HELIX 9 and HELIX 10

Operations Guide

532400-1EN_A

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WARNING! This device should not be used as a navigational aid to prevent collision, grounding, boat damage, or personal injury. When the boat is moving, water depth may change too quickly to allow time for you to react. Always operate the boat at very slow speeds if you suspect shallow water or submerged objects.

WARNING! The electronic chart in your Humminbird unit is an aid to navigation designed to facilitate the use of authorized government charts, not to replace them. Only official government charts and notices to mariners contain all of the current information needed for the safety of navigation, and the captain is responsible for their prudent use.

WARNING! Humminbird is not responsible for the loss of data files (waypoints, routes, tracks, groups, recordings, etc.) that may occur due to direct or indirect damage to the unit's hardware or software. It is important to back up your control head's data files periodically. Data files should also be saved to your PC before restoring the control head defaults or updating the software. See the following sections of your Humminbird manual: ***Manage Screen Snapshots and Recordings*** and ***Manage your Navigation Data: Import/Export Navigation Data.***

WARNING! Disassembly and repair of this electronic unit should only be performed by authorized service personnel. Any modification of the serial number or attempt to repair the original equipment or accessories by unauthorized individuals will void the warranty.

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

NOTE: Do NOT leave the control head SD card slot cover open. The slot cover should always be closed to prevent water damage to the unit.

NOTE: Some features discussed in this manual require a separate purchase, and some features are only available on international models. Every effort has been made to clearly identify those features. Please read the manual carefully in order to understand the full capabilities of your model.

NOTE: The illustrations in this manual may not look the same as your product, but your unit will function in a similar way.

NOTE: To purchase accessories for your control head, visit our Web site at **humminbird.com** or contact Humminbird Customer Service at **1-800-633-1468**.

NOTE: The procedures and features described in this manual are subject to change without notice. This manual was written in English and may have been translated to another language. Humminbird is not responsible for incorrect translations or discrepancies between documents.

NOTE: Product specifications and features are subject to change without notice.

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, however actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

ROHS STATEMENT: Product designed and intended as a fixed installation or part of a system in a vessel may be considered beyond the scope of Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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WEEE compliance may not be required in your location for electrical & electronic equipment (EEE), nor may it be required for EEE designed and intended as fixed or temporary installation in transportation vehicles such as automobiles, aircraft, and boats. In some European Union member states, these vehicles are considered outside of the scope of the Directive, and EEE for those applications can be considered excluded from the WEEE Directive requirement.

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Introduction

The instructions in this manual describe the HELIX 9 and HELIX 10 control head operations. For an overview of functions, see the ***Operations Summary Guide*** included with your product.

Build your Network: Some of the features shown in this manual require a separate purchase. Radar, AIS, Compass/Heading Sensor, Ethernet, i-Pilot Link, etc. require a separate purchase. To install each accessory, use the installation guide provided with it, or download the guide from our Web site at **humminbird.com**.

Register and Update: As you build your Humminbird network, it is important to register your products and keep your software up to date. Visit our Web site at **humminbird.com** to set up an account, update control head and accessory software, and purchase additional equipment. Also, see ***Update Software*** in this manual for more information.

How to use this Manual

To open, read, and print the Adobe PDF files, you will need Adobe Reader software installed on your computer. To download the free Adobe Reader software to your computer, visit http://get.adobe.com/reader/.

Jump to a Section: Click a section name in the Bookmarks panel. Bookmarks can be expanded and collapsed by clicking on the plus (+) or minus (-) icons.

Search for Words or Phrases: Press and hold the Ctrl F keys on your PC keyboard. Type the word(s) into the text box.

Using the Manual

Getting Started

The procedures in this section describe how to get started with your control head. Some of the settings in this section are a one-time set up, and other settings (such as checking the GPS reception) you will use each time you hit the water.

Power On

Follow the instructions below to power on your Humminbird control head.

1. Press the POWER key.
2. When the Title screen is displayed, press the MENU key.

Title Screen

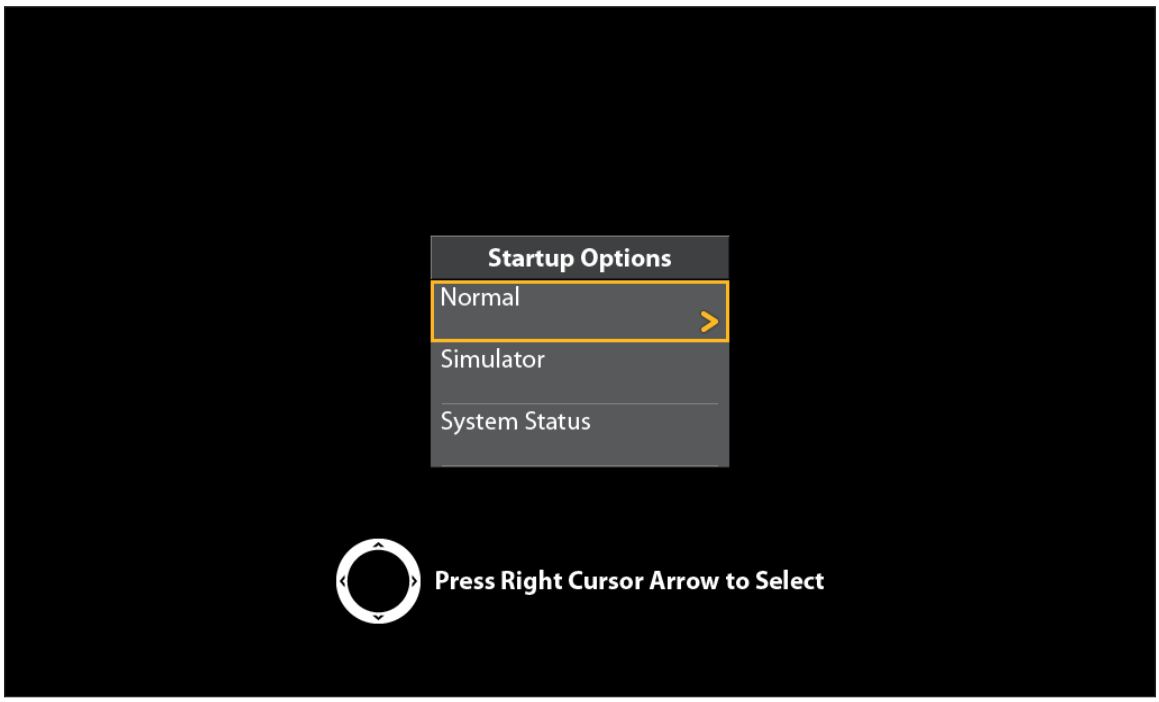
Press the MENU key

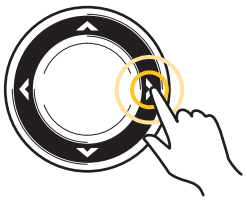
3. Select Normal. Press the RIGHT Cursor key.

Normal	Normal mode is required for on-the-water operation. If a functioning transducer is connected to the control head, Normal will be selected automatically, and your control head can be used on the water.
Simulator	To learn how to use your control head, select Simulator. You can save menu settings and navigation data in Simulator mode (see ***Chart Overview*** and ***Navigation Overview*** for more information).
System Status	To view system information for software version, GPS reception, and accessory connections, select System Status. See ***Check Accessory Connections*** and ***Check GPS Reception*** for more information.

NOTE: If you wait too long to select a start-up option, the system will start the mode that is already highlighted. If your control head goes into Demonstration mode, please note that menu settings cannot be saved in this mode (see ***Manage your Control Head***).

Starting Normal Mode for on-the-water Operations





Press the RIGHT Cursor key

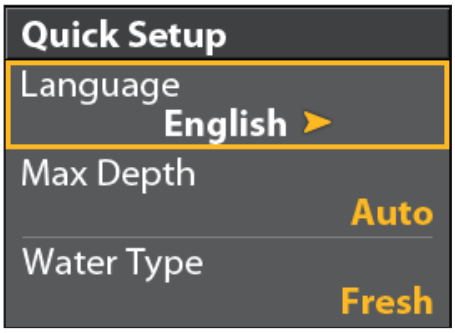
Quick Setup

If this is the first time the unit has been powered on (after installation or after restoring defaults), the Quick Setup menu will display.

Set up the Control Head

1. Use the Cursor Control key to change the settings.
2. **Close:** Press the EXIT key.

Quick Setup Menu



Language	The available languages are determined by your Humminbird model.
Max Depth	Set the maximum depth of the body of water. When Max Depth is set to Auto, the control head will acquire bottom readings as needed (within the capabilities of the unit). When Max Depth is set to match your water maximum depth, the control head will not attempt to acquire sonar data below that depth, so more detail will be shown on the display. **Side Imaging units** default to the Side Imaging range setting if the SI Range is set deeper than the Max Depth. See ***Side Imaging Overview*** for more information.
Water Type	Water Type affects the accuracy of deep water depth readings and configures the control head for operation in fresh or salt water. In salt water, you can also choose the shallow or deep setting. If the depth is more than 330 ft (100 m), select Salt (deep).

NOTE: To change the Max Depth and the Water Type after the initial Setup, see ***Set up Sonar***.

Check Accessory Connections

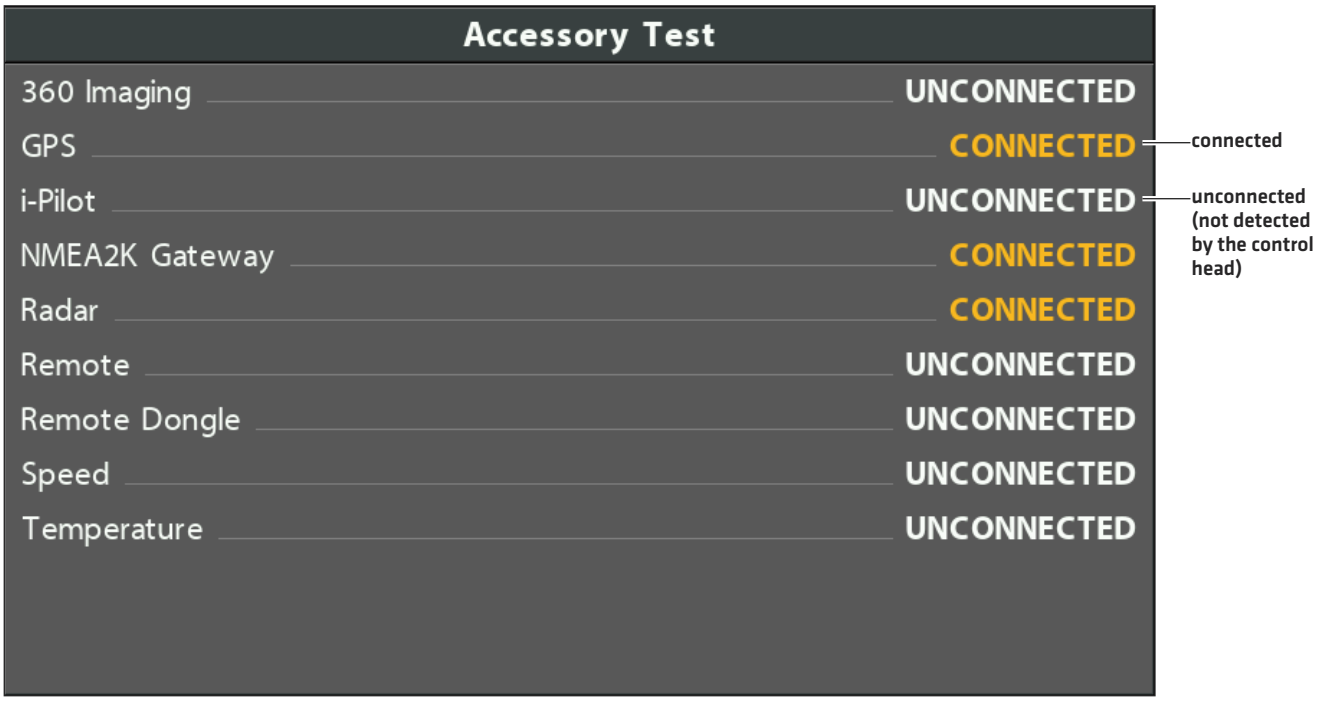
If you've connected other separate-purchase equipment to the control head network, such as AIS, Compass/Heading Sensor, Radar, i-Pilot Link, 360 Imaging, and more, use these instructions to confirm the equipment is detected and communicating with the control head.

1. Press and hold the VIEW key.
2. Select System > Accessory Test.

   Confirm all accessories are listed as Connected. If you have a temp/speed wheel, the wheel must move for it to be detected.

   Unconnected: If an accessory is listed as Unconnected, check the cable and power connections to confirm they are secure and powered on. Review the installation guide that was included with your accessory to confirm it is installed correctly.

Confirming Accessories are Detected



NOTE: The menus for installed accessories are typically included in the Accessory tab in the Main Menu. See your accessory guide for details.

Check GPS Reception

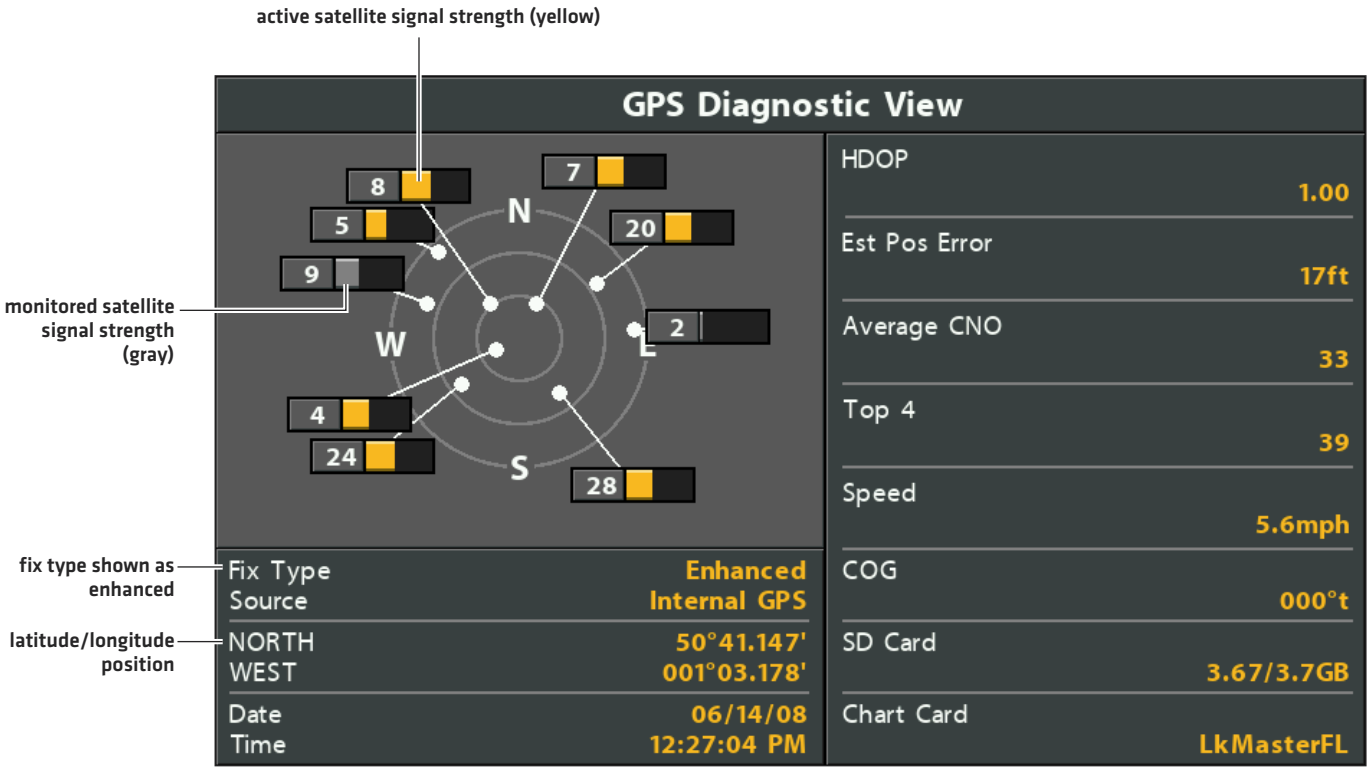
Use the instructions in this section to confirm the control head has GPS reception.

1. Press and hold the VIEW key.
2. Select System > GPS Diagnostic View.

   Confirm Fix Type is shown as Enhanced or 3D.

   Confirm that the latitude/longitude position readout is displayed.

Reviewing GPS Reception



GPS Reception: The sky chart displays the satellite number and signal strength bar.

GPS Fix Type: reported as No Fix, 2D Fix, 3D Fix, or Enhanced. An Enhanced Fix has been augmented using information from WAAS, EGNOS, or MSAS.

HDOP (the Horizontal Dilution of Precision): a GPS system parameter which depends on the current satellite configuration. HDOP is used to calculate the Estimated Position Error.

NOTE: To manually change your GPS source, see ***Manage your Control Head***.

Set Alarms

When an alarm is turned on, an alert will sound or display on the control head to indicate the threshold has been exceeded.

Turn on Alarms and Adjust Settings

1. **Main Menu:** Press the MENU key twice.

   OR

   To open the Main Menu from a System View, press the MENU key once.

2. Select the Alarms tab.
3. Select an alarm menu. Press the RIGHT or LEFT Cursor keys to adjust the threshold.

Depth Alarm	The alarm will be triggered when the depth becomes equal to or less than the menu setting. Transducer required.
Fish ID Alarm	The alarm will be triggered when a fish is detected based on the menu setting. See ***Adjust Sonar Display Settings*** for more information.
Low Battery Alarm	The alarm will be triggered when the input battery votage is equal to or less than the menu setting. The battery must be connected to the control head. See your control head installation guide for more information.
Temp. Alarm	The alarm will be triggered when the water temperature detected by the control head is equal to the temp alarm setting. Input from the built-in transducer temperature sensor or a temperature accessory is required.
Off Course Alarm	Sets how far the boat can move off course during navigation before an alarm will be triggered. GPS required. See ***Navigation Overview*** for more information.
Arrival Alarm	Sets how close the boat must be to the destination waypoint before the alarm will be triggered. GPS required. See ***Navigation Overview*** for more information.
Drift Alarm	Sets how far the boat can move from its anchored position outside the drift alarm perimeter before an alarm will be triggered. GPS required. See ***Navigation Overview*** for more information.

NOTE: The available alarms are determined by the connected equipment, so your control head may provide more or less options than the information shown here. If there are accessories installed, review the accessory guide for alarm information.

4. **Close:** Press the EXIT key twice.

Exit an Alarm

If an alarm is triggered during control head operation, you can close it or silence it using these instructions.

1. Press any key on the control head.

Reset the Triplog

The Triplog includes the timer for elapsed time, distance traveled since last reset, and average speed. Use the following instructions to reset the triplog. To display the Triplog as a digital readout, see ***Views: Display Digital Readouts***.

1. **Main Menu:** Press the MENU key twice.
2. Select the **Setup** tab.
3. Select Triplog Reset.
4. Press the RIGHT Cursor key.
5. Follow the on-screen prompts.

Turn on/off Sound

Use the instructions in this section to choose the category of sounds you want to hear from your control head.

1. **Main Menu:** Press the MENU key twice.
2. Select the Setup tab.
3. Select Sound Control.
4. Select All Sounds or Alarms only.

   To receive a sound alert from an alarm, Sound Control must be set to All Sounds or Alarms Only.

   Change the Alarm Tone: Select the Alarms tab > Alarm Tone.

Change the User Mode

The User Mode determines how many menu options are displayed in the menu system. Select **Normal** to see fewer menu options that are used more often. Select **Advanced** to see all the menu options available in the menu system.

Instructions in this manual marked with **Main Menu (Advanced User Mode)** indicate that the menu system User Mode must be set to Advanced for the selected menu to be shown. If you do not see the menu in the system, change the User Mode to Advanced. See ***Menu System Overview*** for details.

1. **Main Menu:** Press the MENU key twice.
2. Select the Setup tab.
3. Select User Mode.
4. Select Normal or Advanced.

Set up Sonar

If you've installed an accessory transducer, or to refine your sonar settings, see ***Set up Sonar*** for details.

Set up Chart Preferences

If you've installed an SD map card, see ***Chart Overview*** to set up the chart source.

Change Units of Measurement

Use the instructions in this section to change the units of measurement format. You can also change the time and date format, language, and installation offsets from this menu. See ***Manage your Control Head*** for more information.

1. **Main Menu:** Press the MENU key twice.
2. Select the Setup tab.
3. Select Units - Depth, Units - Distance, etc., and select each unit setting as needed.
4. **Close:** Press the EXIT key.

Adjust the Backlight

1. Press the POWER key.
2. Select Light.
3. Adjust the Backlight setting from Dim to 10 (brightest).

Power Off

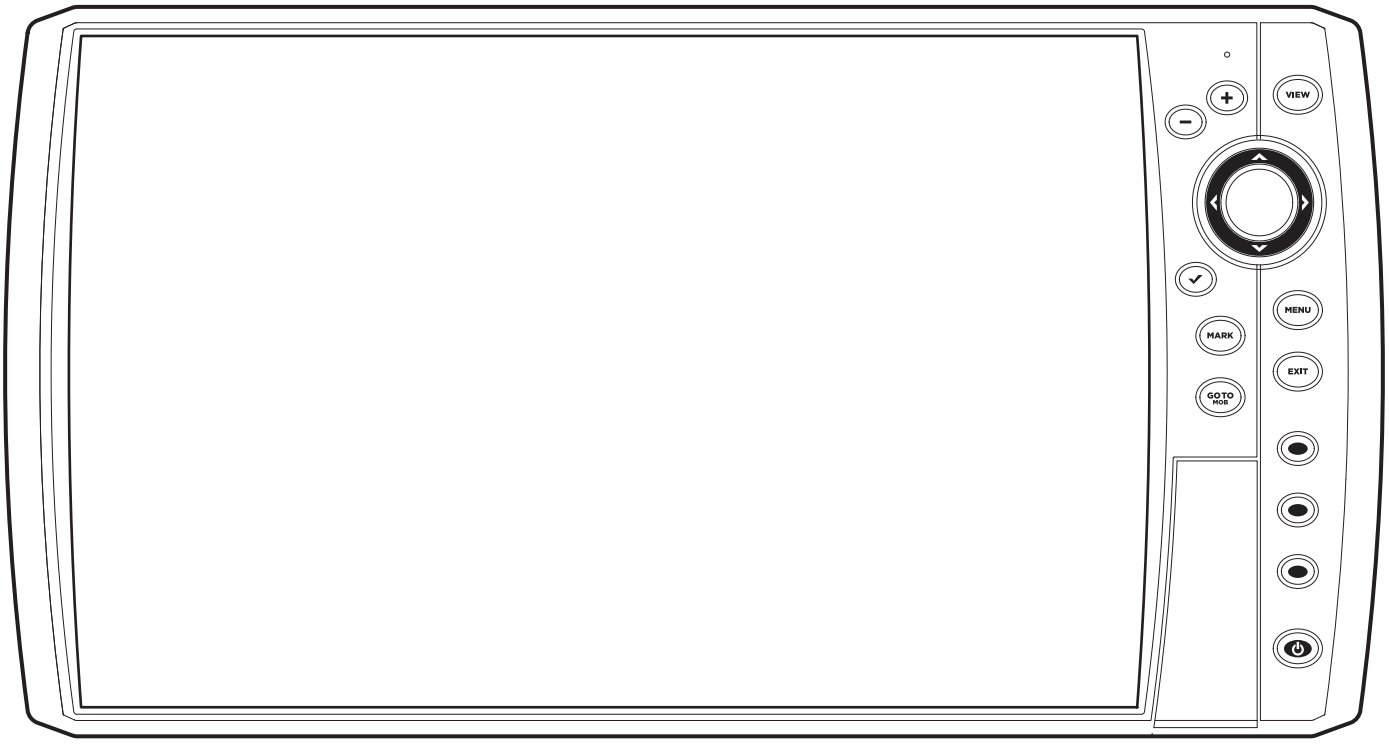
Use the following instructions to power off your control head. You should save the current track before powering off, and your control head should always be turned off using the POWER key.

Save the Current Track

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Save Current Track.
3. Press the RIGHT Cursor key.

Power Off

1. Press and hold the POWER key.



Control Head Keys

ZOOM IN (+)/ZOOM OUT (–) KEYS

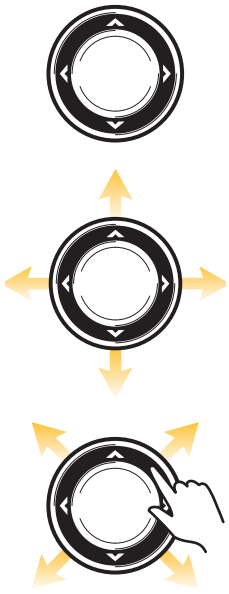
Press the ZOOM keys to change the scale of the view. **For a closer view,** press the ZOOM IN (+) key. **For a wider view**, press the ZOOM OUT (-) key. You can also magnify the cursor selection.

VIEW KEY

Press and hold the VIEW key to open the Views X-Press menu, or press the VIEW key repeatedly until the view you want to use is displayed on the screen. Press the EXIT key to display the previous view. See ***Views*** for details.

CHECK/INFO KEY

In the Chart View, press the CHECK/INFO key to see information about the cursor position or about objects located near the cursor position. If the cursor is not active, the Chart Info submenu will open. See ***Navigation Overview*** for details.



CURSOR CONTROL KEY

(LEFT, RIGHT, UP, or DOWN Cursor keys)

Press the arrows on the Cursor Control key to move through the menu system, select menus, and change or activate menu settings. See ***Menu System Overview*** for details.

Also, press any arrow on the Cursor Control key to move the cursor on the view.

To move the cursor diagonally, press in between the arrows.

MARK KEY

Press the MARK key to save a waypoint at the boat position. If the cursor is active, the waypoint will be marked at the cursor position. See ***Navigation Overview*** for details.

If Screen Snapshot is turned on, a screen snapshot will be created with the waypoint, and the screen snapshot will be saved to the installed SD Card. See ***Screen Snapshot*** for details.

MENU KEY

To open the X-Press Menu for the on-screen view and operation mode, press the MENU key once. To open the Main Menu, press the MENU key twice. See ***Menu System Overview*** for details.

GO TO/MAN OVERBOARD (MOB) KEY

With an active cursor, press the GOTO key once to create a waypoint and start navigation towards that waypoint. If the cursor is not active, press the GOTO key, and choose from the saved navigation data. To start Man Overboard navigation, press and hold the GOTO key. See ***Navigation Overview*** and ***Man Overboard (MOB) Navigation*** for details.

EXIT KEY

Press the EXIT key to close a menu, close a dialog box, turn off an alarm, or exit Cursor mode.

Also, press the EXIT key to scroll through the View Rotation in reverse order. See ***Views*** for details.

VIEW SHORTCUT KEY

Press and hold a VIEW SHORTCUT key to save a shortcut to the on-screen view. You can save one view on each VIEW SHORTCUT key. See ***Views*** for details.

POWER KEY

Press the POWER key to power on the control head. To power off, press and hold the POWER key.

During operation, press the POWER key. The **backlight** can be adjusted from this menu. You can also turn on/off Sonar and change the view background color.

SD Card Slot(s)

The SD card slot on your control head can be used with an SD card (separate purchase required) to update software, add detailed charts to your control head, import/export navigation data, and save sonar recordings and screen snapshots.

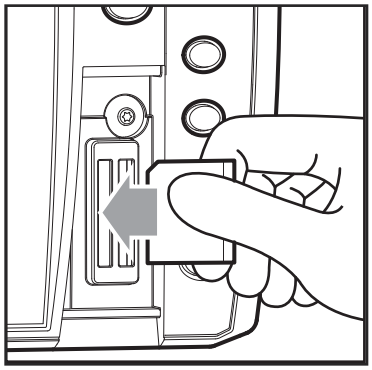
Software Updates: For details, see ***Update Software***.

Add Maps: see ***Chart Overview***.

Import/Export Navigation data: See ***Manage your Navigation Data***.

Sonar Recordings and Screen Snapshots: See ***Manage Screen Snapshots and Recordings.***

CAUTION! Before the control head software is updated or restored to system defaults, export your navigation data (see ***Update Software***).



Insert the SD card with the label facing to the left

Insert an SD Card

1. Remove the SD card slot cover.
2. Position the SD card so that the label faces to the left.
3. Insert the card into the slot until it clicks into place.
4. Replace the slot cover so it is secure.
5. **Remove:** Press the card into the slot and then release it. The card will eject. Pull the card carefully from the slot.

NOTE: Do not leave the SD card slot cover open. The slot cover should always be closed to prevent water damage to the unit.

Menu System Overview

The menu system provides menu options that are determined by the operations mode, on-screen view, and connected accessories.

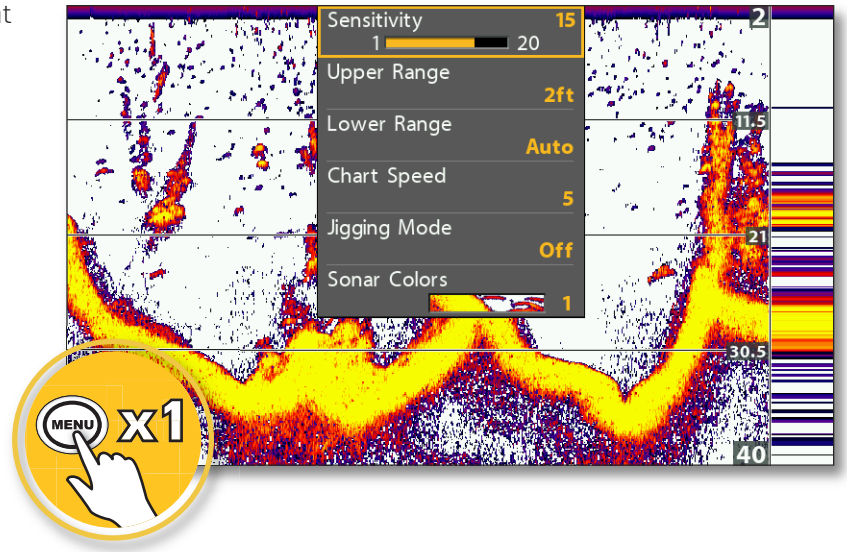
Open an X-Press Menu

The X-Press Menu displays menus that are related to the on-screen view and the operations mode (such as navigation). In this illustration, the Sonar X-Press Menu is displayed because the Sonar View is displayed on the screen.

Open the X-Press Menu

1. Press the VIEW key repeatedly until the view you want is displayed on-screen.
2. Press the MENU key once.

Opening the Sonar X-Press Menu



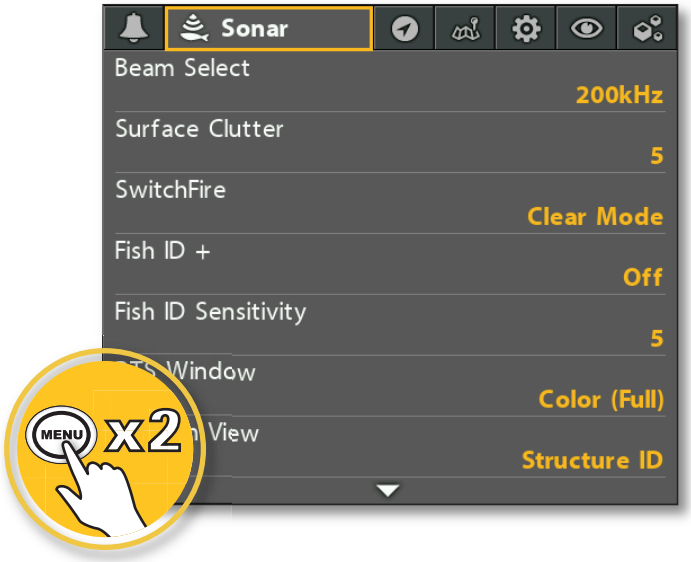
Open the Main Menu

The main menu is divided into tabbed categories (Alarms, Sonar, Navigation, Chart, Setup, Views, and Accessories). The available tabs and menus are determined by your model and the connected accessories.

Open the Main Menu

1. Press the MENU key twice.

Opening the Main Menu



Select a Menu

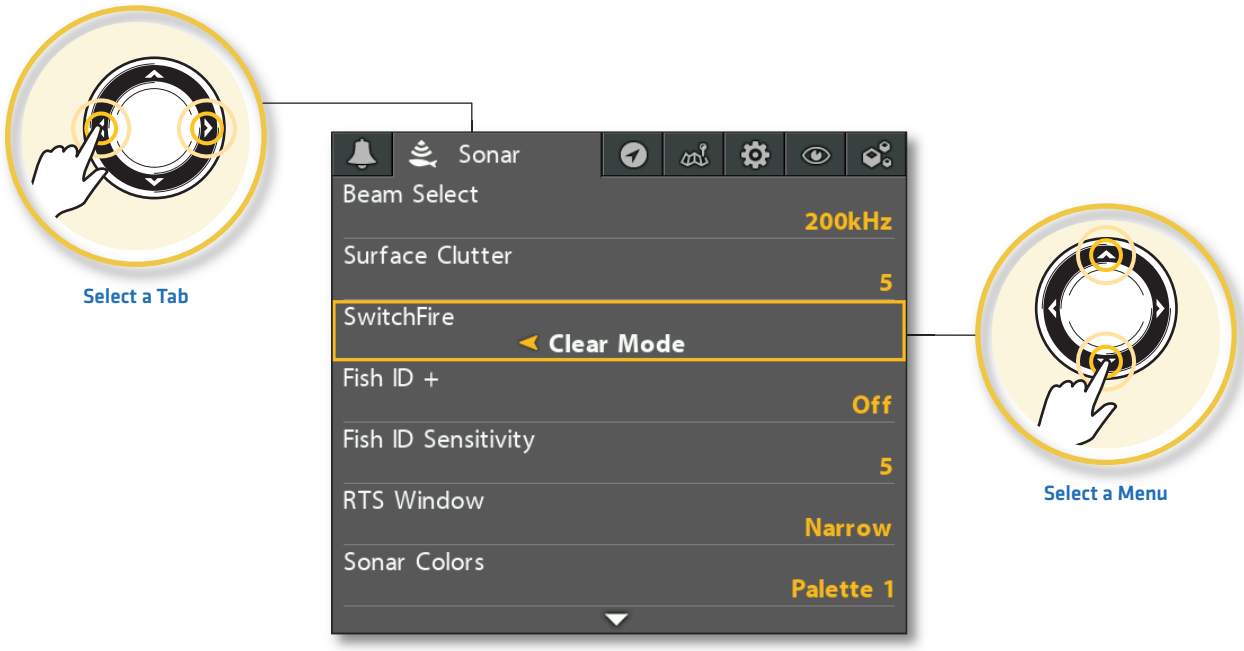
Use the Cursor Control key to select a menu in the Main Menu or X-Press Menu.

Select a Tab (Main Menu)

1. Press the RIGHT or LEFT Cursor keys.

Select a Menu

1. Press the DOWN or UP Cursor keys.

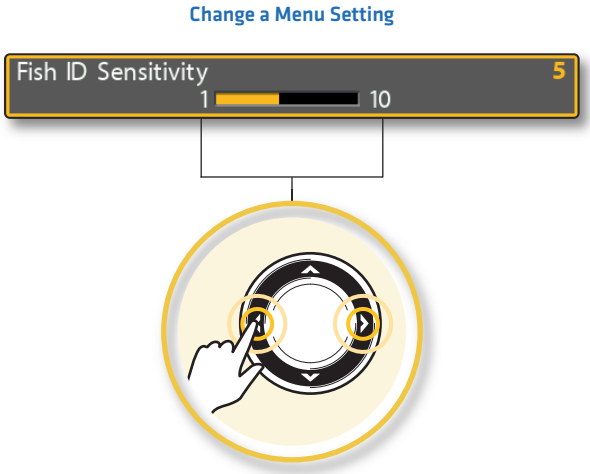


Change a Menu Setting

Use the Cursor Control key to change menu settings or start an action. When you change a menu setting, the view will update immediately.

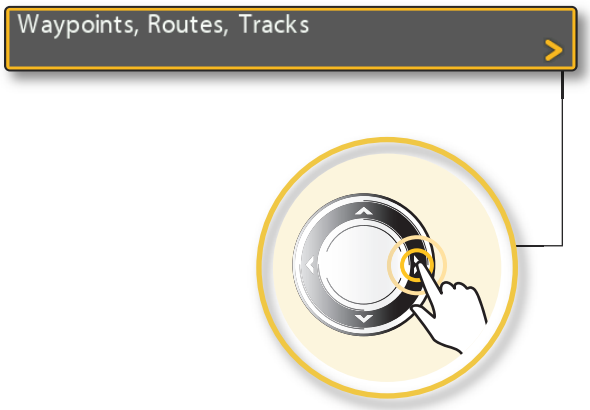
Adjust a Menu Setting

1. Press the RIGHT or LEFT Cursor keys.



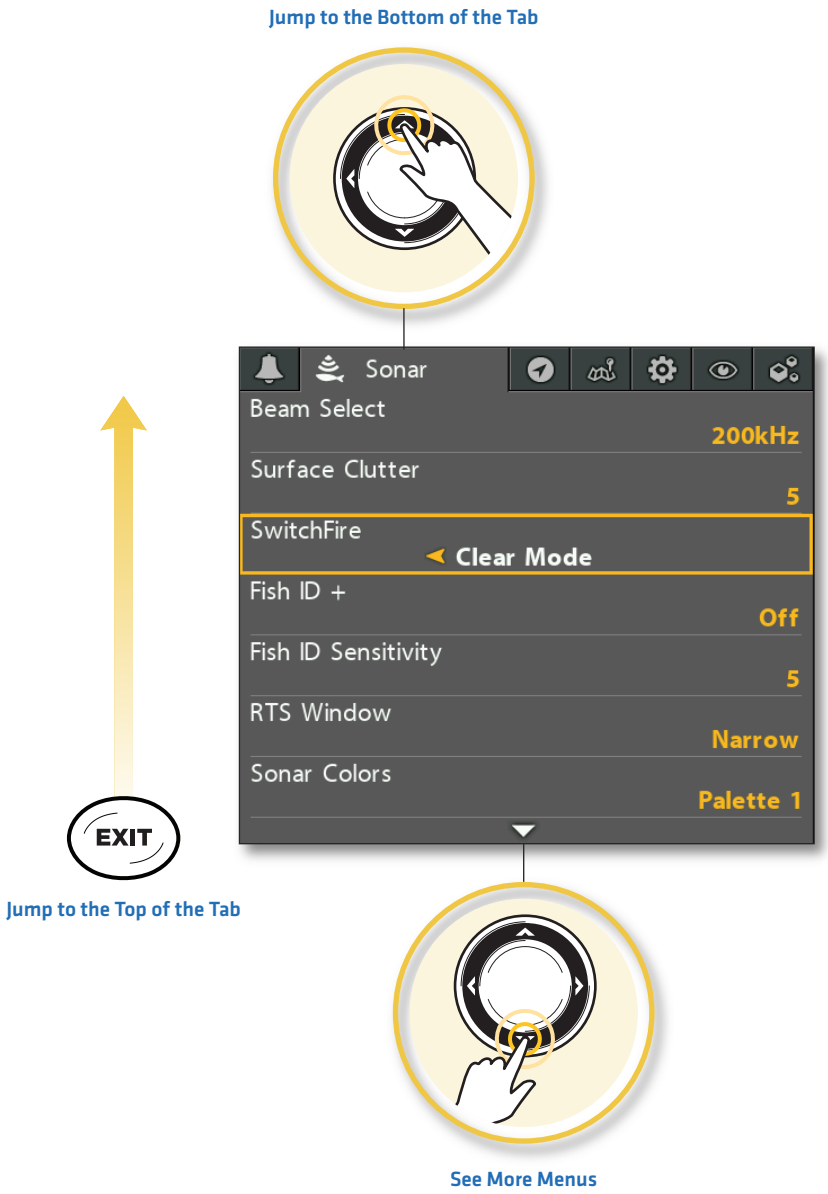
Start an Action/Open a Submenu

1. If a menu has a right arrow on it, press the RIGHT Cursor key to start the action or open the submenu.



Tips for Using the Menu System

You can move through the menu system quickly using the following tips.



Change the User Mode (Normal or Advanced)

The User Mode determines how many menus are shown in the menu system. Select **Normal** to see fewer menus that are used more often. Select **Advanced** to see all the menus available in the menu system.

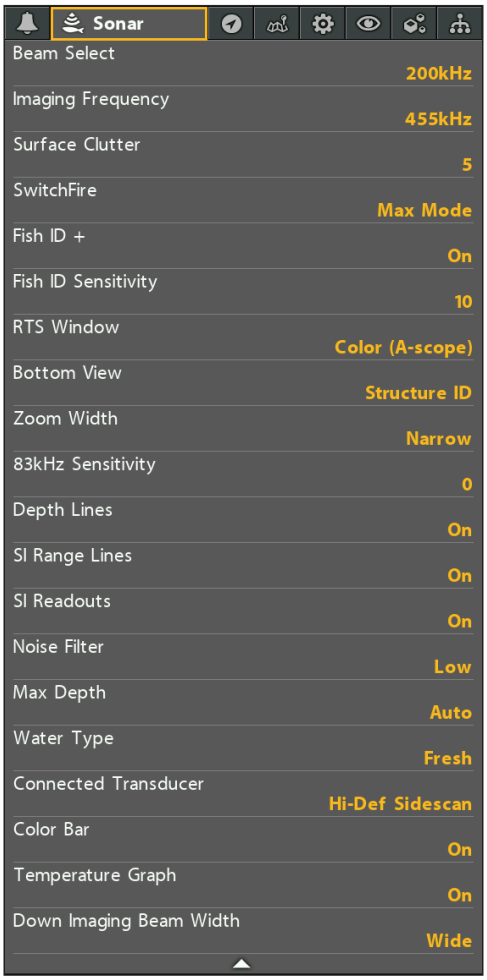
Main Menu (Advanced User Mode): Instructions in this manual marked with **Main Menu (Advanced User Mode)** indicate that the menu system User Mode must be set to Advanced for the selected menu to be shown. If you do not see the menu in the system, change the User Mode to Advanced.

Change the User Mode

1. **Main Menu:** Press the MENU key twice.
2. Select the Setup tab.
3. Select User Mode.
4. Select Normal or Advanced.

Main Menu: Sonar Tab (User Mode set to Normal)

Main Menu: Sonar Tab (User Mode set to Advanced)



Close the Menu System

Use the EXIT key to go back through the menu system or close the menu system.

Back: Press the EXIT key to close the current menu and go back one level in the menu system.

Close: Press the EXIT key repeatedly until the menu system is closed.

Views

The HELIX control head has many options to display data on-screen, and the data can be displayed in a variety of ways. There are also several ways to quickly display a view on-screen.

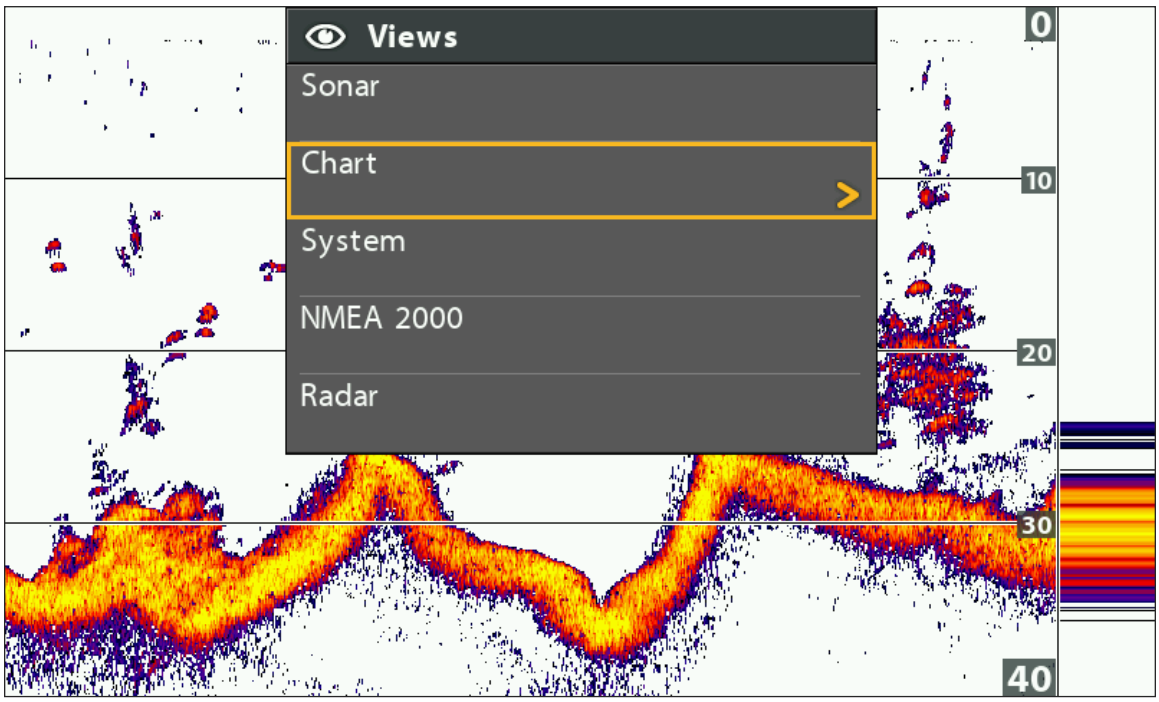
Display a View

The available views on your control head are determined by the model you've purchased and the connected transducer.

Display a View from the Views X-Press Menu

1. Press and hold the VIEW key.
2. Select a view category. Press the RIGHT Cursor key.
3. Select a view. Press the RIGHT Cursor key.

Selecting a View to Display on the Screen



Press and Hold to Open the Views X-Press Menu

OR

Forward: Press to go to the Next View

Back: Press to go to the Previous View

OR

Press to Display a Saved View

Display the Next/Previous View

Next View: Press the VIEW key repeatedly until the view you want is displayed on-screen.

Previous View: Press the EXIT key repeatedly until the view you want is displayed on-screen.

Display a Saved View

1. Press a VIEW SHORTCUT key.

   You can save one view on each VIEW SHORTCUT key. See ***Save a View to a VIEW SHORTCUT key*** for more information.

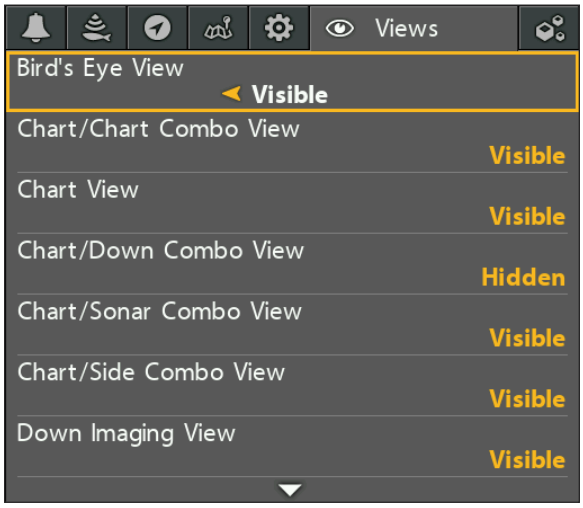
Show your Favorite Views

You can display or hide any view so that each time you press the VIEW key, only your favorite views are displayed on the screen.

Show/Hide a View

1. **Main Menu:** Press the MENU key twice.
2. Select the Views tab.
3. Select a view.
4. Select Hidden or Visible.

Main Menu: Views Tab



Hide Sonar Views

If you're using your control head for GPS/Navigation functions only, use these instructions to hide all sonar views from the view rotation. This setting also deactivates sonar.

1. Press the POWER key.
2. Select Sonar.
3. Select Off.

NOTE: You can also turn on/off Sonar from the Main Menu > Setup tab > Sonar.

Save a View to a VIEW SHORTCUT key

Another way to display your favorite views quickly is to save them on the VIEW SHORTCUT keys. You can program the VIEW SHORTCUT keys to display a saved view immediately. **You can save one view on each key.**

With the view you want to save displayed on-screen, press and hold one of the VIEW SHORTCUT keys for several seconds.

Display Digital Readouts

Digital Readout data can be displayed as an overlay, or it can be displayed in data boxes on the views. You can also choose which digital readouts you want to display. The format and readouts you choose will be applied to all views.

Accessories: The available digital readouts are determined by the installed equipment, so if you connect accessories, additional readouts will be available.

Format: You can change the digital readout format from the Setup Tab. See ***Manage your Control Head: Change Digital Readout Formats*** for details.

Select the Digital Readout Type

Use the instructions in this section to display digital readouts in boxes or as overlays. You can also choose to hide the digital readouts completely.

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Digital Readouts.
3. Select one of the following options:

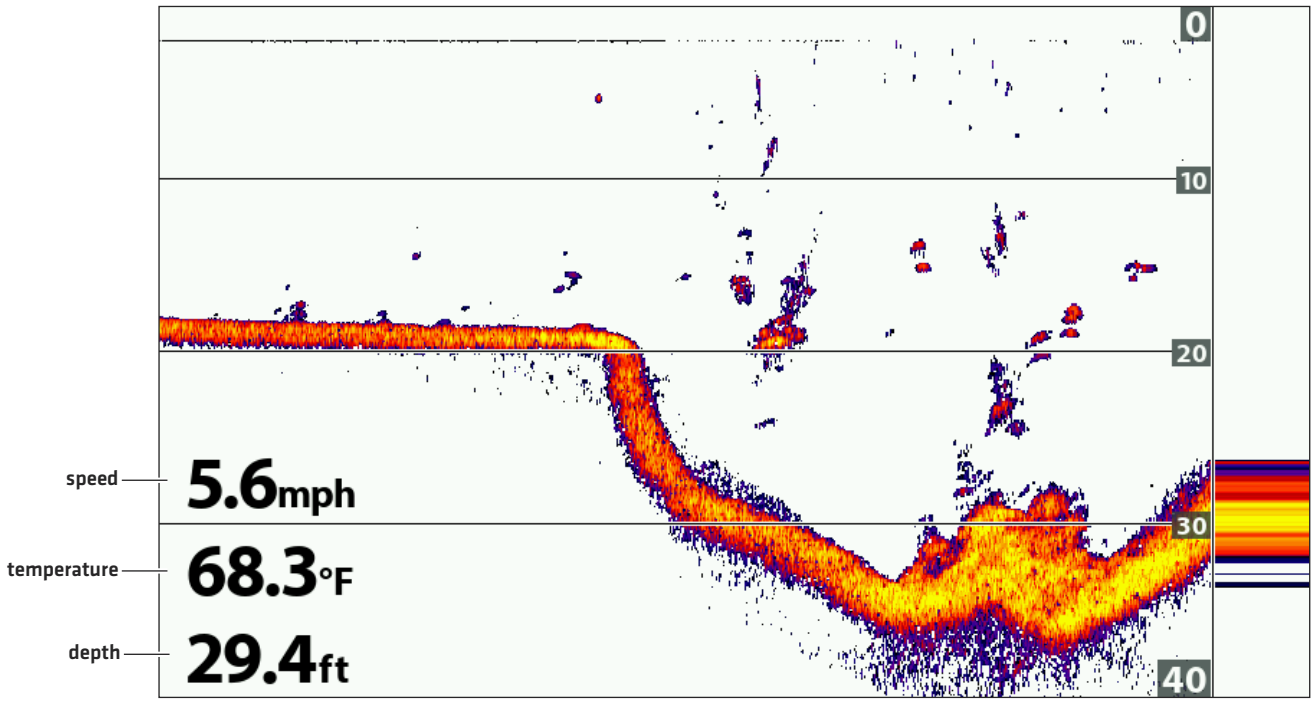
Boxes	Digital Readouts are displayed in boxes on the view. See the illustration ***Digital Readouts with Boxes Selected***. You can customize which digital readouts are displayed (see ***Customize Digital Readouts***).
Overlay	The digital readouts are displayed as an overlay on the view. See the illustrations ***Digital Readouts with Overlay Selected***. These digital readouts are fixed and cannot be changed.
Off	The digital readouts will be hidden completely. To hide individual digital readouts instead of all, see ***Customize Digital Readouts***.

Show/Hide Digital Readouts on the Side Imaging View

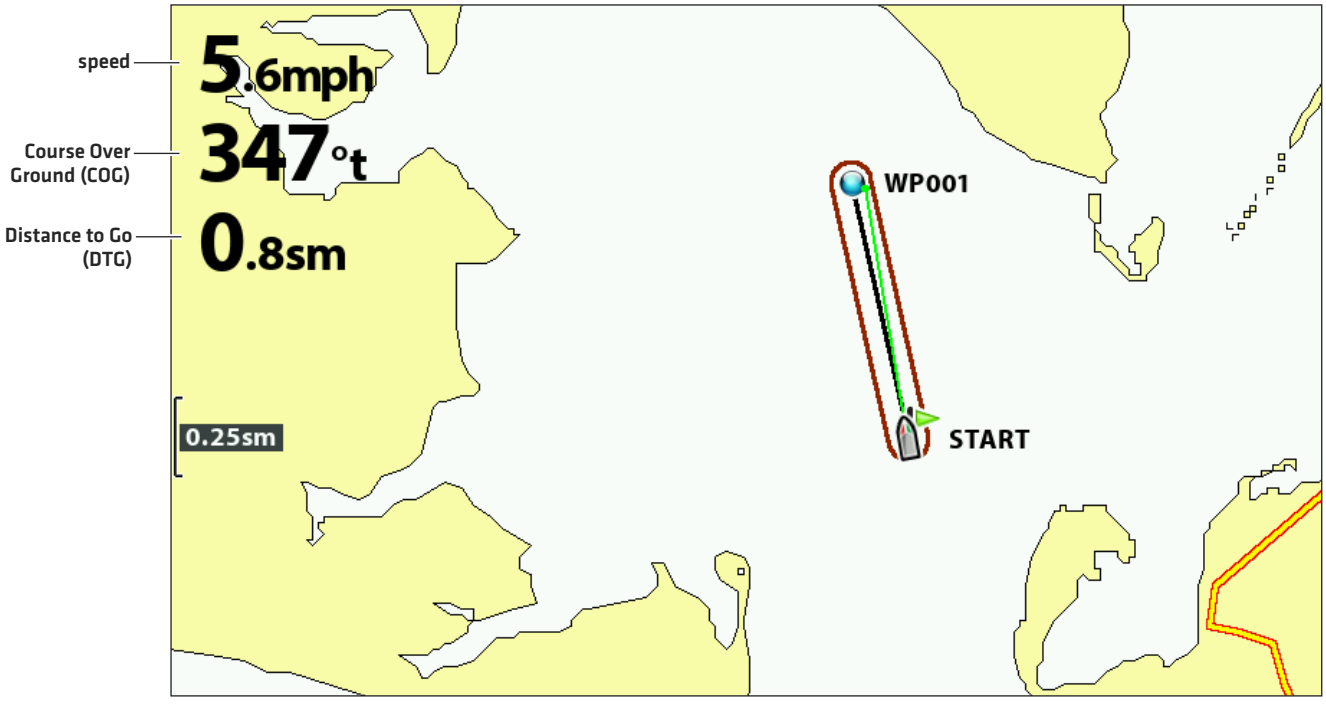
If you have Digital Readouts set to Boxes on all views, you can hide the digital readout boxes on the Side Imaging View exclusively.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select SI Readouts.
3. Select On (show) or Off (hide).

Digital Readouts with Overlay Selected (Sonar View)



Digital Readouts with Overlay Selected (Chart View)



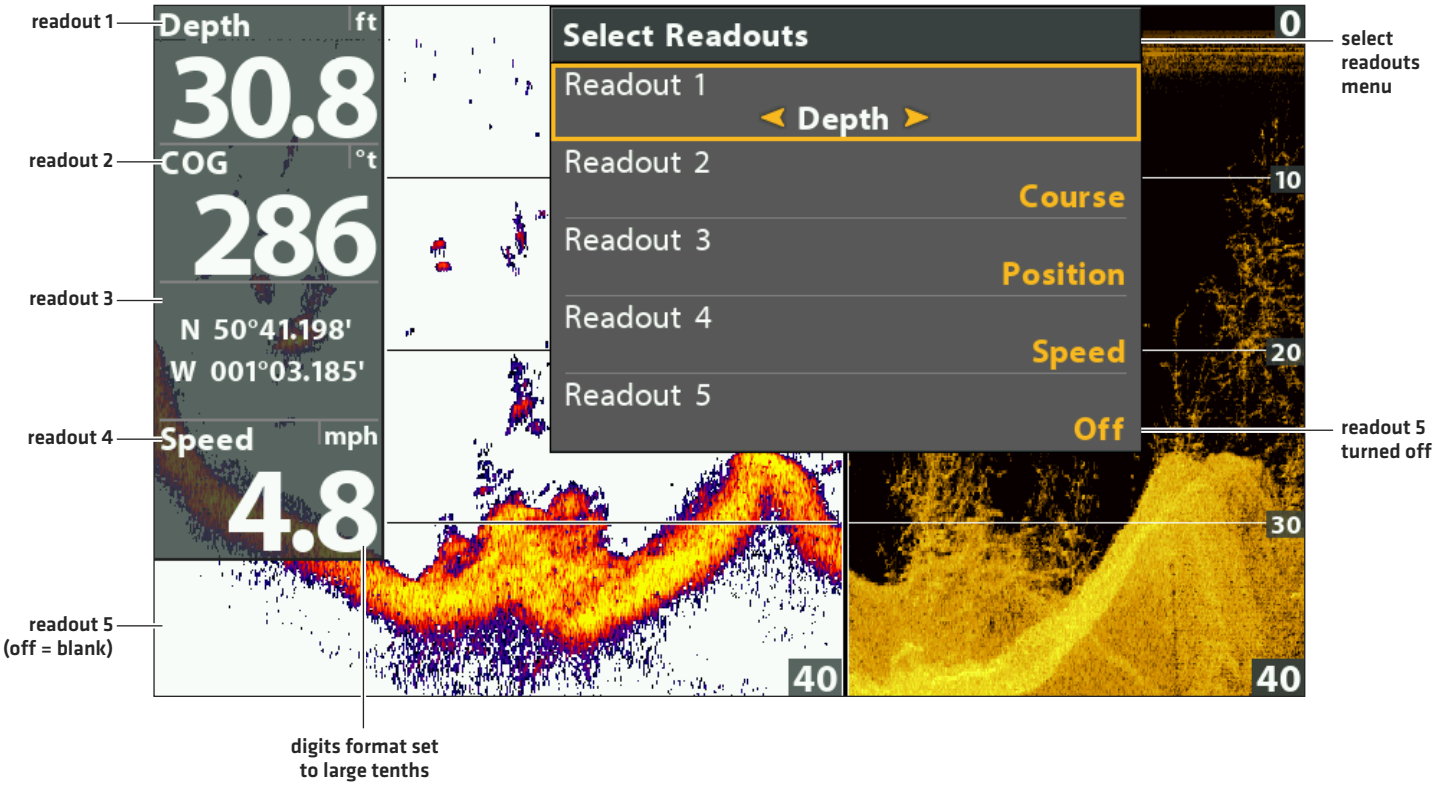
Customize Digital Readouts

If you have Digital Readouts set to Boxes, you can select the data that will be displayed in each box. Use the **Select Readouts** menu to set your standard digital readouts. Use the **Select Nav Readouts** menu to set the digital readouts that will be displayed during navigation.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select Select Readouts or Select Nav Readouts. Press the RIGHT Cursor key.
3. Select a readout window (Readout 1, 2, 3, etc.).
4. Select a digital readout.

   Hide: To hide a readout window, select Off.

Digital Readouts with Boxes Selected (Down/Sonar Combo View)



Understand Digital Readouts

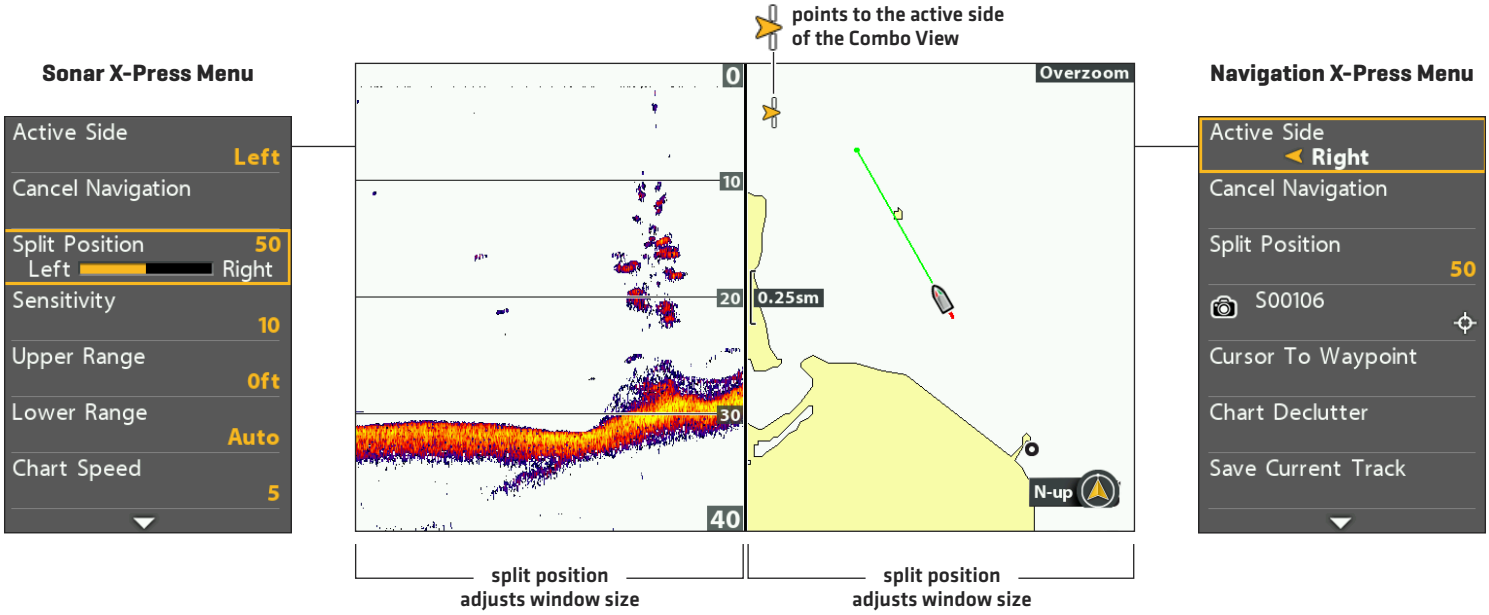
The following table displays the digital readouts that are available in the Select Readouts menu or the Select Nav Readouts menu. The available digital readouts are determined by the installed equipment.

Label	Name	Description	Navigation Readout
Bearing	Bearing	The direction to a destination waypoint measured in degrees from north.	•
COG	Course Over Ground (Course)	The direction the boat is traveling measured in degrees from North. When the COG is equal to Bearing, the boat is said to be on course and will arrive at the destination in the most efficient manner.	•
Depth	Depth	The depth of the water from the transducer or digital depth sensor to the bottom. This measurement includes the depth offset setting. If the depth number is flashing, it means the unit is having trouble locating the bottom. This usually happens if the water is too deep, the transducer is out of the water, the boat is moving too fast, etc.	
DTG	Distance to Go (Distance)	The distance between the boat position and the next waypoint on the route.	•
ETA	Estimated Time of Arrival	The estimated time of arrival to the next waypoint on the route.	•
Position (#)	GPS	The latitude and longitude coordinates of the boat position based on the GPS receiver installation location.	•
Speed	Speed	Speed is the measurement of the boat's progress across a given distance based on the speed measurement provided by the GPS.	•
Temp (#)	Temperature	The detected water temperature by the transducer's internal temperature probe or an accessory temperature sensor.	
Time	Time	The current time.	
Time + Date	Time + Date	The current time and date.	
Timer	Timer	The digital readout for the timer set in the Alarms tab (see ***Manage your Control Head: Start the Timer***).	
Triplog	Triplog	The elapsed time since the triplog was last reset, the distance traveled since last reset, and the average speed during timed interval. To reset the triplog, see ***Getting Started: Reset the Triplog.***	•
TTG	Time to Go	The estimated time required to reach the next waypoint on the route. TTG is calculated using the SOG (Speed Over Ground) and DTG (Distance to Go).	•
VLT	Voltage	Power supplied to the control head.	
XTE	Cross Track Error	The straight-line distance of the boat from the intended route. XTE measures how far the boat is off course.	•

Combo Views

Combo views display two views (or more) on the screen at the same time. You can open the X-Press Menu for the active side of the view, select menus or actions, and change the size of each window. The available combo views are determined by your Humminbird model.

Selecting an Active Side of the Chart/Sonar Combo View



Select an Active Side

To change the settings for either side of the combo view, or to use the cursor on a view, the individual view window must be selected as the active side.

1. **X-Press Menu:** With a Combo View displayed on-screen, press the MENU key once.
2. Select Active Side.
3. Select Right or Left.

   X-Press Menu: The X-Press Menu updates with the menus available for the active side of the view.

   Cursor: Press any arrow on the Cursor Control key to use the cursor on the active side of the view.

Adjust the View Window Size

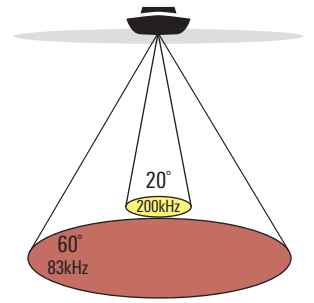
Split Position allows you to adjust the size of the selected window in a Combo View.

1. **X-Press Menu:** With a Combo View displayed on-screen, press the MENU key once.
2. Select Split Position.
3. Press the RIGHT or LEFT Cursor keys to adjust the window size.

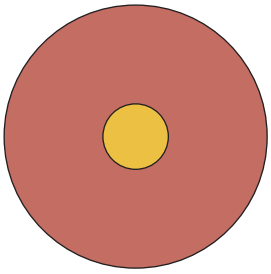
A functioning transducer must be attached to the control head to enable sonar functions. To purchase accessory transducers and Ethernet hardware, visit our Web site at **humminbird.com**.

NOTE: Depth capability is affected by such factors as boat speed, wave action, bottom hardness, water conditions, and transducer installation.

DualBeam PLUS Sonar (HELIX SONAR GPS)



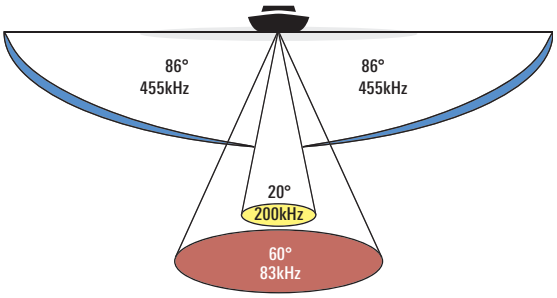
60 Degree Total Coverage



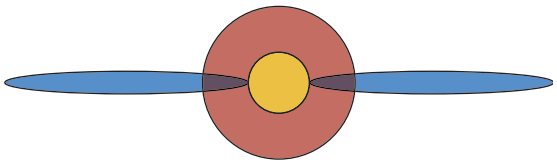
The **DualBeam PLUS** sonar beams provide conical coverage directly below the boat. DualBeam PLUS sonar returns are displayed on the traditional (2D) Sonar Views. The beams can be blended together, viewed separately, or compared side-by-side.

The transducer has a narrowly focused 20° center beam, surrounded by a second beam of 60°, expanding your coverage to an area equal to your depth. In 20 feet of water, the wider beam covers an area 20 feet wide. The 83/200 kHz transducer can provide depth coverage up to 1500 feet (500 m).

Side Imaging Sonar (HELIX SI GPS)



180 Degree Total Coverage



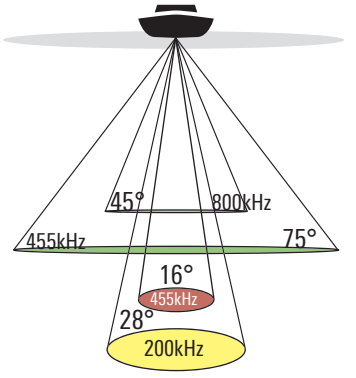
The Side Imaging transducer provides a wide yet precise survey of a large area of water, including detailed bottom topography and fish-attracting structure orientation.

Typically, the **Side Imaging** sonar (shown in blue) can search an area that is 480 feet wide (240 to each side), with a typical depth performance of 150 feet when the Side Imaging Sonar frequency is set for 455 kHz. Selecting 800 kHz (HELIX 10 SI GPS only) produces the sharpest image, but the search area to each side and the depth capability are limited as compared to the 455 kHz frequency. See ***Side Imaging Overview*** for more information.

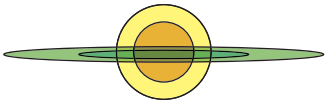
The Side Imaging transducer also provides **Down Imaging** views on the screen, with the same depth performance of 150 feet. See ***Down Imaging Overview*** for more information.

The **DualBeam PLUS** sonar beams (shown in magenta and yellow) provide conical coverage directly below the boat. DualBeam PLUS sonar returns are displayed on the traditional (2D) Sonar Views, and they will be used in the Side Imaging View when an area directly under the boat does not have Side Imaging coverage. The beams can be blended together, viewed separately, or compared side-by-side.

Down Imaging Sonar (HELIX DI GPS)



75 Degree Total Coverage



The Down Imaging transducer scans the water with razor-thin, high-definition beams. The beams are wide (side to side) but very thin front to back.

The **Down Imaging** beams (shown in green) can be operated at two frequencies: 455 kHz (75°) or 800 kHz (45°). Select 455 kHz for the best overall image quality and depth. Select 800 kHz for the sharpest image. See ***Set up Sonar*** for more information.

The transducer also uses conical beams to provide data in traditional **2D format** (shown in magenta and yellow). Select 455 kHz for a narrowly focused 16° center beam, or select 200 kHz for a wider 28° beam (see ***Set up Sonar*** and ***Sonar Overview***).

Set up Sonar (Sonar, DI, SI)

The available sonar views and menus on the control head are determined by the connected transducer and the selected transducer source.

> Most of the settings in this section were set up when you first powered on the unit using the Quick Setup Menu. Use the instructions in this section to adjust those settings, set up an accessory transducer, or refine the information shown on-screen.

Set up an Accessory Transducer

The control head will automatically select the transducer that was included with your control head. If your model is compatible with an accessory transducer, and it is connected to the control head, select the transducer in the system so the beams are activated and the related views are added to the control head.

NOTE: To see the latest transducers that are compatible with your control head, visit our Web site at humminbird.com.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Connected Transducer.
3. Select the transducer connected to the unit.

   To adjust the depth offset, see ***Manage your Control Head***.

Adjust the Noise Filter

Use Noise Filter to limit the interference that may appear on the sonar views from sources such as your boat engine, turbulence, or other sonar devices.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select Noise Filter.
3. Select a filter setting, where Low is the lightest filter and High 3 filters the most interference.

   Off: removes all filtering.

   High: The high settings are useful when there is excessive trolling motor noise. However, in some deep water situations, the High settings may hinder the control head's ability to find the bottom.

Change the Max Depth

The Max Depth was set when you first configured the unit with the Quick Setup dialog box (see ***Getting Started: Quick Setup***). Use the instructions in this section to adjust the maximum depth setting.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select Max Depth.
3. Select one of the following:

   Auto: the control head will acquire bottom readings as needed (within the capabilities of the unit).

   Set to match the body of water depth: the control head will not attempt to acquire sonar data below that depth, so more detail will be shown on the display.

   NOTE: Side Imaging units default to the Side Imaging range setting if the SI Range is set deeper than the Max Depth. See *Side Imaging Overview* for more information.

Select the Digital Depth Source (HELIX DI GPS only)

Depending on the depth, the HELIX DI GPS control head will automatically choose the 2D conical beams or the Down Imaging beams to display the depth digital readout. If the depth is deeper than 350 ft, set the Digital Depth Source to 2D Element.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select Digital Depth Source.
3. Select Auto or 2D Element.

   Auto: The control head will acquire the digital depth as needed.

   2D Element: Select 2D Element if the depth is deeper than 350 feet. Down Imaging is not available with this setting.

Change the Water Type

The Water Type was set when you first configured the unit with the Quick Setup dialog box (see ***Getting Started: Quick Setup***). Water Type affects the accuracy of deep water depth readings and configures the control head for operation in fresh or salt water. Use the instructions in this section to change the Water Type setting.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select Water Type.
3. Select one of the folowing for your water type and depth conditions:

   Fresh

   Salt (shallow)

   Salt (deep): If the depth is more than 330 ft (100 m), select Salt (deep).

Select Beams

Use the instructions in this section to select the transducer beams that will be used for the traditional 2D Sonar views.

Select Beams for the (2D) Sonar View

If the installed transducer includes more than one beam, you can select which beam(s) will be displayed in the 2D Sonar view.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.

2. Select Beam Select.
3. Select the beam(s) you want to use.

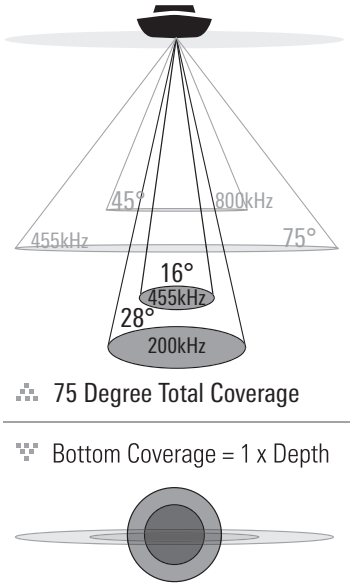
DualBeam PLUS (2D) Beam Select Options (HELIX SONAR GPS, HELIX SI GPS)	
83 kHz	Select for deep water (more than 800 feet). 83 kHz can be used for deep returns at high speed. If 83 kHz is selected, the 200 kHz beam pings in the background but is not displayed.
200 kHz	Select 200 kHz for faster pinging and shallower water (less than 800 feet). If 200 kHz is selected, the 83 kHz beam is not available.
83/200 kHz	Select blended to ensure both beams ping continuously, so the sonar history is not interrupted if the sonar view is closed. The returns from both beams are blended by starting with the 83 kHz wide beam return, dimming it, and then overlaying it with the 200 kHz narrow beam return. The darker 200 kHz narrow beam sonar returns will stand out from the paler 83 kHz wide beam sonar returns.

NOTE: If you have a HELIX SI GPS and select 83 kHz or 83/200 kHz, you can turn on Jigging Mode to refine the returns displayed on the Sonar View. See ***Adjust Settings While you Fish: Turn on/off Jigging Mode***.

Down Imaging Beam Select Options (HELIX DI GPS only)	
200 kHz	455 kHz is the default selection. Select 200 kHz for greater bottom coverage in deep water.
455 kHz	Select 455 kHz for shallow water.

NOTE: The settings in the Down Imaging Beam Selection Options table do not apply to the HELIX SI GPS.

HELIX DI GPS Beam Select Options for the Sonar View

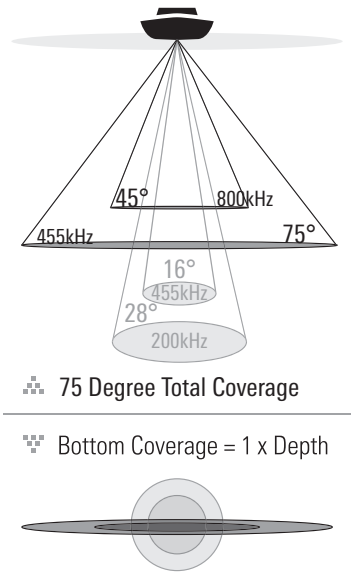


Select a Down Imaging Frequency (HELIX DI GPS only)

In the HELIX DI GPS, you can choose a Down Imaging frequency that will be used for the Down Imaging View. For the best overall image quality and depth, select 455 kHz. For the sharpest image (but limited depth capability), select 800 kHz.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Imaging Frequency
3. Select 455 kHz or 800 kHz.

HELIX DI GPS Beam Select Options for the Down Imaging View



Set the Down Imaging Beam Width (HELIX SI GPS only)

In the HELIX SI GPS, you can set the width of the beam (side to side) used for the Down Imaging View. To see only the data directly under your boat, select Narrow. Medium reveals more information, while Wide displays the maximum information available from the Down Imaging beam width. See ***Down Imaging Overview*** for more information.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Down Imaging Beam Width.
3. Press the RIGHT or LEFT Cursor keys to select a width.

Turn off Sonar

If you're using your control head for GPS/Navigation functions only, use these instructions to hide all sonar views from the view rotation. When it is set to Off, this is setting also stops the unit from pinging, so all sonar operation is deactivated.

1. Press the POWER key.
2. Select Sonar.
3. Select Off.

NOTE: You can also turn on/off Sonar from the Main Menu > Setup tab > Sonar.

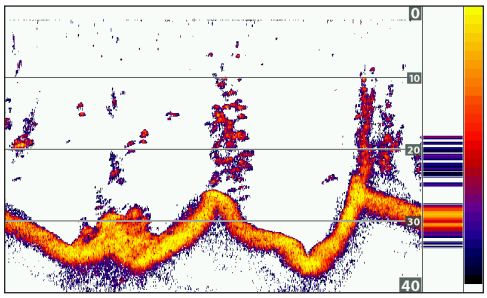
Display a Sonar View On-Screen

There are a variety of views available to display sonar data. You can customize the view by showing or hiding information (see ***Customize the Sonar View***), and you can adjust the sonar settings to refine the information displayed on-screen (see ***Adjust Sonar Display Settings*** and ***Adjust Settings While you Fish***). The changes you make are applied to all traditional 2D sonar views.

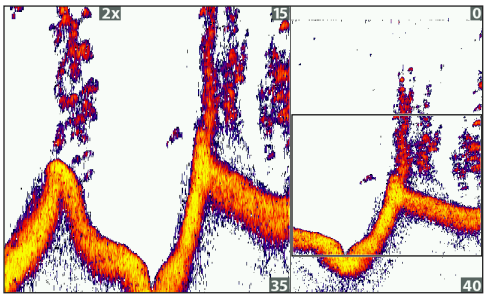
Display a Sonar View

1. Press and hold the VIEW key.
2. Select Sonar > Sonar View, Sonar Zoom View, or Split Sonar View.

Sonar View

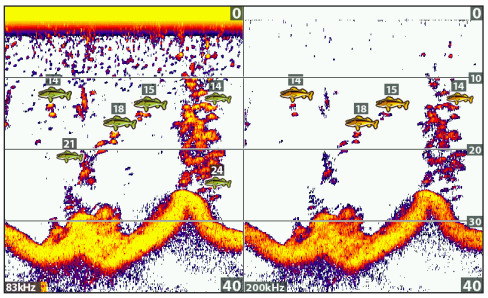


Sonar Zoom View



For more information, see *Review Sonar History and Zoom In/Zoom Out*.

Split Sonar View



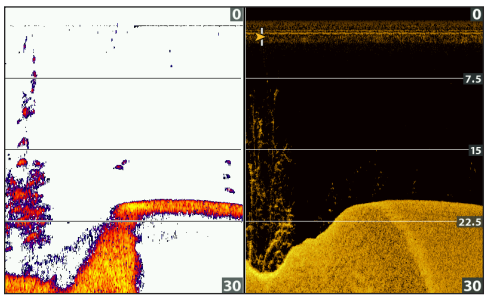
For more information, see *Compare Sonar Beams*.

Display a Sonar Combo View

1. Press and hold the VIEW key.
2. To open a Sonar Combo View, select Sonar.

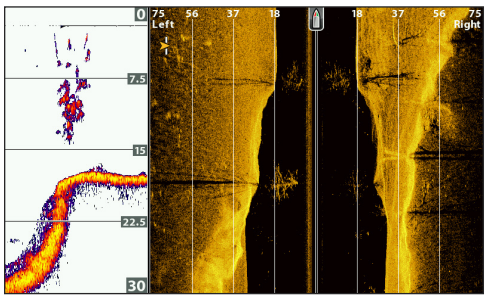
   To open a Chart Combo View (Sonar and Chart together), select Chart.
3. Select a view to display on-screen.

Sonar > Down/Sonar Combo View



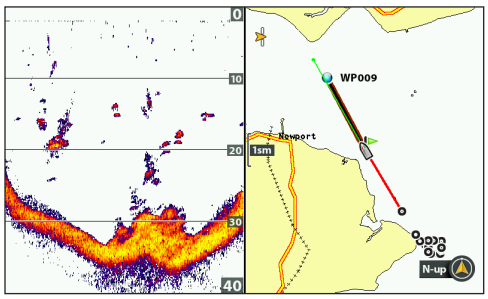
For more information, see *Down Imaging Overview*.

Sonar > Side/Sonar Combo View



For more information, see *Side Imaging Overview*.

Chart > Chart/Sonar Combo View



For more information, see *Navigation Overview*.

NOTE: The available views are determined by your control head model and the installed transducer. See each related section of the manual (***Views, Down Imaging Overview, Side Imaging Overview, Navigation Overview,*** etc.) for more information.

Understand the Sonar Views

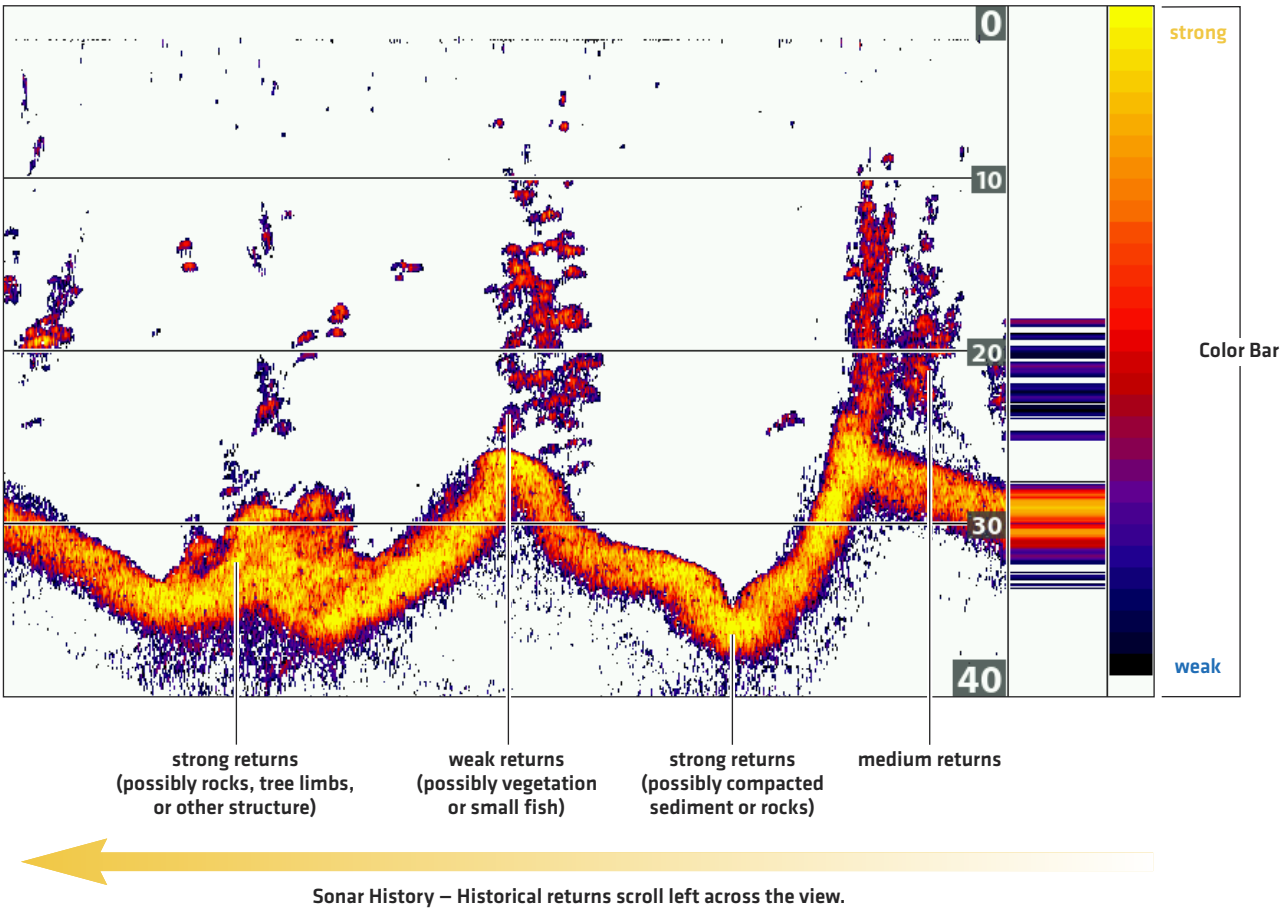
As the boat moves, the unit charts the changes in depth on the display to create a profile of the bottom contour. The Sonar View displays the sonar return intensity with different colors.

Strong returns often result from rocky or hard bottoms (compacted sediment, rocks, fallen trees), while weaker returns often result from soft bottoms (sand, mud), vegetation, and small fish.

The colors used to represent high, medium, to low intensity returns are determined by the palette you choose in the Sonar Colors menu (***see Customize the Sonar View***).

The control head displays the return intensity based on the Sonar Colors and Bottom View menu settings. You can display the RTS Window (Real Time Sonar), turn on/off fish symbols (Fish ID+), change the SwitchFire mode, adjust sensitivity, and more.

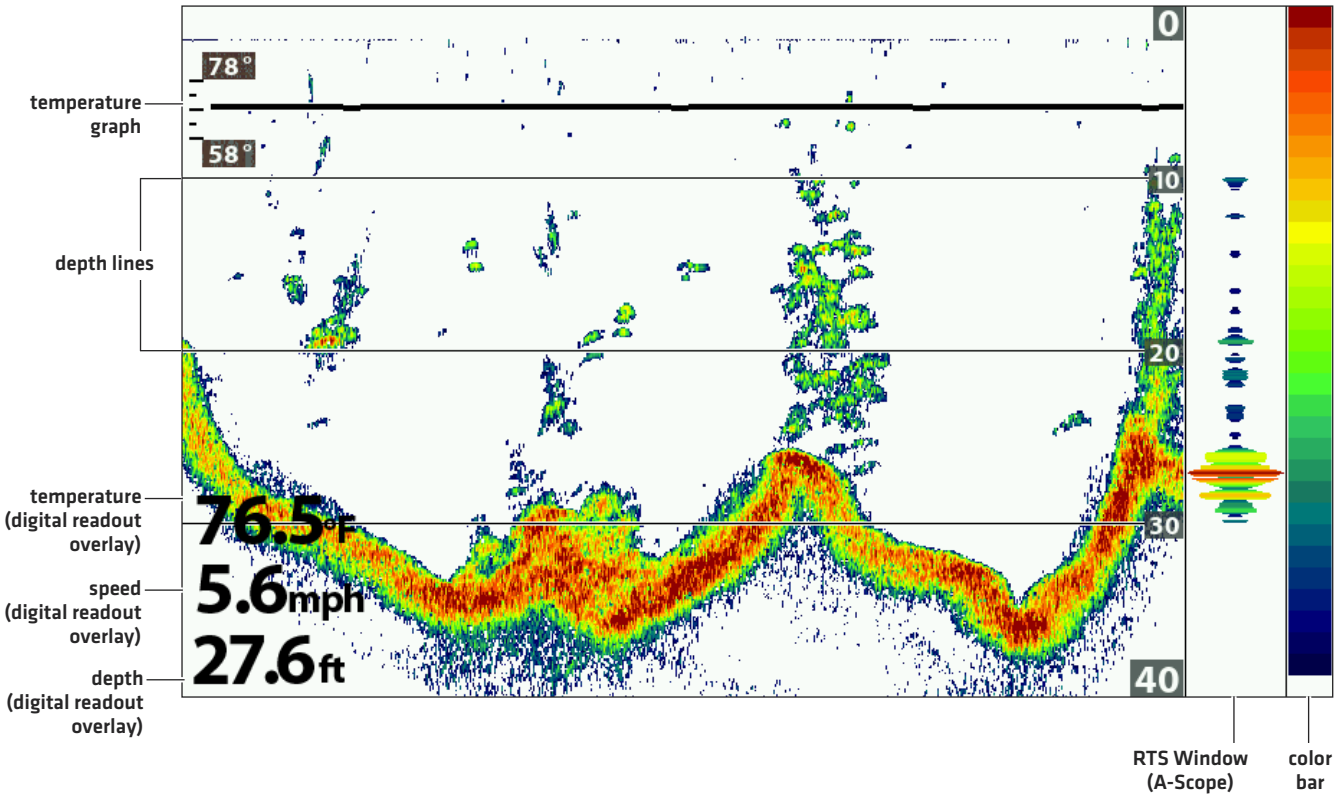
Sonar View: Sonar Colors Palette 1



Customize the Sonar View

You can customize the sonar views by showing or hiding information, such as the temperature graph, depth lines, color bar, and RTS Window. You can also change the color palette and background.

Customizing the Sonar View



Customize the RTS Window

The RTS Window plots the depth and intensity of a sonar return. It updates at the fastest rate possible for depth conditions and shows only the returns from the bottom, structure, and fish that are within the transducer beam. When you use the cursor to review sonar history, the sonar history will freeze, but the RTS Window will continue to display sonar returns in real time. See ***Review Sonar History and Zoom In/Zoom Out***.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select RTS Window.
3. Select the type of RTS Window to display.

Mono	Sonar returns are displayed in black.
Color (Full)	Sonar returns are displayed in color, and they fill the width of the RTS Window.
Color (A-Scope)	Sonar returns are displayed in color. The size of the displayed lines correspond with the intensity of the sonar returns from the transducer beam(s).
Off	The RTS Window is hidden.

Show/Hide Data on the Sonar View

The settings in this section are shared with the Down Imaging View, so turning them on or off will change what is shown on the Sonar Views and the Down Imaging Views.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select a menu and change it to On (show) or Off (hide).

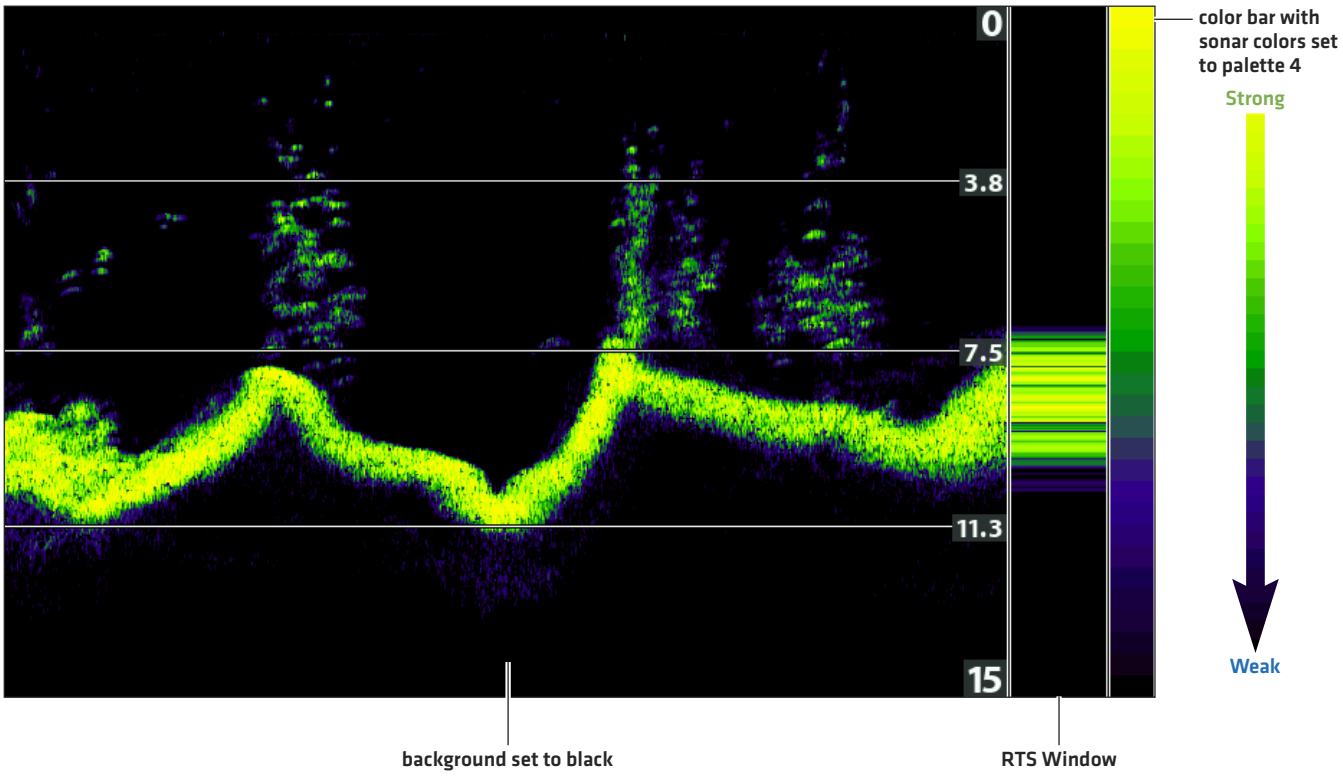
Depth Lines	The depth lines show incremental marks between the upper and lower depth range. See ***Adjust Display Settings*** for details.
Color Bar	The Color Bar shows the palette selected on the Sonar View (see ***Change the Sonar View Colors***) from weak to strong returns.
Temperature Graph	The temperature graph displays the temperature changes over the recent sonar history. A temperature input from the installed transducer or temp/speed accessory is required to enable this feature.

NOTE: Digital readouts can be displayed as an overlay, or they can be displayed in data boxes (see ***Views: Display Digital Readouts***).

Change the View Colors

The Sonar Colors menu changes the colors used to display sonar returns on the view. You can also change the background color.

Sonar View with Customized Sonar Colors and Background



Change the Sonar Colors Palette

1. **Sonar X-Press Menu:** With a Sonar View displayed on-screen, press the MENU key once.
2. Select Sonar Colors.
3. Select a palette.

NOTE: To display or hide the Color Bar, see ***Show/Hide Data on the Sonar Views***.

Change the Background

The Background menu changes the color of the background on the view. This menu also changes the background color for the Chart View. There are some palettes selected in Sonar Colors that do not allow the background color to be changed.

1. Press the POWER key.
2. Select Background.
3. Select a color.

Adjust Sonar Display Settings

Use the instructions in this section to adjust how the sonar returns are shown on the Sonar View, so you can tune into what you want to see in the display. The settings in this section are optional. You can use the default display settings for the Sonar View, or you can customize it with your preferences.

Filter Surface Clutter

Use Surface Clutter to reduce the noise that may appear at the top of the view caused by algae and aeration. The lower the setting, the less surface clutter will be displayed. A higher setting allows more surface clutter to be displayed.

NOTE: You can also adjust the Noise Filter (see ***Set up Sonar: Adjust the Noise Filter***).

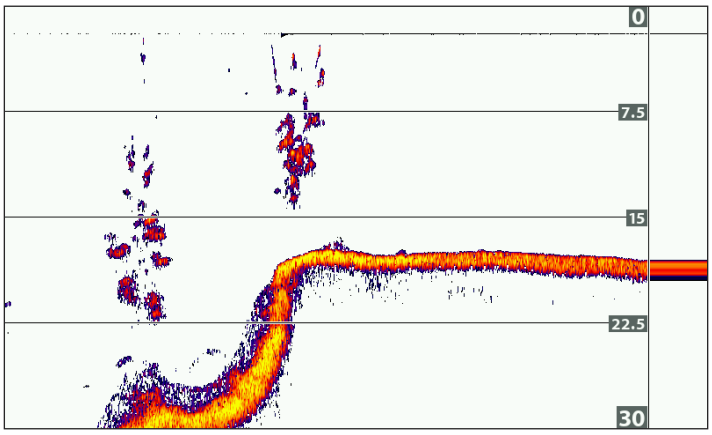
1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Surface Clutter.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Change the SwitchFire Mode

SwitchFire controls how the sonar returns are displayed in the Sonar Views.

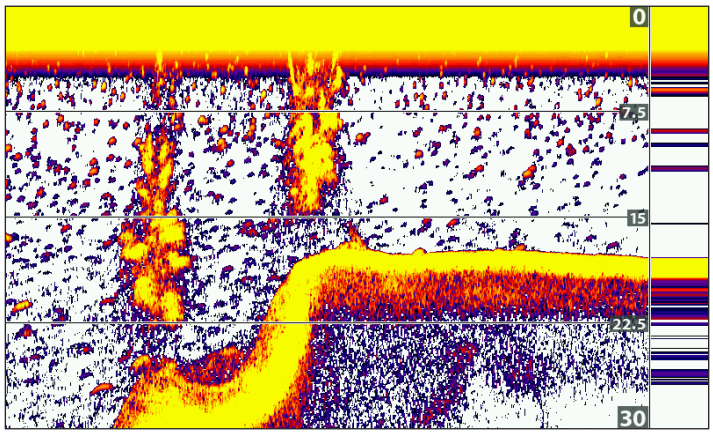
1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select SwitchFire.
3. Select Clear Mode or Max Mode.

SwitchFire: Clear Mode



Choose Clear Mode to see less clutter and more fish size accuracy on the display. When Clear Mode is selected, the clutter is filtered, and sonar returns are interpreted to provide more details about the objects within the transducer beam, regardless of their location. In other words, a large arch on the display means a large fish has been detected.

SwitchFire: Max Mode

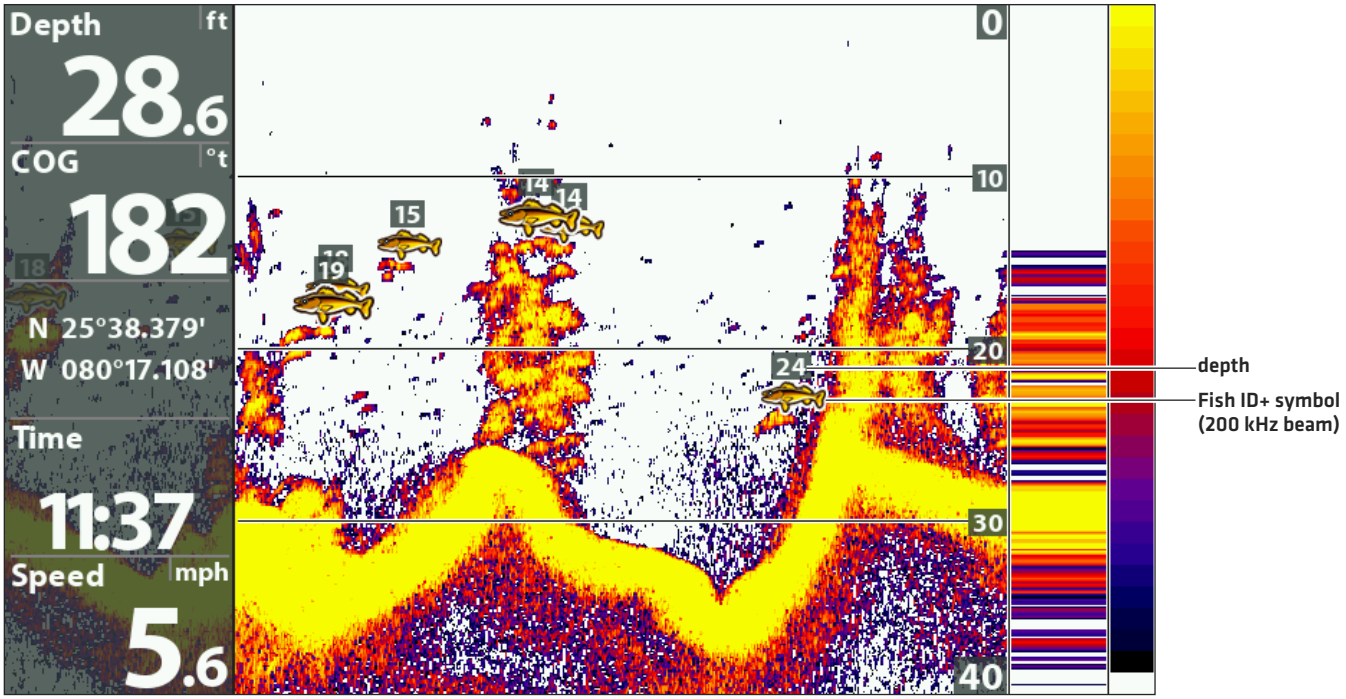


Choose Max Mode to see only raw sonar returns on the display. When Max Mode is selected, you will see the maximum sonar information available within the transducer beam, so more fish arches and better jig tracking are shown.

Turn on/off Fish ID+ Settings

Fish ID+ uses advanced signal processing to interpret sonar returns and will display a fish symbol on the Sonar View when very selective requirements are met. Also, if Fish ID+ is turned on, you can adjust the sensitivity used for detection and receive alerts with the Fish ID Alarm turned on.

Fish ID+ Turned On



Turn on/off Fish ID+

When Fish ID+ is turned on, fish symbols will be shown on the Sonar View. The color of the fish symbols indicates the sonar beam location, and the fish depth is shown above the symbol.

When Fish ID+ is turned off, the control head shows only the raw sonar returns on the display.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Fish ID+.
3. Select On or Off.

On	Fish Symbols will display in the Sonar View when a fish is detected. Orange Fish Symbols = targets detected in the 200 kHz narrow beam. Green Fish Symbols = targets detected in the 83 kHz wide beam (HELIX SONAR GPS, HELIX SI GPS) or 455 kHz beam (HELIX DI GPS).
Off	Raw sonar returns are shown on the Sonar View. If a fish is detected, the returns appear as arches on the display to indicate potential targets.

Adjust the Fish ID Sensitivity

Use Fish ID Sensitivity to adjust the threshold used for detecting a fish with Fish ID+. To display only larger species of fish as fish symbols, select a low setting. To see smaller fish species or baitfish, select a high setting. Fish ID+ must be turned on to enable this menu.

1. Turn on Fish ID+.
2. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
3. Select Fish ID Sensitivity.
4. Press the RIGHT or LEFT Cursor keys to adjust the setting.

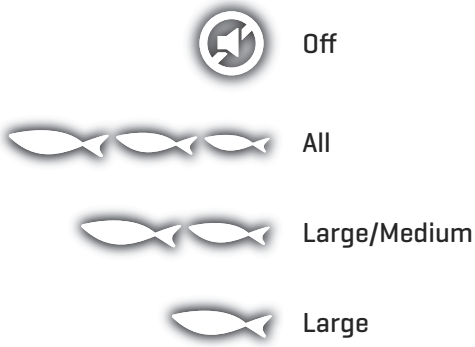
   1 = low sensitivity (large fish only)

   10 = high sensitivity (All: small fish up to large fish)

Turn on the Fish ID Alarm

To receive an on-screen alert when a fish is detected, turn on the Fish ID Alarm. Fish ID+ must be turned on to enable this alarm.

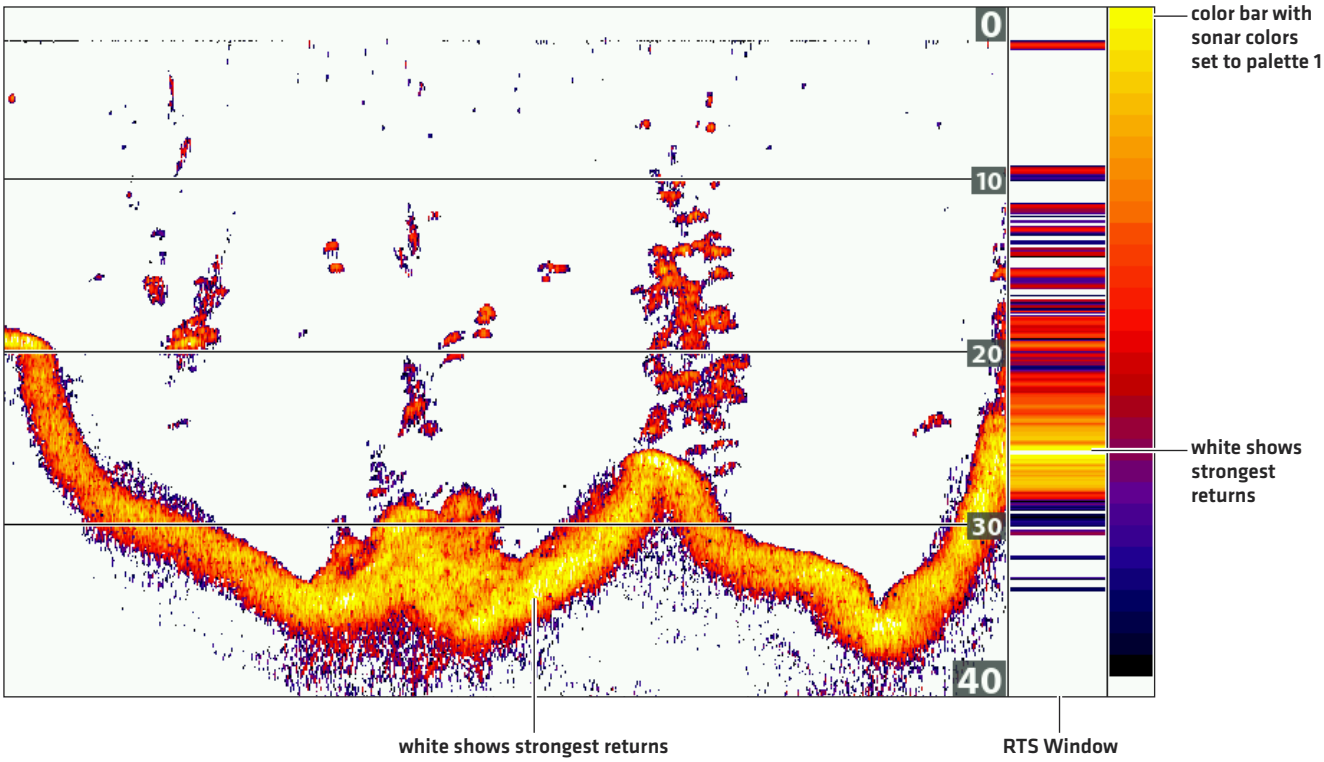
1. Turn on Fish ID+.
2. **Main Menu:** Press the MENU key twice. Select the **Alarms** tab.
3. Select Fish ID Alarm.
4. Select one of the following icons:



Set the Bottom View Display

Bottom View selects the method used to represent bottom and structure on the display. Bottom View is also affected by the palette selected in Sonar Colors (see ***Customize the Sonar View: Change the View Colors***).

Bottom View set to WhiteLine



Change the Bottom View Setting

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Bottom View.
3. Select one of the following modes:

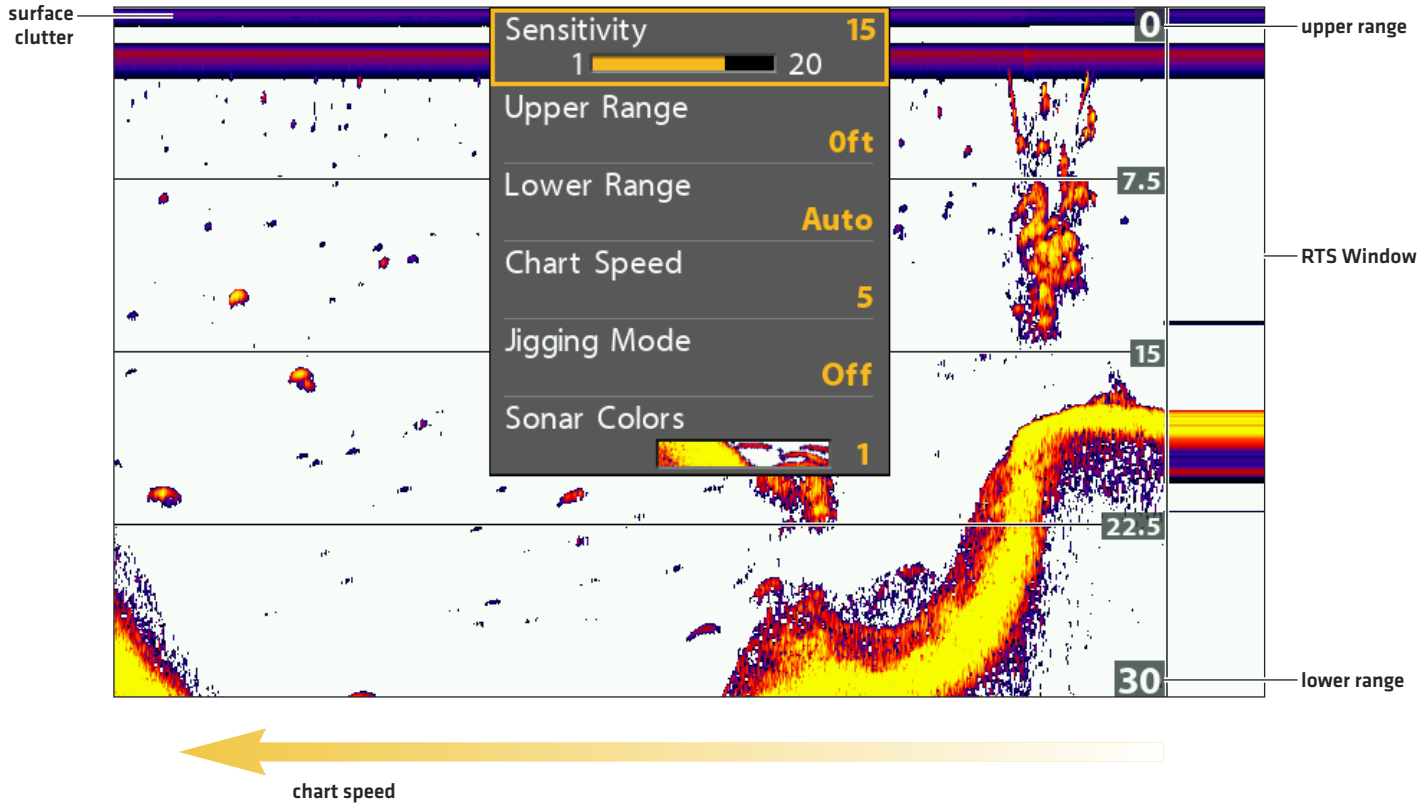
Structure ID	Structure ID will display the strongest return as specified by the palette selected in the Sonar Colors menu.
WhiteLine	WhiteLine highlights the strongest sonar returns in white. This has the benefit of clearly defining the bottom on the display.

Adjust Settings while you Fish

(Sonar X-Press Menu)

The X-Press Menu provides menu options to adjust the sensitivity and range as you fish. You can also control how fast the sonar history scrolls across the screen. The menus allow you to see more or less of the sonar returns from the transducer beams as you adjust each setting.

Adjusting Settings from the Sonar X-Press Menu (HELIX SI GPS)



Adjust the Sensitivity

Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies. To eliminate the clutter from the display that is sometimes present in murky or muddy water, decrease the sensitivity. When operating in very clear water or greater depths, increase the sensitivity to see weaker returns.

Adjust the Sensitivity for all Sonar Frequencies

Use the following instructions to adjust the sensitivity for all sonar frequencies.

1. **Sonar X-Press Menu:** With a Sonar View displayed on-screen, press the MENU key once.
2. Select Sensitivity.
3. Press the RIGHT or LEFT Cursor keys to increase or decrease the sensitivity.

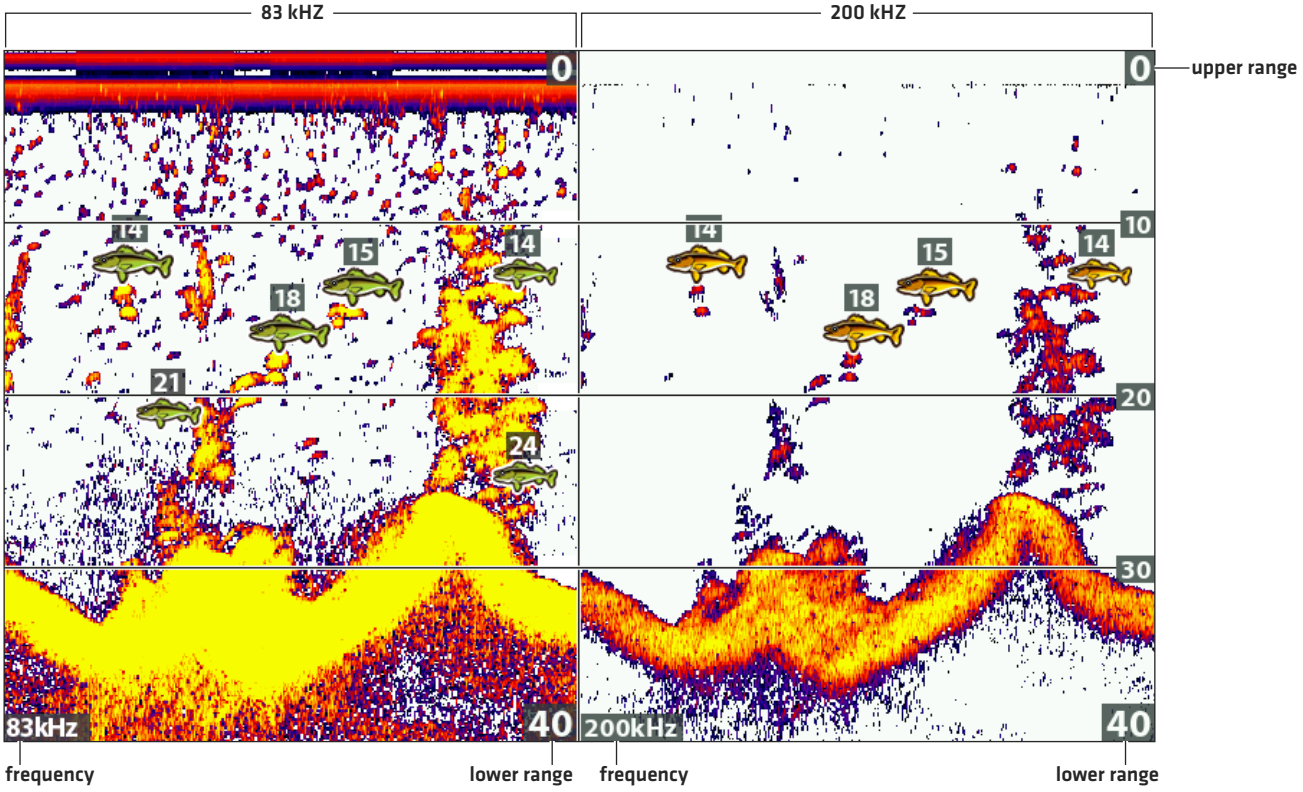
Adjust Beam Sensitivity

Your control head model may allow you to adjust the sensitivity of individual frequencies. The available frequencies are determined by your control head model and the installed transducer. Use the following instructions to adjust a single beam.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select 83 kHz Sensitivity or 455 kHz Sensitivity.
3. Press the RIGHT or LEFT Cursor keys to increase or decrease the sensitivity.

For example, in the illustration shown below, the sensitivity of the 83 kHz beam in the Split Sonar View can be adjusted without affecting the sensitivity of the 200 kHz sonar returns. For more information about this view, see ***Compare Sonar Beams***.

Increasing the Sensitivity of the 83 kHz Beam (83 kHz/200 kHz)



Set the Upper/Lower Range

Upper Range and Lower Range control how much of the water column is displayed on the view. For example, if you are only interested in the area between 20 and 50 feet deep, set the Upper Range to 20 and the Lower Range to 50. The view will not display sonar returns outside of the set ranges, and greater detail for the selected range will be displayed.

1. **Sonar X-Press Menu (Advanced User Mode):** With a Sonar View displayed on-screen, press the MENU key once.
2. Select Upper Range. Press the RIGHT or LEFT Cursor keys to adjust the setting.
3. Select Lower Range. Select Auto or set a specific depth (manual).

   Auto: The Lower Range will be adjusted by the control head to follow the bottom automatically.

   Manual : The control head locks onto the depth you select.

NOTE: There must be a difference of 10 feet between the upper and lower range settings.

Change the Chart Speed

Chart Speed controls how fast the sonar history moves across the view and how much detail is shown. A faster speed is preferred by most anglers, and the sonar history moves quickly across the view. To slow down the sonar history display, select a lower setting. Regardless of the Chart Speed setting, the RTS Window will update at the maximum rate possible for depth conditions.

1. **Sonar X-Press Menu:** With a Sonar View displayed on-screen, press the MENU key once.
2. Select Chart Speed.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Turn on/off Jigging Mode (HELIX SI GPS only)

If you have a HELIX SI GPS, you can use Jigging Mode to refine the sonar returns shown in the Sonar View. Turn on Jigging Mode if you've selected 83 kHz or 83/200 kHz in the Beam Select menu (see ***Set up Sonar: Select Beams***).

1. **Sonar X-Press Menu:** With a Sonar View displayed on-screen, press the MENU key once.
2. Select Jigging Mode.
3. Select On or Off.

On	Turn on Jigging Mode if you've selected 83 kHz or 83/200 kHz in the Beam Select menu (see ***Set up Sonar: Select Beams***). When Jigging Mode is turned on, the sonar returns are refined on the view, and the chart speed slows down to show more detail.
Off	Turn off Jigging Mode if you've selected 200 kHz in the Beam Select menu (see ***Set up Sonar: Select Beams***). Turn off Jigging Mode to display the sonar history at the selected chart speed and see coarser returns on the display.

Change the Sonar Colors Palette

The Sonar X-Press Menu allows you to quickly change the display palette while you fish. See ***Customize the Sonar View: Change the View Colors*** for more information.

1 **Sonar X-Press Menu:** With a Sonar View displayed on-screen, press the MENU key once.

2. Select Sonar Colors.

3. Select a palette.

NOTE: To display or hide the Color Bar, see ***Customize the Sonar View***.

Compare Sonar Beams (Split Sonar View)

Split Sonar View displays sonar returns from each down beam frequency on separate sides of the view. You can use this view to make side by side comparisons between the sonar returns from both beams. The beams are determined by your Humminbird model and the installed transducer.

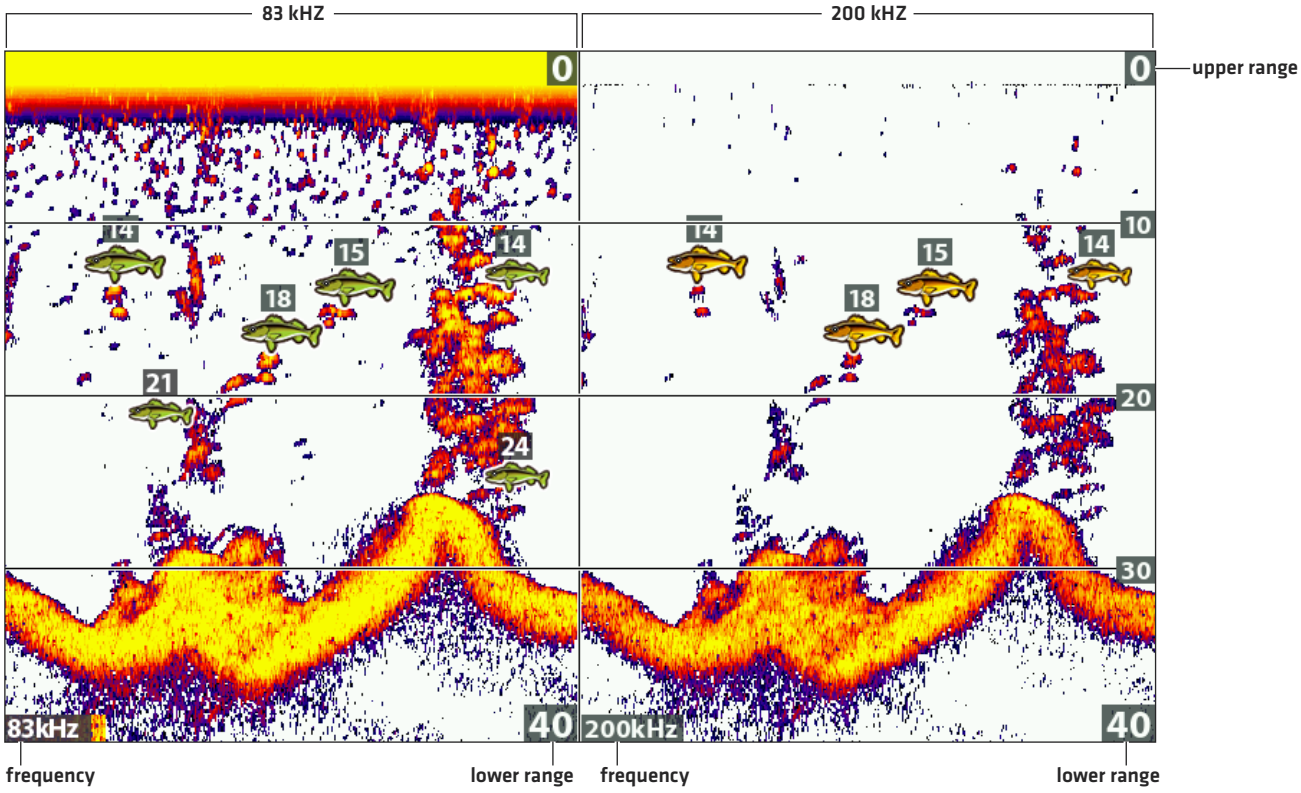
Frequencies: HELIX SONAR GPS models and HELIX SI GPS models allow you to compare the 83 KHz and 200 kHz beams in this view. If you have a HELIX DI GPS model, 455 kHz and 200 kHz will be displayed side by side in this view.

Fish ID+: It is also helpful to turn on Fish ID+ in Split Sonar View so you can see where the fish are located within each transducer beam (see ***Adjust Sonar Display Settings: Turn on/off Fish ID+ Settings***).

Display the Split Sonar View

1. Press and hold the VIEW key.
2. Select Sonar > Split Sonar View.

Reviewing Beams Separately in Split Sonar View (83 kHz/200 kHz)



Review Sonar History and Zoom In/Zoom Out

In addition to adjusting the sonar settings while you fish, you can freeze the sonar history, magnify sonar returns, and review position information.

Freeze the Sonar History

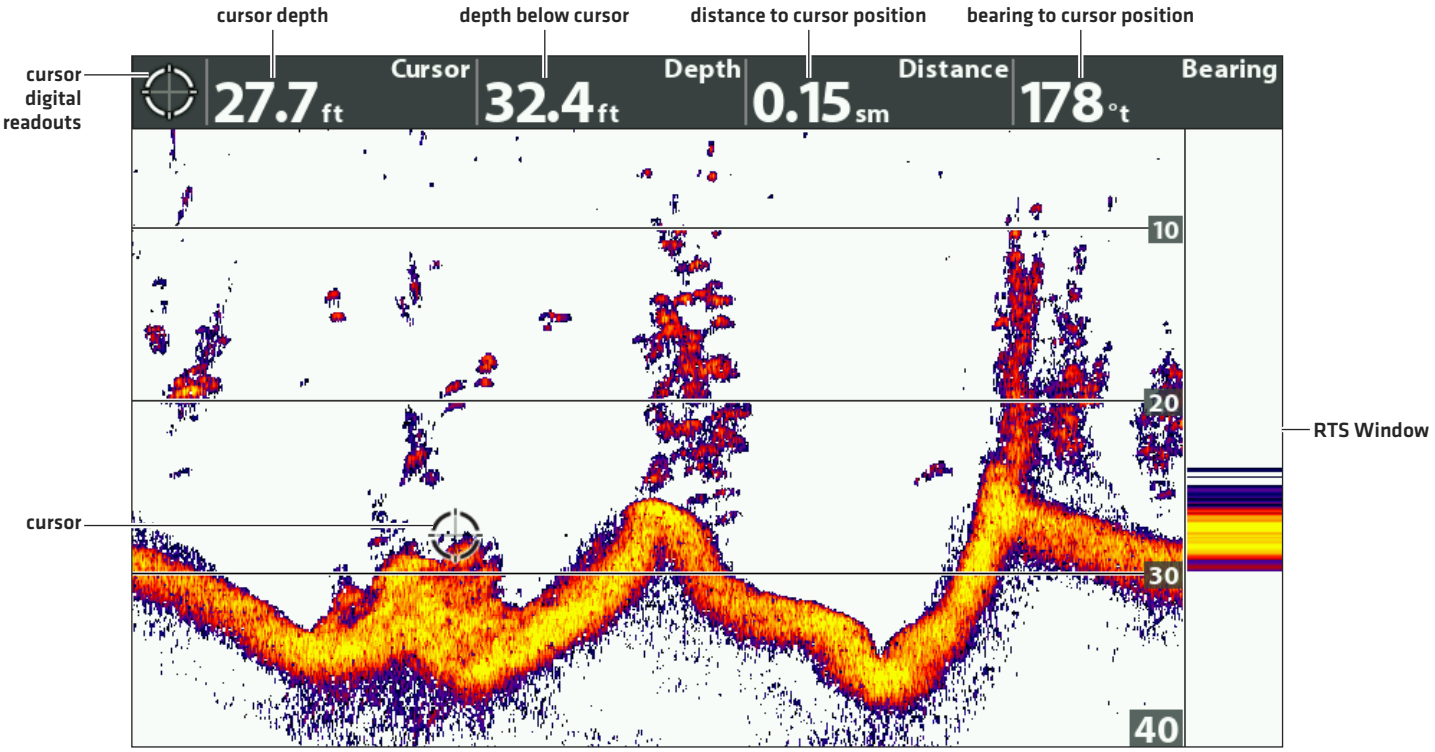
Press any arrow on the Cursor Control key, and the sonar history will freeze and the cursor will display on-screen. If you move the cursor over a sonar return, digital readouts for the cursor position are displayed on the view. The RTS Window continues to update at the fastest rate possible for depth conditions (see ***Customize the Sonar View***).

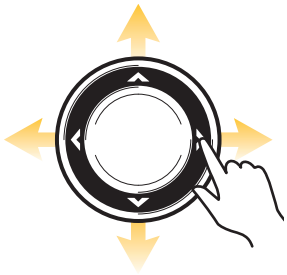
Freeze the Sonar History

1. Press any arrow on the Cursor Control key.
2. Move the cursor over a sonar return.

NOTE: To mark a waypoint or start navigation to the cursor position, see ***Navigation in Sonar Views***.

Reviewing the Depth of the Cursor Position





Move the Cursor

Zoom in/Zoom Out

Use the Sonar Zoom View to see a magnified view of the bottom and structure. For example, if there are fish close to the bottom or near structure (tree, vegetation, etc.), Sonar Zoom View makes it easier to see the separate sonar returns that might be displayed close together.

Display the Sonar Zoom View

1. Press and hold the VIEW key.
2. Select Sonar > Sonar Zoom View.

Magnify Bottom Structure (Zoom In/Out)

1. Display the Sonar Zoom View On-Screen.
2. **Zoom In:** Press the +ZOOM key.

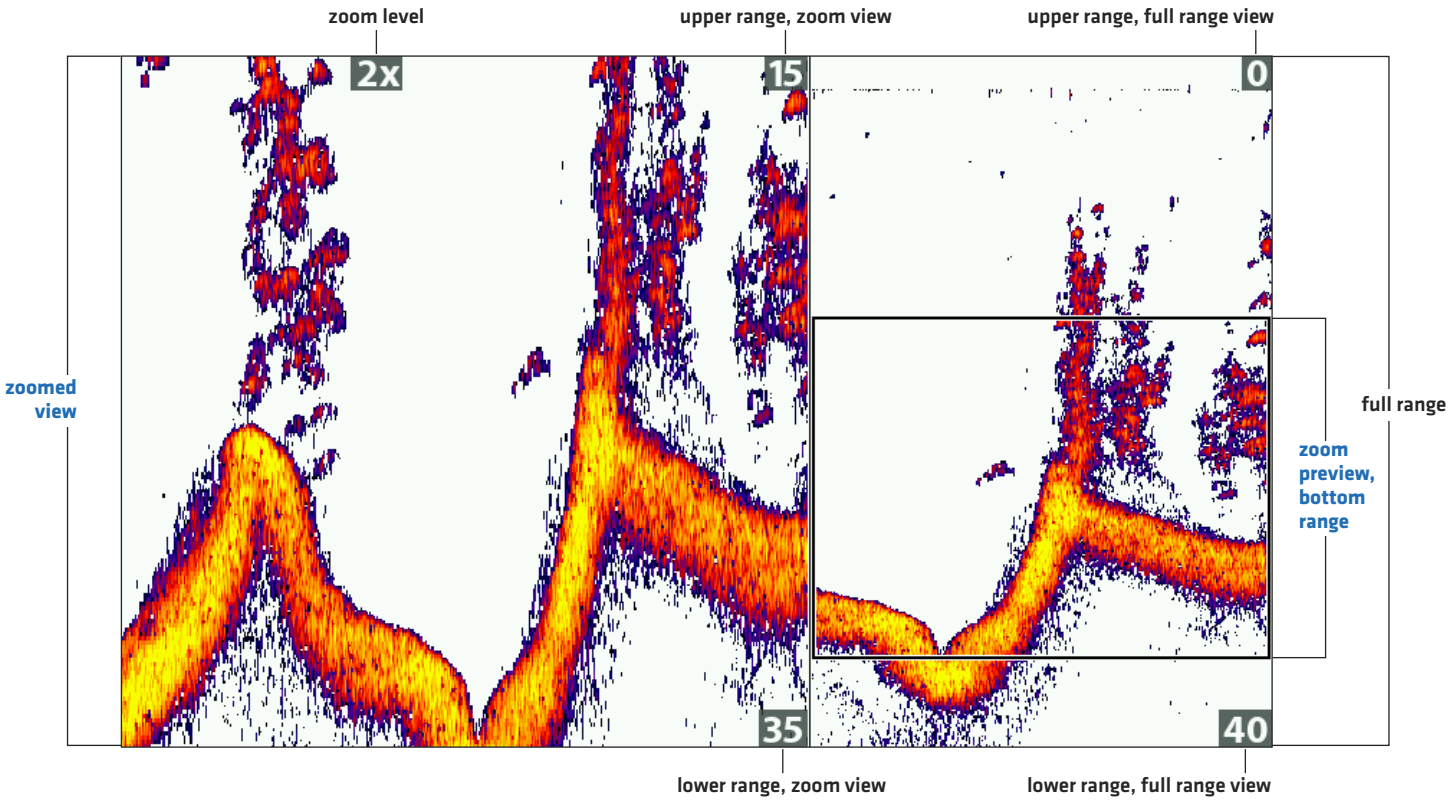
   Zoom Out: Press the -Zoom key.

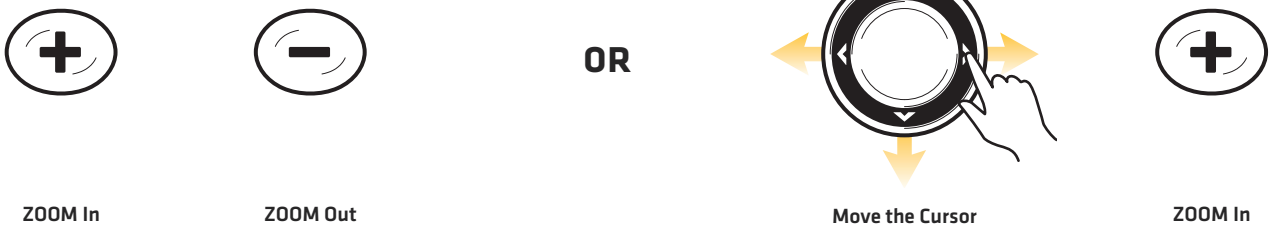
Magnify the Cursor Position (Zoom In/Out)

1. Display the Sonar Zoom View On-Screen.
2. Use the Cursor Control key to move the cursor to a position on the view.
3. **Zoom In:** Press the +ZOOM key.

   Zoom Out: Press the -Zoom key.
4. **Close:** Press the EXIT key.

Magnifying Sonar Returns in Sonar Zoom View (Bottom Lock Off)





ZOOM In | ZOOM Out | OR | Move the Cursor | ZOOM In

Turn on/off Bottom Lock

Use Bottom Lock and Bottom Range to focus on the bottom and control how much of the water column is shown in Sonar Zoom View. Bottom Lock continuously graphs the bottom at a constant point on the display regardless of changes in depth. This "flattens" out the bottom contour but is effective at showing fish on or near the bottom.

1. **Sonar X-Press Menu:** With a Sonar Zoom View displayed on-screen, press the MENU key once.
2. Select Bottom Lock. Press the RIGHT Cursor key to select On.
3. Press the UP Cursor key. Select Bottom Range.
4. Press the RIGHT or Left Cursor keys to adjust the range. The range is measured up from the bottom.

   Low Setting: useful for seeing low-lying bottom structure or details of the bottom return.

   High Setting: useful for seeing large structure in deeper water.

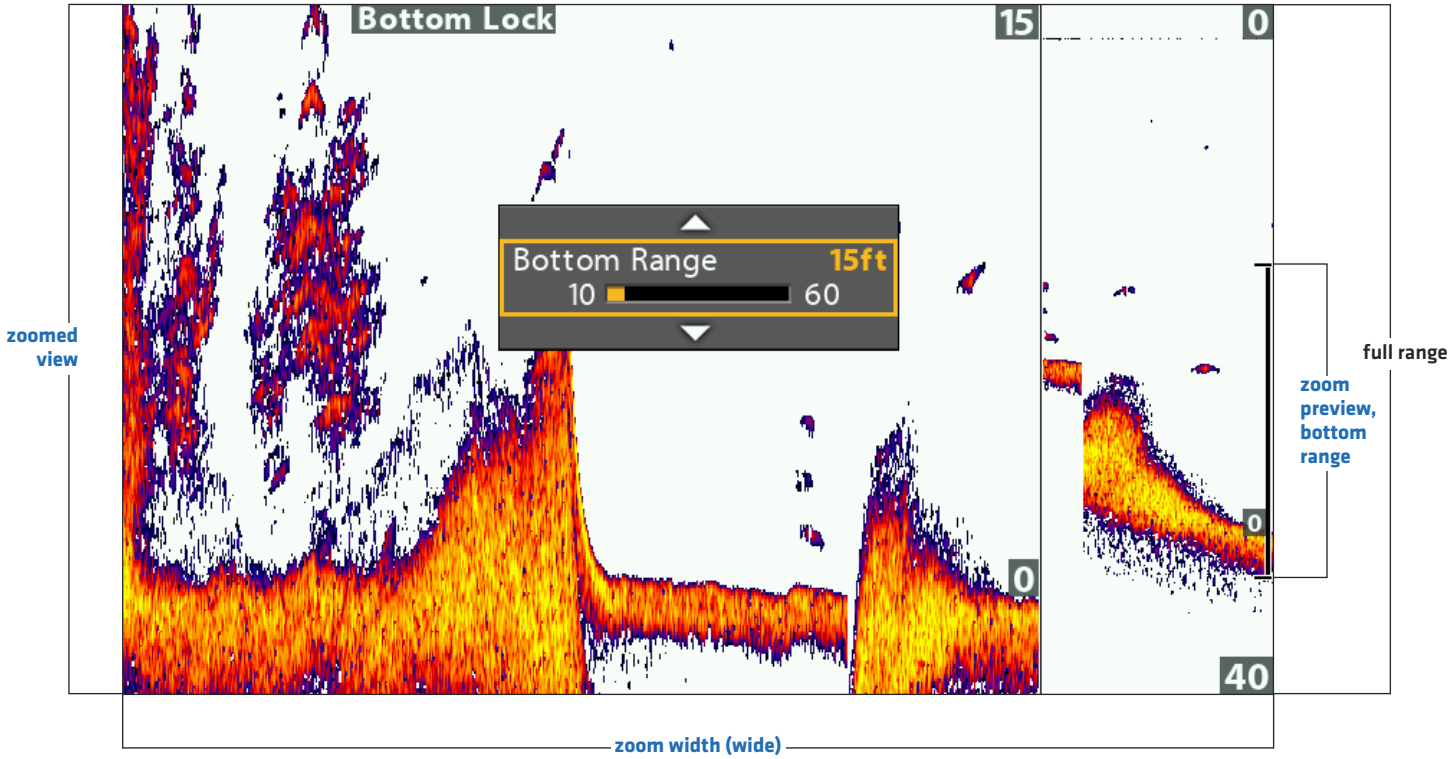
   NOTE: If you see a wavy band on the view that mirrors the change in depth, the Bottom Range might be set deeper than the actual water depth. In this case, decrease the Bottom Range setting.

Change the Width of the Zoomed View

Use the instructions in this section to change the width of the zoomed view in Sonar Zoom View.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Zoom Width.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Setting the Bottom Range and Zoom Width (Bottom Lock On)



Navigation in Sonar Views

To mark waypoints and start navigation, the control head must have a GPS Fix from a connected or internal GPS receiver. See ***Getting Started*** for more information.

Mark a Waypoint

You can mark a waypoint at the boat position or the cursor position. Waypoints are saved to the Waypoint Management dialog box (see ***Manage your Navigation Data***).

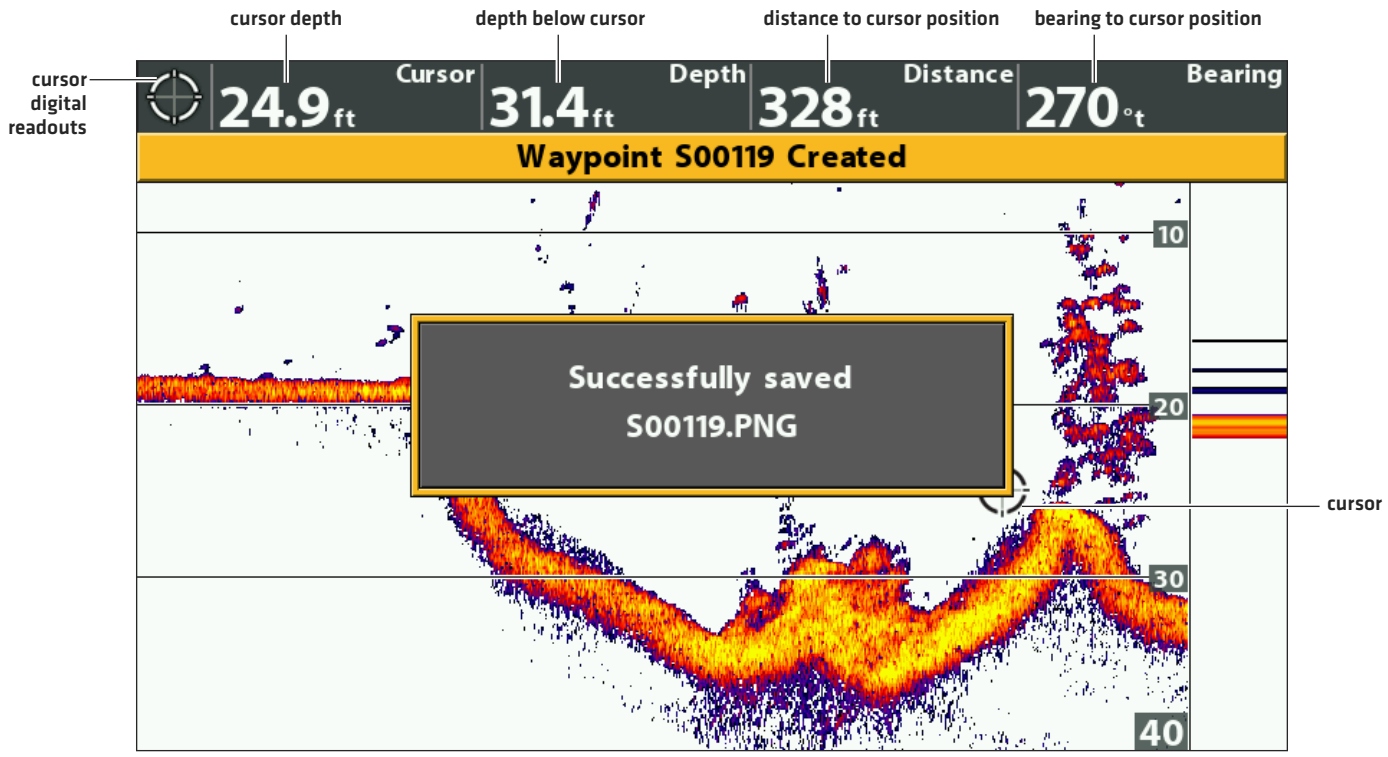
Mark a Waypoint at the Boat Position

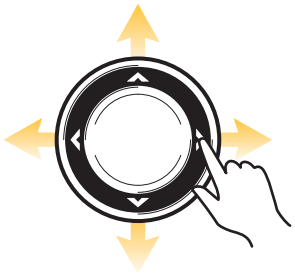
1. Press the MARK key.

Mark a Waypoint at the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the MARK key.

Marking a Waypoint at the Cursor Position





Move the Cursor

Mark a Waypoint

Navigate to a Position

Use the instructions in this section to start navigation to a position in the view. See ***Navigation Overview*** for more information about these features.

Navigate to the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the GOTO key.

   When you press the GOTO key, a waypoint will be marked at the cursor position.

Navigate to a Saved Position

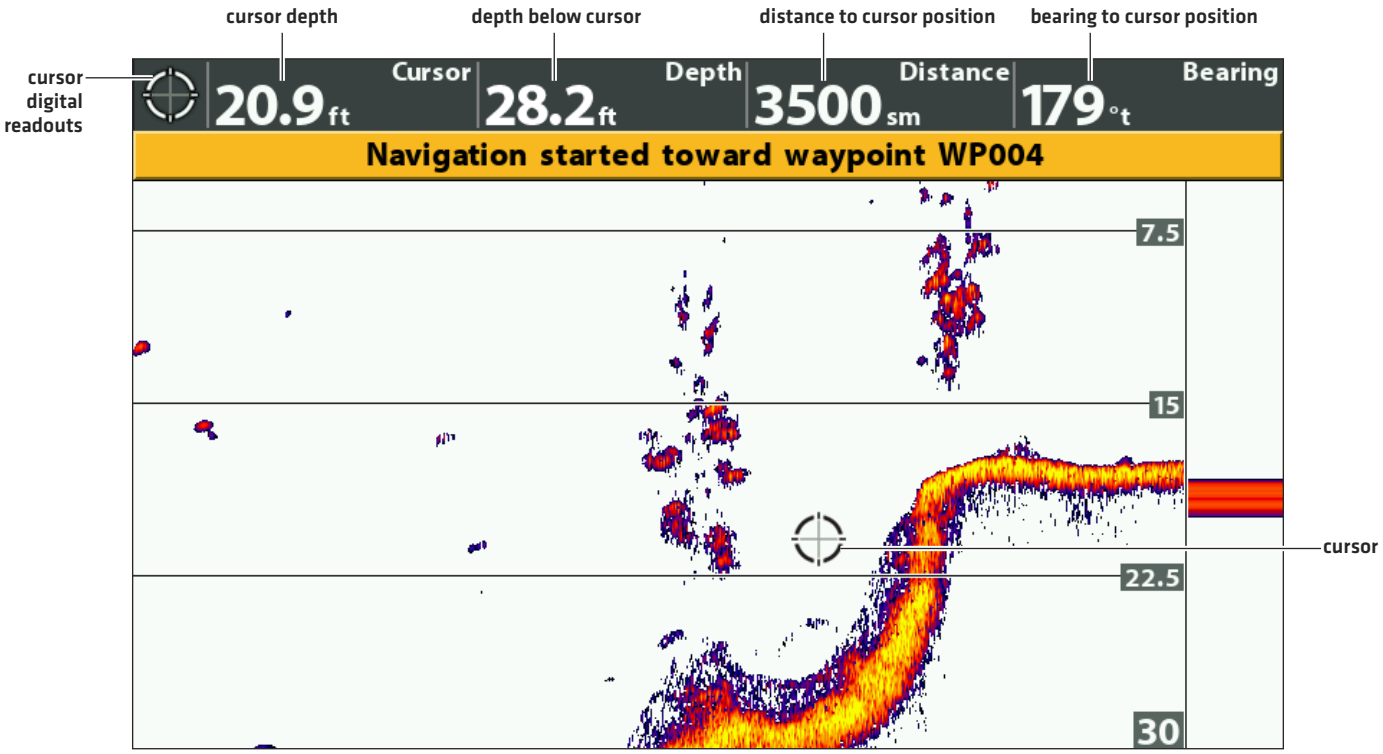
If you press the GOTO key without using the cursor first, you can choose to start navigation from a list of saved waypoints and routes.

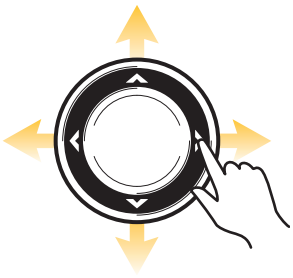
1. Press the GOTO key.
2. Use the Cursor Control key to select a saved waypoint or route.
3. Press the RIGHT Cursor key to start navigation.

Cancel Navigation

1. Press the MENU key once.
2. Select Cancel Navigation. Press the RIGHT Cursor key.

Starting Navigation to the Cursor Position





Move the Cursor

Start Navigation

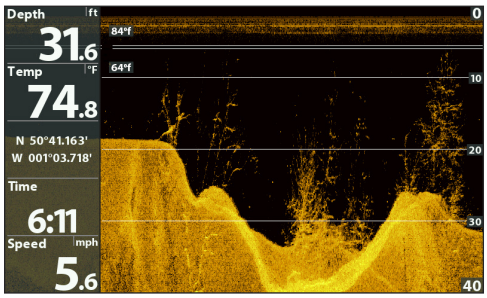
Display a Down Imaging View On-Screen (HELIX DI GPS, HELIX SI GPS only)

There are a variety of views available to display Down Imaging data. You can also customize the view by showing or hiding information (see ***Customize the Down Imaging View***), and you can adjust the sonar settings to refine the information displayed on-screen (see ***Adjust Settings While you Fish***). The changes you make are applied to all Down Imaging views.

Display a Down Imaging View

1. Press and hold the VIEW key.
2. Select Sonar > Down Imaging View.

Down Imaging View

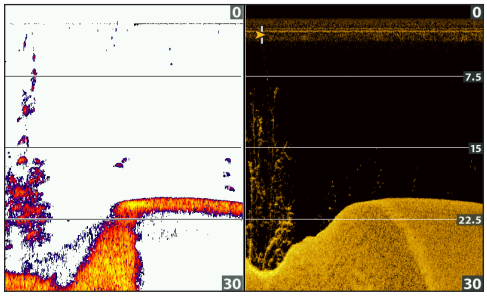


Display a Down Imaging Combo View

1. Press and hold the VIEW key.
2. To open a Down Imaging Combo View, select Sonar.

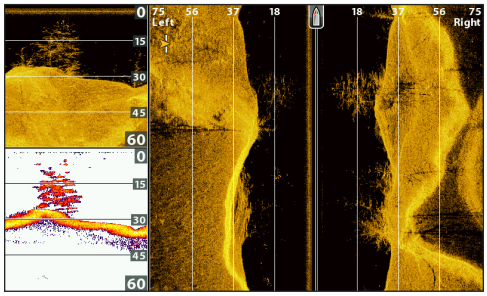
   To open a Chart Combo View (Down Imaging and Chart together), select Chart.
3. Select a view to display on-screen. Press the RIGHT Cursor key.

Sonar > Down/Sonar Combo View



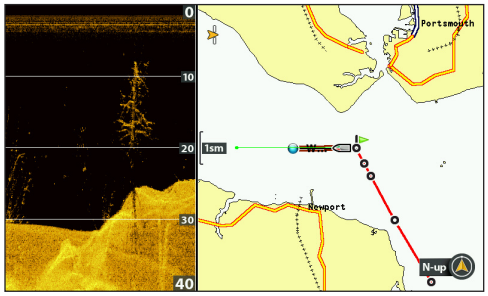
For more information, see *Sonar Overview*.

Sonar > Down/Side/Sonar Combo View



For more information, see *Sonar Overview* and *Side Imaging Overview*.

Chart > Chart/Down Combo View



For more information, see *Navigation Overview.*

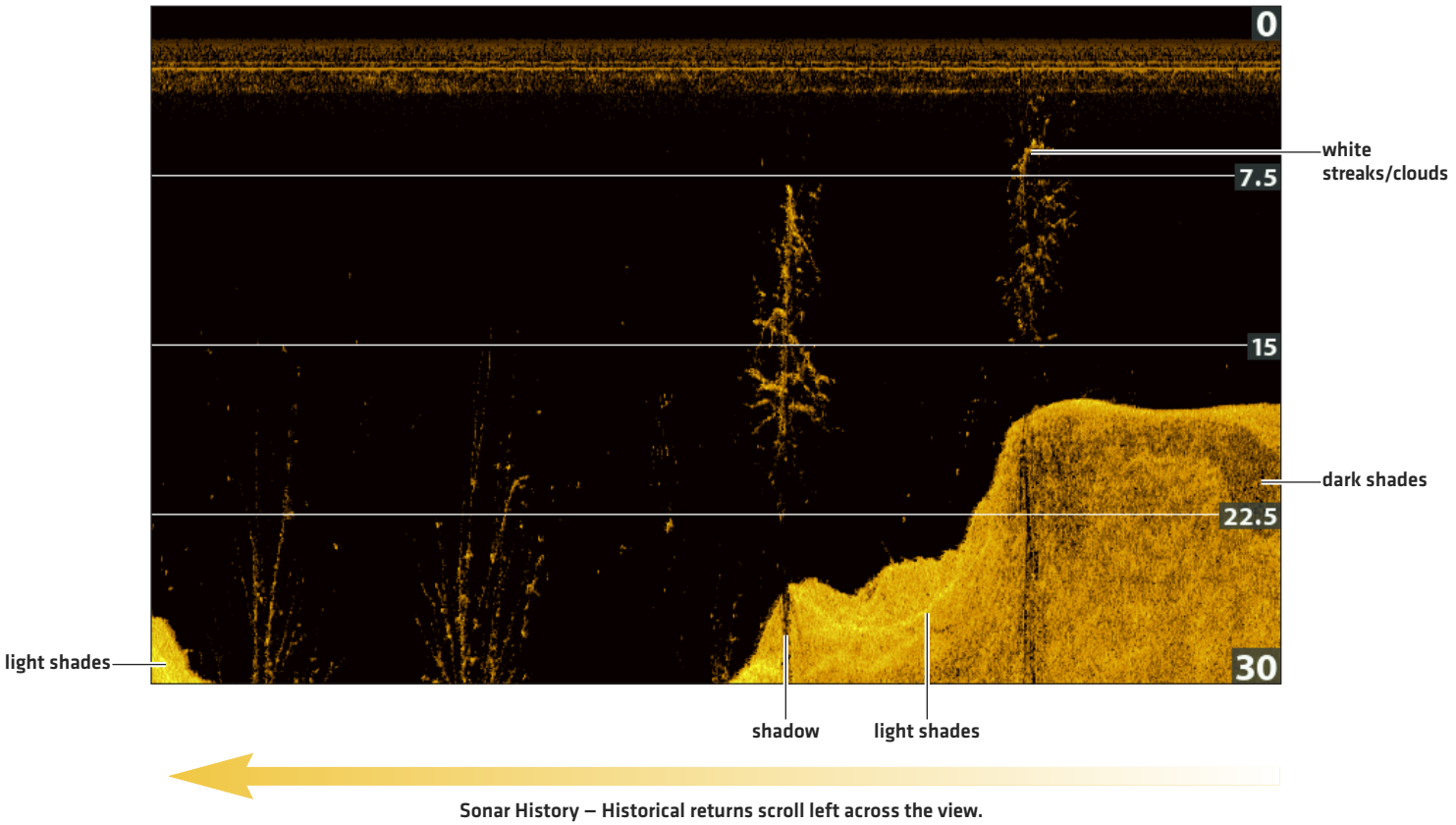
NOTE: The available views are determined by your control head model and the installed transducer. See each related section of the manual (***Views, Sonar Overview, Side Imaging Overview, Navigation Overview***, etc.) for more information.

Down Imaging Overview

The images you see on the Down Imaging display are produced using sonar technology. Each time the unit pings, a strip of data representing all the echoes received by the transducer are put together on the display to form the image that you see. Like traditional 2D Sonar, the sonar history scrolls left across the screen.

Down Imaging beams "illuminate" the bottom contour, structure, and fish. The beams are wide (side to side) but very thin from front to back.

Down Imaging View



Sonar History — Historical returns scroll left across the view.

Use the light and dark parts of the display to interpret the objects under your boat as follows:

Dark shades represent soft returns (mud, sand) or descending terrain.

Light shades represent denser terrain (timber, rocks) or rising terrain. A very hard bottom may appear as white on the display.

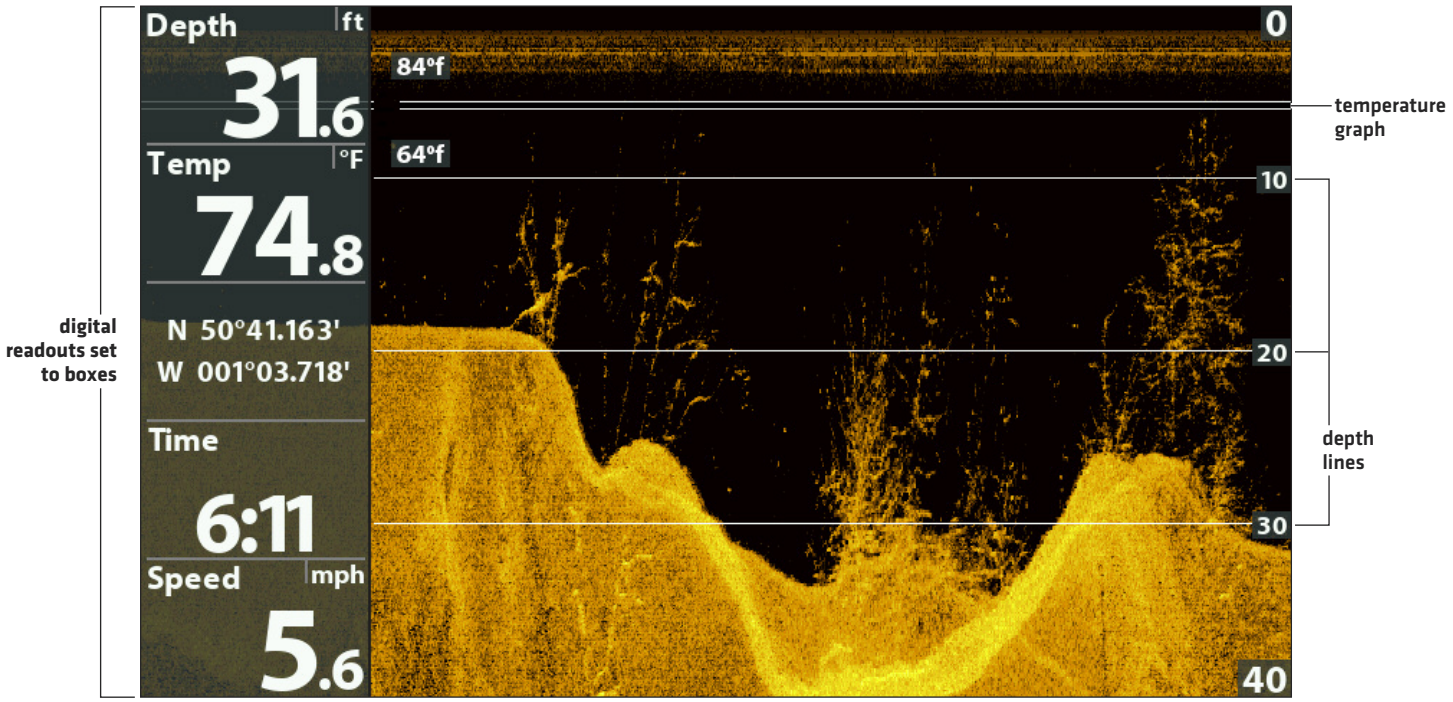
White Streaks or **Clouds** may represent fish on the display.

Shadows are not caused by light but by the lack of a sonar return. Objects standing on the bottom cause a sonar shadow to appear on the display. The longer the shadow, the taller the object. Fish may also cast shadows. You can use the shadow to interpret where the fish or object is located in relation to the bottom.

Customize the Down Imaging View

You can customize the Down Imaging views by showing or hiding information, such as depth lines, temperature graph, and digital readouts. You can also change the color palette.

Customizing the Down Imaging View



NOTE: Digital readouts can be displayed as an overlay, or they can be displayed in data boxes (see ***Views: Display Digital Readouts***).

Show/Hide Depth Lines

The depth lines show incremental marks between the upper and lower depth range. See ***Adjust Settings While you Fish*** for details. The Depth Lines menu is shared with the Sonar View, so turning them on or off will affect the Sonar Views and the Down Imaging Views.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Sonar** tab.
2. Select Depth Lines.
3. Select On (show) or Off (hide).

Show/Hide the Temperature Graph

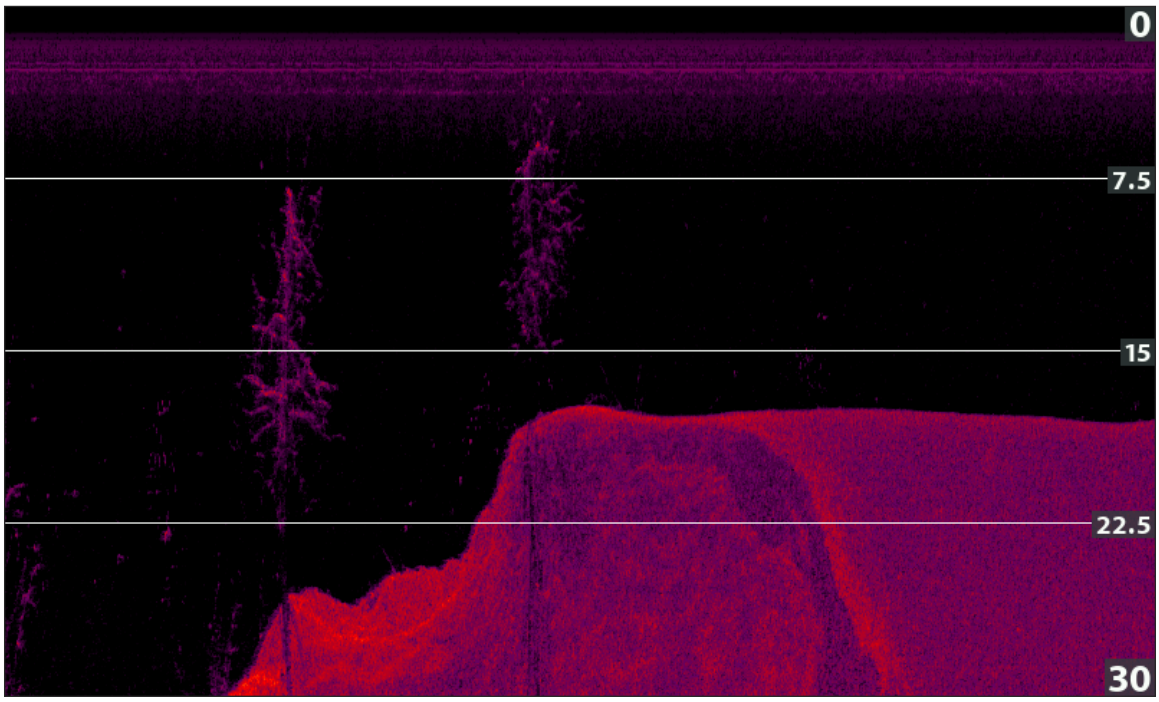
The temperature graph displays the temperature changes over the recent sonar history. A temperature input from the installed transducer or temp/speed accessory is required to enable this feature. The Temperature Graph menu is shared with the Sonar View, so turning it on or off will affect the Sonar Views and the Down Imaging Views.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select Temperature Graph.
3. Select On (show) or Off (hide).

Change the View Colors

The DI Colors menu changes the palette used to display sonar returns on the view.

Down Imaging View with Palette 10 Selected (DI Colors)

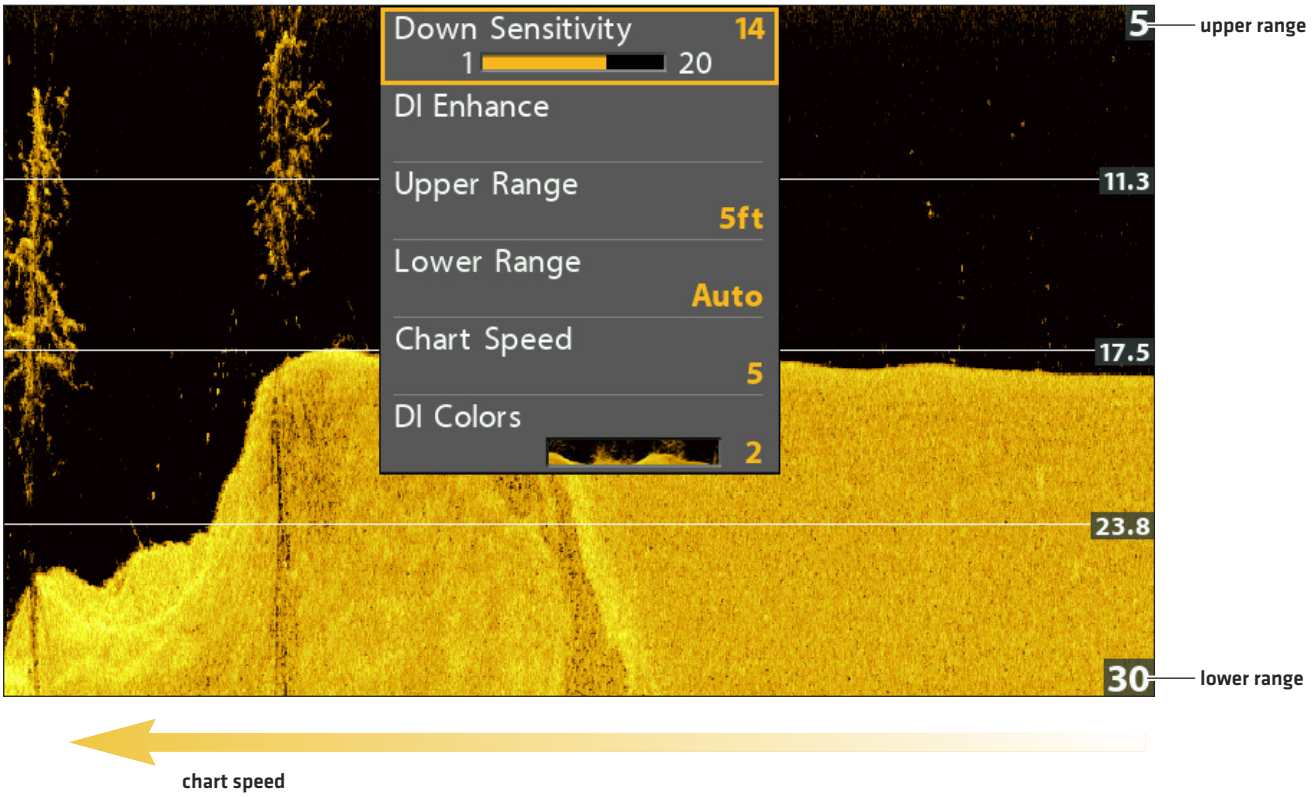


Change the Down Imaging Colors Palette

1. **Down Imaging X-Press Menu:** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select DI Colors.
3. Select a palette.

The X-Press Menu provides menu options to adjust the sensitivity and range as you fish. You can also control how fast the sonar history scrolls across the screen. The menus allow you to see more or less of the sonar returns from the transducer beams as you adjust each setting.

Adjusting Settings from the Down Imaging X-Press Menu



Adjust Sensitivity

Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies. You can adjust sensitivity from the X-Press Menu or the DI Enhance menu (see ***Enhance the Down Imaging View***).

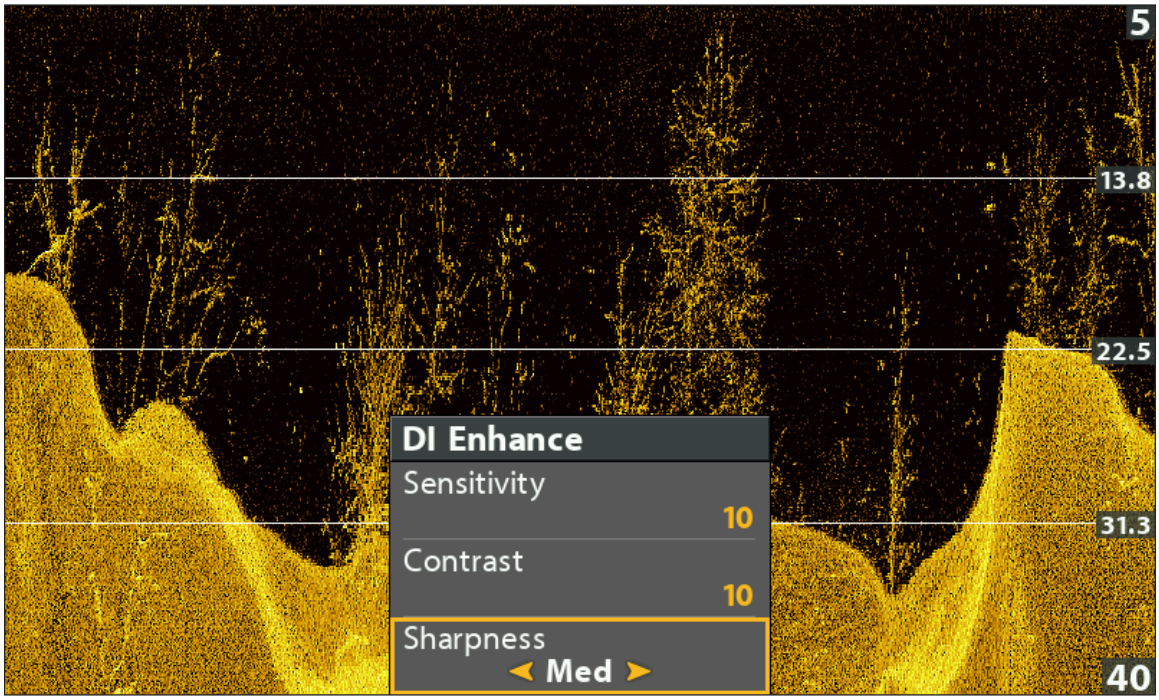
Decrease the sensitivity to eliminate the clutter from the display that is sometimes present in murky or muddy water. When operating in very clear water or greater depths, **increase the sensitivity** to see weaker returns.

1. **Down Imaging X-Press Menu:** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select Down Sensitivity.
3. Press the RIGHT or LEFT Cursor keys to increase or decrease the sensitivity.

Enhance the Down Imaging View

The DI Enhance menu allows you to adjust the sensitivity, contrast, and sharpness on the Down Imaging View. As you adjust each setting, the changes are displayed immediately on the view.

Enhancing the Down Imaging View



Enhance the Down Imaging View

1. **Down Imaging X-Press Menu:** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select DI Enhance. Press the RIGHT Cursor key.
3. Use the Cursor Control key to select each menu and adjust the setting.

Sensitivity	Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies. **Decrease the sensitivity** to eliminate the clutter from the display that is sometimes present in murky or muddy water. When operating in very clear water or greater depths, **increase the sensitivity** to see weaker returns that may be of interest. This menu can also be adjusted from the Down Imaging X-Press Menu (DI Sensitivity).
Contrast	Adjust the Contrast setting to accent the light and dark parts of the Down Imaging data to provide greater definition.
Sharpness	Turn on sharpness and select a filter level to sharpen the edges of the Down Imaging data.

Set the Upper/Lower Range

Upper Range and Lower Range control how much of the water column is displayed on the view. For example, if you are only interested in the area between 20 and 50 feet deep, set the Upper Range to 20 and the Lower Range to 50. The view will not display sonar returns outside of the set ranges, and greater detail for the selected range will be displayed.

1. **Down Imaging X-Press Menu (Advanced User Mode):** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select Upper Range. Press the RIGHT or LEFT Cursor keys to adjust the setting.
3. Select Lower Range. Select Auto or set a specific depth (manual).

   Auto: The Lower Range will be adjusted by the control head to follow the bottom automatically.

   Manual : The control head locks onto the depth you select.

   NOTE: There must be a difference of 10 feet between the upper and lower range settings.

Change the Chart Speed

Chart Speed controls how fast the sonar history moves across the view and how much detail is shown.

1. **Down Imaging X-Press Menu:** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select Chart Speed.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Change the DI Colors

The Down Imaging X-Press Menu allows you to quickly change the display palette while you fish. See ***Customize the Down Imaging View: Change the View Colors*** for more information.

1. **Down Imaging X-Press Menu:** With a Down Imaging View displayed on-screen, press the MENU key once.
2. Select DI Colors.
3. Select a palette.

Review Down Imaging History and Zoom In/Out

In addition to adjusting the sonar settings while you fish, you can freeze the sonar history, magnify sonar returns, and review position information.

Freeze the Down Imaging View

Press any arrow on the Cursor Control key, and the sonar history will freeze and the cursor will display on-screen. If you move the cursor over a sonar return, digital readouts for the cursor position are displayed on the view.

1. Press any arrow on the Cursor Control key.
2. Move the cursor over a sonar return.
3. Review the cursor position and depth information in the digital readouts.

NOTE: To mark a waypoint or start navigation to the cursor position, see ***Navigation in Down Imaging Views***.

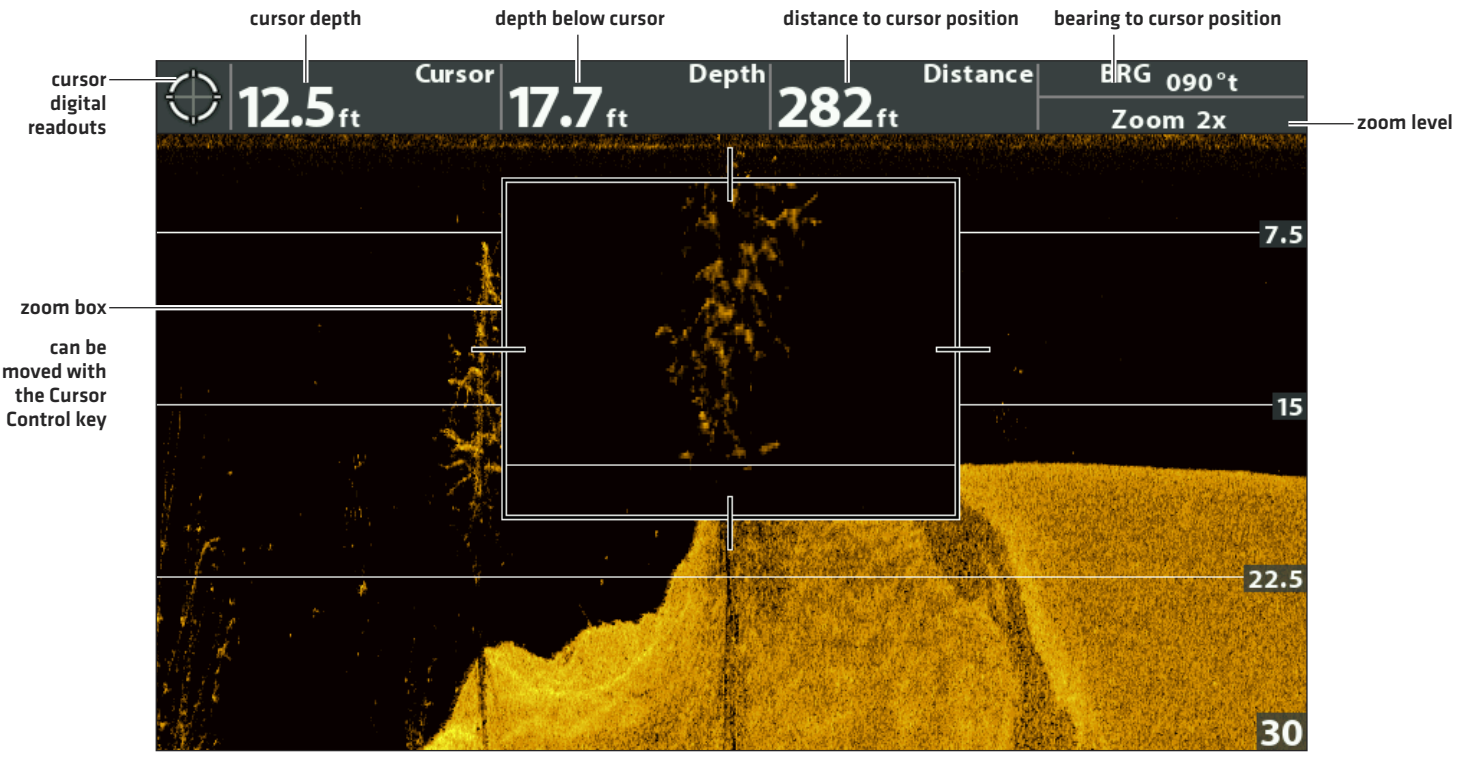
Zoom In/Zoom Out

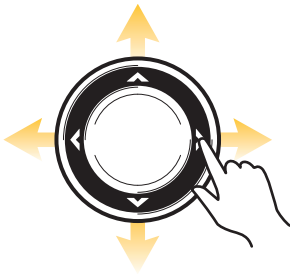
To take a closer look, use the ZOOM keys to magnify the selected part of the view.

1. Use the Cursor Control key to move the cursor to a position on the view.
2. **Zoom In:** Press the +ZOOM key.

   Zoom Out: Press the -ZOOM key.
3. **Close:** Press the EXIT key.

Zooming into the Down Imaging History





Move the Cursor

ZOOM In

ZOOM Out

Navigation in Down Imaging Views

To mark waypoints and start navigation, the control head must have a GPS Fix from a connected or internal GPS receiver. See ***Getting Started*** for more information.

Mark a Waypoint

You can mark a waypoint at the boat position or the cursor position. Waypoints are saved to the Waypoint Management dialog box (see ***Manage your Navigation Data***).

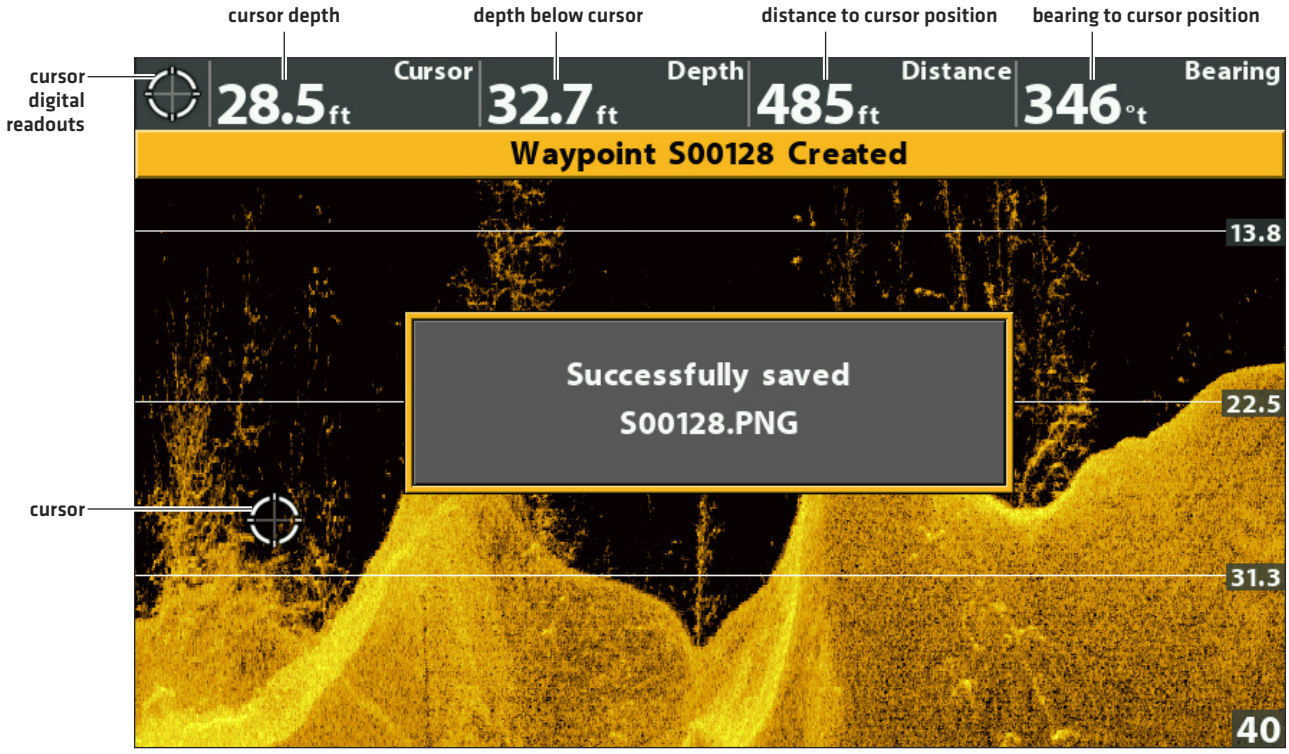
Mark a Waypoint at the Boat Position

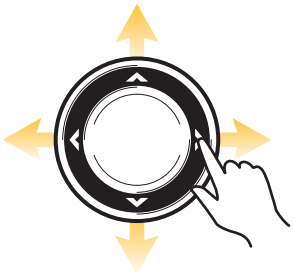
1. Press the MARK key.

Mark a Waypoint at the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the MARK key.

Marking a Waypoint at the Cursor Position





Move the Cursor

Mark a Waypoint

Navigate to a Position

Use the instructions in this section to start navigation to a position in the view. See ***Navigation Overview*** for more information about these features.

Navigate to the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the GOTO key.

   When you press the GOTO key, a waypoint will be marked at the cursor position.

Navigate to a Saved Position

If you press the GOTO key without using the cursor first, you can choose to start navigation from a list of saved waypoints and routes.

1. Press the GOTO key.
2. Use the Cursor Control key to select a saved waypoint or route.
3. Press the RIGHT Cursor key to start navigation.

Cancel Navigation

1. Press the MENU key once.
2. Select Cancel Navigation. Press the RIGHT Cursor key.

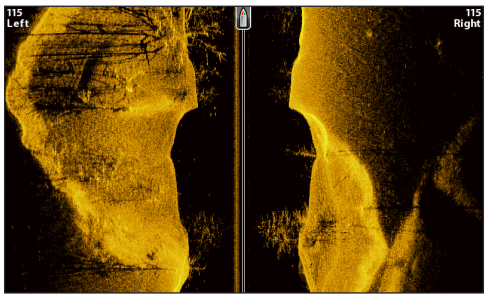
Display a Side Imaging View On-Screen (HELIX SI GPS only)

There are a variety of views available to display Side Imaging data. You can also customize the view by showing or hiding information (see ***Customize the Side Imaging View***), and you can adjust the sonar settings to maximize the information displayed on-screen (see ***Adjust Settings While you Fish***). The changes you make are applied to all Side Imaging views.

Display a Side Imaging View

1. Press and hold the VIEW key.
2. Select Sonar > Side Imaging View.

Side Imaging View

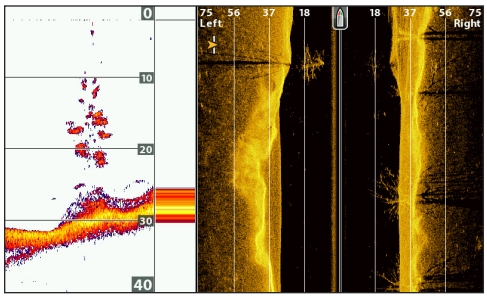


Display a Side Imaging Combo View

1. Press and hold the VIEW key.
2. To open a Side Imaging Combo View, select Sonar.

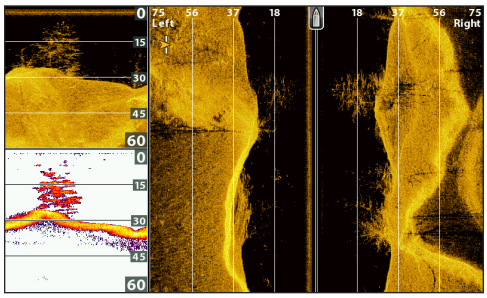
   To open a Chart Combo View (Side Imaging and Chart together), select Chart.
3. Select a view to display on-screen. Press the RIGHT Cursor key.

Sonar > Side/Sonar Combo View



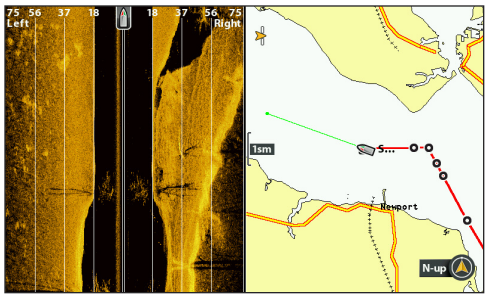
For more information, see *Sonar Overview*.

Sonar > Down/Side/Sonar Combo View



For more information, see *Sonar Overview* and *Down Imaging Overview*.

Chart > Chart/Side Combo View



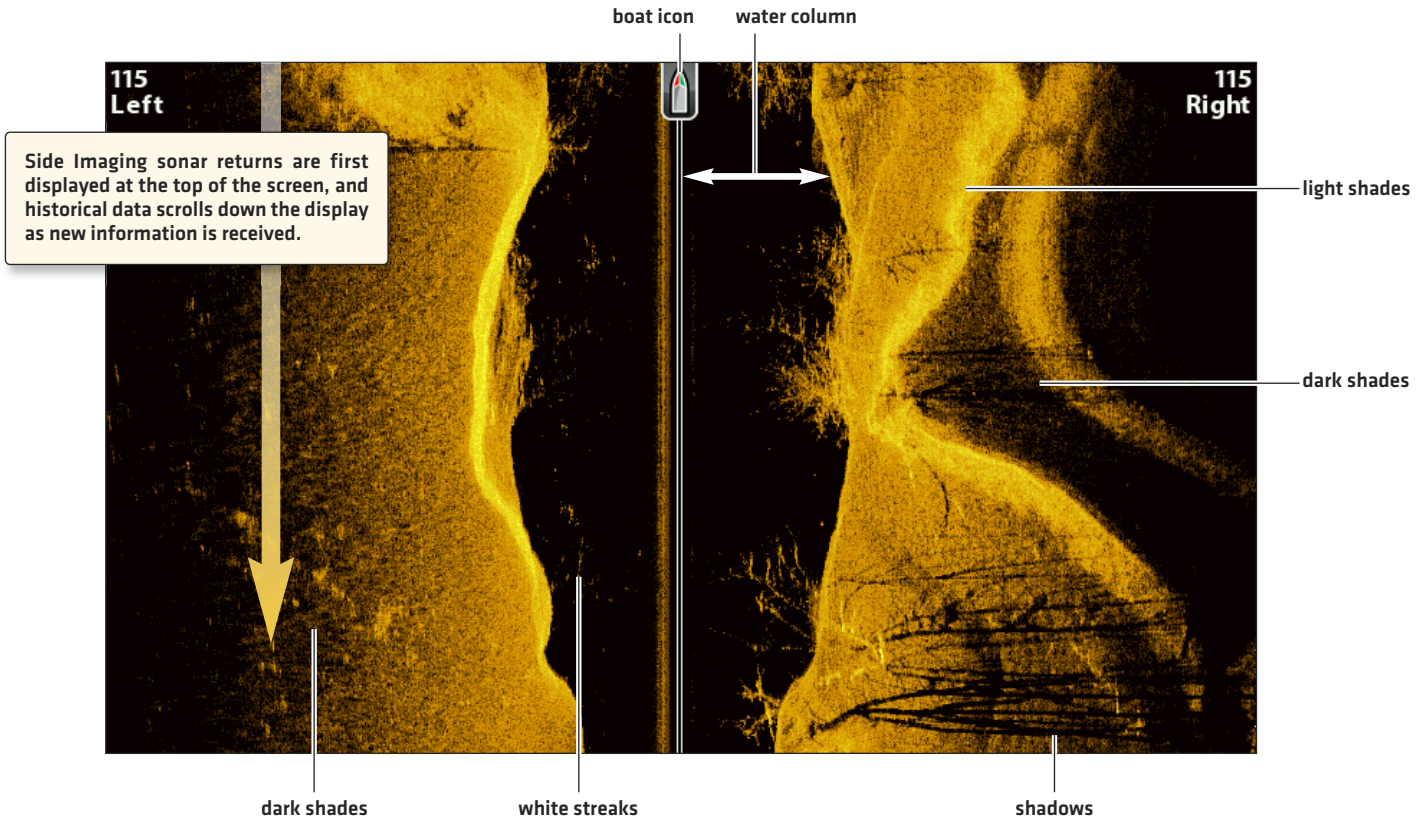
For more information, see *Navigation Overview.*

NOTE: The available views are determined by your control head model and the installed transducer. See each related section of the manual (***Views, Sonar Overview, Down Imaging Overview, Navigation Overview,*** etc.) for more information.

Understand the Side Imaging View

Side Imaging beams "illuminate" the bottom contour, structure, and fish. The side beam coverage is very thin from front to back, yet very wide from top to bottom. The bottom composition determines the intensity of the sonar return, and upward slopes that face the transducer reflect sonar better than downward slopes that face away from the transducer.

Side Imaging View



Use the light and dark parts of the display to interpret the objects on the view as follows:

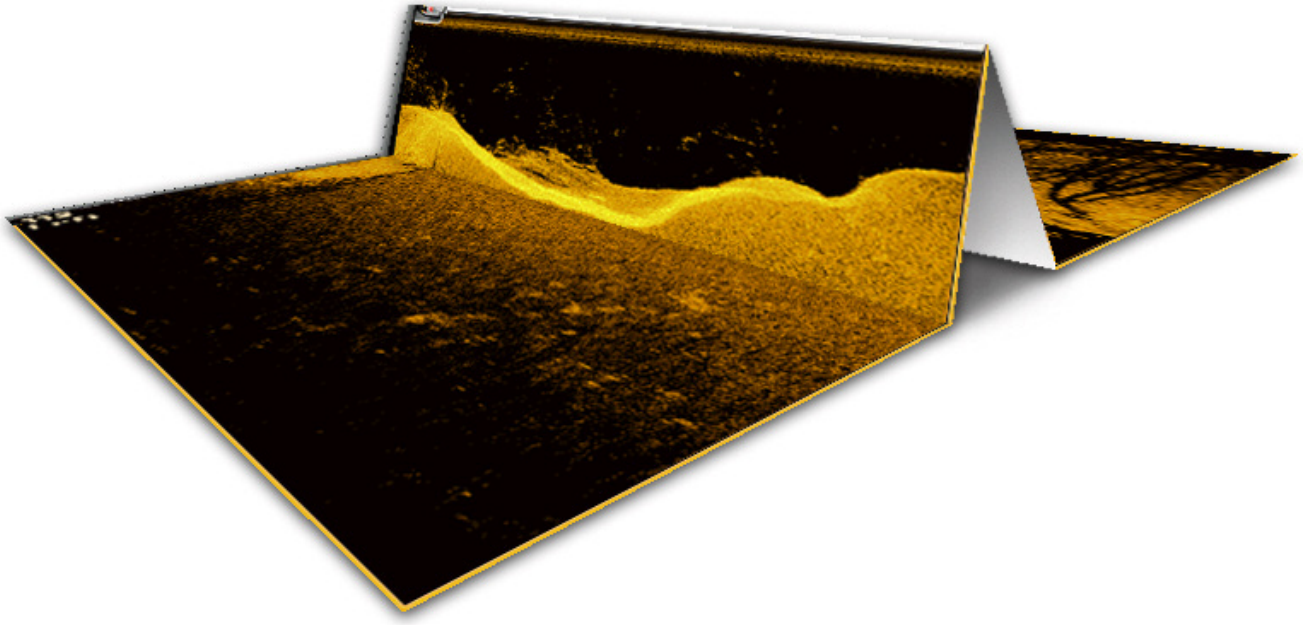
Shadows: The longer the shadow, the taller the object. Fish also cast shadows, and their distance from the bottom can be interpreted by their shadow.

Light Shades represent denser terrain (possibly compacted sediment, timber, rocks) or rising terrain.

Water Column: shows the relative depth of the water under the boat at any given time. Variations in the width of the water column show variations in the distance to the bottom as the boat passes over. See the illustration ***Interpreting the Side Imaging View***.

White Streaks or **Clouds** may represent fish on the display.

Dark Shades represent soft returns (possibly sand or mud) or descending terrain.



To visualize how Side Imaging works, the Side Imaging View illustration can be folded down the middle and then folded again at the lowest point of the water column. The raised area reveals the water column with its relative depth of the water under the boat. In the Side Imaging View, variations in the width of the water column show variations in the distance to the bottom as the boat passes over.

For Best Side Imaging Performance

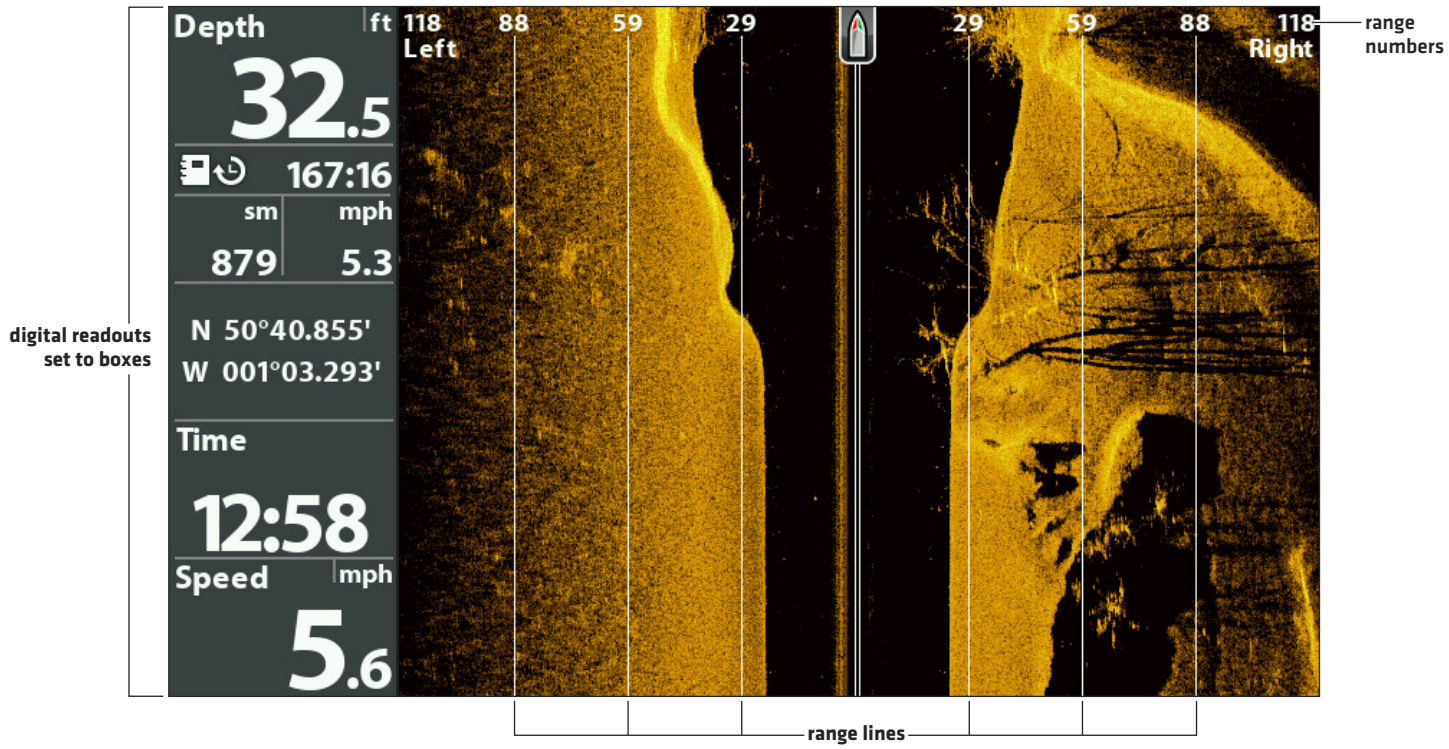
- Boat Speed: 2 to 6 mph
- Straight line navigation
- Minimum turning time and wave turbulence

Also, see **humminbird.com** for tutorials and Side Imaging videos.

Customize the Side Imaging View

The settings in this section are optional. You can use the default settings for the view, or you can customize it with your preferences.

Showing Digital Readouts and SI Range Lines



Show/Hide SI Range Lines

SI Range Lines divide each side beam range into equal sections on the Side Imaging View. Use the range lines to estimate the location of objects. You can show or hide range lines on the view.

NOTE: The range numbers are estimated and should not be used for measurement. If SI Range Lines and Contour Mode are turned on, the SI Range Lines will remain on the display, but the individual range numbers will not be available.

1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select SI Range Lines.
3. Select On (show) or Off (hide).

Show/Hide Digital Readouts on the Side Imaging View

If you have Digital Readouts set to Boxes on all views, you can hide the digital readout boxes on the Side Imaging View exclusively. For details, see ***Views: Display Digital Readouts.***

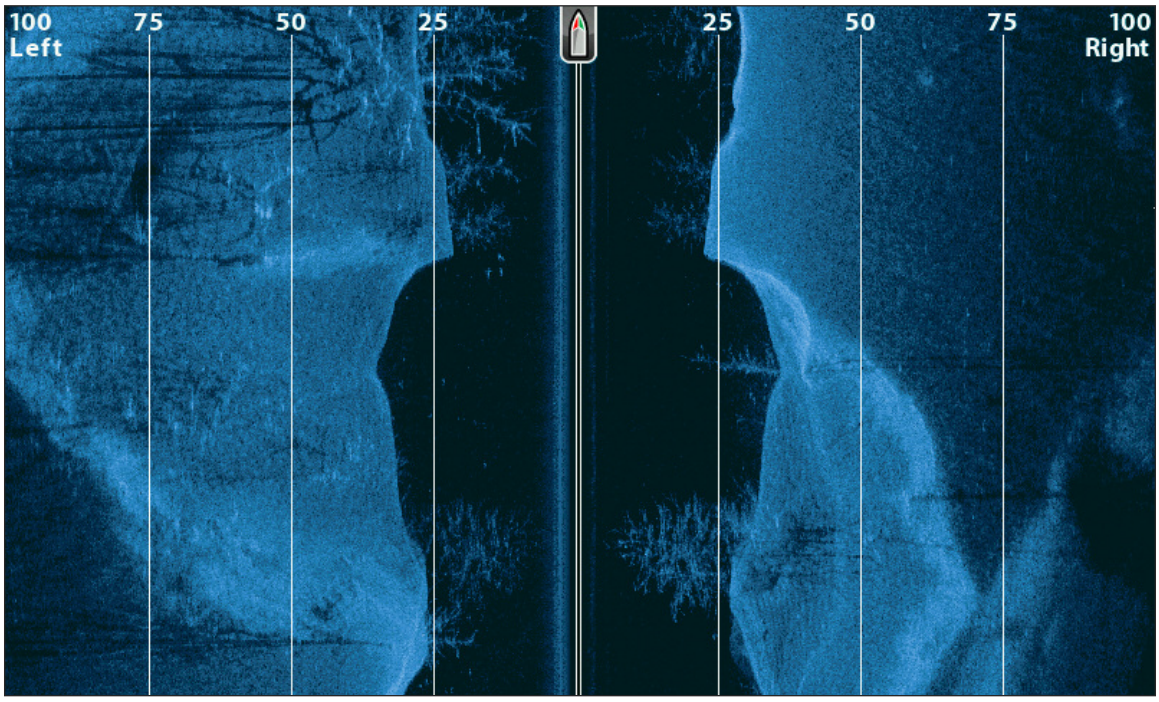
1. **Main Menu:** Press the MENU key twice. Select the **Sonar** tab.
2. Select SI Readouts
3. Select On (show) or Off (hide).

Change the View Palette

The SI Colors menu changes the colors used to display sonar returns on the view.

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Colors.
3. Select a palette.

SI Colors with Palette 1 Displayed

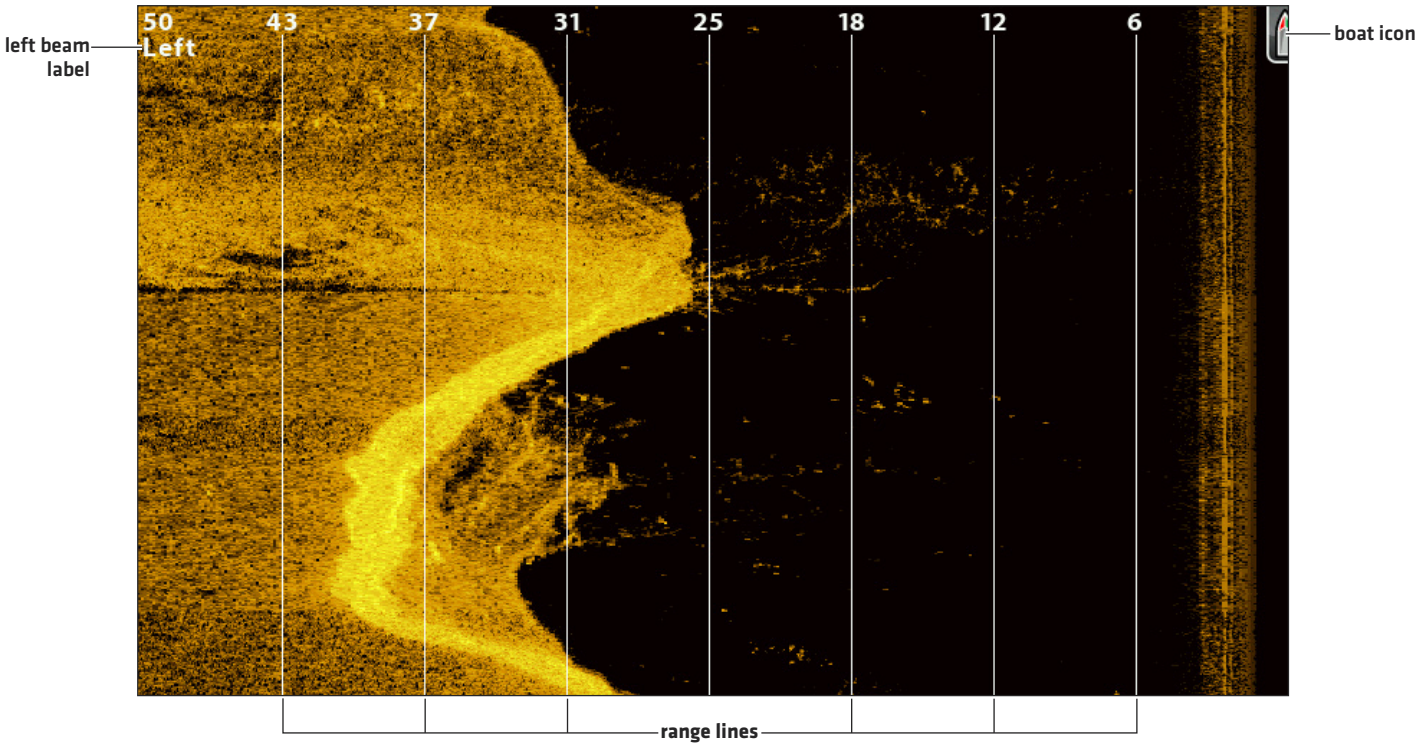


The X-Press Menu provides menu options to adjust the sensitivity and range as you fish. You can also control how fast the sonar history scrolls down the screen. The menu options allow you to see more or less of the sonar returns from the transducer beams as you adjust each setting.

Display Beams

Use SI Side to select which Side Imaging beam will be shown on the display.

Side Imaging View with the Left Beam Displayed



Select Beams to Display on the View

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Side.
3. Select a beam or both beams to display.

Adjust Sensitivity

Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies. You can adjust sensitivity from the X-Press Menu or the Enhance menu (see ***Enhance the Side Imaging View***).

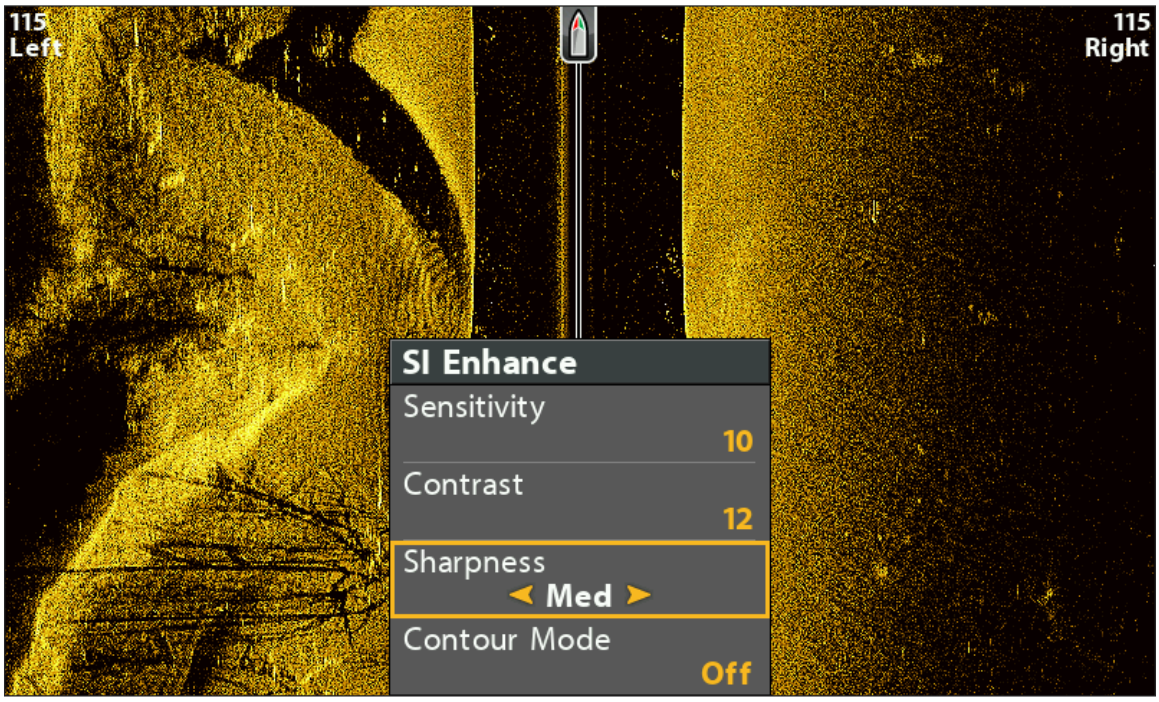
Decrease the sensitivity to eliminate the clutter from the display that is sometimes present in murky or muddy water. When operating in very clear water or greater depths, **increase the sensitivity** to see weaker returns.

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Sensitivity.
3. Press the RIGHT or LEFT Cursor keys to increase or decrease the sensitivity.

Enhance the Side Imaging View

The SI Enhance menu allows you to adjust the sensitivity, contrast, and sharpness on the Side Imaging View. As you adjust each setting, the changes are displayed immediately on the view, so you can fine tune the display. You can also turn on/off the Contour Mode from this menu so the water column is displayed or hidden on the view.

Enhancing the Side Imaging View

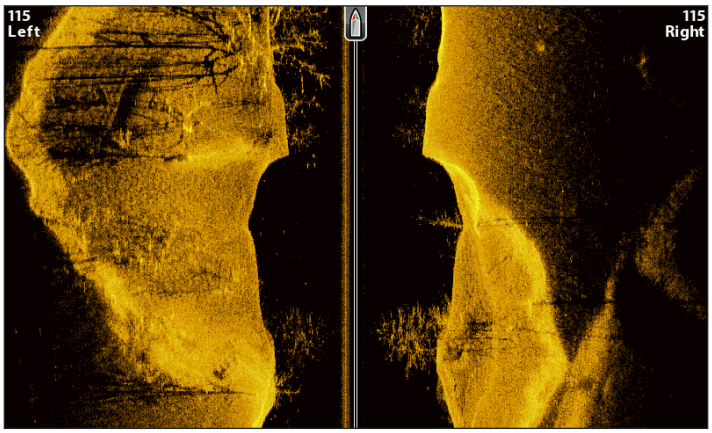


Enhance the Side Imaging View

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Enhance. Press the RIGHT Cursor key.
3. Use the Cursor Control key to select each menu and adjust the setting.

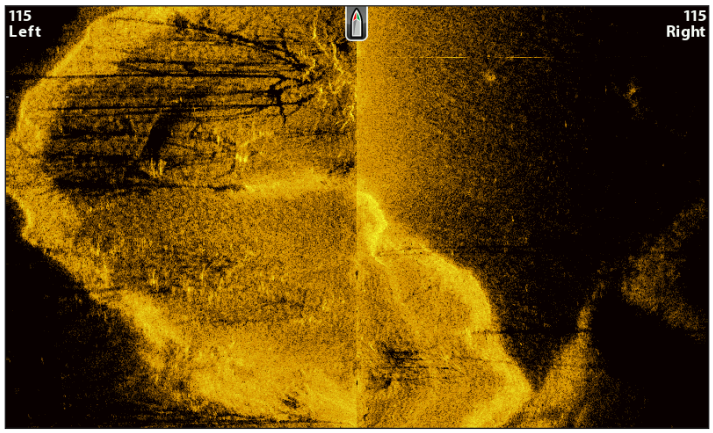
Sensitivity	Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies. **Decrease the sensitivity** to eliminate the clutter from the display that is sometimes present in murky or muddy water. When operating in very clear water or greater depths, **increase the sensitivity** to see weaker returns that may be of interest. This menu can also be adjusted from the Side Imaging X-Press Menu (SI Sensitivity).
Contrast	Adjust the Contrast setting to accent the light and dark parts of the Side Imaging data to provide greater definition.
Sharpness	Turn on sharpness and select a filter level to sharpen the edges of the Side Imaging data.
Contour Mode	Contour Mode controls how the water column is displayed in the Side Imaging Views. **When Contour Mode is turned off,** the water column is displayed on the view. The location of a target on the display is based on the slant range to the target. **When Contour Mode is turned on,** the bottom is graphed at a constant point on the display, regardless of changes in depth. The Side Imaging beams are divided by a vertical line. The water column is removed from the view, which allows the display to show targets at their linear horizontal distance. The location of a target may be easier to interpret when the water column is removed.

Contour Mode Off



The water column is displayed on the Side Imaging View.

Contour Mode On



The water column is removed from the Side Imaging View.

Adjust the Side Imaging Range

SI Range sets the deepest range that will be displayed on the Side Imaging views. Choose a low range number to focus on a shorter distance of the water column and see greater detail on the view. Choose a higher range number to see farther into the water and see an overview of details on the screen.

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Range.

   Auto: The Range will be adjusted by the control head to follow the bottom automatically.

   Manual: The control head locks onto the depth you select.

Side Imaging units default to the Side Imaging range setting if the **SI Range** is set deeper than the Max Depth. See ***Side Imaging Overview*** for more information.

Change the Chart Speed

Chart Speed controls how fast the sonar history moves down the view and how much detail is shown.

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select Chart Speed.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Change the View Colors

The Side Imaging X-Press Menu allows you to quickly change the display palette while you fish. See ***Customize the Side Imaging View: Change the View Colors*** for more information.

1. **Side Imaging X-Press Menu:** With a Side Imaging View displayed on-screen, press the MENU key once.
2. Select SI Colors.
3. Select a palette.

Review Side Imaging History and Zoom In/Out

In addition to adjusting the sonar settings while you fish, you can freeze the sonar history, magnify sonar returns, and review position information.

Freeze the Side Imaging View

Press any arrow on the Cursor Control key, and the sonar history will freeze and the cursor will display on-screen. If you move the cursor over a sonar return, digital readouts for the cursor position are displayed on the view.

1. Press any arrow on the Cursor Control key.
2. Move the cursor over a sonar return.
3. Review the cursor position and depth information in the digital readouts.

NOTE: To mark a waypoint or start navigation to the cursor position, see ***Navigation in Side Imaging Views***.

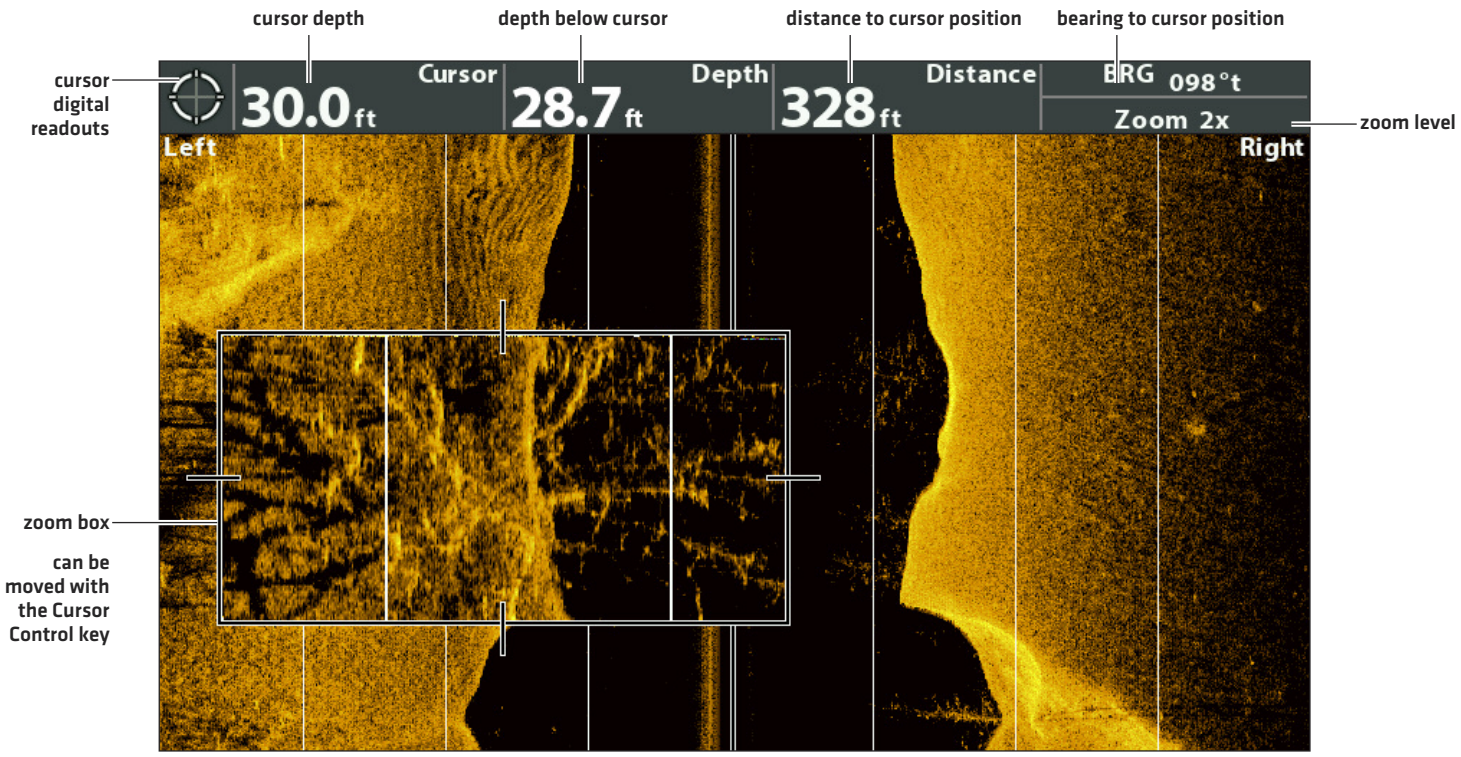
Zoom In/Zoom Out

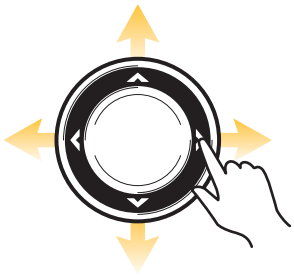
To take a closer look, use the ZOOM keys to magnify the selected part of the view.

1. Use the Cursor Control key to move the cursor to a position on the view.
2. **Zoom In:** Press the +ZOOM key.

   Zoom Out: Press the -ZOOM key.
3. **Close:** Press the EXIT key.

Zooming into the Side Imaging History





Move the Cursor

ZOOM In

ZOOM Out

Navigation in Side Imaging Views

To mark waypoints and start navigation, the control head must have a GPS Fix from a connected or internal GPS receiver. See ***Getting Started*** for more information.

Turn on/off SI Navigation

SI Navigation controls how the boat icon is displayed in Side Imaging Views. See ***Navigate to a Position*** for more information. **If SI Navigation is turned on,** an arrow icon indicates the direction the boat needs to turn to reach the next waypoint during navigation.

If SI Navigation is turned off, the boat icon will not change during navigation although you can still mark waypoints and start navigation from a Side Imaging View.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select SI Navigation.
3. Select On or Off.

Mark a Waypoint

You can mark a waypoint at the boat position or the cursor position. Waypoints are saved to the Waypoint Management dialog box (see ***Manage your Navigation Data***).

Mark a Waypoint at the Boat Position

1. Press the MARK key.

Mark a Waypoint at the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the MARK key.

Navigate to a Position

Use the instructions in this section to start navigation to a position in the view. See ***Navigation Overview*** for more information about these features.

Navigate to the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the view.
2. Press the GOTO key.

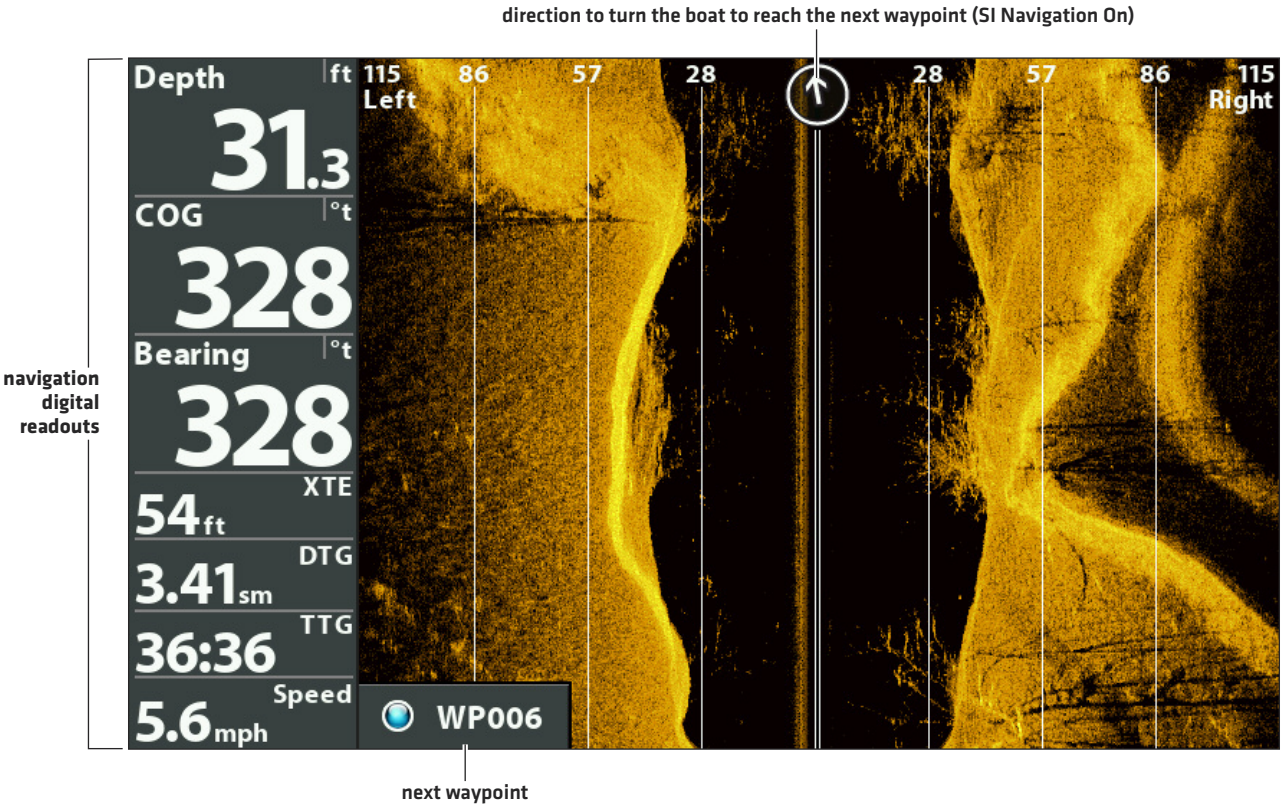
   When you press the GOTO key, a waypoint will be marked at the cursor position.

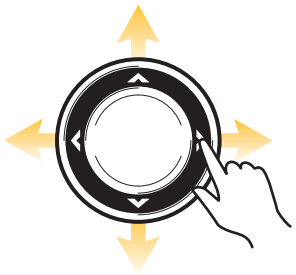
Navigate to a Saved Position

If you press the GOTO key without using the cursor first, you can choose to start navigation from a list of saved waypoints and routes.

1. Press the GOTO key.
2. Use the Cursor Control key to select a saved waypoint or route.
3. Press the RIGHT Cursor key to start navigation.

Navigating to a Waypoint





Move the Cursor

Start Navigation

Cancel Navigation

1. Press the MENU key once.
2. Select Cancel Navigation. Press the RIGHT Cursor key.

Manage Screen Snapshots and Recordings

Snapshot and Recording View displays the saved screen snapshots and recordings from the installed SD card (separate purchase required). Use this view to review the snapshot and recording file details, start recording, and adjust the recording settings.

Enable Screen Snapshot and Recording

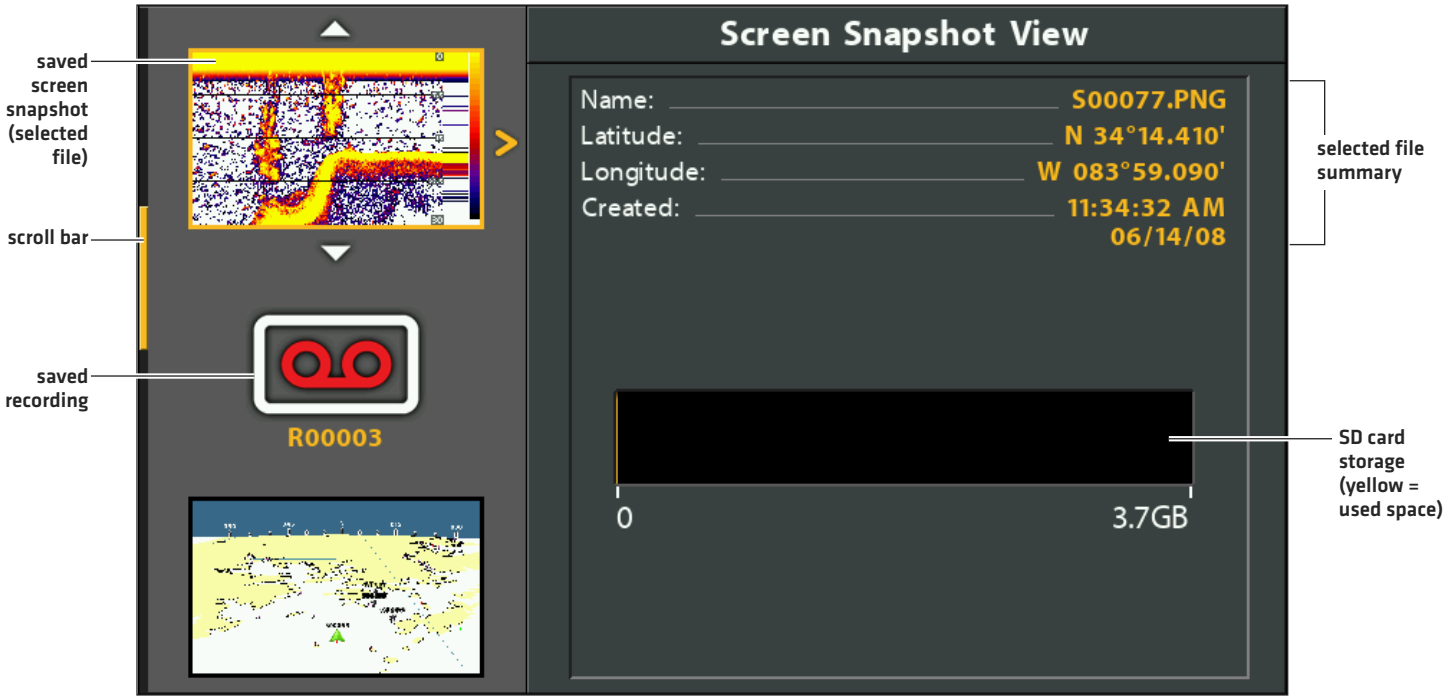
It is important to install an SD card and turn on the appropriate menus to enable Screen Snapshot and Recording.

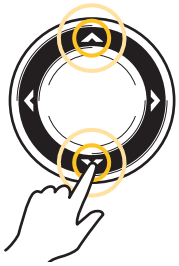
1. Install an SD card into the control head card slot.
2. **Main Menu:** Press the MENU key twice. Select the **Accessories** tab.
3. Select Screen Snapshot.
4. Select On.
5. Press the EXIT key once.
6. Select the **Views** tab.
7. Select Screen Snapshot and Recording View.
8. Select Visible.
9. **Close:** Press the EXIT key repeatedly until the menu system is closed.

Display the Screen Snapshot and Recording View

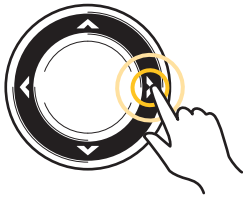
1. Press and hold the VIEW key.
2. Select System > Screen Snapshot and Recording View.

Screen Snapshot and Recording View





Scroll through the List



Display

Take Screen Snapshots

Screen Snapshots are saved pictures of the view on the screen. The screen snapshot will include the menus, dialog boxes, warnings, and messages that were active when the screen snapshot was taken. Saved Screen Snapshots can be viewed from the Snapshot and Recording View or Chart View.

NOTE: Screen Snapshot and Recording must be enabled to use the instructions in this section. See ***Enable Screen Snapshot and Recording*** for details.

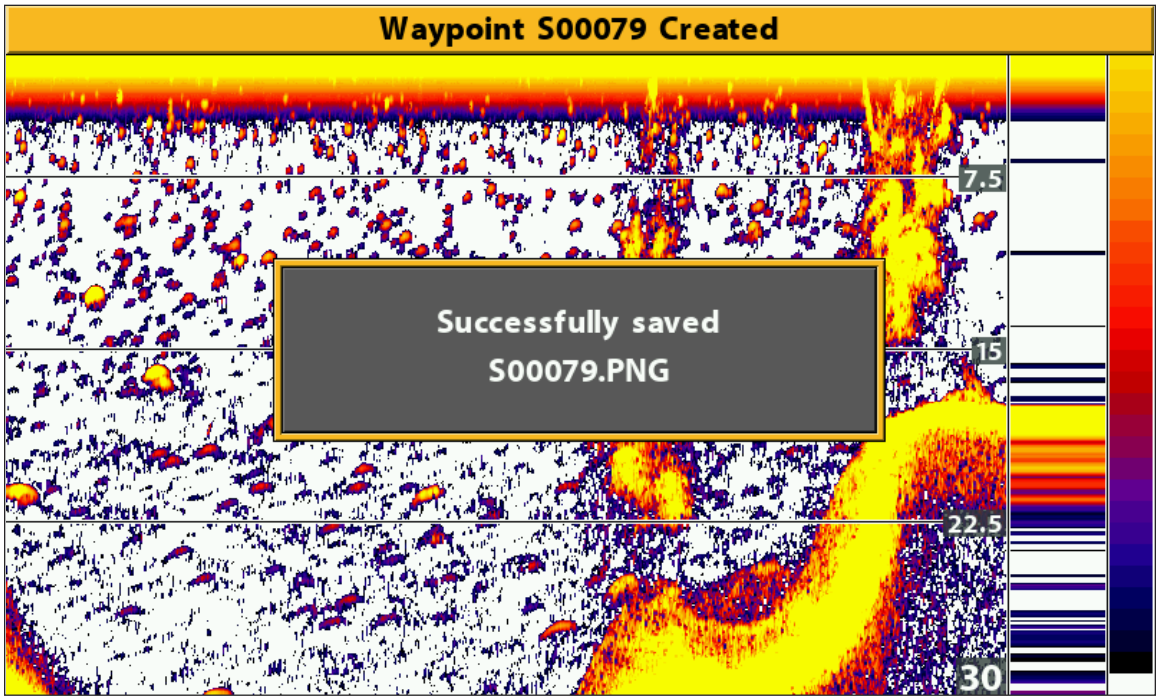
Take a Screen Snapshot

1. From any view or cursor location you want to capture, press the MARK key.

   A waypoint will also be created at the boat or cursor location. The saved screen snapshot shares the same file name as the waypoint (.PNG).

CAUTION! On the SD card, you will see that a DAT (or a .TXT) file is created for every .PNG screen snapshot. This data file is required for viewing the screen snapshots from your control head, so don't delete these files.

Taking a Screen Snapshot



Take a Screen Snapshot

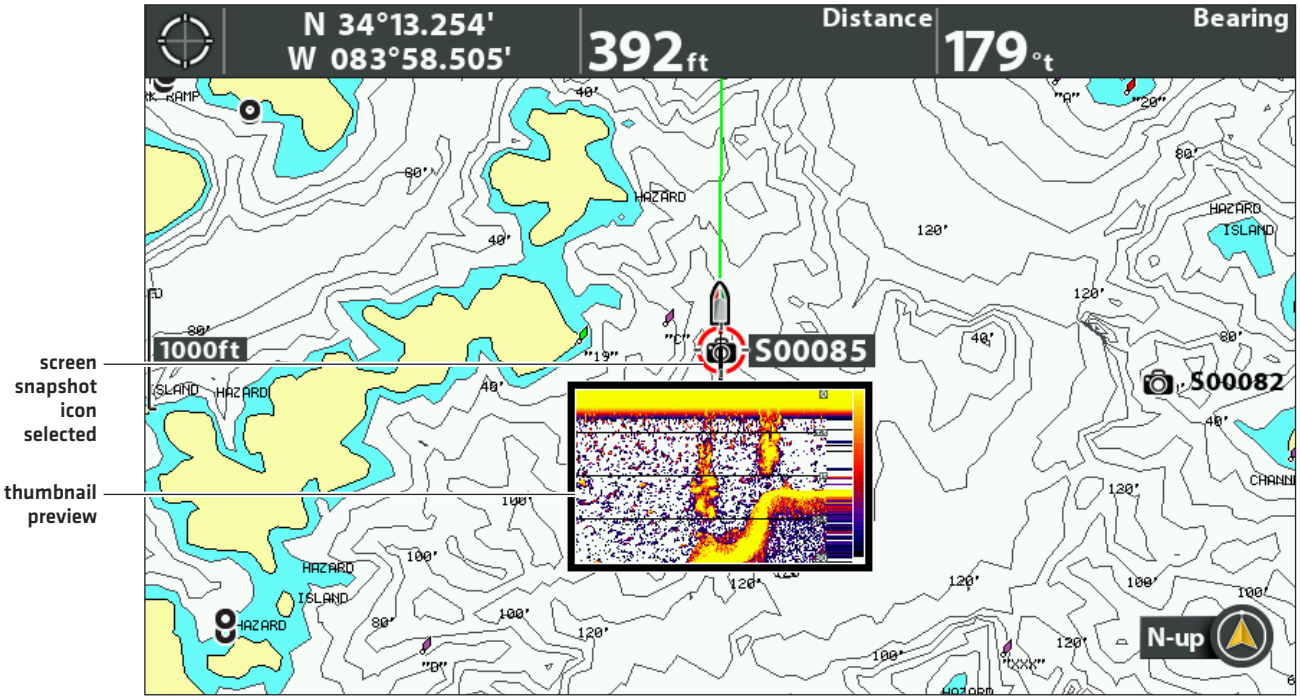
Display a Saved Screen Snapshot from Snapshot and Recording View

1. Display the Screen Snapshot and Recording View on-screen.
2. **Select a Snapshot:** Press the UP or DOWN Cursor keys to scroll through the saved files.
3. **Display:** Press the RIGHT Cursor key.
4. **Close:** Press the LEFT Cursor key.

Display a Saved Screen Snapshot from Chart View

1. Display a Chart View on-screen.
2. **Select a Snapshot:** Use the Cursor key to select a screen snapshot icon.
3. **Display:** Press the CHECK/INFO key.

Selecting a Screen Snapshot in Chart View



4. **Close:** Press the EXIT key.

Delete a Screen Snapshot

1. Display the Screen Snapshot and Recording View on-screen.
2. **Select a Snapshot:** Press the UP or DOWN Cursor keys to scroll through the saved files.
3. Press the MENU key.
4. Select Delete Image. Press the RIGHT Cursor key.

Delete all Screen Snapshots

1. Display the Screen Snapshot and Recording View on-screen.
2. Press the MENU key.
3. Select Delete All Images. Press the RIGHT Cursor key.

Record and Playback

The Recording feature records active sonar information. When the recording is played back, the views that were active during the recording are available in Playback. You can play a saved recording from the Snapshot and Recording View.

NOTE: Screen Snapshot and Recording must be enabled to use the instructions in this section. See ***Enable Screen Snapshot and Recording*** for details.

Start Recording

1. Display the Screen Snapshot and Recording View on-screen.
2. Press the MENU key.
3. Select Start Recording. Press the RIGHT Cursor key.

   File Name: A waypoint will also be created at the boat location, and the recording shares the same file name as the waypoint (.SON).

   Use Different Views: To use different views on the control head and continue recording, press the EXIT key.

   Not Available: Taking screen snapshots and playback mode are not available during recording.

Adjust Pings Per Second

For maximum performance during recording, keep the Pings per Second setting on Auto. If there is limited memory on the installed SD card, use Pings Per Second to slow the ping rate. However, the recording will capture less sonar detail at a slower ping rate.

1. Display the Screen Snapshot and Recording View on-screen.
2. Press the MENU key.
3. Select Pings Per Second.
4. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Stop Recording

1. **X-Press Menu:** From any view, press the MENU key once.
2. Select Stop Recording. Press the RIGHT Cursor key.

Play a Recording

1. Display the Screen Snapshot and Recording View on-screen.
2. **Select a Recording:** Press the UP or DOWN Cursor keys to scroll through the saved files.
3. **Start Playback:** Press the RIGHT Cursor key.

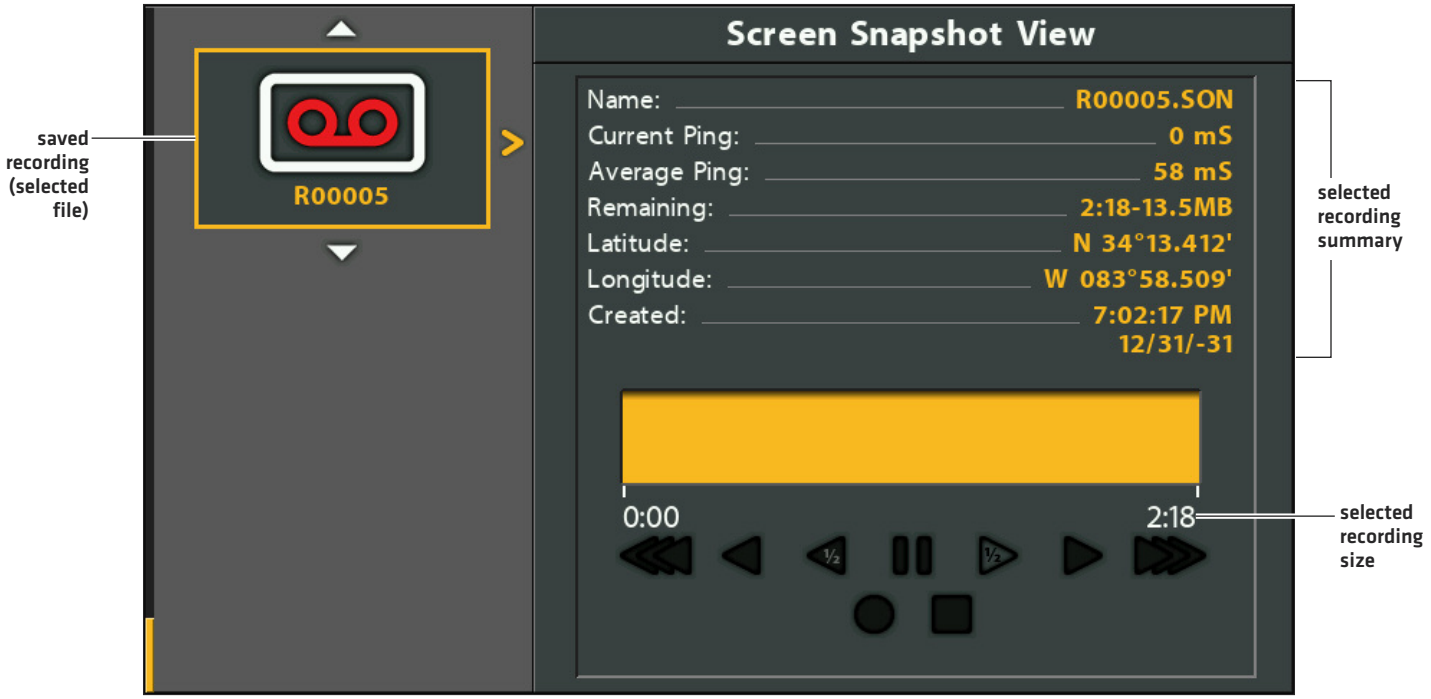
   Navigation is cancelled during playback.

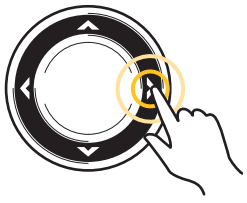
   Use Different Views: To use different views on the control head and continue playback, press the EXIT key.

   Adjust Sonar: Use the X-Press Menu to adjust sonar settings during playback. You can also use the cursor.

   Mark Waypoints: Press the MARK key to mark waypoints during playback.

Selecting a Recording to Play



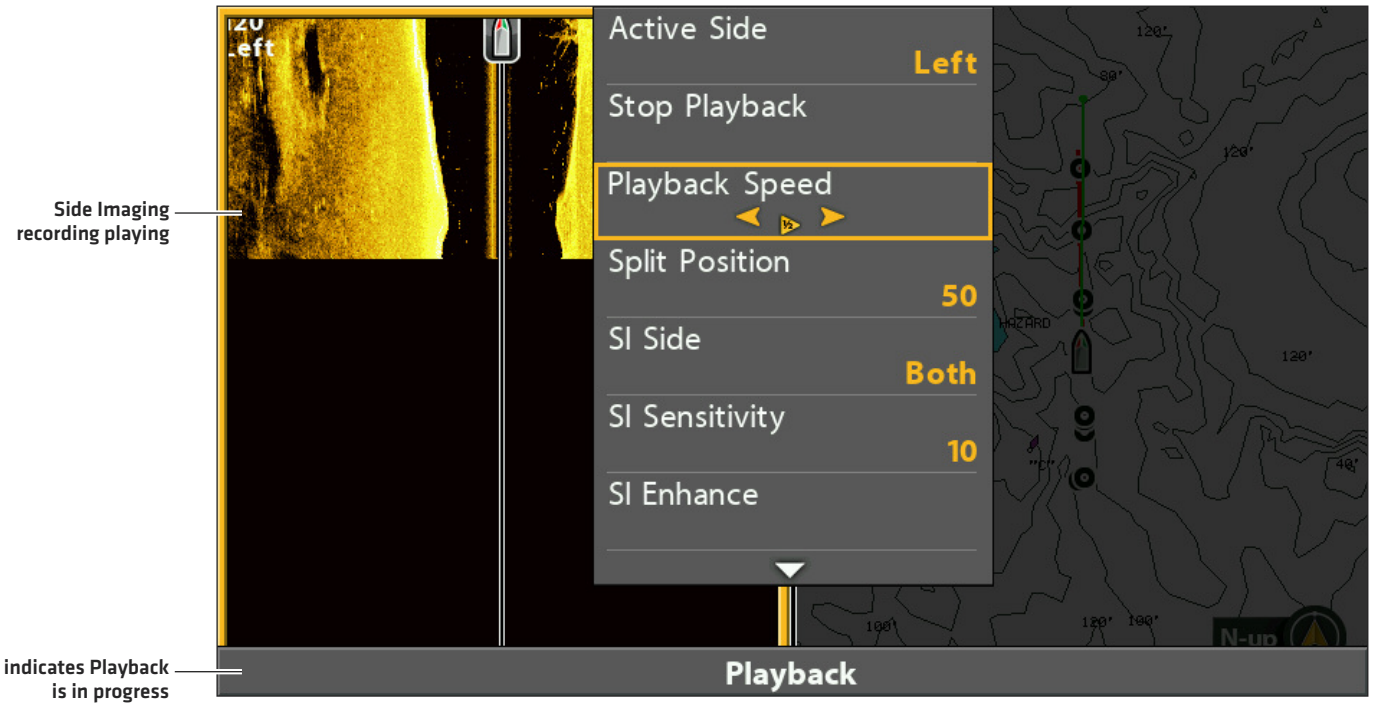


Start Playback

Adjust Playback Speed

1. **X-Press Menu:** From any view, press the MENU key once.
2. Select Playback Speed.
3. Press the RIGHT or LEFT keys to adjust playback speed or pause.

Adjusting the Playback Speed



Stop Playback

1. **X-Press Menu:** From any view, press the MENU key once.
2. Select Stop Playback. Press the RIGHT Cursor key.

Delete a Recording

1. Display the Screen Snapshot and Recording View on-screen.
2. **Select a Recording:** Press the UP or DOWN Cursor keys to scroll through the saved files.
3. Press the MENU key.
4. Select Delete Recording. Press the RIGHT Cursor key.

Delete all Saved Recordings

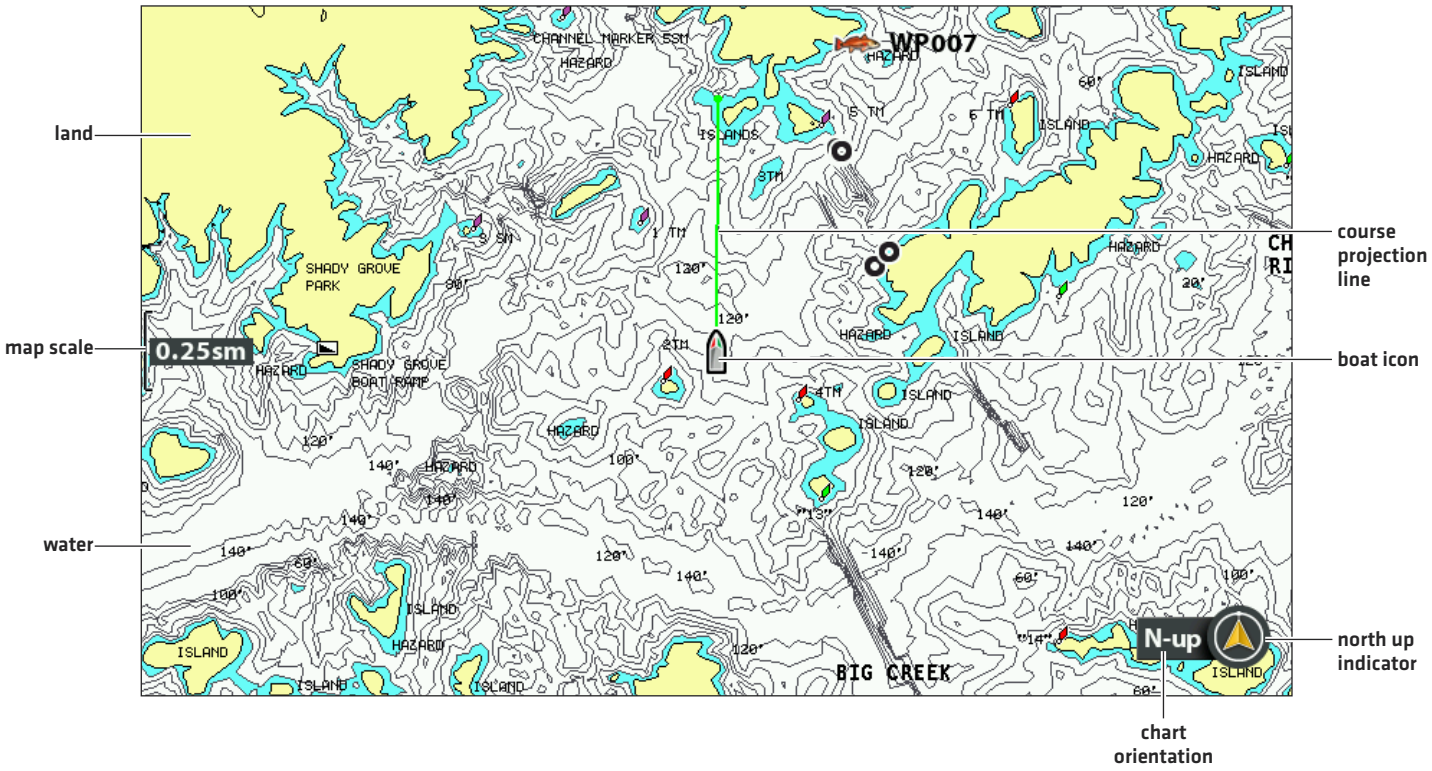
1. Display the Screen Snapshot and Recording View on-screen.
2. Press the MENU key.
3. Select Delete All Recordings. Press the RIGHT Cursor key.

Chart Overview

To enable the chart and navigation features, the control head must have a GPS Fix from an internal or external GPS receiver (see ***Getting Started*** to check the sensor reception). Some of these features also require a compass/heading sensor to be connected to the control head.

The selected chart source also influences the menu system. When you change the chart source, the menu options for the chart views change, allowing you to add navigation data, shading, or alarms. See ***Select a Chart Source*** for details.

Chart View with Contour XD Map



Display a Chart View On-Screen

There are a variety of views available to display charts and navigation. The views can be customized and displayed as a Combo View.

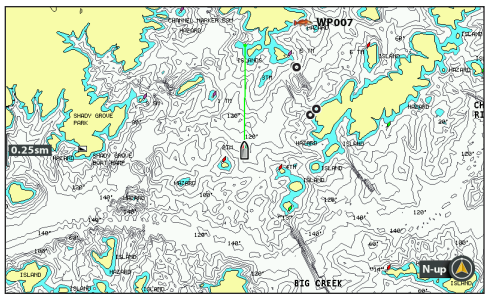
Display a Chart View or Bird's Eye View

1. Press and hold the VIEW key.
2. Select Chart > Chart View.

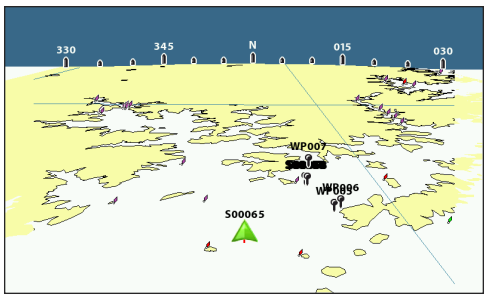
   OR

   Select Chart > Bird's Eye View.

Chart View



Bird's Eye View



For more information, see *Customize the Bird's Eye View.*

Display a Chart Combo View

You can select a variety of Chart Combo Views or Chart/Sonar Combo Views.

1. Press and hold the VIEW key.
2. Select Chart.
3. Select a view to display on-screen. Press the RIGHT Cursor key.

Chart > Chart/Bird's Eye Combo View

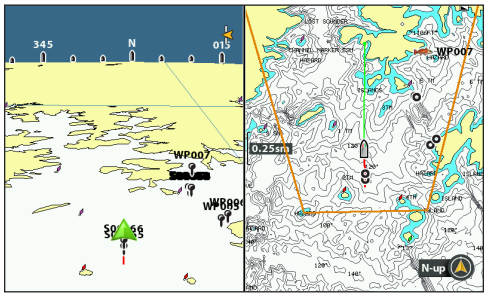


Chart > Chart/Chart Combo View

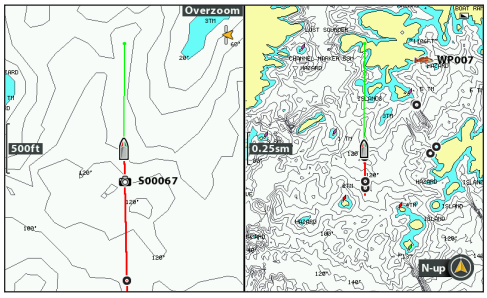
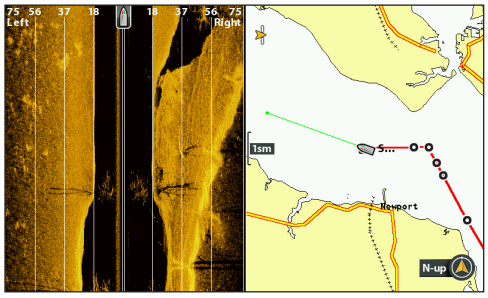


Chart > Chart/Side Combo View



For more information, see *Customize the Bird's Eye View.*

NOTE: The available views are determined by your control head model and the installed transducer. See each related section of the manual (***Views, Sonar Overview, Side Imaging Overview, Navigation Overview***, etc.) for more information.

Select a Chart Source

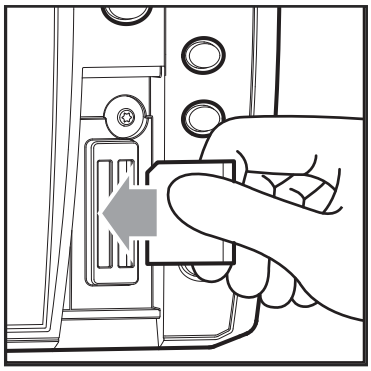
The HELIX control head includes a built-in Contour XD chart (domestic models) or UniMap (international models). You can also install SD map cards with additional chart information for a particular location (separate purchase required).

When you install an SD map card, the control head automatically chooses the best map to display. If you install more than one SD map card, you can choose which chart source you want to use.

Install an SD Map Card

1. Remove the SD card slot cover.
2. Position the SD map card so that the label faces to the left.
3. Insert the card into the slot until it clicks into place.
4. Replace the slot cover so it is secure.
5. **Remove:** Press the card into the slot and release it. The card will eject. Pull the card carefully from the slot.

NOTE: Do not leave the SD card slot cover open. The slot cover should always be closed to prevent water damage to the unit.



Insert the SD map card with the label facing to the left

Change the Chart Source

When you install an SD map card, the chart source is changed automatically to match the SD map card chart source. You can also change the chart source manually.

When you change the chart source, the menus for the chart views also change, allowing you to add navigation data, shading, alarms, and more.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Chart Select.
3. Select the installed map card location or a built-in map.

   Auto: The best available chart will be selected automatically.

Change the Map Coordinate System (optional)

Use Map Datum to change the map coordinate system used by the control head to match those of a paper map. Almost all electronic charts use the WGS84 Map Datum and most likely do not require a setting change. (Default = WGS84)

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Nav** tab.
2. Select Map Datum.
3. Press the RIGHT or LEFT Cursor keys to change the setting.

Apply an Offset to the Map (optional)

Use Set Map Offset to move the chart position on-screen and correct a position error in the cartography. This setting setting applies to all charts, not just the chart that requires correction.

NOTE: This feature is not available with Humminbird LakeMaster map cards.

1. Display a Chart View on-screen.
2. Use the Cursor Control key to move the cursor to the position where the map offset will be applied.
3. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
4. Select Set Map Offset.
5. Press the RIGHT Cursor key.
6. Follow the on-screen prompts.

   Clear Map Offset: Select **Main Menu (Advanced User Mode)** > Chart tab > Clear Map Offset.

Select a New Map (optional)

If the installed map card includes additional maps, use the following instructions to display map borders and select a different map.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Map Borders.
3. Select MMC/SD Only or All Visible.
4. Display a Chart View on-screen.
5. Use the Cursor Control key to move the cursor within the dotted lines of a map border.
6. Press the +ZOOM key repeatedly to display the map details.

   See ***Customize the Chart View: Customize the Chart Detail Level.***

Change the Simulation Position (optional)

Simulator mode allows you to save menu settings and navigation data while you learn to use your control head. To start simulation mode, see ***Getting Started***. To change the simulation position shown on the Chart View, use the following instructions.

Simulation mode is not intended for on the water use. If you are on the water, use Normal mode. See ***Getting Started*** for details.

1. Display a Chart View on-screen.
2. Use the Cursor Control key to move the cursor to a position on the view.
3. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
4. Select Set Simulation Position.
5. Press the RIGHT Cursor key.

   The boat icon will move to the new position.

   Clear the Track: Press the MENU key once. Select Clear Current Track.

Set up Humminbird ChartSelect

ChartSelect allows you to purchase a Humminbird chart online and download it to a blank SD Card. Visit **chartselect.humminbird.com** for more information and to download the ChartSelect User Guide.

Encrypt an SD Card

Use the Encrypt SD Card menu to prepare a blank SD card for ChartSelect.

WARNING! Do not use this menu with an SD map card installed. You must use a blank SD card with this menu. See the ChartSelect User Guide before proceeding.

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Encrypt SD Card.
3. Press the RIGHT Cursor key.

Set up Humminbird LakeMaster

When a Humminbird LakeMaster map card is installed and selected as the chart source, additional menus are added to the menu system. The menu options are determined by the map card you purchased.

Compatible Chart Sources: Humminbird LakeMaster, LakeMaster PLUS, ZeroLine Map Card, AUTOCHART PC, etc. Visit our Web site at **humminbird.com** for compatibility details and updates.

NOTE: A Humminbird LakeMaster map card must be installed and selected as the chart source to enable this feature (see ***Change the Chart Source***).

Set the Water Level Offset

When you start your trip for the day, it is important to note if the water level is higher or lower than normal. For example, if you know the lake is down 3 feet, set the Water Level Offset to -3.

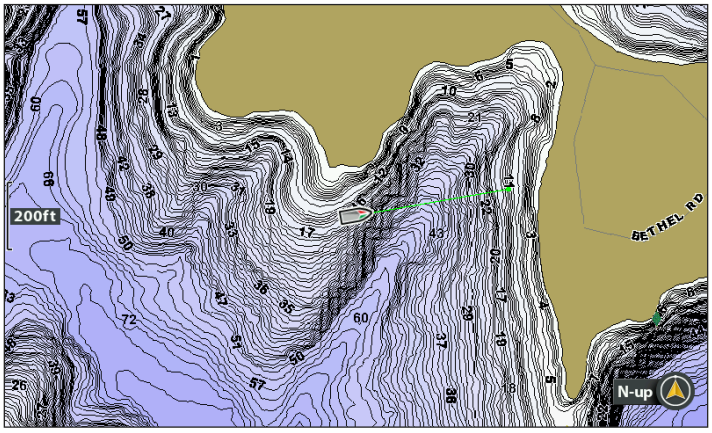
1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Water Level Offset.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

   If the water level is higher than normal, set a (+) positive amount.

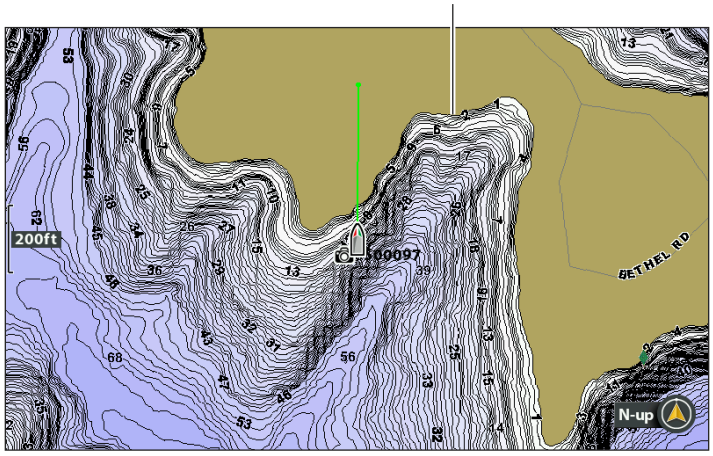
   If the water level is lower than normal, set a (-) negative amount.

   If the water level has not changed (normal), set Water Level Offset to (0) zero.

Water Level Offset (Set to 0 = Off)



Water Level Offset Adjusted to -4



If the water is lower than normal, set the Water Level Offset to a negative number, and the land will extend visually on the map (as shown above). If the water is higher than normal, set the Water Level Offset to a (+) positive amount, and the water line will extend visually on the map.

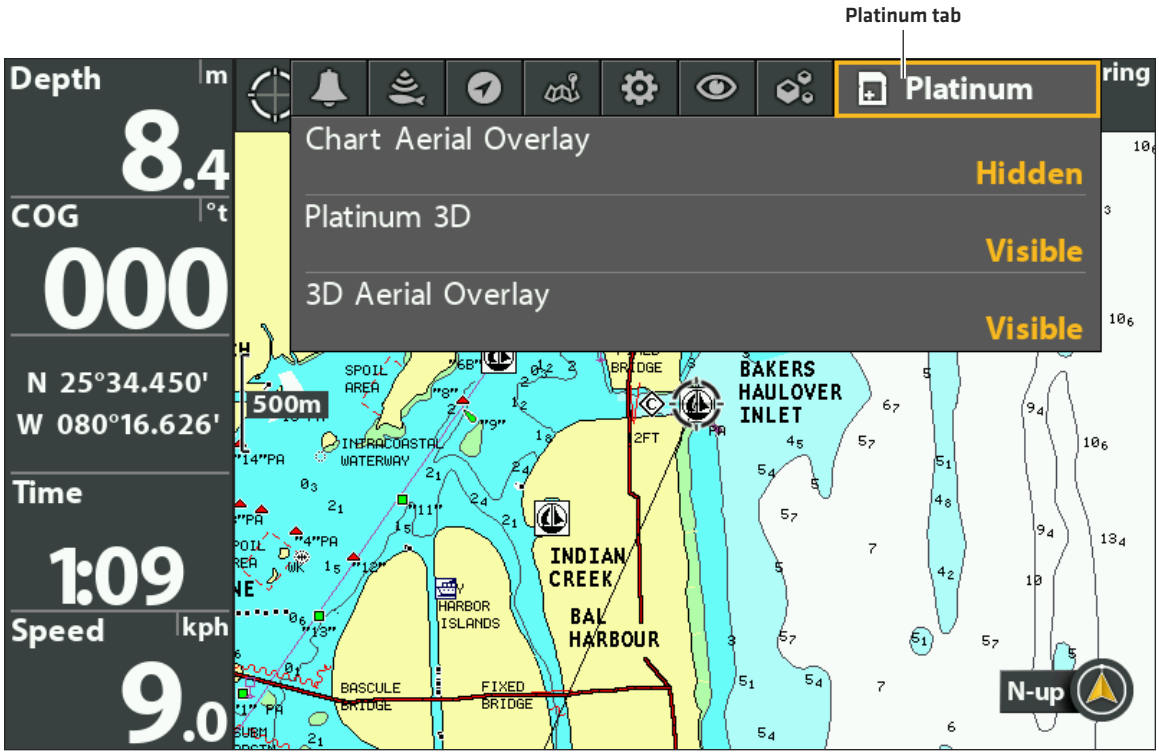
NOTE: For additional LakeMaster map card menus, see ***Display LakeMaster Contour Lines and Depth Ranges*** in this manual. For additional features related to your LakeMaster map card, visit our Web site at **humminbird.com** to download the accessory guide.

Set up Navionics

When a Navionics map card is installed and selected as the chart source, additional menus are added to the menu system. The menu options are determined by the map card you purchased, and they are available in the Chart tab (see ***Customize the Chart View***) and/or the Platinum tab.

Compatible Chart Sources: Navionics Gold, HotMaps, HotMaps Premium, and Platinum+. Visit our Web site at **humminbird.com** for compatibility details and updates.

Selecting the Navionics Platinum Tab

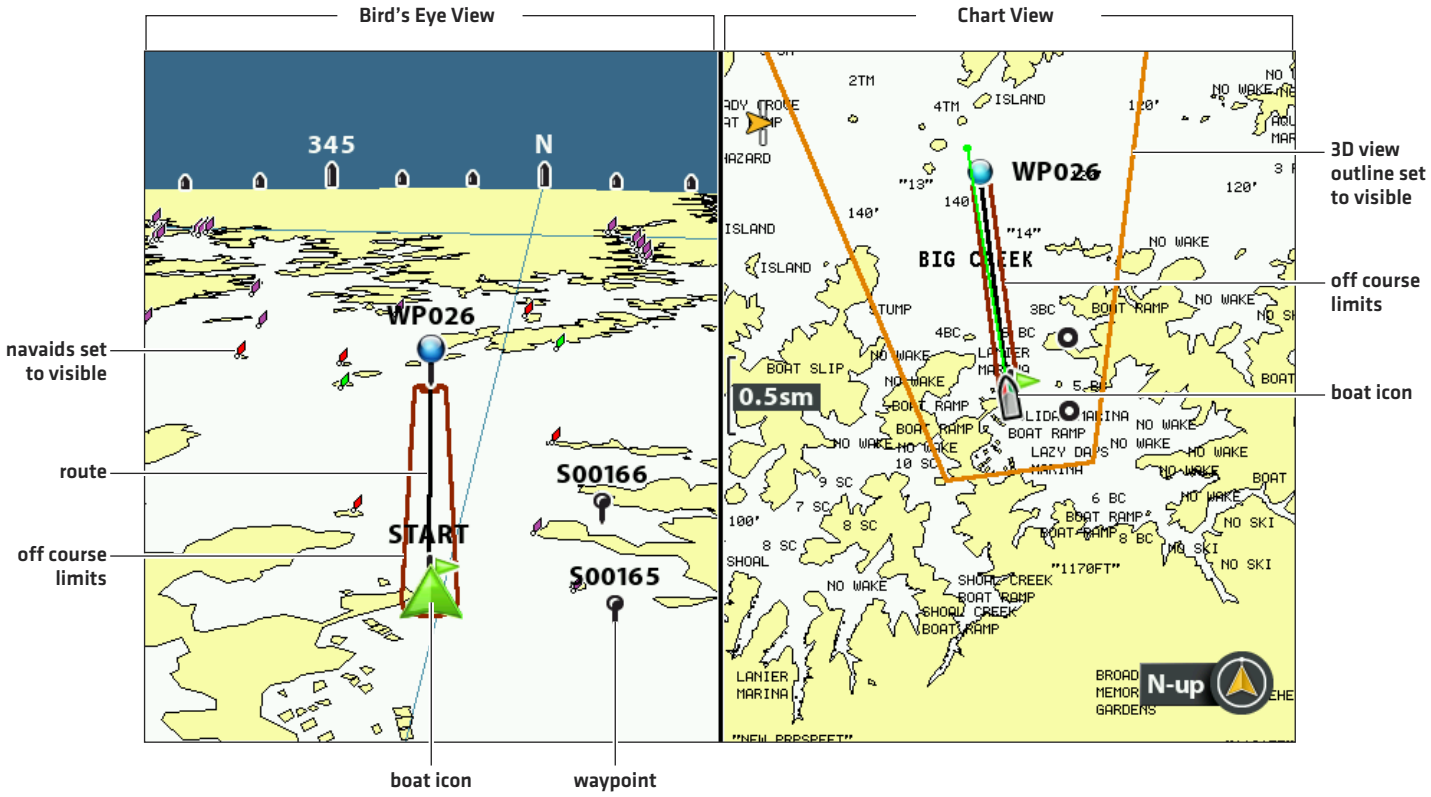


NOTE: A Navionics map card must be installed and selected as the chart source to enable these features (see ***Change the Chart Source***). For details and additional features related to your Navionics map card, see your Navionics map card user guide.

Customize the Bird's Eye View

Navaids on Bird's Eye View allows you to add navigational aids to the Bird's Eye View, such as lights or buoys. The available settings are determined by the installed map card and the selected chart source.

Chart/Bird's Eye Combo View



Show/Hide Navaids

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Navaids on Bird's Eye View.
3. Select Visible or Hidden.

Show/Hide the Bird's Eye Outline

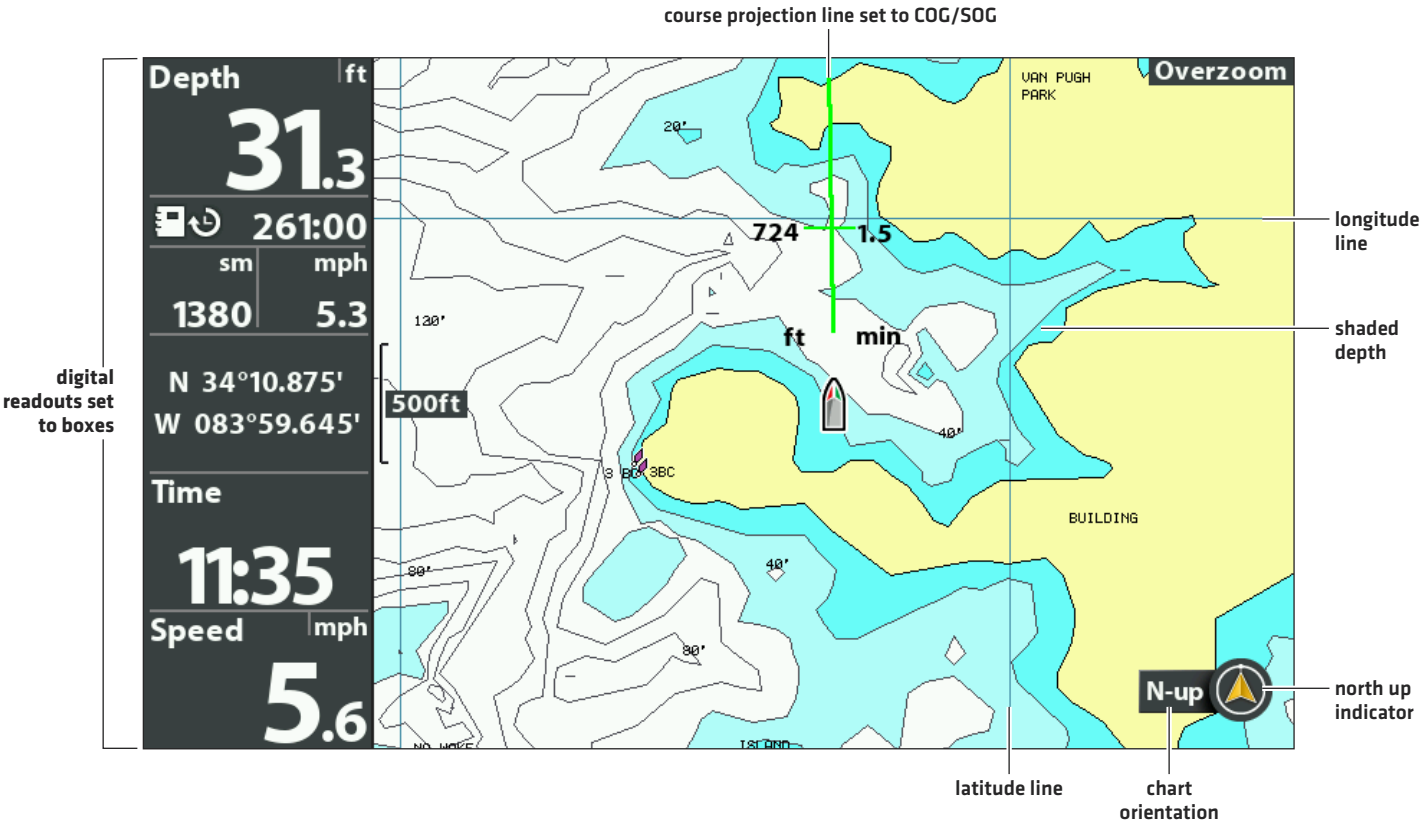
If you use the Chart/Bird's Eye View, you can display a line on the Chart View that shows the portion of the view that is used in the Bird's Eye View.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select 3D View Outline.
3. Select Visible or Hidden.

Customize the Chart View

The settings in this section are optional. You can use the default settings for the chart appearance and chart source, or you can customize the Chart View.

Customizing the Chart View (Contour XD)



NOTE: Digital readouts can be displayed as an overlay, or they can be displayed in data boxes (see ***Views: Display Digital Readouts***).

Change the Background Color

The Background menu changes the color of the background on the view. This menu also changes the background color for the Bird's Eye View and the Sonar View.

1. Press the POWER key.
2. Select Background.
3. Select a color.

Show/Hide the North Up Indicator Icon

The North Up Indicator displays the direction of True North. The icon also displays the chart orientation, and it will change as the orientation and the data source change. To set the Chart Orientation, see ***Set the Chart Orientation and Motion Mode***.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select North Up Indicator.
3. Select Off (hidden) or On (visible).

Show/Hide the Course Projection Line

The course projection line is an arrow or line extending from the bow of the boat icon. It projects the current course and shows where the boat will go if you continue on your present course.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Course Projection Line.
3. Select a display setting.

Hidden	The Course Projection line will not be displayed.
Standard	arrow
Single Vector	line
COG/SOG	A line with tick marks will be displayed at set intervals from the boat. The tick marks are based on the speed calculation.

Show/Hide Latitude/Longitude Lines

Use the following instructions to show or hide latitude and longitude lines on the Chart View.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Lat/Lon Grid.
3. Select Visible or Hidden.

Adjust the Depth Shading

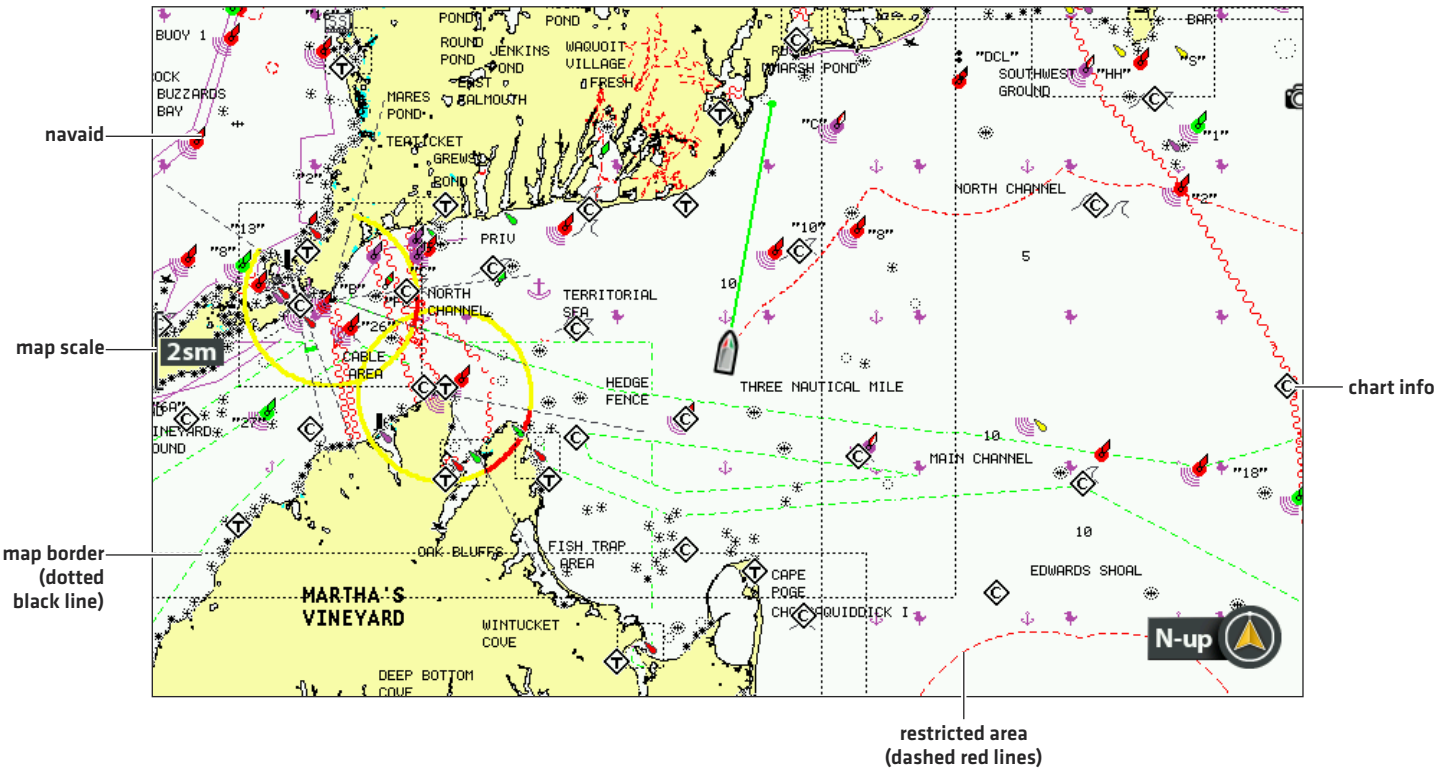
Shaded Depth allows you to change the depth used for shading on the Chart View. The available settings are determined by the installed map card and selected chart source.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Shaded Depth.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Customize the Chart Detail Level

Use the following instructions to add or hide chart details and navaids on the Chart View and the Bird's Eye View.

Navionics Chart Displayed with Chart Detail set to Navigation



Select a Chart Detail Level

Chart Detail Level allows you to add details and layers to the chart views. The available settings are determined by the installed map card and selected chart source.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Chart Detail Level.
3. Press the RIGHT or LEFT Cursor keys to select one of the following:

Basic	shows land areas, ports, obstructions, and restricted areas
Navigation	In addition to the Basic level, Navigation shows navaids, landmarks, ferryways, and navigation routes.
Underwater	In addition to the Basic and Navigation information, Underwater shows depth contours, fishing areas, underwater wrecks, tides, and currents.
Custom (Advanced User Mode)	Select Custom to select specific chart detail layers. You can show or hide chart layers such as navigation canals, boundaries, restricted areas, coastline, bridges, and more. See ***Select Custom Chart Layers***.

Select Custom Chart Layers

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
2. Select Chart Detail Level.
3. Select Custom.
4. Press the DOWN Cursor key.
5. Select Custom Chart Layers. Press the RIGHT Cursor key.
6. Use the Cursor key to select a layer and turn it on (visible) or off (hidden).

Simplify the Chart Detail Level

Use Chart Declutter to remove all chart layers except for land outlines, waypoints, routes, and tracks. The chart will clear for 10 seconds, and then it will refresh to its previous display settings.

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Chart Declutter.
3. Press the RIGHT Cursor key.

Show/Hide Map Borders

The dotted lines of a map border indicate an area that contains a different map. See ***Change the Chart Source: Select a New Map*** for details. The available settings are determined by the installed map card and selected chart source.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Map Borders.
3. Select Hidden, MMC/SD only, or All Visible.

Show/Hide Spot Soundings

Spot Soundings are depth measurements shown on the chart. The available settings are determined by the installed map card and selected chart source.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Spot Soundings.
3. Select Visible or Hidden.

Increase the Text Size

Turn on Easy View Text to increase the size of the text displayed on the chart view. The available settings are determined by the installed map card and selected chart source.

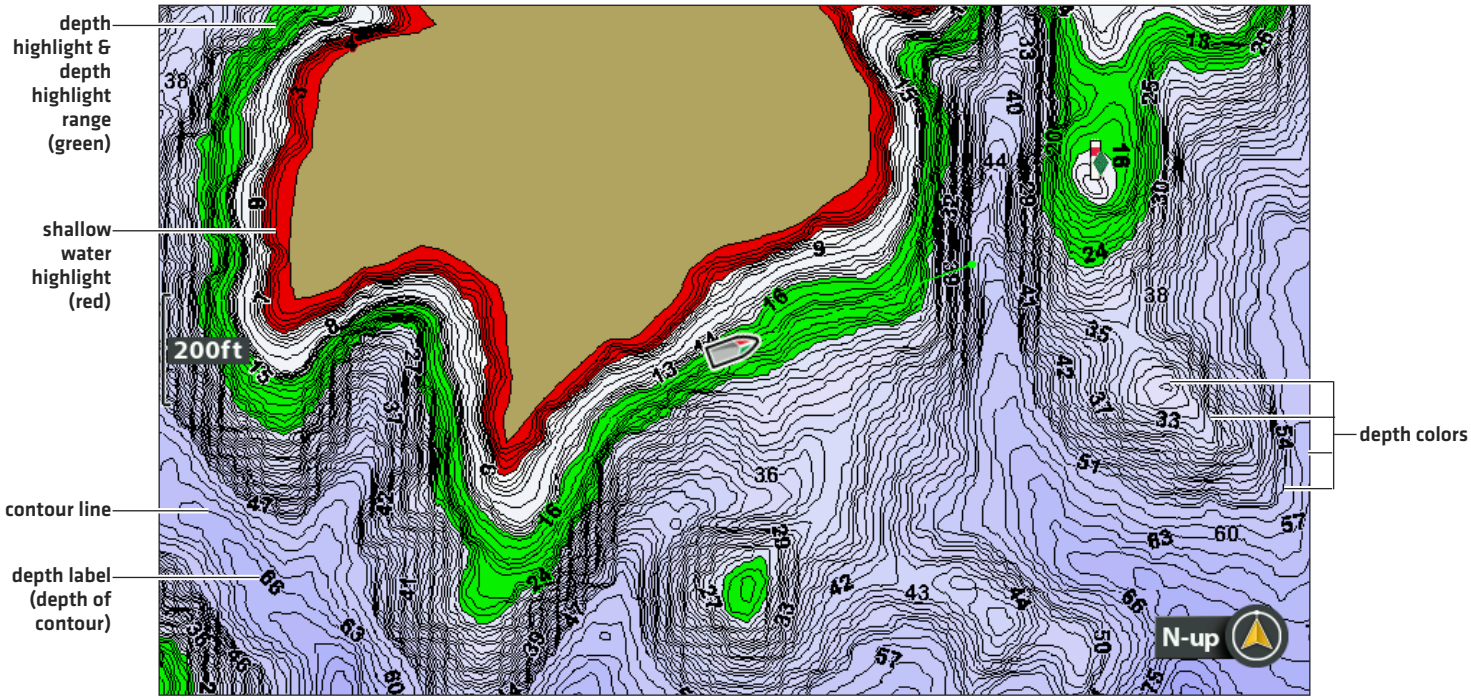
1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Easy View Text.
3. Select On or Off.

Display Humminbird LakeMaster Contour Lines and Depth Ranges

When you install a LakeMaster Map Card or LakeMaster PLUS Map Card, menu options are added to the Chart Menu tab. You can display or hide contour lines, highlight shallow water, and highlight a depth range on the map.

NOTE: A Humminbird LakeMaster map card must be installed and selected as the chart source to enable these features. For details and additional features related to your LakeMaster map card, visit our Web site at **humminbird.com** to download the accessory guide.

Adjusting the LakeMaster Display Settings



See More of Contour Lines and Depth Colors

Show/Hide Contour Lines

Display or hide the water contour lines in the Chart View. This feature is also affected by the Water Level Offset setting. See ***Select a Chart Source: Set up Humminbird LakeMaster.***

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Contour Lines.
3. Select Hidden or Visible.

Turn on Depth Colors

Set the depth shading in the Chart View to Off or shaded.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Depth Colors.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Highlight a Depth Range

Depth Highlight allows you to identify a depth in the Chart View. You can also adjust the range on each side of the depth using Depth Highlight Range. The depth range you set is highlighted in green on the chart.

For example, if you know a certain fish is holding at 18 to 20 feet, you can set the Depth Highlight to 19 feet and the Depth Highlight Range to +/- 1 foot. The view will show a green band from 18 to 20 feet.

1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Depth Highlight.
3. Press the RIGHT or LEFT Cursor keys to select a depth.
4. To highlight the range on both sides of the selected depth, press the DOWN Cursor key. Select Depth Highlight Range.
5. Press the RIGHT or LEFT Cursor keys to select a range.

Highlight a Shallow Water Range

When the depth is equal to or less than the amount you set, it will be highlighted in red on the Chart View.

For example, if your boat has a draft of 3 feet, set the Shallow Water Highlight to 3 feet, and a red band from 0 to 3 feet will be shown on the map.

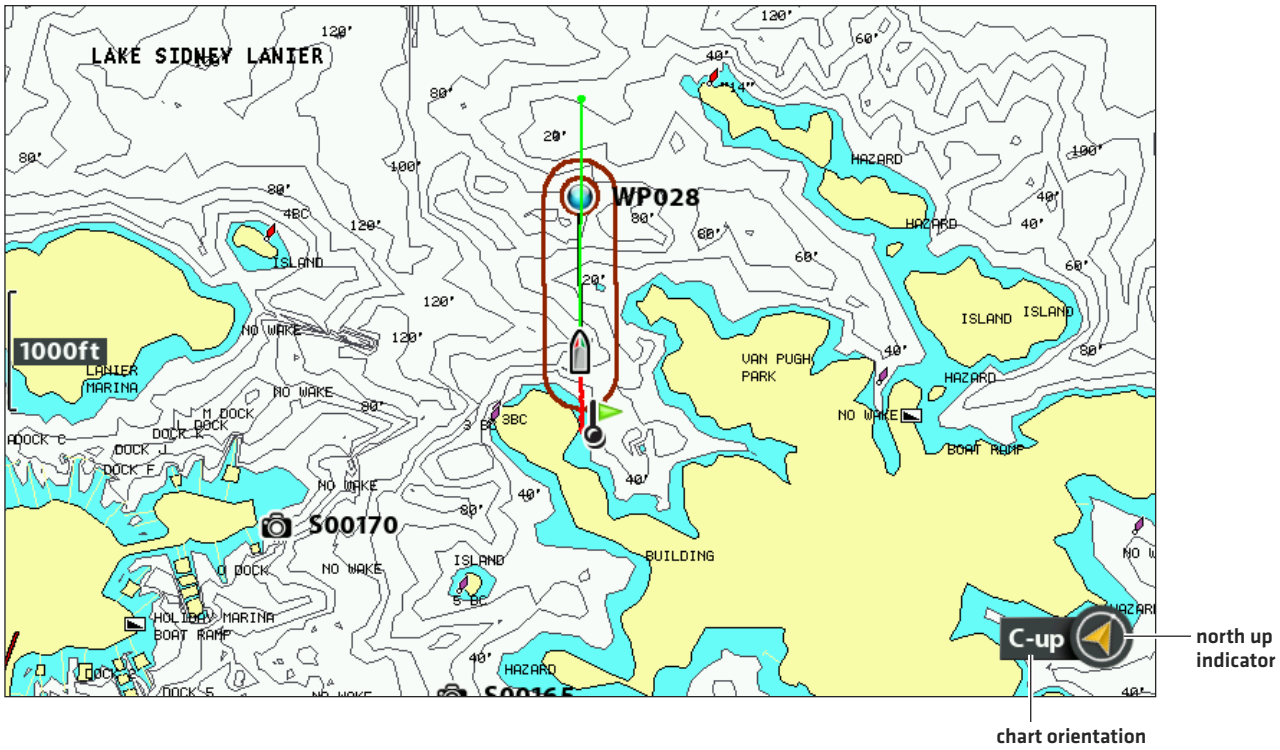
1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Shallow Water Highlight.
3. Press the RIGHT or LEFT Cursor keys to select a depth.

Change the Chart Orientation and Motion Mode

The Chart View pans automatically so the boat is always centered on the view. The settings in this section allow you to change the chart orientation, zoom the view automatically, set the north reference, and see more or less of the view based on the speed or range setting.

Set the Chart Orientation

Chart Orientation set to Course Up (Contour XD)



Set the Chart Orientation

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Chart Orientation.
3. Select an orientation to apply to the chart.

North-Up	The chart is oriented with North up on the display, and the boat rotates according to its heading or COG (Course Over Ground).
Head-Up (compass or GPS required)	The boat's current heading points up, and the chart rotates around the boat icon so that it always points up on the view. The heading is provided by the connected compass/heading sensor. If a compass is not connected, the boat will be oriented according to COG (Course Over Ground).
Course-up	During navigation, the intended course or route leg is shown at the top of the view. Objects ahead of the boat are drawn above the boat. When the boat is not navigating, the current heading is displayed.

NOTE: The North Up Indicator will change as the orientation and data source change. To display the North Up Indicator, see ***Customize the Chart View***.

Set the Bearing North Reference

North Reference allows you to have the bearing displayed as True North or Magnetic North.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select North Reference.
3. Select True North or Magnetic North.

Turn on/off Auto Zoom

Turn on Auto Zoom to zoom the Chart View automatically based on the speed of the boat. As the boat's speed increases, the chart range will increase.

NOTE: The settings in this section do not apply to the Bird's Eye View.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
2. Select Auto Zoom.
3. Select On or Off.

   Zoom In/Out: If Auto Zoom is turned on, you can press the +/– ZOOM keys to see more or less of the view, and Auto Zoom will resume after 20 seconds. To use only the +/– ZOOM keys to adjust the chart range, turn off Auto Zoom.

Turn on/off Auto Range

Turn on Auto Range to set the chart scale to the lowest range so that only the boat icon and the next waypoint in the route are shown. If Auto Range is turned on, Auto Zoom will be turned off.

NOTE: The settings in this section do not apply to the Bird's Eye View.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
2. Select Auto Range.
3. Select On or Off.

   Zoom In/Out: If Auto Range is turned on, you can press the +/– ZOOM keys to see more or less of the view, and Auto Range will pause. To resume using Auto Range, press and hold the +/- ZOOM keys.

Turn on Vessel Offset

Vessel Offset allows you to see more of the Chart View based on the speed of the boat. Vessel Offset works with Offset Speed. When the boat is moving below the Offset Speed setting, the boat icon will be displayed in the center of the view. When the boat is moving at or above the Offset Speed setting, the boat icon will move to the edge of the view so more of the Chart View is shown.

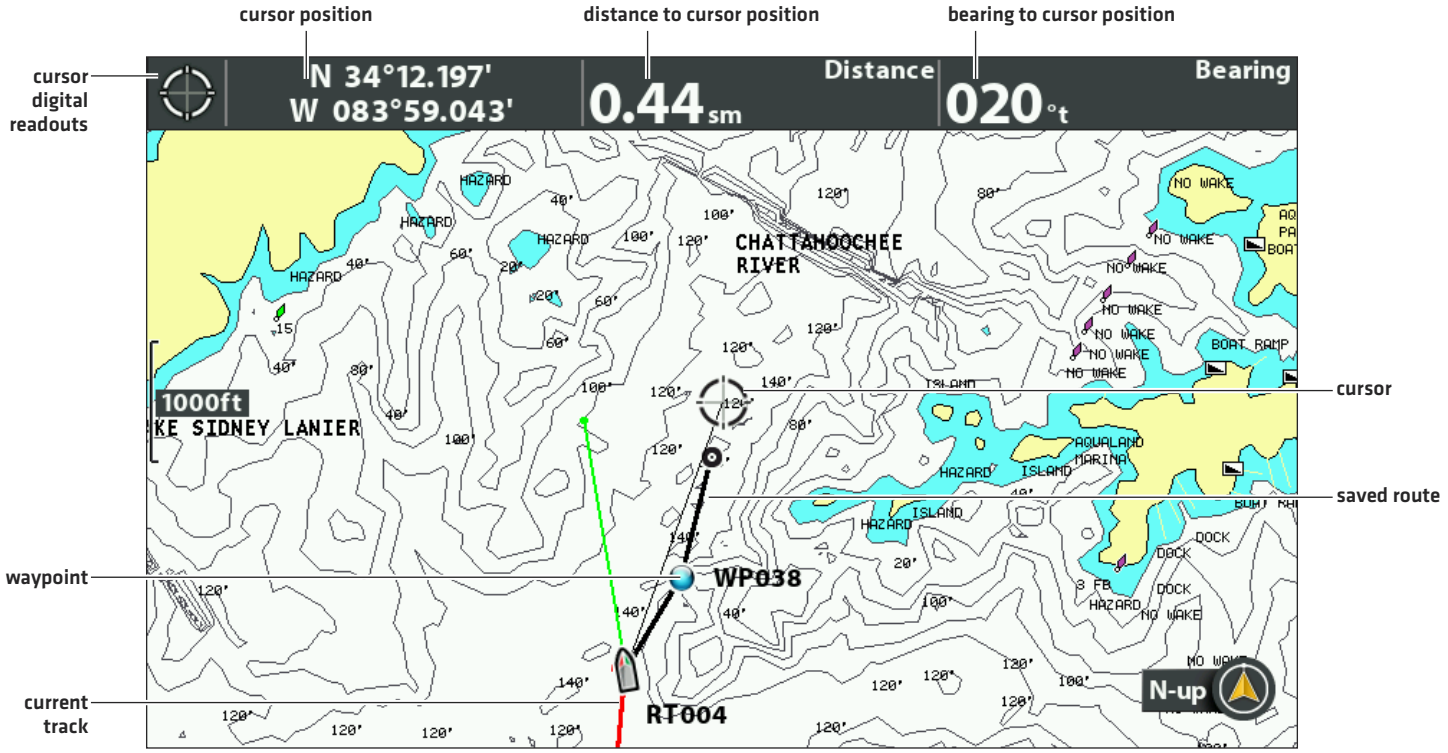
1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Chart** tab.
2. Select Vessel Offset.
3. Select On.
4. Select Offset Speed.
5. Press the RIGHT or LEFT Cursor keys to adjust the setting.

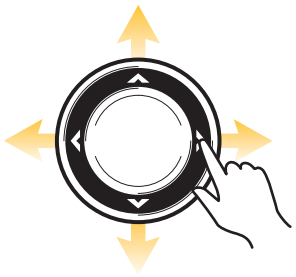
Navigation Overview

Your Humminbird control head allows you to mark waypoints, create a route, and start navigating. Waypoints, routes, and tracks can be managed on-screen so you can save your favorites, edit names, and easily return to your favorite destinations.

There are many ways to start navigation or edit navigation data with your Humminbird control head. The instructions in this section review navigation features on the chart views. To use navigation features from the Waypoint Management dialog box, see ***Manage your Navigation Data***.

Moving the Cursor and Zooming in Chart View



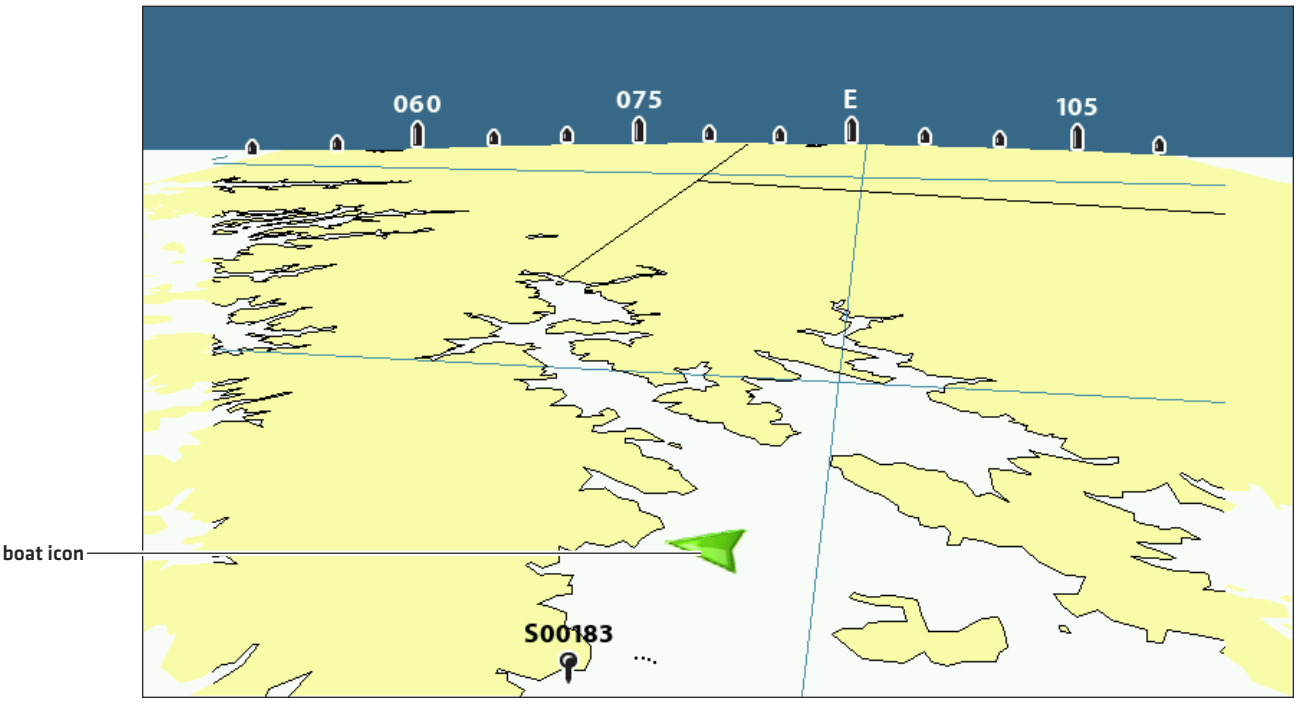


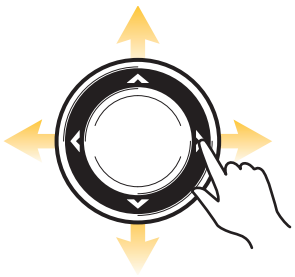
Move the Cursor

ZOOM In

ZOOM Out

Shifting the Eye Point and Zooming in Bird's Eye View





Move the Eye Point

ZOOM In

ZOOM Out

Exit

Navigation Alarms Overview

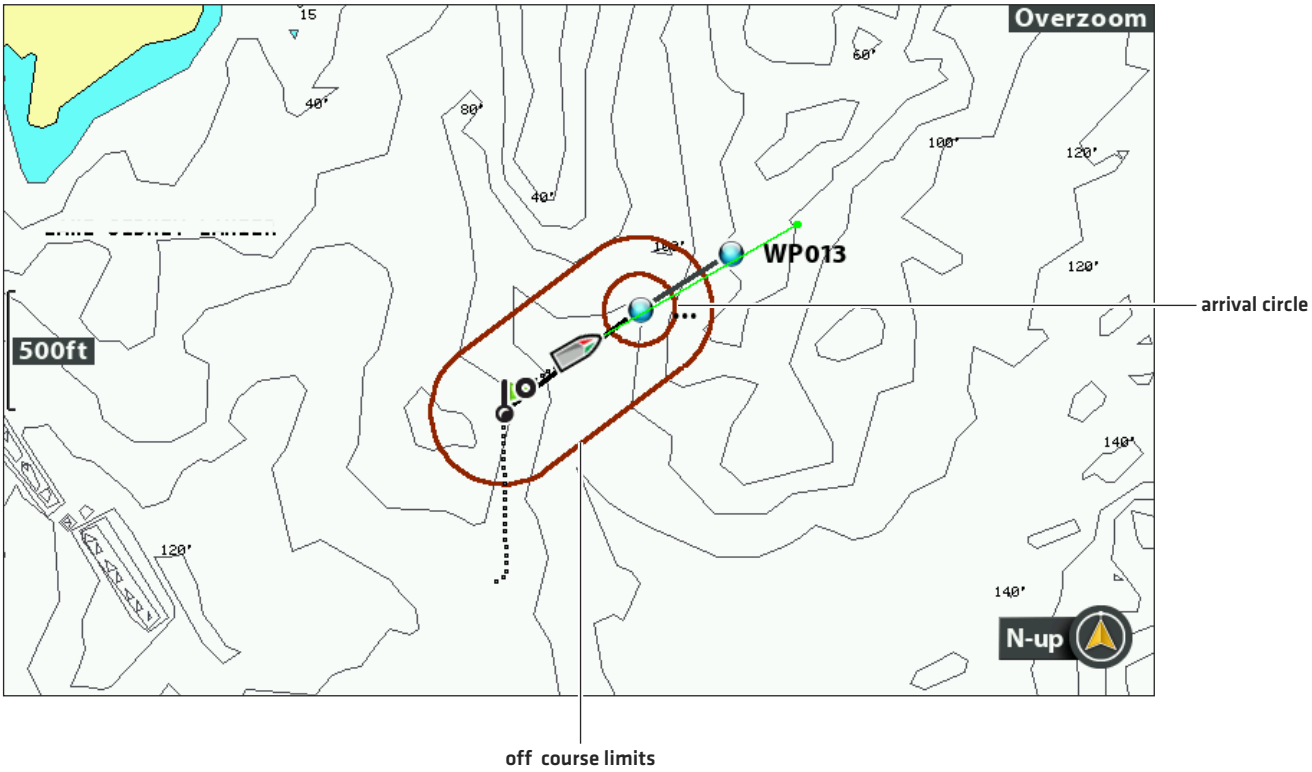
When an alarm is turned on, an alert will sound or display on the control head to indicate the threshold has been exceeded. When you set the Off Course Alarm, Arrival Alarm, and Drift Alarm, the limits are shown on the Chart View.

Turn on Alarms and Adjust Settings

1. **Main Menu:** Press the MENU key twice. Select the **Alarms** tab.
2. Select an alarm menu. Press the RIGHT or LEFT Cursor keys to adjust the threshold.

Off Course Alarm	Sets how far the boat can move off course during navigation before an alarm will be triggered. GPS required.
Arrival Alarm	Sets how close the boat must be to the destination waypoint before the alarm will be triggered. GPS required.
Drift Alarm	Sets how far the boat can move from its anchored position outside the drift alarm perimeter before an alarm will be triggered. GPS required.

Off Course Alarm and Arrival Circle



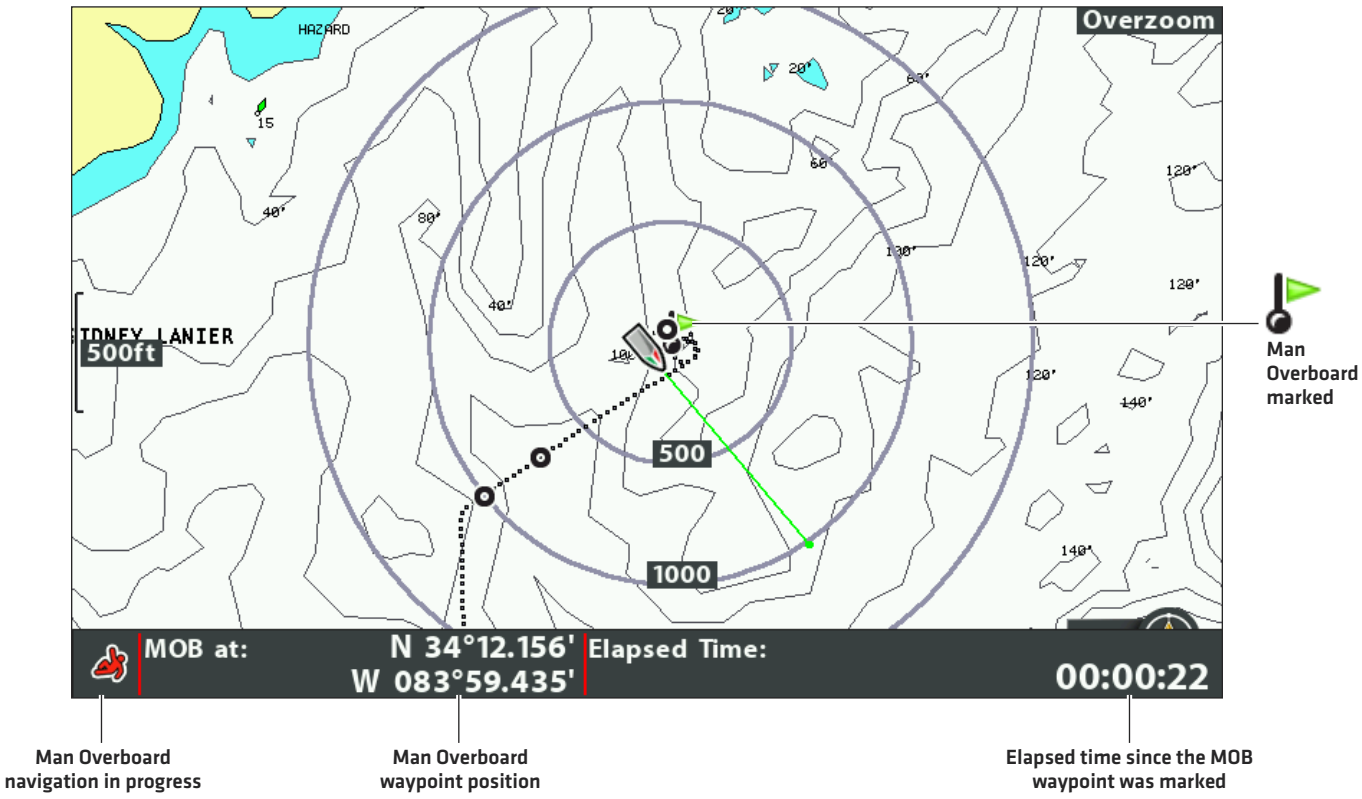
Man Overboard (MOB) Navigation

As soon as you know that you have a man overboard (MOB), activate Man Overboard navigation to maximize the chances for a successful rescue. Man Overboard navigation marks the approximate point where the person went overboard and starts continuous navigation toward the Man Overboard waypoint.

Activate Man Overboard Navigation

1. Press and hold the GOTO/MOB key until Man Overboard Navigation is activated.

Activating Man Overboard Navigation



Press and hold to start MOB navigation

When Man Overboard is activated, any current navigation will be cancelled and the current route will be discarded without notification. Man Overboard navigation will begin immediately, and you will see the following on the screen:

Chart View: The view will switch to Chart View automatically.

Man Overboard Waypoint: A waypoint is created at the boat's current position, regardless of whether the chart cursor is active or not.

Continuous Navigation: The control head will start continuous navigation toward the Man Overboard waypoint.

Auto Zoom: The screen magnifies to show the Man Overboard waypoint and the boat on the screen.

Cancel Man Overboard Navigation

1. Press the MENU key.
2. Select Cancel MOB Navigation.

Waypoints

Waypoints are saved latitude/longitude positions. They mark a position of interest such as your favorite fishing area, structure, or marker buoy. The control head saves the position and allows you to edit the waypoint name, icon, and more (see ***Manage your Navigation Data***). You can save 2,500 waypoints to the control head.

Customize Waypoint Display Settings

You can use the waypoint settings provided by your control head, or you can customize the waypoints shown on the view. You can also edit waypoints from the Chart View or from the Waypoint Management dialog box (see ***Manage your Navigation Data***).

Change New Waypoint Settings

You can customize waypoint settings for all new waypoints. To edit waypoints after they've been marked, see ***Edit a Waypoint in the Chart View*** or ***Manage your Navigation Data***.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Waypoint Settings. Press the RIGHT Cursor key.
3. Use the Cursor Control key to set the following:

Icon Category	Select a category to assign to new waypoints (All, Geometry, Alerts, Supplies, Navigation, etc.)
Default Waypoint Icon	Select an icon for all new waypoints. To see the most icon options, set the Icon Category to All.
New Waypoint Icon	Select **Default**, and the system will apply your settings to new waypoints. If you choose **Select**, each time you mark a waypoint (see ***Mark Waypoints***), you can change the waypoint icon and category. See ***Mark and Edit Waypoints (on-the-go)*** in this section for details.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Show/Hide Casting Rings

Use Casting Rings to display a circle at a set distance around each waypoint in the Chart View. Casting rings are not applied to decluttered waypoints (see ***Declutter Waypoints***).

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Casting Rings.
3. Use the RIGHT or LEFT Cursor keys to set how far the casting rings will be displayed from the waypoints.

   Hide: Select Off to hide the casting rings.

Show/Hide Waypoint Proximity Flags

Waypoint flags show the distance from the boat (or active cursor) to each waypoint. If set to visible, the waypoint flags for the ten closest waypoints to the boat or cursor will be shown on the Chart View.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Nav** tab.
2. Select Waypoint Proximity Flags.
3. Select Hidden or Visible.

NOTE: Waypoint Proximity Flags are also influenced by the zoom level and boat speed. The flags are displayed if the chart range is less than .5 sm and the boat is traveling less than 15 mph.

Declutter Waypoints

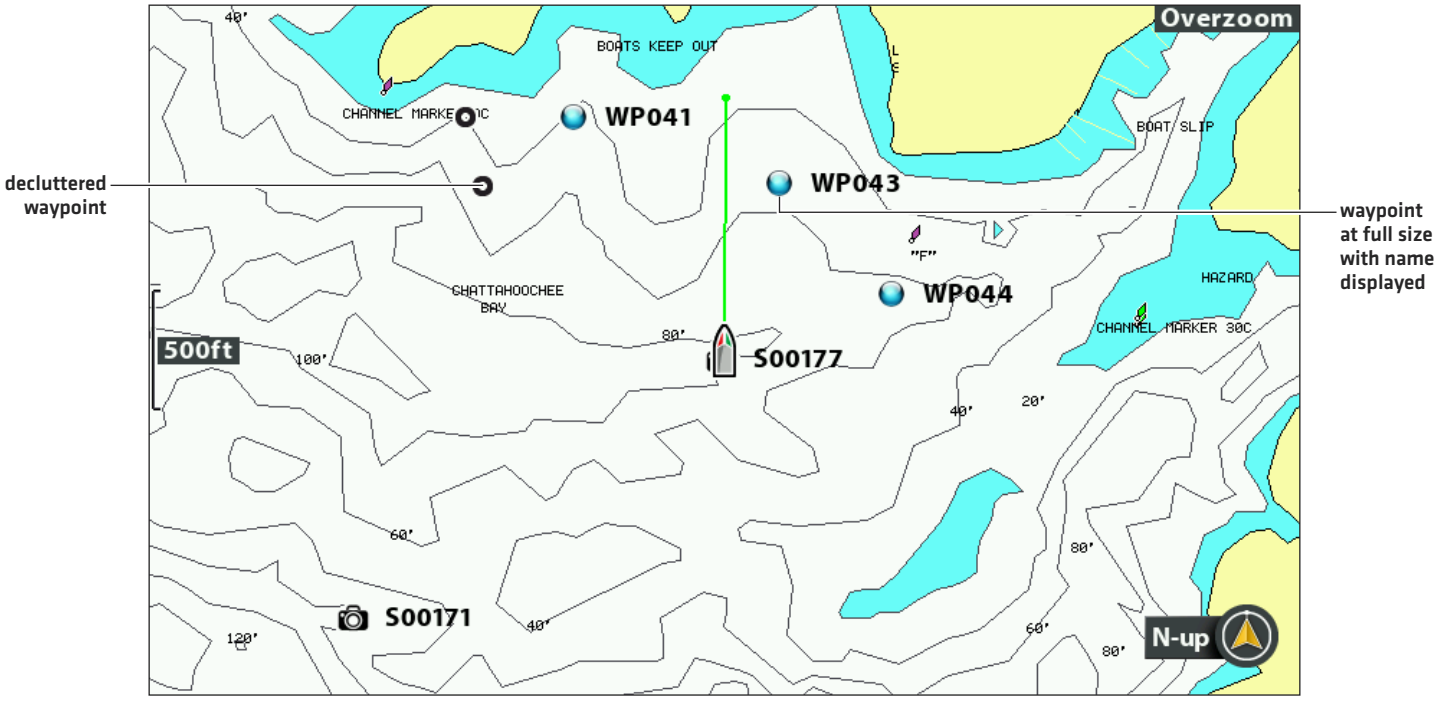
Use Waypoint Decluttering to control how the waypoint icon and name are displayed.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Nav** tab.
2. Select Waypoint Decluttering.
3. Select On or Off.

On	If waypoints are displayed close together, the names will be shortened, and the icons will be displayed as small black icons. To see a decluttered waypoint at full size, select it with the cursor, or press the +ZOOM key repeatedly.
Off	Waypoint names and icons will be displayed at regular size.

NOTE: To increase the text size, see ***Customize the Chart View: Increase the Text Size***.

Waypoints and Decluttered Waypoints



Mark Waypoints

Waypoints can be marked at the boat position or cursor position. To edit the waypoint, see ***Edit a Waypoint in the Chart View*** or ***Manage your Navigation Data***.

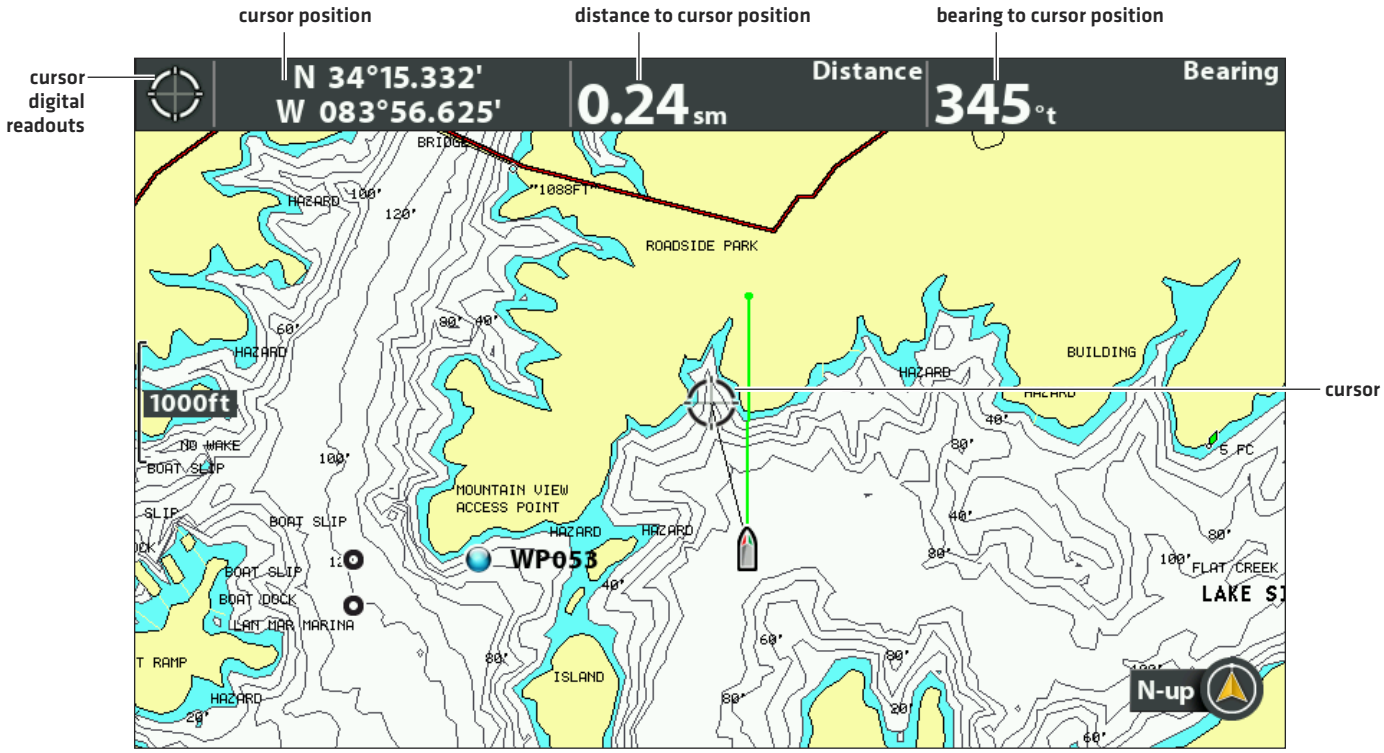
Mark a Waypoint at the Boat Position

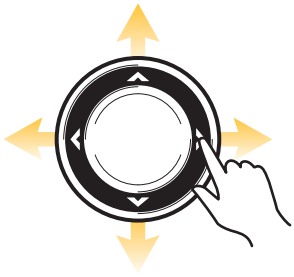
1. Press the MARK key.

Mark a Waypoint at the Cursor Position

1. Use the Cursor Control key to move the cursor to a position on the chart.
2. Press the MARK key.

Marking a Waypoint





Move the Cursor

Mark a Waypoint

Select a Waypoint in the Chart View

You can select a saved waypoint using the menu system or using the cursor on the Chart View.

Select a Saved Waypoint on the Chart View

1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.

   Edit: Press the MENU key. Select the waypoint from the menu. Press the RIGHT Cursor key. Select Edit.

   More Info: Press the CHECK/INFO key.

   Start Navigation: Press the GOTO key.

2. **Exit Cursor:** Press the EXIT key.

Select the Last Saved Waypoint

1. Press the MENU key.
2. Select the waypoint name from the X-Press Menu.
3. Press the RIGHT Cursor key.
4. Select a menu from the waypoint menu.

Search and Select a Saved Waypoint

Use these instructions to search quickly for a waypoint, which is helpful if you cannot locate it on the Chart View.

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Cursor to Waypoint. Press the RIGHT Cursor key.
3. Use the Cursor Control key to sort the list.
4. Select the waypoint name from the menu. Press the RIGHT Cursor key.
5. Press the EXIT key once.
6. The cursor will select the waypoint on the Chart View.

   Edit: Press the MENU key. Select the waypoint from the menu. Press the RIGHT Cursor key. Select Edit.

   More Info: Press the CHECK/INFO key.

   Start Navigation: Press the GOTO key.

Edit a Waypoint

You can edit a waypoint as you mark it or after it is saved. The instructions in this section show you how to edit a waypoint in the Chart View. To edit a waypoint or a group of waypoints from the Waypoint Management dialog box, see ***Manage your Navigation Data***.

Mark and Edit Waypoints (on-the-go)

Use the instructions in this section to edit a waypoint as soon as you mark it.

1. **Setup:** See ***Change New Waypoint Settings***. Set the New Waypoint Icon menu to **Select**.
2. Press the MARK key.

   OR

   Use the Cursor Control key to move the cursor to a position. Press the MARK key.
3. **Edit:** When you mark a waypoint, the Waypoint Settings menu will display so you can edit the waypoint.

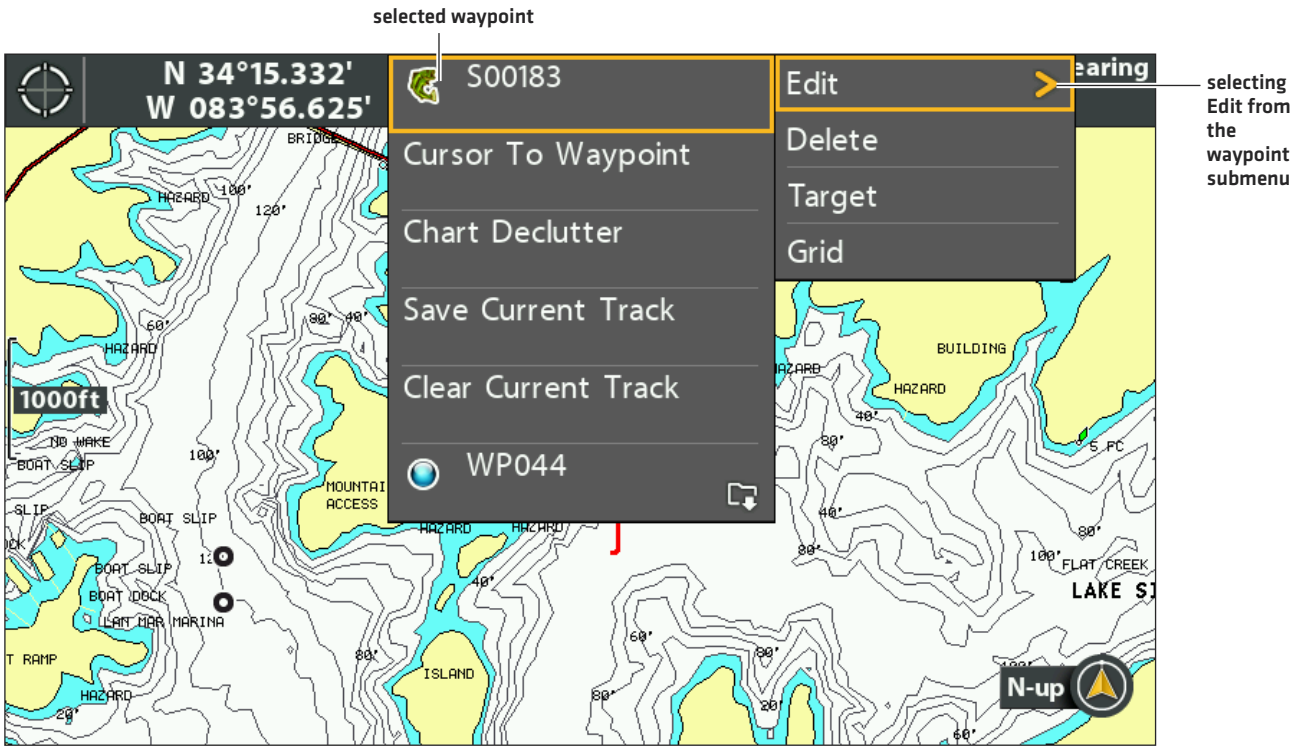
   No Changes: To proceed without making changes, press the MARK key (again).

Edit a Waypoint in the Chart View

Use these instructions to edit a waypoint from the Chart View. You can also edit waypoints in the Waypoint Management dialog box (see ***Manage your Navigation Data***).

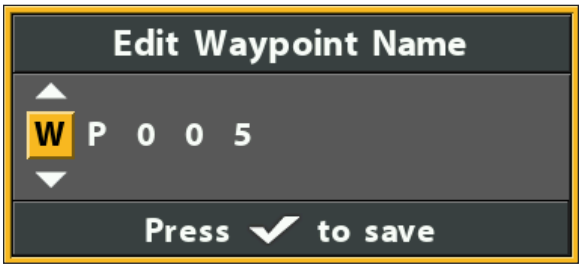
1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.
2. Press the MENU key.
3. Select the waypoint name from the X-Press Menu. Press the RIGHT Cursor key.
4. Select Edit. Press the RIGHT Cursor key.

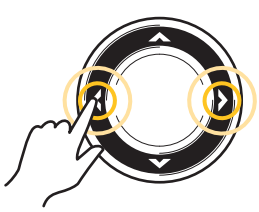
Editing a Waypoint from the X-Press Menu



5. Use the Edit Waypoint menu to edit the waypoint name, icon, and more (see ***Manage your Navigation Data*** for more information).

Changing the Waypoint Name





Move from Space to Space

Select a Letter, Number, or Symbol

Save

6. **Save:** Select Save. Press the RIGHT Cursor key.
7. **Close:** Press the EXIT key.

Change the Waypoint Position in the Chart View

1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.
2. Press the MENU key.
3. Select the waypoint name from the X-Press Menu. Press the RIGHT Cursor key.
4. Select Edit. Press the RIGHT Cursor key.
5. Select the latitude position. Press the RIGHT Cursor key.
6. Use the Cursor Control key to enter a new position.
7. **Save:** Press the CHECK/INFO key.
8. Repeat steps 5 through 7 to change the longitude position.
9. **Close:** Press the EXIT key.
10. **Save:** Select Save. Press the RIGHT Cursor key.

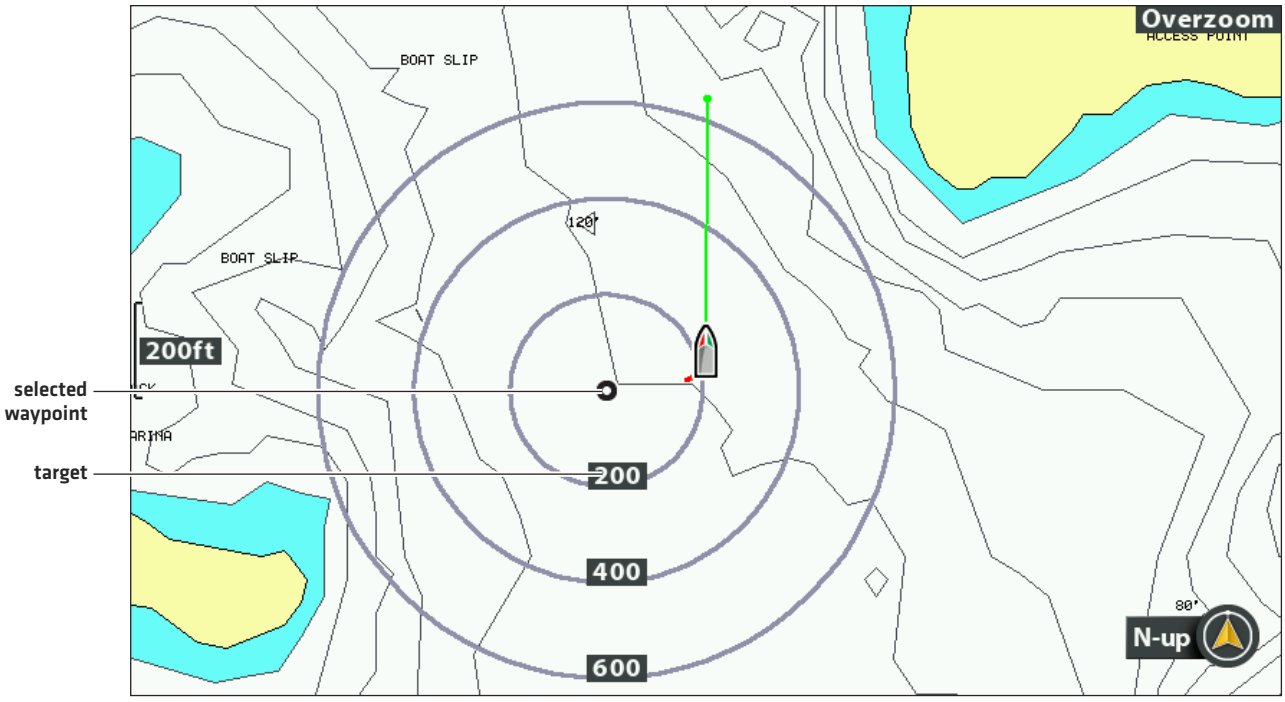
Show/Hide a Waypoint Target

Use the instructions in this section to display a target around a selected waypoint.

Display a Target

1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.
2. Press the MENU key.
3. Select the waypoint name from the X-Press Menu. Press the RIGHT Cursor key.
4. Select Target. Press the RIGHT Cursor key.

Waypoint with Target Displayed



Remove a Target

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Remove Target. Press the RIGHT Cursor key.

Show/Hide a Waypoint Trolling Grid

Use the instructions in this section to display a trolling grid on a selected waypoint.

Display a Trolling Grid

1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.
2. Press the MENU key.
3. Select the waypoint name from the X-Press menu. Press the RIGHT Cursor key.
4. Select Grid. Press the RIGHT Cursor key.

Adjust the Trolling Grid Rotation

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Trolling Grid Rotation.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Remove a Trolling Grid

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Remove Grid. Press the RIGHT Cursor key.

Delete a Waypoint in the Chart View

Use the following instructions to select a waypoint and delete it.

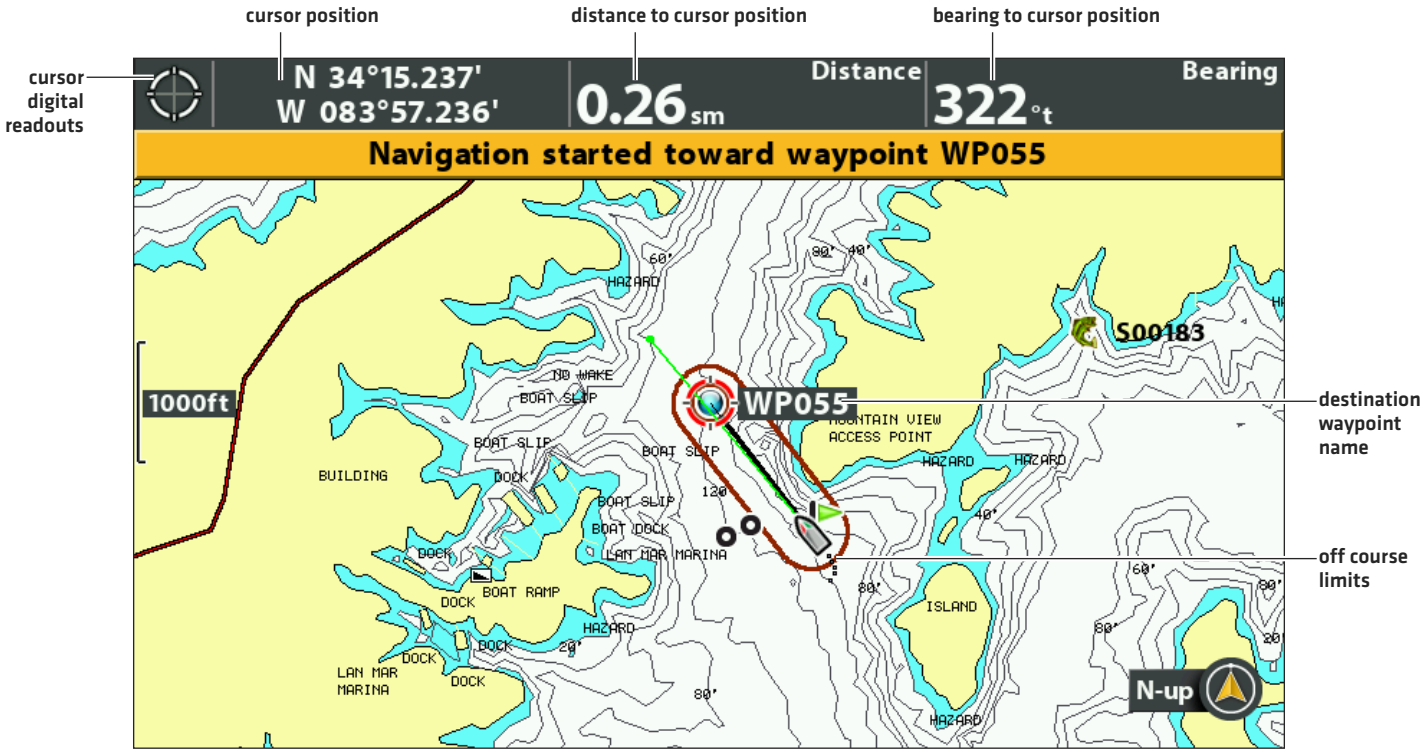
1. Use the Cursor Control key to move the cursor to a waypoint on the Chart View.
2. Press the MENU key.
3. Select the waypoint name from the X-Press Menu. Press the RIGHT Cursor key.
4. Select Delete. Press the RIGHT Cursor key.

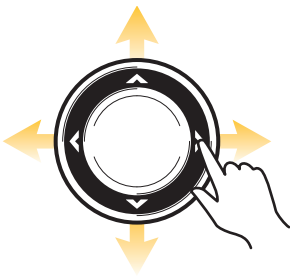
Navigate to a Waypoint or Position

1. Use the Cursor Control key to move the cursor to a waypoint or position on the chart.
2. Press the GOTO key.

NOTE: If you are starting navigation to the cursor position, a waypoint will be marked when you press the GOTO key.

Starting Navigation to the Cursor Position





Move the Cursor

Start Navigation

Navigate Continuously Around a Waypoint

Continuous Navigation Mode allows you to continue to navigate and fish around a selected waypoint, even if you pass over it multiple times.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Continuous Navigation Mode.
3. Select On.
4. Press the EXIT key repeatedly until the menu system is closed.
5. Use the Cursor Control key to move the cursor to a waypoint.
6. Press the GOTO key.

Routes

Routes link two or more waypoints together to create a path for navigation. A route represents your intended navigation and shows the shortest path from each data point to the next. The distance between each waypoint is a **route leg**. You can save 47 routes (with 50 waypoints each) to the control head.

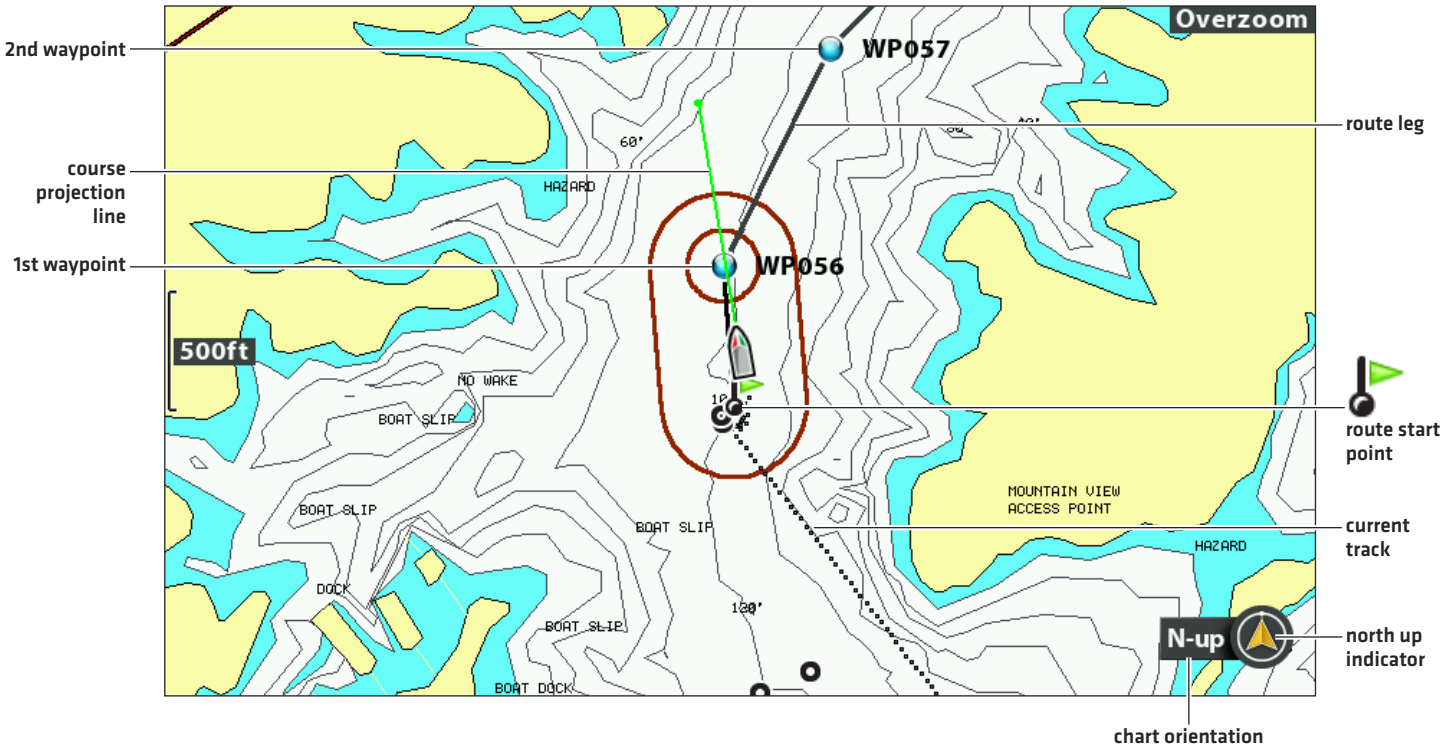
WARNING! You should always be aware of your surroundings and watch for any potential obstacles.

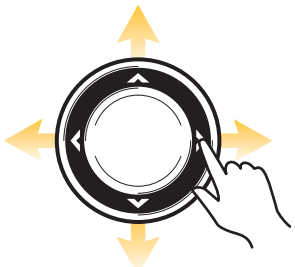
Create a Route and Start Navigation

Use the instructions in this section to connect waypoints and start navigation immediately. To create a route from the Waypoint Management dialog box, see *Manage your Navigation Data*.

1. Use the Cursor Control key to move the cursor to a waypoint or position on the chart.
2. Press the GOTO key.
3. Repeat steps 1 and 2 to add more waypoints to the route.

Creating and Navigating a Route





Move the Cursor

Start Navigation

Save the Current Route

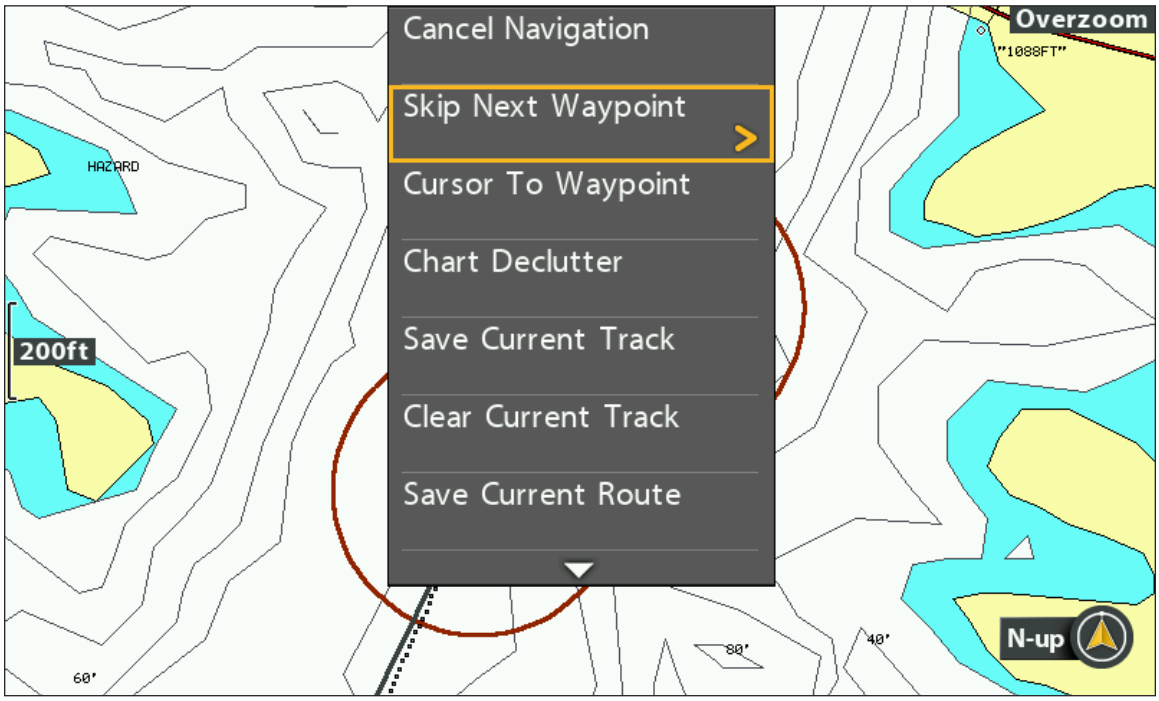
A route must have at least two waypoints to be saved as a route.

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Save Current Route. Press the RIGHT Cursor key.
3. Follow the on-screen prompts to save or discard the route.

Change the Route During Navigation

The X-Press Menu allows you to make changes to the route while you are navigating it.

Skipping a Waypoint During Navigation



Skip a Waypoint

1. **Chart X-Press Menu:** With a Chart View or Bird's Eye View displayed on-screen, press the MENU key once.
2. Select Skip Next Waypoint.
3. Press the RIGHT Cursor key.

Change the Route Order

The route must be saved before you can change the travel order (see ***Save the Current Route***).

1. **Chart X-Press Menu:** With a Chart View or Bird's Eye View displayed on-screen, press the MENU key once.
2. Select the route name. Press the RIGHT Cursor key.
3. Select Travel Forward or Travel Reverse.
4. Press the RIGHT Cursor key.

Reset XTE (Cross Track Error)

Use Reset XTE to recalculate the cross track error (XTE) from the boat's current position to the next waypoint in the route.

For example, if you've deviated from a route to navigate around an island, select Reset XTE to update the control head's course calculations from the current boat position instead of from the previous waypoint in the route.

1. **Chart X-Press Menu:** With a Chart View or Bird's Eye View displayed on-screen, press the MENU key once.
2. Select Reset XTE.
3. Press the RIGHT Cursor key.

Cancel Navigation

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Cancel Navigation. Press the RIGHT Cursor key.
3. Follow the on-screen prompts to cancel navigation and save the route.

Start Navigation on a Saved Route

Use the cursor to select a waypoint in a saved route, and you can start navigation to it. You can also choose the order of navigation.

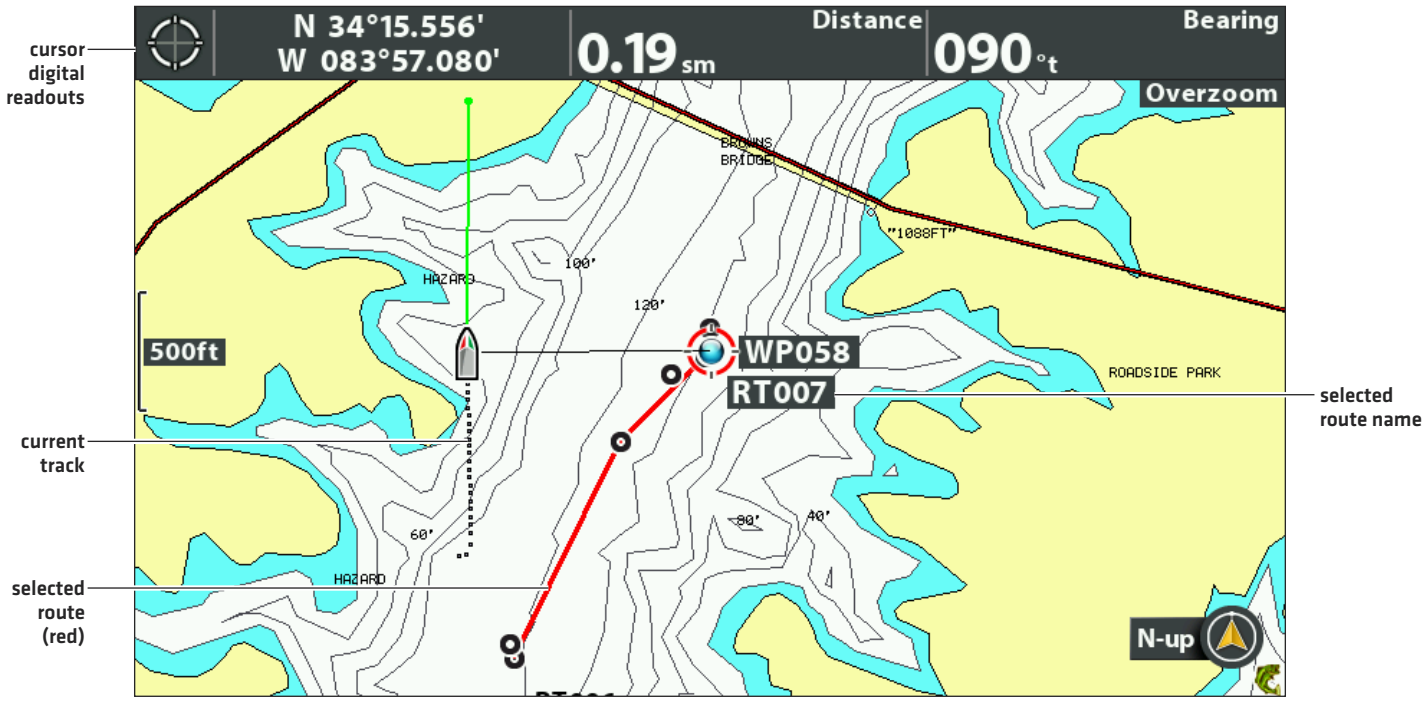
Start Navigation on a Saved Route

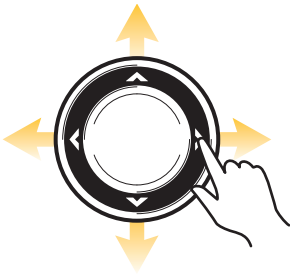
1. Use the Cursor Control key to move the cursor to a waypoint on a route.

   If you select the first waypoint in the route, the route will turn red.
2. Press the GOTO key.
3. Select a travel order.

Go To Point	Start navigation to the selected waypoint only.
Forward from Point	Start navigation to the selected waypoint and continue traveling the route forward from there.
Reverse from Point	Start navigation to the selected waypoint and travel the route in reverse from there.
Travel Forward	Start navigation to the first waypoint in the route and continue traveling the route forward from there.
Travel Reverse	Start navigation to the last waypoint in the route and travel the route in reverse from there.

Selecting a Saved Route on the Chart View





Select a Waypoint on a Route

Open the Go To Menu

Edit a Saved Route

You can edit the route name and display it or hide it on the Chart View. To edit routes from the Waypoint Management dialog box, see ***Manage your Navigation Data***.

1. Use the Cursor Control key to move the cursor to a waypoint on the route. Press the MENU key.

   OR

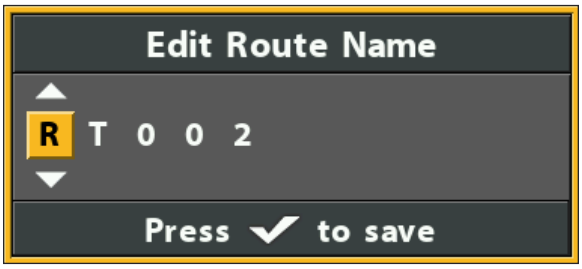
   If the route was saved recently, you don't have to select it first. Press the MENU key

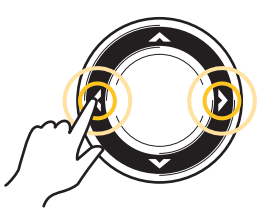
2. Select the route name from the X-Press Menu. Press the RIGHT Cursor key.
3. Select Edit. Press the RIGHT Cursor key.
4. Use the Cursor Control key to change the route name.

   Visibility: Select Visible or Hidden.

5. **Save:** Select Save. Press the RIGHT Cursor key.

Changing the Route Name





Move from Space to Space

Select a Letter, Number, or Symbol

Save

Delete a Saved Route

You can delete a route from the Chart View or the Waypoint Management dialog box. To delete a route from the Waypoint Management dialog box, see ***Manage your Navigation Data***.

1. Use the Cursor Control key to move the cursor to a waypoint on the route. Press the MENU key.

   OR

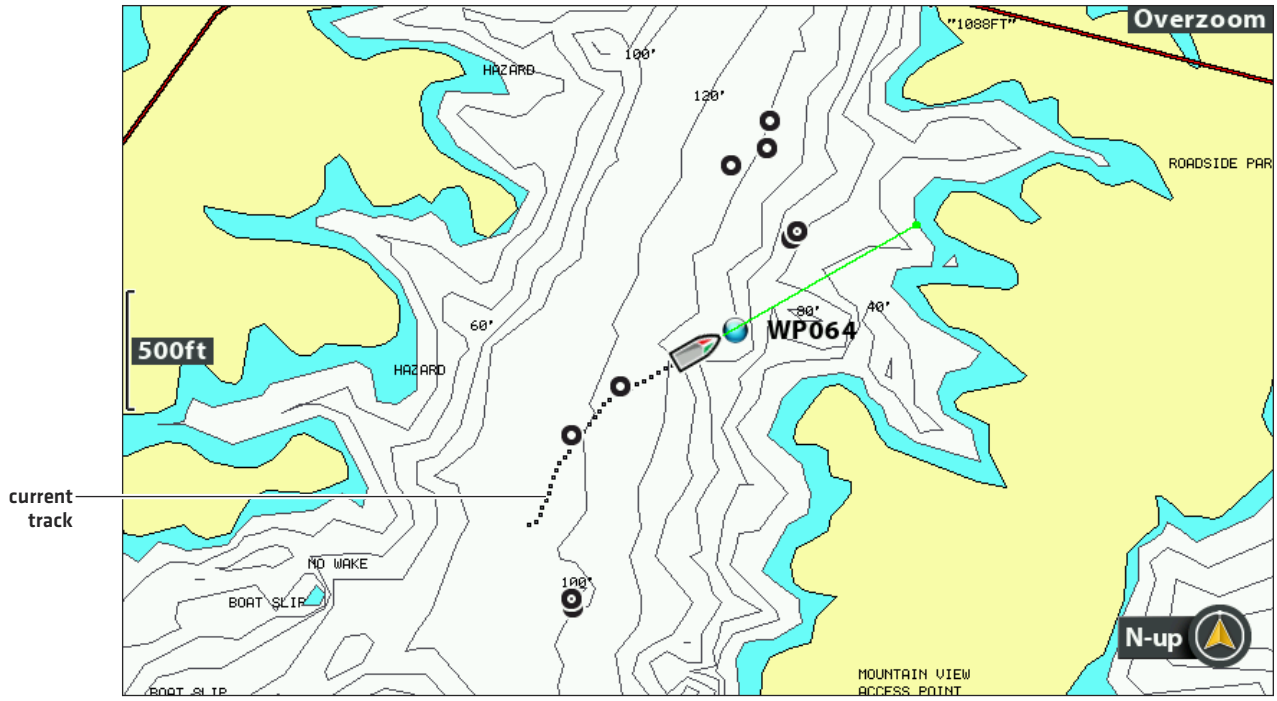
   If the route was saved recently, you don't have to select it first. Press the MENU key

2. Select the route name from the X-Press Menu. Press the RIGHT Cursor key.
3. Select Delete. Press the RIGHT Cursor key.
4. Follow the on-screen prompts to delete the route.

Tracks

A track is a collection of track points that contains the boat's detailed position history at set intervals. The Current Track shows the position history since the control head was powered on. You can clear the Current Track or save it at any time. To change the track point interval, edit saved tracks, and create track settings, see ***Manage your Navigation Data***. You can save 50 tracks (each with 20,000 track points) to the control head.

Chart View with the Current Track Displayed



Change New Track Settings

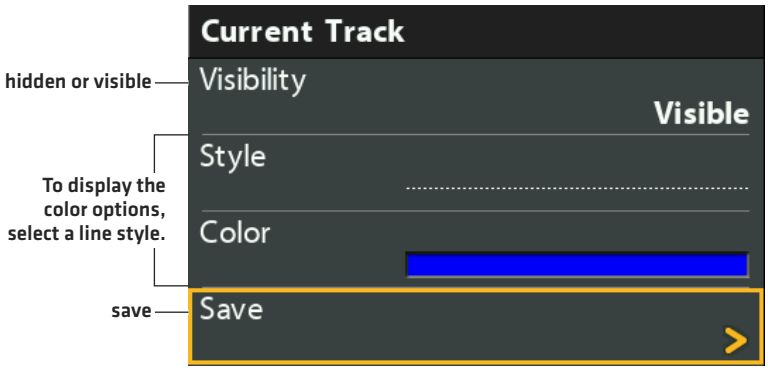
You can use the track settings provided by your control head, or you can customize the tracks shown on the view. You can also edit tracks from the Chart View or from the Waypoint Management dialog box (see ***Manage your Navigation Data***).

Set the Default Track Appearance

Use the instructions in this section to customize settings for all new tracks. To edit tracks after they've been saved, see ***Edit the Current Track*** and ***Manage your Navigation Data***.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Saved Track Defaults. Press the RIGHT Cursor key.

Changing the Current Track Appearance



3. Use the Cursor Control key to change the following:

Visibility	To show all tracks on the chart, select Visible. To hide tracks, select Hidden. If you choose Hidden, the control head continues to save trackpoints, but the track will not be displayed on the view.
Style	Select a line style (dotted, line, etc.) for all new tracks.
Color	If you select a line style, you can also select the line color.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Change the Trackpoint Interval and Trackpoint Min Distance

Trackpoint Interval and Track Min (minimum) Distance work together to add a trackpoint to the current track. During slow travel or drift, setting both Trackpoint Interval and Track Min Distance to small values increases the track resolution. Setting the menus to higher values will cause the track to extend back further in time, but it will be less detailed.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Nav** tab.
2. Select Trackpoint Interval.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.
4. Select Track Min Distance.
5. Press the RIGHT or LEFT Cursor keys to adjust the setting.

Save the Current Track

Use the following instructions to save the current track and start a new track.

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Save Current Track. Press the RIGHT Cursor key.
3. Follow the on-screen prompts to save or discard the track.

NOTE: **It is important to save the track before powering off the control head.**

Edit the Current Track

Use the following instructions to edit the current track. To edit a saved track, see ***Manage your Navigation Data***.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Current Track. Press the RIGHT Cursor key.
3. Select Appearance.
4. Use the Cursor Control key to change the visibility, style, and color.

   See ***Change New Track Settings*** for details.
5. **Save:** Select Save. Press the RIGHT Cursor key.

Clear the Current Track

Use the following instructions to clear the current track on the view and start a new track at the present boat position.

1. **Chart X-Press Menu:** With a Chart View displayed on-screen, press the MENU key once.
2. Select Clear Current Track.
3. Press the RIGHT Cursor key.

Show/Hide the Current Track

The current track is shown on the Chart View automatically. To hide or show the current track, use the following instructions. To show or hide a saved track, see ***Manage your Navigation Data***.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Current Track. Press the RIGHT Cursor key.
3. Select Appearance.
4. Select Visibility.
5. Select Hidden or Visible.
6. **Save:** Select Save. Press the RIGHT Cursor key.

Stop Tracking

Use the instructions in this section to turn off tracking. If you turn off tracking, the unit will not save trackpoints.

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Current Track. Press the RIGHT Cursor key.
3. Select Stop Tracking. Press the RIGHT Cursor key.

   To start tracking, select the Nav tab > Current Track > Start Tracking.

Search

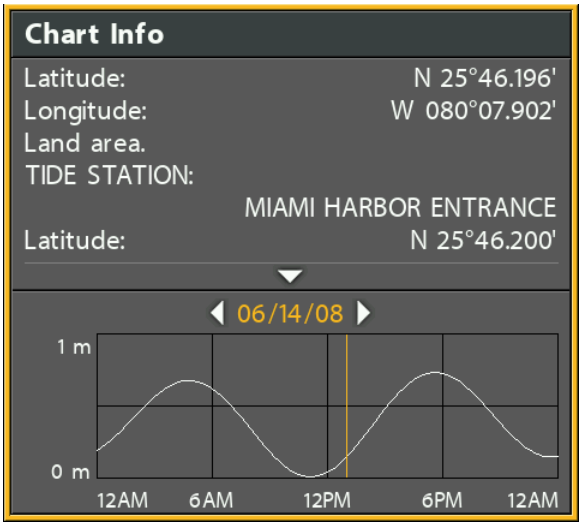
There are many ways to search the area for ports, tide stations, and current stations. You can also search for information based on the cursor position. The search options and the search area distance are determined by the installed map card and selected chart source.

Search by Nearest Port, Tide Station, or Current Station

The control head must have a separate purchase map card installed to enable the features in this section.

1. Press the CHECK/INFO key.
2. Select Nearest Port, Nearest Tide Station, or Nearest Current Station.
3. Press the RIGHT Cursor key.

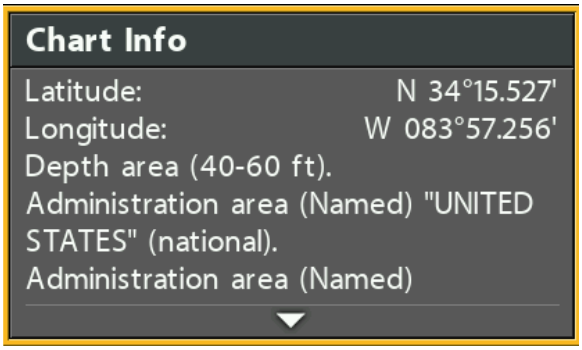
Chart Info: Tide Station



Search by Cursor Position

1. Use the Cursor Control key to move the cursor to a waypoint or position on the chart.
2. Press the CHECK/INFO key.

Chart Info: Cursor Position



Search for Contour Depth

1. Use the Cursor Control key to move the cursor to a contour on the chart.
2. Press the CHECK/INFO key.

Search for a Lake

Use this menu to display a lake other than your current location. The lake map displayed on the Chart View is based on the GPS latitude/longitude position and the Humminbird LakeMaster map card installed in the control head. GPS reception is required for the correct lake to be displayed.

The **Lake List** menu option allows you to display a different lake from the installed map card. When you select a lake, the cursor will move to the lake so you can see it on the Chart View. Then, you can mark waypoints, press the GOTO key to start navigation toward a waypoint, or press the CHECK/INFO key for more information.

No GPS Reception: If you don't have a GPS Fix, you can view the lake in Simulator mode. When you power on the control head, press the MENU key. Select Simulator from the Start-Up Options Menu. You can mark waypoints and routes and save them in Simulator mode.

NOTE: A Humminbird LakeMaster map card must be installed to enable this feature.

Search for a Lake

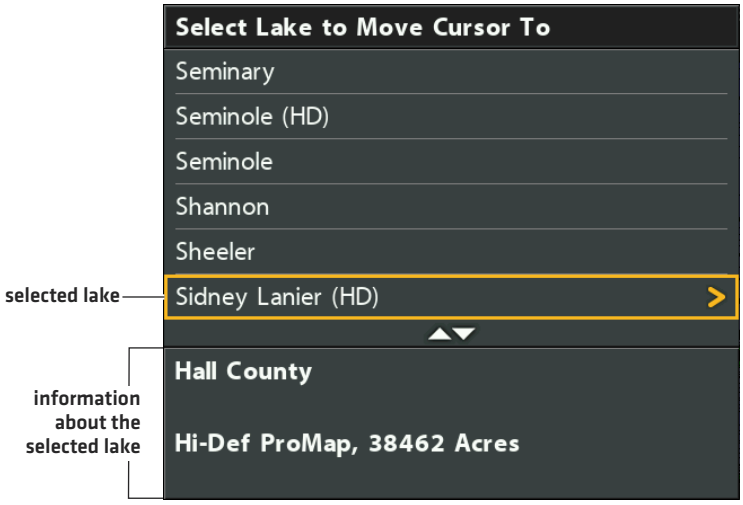
1. **Main Menu:** Press the MENU key twice. Select the **Chart** tab.
2. Select Lake List.
3. Press the RIGHT Cursor key.

   Sort By: Select the Sort By field, and press the RIGHT or LEFT Cursor keys to select a sort option for the list. You can sort alphabetically, identify the high-definition lakes (Hi-Def) on your card, etc.

   Scroll: Press the UP or DOWN Cursor keys to scroll through the list. As each lake is highlighted, you can view information about the lake in the box displayed on the screen.

   Cursor To: Select a lake on the list. Press the RIGHT Cursor key.

Selecting a Lake to Display



Manage your Navigation Data

Your control head allows you to start navigation or edit your navigation data from the Chart View. You can also start navigation or edit navigation data from the Waypoint Management dialog box. The instructions in this section apply to the Waypoint Management dialog box.

Overview

Open the Waypoint Management Dialog Box

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Waypoints, Routes, Tracks.
3. Press the RIGHT Cursor key.

Sort

You can sort your saved navigation data alphabetically or by newest/oldest date, distance, or icon.

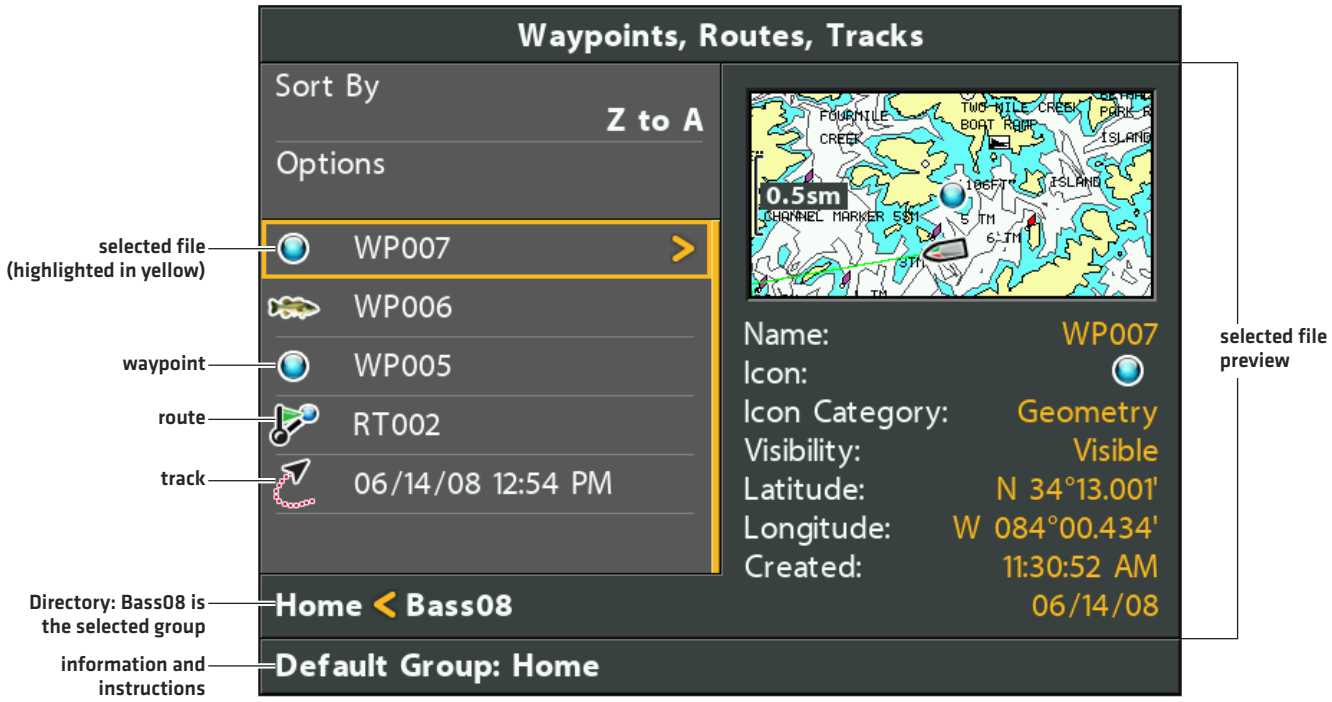
1. Press the EXIT key.
2. Select Sort By.
3. Press the RIGHT or LEFT Cursor keys to select a sort setting.

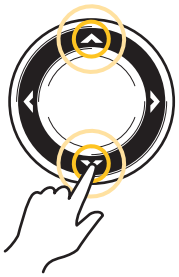
Select a File

Use these instructions to select an individual waypoint, route, track, or group. Then, use the submenu to apply settings or actions to the selected file.

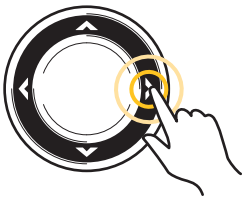
1. Press the DOWN or UP Cursor keys to select a waypoint, route, track, or group.
2. **Open the Submenu:** Press the RIGHT Cursor key.

Selecting Files in the Waypoint Management Dialog Box (Waypoints, Routes, Tracks)

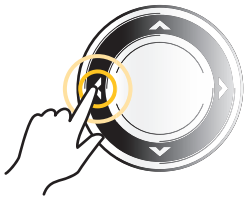




Scroll through the List



Open a Menu



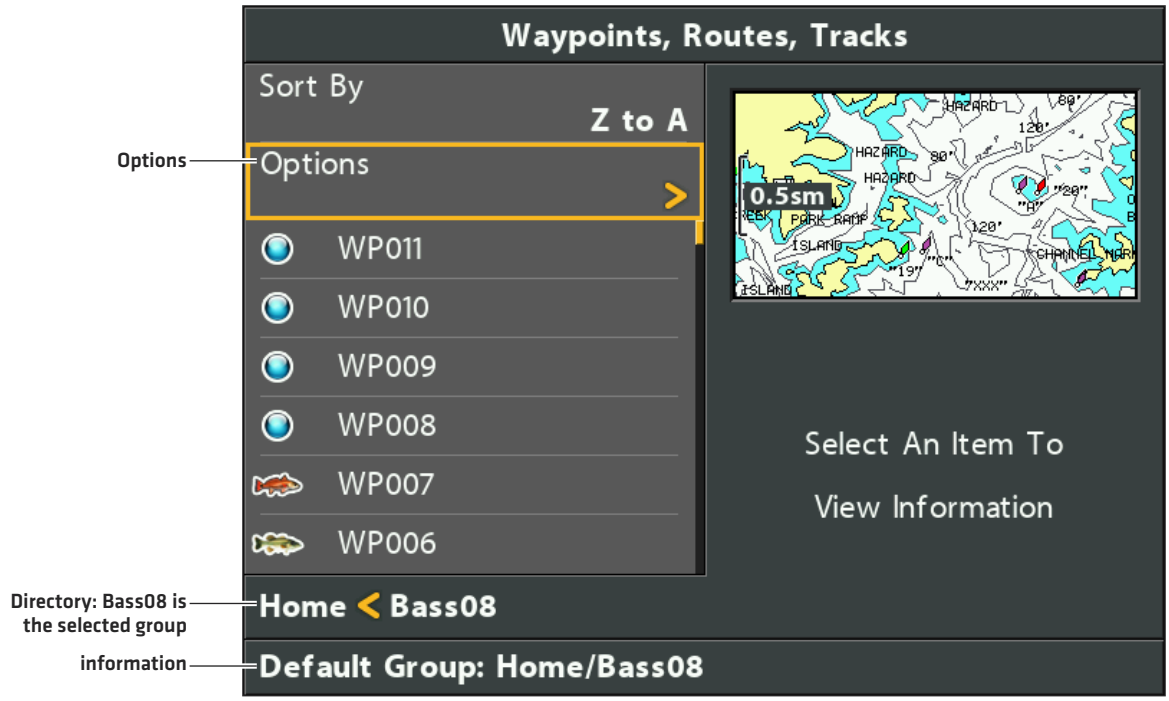
Go Back

Jump to the Top

The Options menu, and other important actions, are located at the top of the Waypoint Management dialog box. Use these instructions to quickly select Options or jump to the top.

1. Press the EXIT key.

Selecting Options (Jump to the Top)

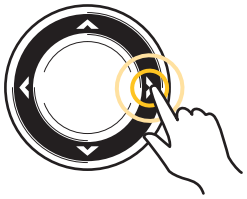


Options

Directory: Bass08 is the selected group

information

Jump to the Top



Open a Menu

Manage Waypoints

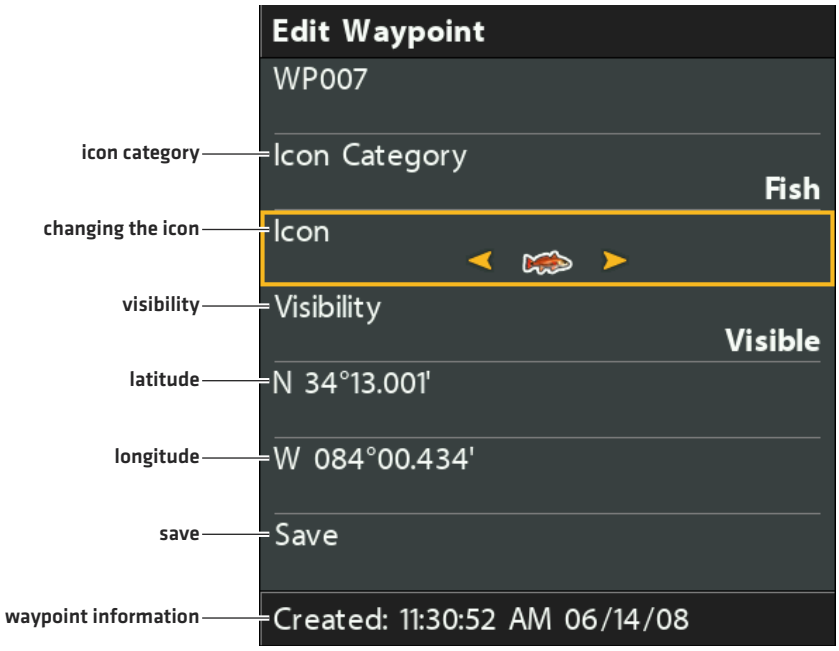
When you press the MARK key and create a new waypoint, an alphanumeric name (beginning with WP) is assigned to the waypoint. You can use the Waypoint Management dialog box to edit the saved waypoint or create a new waypoint. You can also select a waypoint icon and category for all new waypoints.

Open the Waypoint Submenu

1. Select a waypoint from the Waypoint Management dialog box. Press the RIGHT Cursor key.
2. Select one of the following menu options:

Edit	Opens the Edit Waypoint menu. See ***Edit a Saved Waypoint*** for details.
Delete	Deletes the waypoint. To remove the waypoint from the group, choose Selected. To delete the waypoint from all groups, choose All Instances. See ***Delete a Waypoint*** for details.
Duplicate	Creates a copy of the waypoint and adds it to a new group or route (see ***Search and Organize***).
Save As	Creates a new waypoint (based on the selected waypoint) and opens a menu so you can change the new waypoint's name. See ***Search and Organize*** for details.
Move	Moves the waypoint from the selected group to a different group (see ***Search and Organize***).
Cursor To	Moves the cursor to the selected waypoint in the Chart View (see ***Navigation Overview: Waypoints***).
Go To	Starts navigation to the selected waypoint (see ***Navigation Overview: Waypoints***).
Target	Displays a target on the selected waypoint in the Chart View (see ***Navigation Overview: Waypoints***).
Grid	Displays a grid on the selected waypoint in the Chart View (see ***Navigation Overview: Waypoints***).

Editing a Waypoint



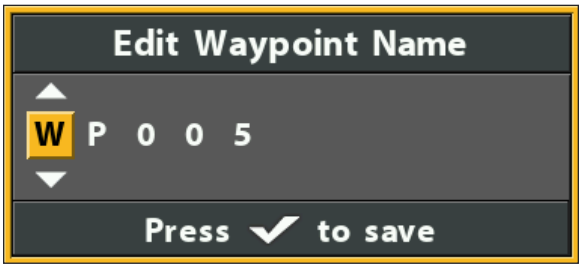
Edit a Saved Waypoint

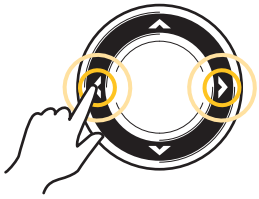
1. Select a waypoint. Press the RIGHT Cursor key.
2. Select Edit. Press the RIGHT Cursor key.
3. Use the Cursor Control key to edit the available fields.

Name	Select the file name, and press the RIGHT Cursor key. See the illustration ***Changing the Waypoint Name***.
Icon Category	Select All to view all available icons. (All, Geometry, Alerts, Supplies, Navigation, Recreation, Fish, Environment)
Icon	The available icons are determined by the category selected in Icon Category.
Visibility	To show the waypoint icon on the Chart View, select Visible. To hide it, select Hidden.
Latitude **Longitude**	To move from space to space, press the RIGHT or LEFT Cursor keys. To change the letter or number, press the UP or DOWN Cursor keys.

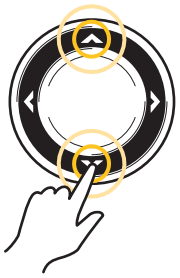
4. **Save:** Select Save. Press the RIGHT Cursor key.

Changing the Waypoint Name





Move from Space to Space



Select a Letter, Number, or Symbol

Save

Create a New Waypoint

Use the following instructions to create a new waypoint and add your own settings. To mark a waypoint in Chart View, see ***Navigation Overview: Waypoints***.

1. **Open a Group or Route:** Select a group or route (where you want to save the new waypoint). Press the RIGHT Cursor key.

   Home is the highest level group, or the main directory, in the Waypoint Management dialog box.
2. Select Open. Press the RIGHT Cursor key.
3. Select Options > New > New Waypoint.
4. **Create New Waypoint:** Use the Cursor Control key to set the available fields. See ***Edit a Saved Waypoint*** for details.
5. **Save:** Select Save. Press the RIGHT Cursor key.

Set the Waypoint Icon Default

Use the following instructions to set the waypoint icon category and the waypoint icon for all new waypoints.

NOTE: **If the Waypoint Management dialog box is open, press the EXIT key to close the dialog box, and proceed with the following instructions.**

1. **Main Menu:** Press the MENU key twice. Select the **Nav** tab.
2. Select Waypoint Settings. Press the RIGHT Cursor key.
3. Use the Cursor Control key to set your new waypoint preferences.

Icon Category	Select All to view all available icons. (All, Geometry, Alerts, Supplies, Navigation, Recreation, Fish, Environment)
Default Waypoint Icon	The available icons are determined by the category selected in Icon Category.
New Waypoint Icon	**Default:** When you mark a waypoint, the waypoint will be marked using the settings. **Select:** Each time you mark a waypoint, you will be prompted to change the waypoint icon and category. To accept the current settings, press the MARK key again. See ***Waypoints: Mark and Edit Waypoints (on-the-go)*** in the Navigation section.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Delete a Waypoint

1. Select a waypoint. Press the RIGHT Cursor key.
2. Select Delete. Press the RIGHT Cursor key.
3. To remove the waypoint from the group, choose Selected.

   To delete the waypoint from all groups, choose All Instances.
4. Follow the on-screen prompts to delete the waypoint.

Manage Routes

You can edit your saved routes, and you can also create new routes from scratch using your saved waypoints. Route names are alphanumeric and begin with RT.

Open the Route Submenu

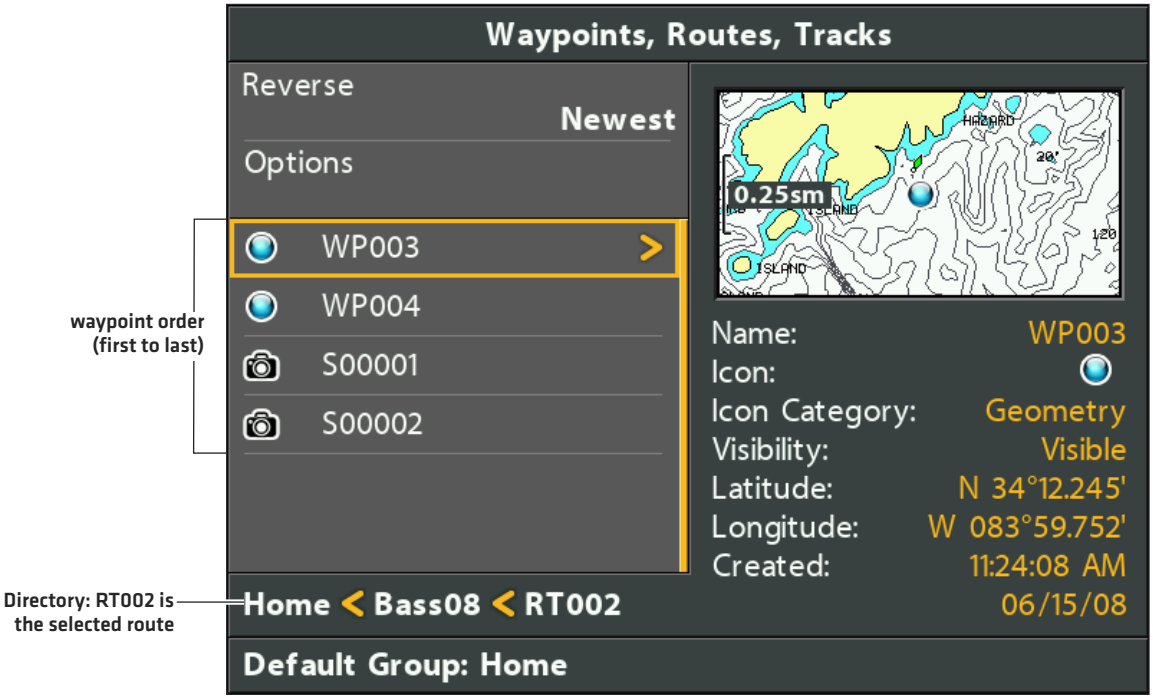
1. Select a route from the Waypoint Management dialog box. Press the RIGHT Cursor key.
2. Select one of the following menu options:

Open	Displays the saved waypoints in the route. You can change the waypoint order from this menu (see ***Change the Waypoint Order in a Route***).
Travel	Starts navigation on the selected route in forward or reverse (see ***Travel a Saved Route***).
Add/Remove	Copies waypoints into the route or deletes waypoints from the route. See ***Add Waypoints to a Route*** and ***Delete a Waypoint from a Route***.
Edit	Opens the Edit Route menu. See ***Edit a Saved Route*** for details.
Delete	Deletes the route. To delete the route from the selected group, choose Selected. To delete the route from all groups, choose All Instances. See ***Delete a Route*** for details.
Duplicate	Creates a copy of the route and adds it to a new group (see ***Search and Organize***).
Save As	Creates a new route (based on the selected route) and opens a dialog box so you can change the new route's name (see ***Search and Organize***).
Move	Moves the route from the selected group to a different group (see ***Search and Organize***).
Info	Opens the Route Info box and displays the waypoints in the route. To change the waypoints in a route, see ***Add Waypoints to a Route*** and ***Delete a Waypoint from a Route.***

Open a Saved Route

1. Select a route. Press the RIGHT Cursor key.
2. Select Open. Press the RIGHT Cursor key.

Opening a Saved Route

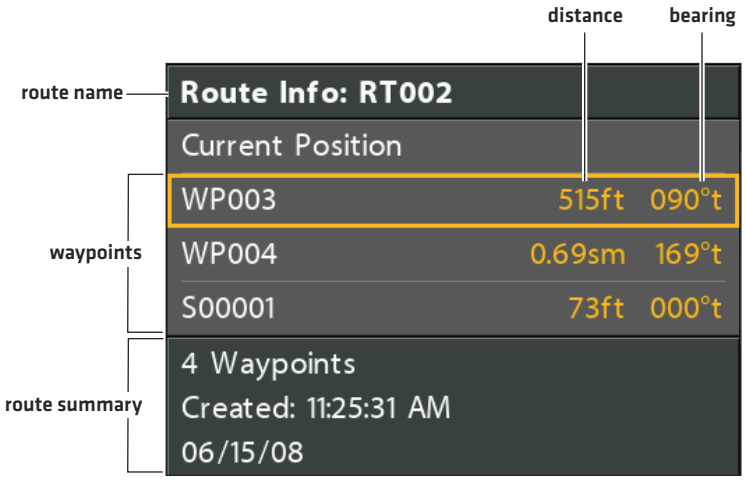


Review Route Distance Information

Use the instructions in this section to open a saved route and review the distance and bearing from each waypoint to the next.

1. Select a route. Press the RIGHT Cursor key.
2. Select Info. Press the RIGHT Cursor key.

Reviewing Route Information



Travel a Saved Route

1. Select a route. Press the RIGHT Cursor key.
2. Select Travel. Press the RIGHT Cursor key.
3. Select Forward or Reverse. Press the RIGHT Cursor key.

   Navigation begins immediately. The Waypoint Management dialog box will close so you can see the route on the Chart View.

Edit a Saved Route

You can customize a route name, add or remove waypoints, and change the travel order for navigation.

To add waypoints to the route, or delete waypoints from the route, see ***Add Waypoints to a Route*** and ***Delete a Waypoint from a Route***.

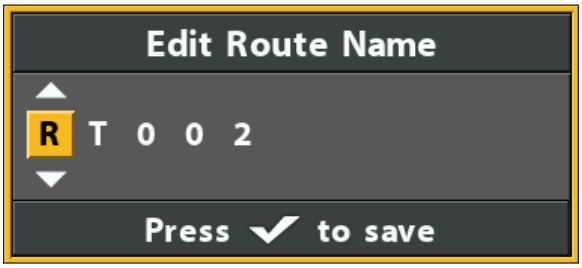
To change the travel order in a route, see ***Change the Waypoint Order in a Route***.

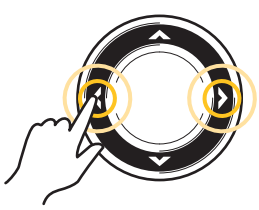
1. Select a route. Press the RIGHT Cursor key.
2. Select Edit. Press the RIGHT Cursor key.
3. Use the Cursor Control key to edit the available fields.

Name	Select the file name, and press the RIGHT Cursor key. See the illustration ***Changing the Route Name***.
Visibility	To show the route on the Chart View, select Visible. To hide it, select Hidden.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Changing the Route Name





Move from Space to Space

Select a Letter, Number, or Symbol

Save

Create a New Route

1. **Open a Group:** Select a group (where you want to save the new route). Press the RIGHT Cursor key.

   Home is the highest level group, or the main directory, in the Waypoint Management dialog box.

2. Select Options > New > New Route.

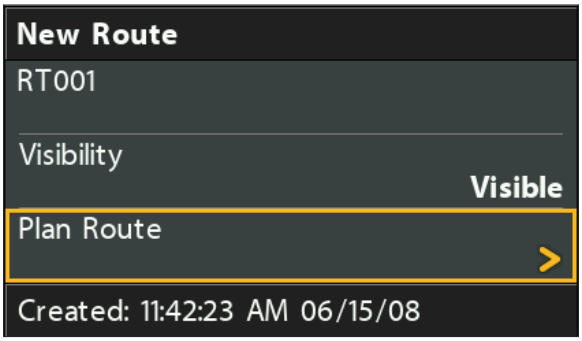
3. **Create New Route:** Use the Cursor Control key to edit the available fields.

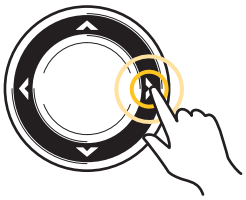
Name	Select the item name, and press the RIGHT Cursor key. See the illustration ***Changing the Route Name***.
Visibility	To show the route on the Chart View, select Visible. To hide it, select Hidden.

4. **Plan Route:** Select Plan Route. Press the RIGHT Cursor key.

   The New Route menu closes so you can select waypoints to add to the route.

Selecting Plan Route





Select

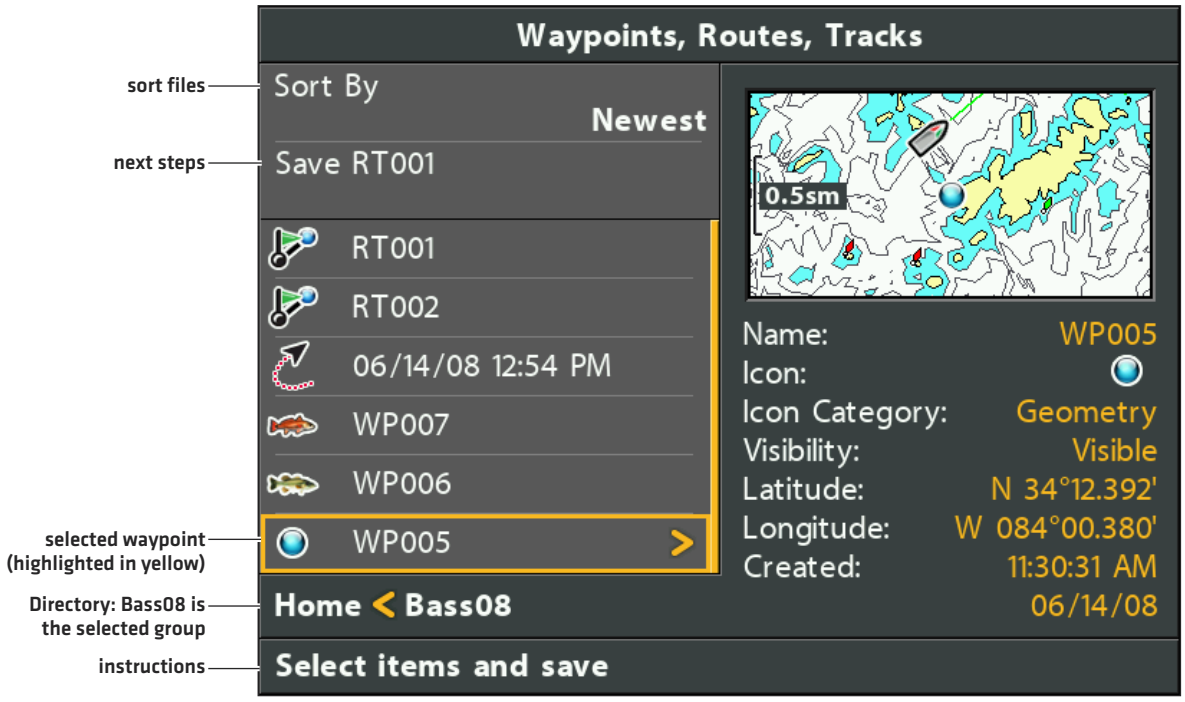
5. **Add Waypoints:** Press the UP or DOWN Cursor keys to scroll through the available waypoints.

   To add a selected waypoint to the route, press the RIGHT Cursor key.

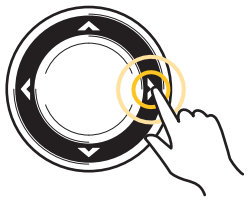
   Repeat as needed. See the illustration ***Adding Waypoints to a Route***.

6. **Save:** Press the EXIT key to select Save. Press the RIGHT Cursor key.

Adding Waypoints to a Route



Scroll through the List



Select

Add Waypoints to a Route

When you add a waypoint to a route, it is a copy. If you make changes to the copy, the changes will be made to all copies.

1. Select a route. Press the RIGHT Cursor key.
2. Select Add/Remove. Press the RIGHT Cursor key.

   The menu will close.
3. Press the UP or DOWN Cursor keys to choose a waypoint. Press the RIGHT Cursor key to add it to the route.
4. **Save:** Press the EXIT key to select Save. Press the RIGHT Cursor key.

Delete a Waypoint from a Route

1. Select a route. Press the RIGHT Cursor key.
2. Select Open. Press the RIGHT Cursor key.
3. Select a waypoint in the route. Press the RIGHT Cursor key.
4. Select Delete. Press the RIGHT Cursor key.
5. To remove the waypoint from the group, choose Selected.

   To delete the waypoint from all groups, choose All Instances.
6. Follow the on-screen prompts to delete the waypoint.

Change the Waypoint Order in a Route

1. Select a route. Press the RIGHT Cursor key.
2. Select Open. Press the RIGHT Cursor key.

3a. **Select Reverse,** and press the RIGHT Cursor key. This will quickly reverse the order of the route.

OR

3b. **Choose a Waypoint in the route,** and press the RIGHT Cursor key.

Select Reorder, and press the RIGHT Cursor key.

To move the waypoint up or down in the route order, press the UP or DOWN Cursor keys.

See the illustration ***Changing the Route Order (Moving a Waypoint)***.

4. Press the EXIT key to select Save.

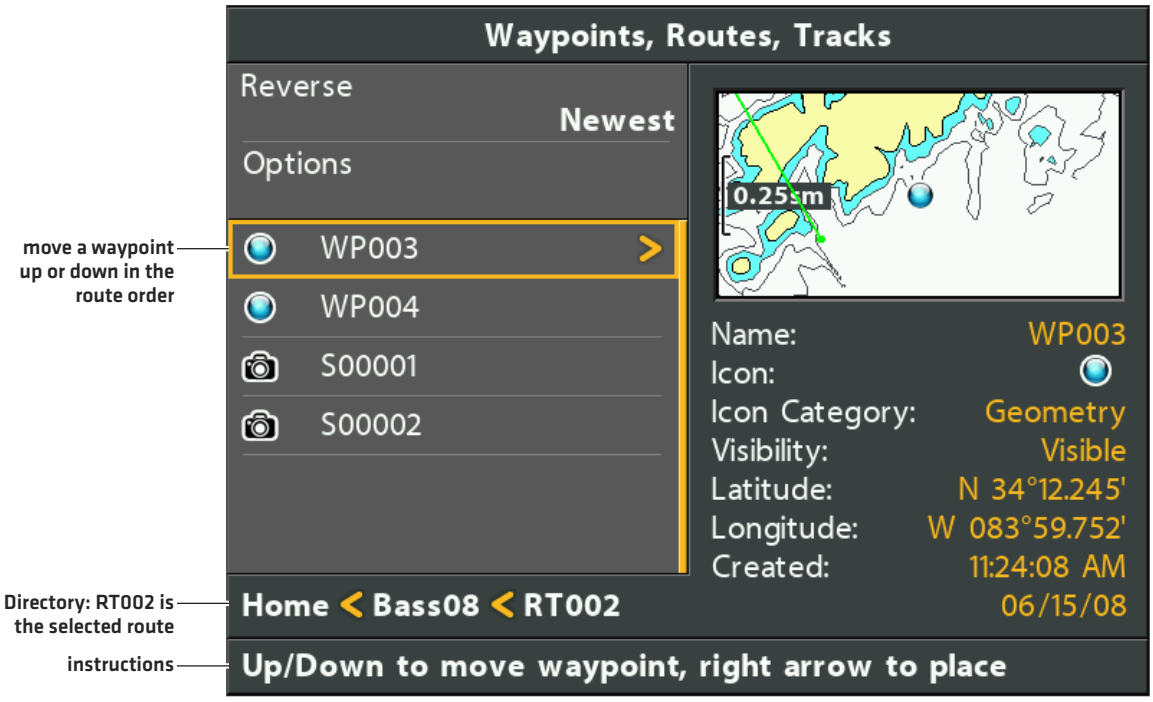
   Press the RIGHT Cursor key.

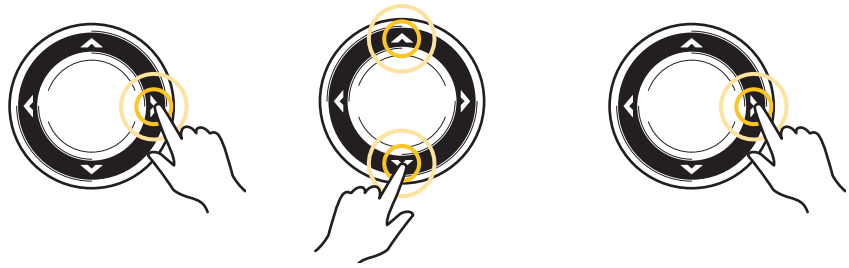
Delete a Route

1. Select a route. Press the RIGHT Cursor key.
2. Select Delete. Press the RIGHT Cursor key.
3. To remove the route from the group, choose Selected.

   To delete the route from all groups, choose All Instances.

Changing the Route Order (Moving a Waypoint)





Select the Waypoint | Move the Waypoint Up or Down | Confirm the New Location

Manage Tracks

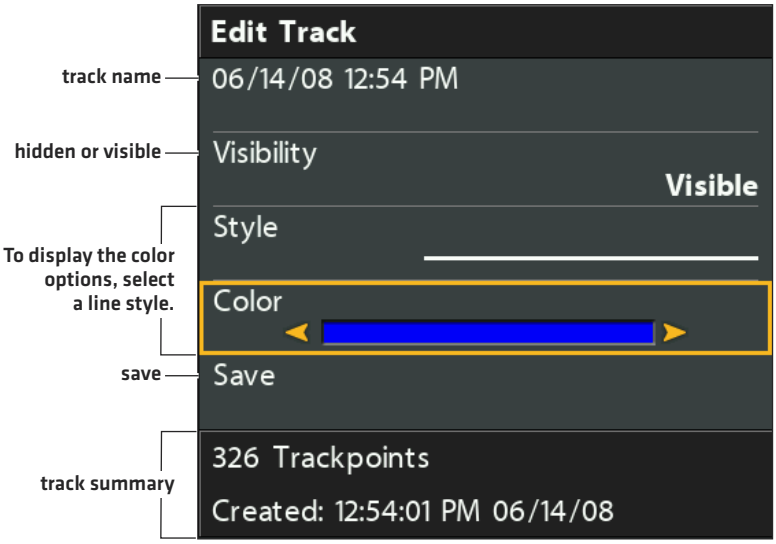
Save and edit your tracks with the Waypoint Management dialog box. Track names are saved with a date and time stamp. The Tracks submenu allows you to edit the track name, appearance, and the track visibility. You can also move tracks from one group to another group.

Open the Track Submenu

1. Select a track from the Waypoint Management dialog box. Press the RIGHT Cursor key.
2. Select one of the following menu options:

Edit	Opens the Edit Track menu. See ***Edit a Saved Track*** for details.
Delete	Deletes the track. To delete the track from the selected group, choose Selected. To delete the track from all groups, choose All Instances. See ***Delete a Saved Track*** for details.
Duplicate	Creates a copy of the track and adds it to a new group (see ***Search and Organize***).
Save As	Creates a new track (based on the selected track) and opens a menu so you can change the new track's name (see ***Search and Organize***).
Move	Moves the track from the selected group to a different group (see ***Search and Organize***).

Editing a Track



Edit a Saved Track

Use the following instructions to edit a saved track. To edit the current track, see ***Navigation Overview: Tracks***.

1. Select a track. Press the RIGHT Cursor key.
2. Select Edit. Press the RIGHT Cursor key.
3. Use the Cursor Control key to edit the available fields.

Name	Select the file name, and press the RIGHT Cursor key. To move from space to space, press the RIGHT or LEFT Cursor keys. To change the letter or number, press the UP or DOWN Cursor keys.
Visibility	To show the icon on the Chart View, select Visible. To hide it, select Hidden.
Style	Select a line style.
Color	Select a color. The Color field is available if you've selected a solid line in the Style field.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Delete a Saved Track

1. Select a track. Press the RIGHT Cursor key.
2. Select Delete. Press the RIGHT Cursor key.
3. To remove the track from the group, choose Selected.

   To delete the track from all groups, choose All Instances.

Manage Groups

Use groups to organize your waypoints, routes, and tracks in one set. Some anglers prefer to group their navigation items by trip, fish-type, body of water, or time of day. New group names are alphanumeric and begin with GP, and you can edit the name.

NOTE: Groups and sub-groups use storage. The storage limit of your waypoints and routes may vary due to the complexity of your Waypoint Management directory.

Open the Group Submenu

1. Select a group from the Waypoint Management dialog box. Press the RIGHT Cursor key.
2. Select one of the following menu options:

Open	Displays the saved waypoints, routes, and tracks in the group.
Add/Remove	Copies waypoints, routes, and tracks into the group or deletes files from the group (see ***Add/Remove Navigation Items***).
Edit	Opens the Edit Group menu. See ***Edit a Group*** for details.
Delete	Deletes the group (see ***Delete a Group***).
Move	Moves the group from one location to another (see ***Search and Organize***).

Set a Group as the Default Directory

To save all your **new** waypoints, routes, and tracks to a designated group, use the following steps:

1. Select a group. Press the RIGHT Cursor key.
2. Select Open. Press the RIGHT Cursor key.
3. Select Options > Set as Default.

Create a New Group

1. **Select a Save Location:** Use the Cursor Control key to choose where you want to save the new group.

   Home is the highest level group, or the main directory. You can also add a subgroup to an existing group. The current group is where the new data will be saved.
2. Select Options > New > New Group.
3. Use the Cursor Control key to set the available fields.
4. **Add Items:** Select Add Items, and press the RIGHT Cursor key.

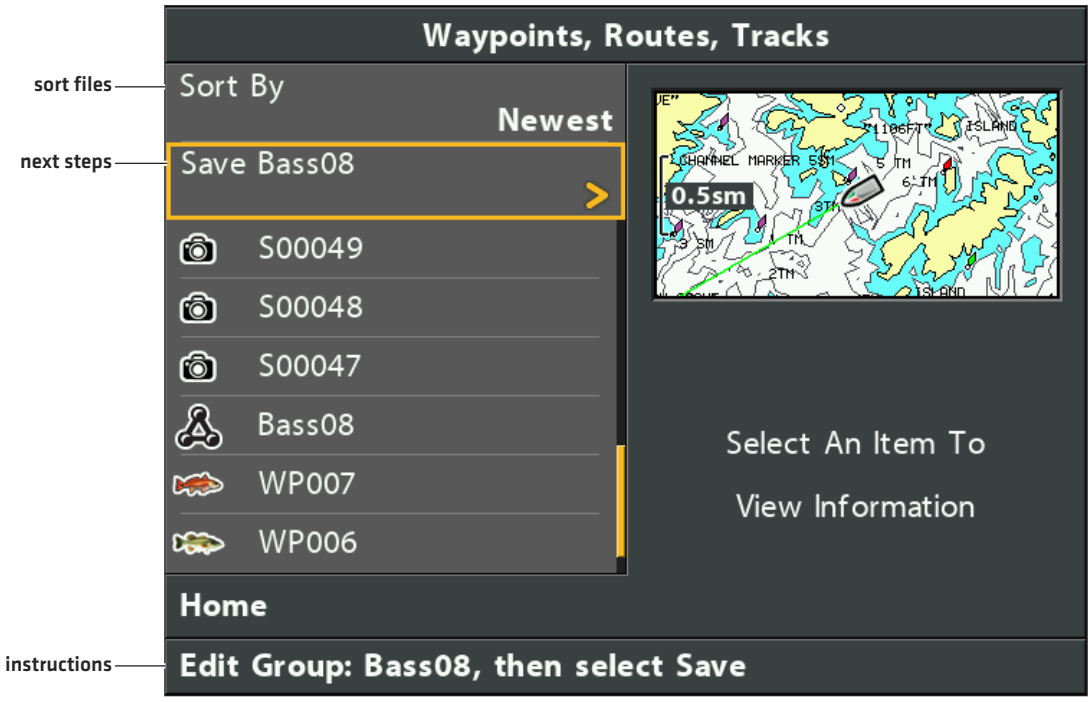
   The New Group dialog box will close so you can select items from the Waypoint Management dialog box. You can also leave the group empty and add to it later.

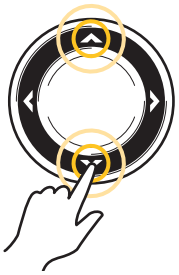
   Press the UP or DOWN Cursor keys to choose a waypoint, route, or track, and press the RIGHT Cursor key to add it to the group.

   Repeat as needed. See the illustration ***Adding Items to a Group***.
5. **Save:** Press the EXIT key to select Save. Press the RIGHT Cursor key.

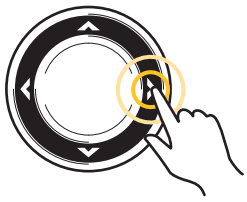
NOTE: When you add an item to a group, it is a copy. If you make changes to the copy, the changes will be made to all copies. For example, if you change the waypoint icon for a waypoint that is saved in more than one group, the icon will change in all the groups where the waypoint is saved.

Adding Items to a Group





Scroll Up or Down



Add

Add/Remove Navigation Items

1. Select a group. Press the RIGHT Cursor key.
2. Select Add/Remove. Press the RIGHT Cursor key.

   The menu will close.
3. **Add:** Press the UP or DOWN Cursor keys to choose a waypoint, route, or track. Press the RIGHT Cursor key to add it to the group.

   Remove: Select an item in the group. Press the RIGHT Cursor key to delete it.
4. Repeat step 3 as needed. You can add or remove items from any other group in the Waypoint Management dialog box.
5. **Save:** Press the EXIT key to select Save. Press the RIGHT Cursor key.

NOTE: When you add an item to a group, it is a copy. If you make changes to a copy, the changes will be made to all copies.

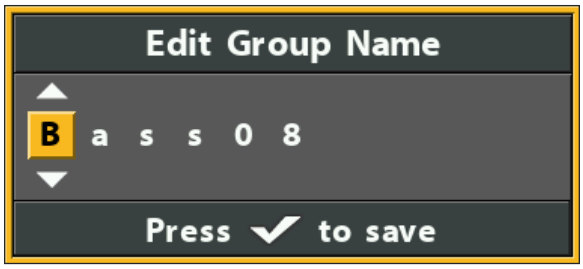
Edit a Group

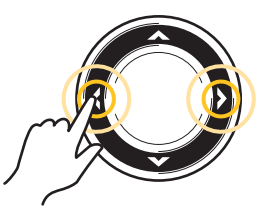
1. Select a group. Press the RIGHT Cursor key.
2. Select Edit. Press the RIGHT Cursor key.
3. Use the Cursor Control key to edit the available fields.

Name	Select the file name, and press the RIGHT Cursor key. See the illustration ***Changing the Group Name***.
Visibility	To show the group on the Chart View, select Visible. To hide it, select Hidden.

4. **Save:** Select Save. Press the RIGHT Cursor key.

Changing the Group Name





Move from Space to Space

Select a Letter, Number, or Symbol

Save

Delete a Group

1. Select a group. Press the RIGHT Cursor key.
2. Select Delete. Press the RIGHT Cursor key.
3. Follow the on-screen prompts to confirm.

Search and Organize

The Waypoint Management dialog box allows you to move your waypoints, routes, and tracks into a designated group, make copies, and search for information. You can also organize your navigation items in HumminbirdPC (see ***Import/Export Navigation Data***), and visit our Web site at **humminbird.com** for details.

Search By

Search By allows you to search the items in the Waypoint Management dialog box by Name, Distance, Date, Icon, or Icon Category.

1. Select Options. Press the RIGHT Cursor key.
2. Select Search By.
3. Select a search category. Press the RIGHT Cursor key.
4. Use the Cursor Control key to enter your search criteria in the dialog box.
5. Select Enter. Press the RIGHT Cursor key to start the search.

Duplicate or Move

Use the following instructions to move or duplicate a waypoint, route, or track. Groups can be moved, but they cannot be duplicated.

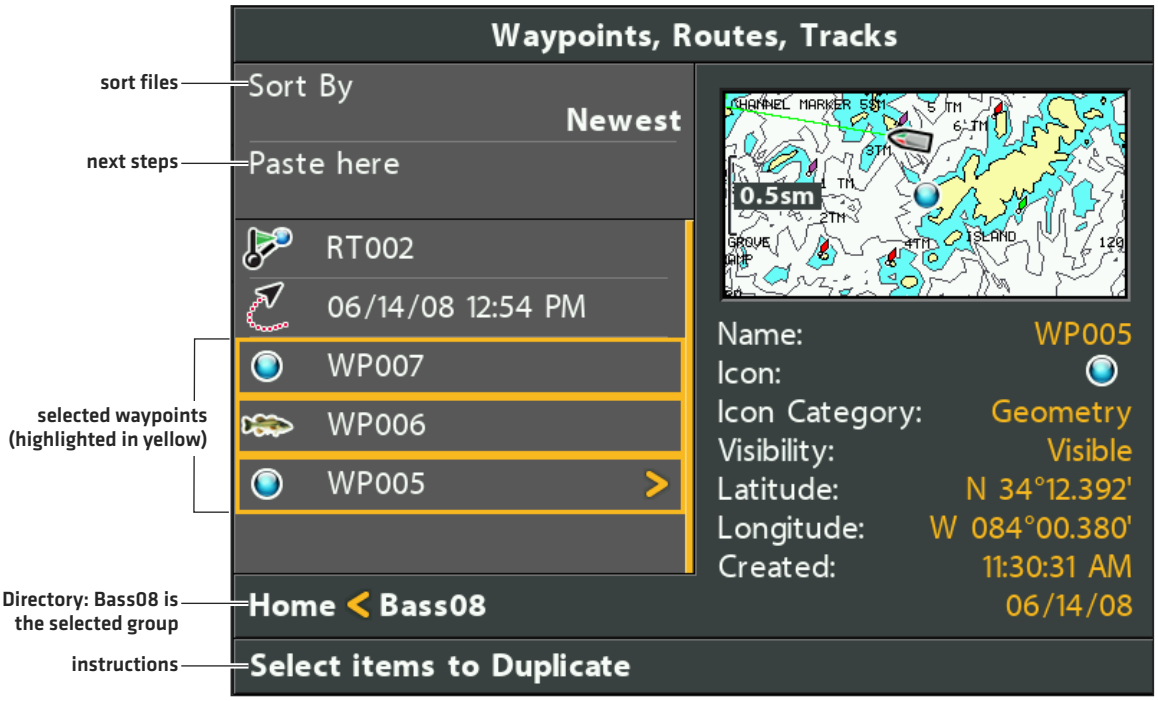
NOTE: When you make changes to a copied item, the changes are applied to all copies. To make a copy and set the item apart from its copies, use Save As (see *Create a Copy and Save as a New Item*).

1. Select a waypoint, route, track, or group. Press the RIGHT Cursor key.
2. Select Move or Duplicate.

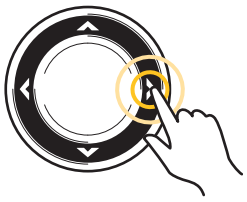
   Duplicate: To create a copy of the waypoint, route, or track so that it appears in more than one group, select Duplicate.

   Move: To delete the group, waypoint, route, or track from one group and transfer it to another group, select Move.
3. Use the Cursor Control key to select the destination group or route (waypoints only).
4. Press the EXIT key to select Paste here. Press the RIGHT Cursor key to confirm the change.

Selecting Multiple Waypoints



Scroll Up or Down



Select

Create a Copy and Save as a New Item

Use the instructions in this section to copy a waypoint, route, or track and save it as a separate item. The new item retains the properties from the original, but it will not be affected by changes to the original.

1. Select a waypoint, route, or track. Press the RIGHT Cursor key.
2. Select Save As. Press the RIGHT Cursor key.
3. Use the Cursor Control key to name the new item.
4. **Save:** Select Save. Press the RIGHT Cursor key.

Import/Export Navigation Data

Import Navigation Data

Use the following instructions to import waypoints, routes, tracks, and groups into your Humminbird control head. The control head will import Humminbird navigation data from an installed SD card. If the navigation data is from another source or format, it must be converted (using HumminbirdPC) before you can import it. Visit our Web site at **humminbird.com** for details.

WARNING! Do NOT import navigation data from unknown sources into your Humminbird control head without first converting the data to the correct format using HumminbirdPC. Importing corrupted data can cause the unit to malfunction, which can result in lost navigation data.

1. Install a loaded SD card into the control head.
2. Follow the on-screen prompts to confirm or cancel the import.

Export ALL Navigation Items

Export your navigation items to an unlocked, installed SD card (separate purchase required) and then view them in HumminbirdPC. Visit our Web site at **humminbird.com** for details.

1. Select Options > Select All and... > Export.
2. Follow the on-screen prompts to confirm or cancel the export.

Export Selected Navigation Items

You can also select individual navigation items and export them to an unlocked, installed SD card.

1. From a selected group, select Options > Select Multiple and... > Export.
2. **Select Items:** Press the UP or DOWN Cursor keys to scroll through the waypoints, routes, and tracks. Press the RIGHT Cursor key to select an item. Repeat as needed.
3. **Confirm Export:** Press the EXIT key to select Export Selected.

   Press the RIGHT Cursor key. Follow the on-screen prompts to confirm or cancel the export.

Delete all Navigation Data and Reset

Use Format Nav Directories to delete ALL navigation data (waypoints, routes, tracks, and groups) and reset the navigation data directory in the Waypoint Management dialog box. You may need to reset the navigation directory if you've imported corrupted navigation data from an unknown source, which can cause the unit to malfunction.

CAUTION! Use this menu with caution! Contact Humminbird Customer Service before using this menu option.

NOTE: It is important to back up your control head's data files periodically. Data files should also be saved to your PC before restoring the unit's defaults or updating the software. See ***Manage your Navigation Data: Import/Export Navigation Data.***

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Format Nav Directories.
3. Press the RIGHT Cursor key.
4. Follow the on-screen prompts to confirm the deletion.

Select an Installed GPS Receiver

The GPS Receiver Override menu is available when more than one GPS receiver is installed and detected by the control head. If GPS Receiver Override is set to Auto, the control head will select a GPS receiver automatically. To manually select a GPS receiver, follow the instructions in this section.

NOTE: If the control head is connected to an Ethernet network, this menu is not available. In this situation, use the Network Source Setup dialog box to select a GPS source. For more information, download the Ethernet manual from our Web site at humminbird.com.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Nav** tab.
2. Select GPS Receiver Override.
3. Select a GPS installation location.

Turn on/off NMEA 0183 Output

NMEA Output should be turned on if you connect the NMEA Output wires of an accessory GPS receiver (external) or heading sensor cable to another NMEA-compatible device, such as an autopilot. See the accessory guide for details. Accessory guides can be downloaded from our Web site at **humminbird.com**.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select NMEA 0183 Output.
3. Select On or Off.

   If NMEA 0183 Output is turned on, the following sentences are output:

Message	Description
APB	Heading/Track Controller (Autopilot) Sentence "B" (navigation only)
BWR	Bearing & Distance to Waypoint - Rhumb Line (navigation only)
DPT	Depth
GGA	Global Positioning System Fix Data
GLL	Geographical Position - Latitude/Longitude
MTW	Water Temperature
RMB	Recommended Minimum Navigation Info (navigation only)
RMC	Recommended Minimum Specification GNSS Data
VTG	Track Made Good & Ground Speed
ZDA	Time & Date

Start the Timer

1. **Main Menu:** Press the MENU key twice. Select the **Alarms** tab.
2. Select Timer Setup.
3. Use the Cursor Control key to set the hours, minutes, and seconds.
4. To start the Timer immediately, select Start. Press the RIGHT Cursor key.

   To save your settings and start the Timer at a later time, select Save. Press the RIGHT Cursor key.

NOTE: The Timer can be displayed as a digital readout. See ***Views: Display Digital Readouts***.

Change the Display Language

The available languages are determined by your Humminbird model.

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Language.
3. Press the RIGHT or LEFT Cursor keys to select a language.

Change Digital Readout Formats

Use the following instructions to customize the format for the digital readouts displayed on the control head. See ***Views: Display Digital Readouts*** for more information.

Change the Digits Format

If you have Digital Readouts set to Boxes, you can change how the numbers are displayed.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select Digits Format.
3. Press the RIGHT or LEFT Cursor keys to select a format.

Change Units of Measurement

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Units - Depth, Units - Distance, Units - Speed, etc., and select each unit setting as you prefer.
3. **Close**: Press the EXIT key.

NOTE: The Units - Temp menu is only available in an international model.

Apply an Offset to a Digital Readout

Use the following instructions to adjust the digital readout by the offset amount entered.

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select one of the following menus. Use the RIGHT or LEFT Cursor keys to adjust the offset.

Depth Offset	Adjusts the depth digital readout by the amount entered. To read the depth from the waterline, enter a positive vertical measurement. To read the depth from the keel, enter a negative amount.
Temp. Offset	Adjusts the temperature digital readout by the amount entered.
Speed Calibration	Adjust the speed digital readout by the amount entered. Speed paddlewheel accessory required.

Change the Latitude/Longitude Format

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select Position Format.
3. Press the RIGHT or LEFT Cursor keys to select a format.

Change the Time and Date Format

1. **Main Menu (Advanced User Mode):** Press the MENU key twice. Select the **Setup** tab.
2. Select one of the following menus. Press the RIGHT or LEFT Cursor keys to select a format.

Local Time Zone	Select your time zone.
Daylight Saving Time	To add one hour to the time displayed in the local time zone, select On.
Time Format	Select a time format. International models only.
Date Format	Select a date format. International models only.

Turn off Demonstration Mode

The control head will start demonstration mode if a start up mode is not selected when the unit is first turned on (see ***Getting Started***). If the screen is displaying tips, menus, and views automatically, it is in Demonstration mode. Use the following instructions to turn off Demonstration mode.

NOTE: Menu settings cannot be saved in Demonstration mode.

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Demonstration.
3. Select Off.

Adjust the Backlight

1. Press the POWER key.
2. Select Light.
3. Adjust the Backlight setting from Dim to 10 (brightest).

Restore System Defaults

Use the following instructions to reset ALL menu settings to the factory defaults.

⚠ **CAUTION!** Use this menu with caution!

1. **Main Menu:** Press the MENU key twice. Select the **Setup** tab.
2. Select Restore Defaults.
3. Press the RIGHT Cursor key.
4. Follow the on-screen prompts to confirm the reset.

Update Software

Set up an online account at **humminbird.com** so that you will receive the latest Humminbird news and software updates for your Humminbird model. You can also download HumminbirdPC from your account, which allows you to manage your waypoints, routes, and tracks on your personal computer.

NOTE: It is important to back up your control head's data files (waypoints, routes, tracks, groups, recordings, etc.) periodically. Data files should also be saved to your PC before restoring the unit's defaults or updating the software. See ***Manage your Navigation Data: Import/Export Navigation Data*** and ***Manage your Screen Snapshots and Recordings*** for more information. Also, contact Humminbird Customer Service with any questions.

Required Equipment: Personal computer with Internet access, and a formatted SD card.

Register your Humminbird Products

Set up an online account and register your Humminbird equipment so that you will receive the latest Humminbird news, including accessory compatibility and software update information.

1. Go to our Web site at **humminbird.com**. Select Support > Register your Product.

   If you already have a **humminbird.com** account, select My Humminbird.

2. Follow the on-screen prompts to create a new account and register your products.

Update the Control Head Software

Use the following instructions to download software updates from your account on **humminbird.com.**

1. Install a formatted SD card into the slot on your PC.
2. **Download:** Select the My Equipment page. The available software updates are listed as **Downloads** under each registered product.
   - Under Downloads, click the file name.
   - Read the instructions in the dialog box and select Download.
   - Follow the on-screen prompts to save the software file to the SD card.
3. Install the SD card with the updated software file into the control head card slot.
4. **Power On:** The control head will recognize the new software and run through a series of prompts to confirm the software installation.

Maintenance

Your control head is designed to provide years of trouble-free use with very little maintenance. Use the following procedures to ensure your Humminbird continues to deliver top performance.

Control Head Maintenance

It is important to consider the following precautions when using your Humminbird control head:

- Chemicals, such as those found in bug spray and sunscreen, may cause permanent damage to the control head screen. Such damage is not covered by the warranty.
- NEVER leave the control head in a closed car or trunk. The high temperatures generated in hot weather can damage the electronics.
- When the control head is not in use, cover the unit with the control head cover.
- Repairs should be performed only by an authorized technician.

Use the following information to keep the control head and screen clean.

- **Screen:** To clean the control head screen, use a mild soap (such as a non-abrasive liquid hand soap) and warm water. Wipe the screen dry with a soft cloth. Be careful to avoid scratching the screen. If water spots remain, use a solution of water and vinegar.

  WARNING! Do not use a chemical glass cleaner on the screen. Chemicals in the solution may cause cracking in the lens of the unit.

  NOTE: Do not wipe the screen while dirt or grease is on the screen.

- **Control Head:** If the control head comes into contact with salt spray, wipe the affected surfaces with a cloth dampened with fresh water.

Transducer Maintenance

Use the following information to maintain the transducer operation.

- If your boat remains in the water for long periods of time, algae and other marine growth can reduce the effectiveness of the transducer. Periodically clean the face of the transducer with a mild, marine-safe and plastic-safe soap or solution.

  NOTE: To clean the transducer, you may need to pivot the transducer up in the bracket.

- If your boat remains out of the water for a long period of time, it may take some time to wet the transducer when it is returned to the water. Small air bubbles can climb to the surface of the transducer and interfere with proper operation. These bubbles dissipate with time, or you can wipe the face of the transducer with your fingers after the transducer is in the water.

Troubleshooting

Before contacting Humminbird Customer Service, please read the following section. Taking the time to review these troubleshooting guidelines may allow you to solve a performance problem yourself, and therefore avoid sending your unit back for repair.

Control Head Doesn't Power Up

If your control head doesn't power up, use the installation guide to confirm the following:

- the power cable is properly connected to the control head
- the power cable is wired correctly, with red to positive battery terminal and black to negative terminal or ground
- the fuse is operational
- the battery voltage of the power connector is at least 10 Volts

Correct any known problems, including removing corrosion from the battery terminals or wiring, or replacing the battery if necessary.

Control Head Doesn't Detect the Connected Transducer

A connected and functioning transducer will automatically be detected by the control head. The control head will default to the transducer that was included with your unit and automatically select sonar settings based on the transducer's capabilities. If, when you power up the control head, it does not automatically select sonar settings or display sonar data, even though a transducer is already connected, this means that the control head is not detecting the transducer. Perform the following troubleshooting tasks:

- Using the transducer installation guide, check to make sure that the transducer cable is securely connected to the control head. Reconnect if necessary, and power up the unit again to see if this fixes the problem.
- Replace the non-functioning transducer with a known good transducer if available and power up the control head again.
- Check the transducer cable. Replace the transducer if the cable is damaged or corroded.

Control Head Doesn't Detect a Connected Accessory

A connected and functioning accessory will automatically be detected by the control head. If you connected an accessory to the control head and the accessory is not detected by the control head, try the following:

- Check to make sure that the accessory cable is securely connected to the control head. Reconnect the cable, if necessary.
- Confirm the accessory is connected to a stable and reliable power source.
- **Entire System Restart:** Power off all control heads and connected equipment. Wait 10 seconds, and then power on all equipment.

Display Problems

There are several main conditions or sources of possible interference that may cause problems with the quality of the information displayed on the control head. Look in the following table for some symptoms of display problems and possible solutions:

Display Problems	Possible Solutions
The control head loses power at high speeds.	If the power output of your boat's engine is unregulated, the control head may be protecting itself using its over-voltage protection feature. Make sure the input voltage does not exceed 20 Volts.
When the boat moves at higher speeds, the bottom disappears or suddenly weakens, or the display contains gaps.	The transducer position may need to be adjusted. A mix of air and water flowing around the transducer (cavitation) may be interfering with the interpretation of sonar data. See the transducer installation guide for instructions to adjust the transducer position. Electrical noise from the boat's engine may be interfering with sonar reception. See ***Finding the Cause of Noise*** for more information.
There are no fish detected, even when you know they are in the water under the boat, or sonar readings seem weak or faulty.	Sonar readings may be affected if the transducer is not positioned correctly (such as mounted at an angle, not straight down), or there is some kind of mechanical interference, either because it is mounted inside a hull that is too thick for proper sonar transmission, the bond between the transducer and the hull is not airtight, or because the transducer is dirty. See the transducer installation guide to adjust the transducer position, and make sure the transducer is clean. Low battery voltage may be affecting the power of signal transmission. Electrical noise from the boats engine may be interfering with sonar reception. See ***Finding the Cause of Noise*** for more information.

Finding the Cause of Noise

Electrical noise usually affects the display with many black dots at high speeds, and high sensitivity readings. See the table below for possible sources that can cause noise or interference.

Possible Source of Noise	Isolation
Other electronic devices	Turn off any nearby electronic devices to see if the problem goes away, then turn them on one at a time to see if the noise re-appears.
The boat's engine	To determine whether the boat's engine is the source of the noise, increase the RPMs while the boat is in neutral and stationary to see if the noise increases proportionately. If the noise appears when you rev the engine, the problem could be the spark plugs, alternator, or tachometer wiring. Replace the spark plugs with resistor plugs, install an alternator filter, or route the control head power and transducer cables away from the engine wiring.
Cavitation from the boat's propeller	Turbulence created by the propeller can cause noise. Confirm the transducer has been properly installed according to its specific mounting requirements (see the transducer installation guide for details). Also, make sure that the water flows smoothly over the face of the transducer at all times.

SPECIFICATIONS

HELIX 9 SONAR GPS

Control Head

Display Size (diagonal)	9 inches (228.6 mm)
Pixel Matrix	WVGA 480V x 800H
Display Type	TFT Color
Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1 Amp
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

DualBeam PLUS Transducer

XNT 9 20 T (includes built-in temperature probe)

Operating Frequency	200 kHz and 83 kHz
Depth Capability	1500 ft (457 m)
Area of Coverage	60°@-10 dB in 83 kHz, 20°@-10 dB in 200 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

NOTE: Product specifications and features are subject to change without notice.

Control Head

Display Size (diagonal)	9 inches (228.6 mm)
Pixel Matrix	WVGA 480V x 800H
Display Type	TFT Color
Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1 Amp
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

Down Imaging Transducer

XNT 9 DI T (includes built-in temperature probe)

Operating Frequency	**Down Imaging:** 455 kHz, 800 kHz **Traditional Sonar:** 200 kHz and 455 kHz
Depth Capability	**Down Imaging:** 350 ft (107 m) **Traditional Sonar:** 600 ft (183 m)
Area of Coverage	**Down Imaging:** 75° @ -10 dB in 455 kHz, 45° @ -10 dB in 800 kHz **Traditional Sonar:** 28° @ -10 dB in 200 kHz, 16° @ -10 dB in 455 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

NOTE: Product specifications and features are subject to change without notice.

Control Head

Display Size (diagonal)	9 inches (228.6 mm)
Pixel Matrix	WVGA 480V x 800H
Display Type	TFT Color
Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1 Amp
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

Side Imaging Transducer

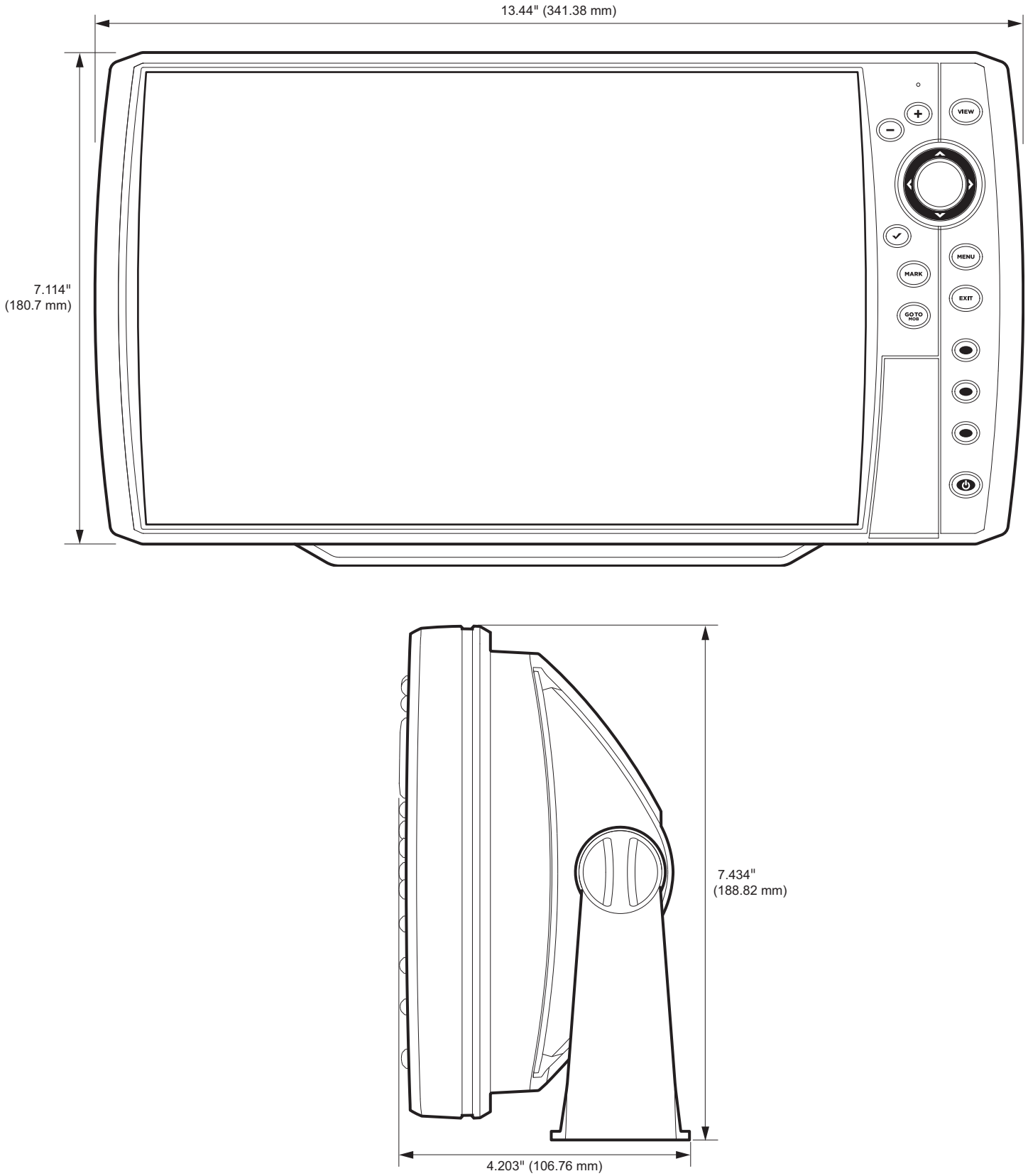
XNT 9 SI 180 T (includes built-in temperature probe)

Operating Frequency	**Side Imaging:** 455 kHz **DualBeam PLUS:** 200 kHz and 83 kHz
Depth Capability	**Side Imaging:** 150 ft (50 m) **DualBeam PLUS:** 1500 ft (457 m)
Area of Coverage	**Side Imaging:** (2) 86° @ -10 dB in 455 kHz (180° Total Coverage) **DualBeam PLUS:** 60° @ -10 dB in 83 kHz, 20° @ -10 dB in 200 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

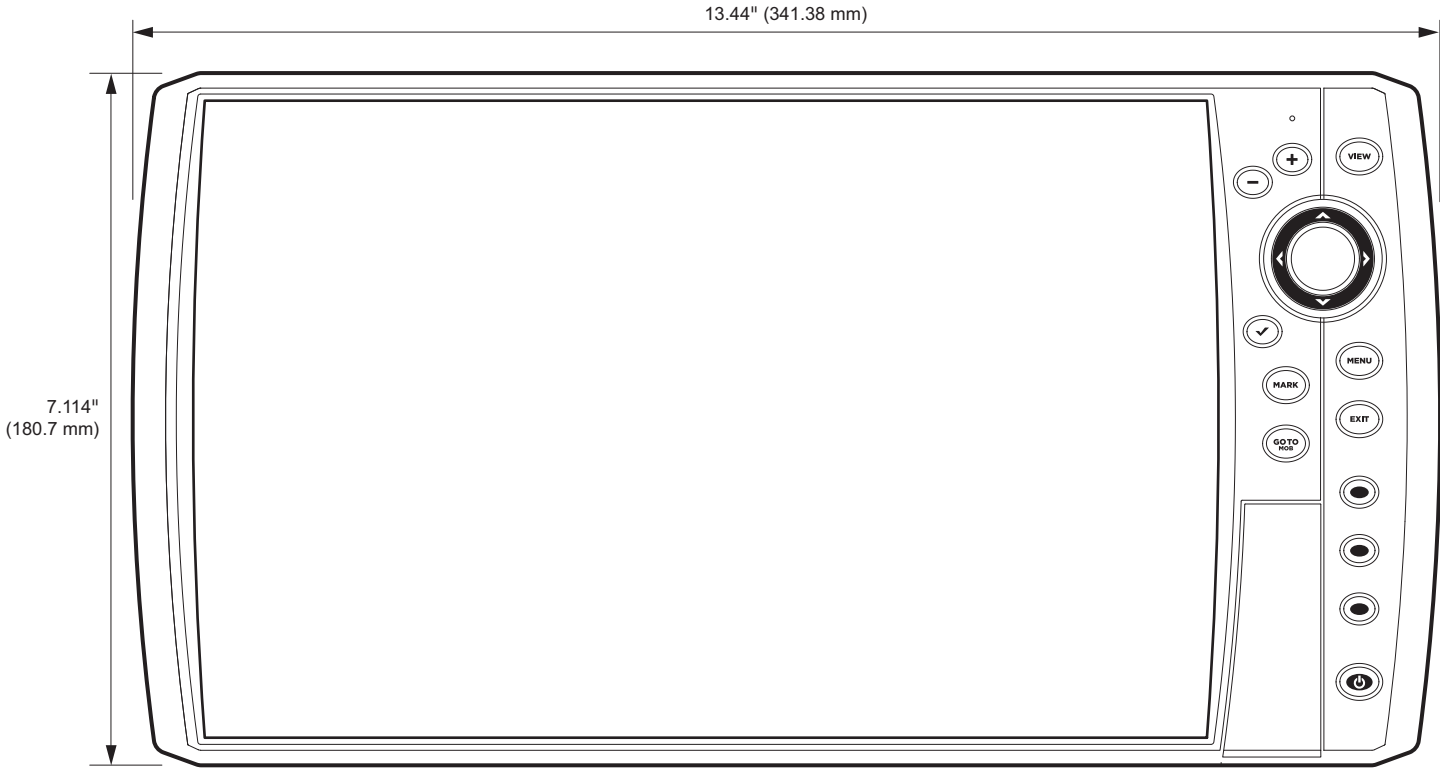
NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

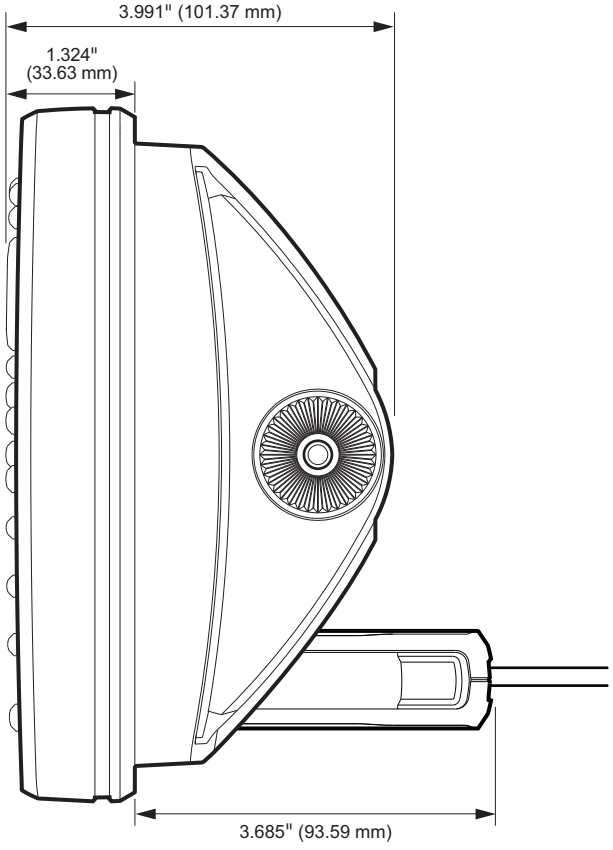
NOTE: Product specifications and features are subject to change without notice.

HELIX 9 Gimbal Mount



HELIX 9 In-Dash Mount





Control Head

Display Size (diagonal)	10.1 inches (256.5 mm)
Pixel Matrix	WSVGA 600V x 1024H
Display Type	TFT Color
Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1.2 Amps
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

DualBeam PLUS Transducer

XNT 9 20 T (includes built-in temperature probe)

Operating Frequency	200 kHz and 83 kHz
Depth Capability	1500 ft (457 m)
Area of Coverage	60°@-10 dB in 83 kHz, 20°@-10 dB in 200 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

NOTE: Product specifications and features are subject to change without notice.

Control Head

Display Size (diagonal)	10.1 inches (256.5 mm)
Pixel Matrix	WSVGA 600V x 1024H
Display Type	TFT Color
Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1.2 Amps
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

Down Imaging Transducer

XNT 9 DI T (includes built-in temperature probe)

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Depth Capability	**Down Imaging:** 350 ft (107 m) **Traditional Sonar:** 600 ft (183 m)
Area of Coverage	**Down Imaging:** 75° @ -10 dB in 455 kHz, 45° @ -10 dB in 800 kHz **Traditional Sonar:** 28° @ -10 dB in 200 kHz, 16° @ -10 dB in 455 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

NOTE: Product specifications and features are subject to change without notice.

Control Head

Display Size (diagonal)	10.1 inches (256.5 mm)
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Backlight	LED
Communication	NMEA 0183, Ethernet
Power Requirement	10 to 20 VDC
Current Draw	1.2 Amps
IPX Rating	IPX7 Waterproof/Submersible @ 1 m for 30 minutes and dust tight

Side Imaging Transducer

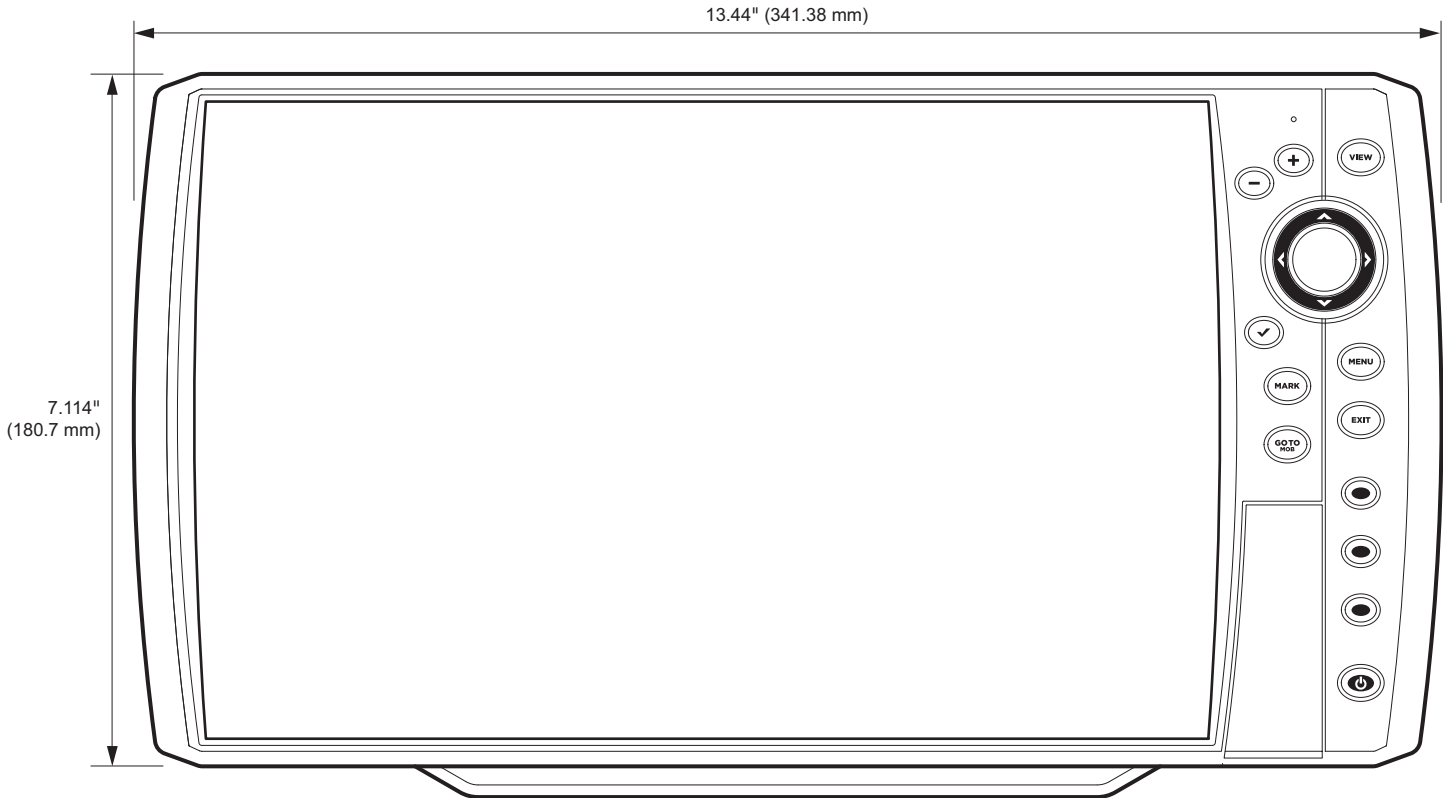
XHS 9 HDSI 180 T (includes built-in temperature probe)

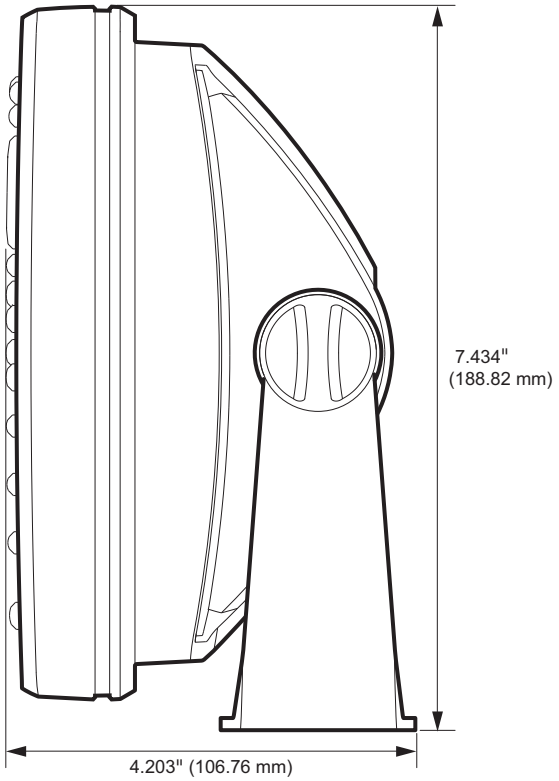
Operating Frequency	**Side Imaging:** 455 kHz, 800 kHz **DualBeam PLUS:** 200 kHz and 83 kHz
Depth Capability	**Side Imaging:** 150 ft (50 m) **DualBeam PLUS:** 1500 ft (457 m)
Area of Coverage	**Side Imaging:** (2) 86° @ -10 dB in 455 kHz (180° Total Coverage), (2) 55° @ -10 dB in 800 kHz (130° Total Coverage) **DualBeam PLUS:** 60° @ -10 dB in 83 kHz, 20° @ -10 dB in 200 kHz
Power Output (MAX)	500 Watts (RMS), 4000 Watts (Peak to Peak)
Target Separation	2.5 inches (63.5 mm)

NOTE: Humminbird verifies maximum stated depth in saltwater conditions, but actual depth performance may vary due to transducer installation, water type, thermal layers, bottom composition, and slope.

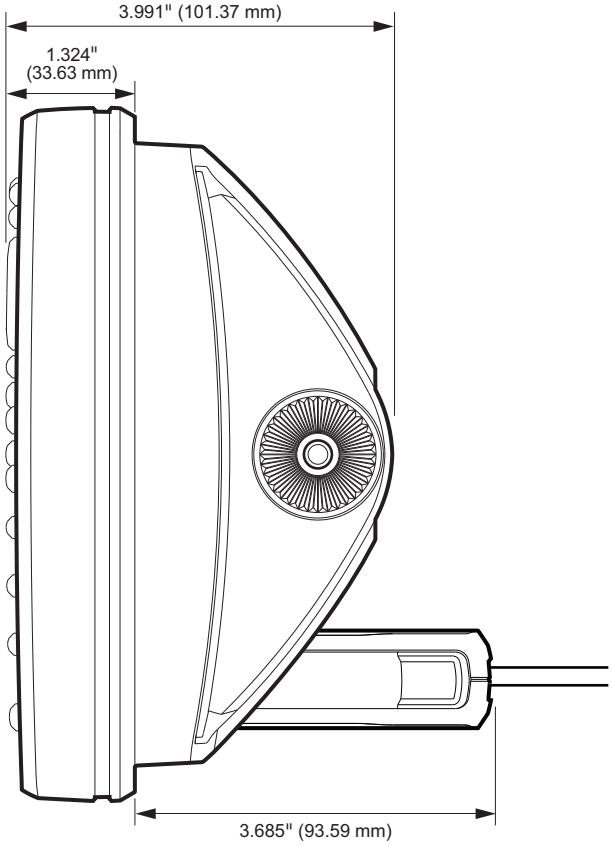
NOTE: Product specifications and features are subject to change without notice.

HELIX 10 Gimbal Mount





HELIX 10 In-Dash Mount



Linux Operating System

NOTE: This product uses the Linux operating system. This portion of the software is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version. This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You may receive a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

To receive a free copy of the Linux software used in this system, please send a letter of request* with the following information:

Name (First & Last)
Phone Number
E-mail Address
Mailing Address
Humminbird serial number
(Your Humminbird unit must be registered at humminbird.com/support/productregistration.aspx.)

Shipping and Handling:

We can only accept requests that include a money order in the amount of $9.99 to cover shipping and handling. Please allow 4-6 weeks for processing.

Send the letter of request* to the following address:

Software Request
Humminbird
678 Humminbird Lane
Eufaula, AL 36027

***NOTE:** A copy of the Linux operating system is not required to upgrade your fishing system. The Humminbird application software and control head include a separate service warranty. Please see **humminbird.com** and the separate warranty card included with your unit for details.

Contact Humminbird

Contact Humminbird Customer Service in any of the following ways:

Web site:

humminbird.com

E-mail:

service@humminbird.com

Telephone:

1-800-633-1468

Direct Shipping:

Humminbird
Service Department
678 Humminbird Lane
Eufaula, AL 36027 USA

Hours of Operation:

Monday - Friday

8:00 a.m. to 4:30 p.m. (Central Standard Time)

Social Media Resources:

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