail clutters the screen. However, some targets may not be displayed if gain is set too low. Different sea conditions may require different gain settings. For example, a high level of plankton can result in a high level of clutter.

If the screen is too cluttered you may choose to turn down the gain. If the screen is showing no echos, you may choose to turn it up a little to see some clutter and to make sure you are not missing any targets.

Auto mode or Manual mode

Auto gain automatically adjusts the echo return to optimal levels. Auto gain can be adjusted to your preference while still maintaining the auto sensitivity functionality.

Use a manual gain setting when looking for a change in bottom type. Auto mode can change the gain setting to smooth out changes in the bottom type.

Color

Controls the color strength of the echos.

Scroll speed

Use to control the chart scroll speed. Use the slider to make adjustments.

Ping speed

Use to control the speed between echo pings. Use the slider to make adjustments.

TVG

Wave action, boat wakes and temperature inversions can cause on-screen clutter near the surface. Increasing the TVG (Time Variable Gain) shows more detail on the screen, whereas decreasing it displays less detail. Too much detail clutters the screen.

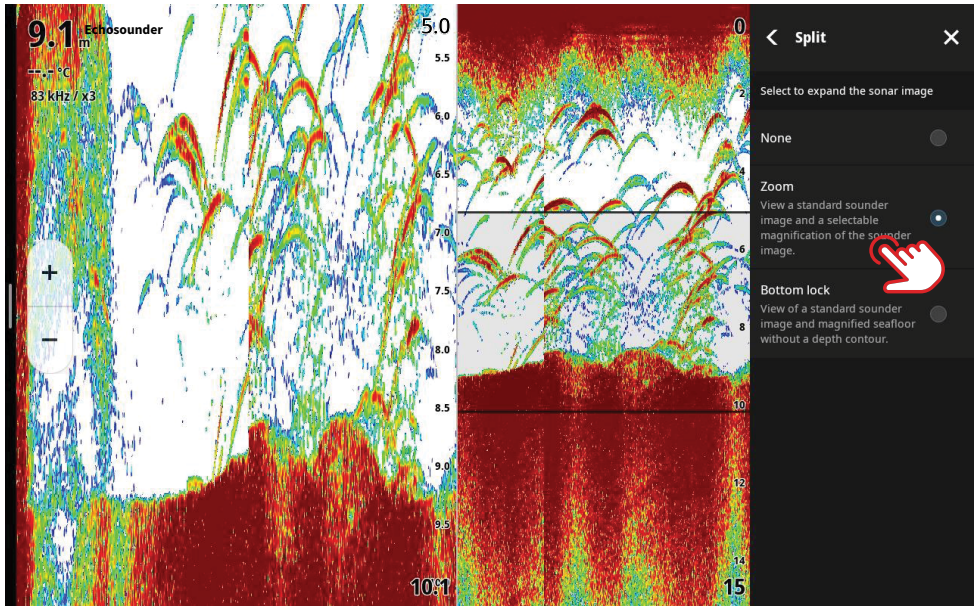
→ **Note:** *Some targets may not be displayed if the TVG is set too low.*

Noise rejection

Use to filter out interference from other marine objects. Use the slider to make adjustments.

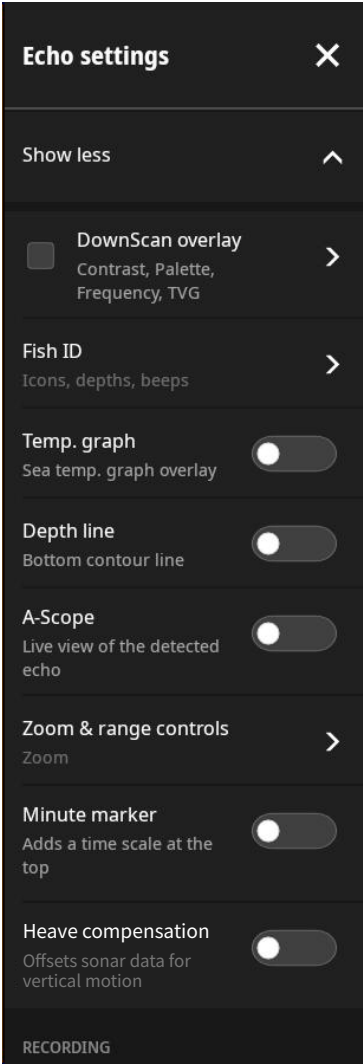
Split

Use to expand the echo image to show a zoomed or bottom lock image in addition to the main echo image.



→ **Note:** Bottom lock is where the bottom image is flattened out, it's useful to see fishing on the seabed/lake bed.

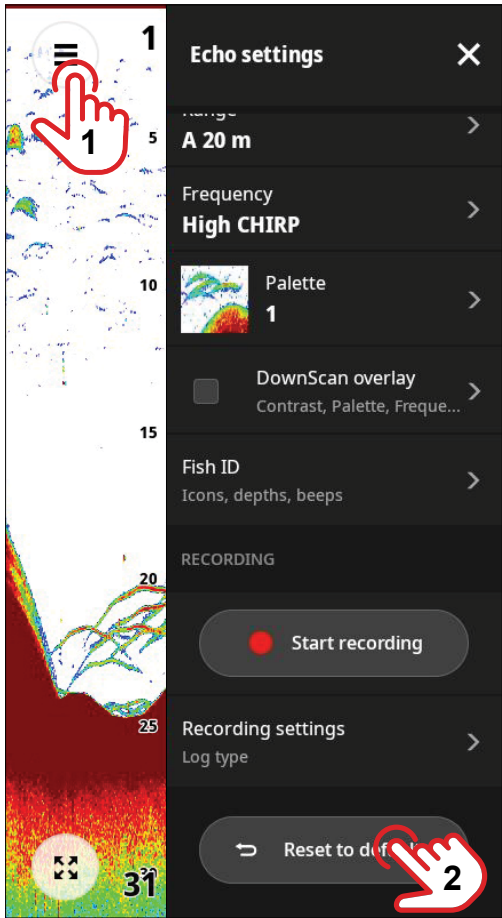
Select **Show more** to view:



- **Temperature graph** — overlaid on the echo image
- **Depth line** — draws a line at the digital depth calculated for each water column.
- **A-Scope** — displays a bar on the right with a live view of the detected echo.
- **Zoom & range controls** — select to display zoom or range control buttons.
- **Minute marker** — displays an alternating colored line at the top of the image in 1 minute intervals.
- **Heave compensation** — turn on to offset the vertical motion of the boat.
→ *Note: A S3100H sonar module is required for this feature to work.*

RESET TO DEFAULT SETTINGS

Select **Reset to default** to restore echo app settings to their factory-supplied defaults. Saved waypoints are not affected by this action.



→ *Note: You cannot undo this reset action.*

