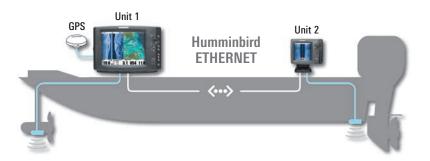
# Ethernet Networking Installation & Operations Manual

531906-2EN\_A





# Accessory Manual

# Thank You!

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

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

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

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

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

**WARNING!** Humminbird is not responsible for the loss of data files (waypoints, routes, tracks, groups, recordings, etc.) that may occur due to direct or indirect damage to the unit's hardware or software. It is important to back up your control head's data files periodically. Data files should also be saved to your PC before restoring the unit's defaults or updating the software.

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

**NOTE:** The Ethernet accessory is compatible with many Humminbird models, and every effort has been made to note the differences between the models and functions throughout this manual. The illustrations in this manual may look different than your display, but your model will operate in a similar way.

700 Series<sup>™</sup>, 800 Series<sup>™</sup>, 900 Series<sup>™</sup>, 1100 Series<sup>™</sup>, Down Imaging<sup>®</sup>, DualBeam PLUS<sup>™</sup>, Fish ID+<sup>™</sup>, Humminbird<sup>®</sup>, InterLink<sup>™</sup>, RTS Window<sup>™</sup>, Side Imaging<sup>®</sup>, SwitchFire<sup>™</sup>, WhiteLine<sup>™</sup>, and X-Press<sup>™</sup> Menu are trademarked by or registered trademarks of Johnson Outdoors Marine Electronics, Inc.

# **Table of Contents**

Introduction	1
1. Installing an Ethernet Connection	2
2. Powering On	8
3. Configuring the Ethernet Network	9
Configuration Overview	10
Network Menu Tab	12
Customize the Unit Name	13
Open the Network Source Setup Dialog Box	14
Sonar Source Overview	15
Select a Sonar Source	16
Change the Sonar Source	19
Temperature Source Overview	20
Select a Temperature Source	21
Change the Temperature Source	24
GPS and Sharing Waypoints Overview	26
Select a GPS Source	
Change the GPS Source	29
Share Waypoints	30

## **Table of Contents**

Restore Defaults (Setup Menu Tab)	
Troubleshooting	32
Fishing System Doesn't Power Up	32
Fishing System Defaults to Simulator with a Transducer Attached $\ldots$ .	33
Contact Humminbird	34

# Introduction

This manual will guide you through the following network setup instructions:

#### 1. Connect two Humminbird units together

#### 2. Power On

### 3. Configure your Humminbird Ethernet Network

#### 4. Share Waypoints

Alarms, navigation, sonar data, and the menu system are all affected by the Ethernet network settings. We encourage you to read this manual completely so that you may understand the full capabilities of your Humminbird Ethernet network.

# **1. Installing an Ethernet Connection**

If your Humminbird control head has a built-in Ethernet connector, the unit can be connected to the Ethernet network. When you connect the units together, data is shared between the two units.

**Before you start**, please note that the Ethernet network installation has the following requirements:

- **Update Software:** Your model may require a software update to enable Ethernet.
- Install the control heads and sources (GPS, transducers, temp/speed accessories, etc.) for your Fishing System. See the equipment installation guides for details.
- Purchase Ethernet Connection Cables (separate purchase required): Your network configuration and Ethernet port shape will determine which Humminbird connection cables you will need to purchase to connect the control heads to the network.

#### Purchase Ethernet Cables and Equipment

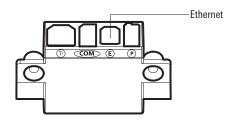
1. **Review the illustrations on the following pages.** Find your control head models and locate the Ethernet port on each control head.

The shape of the Ethernet port determines the cable(s) you need to purchase, as shown in the following table. The Ethernet port will be round or shaped like an hourglass.

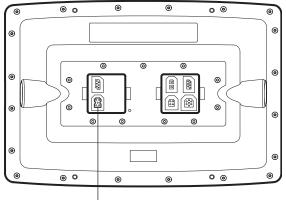
Ethernet Cable Information			
Control Heads	Required Cables		
(2) Units with Hourglass-shaped Ethernet Ports	(2) AS EC QDE & (1) AS EC [length]E		
(1) Unit with an Hourglass-Shaped Port & (1) Unit with a Round Ethernet Port	(1) AS EC QDE & (1) AS EC [length]E		
(2) Units with Round Ethernet Ports	(1) AS EC [length]E		

NOTE: The AS EC [length]E cable is available in a variety of lengths.

700 Series HD Cable Collector with Hourglass-shaped Ethernet Port

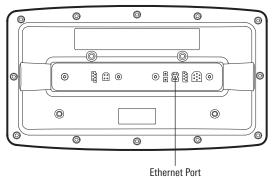


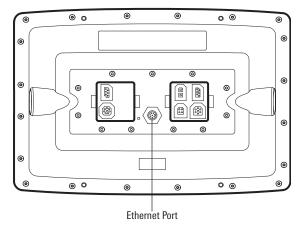
1100ci Series HD Control Head with Hourglass-shaped Ethernet Port



Ethernet Port

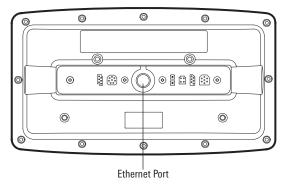
800ci Series/900ci Series HD Control Head with Hourglass-shaped Ethernet Port





1100c Series Control Head with Round Ethernet Port

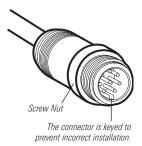
#### 800c Series/900c Series Control Head with Round Ethernet Port



#### Connect the Control Heads

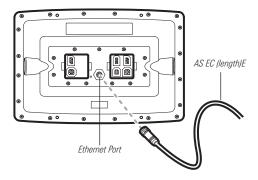
- 1. Confirm that the control heads are powered off.
- 2. Review the illustrations on the preceding pages. Find your control head models and locate the Ethernet port on each control head.
- Connect the Ethernet cable(s) together and route them to each control head. Connect the Ethernet cable(s) to each Ethernet port, noting the following:
  - The connectors are keyed to prevent incorrect installation, so be careful not to force the connectors into the port.
  - On round cable connectors, hand-tighten the screw nut to secure the connection.
  - If the control head has a round Ethernet port, the Ethernet cable can be connected directly to the control head. The 700 Series HD, 800 Series HD, and 900 Series HD units use a Cable Collector. Consult your control head installation guide for details.

**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.

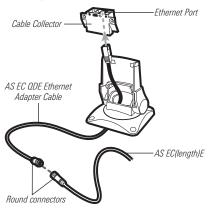


#### Hand-Tightening the Screw Nut

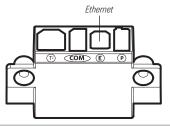
Connecting to a Round Ethernet Port



Connecting the Ethernet Cables to a 700 Series HD Unit



700 Series HD Quick Disconnect Mount Cable Collector



# 2. Powering On

When you have installed an Ethernet network, the power on process is the same as powering on a single control head, however, your transducer connections will determine how the control head starts normal operation.

If there is a transducer connected to only one of the control heads, and you intend to share the transducer on the network, power on the control head with the connected transducer first.

#### Power On

1. Press the () POWER/LIGHT key.

**Operation Mode:** If a transducer is attached to the control head, Normal mode (for on-the-water use) will start automatically. This is the default operation for powering on the control head, but the network setup will vary with how you've set up the connections as follows:

- If a transducer is not attached to the control head, but there is another transducer connected to the network, press the MENU key when the Title screen is displayed. Select Normal from the Start-up Menu. (This step is only required for first-time setup or after defaults have been restored on the unit.)
- If a transducer is not attached to the control head, but there is more than one transducer connected to the network, follow the on-screen instructions to choose a transducer source. See *Select a Sonar Source* for more information.

**NOTE:** Also, see your control head operations manual for more information about the Start-Up Options Menu.

2. Repeat step 1 until all the control heads in the network are powered on. The Fishing System will detect the other control heads and sources in the network.

**NOTE:** If you have an **InterLink** connected to the network, the Ethernet will disable the InterLink because both network systems cannot be used at the same time.

# 3. Configuring the Ethernet Network

Set up your Humminbird Ethernet Network using the following instructions, including these topics:

- 1. Network Setup Overview
- 2. Customize the Unit Name
- 3. <u>Select Data Sources (transducer, temperature, GPS receiver)</u> for each control head
- 4. Understand the Shared and Local Menu Settings
- 5. Share Waypoints

# **Configuration Overview**

When the Humminbird network is installed, each control head automatically selects a primary source (transducer, temperature, and GPS). Typically, a control head selects the equipment connected to it as its primary source, but you can choose any compatible source on the network.

For example, if you have more than one GPS receiver installed on the network, whether internal or external, you can select one GPS Receiver to be the shared source for all control heads on the network.

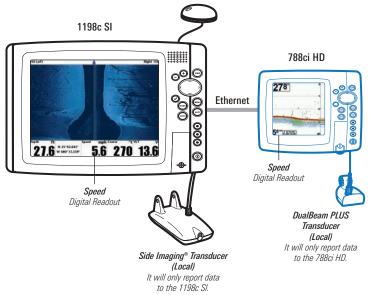
**Local (default):** The source reports data only to one control head, typically to the connected control head.

**Shared:** The source is set up to report data to both control heads in the network so that they share the same data.

It is important to note that when a source is shared on the network, the source's data will be synchronized between units. The Menu System and View Rotation will change to match the shared source's capabilities. *Review each source section* to understand how a shared source will affect your Fishing System.

#### Example of a Network Configuration





	<b>Network Menu Tab</b>		
Unit Name	When units are con		
Network Source Setup	network, the Network m		

Share Waypoints

When units are connected on the network, the Network menu tab is added to the Main Menu system.

The Network menu tab includes the following menu options:

**Unit Name:** Displays the name of the control head. The default Unit Name is based on its model number and serial number. To change the Unit Name, see *Customize the Unit Name*.

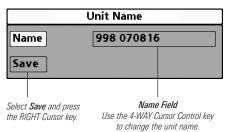
**Network Source Setup:** Opens the Network Source Setup dialog box. Use this dialog box to review all the sources connected to the network. You can also select sources with this dialog box.

Share Waypoints: Turn on this menu option to share waypoints (see GPS and Sharing Waypoints Overview and Share Waypoints).

# **Customize the Unit Name**

Each control head is assigned a Unit Name, which is based on its model number and serial number. The unit name is also displayed next to a source name in the Network Source Setup dialog box, so you can see where the source is connected.

When you're first setting up your network, you may want to change how the unit name is displayed, so it is easier to identify each unit on the network.





#### Customize the Unit Name

- 1. **Main Menu:** Press the MENU key twice. Select the Network menu tab.
- 2. Select **Unit Name**. Press the RIGHT Cursor key. The unit name is displayed in the dialog box.
- 3. Use the 4-WAY Cursor Control key to select the Name field. You can change the control head display name as follows:

Move within the Name Field: Press the RIGHT or LEFT Cursor keys.

**Change a Letter or Number:** Press the UP or DOWN Cursor keys. All upper and lower case letters are available (including digits 0 to 9 and some punctuation characters).

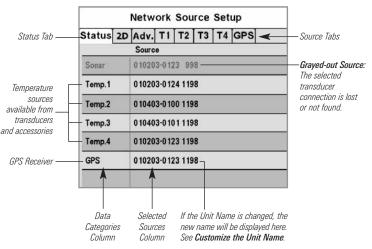
**Save:** Use the 4-WAY Cursor Control key to choose Save, and then press the RIGHT Cursor key.

### **Open the Network Source Setup Dialog Box**

The Network Source Setup dialog box displays all the sources connected to the network. The sources may be shared on the network or operating locally with their connected control head.

#### Open the Network Source Setup Dialog Box

- 1. Main Menu: Press the MENU key twice. Select the Network tab.
- 2. Select Network Source Setup. Press the RIGHT Cursor key.
- Status Tab: Allows you to review the selected data sources on the network. If a source is grayed out, the source is selected, but the network cannot detect the connection.
- Select a Source: Review each source section in this manual to select a data source for each control head and understand how a shared source will affect your fishing system.



#### Network Source Setup Dialog Box

# Sonar Source Overview

When you select a new transducer source, the alarms, menu settings, view rotation, and digital readouts will automatically update on the control head.

- Menu Settings: If the sonar source is shared, the control heads will synchronize menu settings (Shared), while other menu settings will continue to operate individually (Local) on each control head. When you change a shared menu setting on one control head, it will be updated on the other control heads that are sharing the source.
- **Views:** The view rotation will update to display views that are compatible with the selected transducer.
- Alarms: When Sonar sources are shared on the network, the alarms are also shared. The shared alarm settings can be controlled from either control head, and the alarms will display or sound on both control heads. To turn off a shared alarm, press the EXIT key on any control head.

**NOTE:** If a selected transducer is not compatible with the control head, only limited menu options and views will be added to the menu system.

Shared Sonar Menu Settings			
Beam Select	Lower Range	SI Range	
Depth Alarm	Max Depth	SwitchFire	
Depth Offset	Noise Filter	Water Type	
Fish ID+	Ping Rate	Units- Depth	
Fish ID Sensitivity			

Local Sonar Menu Settings			
83 kHz Sensitivity	Quad Layout	Sonar Colors	
455 kHz Sensitivity	RTS Window	Ping Rate	
Bottom Lock	Sensitivity (Down)	SI Range	
Bottom Range	SI Colors	SwitchFire	
Bottom View	SI Enhance	Transducer Select	
Chart Speed	SI Sensitivity	Upper Range	
Depth Lines	SI Side	Water Type	

**NOTE:** The Shared and Local menu options may change to accommodate new product features.

### Select a Sonar Source

Use the instructions below to select sonar sources for each control head. Before you can select frequencies from the network, the control heads must be set up with their connected transducer.

#### 1. Set up the Transducer

The following instructions are only required the first time you set up each control head with an attached transducer. If there is not a transducer attached to a control head, you can skip this section for that control head.

- 1 Main Menu: Press the Menu key twice.
- 2. Select the Sonar tab > Connected Transducer.
- 3. Press the Right or Left Cursor keys to scroll through the compatible transducers for that model. Select the transducer that is attached to the control head.
- 4. Repeat steps 1 to 3 for each control head.

#### 2. Select Sonar Sources

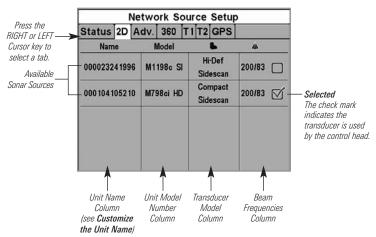
- 1. Open the Network Source Setup dialog box.
- 2. Press the RIGHT Cursor key to select the 2D tab. The 2D tab lists the beams available for the 2D Sonar Views.
- 3. **Select:** Press the DOWN or UP Cursor keys to choose a source. Press the RIGHT Cursor key to select it (check mark = selected).
- Select the Adv. tab, and repeat steps 2 and 3. The Advanced tab lists the Side Imaging and Down Imaging Beams available for the Side Imaging and Down Imaging Views.
- 5. **Save:** Press the EXIT key twice to close the dialog box. Network settings are saved even after the unit is powered off.

**Local Setup (default):** To use separate transducers for each control head, repeat steps 1 to 5 on each control head until you've set a transducer for each unit.

**Shared Setup:** To use the same transducer with more than one control head, repeat steps 1 to 5 on each control head and select the same transducer for all units.

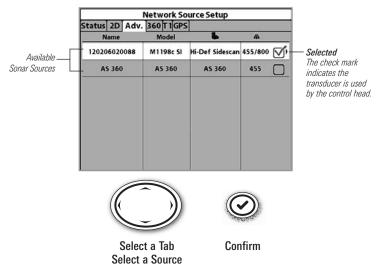
**Menu System and Views:** When you select a sonar source, the control head updates with the corresponding menu options and views. If the transducer is shared between control heads, it may take a moment for the data to synchronize. See *Sonar Source Overview* for more information.

**Compatibility:** A control head must be compatible with a network transducer in order to use it as a sonar source and display its frequencies.



#### Selecting the 2D Sonar Source for the 2D Sonar Views

#### Selecting the Side Imaging Sonar Source for the Side Imaging Sonar Views

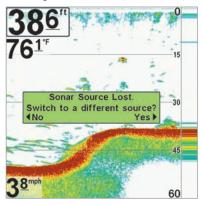


### Change the Sonar Source

To change the sonar source, open the Network Source Setup dialog box and change the transducer source at any time (see *Select a Sonar Source*). Network settings are saved even after the unit is powered off.

If the control head cannot detect the set transducer, an error message displays so that you can reset the transducer source as follows:

- If the shared transducer is not detected on the network, the control head will switch automatically to the transducer connected to it. Follow the on-screen instructions to save the local transducer as the selected source.
- If the local transducer is not detected, follow the on-screen instructions to switch to another transducer in the network. If there is more than one transducer in the network, you can select a different transducer from the Network Source Setup dialog box. See *Select a Sonar Source* for details.



Finding the Sonar Source (700 Series HD)

If the control head cannot detect the shared transducer, follow the on-screen instructions to change the sonar source. Press the LEFT Cursor key to select No, or press the RIGHT Cursor key to select Yes.

# **Temperature Source Overview**

When you select a new temperature source, the alarms, menu settings, view rotation, and digital readouts will automatically update on the control head.

- Menu Settings: If the temperature source is shared, the control heads will synchronize menu settings (Shared), while other menu settings will continue to operate individually (Local) on each control head. When you change a shared menu setting on one control head, it will be updated on the other control heads that are sharing the source.
- Views: The view rotation will update to display views or digital readouts that are compatible with the selected temperature source.
- Alarms: When temperature sources are shared on the network, the alarms are also shared. The shared alarm settings can be controlled from either control head, and the alarms will display or sound on both control heads. To turn off a shared alarm, press the EXIT key on each control head.

### Shared Temperature Menu Settings

Temp. Alarm

Units - Temp

Aux. Temp Alarm

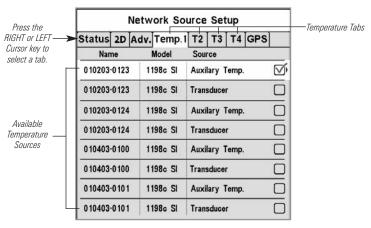
**NOTE:** The remaining temperature menu options are controlled locally. The Shared and Local menu options may change to accommodate new product features.

### Select a Temperature Source

Temperature sources can be detected from a transducer's built-in temperature feature or from optional-purchase temperature/speed accessories connected to the network.

- **Default:** When you first set up the network, the control head will automatically choose the temperature source connected to it.
- **Temperature Tabs:** The T1, T2, T3, and T4 tabs at the top of the Network Source Setup dialog box represent the digital readout positions on the screen. You can choose a different temperature source for each digital readout box, so each control head can display up to four temperature digital readouts on the display.

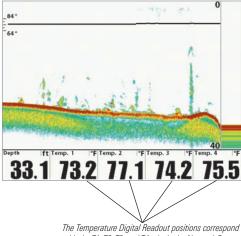
**NOTE**: There will be less than four temperature tabs displayed if there aren't four temperature sources connected to the network.



#### **Temperature Readout Sources**

The Temperature Source tabs correspond with the digital readout positions on the screen.

#### Temperature Digital Readouts 1100 Series



with the T1, T2, T3, and T4 tabs in the Network Source Setup dialog box.

#### Select Temperature Sources for Digital Readout Boxes

- 1. Open the Network Source Setup dialog box.
- 2. **Select the tab for T1, T2, T3, or T4:** Press the RIGHT or LEFT Cursor keys. Each tab represents a digital readout position on the screen.

**NOTE:** The temperature readout positions may vary with the Humminbird model. See the Views section and Select Readouts section of your Humminbird Operations Manual for more information.

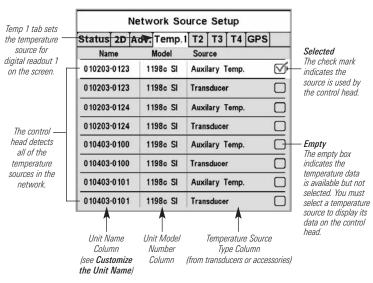
- 3. **Select:** Press the DOWN or UP Cursor keys to choose a source. Press the RIGHT Cursor key to select it (check mark = selected).
- 4. Repeat steps 2 and 3 to select a different temperature tab.

5. **Save:** Press the EXIT key twice to close the dialog box. Network settings are saved even after the unit is powered off.

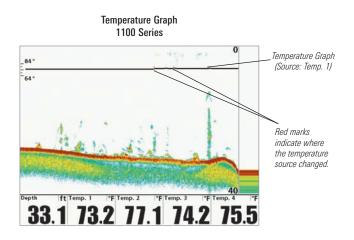
**Local Setup:** To use separate temperature sources for each control head, repeat steps 1 to 5 on each control head until you've set a temperature source for each unit and each digital readout.

**Shared Setup:** To use the same temperature sources on more than one control head, repeat steps 1 to 5 on each control head and select the same temperature sources on all units.

**Menu System:** When you select a temperature source, the control head updates with the corresponding menu options and views. If the source is shared between control heads, it may take a moment for the data to synchronize. See *Temperature Source Overview* for more information.



#### Selecting a Temperature Source for Digital Readout Position 1



### Change the Temperature Source

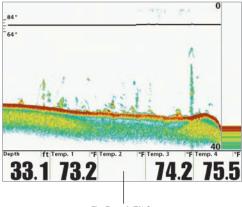
To change the temperature source after the network has been configured, open the Network Source Setup dialog box to change the temperature sources at any time (see *Select a Temperature Source*). Network settings are saved even after the unit is powered off.

• **Temperature Graph (1100 Series):** Temperature Source 1 provides the data for the temperature graph on the display. When the temperature source is changed, the temperature graph displays a red mark to show where the temperature source was changed.

**NOTE:** The Temperature Graph menu setting is not shared on the network. It is a local menu setting.

• If the control head cannot detect the set temperature source, the digital readout box will flash. If the digital readout box is blank, the source has been lost. Open the Network Source Setup dialog box to assign a temperature source to the digital readout box. See *Select a Temperature Source* for details.

#### Temperature Source Lost 1100 Series



The Temp 2 (T2) Source is not detected on the network.

# GPS and Sharing Waypoints Overview

When you select a new GPS source, the position, menu settings, view rotation, and digital readouts will automatically update on the control head. To view waypoint data on the network, it is important to understand the GPS source and how to share waypoint data.

- Menu Settings: If the GPS source is shared, the control heads will synchronize menu settings (Shared), while other menu settings will continue to operate individually (Local) on each control head. When you change a shared menu setting on one control head, it will be updated on the other control heads that are sharing the GPS source.
- Views: The view rotation will update to correspond with the GPS receiver. If a networked control head is not a chartplotter, it will display chart information in trackplotter format (if it is trackplotter-capable).
- **Navigation:** Waypoint data can be shared, and you can build a route on either control head with the shared waypoints. See *Share Waypoints* for more information.

### Select a GPS Source

When you power on the network for the first time, the control head will automatically choose the connected or internal GPS receiver to provide data to the control head. Use the instructions below to select a GPS source for your control head.

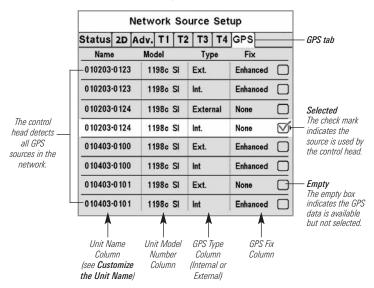
#### Select a GPS Source

- 1. Open the Network Source Setup dialog box.
- 2. Select the GPS Tab: Press the RIGHT Cursor key until the tab is selected.
- 3. **Select:** Press the DOWN or UP Cursor keys to choose a source. Press the RIGHT Cursor key to select it (check mark = selected).
- 4. **Save:** Press the EXIT key twice to close the dialog box. Network settings are saved even after the unit is powered off.

**Local Setup:** To use separate GPS receivers for each control head, repeat steps 1 to 4 on each control head until you've set a GPS receiver for each unit.

**Shared Setup:** To use the same GPS receiver with more than one control head, repeat steps 1 to 4 on each control head and select the same GPS receiver on all units.

**Menu System:** When you select a GPS source, the control head updates with the corresponding menu options and views. If the GPS is shared between control heads, it may take a moment for the data to synchronize. See *GPS and Sharing Waypoints Overview* for more information.



Selecting a GPS Source

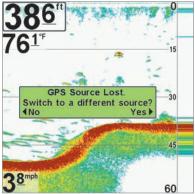
**NOTE:** The current GPS Fix Type is reported as No Fix, Fixed, or Enhanced. An Enhanced fix has been augmented using information from WAAS, EGNOS, or MSAS. An Enhanced Fix is required for navigation.

### Change the GPS Source

To change the GPS source after the network has been configured, open the Network Source Setup dialog box to change the GPS sources at any time. Network settings are saved even after the unit is powered off.

If the control head cannot detect the set GPS receiver, the control head will display an error message so that you can reset the GPS source as follows:

- If the shared GPS receiver is not detected, the control head will switch automatically to the local GPS receiver (internal or connected to the control head). Follow the on-screen instructions to save the local GPS receiver as the selected source.
- If the local GPS receiver is not detected, the GPS data will flash. If there isn't data displayed in the digital readout box, the source has been lost. See *Select a GPS Source* to select another GPS Receiver in the network.



Finding the GPS Source 700 Series HD

If the control head cannot detect the shared GPS Receiver set in the network, follow the on-screen instructions to change the GPS source. Press the LEFT Cursor key to select No, or press the RIGHT Cursor key to select Yes.

### Share Waypoints

To share waypoints on the network, **turn on Share Waypoints on each control head**. You can then observe the following:

- When a **waypoint** is marked on one control head, the waypoint will also be displayed on the other control head. If the waypoint is saved, it will be saved to the local control head where it was marked.
- **Routes**: When waypoints are viewed on both control heads, you can build a route from either control head using the shared waypoints. The route is saved to the control head where it was created.

**NOTE**: When the units are powered off, the waypoint data is saved only on its local control head where it was originally marked. Routes and tracks are not shared on the network.

**NOTE:** Although the navigation data is viewable, it is not copied on every control head. In other words, a new route will be saved to the control head where the route was initiated. If you edit navigation data, the data will be saved back to its local control head.

#### Share Waypoints

- 1. Main Menu: Press the MENU key twice. Select the Network tab.
- Select Share Waypoints. Press the RIGHT Cursor key to select On. (On, Off; Default = Off).
- 3. Repeat steps 1 and 2 on each control head so that each control head is sharing (or broadcasting) its waypoint data on the network.

**NOTE:** The remaining navigation menu options are controlled locally. The Shared and Local menu options may change to accommodate new product features.

### Restore Defaults (Setup Menu Tab)

If you choose to restore defaults on a Humminbird control head, it is important to note that the menu settings, including your saved network settings, will be reset to their factory defaults. See your Humminbird control head operations manual for more information.

#### Use this menu with caution!

# 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 is included with your Fishing System to confirm specific 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, and
- 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.