APEX and SOLIX

Operations Manual

HUMMINBIRD®

SIMPLY. CLEARLY. BETTER.

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 operations manual carefully in order to get the full benefit from all the features and applications of your Humminbird product.

Contact Humminbird Technical Support 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! Compass Safe Distance: The control head must be installed at least 4 feet (1.2 meters) from the compass or other magnetic equipment on the boat. Also, see your compass installation guide for details.

WARNING! This device is granted for use in Mobile only configurations in which the antennas used for this transmitter must be installed to provide a separation distance of at least 8 inches (20 cm) from all person and not be co-located with any other transmitters except in accordance with FCC and Industry Canada multi-transmitter product procedures.

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. Review the information in this manual for details.

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

WARNING! The user shall maintain 20 cm separation from the RF device to ensure compliance with RF exposure.

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 or any additional equipment for your control head configuration, visit our Web site at **humminbird.com** or contact Humminbird Customer Service at **1-800-633-1468**.

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

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

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

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

ATTENTION INTERNATIONAL CUSTOMERS: Products sold in the U.S. are not intended for use in the international market. Humminbird international units provide international features and are designed to meet country and regional regulations. Languages, maps, time zones, units of measurement, and warranty are examples of features that are customized for Humminbird international units purchased through our authorized international distributors.

To obtain a list of authorized international distributors, please visit our Web site at **humminbird.com** or contact Humminbird Technical Support at **(334) 687-6613**.

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INTRODUCTION

The instructions in this manual describe the APEX and SOLIX control head operations. For an overview of functions, see the Quick Start Guide included with your product.

Build your Network: Some of the features shown in this manual require a separate purchase. MEGA 360, MEGA Live, Radar, Talon, Raptor, AIS, Compass/Heading Sensor, Ethernet Switch, i-Pilot Link, etc. require a separate purchase. To install each accessory, use the installation guide provided with it, or download the guide from our Web site at **humminbird.com**.

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

Using Humminbird Manuals on your Mobile Device or Computer

The Humminbird manuals for your control head and accessories can be downloaded to your mobile device or computer. If you prefer to use a hard copy for reference, this manual may be printed.

Download the Manual to your Mobile Device

1. Download the free Adobe Acrobat Reader app to your mobile device.

2. Go to our Web site at **humminbird.com**, and click Support > Manuals.

3. Select the PDF for your control head model or accessory, and save it to your device.

4. Open the Adobe Acrobat Reader app.

5. Open the Humminbird manual.

Download the Manual to your Computer

1. Download the free Adobe Acrobat Reader software from **http://get.adobe.com/reader/**, and install it on your computer.

2. Go to our Web site at **humminbird.com**, and click Support > Manuals.

3. Select the PDF for your control head model or accessory, and save it to your computer.

4. Open Adobe Acrobat Reader.

5. Open the Humminbird manual.

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

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

   Print: To print, confirm the page sizing is 8.5 x 11" and set to Fit. Set the page orientation to Portrait.

Using the Manual

bookmarks panel

search for key words

(Ctrl + F)

The APEX/SOLIX Control Head

The APEX and SOLIX control heads includes CrossTouch, which allows you to use both the touch screen and keypad to make selections. Review this section for an overview of touch and keypad functions.

APEX Control Head

keypad

touch screen

microSD card slots

SOLIX Control Head

keypad

touch screen

SD or microSD card slots
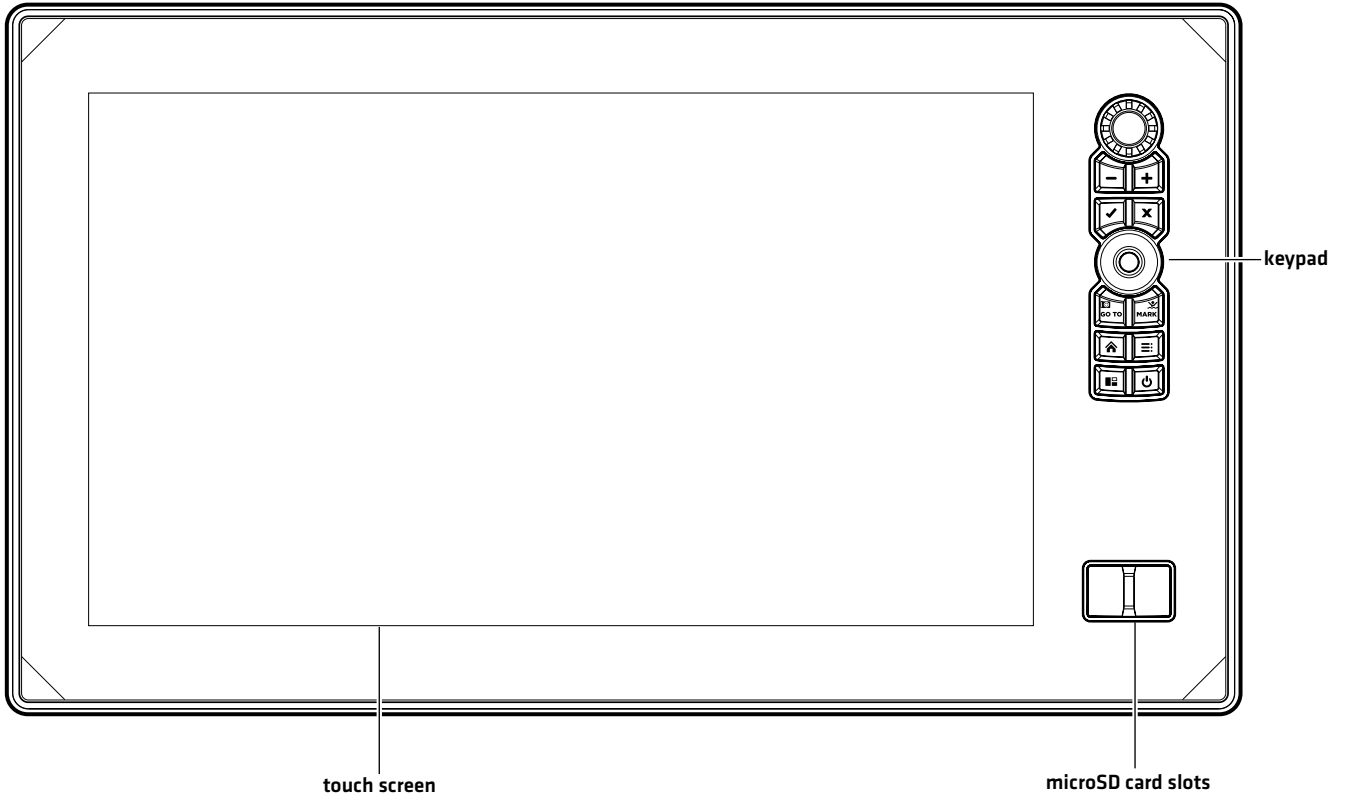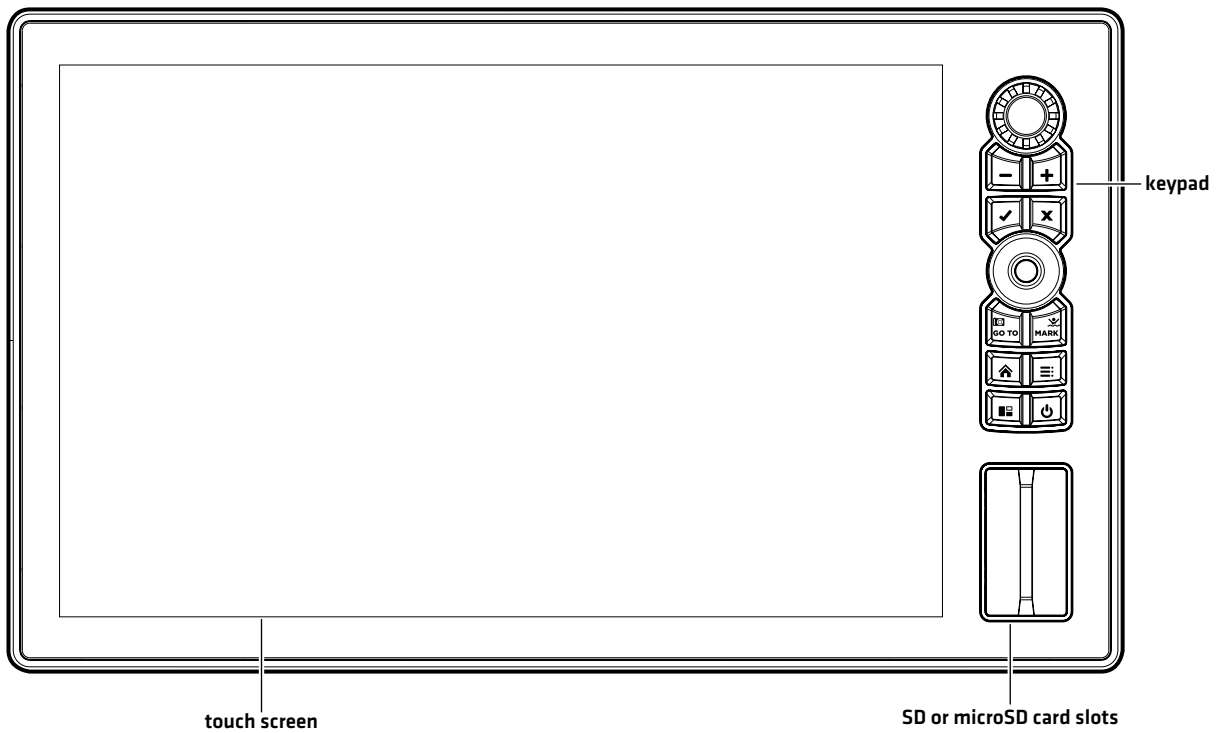
Keypad Functions

The functions for each key are described here. To apply the key functions, see each section of this manual.

Joystick
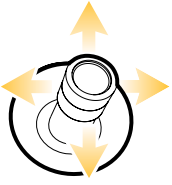
Move Functions

Move to select a view, tool, widget, or menu.

Move to activate and/or move the cursor across the displayed view.
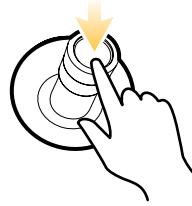
(Down) Press Functions

Open your selected view, tool, widget, menu, or submenu.

Mark a route point.

Rotary Dial
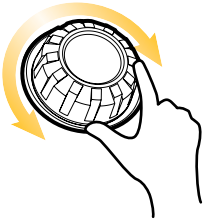
Turn Functions

Turn to adjust menu settings.

Turn to adjust the sensitivity in Sonar Views.

Turn to zoom in and out in Chart View.

Turn to adjust in Radar View.

(Down) Press Functions

Press the Rotary dial to open the Favorite Views widget.

Key	Name	Key Press Function(s)	Key Press Function(s)
	POWER key	Powers on the control head. During operation, this key opens the Power X-Press Menu.	Powers off the control head.
	ENTER key	Starts a command. Selects, or turns on, a setting. Opens menus. Opens the Info menu and the Cursor menu.	Adjusts menu settings. May vary with the displayed view.
	EXIT key	Closes an open menu or dialog box. Turns off an alarm. Exits Cursor mode. Returns to the last displayed view from the Home screen.	Closes all open submenus and menus.
	GO TO & Screen Snapshot key	Opens the Go To menu for navigation functions (see *Routes* for details).	**Screen Snapshot:** Saves the on-screen view (image). See *Images Tool*.
	PANE key	Activates the Side Bar (the side bar is highlighted in yellow). Use the Joystick to scroll through the side bar widgets. Selects a pane in a multi-pane view (the selected pane is highlighted in yellow. See *Views*.)	
	MARK & Man Overboard key	Press **TWICE** to mark waypoints.	**Man Overboard:** Starts Man Overboard (MOB) Navigation. See *Man Overboard (MOB) and Introduction to Navigation)*.
	HOME key	Displays the Home screen. See *The Home Screen*.	
	ZOOM In key	Changes the scale of the view to show a closer perspective.	
	ZOOM Out key	Changes the scale of the view to show a wider view.	Zoom out all the way.
	MENU key	Opens the X-Press Menu for the on-screen view and operation mode. Press **TWICE** to open the Settings tool.	Returns to the last-used Settings tool tab. See *The Menu System*.

Touch Screen Functions

The touch screen actions are also determined by the view displayed on the screen.

Using the Touch Screen (SOLIX)
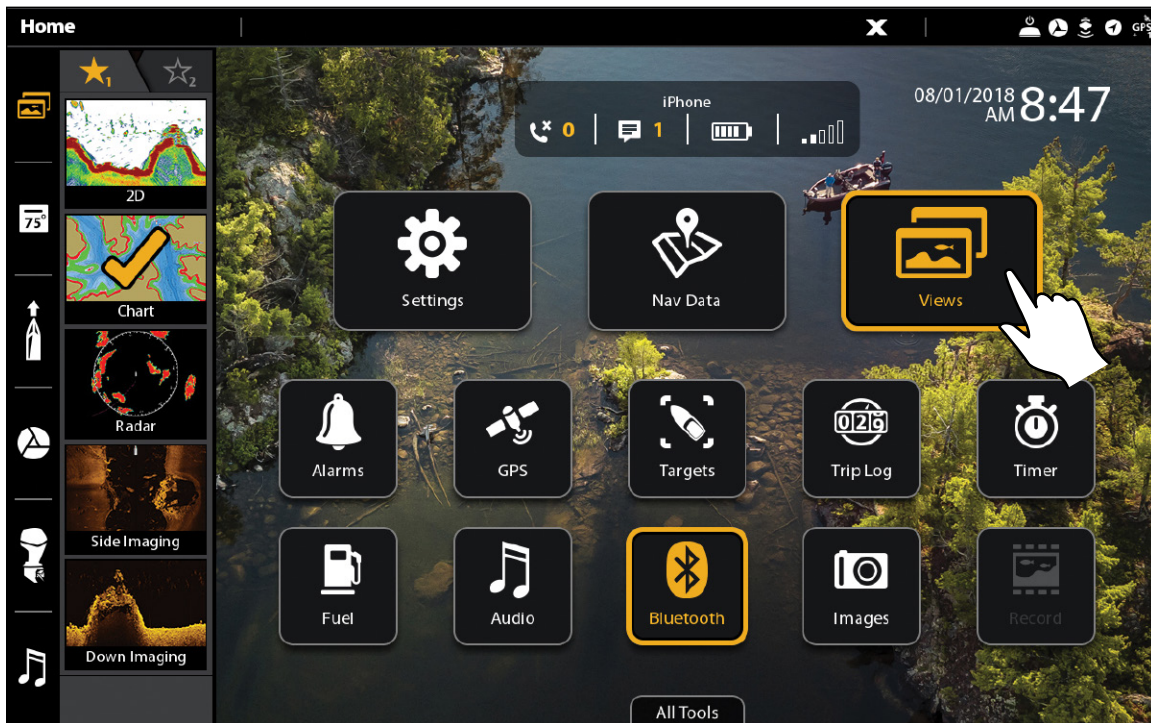
Swipe Functions
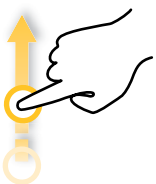
One Finger Swipe (vertical)

Browse Menus: Scroll through a menu or list (up or down).
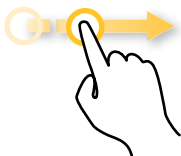
One Finger Swipe (horizontal)

Adjust Menu Slider: Drag the slider to adjust the setting.

With a Chart View displayed on the screen, drag one finger across the screen to see more of the chart that is displayed off-screen.

With a 2D Sonar View displayed on the screen, drag one finger across the screen to see more of the sonar history.

Two Finger Swipe

With a view displayed on-screen, touch the screen with two fingers and swipe down to return to the Home screen.

Tap Functions

One Tap

Select (Open): Tap to select (or open) a view, tool, widget, menu, or icon.

Activate the Cursor: Tap a position on the view once.

Two Taps

Tap the screen twice to zoom in on the current display.

Press and Hold Functions

Pinch

Zoom In: Touch the screen with two fingers and move them apart to zoom in on the display.

Zoom Out: Touch the screen with two fingers and bring them closer together to zoom out.

Press and Hold

Press and hold a position on the view with one finger to open the Cursor Menu.

Select (Open) a Tool, Widget, or View

Touch Screen   **Keypad**
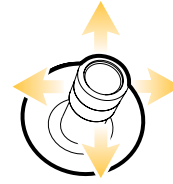
tap to open

Select   Open

Adjust a Menu Setting

Touch Screen   **Keypad**

Tap
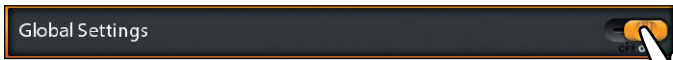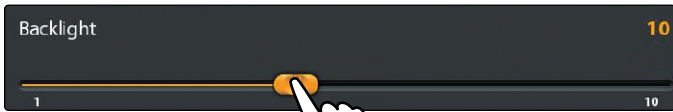
Press

Press and Hold **OR** Slide
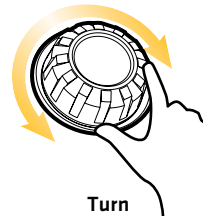
Turn   **OR**   Press and Hold

Close a Tool or Menu
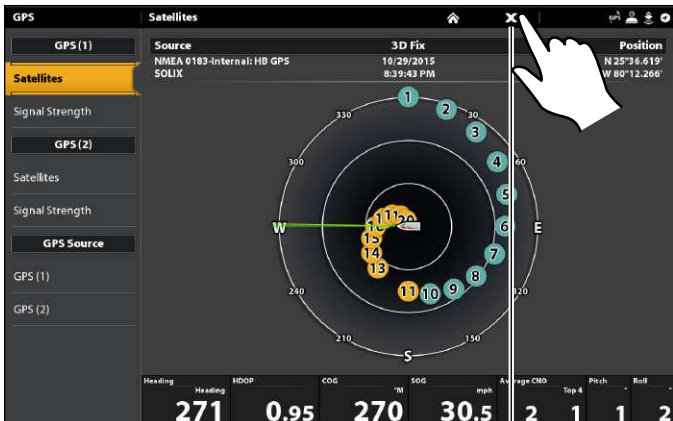
Touch Screen   **Keypad**
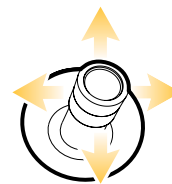
Select   Close

tap to close

Open a View from the Views Tool

Touch Screen
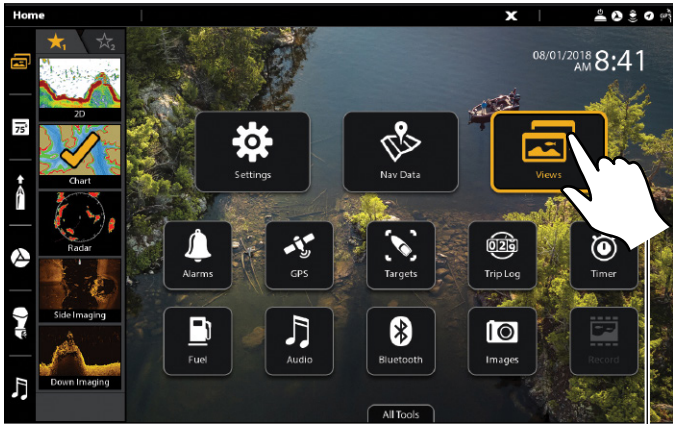
tap to open
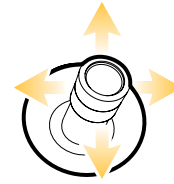
Keypad
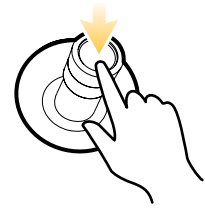
Select   Display

Open a View from the Favorite Views Widget

Touch Screen
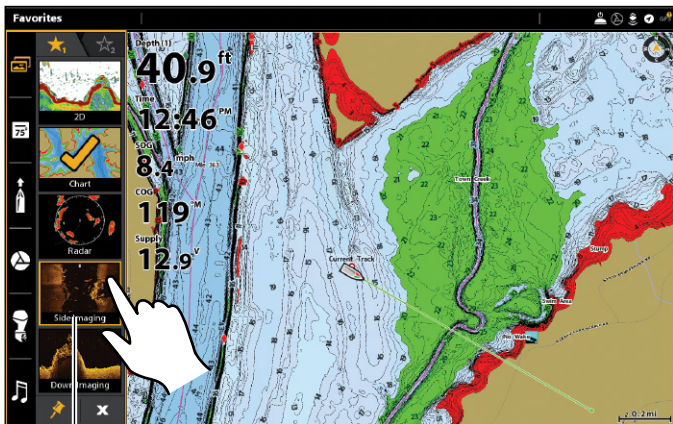
tap to open

Keypad
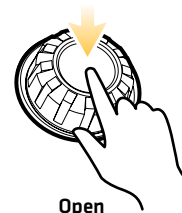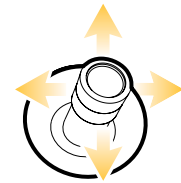
Open   Select

Display

SD Card Slots

Your control head may be compatible with an SD or microSD card (separate purchase required). Use it to update software, add detailed charts to your control head, import/export navigation data, and save sonar recordings and screen snapshots. Use the instructions in this section to install the card.

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

⚠ **WARNING!** Do not leave the card slot cover open. The slot cover should always be closed to prevent water damage to the unit.

Insert an SD Card

The left slot is displayed as SD Card (1) in the menu system, and the right slot is displayed as SD Card (2).

1. Remove the SD card slot cover.

2. Position the SD card so that the label faces to the left.

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

4. Replace the slot cover so it is secure.

5. **Remove:** Press the card into the slot and then release it. The card will eject. Pull the card carefully from the slot.

Insert a microSD Card

The top slot is displayed as SD Card (1) in the menu system, and the bottom slot is displayed as SD Card (2).

1. Remove the microSD card slot cover.

2. Remove the microSD card from the microSD card adapter.

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

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

5. Replace the slot cover so it is secure.

6. **Remove:** Press the card into the slot and then release it. The card will eject. Pull the card carefully from the slot.

Load an SD Card
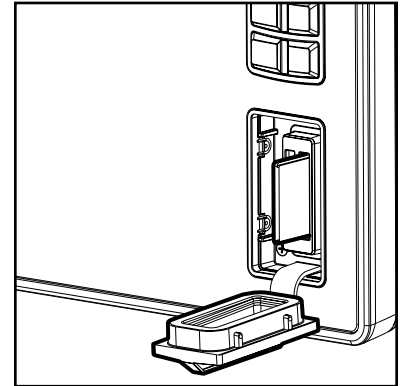
Vertical Slot:
Insert the SD card with the label facing left.

Horizontal Slot:
Insert the SD card with the label facing up.

POWER ON/OFF

Power On

1. Press the POWER key.

2. Select Start Normal Mode.

3. When the first view is displayed on the screen, the control head is ready for operation.
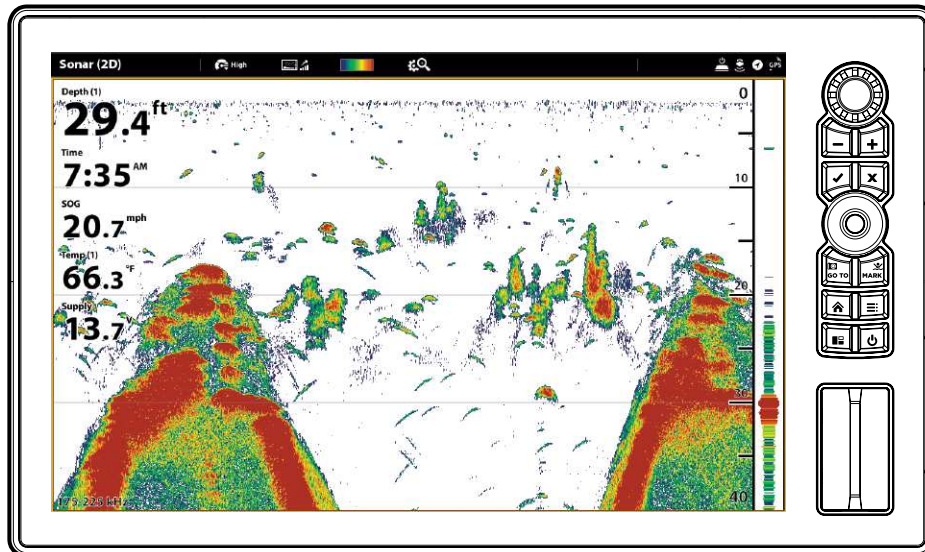
Use Standby Mode to Conserve Power

To conserve power while the control head is not in-use, start Standby mode from the Power X-Press Menu.

1. **Open the Power X-Press Menu:** Press the POWER key.

2. Select Standby.

3. **Turn off Standby Mode:** Press the POWER key.

Power Off

1. Tap the top, right corner of the status bar.

   OR

   Press the POWER key.

2. Select Power Off.

Additional Keypad Option
Press and hold the POWER key.

Getting Started

The procedures in this section describe how to get started with your control head:

- review GPS reception

- check connected accessories and sensors

- start radar transmission

- pair your *Bluetooth®* wireless technology enabled mobile device (phone or tablet)

- set alarms

See the control head installation guide and the quick start guide included with your APEX or SOLIX control head to configure the unit for first time setup. Also, see *Installation Information* in this manual for control head configuration and network configuration details.

NOTE: When the APEX/SOLIX control head equipment and accessories are first installed, the Setup Guide provides the prompts to guide you through configuring the unit. The Setup Guide includes important steps to configure the control head with the equipment, including vessel dimensions, map source selection, and offset menus. See your control head installation guide to configure the unit for the first time.

The APEX Home Screen

Bluetooth notifications (with paired mobile phone)(from left to right): call notifications, text notifications, phone battery power percentage, and phone carrier signal strength.

status bar

side bar

tools

customizable Home screen wallpaper (background)

view additional tools

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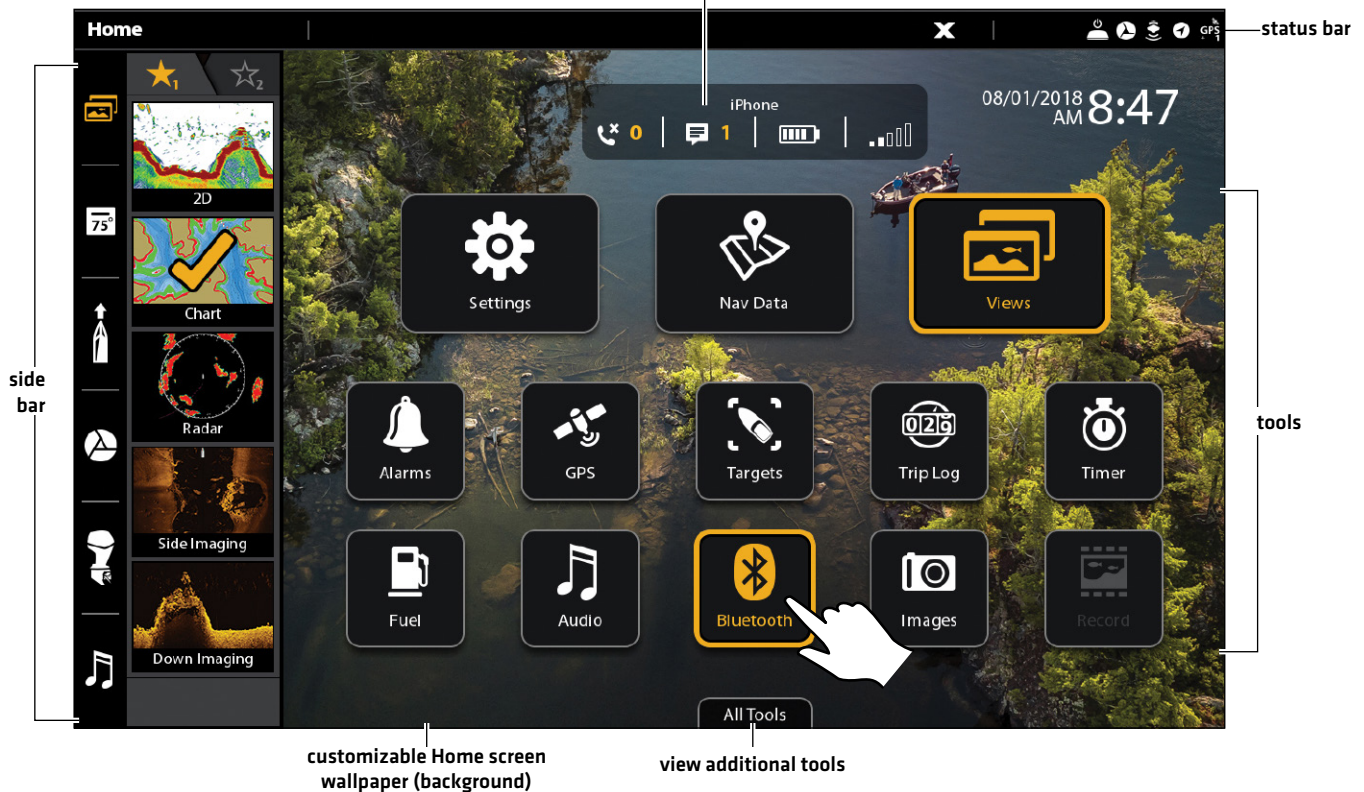
1 | Review GPS Reception

Use the GPS tool to check the GPS reception. The GPS tool provides two ways to view the satellites communicating with the GPS Receiver. **Yellow** indicates that the satellite is being used to determine your current position. **Teal** indicates that the satellite is being monitored but not used. The following data is also displayed:

- **Position** (latitude and longitude)
- **GPS Fix Type:** reported as No Fix, 2D Fix, 3D Fix, or Enhanced. An Enhanced fix has been augmented using information from WAAS, EGNOS, or MSAS. A 3D or Enhanced Fix is required for navigation.
- **HDOP (the Horizontal Dilution of Precision):** a GPS system parameter which depends on the current satellite configuration. HDOP is used to calculate the Estimated Position Error.

Open the GPS Tool

If there is more than one control head installed on the network, select the control head that is connected directly to the GPS receiver.

1. Press the HOME key.
2. Select the GPS tool.

Review Satellites and Signal Strength

1. Under GPS (1), select Satellites.
2. Under GPS (1), select Signal Strength.

GPS (1) and GPS (2) Sources

You can also manually change which GPS receiver is the selected source for GPS (1) or GPS (2). To change the GPS sources, see *Set up your Humminbird Network*.

- **GPS (1)** provides position data, Speed over Ground (SOG), Course over Ground (COG), waypoints, routes, tracks, and navigation calculations to the control head.
- **GPS (2)** provides position data that is displayed in the GPS (2) data box.

GPS (1) Satellite Sky Chart
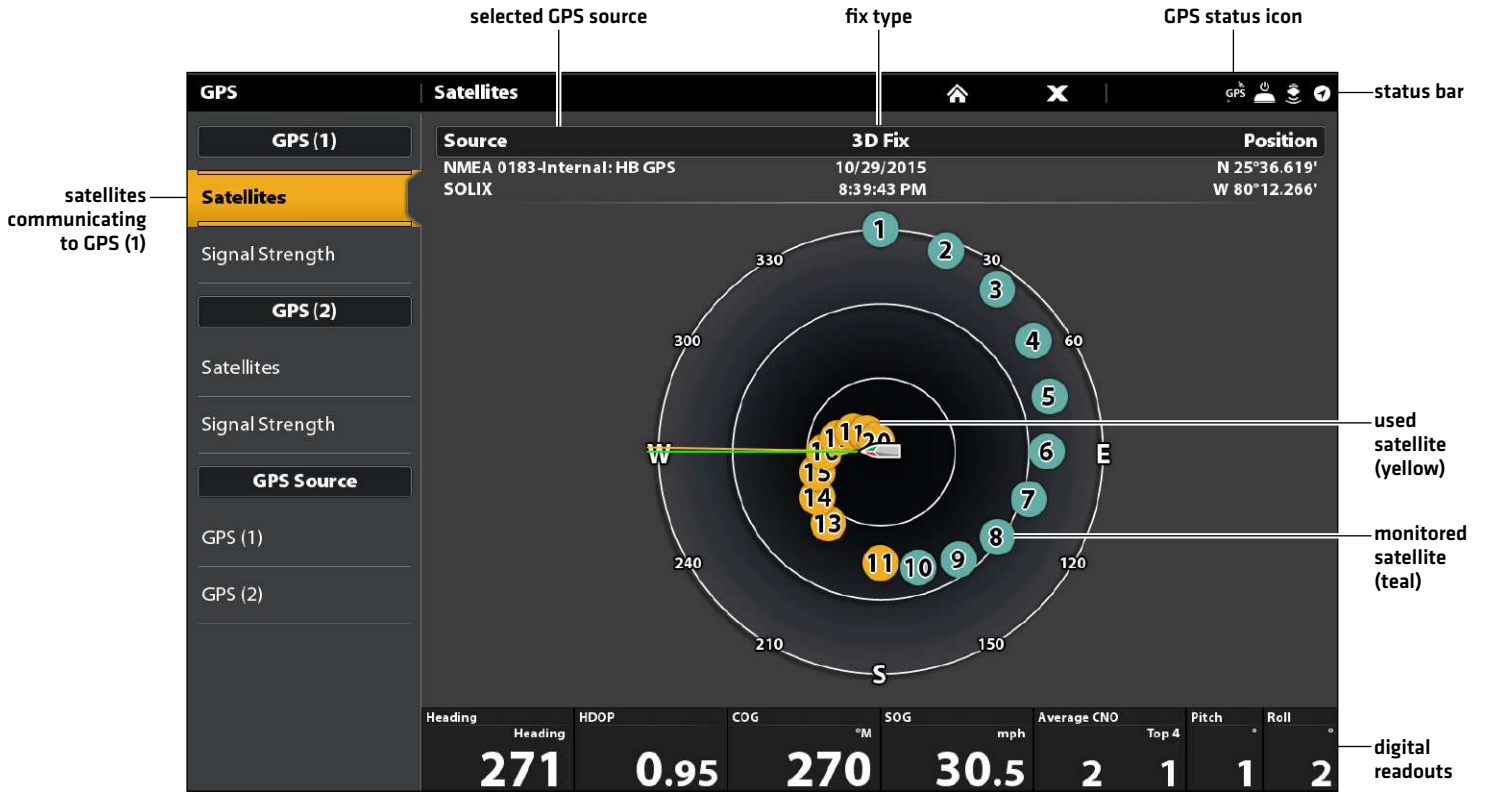
GPS (1) Satellites shows a sky chart and numerical data from the selected GPS receiver

Signal Strength (bar graph)
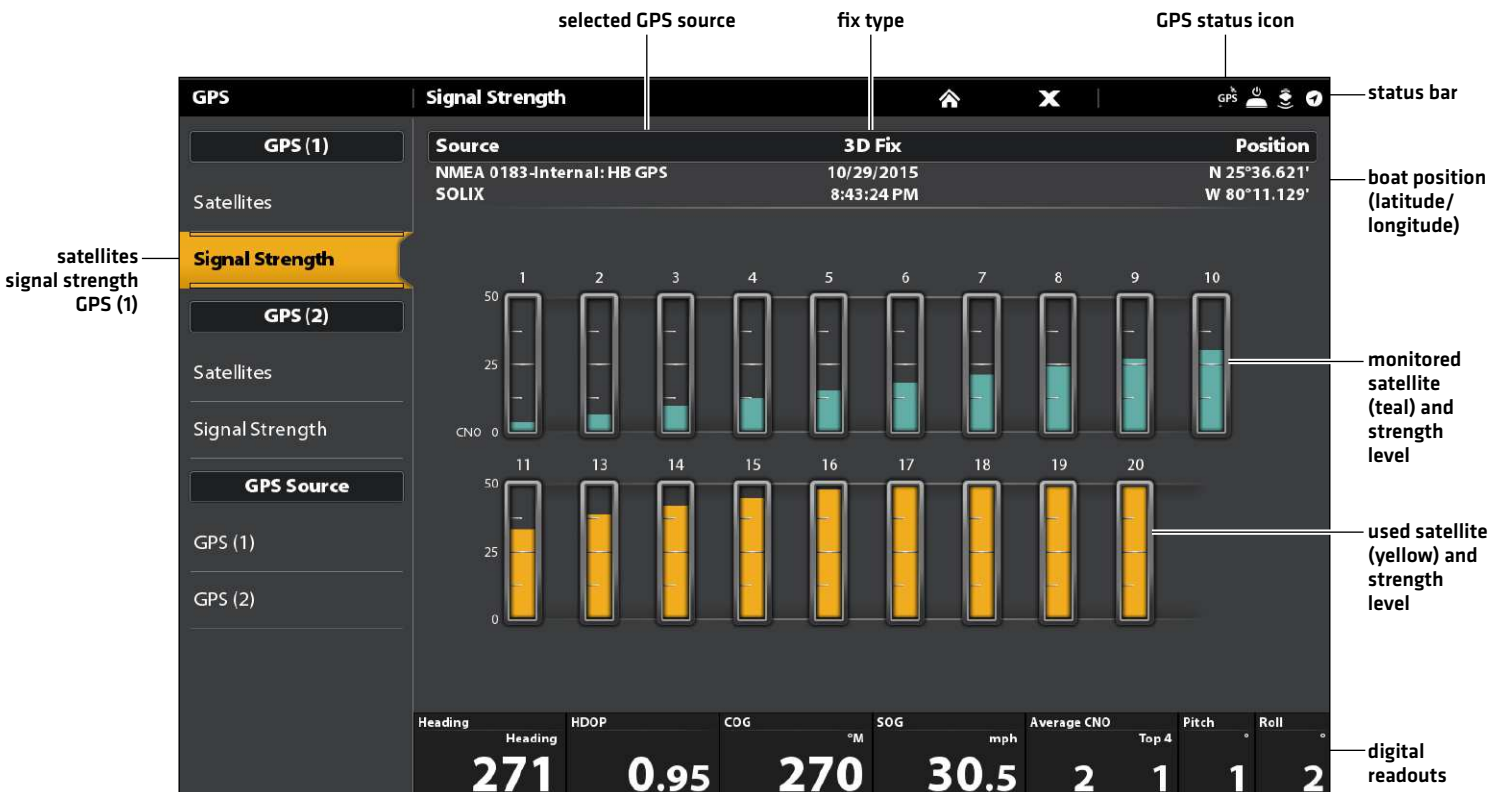
Signal Strength (GPS 1/GPS 2): displays vertical bar graphs indicating the satellite
signal strengths with the respecting CNO (Carrier-to-Noise) value (0 to 60).

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

1. Press the HOME key.

2. Review the top, right corner of the status bar.

   Detected and Active: If a sensor is active and transmitting/receiving, it will be white. See the table below.

   Connected but not Detected or Active: If a sensor is not detected on the network, or not transmitting/receiving, it will be completely gray.

   Connected but not Transmitting/Receiving: If a sensor is detected, but is not transmitting/receiving, the icon will be partially gray. In this illustration, the GPS receiver is detected, but it doesn't have a GPS fix. This feature will vary with the type of icon represented.

Active Status Icon	Sensor	Icon Description
AIS	AIS	AIS is on and receiving targets.
(compass)	Compass	The selected compass/heading sensor is on and heading data is being received.
GPS	GPS	The GPS receiver is detected and a GPS fix has been obtained.
(i-Pilot Link)	i-Pilot Link	i-Pilot Link is connected, enabled, and actively navigating.
(Talon)	Bluetooth Talon	The Talon is connected and stowed. Download the Talon Accessory Manual from our Web site at **humminbird.com** for additional Talon status icons.
(Raptor)	Bluetooth Raptor	The Raptor is connected and stowed. Download the Raptor Accessory Manual from our Web site at **humminbird.com** for additional Raptor status icons.
Tx	Radar	The selected radar source is detected and transmitting.
(2D Sonar)	2D Sonar	The selected 2D sonar source is detected and pinging.
360	MEGA 360 Imaging Sonar	The 360 Imaging transducer is pinging data.
LIVE	MEGA Live Imaging Sonar	The MEGA Live Imaging transducer is pinging data.

3. If the sensors are active, your system is ready for use on the water.

   For additional system status, select Home > Settings > Network > System Info.

   If you have connected an accessory to the control head, and the icon is not displaying in the system status bar, check the installation of the accessory and the cable connection to the control head.

   To change the NMEA 2000 network or multi-control head network sources, see *Set up a NMEA 2000 Network* and *Set up your Humminbird Network*.

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3 | Start Radar Transmission (connected Radar source required)

For more information about Humminbird CHIRP Radar and Humminbird Radar, see *Radar Overview*.

⚠ **WARNING!** The radar should be configured by a qualified radar technician after installation or equipment repair. See *Installation Information: Configure Humminbird Radar*.

1. Confirm the radar power source is turned on (breaker or switch).

2. Press the POWER key.

3. **Humminbird CHIRP Radar:** Select Radar > Standby. Press the POWER key again, and select Radar > Transmit.

   Humminbird Radar: Select Radar Transmit. Tap the on/off button, or press the ENTER key, to turn it on.

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4 | Pair a Bluetooth supported Mobile Device with the Control Head

Use the following instructions to pair a mobile device (phone or tablet) to the control head using Bluetooth wireless technology.

📝 **NOTE:** If you have a Bluetooth Talon or Raptor (separate purchases required), see the accessory operations manual for each product for pairing instructions. Operations manuals can be downloaded from our Web site at **humminbird.com**.

📝 **NOTE:** WiFi or cellular data must be enabled on your device.

Enable Bluetooth on your Device

1. Open the Settings menu on your device.

2. Select Bluetooth.

3. Select On.

Pair the Phone with the Control Head

1. Press the HOME key.

2. Select the Bluetooth tool.

3. Under Phone Bluetooth, select Settings.

4. Select Connect Phone.

5. Follow the on-screen prompts to complete the pairing process.

6. Check the Bluetooth menu on your phone. Tap the name of the control head on your phone.

7. Confirm the six digit confirmation code and tap Pair on your phone.

   Upon successful pairing, the control head will be listed as connected under the phone's Bluetooth menu, and your phone name will be displayed on the Data Dashboard on APEX or the HOME screen on SOLIX.

8. **Reconnect:** The control head should automatically reconnect to your mobile device when in range. If it does not automatically reconnect, you can manually reconnect the control head by tapping on the name of the control head listed under My Devices (Apple iOS) or Previously Connected Devices (Google Android).

Pairing a Mobile Phone to the Control Head (SOLIX)

Bluetooth settings

Tap to make your control head discoverable on your mobile device.
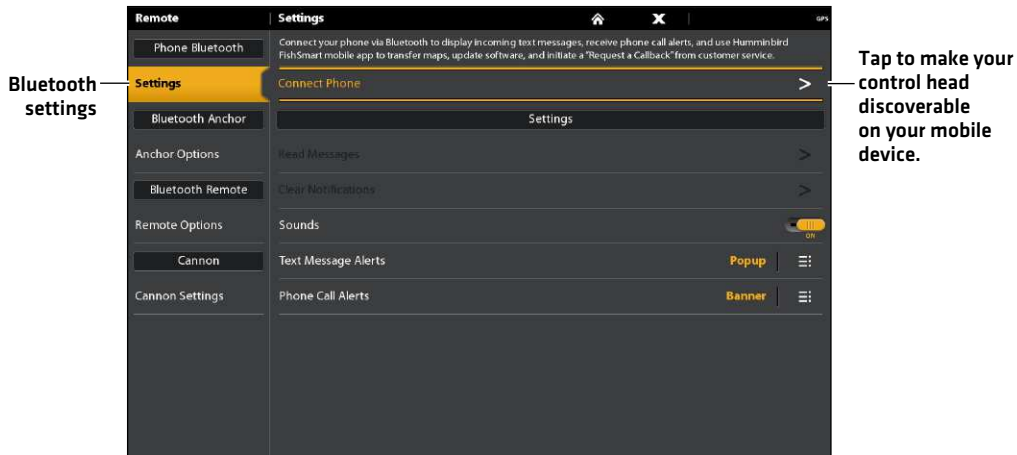
Change the Phone Bluetooth Notification Settings on the Control Head

Use the following instructions to select an alert format on the control head or turn off alerts.

1. Under the Phone Bluetooth menu, select Settings.

> **NOTE:** In your phone Settings menu, confirm that Bluetooth is turned on and Show Notifications is turned on.

2. Select Text Message Alerts or Phone Call Alerts.

   Tap to select an alert format. To turn off notifications, select off.

3. **Turn Sounds On/Off:** Select Sounds. Select on or off.

Change the Phone Bluetooth Notification Settings on the Phone

1. **Apple iOS:** Open the phone's Bluetooth menu, and next to the control head's name under My Devices, tap the information icon.

   Google Android: Open the phone's Bluetooth menu, and next to the control head's name under Available Media Devices, tap Settings.

2. **Apple iOS:** Turn on Show Notifications.

   Google Android: Turn on Share Messages.

Review Phone Bluetooth Notifications

APEX: View phone notifications on the Data Dashboard.

SOLIX: View phone notifications on the Home screen.

Mobile Phone Paired to the Control Head (APEX)

phone settings

connected phone status bar

turn on/off text message and phone call alerts
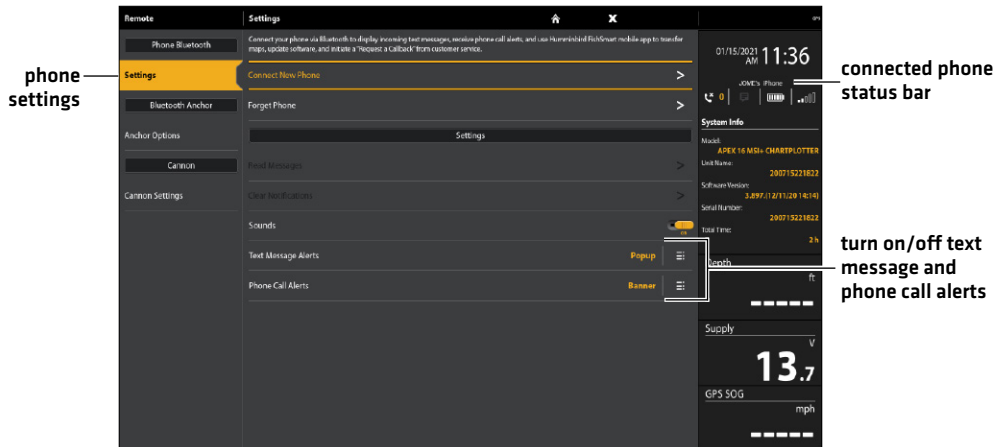
Forget Device

If you are having any issues with your connection, forget the device on both the phone and the control head and start the pair process over.

Forget Device on the Phone

1. **Apple iOS:** Open the phone's Bluetooth menu, and next to the control head's name under My Devices, tap the information icon.

   Google Android: Open the phone's Bluetooth menu, and next to the control head's name under Available Media Devices, tap Settings.

2. **Apple iOS:** Tap Forget This Device.

   Google Android: Tap Forget.

Forget Device on the Control Head

1. Under the Phone Bluetooth menu, select Settings.

2. Select Forget Phone.

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5 | Set Alarms

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

1. Press the HOME key. Select Alarms.

2. Under Settings, select Alarms.

   If the control head is connected to the Humminbird network, select **Local Alarms** [control head only] or **Networked Alarms** [alarms shared across control heads]. See *Set up your Humminbird Network* for more information.

3. Select an alarm category.

4. Select an alarm name.

5. **On/Off:** Tap the on/off button, or press the ENTER key, to turn on the alarm.

6. Adjust the alarm threshold.

   Touch Screen: Press and hold the slider, or drag the slider.

   Keypad: Press and hold the ENTER key, or turn the Rotary dial.

7. Repeat steps 3 through 6 for each alarm you want to set.

Setting an Alarm

selected category   home   close   status bar

Alarms	Alarms	🏠 ✕ GPS 🔋 📶 🧭
Settings	System	☰
Alarms	Vessel	☰
Mute Alarms ⬤ ON	Navigation	☰
History	Sonar	☰
Active Alarms	Targets	☰
Alarms Log	Temperature	☰
Clear Alarms Log >	Engine	☰
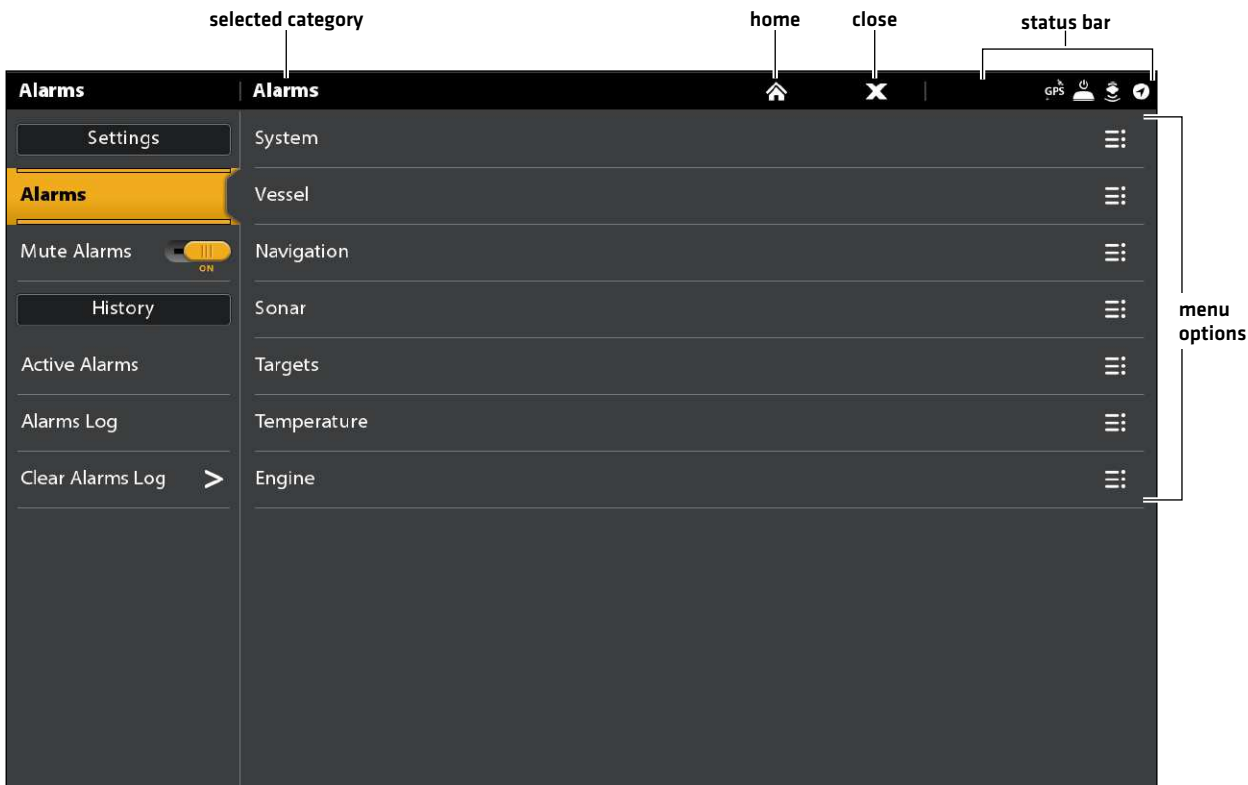
menu options

📝 **NOTE:** See *The Menu System: Tips for Using the Status Bar* for more details.

The available alarms are determined by the connected equipment, so your control head may provide more or less options than the information shown here.

System	Voltage, Lost Heading (compass/heading sensor required), etc.
Vessel	Drift Limit, SOG (Speed over Ground), STW (Speed through Water), etc. Also, see *Views: Understand the Data Box Digital Readouts* for more information.
Navigation	See *Chart Overview: Navigation Alarms Overview* for details.
Sonar	See *Sonar Overview: Sonar Alarms* for details.
Radar	See *Radar Overview: Radar Alarms* for details.
Temperature	Temp (High) or Temp (Low). To change the Temperature sources, see *Installation Information: Set up your Humminbird Network*.
Engine	Low Fuel, Engine Temp, Oil Level, Coolant Level, Check Engine, etc. To change Engine and Fuel sources, see *Installation Information: Set up a NMEA 2000 Network*.

Use the following menus to view any alarms that have been triggered:

Active Alarms: View current, active alarms.

Alarms Log: View previously occurring alarms.

Change System Settings

Your control head was configured during the installation setup. To change the system settings such as the backlight, key sounds, units of measurement, and the time and date format (including Daylight Saving Time), select Settings from the Home screen. See *Manage your Control Head* for more information.

1. Press the HOME key.
2. Select Settings.
3. Select General.

NOTE: To reconfigure the control head with the Setup Guide, select the Setup Guide tool from the Home screen.

Set up Sonar

Proceed to the *Sonar Overview* section.

Select the Map Source

Proceed to the *Chart Overview* section.

Update Software

As you build your Humminbird network, it is important to keep your control head and accessories software up to date. Accessories such as i-Pilot Link, 360 Imaging, and Ethernet Switches are updated through the APEX/SOLIX control heads.

You can update software using an SD or microSD card (depending on your APEX/SOLIX model) or using the built-in Bluetooth and the Humminbird FishSmart App.

Preparation: We recommend that you read this section completely before starting any software updates. Control heads take approximately 10 minutes to update, and each control head on the network must be updated individually. Accessories take approximately 3 minutes to update.

⚠ **WARNING!** Humminbird is not responsible for the loss of data files (waypoints, routes, tracks, groups, snapshots, 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.

1 | Register Products

Register your Humminbird equipment so that you will receive the latest Humminbird news, including accessory compatibility and software update information.

1. Go to our Web site at **humminbird.com**. Select Support > Register your Product.

2. Follow the on-screen prompts to register your products.

2 | Back up Control Head Data

Before the control head software is updated or restored to system defaults, it is important to back up your control head data files (including navigation data and screen snapshots) and menu settings to an SD card.

Export Data and Menu Settings

Use the instructions in this section before you restore the control head defaults or update software.

1. Install the SD card into the control head card slot.

2. Press the HOME key.

3. Select the Files tool.

4. Under Export, select Nav Data.

5. Follow the on-screen prompts.

6. **Select a Save Location:** Save to the SD Card.

7. Repeat steps 4 and 5 to export Menu Settings and Radar Installation settings (if applicable to your installation).

8. **Networked Units:** Repeat the steps in this section on each control head.

Vertical Slot:
Insert the SD card with the label facing left.

Horizontal Slot:
Insert the SD card with the label facing up.

📝 **NOTE:** If you want to use the data files and menu settings on your control head after it has been updated, you can import them from the Files tool.
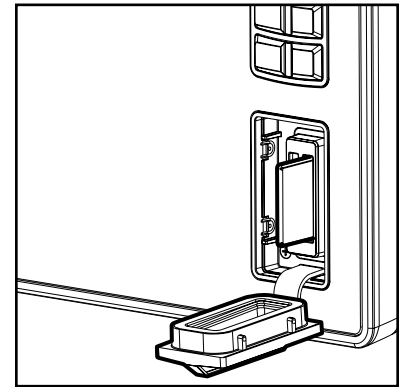
Copy Internal Images

If you have screen snapshots saved to the control head, use the following instructions to copy them to an SD card.

1. Install the SD card into the control head card slot.

2. Press the HOME key.

3. Select the Images tool.

4. Under Source, select Internal.

5. Press and hold one of the screen snapshots.

   OR

   Use the Joystick to select a screen snapshot. Press the MENU key.

6. Select Copy All.

7. **Select a Save Location:** Save to the SD Card (left slot = SD Card 1, right slot = SD Card 2).

8. Repeat the steps in this section on each control head.

3 | Check the Current Software Version

It is helpful to review the software version number that is currently installed on the control head and each accessory.

APEX

1. Press the HOME key.

2. View the Software Version listed under System Info in the Data Dashboard.

SOLIX

1. Press the HOME key.

2. Select Setting > Network > Network Info.

3. The Network Info dialog box shows a section for each device connected to the network. Scroll to each section to note the software version number listed.

4 | Download Software Updates

1. Install the SD card into the PC card slot.

2. Go to **humminbird.com**, and click Support > Software Updates.

3. The available software updates are listed as **Downloads** under each product.

   - Under Downloads, click the file name. Confirm the file name is for your control head model.

   - Read the instructions in the dialog box and select Download.

   - Follow the on-screen prompts to save the software file to the SD card.

4. Repeat step 3 to download the software updates posted to each product.

5 | Update Control Head Software

Supplies: In addition to your Humminbird equipment, you will need a PC with Internet access and a blank SD or microSD card (depending on your control head model).

When you install the SD card with the software file, the control head will detect the update and provide an automatic prompt to install the software. You can follow the prompts or choose to install the software at a later time through the Files tool. It is important to review the following tips:

- **Automatic Restart:** The control head will restart during the software update process.

- **Multiple Control Heads:** If you have more than one control head on the network, go to each control head to install the latest software update. Control Head software updates cannot be updated through another networked unit.

   ⚠ **WARNING!** Before the control head software is updated or restored to system defaults, export your menu settings, radar settings, and navigation data. Copy your screen snapshots to an SD card. See *Register Products and Back up Control Head Data* for details.

Update Software Automatically

1. Press the POWER key. Follow the on-screen prompts to start normal mode on the control head.

2. Install the SD card with the software file(s) into the control head card slot.

3. A dialog box will display to start the software update.

   To start the control head software update, select Install. When SUCCESS is displayed, the software update is finished. If you have accessories to update, proceed to *Update* Accessories. If you don't have any other software updates to install, power off the control head, and restart it.

   OR

   To update the software at a later time from the Files tool, select Cancel. If you select Cancel, see *Update Software from the Files Tool* in this section.

Update Software from the Files Tool

1. Install the SD card with the software file(s) into the control head card slot.

2. Press the HOME key.

3. Select the Files tool.

4. From the Software Update tab, scroll to This Unit.

5. Confirm that the most current version of software is selected from the list. Select Install Now.
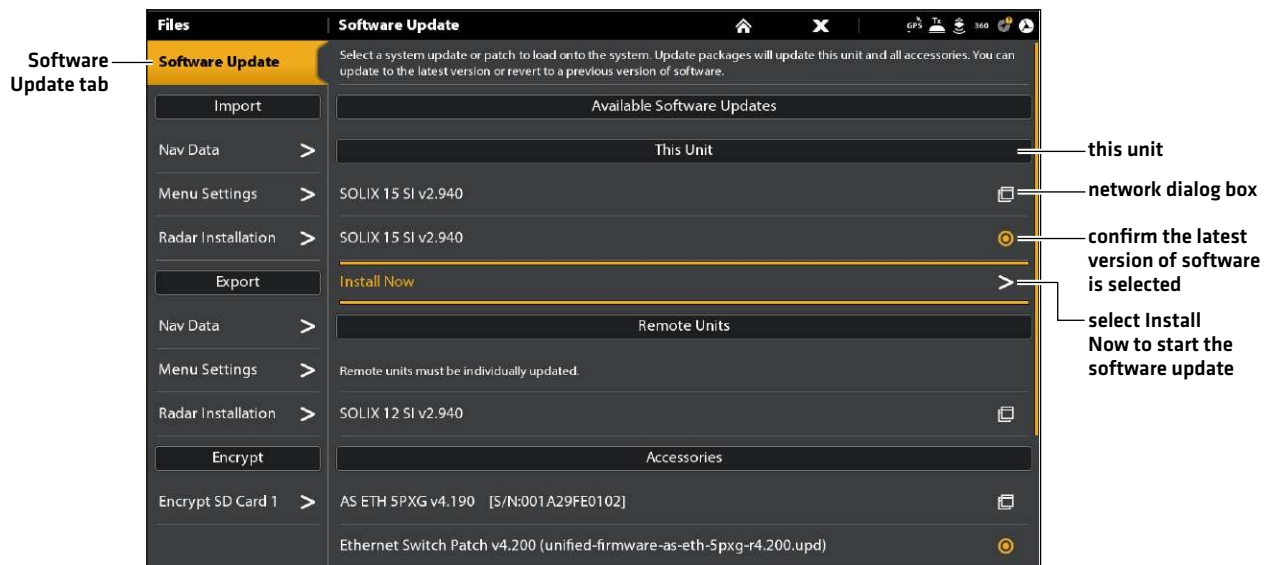
6. When SUCCESS is displayed, the software update is finished. If you have accessories to update, proceed to *Update Accessories*. If you don't have any other software updates to install, power off the control head, and restart it.

Update Software from the FishSmart App

You can use the FishSmart App to download and push software updates directly to your Humminbird control head or accessory.

> **NOTE:** You must first download the FishSmart App and pair your mobile device to your control head.

1. Open the FishSmart App on your mobile device.

2. Tap Networks + Updates.

3. In the My Network tab, tap Update next to the selected unit. The download progress is displayed on the screen.

4. Tap Transfer next to the selected unit once the download is complete.

5. Confirm the estimated transfer time.

6. Tap the checkbox to select where to upload the software update (internal storage, card slot 1, or card slot 2).

7. Tap Transfer. The upload progress is displayed under the selected unit in the My Network screen in FishSmart and in the System Status view on the control head.

8. Follow the on-screen prompts on the control head to complete the software installation.

---

6 | Update Accessories

Accessory software is updated from the Files tool, and the process is similar to updating the control head software. It is important to review the following tips:

▪ Update the control head and accessories in the order they appear on the software update list in the Files Tool. **Sonar Black Boxes (SM3000)** and **Ethernet Switches** must be updated individually on the software update list.

▪ If an accessory is not displayed on the list, confirm it is detected on the network (Settings > Network > Network Info). Also, confirm the cable connections are secure.

▪ You might notice that the control head will restart during the software update. This is part of the update process.

▪ The **i-Pilot Link** has separate software updates for the controller and remote. After the software is updated on the control head, you must go to the remote and initiate the download of the remote software to the remote itself. See your i-Pilot Link manual for details.

⚠ **WARNING!** Before the control head software is updated or restored to system defaults, export your menu settings, radar settings, and navigation data. Copy your screen snapshots to an SD card. See *Register Products and Back up Control Head Data* for details.

Update Accessories from the Files Tool

1. Install the SD card with the software file(s) into the control head card slot.

2. Press the HOME key. Select the Files tool.

3. From the Software Update tab, scroll to the first accessory in the list.

4. Confirm that the most current version of software is selected from the list. Select Install Now.

Software Update tab

confirm the latest version of software is selected
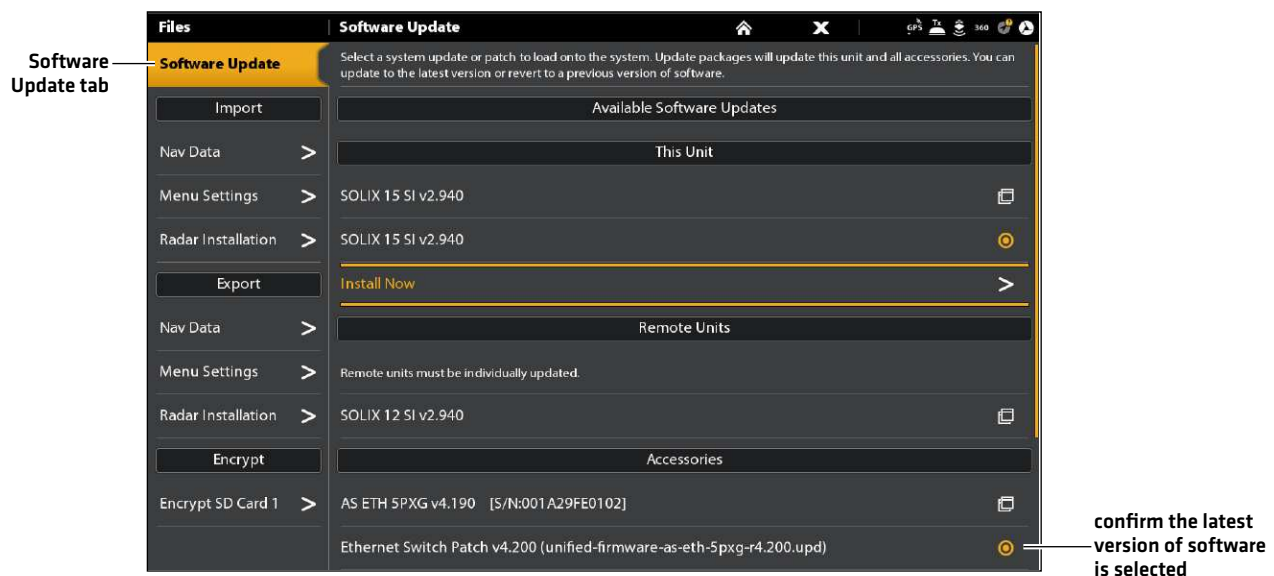
5. When the software update is finished, scroll to the next accessory update in the list (if applicable), and repeat step 4.

6. **Entire System Restart:** After all software has been updated, power off all control heads and connected equipment. Wait 10 seconds, and then power on all equipment.

THE HOME SCREEN

The Home screen is the main control center for your control head. Use the Home screen to access the control head settings, navigation data, views, alarms, and other tools.

- The tools, views, and side bar widgets available on the Home screen are determined by the equipment attached to the control head network.

- The Home screen wallpaper (background) can be customized using the Images tool.

- Pair your Bluetooth capable control head and mobile device to receive text message and phone call alerts on your Home screen.

- The APEX Home screen and tool menus includes an additional Data Dashboard that displays your connected phone, control head system information and standard data box readouts.

Open the Home Screen

Touch Screen

1. With a view displayed on-screen, touch the screen with two fingers and swipe down.

Keypad

1. Press the HOME key.

The APEX Home Screen

Swipe down to open from any view

OR

Press the HOME key

The SOLIX Home Screen

favorite views widget

Bluetooth notifications (with paired mobile device)

time and date

SIDE BAR widgets

TOOLS

customizable Home screen wallpaper (background)

select to view additional tools

OR

Swipe down to open from any view

Press the HOME key

Navigate the Home Screen

See the instructions and screenshot below to better understand the Home screen layout.

Touch Screen

Open a Tool: Tap the tool icon.

Open a Widget: Tap the widget icon (in the side bar).

View Additional Tools: Tap All Tools (SOLIX only).

Close (return to the previous view): Tap the X icon in the status bar.

Keypad

Select (Open): Use the Joystick to select a menu, tool, or widget. Press the ENTER key to open it.

Open a Widget: Press the PANE key. Use the Joystick to select the widget icon and press the ENTER key to open it.

View Additional Tools: Use the Joystick to select All Tools. Press the ENTER key. (SOLIX only)

Close (return to the previous view): Press the EXIT key.

Opening a Tool (SOLIX)

OR
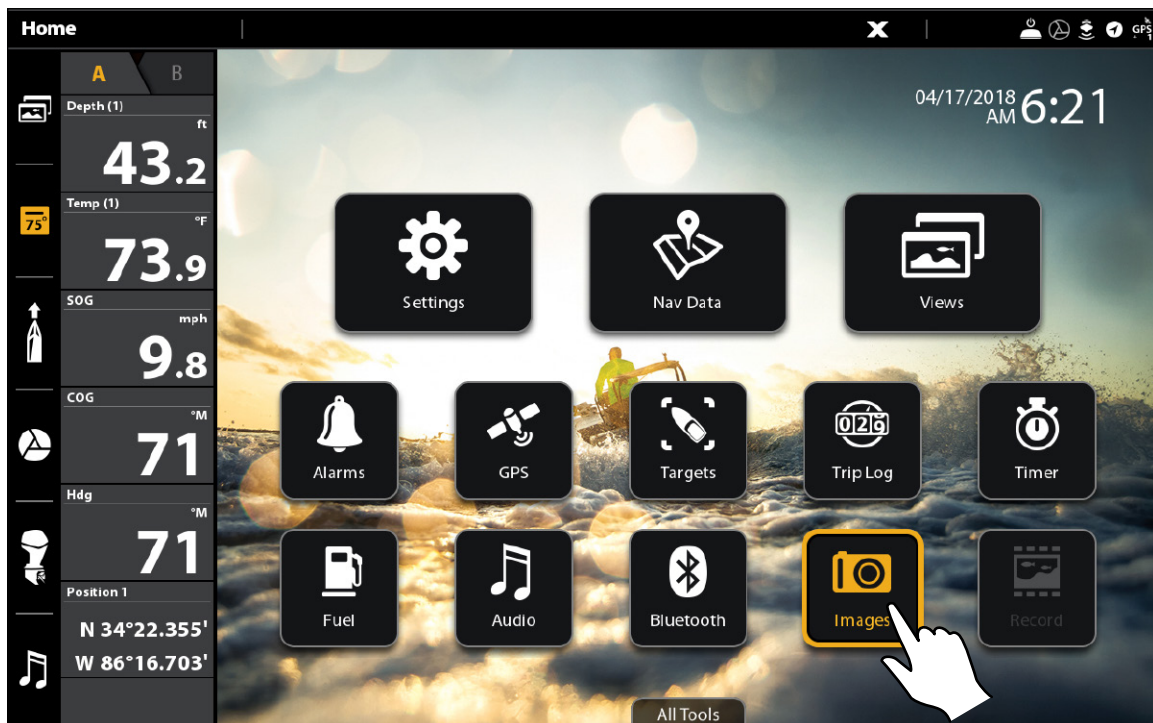
| Tap to Select (Open) | Select | Open |

Tools

Tools allow you to manage the control head network operations and saved data. When you connect an accessory to the control head, a related tool may also be displayed.

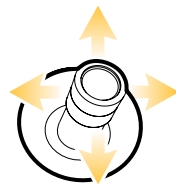|	
Settings	Select **Settings** to change general system settings such as the backlight, units of measurement, and the time and date format. You can also use this menu to change the main settings for each application (Sonar, Chart, Radar, etc.). See each related section of this manual for details.
Nav Data	Select **Nav Data** to manage your saved waypoints, routes, tracks, and groups. You can create new navigation data from this screen, edit your saved navigation data, or start navigation (see *Manage your Navigation Data*). **Required Equipment:** GPS receiver (internal or external)
Views	Select **Views** to access the complete set of views available on your control head. You can edit views, create your own views, and save your favorite views. See *Views* for more information.
Alarms	Select **Alarms** to view the alarm log, mute alarm sounds, and set the alarms for the individual applications. To set up individual alarms for navigation, sonar, radar, AIS, etc., see each related section of this manual for details. For example, for radar alarm settings, see *Radar Alarms*.
GPS	Select **GPS** to review the signal strength of the GPS receivers ("sensors") connected to the system. The tool shows the satellites in the area, the positions, and the signal strength for each one. You can also designate a primary and secondary GPS source from this tool. See *Getting Started, Installation Information*, and *Set up your Humminbird Network*. **Required Equipment:** GPS receiver (internal or external)
Targets	Select **Targets** to manage AIS and MARPA targets. See *AIS and MARPA* for more information. **Required Equipment:** AIS or Radar, GPS receiver (internal or external), and compass/heading sensor
Trip Log	Select **Trip Log** to display Speed over Ground (SOG), timer for elapsed time, distance traveled since last reset, average speed, and trip fuel. You can also reset the trip log to zero and review trend data from this tool. **Required Equipment:** GPS receiver (internal or external)
Timer	Select **Timer** to set an alarm clock for a selected time of day, use the countdown timer, or use the stopwatch. You can set more than one alarm clock.
Fuel	Select **Fuel** to review the fuel log for NMEA 2000 fuel sensors connected to the network. This tool provides refuel alerts and displays the fuel level in graphical form. See *Set up a NMEA 2000 Network* for details. **Required Equipment:** NMEA 2000 tank sensor and/or fuel flow rate sensor
Audio	Select **Audio** to listen to AM/FM radio or audio files saved to a USB stick, iPod, etc. **Required Equipment:** compatible audio system

Bluetooth	Select **Bluetooth** to pair your mobile phone and/or Bluetooth wireless remote (separate purchase required) to the control head. You can also assign key functions for the Bluetooth remote from this tool. See your installation guide for details. To pair your mobile phone to the control head, see *Getting Started*. **Required Equipment:** mobile phone (with Bluetooth), Bluetooth remote
Images	Select **Images** to manage your screen snapshots. When a screen snapshot is taken, a waypoint can also be saved at the current position. You can also choose to save the image on the control head or to an SD or microSD card. Also, screen snapshots and pictures from your camera's SD card (JPG Files) can be displayed as the Home screen wallpaper and in a slideshow from this tool. See *Getting Started and Images Tool* for more information.
Record	Select **Record** to start a sonar recording or select a save location. You can also watch a sonar recording from the perspective of a 2D, SI, or DI View, depending on the capabilities of your model. See *Sonar Recording* for more information. **Required Equipment:** transducer, black box sonar
Sun + Moon	Select **Sun + Moon** to review the sunrise and sunset for today or the date you select. The Moon data provides the rise and set of the moon and moon phases. **Required Map Source:** Navionics or CoastMaster VX.
WiFi	Turn on personal hotspot, and set network name and password.
Files	Select **Files** to update the software for the control head or connected accessories. You can also import and export navigation data from this tool, and you can import and export menu settings. Radar installation settings can be managed from this tool, but only authorized radar technicians should use this menu. See the following sections: *Manage your Navigation Data* and *Manage your Control Head.* **Required Equipment:** SD or microSD card (depending on your control head model)
Setup Guide	Select **Setup Guide**, and the control head will guide you through the basic configuration settings for your control head, including units of measurement, language, transducer source, map source, and vessel settings. See your installation guide for details. To change the settings after setup, select Home > Settings.
Tides	Select **Tides** to review information for the nearest tide station to your present position. The tool 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 also search data for a selected date. **Required Map Source:** Navionics or CoastMaster VX.
Currents	Select **Currents** to review information for the nearest current station to your present position. 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 also search data for a selected date. **Required Map Source:** Navionics or CoastMaster VX.

Side Bar Widgets

The side bar includes widgets that allow you to quickly access your favorite views, data bars, and digital remotes for networked accessories, like i-Pilot Link, Talon and Raptor.

The side bar is set to always display on the Home screen, but it can be hidden in other views. See *Edit the On-Screen View: Turn the Side Bar On/Off*.

Opening a Widget

engine data widget

selected data box (highlighted in yellow)

submenu with additional data boxes

selected widget

Settings   Nav Data   Views

Alarms   GPS   Targets   Trip Log   Timer

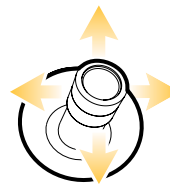Fuel   Audio   Bluetooth   Images   Record

All Tools

OR

| Tap to Select (Open) | Select the Side Bar | Select a Widget | Open |

Available Side Bar Widgets

When you connect an accessory to the control head, a related widget may also be displayed in the side bar.

If you have connected an accessory to the control head, and the icon is not displaying in the system status bar, check the installation of the accessory and the cable connection to the control head.

Widget Icon	Name	Widget Function
	Favorite Views	Allows you to create a list of your favorite views. There are two tabs, which allow you save up to 10 views. Use the widget to quickly display your favorite views (see *Views*).
	Data Bar	Displays the standard Data Bar with data box readouts. There are two tabs and each data box can be customized (see *Views: Understand the Data Box Digital Readouts*).
	Navigation Data Bar	Displays the Nav (Navigation) Data Bar with digital readout boxes for navigation. There are two tabs and each data box can be customized (see *Views: Understand the Data Box Digital Readouts*). *With a connected i-Pilot Link, this selection will display the i-Pilot Link Navigation Data Bar.
	i-Pilot Link*	Displays the i-Pilot Link digital remote.
	Talon*	Displays the Talon digital remote, which includes quick access menus to deploy and retract the Talon, change the anchor mode, turn the work light on/off, etc.
	Raptor*	Displays the Raptor digital remote, which includes quick access menus to deploy and retract the Raptor, change the anchor mode, change the speed, etc.
	Cannon*	Displays the Cannon digital remote, which includes quick access menus to select the active downrigger, select depth presets, change the cycle mode, etc.
	Digital Switching*	Displays the digital switch panel for your boat. Use this widget to quickly access settings for your boat's electrical and connected systems, such as lights, fans, horns, bilge, etc. See our Web site for compatibility information.
	Engine Data*	Displays engine data from the connected NMEA 2000 network. Some data boxes include built-in submenus to view additional data.
	Audio*	Displays the audio settings for a connected audio accessory.

*separate purchase accessory

Status Bar

The status bar is located at the top of the screen. It changes to match the on-screen view and operation mode.

In the following illustration, the information in the status bar corresponds with the Chart View displayed on-screen. You can tap the icon in the status bar to open a menu, return to the Home screen, close a menu, or make a selection. You can also use the corresponding keys.

Status Bar

touch menus change to match the on-screen view and status

sensor status

Chart   N-Up   2D   AC Live

Tap, or press the MENU key, to open the
X-Press Menu for the on-screen view.

Tap, or press the POWER key,
to open the Power X-Press Menu

Chart View Status Bar Menus

Chart View Status Bar Menus

chart orientation   chart mode   AutoChart Live   center vessel   show cursor

Chart   N-Up   2D   AC Live

Tap, or press the MENU key,
to open the X-Press Menu.

Sonar View Status Bar Menus

Sonar View Status Bar Menus

sonar display frequency   SwitchFire™   sonar colors   zoom

Sonar (DI)   MEGA

Tap, or press the MENU key,
to open the X-Press Menu.
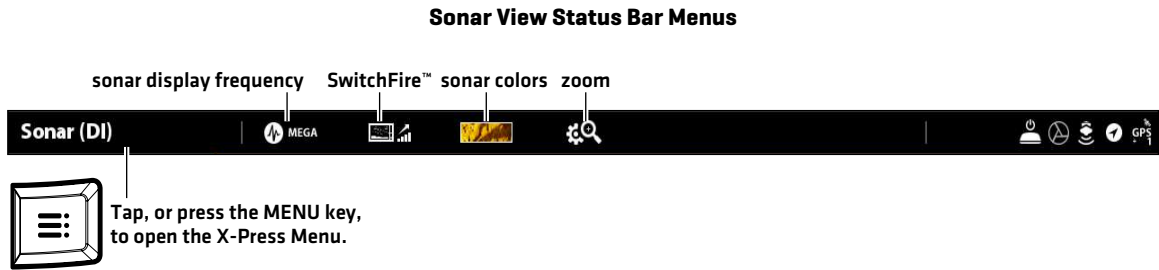
Wallpaper

The background display, or wallpaper, for your Home screen can be customized. Choose from the existing selection of Humminbird wallpaper images or from your own saved images (on the control head or uploaded from an SD or microSD card).

Set the Home Screen Wallpaper:

1. Press the HOME key.

2. Select Images.

3. Under Wallpaper, select Images. Tap an image to set it as the Home screen wallpaper.

   OR

   Select your Saved Image: Under Source, select Internal, SD Card (1), or SD Card (2). Use the Joystick to select the image and press the MENU key. Select Set As Wallpaper and press the ENTER key.

Setting the Home Screen Wallpaper

currently displayed wallpaper
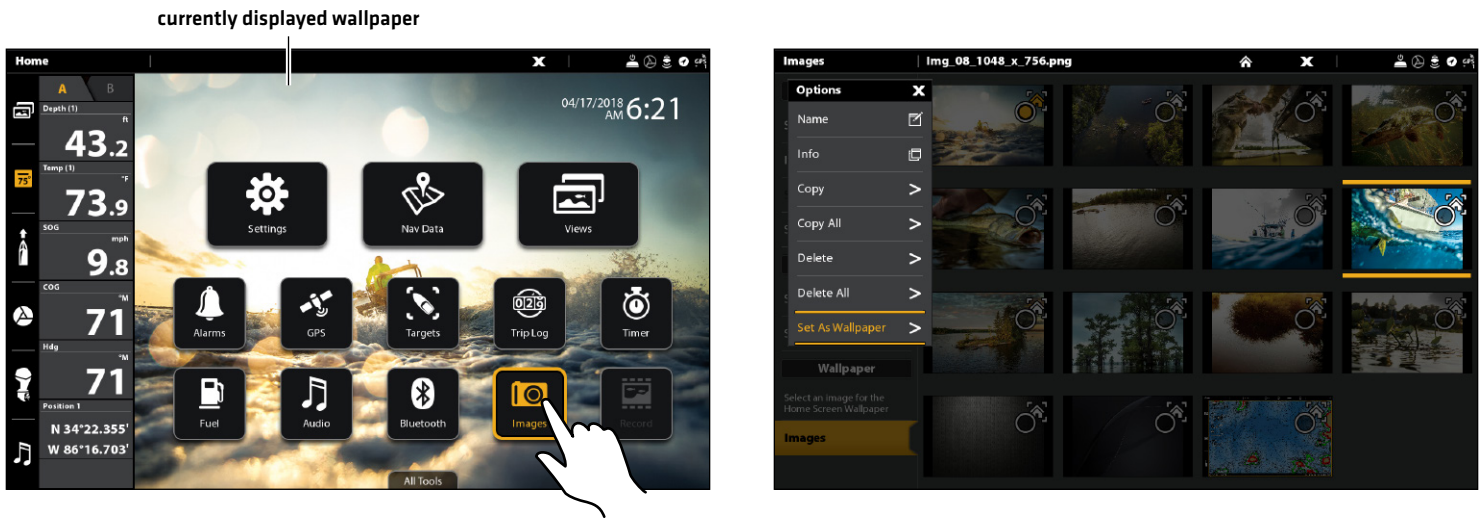
Tap to Select (Open)   OR   Select   Open
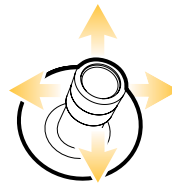
The Menu System

The APEX/SOLIX provides menu options that change with the application, on-screen view, and the operations mode.

Open Settings

The Settings tool provides main menu settings for the control head.

1. Press the HOME key.

2. Tap Settings.

    OR

    Use the Joystick to select Settings. Press the ENTER key.

Selecting Settings

Navigation Main Menu

OR
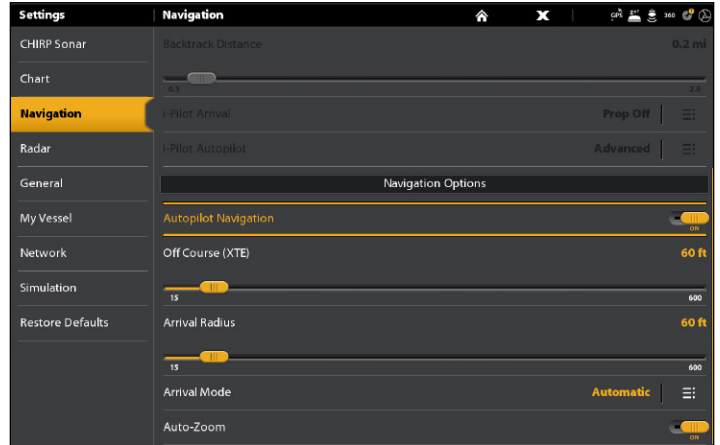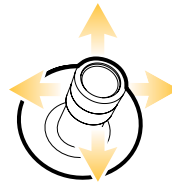
Tap Settings   **Select Settings   Open**

Additional Keypad Option
With a view displayed on-screen, press the MENU key twice, or press and hold the MENU key.

Open an X-Press Menu

The X-Press Menu displays menu options for the on-screen view and operation mode (such as navigation). In a multi-pane view, the X-Press Menu options are determined by which pane is selected. See *Views* for more information.

Open an X-Press Menu

1. With a view displayed on-screen, tap the view name in the status bar.

   OR

   Press the MENU key.

Open an X-Press Menu in a Multi-Pane View

1. With a Multi-Pane View displayed on-screen, tap a pane.

   OR

   Press the PANE key to select a pane.

2. Tap the pane name in the status bar, or press the MENU key.

Opening an X-Press Menu for a Selected Pane

OR
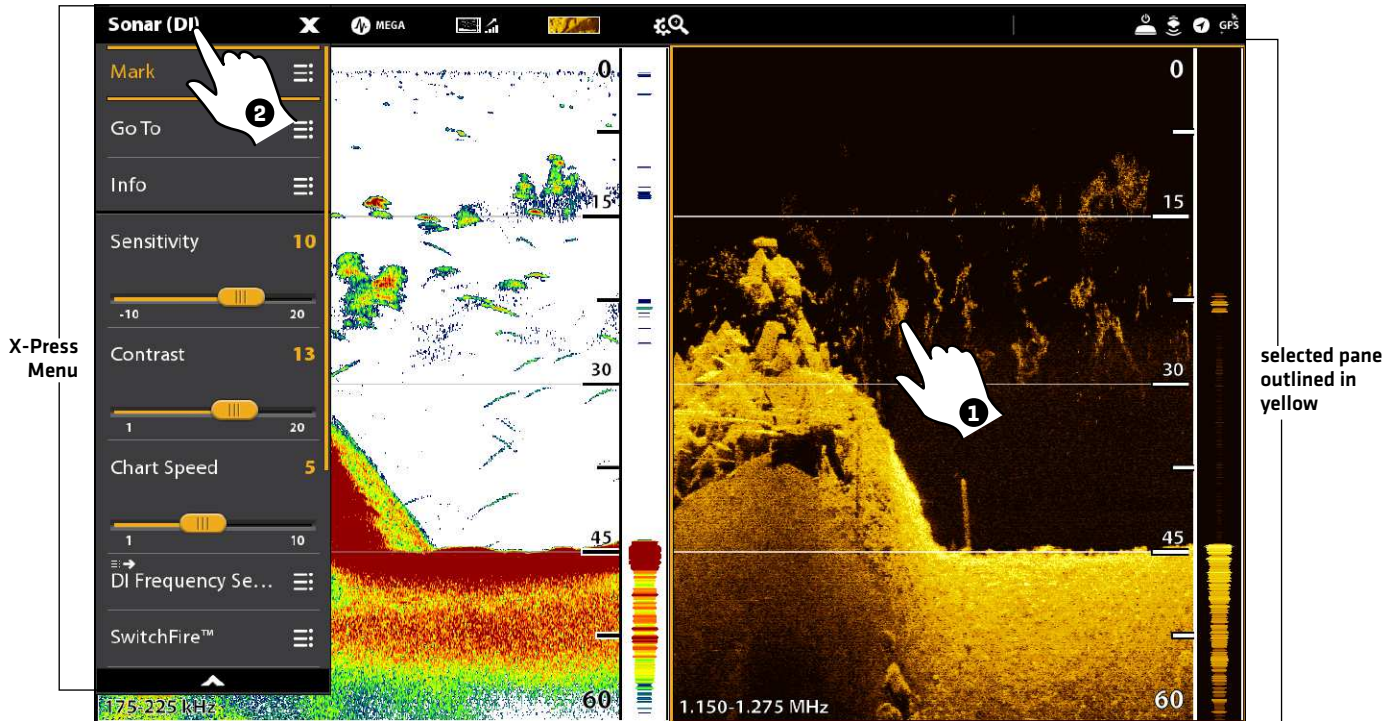
Tap to Select a Pane and the Menu

Press to Select a Pane   Press the MENU key
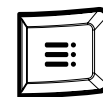
Change a Menu or Start an Action

Use the following instructions to change a menu setting or start an action through the menu system.

1. Tap a menu category, or use the Joystick to select it.

2. Tap a menu option, or use the Joystick to select it.

3. Adjust the setting or start an action using the touch screen or keys. See *Tips for Changing a Menu*.

Settings Tool: Navigation Main Menu
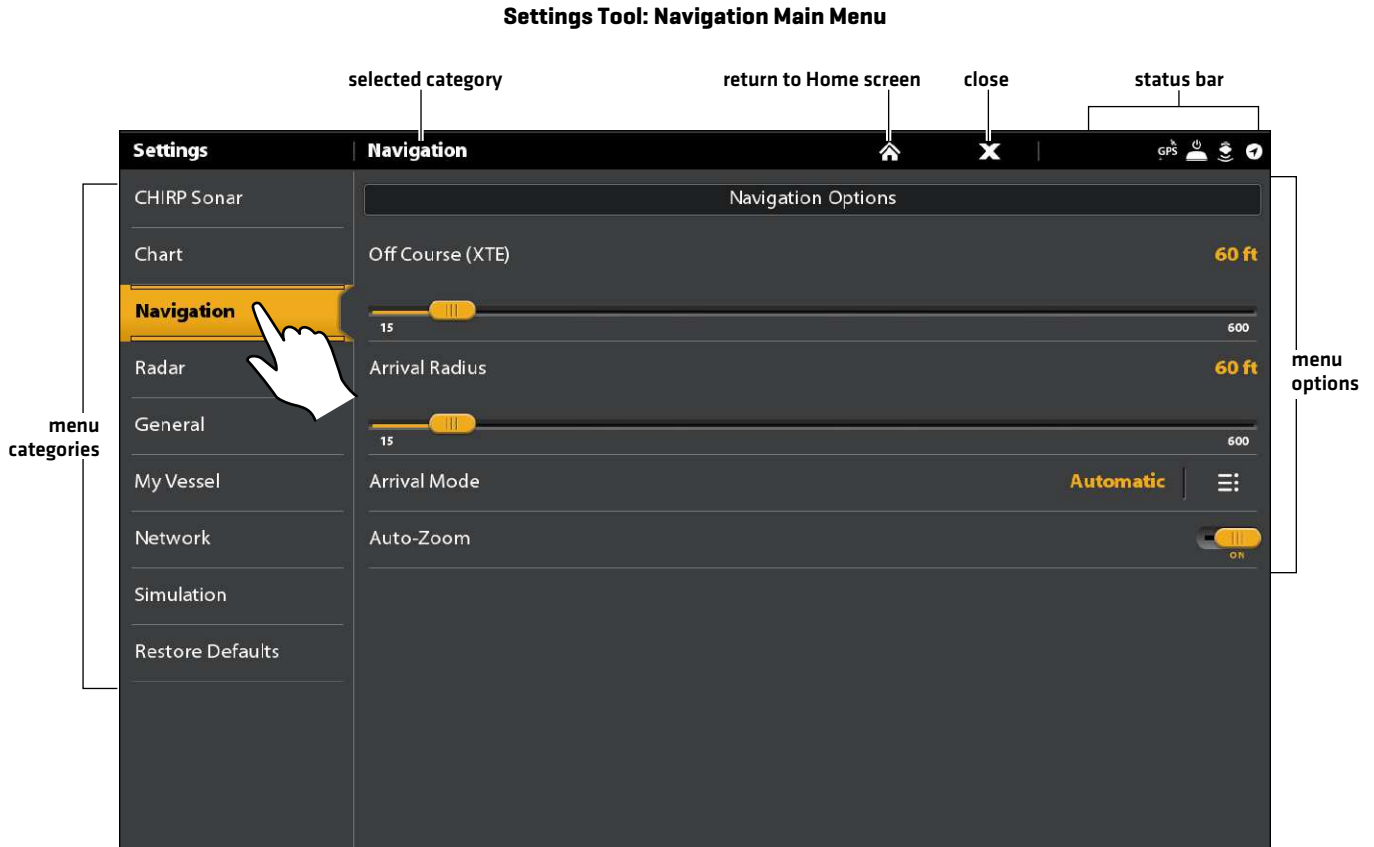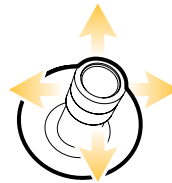
Tap to Select   OR   Select   Open

Tips for Changing a Menu

This section describes the different types of menus in the menu system and how to change them using the touch screen or keypad.

Action (>)

Touch Screen

Quick Route >

Tap
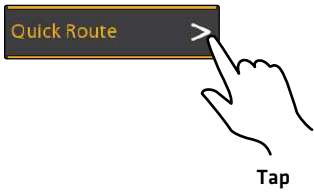
Keypad

Press

On/Off Button

Touch Screen

Global Settings

Tap
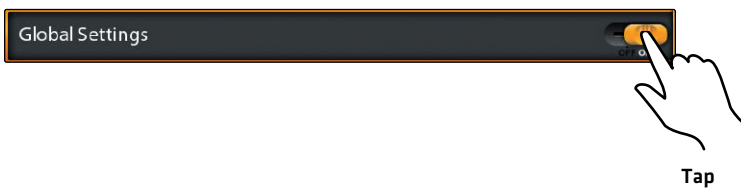
Keypad

Press

Slider

Touch Screen

Backlight   10

1   10

Press and Hold **OR** Slide
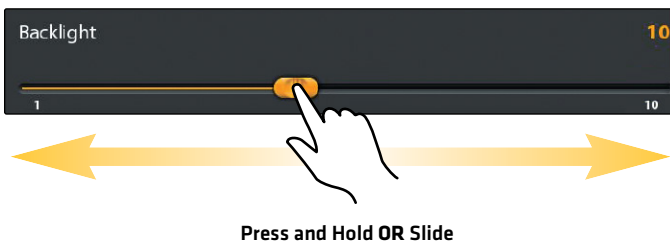
Keypad

Turn   **OR**   Press and Hold

You can also use the Joystick to make selections.

Pick List or Check Box

Touch Screen

Map Source

Humminbird

Navionics

Navionics: Chart Card Info

Easy View

Tap
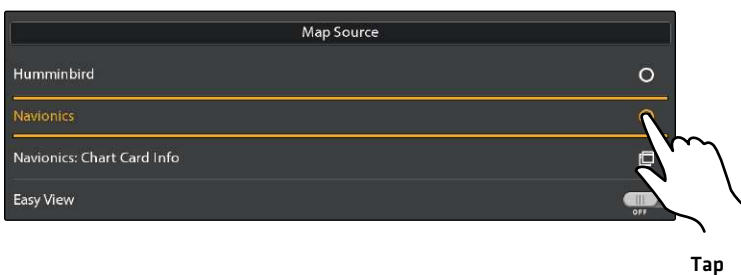
Keypad

Press
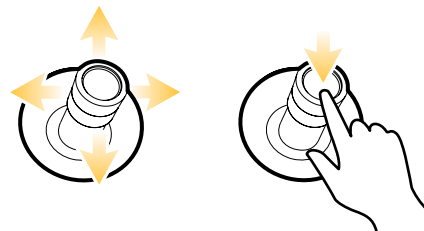
You can also use the Joystick to make selections.

Tips for Using the On-Screen Keyboard

Use the on-screen keyboard to rename the control head in the network, edit your navigation data, and more.

arrows move the cursor right or left

name field

deletes a single character

starts a new line

uppercase

uppercase

deletes all text

saves changes

changes the keyboard language

space bar

numbers and symbols

OR

Tap to Select
a Character
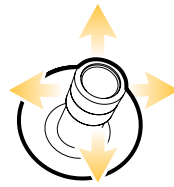
Highlight a
Character
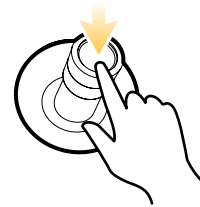
Press to Select
the Character

Close a Menu

When you close a menu, your settings are saved until you change them again or until the control head defaults are restored.

1. **Back:** Tap the Back icon ⮐ to close the current menu and go back one level in the menu system.

   OR

   Press the EXIT key.

2. **Close:** Tap the X icon ✖.

   OR

   Press the EXIT key. To close several menus at once, press and hold the EXIT key.

   > **NOTE:** The X icon is displayed in the status bar or at the top of a menu. The location will vary with the item displayed on the screen.

back   close
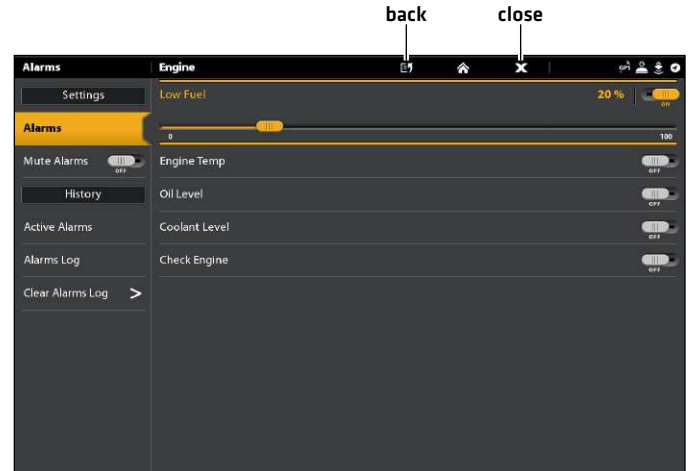
Change the User Mode

The APEX/SOLIX control head is automatically set to Angler Mode (recommended), which is configured with the best settings for a wide range of fishing conditions. To access in-depth customization menu options, set the user mode to Custom.

> **NOTE:** Export your menu settings and radar settings to an SD or microSD card before changing settings in Custom mode.

Change the User Mode

1. Press the HOME key.
2. Tap Settings.

   OR

   Use the Joystick to select Settings. Press the ENTER key.
3. Select General.
4. Under User Mode, select Angler or Custom.

VIEWS

There are many options to display data on-screen, and the data can be displayed in a variety of ways. You can open a view from the Views tool or from the Favorite Views widget (in the side bar). You can also create a new view, edit views, and customize your favorite views list.

Display a View from the Views Tool

The Views tool includes the complete database of available views for your control head. Use the Views tool to create a new view and edit a view.

1. Press the HOME key.

2. Select the Views tool.

3. Select a Group. To see all available views, select All.

4. Tap the View.

   OR

   Use the Joystick to select a view. Press the ENTER key to display it on-screen.
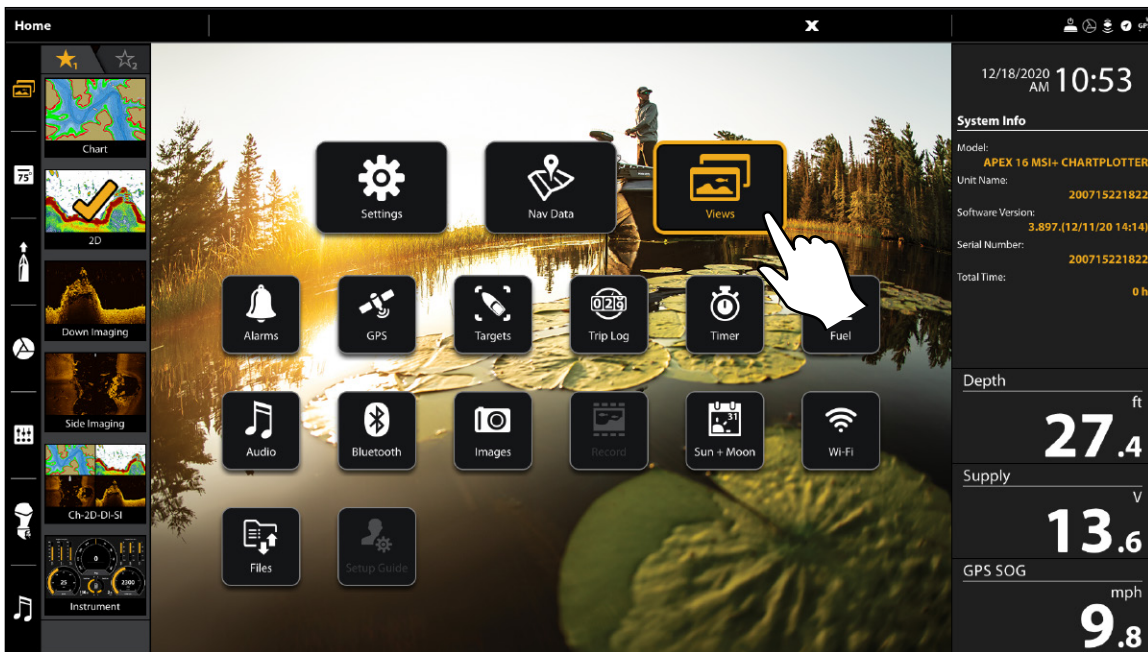
Tap to Select   **OR**   **Select**   **Open**
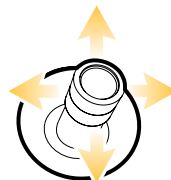
Views Tool

selected group | star = favorite | return to Home screen | close | status bar

groups

Options:
select to create
a new view

available views

Tap to Select

OR
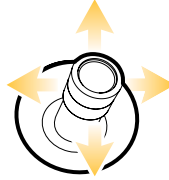
Select

Open

Display a View from the Favorite Views Widget

Touch Screen

1. Tap the views widget icon in the side bar.

2. Tap a view to display.

Keypad

1. Press the Rotary dial.

2. Use the Joystick to select a view to display. Press the ENTER key.

Opening a View from the Favorite Views Widget

Tap to Select (Open)	Open	Select	Display

OR
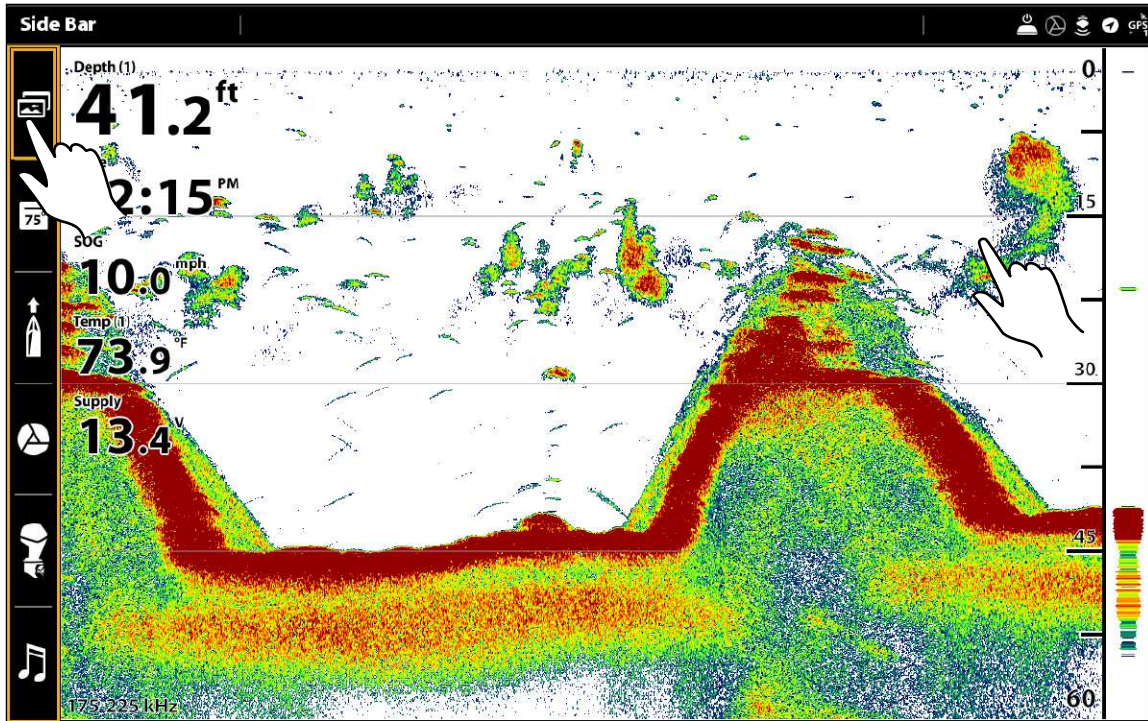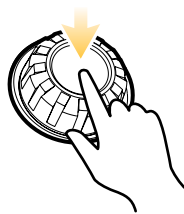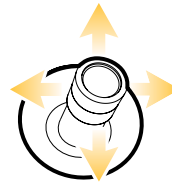
Save a View to the Favorite Views Widget

1. Press the HOME key.

2. Open the Views tool.

3. Select a view to display.

4. Once the view is displayed, tap the Favorite Views widget in the side bar, or press the Rotary dial.

5. Select the position in the Favorite Views list to save the displayed view. Press and hold an existing Favorite View to replace it, or tap the plus icon to save the new view to an open box (save up to 12 views on APEX or 10 views on SOLIX).

EDIT THE ON-SCREEN VIEW

You can edit a view from the Views tool or from the view that is displayed on the screen. When you edit a view from on-screen, the View Options menu provides additional editing options.

🔲 **Global:** To appy changes to all views in the same category, turn on Global. To apply changes to the on-screen view exclusively, turn off Global.

The menu options in Data bar, Options, Preferences, and Overlays change to match the on-screen view. The menu options are described in detail in each section. For example, for Sonar Overlay settings, see *Sonar Overview.*

Change the View Appearance (Preferences)

Use the Preferences menu to change the appearance of the display. The menu options are determined by the type of view on-screen, and there are many options for each view. For example, in a Sonar View, you can choose the palette, turn on Fish ID+, display or hide the Real Time Sonar Window, and more.

1. With a View displayed on-screen, tap the view (or pane) name in the status bar, or press the MENU key once.

2. Select Options. For example, in a Sonar View, select Sonar Options. In a Chart/Sonar View with the Chart pane selected, select Chart Options.

3. Select Preferences.

4. Use the touch screen or Joystick to select a menu and change a setting.

Changing the Sonar View Palette

preview window

menu   selection
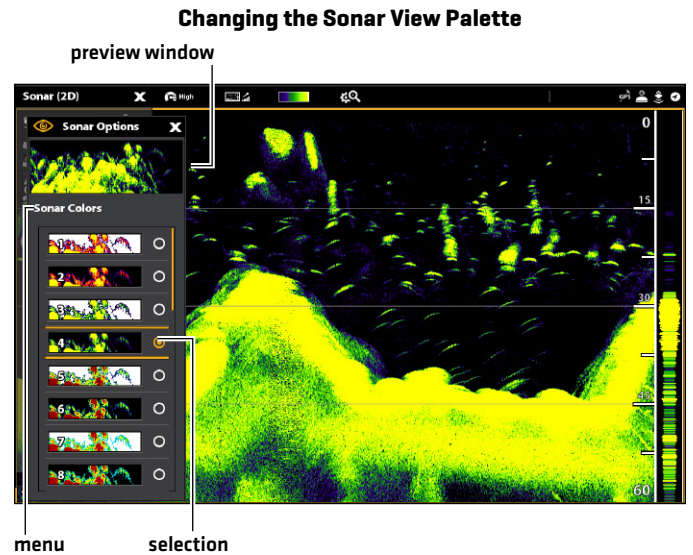
Change the View Overlays

Use the Overlays menu to display or hide information on the view. For example, in a Chart View, you can display or hide the vessel icon, and you can choose which navigation data (waypoints, routes, tracks, etc.) you want to display on the view.

1. With a View displayed on-screen, tap the view (or pane) name in the status bar, or press the MENU key once.

2. Select Options. For example, in a Sonar View, select Sonar Options. In a Chart/Sonar View with the Chart pane selected, select Chart Options.

3. Select Overlays.

4. Use the touch screen or Joystick to select a menu and change a setting. (check mark = visible, blank = hidden).

Choosing Overlays to Display on a Chart View
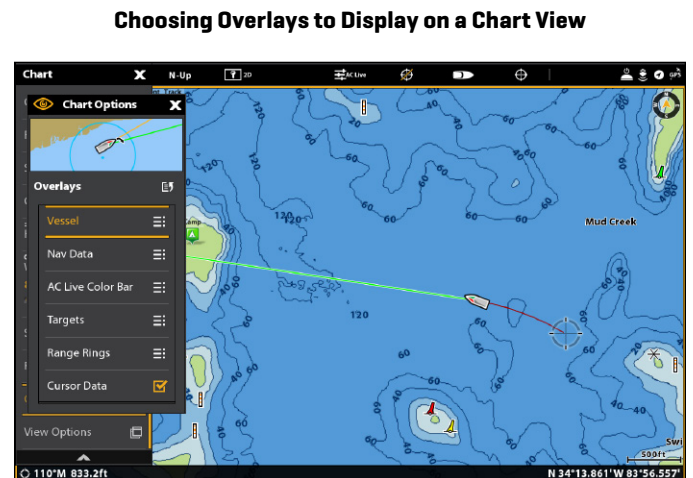
Display Data Overlays

Digital readout data can be displayed as an overlay, and it can be displayed in the data bar. To turn on the data bar, see the next section *Display a Data Bar*.

Display an Overlay on the View

1. With a View displayed on-screen, tap the view (or pane) name in the status bar, or press the MENU key once.

2. Select View Options.

3. Select Data Overlays.

4. **Turn On Data Overlays:** Select Overlay. Tap the on/off button, or press the ENTER key, to turn it on.

5a. **Select by Data Type:** Under System Overlays, select the type of data overlay (Sonar, Chart, Navigation, etc.).

   For example, to display navigation data like Heading, Course Over Ground (COG), Speed, etc., select Navigation.

5b. **Select by Overlay Position, Color, and Size:** Under System Overlays, select from Overlay 1 through Overlay 5.

Display Data Overlays
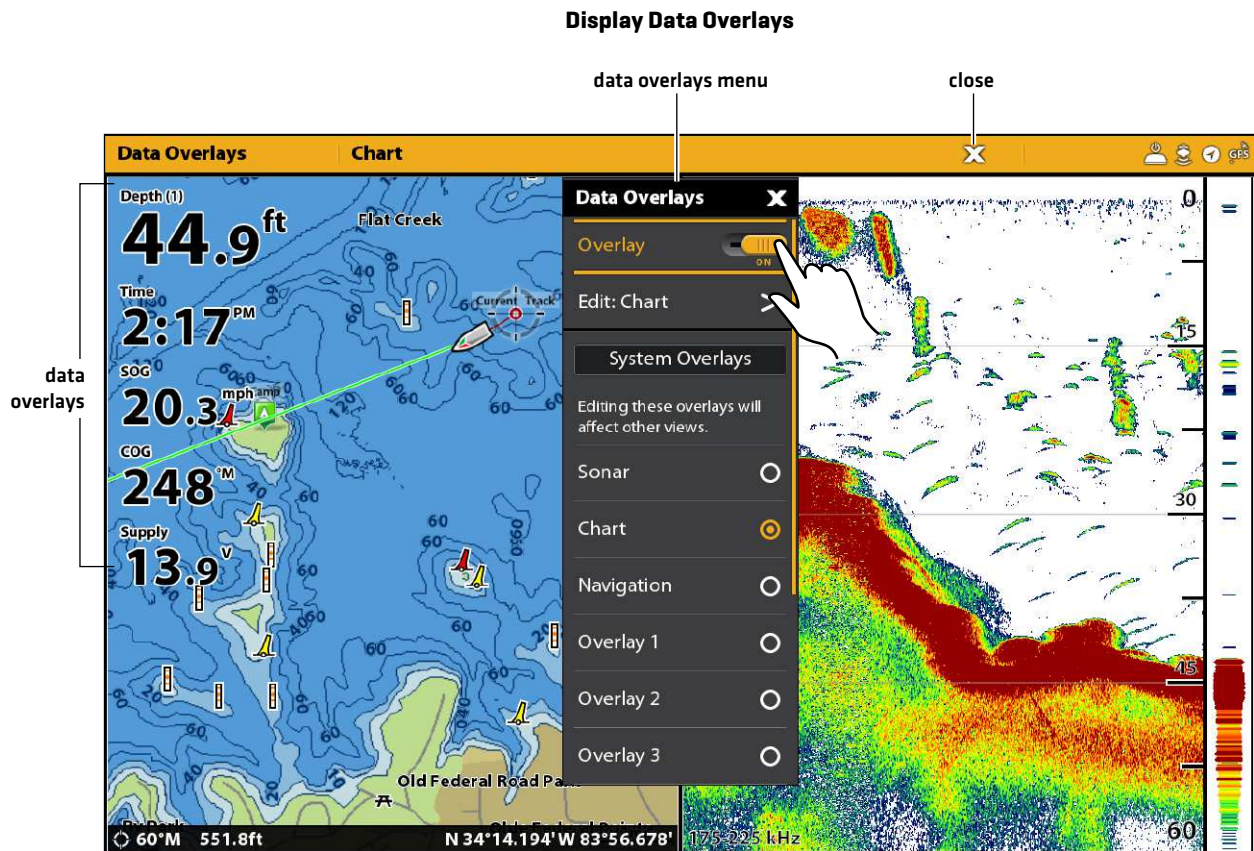
Change the Overlay Data

Use the following instructions to customize the data displayed in the data overlay. You can also change the overlay color, size, and position on the view.

1. Open the View Options menu.

2. Select Data Overlays.

3. Select the **Edit:** menu.

   For example, if you have the Sonar overlay displayed, select Edit: Sonar. If you have the Chart overlay displayed, select Edit: Chart.

   > **NOTE:** Any changes to the selected overlay will be applied to other views. To apply changes to the currently displayed view, select View Overlay from the Data Overlays menu (you may have to scroll to the bottom of the menu).

4. Select Edit Data.

5. Select an overlay position to change. Tap, or use the Joystick to select and press the ENTER key.

6. Select the new data category.

   To turn the readout off, select Readout > Off.

7. Select the data type.

8. Press the EXIT key.

9. **Repeat:** Repeat steps 5 through 8 to change more data overlays.

10. **Back:** Tap the Back icon to return to the previous menu.

    OR

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

Selecting an Overlay Position
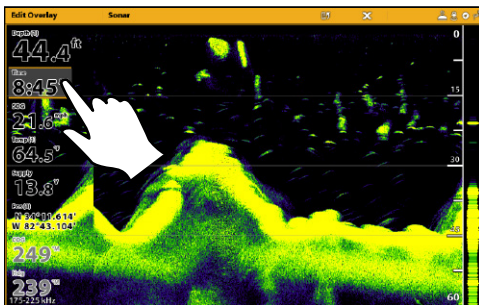
Selecting the Data Category
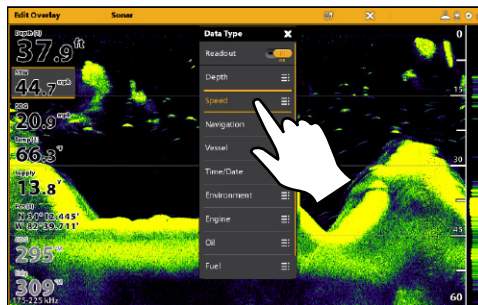
Selecting the Data Type
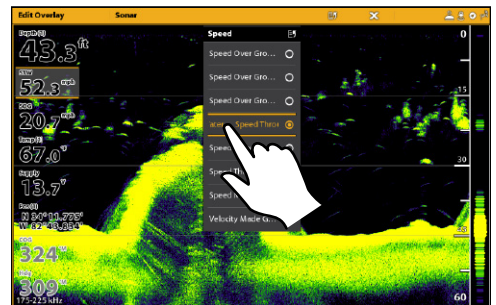
Turning an Overlay On/Off
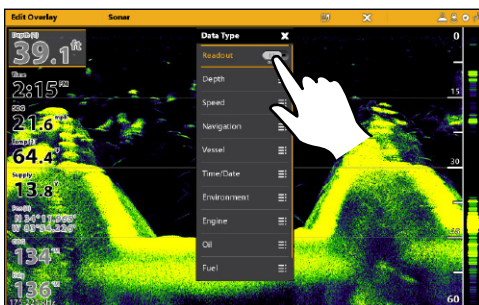
Change the Overlay Appearance

You can also change the overlay color, size, and position on the view.

1. Open the View Options menu.

2. Select Data Overlays.

3. Select the **Edit:** menu.

   For example, if you have the Sonar overlay displayed, select Edit: Sonar. If you have the Chart overlay displayed, select Edit: Chart.

4. Set the following menus to your preference:

Overlay Position	Change the position of the overlay on the screen.
Overlay Size	Change the font size.
Overlay Color	Change the font color.

5. **Back:** Tap the Back icon to return to the previous menu.

   OR

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

Display a Data Bar

Your control head allows you to choose a standard data bar or a navigation data bar with preset data boxes. If you attach additional accessories to the control head or network, additional data bar options may also be displayed. The data boxes in the data bar can also be changed.

Display a Data Bar

1. With a view displayed on-screen, press the PANE key once. In a multi-pane view, press the PANE key repeatedly until the menu displays.

2. Select the type of data bar (standard, navigation, i-Pilot Link, etc.) to display from the side bar.

   To keep the data bar displayed on the view, tap the pin icon at the bottom of the data bar.

   Close: Tap the X icon.

   NOTE: To display digital readouts as an overlay, see **Display Data Overlays**.

Displaying a Data Bar
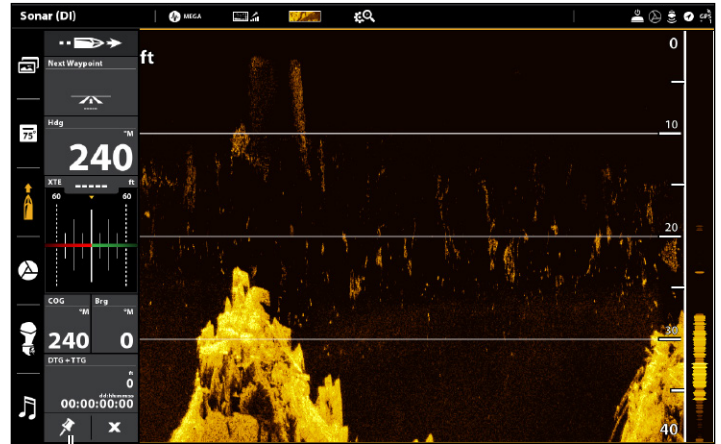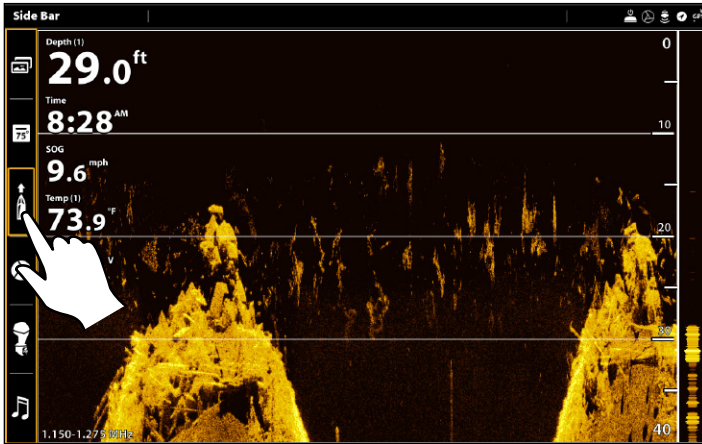
select to keep the data bar displayed (otherwise, it will automatically close)

Tap to Select (Display)   **OR**   **Open**   **Select**   **Display**
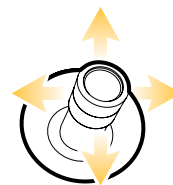
Data Bars with Multiple Tabs or Data Boxes

Some of the data bar options include multiple tabs and data boxes. The standard Data Bar and the Favorite Views widgets both use two tabs.

To open a second tab:

1. Tap the tab.

    OR

    Press the PANE key. Use the Joystick to select the tab, and press the ENTER key.

To open additional data boxes:

☰ If a data box contains three horizontal lines, it includes a submenu with additional data.

1. Tap on the lines, or select the data box and press the ENTER key.
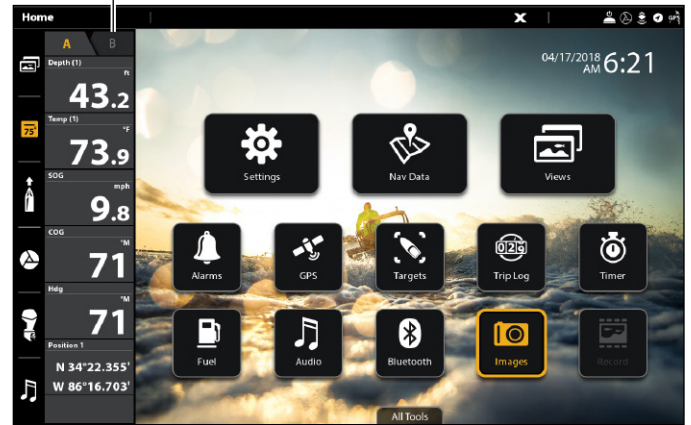
Opening a Submenu

select to access more data
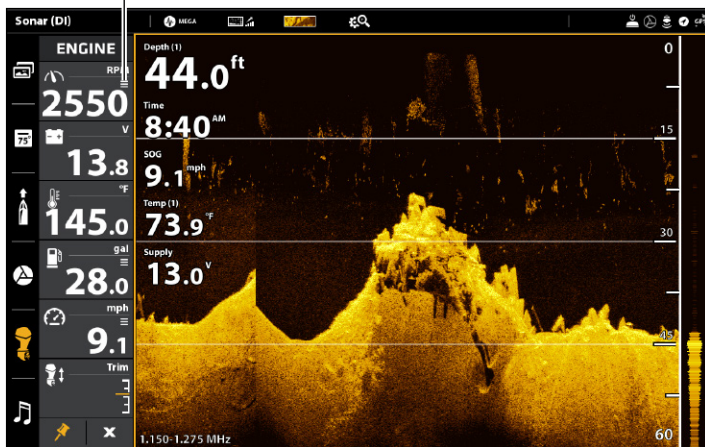
Returning to the Data Box Menu

back

OR
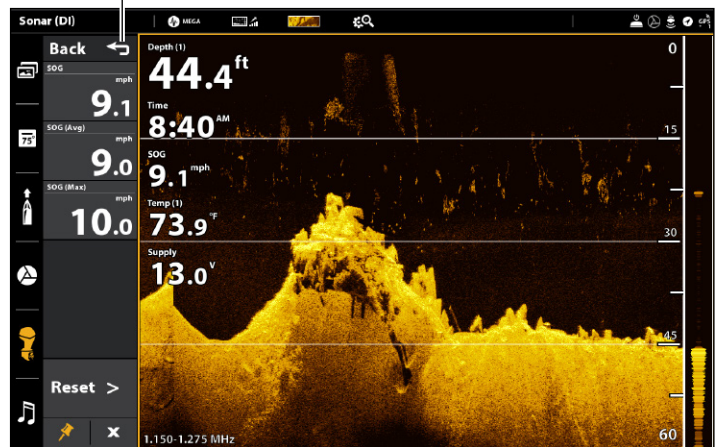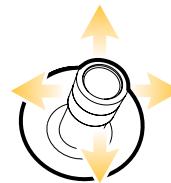
| Tap | | Open | Select | ENTER |

Change the Data Boxes

Use the following instructions to change the data boxes displayed in a data bar.

> 📝 **NOTE:** A data bar must be displayed to access the menu options in this section. See **_Display a Data Bar_**.

1. **View Options Menu:** With a view displayed on-screen, press the PANE key once. In a multi-pane view, press the PANE key repeatedly until the menu displays.

2. Select Edit Data.

3. To edit the Standard data bar, select Standard Data. To edit the Navigation data bar, select Navigation Data.

   Global (Optional): To apply the changes to all views using the data bar, turn on Global. To apply changes to the on-screen view exclusively, turn off Global.

4. Use the Joystick to choose a data box. Press the Joystick to select it.

5. Select a data type from the menu.

6. Select a data label.

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

Selecting a Data Box	Selecting the Data Type	Selecting the Data Label
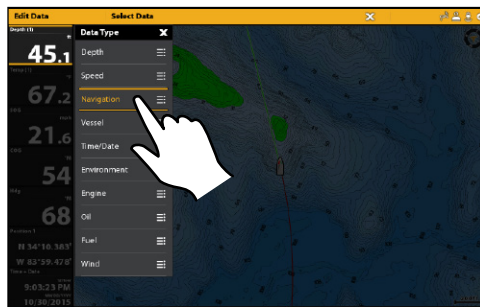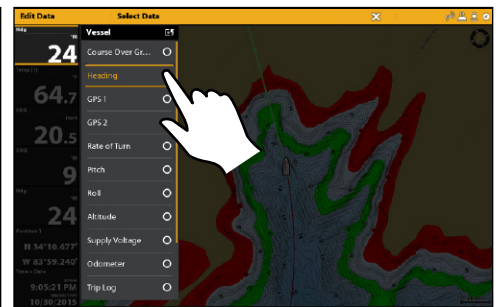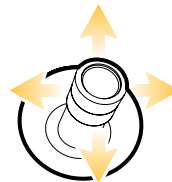
Tap to Select	Select	Open

Understand Data Box Digital Readouts

The table below displays the basic data box options that are shown in the Standard data bar and the Navigation data bar, as well as the additional data box options for vessel, wind, and engine. The data box options are determined by the installed equipment and the selected sources on the network. Your control head provides a wide variety of data box options, more than the information shown here.

The number on the data label (Temp 1, Temp 2, Temp 3, etc.) corresponds with the source number. For more information about sources and networking, see *Installation Information*, *Set up your NMEA 2000 Network*, and *Set up your Humminbird Network: Select Data Sources*.

Label	Name	Description	Data Type
Alt	Altitude	The height measurement above sea level.	Vessel
AWA	Apparent Wind Angle	The direction of wind relative to the bow of the vessel.	Wind
AWS	Apparent Wind Speed	The speed of wind with respect to the speed of the vessel.	Wind
Brg	Bearing	The compass direction from the vessel position to the next waypoint or route point.	Navigation
Brg (End)	Bearing (To End)	The compass direction from the vessel position to the final point in a route.	Navigation
Course	Course	The intended direction of travel measured between the start point and end point.	Navigation
CMG	Course Made Good	The bearing from your starting position to the present vessel position. The goal is to have CMG and Track equal to the same number.	Navigation
COG	Course Over Ground	The current direction the boat is traveling measured in degrees from North. When the COG is equal to Bearing, the boat is said to be on course and will arrive at the destination in the most efficient manner.	Vessel
CTS	Course to Steer	The heading that must be maintained in order to reach the planned destination.	Navigation
Depth (#)	Depth	The depth of the water from the transducer or digital depth sensor to the bottom. This measurement includes the depth offset setting.	Depth
Dest Wpt ID	Next Waypoint	The next point (waypoint, route point, Man Overboard point, etc.) that the vessel is navigating towards in a route or other navigation mode.	Navigation
DBT	Depth Below Transducer	The depth of the water below the transducer. This measurement does not include the depth offset setting.	Depth
DMG	Distance Made Good	The straight line distance actually traveled between the start position to the current vessel position.	Navigation
DTG	Distance to Go	The distance between the vessel position and the next waypoint or route point.	Navigation
Eng Temp (#)	Engine Temperature	The engine temperature from the engine source.	Engine
Eng Volt (1)	Engine Voltage	The power supplied to the engine source.	Engine
ETA	Estimated Time of Arrival	The estimated time of arrival to the next waypoint on the route.	Navigation

Label	Name	Description	Data Type
Fuel (#)	Fuel Level	The fuel level of the fuel source.	Fuel
Hdg	Heading	The direction the boat is pointing, measured in degrees. Due to wind and waves, the boat is often traveling in a slightly different direction than its heading. See Course Over Ground (see COG).	Vessel
Heat Index	Heat Index	The perceived temperature derived from air temperature and relative humidity.	Environment
Next Turn	Next Turn	The course of the next route leg with respect to the current heading.	Navigation
Odo	Odometer	The distance traveled.	Vessel
Pitch	Pitch	The rotation angle of the boat from front to back (bow to stern).	Vessel
Position (#)	GPS	The latitude and longitude coordinates of the vessel position based on the GPS receiver installation location.	Vessel
Roll	Roll	The rotation angle of the boat from side to side (port to starboard).	Vessel
ROT	Rate of Turn	The rate at which the boat is turning, measured in degrees per second.	Vessel
RPM	Revolutions Per Minute	The number of engine revolutions per minute.	Engine
SMG	Speed Made Good	The distance from the starting waypoint on the route divided by the time elapsed since starting navigation on the route.	Speed
SOG	Speed Over Ground	The measurement of the boat's progress across a given distance and the speed measurement provided by GPS. SOG is optimal for navigation because accurate destination times can be derived from this measurement.	Speed
STW	Speed Through Water	The measurement of the flow past the boat, which may vary depending on current speed and direction.	Speed
Temp (#)	Water Temperature	The detected water temperature.	Environment
Temp (Air)	Air Temperature	The detected air temperature.	Environment
TTG	Time to Go	The estimated time required to reach the next waypoint on the route. TTG is calculated using the SOG (Speed Over Ground) and DTG (Distance to Go).	Navigation
TWA	True Wind Angle	The wind angle detected when the vessel is stationary.	Wind
TWS	True Wind Speed	The wind speed detected when the vessel is stationary.	Wind
VMG	Velocity Made Good	The speed of travel relative to the next waypoint on the route.	Speed
XTE	Cross Track Error	The straight-line distance of the boat from the intended Track. XTE measures how far the boat is off course.	Navigation

THE VIEW OPTIONS MENU
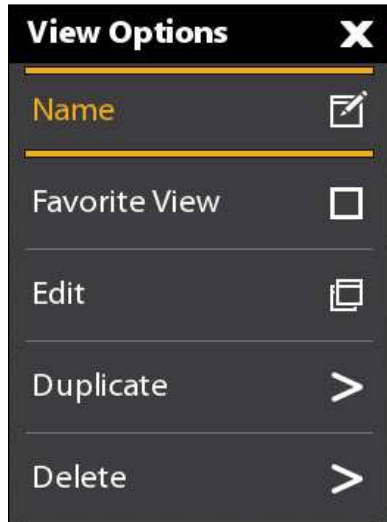
The **View Options menu** provides options to edit the selected view. You can open the View Options menu from the on-screen view or from the Views tool on the Home screen.

The menu options vary slightly. For example, if you open the View Options menu from an on-screen view, you can also edit the data bar from the menu. If you open the View Options menu from the Views tool, you can duplicate and delete the view from the control head.

Open the View Options Menu for the On-Screen View

1. With a view displayed on-screen, press the MENU key.
2. Select View Options.

Opening the View Options Menu
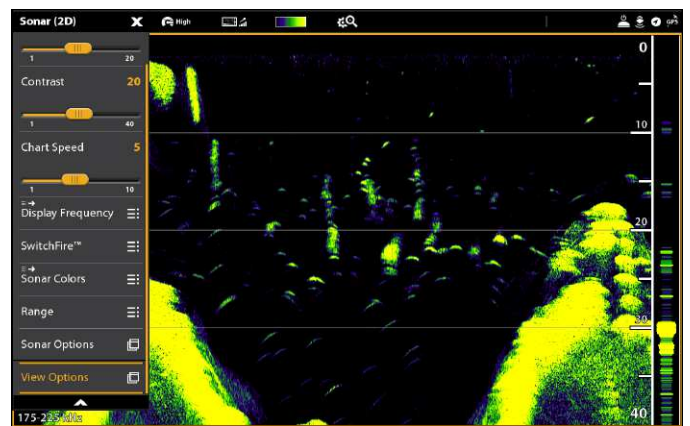
Turn the Side Bar On/Off

You can turn the side bar on or off using the View Options menu. Set the side bar to stay displayed to view live data along with the display, or close the side bar to view more of the display.

You can customize the data boxes displayed in the data bars. See *Edit the On-Screen View*.

1. With a View displayed on-screen, tap the view (or pane) name in the status bar, or press the MENU key once.
2. Select View Options.
3. Select Side Bar.
4. Tap, or press the ENTER key, to change the setting. (check mark = visible, blank = hidden)

Turning Off the Side Bar
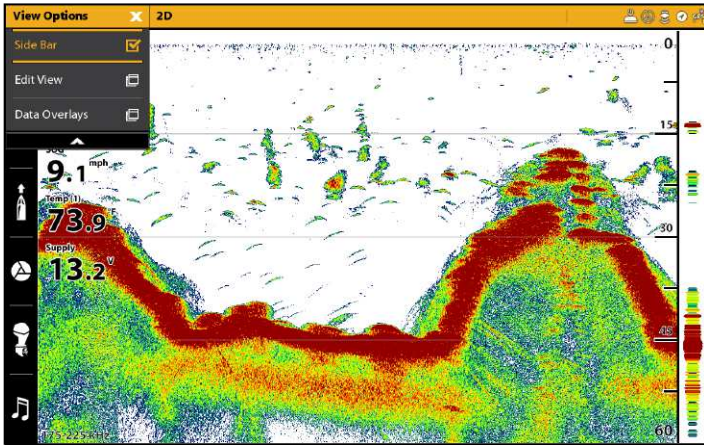
Sonar View (with Side Bar Set to Off)
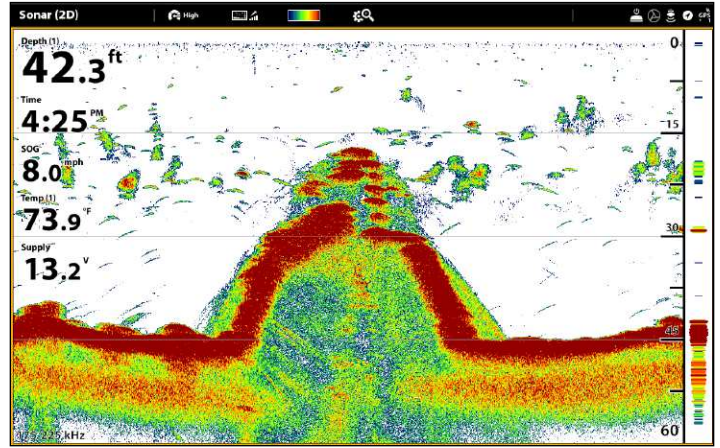
Adjust the Split Position

With select Combo Views displayed on screen, you can toggle between a 50/50 or 30/70 split of the screen using the View Options menu. Compatible Combo views are indicated in the Views Tool with a Split Position icon (see *Views: Display a View from the Views Tool*).

1. With a Combo View displayed on-screen, tap the view (or pane) name in the status bar, or press the MENU key once.

2. Select View Options.

3. Select Split Position.

4. Select a 50/50 or 30/70 split.

Combo Views with Split Position Icons
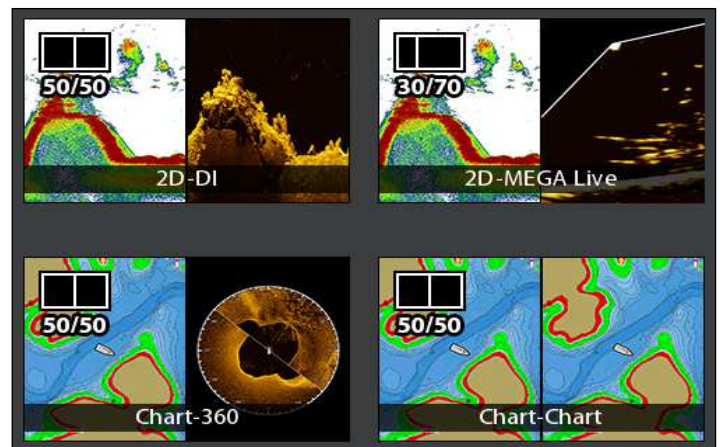
50/50 Split Combo View
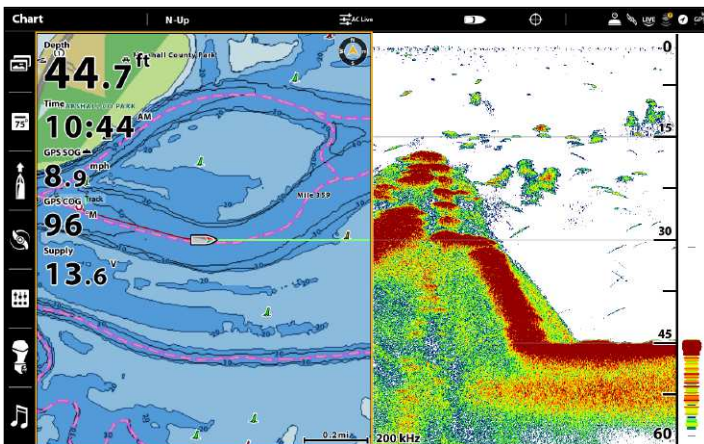
30/70 Split Combo View
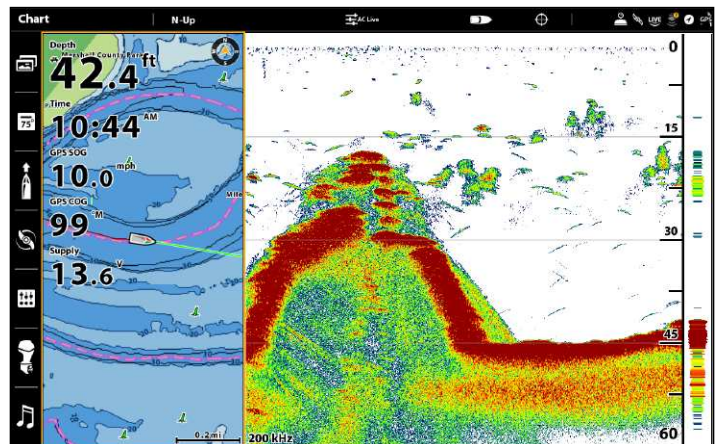
Open the View Options Menu from the Views Tool

1. Press the HOME key.
2. Select the Views tool.
3. Use the Joystick to select a view. Press the MENU key.
4. **Close:** Press the EXIT key.

Opening the View Options Menu from the Views Tool

return to Home screen   close   status bar
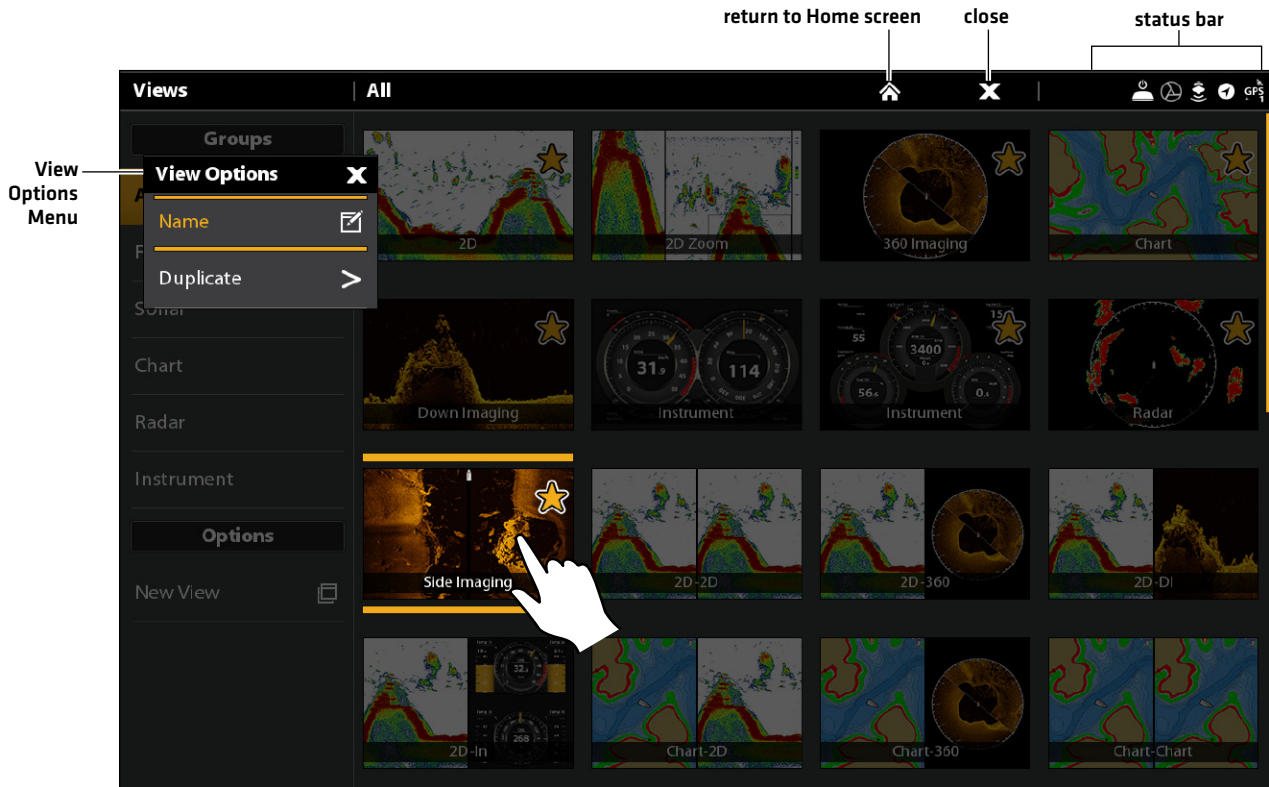
View Options Menu
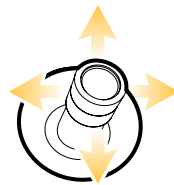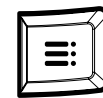
Press and Hold   **OR**   **Select**   **Open the View Options Menu**

CREATE A NEW VIEW

Follow the instructions in this section to create a new view from a blank template.

1. Press the HOME key.

2. Select the Views tool.

3. Select New View.

4. See *Edit the View Layout and Application* to rename the view, edit the layout, add applications, display digital readouts, and more.

Creating a New View
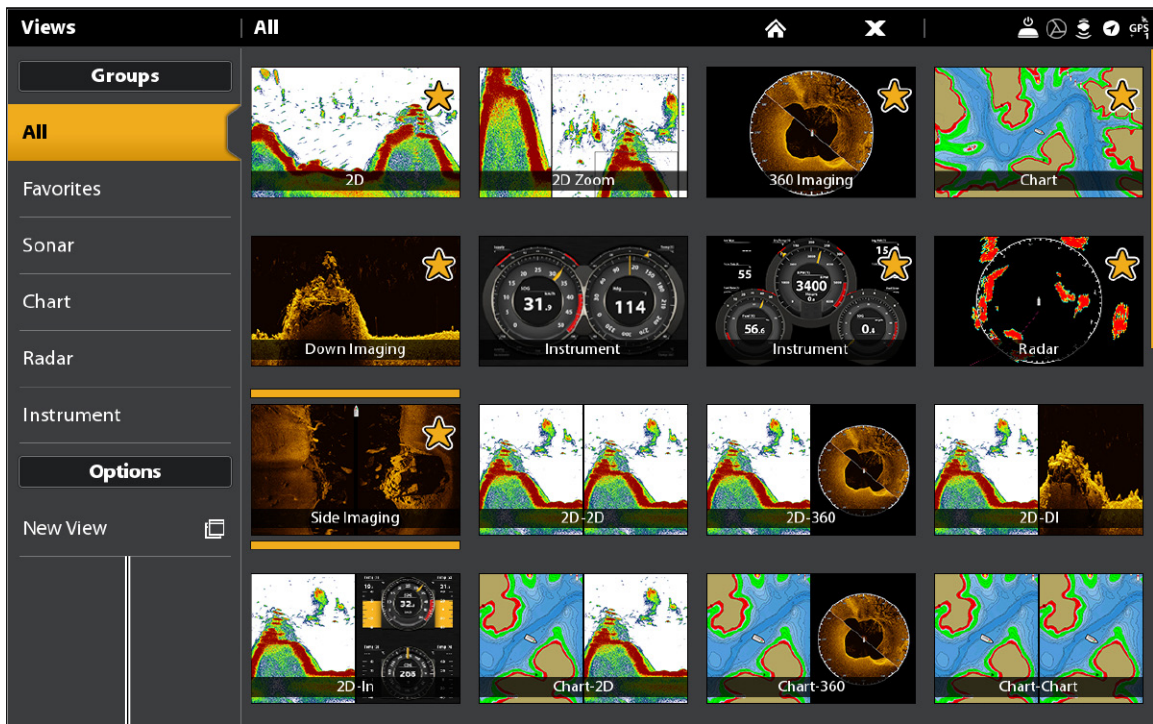
select to create a new view

Edit the View Layout and Application

The Edit menu on the View Options menu allows you to change the type of data that is displayed in the view and how many panes are displayed.

1. Select Edit (or Edit View) from the View Options menu.

   To change the layout and number of panes in the view, select Template. If you do not want to change the layout, skip to step 4.

2. Tap the template, or use the Joystick, to select the layout you want to use.

3. To change the type of data displayed in the view, select Applications.

4. Tap the pane and then tap the type of data to fill the pane.

   OR

   Turn the Rotary dial to select a pane. Use the Joystick to choose an application, and press the Joystick to select it.

5. Repeat steps 4 and 5 until the panes are filled.

6. Select Save.

Selecting a View Template
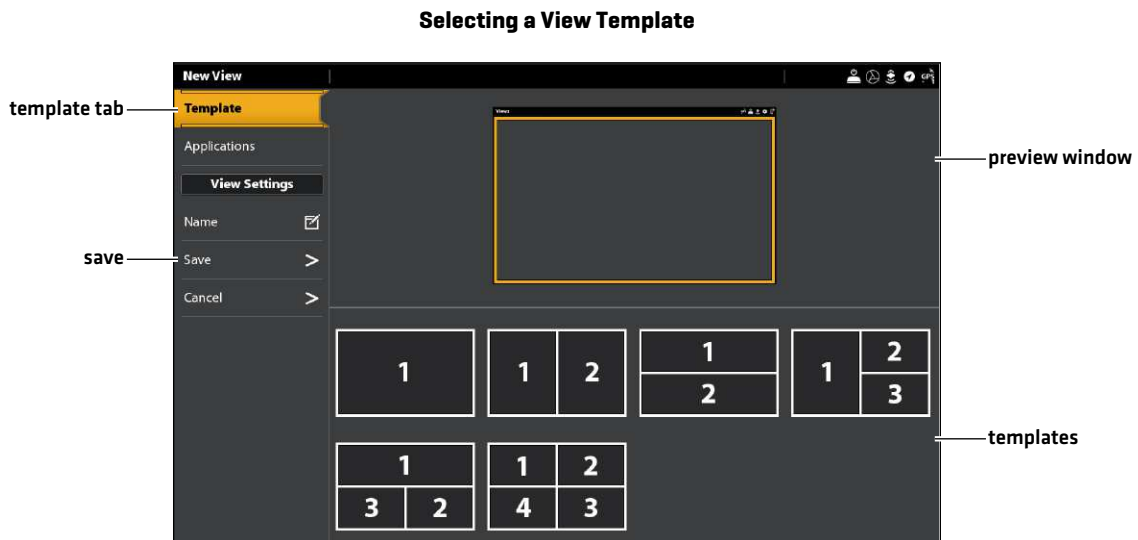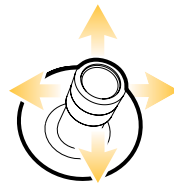
Tap to Select   **OR**   **Select a Template**   **Open**
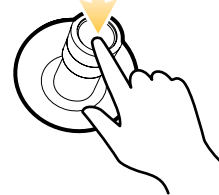
Adding Applications to the Template

applications tab

preview window

save

selected pane

applications

selected application

OR
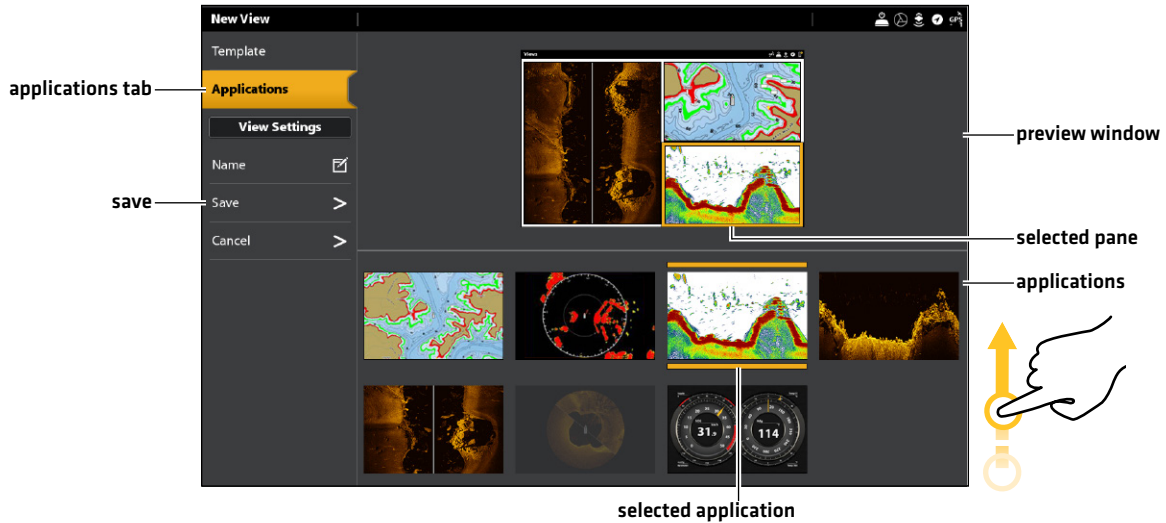
Tap to Select
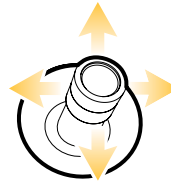
Select a Pane   Select an Application   Add
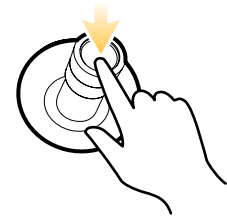
Change the View Name (Views Tool)

1. Select Name from the View Options menu.
2. Use the on-screen keyboard to edit the view name. See *The Menu System: Tips for Using the On-Screen Keyboard* for more information.

Duplicate the Selected View (Views Tool)

When you duplicate a view, the control head creates a copy. You can rename the new view, edit it, and change the layout.

1. Select Duplicate from the View Options menu.
2. Tap the menu, or press the ENTER key, to create a copy.

Delete the Selected View (Views Tool)

1. Select Delete from the View Options menu.
2. Tap the menu, or press the ENTER key, to delete the view.

Set up an Instrument View

The APEX/SOLIX control heads provide Instrument Views in a variety of combinations to display on-screen. You can use the standard Dashboard Instrument View or Engine Instrument View. You can also customize the gauges, data boxes, and ranges.

> **NOTE:** The data boxes and gauges must have input from connected and powered equipment. The Engine Instrument View must have input from a NMEA 2000 network to provide source data. For more information about sources and networking, see *Installation Information*, *Set up your NMEA 2000 Network*, and *Set up your Humminbird Network*.

Instrument View: Dashboard
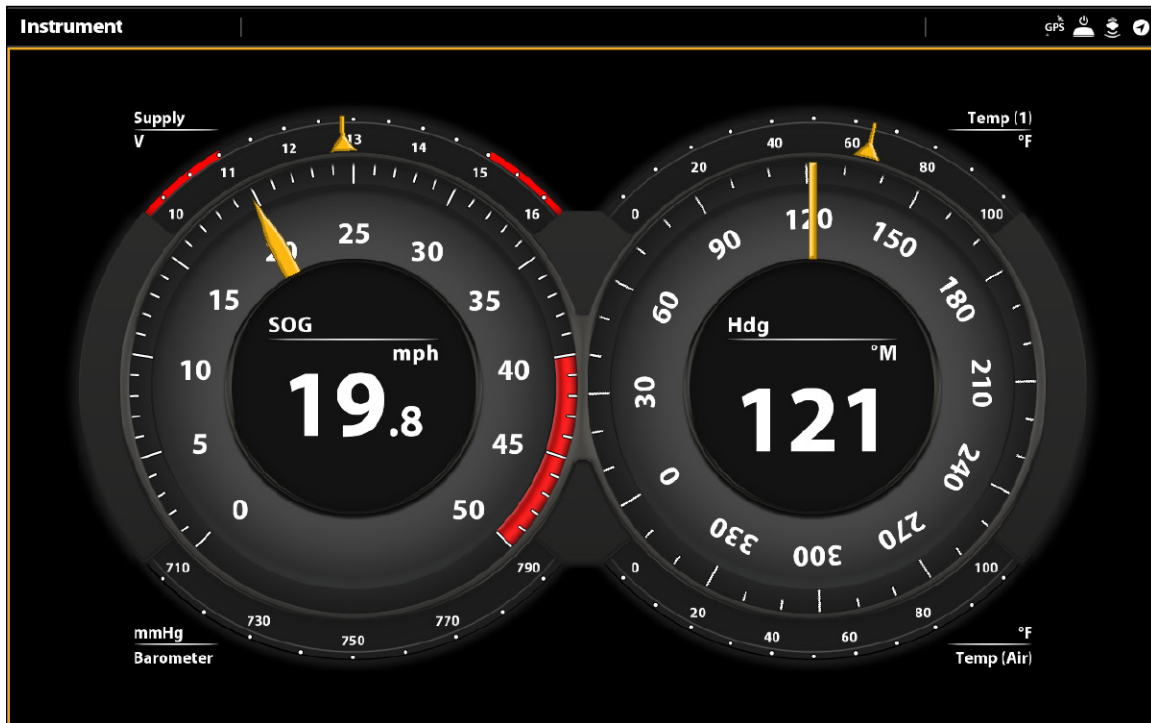
Display an Instrument View

Touch Screen

1. Press the HOME key.
2. Select the Views tool.
3. Under Groups, select Instrument.
4. Tap an Instrument View.
5. Tap Instrument in the status bar.
6. Select Dashboard or Engine.

Keypad

1. Press the HOME key.
2. Select the Views tool.
3. Under Groups, select Instrument.
4. Use the Joystick to choose an Instrument View. Press the Joystick.
5. Press the MENU key.
6. Select Dashboard or Engine.

Customize an Instrument View

In an Instrument View, you can customize the gauges, data boxes, and ranges. You can change each item in the same way you change data boxes in a view. You can also set up warning limits for the selected data range.

> **NOTE:** The available changes and sources are determined by the selected gauge or data box. As you change data, the available sources are displayed in white, and the unavailable sources are displayed in black.

Touch Screen

1. With an Instrument View displayed on-screen, tap Instrument in the status bar.

2. Select Edit Instrument.

3. Tap a gauge or data box.

4. **Change the Type of Data:** Select Data Type. Select a category and a data type from the menus.

5. **Change the Displayed Range:** Select Data Limits. Select a range from the list.

   Set the Warning(s) Threshold: Select a warning (if available), and tap the on/off button to turn it on. Press and hold the slider to set the warning threshold.

6. **Close:** Press and hold the EXIT key.

Keypad

1. With an Instrument View displayed on-screen, press the MENU key.

2. Select Edit Instrument.

3. Use the Joystick to select a gauge or data box. Press the ENTER key.

4. **Change the Type of Data:** Select Data Type. Select a category and a data type from the menus.

5. **Change the Displayed Range:** Select Data Limits. Select a range from the list.

   Set the Warning(s) Threshold: Select a warning (if available), and press the ENTER key to turn it on. Turn the Rotary dial to set the warning threshold.

6. **Close:** Press and hold the EXIT key.

Selecting a Gauge

Selecting a Radial Gauge

Selecting a Data Box

Press and Hold

OR
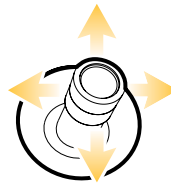
Select   **Open**

Set up an HDMI View

The APEX control heads provide HDMI video input and output. This allows for video input, such as a camera, and output for connection to an accessory display. The APEX supports the following input/output resolutions:

HDMI In			HDMI Out		
640x480p	4:3	@60Hz	720x480p	16:9	@60Hz
720x480p	16:9	@60Hz	1280x720p	16:9	@60Hz
1280x720p	16:9	@60Hz	1920x1080p	16:9	@60Hz
1920x1080p	16:9	@60Hz	1280x720p	16:9	@50Hz
720x576p	16:9	@50Hz	1920x1080p	16:9	@50Hz
1280x720p	16:9	@50Hz			
1920x1080p	16:9	@50Hz			

Display a Video View

Touch Screen

1. Press the HOME key.
2. Select the Views tool.
3. Under Groups, select Video.
4. Tap a Video View.

Keypad

1. Press the HOME key.
2. Select the Views tool.
3. Under Groups, select Video.
4. Use the Joystick to choose a Video View. Press the Joystick.

Selecting a Video View
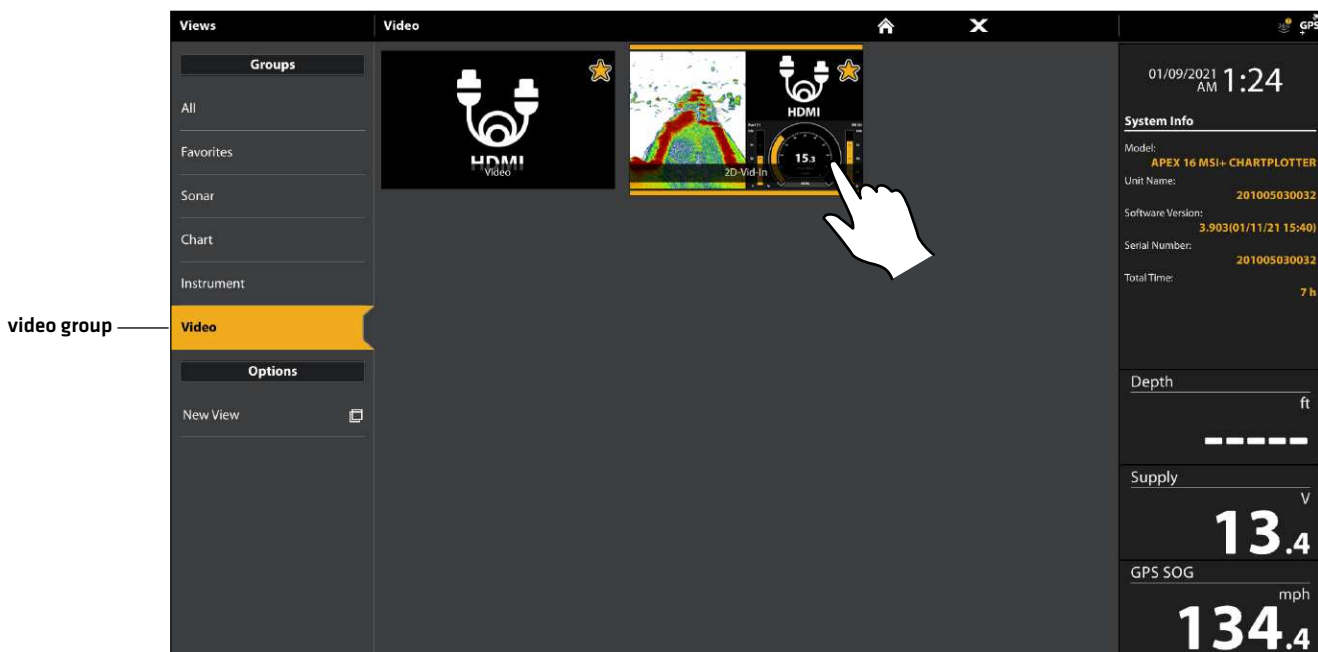
See *Create a New View* to add a Video view to a multi-panel screen.

Customize a Video View

In a Video View, you can customize the brightness and contrast.

Touch Screen

1. With a Video View displayed on-screen, tap Video in the status bar.

2. **Change the Brightness:** Select Brightness. Press and hold the slider to adjust the setting.

3. **Change the Contrast:** Select Contrast. Press and hold the slider to adjust the setting.

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

Keypad

1. With a Video View displayed on-screen, press the MENU key.

2. **Change the Brightness:** Select Brightness. Press the ENTER key to adjust the setting.

3. **Change the Contrast:** Select Contrast. Press the ENTER key to adjust the setting.

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

Customizing a Video View
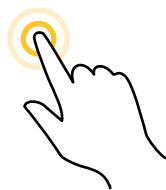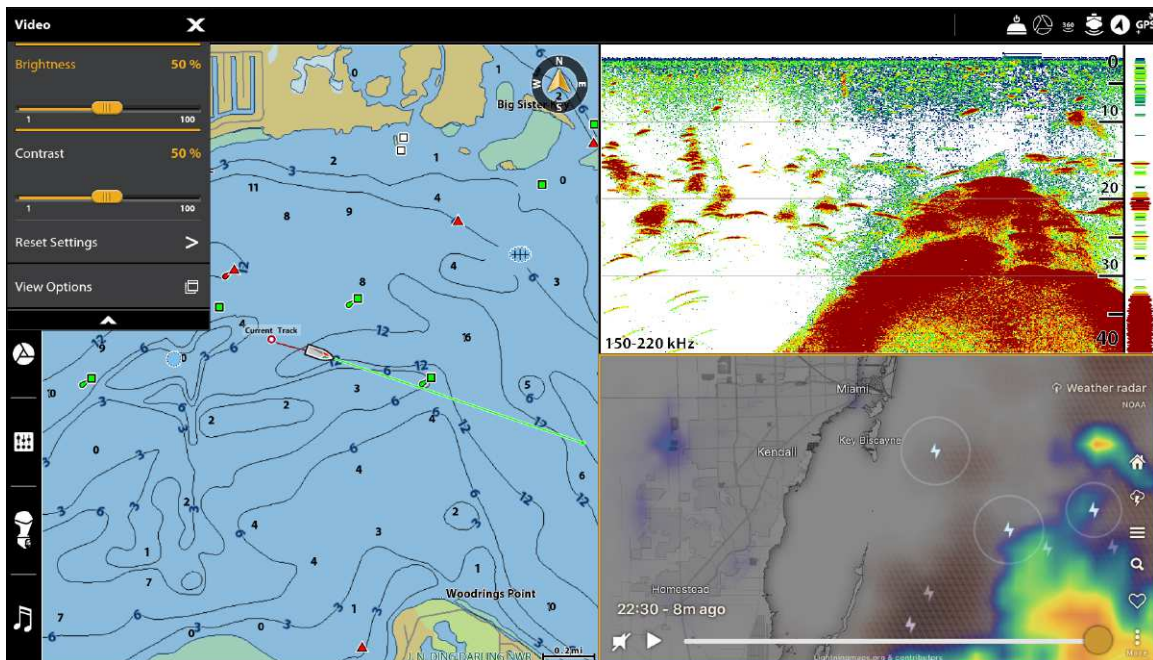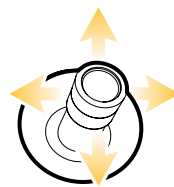
Press and Slide   OR   **Select**   **Adjust the Setting**
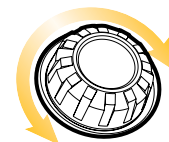
Chart Overview

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

2D Chart View (Humminbird Basemap)
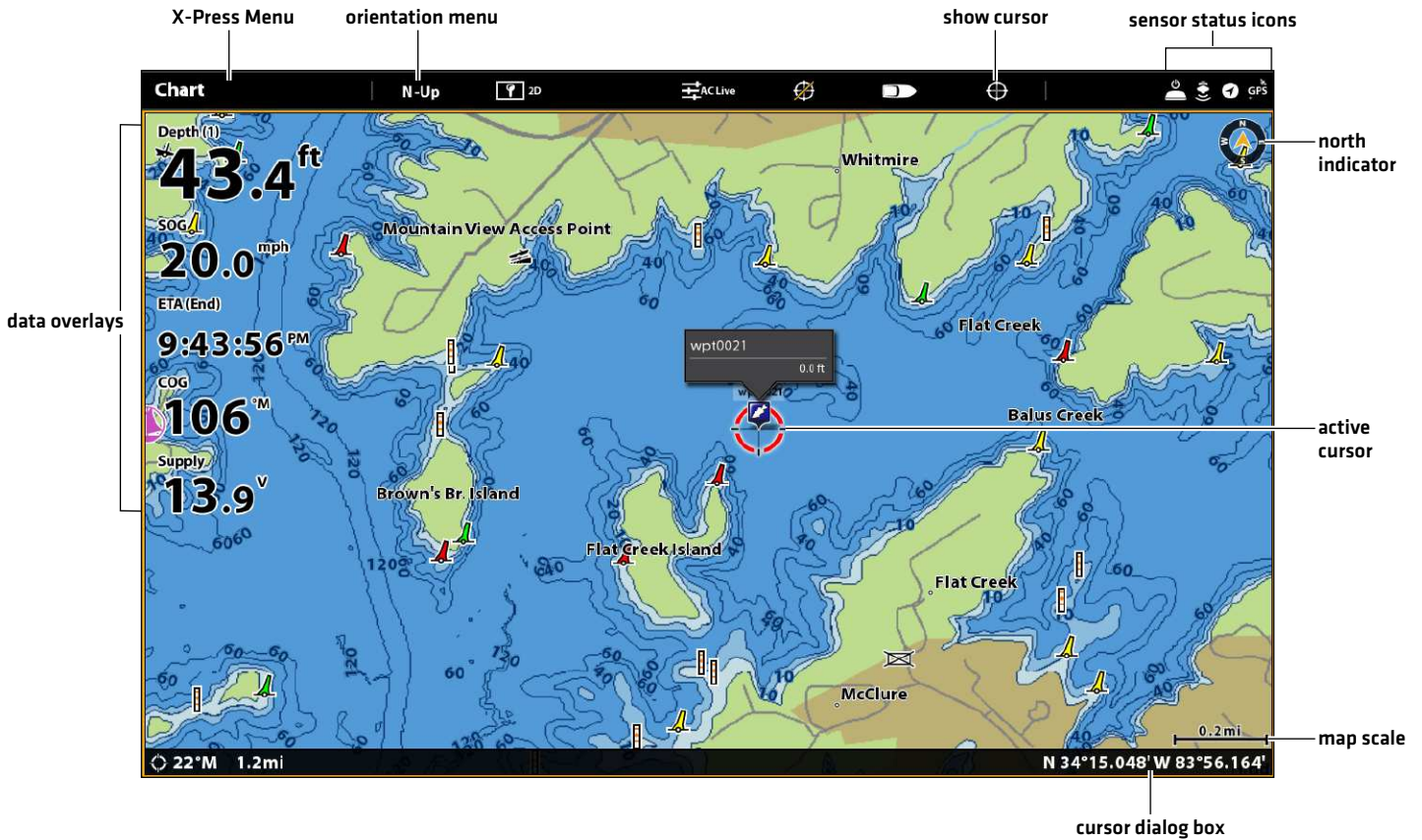
Map Source Overview

The APEX and SOLIX includes built-in charts by Humminbird, Navionics, and AutoChart Live. You can also install a microSD or SD map card with additional chart information for a particular location (separate purchase required). Humminbird is the default map source, but you can change the map source at any time (see *Using the Built-in Charts*).

APEX/SOLIX control heads support the following charts (some require a separate purchase):

Humminbird	Basemap (built in)
	CoastMaster, LakeMaster, Lake Master PLUS, SmartStrike, Aerial View, ChartSelect-downloaded maps and layers
	AutoChart, AutoChart PRO, AutoChart Live (built in), SI Mosaic
Navionics	Navionics (built in), Navionics Gold, HotMaps, Navionics Platinum+

Map Source: Humminbird Basemap

Map Source: Navionics

Map Source: SmartStrike Chart Card
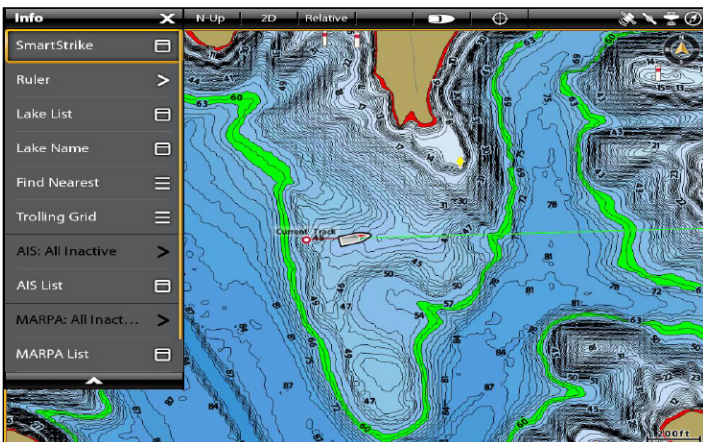
**Map Source: AutoChart Live
with Bottom Hardness Overlay (right pane)**
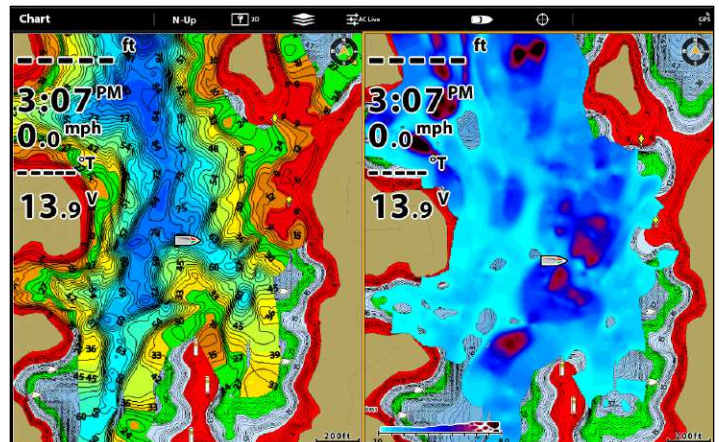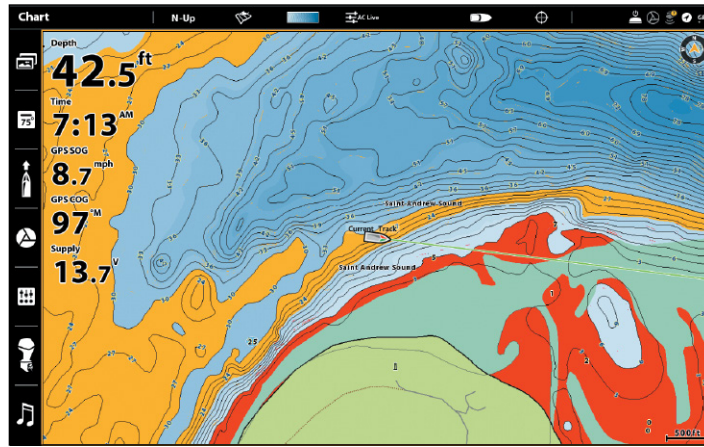
How the Map Source Affects your Chart View Operations

The selected map source influences the menu system. When you change the map source, the menu options for the Chart Views change, allowing you to add navigation data, shading, or alarms.

Install an SD or microSD chart card (separate purchase required) with specific maps or chart layers to add more detail to your Chart views (see *Using Chart Cards*).

NOTE: Visit our Web site at **humminbird.com** for the latest compatibility information.

Using Built-in Charts

The APEX and SOLIX includes built-in charts by Humminbird and Navionics. Display the built-in charts and add data overlays and map layers to customize your Chart view.

Humminbird Charts

When Humminbird is selected as the map source, you can use the system defaults, or you can set the menu settings to your preference. You can use the built-in Humminbird Basemap or a Humminbird SD Chart Card (see *Using Chart Cards*).

1. Select Humminbird as the map source.

2. Under Humminbird Charts, select Basemap or Legacy Chart Cards.

Humminbird Basemap	Select the Humminbird Basemap to display contour data and navigation aids, including hazards, buoys, daymarkers, marinas, and other points of interest. The Basemap also shows depth markings and spot soundings (for coastal areas).
Legacy Chart Cards*	Select the Legacy Chart Card to display the map data from the installed legacy chart card.
	*Required Equipment: Humminbird chart card. See *Using Chart Cards* for more information.

Humminbird Basemap: Set the following menus to your preference:

Humminbird: Chart Card Info	Select this menu to review the information about the installed Humminbird chart card.
Text Size	Adjust the setting to change the size of font used in the Basemap.
Symbol Size	Adjust the setting to change the size of the symbols used in the Basemap.

3. Proceed to *Navigation Alarms Overview* and *Customize the Chart View* for additional display options and alarm settings exclusive to Humminbird charts.

2D Chart View (Humminbird Basemap)
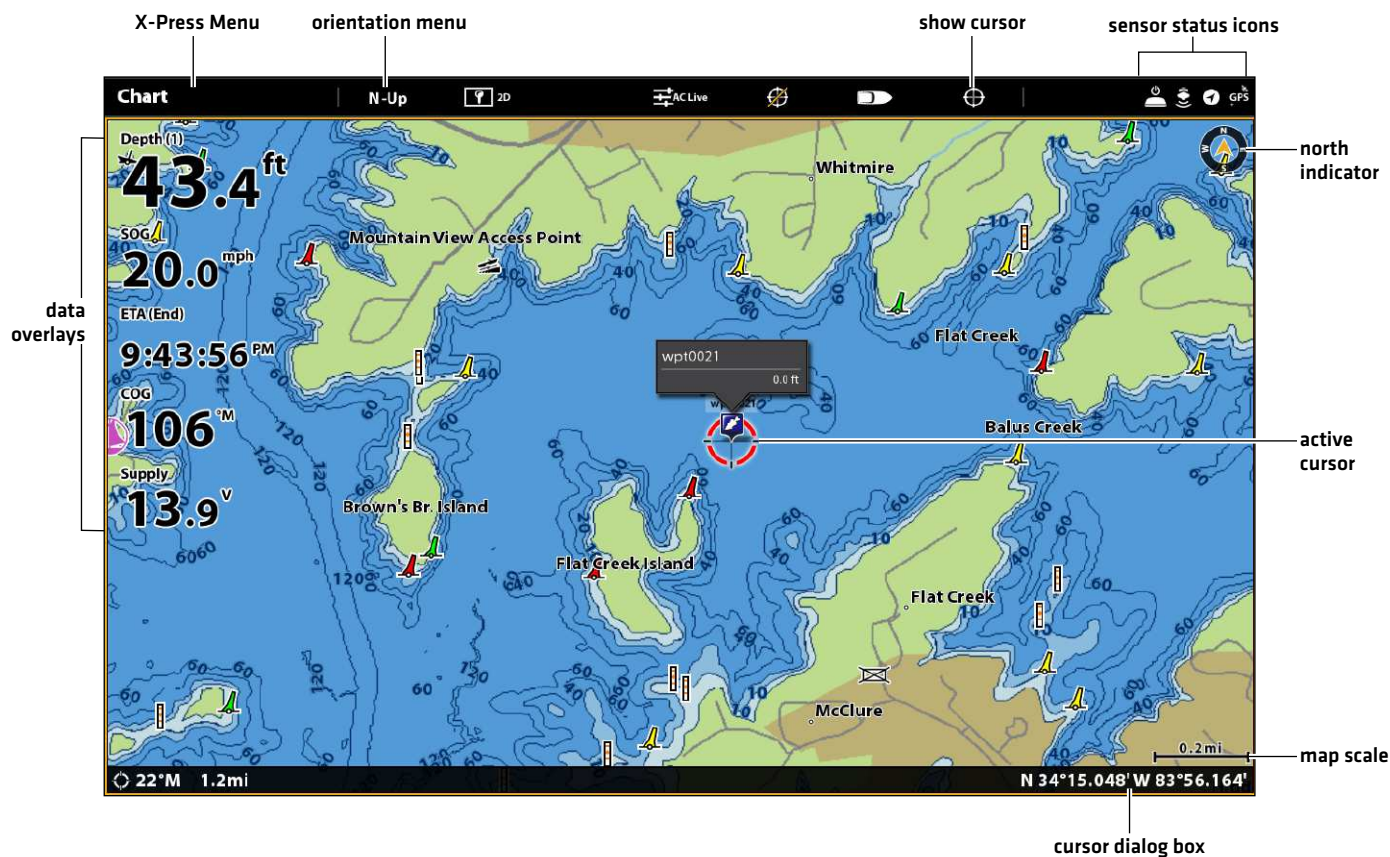
2D Chart View during Navigation

heading line

boat icon

land

current track

Grass

water level offset (brown) extends the land visually

contour lines

Depth (1)
house Fuel
43.9 ft

SOG
21.4 mph

ETA (End)
9:38:22 PM

COG
16 °M

Supply
13.9 V

Chart   N-Up   2D   AC Live   GPS

McClure

Smug Harbor Marina

Flat Creek

Trees

Mud Creek

Camp

Current Track

Swim Area

Mud Creek

Cables

0.2 miles

Map Source: Humminbird

Navionics

When Navionics is selected as the map source, you can use the system defaults, or you can set the menu settings to your preference. You can use the built-in map, or you can install an SD chart card with additional features.

1. Select Navionics as the map source.

2. Set the following menus to your preference:

Navionics: Chart Card Info	Select this menu to review the information about the installed Navionics chart card.
Easy View	Turn on Easy View to simplify the Chart View. The icon size and text size increase for easier viewing.
Dynamic Tides/ Currents	Turn on Dynamic Tides/Currents to display an icon on the Chart View that indicates the status of the tides and currents. The provided data is affected by the station's time zone.
Symbols	Select USA or International symbols to display on the Chart View.
Map Datum	Use Map Datum to change the map coordinate system used by the control head to match those of a paper map. Almost all electronic charts use the WGS84 Map Datum and most likely do not require a setting change. [Default = WGS84]
Chart Offset	Use Chart Offset to move the chart position on-screen and correct a position error in the cartography. Turn on Chart Offset, and use the sliders to adjust the latitude/longitude coordinates. The Chart Offset setting applies to all charts, not just the chart that requires correction.
Chart Boundaries	Turn on Chart Boundaries to display chart boundaries on the Chart View. The dotted lines of a chart boundary indicate an area that contains a different map. Use the Joystick to move the cursor within a chart boundary, and press the +ZOOM key to see a closer view of the chart.

NOTE: There are also alarm and display options that are exclusively available for Navionics charts. See **Navigation Alarms Overview** and **Customize the Chart View** for more information.

dynamic tides/currents icon

symbols

chart boundary

Map Source: Navionics
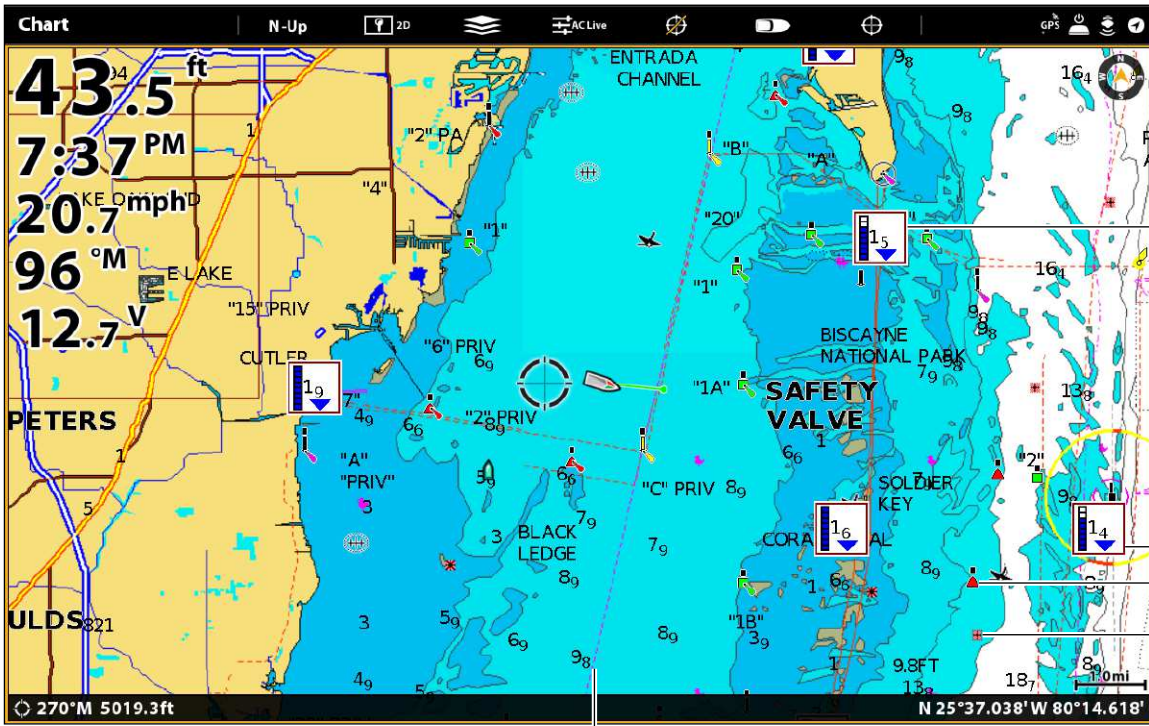
AutoChart Live

AutoChart LIVE can be used when Humminbird CoastMaster, Humminbird LakeMaster or Navionics is set as the map source. AutoChart LIVE uses data from an installed GPS receiver and 2D transducer (down beam, digital CHIRP or single-frequency DualBeam PLUS or DualSpectrum sonar) to create detailed depth maps of your favorite waters.

See the *AutoChart Live Overview* section in this manual for complete details about this feature.

2D Chart View (Humminbird LakeMaster with AutoChart Live Overlay)
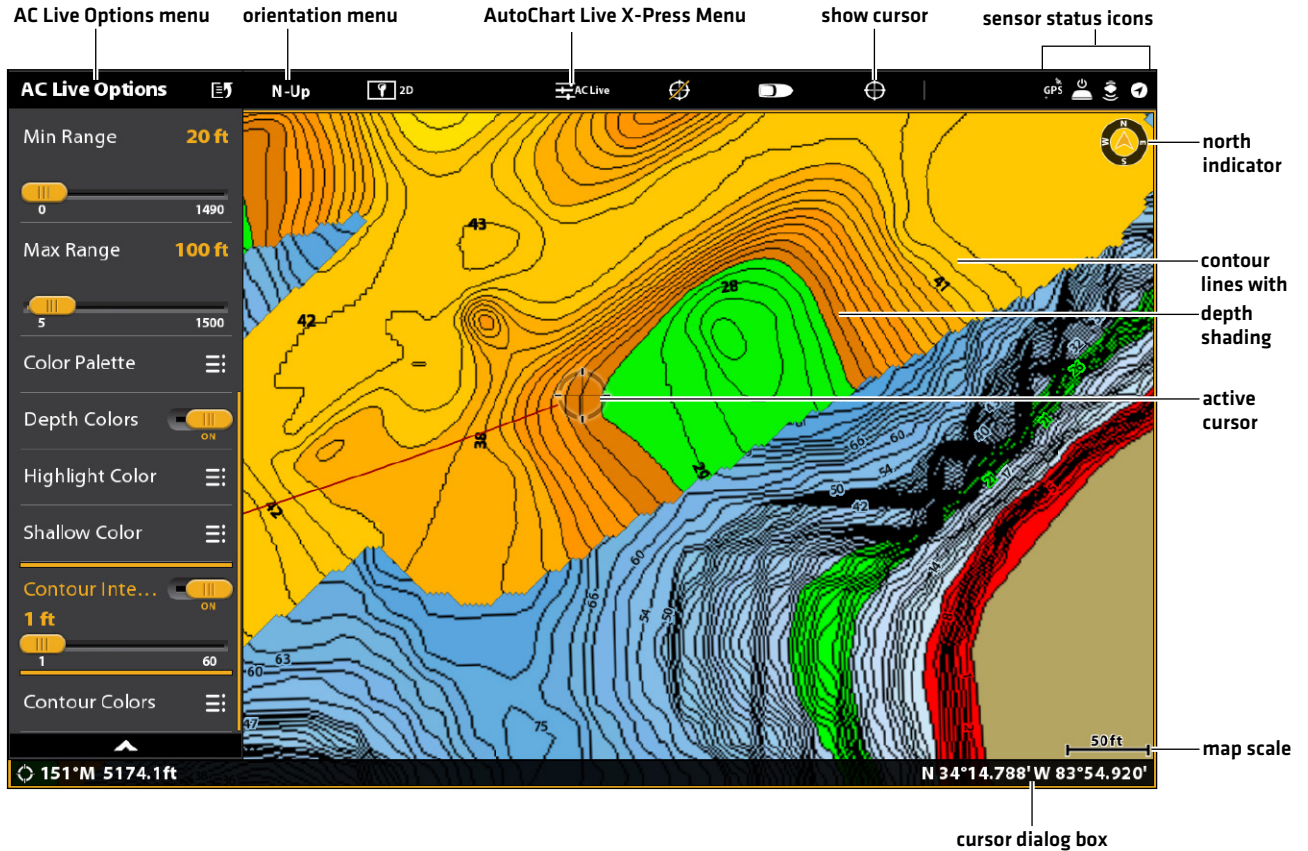
Using Chart Cards

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

Your control head may be compatible with an SD or microSD card (depending on your control head model). Locate the instructions to install your SD card below and proceed to *Change the Map Source*.

Insert an SD Card

If your control head is compatible with SD cards, use the following instructions to install and eject it from the control head. If your control head is compatible with microSD cards, proceed to the next section below.

1. Insert the card into the slot with the label facing left.
2. The control head automatically chooses the best chart to display. If more than one type of SD card is installed, follow the on-screen prompts to select the map source.
3. **Remove:** Press the SD card into the slot and then release it. Pull the card from the slot.

Insert a microSD Card

1. Remove the microSD card slot cover.
2. Position the microSD card so that the label faces up.
3. Insert the card into the slot until it clicks into place.
4. Replace the slot cover so it is secure.
5. **Remove:** Press the card into the slot and then release it. Pull the card from the slot.

⚠ **WARNING!** Do not leave the SD slot cover open. The slot cover should always be closed to prevent water damage to the unit.

Change the Map Source

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

When you change the map source, the menu options for the Chart Views also change, allowing you to add navigation data, shading, alarms, and more. See each section for details.

1. Press the HOME key.
2. Select Settings.
3. Select Chart.
4. Select a Map Source. See *Using Built-in Charts*.

   Global: Turn Global on to share the map source with the other control heads in the network.

Chart Settings

Humminbird Chart Cards with VX Technology have additional Chart Settings available. Set the following menus to your preference:
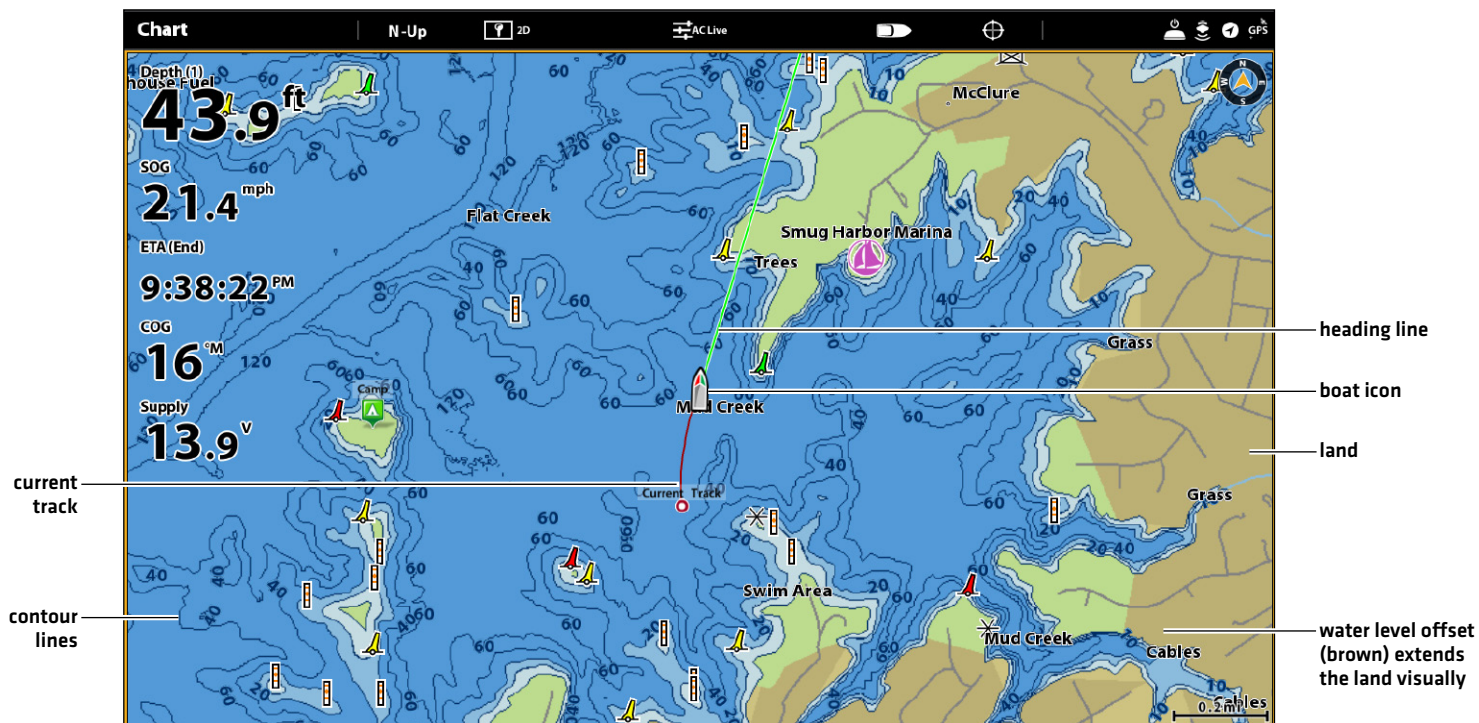
Humminbird: Chart Card Info	Select this menu to review the information about the installed Humminbird chart card.
Water Level Offset	Adjust the setting to change the water level read by the control head. For example, if the lake is down 5 feet, set the Water Level Offset setting to -5. The displayed numbers on the Contour Lines will adjust from the Water Level Offset setting, and the water level offset will be highlighted in brown to extend the land visually on the display. To apply depth colors, depth highlight range, etc., go to the Chart X-Press Menu > Chart Options > Humminbird Settings. See **Customize the Humminbird Chart Display** for more information.
Dynamic Tides/ Currents	Turn on Tides and Currents to review information for the nearest tide and current stations to your present position. *CoastMaster chart card required
Text Size	Adjust the setting to change the size of font used in the Basemap.
Symbols	Adjust for Internation or U.S. symbols. * Humminbird Chart Card with VX technology required
Symbol Size	Adjust the setting to change the size of the symbols used in the Basemap.
Safe Depth	Select this menu to set the minimum depth level for your vessel and to turn on highlights for hazards shallower than that level. * Humminbird Chart Card with VX technology required

Selecting a Map Source

selected category   return to Home screen   close   sensor status

select chart

map source options

chart card types

menu options are determined by the selected map source

OR
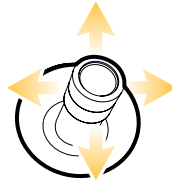
Tap to Select   Select   Confirm

Navigation Alarms

When an alarm is turned on, an alert will sound or display on the control head to indicate the threshold has been exceeded. The settings in this section describe how to turn on a Navigation alarm, adjust the threshold, and display the limits on the view if they are available. The alarm options are determined by the map source.

> **NOTE:** To turn on additional alarms that relate to your vessel and navigation, such as Lost Heading, Drift Alarm, Pitch, Roll, and more, select Home > Alarms > System and Home > Alarms > Vessel.

Chart View with Alarm Overlays Displayed (Humminbird LakeMaster)

off course (XTE) limits displayed in purple

waypoint

waypoint avoidance radius

Off Course (XTE) Alarm

Turn on Off Course [XTE] to receive an alert if the vessel has traveled outside the selected route. You can also set how far the vessel is allowed to move off course before the alarm is triggered. If the alarm is turned off, the Off Course limit can be displayed on the Chart View, but you won't receive an alert if the vessel crosses it.

Turn on the Alarm

1. Press the HOME key.
2. Select Alarms > Navigation.
3. Select Off Course [XTE]. Tap the on/off button, or press the ENTER key, to turn it on.

Adjust the Parameters (optional)

1. Press the HOME key.
2. Select Settings > Navigation > Off Course [XTE].
3. Press and hold the slider, or press and hold the ENTER key, to set the amount the vessel can move off course.

Display the Off Course (XTE) Limit (optional)

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key.
2. Select Chart Options > Overlays > Nav Data.
3. Select XTE Limits.
4. Tap the check box, or press the ENTER key, to add a check mark and make it visible on the view.

Arrival Alarm

Turn on Arrival to receive an alert when the vessel has reached the destination waypoint, route point, or track point. You can also set the Arrival Radius to indicate how close to the destination point the alarm is triggered. If this alarm is turned off, the Arrival Radius will be displayed on the Chart View, but you won't receive an alert if the vessel crosses it.

The Arrival Radius also influences navigation. If the Arrival Radius is set to 60 feet from the destination point, the arrival is accomplished at 60 feet from the destination point. If there is another point in the route, navigation will then start to the next point.

Turn on the Alarm

1. Press the HOME key.
2. Select Alarms > Navigation.
3. Select Arrival. Tap the on/off button, or press the ENTER key, to turn it on.

Adjust the Parameters (optional)

1. Press the HOME key.
2. Select Settings > Navigation > Arrival Radius.
3. Press and hold the slider, or press and hold the ENTER key, to adjust the radius.

Waypoint Avoidance Alarm

Turn on Waypoint Avoidance to receive an alert if the vessel has crossed the Waypoint Avoidance Radius. If the alarm is turned off, the Waypoint Avoidance Radius can be set for a waypoint, and it will be displayed on the Chart View, but you won't receive an alert if the radius is crossed.

Turn on the Alarm

1. Press the HOME key.

2. Select Alarms > Navigation.

3. Select Waypoint Avoidance. Tap the on/off button, or press the ENTER key, to turn it on.

Create an Avoidance Waypoint

1. See *Waypoints: Set the Waypoint Radius and Avoidance* to identify a waypoint for avoidance.

Anti-Collision Alarm

If Navionics is selected, and the Anti-Collision alarm is turned on, an alert will be provided based on potential dangers detected in the chart data ahead of the vessel, such as land, rocks, and restricted areas. You can also select Anti-Collision Objects and how far in front of the vessel the area will be scanned based on distance or time.

> **NOTE:** Navionics must be selected as the map source to enable this feature.

Chart View with Anti-Collision Overlay Turned On (Navionics)

anti-collision scan area (red)
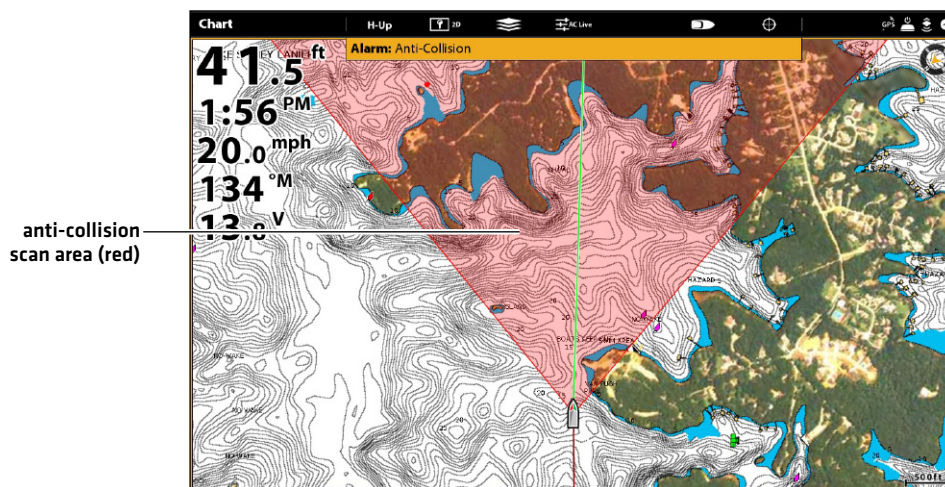
Turn on Anti-Collision

1. Press the HOME key.

2. Select Settings > Navigation.

3. Select Anti-Collision. Tap the on/off button, or press the ENTER key, to turn it on.

   Use the Anti-Collision default settings, or use the menus in this section to set how the area is searched (Search Parameters, Search (Time) or Search (Distance), and Anti-Collision Objects).

Turn on the Alarm

1. Press the HOME key.

2. Select Alarms > Navigation.

3. Select Anti-Collision Alarm. Tap the on/off button, or press the ENTER key, to turn it on.

Display the Anti-Collision Overlay

When the overlay is turned off, the scan area is shown only when a danger is detected.

When the overlay is turned on, the scan area is displayed at all times. When a potential danger is detected, the scan area will turn red.

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key.

2. Select Chart Options > Overlays > Vessel.

3. Select Anti-Collision.

4. Tap the check box, or press the ENTER key, to add a check mark and make it visible on the view.

Man Overboard (MOB) Navigation

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

Activate Man Overboard Navigation

1. Press and hold the MARK/Man Overboard key.

Man Overboard Navigation (in progress)
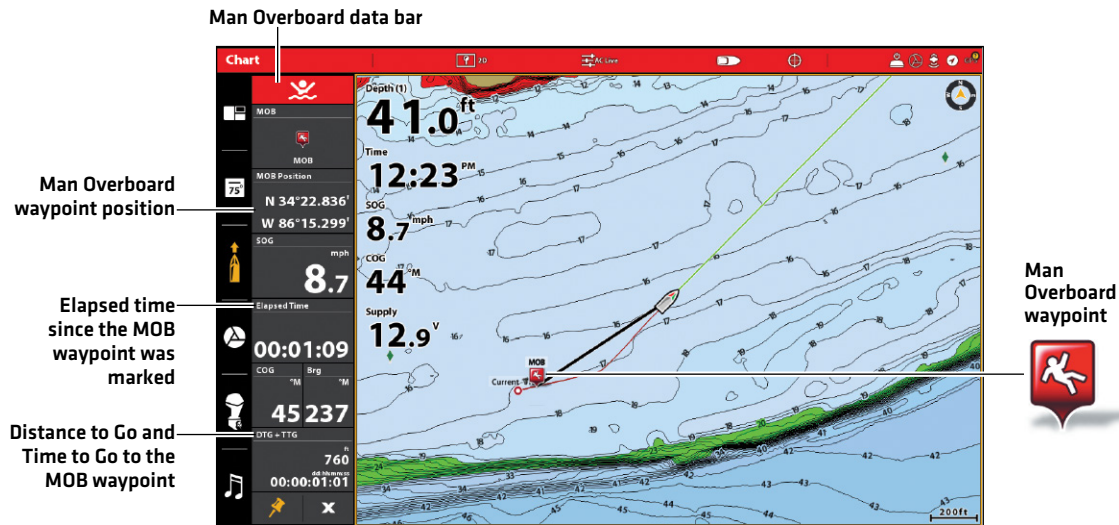
When Man Overboard is activated, any current navigation will be canceled and the current route will be discarded without notification. Man Overboard navigation will begin immediately, and you will see the following on the screen:

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

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

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

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

Data Bar: The data bar will display digital readouts for Man Overboard, including the Man Overboard Waypoint latitude/longitude position, the elapsed time since Man Overboard was activated, and the Distance to Go and Time to Go to the MOB waypoint (DTG + TTG).

Cancel Man Overboard Navigation

1. Press and hold the MARK/Man Overboard key. Select Cancel Navigation.

   OR

   Press the GO TO key. Select Cancel Navigation.

Customize the Chart View

The settings in this section are optional. You can use the default settings for the chart appearance and map source, or you can customize the Chart View for your navigation preferences. See *Views* for more information.

Display Chart Layers and Overlays

Display overlays on the Chart view to add more details and data.

Displaying Humminbird Overlays

overlays menu

Humminbird LakeMaster basemap

Humminbird LakeMaster aerial overlay
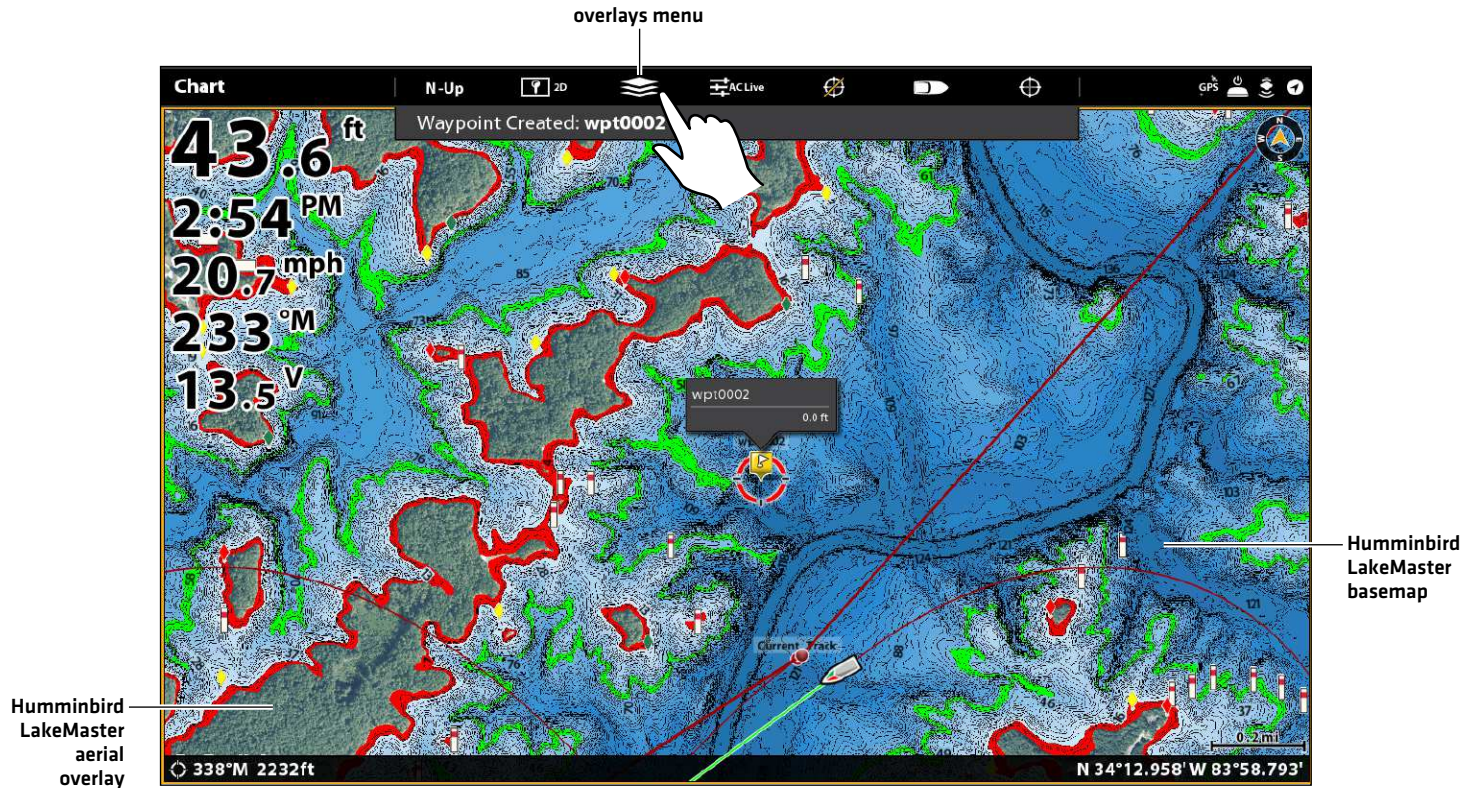
Tap to Open and Select

Display an Overlay

Choose between Humminbird and Navionics.

With those locations, you just have Satellite Maps [ON], 100%, and Land highlighted. The zoom level has to be less than 2 miles.

1. **Open the Layers Menu:** Tap the Layers Menu icon in the task bar.
2. Select Humminbird or Navionics.
3. **Humminbird:** Select Map Overlay or Base Layer. Select 2D Map, AutoChart, or SI Mosaic.
   Navionics: Select Satellite Maps, Land, Land + Shoals, or Land + Sea.

Humminbird Satellite Overlay Options	
2D Map	Select 2D Map to display
AutoChart	Select AutoChart
Land + Shoals	Select Land + Shoals to display the satellite layer over land and shallow water.
Land + Sea	Select Land + Sea to display the full satellite layer.

Navionics Satellite Overlay Options	
Satellite Maps	Select Satellite Maps
Land	Select Land to display the satellite layer over land only.
Land + Shoals	Select Land + Shoals to display the satellite layer over land and shallow water.
Land + Sea	Select Land + Sea to display the full satellite layer.

Displaying Humminbird Overlays

overlays menu

Humminbird LakeMaster PLUS aerial overlay
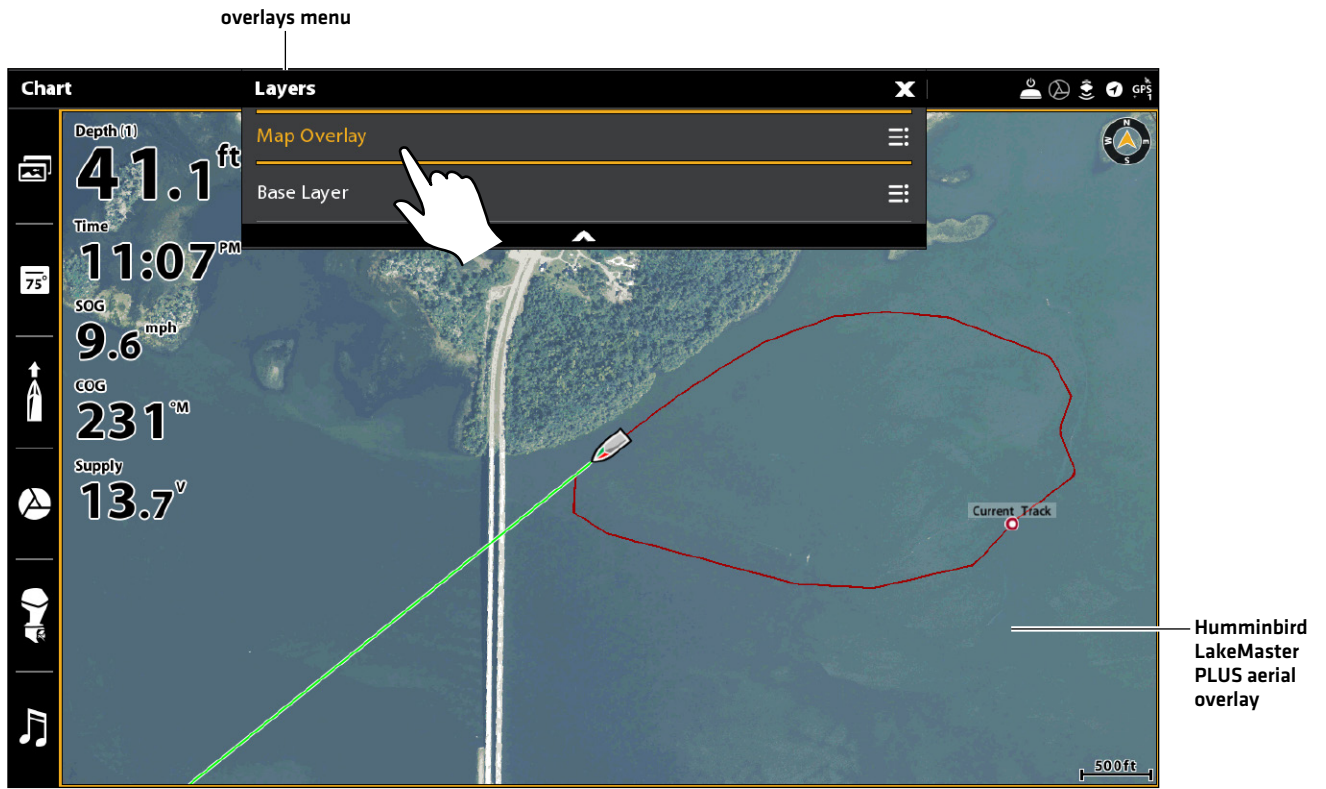
Tap to Open and Select

Customize the Humminbird Chart Display (optional)

Humminbird must be selected as the map source to enable the following features. The menu options will be different for Humminbird Chart Cards with VX Technology and Humminbird Legacy Chart Cards.

Humminbird Chart Cards with VX Technology

When Humminbird is selected as the map source, additional menus to customize the Humminbird chart display are added to the menu system.

Select a Chart Preset

Use Chart Presets to quickly alternate between settings. You can use the default Fishing or Navigation settings provided, or you can create a custom User preset with your preferences. The Fishing and Navigation presets are also fully customizable. You can restore each preset to its default settings at any time.

1. Press the MENU key.

2. Select Chart Options.

3. Select a Chart Preset.

> **QUICK TIP!** You can also change this setting by tapping the chart preset icon in the status bar.

Selecting a Chart Preset

Display Contour Lines and Depth Colors

You can display or hide contour lines, highlight shallow water, and highlight a depth range on the map.

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.
2. Select Chart Options.
3. Select Depths/Contours.
4. Select the following menus to your preference.

Contour Lines	Turn on Contour Lines to display contour lines on the map.
Contour Density	Use Contour Density to adjust the density of the contour lines displayed on the map. You can set the density to High, Medium, or Low. Contour lines must be turned on to adjust this feature. Contour density can only be customized in the Fishing and User presets. Navigation contour density cannot be changed.
Depth Palette	Turn on Depth Palette to turn on depth area colors in the Chart View.
Palette Min/Max Range	You can adjust the range of data shown on the chart by changing the minimum range and maximum range on the display. The range you select affects how the depth colors are displayed. For best results, set a narrow depth range threshold. For example, set the Palette Min Range to 100 and the Palette Max Range to 200.
Color Palette	Use Color Palette to change the colors used to display the map. You can also change this setting by tapping the color palette icon in the status bar.

Set Depth Highlights

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options.

3. Select Depths Highlights.

4. Select the following menus to your preference.

Depth Highlight	Turn on Depth Highlight to highlight a depth setting in the Chart Views. The depth you set will be highlighted in the color selected. You can set up to four depth highlights.
Highlight Range	When a Depth Highlight is active in the Chart Views, use Highlight Range to highlight a range on each side of the highlighted depth. For example, if you know a certain fish is holding at 18 to 20 feet, you can set the Depth Highlight at 19 feet, and the Highlight Range a +/– 1 foot. The view will show a green band from 18 to 20 feet.
Shallow Water Highlight	Turn on Shallow Water Highlight and adjust the slider. When the depth is equal to or less than the amount set, it will be highlighted in red (or the color you select) in the Chart Views. For example, if your boat has a draft of 3 feet, set the Shallow Water menu to 3 feet, and the unit will draw a red band from 0 to 3 feet.

Adjusting the Vx Chart Card Display Settings

Humminbird Legacy Chart Cards

When Humminbird is selected as the map source, additional menus to customize the Humminbird chart display are added to the menu system.
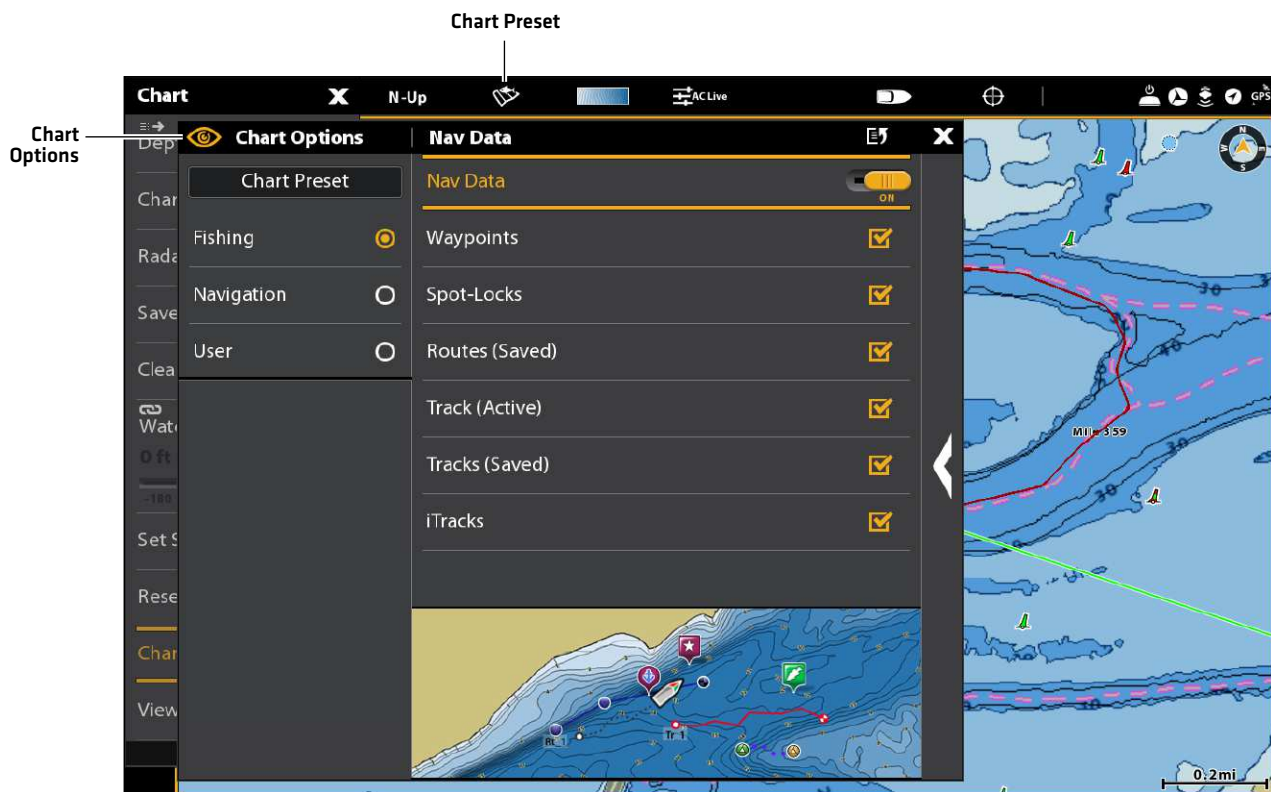
1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.
2. Select Chart Options.
3. Select Humminbird Settings.
4. Select the following menus to your preference.

Depth Colors	Turn on Depth Colors and adjust the range for depth shading in the Chart Views.
Depth Highlight	Turn on Depth Highlight to highlight a depth setting in the Chart Views. The depth you set will be highlighted in green. Use Depth Highlight with Highlight Range.
Highlight Range	When a Depth Highlight is active in the Chart Views, use Highlight Range to highlight a range on each side of the highlighted depth. For example, if you know a certain fish is holding at 18 to 20 feet, you can set the Depth Highlight at 19 feet, and the Highlight Range a +/− 1 foot. The view will show a green band from 18 to 20 feet.
Shallow Water	Turn on Shallow Water and adjust the slider. When the depth is equal to or less than the amount set, it will be highlighted in red in the Chart Views. For example, if your boat has a draft of 3 feet, set the Shallow Water menu to 3 feet, and the unit will draw a red band from 0 to 3 feet.
Contour Interval	Turn on Contour Interval to display lines at set intervals on the Chart View. Adjust the slider to set the distance between each line. Contour Interval is also affected by the Water Level Offset setting. See *Map Source: Using Built-in Charts*.

Show/Hide Spot Soundings (Humminbird Basemap)

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

1. From the Humminbird Settings menu, select Spot Soundings.

2. Select On or Off.

Set the Chart Orientation

Humminbird Vx Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > General > Orientation.

3. Select an orientation to apply to the chart.

Legacy Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > Preferences > Orientation.

3. Select an orientation to apply to the chart.

QUICK TIP! You can also select the Chart Orientation Menu on the status bar. See the illustration below.

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

Set the Motion Mode

Motion Mode controls how the chart moves on the view. This menu is available in Custom Mode (see *The Menu System: Change the User Mode*).

Humminbird Vx Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > General > Motion Mode.

3. Select Relative or True.

Legacy Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > Preferences >Motion Mode.

3. Select Relative or True.

Relative	The position of the vessel is fixed on the view and the chart moves with the vessel.
True	The chart is fixed and the vessel moves towards chart objects on the view.

Turn on/off Vessel Offset

Vessel Offset allows you to see more of the view based on the speed of the vessel. Vessel Offset works with Auto Shift Speed.
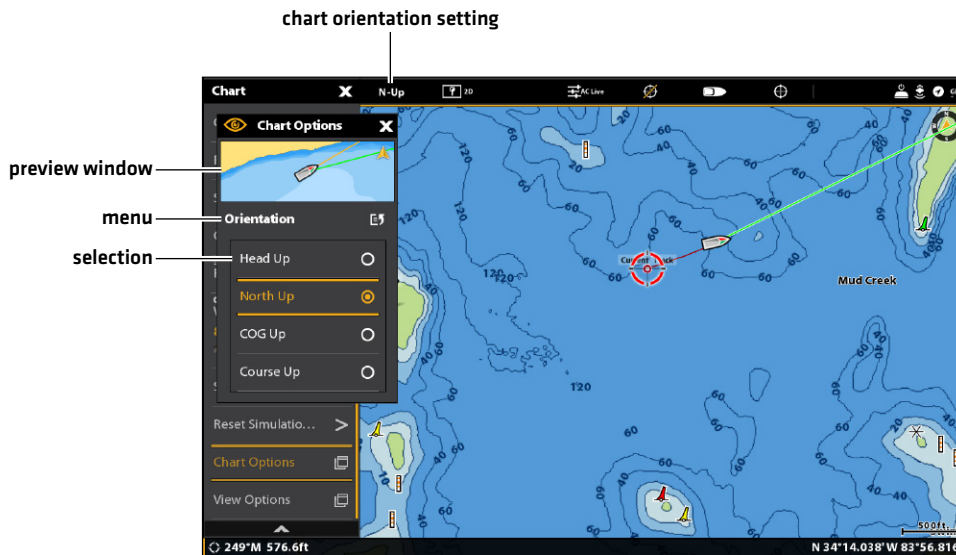
Humminbird Vx Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > General > Vessel Offset.

3. Select Off, On, or Auto.

Legacy Chart Card

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Chart Options > Preferences > Vessel Offset.

3. Select Off, On, or Auto.

Off	The vessel is displayed in the center of the Chart View.
On	The vessel is displayed on the lower part of the Chart View.
Auto	When the vessel is moving below the Auto Shift Speed setting, the vessel icon will be displayed in the center of the view. When the vessel is moving at or above the Auto Shift Speed setting, the vessel icon will move to the edge of the view so that more of the view is shown on-screen.

4. **Close:** Press the EXIT key until the menu is closed.

5. To change the Auto Shift Speed Setting, press the MENU key twice. Select My Vessel > Auto Shift Speed.

Turn on Auto Zoom

Auto Zoom focuses the view on the current route leg as it is being navigated. As the vessel's speed increases, the chart range will increase. If you press the ZOOM keys to see more or less of the view, Auto Zoom will pause.

> **NOTE:** The Auto Zoom setting does not apply to the 3D Views.

1. Press the HOME key.

2. Select Settings.

3. Select Navigation.

4. Under Navigation Options, select Auto-Zoom. Tap the on/off button, or press the ENTER key, to turn it on.

Customize the Navionics Chart Display (optional)

Navionics must be selected as the map source to enable the following features.

Select Map Data

When a Navionics chart is selected as the map source, you can set navaids, marine, and land icons to hidden or visible. The Depth menu option allows you to see shading on the map based on the set depth.

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.
2. Select Chart Options.
3. Select Navionics Settings.
4. Use the touch screen or the Joystick to select a menu and change the settings.

Chart View with Navaids and Icons Displayed (Navionics)
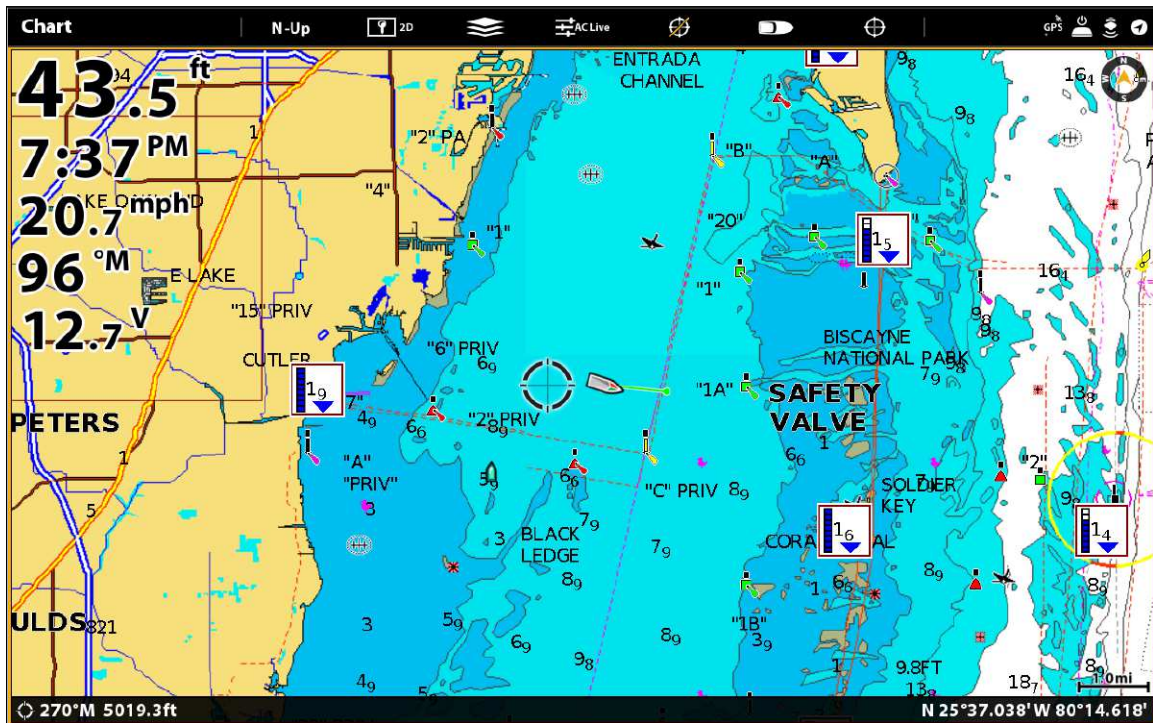
Change the Chart Mode

Use the instructions in this section to switch the Chart View from 2D to 3D.

Change the Chart Mode

Touch Screen	Keypad
1. With two fingers, tap the screen twice. OR 1. Tap Chart in the status bar. 2. Select Chart Mode. 3. Select a menu option.	1. Press the MENU key. 2. Select Chart Mode. 3. Select a menu option.

Change the Chart View Data Overlays

Use the Overlays menu to display or hide information on the view. In a Chart View, you can display or hide the vessel icon, navigation data (waypoints, routes, tracks), data overlays, AIS and MARPA targets, and range rings. The available menu options are determined by the accessories attached to the control head network. Also, see **Views** for more information about Overlays.

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.
2. Select Chart Options.
3. Select Overlays.
4. Use the touch screen or Joystick to select a menu and change a setting. (check mark = visible, blank = hidden).

Chart View with Overlays Displayed (Humminbird)

Chart and Radar

If a radar is connected to the control head network, the radar data can be displayed on the Chart View. To adjust the menu settings for the radar, see *Radar Overview* for more information.

Start Radar Transmission

1. **Humminbird CHIRP Radar:** Press the POWER key once. Select Radar > Standby. Press the POWER key again, and select Radar > Transmit.

   Humminbird Radar: Press the POWER key once. Select Radar Transmit, and turn it on.

   > 📝 **NOTE:** For more information about Humminbird CHIRP Radar and Humminbird Radar, see *Radar Overview*.

Display Radar on the Chart View

1. With a Chart View displayed on-screen, tap Chart in the status bar, or press the MENU key once.

2. Select Radar.

3. Select Radar Overlay. Tap the on/off button, or press the ENTER key, to turn it on.

   > 📝 **NOTE:** You can also display Range Rings and MARPA Targets on the Chart View. See *Change the Chart View Data Overlays* in this section for more information.

Turning on the Radar Overlay

INTRODUCTION TO NAVIGATION

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

There are many ways to start navigation or edit navigation data with your Humminbird control head. The instructions in this section review navigation features on the Chart View. To use navigation features from the Nav Data tool, see *Manage your Navigation Data*.
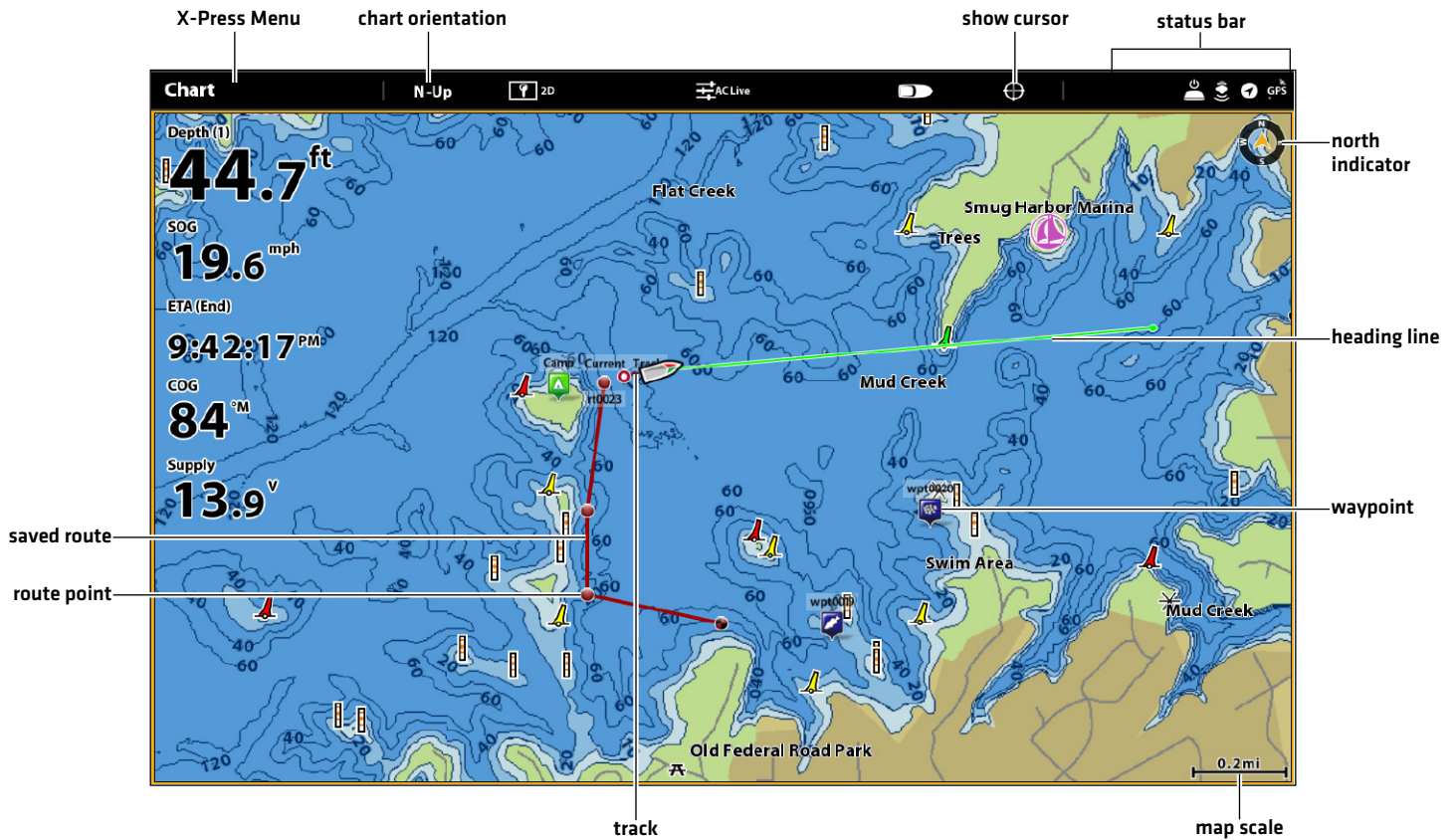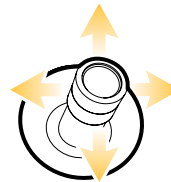
📝 **NOTE:** To start navigation from your control head to your autopilot, see the autopilot section of this manual.

Chart View with Waypoints, Routes, Tracks

X-Press Menu   chart orientation   show cursor   status bar
north indicator
heading line
waypoint
saved route
route point
track
map scale

OR

Tap to Activate the Cursor

Move the Joystick to Activate the Cursor

Navigation Menu Overview

There are many ways to use the navigation features on your control head. The Navigation X-Press Menu and Cursor menu are opened using the touch screen. The same menus are also opened by pressing the MARK key, GO TO key, or ENTER key.

> This section is an overview of the menus available for navigation. The availability of menu options is determined by the navigation mode and your Humminbird model. To apply these functions, see *Waypoints*, *Routes*, *Tracks*, and *Search*.

Navigation X-Press Menu

The **Navigation X-Press Menu** allows you to open the following navigation menus: Mark, Go To, and Info. The Navigation X-Press Menu is only available in the Chart View, Sonar Views, or Radar View displayed on-screen with Navigation enabled.

Open the Navigation X-Press Menu

1. With a Chart View displayed on-screen, tap Chart in the status bar.
2. Select Mark, Go To, or Info.
3. Select an action from the submenu. For example, to mark a waypoint, select Mark > Waypoint.

Using the Touch Screen to Open the Navigation X-Press Menu
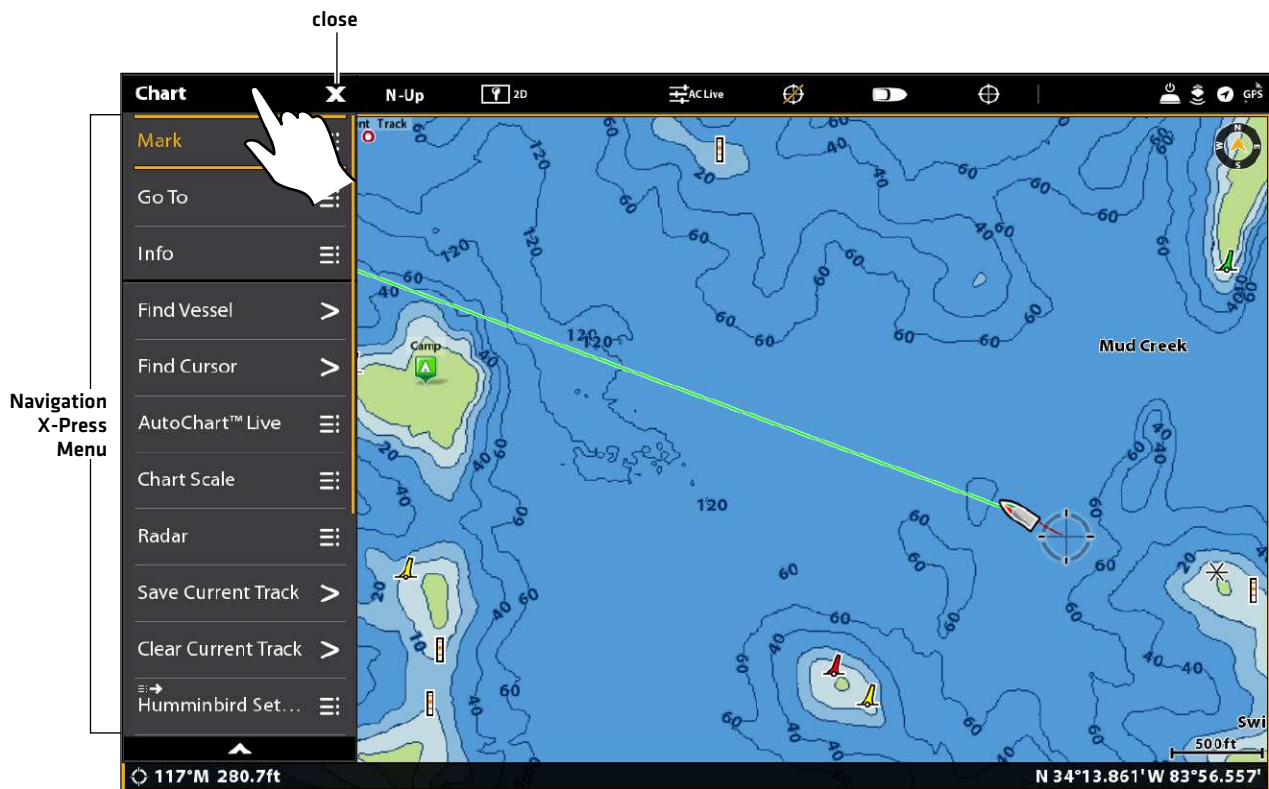
Mark Menu

The **Mark menu** marks a waypoint at the selected location. You can also create a saved route or mark the vessel position. See *Waypoints* and *Routes* for more information about using this menu.

Open the Mark Menu

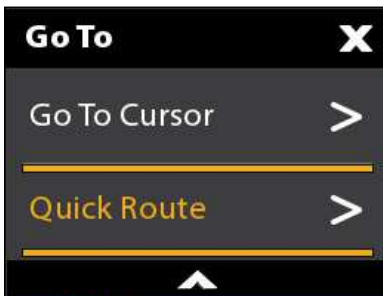1. **Touch Screen:** Select Mark from the Navigation X-Press Menu.

OR

Keypad: Press the MARK key.

Mark Menu Options	
Waypoint	Select Waypoint to save a waypoint at the vessel position. If the cursor is active, the waypoint is saved at the cursor position.
Route	Select Route to create a saved route. See *Routes* for more information.
Lat/Long	Use the on-screen keyboard to manually enter a latitude/longitude position for a waypoint.
Vessel Position (with active cursor)	Select Vessel Position to save a waypoint at the vessel position even though the cursor is active.

Go To Menu

The **Go To menu** starts navigation to the item you select. See *Routes* for more information about using this menu.

Open the Go To Menu

1. **Touch Screen:** Select Go To from the Navigation X-Press Menu.

OR

Keypad: Press the GO TO key.

Go To Menu Options	
Quick Route	Select Quick Route to mark quick route points and start navigation. See **Routes** for more information.
Nav Data	Open the Nav Data tool to select saved navigaton data and start navigation.
Lat/Long	Open the on-screen keyboard to enter a latitude/longitude position. Select Go To to start navigation to the position.
Go To Cursor	If the cursor is active, navigation will start to the cursor position.

When the Go To menu is opened during navigation, additional menu options are available, including the following:

Go To Menu Options (during navigation)	
Cancel Navigation	Select Cancel Navigation to cancel navigation with the control head.
Restart Course	Select Restart Course to start navigation from the current vessel position instead of from the first route point. The control head will recalculate navigation to the next closest point in the route. This is helpful if the boat has navigated off course from the current route.
Next Point	Select Next Point to skip the current point and navigate to the next route point in the route.
Reverse Route	Select Reverse Route to reverse the currently navigated route. Navigation will start from the vessel position and continue in the opposite order.

Info Menu
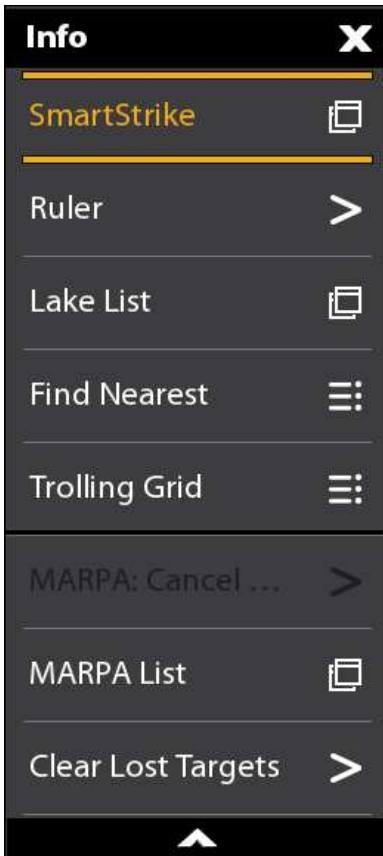
Use the **Info menu** to start a proximity search. You can also set a trolling grid from this menu.

If you are using Humminbird as the map source, you can search lake information. Navionics also has additional search options.

If you have Radar and AIS attached, use this menu to search targets (See *Radar Overview, AIS and MARPA*).

Open the Info Menu

1. **Touch Screen:** Select Info from the Navigation X-Press Menu.

OR

Keypad: Press the ENTER key.

NOTE: If you select a waypoint, route, or track with the cursor, and then press the ENTER key, the Info menu for the selected item will display.

Info Menu Options	
Info	Select Info to search the area within a preset range for a variety of data, including cautions, tide stations, current stations, and ports. The available information is determined by the selected map source and the information available in the search area. See **Search** for more information. [Navionics only]
Ruler	Select Ruler to measure the distance between two positions on the view. Press the ENTER key to select the measurement start point. Move the Joystick to the second selected position, and press the ENTER key to mark the measurement end point.
Lake List	Select Lake List to search for lakes within a preset range. Humminbird must be selected as the map source. See **Search** for more information.
Lake Name	Select Lake Name to open the on-screen keyboard and search for a lake by name. Humminbird must be selected as the map source. See **Search** for more information.
Find Nearest	Select Find Nearest to search the closest waypoints, routes, and tracks within a preset range. See **Search** for more information.
Trolling Grid	Select Trolling Grid to apply a trolling grid to a position on the Chart View. See **Waypoints** for more information.
AIS: All Inactive	Select this menu to change all tracked AIS targets to inactive (see **AIS and MARPA**).
AIS List	Select this menu to display a list of all AIS targets within the AIS transmission range (see **AIS and MARPA**).
MARPA: All Inactive	Select this menu to cancel all MARPA targets (see **AIS and MARPA**).
MARPA List	Select this menu to display a list of all MARPA targets (see **AIS and MARPA**).
Clear Lost Targets	Select this menu to clear the list of lost targets from view.