

## **ADDENDUM, software release 22.1 for HDS® Live™ and HDS® Carbon®**

This addendum documents new features that are included in this software release.

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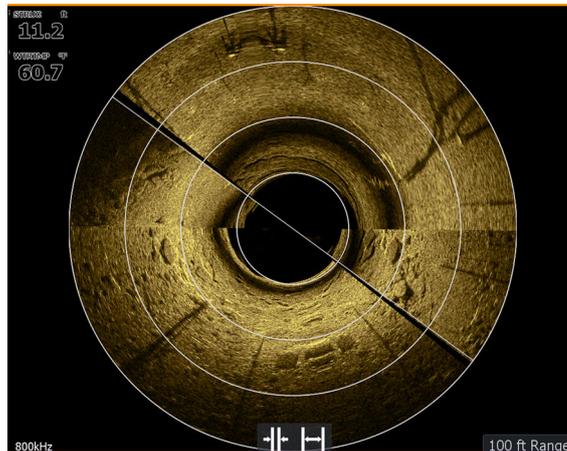
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## Ghost 360

Use the Ghost 360 feature to get up to a 360 degree view of the underwater environment in relation to your boat's position.

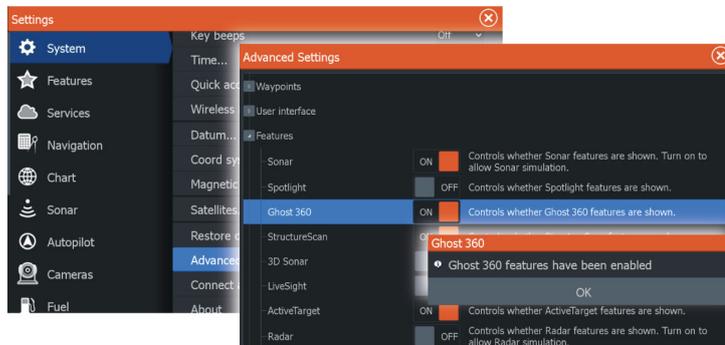
This feature is available when an Active Imaging 3-in-1 nosecone is attached to your Ghost Trolling Motor, allowing anglers to pinpoint key underwater elements such as fish, standing structures, and resting structures on the bottom.

**Note:** Ghost 360 is not a networkable feature. It can only be viewed on the multifunction display (MFD) that the 3-in-1 nosecone is connected to.



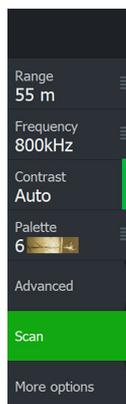
## Activating/deactivating Ghost 360

To activate/deactivate the Ghost 360 feature on your display, go to **Settings > System > Advanced... > Features** and activate/deactivate the **Ghost 360** feature. When active, the Ghost 360 icon displays on the Home page of your display unit.



## Setting up the image

Use the Ghost 360 settings menu to set up the image. When the cursor is active, some options in the menu are replaced with cursor mode features. Select the clear cursor option to return to the default menu.



## Range

The range setting determines the distance out to the left and right of the center.

### ***Preset range levels***

Select a preset range level manually from the menu.

## Frequency

Two frequencies are supported. 800 kHz provides the sharpest image without sacrificing range, while 455 kHz can be used in deeper waters, or for expanded range capabilities.

## Contrast

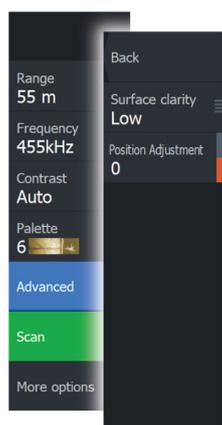
Determines the brightness ratio between light and dark areas of the screen.

→ **Note:** We recommend that you use the auto contrast option.

## Palettes

Use for selecting the image's color palette.

## Advanced options

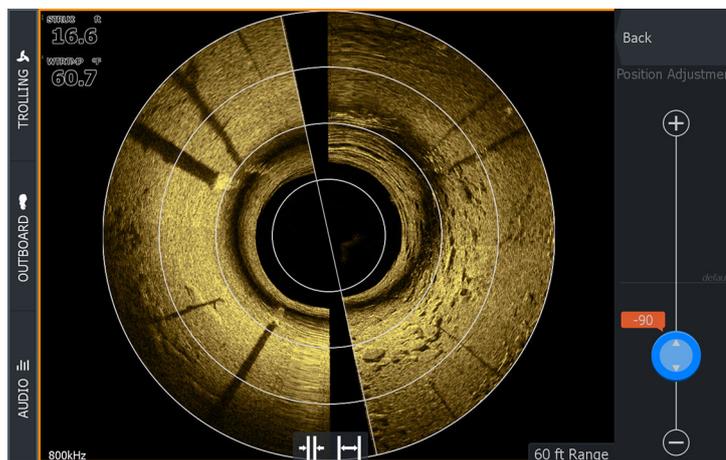


### ***Surface clarity***

Wave action, boat wakes and temperature inversions can cause onscreen clutter near the surface. The surface clarity option reduces surface clutter by decreasing the sensitivity of the receiver near the surface.

### ***Position Adjustment***

Use this option to align the image with the direction of your vessel to have an accurate view of the structure and targets in relation to the vessel's position.



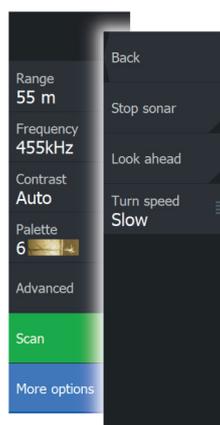
### Scan/Stop scan

Use the **Scan** option to start the transducer scanning process.

To stop the scanning, select the **Stop scan** option.

**Note:** The **Stop scan** option stops the 360 scanning and pauses the image while the transducer continues pinging.

### More options



### Stop sonar

Use this option to stop the transducer pinging.

When enabled during an active 360 scan, the motor continues to sweep and the image is paused.

When enabled before a new scan is started, the motor doesn't sweep and the image is paused.

### Look ahead

Select to make the top half of the image predominant on the display, for a better view of what is in front of you.

## Turn speed



Use this option to set the rotation speed of the transducer. Select one of the following turn speeds:

- Low - for best clarity
- Medium - for the best balance of clarity and speed
- High - for fastest turn rate

## Autopilot settings

The Autopilot settings dialog depends on which autopilot computer is connected to the system. If more than one autopilot is connected, the Autopilot settings dialog shows options for the active autopilot.

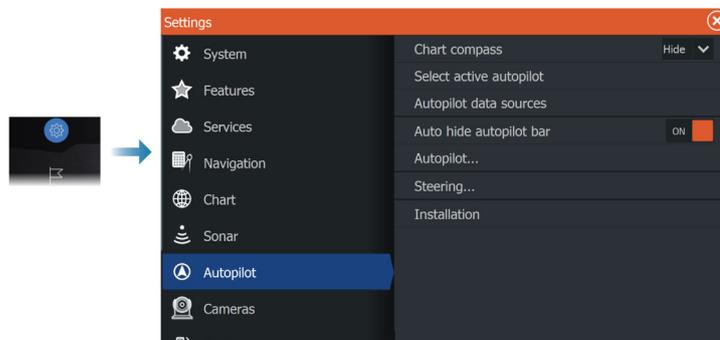
The settings are made during commissioning of the autopilot. Be careful of changing settings after commissioning is completed.

## NAC-2 and NAC-3 autopilot computer support

If a NAC-2 or NAC-3 autopilot computer is connected to the system, autopilot functionality is available in the system.

The system does not allow for more than one autopilot computer on the network.

## NAC-2/NAC-3 specific user settings



## Autopilot

Switches the view to the last active page with the autopilot controller open.

## Steering

These options allow for manually changing low speed and high speed parameters that were set during the commissioning of the autopilot computer. For more details, refer to the separate documentation for the autopilot computer.

Selecting the low speed option or the high speed option opens dialogs the following parameters can be changed.

- Turn rate: Preferred turn rate used while turning in degrees per minute.
- Rudder gain: This parameter determines the ratio between commanded rudder and the heading error. The higher rudder value the more rudder is applied. If the value is too small it will take a long time to compensate for a heading error, and the autopilot will fail to keep a steady course. If the value is set too high the overshoot will increase and the steering will be unstable.

- Counter rudder: Relation between change in heading error and applied rudder. Higher counter rudder will reduce applied rudder faster when approaching the set heading.
- Auto trim: Controls how aggressively the autopilot will apply rudder to compensate for a constant heading offset, e.g. when external forces such as wind or current affects the heading. Lower auto trim will give faster, limitation of a constant heading offset.
- Init rudder: Defines how the system moves the rudder when switching from manual steering to an automatic mode.
  - Rudder limit: Determines the maximum rudder movement in degrees from midship position that the autopilot can command the rudder in the automatic modes. The Rudder limit setting is only active during autosteering on straight courses, not during course changes. Rudder limit does not affect Follow-up or Non-Follow-up steering.
  - Off heading limit: Sets the limit for the off heading alarm. An alarm occurs when the actual heading deviates from the set heading more than the selected limit.
- Rudder limit: Determines the maximum rudder movement in degrees from midship position that the autopilot can command the rudder in the automatic modes. The Rudder limit setting is only active during autosteering on straight courses, not during course changes. Rudder limit does not affect Follow-up or Non-Follow-up steering.
- Off heading limit: Sets the limit for the off heading alarm. An alarm occurs when the actual heading deviates from the set heading more than the selected limit.
- Track response: Defines how fast the autopilot shall respond after having registered a cross track distance.
- Track approach angle: Defines the angle used when the vessel is approaching a leg. This setting is used both when you start navigating and when you use track offset.
- Course change confirm angle: Defines the limits for course change to next waypoint in a route. If the course change is more than this set limit, you are prompted to verify that the upcoming course change is acceptable.

## SteadySteer supported

The SteadySteer feature is supported.

### Requirements

- A SteadySteer compatible autopilot connected to the system, with the latest software installed.
- If your SteadySteer compatible autopilot uses a hydraulic steering system, a SteadySteer flow switch connected to the autopilot hydraulic steering system is required. Steering by wire autopilot systems do not require the flow switch.
- To enable the SteadySteer feature, the override or input option must be selected in the Autopilot installation dialog.

→ **Note:** For more information, refer to the documentation for your autopilot computer.

### SteadySteer

The SteadySteer feature allows you to control how the autopilot system reacts to manual steering.

When enabled:

- Manual steering overrides the active mode.
- If Auto mode or NoDrift mode was active before going into manual steering, they will automatically re-engage when the vessel has stabilized on a new course.
- If NAV mode was active before going into manual steering a dialog will be shown.
  - Confirm course change to reactivate NAV mode.
  - Cancel the course change to activate Auto mode on the new heading.
  - If no action is taken the autopilot will go into Standby mode.
- For any other modes, the autopilot goes into Standby mode.

When disabled:

- Manual steering overrides the active mode.
- Independent of modes, the autopilot goes into Standby mode.

For more information and how to enable/disable the feature, refer to the documentation for your autopilot computer.