

AUTOCHART ZERO LINE MAP CARD

Accessory Manual

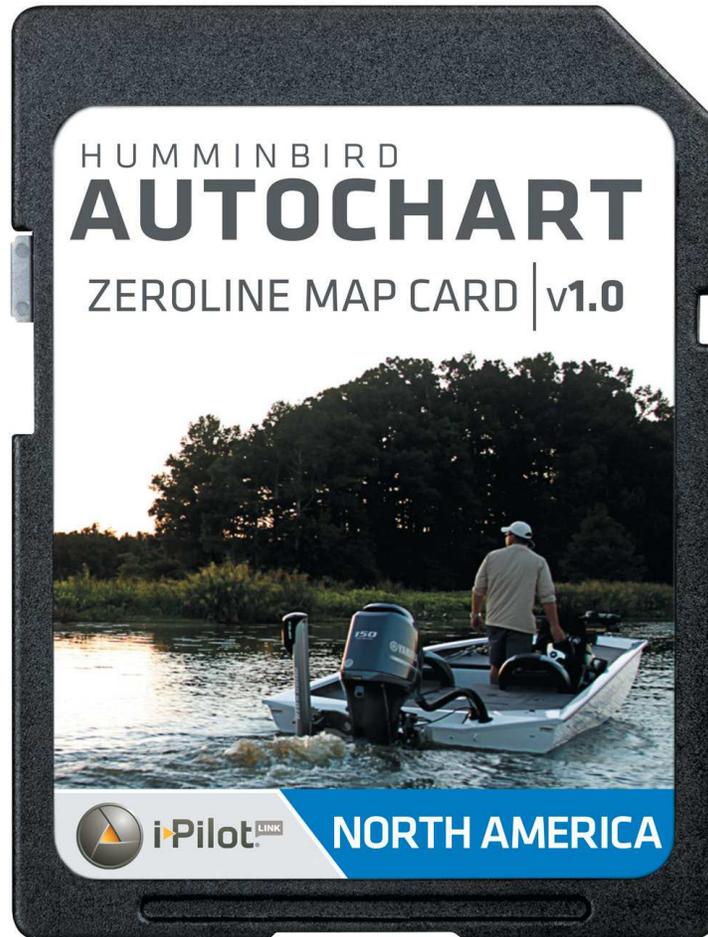


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Thank you for choosing Humminbird®, the #1 name in marine electronics. Humminbird has built its reputation by designing and manufacturing top-quality, thoroughly reliable marine equipment. We encourage you to read this manual carefully in order to get full benefit from all the features and applications of your Humminbird product.

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!** 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!** Do NOT delete or change the AC folder, LkMaster folder, or SI folder on the ZeroLine Map Card. Changing these folders will permanently damage the ZeroLine Map Card. To understand the ZeroLine Map Card folder structure, see **Manage your AutoChart Files**.

 **WARNING!** Humminbird is not responsible for the loss of data files [waypoints, routes, tracks, groups, snapshots, recordings, etc.] that may occur due to direct or indirect damage to the unit's hardware or software. It is important to back up your PC, control head, and ZeroLine Map Card data files periodically. Data files should also be saved to your PC before restoring the control head defaults or updating the software. See your Humminbird online account at **humminbird.com** and **Manage your AutoChart Files** in this manual for more information.

 **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.

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

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

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

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

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

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

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



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

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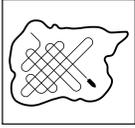
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OVERVIEW

The AutoChart ZeroLine Map Card contains zero line maps of lakes in your region. The zero line maps provide a foundation for you to build accurate, detailed maps of your favorite fishing spots.

Using zero line maps, GPS, and sonar data, AutoChart automatically creates your customized maps in three steps:



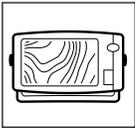
Record Mapping Data

Navigate your boat in a zig-zag pattern with your Humminbird control head set to record mode. Save the recording[s] to the ZeroLine Map Card. You can also set up a live data connection. See the ***AutoChart Installation & Operations Guide*** for more information.



Convert Mapping Data

Transfer the saved mapping data from the ZeroLine Map Card to your PC using the AutoChart PC program. AutoChart will then convert the data into a detailed map that you can customize to your needs.



Export Customized Map[s]

Save the map[s] to the ZeroLine Map Card. Insert the card back into your Humminbird control head.

FEATURES

The ZeroLine Map Card and AutoChart maps provide the following features.

AutoChart

Depending on your control head model, you can apply the following AutoChart map features to Chart View and/or Chart Combo Views:

Base Layer	Select an AutoChart map as the base map.
Overlay	Select an AutoChart map to display as a data overlay.
Overlay Transparency	Adjust the transparency of the overlay to see more or less detail [see Overlay].

LakeMaster

The following LakeMaster features are included on the ZeroLine Map Card and can be applied to Chart View and/or Chart Combo Views:

Contour Lines	Display or hide water contour lines in Chart Views. This feature is also affected by the Water Level Offset setting.
Depth Colors	Set the depth shading in the Chart Views to Off or Shaded.
Depth Highlight	Highlight a depth setting in Chart Views. The depth you set will be highlighted in green. Use Depth Highlight with Depth Highlight Range [see below].
Depth Highlight Range	Adjust the range on each side of the highlighted depth, when a Depth Highlight is active in Chart Views.
Water Level Offset	Change the level of the water being read from the control head. The displayed numbers on the Contour Lines in chart views will adjust from the Water Level Offset setting, and the water level offset will be highlighted in dark brown.
Shallow Water Highlight	Select a minimum shallow depth setting so that the depth is highlighted in red in Chart Views.

i-Pilot Link

If you have i-Pilot Link installed on your boat, you can use the following features with your custom LakeMaster maps:

Follow the Contour	Navigate a contour on a LakeMaster chart. Use Follow the Contour with Contour Offset [see below].
Contour Offset	Set a distance to maintain away from the selected contour line while following a contour.
Record & Navigate iTracks	Record iTracks on the control head or convert your recorded depth data into iTracks using the AutoChart PC software. Display and navigate the iTracks in Chart View.

See the section *Using AutoChart Maps with i-Pilot Link* for more details. Also, see the *AutoChart Installation & Operations Guide* and the i-Pilot Link manual for more information.

Waypoints, Routes, and Tracks

Use the ZeroLine Map Card to import and export saved waypoints, routes, and tracks. Refer to your control head operations manual and the Waypoint Management Guide for more information about saving and exporting navigation data. Also, see the *AutoChart Installation & Operations Guide*, which will be your resource for using the AutoChart PC software.



NOTE: See our Web site at humminbird.com to download the *AutoChart Installation & Operations Guide*.



NOTE: If your control head has more than one SD card slot, the ZeroLine Map Card must be the first card installed in order to save track logs and sonar data directly to the card. See *Preparation: Install the ZeroLine Map Card* for more details.

AutoChart PRO

AutoChart PRO [separate purchase required] is an advanced version of AutoChart. AutoChart PRO allows you to create maps that display sonar information, such as bottom hardness.

If you have a Side Imaging unit installed on your boat, you can also create Side Imaging Mosaics. The Mosaic feature allows you to display Side Imaging sonar data on your map. See the section *AutoChart PRO* for an example of a Side Imaging Mosaic.

See the *AutoChart Installation & Operations Guide* and our Web site at humminbird.com for more information about AutoChart PRO.

On your Computer

The following feature is available when you upload your sonar recordings to the AutoChart PC program:

3D Views	View your AutoChart maps in 3D to explore your fishing spots in more detail. Refer to the <i>AutoChart Installation & Operations Guide</i> for more information.
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PREPARATION

Perform the procedures in the following section to prepare your control head to use the ZeroLine Map Card.

1 | Update your Control Head Software

It is important to install the latest software update on your control head to enable AutoChart and AutoChart PRO.

1. Before the control head software is updated or restored to system defaults, export your navigation data and copy your screen snapshots to an SD card. See your control head operations manual for instructions.



WARNING! Humminbird is not responsible for the loss of data files [waypoints, routes, tracks, groups, snapshots, recordings, etc.] that may occur due to direct or indirect damage to the unit's hardware or software. It is important to back up your PC, control head, and ZeroLine Map Card data files periodically. See **Manage your AutoChart Files: Back up your Data**.

2. Install a blank SD card into the PC card slot.
3. Go to **humminbird.com**, and select **My Humminbird** to sign in to your account.
4. Select the **My Equipment** tab. The available software updates are listed as **Downloads** under each registered product.
 - Under Downloads, click the file name.
 - Read the instructions in the dialog box and select Download.
 - Follow the on-screen prompts to save the software file to the SD card.
5. Power on your Humminbird control head. Start **Normal** mode.
6. Insert the SD card [with the software file] into the control head card slot.
7. Follow the on-screen prompts to update the control head software. See your control head operations manual for more details.
8. When the software update is complete, remove the SD card from the control head card slot.

2 | Install the ZeroLine Map Card

It is important to consider the following tips when installing the ZeroLine Map Card:

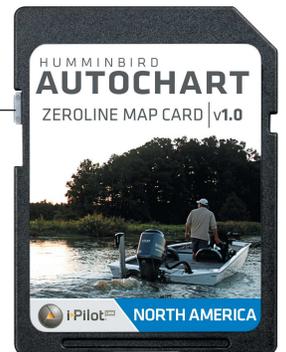
- In order to save track logs and sonar data directly to the ZeroLine Map Card, the card must be unlocked.

To unlock a map card or SD card, hold the card with the label facing up and locate the lock switch on the left side of the card. Slide the switch up [unlocked position].

- If you have more than one SD card installed on the control head, snapshots, recordings, and exported navigation data will be saved to the card that was installed **first**. To save data to the ZeroLine Map Card, confirm it is installed first.

Confirming the ZeroLine Map Card is Unlocked

lock switch in
unlocked position



Install the ZeroLine Map Card

1. Remove the SD memory card slot cover.
2. Confirm the ZeroLine Map Card is unlocked.
3. Position the card so that the label faces the left side or right side of the unit [see your control head operations manual for details], and insert the card into the slot. Press down on the card until it clicks into place.
4. Close the slot cover and turn the knob just 1/4 of a turn to close. Do NOT overtighten, as this will not improve water resistance and may damage the cover.

Remove the ZeroLine Map Card

1. Press the card into the slot and then release. The card will eject, and you can then pull the card from the slot.



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

CREATING CUSTOMIZED MAPS WITH AUTOCHART

Use the instructions in the following sections to create customized maps using the ZeroLine Map Card and AutoChart.



NOTE: Refer to our Web site at humminbird.com to download the **AutoChart Installation & Operations Guide**.



WARNING! Do NOT change the contents of the AC folder, LkMaster folder, or SI folder. Changing these folders will permanently damage the ZeroLine Map Card. To understand the ZeroLine Map Card folder structure, see **Manage your AutoChart Files**.

1 | Plan your Map[s]

It is important to first consider the areas you want to create maps of. Review the following tips to help you plan your map[s]:

General Mapping Tips

- Start with your favorite fishing hot spots. It is not recommended to record mapping data of an entire lake, as it will require a lot of time to map and might include areas you don't want.
- Take a different route to and from each fishing spot every trip. You may discover new areas to map.
- Start a new track or recording when you start for the day.
- Record new data every trip to create new maps or improve existing maps.
- Navigate the boat at a consistent speed when recording.
- Navigate your boat in a zig-zag pattern over the chosen area when recording data. See the illustration below.

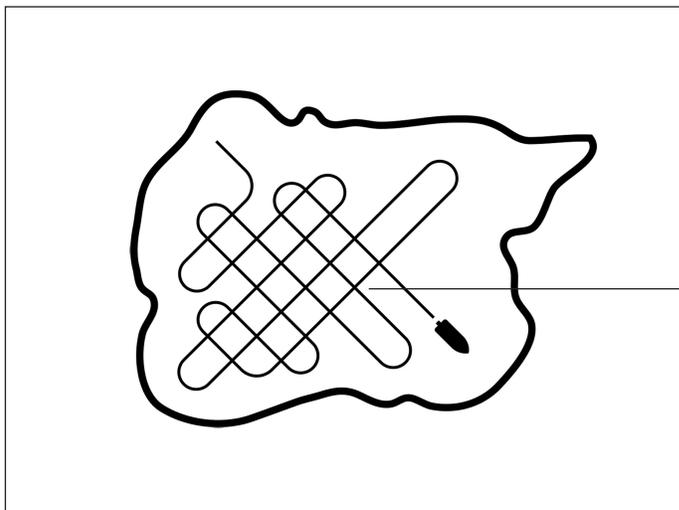
To Map a Specific Area or Object in Detail

- Navigate the boat across the area rather than alongside.
- Turn the boat when the area and/or object is out of range of the transducer beam[s].
- Try to reduce the measurement time, so as to reduce the error due to possible GPS variations.

To Map an Entire Lake

- Follow a predetermined route.
- Follow the maximum gradient of the seafloor [up or down].
- Turn the boat where the bottom is flat, if possible.

Navigating the Boat to Record Mapping Data



Navigate your boat in a zig-zag pattern, first in one direction and then in the other.

2 | Note the Water Level

When you start your mapping for the day, it is important to note if the water level is higher or lower than usual. For example, if you know the lake is down 3 feet, you will enter the amount when you import the files to AutoChart PC. See the **AutoChart Installation & Operations Guide**.

3 | Record Mapping Data

The following methods can be used to record the data that will be used to create your customized LakeMaster charts. See the following sections for more information and instructions.

- Track Logs
- Sonar Recordings
- Live Data



NOTE: To save data to the ZeroLine Map Card, it must be unlocked and the first card installed in the control head card slot. See **Preparation: Install the ZeroLine Map Card**.



NOTE: See your control head operations manual and the Waypoint Management Guide for more information about recording tracks and sonar data.



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. See **Manage your AutoChart Files**.

Record Tracks

A **Track** consists of detailed position history and is displayed as a breadcrumb trail of trackpoints. **Track Log** is used to record and save tracks. Track Log recordings will result in smaller files, and do not include sonar data.



NOTE: If you have AutoChart PRO and plan to use bottom hardness or create a Side Imaging Mosaic, proceed to the **Record Sonar** section.

1. Confirm the ZeroLine Map Card is unlocked and installed in an SD card slot on the control head.
2. Select a **Chart View** to display on-screen.
3. Press the MENU key twice. Select the **Navigation Menu Tab**.
4. Select **Trackpoint Interval**. Press the LEFT or RIGHT Cursor key to select **1 second**.



WARNING! Track Log memory is limited to approximately 20,000 points. At a 1-second Trackpoint Interval, the memory will last about 6 hours. After that, the memory will begin overwriting the oldest data. If you are recording data for more than 6 hours, save the current track and start a new track to prevent losing data.

5. Select **Track Min Distance**. Press the LEFT or RIGHT Cursor key to select **16 feet** [or 5 meters [international units only]].
6. Select **Current Track**. Press the RIGHT Cursor key and select **Start Tracking**. Press the RIGHT Cursor key to start a new track. If tracking is already in progress, Start Tracking won't be displayed in the submenu, and you can proceed to the next step.
7. Navigate your boat in a zig-zag pattern, first in one direction and then in the other [see **Plan your Map[s]**].
8. **When you are finished navigating**, press the MENU key twice. Select the **Navigation Menu Tab**.
9. Select **Current Track** and press the RIGHT Cursor key. Select **Save**, and press the RIGHT Cursor key.



WARNING! Save the current track before you power off the control head or the track will be lost.

10. Press the RIGHT Cursor key to confirm.



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 your control head operations manual].



NOTE: To stop tracking, select Current Track > Stop Tracking.

Repeat steps 6 through 10 as needed to record multiple tracks.

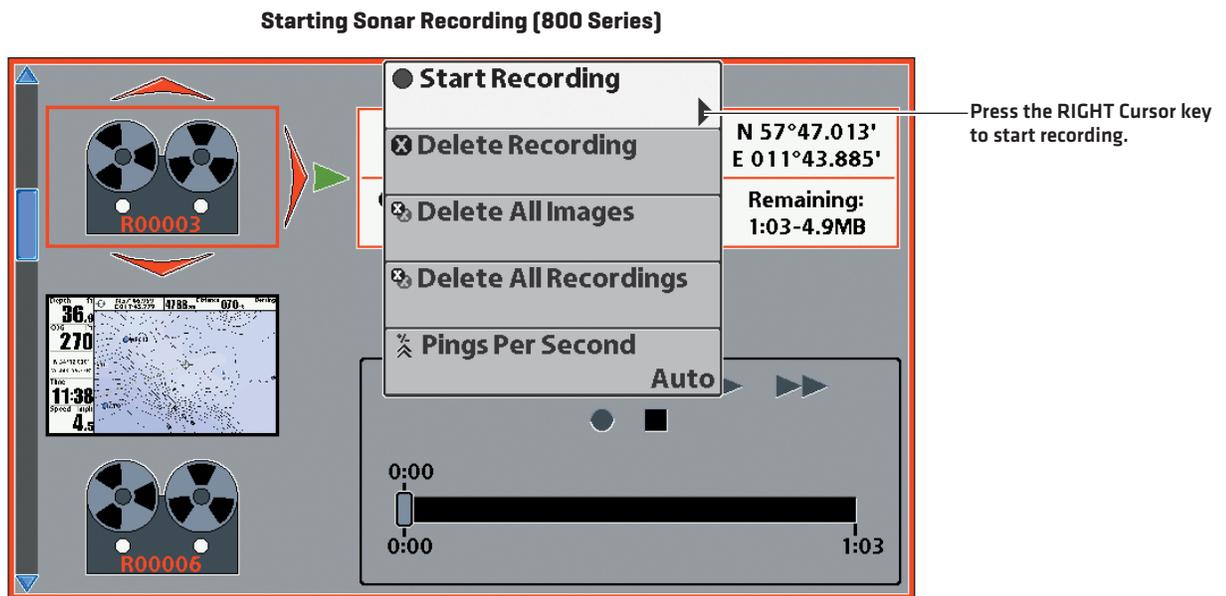
Record Sonar

Use **Sonar Recording** to record sonar and GPS data. If you have AutoChart PRO and plan to use bottom hardness or Side Imaging Mosaic, use this method to record your mapping data [see **AutoChart PRO**].

 **NOTE:** To enable Mosaic from a recording in AutoChart PRO, your Humminbird control head must have Side Imaging installed and selected as the connected transducer [Main Menu > Sonar > Connected Transducer].

 **NOTE:** Sonar Recording will result in larger files. See **Manage your AutoChart Files** for information on how to manage the files and storage space on your ZeroLine Map Card.

1. Confirm the ZeroLine Map Card is unlocked and installed in an SD card slot on the control head.
2. Open the **Snapshot and Recording View**.
3. Press the MENU key once to open the **Snapshot and Recording X-Press Menu**.
4. Select **Start Recording**. Press the RIGHT Cursor key to start recording.



 **NOTE:** When recording, make sure all your data files are referenced to the same nominal water level. Take note of what the water level was during the day.

5. Navigate your boat in a zig-zag pattern, first in one direction and then in the other [see **Plan your Map[s]**].
6. **When you are finished navigating**, press the MENU key once to open the **Snapshot and Recording X-Press Menu**.
7. Select **Stop Recording** and press the RIGHT Cursor key.

Repeat steps 2 through 7 as needed to record multiple sonar recordings.

Notes About Recording

- While recording, press the VIEW key or EXIT key to scroll to a different view. Recording will continue.
- The slider bar at the bottom of the Snapshot and Recording View shows the recording progress and remaining space on the map card or SD card.
- For maximum performance, keep the Pings Per Second setting on Auto.
- Each recording you make will be given a number and stored in a folder called RECORD on the map card. See **Manage your AutoChart Files**.

View Live Data

Connect your control head to your PC to create and display maps in real time. See the **AutoChart Installation & Operations Guide** for more information about setting up a live data connection.

4 | Export Mapping Data to the ZeroLine Map Card

When you are finished recording, save the track[s] to the ZeroLine Map Card. Sonar Recordings are automatically saved to the map card or SD card that was installed first (see *Preparation: Install the ZeroLine Map Card*).

 **NOTE:** You can export your mapping data to a standard SD memory card, however, you will need the ZeroLine Map Card to display your custom AutoChart maps on the control head. See the *AutoChart Installation & Operations Guide* for more information.

 **NOTE:** See your control head operations manual and the Waypoint Management Guide for more information about exporting data to a map card or SD card.

Open the Waypoint Management Dialog Box

1. Press the MENU key twice. Select the **Navigation Menu Tab**.
2. Select **Waypoints, Routes, Tracks**. Press the RIGHT Cursor key to open the Waypoint Management dialog box.
3. Select **Options**. Press the RIGHT Cursor key to open the submenu.

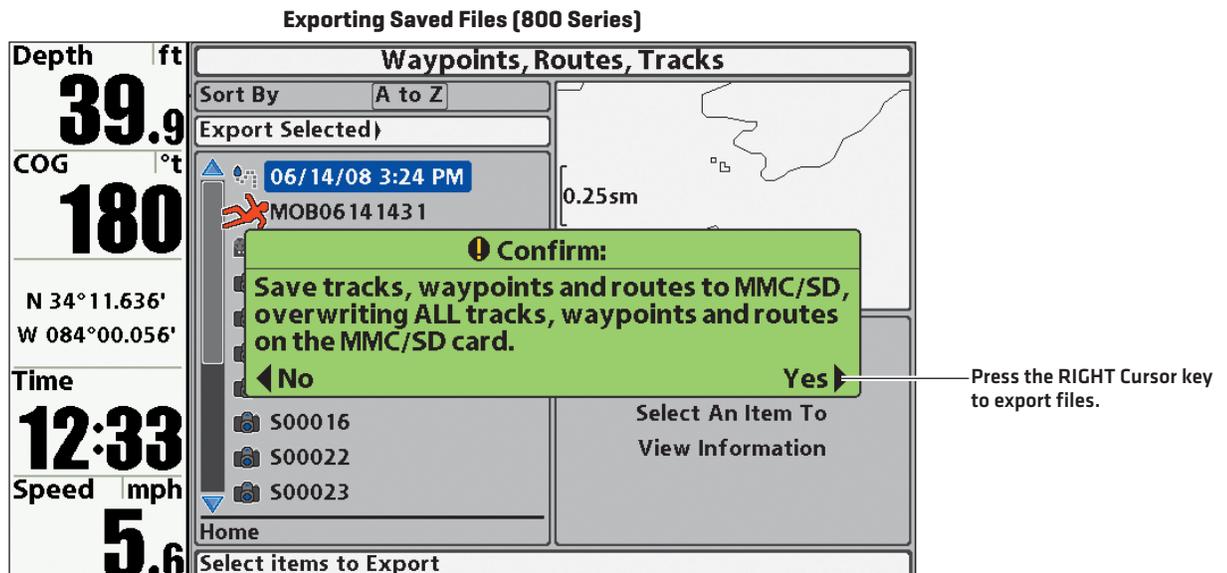
Export Multiple Files

1. Select **Select Multiple and...** to export multiple saved files. Press the RIGHT Cursor key.
2. Select **Export** and press the RIGHT Cursor key.
3. Press the UP or DOWN Cursor key to select a file. Press the RIGHT Cursor key to select the file to export. Repeat as needed.
4. Select **Export Selected**. Press the RIGHT Cursor key.
5. A confirmation message will be displayed. Press the RIGHT Cursor key to confirm the export.
6. When the export is completed, remove the ZeroLine Map Card from the SD card slot.

OR

Export All Files

1. Select **Select All and...** to export all saved files. Press the RIGHT Cursor key.
2. Select **Export** and press the RIGHT Cursor key.
3. A confirmation message will be displayed. Press the RIGHT Cursor key to confirm the export.
4. When the export is completed, remove the ZeroLine Map Card from the SD card slot.



5 | Import Mapping Data to Your PC

Refer to the *AutoChart Installation & Operations Guide* for instructions on how to import your mapping data and convert the data into an AutoChart map using the AutoChart PC software.



NOTE: See our Web site at humminbird.com to download the *AutoChart Installation & Operations Guide*.



WARNING! Do NOT change the contents of the AC folder, LkMaster folder, or SI folder. Changing these folders will permanently damage the ZeroLine Map Card. To understand the ZeroLine Map Card folder structure, see *Manage your AutoChart Files*.

6 | Power On the Control Head

After you have created your customized AutoChart maps and saved the files to the ZeroLine Map Card, power on your control head to get started using your new AutoChart maps.

1. Insert the ZeroLine Map Card into an SD card slot on the control head [see *Preparation: Install the ZeroLine Map Card*].
2. Power on the control head. Select Normal Mode.
3. Open the Chart View or Chart/Chart Combo View.



NOTE: Some models do not support Combo Views. For those models, the only view compatible with AutoChart features is Chart View. See your control head operations manual for more information.



NOTE: Once the ZeroLine Map Card is installed on the control head, AutoChart and LakeMaster menu options are automatically added to the menu system. See the following sections for more information about AutoChart and LakeMaster features.

USING AUTOCHART MAPS IN CHART VIEWS

With the ZeroLine Map Card installed on the control head, you can now use your customized AutoChart maps in Chart View and Chart Combo Views as base layers and data overlays.

In the **Chart/Chart Combo View**, the AutoChart menu options for the left and right windows are located under two different menus. The left window menu options are located under the Chart Menu Tab. The right window menu options are located under the Navigation X-Press Menu.

Selecting Settings for the Chart/Chart Combo View (800 Series)

The left window menu options are located under the Chart Menu Tab.

The right window menu options are located under the Navigation X-Press Menu.

1 | Select the Chart Source

Select the chart source to be displayed in Chart View and Chart Combo Views. Choose from a built-in chart source, the ZeroLine Map Card, or a LakeMaster chart card. The ZeroLine Map Card must be installed in one of the SD card slots in order to use AutoChart maps and features.

For the Chart/Chart Combo View, you can select a different chart source for each window. See *Select the Chart Source: Chart/Chart Combo View*.

Chart View

Chart View shows cartography from the built-in chart or an optional map or chart card for the area surrounding your current position. The cartography is applied to any standard Chart View or Chart Combo View. The current track (also known as the position history or breadcrumb trail) showing where the boat has been, along with saved tracks, waypoints, and the current route (when navigating), are overlaid on the chart. With the ZeroLine Map Card, you can also overlay your customized AutoChart maps and display LakeMaster features [see *Select LakeMaster Settings*].

Use **Chart Select** to choose the chart card source that will be used in Chart View, the left window of the Chart/Chart Combo View, and the Chart window in Chart Combo Views.

1. Press the MENU key twice. Select the **Chart Menu Tab**.
2. Select **Chart Select** (if applicable for your Humminbird control head model).
3. Press the RIGHT or LEFT Cursor key to select a chart source.
4. Press the EXIT key twice to exit the menu system.

Selecting the Chart Source from the Chart Menu Tab

Lat/Lon Grid	Hidden
Nav aids on Bird's Eye View	Visible
Chart Select	Left Chart Card
Set Simulation Position	
Map Borders	MMC/SD Only
Spot Soundings	Visible
Auto Zoom	Off

Chart/Chart Combo View

Chart/Chart Combo View shows two versions of the Chart View in a combination split screen, so that you can see the position of the boat on one side, while you zoom in or perform other functions on the other. In the Chart/Chart Combo View, select a chart card source for each window.

If only the **ZeroLine Map Card** is installed, the chosen source under Chart Select will be the map source for all Chart views, including Chart View and the right and left windows of the Chart/Chart Combo View.

1. Open the **Chart Menu Tab**.
2. Select **Chart Select**.
3. Press the RIGHT or LEFT Cursor key to select a chart source.
4. Press the EXIT key twice to exit the menu system.

If a **LakeMaster chart card** is installed in addition to the **ZeroLine Map Card**, you can choose a different chart source for each window of the Chart/Chart Combo View.

Left Window

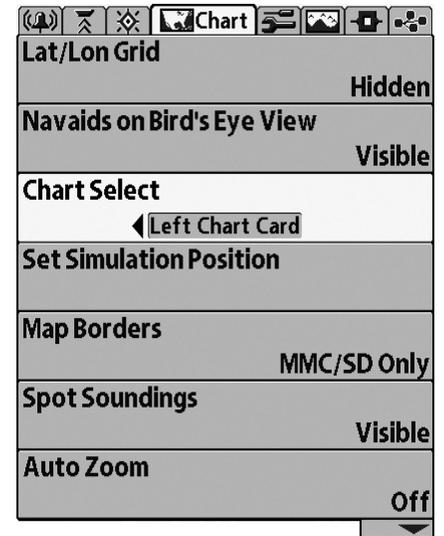
Use the instructions under **Chart View** to select the chart source for the left window.

Right Window

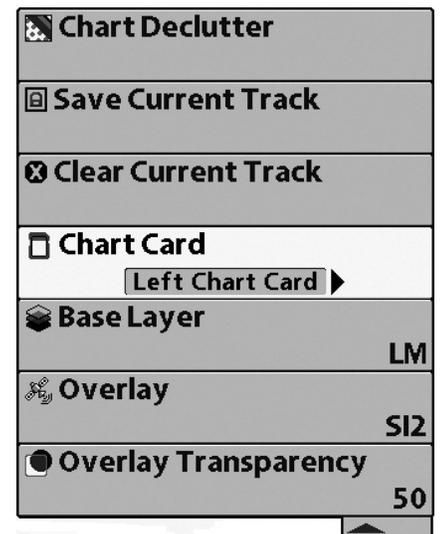
Use the instructions below to select the chart source for the right window.

1. Press the VIEW key until the **Chart/Chart Combo View** is displayed on-screen.
2. Press the MENU key once to open the **Navigation X-Press Menu**.
3. Select **Active Side**. Press the RIGHT or LEFT Cursor key to select **Right**.
4. Select **Chart Card**.
5. Press the RIGHT or LEFT Cursor key to select a chart source.
6. Press the EXIT key to close the menu.

Selecting the Chart Source from the Chart Menu Tab



Selecting the Chart Source for the Right Window from the Navigation X-Press Menu



2 | Select the Base Layer

Base Layer is the base map layer that will be displayed in Chart View and Chart Combo Views. In Chart/Chart Combo View, you can display a different base layer in each window.

If only the **ZeroLine Map Card** is installed, the available options are determined by the custom maps [AC] and Mosaic data [SI] you've saved to the card. See *Manage your AutoChart Files* and the *AutoChart Installation & Operations Guide* for more information.

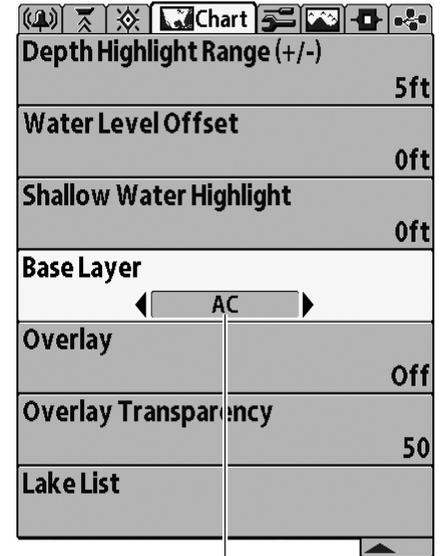
If a **LakeMaster chart card** is installed in addition to the **ZeroLine Map Card**, you can select the LakeMaster card's base map as the base layer [LM].

Chart View

Use the following instructions to select the Base Layer for Chart View. The chosen Base Layer will also be applied to the left window of the Chart/Chart Combo View and the Chart window in Chart Combo Views.

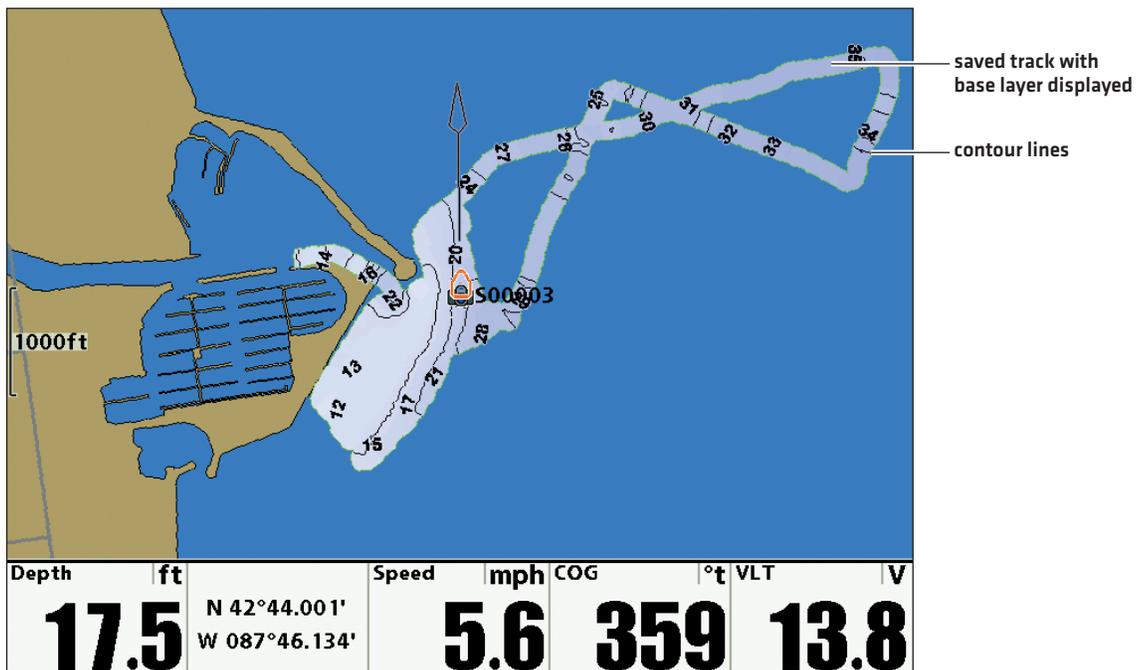
1. Press the MENU key twice. Select the **Chart Menu Tab**.
2. Select **Base Layer**.
3. Press the RIGHT or LEFT Cursor key to select a Base Layer:
 - AC [AutoChart map],
 - SI [Side Imaging Mosaic],
 - LM [LakeMaster chart card map],
 - etc.
4. Press the EXIT key twice to exit the menu system.

Chart View: Selecting a Base Layer



The available AutoChart menu options will be displayed according to the file name assigned in the AutoChart PC program.

Chart View Showing Saved Track with Base Layer and Contour Lines Displayed [1100 Series]



Chart/Chart Combo View

In the Chart/Chart Combo View, you can display a different Base Layer in each window. See below for instructions.

Left Window

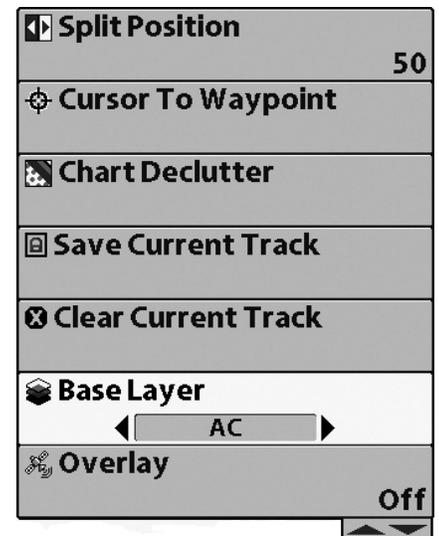
To select the Base Layer for the left window of Chart/Chart Combo View and the Chart window in other Chart Combo Views, see the instructions under *Select the Base Layer: Chart View*.

Right Window

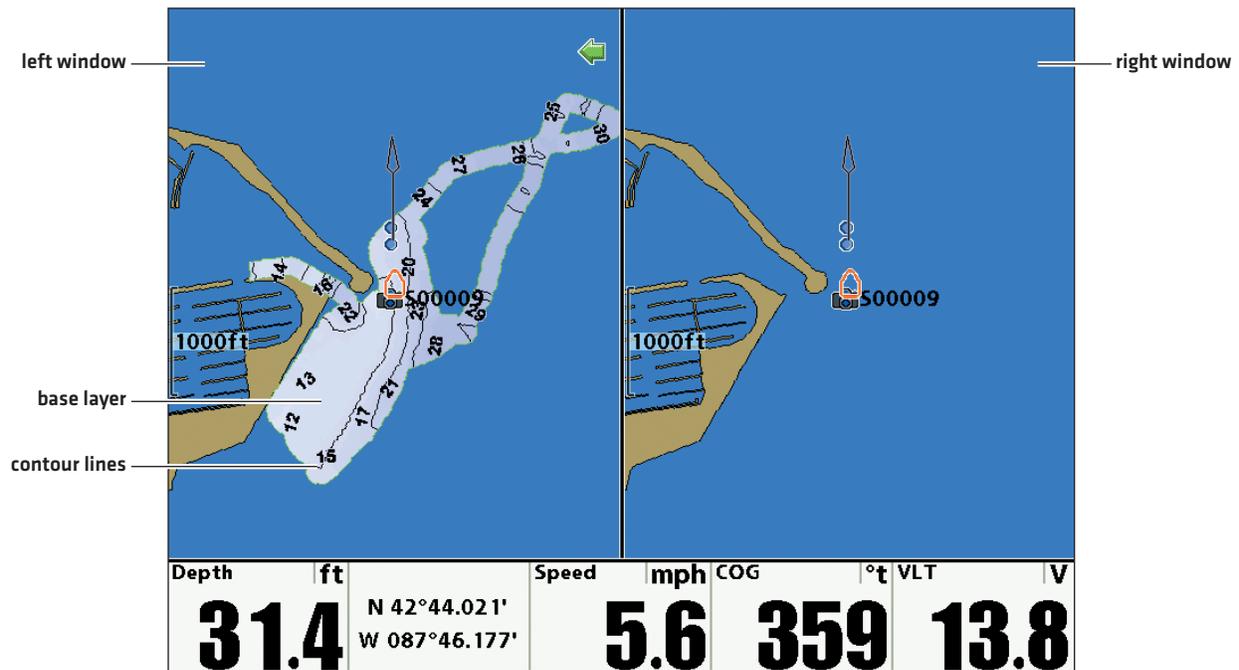
Use the following instructions to select the Base Layer for the right window of the Chart/Chart Combo View.

1. With Chart/Chart Combo View displayed on-screen, press the MENU key once to open the **Navigation X-Press Menu**.
2. Select **Active Side** and press the RIGHT or LEFT Cursor key to select **Right**.
3. Select **Base Layer**.
4. Press the RIGHT or LEFT Cursor key to select a Base Layer:
 - AC [AutoChart map],
 - SI [Side Imaging Mosaic],
 - LM [LakeMaster chart card map],
 - etc.
5. Press the EXIT key to return to the view.

Chart/Chart Combo View: Selecting a Base Layer for the Right Window



Chart/Chart Combo View with Base Layer Displayed in the Left Window [1100 Series]



3 | Select an Overlay and Set the Overlay Transparency

An **Overlay** allows you to display or hide information in Chart Views. In both the Chart View and Chart Combo Views, you can select an AutoChart map or Side Imaging Mosaic to display as a data overlay. In the Chart/Chart Combo View, you can select a different overlay in each window.

The available options are determined by the custom maps [AC] and Mosaic data [SI] you've saved to the card. See *Manage your AutoChart Files* and the *AutoChart Installation & Operations Guide* for more information.

Overlay Transparency allows you to adjust the transparency of the Overlay. When the Overlay Transparency is set to 0%, the overlay will be transparent. When the Overlay Transparency is set to 100%, the overlay will be opaque. Refer to the examples in this section.

Chart View

Use the following instructions to select an Overlay to display on top of the Base Layer in Chart View. The selected Overlay will also be applied to the left window of the Chart/Chart Combo View and the Chart window in Chart Combo Views.

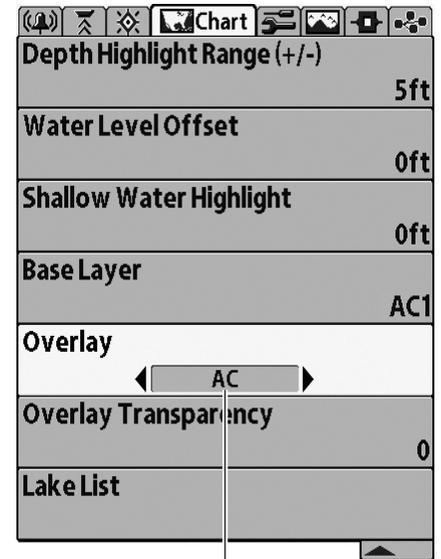
Select an Overlay

1. Press the MENU key twice. Select the **Chart Menu Tab**.
2. Select **Overlay**.
3. Press the RIGHT or LEFT Cursor key to select an Overlay:
 - AC [AutoChart map],
 - SI [Side Imaging Mosaic],
 - etc.

Set the Overlay Transparency

1. Select **Overlay Transparency**.
2. Press the RIGHT Cursor key to select a setting.
3. Press the EXIT key twice to exit the menu system.

Chart View: Selecting an Overlay



The available menu options will be displayed according to the file name assigned in the AutoChart PC program.

Chart View: Setting the Overlay Transparency

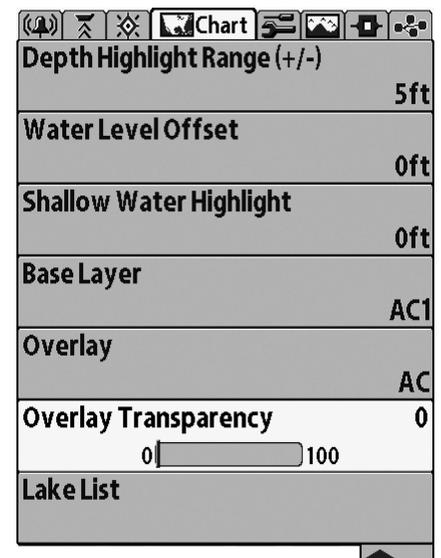
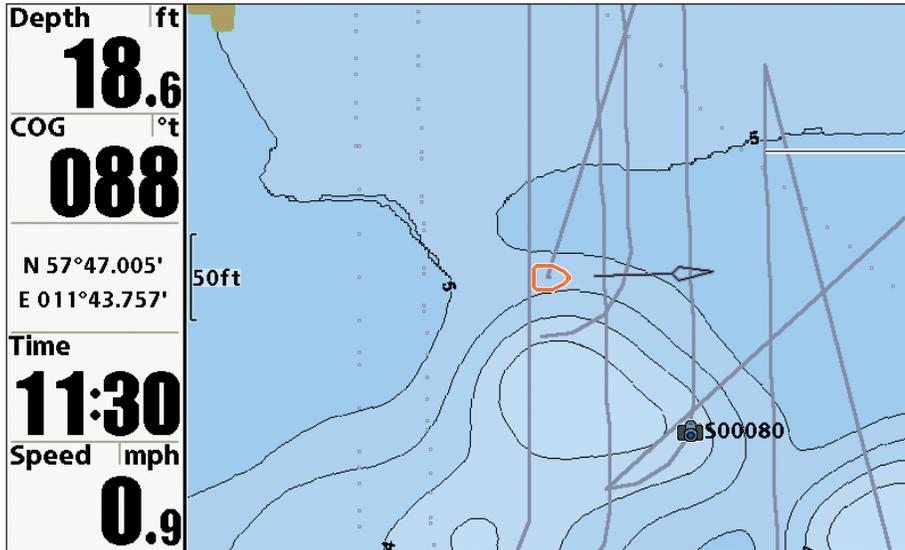
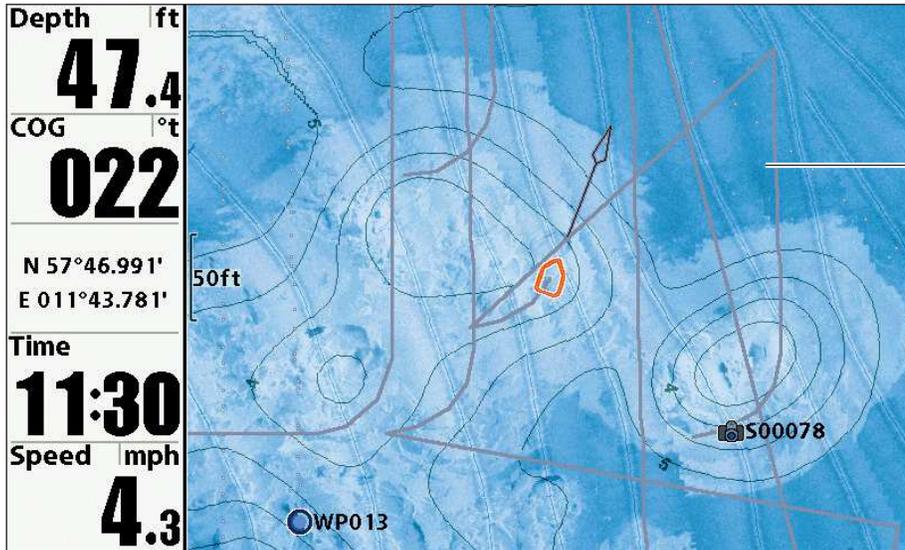


Chart View with Base Layer and Overlay, [800 Series]



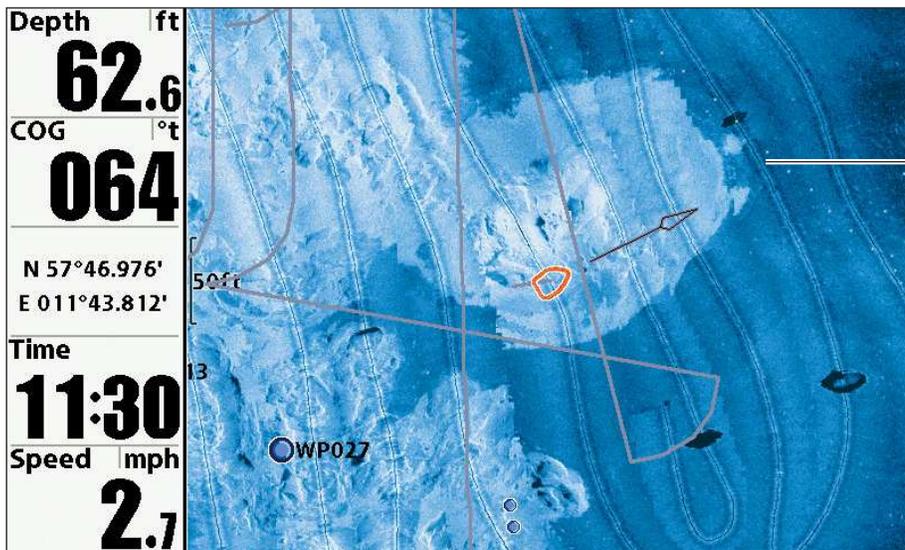
base layer: AC
overlay: SI2*
overlay transparency: 0%
*AutoChart PRO only

Chart View with Base Layer and Overlay, [800 Series]



base layer: AC
overlay: SI2*
overlay transparency: 50%
*AutoChart PRO only

Chart View with Base Layer and Overlay, [800 Series]



base layer: AC
overlay: SI2*
overlay transparency: 100%
*AutoChart PRO only

Chart/Chart Combo View

In the Chart/Chart Combo View, you can display a different Overlay in each window.

Left Window: Select an Overlay and Set the Overlay Transparency

To select the Overlay and Overlay Transparency for the left window of Chart/Chart Combo View and other Chart Combo Views, see the instructions under **Select an Overlay and Set the Overlay Transparency: Chart View**.

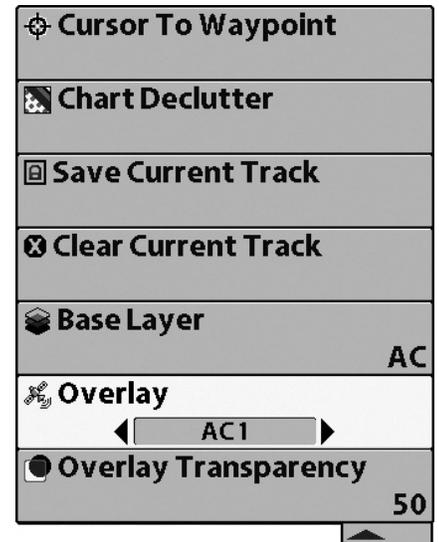


NOTE: The selected settings will also be applied to the Chart window in other Chart Combo Views.

Right Window: Select an Overlay

1. With Chart/Chart Combo View displayed on-screen, press the MENU key once to open the **Navigation X-Press Menu**.
2. Select **Overlay**.
3. Press the RIGHT or LEFT Cursor key to select an Overlay:
 - AC [AutoChart map],
 - SI [Side Imaging Mosaic],
 - etc.

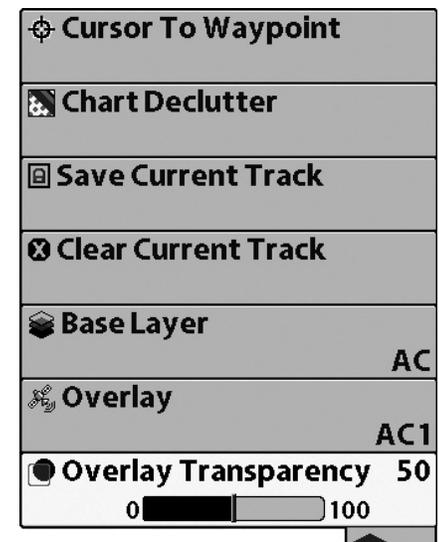
Chart/Chart Combo View, Right Window: Selecting an Overlay



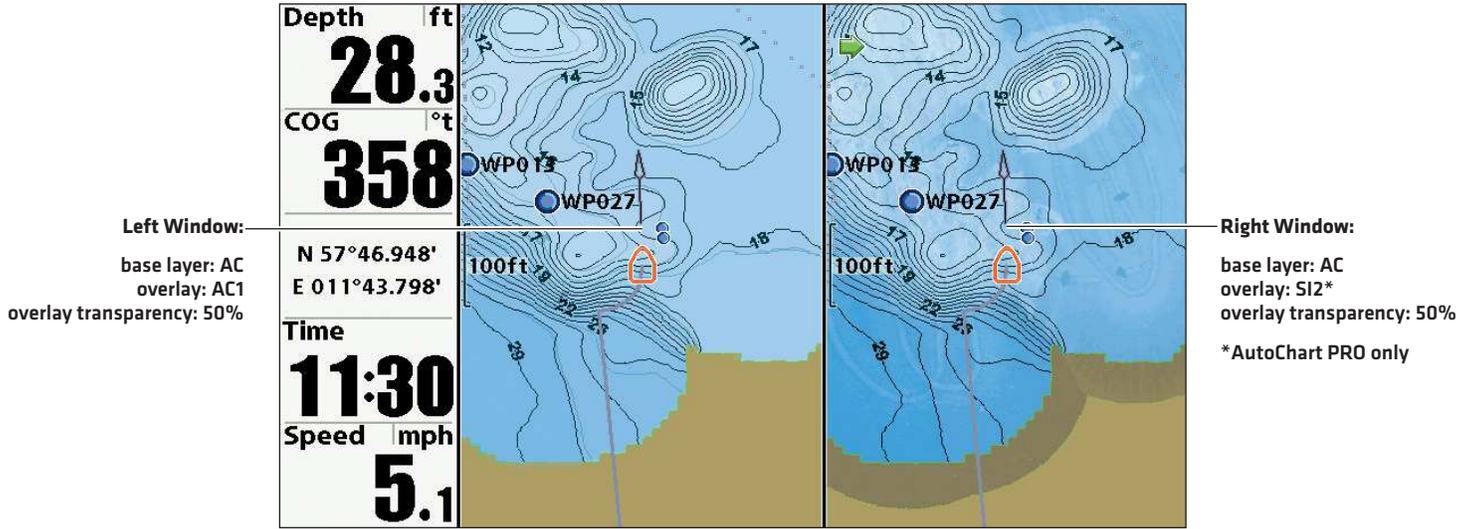
Right Window: Set the Overlay Transparency

1. Select **Overlay Transparency**.
2. Press the RIGHT Cursor key to select a setting.
3. Press the EXIT key to exit the menu system.

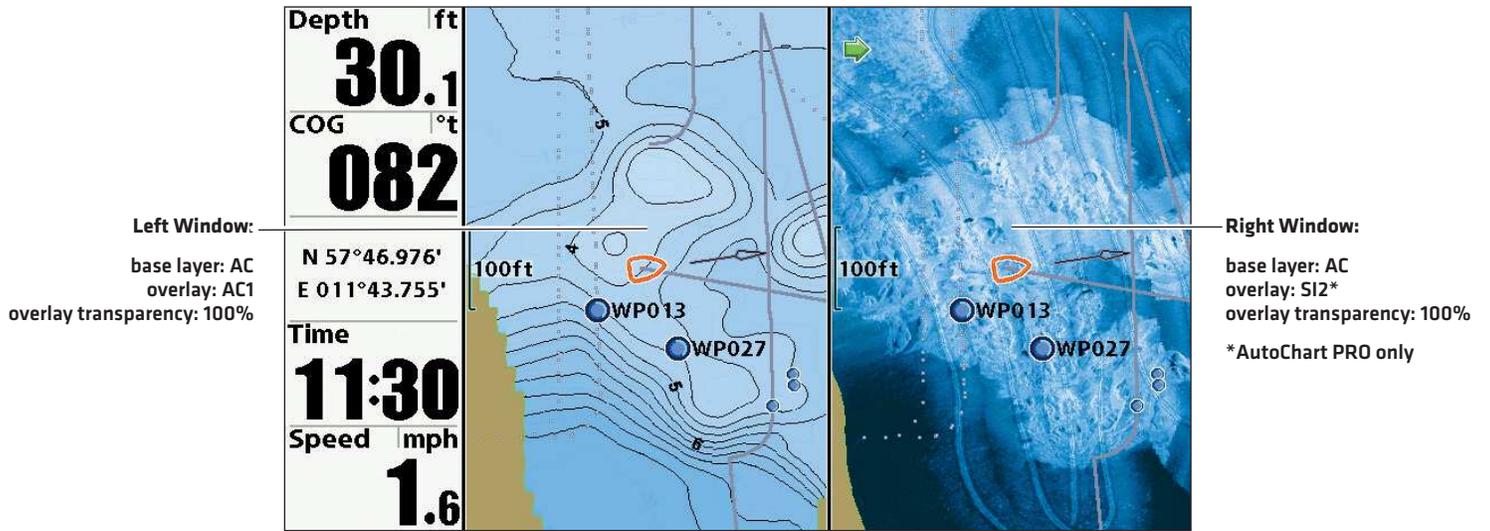
Chart/Chart Combo View, Right Window: Setting the Overlay Transparency



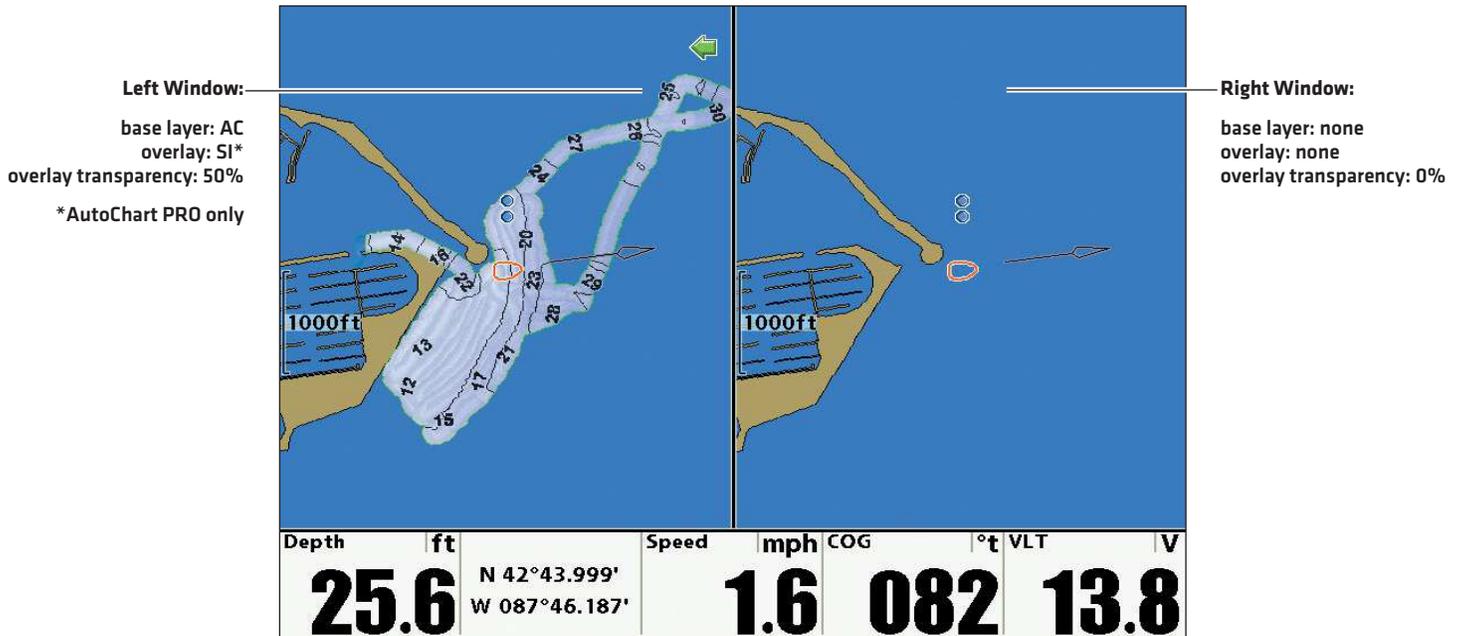
Chart/Chart Combo View (800 Series)



Chart/Chart Combo View (800 Series)



Chart/Chart Combo View (1100 Series)



4 | Select LakeMaster Settings

You can also select LakeMaster features to display in Chart View and Chart Combo Views.

 **NOTE:** If you have a LakeMaster chart card installed in addition to the ZeroLine Map Card, additional LakeMaster features may be displayed in the menu system. See your control head operations manual for more details about LakeMaster features.

Display an AutoChart Overlay on a LakeMaster Map

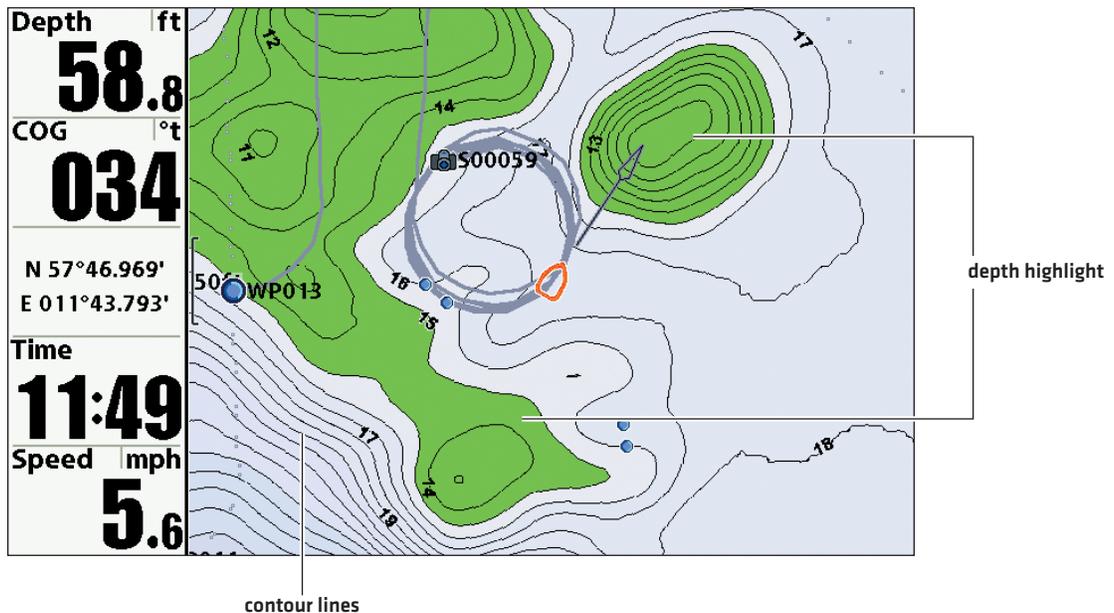
To select an AutoChart Overlay to display on top of a LakeMaster map, confirm the LakeMaster chart card is selected as the chart source and the LakeMaster chart (LM) is selected as the Base Layer. Then refer to the section **Select an Overlay and Set the Overlay Transparency**.

Select LakeMaster Settings

1. Press the MENU key twice. Select the **Chart Menu Tab**.
2. Select a LakeMaster menu option. See the table below for menu descriptions.

Contour Lines	Display or hide the water contour lines in Chart views. This feature is also affected by the Water Level Offset setting.
Depth Colors	Set the depth shading in the Chart views to Off or Shaded.
Depth Highlight	Highlight a depth setting in Chart views. The depth you set will be highlighted in green. Use Depth Highlight with Depth Highlight Range [see below].
Depth Highlight Range	Adjust the range on each side of the highlighted depth, when a Depth Highlight is active in Chart views.
Water Level Offset	Change the level of the water being read from the control head. The displayed numbers on the Contour Lines in chart views will adjust from the Water Level Offset setting, and the water level offset will be highlighted in dark brown.
Shallow Water Highlight	Select a minimum shallow depth setting so that the depth is highlighted in red in Chart views.

Chart View with Depth Highlight and Contour Lines Displayed [800 Series]



USING AUTOCHART MAPS WITH I-PILOT LINK

When you convert your depth data to a LakeMaster custom map using the AutoChart PC program, the contour lines are displayed. Contours can be converted to tracks or iTracks. If you have i-Pilot Link installed and connected to the control head, you can navigate a saved iTrack or follow a contour. See the following sections for more details.



NOTE: Visit our Web site at humminbird.com to purchase an i-Pilot Link. For more information about Follow the Contour and i-Tracks, see the i-Pilot Link manual.



NOTE: See the *AutoChart Installation & Operations Guide* for more information about creating iTracks in AutoChart.

Follow the Contour and Contour Offset

Follow the Contour allows you to navigate a contour on a LakeMaster chart in Chart View. **Contour Offset** allows you to maintain a set distance from the selected contour line.



WARNING! Contour Offset does NOT account for changes in water depth. It is important to be aware of depth variations in your current location and adjust the Contour Offset as needed.



NOTE: When the i-Pilot Link is following the contour, the Current Track is not saved, and iTracks cannot be recorded.

Select the Chart Card Source

1. Confirm the ZeroLine Map Card is installed in an SD card slot on the control head.
2. Press the MENU key twice. Select the **Chart Menu Tab**.
3. Select **Chart Select**.
4. Press the RIGHT or LEFT Cursor key to select the ZeroLine Map Card as the chart card source.

Select the Base Layer

To use the Follow the Contour feature, select an AutoChart map [AC] to display as the Base Layer [see *Manage your AutoChart Files*].

1. From the Chart Menu Tab, select **Base Layer**.
2. Press the RIGHT or LEFT Cursor key to select **AC**.



NOTE: The available options will depend on the number of AutoChart maps you have saved on the ZeroLine Map Card [for example, AC, AC1, AC2, AC3, etc.].

Set Contour Lines to Visible

1. From the Chart Menu Tab, select **Contour Lines**.
2. Press the RIGHT or LEFT Cursor key to select **Visible**.
3. Press the EXIT key twice to exit the menu system.

Set the Contour Offset

You can set Contour Offset to maintain a set distance from a contour line. If you want to navigate along a bank or shoreline, use Contour Offset to maintain a safe distance from the shoreline. Contour Offset is a distance setting only, and does not measure water depth. Input the Contour Offset based on your knowledge of the water depth in your current area.

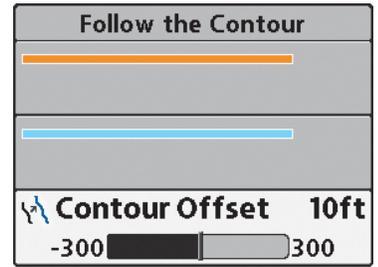
Contour Offset can be adjusted while Follow the Contour navigation is in progress by selecting Contour Offset from the Navigation X-Press Menu.



WARNING! Contour Offset does NOT account for changes in water depth. It is important to be aware of depth variations in your current area and adjust the Contour Offset as needed.

1. Open **Chart View**.
2. Use the 4-WAY Cursor Control key to move the cursor to the contour line you plan to follow.
3. Press the GOTO key.
4. Select **Follow the Contour** and press the RIGHT Cursor key to open the submenu.
5. Select **Contour Offset**.
6. Press the RIGHT or LEFT Cursor key to set the contour offset.

Setting the Contour Offset



Start Follow the Contour Navigation

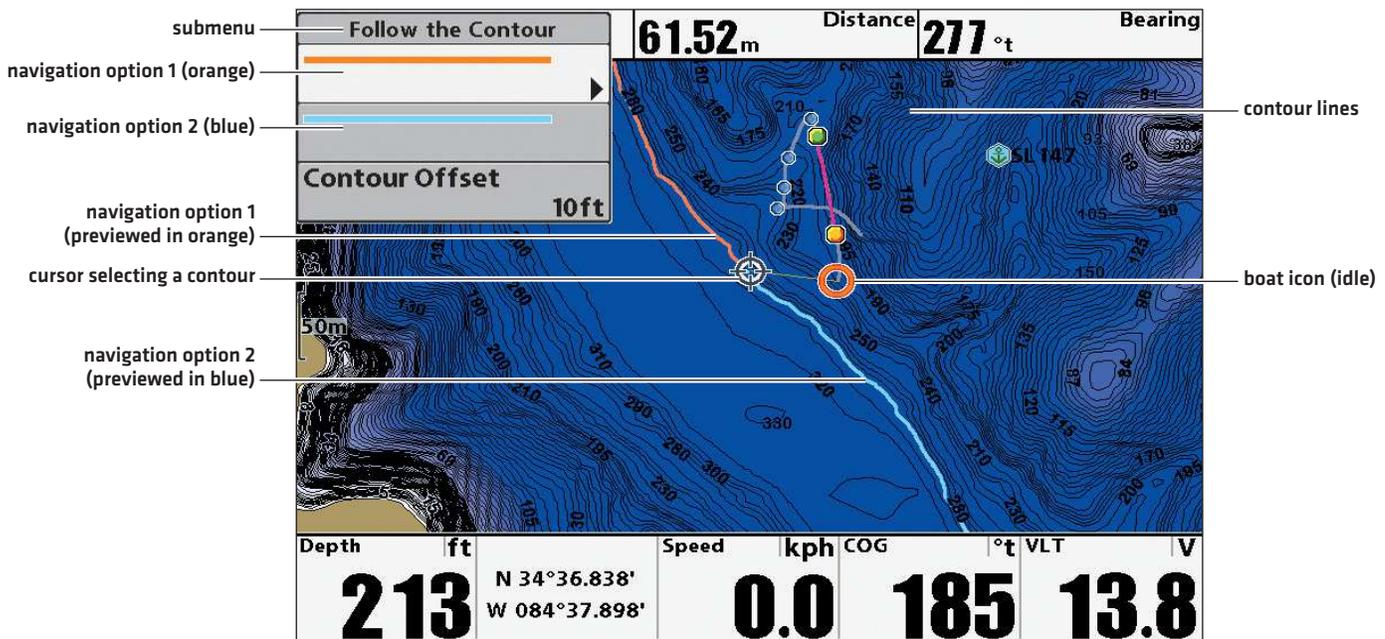
You can start i-Pilot Link navigation if the boat position is within 1/4 mile of the selected contour.

WARNING! If the selected contour is a shoreline, set the Contour Offset. See **Follow the Contour and Contour Offset: Set the Contour Offset**.

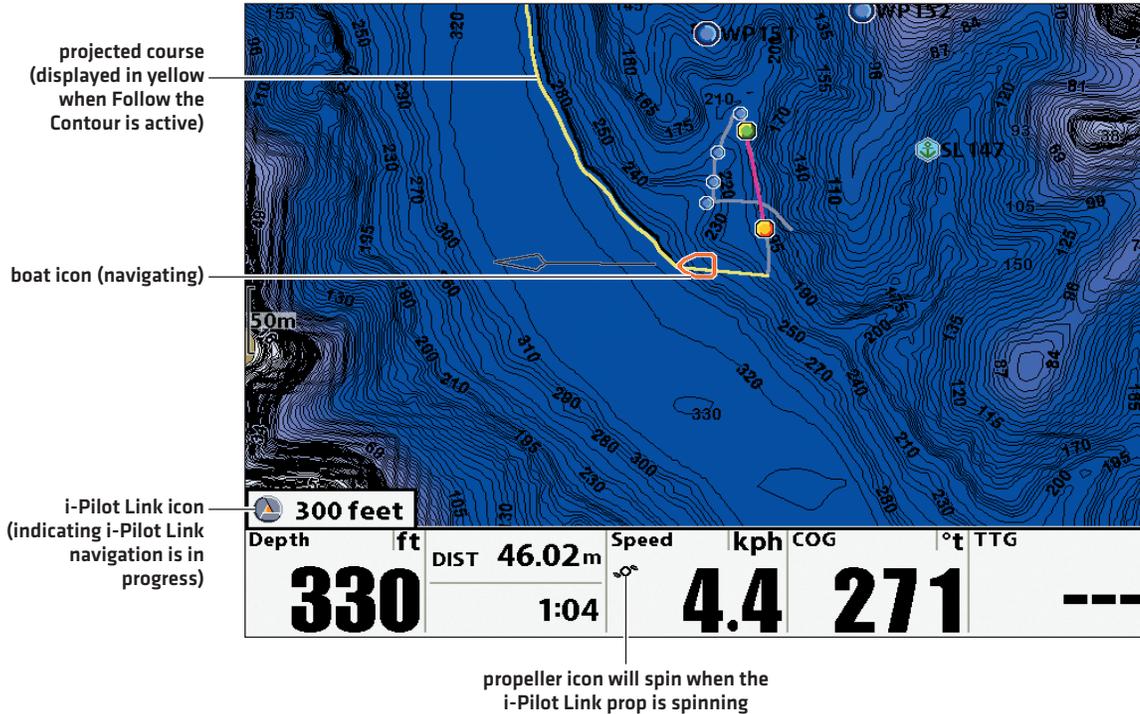
1. From the Follow the Contour submenu, press the UP or DOWN Cursor key to select a navigation direction from the submenu. The navigation direction will be previewed in orange or blue in the Chart View. See the illustration **Starting Follow the Contour Navigation**.
2. Press the RIGHT Cursor key.
3. Power on the i-Pilot motor to begin navigation. Refer to the i-Pilot Link manual for additional information.

NOTE: To cancel Follow the Contour navigation, see **Cancel i-Pilot Navigation**.

Starting Follow the Contour Navigation (1100 Series)



Following the Contour (1100 Series)



iTracks

A saved iTrack consists of GPS position data in the form of track points. The very first track point recorded is called the **Start Point**. The last point recorded is called the **End Point**. If you've created iTracks in AutoChart and saved them to the ZeroLine Map Card, see the following section for instructions on how to display and navigate them in Chart View.

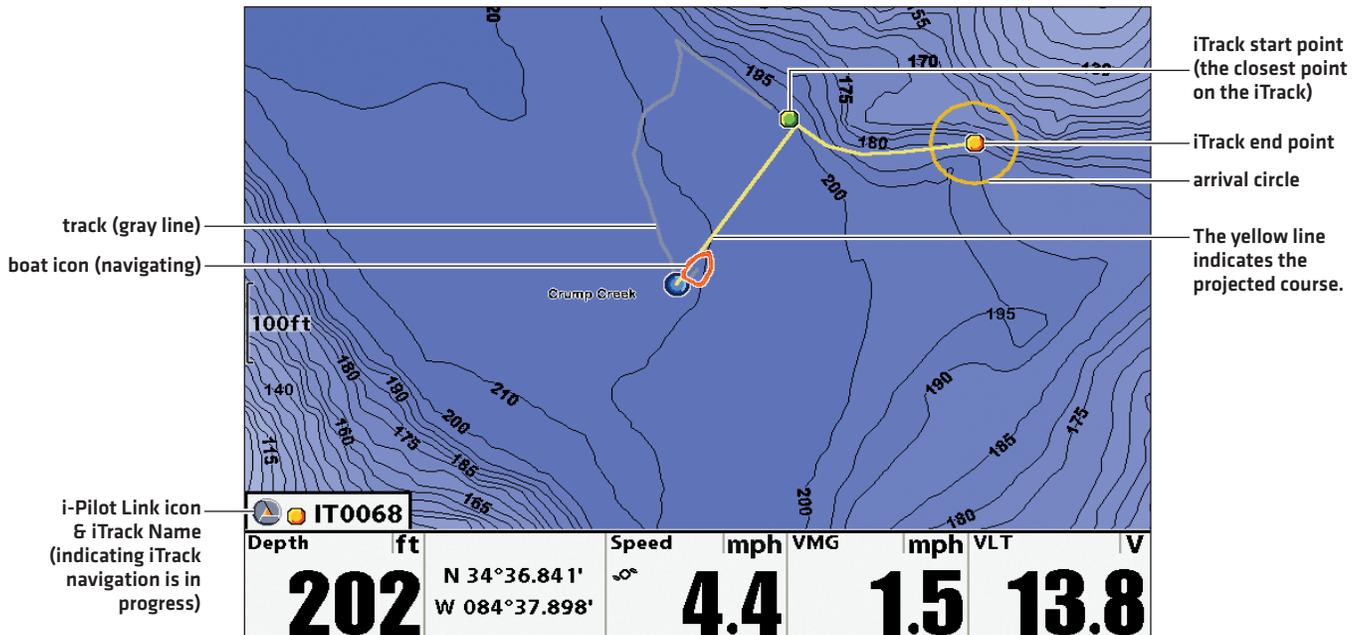


NOTE: For more information about iTracks, see the *AutoChart Installation & Operations Guide* and the i-Pilot Link manual.

Select and Navigate a Saved iTrack in Chart View

If a saved iTrack is within 1/4 mile of the boat position, you can start navigation towards it. iTrack navigation will start towards the nearest point on the iTrack, and then it will navigate to the Start Point or End Point, depending on your selection. If you select Go To Position, the control head will mark a waypoint and start i-Pilot Link navigation towards it.

Navigating an iTrack to the End Point (1100 Series)



Start iTrack Navigation from the iTrack Submenu

1. Open **Chart View**.
2. Use the 4-WAY Cursor Control key to select a Start Point icon, End Point icon, or a position on the iTrack.
3. Press the **GOTO** key.
4. Use the 4-WAY Cursor Control key to select one of the submenu actions:

To start navigation to the iTrack Start Point, select **Navigate to Start**.

To start navigation to the iTrack End Point, select **Navigate to End**.

To start navigation to a point within the iTrack, select **Go To Position**.

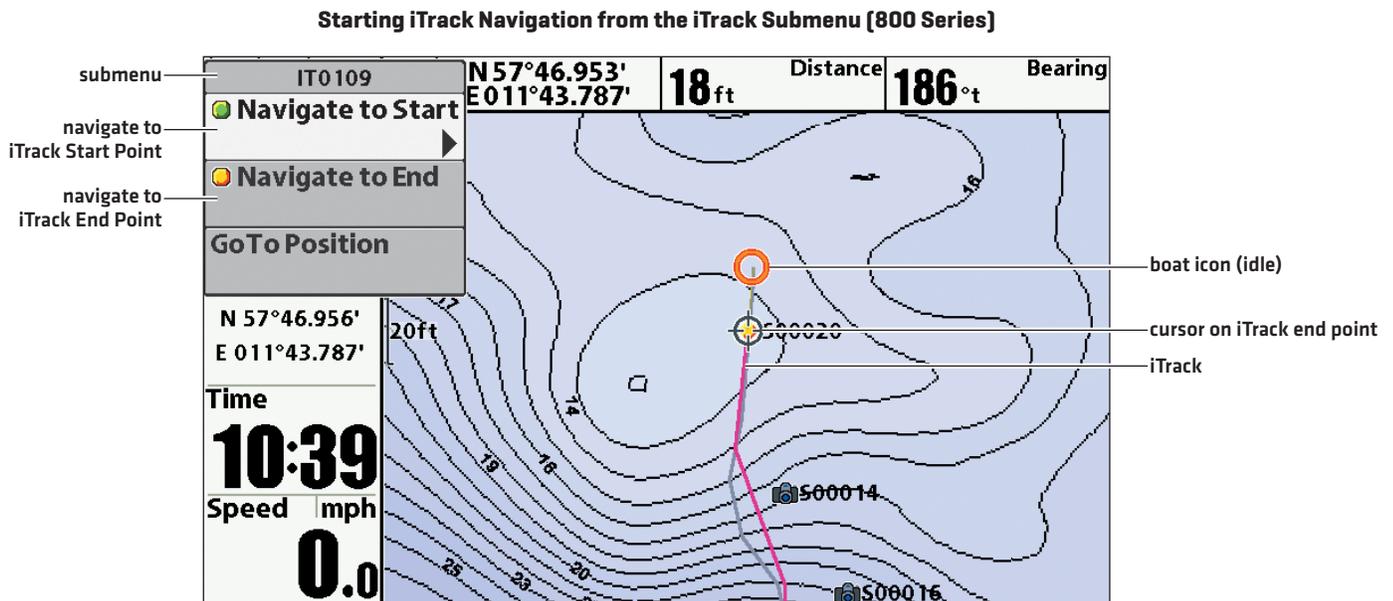
5. Press the **RIGHT** Cursor key.



NOTE: When you select Go To Position, the i-Pilot Link will navigate to the cursor position, but it will not start navigation on the iTrack.



NOTE: To cancel iTrack navigation, see **Cancel i-Pilot Navigation**.



Start iTrack Navigation from the Go To List

1. Press the GOTO key.

 **NOTE:** The chart cursor must be inactive in order to display the Go To list. If the cursor is active when you press the GOTO key, a waypoint will be created at the cursor location and navigation will begin to that waypoint.

2. Use the 4-WAY Cursor Control key to select one of the submenu actions:

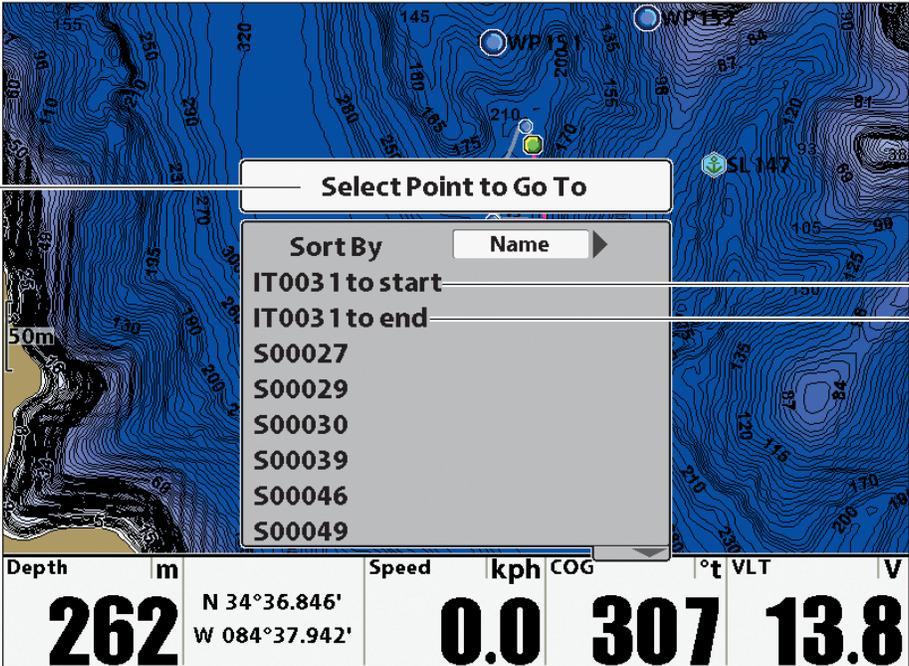
To start navigation to the iTrack Start Point, select **iTrack to Start**.

To start navigation to the iTrack End Point, select **iTrack to End**.

3. Press the RIGHT Cursor key.

 **NOTE:** To cancel iTrack navigation, see **Cancel i-Pilot Navigation**.

Selecting a Saved iTrack from the Go To List (1100 Series)



Go To list

Select Point to Go To

Sort By **Name**

- IT0031 to start
- IT0031 to end
- S00027
- S00029
- S00030
- S00039
- S00046
- S00049

Starts navigation to the nearest iTrack point and finishes at the Start Point.

Starts navigation to the nearest iTrack point and finishes at the End Point.

Depth **262** m N 34°36.846' W 084°37.942' Speed **0.0** kph COG **307** ° VLT **13.8** V

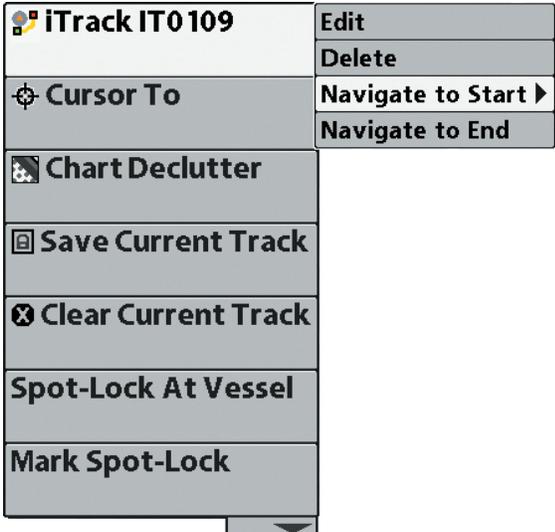
Start iTrack Navigation from the Navigation X-Press Menu

1. In Chart View, use the 4-WAY Cursor Control key to select a Start Point icon, End Point icon, or a position on the iTrack.
2. Press the MENU key.
3. Select the **iTrack file name**. Press the RIGHT Cursor key.
4. Use the 4-WAY Cursor Control key to select one of the submenu actions:
 - To start navigation to the iTrack Start Point, select **Navigate to Start**.
 - To start navigation to the iTrack End Point, select **Navigate to End**.
5. Press the RIGHT Cursor key.

From this menu, you can also edit the iTrack name and display appearance, as well as delete the iTrack.

 **NOTE:** To cancel iTrack navigation, see **Cancel i-Pilot Navigation**.

Starting iTrack Navigation from the Navigation X-Press Menu



 iTrack IT0109	Edit
	Delete
 Cursor To	Navigate to Start ▶
	Navigate to End
 Chart Declutter	
 Save Current Track	
 Clear Current Track	
Spot-Lock At Vessel	
Mark Spot-Lock	

Change the Saved Track or iTrack Display Appearance

If you've converted a contour to a track or iTrack in AutoChart, use the following instructions to change the track appearance in order to see the track on the control head display.



NOTE: For more information about iTracks, see the *AutoChart Installation & Operations Guide* and the i-Pilot Link manual.

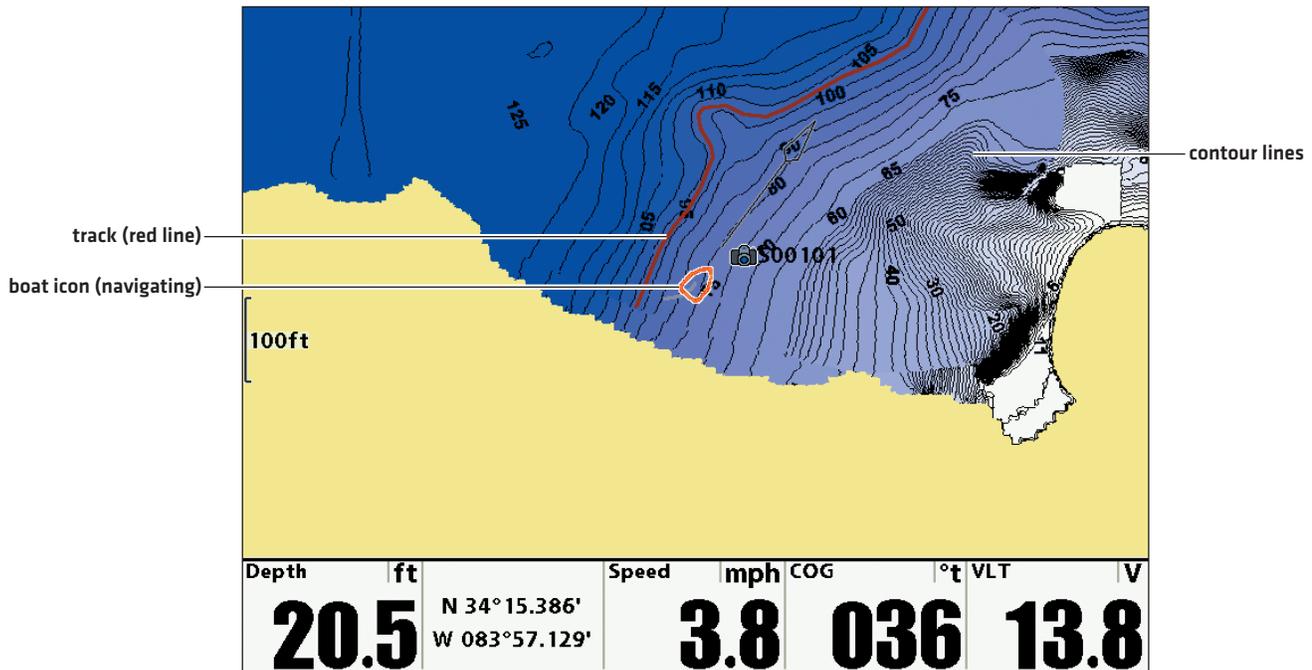
1. Press the MENU key twice. Select the **Navigation Menu Tab**.
2. Select **Waypoints, Routes, Tracks**. Press the RIGHT Cursor key to open the Waypoint Management dialog box.
3. Select the Track or iTrack file. Press the RIGHT Cursor key and select **Edit**.
4. Use the 4-WAY Cursor Control key to change the Style to a line.
5. Use the 4-Way Cursor Control key to change the color to something that is easy for you to see on the chart.
6. Press the EXIT key to exit the menu system.

Changing a Saved Track Display Appearance

The color field is available when Style is changed to a line.

Edit Track	
Name	ContourTest
Visible	<input checked="" type="checkbox"/>
Style	
Color	
Save	
10472 Trackpoints	
Created: 3:35:41 PM 03/12/14	

Changing a Saved Track Display Appearance (1100 Series)



Cancel i-Pilot Navigation

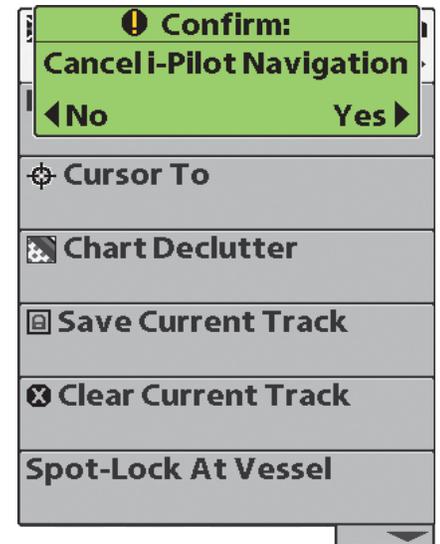
Use the following instructions to cancel i-Pilot navigation.

1. In any view, press the MENU key once to open the **Navigation X-Press Menu**.
2. Select **Cancel i-Pilot Navigation**. Press the RIGHT Cursor key.
3. A confirmation message will be displayed. Press the RIGHT Cursor key.



NOTE: For all navigation options, see the i-Pilot Link manual and your control head operations manual.

Canceling i-Pilot Navigation



AUTOCHART PRO

AutoChart PRO [separate purchase required] is an advanced version of AutoChart, and can be used to create the following:

- maps that display sonar data
- Side Imaging Mosaic
- 360 Imaging Mosaic [live data connection only]



NOTE: You must have a Side Imaging unit and 360 Imaging system installed to enable Side Imaging Mosaic and 360 Imaging Mosaic. 360 Imaging Mosaic is only available with a live data connection [see the **AutoChart Installation & Operations Guide**]. See our Web site at humminbird.com for more information.

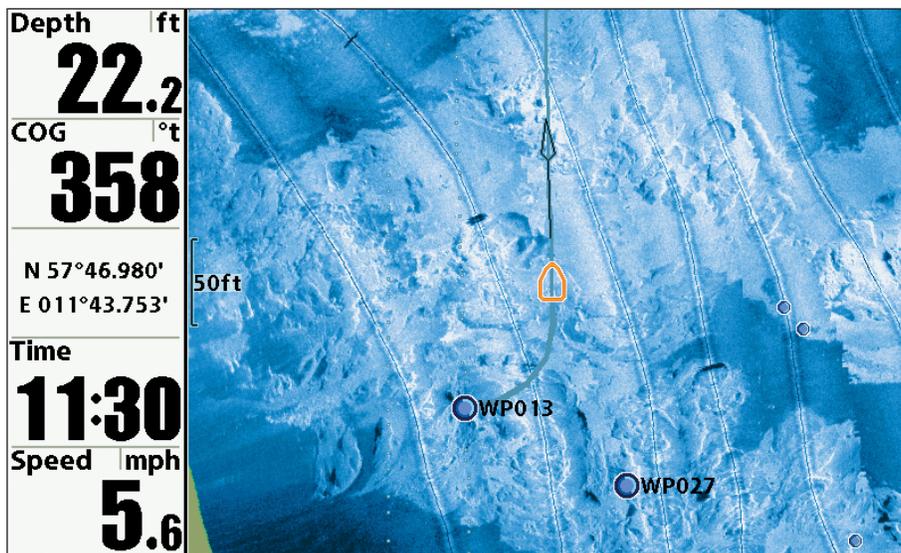
AutoChart PRO maps and Side Imaging Mosaics can be displayed as Base Layers and Overlays in Chart View and Chart Combo Views. See **Select the Base Layer** and **Select an Overlay and Set the Overlay Transparency** for instructions on how to display an AutoChart PRO map in Chart Views.

Side Imaging Mosaic

Side Imaging Mosaic is a custom AutoChart PRO map that uses Side Imaging returns to create a 3D visualization of contours and fish-holding habitats. A Side Imaging unit is required to record Side Imaging sonar data.

See the **AutoChart Installation & Operations Guide** for more information about creating Side Imaging Mosaics. Also, see **Select an Overlay and Set the Overlay Transparency** for more examples of Side Imaging Mosaics.

Side Imaging Mosaic Displayed as the Base Layer (800 Series)



MANAGE YOUR AUTOCHART FILES

See the following sections for information on how to manage the files stored on your ZeroLine Map Card.

ZeroLine Map Card Folder Structure

Whether you are using the ZeroLine Map Card on your Humminbird control head or your PC, it is helpful to understand the folder structure on the card.

 **WARNING!** Do NOT delete or change the AC folder, LkMaster folder, or SI folder. Changing these folders will permanently damage the ZeroLine Map Card.

 **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 PC, control head, and ZeroLine Map Card data files periodically. See **Manage your AutoChart Files: Back up your Files**.

AC: When you click the LakeMaster Update button in AutoChart, map data is saved to the AC folder on the ZeroLine Map Card. The AC folder stores your custom map files. **Do NOT change the contents of this folder!**

LkMaster: This folder provides the basemap files for your regional map. **Do NOT change the contents of this folder!**

SI: If you've created Mosaic data in AutoChart, and then click the LakeMaster Update button, the Side Imaging Mosaic data is saved to the SI folder on the ZeroLine Map Card. **Do NOT change the contents of this folder!**

MATRIX: Your navigation data [waypoints, routes, tracks, iTracks] is saved to the MATRIX folder. When you copy the contents of this folder to back them up, keep the files together.

SNAPSHOTS: If you've taken screen snapshots on your control head, they are saved to the SNAPSHOTS folder on the ZeroLine Map Card. You might notice that a .DAT file or .TXT file is created for every .PNG screen snapshot. This data is required for viewing the screen snapshots on your control head, so don't delete these files. When you copy the contents of this folder to back them up, keep the files together.

RECORD: If you've saved sonar recordings from your control head, they are saved to the RECORD folder on the ZeroLine Map Card. In addition to the .DAT file, there will be several other files in your recordings file [.SON, TXT, etc.]. This data is required for viewing the recordings, so don't delete these files. When you copy the contents of this folder to back them up, keep the files together.

Back up your Files

When you save files to your PC, keep your AutoChart files together in a directory that is easy to locate, and keep copies of your files saved to an external drive. It is also important to manage the storage space on your ZeroLine Map Card and keep copies of your files saved to your PC and an external drive.

 **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 PC, control head, and ZeroLine Map Card data files periodically.

Tips for Copying and Pasting Files

The basic instructions for copying and pasting a file to another folder are shown in this section. These instructions will vary with the type of Microsoft Windows operating system you are using. For more information, consult your Microsoft Windows manual.

1. Double-click a folder to open it.
2. Select the file[s] you want to copy:

To select one file, click it.

To select all files in a Folder, select Ctrl + A on your keyboard.

To select several individual files, hold down the Ctrl key on your keyboard. Click a file to select it. Continue to hold down the Ctrl key and select additional files.

3. Right-click the selected file[s]. Select Copy from the submenu.
4. Open the destination folder.
5. Right-click the folder directory. Select Paste from the submenu.

Back up the ZeroLine Map Card Files

Your ZeroLine Map Card includes several Gigabytes of available storage, so you can save tracks, iTracks, sonar recordings, and waypoints directly to it. It is important to keep copies of these files on your PC and another external drive.

If you've backed your ZeroLine Map Card folders (MATRIX, SNAPSHOTS, and RECORD), you can remove the files from the ZeroLine Map Card to make space for new files. You can also use these instructions to copy files from another SD card.

 **WARNING!** Do NOT delete or change the AC folder, LkMaster folder, or SI folder. Changing these folders will permanently damage the ZeroLine Map Card.

 **WARNING!** Do NOT separate or delete files that are saved to the same folder. See **ZeroLine Map Card Folder Structure** for details.

1. On your PC, open the directory where you want to keep your file copies.
2. Right-click the directory and select New > Folder. Create a MATRIX folder (name the folder with all capital letters). Repeat this step to create a RECORD folder and a SNAPSHOT folder.
3. Install the ZeroLine Map Card into the card slot on your PC.
4. Open the ZeroLine Map Card on your computer.
5. Open the MATRIX folder. Select all the files in the folder and copy them to the MATRIX folder on your PC.
6. Open the SNAPSHOTS folder. Select all the files in the folder and copy them to the SNAPSHOTS folder on your PC.
7. Open the RECORD folder. Select all the files in the folder and copy them to the RECORD folder on your PC.
8. If you've saved .acd files to the ZeroLine Map card, copy them to a folder on your PC.
9. **Optional:** Once the contents of the MATRIX folder, SNAPSHOTS folder, and RECORD folder are copied to your PC, you can delete them from your ZeroLine Map Card to make space for new data files.
10. Proceed to **Back up your PC Files**.

Back up your PC Files

It is also important to keep copies of your PC files on an external drive (or another computer), so if your computer is damaged, you will have back up files of your AutoChart data.

 **WARNING!** Do NOT separate or delete files that are saved to the same folder. See **ZeroLine Map Card Folder Structure** for details.

1. Right-click the **MATRIX folder** on your PC.
2. Select Copy from the submenu.
3. Open the external drive directory and right-click it.
4. Select Paste from the submenu.
5. Repeat the above steps to copy the following folders and files from your PC to the external drive:

SNAPSHOTS

RECORD

all .acd files

Waypoint Notes (drdwptv2.dwp, acwptnotes.dnt): In Microsoft Windows Vista operating system and Microsoft Windows 7 operating system, these files are located in C:\ProgramData\AutoChart\User Data. In the Windows XP operating system, they are located in the installation directory of AutoChart.

Custom Color Definition Files (optional): see AutoChart built-in help for more details.

 **NOTE:** You might have your files saved to other SD cards or directories on your PC. Be sure to back up all files.

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.



WARNING! Humminbird is not responsible for the loss of data files (waypoints, routes, tracks, groups, snapshots, recordings, etc.) that may occur due to direct or indirect damage to the unit's hardware or software. It is important to back up your control head, PC, and ZeroLine Map Card data files periodically. See **Manage your AutoChart Files: Back up your Files**.

Water Level and Tide Compensation

If you record mapping data in water with a varying water level, you can compensate your data and create maps for various levels.

When recording, make sure all your data files are referenced to the same nominal water level. Take note of what the water level was during the day. When you transfer your mapping data to your PC, water level corrections can be applied directly. See the **AutoChart Installation & Operations Guide** for instructions.

X/Y/Tilt/Latency

AutoChart has settings to compensate for how the GPS antenna and the transducer are placed in relation to each other, as well as compensation for timing. These settings can be applied when you transfer your mapping data to your PC. It is important to confirm these settings to get the most accurate data. See the **AutoChart Installation & Operations Guide** for instructions.

Also, see **AutoChart Help** on your PC.

CONTACT HUMMINBIRD

Contact Humminbird Customer Service in any of the following ways:

Web site:

humminbird.com

E-mail:

service@humminbird.com

Telephone:

1-800-633-1468

Direct Shipping:

Humminbird
Service Department
678 Humminbird Lane
Eufaula, AL 36027 USA

Hours of Operation:

Monday - Friday

8:00 a.m. to 4:30 p.m. [Central Standard Time]

Social Media Resources:



[Facebook.com/HumminbirdElectronics](https://www.facebook.com/HumminbirdElectronics)



[Twitter.com \[@humminbirdfish\]](https://twitter.com/humminbirdfish)



[YouTube.com/humminbirdtv](https://www.youtube.com/humminbirdtv)

