HUMMINBIRD®

HELIX 5 Series & HELIX 7 Series
Operations Manual

HELIX DI GPS, HELIX XD GPS, HELIX SONAR GPS, & HELIX GPS

Thank You!

Thank you for choosing Humminbird®, the #1 name in marine electronics. Humminbird has built its reputation by designing and manufacturing top-quality, thoroughly reliable marine equipment. Your Humminbird is designed for trouble-free use in even the harshest marine environment. In the unlikely event that your Humminbird does require repairs, we offer an exclusive Service Policy. For complete details, see the separate warranty card included with your unit. We encourage you to read this manual carefully in order to get the full benefit from all the features and applications of your Humminbird product.

Contact Humminbird Customer Service at **humminbird.com** or call **1-800-633-1468**.

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! *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.*

WARNING! *Do not travel at high speed with the unit cover installed. Remove the unit cover before traveling at speeds above 20 mph.*

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 unit's defaults or updating the software. See the following sections of your Humminbird manual:* ***microSD Card Slot*** *and* ***Snapshot and Recording View***. *Also, contact Humminbird Customer Service with any questions.*

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.

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WEEE DIRECTIVE: EU Directive 2002/96/EC "Waste of Electrical and Electronic Equipment Directive (WEEE)" impacts most distributors, sellers, and manufacturers of consumer electronics in the European Union. The WEEE Directive requires the producer of consumer electronics to take responsibility for the management of waste from their products to achieve environmentally responsible disposal during the product life cycle.

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.

This symbol (WEEE wheelie bin) on product indicates the product must not be disposed of with other household refuse. It must be disposed of and collected for recycling and recovery of waste EEE. Johnson Outdoors Marine Electronics, Inc. will mark all EEE products in accordance with the WEEE Directive. It is our goal to comply in the collection, treatment, recovery, and environmentally sound disposal of those products; however, these requirements do vary within European Union member states. For more information about where you should dispose of your waste equipment for recycling and recovery and/or your European Union member state requirements, please contact your dealer or distributor from which your product was purchased.

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.

Table of Contents

Table of Contents

HELIX Series Overview

The HELIX Series is available in several different configurations. See the following list of products, all of which are covered by this manual, to find your HELIX Series model:

- **HELIX SONAR GPS:** Wide screen Fishfinder with DualBeam PLUS (2D) sonar, chartplotting, and an internal GPS receiver.
- **HELIX DI GPS:** Wide screen Fishfinder with Down Imaging sonar, traditional 2D sonar, chartplotting, and an internal GPS receiver.
- **HELIX XD GPS:** Wide screen Fishfinder with Xtreme Depth sonar, chartplotting, and an internal GPS receiver.
- **HELIX GPS:** Wide screen chartplotter with an internal GPS receiver. This model has exclusive views for chartplotting. Please note that the chartplotter does not include the sonar features described in this manual (fishfinder, sonar, recording, depth, transducer, etc.).

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.

How Sonar Works

Sonar technology is based on sound waves. The HELIX Series Fishfinder uses sonar to locate and define structure, bottom contour and composition, as well as depth directly below the transducer.

Your HELIX Series Fishfinder sends a sound wave signal and determines distance by measuring the time between the transmission of the sound wave and when the sound wave is reflected off of an object; it then uses the reflected signal to interpret location, size, and composition of an object.
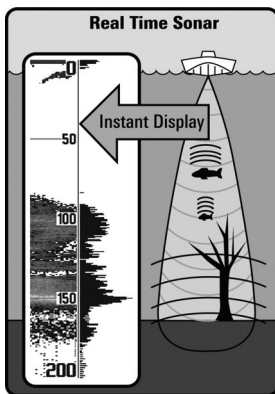
Sonar is very fast. A sound wave can travel from the surface to a depth of 240 ft (70 m) and back again in less than 1/4 of a second. It is unlikely that your boat can "outrun" this sonar signal.

SONAR is an acronym for SOund and NAvigation Ranging. Sonar utilizes precision sound pulses or "pings" which are emitted into the water in a teardrop-shaped beam.

The sound pulses "echo" back from objects in the water such as the bottom, fish, and other submerged objects. The returned echoes are displayed on the LCD screen. Each time a new echo is received, the old echoes are moved across the LCD, creating a scrolling effect.

**Older Pings
Scroll Across Display**

Most Recent Sonar Ping
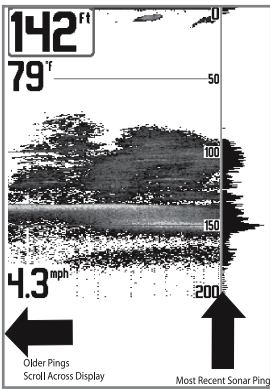
When all the echoes are viewed side by side, an easy to interpret "graph" of the bottom, fish, and structure appears.

Sonar Frequency

High Frequency   **Low Frequency**

Greater Resolution, Less Depth   Low Resolution, Greater Depth

Deeper
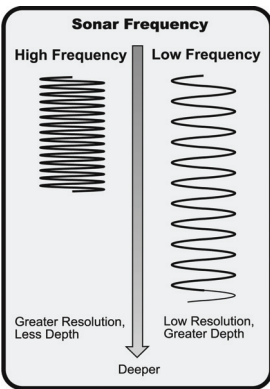
The sound pulses are transmitted at various frequencies depending on the application. Very high frequencies (455 kHz) are used for greatest definition but the operating depth is limited. High frequencies (200 kHz) are commonly used on consumer sonar and provide a good balance between depth performance and resolution. Low frequencies (83 kHz) are typically used to achieve greater depth capability.

Power Output Cycle

Peak To Peak (PtP)   **Root Mean Square (RMS)**
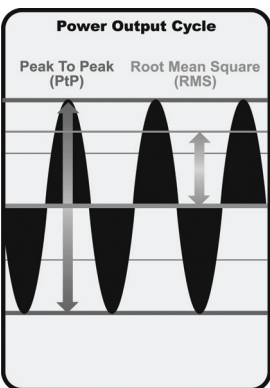
The power output is the amount of energy generated by the sonar transmitter. It is commonly measured using two methods:

- **Root Mean Square (RMS)** measures power output over the entire transmit cycle.
- **Peak to Peak** measures power output at the highest points.

The benefits of increased power output are the ability to detect smaller targets at greater distances, ability to overcome noise, better high speed performance, and enhanced depth capability.
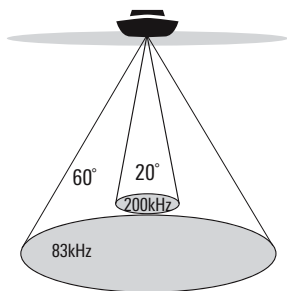
⬜ 60 Degree Total Coverage

⬜ Bottom Coverage = 1 x Depth
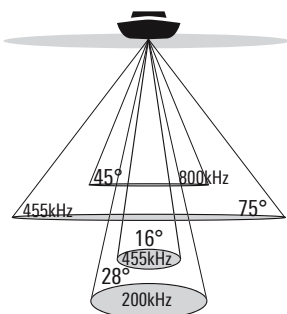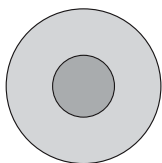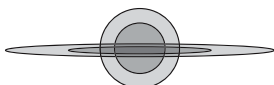
DualBeam PLUS Sonar
(HELIX SONAR GPS)

The **HELIX SONAR GPS Fishfinder** uses a 200/83 kHz DualBeam PLUS sonar system with a wide (60°) area of coverage. DualBeam PLUS sonar 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. DualBeam PLUS sonar returns can be blended together, viewed separately, or compared side-by-side.

DualBeam PLUS is ideal for a wide range of conditions - from shallow to very deep water in both fresh and salt water.

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

⬜ 75 Degree Total Coverage

Down Imaging Sonar
(HELIX DI GPS)

The **HELIX DI GPS Fishfinder** uses Down Imaging technology. 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 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 *Sonar Menu Tab: Imaging Frequency* for more information.

The transducer also uses conical beams to provide data in traditional 2D format (see *What's on the Sonar Display*). Select 455 kHz for a narrowly focused 16° center beam, or select 200 kHz for a wider 28° beam (see *Sonar Menu Tab: Beam Select*).

Depth capability is affected by such factors as boat speed, wave action, bottom hardness, water conditions, and transducer installation.
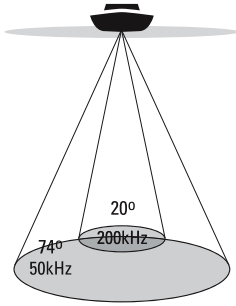
74 Degree Total Coverage
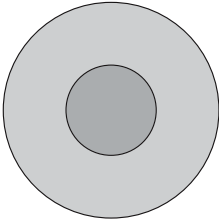
Xtreme Depth Sonar
(HELIX XD GPS)

The **HELIX XD GPS Fishfinder** uses the XD transducer to provide extreme depth coverage with DualBeam PLUS technology.

The Xtreme Depth sonar beams can be operated at two frequencies: 50 kHz (74°) and 200 kHz (20°). The wide, 50 kHz beam transmits at a low frequency to provide greater depth coverage, up to 2500 ft (762 m). The narrow, 200 kHz center beam transmits at a high frequency to provide maximum detail at shallower depths.

The DualBeam PLUS technology allows you to view the sonar returns blended together, separately, or side-by-side (see *Sonar Menu Tab: Beam Select* and *Views* for more information).

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

⁂ 60 Degree Total Coverage

⁂ Bottom Coverage = 1 x Depth

Dual Beam Ice Transducer
(with optional-purchase XI 9 20 Ice Transducer)
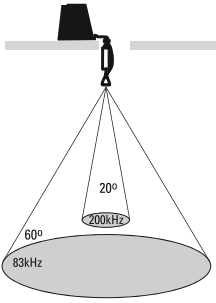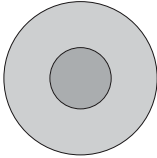
The **XI 9 20 Ice Transducer** provides selectable dual-frequency sonar with a wide area of coverage. Selectable dual-frequency gives you the option of two beams, and both beams will cover the bottom and provide high definition. The 20° center beam provides the highest definition, while the 60° beam provides wider coverage. Depth capability is affected by such factors as bottom hardness and water conditions. Whether fishing in shallow or very deep water, selectable dual-frequency is ideal for a variety of conditions.

*NOTE: Contact Humminbird Customer Service to determine which accessory transducers are compatible with your control head, or visit our Web site at **humminbird.com**.*

How GPS and Cartography Work

Your control head also supports GPS (Global Positioning System) and chartplotting. It uses GPS and sonar to determine your position, display it on a grid, and provide detailed underwater information.

GPS uses a constellation of satellites that continually send radio signals to the earth. The GPS receiver receives signals from satellites that are visible to it. Based on time differences between each received signal, the GPS receiver determines its distance to seach satellite. With distances known, the GPS receiver mathematically triangulates its own position. With 5 updates per second, the GPS receiver then calculates its velocity and bearing.

GPS was originally intended for military use; however, civilians may also take advantage of its highly accurate position capabilities, typically within +/- 4.5 meters, depending on conditions. This means that 95% of the time, the GPS receiver will read a location within 4.5 meters of your actual position. Your GPS Receiver also uses information from WAAS (the Wide Area Augmentation System), EGNOS (thes European Geostationary Navigation Overlay Service), and MSAS (the MTSAT Satellite Augmentation System) satellites if they are available in your area.

The following GPS functionality is currently supported by the control head:

- View current position
- View current track (breadcrumb trail)
- View precision speed and heading from your GPS receiver
- Save tracks, waypoints, and routes
- Travel a route and navigate from one waypoint to the next

See *Views: Chart View* and *microSD Card Slot: Add Maps to your Control Head* for more information.

Power On

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

HELIX Series Title Screen

1. Press the ⓪ POWER/LIGHT key.

2. When the Title screen is displayed, press the MENU key to access the Start-Up Options Menu.

3. Select Normal, and press the RIGHT Cursor key.

   • If you wait too long to select a Start-Up Option, the system will default to whichever menu is already highlighted.

   • **HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS:** If a functioning transducer is connected, Normal operation will be selected automatically, and your control head can be used on the water.

   • You can also select **Simulator** to learn how to use your control head and save settings in advance for later use. See ***Start-Up Options Menu*** for more information.

4. **Quick Setup:** If this is the first time the unit has been powered on (after installation or after restoring defaults), the Quick Setup dialog box will display on the screen. Use the 4-WAY Cursor Control key to change the settings. Press the EXIT key to close the dialog box.

*NOTE: The Quick Setup settings can be changed at any time. See each menu option in **The Menu System** for details.*

What's on the Control Head

Your HELIX Series user interface is easy to use. A combination of keys, different views, and situation-specific, customizable menus allows you to control what you see on the color display. Refer to the following illustration and see *Key Functions*, *Views*, and *The Menu System* for more information.
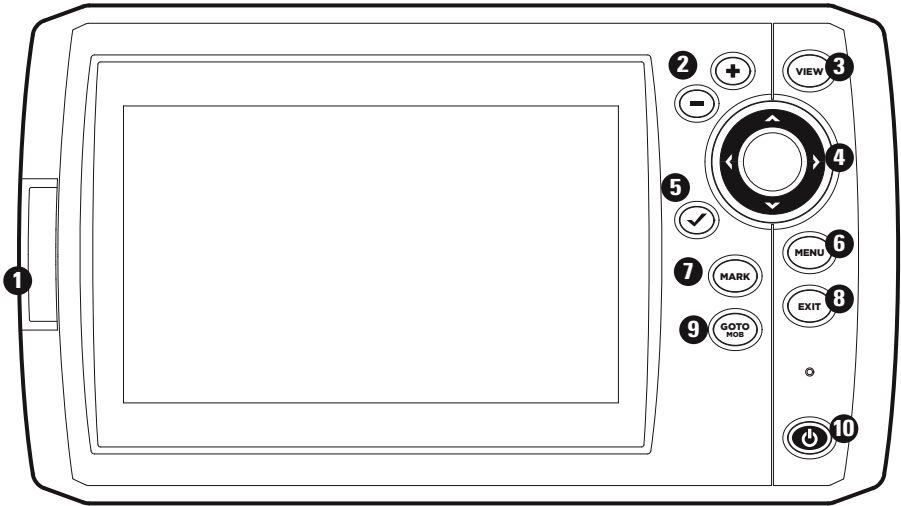
1 microSD Card Slot	MENU Key **6**
2 ZOOM (+/-) Keys	MARK Key **7**
3 VIEW Key	EXIT Key **8**
4 4-WAY Cursor Control Key (LEFT, RIGHT, UP, or DOWN)	GOTO/MOB Key **9**
5 CHECK/INFO Key	POWER/LIGHT Key **10**

Key Functions

Your control head consists of a set of easy-to-use keys that work with various on-screen views and menus.

POWER/LIGHT Key

The POWER/LIGHT key is used to power the control head on and off. You can also use the POWER/LIGHT key to adjust the backlight and contrast of the display.

Power On: Press the POWER/LIGHT key to power on the unit. When the Title screen is displayed, press the MENU key to access the Start-Up Options Menu.

Power Off: Press and hold the POWER/LIGHT key for 3 seconds. A message will appear to indicate how many seconds there are until shutdown occurs. To ensure that shutdown occurs properly and any menu settings will be saved, your control head should always be turned off using the POWER/LIGHT key.
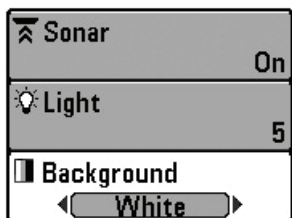
Adjust the Backlight or the Display Background Color: Press the POWER/LIGHT key to access the Light and Background submenu. Use the 4-WAY Cursor Control key to select Light or Background, and then use the LEFT or RIGHT Cursor key to change the settings. Press EXIT to exit the Light and Background submenu.

Turn Sonar On or Off: From the Light and Background submenu, use the 4-WAY Cursor Control key to select Sonar. Use the LEFT or RIGHT Cursor key to change the setting. See *Setup Menu Tab: Sonar* for more information.

VIEW Key

The VIEW key is used to cycle through all available views. Press the VIEW key to advance to the next view. Repeatedly pressing VIEW cycles through all views available (see *Views* or *Views Menu Tab*).

NOTE: Press the EXIT key to cycle through the views in reverse order.

CHECK/INFO Key

Press the CHECK/INFO key while in Bird's Eye, Chart, or Combo View to display information about objects that are near an active cursor. If the cursor is not active, the Chart Info submenu will be displayed. See *Views: Viewing Cartography* for more information.

MENU Key

The MENU key is used to access the menu system. See *The Menu System* for more information.

- **Start-Up Options Menu:** Press the MENU key during the power up sequence to view the Start-Up Options menu.

- **X-Press Menu:** Press the MENU key once in any view to access the X-Press Menu, which provides frequently-used menu settings that correspond with the current view or navigation mode.

- **Main Menu:** Press the MENU key twice in any view to access the Main Menu, which is organized under tabbed headings to help you find a specific menu item quickly.
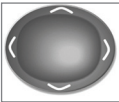
4-WAY Cursor Control Key
(LEFT, RIGHT, UP, or DOWN Cursor keys)

The 4-WAY Cursor Control key has multiple functions, depending on the view, menu, or situation.

- **Menu Selection:** Press the DOWN or UP Cursor keys to highlight a menu option, then press the RIGHT or LEFT Cursor keys to change a menu setting.

    NOTE: Menu settings are implemented and saved immediately - no further action is required.

- **Freeze Frame:** In Sonar View and Down Imaging View, press any arrow on the 4-WAY Cursor Control key to freeze the display and move the active cursor to a location on the screen. A cursor dialog box will display to show the depth of the location you choose.

- **Active Cursor:** Press any arrow on the 4-WAY Cursor Control key, and the active cursor will appear on the screen.

- **Chart View:** Press any arrow on the 4-WAY Cursor Control key to pan the chart and highlight decluttered waypoint icons.

    NOTE: In Freeze Frame or Active Cursor mode, you can also make the cursor move diagonally by pressing in between two of the arrows on the 4-WAY Cursor Control key.

- **Bird's Eye View:** The 4-WAY Cursor Control key controls the motion of the eye point.

- **Snapshot and Recording View:** Press the UP or DOWN Cursor keys to highlight a recording icon, and then press the RIGHT Cursor key to start recording playback. Press the RIGHT or LEFT Cursor keys to control the speed of playback.

- **Circular Flasher View (Ice Fishing Mode: On):** Press the UP or DOWN Cursor keys to move the Depth Cursor. Press the RIGHT or LEFT Cursor keys to adjust the Zoom Range (see *Views: Circular Flasher View*).

MARK Key

MARK Press the MARK key while in any view to mark the position of a waypoint.

- **Active Cursor:** The waypoint will be marked at the cursor location.

- **Without Active Cursor:** The waypoint will be marked at the boat location.

- **If Screen Snapshot is active,** a waypoint will be created, and a screen snapshot will also be saved to the optional-purchase microSD Card (see *Views: Snapshot and Recording View*). Navigation is not affected by the Screen Snapshot feature.

   NOTE: If Screen Snapshot is enabled but there is not a GPS receiver connected, pressing the MARK key will capture the screen image and display an error saying that a GPS position fix is required to create a waypoint.

   NOTE: You must have an optional-purchase microSD Card installed for the screen snapshot feature to work.

GOTO/Man Overboard Key

GOTO The GOTO/MOB key has multiple functions, depending on the situation:

- **Active Cursor:** Press the GOTO key while in any view to create a waypoint and start navigation towards that waypoint.

- **Without Active Cursor:** Press the GOTO key to display the saved waypoints list, and then highlight a waypoint. Press the RIGHT Cursor key to begin navigation.

- **Man Overboard:** Press and hold the GOTO key for more than 1.5 seconds to activate the Man Overboard (MOB) function. Once MOB is activated, any current navigation will be cancelled and the current route will be discarded without notification (see *Introduction to Navigation: Man Overboard (MOB) Navigation*).

ZOOM (+/–) Key

The Zoom (+/–) key has multiple functions, depending on the situation:

- In any of the **Navigation Views** or the **Sonar Zoom View**, press the +/– Zoom key to change the scale of the view to appear closer or farther away. See *Views* and *Introduction to Navigation* for more information.

- In the **Circular Flasher View (Ice Fishing Mode: On),** press the +Zoom key to display a 2x magnified view of the selected area on the Flasher dial. See *Views: Circular Flasher View* for more information.

- **Down Imaging View:** Use the 4-WAY Cursor Control key to move the active cursor to a position on the screen. Press the + ZOOM key to magnify your selection. Press the – Zoom key to decrease the scale.

   NOTE: The cursor must be active for the zoom feature to work in the Down Imaging View.

EXIT Key

The EXIT key has multiple functions, depending on the situation:

- **If an alarm is sounding**, press the EXIT key to cancel the alarm.
- **If a menu tab is selected**, press the EXIT key to exit the menu mode and return to the view.
- **If a menu is active,** press the EXIT key to return to the previous level in the menu system.
- **From any view,** press the EXIT key to cycle through the available views in reverse order.
- **If Freeze Frame is active,** press the EXIT key to return to a scrolling display.
- **If the Cursor is active,** press the EXIT key to remove the cursor from the display.
- **If Down Imaging Zoom is active,** press the EXIT key to remove the magnification box from the display and remove the cursor.

microSD Card Slot

The microSD card slot on your control head can be used with a microSD card (separate purchase required) to add detailed charts to your control head, import/export navigation data, and save sonar recordings (see *Snapshot and Recording View* for details).

> *NOTE: The microSD Card requires a separate purchase. For more information, visit our Web site at **humminbird.com** or contact Humminbird Customer Service at **1-800-633-1468**.*

To insert a microSD Card:

1. Remove the microSD card slot cover.

2. Position the microSD card so that the label faces the front of the control head and the card notches face down.

3. Insert the card into the slot until it clicks into place.

4. Replace the slot cover so it is secure.

5. **To 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 microSD card slot cover open. The slot cover should always be closed to prevent water damage to the unit.
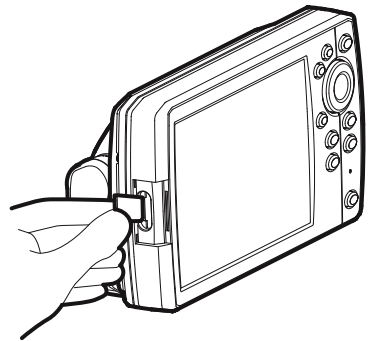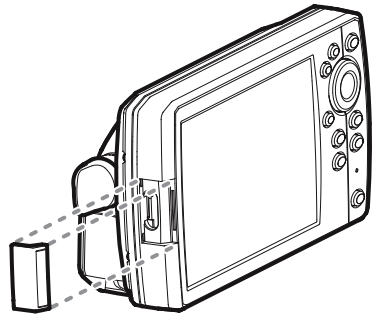
Inserting a microSD Card into the Card Slot

Add Maps to your Control Head

Your control head includes a built-in UniMap with a more detailed map of North America (Domestic models) or a detailed map of Europe and Southeast Asia, including Australia and New Zealand (International models).

You can also purchase microSD cards with additional chart information for a particular location.

> *NOTE: The microSD card requires a separate purchase. Your control head supports Humminbird LakeMaster, Navionics Gold, HotMaps, and HotMaps Premium on microSD card media. Your control head does NOT support Navionics Classic Charts or Platinum Cartography.*

- **Auto Select:** When you install the microSD card in your control head, it will retrieve the chart and display it automatically.

- **Chart Select:** You can also choose which chart to display with the Chart Select menu option in the Chart Menu Tab (see ***Chart Menu Tab: Chart Select***).

- **Chart Layers:** You can customize your Navigation Views by selecting which chart layers to display or hide (see ***Chart Menu Tab: Chart Detail Level***).

- **Map Borders:** Use the 4-WAY Cursor Control key to move the active cursor within a map border, and press the +ZOOM key to view the different map (see ***Chart Menu Tab: Map Borders***).

- **Menu Options:** The Chart Menu Tab will change to display menu options that correspond with the active chart (see ***Chart Menu Tab***).

Import Navigation Data

Review the following information before importing navigation data (waypoints, routes, tracks, or groups) into your Humminbird unit.

> **WARNING!** *DO NOT import navigation data from unknown sources into your Humminbird unit 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.*

- **Import Humminbird Navigation Data:** Insert a loaded microSD card into the control head card slot, and follow the on-screen prompts to import the waypoints, routes, tracks, and groups.

  NOTE: *For more information and instructions, see the FAQ (Frequently Asked Questions) section of our Web site at* **humminbird.com** *or call Humminbird Customer Service at* **1-800-633-1468***.*

Export Navigation Data

The Humminbird Waypoint Management dialog box allows you to export all of your navigation items to an installed, unlocked microSD card. You can also export selected items.

> For more information, see ***Introduction to Navigation: What's on the Waypoint Management Dialog Box***. Also, see your Humminbird Waypoint Management Guide for complete details.
>
> It is important to back up your control head's data files (waypoints, routes, tracks, groups, recordings, etc.) periodically. You can also save, view, and organize your navigation data on your PC using HumminbirdPC. See your Humminbird online account for details at **humminbird.com**.

<u>To export all navigation data</u>:

Use the following instructions to export all of the control head's waypoints, routes, tracks, and groups to an installed, unlocked microSD card.

1. Insert an unlocked microSD card into the card slot.

2. **Open the Waypoint Management Dialog Box:** Press the MENU key twice. Press the RIGHT Cursor key until the Navigation tab is selected. Select Waypoints, Routes, Tracks. Press the RIGHT Cursor key.

3. Select Options > Select All and... > Export.

4. Follow the on-screen instructions to confirm or cancel the export.

<u>To export selected navigation items</u>:

Use the following instructions to select and export specific waypoints, routes, tracks, and groups to an installed, unlocked microSD card.

1. Insert an unlocked microSD card into the card slot.

2. **Open the Waypoint Management Dialog Box:** Press the MENU key twice. Press the RIGHT Cursor key until the Navigation tab is selected. Select Waypoints, Routes, Tracks. Press the RIGHT Cursor key.

3. From a selected group directory in the Waypoint Management dialog box, select Options > Select Multiple and... > Export.

4. **Select Items:** Press the UP or DOWN Cursor keys to scroll through the waypoints, routes, tracks, and groups. Press the RIGHT Cursor key to select an item. Repeat as needed.

5. **Confirm Export:** When you are finished selecting items, press the EXIT key to select Export Selected. Press the RIGHT Cursor key and follow the on-screen instructions to confirm or cancel the export.

   NOTE: If a microSD card is not installed, an error message will be displayed. Insert the card and try again.

   *NOTE: The microSD card and adapter require separate purchases. Visit our Web site at **humminbird.com** or contact Humminbird Customer Service at **1-800-633-1468**.*

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* **Export Navigation Data** *and* **Snapshot and Recording View** *for more information. Also, contact Humminbird Customer Service with any questions.*

Required Equipment: Personal computer with Internet access, a formatted microSD card, and a microSD card adapter.

To update the control head software:

1. Install a formatted microSD card into the adapter, and insert it into the slot on your PC.

2. **Register your Control Head:** Log on to humminbird.com. Click My Humminbird. Set up a new account.

3. **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 microSD card.

4. Install the microSD card with the updated software file into the control head card slot.

5. **Power on:** The control head will recognize the new software and run through a series of prompts to confirm software installation.

Inserting a microSD Card into the Adapter
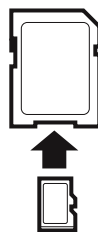
Inserting a microSD Card into the Card Slot
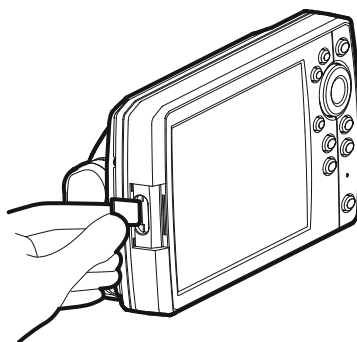
What's on the Sonar Display

The Fishfinder can display a variety of useful information about the area under and adjacent to

❶ **Depth** – Water depth can be set to alarm when the water becomes too shallow.

❷ **Timer** – Elapsed time with Speed accessory or GPS receiver.

❸ **Distance** – Distance traveled with Speed accessory or GPS receiver.

❹ **Average Speed** – Average speed reading with Speed accessory or GPS receiver.

your boat, including the following items:

158 Distance **ft**   **090** Bearing **°t**

❿

15

❾

❽

30

⓫

45

60

❽ Thermoclines – Layers of water with different temperatures that appear at different depths and different times of the year. A thermocline typically appears as a continuous band of many colors moving across the display at the same depth.

❾ Sonar Color Bar – Color spectrum indicating low to high sonar intensity returns, where red indicates high intensity and white indicates low intensity.

❿ Bait Ball

⓫ RTS (Real Time Sonar) Window

⓬ Second Sonar Return – When the sonar signal bounces between the bottom and the surface of the water and back again. Use the appearance of the second return to determine bottom hardness. Hard bottoms will show a strong second return, while soft bottoms will show a very weak one or none at all.

⓭ Cursor – Available in Freeze Frame and can be positioned in the Sonar View to provide depth of a sonar return and bottom depth below the cursor. The Latitude and Longitude of the cursor position, the distance to travel to the cursor position, and the bearing to the cursor position are shown with a connected GPS receiver. Cursor information is displayed at the top of the screen.

❺ Voltage – Power supplied to the control head.

❻ Temperature – Water surface temperature.

❼ Speed – If a Speed accessory or GPS receiver is connected, the Fishfinder can display the speed of the boat, and can keep a triplog of nautical or statute miles traveled.

Older Pings
Scroll Across Display

Most Recent Sonar Ping
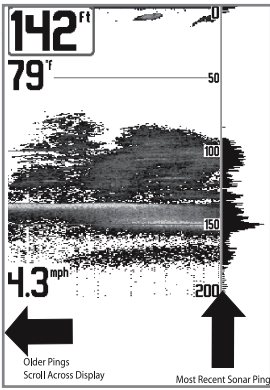
Understanding the Sonar Display

It is important to understand the significance of the display. The display does NOT show a literal 3-dimensional representation of what is under the water. Each vertical band of data received by the control head and plotted on the display represents something that was detected by a sonar return at a particular time. As both the boat and the targets (fish) may be moving, the returns are only showing a particular segment of time when objects were detected, not exactly where those objects are in relation to other objects shown on the display.

The returned sonar echoes are displayed on the screen. As a new echo is received, the historical data scrolls left across the display.

Real Time Sonar (RTS) Window

A **Real Time Sonar (RTS) Window** appears on the right side of the display in the Sonar Views only. The RTS Window always 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. The RTS Window plots the depth and intensity of a sonar return. (See *Sonar Menu Tab: Real Time Sonar (RTS) Window*).

The **Narrow RTS Window** indicates the sonar intensity through the use of colors. Red indicates a strong return and blue indicates a weak return. The depth of the sonar return is indicated by the vertical placement of the return on the display depth scale.
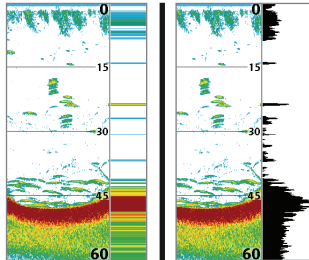
The **Wide RTS Window** indicates the sonar intensity through the use of a bar graph. The length of the plotted return provides an indication of whether the return is weak or strong. The depth of the sonar return is indicated by the vertical placement of the return on the display depth scale. The Wide RTS Window does not use grayscale.

Sonar Colors: Original Palette

HIGH
Intensity Return

MEDIUM
Intensity Return

LOW
Intensity Return

Sonar Colors and Bottom View

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 option. See *Sonar Menu Tab* to set the Sonar Colors.

Sonar View: Original Palette
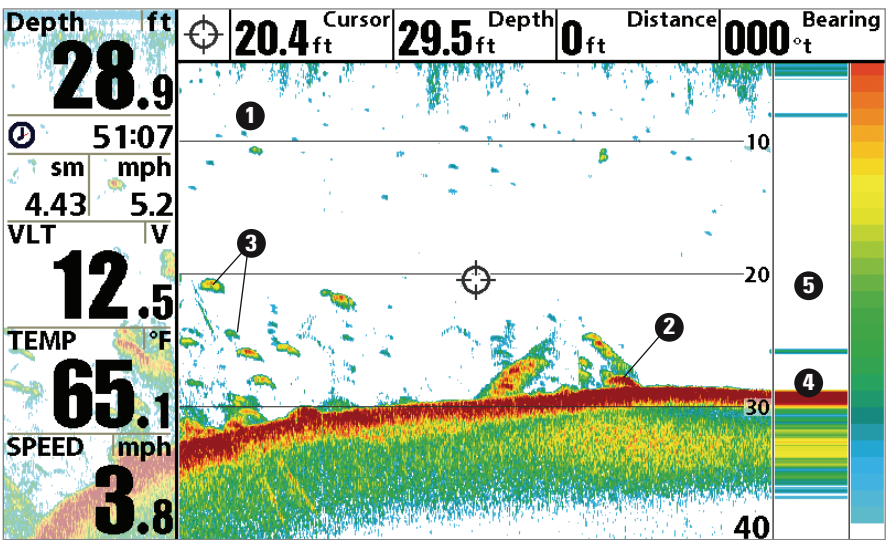
① Sonar History: Historical returns scroll left across the view
② Strong Returns (possibly rocks, tree limbs, or other structure)
③ Weak Returns (possibly vegetation or small fish)
④ Strong Return (possibly compacted sediment or rocks)
⑤ RTS Window

Use **Bottom View** to select the method used to represent bottom and structure on the display. See *Sonar Menu* to set the Bottom View.

Structure ID represents weak returns in blue and strong returns in red when Sonar Colors is set to Original. If the Sonar Colors palette is changed, the Structure ID will display the strongest return as specified by the palette. See *Sonar Menu Tab: Sonar Colors* for more information.
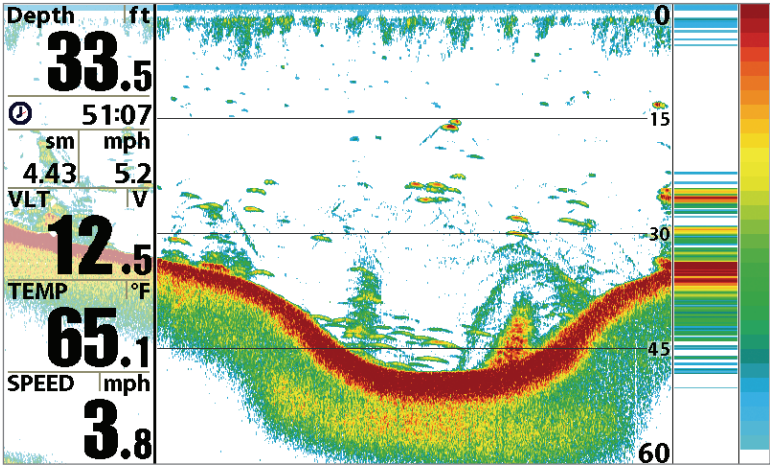
WhiteLine highlights the strongest sonar returns in white, resulting in a distinctive outline. This has the benefit of clearly defining the bottom on the display.
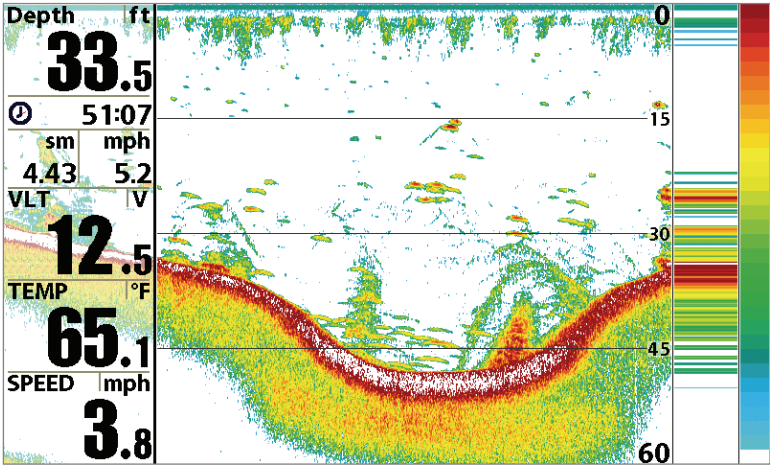
SwitchFire

SwitchFire controls how the sonar returns are displayed in the Sonar Views. SwitchFire settings are available in the Sonar Menu Tab.

To see the maximum sonar information available within the transducer beam so more fish arches and better jig tracking are shown, choose Max Mode.

To see less clutter and more fish size accuracy interpreted from the transducer beam, choose Clear Mode. See *Sonar Menu Tab: SwitchFire* for more information.

Freeze Frame and Active Cursor

Freeze Frame & Active Cursor - Press any arrow on the 4-WAY Cursor Control key, and the screen will freeze and a cursor will be displayed. Use the 4-WAY Cursor Control key to move the cursor over a sonar return, and the depth of the sonar return will be displayed in the cursor dialog box.

The **RTS Window** continues to update in Freeze Frame. To return to a scrolling display and exit Freeze Frame, press the EXIT key. Freeze Frame is available in the Sonar, Split Sonar, and Sonar Zoom Views.

Instant Image Update

Instant Image Update - You can change a variety of sonar menu settings (such as Sensitivity or Upper Range), and the adjustments will be shown instantly on the screen.

What's on the Down Imaging Display

Down Imaging uses unique sonar technology to provide information about the area directly that you see on the display. Down Imaging reveals a variety of recognizable features so that you
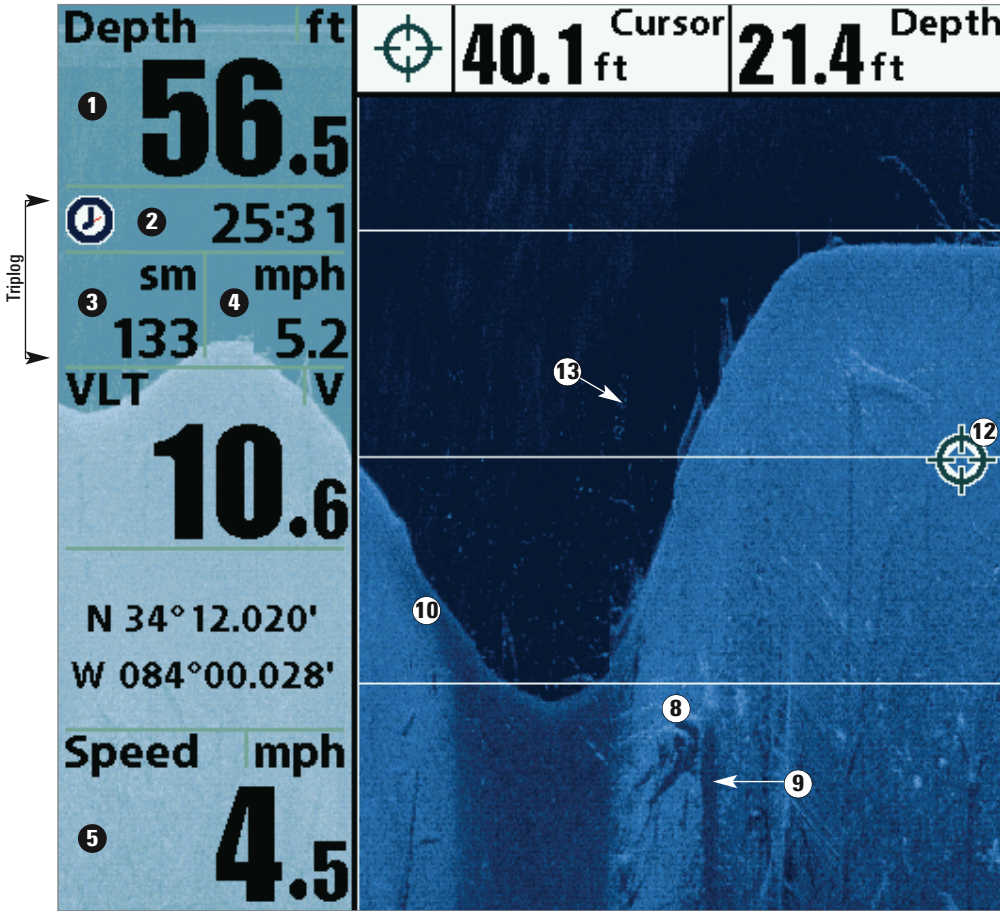
① Depth – Water depth can be set to alarm when the water becomes too shallow.

② Timer – Elapsed time with Speed accessory or GPS receiver.

③ Distance – Distance traveled with Speed accessory or GPS receiver.

④ Average Speed – Average speed reading with Speed accessory or GPS receiver.

⑤ Speed – If a GPS Receiver or Temp/Speed accessory is connected, the Fishfinder can display the speed of the boat and can keep a Triplog of nautical or statute miles traveled.

below your boat. The razor-thin, high- definition profiling beams produce the detailed sonar data can interpret the structure and bottom contour, including the following items:
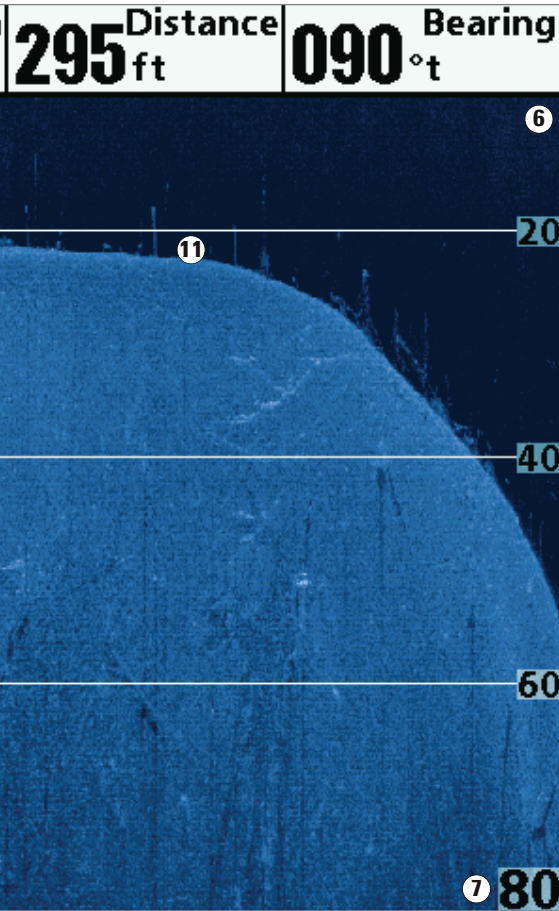
9 Shadows – Result from a lack of reflected sonar from a particular area and can be as valuable for interpretation than the sonar reflected by the object itself. Use shadows to help you see the image in 3 dimensions, oriented in space. You can gain insight into the actual shape of an object, or the depth to which it has sunk into the bottom, through shadows on the display. Objects standing on the bottom cast a sonar shadow. The longer the shadow, the taller the object. Fish also cast shadows. You can use the shadow to interpret how close the fish is to the bottom.

10 Topography Changes – The light part of the display shows where the beam is hitting hard bottom or rising terrain. The dark part of the display indicates soft bottom (sand, mud) or descending terrain.

11 Bottom Return – Use the appearance of the bottom return to determine bottom hardness. Rock and gravel provide a clearer sonar return than mud and sand because hard objects reflect sonar better than soft objects.

12 Freeze Frame - Use the 4-WAY Cursor Control key to move the cursor to an area on the screen.

13 Clouded Area may indicate a bait ball and **White Streaks** may indicate fish.

6 Upper Range

7 Lower Range

8 Structure

NOTE: Entries in this view that list (with Temp/Speed or GPS Receiver) are available if either device is connected to the control head. If both devices are connected, then only the information from the GPS receiver will be displayed on the view.
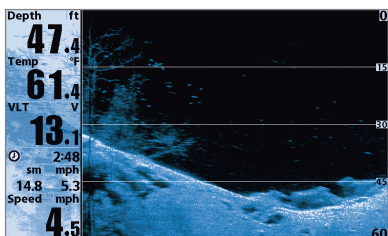
Understanding the Down Imaging Display

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.

Interpreting the Display

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

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.

Down Imaging Sensitivity

Use **Down Sensitivity** to control how the sonar returns appear on the display. Increase the sensitivity to reveal weaker returns that may be of interest, especially in very clear water or greater depths. Decrease the sensitivity to eliminate the clutter from the display that is sometimes present in murky or muddy water. See the ***Down Imaging X-Press Menu*** for more information.

Freeze Frame and Active Cursor

Freeze Frame and Active Cursor - Press any arrow on the 4-WAY Cursor Control key, and the screen will freeze and a cursor will be displayed. Use the 4-WAY Cursor Control key to move the cursor over a sonar return, and the depth of the sonar return will be displayed in the cursor dialog box.

Zoom: Use the zoom keys on your control head to see the returns near the cursor location at a higher magnification. See ***Views: Down Imaging View*** for more information.

Views

The sonar and navigation information from your control head is displayed on the screen in a variety of easy-to-read views.

Select a View

The available views on your Humminbird unit will vary with the model you've purchased and, if it's a sonar model, the transducer attached to the control head. See *Views Menu Tab* and the following pages for more information.

Next View: Press the VIEW key to advance to the next view in the View Rotation. Press the VIEW key repeatedly until the view you want to use is displayed on the screen.

Previous View: Press the EXIT key to see the previous view in the View Rotation. Press the EXIT key repeatedly until the view you want to use is displayed on the screen.

Display 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.

1. Press the MENU key twice to open the Main Menu.

2. Press the RIGHT Cursor key until the Views tab is selected.

3. Press the UP or DOWN Cursor keys to select a view.

4. Press the LEFT or RIGHT Cursor keys to select Hidden or Visible.

Change Digital Readouts

Each view displays digital readout information (such as speed or time), which varies with the view displayed on-screen, connected accessories, and whether or not you are navigating.

Sonar View

❶ Readout 1   ❸ Readout 3   ❺ Readout 5
❷ Readout 2   ❹ Readout 4
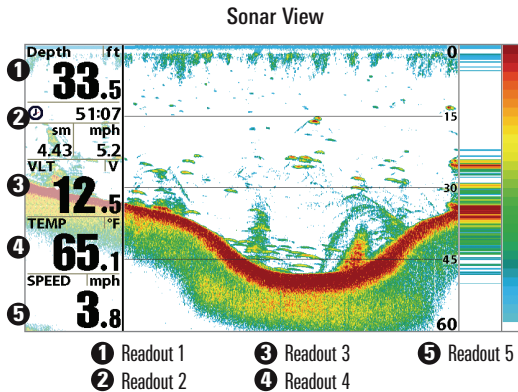
HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS: In Sonar View and Down Imaging View, you can choose which digital readouts you want to display. In the Chart View and Bird's Eye View, certain digital readouts can be customized and others are fixed, depending on whether or not you are navigating. See ***Setup Menu Tab: Select Readouts*** for more information.

HELIX GPS: You can select digital readouts for non-navigation mode (Select Readouts) and navigation mode (Select Nav Readouts). The Select Nav Readouts menu option allows you to choose standard digital readouts (such as Time or Voltage) and navigation digital readouts. See ***Navigation X-Press Menu: Select Readouts*** and ***Select Nav Readouts*** for more information.

1. **HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS:** Press the MENU key twice to open the Main Menu. Press the RIGHT Cursor key until the Setup tab is selected.

    NOTE: If the Select Readouts option does not appear under the Setup Tab, change the User Mode to Advanced (Setup tab > User Mode > Advanced).

    HELIX GPS: Press the MENU key once. The available menu options will be displayed for the on-screen view.

2. Press the DOWN key to highlight Select Readouts or Select Nav Readouts (HELIX GPS only), and press the RIGHT Cursor key.

3. Press the UP or DOWN Cursor keys to select a Readout window. Press the RIGHT or LEFT Cursor keys to choose a digital readout.

    Blank: To hide a data window, select Off.

| Digital Readouts (Selectable or Fixed)	
Bearing	Bearing is the direction to a destination waypoint measured in degrees from North (i.e. 321°, where 000° is North, 090° East, 180° is South, 270° is West).
CMG/SMG	Course Made Good/Speed Made Good. Course Made Good is the angle between the starting point on a route and the current position of the boat. The goal is to have CMG and Track equal to the same number. Speed Made Good is the distance from the starting waypoint on the route divided by the time elapsed since starting navigation on the route.
COG	Course Over Ground. Course Over Ground is the current direction the boat is traveling measured in degrees from North (i.e. 321°, where 000° is North, 090° East, 180° is South, 270° is West). When the Course Over Ground is equal to Bearing, the boat is said to be "On Course" and will arrive at the destination in the most efficient manner.
Off	Suppresses the readout so that no data shows in that position.
Position	Position is the current location (latitude, longitude) determined by GPS.
SOG	Speed Over Ground. Speed Over Ground is the measurement of the boat's progress across a given distance; the speed measurement provided by GPS; accurate destination times can be derived from this measurement.
TRK/CMG	Track/Course Made Good. The Track Line is the desired line of travel between two waypoints, and represents the most efficient path between the two points because it is a straight line. The TRK is measured in degrees. See above for an explanation of Course Made Good.
TTG	Time To Go. Time To Go is the estimated time required to reach the destination waypoint. TTG is calculated using the SOG and DTG.
Temp	The current detected water temperature.
Aux. Temp	The current detected water temperature from an optional-purchase Temperature Probe or Temp/Speed accessory.
Time	The current time.
Time + Date	The current time and date.
Triplog	Displays the triplog, which measures the elapsed time since last reset, the distance traveled since last reset, and average speed during timed interval.
VMG	Velocity Made Good. Velocity Made Good is the speed of travel relative to the next waypoint on the route. The goal is for VMG to equal Speed.
Voltage	Power supplied to the control head.
WPTend/ETA/DTG	Waypoint End/Estimated Time of Arrival/Distance to Go. Waypoint End is the last waypoint on the route. Estimated Time of Arrival is the estimated time of arrival to the last waypoint on the route. Distance To Go is the distance between the current position of the boat and the last waypoint on the route.
WPTend/TTG/DTG	Waypoint End/Time To Go/Distance to Go. Waypoint End is the last waypoint on the route. Time To Go is the estimated time required to reach the last waypoint on the route. TTG is calculated using the SOG and DTG. Distance To Go is the distance between the current position of the boat and the last waypoint on the route.
Water Speed	The current speed of the water as it flows past the boat.
WPTnext/ETA/DTG	Waypoint Next/Estimated Time of Arrival/Distance to Go. Waypoint Next is the next waypoint on the route. Estimated Time of Arrival is the estimated time of arrival to the next waypoint on the route. Distance To Go is the distance between the current position of the boat and the next waypoint on the route.
WPTnext/TTG/DTG	Waypoint Next/Time To Go/Distance to Go. Waypoint Next is the next waypoint on the route. Time To Go is the estimated time required to reach the next waypoint on the route. TTG is calculated using the SOG and DTG. Distance To Go is the distance between the current position of the boat and the next waypoint on the route.
Waypoint/TTG	Waypoint/Time To Go. Waypoint/Time To Go for the next waypoint on the route.
XTE	Cross Track Error is the straight-line distance of the boat from the intended Track. XTE measures how far the boat is off course, and also triggers the Off Course Alarm.

Combo Views

Combo Views display two views (or more) on the screen at the same time. You can perform functions for either side of the view, access the X-Press Menu, and change the left view display size. The available combo views are determined by your Humminbird model.

To change the settings for either side of the view, the individual view must be selected as the active side.

- The **green arrow** points to the active side.
- **Active Side:** Press the MENU key once and select Active Side from the X-Press Menu. Choose RIGHT or LEFT to set the active side.
- **X-Press Menu:** After you set the Active Side, press the MENU key once to open the X-Press Menu. The X-Press Menu provides settings for the active view, and the display updates immediately with your changes.
- **Display Size:** Press the MENU key once and select Split Position from the X-Press Menu. Split Position allows you to adjust the size of the left side of the display.
- **Active Cursor:** Press any arrow on the 4-WAY Cursor Control key, and the cursor will appear on the active side of the view.
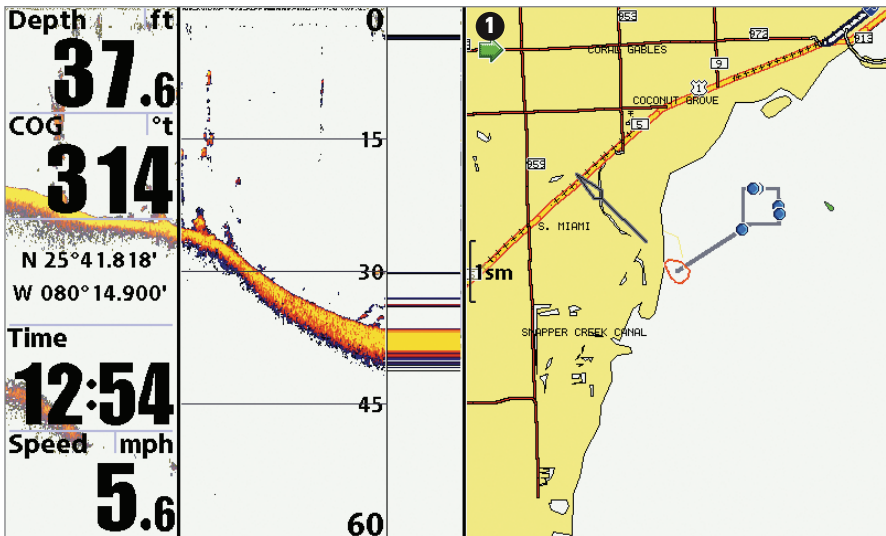
❶ green arrow = active side

Sonar View presents a historical log of sonar returns. The most recent sonar returns are charted on the right side of the display. As new information is received, the historical information scrolls left across the display.

- **Upper and Lower Depth Range numbers** indicate the distance from the surface of the water to a depth range sufficient to show the bottom.

- **Depth** is automatically selected to keep the bottom visible on the display, although you can adjust it manually as well (see *Sonar X-Press Menu*).

- **Digital Readouts** shown on the display will change based on the Select Readouts settings or the optional-purchase accessories attached (see *Views: Change Digital Readouts*).

- **Freeze Frame:** Use the 4-WAY Cursor Control key to freeze the display and move the cursor over a sonar return. The depth of the sonar return will be displayed in the cursor dialog box.

Sonar View
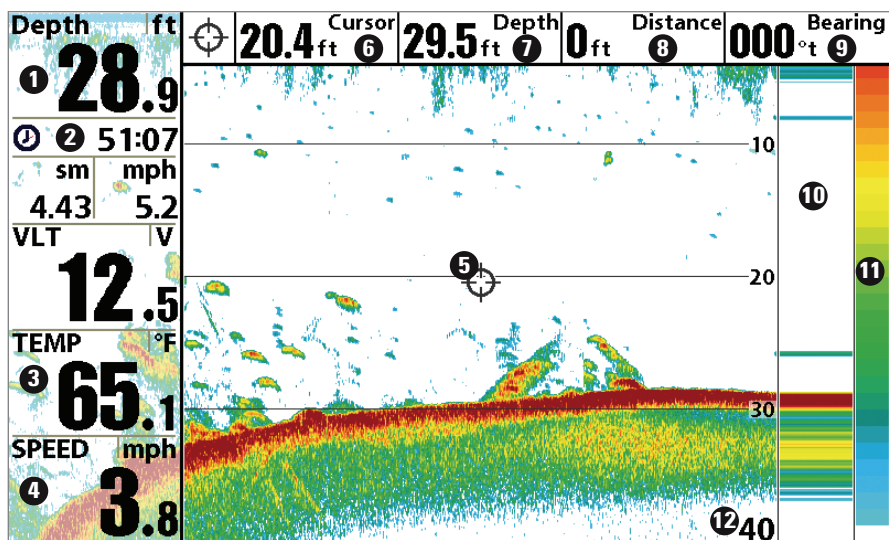
❶ Depth		Depth Below Cursor ❼
❷ Triplog		Distance to Cursor ❽
❸ Temperature		Bearing to Cursor ❾
❹ Speed		RTS Window ❿
❺ Cursor		Sonar Color Bar ⓫
❻ Depth of Cursor		Lower Depth Range ⓬

NOTE: If the Depth number is flashing, it means that 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, or for any other reason that the unit can't accurately receive continuous data.

Sonar Zoom View

Sonar Zoom View provides a magnified view of the bottom and structure. The Sonar Zoom View makes it easier to see separate sonar returns that would usually be displayed close together, such as those caused by fish suspended close to the bottom or within structure.

- The **Zoom Level**, or magnification, is displayed in the top left corner of the display. Press the + or - ZOOM keys to increase or decrease the zoom level.

- The **Zoomed View** is displayed on the left side of the screen. As the depth changes, the zoomed view updates automatically.

- The **Full Range View** is displayed on the right side of the screen. The Full Range View includes the Zoom Preview Box, which shows where the zoomed view is in relation to the full range view.

- The **Upper and Lower Depth Range numbers** indicate the high and low range of the water which is being viewed.

- **Digital Readouts** shown on the display will change based on the Select Readouts settings or the optional-purchase accessories attached (see *Views: Change Digital Readouts*).

- **Freeze Frame:** Use the 4-WAY Cursor Control key to freeze the display and move the cursor over a sonar return. The depth of the sonar return will be displayed in the cursor dialog box.

Sonar Zoom View
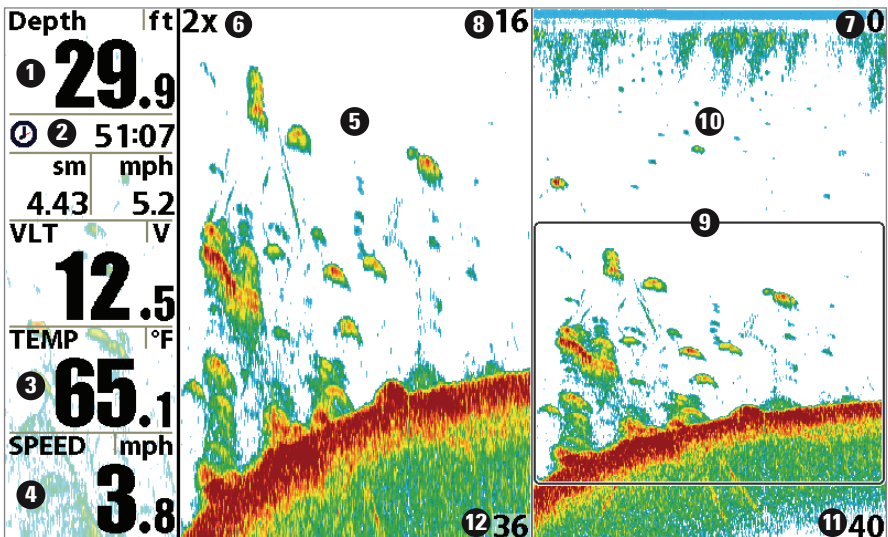
1 Depth		Upper Depth Range, Full Range View **7**
2 Triplog		Upper Depth Range, Zoom View **8**
3 Temperature		Zoom Preview Box **9**
4 Speed		Full Range View **10**
5 Zoomed View		Lower Depth Range, Full Range View **11**
6 Zoom Level		Lower Depth Range, Zoom View **12**

Split Sonar View displays sonar returns from each down beam frequency on separate sides of the screen. You can use the Split Sonar View to make side by side comparisons between the sonar returns from both beams.

- **DualBeam PLUS models (HELIX SONAR GPS)** display sonar returns from the 83 kHz wide beam on the left side of the screen and sonar returns from the 200 kHz narrow beam on the right side of the screen.

- **Down Imaging models (HELIX DI GPS)** display traditional 2D sonar returns from the 455 kHz narrow beam on the left side of the screen and sonar returns from the 200 kHz wide beam on the right side of the screen.

- **Xtreme Depth models (HELIX XD GPS)** display sonar returns from the 50 kHz wide beam on the left side of the screen and sonar returns from the 200 kHz narrow beam on the right side of the screen.

- **Freeze Frame:** Use the 4-WAY Cursor Control key to freeze the display and move the cursor over a sonar return. The depth of the sonar return will be displayed in the cursor dialog box.

Split Sonar View (HELIX SONAR GPS)
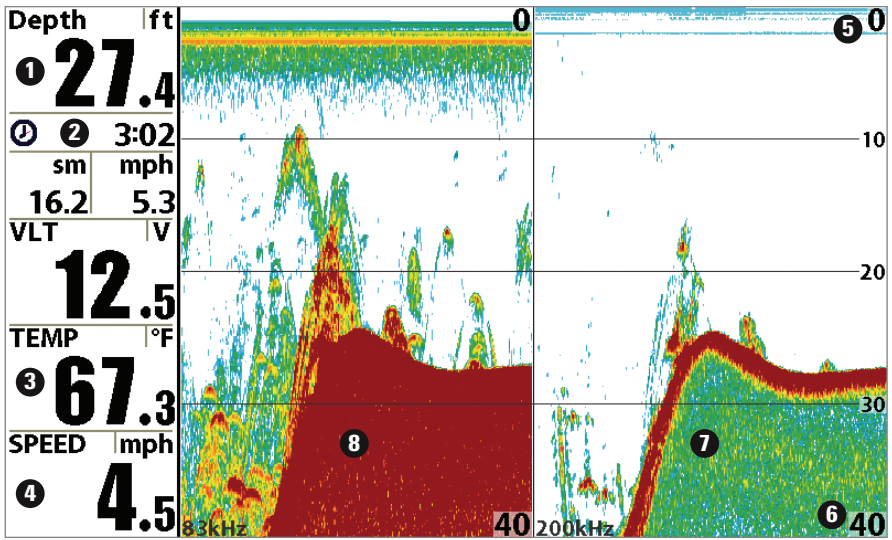
❶	Depth	Upper Depth Range	❺
❷	Triplog	Lower Depth Range	❻
❸	Temperature	200 kHz Sonar History Window	❼
❹	Speed	83 kHz Sonar History Window	❽

Big Digits View provides digital data in a large, easy-to-see format.

- **Digital Readouts:** Readouts for depth, temperature, and speed information are displayed automatically if the transducer with built-in temperature and GPS receiver are connected to the Fishfinder.

- The digital readouts in the Big Digits View cannot be customized.

Big Digits View
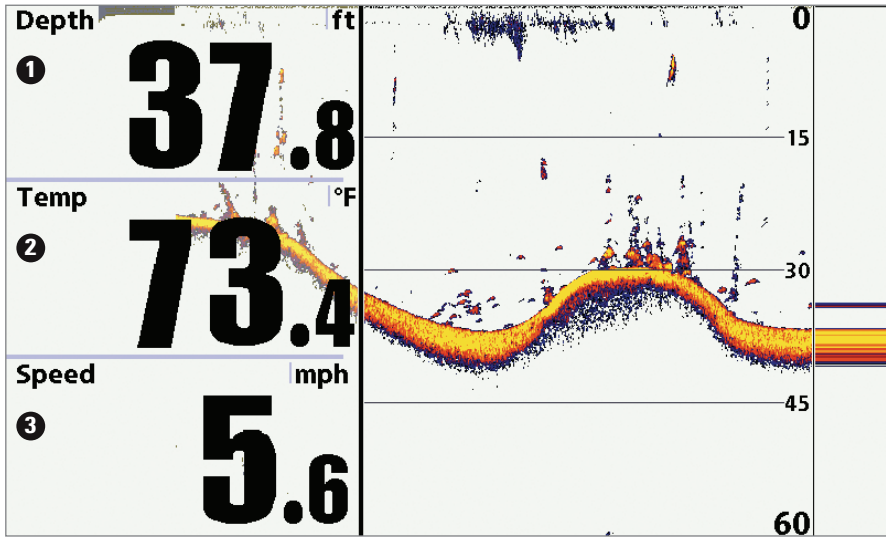
1 Depth
2 Temperature
3 Speed

Circular Flasher View *(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)*

Circular Flasher View provides two ways to view sonar data in traditional flasher format. The view is controlled by the Ice Fishing Mode menu option in the Sonar Menu Tab.

- **When Ice Fishing Mode is off,** the Circular Flasher View displays Real Time Sonar (RTS) data in a traditional flasher format.

- **When Ice Fishing Mode is on,** the Circular Flasher View displays the sonar data in traditional flasher format with additional features including Zoom and Depth Cursor.

Set the Circular Flasher View Mode

1. Press the MENU key twice.

2. Press the RIGHT Cursor key until the Sonar Menu Tab is selected.

3. Press the DOWN Cursor Key to select Ice Fishing Mode. Press the RIGHT or LEFT Cursor key to select On or Off (Default = Off). See ***Sonar Menu Tab*** for more information.

Set the Digital Depth Source (Down Imaging models only)

If you connect an ice transducer to the control head, set the Digital Depth Source to **2D Element** to display depth in the digital readout window. See ***Sonar Menu Tab: Digital Depth Source*** for more information.

1. Press the MENU key twice.

2. Press the RIGHT Cursor key until the Sonar Menu Tab is selected.

3. Press the DOWN Cursor Key to select Digital Depth Source. Press the RIGHT or LEFT Cursor key to select 2D Element.

Ice Fishing Mode: Off

When Ice Fishing Mode is off, the Circular Flasher View displays Real Time Sonar (RTS) data in a traditional flasher format.

- **Flasher X-Press Menu:** Press the MENU key once in the Circular Flasher View. Use the X-Press Menu to set the Sensitivity, Upper Range, and Lower Range.

- **Depth** and **temperature** are always displayed.

- The **Digital Readouts** cannot be customized.

Circular Flasher View (Ice Fishing Mode: Off)

❶ Flasher Dial

Depth ❷

Ice Fishing Mode: On

When Ice Fishing Mode is on, the Circular Flasher View displays the sonar data in traditional flasher format with additional features including Zoom and Depth Cursor.

- **Sensitivity:** When you turn on Ice Fishing Mode, the fishfinder's sensitivity settings are adjusted automatically to accommodate ice fishing conditions. These settings will apply to the other Sonar Views until you turn off Ice Fishing Mode (see *Set the Circular Flasher View Mode* in this section).

- **Flasher X-Press Menu:** Press the MENU key once in the Circular Flasher View. Use the X-Press Menu to set the Sensitivity, Upper Range, Lower Range, and Color Palette.

- **Color Palettes:** The color preview bar in the center of the display indicates the current palette, and the weak to strong sonar return range is displayed from left to right. To change the color palette, see *Flasher X-Press Menu: Color Palette*.

- The Digital Readouts cannot be customized.

Circular Flasher View (Ice Fishing Mode: On)
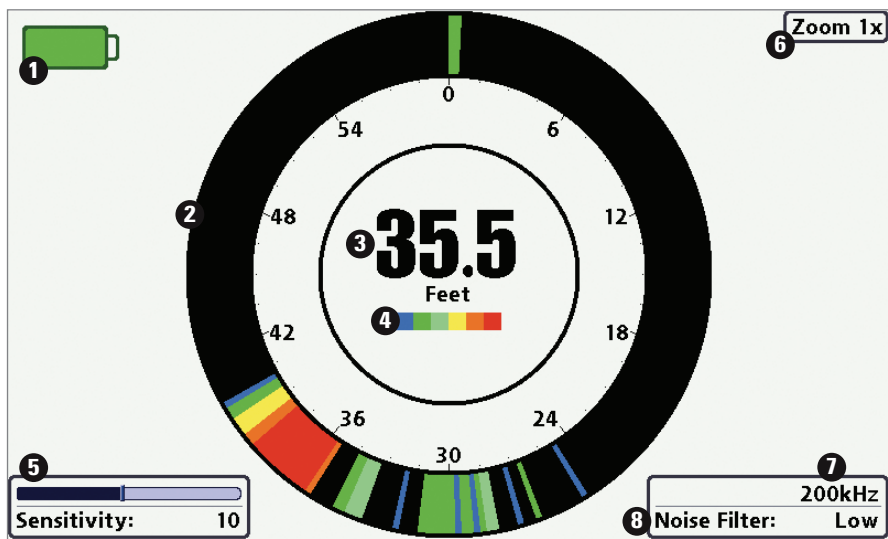
❶ Battery Icon (percentage of battery power)	Sensitivity (see Flasher X-Press Menu) ❺
❷ Flasher Dial	Zoom Setting ❻
❸ Depth	Beam Select (see Sonar Menu Tab) ❼
❹ Color Palette	Noise Filter (see Sonar Menu Tab) ❽

To activate the Depth Cursor:

Use the Depth Cursor to identify depth on the flasher display.

1. **Set up:** Press the VIEW key repeatedly until the Circular Flasher View is displayed on the screen. Turn on the Ice Fishing Mode (see ***Sonar Menu Tab***).

2. **Activate:** Press the DOWN Cursor key, and the purple cursor line will appear on the display.

3. **Adjust the Cursor:** Press the UP or DOWN Cursor keys repeatedly until you reach the chosen depth reading. The depth reading of the cursor is displayed in the top, right corner of the view.

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

Circular Flasher View with Depth Cursor
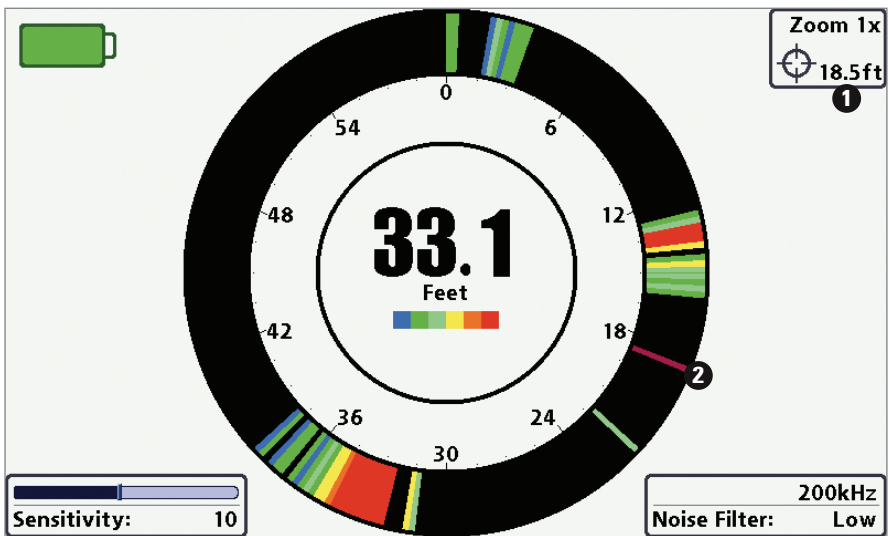
❶ Depth Cursor Reading   Depth Cursor ❷

*NOTE: See **Set the Digital Depth Source** for more information.*

<u>To activate Flasher Zoom</u>:

The Zoom feature displays a 2x magnified view of the area you choose on the flasher display.

1. **Set up:** Press the VIEW key repeatedly until the Circular Flasher View is displayed on the screen. Turn on the Ice Fishing Mode (see **Sonar Menu Tab**).

2. **Activate:** Press the +ZOOM key. The Zoom upper limit and lower limit lines will appear on the display.

3. **Adjust the Zoom Range:** Press the RIGHT or LEFT Cursor keys repeatedly to adjust the zoom range and select the area you want to magnify. The zoomed view is shown on the right side of the flasher dial between two lines. The normal view is shown on the left side of the flasher dial.

4. **Close Zoom:** Press the − ZOOM key.

Circular Flasher Zoom

normal view
(reading the full depth of the water column)

zoom line
(upper limit)

0
25.5   4.5
21   9
21.2
Feet
16.5   10.5
15   12
13.5

zoom line
(lower limit)

zoom view
(2X magnification)

Press the RIGHT or LEFT
Cursor key to change the
Zoom Range.
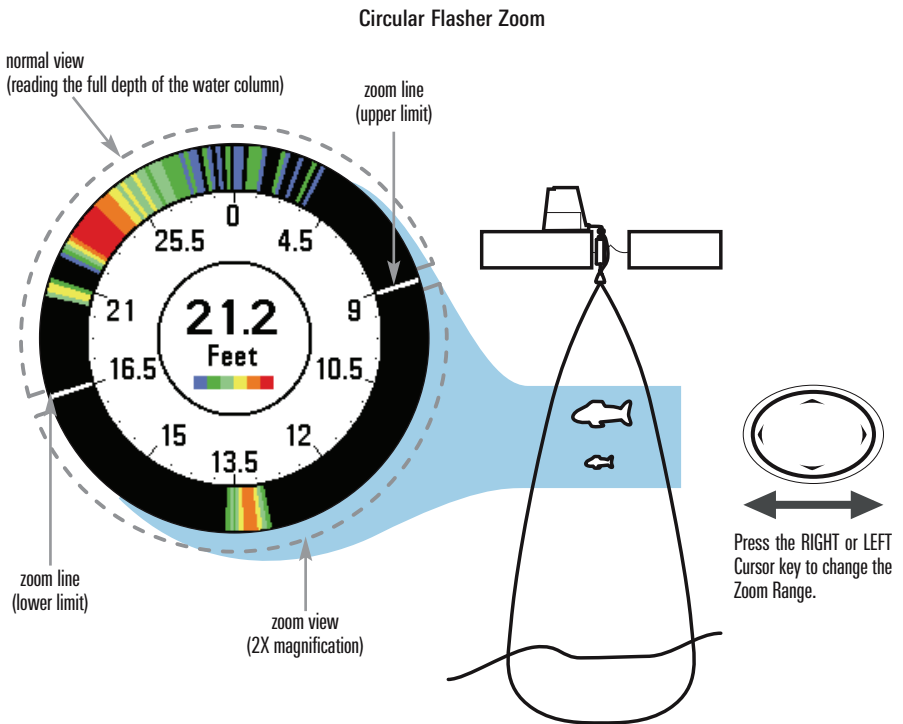
Down Imaging View

Down Imaging View uses the razor-thin, high-definition profiling beams to produce the detailed sonar data that you see on the display. Sonar returns are charted on the right side of the display. As new information is received, the historical information scrolls left across the display. See *What's on the Down Imaging Display* for more information.

- **Down Imaging X-Press Menu:** Press the MENU key once to access the Down Imaging X-Press Menu. You can set the sensitivity of the sonar to see more or less detail, the chart scrolling speed, and the display color palette (see *Down Imaging X-Press Menu*).

- **Freeze Frame:** Press any arrow on the 4-WAY Cursor Control key, and the Down Imaging View will freeze and a cursor will appear on the screen. Use the 4-WAY Cursor Control key to move the cursor over a sonar return, and observe the following:

    - The **depth of the sonar return** you choose will be displayed in the cursor information box.

    - **Zoom+:** Press the ZOOM+ key, and a zoom box will appear and magnify the area you choose, providing more detail in the individual sonar returns. The zoom scale will increase or decrease as you press + or - repeatedly. Press EXIT to remove the zoom box and return to Down Imaging View.
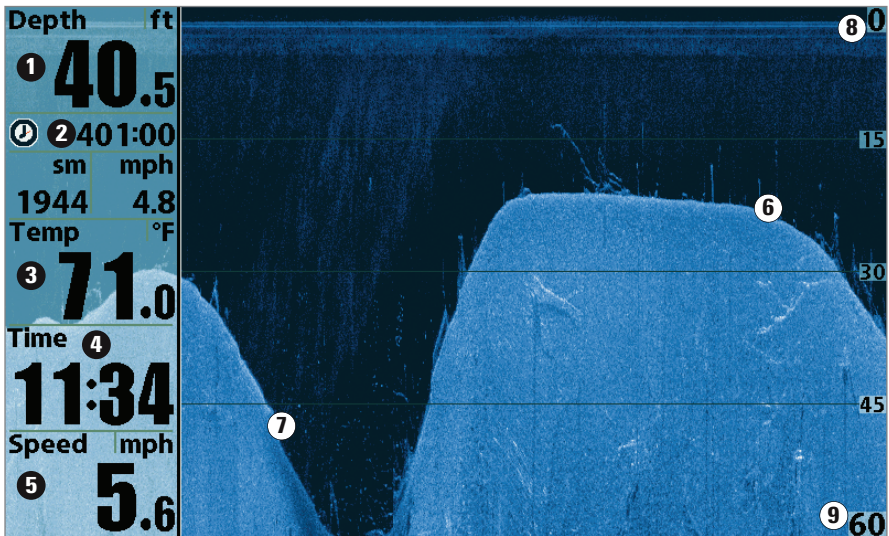
Down Imaging View

❶ Depth	Bottom Return ❻
❷ Triplog	Topography Changes ❼
❸ Water Surface Temperature	Upper Range ❽
❹ Time	Lower Range ❾
❺ Speed	

Down Imaging View with Active Cursor and Zoom
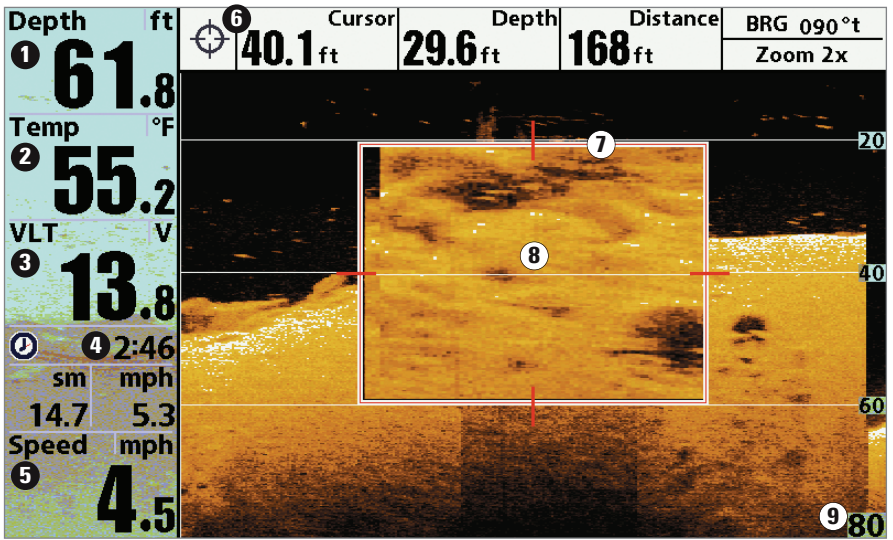
1 Depth
2 Water Surface Temperature
3 Voltage
4 Triplog
5 Speed

Cursor Dialog Information 6
Zoom Magnification Box 7
Zoomed View 8
Lower Range 9

*NOTE: To change the colors used to display the Down Imaging data on the screen, see **Down Imaging X-Press Menu: DI Colors.***

Snapshot and Recording View

Snapshot and Recording View displays the screen snapshots and recordings that are saved on the optional-purchase microSD card installed in the control head. Use this view to review the snapshot and recording file details, start recording, and adjust the recording settings.

> *NOTE: The recording feature is only available in Humminbird models with sonar. You can take screen snapshots with the HELIX GPS, but the recording feature is not available on this model.*

- **Activate Screen Snapshot:** Select Screen Snapshot from the Setup Menu Tab, and select On. Also, install an optional-purchase microSD card in the control head, and make sure Snapshot and Recording View is set to Visible on the Views Menu Tab.

- **Scroll and View:** Use the UP and DOWN Cursor keys to scroll through the saved Screen Snapshots and Recordings. The active file is highlighted with arrows. Press the RIGHT Cursor key to view the file.

- **Snapshot and Recording X-Press Menu:** Press the MENU key once in this view to open the X-Press Menu. Use the X-Press Menu to Start Recording, Delete Images, or adjust the Recording and Playback settings (see *Recording and Playback* or *Snapshot and Recording X-Press Menu*).
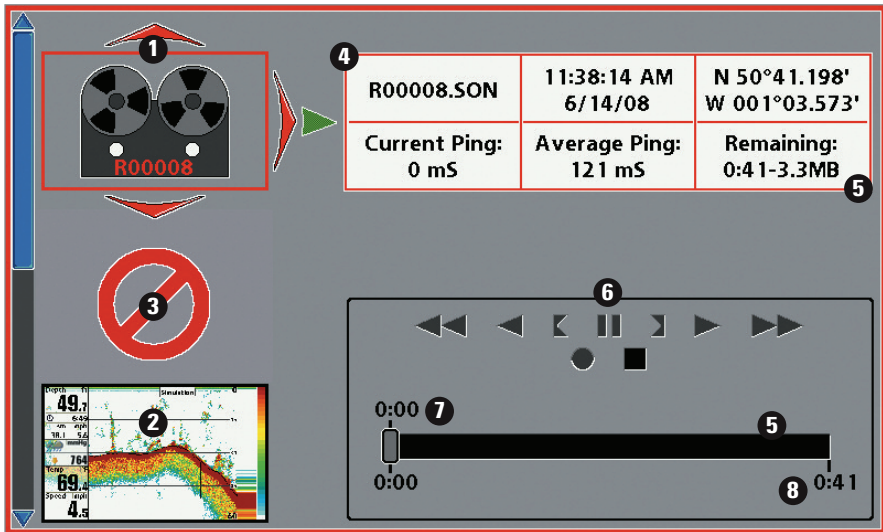
Snapshot and Recording View

	1 Recording icon	Amount of recording left to play 5
2 Snapshot thumbnail	Recording mode icons 6
3 Unavailable icon	Amount of recording that has been played 7
4 Information box	Amount of space used for this recording 8

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.

The Screen Snapshot feature is available when an optional-purchase microSD card is installed and Screen Snapshot is On (see ***Setup Menu Tab: Screen Snapshot***).
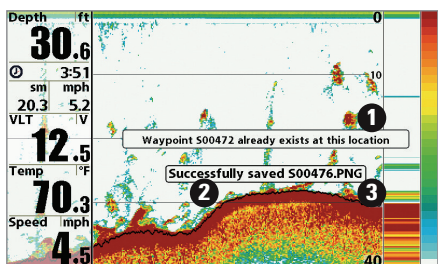
1 Waypoint Saved at Cursor Location
2 Screen Snapshot Confirmation
3 File Name

Make a Screen Snapshot:

1. Activate Screen Snapshot and install a microSD card.

2. From any view or cursor location you want to capture, press the MARK key. The screen will pause while the image is saved.

A waypoint will also be created at the boat or active cursor location. The screen snapshot shares the same file name (.PNG).
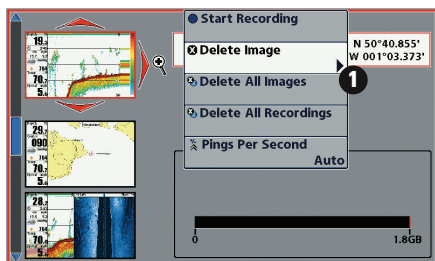
1 From Snapshot and Recording View, select Delete Image from the X-Press Menu.

Delete a Screen Snapshot:

1. From the Snapshot and Recording View, press the UP or DOWN Cursor keys to scroll through the saved files and highlight a snapshot file.

2. Press the Menu key once, and select Delete Image from the X-Press Menu.

3. Press the RIGHT Cursor keys.

NOTE: Navigation is not affected by the Screen Snapshot feature. Also, if Screen Snapshot is enabled, but a GPS receiver is not connected, pressing the MARK key will capture the screen image but an error will display that says a GPS position fix is required to create a waypoint.
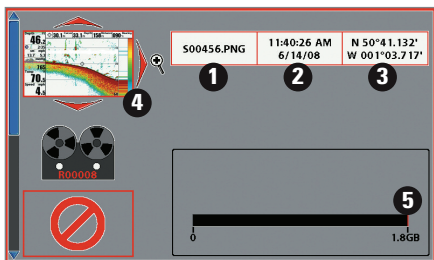
View a saved Screen Snapshot from Snapshot and Recording View:

1. From the Snapshot and Recording View, press the UP or DOWN Cursor keys to scroll through the saved files and highlight a snapshot file.

2. Press the RIGHT Cursor key.

1 Snapshot File Name
2 Time + Date of Snapshot
3 Waypoint Position
4 Highlighted Snapshot File
5 microSD card available storage

1 Screen Snapshot Icon and Waypoint Name
2 Thumbnail Preview
(press the CHECK/INFO key to view at full size)
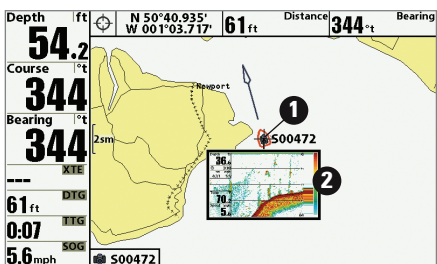
View a saved Screen Snapshot from Chart View:

1. In Chart View, use the 4-WAY Cursor Control key to move the active cursor onto a Screen Snapshot Icon [icon].

When the cursor snaps onto the Screen Snapshot Icon, a thumbnail preview of the Screen Snapshot will be displayed on the screen.

2. Press the CHECK/INFO key, and select View Snapshot.

3. Press the EXIT key to return to Chart View.

Notes about Screen Snapshots:

- A **border** around the full screen indicates that the view is a saved screen snapshot and not a "live" view.

- **If you press the CHECK/INFO key**, and the snapshot file connected to the icon is not saved on the installed microSD card, the Chart Information box will display instead of the screen snapshot.

- Use an optional-purchase microSD card adapter connected to a PC to view the saved screen snapshot data files on your optional-purchase microSD Card (see **humminbird.com** for details). You will notice 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.

Recording 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. The **Recording and Playback** feature is available when an optional-purchase microSD card is installed and Screen Snapshot is On (see ***Setup Menu Tab: Screen Snapshot***). Saved Recordings can be played back from the Snapshot and Recording View.

> *NOTE: The recording feature is only available in Humminbird models with sonar. The recording feature is not available in the HELIX GPS model.*
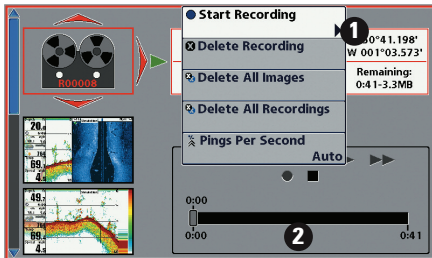
1 From Snapshot and Recording View, select Start Recording from the X-Press Menu

2 Slider Bar

Start recording:

1. From the Snapshot and Recording View, press the MENU key once to open the Snapshot and Recording X-Press Menu.

2. Highlight Start Recording, and press the RIGHT Cursor key. A waypoint will also be created at the boat location, and the recording shares the same file name (.SON).

Stop recording:

1. In any view, press the MENU key once to open the Snapshot and Recording X-Press Menu.

2. Highlight Stop Recording and press the RIGHT Cursor key.

Notes about Recording:

- **While recording**, press the EXIT key to exit the Snapshot and Recording X-Press Menu and scroll to a different view. Recording will continue.

- The **slider bar** at the bottom of the Snapshot and Recording View shows the recording progress and remaining space on the microSD card.

- **Pings Per Second:** For maximum performance, keep the Pings Per Second setting on Auto (see ***Snapshot and Recording X-Press Menu***).

- **Viewing saved Screen Snapshots and Recording Playback** are not available while in recording mode.
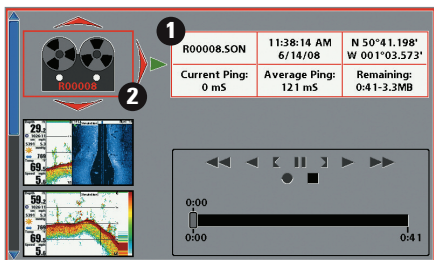
1 Recording File Information
2 Highlighted Recording File

Playback a Recording:

1. From the Snapshot and Recording View, press the UP or DOWN Cursor keys to scroll through the saved files and highlight a saved Recording.

2. Press the RIGHT Cursor key.
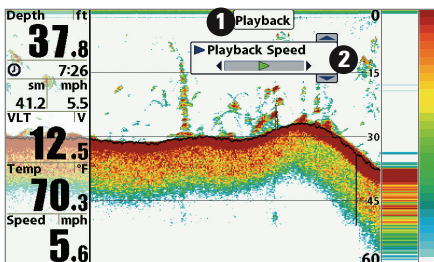
1 "Playback" indicates the control head is playing a saved recording.
2 Open the X-Press Menu to adjust Playback settings.
You can also use Freeze Frame and mark waypoints.

Change Playback Settings:

1. Press the MENU key once to open the Snapshot and Recording X-Press Menu.

2. Use the X-Press Menu to adjust the Sonar Recording's Sensitivity, Upper Range, Lower Range, and the Playback Speed. See *Snapshot and Recording X-Press Menu* for details.

Stop Playback:

1. Press the MENU key once to open the Snapshot and Recording X-Press Menu.

2. Highlight Stop Playback, and press the RIGHT Cursor key.
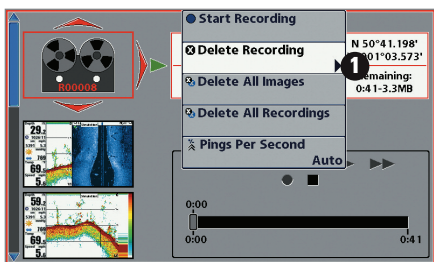
1 From Snapshot and Recording View, select Delete Recording from the X-Press Menu.

Delete a Recording:

1. From the Snapshot and Recording View, press the UP or DOWN Cursor keys to scroll through the saved files and highlight a saved Recording.

2. Press the Menu key once, and select Delete Recording from the X-Press Menu. Press the RIGHT Cursor key.

Notes about Playback:

- **"Playback"** will flash periodically on the screen to indicate that the control head is playing a saved recording and not a "live" view.

- **Navigation** is not affected by the Sonar Recording feature, but any active navigation is cancelled and thumbnails and icons disappear when Playback begins or ends.

- **Playback is paused** automatically at the end of the recording.

- **Freeze Frame:** Press the 4-WAY Cursor Control key to pause Playback and move the Active Cursor to a location on the sonar view. The Cursor dialog box will show the depth and information for the location you choose. Press Exit to resume Playback.

- **Press the MARK key during Playback** to save a Screen Snapshot and/or mark a waypoint in the view or active cursor location you choose.

Recording Information
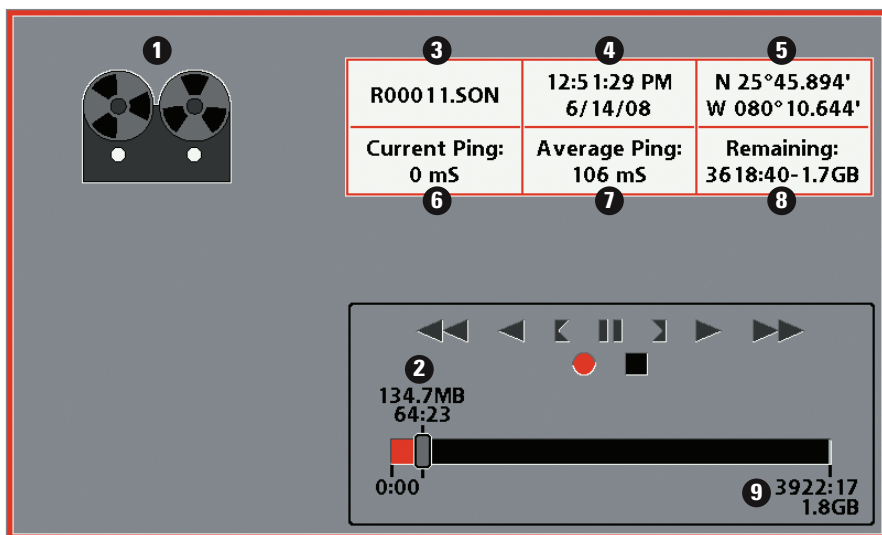
① Recording Indicator

② Amount of space and time used by this recording

③ Name of recording

④ Time and Date recording was started

⑤ Position where recording was started

⑥ Current Ping Rate

⑦ Average Ping Rate

⑧ Amount of space remaining on card

⑨ Total amount of space on card

NOTE: Sonar chart speed is increased during Fast Forward and reversed during Rewind. This may reduce the quality of the sonar image, since at higher speeds, not every sonar return can be processed and displayed.

Bird's Eye View/Bird's Eye Big Digits View

Bird's Eye View shows a 3D perspective view of the track and the chart's land contour from a point above and behind the boat (the eye point). As the boat turns, the eye point moves to follow the boat.

- **To shift the eye point position** so that you can look off to the sides or even behind the boat: press the RIGHT or LEFT Cursor keys to turn the eye point right or left. Press the UP Cursor key to move the eye point forward, and press the DOWN Cursor key to move the eye point backward.

- Press the EXIT key to **move the eye point back** to its original position behind and above the boat.

HELIX GPS: If you have the HELIX GPS, this view is called the **Bird's Eye Big Digits View,** and it provides multiple digital readouts on the view. Navigation digital readout windows are always displayed on-screen, even when the control head is not navigating.

Bird's Eye View (Standard)
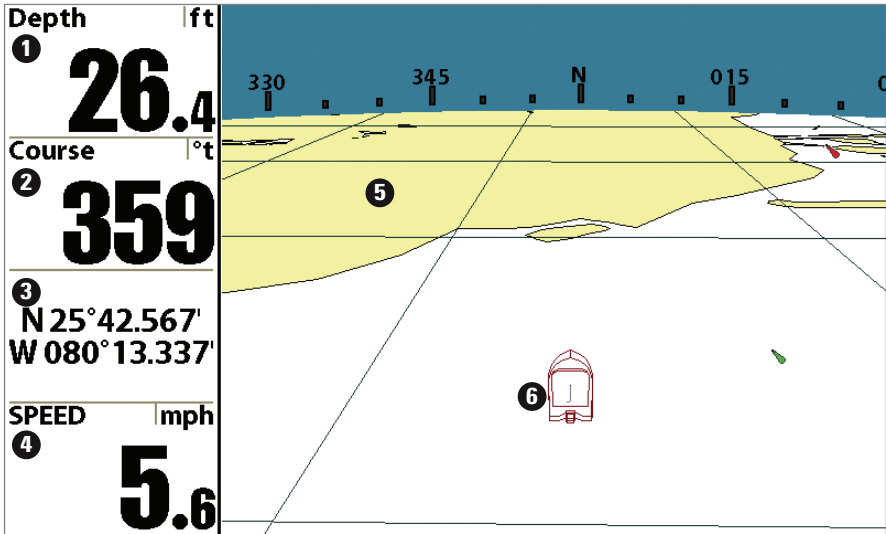
❶ Depth
❷ Course: the current direction the boat is traveling measured in degrees from North
❸ Latitude and Longitude Position of the Boat

Speed of Boat ❹
Cartography ❺
Boat Icon ❻

Bird's Eye View (Navigating)

Depth `ft`	**XTE** `ft`		
⑤ 37.7	**⑨** 88		225 240 2
TTG	**COG** `°t`		WP002 **①**
⑥ 13:01	**⑩** 237		**②**
⑦ N 25°42.390' W 080°13.910'	**Bearing** `°t` **⑪** 237		**③**
Speed `mph` **⑧** 5.6	**DTG** `sm` **⑫** 1.21	**①** ○ WP002	**④** START
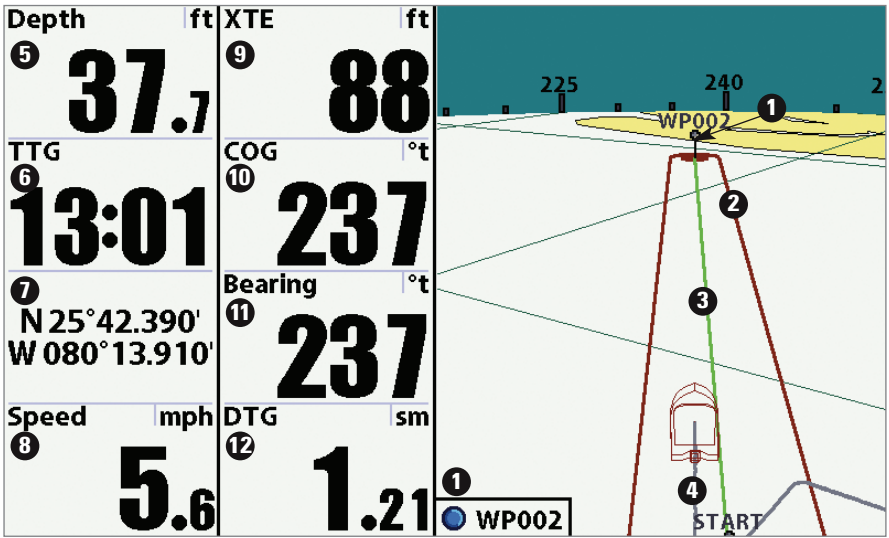
① Next Waypoint
② Off Course Limits
③ Route
④ Track
⑤ Depth
⑥ Time to Go to the next waypoint in the route

Latitude and Longitude Position **⑦**
Speed of the Boat **⑧**
XTE (Cross Track Error): Distance of Boat from Route **⑨**
Course over Ground **⑩**
Bearing: Direction to Destination Waypoint measured in degrees from North **⑪**
DTG: Distance to Go to Waypoint **⑫**

Chart View

Chart View shows cartography from the built-in UniMap or an optional microSD card map for the area surrounding your current position. The cartography is applied to any standard Chart View or Combo view that displays a chart. The current track (also known as the position history or breadcrumb trail) showing where the boat has been, along with saved tracks, waypoints, and the current route (when navigating), are overlaid on the chart.

*NOTE: See **Introduction to Navigation** for more information.*

- **Shift/Pan:** Use the 4-WAY Cursor Control key to shift/pan the chart to another area.
- **Zoom**: Press the ZOOM (+/-) keys to zoom in and out.
- **Information:** Press the CHECK/INFO key to get information about the chart objects near the cursor.

Chart View with Cursor (Standard)
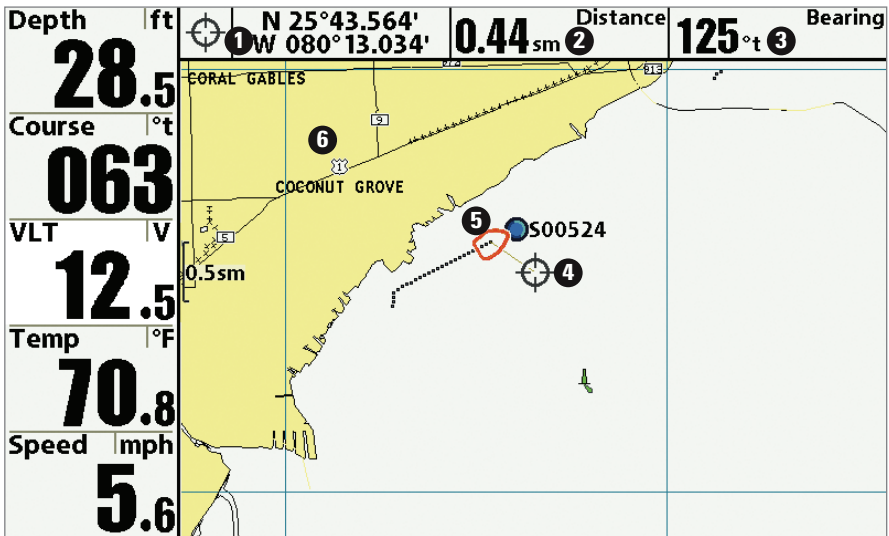
① Latitude and Longitude Position of Cursor   Cursor ④
② Distance to the Cursor   Boat Icon ⑤
③ Bearing to the Cursor   Cartography ⑥

Chart No Readouts View *(HELIX GPS only)*

If you have a HELIX GPS, you can display the Chart View without digital readouts. Chart No Readouts View has the same cartography capabilities as the standard Chart View.

Chart No Readouts View
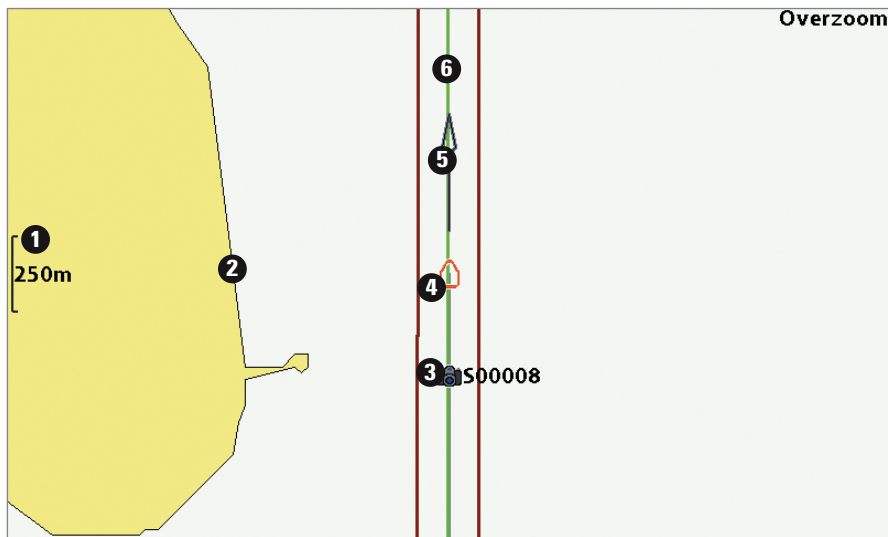
1 Map Scale   Boat Icon **4**
2 Cartography   Course Projection Line **5**
3 Waypoint Icon with Saved Screen Snapshot   Route **6**

Chart Big Digits View has the same cartography capabilities as the standard Chart View, and it includes multiple digital readouts. Navigation digital readout windows are always displayed on-screen, even when the control head is not navigating.

Chart Big Digits View
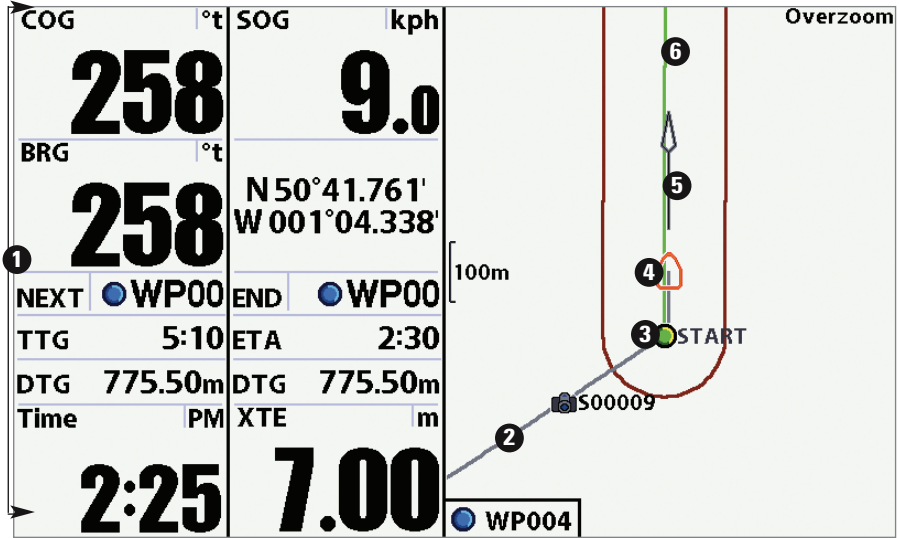
1 Digital Readouts   Boat Icon 4
2 Track   Course Projection Line 5
3 Waypoint   Route 6

Chart Instrument View

Chart Instrument View displays a digital compass, XTE (Cross Track Error) graphic, and large digital readouts in one view.

Change Digital Readouts: Press the MENU key once. Choose Select Readouts, and press the RIGHT Cursor key to change the digital readouts displayed on this view.

Chart Instrument View
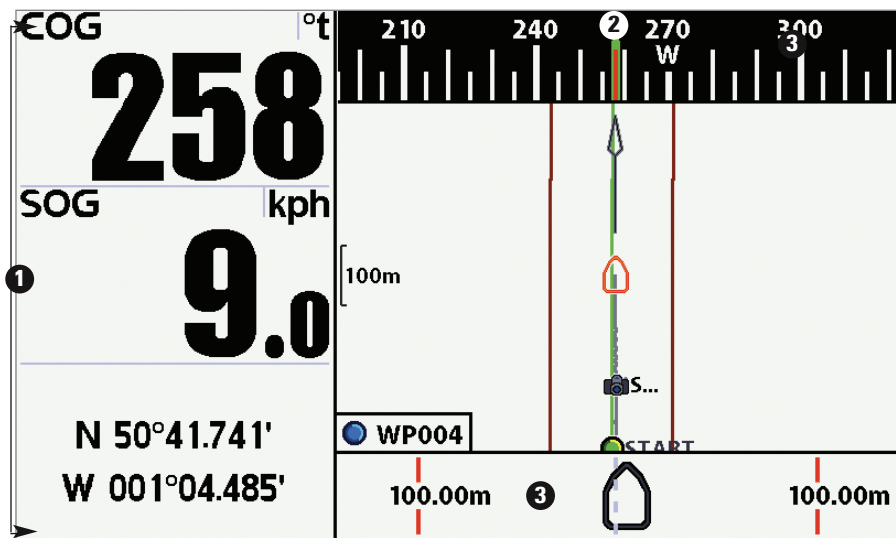
❶ Large Digital Readouts   XTE Graphic ❸
❷ Digital Compass

Chart View Orientation

Both Chart and Chart Combo Views allow you to choose the orientation of the view (see *Navigation Menu Tab: Chart Orientation*). In each orientation, the view pans automatically so that the boat is always centered on the display. To see more of the view when the boat is traveling at the speed you set, see *Chart Menu Tab: Vessel Offset* and *Offset Speed*.

- **North-Up:** True North is shown at the top of the display. Objects located to the north of the boat are drawn above the boat.

- **Head-Up:** The boat's current heading points up, and the chart rotates around the vessel so that the vessel always points up on the view.

- **Course-Up**: During navigation, the projected course 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 course-up reference is provided by the COG (course over ground) calculation. Also, to display the north icon on the view, see *Navigation Menu Tab: North-Up Indicator*.

North-Up Icon: If it is turned on, the North-Up Icon displays the direction of True North. It also displays the Chart Orientation, and the icon will change as the orientation and the data source change (see *Navigation Menu Tab: North-Up Indicator*).

> When the boat is stationary, it is drawn as a circle.
>
> When the boat is in motion, it takes on a boat shape, pointed in the direction of motion (always up in the Course-Up orientation).

Viewing Cartography

In the **Chart** and **Chart Combo Views**, there are several cartography-related functions that you can access using various keys.

Panning: Use the 4-WAY Cursor Control key to move the chart around on the display in the direction of the key being pressed. When you do this, a bull's eye cursor is drawn at the center of the screen and is linked to the boat by a yellow line, even if the boat is off the screen. At the same time, a cursor dialog box is displayed with the distance and bearing from the boat to the cursor position and the latitude/longitude coordinates of the cursor. When the cursor is active on the display, you can also use the 4-WAY Cursor Control key to move the cursor diagonally.

Chart View with Cursor Present
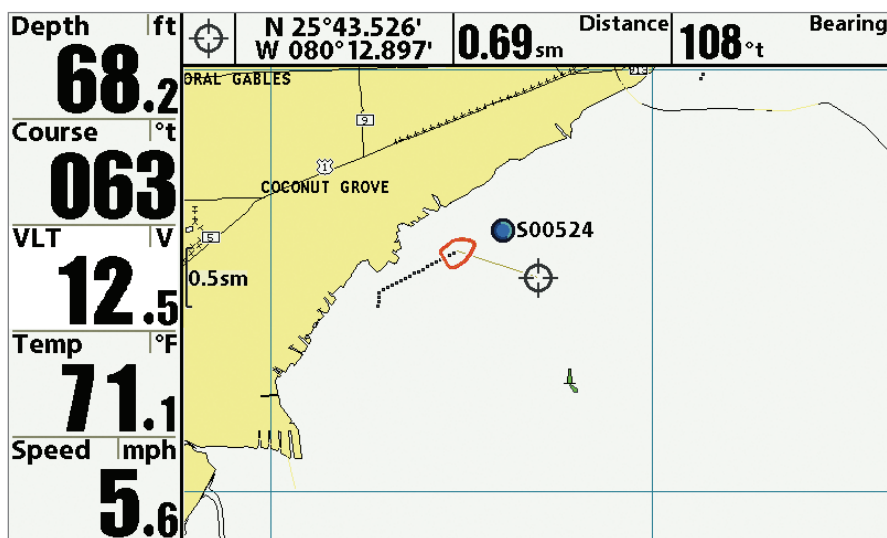
Zooming: Press the Plus (+) key to Zoom In and the Minus (-) key to Zoom Out to see the cartography at different magnification levels. The zoom level is indicated on the left side of the display. If you zoom in beyond the available chart data, the display will go into Overzoom mode whereby the last available chart data is amplified to reflect the level selected. If you zoom in so far that no cartography is available, a lat/long grid will be drawn instead. Zooming is also influenced by the Auto Zoom and Auto Range settings. See *Chart Menu Tab: Auto Zoom* and *Auto Range* for more information.

Decluttered Waypoints: When two or more waypoints overlap, or are displayed close together on a chart view, the screen will automatically declutter — waypoint names will shorten and the waypoint icons will change into small blue icons.

To view a Decluttered Waypoint at full size, use the 4-WAY Cursor Control key to move the cursor onto a decluttered waypoint icon. When the cursor snaps onto the icon, the full-size waypoint name and icon will be displayed. You can also press the + ZOOM key until you can see the individual waypoints on the screen.

Screen Snapshots and Recording Icons: When a waypoint is created while Screen Snapshot and Recording is active, the waypoint will appear as a snapshot icon or recording icon in chart views. See *Views: Snapshot and Recording View* for more information.

Chart Info: Press the CHECK/INFO key to get detailed information about the chart. **If the cursor is active**, you will see information about the chart objects located near the cursor.

Chart Info
Nearest Port
▶
Nearest Tide Station
Nearest Current Station

If the cursor is not active, the Chart Info submenu will appear. Use the 4-WAY Cursor Control key to select the Nearest Port, the Nearest Tide Station, or the Nearest Current Station and see information about any of these objects.

NOTE: The built-in UniMap does not contain any Port, Tide, or Current information. This information is only available from an optional-purchase microSD card.

Nearest Port: The position and services information for the nearest port to your present position will be displayed. Press the EXIT key to remove the information box and the cursor bull's eye will be centered over the port position. The cursor information boxes will indicate the distance and bearing to the port from your present position.

Nearest Tide Station: Tide information for the nearest tide station to your present position will be displayed. This includes the position of the station and the times of the high and low tides for today's date. A tide graph is also displayed showing the rise and fall of the tides for the 24 hour time period encompassing the date. You can change the date to look at tide information before or after the date displayed by pressing the LEFT or RIGHT Cursor key respectively. Press the EXIT key to remove the information box, and the cursor bull's eye will be centered over the tide station position. The cursor information boxes indicate the distance and bearing to the tide station from your present position.

Nearest Current Station: Current information for the nearest current station to your present position will be displayed. This includes the position of the station and the current changes for today. Two graphs are also presented that show the time, direction, and flow speed of the current changes for the 24 hour time period of today's date. You can change the date to look at current information before or after the date displayed by pressing the LEFT or RIGHT Cursor key respectively. Press the EXIT key to remove the information box, and the cursor bull's eye will be centered over the current station position. The cursor information boxes will indicate the distance and bearing to the current station from your present position.

Introduction to Navigation

Your control head allows you to mark waypoints and start navigation with the control head keys or the Navigation X-Press Menu.

You can also use the Waypoint Management dialog box to create new waypoints and routes from scratch. You can edit your navigation data and organize it too. This section will get you started. See your Humminbird Waypoint Management Guide for complete details.

Waypoints, Routes, and Tracks

Waypoints, Routes, and Tracks

❶ Depth

❷ Course: Direction the boat is traveling relative to North Reference

❸ Bearing: Direction to Destination Waypoint Relative to North Reference

❹ XTE: Cross Track Error. Distance of Boat from Route

❺ DTG: Distance to Go to Waypoint
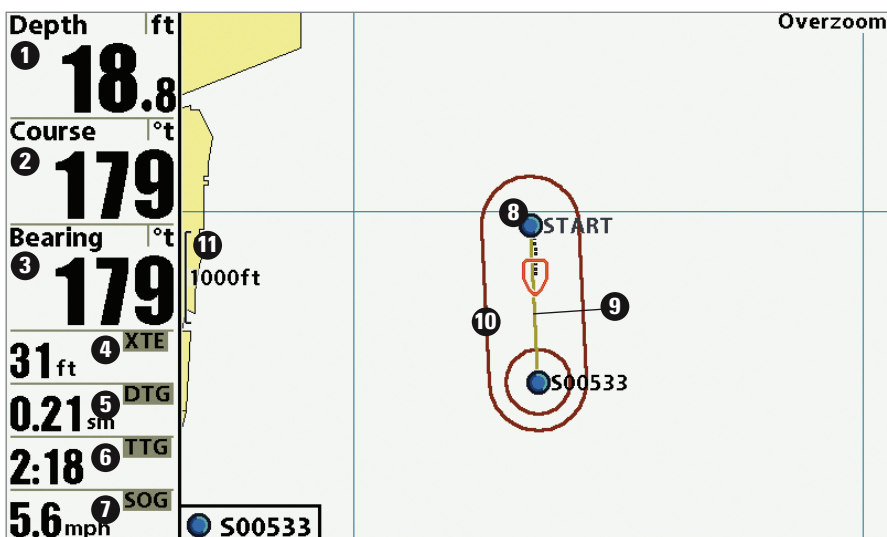
❻ TTG: Estimate of Trip Time to Destination Waypoint

❼ Speed Over Ground: Speed of Boat

❽ Waypoint

❾ Route

❿ Off-Course Alarm Limits

⓫ Map Scale

Waypoints are stored positions that allow you to mark areas of interest or navigation points. Your control head can store up to 2500 waypoints.

Routes link two or more waypoints together to create a path for navigation, and are used in trip planning. You can link individual waypoints together by using the GOTO key. Your control head can store up to 47 routes that can each contain up to 50 waypoints.

A route represents your intended navigation and shows the shortest path from each waypoint to the next. As you travel a route, staying on the route line is the most efficient way to get to your

destination, although you should always look out for obstacles not shown on the chart. A **Route Leg** is the path between each waypoint in a route. The color of each route leg is displayed as follows:

- Completed Route Leg = Gray
- Current Route Leg = Green
- Future Route Leg = Gold

Tracks consist of detailed position history, and are displayed as a breadcrumb trail of trackpoints. The Current Track shows the position history since the unit was powered up. You can clear the Current Track or save it at any time. Your control head can store up to 50 saved tracks, each containing 20,000 trackpoints. The current track represents your actual path so far.

> *NOTE: The maximum number of waypoints and routes may vary due to the setup of your Waypoint Management directory. Groups and sub-groups also use storage, and the storage limit is influenced by the complexity of your Waypoint Management directory. See your Waypoint Management Guide for details.*

Open the Waypoint Management Dialog Box

The Waypoint Management dialog box allows you to organize your waypoints, routes, and tracks on your Humminbird control head.

Open the Waypoint Management Dialog Box

1. Press the MENU key twice to open the Main Menu.

2. Press the RIGHT Cursor key until the Navigation Menu Tab is selected.

3. Press the DOWN Cursor key to choose Waypoints, Routes, Tracks. Press the RIGHT Cursor key to open the Waypoint Management dialog box.

Opening the Waypoint
Management Dialog Box

What's on the Waypoint Management Dialog Box

Use the **Waypoint Management dialog box** to manage your waypoints, routes, and tracks.
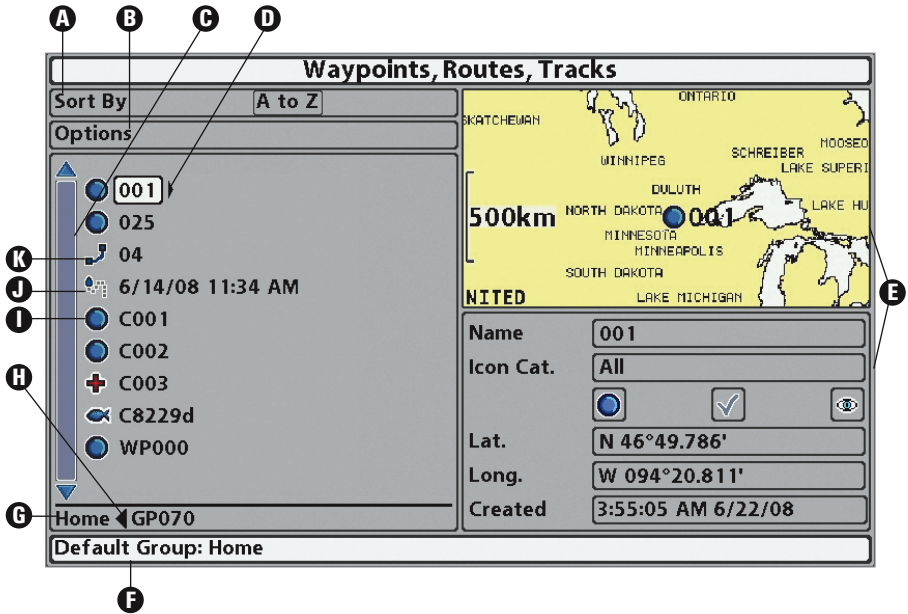
Use the 4-WAY Cursor Control key to select a waypoint, route, track, group, or menu option. **To scroll through the list**, press the UP or DOWN Cursor keys. **To open a submenu**, press the RIGHT Cursor key. **To move to the higher level group**, or the higher level directory, press the LEFT Cursor key.

As you scroll through the Waypoint Management dialog box, **press the EXIT key to select the Options menu quickly**. Press the EXIT key twice to close the dialog box.

A Sort By: Select Sort By, and press the RIGHT Cursor key repeatedly to choose a sorting option for the waypoints, routes, tracks, and groups (A - Z, Z - A, Newest, Oldest, Distance, Icon). To start a more specific search, see *Options*.

B Options: Provides a submenu so that you can set the default group, create new navigation items (groups, waypoints, routes), and select and edit several items at once. Select Search By to search by Name, Distance, Date, Icon, or Icon Category. The Options menu will also change to show related menus such as Save or Paste.

C Scroll and View: Press the UP or DOWN Cursor keys to browse through the full list of saved waypoints, routes, tracks, and groups. The selected item is highlighted in white.

D Submenu: After an item is selected, press the RIGHT Cursor key to view the submenu.

E **Preview Window:** As you scroll, the selected item's information is displayed on the right side of the Waypoint Management dialog box. Press the +/– ZOOM keys to view the position closer or farther away in the preview window.

F **Information:** Displays the default group where all new waypoints, routes, and tracks will be saved. In this illustration, Home is the default group. This field also changes to display instructions.

G **Directory:** Shows the directory structure and the currently selected group. The illustration shows group GP070 as the selected group.

H **Arrows:** When arrows are displayed on a menu option, additional information or submenus are available. If the arrow points to the right, press the RIGHT Cursor key. If the arrow points to the left, press the LEFT Cursor key to move up to the higher level group directory.

I **Waypoint Icon:** The blue circle icon is the default waypoint icon. Waypoint names are alphanumeric and begin with WP. You can also change the icon, waypoint name, add it to a route, and more. If the waypoint is saved with a snapshot or recording file, see the Snapshot and Recording View on your control head to view the snapshot or recording.

J **Track Icon:** Track names are saved with a date and time stamp, and certain track information can be edited (see *Edit your Waypoints, Routes, Tracks, and Groups*).

K **Route Icon:** Route names are alphanumeric and begin with R. To change the Route name and its waypoints, see *Edit your Waypoints, Routes, Tracks, and Groups*.

Save, Edit, or Delete a Waypoint

Save your Current Position as a Waypoint: On any view, press the MARK key to save the current position of the boat as a waypoint.

Save the Cursor Position as a Waypoint: On the **Chart** or **Chart Combo Views**, use the 4-WAY Cursor Control key to move the cursor to the position you want to save as a waypoint. Then press the MARK key to save the position as a waypoint.

Save a Position from the Sonar History: On any Sonar View or Down Imaging View, use the 4-WAY Cursor Control key to move the cursor to a feature in the sonar history. Press the MARK key to create a waypoint at the location where that sonar reading was taken. The new waypoint will also record the depth at that location.

> *NOTE: When you save a waypoint by any of these methods, a numerical waypoint name is automatically assigned. You can edit the waypoint information later to give it a different name and select an icon to represent it (see **Edit your Waypoints, Routes, Tracks, and Groups**).*

Create a New Waypoint: To create a waypoint that is NOT your current position, open the Waypoint Management dialog box. Select Options > New > New Waypoint. Use the 4-WAY Cursor Control key to set the available fields. See ***Edit your Waypoints, Routes, Tracks, and Groups*** for details.

Delete a Waypoint: Open the Waypoint Management dialog box. Select a Waypoint, and press the RIGHT Cursor key to open the Waypoint submenu. Select Delete, and press the RIGHT Cursor key. To remove the Waypoint from the group, choose **Selected**. To delete the waypoint from all groups, choose **All Instances**.

Navigate to a Waypoint or Position

Navigate to the Cursor Position: From the Chart View or Chart Combo Views, use the 4-WAY Cursor Control key to move the cursor to a position or waypoint on the display. Press the GOTO key.

Navigate to a Selected Waypoint: Press the GOTO key. Press the DOWN Cursor key to highlight a waypoint from the saved waypoints list, and press the RIGHT Cursor key to start navigation.

> *NOTE: By repeating the previous instructions, you can add more waypoints to create a longer multi-segment route.*

Navigate to a Waypoint from the Waypoint Management Dialog Box: Open the Waypoint Management dialog box. Select a Waypoint, and press the RIGHT Cursor key to open the Waypoint submenu. Select Go To, and press the RIGHT Cursor key.

Skip a Waypoint: From the Navigation X-Press Menu, select Skip Next Waypoint, and press the RIGHT Cursor key. If there is not another waypoint to skip to, navigation will be cancelled.

Cancel Navigation: From the Navigation X-Press Menu, select Cancel Navigation, and press the RIGHT Cursor key. Canceling navigation removes the route and any waypoints created using the GOTO key, but it does not remove any saved routes from memory. You will be prompted to save the current route when you cancel navigation.

Add a Waypoint Target or Trolling Grid

The **Waypoint Target** shows a target consisting of concentric circles in various distance ranges centered on the waypoint you choose. The **Trolling Grid** shows various distance ranges in grid format from the waypoint you choose. The trolling grid can be used as a guide when trolling around a waypoint.

Add a Waypoint Target: Open the Waypoint Management dialog box and select a Waypoint. Press the RIGHT Cursor key, and select Target. Press the RIGHT Cursor key.

Add a Trolling Grid: Open the Waypoint Management dialog box and select a Waypoint. Press the RIGHT Cursor key, and select Grid. Press the RIGHT Cursor key. The grid can also be rotated to any heading by adjusting the Grid Rotation setting on the Navigation Main Menu.

Remove a Target or Trolling Grid: Press the MENU key once, and choose Remove Target or Remove Grid from the Navigation X-Press Menu, and press the RIGHT Cursor key.

NOTE: Only one waypoint can have either a target or a grid applied to it at one time. If you apply a target or a grid to a new waypoint, the original waypoint will lose its target or grid.

NOTE: The spacing of the rings on the waypoint target and the spacing of the grid lines on the trolling grid are the same as the length of the scale bar on the left edge of the display. Zooming in or out will decrease or increase the spacing, respectively.

Chart View with Target
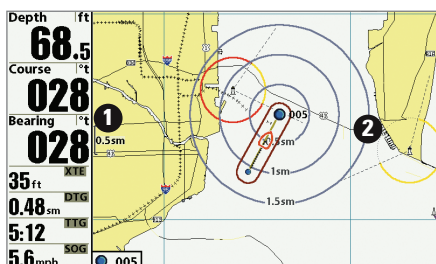
Chart View with Grid

❶ Map Scale
❷ Waypoint Target
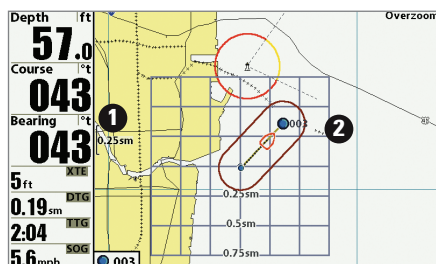
❶ Map Scale
❷ Waypoint Trolling Grid

Routes

Save the Current Route: While you are navigating, the current route can be saved. From the Navigation X-Press Menu, select Save Current Route, and press the RIGHT Cursor key. Navigation will continue.

Create a New Route: Open the Waypoint Management dialog box. Select Options > New > New Route.

- **New Route Dialog Box:** Use the 4-WAY Cursor Control key to set the available fields (see *Edit your Waypoints, Routes, Tracks, and Groups* for details).

- **Plan a Route:** Select Plan Route, and press the RIGHT Cursor key. The New Route dialog box closes so that you can select waypoints from the Waypoint Management dialog box. To add a selected waypoint to the route, press the RIGHT Cursor key. Repeat as needed. Select Save and press the RIGHT Cursor key.

Adding Waypoints to a Route

Ⓐ Save: Press the EXIT key to choose Save. Press the RIGHT Cursor key to confirm the save.	**New Route Information:** Shows Ⓒ the Route's name and next steps.
Ⓑ Selected Waypoint: Press the RIGHT Cursor key to add it to the Route.	A **confirmation** displays each time Ⓓ you add a waypoint to the Route.

Travel a Saved Route: Open the Waypoint Management dialog box. Select a saved route, and press the RIGHT Cursor key. Select Travel, and press the RIGHT Cursor key. Select Forward to travel the route in order. Select Reverse to travel the route in reverse order.

Edit the Waypoint Order in a Route: Open the Waypoint Management dialog box. Select a Route, and press the RIGHT Cursor key to open the Route submenu. Select Open, and then choose one of the following options:

- **Select Reverse,** and press the RIGHT Cursor key. This will quickly reverse the order of the route. Press the EXIT key to select Save. Press the RIGHT Cursor key to confirm your changes.

OR

- **Choose a Waypoint in a 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.

  Press the EXIT key to select Save. Press the RIGHT Cursor key to confirm your changes.

Changing the Waypoint Order
in a Route (two options)
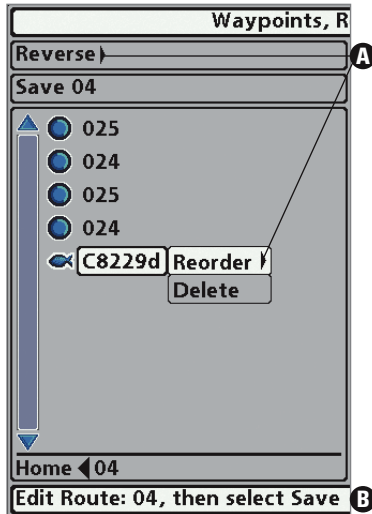
Ⓐ Select Reverse OR Select a Waypoint > Reorder

Ⓑ Press the EXIT key to select Save.

Review Route Info: Open the Waypoint Management dialog box. Select a saved route, and press the RIGHT Cursor key. Select info, and press the RIGHT Cursor key. The Route Info dialog box displays the waypoints in the route. The distance and bearing from each waypoint to the next, as well as the distance and bearing from the current position to the first waypoint in the route will be displayed.

Delete a Saved Route: Open the Waypoint Management dialog box. Select a saved route, and press the RIGHT Cursor key. Select Delete from the submenu, and press the RIGHT Cursor key. To remove the route from the group, choose Selected. To delete the route from all groups, choose All Instances.

Tracks

Save the Current Track: From the Navigation X-Press Menu, select Save Current Track, and press the RIGHT Cursor key. The track will remain on the display but will change from black to gray. To remove the track completely from the display, see *Hide or Display a Saved Track and Stop Tracking.*

> *NOTE: When you save a track, a name is automatically assigned. The track name consists of a date/time stamp, but can be re-named later (see **Edit your Waypoints, Routes, Tracks, and Groups**).*

Clear the Current Track: From the Navigation X-Press Menu, select Clear Current Track, and press the RIGHT Cursor key. The track will be removed from the display and permanently deleted.

Hide or Display a Saved Track: Open the Waypoint Management dialog box. Select a saved track, and press the RIGHT Cursor key. Select Edit from the submenu. Use the 4-WAY Cursor Control key to set the track to visible or hidden (see *Edit your Waypoints, Routes, Tracks, and Groups* for details).

Delete a Saved Track: Open the Waypoint Management dialog box. Select a saved track, and press the RIGHT Cursor key. Select Delete from the submenu, and press the RIGHT Cursor key. To remove the track from the group, choose Selected. To remove the track from all groups, choose All Instances.

Stop Tracking: Press the MENU key twice to open the Main Menu. Select the Navigation Menu Tab > Current Track > Stop Tracking. **Stop Tracking** clears the current track, and the unit will not save trackpoints. See *Navigation Menu Tab: Current Track* for more information.

Edit your Waypoints, Routes, Tracks, and Groups

Whether you are creating a new navigation item or editing it, you can use the same steps to customize a waypoint, route, track, or group. The available settings will depend on the type of item you are editing.

NOTE: The Edit Waypoint dialog box is also available when you select a waypoint from the Navigation X-Press Menu.

NOTE: See your Humminbird Waypoint Management Guide for more information about groups and the other great features of the Waypoint Management dialog box.

<u>**Edit a Waypoint, Route, Track, or Group**</u>

1. Open the Waypoint Management dialog box.

2. **Open the Submenu:** Use the 4-WAY Cursor Control key to select a waypoint, route, track, or group. Press the RIGHT Cursor key to open the submenu.

3. Select Edit, and press the RIGHT Cursor key.

4. **Select a Field:** Use the 4-Way Cursor Control key to move from field to field, and press the UP or DOWN Cursor keys to change the settings.

   Name: Press the RIGHT or LEFT Cursor keys to move from space to space, and press the UP or DOWN Cursor keys to set the letter or number. All upper and lower case letters are available, as well as digits 0-9 and some punctuation symbols.

   Icon Category: Press the UP or DOWN Cursor keys to scroll through the available categories. Select All to view all available icons. (All, Geometry, Alerts, Supplies, Navigation, Recreation, Fish, Environment)

   Icon: Press the UP or DOWN Cursor keys to scroll through the available icons used to represent the waypoint in Chart View. The available icons are determined by the category selected in Icon Category.

   Visible: Press the UP or DOWN Cursor keys to set the selected item to visible or hidden in the Chart View.

   Latitude/Longitude: Press the RIGHT or LEFT Cursor keys to move from space to space, and press the UP or DOWN Cursor keys to set the letter or number.

NOTE: The available settings will depend on the type of item you are editing.

5. Select Save, and press the RIGHT Cursor key to confirm your changes.

Man Overboard (MOB) Navigation

As soon as you know that you have a man overboard (MOB), you should activate MOB navigation to maximize the chances for a successful rescue. MOB navigation allows you to create an MOB waypoint to locate the point at which your man went overboard and the relation of the boat to that point.

Activate MOB navigation: Press and hold the GOTO key for more than 1.5 seconds to activate the Man Overboard (MOB) function.

When MOB is activated, a MOB waypoint is created at the boat's current position, regardless of whether the chart cursor is active or not. The MOB waypoint has a large, distinctive icon. Once MOB is activated, any current navigation will be cancelled and the current route will be discarded without user notification. MOB navigation will begin immediately, and the MOB View will show the following:

- The view will switch to the Chart View, and the elapsed time since MOB was activated will be displayed.
- A line will be drawn from the boat's current position to the MOB waypoint, and the MOB waypoint will be targeted.
- The latitude/longitude position of the MOB waypoint will be displayed in an additional information box.

Cancel MOB Navigation: From the Navigation X-Press Menu, select Cancel MOB, and press the RIGHT Cursor key. Canceling MOB navigation removes the route and any waypoints created using the GOTO key but does not remove any saved routes from memory.
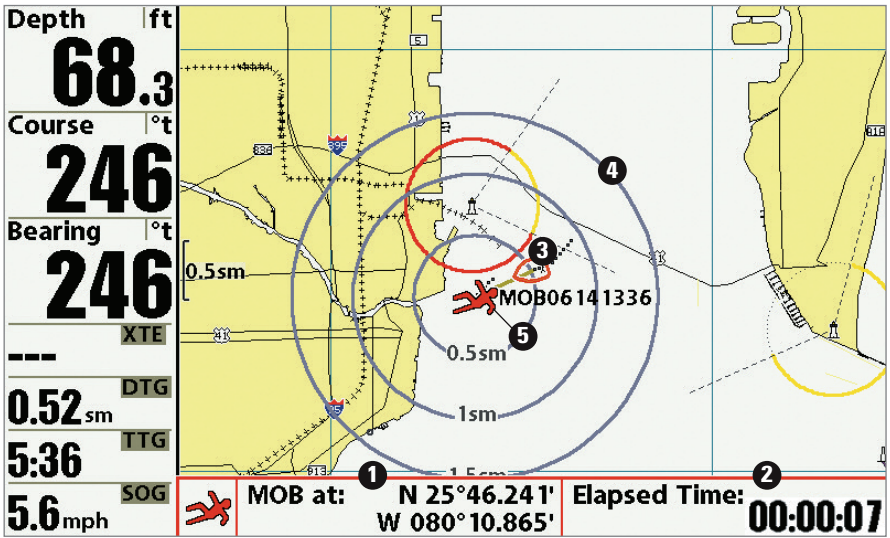
1 Position where man fell overboard

2 Elapsed time since MOB was activated

3 Boat icon

Target surrounding MOB waypoint **4**

MOB waypoint **5**

It is not possible to re-activate MOB or modify the current route without first canceling MOB navigation. The Off Course trigger is also disabled and the Off Course Alarm circle is not drawn. Any press of the GOTO key, or selection of a GOTO menu option, will cause an error beep and a short message will be displayed that will disappear after 2 seconds.

The Menu System

The Menu System is divided into easy-to-use menu modules as follows:

- **Start-Up Options Menu:** Press the MENU key during the power on sequence to view the Start-Up Options Menu. From the Start-Up Options Menu, you can choose the following modes: Normal, Simulator, and System Status.

- **X-Press Menu:** The X-Press Menu provides a shortcut to the most frequently-used settings, and the options on the X-Press Menu correspond with the current view.

- **Main Menu:** The Main Menu is a standard set of menu settings which are organized under the following tabbed headings: Alarms, Sonar, Navigation, Chart, Setup, and Views. The available menu tabs are determined by your control head model.

    *NOTE: The X-Press Menu(s) and the Main Menu options can also be expanded or simplified by setting the User Mode to Advanced or Normal (see **Main Menu: User Mode**).*

Start-Up Options Menu

Press the MENU key during the power on sequence to view the **Start-Up Options Menu**, and select one of the modes described on the following pages. Also, see *Power On* for more information.

Start-Up Options Menu
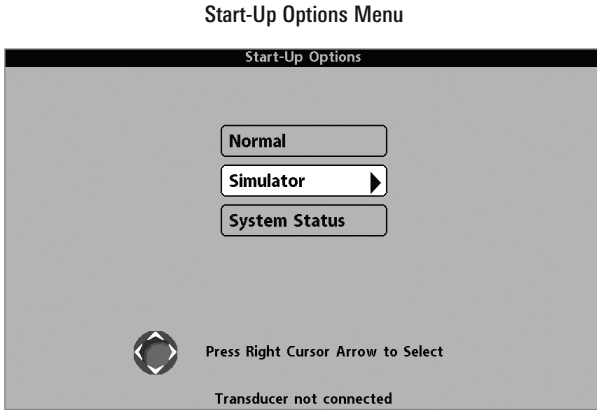
Normal

Use **Normal** for on-the-water operation. If your model includes sonar, a transducer must be connected to the control head to use Normal mode.

To exit Normal operation, power off your control head.

Simulator

Use **Simulator** to learn how to use your control head before taking your boat on the water. The Simulator is a very powerful tool that provides a randomly-updated display which simulates on the water operation.

Simulator
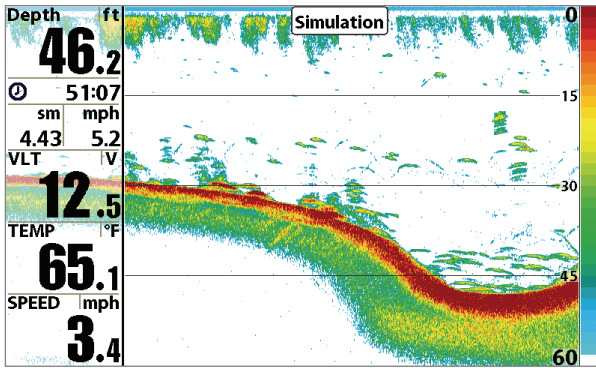
We recommend going through this manual while using the Simulator, since all of the menus function and affect the display in the same way as they would in Normal operation. Any menu changes you make will be saved for later use.

- A **message** will appear often on the display to indicate Simulator mode.

- **To exit Simulator**, power off your control head.

*NOTE: It is important to select Simulator manually from the Start-Up Options Menu instead of letting the control head enter Simulator automatically. See **Power On** for more information.*

System Status

Use **System Status** to view system connections and to conduct a unit self-test.

After you select System Status from the Start-Up Options Menu, press the VIEW key to display the following options:

- • Self Test
- • Accessory Test
- • GPS Diagnostic View

To exit System Status, power off your control head.

Self Test displays results from the internal diagnostic self test, including unit serial number, Printed Circuit Board (PCB) serial number, software version, total hours of operation, and the input voltage.

Self Test Screen

Accessory Test lists the accessories connected to the system.

Accessory Test Screen

NOTE: The speed accessory will be detected only if the paddlewheel has moved since your control head was powered up.

GPS Diagnostic View shows a sky chart and numerical data from the GPS receiver. The sky chart shows the location of each visible GPS satellite with its satellite number and a signal strength bar. A dark gray bar indicates that the satellite is being used to determine your current position. A light gray bar indicates that the satellite is being monitored, but is not yet being used.

This view also reports the current position, local time and date, and other numeric information. The current GPS Fix Type is reported as No Fix, 2D Fix, 3D Fix, or Enhanced. An Enhanced fix has been augmented using information from WAAS, EGNOS, or MSAS. A 3D or Enhanced Fix is required for navigation. HDOP (the Horizontal Dilution of Precision) is a GPS system parameter which depends on the current satellite configuration. HDOP is used to calculate the Estimated Position Error.

GPS Diagnostic View
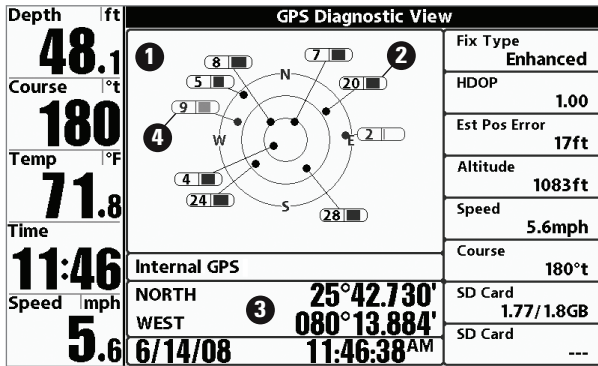
1 Sky Chart

2 Satellite Being Used

3 Current Latitude and Longitude

4 Satellite Being Monitored

⟨⟩ Sensitivity	10
1▮▬▬▭	20
E↕ Lower Range	
	Auto
≫ Chart Speed	
	5
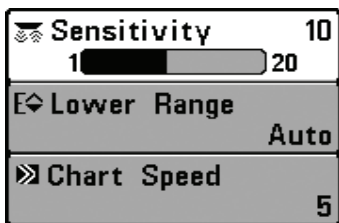
X-Press Menu

X-Press Menu

The **X-Press Menu** provides a shortcut to your most frequently-used settings. The options provided on the X-Press Menu correspond with the current view. For example, if you are in a Sonar View and press the MENU key once, the Sonar X-Press Menu will display.

To use an X-Press Menu:

1. In any view, press the MENU key once.

2. Press the UP or DOWN Cursor keys to highlight an X-Press Menu option, then use the RIGHT or LEFT Cursor keys to change the menu setting.

   NOTE: The X-Press Menu will collapse temporarily and the screen will update if it is affected by your menu setting change, which allows you to see the effects of your change immediately.

3. Reactivate the X-Press Menu by pressing the UP or DOWN Cursor keys.

Total Screen Update - When you change any menu settings that affect the current view, the view will update immediately (you don't have to exit the menu to apply the change to the screen).

Menu options can be simplified or expanded by setting the User Mode to Normal or Advanced. See *Main Menu: User Mode* for details.

| (((·)))Alarms | 夭 | 災 | 🌄 | 🌅 | 🌄 |

Depth Alarm

Off

Fish ID Alarm

○

Low Battery Alarm

Off

Temp. Alarm

Off

Off Course Alarm

325ft

Arrival Alarm

150ft

Drift Alarm

Off

Main Menu System
Normal User Mode

Main Menu

The **Main Menu** provides the standard set of menu options, including the settings that are changed less frequently.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

To use the Main Menu:

1. In any view, press the MENU key twice.

2. Press the RIGHT or LEFT Cursor keys to highlight a menu tab.

3. Press the DOWN or UP Cursor keys to select a specific menu option under that tab.

4. Press the RIGHT or LEFT Cursor keys again to change a menu setting.

   • A down arrow at the bottom of a menu means that you can scroll to additional menu options using the DOWN Cursor key.

   • A right or left arrow on a menu option means that you can use the RIGHT or LEFT Cursor keys to make changes or to see more information.

   • Press the EXIT key to move quickly to the top of the tab.

Total Screen Update - When you change any menu settings that affect the current view, the view will update immediately (you don't have to exit the menu to apply the change to the screen).

Quick Tips for the Main Menu

- **From any menu option on a menu tab**, press the EXIT key to jump directly to the top of the tab.

- **From the bottom of a menu tab**, press the DOWN Cursor key to jump directly to the top of the tab.

- **From the top of a menu tab**, press the LEFT or RIGHT Cursor keys to scroll to the next tab. You can also jump to the beginning or end of the tab rotation by repeatedly pressing the RIGHT or LEFT Cursor keys.

- If there is a **down arrow at the bottom of a menu tab**, press the DOWN Cursor key to scroll to additional menu options.

- If there is a **right or left arrow on a menu option**, press the RIGHT or LEFT Cursor keys to make setting changes or see more information.

- If you press MENU or EXIT to leave the Main Menu and then **return to the Main Menu** at a later time, the menu will open to the same tab as the last time the Main Menu was displayed.

Note for all Menu Settings

The settings in all menus are adjusted in the same way. Simply use the 4-WAY Cursor Control key to highlight a menu option, and then change the settings or activate the option (see *Main Menu* or *X-Press Menu*).

Below is an example of how the menu options are described in this manual. Each description shows the menu option appearance, the available settings, and the specific control head settings required (advanced user mode, international only, view, navigation, or accessory).

Menu Option Name

Noise Filter
◀ Low ▶

Noise Filter
(Advanced) ◀──── Setup User Mode and other control head requirements

Settings: Off, Low, Medium, High1, High2, High3, ◀──── Available Menu Settings and Default
Default = Low

Noise Filter adjusts the sonar Noise Filter to limit interference on the display ◀──── Setting Description
from sources such as your boat engine, turbulence, or other sonar devices.

Menu Option as it appears on the screen

User Mode (Normal or Advanced)

Menu options can be simplified or expanded by setting your control head User Mode to Normal or Advanced.

Normal Mode is provided for users who want greater simplicity and fewer menu choices.

Advanced Mode is provided for users who want the highest level of control over the control head. Several menu settings are added to the Main Menu when the User Mode is changed to Advanced.

To change the User Mode setting:

1. Press the MENU key twice to access the Main Menu.

2. Press the RIGHT Cursor key until the Setup tab is selected.

3. Press the DOWN Cursor key to highlight User Mode on the Setup main menu.

4. Press the LEFT or RIGHT Cursor keys to change the User Mode setting. (Normal, Advanced, Default = Normal)

   NOTE: Any changes made while in Advanced Mode will remain in effect after you switch back to Normal Mode.

   For example, in HELIX SONAR GPS models, the Select Readouts menu option is available when the User Mode is set to Advanced. If you change the Select Readouts settings while operating in Advanced User mode, the Select Readouts you choose will continue to display on the screen even if you switch back to Normal User Mode.

Beam Select		200kHz
Imaging Frequency		455kHz
Surface Clutter		5
SwitchFire		Clear Mode
Fish ID +		On
Fish ID Sensitivity		5
RTS Window		Narrow
Sonar Colors		Original Palette
Bottom View		Structure ID
Zoom Width		Narrow
Ice Fishing Mode		Off
Color Bar		On
DI Colors		Amber 1

HELIX DI GPS
Sonar Tab, Normal Mode

Beam Select		200kHz
Imaging Frequency		455kHz
Surface Clutter		5
SwitchFire		Clear Mode
Fish ID +		On
Fish ID Sensitivity		5
RTS Window		Narrow
Sonar Colors		Original Palette
Bottom View		Structure ID
Zoom Width		Narrow
455kHz Sensitivity		0
Depth Lines		On
Noise Filter		Low
Max Depth		Auto
Water Type		Fresh
Digital Depth Source		Auto
DI Pings		2D + DI
Ice Fishing Mode		Off
Color Bar		On
DI Colors		Amber 1

HELIX DI GPS
Sonar Tab, Advanced Mode

⊗ **Cancel Navigation**	
◀▷ **Active Side**	
	Left
◀▷ **Split Position**	
	50
≋ **Sensitivity**	
	10
▯⬍ **Upper Range**	
	0ft
▯⬍ **Lower Range**	
	Auto
≫ **Chart Speed**	
	5
▣ **Bottom Lock**	
	Off
▯⬍ **Bottom Range**	
	15ft

Sonar X-Press Menu

Sonar X-Press Menu
(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

The **Sonar X-Press Menu** provides a shortcut to your most frequently-used settings. Press the MENU key once while in any of the Sonar Views to access the Sonar X-Press Menu.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

NOTE: Menu options are determined by your Humminbird model. See the following pages for full menu descriptions.

`⊗ Cancel Navigation`

▶

Cancel Navigation

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel Navigation discards the current route and exits Navigation Mode. This menu option will only appear when you are currently navigating a route. This will not delete a previously-saved route.

`◁▷ Active Side`
`◀   Left   ▶`

Active Side

(Combo Views only)

Settings: Left, Right; Default = Left

Active Side allows you to select a side of the screen in a Combo View. After you choose an active side, you can apply menu settings and key commands to the view you've selected. The Active Side menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- A green arrow on the Combo View points to the active side.
- When a menu is displayed in the active side, the non-active side of the screen will be grayed out.

`◁▷ Split Position    50`
`Left█████▌      Right`

Split Position

(Combo Views only)

Settings: Left, 30, 40, 50, 60, 70, Right; Default = Various

Split Position sets the size of the left side of the Combo View. Each Combo View can be set individually. The Split Position menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- The number setting indicates the percentage taken up by the left side of the Combo View.
- Selecting Left sets the left side of the screen to its smallest setting.

�ï Sensitivity	10
1 ▮▮▮▮▮▮	20

Sensitivity

Settings: Low = 1, High = 20; Default = 10

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. If Sensitivity is adjusted too low, the display may not show many sonar returns that could be fish.

When operating in very clear water or greater depths, increase the sensitivity to see weaker returns that may be of interest. If the sensitivity is adjusted too high, the display may become too cluttered.

Sensitivity at Low   Sensitivity at Medium   Sensitivity at High
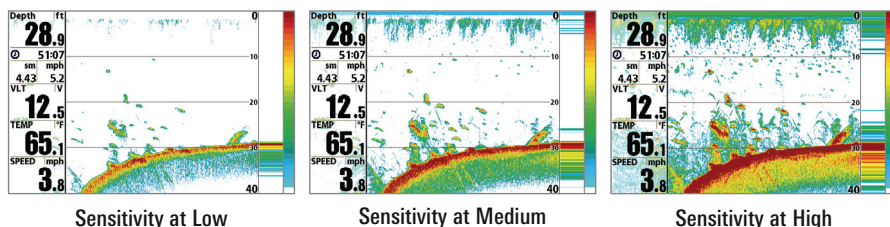
NOTE: The Sensitivity setting is a global setting and will adjust the sensitivity of all sonar frequencies.

⌸ Upper Range	0ft
0 ▮▮▮	1490

Upper Range

(Advanced: Sonar, Split Sonar, and Active Sonar Side Views only)

Settings: Various, see below.

Upper Range sets the shallowest depth range that will be displayed on the Sonar, Split Sonar, and Active Sonar Side Views. Upper Range is often used with Lower Range.

> For example, if you are only interested in the area between 20 and 50 feet deep, you should set the Upper Depth Range to 20 and the Lower Depth Range to 50. The Sonar View will then show the 30 foot area between 20 and 50, and will not show the surface or the bottom (assuming the bottom is deeper than 50 feet), and will show greater detail for that area between 20 and 50 feet.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the manual settings entered.

The available Upper Range settings are determined by your Humminbird model as follows:

- **HELIX SONAR GPS:** 0 to 1490 ft, 0 to 497 m (International Models only); Default = 0
- **HELIX DI GPS:** 0 to 590 ft, 0 to 237 m (International Models only); Default = 0
- **HELIX XD GPS:** 0 to 2490 ft, 0 to 757 m (International Models only); Default = 0

⬍ Lower Range   Auto
Auto ▮   1500

Lower Range

Settings: Various, see below.

Lower Range sets the deepest depth range that will be displayed by the unit.

Auto: The Lower Range will be adjusted by the unit to follow the bottom automatically. Auto is the default setting.

Manual: You can adjust the Lower Range to lock the unit on a particular depth. **M** will be displayed in the lower right corner of the screen to indicate the unit is in Manual mode. Adjust the Upper and Lower Range together to view a specific depth range, especially when looking for fish or bottom structure.

> For example, if you are fishing in 60 feet of water but are only interested in the first 30 feet (surface to a depth of 30 feet) you should set the Lower Depth Range limit to 30. The display will show the 0 to 30 foot range, which allows you to see a more detailed view than you would see if the display went all the way to the bottom.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the settings entered manually.

The available Lower Range settings are determined by your Humminbird model as follows:

- **HELIX SONAR GPS:** Auto to 1500 ft, Auto to 500 m (International Models only); Default = Auto
- **HELIX DI GPS:** Auto to 600 ft, Auto to 240 m (International Models only); Default = Auto
- **HELIX XD GPS:** Auto to 2500 ft, Auto to 760 m (International Models only); Default = Auto

⏩ Chart Speed   6
1 ▮▮▮▮▮   Ultra

Chart Speed

Settings: 1 to 9, Ultra, where 1 = Slow, 9 = Fast, Ultra = Fastest; Default = 5

Chart Speed determines the speed at which the sonar information moves across the display, and consequently, the amount of detail shown.

A **faster speed** shows more information and is preferred by most anglers; however, the sonar information moves across the display quickly. A **slower speed** keeps the information on the display longer, but the bottom and fish details become compressed and may be difficult to interpret. Regardless of the Chart Speed setting, the RTS Window will update at the maximum rate possible for the depth conditions.

Bottom Lock

Bottom Lock

Off

(Sonar Zoom View only)

Settings: Off, On; Default = Off

Bottom Lock changes the mode of the zoomed view in the 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.

Bottom Range

Bottom Range   15ft

10   60

(Sonar Zoom View only, when Bottom Lock is On)

Settings: 10 to 60 feet, 2 to 10 fathoms, or 3 to 20 meters [International Models only]; Default = 15 feet

Bottom Range allows you to control how much of the water column, measured up from the bottom, is shown in the Sonar Zoom View. Choose a small value to see low-lying bottom structure or details of the bottom return. Choose a larger value to see large structure in deeper water.

> *NOTE: It is possible to set the Bottom Range to be greater than the depth. In this case, you may see surface clutter in a wavy band that mirrors changes in the depth.*

✖ Cancel Navigation
≋ Sensitivity   10
1 ▇▇▇▇▁▁▁ 20
⬍ Lower Range
Auto
⬍ Upper Range
0ft
▨ Color Palette
Palette 1
◪ Reset XTE
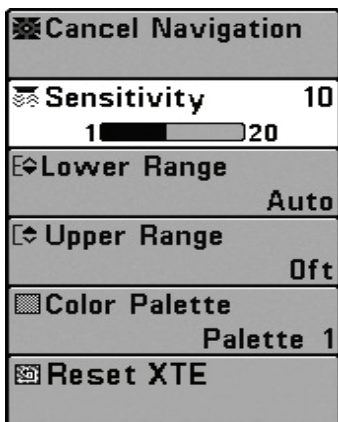
Flasher X-Press Menu

Flasher X-Press Menu

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only and
Circular Flasher View only)

The **Flasher X-Press Menu** provides a shortcut to your most frequently-used settings. Press the MENU key once while in the Circular Flasher View to access the Flasher X-Press Menu.

NOTE: Menu options will vary depending on system settings, such as whether you are currently navigating.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

*NOTE: To activate Ice Fishing Mode, see **Sonar Menu Tab**. Also, see **Views: Circular Flasher View** for more information.*

Cancel Navigation

✖ Cancel Navigation	

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel Navigation discards the current route and exits Navigation Mode. This menu option will only appear when you are currently navigating a route. This will not delete a previously-saved route.

Sensitivity

☰ Sensitivity	10
1 ▮▬▬▬▬	20

Settings: Low = 1, High = 20; Default = 10

Sensitivity controls how much detail is shown on the display and will adjust the sensitivity of all sonar frequencies.

When operating in very clear water or greater depths, increase the sensitivity to see weaker returns that may be of interest. If the sensitivity is adjusted too high, the display may become too cluttered.

Decrease the sensitivity to eliminate the clutter from the display that is sometimes present in murky or muddy water. If Sensitivity is adjusted too low, the display may not show many sonar returns that could be fish.

NOTE: The Sensitivity setting is a global setting and will adjust the sensitivity of all sonar frequencies.

Upper Range

E⇕ Upper Range	0ft
0 ▮	1490

(Advanced)

Settings: Various, see below.

Upper Range sets the shallowest depth range that will be displayed on the Sonar, Split Sonar, Circular Flasher, and Big Digits Views. Upper Range is often used with Lower Range.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the manual settings entered.

The available Upper Range settings are determined by your Humminbird model as follows:

- **HELIX SONAR GPS:** 0 to 1490 ft, 0 to 497 m (International Models only); Default = 0
- **HELIX DI GPS:** 0 to 590 ft, 0 to 237 m (International Models only); Default = 0
- **HELIX XD GPS:** 0 to 2490 ft, 0 to 757 m (International Models only); Default = 0

Lower Range

`[⇕ Lower Range    Auto]`
`  Auto▯▭▭▭▭▭▭▭ 1500`

Lower Range

Settings: Various, see below.

Lower Range sets the deepest depth range that will be displayed by the unit.

Auto: The Lower Range will be adjusted by the unit to follow the bottom automatically. Auto is the default setting.

Manual: You can adjust the Lower Range to lock the unit on a particular depth. Adjust the Upper and Lower Range together to view a specific depth range, especially when looking for fish or bottom structure.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the manual settings entered.

The available Lower Range settings are determined by your Humminbird model as follows:

- **HELIX SONAR GPS:** Auto to 1500 ft, Auto to 500 m (International Models only); Default = Auto
- **HELIX DI GPS:** Auto to 600 ft, Auto to 240 m (International Models only); Default = Auto
- **HELIX XD GPS:** Auto to 2500 ft, Auto to 760 m (International Models only); Default = Auto

Color Palette

`▨Color Palette`
`◀  Palette 1  ▶`

Color Palette

(Circular Flasher View, Ice Fishing Mode only)

Settings: Palette 1, Palette 2, Palette 3; Default = Palette 3

Color Palette sets the colors used to display sonar returns in the Circular Flasher View when Ice Fishing Mode is turned on. The active color palette is shown in the center of the circular flasher display. The color palettes range from weak to strong sonar return signals, which are displayed left to right on the color preview bar. See *Views: Circular Flasher View* for more information.

Choose from the following color palettes:

Palette 1: Green (weak), Yellow (medium), Red (strong)

Palette 2: Yellow (weak), Green (medium), Red (strong)

Palette 3: Blue (weakest), Green (weak), Light Green (weak to medium), Yellow (medium), Orange (fairly strong), Red (strong)
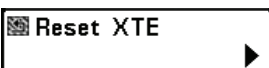
Reset XTE

`▧ Reset XTE`
`                ▶`

Reset XTE

(only when Navigating)

Settings: Press the RIGHT Cursor key to activate.

Reset XTE is available during navigation. When it is selected, the cross track error (XTE) will be recalculated from the boat's current position to the next waypoint in the route.

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

Cancel Navigation

Start Recording

Stop Recording

Delete Image

Delete All Images

Delete Recording

Delete All Recordings

Pings Per Second
Auto

Playback Speed

Stop Playback

Snapshot and Recording
X-Press Menu

Snapshot and Recording X-Press Menu
(Snapshot and Recording View only)

The **Snapshot and Recording X-Press Menu** provides access to the snapshot management and sonar recording functions. Press the MENU key once while in the Snapshot and Recording View to access the Snapshot and Recording X-Press Menu.

*NOTE: For more information, see **Views: Snapshot and Recording View**.*

*NOTE: The recording feature is only available in Humminbird models with sonar. You can take screen snapshots with the HELIX GPS, but the recording feature is not available on this model. See **Views: Snapshot and Recording View** for details.*

Cancel Navigation

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel Navigation discards the current route and exits Navigation Mode. This menu option will only appear when you are currently navigating a route. This will not delete a previously-saved route.

Start Recording

(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Press the RIGHT Cursor key to activate.

Start Recording allows you to start sonar recording from the Snapshot and Recording View. This menu option is only available when an optional-purchase microSD card is installed and Snapshot and Recording View is on the screen.

Stop Recording

(optional-purchase microSD Card only)

Settings: Press the RIGHT Cursor key to activate.

Stop Recording allows you to stop sonar recording. This menu option is only available when an optional-purchase microSD card is installed and the control head is actively recording.

Delete Image

(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Delete Image allows you to delete a single screen capture image. This menu option is only available when an optional-purchase microSD card is installed, Snapshot and Recording View is on the screen, and you have selected an image thumbnail.

Delete All Images

(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Delete All Images allows you to delete all the images at once. This menu option is only available when an optional-purchase microSD card is installed and Snapshot and Recording View is on the screen.

Delete Recording

(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Delete Recording allows you to delete a single sonar recording. This menu option is only available when an optional-purchase microSD card is installed, Snapshot and Recording View is on the screen, and you have selected a recording file.

`⊗Delete All Recordings`
`▶`

Delete All Recordings
(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Delete All Recordings allows you to delete all the recordings at once. This menu option is only available when an optional-purchase microSD card is installed and Snapshot and Recording View is on the screen.

`⅋ Pings Per Second    10`
`1▐████████▌Auto`

Pings Per Second
(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: 1 to 10, Auto; Default = Auto

Pings Per Second allows you to specify the ping rate for an active sonar recording.

> *NOTE: Pings Per Second is available when an optional-purchase microSD card is installed, Snapshot and Recording View is on the screen, and the control head is actively recording (not playing back).*

Auto is the default setting for Pings Per Second and automatically adjusts the ping rate for best recording quality. If there is limited memory on your microSD card, you can slow the ping rate by setting the Pings Per Second manually, but the recording will capture less sonar detail. For maximum performance, keep the Pings Per Second setting on Auto.

`▷Playback Speed`
`◀▐████▌ ▷ ▌▶`

Playback Speed
(optional-purchase microSD Card, Snapshot and Recording View only)

Settings: Record, Rewind1, Rewind2, Slow Play Reverse, Pause, Slow Play, Normal Play, Fast Forward1, Fast Forward2, Stop

Playback Speed allows you to specify the playback speed for a sonar recording from the Snapshot and Recording View. This menu option is only available when an optional-purchase microSD card is installed and Recording Playback is active.

Playback Speed Icons:

🔴 Record		◥ Slow Play
◀◀ Rewind, Reverse		▶ Normal Play
◀◀ Rewind2		▶▶ Fast Forward
◤ Slow Play Reverse		▶▶ Fast Forward2
▌▌ Pause		■ Stop

> *NOTE: You can also change playback speed in the Snapshot and Recording View using the LEFT and RIGHT Cursor keys, although you cannot skip to the beginning or end of a recording using these keys.*

NOTE: Sonar chart speed is increased during Fast Forward and reversed during Rewind. This may result in a reduced quality sonar image, since at higher speeds, not every sonar return can be processed.

◪Stop Playback	▶

Stop Playback
(optional-purchase microSD Card only)

Settings: Press the RIGHT Cursor key to activate.

Stop Playback allows you to stop playback of a sonar recording from any view. This menu option is only available when an optional-purchase microSD card is installed and Recording Playback is active.

*NOTE: During playback, the amount of time/memory left to play is indicated by the status bar. For more information, see **Views: Snapshot and Recording View**.*

⊗ Cancel Navigation
◀▶ Active Side **Left**
◀▶ Split Position **50**
⟰ Down Sensitivity **10**
⊞ DI Enhance
⌃ Upper Range **0ft**
⌄ Lower Range **Auto**
⟫ Chart Speed **5**
▦ DI Colors **Blue**

Down Imaging X-Press Menu

Down Imaging X-Press Menu

(Down Imaging Views only [HELIX DI GPS])

The **Down Imaging X-Press Menu** provides a shortcut to your most frequently-used settings. Press the MENU key once while in any of the Down Imaging Views to access the Down Imaging X-Press Menu.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

NOTE: Menu options are determined by your Humminbird model. See the following pages for full menu descriptions.

	Cancel Navigation

Cancel Navigation

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel Navigation discards the current route and exits Navigation Mode. This menu option will only appear when you are currently navigating a route. This will not delete a previously-saved route.

	Active Side
◄	Left ►

Active Side

(Combo Views only)

Settings: Left, Right; Default = Left

Active Side allows you to select a side of the screen in a Combo View. After you choose an active side, you can apply menu settings and key commands to the view you've selected. The Active Side menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- A green arrow on the Combo View points to the active side.
- When a menu is displayed in the active side, the non-active side of the screen will be grayed out.

Split Position	50
Left	Right

Split Position

(Combo Views only)

Settings: Left, 30, 40, 50, 60, 70, Right; Default = Various

Split Position sets the size of the left side of the Combo View. Each Combo View can be set individually. The Split Position menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- The number setting indicates the percentage taken up by the left side of the Combo View.
- Selecting Left sets the left side of the screen to its smallest setting.

Down Sensitivity	1
1	20

Down Sensitivity

Settings: 1 to 20, where Low = 1, High = 20; Default = 10

Down Sensitivity controls how the sonar returns are displayed on the Down Imaging Views.

Increase the Down Sensitivity to reveal weaker returns that may be of interest, especially in very clear water or greater depths. A high Down Imaging Sensitivity setting shows more sonar returns from small baitfish and suspended debris in the water; however if the Down Imaging Sensitivity is adjusted too high, the display may become too cluttered.

Decrease the Down Sensitivity to eliminate the clutter from the display that is sometimes present in murky or muddy water. If Down Imaging Sensitivity is adjusted too low, the display may not show many sonar returns that could be fish.

DI Enhance

DI Enhance

Settings: Press the RIGHT Cursor key.

DI Enhance allows you to adjust your Down Imaging View in the following categories: Sensitivity, Contrast, and Sharpness.

Whether you're searching the Down Imaging data for fish or certain bottom contour, the most effective settings will vary with the situation. The display will update as you adjust each category. DI Enhance can also be used during Recording Playback (see *Views: Snapshot and Recording View*).

DI Enhance
Sensitivity	◀ 10 ▶
Contrast	10
Sharpness	Off
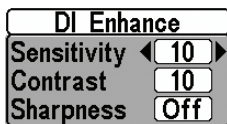
DI Enhance Submenu

- **Sensitivity:** Controls how much detail is shown on the display. When operating in very clear water or greater depths, increased sensitivity shows weaker returns that may be of interest. Decreasing the sensitivity eliminates the clutter from the display that is sometimes present in murky or muddy water. **(1 to 20, where Low = 1, High = 20; Default = 10)**

  NOTE: The Sensitivity can be adjusted from the DI Enhance dialog box or the Down Imaging X-Press Menu. The Sensitivity setting is provided here so that you can easily adjust the Down Imaging data with the other settings. See Down Imaging X-Press Menu: Down Sensitivity for more information.

- **Contrast:** Accents the light and dark parts of the Down Imaging data to provide greater definition. **(1 to 20, Default = 10)**

- **Sharpness:** Filters the view and sharpens the edges of the Down Imaging data. **(Low (L), Medium (M), High (H), Default = Off)**

Upper Range

Upper Range   0ft
0 ▮▭▭▭▭▭ 590
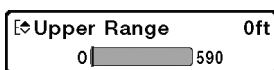
Upper Range

(Advanced, Down Imaging Views only)

Settings: 0 to 590 ft, 0 to 237 m (International Models only); Default = 0

Upper Range sets the shallowest depth range that will be displayed on the Down Imaging Views. Upper Range is often used with Lower Range.

> For example, if you are only interested in the area between 20 and 50 feet deep, you should set the Upper Depth Range to 20 and the Lower Depth Range to 50. The Down Imaging View will then show the 30 foot area between 20 and 50, and will not show the surface or the bottom (assuming the bottom is deeper than 50 feet), and will show greater detail for that area between 20 and 50 feet.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the manual settings entered.

⌖Lower Range Auto	
Auto [▓▓▓▓] 600	

Lower Range

Settings: Auto to 600 feet, Auto to 240 meters [International Models only]; Default = Auto

Lower Range sets the deepest depth range that will be displayed by the unit.

Auto: The Lower Range will be adjusted by the unit to follow the bottom automatically. Auto is the default setting.

Manual: You can adjust the Lower Range to lock the unit on a particular depth. **M** will be displayed in the lower right corner of the screen to indicate the unit is in Manual mode. Adjust the Upper and Lower Range together to view a specific depth range, especially when looking for fish or bottom structure.

> For example, if you are fishing in 60 feet of water but are only interested in the first 30 feet (surface to a depth of 30 feet) you should set the Lower Depth Range limit to 30. The display will show the 0 to 30 foot range, which allows you to see a more detailed view than you would see if the display went all the way to the bottom.

NOTE: A minimum distance of 10 feet will be maintained between the Upper and Lower Range regardless of the settings entered manually.

⟫ Chart Speed 6	
1 [▓▓▓▓▓▓] Ultra	

Chart Speed

Settings: 1 to 9, Ultra, where 1 = Slow, 9 = Fast, Ultra = Fastest; Default = 5

Chart Speed determines the speed at which the sonar information moves across the display, and consequently the amount of detail shown.

A **faster speed** shows more information and is preferred by most anglers; however, the sonar information moves across the display quickly. A **slower speed** keeps the information on the display longer, but the bottom and fish details become compressed and may be difficult to interpret.

▓ DI Colors	
◀ [Blue] ▶	

DI Colors

Settings: Blue, Amber 1, Amber 2, Brown, Green, Inverse, Gray, Green/Red; Default = Amber 1

DI Colors allows you to select which color palette you would like to use for the Down Imaging display.

Navigation X-Press Menu

⚙ **Cancel Navigation**

◎ **Cancel MOB Navigation**

↷ **Skip Next Waypoint**

◀▷ **Active Side**

Right

▷ **Split Position**

50

○ **Waypoint 001**

⊕ **Cursor To Waypoint**

▨ **Chart Declutter**

▤ **Save Current Track**

✕ **Clear Current Track**

▤ **Save Current Route**

▧ **Reset XTE**

◎ **Remove Target**

▦ **Remove Grid**

○ **Waypoint 001**

Navigation X-Press Menu

The **Navigation X-Press Menu** provides a shortcut to your most frequently-used settings. Press the MENU key once while in the Bird's Eye View, Chart View, or Chart Combo Views to access the Navigation X-Press Menu.

NOTE: Menu options will vary depending on system settings, such as whether you are currently navigating.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

NOTE: To see the Navigation X-Press Menu in a Combo View, change the Active Side setting to the side you want to adjust.

See *Introduction to Navigation* and the Humminbird Waypoint Management Guide for more information.

Cancel Navigation

`Cancel Navigation`

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel Navigation discards the current route and exits Navigation Mode. This menu option will only appear when you are currently navigating a route. This will not delete a previously-saved route.

Cancel MOB Navigation

`Cancel MOB Navigation`

(only when MOB Navigation is activated)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cancel MOB Navigation removes the Man Overboard (MOB) waypoint and exits Man Overboard mode. This menu option will only appear when you are currently navigating in Man Overboard mode.

Skip Next Waypoint

`Skip Next Waypoint`

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Skip Next Waypoint removes the next waypoint from the current route. This menu option will only appear when you are currently navigating a route.

Active Side

`Active Side    Left`

(Combo Views only)

Settings: Left, Right; Default = Left

Active Side allows you to select a side of the screen in a Combo View. After you choose an active side, you can apply menu settings and key commands to the view you've selected. The Active Side menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- A green arrow on the Combo View points to the active side.
- When a menu is displayed in the active side, the non-active side of the screen will be grayed out.

Split Position

`Split Position    50    Left    Right`

(Combo Views only)

Settings: Left, 30, 40, 50, 60, 70, Right; Default = Various

Split Position sets the size of the left side of the Combo View. Each Combo View can be set individually. The Split Position menu option is only available when a Combo View is on the screen (see *Views: Combo Views*).

- The number setting indicates the percentage taken up by the left side of the Combo View.
- Selecting Left sets the left side of the screen to its smallest setting.

| ◎ Waypoint 001 | ▶ |

Waypoint [Name]
(Only with an active cursor on a waypoint)

Settings: Edit, Delete, Target, Grid

Waypoint [Name] allows you to view the Waypoints submenu for the waypoint under your cursor. You can move the cursor onto an existing waypoint and press the MENU key once, or use **Cursor to Waypoint** to select a waypoint from the saved waypoints list.

*NOTE: See **Introduction to Navigation** and the Humminbird Waypoint Management Guide for more information.*

The Waypoint Submenu includes the following menu options:

Edit opens the Edit Waypoint dialog box so that you can edit the selected waypoint. See ***Introduction to Navigation*** and the Humminbird Waypoint Management Guide for more information.

Delete allows you to delete the waypoint.

Target applies a target to the waypoint.

Grid applies a trolling grid to the waypoint.

| ✧ Cursor To Waypoint | ▶ |

Cursor to Waypoint
(Chart or Chart Combo View only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Cursor to Waypoint allows you to quickly move the cursor to any saved waypoint so that you can locate it or edit it. This X-Press Menu option only appears if you have saved waypoints.

| 🗾 Chart Declutter | ▶ |

Chart Declutter

Settings: Press the RIGHT Cursor key and follow screen instructions.

Chart Declutter removes all chart layers except for land outlines, waypoints, routes, and tracks. The chart will stay decluttered for 10 seconds, and then it will refresh to its previous display settings. To refresh the view faster than 10 seconds, press the +/– Zoom keys.

*NOTE: See **Chart Menu Tab: Chart Detail Level** for more information.*

Save Current Track

Settings: Press the RIGHT Cursor key and follow screen instructions.

Save Current Track allows you to save the current track on the display. After the current track is saved, a new current track is started. Save Current Track appears on the Navigation X-Press Menu after navigation is stopped.

> *Sonar Models: To save the depth information with the current track, it is important to save the track and also edit the name before powering off the control head.*

Clear Current Track

Settings: Press the RIGHT Cursor key and follow screen instructions.

Clear Current Track allows you to clear the current track on the display and start a new track at the present position.

Save Current Route

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Save Current Route allows you to save the current route being displayed. This menu option will only appear when you are currently navigating a route.

Reset XTE

(only when Navigating)

Settings: Press the RIGHT Cursor key and follow screen instructions.

Reset XTE is available during navigation. When it is selected, the cross track error (XTE) will be recalculated from the boat's current position to the next waypoint in the route.

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

```
┌────────────────────────┐
│ ▤ Select Readouts      │   ▶
└────────────────────────┘
```

Select Readouts
(HELIX GPS only)

Settings: Various

Select Readouts allows you to choose digital readouts for the on-screen view. The available menu options are determined by the on-screen view, connected accessories, and whether or not you are navigating.

> *NOTE: If you have a sonar model, the digital readouts are changed in the Setup Menu tab. See **Setup Menu tab: Select Readouts**.*

The digital readouts you set here are displayed in non-navigation mode. When the control head starts navigation, the readouts will be replaced automatically by navigation digital readouts. To set the digital readouts that will be displayed during navigation, see **Select Nav Readouts** and **Views**.
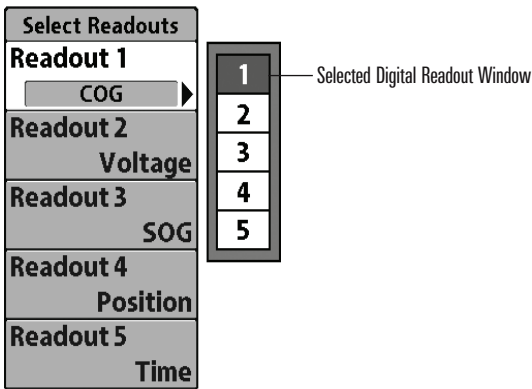
```
┌─────────────────────┐
│  Select Readouts    │
├─────────────────────┤
│ Readout 1           │   ┌───┐
│ ┌─────────────────┐ │   │ 1 │──── Selected Digital Readout Window
│ │     COG       ▶ │ │   ├───┤
│ └─────────────────┘ │   │ 2 │
│ Readout 2           │   ├───┤
│          Voltage    │   │ 3 │
│ Readout 3           │   ├───┤
│              SOG    │   │ 4 │
│ Readout 4           │   ├───┤
│          Position   │   │ 5 │
│ Readout 5           │   └───┘
│              Time   │
└─────────────────────┘
```

Shared Readouts: The number of available readout windows is determined by the on-screen view, and the digital readouts are shared between views with the same number of readout windows. For example, views with 5 readout windows share the same 5 readout windows, and views with 8 readout windows share the same 8 readout windows.

Blank: To hide a data window, select Off.
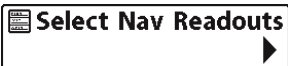
Select Nav Readouts

`Select Nav Readouts`

(HELIX GPS only)

Settings: Various

Select Nav Readouts allows you to choose the digital readouts for the on-screen view that will be displayed during navigation. You can select standard digital readouts (such as Time or Voltage) or navigation digital readouts. See *Select Readouts* and *Views* for more information.

*NOTE: If you have a sonar model, the digital readouts are changed in the Setup Menu tab. See **Setup Menu tab: Select Readouts**.*

Shared Readouts: The number of available readout windows is determined by the on-screen view, and the digital readouts are shared between views with the same number of readout windows. For example, views with 5 readout windows share the same 5 readout windows, and views with 8 readout windows share the same 8 readout windows.

Blank: To hide a data window, select Off.

Route [Name]

`Route RT002` | `Travel Forward ▶`
`Travel Reverse`
`Edit`
`Delete`

Settings: Travel Forward, Travel Reverse, Edit, Delete

Route [Name] allows you to view the Route submenu for the last saved route. You can travel the route forwards or backwards. You can also edit the route or delete it.

*NOTE: See **Introduction to Navigation** and the Humminbird Waypoint Management Guide for more information.*
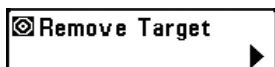
Remove Target

`Remove Target`

(only if a Target is Active)

Settings: Press the RIGHT Cursor key to activate.

Remove Target removes the waypoint target from the display. This menu option will only appear when a target has already been applied to a waypoint.

*NOTE: See **Introduction to Navigation: Add a Waypoint Target or Trolling Grid** for more information.*

Remove Grid

`Remove Grid`

(only if a Grid is Active)

Settings: Press the RIGHT Cursor key to activate.

Remove Grid removes the waypoint grid from the display. This menu option will only appear when a grid has already been applied to a waypoint.

*NOTE: See **Introduction to Navigation: Add a Waypoint Target or Trolling Grid** for more information.*

```
◎ Waypoint 0015
```

Waypoint [Name]

(Most recently-created waypoint)

Settings: Edit, Delete, Go To, Target, Grid

Waypoint [Name] allows you to view the waypoints submenu for the most recently created waypoint. You must have pressed the MARK key at least once since you last powered up the control head for this menu option to appear.

*NOTE: See **Introduction to Navigation** and the Humminbird Waypoint Management Guide for more information.*

The Waypoint Submenu includes the following menu options:

Edit opens the Edit Waypoint dialog box so that you can edit the selected waypoint. See **Introduction to Navigation** and the Humminbird Waypoint Management Guide for more information.

Delete allows you to delete the waypoint.

Go To starts navigation to the waypoint.

Target applies a target to the waypoint.

Grid applies a trolling grid to the waypoint.

Alarms Menu Tab

```
(♠)Alarms  [⌄][❂][▢][⬛][🖼]
Depth Alarm
                          Off
Fish ID Alarm
                           ◇
Low Battery Alarm
                          Off
Temp. Alarm
                          Off
Off Course Alarm
                        600ft
Arrival Alarm
                          Off
Drift Alarm
                          Off
Alarm Tone
                       Medium
Timer Setup

Start Timer

Stop Timer
                          ▲
```

Alarms Menu

From any view, press the MENU key twice to access the Main Menu System. The Alarms tab will be the default selection.

NOTE: When an alarm is triggered, you can silence it by pressing any key. The alarm will be silenced and will not be triggered again until a new instance of the alarm condition is detected.

Depth Alarm

Depth Alarm Off

Off [====] 100

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Settings: Off, 1 to 100 feet, or 0.5 to 30 meters [International Models only]; Default = Off

Depth Alarm sounds when the depth becomes equal to or less than the menu setting.

Fish ID Alarm

Fish ID Alarm ◄[O]►

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Settings: Off, All, Large/Medium, Large; Default = Off

Fish ID Alarm sounds when the Fishfinder detects fish that correspond to the alarm setting. Fish ID Alarm will only sound if Fish ID+ is on.

> For example, if you've set the Fish ID Alarm to sound for Large fish only, the Fish ID alarm will sound when a large-sized fish is detected.

Off ◄[O]►

All ◄[🐟 🐟 🐟]►

Large/Medium ◄[🐟 🐟]►

Large ◄[🐟]►
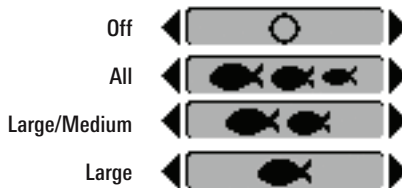
Low Battery Alarm

Low Battery Alarm Off

Off [====] 13.5

Settings: Off, 8.5V - 13.5V; Default = Off

Low Battery Alarm sounds when the input battery voltage is equal to or less than the menu setting. The battery alarm will only sound for the battery that is connected to the control head. The Low Battery Alarm should be set to warn you when the battery voltage drops below the safety margin that you have determined.

> For example, if you are running a trolling motor (battery operated), set the Low Battery Alarm to sound before the battery voltage drops too low for it to be used to start your main, gasoline-powered engine.

Temp. Alarm	Off
Off ▊⬜⬜⬜⬜⬜⬜	120

Temp. Alarm

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Settings: Off, 33-120 Fahrenheit, 0-50 Celsius [International Models only]; Default = Off

Temp. Alarm sounds when the water temperature detected by the control head reaches the Temp. Alarm setting, which is either set in degrees Fahrenheit or Celsius *[International Models only]*.

> For example, if the Temp. Alarm is set to 58 degrees Fahrenheit, and the water temperature falls from 60 degrees to 58 degrees, the Temp. Alarm will sound. Similarly, if the water temperature rises from 56 degrees to 58 degrees, the Temp. Alarm will also sound.

Off Course Alarm	300ft
Off ▊⬜⬜⬜⬜⬜⬜	3000

Off Course Alarm

Settings: Off, 25 to 3000 feet, 10 to 1000 meters [International Models only]; Default = 300 feet, 100 meters

Off Course Alarm allows you to set how far the boat is allowed to move off course before the Off Course Alarm will sound during navigation.

Off Course Alarm

① Arrival Alarm Circle   Off Course Limits **②**
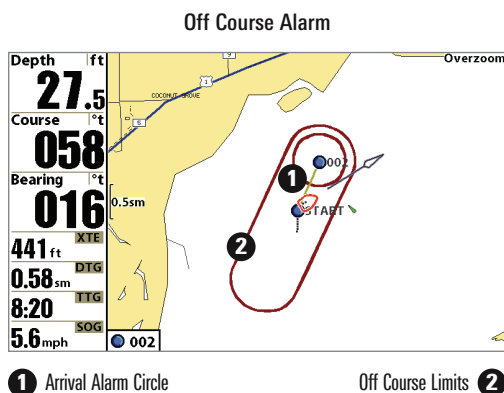
Arrival Alarm	164ft
Off ▊⬜⬜⬜⬜⬜⬜	3000

Arrival Alarm

Settings: Off, 25 to 3000 feet, 10 to 1000 meters [International Models only]; Default = 150 feet, 50 meters

Arrival Alarm sounds when the boat has either exceeded the distance to the destination waypoint, or has entered the Arrival Alarm Circle, based on the menu setting when navigating. Arrival Alarm allows you to set how close the boat must be to the destination waypoint before the Arrival Alarm will sound.

Drift Alarm	Off
Off	3000

Drift Alarm

Settings: Off, 25 to 3000 feet, 10 to 1000 meters [International Models only]; Default = Off

Drift Alarm allows you to set the size of a perimeter around the boat's anchored position. If the anchored boat drifts outside of that perimeter, the Drift Alarm will sound.

Drift Alarm Circle
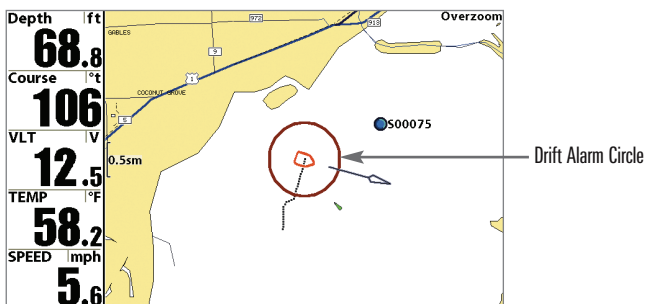
Alarm Tone	
◄	Medium	►

Alarm Tone

Settings: High, Medium, Low; Default = Medium

Alarm Tone selects the pitch of the alarm sound. A brief tone will be produced as you adjust the Alarm Tone so that you can select the tone that you can hear best.

Timer Setup	
	►

Timer Setup

Settings: Press the RIGHT Cursor key to open the dialog box.

Timer Setup allows you to open a dialog box to create settings for the Timer. You can also start the countdown from this dialog box. When the Timer is started, the clock counts down from the amount of time set in the dialog box.

- **Time:** Use the 4-WAY Cursor Control key to set the hours, minutes, and seconds.

- **Save and Start:** To start the Timer immediately, select Save and Start, and press the RIGHT Cursor key.

- **Save and Close:** To save your settings and start the Timer at a later time, select Save and Close, and press the RIGHT Cursor key. Also, see *Start Timer*.

- **Digital Readout:** To display the Timer on-screen as it counts down, see *Views: Change the Digital Readouts*.

Start Timer ▶

Start Timer

Settings: Press the RIGHT Cursor key to start the Timer.

Start Timer allows you to start the Timer using the saved countdown settings in the Timer Setup dialog box. To create the Timer settings, see *Timer Setup*.

Stop Timer ▶

Stop Timer

(with the Timer running)

Settings: Press the RIGHT Cursor key to stop the Timer.

Stop Timer allows you to stop the Timer while it is counting down.

(ᗡ)	⊼Sonar	☼	▨	⬛	▨

Beam Select
                                    200kHz
Imaging Frequency
                                    455kHz
Surface Clutter
                                          5
SwitchFire
                              Clear Mode
Fish ID +
                                        On
Fish ID Sensitivity
                                          5
RTS Window
                                  Narrow
Sonar Colors
                        Original Palette
Bottom View
                            Structure ID
Zoom Width
                                  Narrow
455kHz Sensitivity
                                          0
Depth Lines
                                        On
Noise Filter
                                       Low
Max Depth
                                      Auto
Water Type
                                     Fresh
Digital Depth Source
                                      Auto
DI Pings
                                  2D + DI
Ice Fishing Mode
                                       Off
Color Bar
                                        On
DI Colors
                                 Amber 1

HELIX DI GPS
Sonar Menu (Advanced)

Sonar Menu Tab

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Press the MENU key twice to access the Main Menu and then press the RIGHT Cursor key until the Sonar tab is selected.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

NOTE: Menu options are determined by your Humminbird model. See the following pages for full menu descriptions.

Beam Select

Settings: Various, see below.

Beam Select sets which sonar returns from the transducer will be displayed on the screen. The available beam frequencies are determined by your Humminbird model.

DualBeam PLUS models (HELIX SONAR GPS) allow you to choose 200/83 kHz, 200 kHz, or 83 kHz (Default = 200 kHz).

- When set to **200/83 kHz**, 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. The Split Sonar View continues to display the sonar returns from each beam in their respective windows. The blended information is shown in the Sonar View, Sonar Zoom View, and the Big Digits View. The RTS Window in the Sonar View and Circular Flasher View will only show the returns from the 200 kHz narrow beam.

- When set to **200 kHz**, only the returns from the 200 kHz narrow beam will be displayed in the Sonar View, Sonar Zoom View, Big Digits View, and the Circular Flasher View. The Split Sonar View will continue to display returns from both beams in their respective windows. The RTS Window in the Sonar View will display the returns from the 200 kHz narrow beam.

- When set to **83 kHz**, the returns from the 83 kHz wide beam will be displayed in the Sonar View, Sonar Zoom View, Big Digits View, and the Circular Flasher View. The Split Sonar View will continue to display returns from both beams in their respective windows. The RTS Window will display the returns from the 83 kHz wide beam.
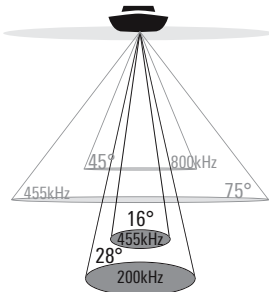
Down Imaging models (HELIX DI GPS) allow you to choose 200 kHz or 455 kHz for conical sonar coverage in the traditional sonar views.

- When set to **200 kHz**, only the returns from the 200 kHz (28°) beam will be displayed.

- When set to **455 kHz**, only the returns from the 455 kHz (16°) narrow beam will be displayed.

Xtreme Depth models (HELIX XD GPS) allow you to choose 200/50 kHz, 200 kHz, or 50 kHz (Default = 200/50 kHz).

- When set to **200/50 kHz**, the returns from both beams are blended by starting with the 50 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 50 kHz wide beam sonar returns. The Split Sonar View continues to display the sonar returns from each beam in their respective windows. The blended information is shown in the Sonar View, Sonar Zoom View, and the Big Digits View. The RTS Window in the Sonar View and Circular Flasher View will only show the returns from the 200 kHz narrow beam.

- When set to **200 kHz**, only the returns from the 200 kHz narrow beam will be displayed in the Sonar View, Sonar Zoom View, Big Digits View, and the Circular Flasher View. The Split Sonar View will continue to display returns from both beams in their respective windows. The RTS Window in the Sonar View will display the returns from the 200 kHz narrow beam.

- When set to **50 kHz**, the returns from the 50 kHz wide beam will be displayed in the Sonar View, Sonar Zoom View, Big Digits View, and the Circular Flasher View. The Split Sonar View will continue to display returns from both beams in their respective windows. The RTS Window will display the returns from the 50 kHz wide beam.

Imaging Frequency
◀ **455kHz** ▶
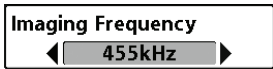
Imaging Frequency
(HELIX DI GPS only)

Settings: 800 kHz, 455 kHz; Default = 455 kHz

Imaging Frequency allows you to select which frequency to apply to the Down Imaging beams (455 kHz or 800 kHz). For the best overall image quality and depth, select 455 kHz. For the sharpest image (but limited depth capability), select 800 kHz.

Down Imaging Beams

45°   800kHz
455kHz   75°
16°
455kHz
28°
200kHz
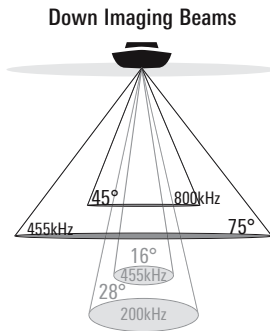
Surface Clutter	5
1 ▮▭▭▭ 10	

Surface Clutter

Settings: Low = 1 to High = 10; Default = 5

Surface Clutter adjusts the filter that removes surface clutter noise caused by algae and aeration. The lower the setting, the less surface clutter will be displayed.

surface clutter
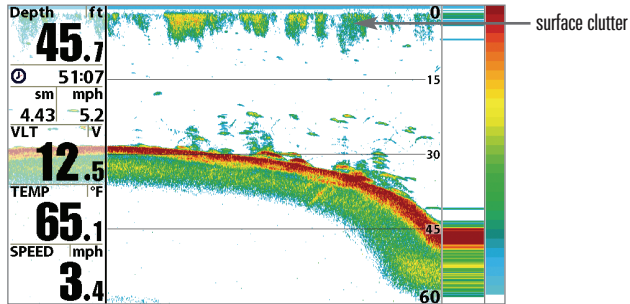
SwitchFire
◀ **Clear Mode** ▶

SwitchFire

Settings: Max Mode, Clear Mode; Default = Max Mode

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

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.

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.

Fish ID +
◀   Off   ▶

Fish ID+

Settings: Off, On; Default = Off

Fish ID+ uses advanced signal processing to interpret sonar returns and will display a Fish Symbol when very selective requirements are met. When a fish is detected, a fish icon and its depth are displayed above the return that has been classified as being a fish. Three different fish size icons represent the intensity of the sonar return and provide an indicator of relative fish size.

In **DualBeam PLUS models (HELIX SONAR GPS)**, targets detected in the 200 kHz narrow beam are represented as orange fish symbols, and targets detected in the 83 kHz wide beam are represented as blue fish symbols.

orange fish symbols   blue fish symbols

In **Down Imaging models (HELIX DI GPS)**, targets detected in the 455 kHz conical beam are represented as blue fish symbols, and targets detected in the 200 kHz conical beam are represented as orange fish symbols.

In **Xtreme Depth models (HELIX XD GPS)**, targets detected in the 200 kHz narrow beam are represented as orange fish symbols and targets detected in the 50 kHz wide beam are represented as blue fish symbols.

When Fish ID+ is turned off, the Fishfinder shows only the raw sonar returns on the display. These returns will often result in "arches" forming on the display, indicating potential targets. Due to the transducer beam angle, the distance to a fish decreases as the fish moves into the beam, and then increases as it moves out again, creating a Fish Arch when this distance change is shown on the display. Boat speed, chart speed, and the position of the fish within the sonar beam greatly affect the shape of the arch.
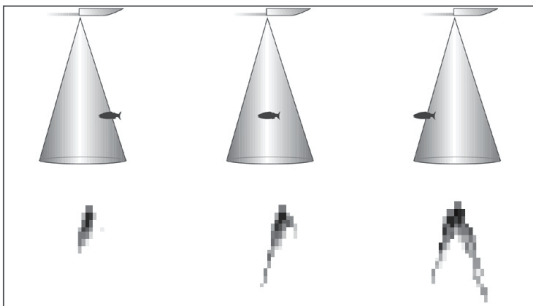
Transducer Cone and Fish Arches

Fish ID Sensitivity

Settings: Low = 1, High = 10; Default = 5

Fish ID Sensitivity adjusts the threshold of the Fish ID+ detection algorithms. Selecting a higher setting allows weaker returns to be displayed as fish. This is useful for identifying smaller fish species or baitfish. Selecting a lower setting displays fewer fish from weak sonar returns. This is helpful when seeking larger species of fish.

Fish ID Sensitivity is used in conjunction with Fish ID+. Fish ID+ must be On for Fish ID Sensitivity to affect the ability of the Fishfinder to identify sonar returns as fish.

RTS Window
◀ | Narrow | ▶

Real Time Sonar (RTS) Window

Settings: Wide, Narrow, Off; Default = Narrow

RTS Window sets the RTS Window to Wide or Narrow, or turns it off in the Sonar View. The RTS Window always updates at the fastest rate possible and only displays returns that are within the transducer beam. See *What's on the Sonar Display* for more information.
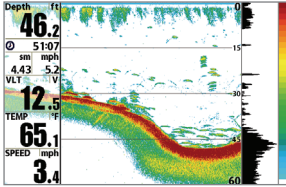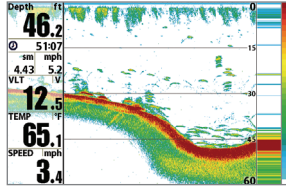
RTS Window (Wide)   RTS Window (Narrow)   RTS Window (Off)
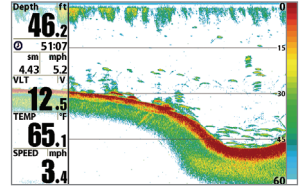
NOTE: *The Wide RTS Window does not use grayscale.*

▓ Sonar Colors
◀ | Standard | ▶

Sonar Colors

Settings: Gray, Green, Inverse, Original Palette, Palette 1, Palette 2, Palette 3; Default = Palette 1

Sonar Colors allows you to select which color palette you would like to use for the display. The palette you choose will be applied to the Sonar Views.

- **Gray:** Light Gray (weak) to Black (strong)
- **Green:** Dark Green (weak) to Light Green (strong)
- **Inverse:** Black (weak) to White (strong)
- **Original Palette:** Cyan (weak) to Red (strong)
- **Palette 1:** Navy Blue (weak), Purple (medium), Yellow (strong)
- **Palette 2:** Navy Blue (weak), Green (medium), Yellow (strong)
- **Palette 3:** Navy Blue (weak) to Red (strong)

Bottom View

Bottom View
◀ Structure ID ▶

Settings: Structure ID, WhiteLine; Default = Structure ID

Bottom View selects the method used to represent bottom and structure on the display.

- **Structure ID** represents weak returns in blue and strong returns in red. If the Sonar Colors palette is changed, the Structure ID will display the strongest return as specified by the palette.

- **WhiteLine** highlights the strongest sonar returns in white, resulting in a distinctive outline. This has the benefit of clearly defining the bottom on the display.

See *What's on the Sonar Display: Sonar Colors and Bottom View* for more information.

Zoom Width

Zoom Width
◀ Narrow ▶

(Sonar Zoom View only)

Settings: Narrow, Medium, Wide; Default = Narrow

Zoom Width adjusts the width of the zoomed view on the Sonar Zoom View, which is on the left side of the display. See *Views: Sonar Zoom View* for more information.

50 kHz Sensitivity

50kHz Sensitivity	5
-10 ▭▭▭ 10	

(Advanced, HELIX XD GPS only)

Settings: -10 to +10, Default = 0

50 kHz Sensitivity changes the sensitivity of the 50 kHz beam. Increasing the 50 kHz Sensitivity will display additional weak returns, and decreasing the 50 kHz Sensitivity will display fewer weak returns.

NOTE: 50 kHz Sensitivity is particularly useful for adjusting the sensitivity of the 50 kHz sonar returns in the 200/50 kHz Split Sonar View. The 50 kHz sensitivity can be adjusted without affecting the sensitivity of the 200 kHz returns shown in the 200 kHz sonar window.

83 kHz Sensitivity

83kHz Sensitivity	0
-10 ▭▭▭ 10	

(Advanced, HELIX SONAR GPS only)

Settings: -10 to +10, Default = 0

83 kHz Sensitivity changes the sensitivity of the 83 kHz beam. Increasing the 83 kHz Sensitivity will display additional weak returns, and decreasing the 83 kHz Sensitivity will display fewer weak returns.

NOTE: 83 kHz Sensitivity is particularly useful for adjusting the sensitivity of the 83 kHz sonar returns in the 200/83kHz Split Sonar View. The 83 kHz sensitivity can be adjusted without affecting the sensitivity of the 200 kHz returns shown in the 200 kHz sonar window.

455 kHz Sensitivity

(Advanced, HELIX DI GPS only)

Settings: -10 to +10, Default = 0

455 kHz Sensitivity adjusts the sensitivity of the 455 kHz beam. Increase the sensitivity to display additional weak returns and decrease the sensitivity to display fewer weak returns.

Depth Lines

(Advanced)

Settings: Off, On; Default = On

Depth Lines divide the display into four equal sections which are separated by three horizontal depth lines. The depth of each line is displayed along the depth scale. You can turn Depth Lines On or Off.
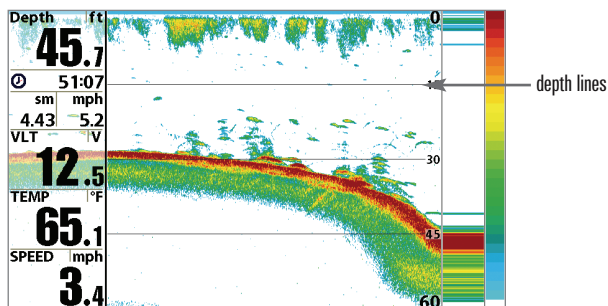
Noise Filter

(Advanced)

Settings: Off, Low, Medium, High 1, High 2, High 3; Default = Low

Noise Filter adjusts the sonar Noise Filter to limit interference on the display from sources such as your boat engine, turbulence, or other sonar devices.

The Off setting removes all filtering. Low, Medium, and High 1, High 2, High 3 settings add progressive filtering of the sonar returns. High 1, High 2, and High 3 are useful when there is excessive trolling motor noise, but in some deep water situations, the High settings may actually hinder your unit's ability to find the bottom.

Max Depth	Auto
Auto ▭	1500

Max Depth

(Advanced)

Settings: Various, see below.

Max Depth controls the maximum depth of operation. When Max Depth is set to Auto, the Fishfinder will acquire bottom readings as needed (within the capacity of the unit). When Max Depth is set to match your fishing maximum depth, your Fishfinder will not attempt to acquire sonar data below that depth, so more detail will be shown on the screen.

NOTE: If the bottom is deeper than the Max Depth setting, the digital depth readout will flash, indicating that the Fishfinder cannot locate the bottom.

- **HELIX SONAR GPS:** Auto to 1500 ft, Auto to 500 m (International Models only); Default = Auto

- **HELIX DI GPS:** Auto to 600 ft, Auto to 240 m (International Models only); Default = Auto

- **HELIX XD GPS:** Auto to 2500 ft, Auto to 760 m (International Models only); Default = Auto

Water Type
◄ Fresh ►

Water Type

(Advanced)

Settings: Fresh, Salt (shallow), Salt (deep); Default = Fresh

Water Type configures your unit for operation in fresh or salt water. In salt water, you can also choose the shallow or deep setting.

NOTE: Make sure that the Water Type is set accurately, especially in salt water, as this affects the accuracy of deep water depth readings. In salt water, what would be considered a large fish might be 2 to 10 times bigger than a large fish in fresh water (depending on the type of fish you are seeking). The salt water setting allows for a greater range in fish size adjustment to account for this difference.

Digital Depth Source
◄ Auto ►

Digital Depth Source

(Advanced, Down Imaging models with optional-purchase transducers only [HELIX DI GPS])

Settings: Auto, 2D Element; Default = Auto

Digital Depth Source specifies the beams that will be used to provide the depth for the digital depth readouts (see *Views: Change Digital Readouts* for more information). It is important to set this menu option based on the transducer that is connected to the control head, as follows:

- If a **Down Imaging transducer** is connected to the control head, select Auto. Depending on the depth, Auto will automatically choose the 2D conical beams or the Down Imaging beams to display depth in the digital readout window. Auto is the default setting.

- If an **accessory transducer** is connected to the control head, select 2D Element. For example, if you connect an ice transducer to your Down Imaging unit, change the digital depth source to 2D Element in order to display depth in the digital readout window. The 2D Element setting should not be used with a Down Imaging transducer.

*NOTE: Visit our Web site at **humminbird.com** to determine which accessory transducers are compatible with your Humminbird Fishfinder, or contact Humminbird Customer Service.*

*NOTE: When Digital Depth Source is set to 2D Element, the DI setting will be removed from the DI Pings menu. When DI Pings is set to DI, the 2D Element setting will be removed from the Digital Depth Source menu. See **DI Pings** for more information.*
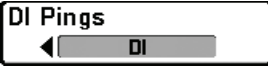
DI Pings
◀▐▭▭▭▭ DI ▭▭▭▭▌

DI Pings

(Advanced, Down Imaging View and Chart/Down Combo View only [HELIX DI GPS])

Settings: 2D + DI, DI; Default = 2D + DI

DI Pings allows you to select which beams will be used to display returns in the Down Imaging view.

Select **2D + DI** to display returns from both the 2D sonar beams and the Down Imaging beams.

Select **DI** to display returns from the Down Imaging beams only. Selecting DI provides faster screen updates.

*NOTE: When DI Pings is set to DI, the 2D Element setting will be removed from the Digital Depth Source menu. When the Digital Depth Source is set to 2D Element, the DI setting will be removed from the DI Pings menu. See **Digital Depth Source** for more information.*

DI Pings

Down Imaging beams

2D Sonar beams

45° 800kHz

455kHz 75°

16°
455kHz
28°
200kHz
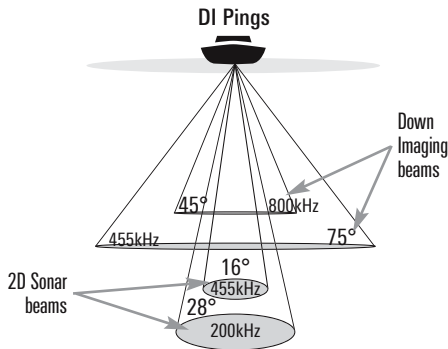
*NOTE: See **How Sonar Works: Down Imaging Sonar** for more information.*
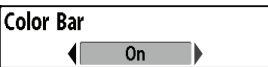
Color Bar
◀▐▭▭▭ On ▭▭▭▌ ▶

Color Bar

Settings: Off, On; Default = On

Color Bar allows you to display or hide the display of the color bar shown in the full screen Sonar View.

Ice Fishing Mode	
◄	Off ►

Ice Fishing Mode

Settings: Off, On; Default = Off

Ice Fishing Mode controls how information is displayed in the Circular Flasher View. **When Ice Fishing Mode is off,** the Circular Flasher View displays Real Time Sonar (RTS) data in a traditional flasher format.

When Ice Fishing Mode is on, the Circular Flasher View displays the data in flasher format with additional features including Zoom and Depth Cursor. Also, the Fishfinder's sensitivity settings are adjusted automatically to accommodate ice fishing conditions. These settings will apply to the other Sonar Views until you turn off the Ice Fishing Mode. See *Views: Circular Flasher View* for more information.

▒ DI Colors	
◄	Blue ►

DI Colors

(HELIX DI GPS only)

Settings: Blue, Amber 1, Amber 2, Brown, Green, Inverse, Gray, Green/Red; Default = Amber 1

DI Colors allows you to select which color palette you would like to use for the Down Imaging display.
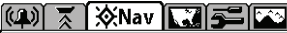
Navigation Menu Tab

Current Track

Waypoints, Routes, Tracks

Waypoint Settings

Saved Tracks Defaults

Chart Orientation
North-Up

Casting Rings
Off

North Reference
True

Waypoint Proximity Flags
Hidden

Waypoint Decluttering
On

Trolling Grid Rotation
0°

Trackpoint Interval
1 second

Track Min Distance
5m

Map Datum
WGS 84 (Default)

North Up Indicator
Off

Course Projection Line
Standard

3D View Outline
Visible

Continuous Navigation Mode
Off

Navigation Menu (Advanced)

Press the MENU key twice to access the Main Menu, then press the RIGHT Cursor key until the Navigation tab is selected.

NOTE: Menu options will vary depending on system settings, such as whether you are currently navigating.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

NOTE: Menu options are determined by your Humminbird model. See the following pages for full menu descriptions.

Current Track	Save ▸
	Clear
	Appearance
	Stop Tracking

Current Track

Settings: Save, Clear, Appearance, Stop Tracking

Current Track allows you to view the Current Track submenu. See *Introduction to Navigation: Tracks* for more information.

<u>The Current Track Submenu includes the following menu options</u>:

> **Save** allows you to save the current track.

> **Clear** allows you to delete the current track.

> **Appearance** allows you to change the style and color of the current track. If you choose **Hidden**, the unit continues to save trackpoints, but the track will not be displayed on the view.

> **Stop Tracking** clears the current track and the unit will not save trackpoints. To resume saving the track, select Current Track > Start Tracking.

> *Sonar Models: To save the depth information with the Current Track, it is important to save the track and also edit the name before powering off the control head.*

Waypoints, Routes, Tracks ▸

Waypoints, Routes, Tracks
(Waypoint Management Dialog Box)

Settings: Press the RIGHT Cursor key to open the dialog box.

Waypoints, Routes, Tracks allows you to open the Waypoint Management dialog box. Use the Waypoint Management dialog box to create new waypoints and routes and organize your navigation data. You can also edit waypoint, route, and track information. Your navigation data can be saved into groups, sorted, copied, and exported to HumminbirdPC.

> See *Introduction to Navigation* and the Humminbird Waypoint Management Guide for more information.

Waypoint Settings

Settings: Press the RIGHT Cursor key to open the dialog box.

Waypoint Settings allows you to open the Waypoint Settings dialog box. Use the Waypoint Settings dialog box to set the waypoint icon category and the waypoint icon for all new waypoints. See ***Introduction to Navigation: Edit your Waypoints, Routes, Tracks, and Groups*** and the Humminbird Waypoint Management Guide for details.

The Waypoint Settings dialog box includes the following options:

Icon Category allows you to select a waypoint icon category (All, Geometry, Alerts, Supplies, Navigation, Recreation, Fish, Environment). The Default Waypoint Icon also changes to match the selected category.

Default Waypoint Icon allows you select an icon for all new waypoints. To see the most icon choices, set the Icon Category to All.

New Waypoint Icon:

Select **Default**, and the system will automatically apply your settings to new waypoints.

If you choose **Select**, each time you mark a waypoint (by pressing the MARK key), you will be prompted to change the waypoint icon and category. To accept the current settings, press the MARK key again.

Saved Tracks Defaults

Saved Tracks Defaults

Settings: Press the RIGHT Cursor key to open the dialog box.

Saved Tracks Defaults allows you to open the Default Track dialog box. Use the dialog box to set the default track appearance for all newly-saved tracks.

The Saved Tracks dialog box includes the following options:

Visibility allows you to set new tracks to visible or hidden.

Style allows you to set the appearance and color of new tracks.

Chart Orientation
◀ North-Up ▶

Chart Orientation

Settings: North-Up, Head Up, Course-Up; Default = North-Up

Chart Orientation allows you to select whether the Chart and Combo Views should be drawn North-Up, Head Up, or Course-Up. The Chart Orientation setting does not apply to the Bird's Eye View (see ***Viewing Cartography***).

Casting Rings

Casting Rings	121ft
Off ▮▮▮▮▮▮▮▮░░░	150

Settings: Off to 150 feet, 0 to 50 meters; Default = Off

Casting Rings allows you to display a circle around each waypoint on the Chart View. This menu option sets the distance that the Casting Ring will be displayed from the waypoint. Select Off to hide the Casting Rings.

*NOTE: Casting Rings are not applied to decluttered waypoints (see **Navigation Menu Tab: Waypoint Decluttering**).*

North Reference

North Reference
◀ True ▶

Settings: True, Magnetic; Default = True

North Reference allows you to have bearings displayed with one of two orientations: True North or Magnetic North.

Waypoint Proximity Flags

Waypoint Proximity Flags
◀ Visible

(Advanced)

Settings: Hidden, Visible; Default = Hidden

Waypoint Proximity Flags allows you to display or hide waypoint flags for the ten closest waypoints to the boat or active cursor. The flags show the distance from the boat (or active cursor) to each waypoint.

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

Chart View with Waypoint Flags Turned On

❶ Waypoint Flags (closest to cursor)   Cursor ❷
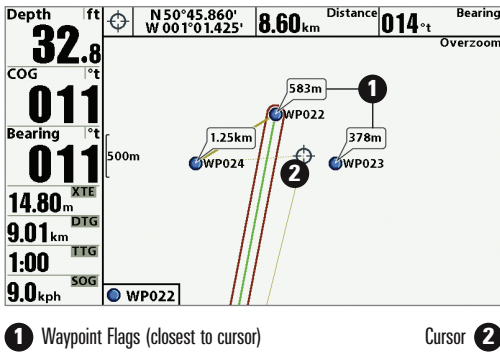
Waypoint Decluttering
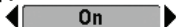
Waypoint Decluttering
◀ On ▶

(Advanced)

Settings: Off, On; Default = On

Waypoint Decluttering allows you to set the declutter feature On or Off. When two or more waypoints overlap, or are displayed close together on a chart view, the screen will automatically declutter—waypoint names will shorten and the waypoint icons will change into small blue icons. Select Off to display waypoints at regular size.

Trolling Grid Rotation

Settings: 0° to 89°, Default = 0°

Trolling Grid Rotation allows you to set the orientation of the trolling grid in degrees, where a setting of 0° displays a standard North, South, East, West alignment. See *Introduction to Navigation: Add a Waypoint Target or Trolling Grid* for information.

> *NOTE: This feature may appear as either Trolling Grid Rotation or Grid Rotation, depending on your model.*

Trackpoint Interval

Settings: 1 second, 5 seconds, 10 seconds, 15 seconds, 30 seconds, or 60 seconds; Default = 1 second

Trackpoint Interval allows you to select the time period between trackpoints. The current track can only contain up to 20,000 trackpoints, so longer time periods cause the track to extend back further in time, but will be less detailed.

Trackpoint Interval works in conjunction with Track Min Distance. Both conditions must be met before a trackpoint is added to the current track. During slow travel or drift, setting both Trackpoint Interval and Track Min Distance to small values will allow you to increase the track resolution.

Track Min Distance

(Advanced)

Settings: 1 to 300 feet, or 1 to 100 meters [International Units only]; Default = 16 feet, 5 meters

Track Min Distance allows you to set a minimum distance of travel before a trackpoint is added to the track.

Track Min Distance works in conjunction with Trackpoint Interval. Both conditions must be met before a trackpoint is added to the current track. During slow travel or drift, setting both Trackpoint Interval and Track Min Distance to small values will allow you to increase the track resolution.

Map Datum

(Advanced)

Settings: Various, Default = WGS 84

Map Datum allows you to change the map coordinate system used by the control head to match those of a paper map.

North-Up Indicator

Settings: On, Off; Default = Off

North-Up Indicator allows you to display the North-Up icon on the screen to indicate 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 *Navigation Menu Tab*. Also, see *Views: View Orientation*.

Course Projection Line

`Course Projection Line` ◄ `Visible` ►

Settings: Hidden, Standard, Single Vector, COG/SOG; Default = Standard

Course Projection Line displays an arrow or line, extending from the bow of the boat, that projects your current course and shows where the boat will go if you continue on your present course.

You can choose the style of the Course Projection Line as follows:

- **Standard** = arrow
- **Single Vector** = line
- **COG/SOG** = line with tick marks at set intervals from the boat. The tick marks are based on the speed calculation.

3D View Outline
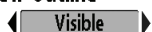
`3D View Outline` ◄ `Visible` ►

Settings: Hidden, Visible; Default = Visible

3D View Outline allows you to display or hide an outline on the Chart side of the Chart or Bird's Eye Combo Views that shows what you're viewing on the Bird's Eye side of the view.

Continuous Navigation Mode
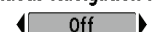
`Continuous Navigation Mode` ◄ `Off` ►

Settings: Off, On; Default = Off

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

GPS Receiver Override

`GPS Receiver Override` ◄ `Auto` ►

(Advanced)

Settings: Internal, External, Auto; Default = Auto

GPS Receiver Override allows you to set which GPS receiver to use if you have multiple GPS receivers plugged into the system. These multiple GPS receivers may be internal or external. If you select Auto, your unit will select a GPS receiver automatically.

NOTE: If only one GPS receiver is plugged into your system, then Auto will be the only option shown.

Chart Menu Tab

Lat/Lon Grid	Hidden
Navaids on Bird's Eye View	Visible
Chart Select	Auto
Set Simulation Position	
Set Map Offset	
Clear Map Offset	
Shaded Depth	5m
Chart Detail Level	All
Map Borders	MMC/SD Only
Spot Soundings	Hidden
Auto Zoom	Off
Auto Range	Off
Vessel Offset	Off
Offset Speed	5mph
Contour Lines	Visible
Depth Colors	Shaded
Depth Highlight	Off
Depth Highlight Range (+/-)	5ft
Water Level Offset	0
Shallow Water Highlight	0
Lake List	

Chart Menu, Advanced
(shown with optional Navionics
and LakeMaster menu options)

Press the MENU key twice to access the Main Menu and then press the RIGHT Cursor key until the Chart tab is selected.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*

*NOTE: When a map from an optional-purchase microSD card is installed, the Chart Menu Tab will change to display menu options that correspond with the active chart. To manually select a chart card, see **Chart Select**. Also, see **microSD Card Slot: Add Maps to your Control Head** for more information.*

Lat/Lon Grid

Lat/Lon Grid

Settings: Hidden, Visible; Default = Hidden

Lat/Lon Grid allows you to display or hide a grid showing latitude and longitude lines.

Navaids on Bird's Eye View

Navaids on Bird's Eye View

Settings: Hidden, Visible; Default = Visible

Navaids on Bird's Eye View allows you to display or hide additional navigational aids in Bird's Eye View, such as lights and buoys.

> **NOTE:** *You will see more navigational aids with an optional-purchase microSD card.*

Chart Select

Chart Select

Settings: Various, Default = Auto

Chart Select allows you to choose which chart to use if you have built-in charts or a map card. If you select Auto, your unit will select a chart automatically (see ***microSD Card Slot: Add Maps to your Control Head***).

> **NOTE:** *The microSD Card requires a separate purchase. For more information, visit our Web site at* ***humminbird.com*** *or contact Humminbird Customer Service at* ***1-800-633-1468***.

Set Simulation Position

Set Simulation Position

(Advanced)

Settings: Press the RIGHT Cursor key and follow screen instructions to activate.

Set Simulation Position allows you to set the position of the boat used in the Simulator. Press any arrow on the 4-WAY Cursor Control key to activate the cursor and move it to the coordinates where you want start the simulation. Then confirm the position using the Set Simulation menu setting.

> **NOTE:** *The cursor must be active in order for this procedure to work. If the cursor was not active before you began this procedure, an error message will appear. Exit the menu, set the cursor, then try again.*

Set Map Offset

Set Map Offset

(Advanced)

Settings: Press the RIGHT Cursor key and follow screen instructions to activate.

Set Map Offset allows you to change the map offset used by your control head. Press the 4-WAY Cursor Control key to activate the cursor and move it to the location where the Map Offset will be applied. Then, confirm the map offset position using the Set Map Offset menu setting.

The Map Offset will be applied to all maps and not just the map that requires the correction. The Map Offset should be cleared if a different map is to be used.

NOTE: The cursor must be active in order for this procedure to work. If the cursor was not active before you began this procedure, an error message will appear. Exit the menu, set the cursor, then try again.

NOTE: This feature does not apply to LakeMaster charts.

Clear Map Offset

Clear Map Offset

(Advanced)

Settings: Follow screen instructions to activate.

Clear Map Offset allows you to clear the Map Offset. The Clear Map Offset menu option is available when Map Offset is active.

Shaded Depth

Shaded Depth	16m
Off	60

Settings: Off, 1 to 180 feet, or 1 to 60 meters [International Units only]; Default = 15 ft, 5 m

Shaded Depth allows you to change the depth used for shading on the Chart Views.

Chart Detail Level

◄	All	►

Settings: Basic, Navigation, Underwater, All, Custom; Default = All

Chart Detail Level allows you to select how much chart detail you want displayed on the Navigation Views.

NOTE: Some chart details are only available with an optional-purchase microSD card.

> **Basic** shows land areas, ports, obstructions, and restricted areas.
>
> **Navigation** shows navaids, landmarks, ferryways, and navigation routes in addition to the Basic information.
>
> **Underwater** shows depth contours, fishing areas, underwater wrecks, tides and currents in addition to the Basic and Navigation information.
>
> **All** shows roads, buildings, railways, and other notations in addition to the Basic, Navigation, and Underwater information.
>
> **Custom (Advanced user mode)** allows you to display or hide chart layers on the Navigation Views. The available chart layers include Navigable Canals, Boundaries, Restricted Areas, Coastline, Bridges, etc.

To customize the chart layers:

1. Select Chart Detail Level from the Chart Menu Tab. Press the RIGHT Cursor key to select Custom. Selecting Custom adds the Custom Chart Layers menu to the Chart menu.

2. Press the DOWN Cursor key to select Custom Chart Layers, and press the RIGHT Cursor key to access the submenu.

3. Use the 4-WAY Cursor key to select a layer and turn it on (visible) or off (hidden). All changes take place immediately.

Map Borders, shown with optional-purchase
Navionics Cartography with Custom Chart Layers
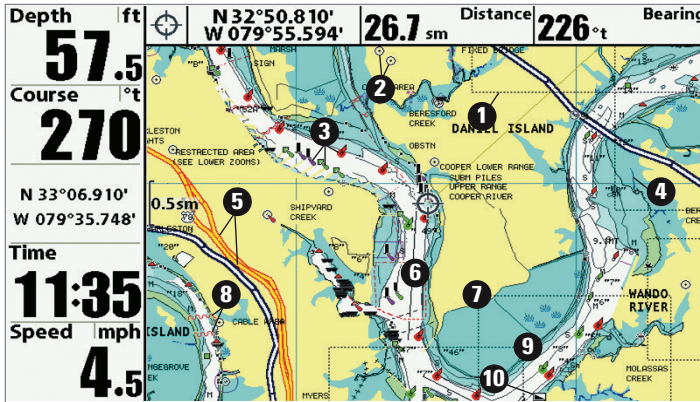
❶ Map Borders	Restricted Area (dotted red lines) ❻
❷ Other Points of Interest (POI)	Coastline ❼
❸ Navaids	Bridge (wavy red lines) ❽
❹ Navigable Canals (thin, dark blue lines)	Drying Lines ❾
❺ Roads	Isolated Danger: Boat Ramp ❿

Map Borders

◀ Hidden ▶

Map Borders

Settings: Hidden, MMC/SD Only, All Visible; Default = MMC/SD Only

Map Borders allows you to display or hide map borders. The dotted lines of a Map Border indicate an area which contains a different map. Use the 4-WAY Cursor Control key to move the active cursor within a map border, and press the ZOOM + key to view the different map.

Spot Soundings

◀ Hidden ▶

Spot Soundings

Settings: Hidden, Visible; Default = Visible

Spot Soundings allows you to display or hide spot soundings, which are depth measurements shown on the chart.

NOTE: This feature is only available with an optional-purchase microSD card.

Auto Zoom

(Advanced)

Settings: On, Off; Default = Off

Auto Zoom sets the Chart View to zoom automatically based on the speed of the boat. As the boat's speed increases, the chart range will increase. You can continue to use 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. See *Views: Viewing Cartography* for more information.

> *NOTE: The Auto Zoom setting does not apply to the Bird's Eye View.*

Auto Range

(Advanced)

Settings: On, Off; Default = Off

Auto Range, when turned on, sets the chart scale to the lowest range so that only the boat icon and the next waypoint in the route are displayed. See *Views: Viewing Cartography* for more information.

Zoom In/Out: Press the +/− ZOOM keys. Using the +/− ZOOM keys will override Auto Range. To resume using Auto Range, press and hold the +/− ZOOM keys. See *Views: Viewing Cartography* for more information.

> *NOTE: The Auto Range setting does not apply to the Bird's Eye View.*

> *NOTE: If Auto Range is turned on, it will override the Auto Zoom menu action.*

Vessel Offset

(Advanced)

Settings: On, Off; Default = Off

Vessel Offset allows you to display more of the Chart View based on the speed of the boat. Vessel Offset works with Offset Speed.

Turn on Vessel Offset, and set the speed threshold in Offset Speed. When the boat is moving below the Offset Speed setting, the boat icon will be displayed in the center of the Chart 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 that more of the Chart View is shown on-screen.

Offset Speed

(with Vessel Offset turned on)

Settings: 5 to 60 mph, 5 to 50 kts, or 8 to 95 kph (International Models only); Default = 5 mph, 5 kts, 8 kph

Offset Speed allows you to see more of the Chart View when the boat is traveling at or above the Offset Speed setting. Vessel Offset must be turned on. See *Vessel Offset* for more information.

Contour Lines

(optional-purchase LakeMaster charts only)

Settings: Hidden, Visible; Default = Visible

Contour Lines sets whether the water contour lines are visible or hidden in the Chart Views. Contour Lines are also affected by the Water Level Offset setting.

Depth Colors

(optional-purchase LakeMaster charts only)

Settings: Off, 1 - 10; Default = Off

Depth Color sets the depth shading in the Chart views to Off or Shaded.

Depth Highlight

(optional-purchase LakeMaster charts only)

Settings: Off, 1 to 800 feet, 1 to 130 fathoms, .25 to 260 meters (International Models only); Default = Off

Depth Highlight allows you to highlight a depth setting in the chart views. The depth you set will be highlighted in green. Use Depth Highlight with Depth Highlight Range.

Depth Highlight Range (+/-)

(optional-purchase LakeMaster charts only)

Settings: 0 to 60 feet, 0 to 10 fathoms, 0 to 20 meters (International Models only); Default = 5 feet, 2 meters

Depth Highlight Range adjusts the range on each side of the highlighted depth, when a Depth Highlight is active in the chart views.

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

Water Level Offset

(optional-purchase LakeMaster charts only)

Settings: -200 to +30 feet, -33 to +5 fathoms, -60 to +10 meters (International Models only); Default = 0

Water Level Offset allows you to change the level of the water being read from the control head. The displayed numbers on the Contour Lines will adjust from the Water Level Offset setting, and the water level offset will be highlighted in dark brown.

> For example, if the lake is down 5 feet, set the Water Level Offset setting to -5.

Shallow Water Highlight	0ft
0 [====] 30	

Shallow Water Highlight
(optional-purchase LakeMaster charts only)

Settings: 0 to 30 feet, 0 to 5 fathoms, 0 to 10 meters (International Models only); Default = 0

Shallow Water Highlight allows you to select a minimum shallow depth setting so that the depth is highlighted in red in the Chart Views.

> For example, if your boat has a draft of 3 feet, set the Shallow Water Highlight feature to 3 feet, and the unit will draw a red band from 0 - 3 feet. Use this setting with Water Level Offset.

Lake List
▶

Lake List
(optional-purchase LakeMaster charts only)

Settings: Press the RIGHT Cursor key to activate.

Lake List allows you to view the list of lakes included on the installed microSD card.

Sort By: Highlight Sort By, and use the RIGHT or LEFT Cursor keys to select a sort option for the list.

Scroll: Use 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 white box displayed on the screen.

Cursor To: Highlight a lake on the list and press the RIGHT Cursor key to move the active cursor to the location you've chosen. You can then mark waypoints, or press the GOTO key to start navigation toward a waypoint, or press the CHECK/INFO key for more information.

Chart View with LakeMaster
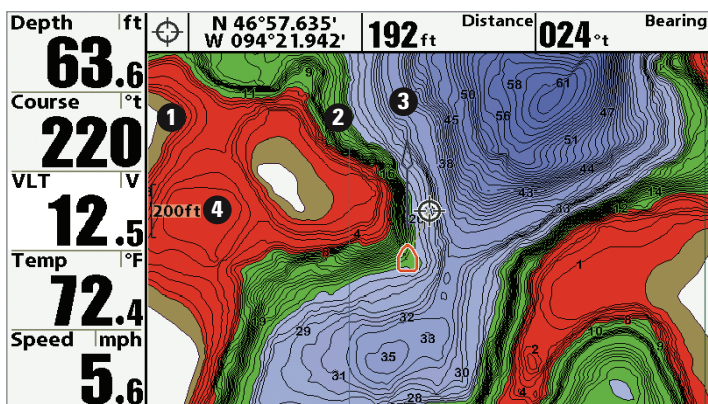
❶ Water Level Offset	Contour Lines ❸
❷ Depth Highlight	Shallow Water Highlight ❹

(♠) ⚞ ⚘ 🖼 ⟱ Setup
Units - Depth
Feet
Units - Temp
°F
Units - Distance
Statute Miles
Units - Speed
mph
User Mode
Advanced
Language
English
Triplog Reset
Restore Defaults
Format Nav Directories
Select Readouts
Depth Offset
0.0ft
Temp. Offset
0.0°
Speed Calibration
0%
Local Time Zone
EST (UTC-5)
Daylight Saving Time
Off
Position Format
dd°mm.mmm'
Time Format
12-Hour
Date Format
mm/dd/yy
Digits Format
Small tenths
NMEA 0183 Output
Off
Sonar
On
Demonstration
Visible
Sound Control
All Sounds
Screen Snapshot
Off

Setup Menu (Advanced)

Setup Menu Tab

From any view, press the MENU key twice to access the tabbed Main Menu, then press the RIGHT Cursor key until the Setup tab is selected.

NOTE: Menu options will vary depending on which accessories are attached to the unit.

*NOTE: Menu options can be expanded or simplified by setting the User Mode to Advanced or Normal. See **Main Menu: User Mode** for details.*
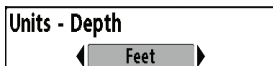
Units - Depth

(HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Settings: Domestic Models: Feet, Fathoms; International Models: Meters, Feet, Fathoms; Default = Feet/Meters

Units - Depth selects the units of measure for all depth-related readouts.
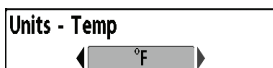
Units - Temp

(International Models only, temperature input required)

Settings: Celsius, Fahrenheit; Default = Celsius

Units - Temp selects the units of measure for all temperature-related readouts.

Units - Distance

(with Speed input only)

Settings: Domestic Models: Statute Miles, Nautical Miles, Default = Statute Miles; International Models: Meters/Kilometers, Meters/Nautical Miles, Feet/Statute Miles, Feet/Nautical Miles, Default = Meters/Kilometers

Units - Distance selects the units of measure for all distance-related readouts, and will appear in the menu if a Temp/Speed Accessory is connected and the paddlewheel has moved at least once, or if a GPS Receiver is installed.
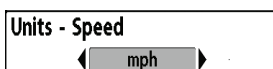
Units - Speed

(with Speed input only)

Settings: Domestic Models: mph, kts; International Models: kph, mph, kts; Default = mph/kph

Units - Speed selects the units of measure for speed-related readouts, and will appear in the menu if a Temp/Speed Accessory is connected and the paddlewheel has moved at least once, or if a GPS Receiver is installed.
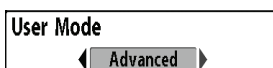
User Mode

Settings: Normal, Advanced; Default = Normal

User Mode sets the menu system to Normal or Advanced. When set to Normal, the basic set of menu options are shown in the menu system. When set to Advanced (default setting), additional menu options are added to the menu system. See *Main Menu: User Mode* for details.

Language

(International Models only)

Settings: Various, Default = English

Language selects the display language for menus. *International Models only*.
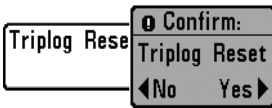
Triplog Rese	**⊙ Confirm:**	### Triplog Reset
	Triplog Reset	*(with Speed input only)*
	◀No Yes▶	**Settings: Press the RIGHT Cursor key and follow screen instructions to activate.**

Triplog Reset resets the Triplog to zero, and will appear in the menu if a Temp/Speed Accessory is connected and the paddlewheel has moved at least once, or if a GPS Receiver is installed. The Triplog provides the following information: timer for elapsed time, distance traveled since last reset, and average speed.

*NOTE: See **Views** to find out how to display Triplog information on the screen.*
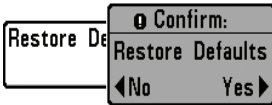
Restore De	**⊙ Confirm:**	### Restore Defaults
	Restore Defaults	**Settings: Press the RIGHT Cursor key and follow screen instructions to activate.**
	◀No Yes▶	

Use this menu choice with caution!

Restore Defaults resets ALL menu settings to their factory defaults.
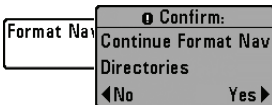
Format Nav	**⊙ Confirm:**	### Format Nav Directories
	Continue Format Nav Directories	**Settings: Press the RIGHT Cursor key and follow screen instructions.**
	◀No Yes▶	

Use this menu choice with caution!

Format Nav Directories deletes ALL navigation data (waypoints, routes, tracks, and groups) and resets 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 (see ***microSD Card Slot: Import Navigation Data***). 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 your Humminbird online account at **humminbird.com** and the Waypoint Management guide.*

Select Readouts

(Advanced, HELIX SONAR GPS, HELIX DI GPS, AND HELIX XD GPS only)

Settings: Various

Select Readouts sets the information to display in each of the fixed-position data windows on the Sonar View screen. To leave the data window blank, select Off. See *Views: Change Digital Readouts* to change the Select Readouts.

*NOTE: If you have a HELIX GPS, see **Navigation X-Press Menu** and **Views** to understand the Select Readouts and Select Nav Readouts menu options.*

Select Readouts

| Readout 1 |
| Temperature |
| Readout 2 |
| Speed |
| Readout 3 |
| Triplog |
| Readout 4 |
| Off |
| Readout 5 |
| Off |

Select Readouts

Data windows can display readouts from installed equipment such as a GPS Receiver or Temp/Speed accessory (optional-purchase required). Each data window can be empty or contain one of the following information categories:

- Course
- Depth
- Off
- Position
- Speed
- Temperature

- Time
- Time + Date
- Timer
- Triplog
- Voltage
- Water Speed

Traditional 2D Sonar and Down Imaging Views: All 5 readouts can be customized.

During navigation: Readout 1 can be customized, and Readouts 2 - 5 are fixed as follows: Readout 2 (Heading), Readout 3 (Bearing), Readout 4 (Split: Cross Track Error (XTE) and Distance To Go (DTG)), and Readout 5 (Split: Time To Go (TTG) and Speed).

Chart Views: Readouts 1, 3, and 4 can be customized. Readout 2 (Heading) and Readout 5 (Speed) are fixed and cannot be customized.

During navigation: Readout 1 can be customized, and Readouts 2 through 5 are fixed as follows: Readout 2 (Heading), Readout 3 (Bearing), Readout 4 (Split: Cross Track Error (XTE) and Distance To Go (DTG)), and Readout 5 (Split: Time To Go (TTG) and Speed).

Bird's Eye View: Readouts 1 through 4 are fixed as follows: Depth, Heading, Position (Lat/Lon), and Speed.

During navigation: There are two columns of fixed readouts. The first column shows Depth, Time To Go (TTG), Position (Lat/Lon), and Speed. The second column shows Cross Track Error (XTE), Heading, Bearing, and Distance To Go (DTG).

| ❶ Readout 1 | ❸ Readout 3 | ❺ Readout 5 |
| ❷ Readout 2 | ❹ Readout 4 | |
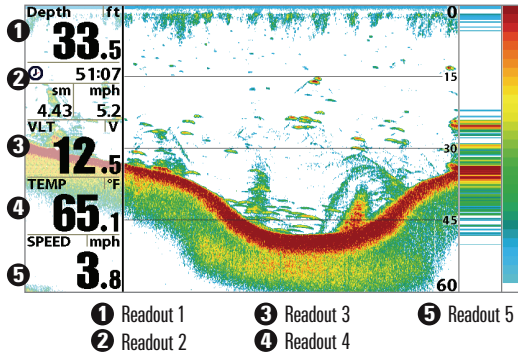
NOTE: The availability of the digital readout information corresponds with the view selected, the accessory attached, and whether or not you are navigating.

Depth Offset

(Advanced, HELIX SONAR GPS, HELIX DI GPS, HELIX XD GPS only)

Settings: -10.0 to +10.0 feet or -3.0 to +3.0 meters [International models only]; Default = 0.0, or Off

Depth Offset will adjust the digital depth readout to indicate depth from the waterline or boats keel. Enter a positive vertical measurement from the transducer to the waterline to read the depth from the waterline. Enter a negative vertical measurement from the transducer to keel to read the depth from the keel.

Temp. Offset

(Advanced, temperature input required)

Settings: -10.0 to +10.0 degrees, Default = 0.0, or Off

Temp Offset will adjust the temperature readout by the amount entered.

Speed Calibration

(Advanced, with Speed paddlewheel only)

Settings: -20% to +20%, Default = 0%

Speed Calibration will adjust the speed readout by the percentage entered, and will appear in the menu if a Speed accessory is connected and the paddlewheel has moved at least once.

Local Time Zone	
◀ EST (UTC-5) ▶	

Local Time Zone
(Advanced)

Settings: Various; Default = EST [UTC-5] - Eastern Standard Time

Local Time Zone selects your time zone in reference to the time reported by the GPS receiver when Time+Date is selected as a Digital Readout (see *Views: Change Digital Readouts*).

Daylight Saving Time	
◀ Off ▶	

Daylight Saving Time
(Advanced)

Settings: Off, On; Default = Off

Daylight Saving Time adjusts the time display to account for local Daylight Saving Time when Time+Date is selected as a Digital Readout (see *Views: Change Digital Readouts*).

Selecting On adds one hour to the time display adjusted for your local time zone. Selecting Off leaves the time display as adjusted for your local time zone.

Position Format	
◀ dd°mm.mmm' ▶	

Position Format
(Advanced)

Settings: dd.ddddd°, dd°mm.mmm', or dd°mm'ss"; Default = dd°mm.mmm'

Position Format selects the format of the latitude and longitude position display.

Time Format	
◀ 12-Hour ▶	

Time Format
(Advanced, International Models only)

Settings: 12-hour, 24-hour; Default = 12-hour

Time Format changes the time format used by the unit. Time Format selects a 12 hour or 24 hour format for the time of day displayed when Time + Date is selected as a Digital Readout (see *Views: Change Digital Readouts*).

Date Format	
◀ mm/dd/yy ▶	

Date Format
(Advanced, International Models only)

Settings: mm/dd/yy, dd.mm.yy, yy.mm.dd; Default = mm/dd/yy

Date Format changes the date format used by the unit. Date Format selects the format for the date display when Time + Date is selected as a Digital Readout (see *Views: Change Digital Readouts*).

Digits Format
◀ **Small tenths** ▶

Digits Format

(Advanced)

Settings: Small tenths, Large tenths, No tenths; Default = Large tenths

Digits Format adds a tenth decimal place to the readouts such as Temperature and Depth. Use the settings to change the display of the decimal place or remove it from the digital readouts. Examples of the different settings are displayed below. Also, see *Views: Change Digital Readouts*.

Small tenths   Large tenths   No tenths

NMEA Output
◀ **Off** ▶

NMEA 0183 Output

(Advanced)

Settings: Off, On; Default = Off

NMEA Output turns the NMEA* output on or off. NMEA Output should be turned On if you connect the NMEA Output wires of an accessory GPS Receiver or heading sensor cable to another NMEA-compatible device, such as an autopilot.

*NMEA 0183 is a National Marine Electronics Association standard for data communication.

The following NMEA sentences are output:

DPT - Depth
HDG - True Heading, Pitch & Roll
HDM - Magnetic Heading
MTW - Water Temperature
GLL - Lat/Lon Position
GGA - GPS Fix Data
RMC - Recommended Minimum Specific GNSS Data
VTG - Course Over Ground and Ground Speed
ZDA - Time and Date

When navigating, the following NMEA sentences are also output:

APB - Autopilot Sentence B
BWR - Bearing and Distance to Waypoint
RMB - Recommended Minimum Navigation Info

Sonar
◀ **On** ▶

Sonar

Settings: Off, On; Default = On

Sonar sets whether the Sonar views are shown in the View rotation. Select Off to deactivate Sonar and remove the Sonar Views from the View rotation.
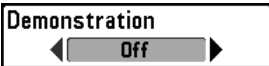
Demonstration	
◀ **Off** ▶	

Demonstration

Settings: Off, Visible; Default = Visible

Demonstration controls whether the Demonstration Mode is visible or off. The Demonstration Mode appears on the screen if you don't press any keys during the warning screen at power up. Menu settings cannot be saved in Demonstration (see *Power On* and *Start-Up Options Menu*).

Sound Control	
◀ **All Sounds** ▶	

Sound Control

Settings: No Sounds, Alarms Only, All Sounds; Default = All Sounds

Sound Control allows you to set when the control head will beep or sound because of the key presses and/or alarms.
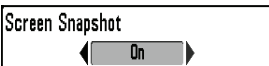
Screen Snapshot	
◀ **On** ▶	

Screen Snapshot

(optional-purchase microSD Card only)

Settings: Off, On; Default = Off

Screen Snapshot activates the screen snapshot function. When Screen Snapshot is enabled, pressing the MARK key creates a saved screen snapshot on the optional-purchase microSD card installed in your unit's card slot. All active menus, dialog boxes, warnings and messages are captured and saved automatically.

> *NOTE: For more information, see Views: Snapshot and Recording View and Snapshot and Recording X-Press Menu.*

NOTE: You must have an optional-purchase microSD card installed for the Screen Snapshot feature to work.

NOTE: If you use your microSD card in two different units that have different screen sizes, the recordings made on one unit will still be present on the card, but they will be represented by the Unavailable icon (circle with a slanted line through it) on the Snapshot and Recording View on the other unit.
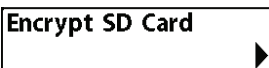
Encrypt SD Card	
	▶

Encrypt SD Card

(optional-purchase microSD Card only)

Settings: Press the RIGHT Cursor key and follow screen instructions.

WARNING! Do NOT use this menu option with a chart card installed. You must use a blank microSD Card with this menu option.

Encrypt SD Card enables the installed microSD Card for ChartSelect (separate purchase required). ChartSelect allows you to purchase a Humminbird chart online and download it to a microSD Card. Visit **chartselect.humminbird.com** for more information and to download the ChartSelect User Guide.

Bird's Eye View	
	Visible
Chart/Bird's Eye Combo View	
	Visible
Chart/Chart Combo View	
	Visible
Chart View	
	Visible
Chart/Down Combo View	
	Visible
Chart/Sonar Combo View	
	Visible
▼	

HELIX DI GPS Views Menu

Views Menu Tab

From any view, press the MENU key twice to access the tabbed Main Menu, then press the RIGHT Cursor key until the Views tab is selected.

This menu tab allows you to set the available views to hidden or visible in the view rotation. The view will be removed from the view rotation if it is set to Hidden and will be displayed in the view rotation if it is set to Visible.

NOTE: See **Views** *for more information.*

— The down arrow indicates more menu options.
Press the DOWN Cursor key to scroll through the full menu list.

Maintenance

Your Humminbird control head is designed to provide years of trouble free operation 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.

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.

HELIX Series Doesn't Power Up

If your control head doesn't power up, use the Installation Guide that also comes with it for specific confirmation details, making sure that:

- 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 actually replacing the battery if necessary.

HELIX Series Defaults to Simulator with a Transducer Attached

A connected and functioning transducer will cause the newly-started control head to go into Normal operating mode automatically. If, when you power up the control head, it goes into Simulator mode automatically, 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 Installation Guide that also comes with your Fishfinder, check to make sure that the transducer cable is securely connected to the control head. Reconnect if necessary, and power up the control head 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.

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:

Problem	Possible Cause
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 your Installation Guide for suggestions on adjusting 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 (i.e. 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. Check with your Installation Guide for guidance on re-positioning the transducer, 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. One or more of the following sources 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 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; make sure the transducer is mounted at least 15" (38 cm) from the propeller, and that the water flows smoothly over the face of the transducer at all times.
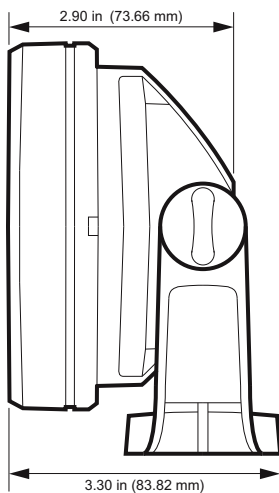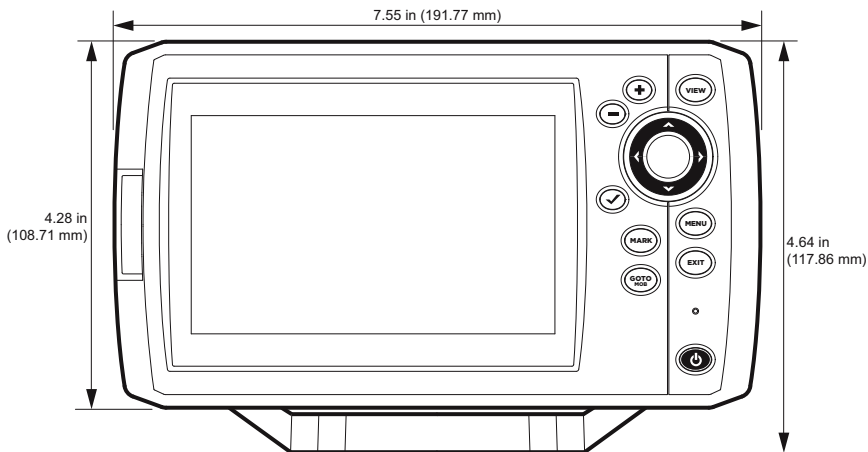
Gimbal Mount (HELIX 5)

7.55 in (191.77 mm)

4.28 in
(108.71 mm)

4.64 in
(117.86 mm)

2.90 in (73.66 mm)

3.30 in (83.82 mm)

In-Dash Mount (HELIX 5)

7.55 in (191.77 mm)

4.28 in
(108.71 mm)

2.90 in (73.66 mm)

2.17 in (55.12 mm)

Gimbal Mount (HELIX 7)

10.54 in (267.72 mm)

5.44 in
(138.18 mm)

5.80 in
(147.32 mm)

2.97 in (75.44 mm)

3.60 in (91.44 mm)

In-Dash Mount (HELIX 7)

10.54 in (267.72 mm)

5.44 in
(138.18 mm)

2.97 in (75.44 mm)

2.17 in
(55.12 mm)
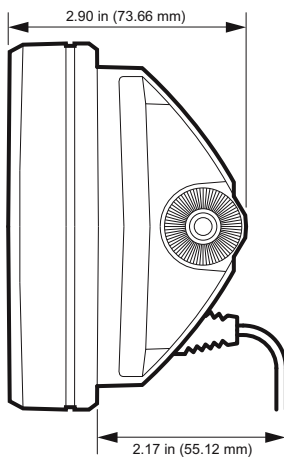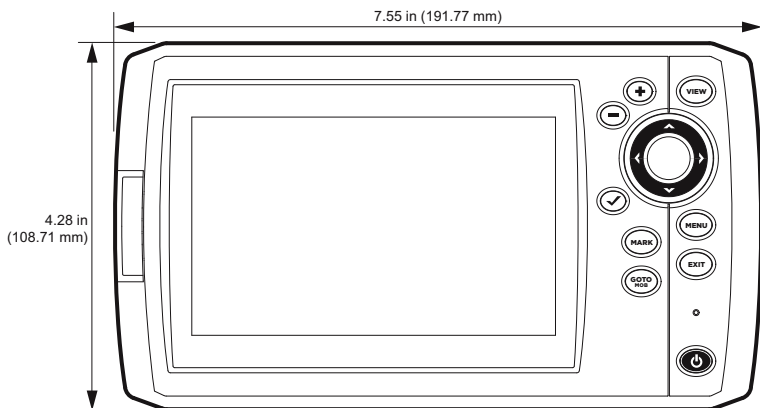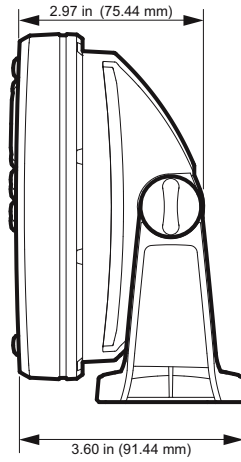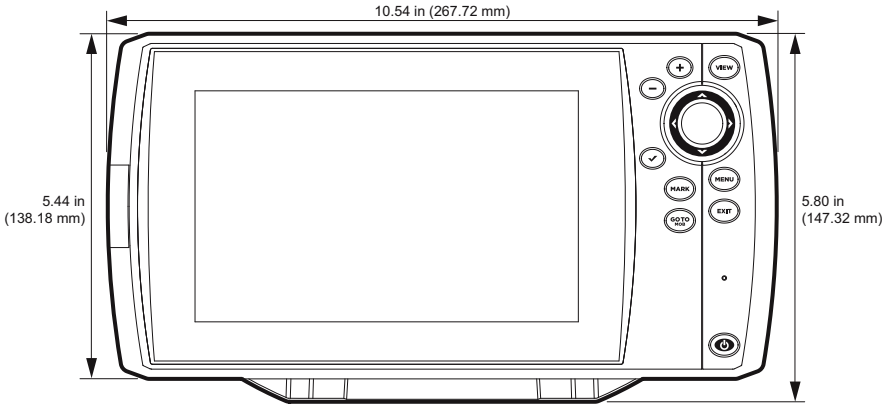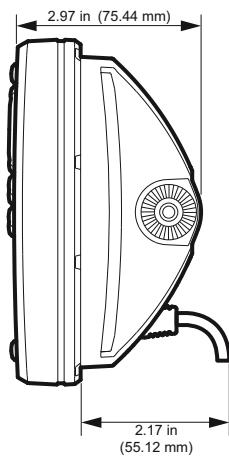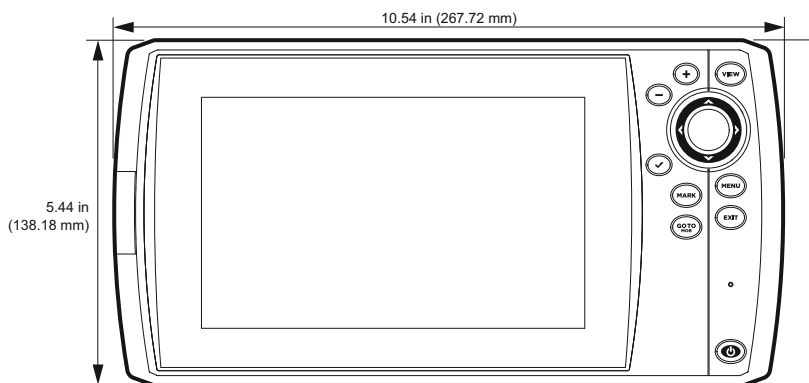
HELIX 5 SONAR GPS Specifications

Depth Capability . . . . 1500 ft (500 m)

Power Output . . . . 500 Watts (RMS); 4000 Watts (Peak-To-Peak)

Operating Frequency
   DualBeam PLUS: . . . . 200 kHz and 83 kHz

Area of Coverage
   DualBeam PLUS: . . . . 60° @ -10 dB in 83 kHz and 20° @ -10 dB in 200 kHz

Target Separation . . . . 2 1/2 Inches (63.5 mm)

Power Requirement . . . . 10-20 VDC

LCD . . . . 480 V x 800 H

Current Draw . . . . 650 mA

Transducer . . . . XNT 9 20 T (includes built-in temperature probe)

Transducer Cable Length . . . . 20 ft (6 m)

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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.

HELIX 7 SONAR GPS Specifications

Depth Capability . . . . 1500 ft (500 m)

Power Output . . . . 500 Watts (RMS); 4000 Watts (Peak-To-Peak)

Operating Frequency
   DualBeam PLUS: . . . . 200 kHz and 83 kHz

Area of Coverage
   DualBeam PLUS: . . . . 60° @ -10 dB in 83 kHz and 20° @ -10 dB in 200 kHz

Target Separation . . . . 2 1/2 Inches (63.5 mm)

Power Requirement . . . . 10-20 VDC

LCD . . . . 480 V x 800 H

Current Draw . . . . 800 mA

Transducer . . . . XNT 9 20 T (includes built-in temperature probe)

Transducer Cable Length . . . . 20 ft (6 m)

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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.

HELIX 5 DI GPS Specifications

Depth Capability
    <u>Down Imaging</u>: . . . . 350 ft (107 m)
    <u>Traditional Sonar</u>: . . . . 600 ft (183 m)

Power Output . . . . 500 Watts (RMS); 4000 Watts (Peak-To-Peak)

Operating Frequency
    <u>Down Imaging</u>: . . . . 455 kHz, 800 kHz
    <u>Traditional Sonar</u>: . . . . 200 kHz and 455 kHz

Area of Coverage
    <u>Down Imaging</u>: . . . . 75° @ -10 dB in 455 kHz, 45° @ -10 dB in 800 kHz
    <u>Traditional Sonar</u>: . . . . 28° @ -10 dB in 200 kHz
                                                      16° @ -10 dB in 455 kHz

Target Separation . . . . 2 1/2 Inches (63.5 mm)

Power Requirement . . . . 10-20 VDC

LCD . . . . 480 V x 800 H

Current Draw . . . . 650 mA

Transducer . . . . XNT 9 DI T (includes built-in temperature probe)

Transducer Cable Length . . . . 20 ft (6 m)

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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.

HELIX 7 DI GPS Specifications

Depth Capability
   Down Imaging: . . . . 350 ft (107 m)
   Traditional Sonar: . . . . 600 ft (183 m)

Power Output . . . . 500 Watts (RMS); 4000 Watts (Peak-To-Peak)

Operating Frequency
   Down Imaging: . . . . 455 kHz, 800 kHz
   Traditional Sonar: . . . . 200 kHz and 455 kHz

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

Target Separation . . . . 2 1/2 Inches (63.5 mm)

Power Requirement . . . . 10-20 VDC

LCD . . . . 480 V x 800 H

Current Draw . . . . 800 mA

Transducer . . . . XNT 9 DI T (includes built-in temperature probe)

Transducer Cable Length . . . . 20 ft (6 m)

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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.

HELIX 5 XD GPS Specifications

Depth Capability . . . . 2500 ft (762 m)

Power Output . . . . 500 Watts (RMS); 4000 Watts (Peak-To-Peak)

Operating Frequency . . . . 50 kHz, 200 kHz

Area of Coverage . . . . 74° @ -10 dB in 50 kHz
20° @ -10 dB in 200 kHz

Target Separation . . . . 2 1/2 Inches (63.5 mm)

Power Requirement . . . . 10-20 VDC

LCD . . . . .480 V x 800 H

Current Draw . . . . 650 mA

Transducer: . . . . XNT 9 DB 74 T (includes built-in temperature probe)

Transducer Cable Length . . . . 20 ft (6 m)

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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.*

HELIX 5 GPS Specifications

LCD . . . . 480 V x 800 H

GPS Receiver . . . . Internal Receiver with WAAS/EGNOS

Cartography . . . . Built-in Unimap
Optional Separate Purchase microSD Chart Cards: Humminbird LakeMaster and
Navionics Gold, HotMaps, and HotMaps Premium

Power Requirement . . . . 10-20 VDC

Current Draw . . . . 650 mA

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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

HELIX 7 GPS Specifications

LCD . . . . 480 V x 800 H

GPS Receiver . . . . Internal Receiver with WAAS/EGNOS

Cartography . . . . Built-in Unimap
Optional Separate Purchase microSD Chart Cards: Humminbird LakeMaster and
Navionics Gold, HotMaps, and HotMaps Premium

Power Requirement . . . . 10-20 VDC

Current Draw . . . . 800 mA

IPX Rating . . . . IPX7 Waterproof/Submersible @ 1m for 30 minutes

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

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:

Facebook.com/HumminbirdElectronics

Twitter.com (@humminbirdfish)

YouTube.com/humminbirdtv