

# LAKEMASTER MAP CARDS

## HELIX and Core Accessory Guide




### TABLE OF CONTENTS


Overview  
Set up the Control Head  
Set up for the Day  
What's on the Map  
Adjust the Map Display Settings


Display Aerial Imagery  
Display a Lake  
Follow the Contour  
Save and Export Navigation Data  
Contact Humminbird


# THANK YOU!


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


 **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 save data files (waypoints, routes, tracks, groups, recordings, etc.) to your map card. Saving data to your map card will permanently damage it. You can save navigation data to the control head and export it to a blank card. See **Save and Export Navigation Data** for details.


 **WARNING!** Do NOT delete or change the contents of your map card. Changing the card will permanently damage it.


 **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 control head defaults or updating the software.


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


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


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

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

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

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

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

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

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

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

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



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

1100 Series™, AUTOCHART®, ChartSelect™, HELIX™, Humminbird®, i-Pilot® Link™, ION®, LakeMaster®, ONIX®, ProMap™, X-Press™ Menu, and ZeroLine Map Card™ are trademarked by or registered trademarks of Johnson Outdoors Marine Electronics, Inc.

Adobe, Acrobat, Adobe PDF, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

microSD is a trademark or registered trademark of SD-3C, LLC in the United States, other countries or both.

# OVERVIEW

Install a Humminbird LakeMaster Map Card to add enhanced or high definition lake maps to your Humminbird chartplotter. The Humminbird LakeMaster PLUS Map Card allows you to add an aerial image base layer to your LakeMaster map.

**Compatibility:** Humminbird LakeMaster Map Cards are available to use with Humminbird control heads with chartplotting capabilities.

**LakeMaster PLUS Compatibility:** Your Humminbird chartplotter must have software version 7.460 or later to display LakeMaster PLUS maps.

# SET UP THE CONTROL HEAD

Use the following instructions to start using the latest LakeMaster features with your Humminbird control head.

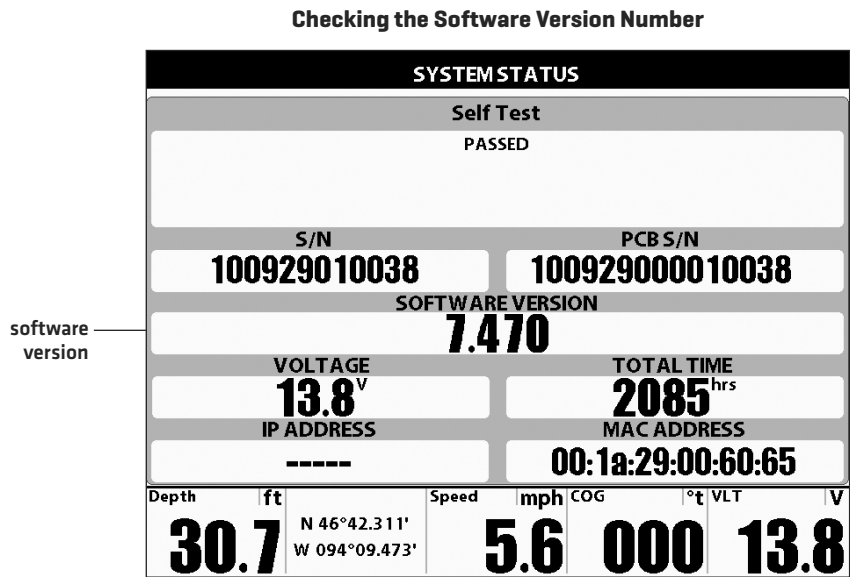
## 1 | Update the Control Head Software

Your control head should have the latest software version installed to enable the Humminbird LakeMaster Map Card on your control head. LakeMaster PLUS is enabled with control head software version 7.460 and later.

### Check the Current Software Version

1. **Power On:** Press the POWER key.
2. When the title screen is displayed, press the MENU key.
3. Select **System Status** from the the Start-Up Options menu.

Read the Software Version number. If you are using a LakeMaster PLUS Map Card, you must have software version 7.460 or later installed on your control head.



4. **Power Off:** Press and hold the POWER key.

## Update the Control Head Software

If you need to update the control head software, follow the instructions in this section.

1. Before the control head software is updated or restored to system defaults, export your navigation data to an SD/microSD card. See your control head operations manual for details.

**⚠ 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 control head's data files periodically. Data files should also be saved to your PC before restoring the unit's defaults or updating software.

2. Install a blank SD/microSD card into the PC card slot.

If you have a microSD card, you will use a card adapter with your PC.

3. Go to **humminbird** and select **My Humminbird** to sign in to your account.
4. Select the **My Equipment** page. The available software updates are listed as **Downloads** under each registered product.
  - Under Downloads, click the file name.
  - Read the instructions in the dialog box and select Download.
  - Follow the on-screen prompts to save the software file to the SD/microSD card.

5. Power on your Humminbird control head. Start Normal mode.

6. Insert the SD/microSD card (with the software file) into the control head card slot.

The control head will recognize the new software and run through a series of prompts to confirm the software installation.

## 2 | Install the LakeMaster Map Card

Your control head is compatible with an SD Card or a microSD card. To install the map card, follow the instructions included with your control head operations guide. Also, use the following guidelines:

- **Confirm the map card is locked.** The switch should be pushed down.

**⚠ WARNING!** Do NOT save data files (waypoints, routes, tracks, groups, recordings, etc.) to your map card. Saving data to your map card will permanently damage it. You can save navigation data to the control head or export it to a blank card. See **Save and Export Navigation Data** for details.

- **Do not force the card into the slot.** The card should click easily into place. See your control head operations manual for instructions.
- **Do not leave the card slot cover open.** The slot cover should always be closed to prevent water damage to the unit.

### Confirming the Map Card is Locked



# 1. SET UP FOR THE DAY

Use the following instructions to get started each time you go out on the water.

## 1 | Power On

1. Press the POWER key.
2. When the title screen is displayed, press the MENU key.
3. **If you're on the water with GPS reception**, select Normal. [Normal mode is required for on-the-water use.]  
**If you're off the water and don't have GPS reception**, select Simulator. Also see *Display a Lake* for more information.

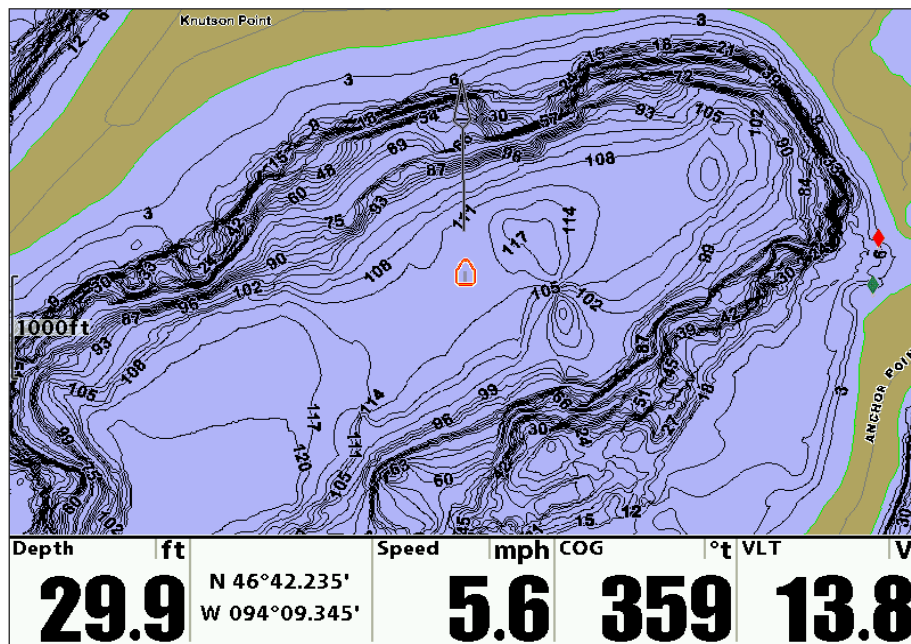
## 2 | Display a Chart View

1. Press the VIEW key until a Chart View is displayed.

OR

Press and hold the VIEW key. Select Chart > Chart View.

Chart View with LakeMaster Map Card Installed [1100 Series]



**Automatic Display:** The lake map displayed on the Chart View is based on the latitude/longitude position and the map card installed in the control head, so your current lake will be displayed automatically. GPS reception is required for the correct lake to be displayed.

**If your current lake is not displayed**, confirm you have GPS reception and that your LakeMaster Map Card is installed. Also, review the Chart Source. Press the MENU key twice to open the Main Menu. Select the Chart Menu tab > Chart Select > Auto, or select the location of the installed map card [Left Chart Card, Right Chart Card].

Also, see *Display a Lake* for more information.

### 3 | Adjust the Water Level Offset

When you start your trip for the day, it is important to note if the water level is higher or lower than normal. For example, if you know the lake is down 3 feet, set the Water Level Offset to -3.

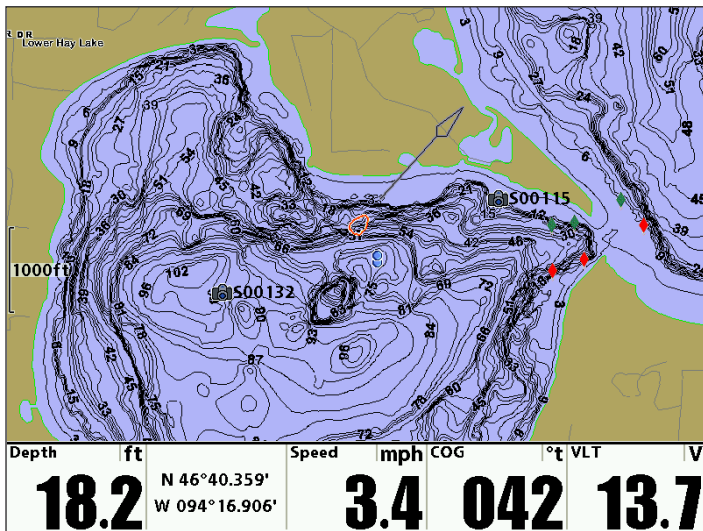
1. Press the MENU key twice. Select the Chart Menu tab.
2. Select Water Level Offset.
3. Press the RIGHT or LEFT Cursor keys to adjust the setting.

If the water level is higher than normal, set a [+] positive amount.

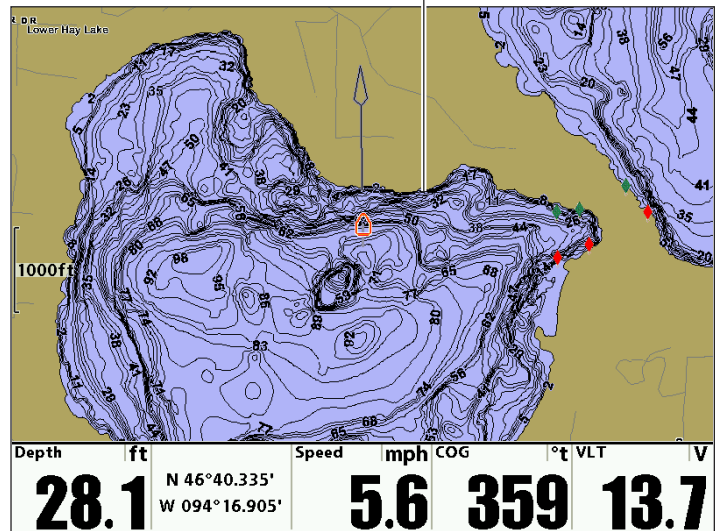
If the water level is lower than normal, set a [-] negative amount.

If the water level has not changed [normal], set Water Level Offset to [0] zero.

**Water Level Offset (Set to 0 = Off)**



**Water Level Offset Adjusted to -4**



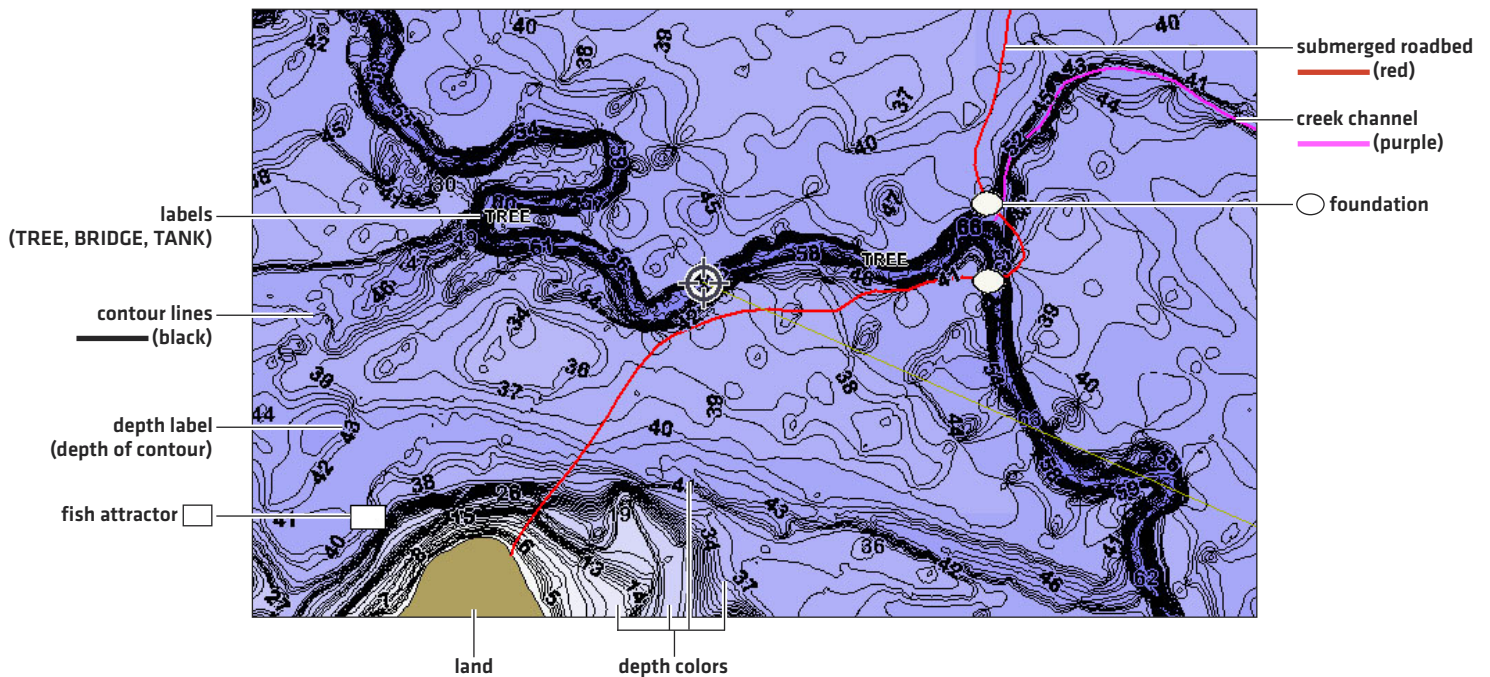
If the water is lower than normal, set the Water Level Offset to a negative number, and the land will extend visually on the map (as shown above). If the water is higher than normal, set the Water Level Offset to a (+) positive amount, and the water line will extend visually on the map.



# WHAT'S ON THE MAP

The installed LakeMaster Map Card provides multiple colors and icons to help you identify depth, contours, and fish attractions on the map.

What's on the LakeMaster Map



## Tips for Using the Map

In addition to the chart and navigation features available with your Humminbird control head, use the following tips with your LakeMaster Map Card.



### See More

Press the +ZOOM key repeatedly to see contour lines and depth colors up close.



### Review Information

Use the 4-Way Cursor Control key to move the cursor to an icon [buoy, marker, etc.] contour line, or position on the map. Press the CHECK/INFO key.



### Move Across the Chart

Press any arrow on the 4-WAY Cursor Control key to move the cursor across the chart.

**Optional:** Press the -ZOOM key repeatedly to zoom out. Press any arrow on the 4-WAY Cursor Control key to move the cursor across the chart.

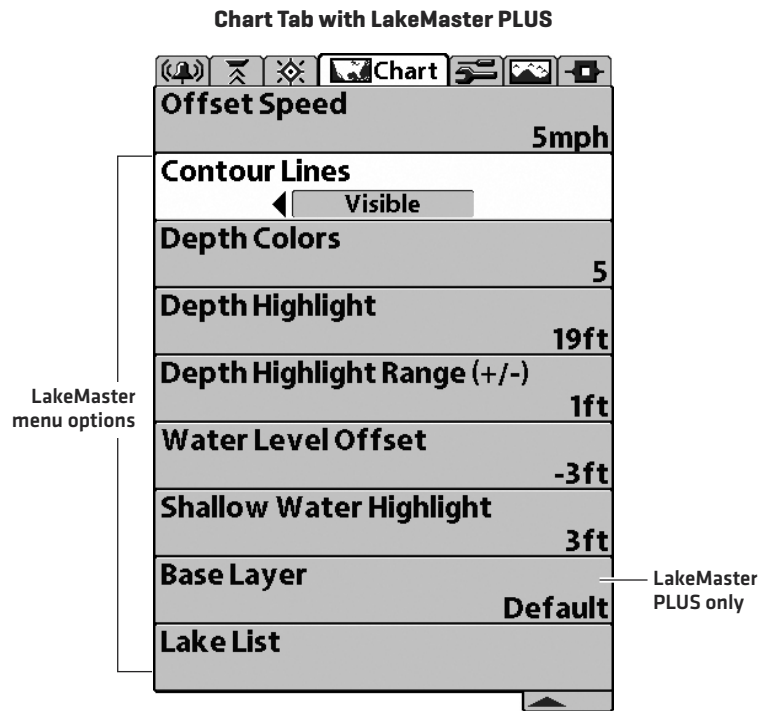


# ADJUST THE MAP DISPLAY SETTINGS

When you install a LakeMaster Map Card or LakeMaster PLUS Map Card, menu options are added to the Chart Menu tab. You can display or hide contour lines, highlight shallow water, and highlight a depth range on the map.

## Open the Chart Menu Tab

1. **Main Menu:** Press the MENU key twice.
2. Press the RIGHT Cursor key until the Chart tab is selected.



## Display/Hide Contour Lines

Display or hide the water contour lines in Chart views. This feature is also affected by the Water Level Offset setting.

1. From the Chart Menu tab, select Contour Lines.
2. Press the RIGHT or LEFT Cursor keys to select Hidden or Visible.

## Turn on Depth Colors

Set the depth shading in the Chart Views to Off or shaded based on the setting you select.

1. From the Chart Menu tab, select Depth Colors.
2. Press the RIGHT or LEFT Cursor keys to adjust the setting.

## Highlight a Depth Range

Depth Highlight allows you to identify a depth in the Chart views. You can also adjust the range on each side of the depth using Depth Highlight Range. The depth range you set is highlighted in green on the chart.

For example, if you know a certain fish is holding at 18 to 20 feet, you can set the Depth Highlight to 19 feet and the Depth Highlight Range to +/- 1 foot. The view will show a green band from 18 to 20 feet.

1. From the Chart Menu tab, select Depth Highlight.
2. Press the RIGHT or LEFT Cursor keys to select a depth.
3. To highlight the range on both sides of the selected depth, press the DOWN Cursor key. Select Depth Highlight Range.
4. Press the RIGHT or LEFT Cursor keys to select a range.

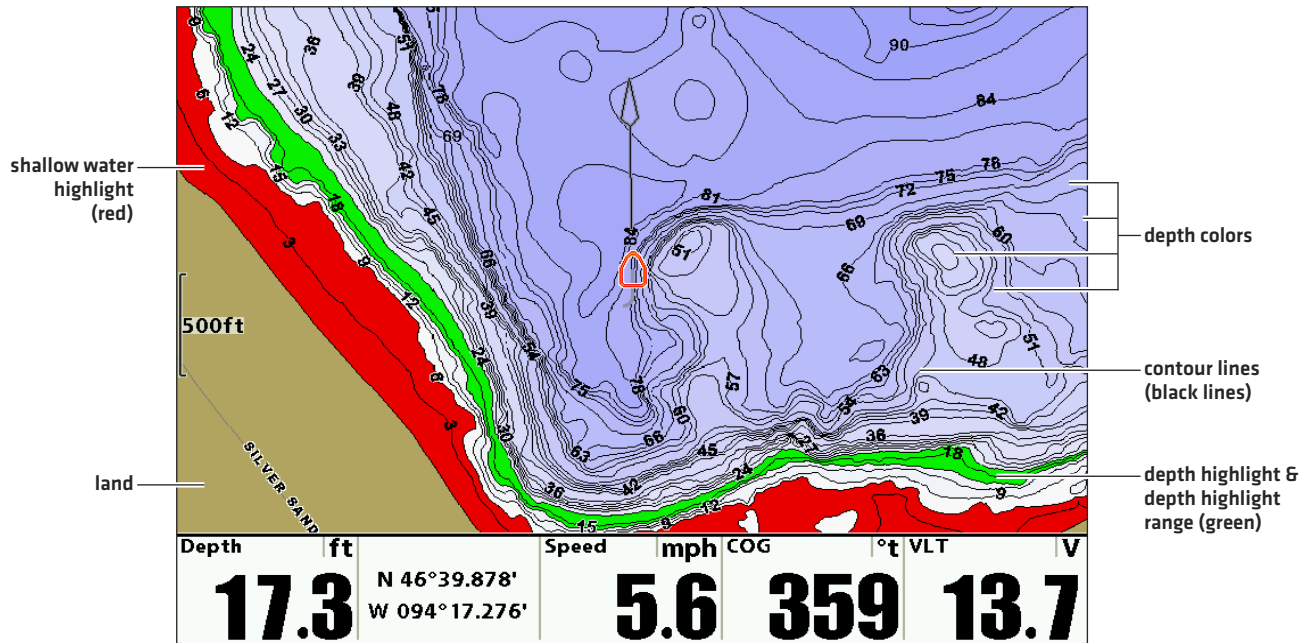
## Highlight a Shallow Water Range

When the depth is equal to or less than the amount you set, it will be highlighted in red on the Chart View.

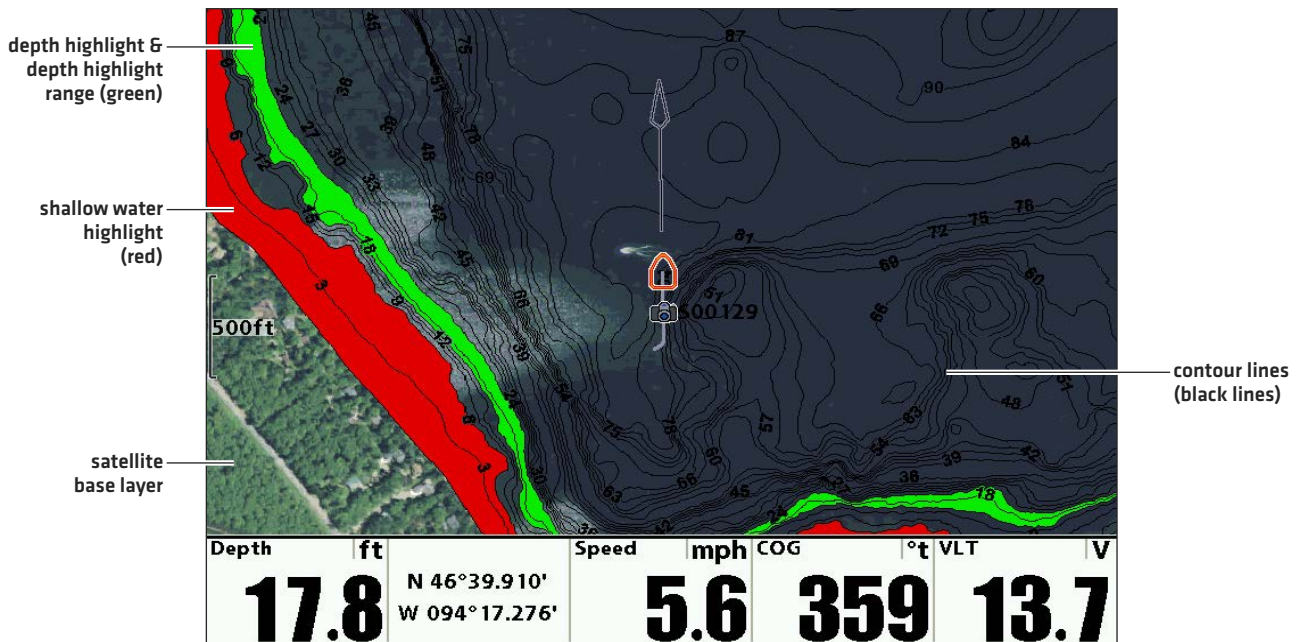
For example, if your boat has a draft of 3 feet, set the Shallow Water Highlight to 3 feet, and a red band from 0 to 3 feet will be shown on the map.

1. From the Chart Menu tab, select Shallow Water Highlight.
2. Press the RIGHT or LEFT Cursor keys to select a depth.

Adjusting Display Settings (LakeMaster Map Card)



Adjusting Display Settings (LakeMaster PLUS Map Card with Satellite + Contour Base Layer)



# DISPLAY AERIAL IMAGERY

(LAKEMASTER PLUS MAP CARD ONLY)

If you have a LakeMaster PLUS Map Card, you can add a base layer that shows aerial imagery for land and water in various combinations with your map.

**Required:** LakeMaster PLUS Map Card installed, control head software version 7.460 or later.

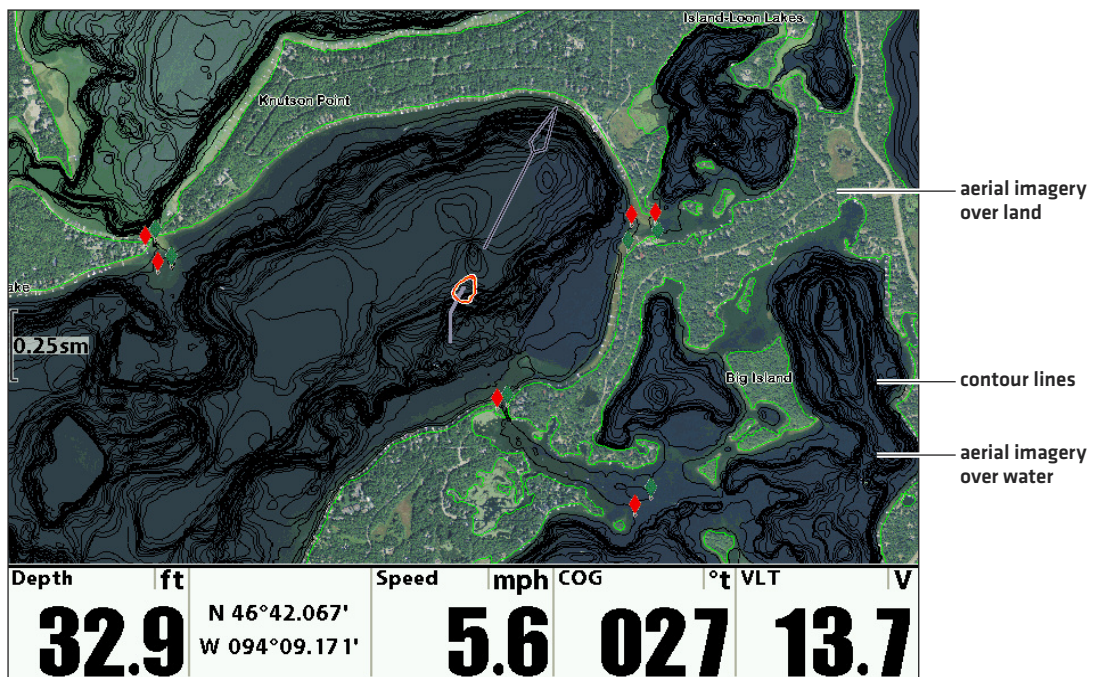
## Display Aerial Imagery

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

### Change the Base Layer for the Chart View

1. From the Chart Menu tab, select Base Layer.
2. Press the RIGHT or LEFT Cursor keys to select a Base Layer.

**Base Map with Satellite + Contour Displayed (1100 Series, LakeMaster PLUS)**



<b>Default</b>	The LakeMaster map is displayed without aerial imagery.
<b>Satellite + Contour</b>	This layer displays aerial imagery for the water and the land closest to the lake. Contour lines are also displayed. You can show or hide the contour lines, highlight a depth range, and highlight a shallow water range. Depth colors are not displayed. See <i>Adjust the Map Display Settings</i> .
<b>Satellite - Land</b>	This layer displays aerial imagery for the land closest to the lake. You can also show or hide the contour lines, adjust the depth colors, highlight a depth range, and highlight a shallow water range. See <i>Adjust the Map Display Settings</i> .
<b>Satellite - Only</b>	This layer displays aerial imagery for the water and the land closest to the lake. LakeMaster map data [contour lines, depth highlight, shallow water highlight, etc.] is not displayed.



## Change the Base Layer for the Chart Combo Views

In the Chart/Chart Combo View, you can display a different Base Layer in each window. The left window is set through the Chart Menu tab, and the right window is set through the X-Press Menu.

**Selecting a Base Layer for each Window of the Chart/Chart Combo View [1100 Series, LakeMaster PLUS]**

**Chart Menu Tab**

**Navigation X-Press Menu**

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

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

## Change the Base Layer for the Chart Combo Views

### Left Window

1. Press the MENU key twice. Select the Chart Menu tab.
2. Select Base Layer.
3. Press the RIGHT or LEFT Cursor keys to select a Base Layer.
4. Press the EXIT key twice to close the menu system.

### Right Window

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. Select Right.
3. Select Base Layer.
4. Press the RIGHT or LEFT Cursor keys to select a Base Layer.
5. Press the EXIT key once to return to the view.

# DISPLAY A LAKE

---

The lake map displayed on the Chart View is based on the latitude/longitude position and the map card installed in the control head. GPS reception is required for the correct lake to be displayed.

The **Lake List** menu option allows you to display a different lake from the installed LakeMaster Map Card. When you select a lake, the cursor will move to the lake so you can see it on the Chart View. Then, you can mark waypoints, press the GOTO key to start navigation toward a waypoint, or press the CHECK/INFO key for more information.

**No GPS Reception:** If you don't have a GPS Fix, you can view the lake in Simulator mode. When you power on the control head, press the MENU key. Select Simulator from the Start-Up Options Menu. You can mark waypoints and routes and save them in Simulator mode.

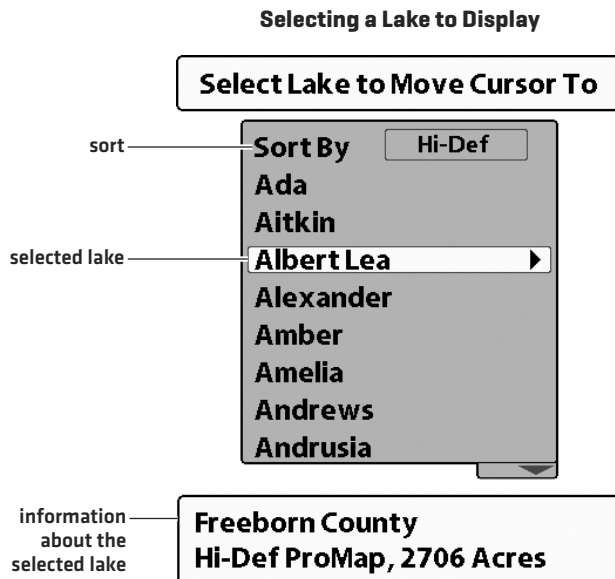
## Display a Lake

1. From the Chart Menu tab, select Lake List.
2. Press the RIGHT Cursor key.

**Sort By:** Select the Sort By field, and press the RIGHT or LEFT Cursor keys to select a sort option for the list. You can sort alphabetically, identify the high-definition lakes (Hi-Def) on your card, etc.

**Scroll:** Press the UP or DOWN Cursor keys to scroll through the list. As each lake is highlighted, you can view information about the lake in the box displayed on the screen.

**Cursor To:** Select a lake on the list and press the RIGHT Cursor key.



# FOLLOW THE CONTOUR

---

Follow the Contour allows you to navigate a depth contour using i-Pilot Link (separate purchase required). You can select a contour line and follow it in either direction, or use the Contour Offset feature to stay a set distance from a contour line or shoreline.

When you start i-Pilot Link navigation to Follow the Contour, all other types of navigation are stopped on the Humminbird control head and the Ethernet network.

**Required:** i-Pilot Link with a ZeroLine Map Card or i-Pilot Compatible LakeMaster Map Card. To purchase i-Pilot Link, and for more information.



**WARNING!** See your i-Pilot Link manual for warnings, safety information, and operations instructions. You are responsible for the safe and prudent operation of your boat. The i-Pilot Link is designed to be an accurate and reliable tool that will enhance boat operation and improve your ability to catch fish. This product does not relieve you from the responsibility for safe operation of your boat. You must avoid hazards to navigation and always maintain a permanent watch so you can respond to situations as they develop. You must always be prepared to regain manual control of your boat. Learn to operate your i-Pilot Link in an area free from hazards and obstacles.

## 1 | Preparation

Before you use Follow the Contour, contour lines should be displayed on the Chart View and the Water Level Offset must be set.

### 1. Adjust the Water Level Offset

When you start your trip 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, set the Water Level Offset to -3.

1. From the Chart Menu tab, select Water Level Offset.
2. Press the RIGHT or LEFT Cursor keys to adjust the setting.

**If the water level is higher than normal**, set a [+] positive amount.

**If the water level is lower than normal**, set a [-] negative amount.

**If the water level has not changed [normal]**, set Water Level Offset to [0] zero.

### 2. Set Contour Lines to Visible

1. From the Chart Menu tab, select Contour Lines.
2. Select Visible.
3. Press the EXIT key twice to close the menu system.

### 3. 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. Enter the Contour Offset based on your knowledge of the water depth in your current area.

**No Offset:** If you want to navigate the contour without an offset, you can skip this section.

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



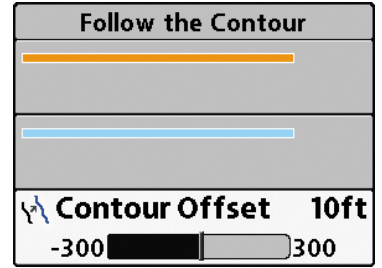
**WARNING!** Contour Offset does NOT account for changes in water depth. It is important to be aware of depth variations in your current area and adjust the Contour Offset as needed.



To set the Contour Offset, your boat must be positioned within **1/4 mile** of the selected contour.




1. Use the 4-WAY Cursor Control key to move the cursor to the contour line you plan to follow. Press the GOTO key.
2. Select Follow the Contour. Press the RIGHT Cursor key.
3. Select Contour Offset.
4. Press the RIGHT or LEFT Cursor keys to adjust the offset amount.

### Setting the Contour Offset



## 2 | 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 **Preparation: Set the Contour Offset**.
-  **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.

1. **Open the Follow the Contour Submenu:** Use the 4-WAY Cursor Control key to move the cursor to the contour line you plan to follow. Press the GOTO key.
2. Press the UP or DOWN Cursor keys to select a navigation direction. The navigation direction will be previewed in orange or blue in the Chart View.
3. Press the RIGHT Cursor key.
4. Power on the i-Pilot motor to begin navigation. Refer to the i-Pilot Link manual for additional information.

### Starting Follow the Contour Navigation (1100 Series)

submenu: Follow the Contour

navigation option 1 (orange): [Orange bar]

navigation option 2 (blue): [Blue bar]

Contour Offset: 10ft

navigation option 1 (previewed in orange): [Orange bar]

cursor selecting a contour: [Cursor on contour line]

navigation option 2 (previewed in blue): [Blue bar]

Distance: 61.52m

Bearing: 277 °t

contour lines

boat icon (idle)

Depth ft: 213

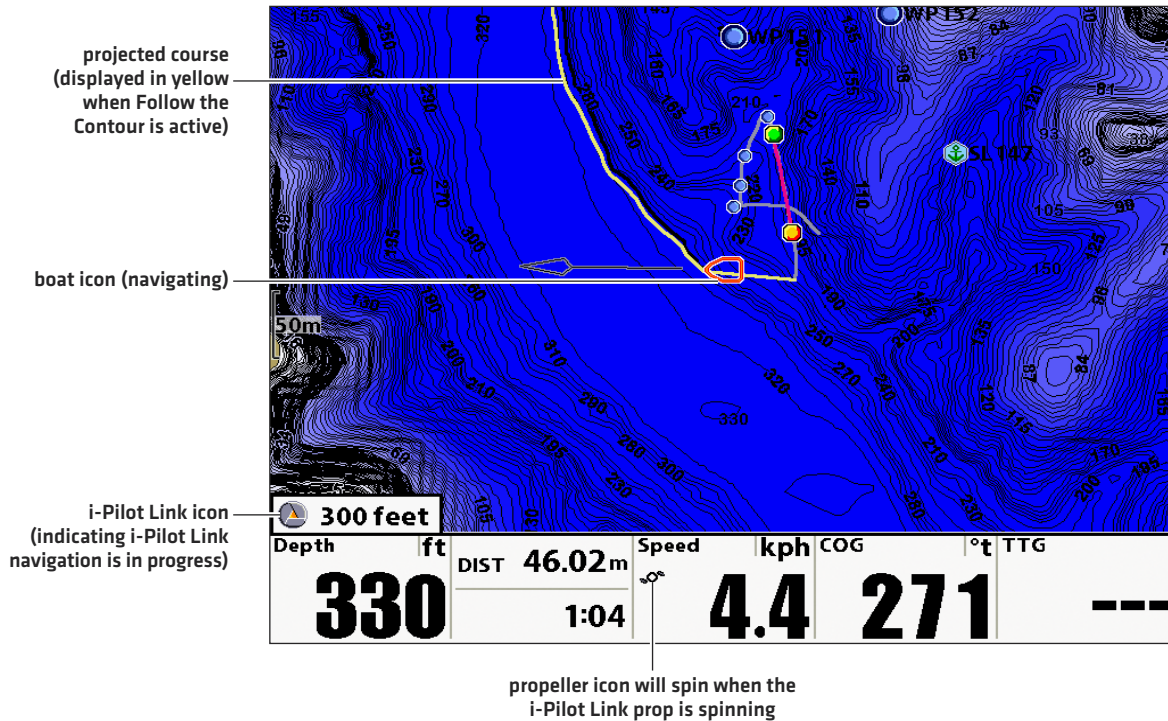
Speed kph: 0.0

COG °t: 185

VLT V: 13.8

Coordinates: N 34°36.838', W 084°37.898'

## Following the Contour (1100 Series)



### Adjust the Contour Offset during Navigation

1. Press the MENU key once.
2. Select Contour Offset from the Navigation X-Press Menu.
3. Press the RIGHT or LEFT Cursor keys to adjust the offset.  
To remove the offset, set it to [0] zero.

### Reverse Direction

1. Press the MENU key once.
2. Select Reverse Direction from the Navigation X-Press Menu.

### Cancel i-Pilot Navigation

Use the following instructions to cancel i-Pilot navigation.

1. Press the MENU key once.
2. Select Cancel i-Pilot Navigation. Press the RIGHT Cursor key.
3. Follow the on-screen prompts to cancel navigation.

# SAVE AND EXPORT NAVIGATION DATA

---

When you mark waypoints or save routes, tracks, and groups, they are saved to the control head. Then, you can export this navigation data to an SD/microSD card. Navigation data cannot be saved to your LakeMaster Map Card. See **Set up for the Day** for more information.



**WARNING!** Do NOT export navigation data [waypoints, routes, tracks, etc.] to your LakeMaster Map Card. Saving data to your map card will permanently damage it.

## Export Navigation Data to a Blank SD/microSD Card

1. Remove the LakeMaster Map Card.

Press the card into the slot and release it. Carefully remove it from the slot.

2. Insert a blank, unlocked SD/microSD card into the control head card slot.
3. Press the MENU key twice to open the Main Menu.
4. Press the RIGHT Cursor key until the Navigation tab is selected.
5. Press the DOWN Cursor key to select Waypoints, Routes, Tracks.
6. Press the RIGHT Cursor key to open the Waypoint Management dialog box.
7. Select Options > Select All and... > Export.
8. Follow the on-screen instructions to confirm or cancel the export.  
See your control head operations manual or Waypoint Management Guide for more information. g