Handheld GPS Connection Kit

531324-1_E

HUMMINBIRD®

Accessory Manual

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. Genuine Humminbird accessories offer the opportunity to upgrade and expand the capabilities of your Humminbird product. 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 - free of charge during the first year after purchase, and available at a reasonable rate after the one-year period. For complete details, see the Warranty section included in this manual. We encourage you to read this manual carefully in order to get full benefit from your Humminbird accessory.

Contact Humminbird Customer Service at **1-800-633-1468** or visit our Web site at **humminbird.com**.

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

WARNING! *This product contains chemicals known to the State of California to cause cancer and/or reproductive harm.*

CAUTION! *Do NOT mount the cables where the connectors could be submerged in water or flooded. If cables are installed in a splash-prone area, it may be helpful to apply dielectric grease to the inside of the connectors to prevent corrosion. Dielectric grease can be purchased separately from a general hardware or automotive store.*

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: *Illustrations in this manual may not look the same as your product, but your unit will function in the same way.*

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

NOTE: *To review the latest compatible accessories for your control head, visit our Web site at* ***humminbird.com****.*

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

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 Customer Service at **(334) 687-6613**.

CannonLink™, DualBeam PLUS™, Humminbird®, HumminbirdPC™, InterLink™, QuadraBeam PLUS™, Structure ID™, SmartCast®, WeatherSense® and X-Press™ Menu are trademarked by or registered trademarks of Johnson Outdoors Marine Electronics, Inc.

© 2014 Johnson Outdoors Marine Electronics, Inc. All rights reserved.

Table of Contents

How GPS Works 1

Connecting a Handheld GPS Receiver to the Fishing System 2

Handheld GPS Connection Kit 3

Direct-connect Cable Installation (AS HHGAR082, AS HHMAG344) 3
Bare Wire Cable Installation (AS-HHGPS) 4

Views 7

Combo View 7
Track View 8
Bird's Eye View 10
View Orientation 11

Introduction to Navigation 12

Waypoints, Routes and Tracks 12
Save, Edit or Delete a Waypoint 13
Navigate to a Waypoint or Position 14
Add a Waypoint Target or Trolling Grid 15
Save or Clear a Current Track 16
Edit, Delete or Hide Saved Tracks 16

The Menu System 17

Start-Up Options Menu 19

Normal Operation 19
Simulator 20
System Status 21
PC Connect (with PC Connect Cable Only) 22

Sonar X-Press Menu (Sonar Views Only) 23

Mark 23

Navigation X-Press Menu 24

Mark 24
Waypoint 001 (Only with an Active Cursor on a Waypoint) 25
Cursor to Waypoint (Track or Combo View Only) 25
Zoom 26
Go To 26
Save Current Track 26

Table of Contents

Clear Current Track 27
Skip Next Waypoint (Only When Navigating) 27
Cancel Navigation (Only When Navigating) 27
Remove Target (Only If Target is Active) 28
Remove Grid (Only If Grid is Active) 28
Sonar Window (Combo View Only) 28
Waypoint [Name] (Most Recently-Created Waypoint) 29

Navigation Menu Tab **30**
Current Track 30
Saved Tracks 31
Waypoints 32
View Orientation 33
North Reference 34
Grid Rotation 34
Trackpoint Interval 34
Track Min Distance (Advanced) 35
Map Datum (Advanced) 35
Course Projection Line 36
Delete All Nav Data (Advanced) 36
Continuous Navigation Mode 36
Alarms Menu Tab 37
Off Course Alarm 37
Arrival Alarm 38
Drift Alarm 38

Setup Menu Tab **39**
Units - Distance 40
Units - Speed 40
Triplog Reset 40
Local Time Zone (Advanced) 41
Daylight Saving Time (Advanced) 41
Position Format (Advanced) 41
Time Format (Advanced, International Only) 42
Date Format (Advanced, International Only) 42
NMEA Output (Advanced) 43

Accessories Menu Tab **44**

Table of Contents

Troubleshooting **45**
Fishing System Doesn't Power Up 45
Fishing System Defaults to Simulator with a Transducer Attached 45
Display Problems 46
Finding the Cause of Noise 47

Humminbird 1-Year Limited Warranty **48**

Humminbird Service Policy **49**

Returning Your Unit for Service **50**

Contact Humminbird **52**

NOTE: *Entries in this Table of Contents which list (International Only) are only available on products sold outside of the US and Canada by our authorized International Distributors. To obtain a list of authorized International Distributors, please visit our Web site at* ***humminbird.com*** *or contact Humminbird Customer Service at* ***1-800-633-1468*** *to locate the distributor nearest you.*

NOTE: *Entries in this Table of Contents which list (with PC Connect Cable Only) require the purchase of a separate accessory. To purchase accessories for your control head, visit our Web site at* ***humminbird.com*** *or contact Humminbird Customer Service at* ***1-800-633-1468****.*

How GPS Works

Your Fishing System uses GPS and sonar to determine your position, display it on a grid, and provide detailed underwater information. The Global Positioning System (GPS) is a satellite navigation system designed and maintained by the U.S. Department of Defense. GPS was originally intended for military use; however, civilians may also take advantage of its highly accurate position capabilities, typically within +/- 10 meters, depending on conditions. This means that 95% of the time, the GPS receiver will read a location within 10 meters of your actual position. Some GPS Receivers also use information from WAAS (the Wide Area Augmentation System), EGNOS (the European Geostationary Navigation Overlay Service), and MSAS (the MTSAT Satellite Augmentation System) satellites if they are available in your area.

GPS uses a constellation of satellites that continually send radio signals to the earth. Your present position is determined by receiving signals from satellites and measuring the distance from the satellites.

All satellites broadcast a uniquely coded signal once per second at exactly the same time. The GPS receiver on your boat receives signals from satellites that are visible to it. Based on time differences between each received signal, the GPS receiver determines its distance to each satellite. With distances known, the GPS receiver mathematically triangulates its own position. With once per second updates, the GPS receiver then calculates its velocity and bearing.

The following GPS functionality is currently supported by the Fishing System when it is connected to a GPS receiver:

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

Connecting a Handheld GPS Receiver to the Fishing System

Humminbird has designed two different direct-connect cables to fit the most common GPS Receiver configurations. In case neither of the two direct-connect cables fit your configuration, we also provide a cable that can connect your Handheld GPS Receiver to your Fishing System control head via an additional NMEA data cable which you must purchase from your Handheld GPS Receiver manufacturer.

The Humminbird cable part numbers that are compatible with your Handheld GPS Receiver are shown in the chart below.

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

Your Handheld GPS	Our Cable Part #	Your Handheld GPS	Our Cable Part #
Garmin GPS V	AS HHGAR082	GPS III	AS HHGAR082
GPS 12XL	AS HHGAR082	GPS III Pilot	AS HHGAR082
GPSMAP 60	AS HHGAR082	GPS III Plus	AS HHGAR082
GPSMAP 60Cx	AS HHGAR082	**Magellan** Meridian	AS HHMAG344
GPSMAP 60CSx	AS HHGAR082	Sport Trak	AS HHMAG344
GPS 72	AS HHGAR082	**Garmin** eTrex	AS-HHGPS*
GPS 76	AS HHGAR082	eTrex Summit	AS-HHGPS*
GPS 76S	AS HHGAR082	eTrex Legend	AS-HHGPS*
GPSMAP 76	AS HHGAR082	eTrex Venture	AS-HHGPS*
GPSMAP 76Cx	AS HHGAR082	eTrex Vista	AS-HHGPS*
GPSMAP 76CSx	AS HHGAR082	eTrex Camo	AS-HHGPS*
GPS 92	AS HHGAR082	Geko 201	AS-HHGPS*
GPS II	AS HHGAR082	Geko 301	AS-HHGPS*
GPS II Plus	AS HHGAR082	**Other GPS Handhelds***	AS-HHGPS*

NOTE: *The AS-HHGPS accessory requires the purchase of an additional NMEA data cable (made by the manufacturer of the Handheld GPS Receiver) to complete the connection to the Handheld GPS Receiver.*

Handheld GPS Connection Kit

The Humminbird Handheld GPS Connection Kit includes the following items:

- Handheld GPS Cable (NMEA data connection and optional 12 VDC power connection)
- Y-cable for multiple accessory attachment (NMEA and ACCY connections)
- Handheld GPS Connection Kit Accessory Manual

NOTE: *You may have purchased either a direct-connect NMEA data cable, or one that requires splicing to an additional NMEA data cable (made by the manufacturer of the Handheld GPS receiver) to complete the connection to the Handheld GPS receiver.*

NOTE: *The AS-HHGPS accessory requires the purchase of an additional NMEA data cable (made by the manufacturer of the Handheld GPS Receiver) to complete the connection to the Handheld GPS Receiver.*

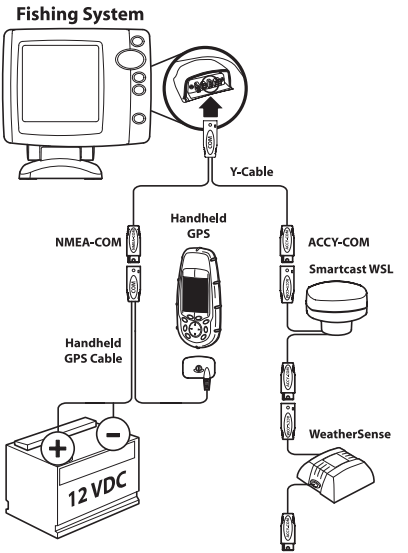
Direct-connect Cable Installation (AS HHGAR082, AS HHMAG344)

Use the following instructions to direct-connect your Handheld GPS Receiver to your Fishing System.

1. Insert the Handheld GPS Cable's NMEA-COM connector into the appropriate terminal slot on the back of your Fishing System control head. The slots are keyed to prevent reverse installation, so be careful not to force the connector into the holder.

   NOTE: *If the terminal slot is already used by another accessory, you will need to use the included Y-cable. Insert the Y-cable's COM connector into the appropriate terminal slot on the back of your Fishing System control head, then connect the Handheld GPS Cable to the NMEA-COM connector, and attach your accessory cable to the ACCY-COM connector.*

2. Connect the Handheld GPS Cable to your Handheld GPS Receiver. Refer to your Handheld GPS Receiver manufacturer's user manual for instructions.



3. Your NMEA Cable allows you to connect your Handheld GPS Receiver to an external 12 VDC power supply. If you choose to run your Handheld GPS Receiver from an external 12 VDC power supply, connect the black wire to ground (-) and the red wire to positive (+) 12 VDC power.

CAUTION! *Use caution before connecting the red +12V wire to your Handheld GPS Receiver, and consult your Handheld GPS Receiver manufacturer's user manual before connecting power and ground. Some Handheld GPS Receivers have a different voltage input than 12V.*

4. Power up the Fishing System Control Head (see your Fishing System Operations Manual for details).

NOTE: *The Fishing System accepts NMEA 0183 version 2.20 input at 4800 baud and listens for the NMEA sentences RMC and GGA to determine current position, heading, speed, time and date. In addition, the GSA and GSV sentences are used to monitor GPS satellite location and usage.*

5. If the NMEA output of your Handheld GPS Receiver can be configured, confirm the following settings on your GPS Handheld Receiver:
   - NMEA Output = enabled
   - Baud rate = 4800
   - RMS and GGA sentences = enabled

NOTE: *See your Handheld GPS Receiver manufacturer's user manual for NMEA output information.*

NOTE: *Depending on your Fishing System model, when the Fishing System detects the NMEA-input from the Handheld GPS Receiver, the Combo, Track and Bird's Eye Views will be added automatically to the VIEW key function. A Navigation Menu tab and the Navigation X-Press Menu will also be added automatically to the menu system.*

Bare Wire Cable Installation (AS-HHGPS)

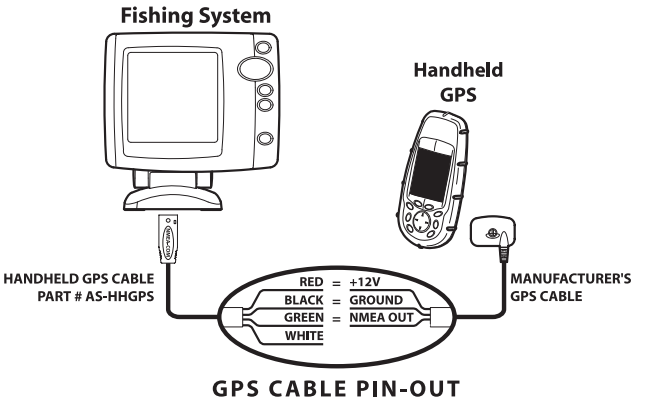
Use the following instructions to connect your Handheld GPS to your fishing system using the AS-HHGPS. You will need to purchase the NMEA data cable (not included) from the manufacturer of your Handheld GPS Receiver.

1. Insert the Handheld GPS Cable's NMEA-COM connector into the appropriate terminal slot on the back of your Fishing System control head. The slots are keyed to prevent reverse installation, so be careful not to force the connector into the holder. The pinouts of the Humminbird NMEA data cable are as follows:
   - Red Wire: +12V
   - Black Wire: Ground
   - Green Wire: NMEA In
   - White Wire: NMEA Out

NOTE: *If the terminal slot is already used by another accessory, you will need to use the included Y-cable. Insert the Y-cable's COM connector into the appropriate terminal slot on the back of your Fishing System control head, then connect the Handheld GPS Cable to the NMEA-COM connector, and attach your accessory cable to the ACCY-COM connector.*

2. Connect the NMEA In (Green wire) of the cable to the NMEA Out of your Handheld GPS Receiver.

CAUTION! *Use caution before connecting the red +12V wire to your Handheld GPS Receiver, and consult your Handheld GPS Receiver manufacturer's user manual before connecting power and ground, as some Handheld GPS Receivers have a different voltage input than 12V. The Fishing System control head can provide a maximum of 100mA to a Handheld GPS Receiver. The voltage provided is typically 1 volt lower than the boat battery voltage supplied to the Fishing System control head.*



NOTE: *The white NMEA Out wire is provided for other uses, such as connecting to an autopilot, but it is not needed to connect to a Handheld GPS Receiver.*

3. Connect the Handheld GPS Cable to your Handheld GPS Receiver. Refer to your Handheld GPS Receiver manufacturer's user manual for instructions.
4. Your NMEA Cable allows you to connect your Handheld GPS Receiver to an external 12 VDC power supply. If you choose to run your Handheld GPS Receiver from an external 12 VDC power supply, connect the black wire to ground (-) and the red wire to positive (+) 12 VDC power.

CAUTION! *Use caution before connecting the red +12V wire to your Handheld GPS Receiver, and consult your Handheld GPS Receiver manufacturer's user manual before connecting power and ground. Some Handheld GPS Receivers have a different voltage input than 12V.*

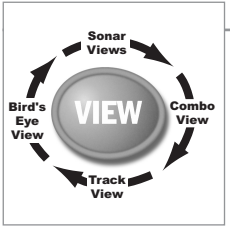
5. Power up the Fishing System Control Head (see your Fishing System Operations Manual for details).

NOTE: *The Fishing System accepts NMEA 0183 version 2.20 input at 4800 baud and listens for the NMEA sentences RMC and GGA to determine current position, heading, speed, time and date. In addition, the GSA and GSV sentences are used to monitor GPS satellite location and usage.*

6. If the NMEA output of your Handheld GPS Receiver can be configured, confirm the following settings on your GPS Handheld Receiver:
   - NMEA Output = enabled
   - Baud rate = 4800
   - RMS and GGA sentences = enabled

NOTE: *See your Handheld GPS Receiver manufacturer's user manual for NMEA output information.*

NOTE: *Depending on your Fishing System model, when the Fishing System detects the NMEA-input from the Handheld GPS Receiver, the Combo, Track and Bird's Eye Views will be added automatically to the VIEW key function. A Navigation Menu tab and the Navigation X-Press Menu will also be added automatically to the menu system.*



Views

The following views will be added to the view rotation when a Handheld GPS Receiver is connected to the Fishing System:

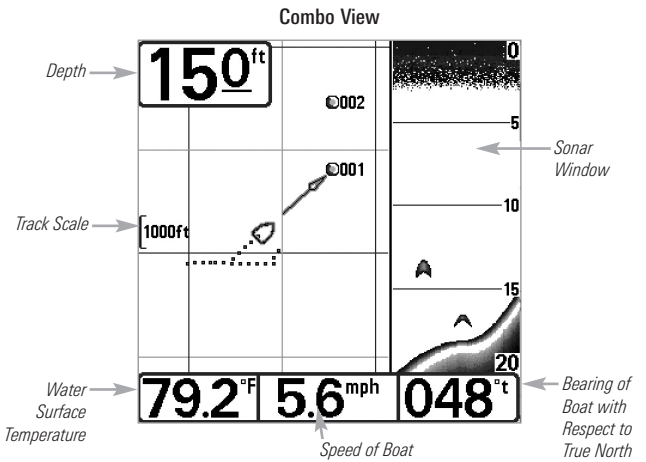
Navigation views:

- Combo View
- Track View
- Bird's Eye View

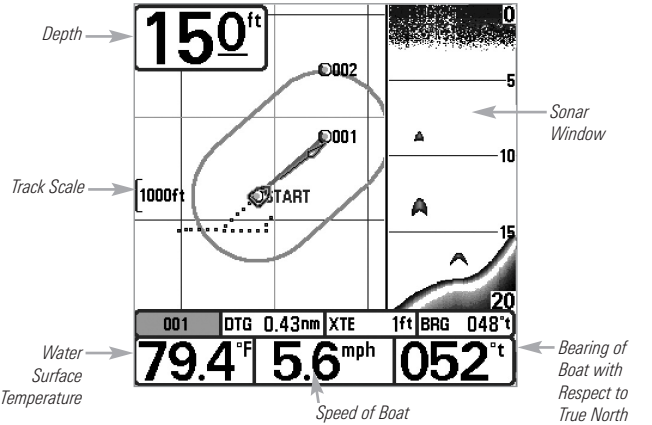
When the VIEW key is pressed, the display cycles through the available views. When the EXIT key is pressed, the display cycles through the available views in reverse order. Any view can be hidden or displayed as part of the view rotation using the Views Menu tab. Refer to your Fishing System Operations Manual for more details.

Combo View

Combo View is displayed as a split screen, with Track View on the left and Sonar View on the right side of the screen. The width of the sonar window can be changed by pressing the MENU key and using the 4- WAY Cursor Control key to select Sonar Window from the Sonar X-Press Menu.



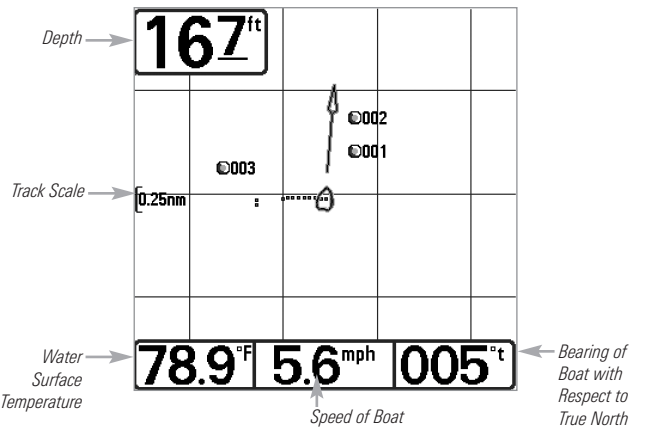
Combo View with Navigation



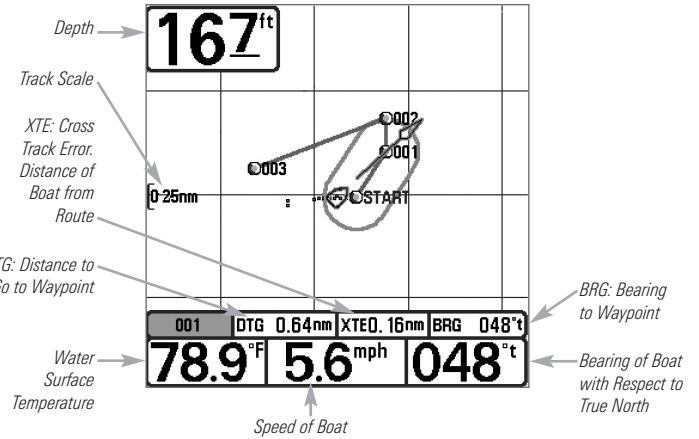
Track View

Track View displays the current track (also known as the position history or breadcrumb trail) showing where the boat has been, along with saved tracks, waypoints, and the current route (when navigating).

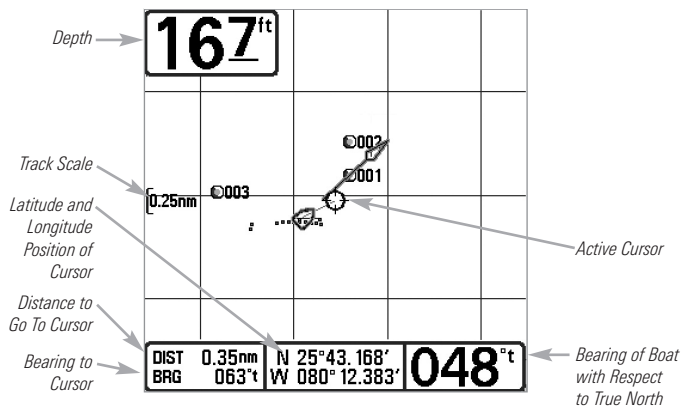
Track View



Track View with Navigation



Track View with Active Cursor



Panning: Use the 4-WAY Cursor Control key to move the track around on the display in the direction of the key being pressed. When you do this, a bull's eye cursor is drawn at the center of the screen and is linked to the boat by a gray line, even if the boat is off the screen. At the same time, the distance and bearing from the boat to the cursor position, as well as the

latitude/longitude coordinates of the cursor, are displayed at the bottom of the view. Pressing the EXIT key moves the cursor back to the original position of the boat.

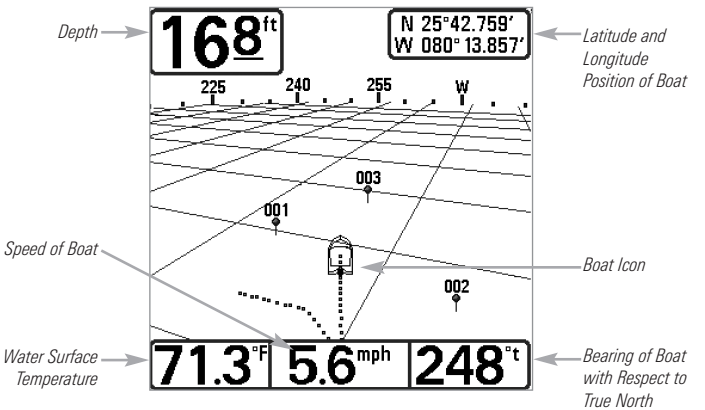
Bird's Eye View

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

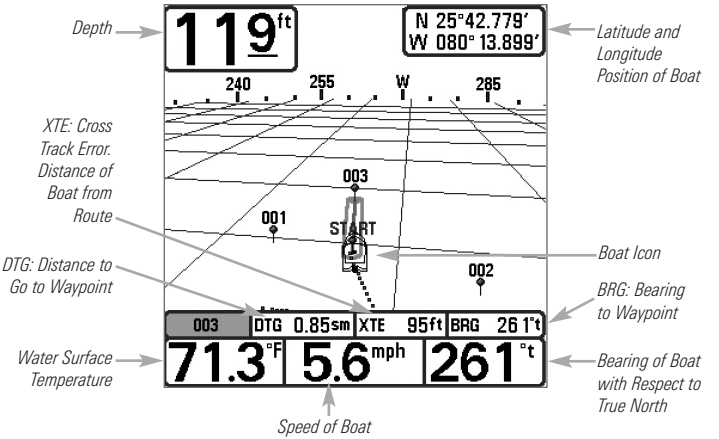
When you press the 4-WAY Cursor Control key in the **Bird's Eye View,** the position of the eye point will shift. This allows you to move and turn the eye point so that you can look off to the sides, or even behind the boat. Pressing the RIGHT or LEFT arrow keys on the 4-WAY Cursor Control key turns the eye point right or left, while pressing the UP arrow key moves the eye point forward, and pressing the DOWN Cursor key moves the eye point backward.

Pressing the EXIT key moves the eye point back to its original position behind and above the boat.

Bird's Eye View



Bird's Eye View with Navigation



View Orientation

When your Fishing System control head is in **Track** or **Combo** View, you can choose the orientation of the view by selecting North-Up or Course-Up on the Navigation Main Menu. When **North-Up orientation** is selected, True North is shown at the top of the display. In other words, objects located to the north of the boat are drawn above the boat. When **Course-Up orientation** is selected, the direction of motion of the boat is shown at the top of the display. In other words, objects ahead of the boat are drawn above the boat. In both orientations, the view pans automatically, so that the boat is always centered on the display.

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

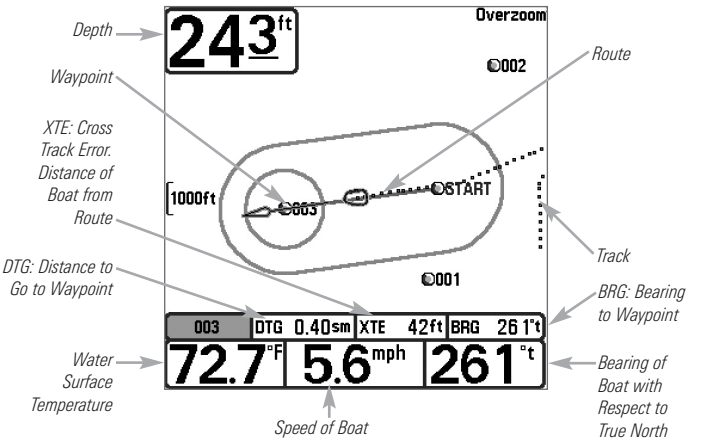
Introduction to Navigation

Use your Fishing System to establish waypoints at areas of interest and navigate to those waypoints via a route (representing the shortest intended distance between waypoints). You can also view and save tracks, which represent the actual path of the boat. Refer to your Fishing System Operations Manual for more details.

Waypoints, Routes and Tracks

Waypoints are stored positions that allow you to mark areas of interest or navigation points.

Waypoints, Routes and Tracks



Routes link two or more waypoints together to create a path for navigation, and are used in trip planning. A route represents your intended navigation and shows the shortest path from each waypoint to the next. As you travel a route, staying on the route line is the most efficient way to get to your destination, although you should always look out for obstacles not shown on the fishing system view.

Tracks consist of detailed position history, and are displayed as a breadcrumb trail of trackpoints. The Current Track shows the position history since the unit was powered up. You can clear the Current Track or save it at any time. The current track represents your actual path so far.

Save, Edit, or Delete a Waypoint

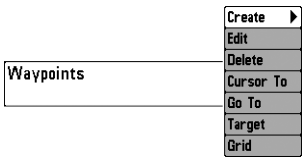
Save your current position as a waypoint: On any view, press the MENU key to display the X-Press Menu. Select Mark and press the RIGHT Cursor key to save the current position of the boat as a waypoint.

Save the cursor position as a waypoint: On the Track or Combo View, use the 4-WAY Cursor Control key to designate the position you want to save as a waypoint. Then press the MENU key to display the X-Press Menu. Select Mark and press the RIGHT Cursor key to save the current position of the boat as a waypoint.

Save a position from the sonar history: On any Sonar View, use the 4-WAY Cursor Control key to point to a feature in the sonar history (also called the Sonar Saver feature). Then press the MENU key to display the X-Press Menu. Select Mark and press the RIGHT Cursor key to create a waypoint at the location where that sonar reading was taken. The new waypoint will also record the depth at that location.

> ***NOTE:*** *When you save a waypoint by any of these methods, a numerical waypoint name is automatically assigned. You can edit the waypoint information later to give it a different name and select an icon to represent it (see* ***Navigation Menu Tab, Waypoint Submenu****).*

Display the Waypoints Submenu: From any view, press the MENU key twice to display the Main Menu System, then use the RIGHT Cursor key to select the Navigation tab. Select Waypoints and press the RIGHT Cursor key to display the Waypoints submenu.



Waypoints Submenu

Program a specific position as a waypoint: To create a waypoint that is NOT your current position, from the Waypoints submenu, select the Create option and press the RIGHT Cursor key. Use the 4-WAY Cursor Control key to program a waypoint name, latitude, longitude, and icon before selecting Save.

Edit a waypoint: From the Waypoints submenu, select Edit and press the RIGHT Cursor key to display a list of saved waypoints. Select the waypoint you want to edit and press the RIGHT Cursor key. Use the 4-WAY Cursor Control key to move from field to field, and the UP and DOWN Cursor keys to change values once you are in a field. In the Waypoint Name, Latitude and Longitude fields, use the UP and DOWN Cursor keys to change the letter or number. All upper and lower case letters are available, as well as digits 0-9 and some punctuation characters. In the Waypoint Icon field, use the UP and DOWN Cursor keys to change the icon used to represent the waypoint on the Combo and Track Views. You can exit these fields with the LEFT and RIGHT Cursor keys or by pressing the EXIT key. Select Save and press the RIGHT Cursor key to save your changes.

To make it easier to view a waypoint to edit, select **Sort By** and press the LEFT or RIGHT Cursor keys to select a sort order:

- **Name** shows the waypoints alphabetically
- **Time** shows the most recently-created waypoint first
- **Distance** shows the closest waypoint first.

Delete a waypoint: From the Waypoints submenu, select Delete and press the RIGHT Cursor key to display a list of waypoints. Select the waypoint you want to delete, then press the RIGHT Cursor key. You will be asked to confirm deletion before the waypoint is deleted.

Navigate to a Waypoint or Position

Navigate to the cursor position: From the Track or Combo View, use the 4-WAY Cursor Control key to select a position or waypoint to which you want to navigate. Press the MENU key once to display the Navigation X-Press Menu. Select Go To and press the RIGHT Cursor key. Navigation will begin immediately.

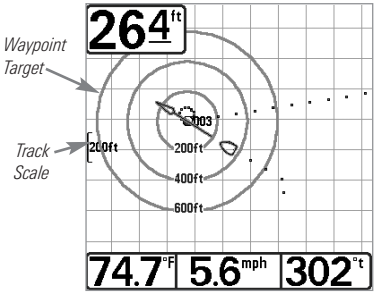
Navigate to a specified waypoint: Press the MENU key once to display the Navigation X-Press Menu. Select Go To and press the RIGHT Cursor key. Then choose the waypoint to which you would like to navigate from the waypoint list and press the RIGHT Cursor key to select it.

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

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

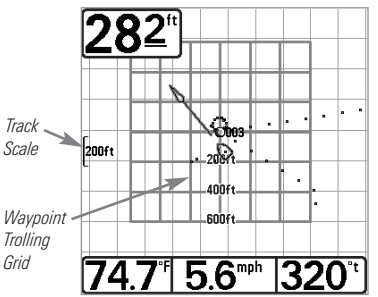
Cancel navigation: From the Navigation X-Press Menu, select Cancel Navigation and press the RIGHT Cursor key. Canceling navigation removes the route and any waypoints created.

Add a Waypoint Target or Trolling Grid



Track View with Target

Add or Remove a Waypoint Target: From the Waypoints submenu, select Target and press the RIGHT Cursor key to display a list of waypoints. Select the waypoint you want to target. A target consisting of concentric circles centered on the selected waypoint will appear on all of the navigation views; the target shows various distance ranges from the targeted waypoint. To remove the target, choose Remove Target from the Navigation X-Press Menu, and press the RIGHT Cursor key.



Track View with Grid

Add or Remove a Trolling Grid: From the Waypoints submenu, select Grid and press the RIGHT Cursor key to display a list of waypoints. Select the waypoint to which you want to add the grid. The trolling grid will appear on all of the navigation views and can be used as a guide when trolling around a waypoint. The grid can be rotated to any desired heading using Grid Rotation from the Navigation main menu. To remove the trolling grid, choose Remove Grid from the Navigation X-Press Menu, and press the RIGHT Cursor key.

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

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

Save or Clear a Current Track

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

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

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

Edit, Delete or Hide Saved Tracks

Display the Tracks Submenu: From any view, press the MENU key twice to display the Main Menu System, then use the RIGHT Cursor key to select the Navigation tab. Select Saved Tracks and press the RIGHT Cursor key to display the Saved Tracks submenu.

Edit a saved track: From the Saved Tracks submenu, select Edit and press the RIGHT Cursor key to display the list of saved tracks. Select the track you want to edit and press the RIGHT Cursor key. When the Edit Track dialog box appears, use the 4-WAY Cursor Control key to move between fields. In the Track Name field, the UP and DOWN Cursor keys change the letter or number. All upper and lower case letters are available, as well as digits 0-9 and some punctuation characters. You can exit the Track Name field with the LEFT and RIGHT Cursor keys or by pressing the EXIT key. Select Save and press the RIGHT Cursor key to save your changes.

Delete a saved track: From the Saved Tracks submenu, select Delete and press the RIGHT Cursor key to display the list of saved tracks. Select the track you want to delete and press the RIGHT Cursor key. You will be asked to confirm deletion before the track is actually deleted.

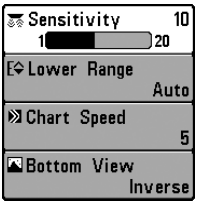
Hide or display a saved track: From the Saved Tracks submenu, select Edit and press the RIGHT Cursor key to display the list of saved tracks. Select the track you want to hide or display, and press the RIGHT Cursor key. When the Edit Track dialog box appears, use the LEFT and RIGHT Cursor keys to change the Visibility field to Hidden or Visible. Press the EXIT key to return to the Tracks submenu.

The Menu System

The menu system is divided into easy-to-use menu modules. The main components of the menu system are as follows:

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

X-Press Menu - The X-Press Menu allows you to access the frequently-used settings without having to navigate through the whole menu system.

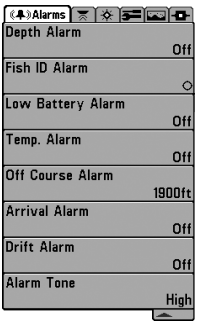


X-Press Menu

Press the MENU key once to display the X-Press Menu. When you select a menu item from the X-Press Menu, the menu will collapse, leaving only the menu choice on the screen. Use the UP or DOWN Cursor keys to reactivate the X-Press Menu.

NOTE: *The X-Press Menu choices will vary depending on which view is active when you press the MENU key, as well as whether you are in Normal or Advanced User Mode. Either the Sonar or Navigation X-Press Menu will appear, depending on the view you are in.*

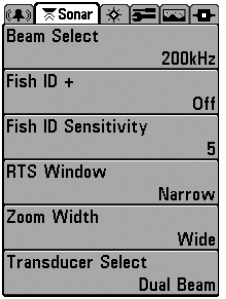
Main Menu Tabs - Less frequently-adjusted menus are grouped into the Main Menu System. The Main Menu System is organized under the following tab headings to help you find a specific menu item quickly: Alarms, Sonar, Navigation (if the GPS Receiver is attached), Setup, Views, and Accessories.



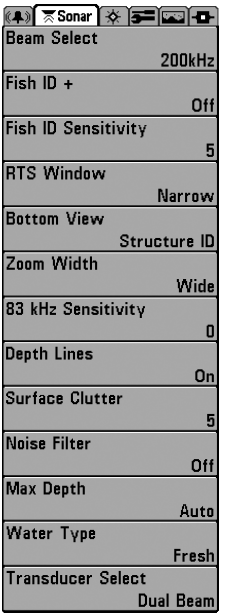
Main Menu System
Normal User Mode

Press the MENU key twice for the Main Menu, then use the RIGHT or LEFT Cursor keys to select a tab, and use the DOWN or UP Cursor keys to select a specific menu item under that tab, then use the LEFT or RIGHT Cursor keys again to change a menu setting. Press the EXIT key to move quickly to the top of the tab. A down arrow at the bottom of a menu means that you can scroll to additional menu choices using the DOWN Cursor key. A right or left arrow on a menu choice means that you can use the RIGHT or LEFT Cursor keys to make changes or to see more information.

NOTE: *The Main Menu choices will vary depending on whether you are in Normal or Advanced User Mode or if you have other accessories attached. Refer to your Fishing System Operations Manual for more details.*



Sonar Tab, Normal Mode



Sonar Tab, Advanced Mode

User Mode (Normal or Advanced) - An Advanced Mode is provided for users who desire the highest level of control over the Fishing System, and Normal Mode is provided for users who desire greater simplicity and fewer menu choices. Additional Advanced menu choices will be displayed throughout the menu system when you navigate to specific menus while in Advanced Mode. Any changes made while in Advanced Mode will remain in effect after you switch back to Normal Mode. For example, if you set specific views to be visible while in Advanced User Mode, and then return to Normal User Mode, those views will still be visible.

To change the User Mode Setting: *Highlight User Mode on the Setup Menu tab, and use the LEFT or RIGHT Cursor keys to set the User Mode to Normal or Advanced.*

Total Screen Update - When you change any menu settings that affect the View, the view will update immediately (i.e. you don't have to exit the menu to apply the change to the screen). For instance, by selecting Bottom View from the X-Press Menu, and switching between "Inverse" and "Structure ID", it is possible to alternate quickly between the two viewing methods.

Start-Up Options Menu

Start-Up Options Menu

Press the MENU key when the Title screen is displayed to access the Start-Up Options menu.

Use the UP or DOWN Cursor keys to position the cursor, then the RIGHT Cursor key to select one of the following choices. If you wait too long, the system will default to whichever menu mode happens to be highlighted:

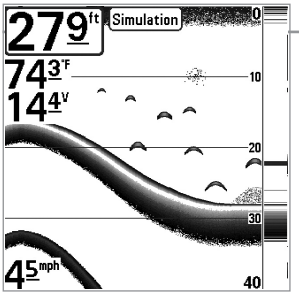
- Normal
- Simulator
- System Status
- PC Connect (use with PC Connect Cable)

See the following paragraphs for more information about each of these choices.

Normal Operation

Use Normal operation for on the water operation with a transducer connected. In addition, your Fishing System uses advanced transducer detection methods to determine if a transducer is connected. If a functioning transducer is connected, Normal operation will be selected automatically at power up and your Fishing System can be used on the water.

Exit Normal operation by powering your Fishing System off.



Simulator

Simulator

Use the Simulator to learn how to use your Fishing System before taking your boat on the water. The Simulator is a very powerful tool that simulates on the water operation, providing a randomly-updated display. We recommend going through this manual while using the Simulator, since all of the menus function and affect the display the way they actually do when in Normal operation.

NOTE: *To get the full benefit of the Simulator, it is important to select Simulator manually from the Start-Up Options menu as opposed to letting the Fishing System enter Simulator automatically (as it will if a transducer is not connected and you do nothing during power up). Manually selecting Simulator from the Start-Up Options menu allows you to pre-configure your Fishing System for on the water operation. Any menu changes you make will be saved for later use.*

A message will appear on the display periodically to remind you that you are using the Simulator.

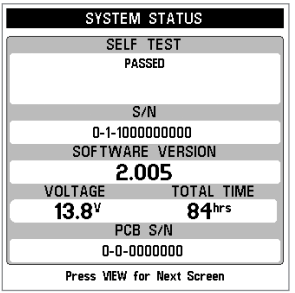
Exit the Simulator by powering your Fishing System off.

System Status

Use System Status to view system connections and to conduct a unit self-test. Exit System Status by powering your Fishing System off.

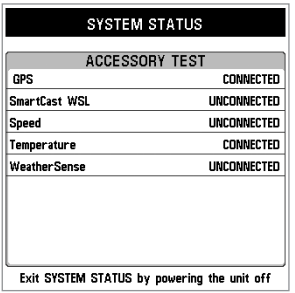
The following screens are displayed in turn when you press the VIEW button when using System Status:

- Self Test
- Accessory Test
- GPS Diagnostic View.



System Status Self Test Screen

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



Accessory Test Screen

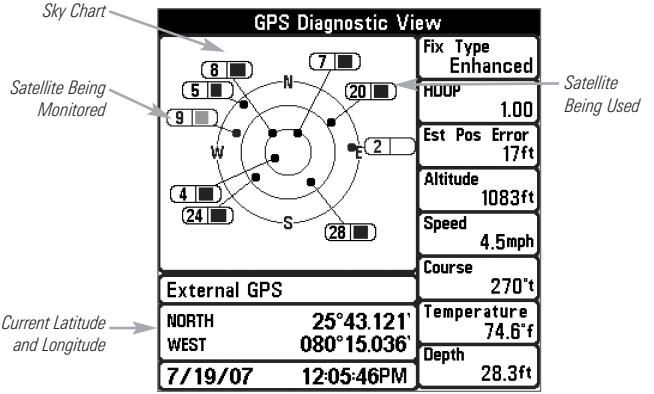
Accessory Test lists the accessories connected to the system.

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

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

NOTE: *The GPS Diagnostic View only appears if the GPS Receiver is connected.*

GPS Diagnostic View



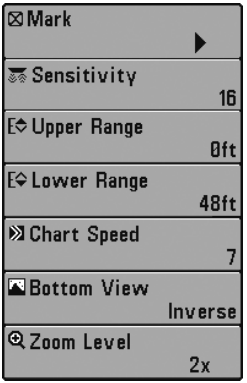
This view also reports the current position, local time and date, and other numeric information. The current GPS Fix Type is reported as No Fix, 2D Fix, 3D Fix, or Enhanced. An Enhanced fix has been augmented using information from WAAS, EGNOS, or MSAS. A 3D or Enhanced Fix is required for navigation.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

PC Connect
(With PC Connect Cable Only)

Use PC Connect to update the software of the Fishing System control head. This feature requires the use of the PC Connect Cable. Complete instructions are included with the PC Connect Cable accessory.

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

Exit PC Connect mode by powering the Fishing System off.



Sonar X-Press Menu

Sonar X-Press Menu (Sonar Views Only)

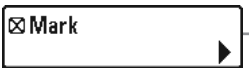
The **Sonar X-Press Menu** provides access to the settings most frequently-used. Press the MENU key once while in any of the Sonar Views to access the Sonar X-Press Menu.

NOTE: *Menu options are determined by your Humminbird model.*

NOTE: *Menu choices will vary depending on system settings such as whether the unit is set for Advanced User mode.*

The Mark menu selection will be added to the Sonar X-Press Menu when a Handheld GPS Receiver is connected to the Fishing System.

See your Fishing System Operations Manual for information on the standard Sonar X-Press Menu choices.

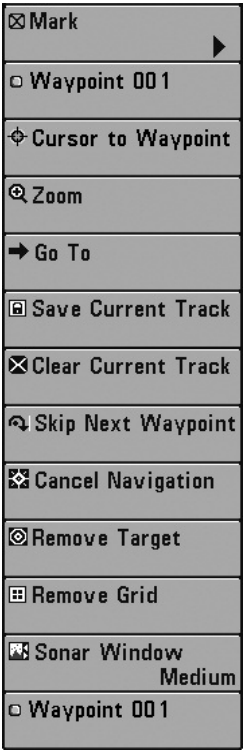


Mark

Mark allows you to mark the position of a waypoint, either at the current boat location, or, if the Cursor is active, at the current Cursor location.

To Mark a Waypoint:

1. Highlight Mark on the Sonar X-Press Menu.
2. Press the RIGHT Cursor key to mark the location of a Waypoint.



Navigation X-Press Menu

Navigation X-Press Menu
(Navigation Views Only)

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

NOTE: *Menu options are determined by your Humminbird model.*

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

The Navigation X-Press Menu will be added to the menu system when a Handheld GPS Receiver is connected to the Fishing System, and will contain the following choices:

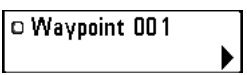
- Mark
- Waypoint 001 (Only When Active)
- Cursor to Waypoint (Combo or Track View)
- Zoom
- Go To
- Save Current Track
- Clear Current Track
- Skip Next Waypoint (Only When Navigating)
- Cancel Navigation (Only When Navigating)
- Remove Target (Only if a Target is Active)
- Remove Grid (Only if a Grid is Active)
- Sonar Window (Combo View Only)
- Waypoint [Name: Most recently-created] (Only When Active).

Mark

Mark allows you to mark the position of a waypoint, either at the current boat location, or, if the Cursor is active, at the current Cursor location.

To Mark a Waypoint:

1. Highlight Mark on the Sonar X-Press Menu.
2. Press the RIGHT Cursor key to mark the location of a Waypoint.

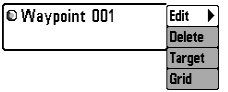


Waypoint [Name] (Only with an Active Cursor on a Waypoint)

Waypoint [Name] allows you to view the Waypoints submenu for the waypoint under your cursor.

To View the Waypoint [Name] Submenu:

1. Move the cursor onto an existing waypoint and press the MENU key once, or use the **Cursor to Waypoint** to select a waypoint from a list of saved waypoints.
2. Highlight **Waypoint [Name]** on the Navigation X-Press Menu.
3. Press the RIGHT Cursor key to view the Waypoints submenu, which contains the following menu choices:



Waypoint Submenu

*NOTE: See **Navigation Menu Tab: Waypoints** for more information.*

The Waypoint Submenu contains the following menu choices:

Edit allows you to edit the Name, Position (Latitude and Longitude), and select the Icon that will be used to represent the waypoint in the Track and Combo Views.

Delete allows you to delete a waypoint from the list of saved waypoints.

Target allows you to apply a target to a waypoint selected from the from the list of waypoints.

Grid allows you to apply a trolling grid to a waypoint selected from the list of waypoints.

Cursor to Waypoint (Track or Combo View Only)

Cursor to Waypoint allows you to quickly move the cursor to any saved waypoint, so that you can locate it or edit it.

NOTE: This X-Press Menu item appears only if you have saved waypoints.

To Move a Cursor to a Saved Waypoint:

1. Highlight Cursor to Waypoint on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to initiate Cursor to Waypoint.
3. Press the UP or DOWN Cursor key to highlight the waypoint you wish to move the cursor to, then use the RIGHT Cursor key to select the destination waypoint.

Zoom

Zoom allows you to change the scale of the Bird's Eye, Track and Combo Views.

To Zoom:

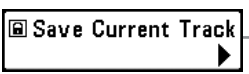
1. Highlight Zoom on the Navigation X-Press Menu.
2. Press the LEFT or RIGHT Cursor keys to increase or decrease the Zoom level.

Go To

Go To allows you to start Navigation towards a waypoint. If the Cursor is active, choosing Go To creates a waypoint and starts navigation towards that waypoint. If the Cursor is not active, choosing Go To displays the list of waypoints so that you can select the waypoint towards which you want to navigate.

To Begin Navigation:

1. Highlight Go To on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key. Navigation will begin immediately if the Cursor is active. If the Cursor is not active, the Waypoint selection list will appear. Select a waypoint from the list by using the 4-WAY Cursor Control key, and navigation will begin immediately.



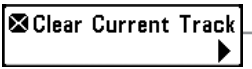
Save Current Track

Save Current Track allows you to save the current track being displayed. After the current track is saved, a new current track is started.

NOTE: *Save Current Track appears on the Navigation X-Press Menu after you have finished navigation.*

To Save Current Track:

1. Highlight Save Current Track on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to initiate saving the current track.
3. The Confirm dialog box will appear. To save the current track, press the RIGHT Cursor key once more. To cancel saving the current track, press the LEFT Cursor key.

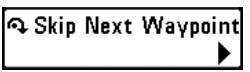


Clear Current Track

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

To Clear Current Track:

1. Highlight Clear Current Track on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to initiate clearing the current track.
3. The Confirm dialog box will appear. To clear the current track, press the RIGHT Cursor key once more. To cancel clearing the current track, press the LEFT Cursor key.

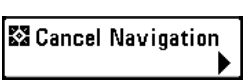


Skip Next Waypoint (Only When Navigating)

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

To Skip Next Waypoint:

1. Highlight Skip Next Waypoint on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to initiate skipping the next waypoint.
3. The Confirm dialog box will appear. To skip the next waypoint, press the RIGHT Cursor key once more. To cancel skipping the next waypoint, press the LEFT Cursor key.

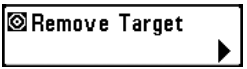


Cancel Navigation (Only When Navigating)

Cancel Navigation discards the current route and exits Navigation Mode. This menu choice will only appear when you are currently navigating a route.

To Cancel Navigation:

1. Highlight Cancel Navigation on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to initiate canceling navigation.
3. The Confirm dialog box will appear. To cancel navigation, press the RIGHT Cursor key once more. To avoid canceling navigation, press the LEFT Cursor key.

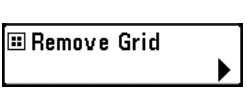


Remove Target
(Only if a Target is Active)

Remove Target removes the waypoint target from the display. This menu choice will only appear when a target has already been applied to a waypoint. See ***Navigation Menu Tab: Waypoints*** for more information.

To Remove a Target:

1. Highlight Remove Target on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to remove the target.



Remove Grid
(Only if a Grid is Active)

Remove Grid removes the waypoint grid from the display. This menu choice will only appear when a grid has already been applied to a waypoint. See ***Navigation Menu Tab: Waypoints*** for more information.

To Remove a Grid:

1. Highlight Remove Grid on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to remove the grid.

Sonar Window
(Combo View Only)

Sonar Window sets the size of the Sonar Window in the Combo View. Sonar Window can only be accessed from the Combo View.

To Set the Size of the Sonar Window in the Combo View:

1. Highlight Sonar Window on the Navigation X-Press Menu.
2. Press the LEFT or RIGHT Cursor keys to adjust the size of the sonar window. (Wide, Medium, Narrow, Default = Medium)

Waypoint [Name] (Most recently-created waypoint)

Waypoint [Name] allows you to view the waypoints submenu for the most recently created waypoint.

NOTE: *You must have created a waypoint at least once since you last powered up the Fishing System for this menu choice to appear.*

To view the Waypoint [Name] Submenu:

1. Highlight **Waypoint [Name]** on the Navigation X-Press Menu.
2. Press the RIGHT Cursor key to view the Waypoints submenu.

The Waypoint [Name] Submenu contains the following menu choices:

Edit allows you to edit the Name, Position (Latitude and Longitude), and select the Icon that will be used to represent the waypoint in the Track and Combo Views.

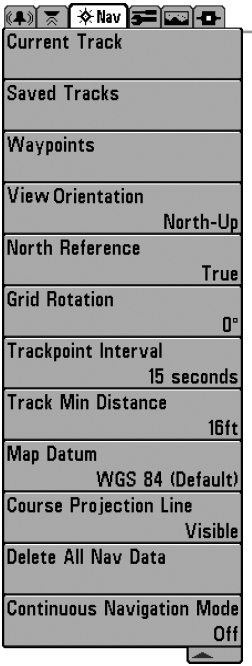
Delete allows you to delete a waypoint from the list of saved waypoints.

Go To allows you to select a waypoint and start navigation toward that waypoint, or add that waypoint to the end of the current route.

Target allows you to apply a target to a waypoint selected from the list of waypoints.

Grid allows you to apply a trolling grid to a waypoint selected from the list of waypoints.

NOTE: *See* ***Navigation Menu Tab: Waypoints*** *for more information*



Navigation Menu Tab

Press the MENU key twice to access the Main Menu System, then press the RIGHT Cursor key to select the Navigation tab.

NOTE: *Menu options are determined by your Humminbird model.*

NOTE: *Menu choices will vary depending on system settings.*

The Navigation Menu Tab will be added to the menu system when a Handheld GPS Receiver is connected to the Fishing System, and the following menu choices will appear in the menu tab:

- Current Track
- Saved Tracks
- Waypoints
- View Orientation
- North Reference
- Grid Rotation
- Trackpoint Interval
- Track Min Distance (Advanced)
- Map Datum (Advanced)
- Course Projection Line
- Delete All Nav Data (Advanced)
- Continuous Navigation Mode.

Current Track

Current Track allows you to save, clear, or change the appearance of the current track.

To view the Current Track Submenu:

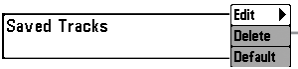
1. Highlight Current Track on the Navigation main menu.
2. Press the RIGHT Cursor key to view the Current Track submenu.

The Current Track Submenu contains the following menu choices:

Save allows you to save the current track.

Clear allows you to clear the current track.

Appearance allows you to change the style and color of the current track (Breadcrumb Trail, Dashed Line, Solid Line or Wide Line, and if a line, the color of the line).



Saved Tracks

Saved Tracks allows you to edit, delete, or change the default appearance of your saved tracks.

To view the Saved Tracks Submenu:

1. Highlight Saved Tracks on the Navigation main menu.
2. Press the RIGHT Cursor key to view the Saved Tracks submenu.

The Saved Tracks Submenu contains the following menu choices:

Edit allows you to select a saved track and change its Name, Visibility, Style and Color. Select Edit and press the RIGHT Cursor key to display the list of saved tracks. Select the track you want to edit and press the RIGHT Cursor key. When the Edit Track dialog box appears, use the 4-WAY Cursor Control key to move between fields and make changes to the following categories:

Name: Use the 4-WAY Cursor Control key to change the name of the saved track. Press the LEFT or RIGHT Cursor keys to move between name fields, and press the UP and DOWN Cursor keys to change the letter or number of each field. All upper and lower case letters are available, as well as digits 0-9 and some punctuation characters.

Visibility: Press the UP or DOWN Cursor keys to select Hidden or Visible.

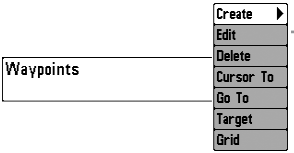
Style: Press the UP and DOWN Cursor keys to choose the track style (appearance).

Color: After you've chosen a track style, the color field will appear. Press the Up and DOWN Cursor keys to choose a color or shade.

NOTE: *You can exit these fields with the LEFT and RIGHT Cursor keys or by pressing the EXIT key. Select Save to confirm your changes.*

Delete allows you to delete a track from the list of saved tracks. Select Delete and press the RIGHT Cursor key to display the list of saved tracks. Select the track you want to delete and press the RIGHT Cursor key. You will be asked to confirm deletion before the track is permanently deleted.

Default sets the default appearance of the tracks you use. Select Default and press the RIGHT Cursor key to display the Default Track dialog box. Use the 4-WAY Cursor Control key to move between fields and change the settings for Visibility, Style and Color.



Waypoints

Waypoints allows you to view the Waypoints submenu to easily manage the waypoints on your Fishing System.

To view the Waypoints Submenu:

1. Highlight Waypoints on the Navigation main menu.
2. Press the RIGHT Cursor key to view the Waypoints submenu.

The Waypoints Submenu contains the following menu choices:

Create allows you to create a new waypoint and edit it immediately. The current boat position will be used as the default, but you can set the coordinates to any valid position. The icon used to represent the waypoint in the Track and Combo Views can also be changed. Press the RIGHT Cursor key to create a waypoint and make changes to the following settings:

Name: Press the LEFT or RIGHT Cursor keys to move between name fields, and press the UP and DOWN Cursor keys to change the letter or number of each field. All upper and lower case letters are available, as well as digits 0-9 and some punctuation characters.

Latitude & Longitude: Press the LEFT or RIGHT Cursor keys to move between latitude or longitude fields, and press the UP and DOWN Cursor keys to change the coordinates of each field.

Icon: Select the Icon field and use the Up and Down Cursor keys to scroll through a variety of icons to assign to your waypoint.

NOTE: *You can exit these fields with the LEFT and RIGHT Cursor keys or by pressing the EXIT key. Select Save to confirm your changes.*

Edit allows you to choose from a list of saved waypoints, and then edit the Name and Position (Latitude and Longitude), as well as assign an Icon to represent the waypoint in the Track and Combo Views. Select Edit, and press the RIGHT Cursor key to display the saved Waypoints list. Use the UP and DOWN Cursor keys to choose a waypoint from the list, and press the RIGHT Cursor key to display the Edit Waypoint Dialog box. Refer to the details above to change waypoint settings.

Delete allows you to delete a waypoint from the list of saved waypoints. Select Delete, and press the RIGHT Cursor key to display the saved Waypoints list. Use the UP and DOWN Cursor keys to choose a waypoint, and press the RIGHT Cursor key. The Confirm dialog box will appear. To delete the waypoint, press the RIGHT Cursor key once more. To cancel deleting the waypoint, press the LEFT Cursor key.

Cursor To allows you to move the cursor quickly to a waypoint from the list of saved waypoints. Select Cursor To and press the RIGHT Cursor key to view the saved waypoints list. Use the UP and DOWN Cursor keys to choose a waypoint from the list, and press the RIGHT Cursor key again to initiate the cursor to that waypoint.

Go To allows you to select a waypoint and start navigation toward that waypoint, or add that waypoint to the end of the current route. Select Go To, and press the RIGHT Cursor key to view the saved waypoints list, and use the UP and DOWN Cursor keys to choose a waypoint from the list. Press the RIGHT Cursor key again to initiate navigation to the waypoint you choose.

Target allows you to apply a target to a waypoint selected from the list of waypoints. Select Target, and press the RIGHT Cursor key to view the saved waypoints list. Use the UP and DOWN Cursor keys to choose a waypoint from the list. Press the RIGHT Cursor key to apply a target to the waypoint you choose.

Grid allows you to apply a trolling grid to a waypoint selected from the list of waypoints. Select Grid, and press the RIGHT Cursor key to view the saved waypoints list. Use the UP and DOWN Cursor keys to choose a waypoint from the list. Press the RIGHT Cursor key to apply a trolling grid to the waypoint you choose.

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

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

View Orientation

View Orientation allows you to select whether the Track and Combo Views should be drawn North-Up or Course-Up.

NOTE: *The View Orientation setting does not apply to the Bird's Eye View.*

To change the View Orientation setting:

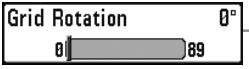
1. Highlight View Orientation on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the View Orientation setting. (North-Up, Course-Up, Default = North-Up)

North Reference

North Reference allows you to have bearings displayed with one of two orientations: True North or Magnetic North.

To change the North Reference setting:

1. Highlight North Reference on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the North Reference setting. (True, Magnetic, Default = True)



Grid Rotation

Grid Rotation allows you to set the orientation of the trolling grid in degrees, where a setting of 0° displays a standard North, South, East, West alignment. See ***Navigation Menu Tab: Waypoints*** for more information on how to set a Grid.

To change the Grid Rotation setting:

1. Highlight Grid Rotation on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Grid Rotation setting. (0° to 89°, Default = 0°)

Trackpoint Interval

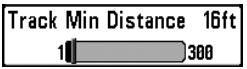
Trackpoint Interval allows you to select the time period between trackpoints. The current track can only contain up to 2000 trackpoints, so longer time periods cause the track to extend back further in time, but will be less detailed.

NOTE: *Trackpoint Interval works in conjunction with Track Min Distance. Both conditions must be met before a trackpoint is added to the current track.*

To change the Trackpoint Interval setting:

1. Highlight Trackpoint Interval on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Trackpoint Interval setting. (1 second, 5 seconds, 10 seconds, 15 seconds, 30 seconds or 60 seconds, Default = 15 seconds)

NOTE: *During slow travel or drift, setting both Trackpoint Interval and Track Min Distance to small values will allow you to increase the track resolution.*



Track Min Distance (Advanced)

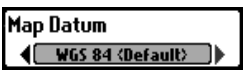
Track Min Distance allows you to set a minimum distance of travel before a trackpoint is added to the track. The Track Min Distance menu choice is only available when User Mode is set to Advanced (see ***The Menu System: User Mode***).

NOTE: *Track Min Distance works in conjunction with Trackpoint Interval. Both conditions must be met before a trackpoint is added to the current track.*

To change the Track Minimum Distance setting:

1. Make sure you are in Advanced User Mode, then highlight Track Min Distance on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Track Min Distance setting. (1 to 300 feet or 1 to 100 meters ***[International Units Only]***, Default = 16 ft, 5 m)

NOTE: *During slow travel or drift, setting both Trackpoint Interval and Track Min Distance to small values allow you to increase the track resolution.*

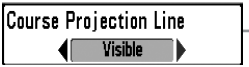


Map Datum (Advanced)

Map Datum allows you to change the track plotter coordinate system used by the Fishing System to match those of a paper map. The Map Datum menu choice is only available when User Mode is set to Advanced (see ***The Menu System: User Mode***).

To change the Map Datum setting:

1. Make sure you are in Advanced User Mode, then highlight Map Datum on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Map Datum setting. (Default = WGS 84)

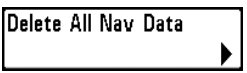


Course Projection Line

Course Projection Line allows you to display or hide an arrow extending from the bow of the boat that projects your current course, and shows where the boat will go if you continue on your present course.

To change the Course Projection Line setting:

1. Highlight Course Projection Line on the Navigation menu.
2. Press the LEFT or RIGHT Cursor keys to change the Course Projection Line setting. (Hidden, Visible, Default = Hidden)

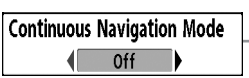


Delete All Nav Data (Advanced)

Delete All Nav Data allows you to delete all saved Tracks and Waypoints. This menu choice should be used with caution. The Delete All Nav Data menu choice is only available when User Mode is set to Advanced (see ***The Menu System: User Mode***).

To Delete All Navigation Data:

1. Make sure you are in Advanced User Mode, then highlight Delete All Nav Data on the Navigation main menu.
2. Press the RIGHT Cursor key. The Confirm dialog box will appear. To cancel all navigation data, press the RIGHT Cursor key once more. To avoid canceling navigation data, press the LEFT Cursor key.

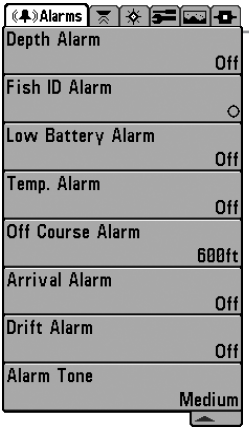


Continuous Navigation Mode

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

To Activate or Deactivate Continuous Navigation:

1. Highlight Continuous Navigation Mode on the Navigation main menu.
2. Press the LEFT or RIGHT Cursor keys to turn Continuous Navigation Mode On or Off. (Off, On, Default = Off)



Alarms Menu

Alarms Menu Tab

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

NOTE: *Menu options are determined by your Humminbird model.*

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

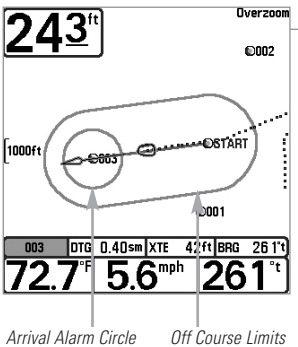
The following menu choices will be added to your Alarms Menu Tab when a Handheld GPS Receiver is connected to the Fishing System:

- Off Course Alarm
- Arrival Alarm
- Drift Alarm.

See your Fishing System Operations Manual for information on the standard Alarm Menu choices.

Off Course Alarm

Off Course Alarm sounds when the boat has moved too far off course based on the menu setting when navigating. Off Course Alarm allows you to set how far the boat is allowed to move off course before the Off Course Alarm will sound.



To change the Off Course Alarm setting:

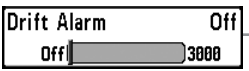
1. Highlight Off Course Alarm on the Alarms main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Off Course Alarm setting. (Off, 25 to 3000 feet, 10 to 1000 meters ***[International Models Only]***, Default = 300 ft, 100 m)

Arrival Alarm

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

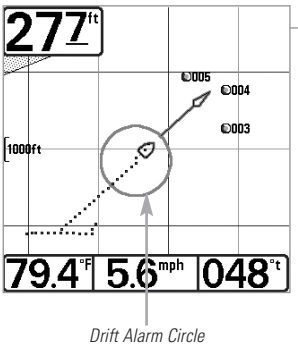
To change the Arrival Alarm setting:

1. Highlight Arrival Alarm on the Alarms main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Arrival Alarm setting. (Off, 25 to 3000 feet, 10 to 1000 meters ***[International Models Only]***, Default = 150 ft, 50 m)



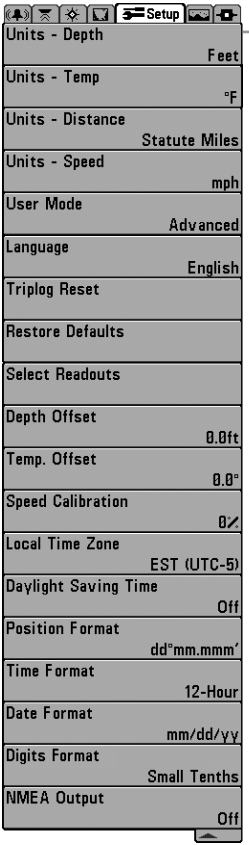
Drift Alarm

Drift Alarm sounds when the boat has exceeded the distance from the boat's anchored position, based on the menu setting. Drift Alarm allows you to set the size of a perimeter around the boat's anchored position; if the anchored boat drifts outside of that perimeter, the Drift Alarm will sound.



To change the Drift Alarm setting:

1. Highlight Drift Alarm on the Alarms main menu.
2. Press the LEFT or RIGHT Cursor keys to change the Drift Alarm setting. (Off, 25 to 3000 feet, 10 to 1000 meters ***[International Models Only]***, Default = Off)



Setup Menu Tab

Setup Menu Tab

From any view, press the MENU key twice to access the tabbed Main Menu System, then press the RIGHT Cursor key until the Setup tab is selected.

NOTE: *Menu options are determined by your Humminbird model.*

NOTE: *Menu choices will vary depending on system settings, such as whether the unit is set for Advanced User mode and what accessories are attached to the unit.*

The following menu choices will be added to your Setup Menu Tab when a Handheld GPS Receiver is connected to the Fishing System:

- Units - Distance
- Units - Speed
- Triplog Reset
- Local Time Zone (Advanced)
- Daylight Saving Time (Advanced)
- Position Format (Advanced)
- Time Format (Advanced, International Only)
- Date Format (Advanced, International Only)
- NMEA Format.

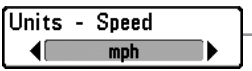
See your Fishing System Operations Manual for information on the standard Setup Menu choices.

Units - Distance

Units - Distance selects the units of measure for all distance-related readouts.

To change the Units - Distance setting:

1. Highlight Units - Distance on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Units - Distance setting. (Domestic: Statute Miles, Nautical Miles; International: Meters/Kilometers, Meters/Nautical Miles, Feet/Statute Miles, Feet/Nautical Miles; Default: Domestic = Statute Miles, International = Meters/Kilometers)

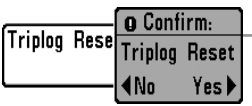


Units - Speed

Units - Speed selects the units of measure for speed-related readouts.

To change the Units - Speed setting:

1. Highlight Units - Speed on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Units - Speed setting. (Domestic: mph, kts; International: kph, mph, kts. Default: Domestic = mph, International = kph)



Triplog Reset

Triplog Reset resets the Triplog to zero. The Triplog provides the following information: timer for elapsed time, distance traveled since last reset, and average speed.

NOTE: *See your* ***Fishing System Operations Manual: Select Readouts*** *to find out how to display Triplog information on the screen.*

To Reset Triplog:

1. Highlight Reset Triplog on the Setup menu.
2. Press the RIGHT Cursor key to initiate Triplog Reset.
3. The Confirm dialog box will appear. To reset the Triplog, press the RIGHT Cursor key once more. To cancel Reset Triplog, press the LEFT Cursor key.

Local Time Zone (Advanced)

Local Time Zone selects your time zone in reference to the time reported by the GPS receiver when Time+Date is selected as a Digital Readout on the Sonar View (see ***Select Readouts*** in your Fishing System Operation Manual). This menu choice is available only when in Advanced User Mode (see ***The Menu System: User Mode***.)

To change the Local Time Zone:

1. Make sure you are in Advanced User Mode, then highlight Local Time Zone on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Local Time Zone (Default = EST [UTC-5] - Eastern Standard Time).

Daylight Saving Time (Advanced)

Daylight Saving Time adjusts the time display to account for local Daylight Saving Time. Selecting On adds one hour to the time display adjusted for your local time zone. Selecting Off leaves the time display as adjusted for your local time zone. This menu choice is available only when in Advanced User Mode (see ***The Menu System: User Mode.***)

To change the Daylight Saving Time setting:

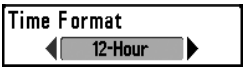
1. Make sure you are in Advanced User Mode, then highlight Daylight Saving Time on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to turn Daylight Saving Time On or Off. (Off, On, Default = Off)

Position Format (Advanced)

Position Format selects the format of the latitude and longitude position display. This menu choice is available only when in Advanced User Mode (see ***The Menu System: User Mode.***)

To change the Position Format setting:

1. Make sure you are in Advanced User Mode, then highlight Position Format on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Position Format. (dd.ddddd°, dd°mm.mmm', or dd°mm'ss", Default = dd°mm.mmm')



Time Format (Advanced, International Only)

Time Format changes the time format used by the unit. This menu choice is available only when in Advanced User Mode *(International Models only).* Time Format selects a 12 hour or 24 hour format for the time of day displayed when Time + Date is selected as a Digital Readout on the Sonar View (see ***Select Readouts*** in your Fishing System Operation Manual).

To change the Time Format:

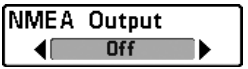
1. Make sure you are in Advanced User Mode, then highlight Time Format on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Time Format. (12 hour, 24 hour, Default = 12 hour)

Date Format (Advanced, International Only)

Date Format changes the date format used by the unit. This menu choice is available only when in Advanced User Mode *(International Models only).* Date Format selects the format for the date display when Time + Date is selected as a Digital Readout on the Sonar View. (see ***Select Readouts*** in your Fishing System Operation Manual).

To change the Date Format:

1. Make sure you are in Advanced User Mode, then highlight Date Format on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the Date Format. (mm/dd/yy, dd.mm.yy or yy.mm.dd, Default = mm/dd/yy)



NMEA Output (Advanced)

NMEA Output turns the NMEA* output on or off. This menu choice is available only when in Advanced User Mode (see ***The Menu System: User Mode.***) NMEA Output should be turned On if you connect the NMEA Output wires of the GPS Receiver cable to another NMEA-compatible device, such as an autopilot.

**NMEA 0183 is a National Marine Electronics Association standard for data communication.*

The following NMEA sentences are output:

DPT- Depth
MTW - Water Temperature
GLL - Lat/Lon Position
GGA - GPS Fix Data
RMC - Recommended Minimum Specific GNSS Data
VTG - Course Over Ground and Ground Speed
ZDA - Time and Date

When navigating, the following NMEA sentences are also output

when NMEA Output is turned On:

APB - Autopilot Sentence B
BWR - Bearing and Distance to Waypoint
RMB - Recommended Minimum Navigation Info

To turn NMEA Output on or off:

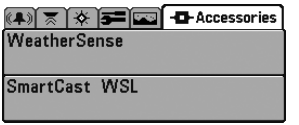
1. Make sure you are in Advanced User Mode, then highlight NMEA Output on the Setup menu.
2. Press the LEFT or RIGHT Cursor keys to change the NMEA Output to On or Off (Off, On, Default = Off)

Accessories Menu Tab

From any view, press the MENU key twice to access the tabbed Main Menu System, then press the RIGHT Cursor key until the Accessories tab is selected.

If no accessories are attached to the Accessory Bus, no accessory menu choices will appear under the Accessories tab. If an accessory is attached, however, additional menu choices that support the accessory will be added automatically. See the Operations Manual that is included with your accessory for detailed information.

Accessories Menu Tab
(no accessories attached)



Accessories Menu Tab
(with accessories attached)

NOTE: *Accessories to enable WeatherSense and the SmartCast Wireless Sonar Link require separate purchases. To purchase accessories or any additional equipment for your control head configuration, go to* ***humminbird.com*** *or contact Humminbird Customer Service at* ***1-800-633-1468****.*

Troubleshooting

Before contacting Humminbird Customer Service, please read the following section. Taking the time to review these troubleshooting guidelines may allow you to solve a performance problem yourself, and therefore avoid sending your unit back for repair.

Fishing System Doesn't Power Up

If your Fishing System doesn't power up, use the Installation Guide that also comes with it for specific confirmation details, making sure that:

- the power cable is properly connected to the Fishing System control head
- the power cable is wired correctly, with red to positive battery terminal and black to negative terminal or ground
- the fuse is operational
- the battery voltage of the power connector is at least 10 Volts

Correct any known problems, including removing corrosion from the battery terminals or wiring, or actually replacing the battery if necessary.

Fishing System Defaults to Simulator with a Transducer Attached

A connected and functioning transducer will cause the newly-started Fishing System to go into Normal operating mode automatically. If, when you power up the Fishing System, it goes into Simulator mode automatically, even though a transducer is already connected, this means that the control head is not detecting the transducer. Perform the following troubleshooting tasks:

- Using the Installation Guide that also comes with your Fishing System, check to make sure that the transducer cable is securely connected to the Fishing System. Reconnect if necessary, and power up the Fishing System again to see if this fixes the problem.
- Replace the non-functioning transducer with a known good transducer if available and power up the control head again.
- Check the transducer cable. Replace the transducer if the cable is damaged or corroded.

Display Problems

There are several main conditions or sources of possible interference that may cause problems with the quality of the information displayed on the control head. Look in the following table for some symptoms of display problems and possible solutions:

Problem	Possible Cause
The control head loses power at high speeds.	If the power output of your boat's engine is unregulated, the control head may be protecting itself using its over-voltage protection feature. Make sure the input voltage does not exceed 20 Volts.
When the boat moves at higher speeds, the bottom disappears or suddenly weakens, or the display contains gaps.	The transducer position may need to be adjusted. A mix of air and water flowing around the transducer (cavitation) may be interfering with the interpretation of sonar data. See your Installation Guide for suggestions on adjusting the transducer position. Electrical noise from the boat's engine may be interfering with sonar reception. See ***Finding the Cause of Noise*** for more information.
There are no fish detected, even when you know they are in the water under the boat, or sonar readings seem weak or faulty.	Sonar readings may be affected if the transducer is not positioned correctly (i.e. mounted at an angle, not straight down), or there is some kind of mechanical interference, either because it is mounted inside a hull that is too thick for proper sonar transmission, the bond between the transducer and the hull is not airtight, or because the transducer is dirty. Check with your Installation Guide for guidance on re-positioning the transducer, and make sure the transducer is clean. Low battery voltage may be affecting the power of signal transmission. Electrical noise from the boat's engine may be interfering with sonar reception. See ***Finding the Cause of Noise*** for more information.

Finding the Cause of Noise

Electrical noise usually affects the display with many black dots at high speeds, and high sensitivity readings. One or more of the following sources can cause noise or interference:

Possible Source of Noise	Isolation
Other electronic devices	Turn off any nearby electronic devices to see if the problem goes away, then turn them on one at a time to see if the noise re-appears.
The boat's engine	To determine whether the boat's engine is the source of the noise, increase the RPMs while the boat is in neutral and stationary to see if the noise increases proportionately; if noise appears when you rev the engine, the problem could be the spark plugs, alternator, or tachometer wiring. Replace the spark plugs with resistor plugs, install an alternator filter, or route the control head power and transducer cables away from the engine wiring.
Cavitation from the boat's propeller	Turbulence created by the propeller can cause noise; make sure the transducer is mounted at least 15" (38 cm) from the propeller, and that the water flows smoothly over the face of the transducer at all times.

Humminbird 1-Year Limited Warranty

We warrant the original retail purchaser that products made by Humminbird have been manufactured free from defects in materials and workmanship. This warranty is effective for one year from the date of original retail purchase. Humminbird products found to be defective and covered by this warranty will be repaired or replaced free of charge at Humminbird's option and returned to the customer freight prepaid. Humminbird's sole responsibility under this warranty is limited to the repair or replacement of a product that has been deemed defective by Humminbird. Humminbird is not responsible for charges connected with the removal of such product or reinstallation of replaced or repaired parts.

This warranty does not apply to a product that has been:

- Improperly installed;
- Used in an installation other than that recommended in the product installation and operation instructions;
- Damaged or has failed because of an accident or abnormal operation;
- Repaired or modified by entities other than Humminbird.

Please retain your original receipt as a proof of the purchase date. This will be required for in-warranty service.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, OBLIGATIONS OR LIABILITIES ON THE PART OF HUMMINBIRD AND WILL BE THE CUSTOMER'S EXCLUSIVE REMEDY, EXCEPT FOR ANY APPLICABLE IMPLIED WARRANTIES UNDER STATE LAW WHICH ARE HEREBY LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. IN NO EVENT WILL HUMMINBIRD BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY RELATING TO THE PRODUCTS.

Some states do not allow limitations on an implied warranty, or the exclusion of incidental or consequential damages, so the above exclusions may not apply to you. You may also have other rights, which vary from state to state.

Humminbird Service Policy

Even though you'll probably never need to take advantage of our incredible service policy, it's good to know that we back our products this confidently. We do it because you deserve the best. We will make every effort to repair your unit within three business days from the receipt of your unit at our factory. This does not include shipping time to and from our factory. Units received on Friday are typically shipped by the following Wednesday, units received Monday are typically shipped by Thursday, etc.

All repair work is performed by factory-trained technicians to meet exacting factory specifications. Factory-serviced units go through the same rigorous testing and quality control inspections as new production units.

After the original warranty period, a standard flat rate service charge will be assessed for each repair (physical damage and missing parts are not included).

Any repairs made after the original warranty will be warranted for an additional 90 days after service has been performed by our factory technicians. You can contact Customer Service or visit our Web site to verify the flat rate repair fee for your product (visit the Product Support section):

http://www.humminbird.com

We reserve the right to deem any product unserviceable when replacement parts are no longer available or impossible to obtain. This Service Policy is valid in the United States only. This applies only to Humminbird products returned to our factory in Eufaula, Alabama. This Service Policy is subject to change without notice.

DOMESTIC (USA) CUSTOMERS:

PLEASE DO NOT RETURN THIS PRODUCT TO STORE FOR SERVICE

For all technical issues please call **1-800-633-1468**
or visit **humminbird.com**, click **SUPPORT**.
Please reference product serial number and
model number when contacting Humminbird.

Returning Your Unit for Service

Before sending your unit in for repair, please contact the factory, either by phone or by email, to obtain a Repair Authorization Number for your unit.

NOTE: *Please do not return your Humminbird to the store for service.*

Please have your product model name and serial number available before calling the factory. If you contact the factory by e-mail, please include your product model name and serial number in the e-mail, and use Request for Repair Authorization Number for your e-mail subject header. You should include your Repair Authorization Number in all subsequent communications about your unit.

For IN-WARRANTY service, complete the following steps:

- Obtain a Repair Authorization Number from Humminbird Customer Service.
- Tag product with your name, street address, phone number and your assigned Repair Authorization Number.
- Include a brief written description of the problem.
- Include a copy of your receipt (to show proof and date of purchase).
- Return product freight prepaid to Humminbird, using an insured carrier with delivery confirmation.

For OUT-OF-WARRANTY service, complete the following steps:

- Obtain a Repair Authorization Number from Humminbird Customer Service.
- Include payment in the form of credit card number and expiration date, or a money order. Please do not send cash.
- Tag product with your name, street address, phone number and your assigned Repair Authorization Number.
- Include a brief written description of the problem.
- Return product freight prepaid to Humminbird, using an insured carrier with delivery confirmation.

ENVIRONMENTAL COMPLIANCE STATEMENT: *It is the intention of Johnson Outdoors Marine Electronics, Inc. to be a responsible corporate citizen, operating in compliance with known and applicable environmental regulations, and a good neighbor in the communities where we make or sell our products.*

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

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

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

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

Contact Humminbird

Contact Humminbird Customer Service in any of the following ways:

Web site:

humminbird.com

E-mail:

service@humminbird.com

Telephone:

1-800-633-1468

Direct Shipping:

Humminbird
Service Department
678 Humminbird Lane
Eufaula, AL 36027 USA

Hours of Operation:

Monday - Friday

8:00 a.m. to 4:30 p.m. (Central Standard Time)