



ADDENDUM Zeus³

- **sw releases 1.5 and 2.0**

This addendum documents new features that are included in Zeus³ software releases 1.5 and 2.0 and that are not described in the Zeus³ Operator manual or other documentation.

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Dual channel CHIRP/Dual channel transducer support

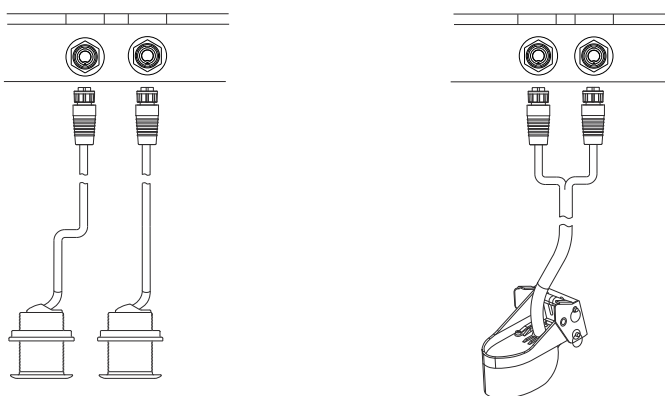
Two sonar elements can be connected and displayed simultaneously, using a split panel configuration. For more information about displaying separate images simultaneously, refer to Multiple Sonar in the Operator Manual.

The two elements can be connected in the form of two separate transducers or a single transducer that has multiple elements.

Dual channel CHIRP/Dual channel transducer connection

Single channel CHIRP transducers can be plugged into each sonar port. Alternatively, dual channel CHIRP transducers that have a split cable can be plugged into each sonar port.

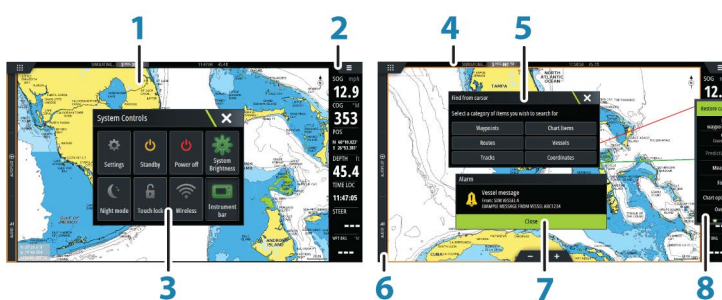
→ **Note:** A 7-pin transducer cable can be connected to the 9-pin port using a 7-pin to 9-pin adaptor cable (part no. 000-13313-001, sold separately).



New control bar

A new control bar is now displayed on the left-side of application pages. It contains buttons for launching controllers for features enabled in your unit. The controllers can no longer be launched from the Instrument bar on application pages.

Application pages



Each application connected to the system is presented on panels. The application can be presented as a full page, or in combination with other panels in a multiple panel page.

All application pages are accessed from the **Home** page.

1 Application panel

2 Instrument bar

Navigation and sensor information. The bar can be turned off and it can be configured by the user.

3 System controls dialog

Quick access to basic system settings.

Display the dialog by a short press on the **Power** key or by swiping down from top of the screen.

4 Status bar

5 Dialog

Information to or input from the user.

6 Control bar

Select a feature button to display controls for it.

7 Alarm message

Displayed if dangerous situations or system faults occur.

8 Menu

Panel specific menu.

Display the menu by selecting the **MENU** panel button.

Autopilot controller

Select Autopilot in the Control bar to activate the Autopilot controller.

The Autopilot controller has a fixed position on the left-side of the page.

Close the Autopilot controller by selecting Close/Back on the Autopilot controller or by pressing the **X** key.

You can also close the Autopilot controller by selecting Autopilot or another button on the Control bar.

Open it again by pressing and holding the **STBY/AUTO** key, or by selecting Autopilot on the Control bar.

The following Autopilot controller pages are available:

- Autopilot controller, showing active mode, heading, rudder and various steering information depending on active autopilot mode. Manual adjustments to the set heading can only be made when the port and starboard arrow indicators are illuminated red and green.
- Mode selection, includes access to turn pattern selection.
- Turn pattern selection, available when in Heading Hold mode.

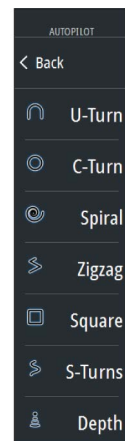
→ **Note:** The turn steering option is not available if the boat type is set to SAIL in the Autopilot commissioning dialog, instead the tack/gybe feature is implemented. Refer to the Operator Manual.



Autopilot controller



Mode selection



Turn pattern selection

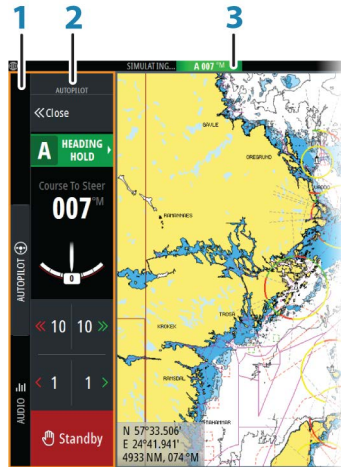


Activating the autopilot

Activate the autopilot from any panel by selecting the autopilot option in the Control bar, followed by selecting a mode in the Autopilot controller.

The autopilot can also be activated in navigation mode from applications when you select to navigate to the cursor, a waypoint, or a route.

Autopilot indication on the pages



- 1 Control bar
- 2 Autopilot controller
- 3 Autopilot indication in Status bar

The Audio controller

Activate the Audio controller by selecting Audio in the Control bar.

The control buttons, tools and options vary from one audio source to another as described later in this chapter.



- 1 Audio controller
- 2 Audio source
- 3 Audio controller buttons
- 4 Audio controller tools

Operating the audio system

1. Select Audio in the Control bar to open the Audio controller
2. Select the Audio source button and then select the audio source

- Number of sources depends on the active audio server

3. Use the controller buttons to control your audio system










For an overview of audio control buttons and tools, refer to *"Audio control buttons"* on page 6. Also see *"Audio Tools"* on page 6.

For available options, refer to the documentation following your audio equipment.




Audio control buttons





→ **Note:** VHF controls are available when audio servers with built in VHF receivers are connected.

The Mic source allows you to broadcast loud hailer messages over the audio system.

Icon	Tuner	VHF	DVD	Playback
	Select to display the list of available sources			
	Select to go to previous frequency. Press and hold to tune in a channel.		Select to rewind	Press and hold to rewind. Select to play previous track.
	Select to go to next frequency. Press and hold to tune in a channel.		Select to fast forward	Press and hold to fast forward. Select to play next track.
	Select to go to next/previous favorite channel		N/A	N/A
	N/A	N/A	Select to start	
	N/A	N/A	Select to pause playback	
	Select to display the volume slider.			
	Select to mute.			
	Select to unmute.			

Audio tools

Icon	Tuner	VHF	Playback
	Signal strength	N/A	N/A
	N/A	N/A	Select to toggle on/off repeat function. The icon is colored when the function is active.
	N/A	N/A	Select to toggle on/off shuffle mode. The icon is colored when the function is active.

Icon	Tuner	VHF	Playback
	Select to power on/off the active source. This button location is dependent on your unit's size. It is on the main Audio controller panel on larger units, and on the Audio controller's source panel on smaller units.		
	Select to display options for setting up zones and master control		
	Select to display the favorite stations for the tuner	Select to display the favorite channels for the VHF	Select to display the Device explorer. Use the explorer to access the source's native controller or file structure and to select tracks.
	Select to display optional settings for active source		

Create a race route

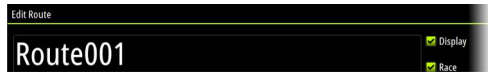
A race route has waypoints with rounding indicators and a waypoint indicating the finish line. When the race route is being followed, only the next rounding indicator is shown on the chart. The part of the route that has not been navigated is highlighted orange. When a part of the route has been navigated it turns black.

To create a race route, do the following:

1. Turn on the race route feature by selecting the Race option in the Advanced Settings dialog Features directory.



When the race route feature is selected, the Race mode option is available on the Edit Route dialog.



2. Create a new route. Refer to the Operator Manual. Alternatively, you can select an existing route and change it to a Race route by performing step 3.
3. Open the route in the Edit Route dialog, select the Race mode option, add rounding indicators and specify a waypoint as the finish line. Refer to "*Setting rounding indicators*" on page 8. If you do not set the indicators, the system will add them based on what it thinks is correct.

The Edit Route dialog

You can add and remove routepoints, and change route properties using the **Edit Route** dialog. This dialog is activated by selecting an active route's pop-up or from the menu by selecting the route then the details option.

The dialog can also be accessed by using the **Waypoints** tool on the **Home** page.

Select **Display** to show the route on the chart.

Select **Race** to convert the route to a race route and edit the rounding indicators on route waypoints. Refer to "*Setting rounding indicators*" on page 8. If it is a race route, the system will add the rounding indicators to what it thinks is correct based on the angles.

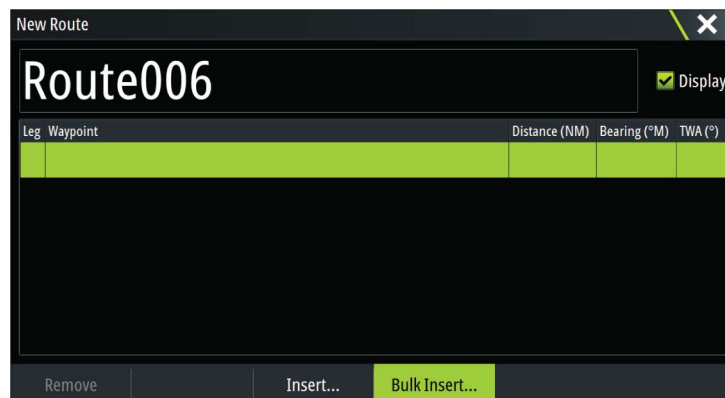
When adding routepoints, you can insert bulk waypoints. You can also use the bulk insert option to insert route race waypoints with rounding indicators. Refer to "*Routes - bulk insert waypoints*" on page 8.



Routes - bulk insert waypoints

Use the bulk insert option to enter a list of waypoints separated by commas (for example 21,22,23,24) to create a new route or add multiple waypoints to an existing route.

1. Make a note of the waypoints you want to bulk enter. You do not have to enter the full waypoint ID, just enough of it to distinguish it.
2. Select Routes on the Tool panel
3. Select the New button and then select the Create using route list option. Alternatively, scroll down the list of existing routes and select New Route.
4. Select the first row in the New route dialog, so that it is highlighted
5. Select the Bulk Insert button



6. Enter a list of waypoints separated by commas (for example; 21,22,23,24). You can include rounding indicators in the bulk entry by adding either .P (for Port) or .S (for Starboard) to the waypoints (for example; 21.S, 22.P, 23.S, 24.P). The system changes the route to a race route if rounding indicators are included in the bulk entry.
7. Select Enter. If the system finds more than one waypoint that has similar IDs, it will choose one and advise you which one it has chosen. If the system does not find a waypoint with a similar ID to what you entered, then a dialog opens and informs you of the items it did not find.
8. (Optional) Give the route a name by selecting the system given name and use the virtual keyboard to enter the name.
9. Select save.

Setting rounding indicators

To set rounding indicators and indicate a waypoint as the finish line, edit the route using the Edit Route dialog. When the race option is selected, the rounding column is available.

Once the rounding indicator and finish waypoint indicator are set they are shown on the race route on the chart.

The current rounding setting is shown in the column for each waypoint in the race route. Change the indicator for a waypoint by selecting one of the options in the drop-down list:

- Auto, auto determination of rounding
- Port, round to port

- Stbd, round to starboard
- Finish, waypoint is the finish line

Select **Save** to save your settings.

Start Routing At

Specify to PredictWind if you want weather routing to start from the current vessel position or to start weather routing at the first waypoint in the route.

Tracks settings

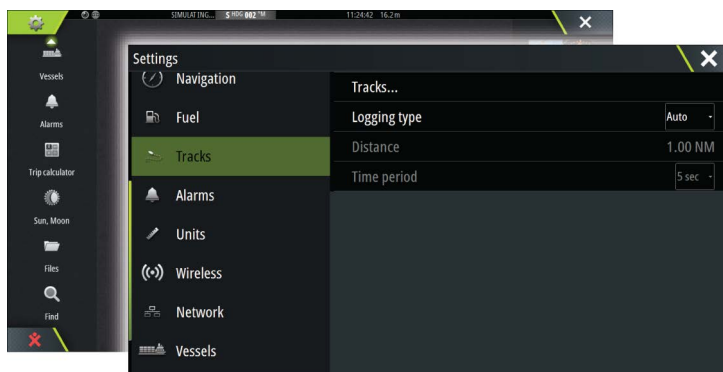
Tracks are made up of a series of points connected by line segments whose length depends on the frequency of the recording.

You can select to position track points based on time settings, distance, or by letting the system position a waypoint automatically when a course change is registered.

→ **Note:** The Tracks option must also be turned ON in the chart settings to be visible.

The track can be colored two ways:

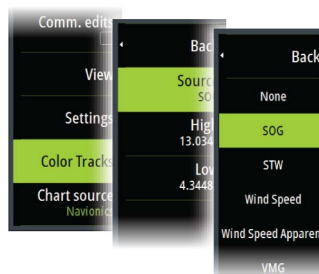
- Select the track in the Tracks dialog and set the color for the entire track in the Edit Track dialog.
- Select to let the system color the track based on source data and high/low settings. Refer to *"Color tracks based on data"* on page 9.



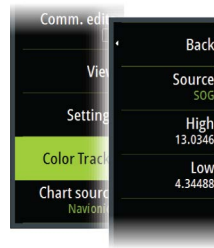
Color tracks based on data

A track can be colored based on what source data and the high/low limits you set:

- Select the color tracks menu option and then the source option to specify the source (data type) to be colored. To turn off coloring, select source **None**.



- Select the high and low options to set high and low values (after you specify the source).



A colored track represents only one data source at a time. If you switch from one source to another, then the colors represent the newly selected source.

The colors can be shades of green, yellow, and red. Green is for the high limit you set. Yellow is the value that is the average of the high and low. Red is for the low limit. If the value is between the high and the middle values, it appears as a greenish-yellow color. If the value is between the middle and the low, it appears as an orange color.

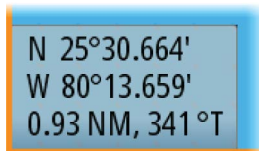
→ **Note:** By default tracks are colored according to the color setting in the Edit Track dialog. Coloring tracks based on source data overrides the coloring specified in the Edit Track dialog.

If two or more charts are displayed in a split panel, changing the color source or high/low values on one chart does not change the other charts.

Displaying source data in the cursor window

Selecting a point in a trail displays the cursor position window. If recorded source data exists for the point selected, the value is shown in the window in addition to the other cursor information.

The system records data according to your settings in the edit Trail dialog. Source data points are recorded when there is a change in the course or heading.



Cursor position window showing no SOG value



Cursor position window showing SOG value

Radar view options

View menu options vary depending on your radar antenna.



VelocityTrack

This option is available for radar antennas that have Doppler coloring functionality.

This is an unlock feature, refer to "Feature unlock" on page 12.

→ **Note:** When VelocityTrack is enabled antenna rotation speed may be reduced.

Doppler coloring is a navigation aid to distinguish moving targets approaching or diverging from your vessel. The radar indicates if a target is approaching or diverging from your vessel when both these conditions are true:

- The target's relative speed is greater than the VelocityTrack speed threshold.
- The target is not geo-stationary (e.g. land or a marker buoy).

The following options are available:

- Off - turns off Doppler coloring
- Normal - approaching targets and diverging targets are colored.
- Approaching targets - only approaching targets are colored

The color of approaching and diverging targets depends on the palette used:

Radar image palettes

- Diverging targets are blue colored on all radar image palettes.
- Approaching target colors on radar image palettes:
 - Black/Red palette - Yellow
 - White/Red palette - Yellow
 - Black/Green palette - Red
 - Black/Yellow palette - Red

Radar overlay palettes on charts

- Diverging targets are dark grey.
- Approaching targets are yellow.

VelocityTrack settings

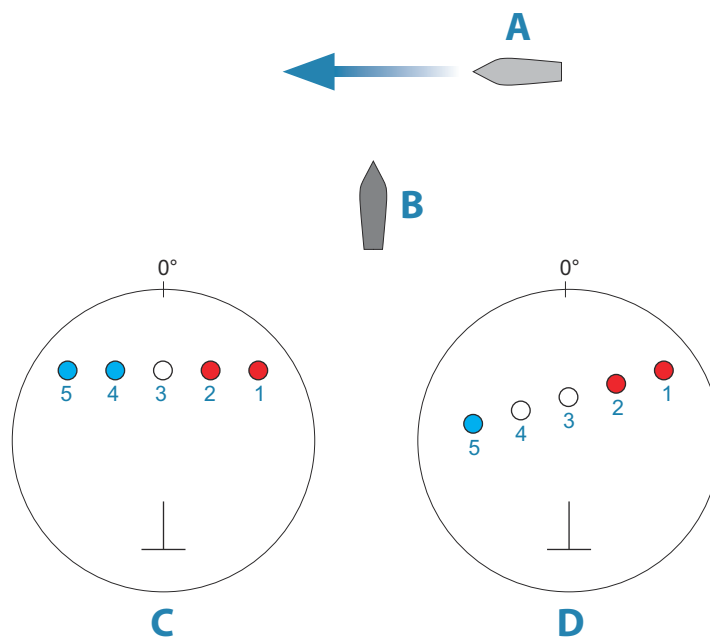
Use this dialog to set speed thresholds of targets to be colored.

The speed threshold can be defined to apply for the radar source of the selected radar panel only, or to all radar sources connected to the system. The setting is only applied to those radars powered and connected at the time the setting is made. If the all radar sources option is selected, newly connected radars will use the specified values automatically.

VelocityTrack examples

Approaching and diverging moving targets can be indicated as neutral (not colored) in some circumstances. The navigator should be aware of these situations to safely use the VelocityTrack feature as an aid for collision avoidance.

Examples of how VelocityTrack behaves in 2 navigation scenarios is illustrated below. The illustrations show a target **(A)** crossing own vessel's **(B)** path.



The examples show the target movement (1-5) over 5 radar scans with the radar in relative motion mode.

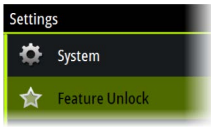
In example **C**, own vessel COG is 0°, and speed is 0 knots.

In example **D**, own vessel COG is 0°, and speed is 10 knots.

In both examples, the target COG is 270°, and the speed is 20 knots.

The colors in the example are according to the colors used for black/green and black/yellow radar palettes:

- Red, indicating the target is on an approaching path to own vessel. It's relative speed at that point is greater than the VelocityTrack speed threshold.
- Not colored, indicating it is temporarily neutral because it's relative speed at that point is less than the VelocityTrack speed threshold.
- Blue, indicating the target is diverging away from own vessel and it's relative speed at that point is greater than the VelocityTrack speed threshold.



Feature unlock

Features can be unlocked by entering the feature unlock code.

→ **Note:** The Feature Unlock option is only available if your unit supports a locked feature.

Select the Feature Unlock option in the Settings dialog and then the feature you want to unlock. Follow the instructions to purchase and enter the feature unlock code.

After a feature unlock code is entered in the unit, the feature is available for use.

Genesis Layer

The Genesis Layer displays high-resolution contours contributed by Genesis users that have passed a quality check.

This option toggles the Genesis layer on/off on the chart image. When the Genesis layer is on, the High-res bathy is disabled.

Available only if the C-MAP chart contains Genesis Layer data.

Chart overlay

Radar, Structure, Heat map, SonarChart Live (Navionics charts only) and weather data can be displayed as overlay on your chart panel.

When an overlay is selected, the chart menu expands to include basic menu functions for the selected overlay.

Information about the overlay data are described in more detail in separate sections in this manual.

Heat map overlay

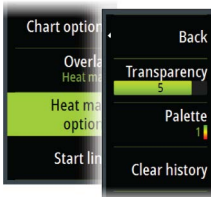
The Heat map overlay feature shows a history of water temperature coloring on the chart. A water temperature source is needed to provide the temperature data for the overlay (e.g. an Echosounder transducer, a NMEA 2000 water temperature sensor, etc.).

The color range is adjusted automatically based on the minimum and maximum temperatures recorded.

Select the color palette you want the system to use to show water temperatures. A legend is shown on the panel that identifies the colors associated with the recorded temperatures.

Use the transparency option to set the transparency of the overlay on the chart.

Use the clear history option to delete all heat map data gathered up to the moment it is selected. Heat map data is automatically deleted when the unit is turned off.



Navionics charts

Some Navionics features require the most current data from Navionics. For those features, a message is displayed stating that the feature is unavailable if you do not have the appropriate Navionics charts or chart card inserted. For more information on what is required for these features, refer to www.navionics.com.

You can also get a message if you try to use a restricted feature when the Navionics chart card is not activated. To activate the card, contact Navionics.

SCL History

→ **Note:** If no active Navionics chart subscription is found, the SonarChart Live menu option changes to SCL History.

Select to display previously recorded data on the chart overlay.