



Addendum For LCX-15, LCX-16 series & GlobalMap[®] 3000 Sonar/GPS Important Additional Information

Since the manuals were written for the LCX-15, LCX-16 and GlobalMap 3000, several new features and capabilities have been added to these units. Those additions include:

Sonar Manual Changes

- This entry corrects transducer part numbers previously printed in the manual.

GPS and Mapping Features

- MapCreate™ 6 compatibility, with new categories of mapping detail, including a searchable Points of Interest database.
- Navionics[®] Charts compatibility, with Port Services, Tides and Tidal Current information.
- WAAS capability.

Accessories

- Face cover.
- Free software: sonar viewer and LCX-15/LCX-16 demo.
- Sunscreen hood.

Sonar Manual Changes

On Page 1: The Transducer Extension Cable (12") model name should be XT-12X; the part number, 99-57, is unchanged.

On Page 2: The part number for the THST-50/200-DX transducer should be 106-24.

Another transducer can be added to the list of transducers compatible with the LCX-15 and LCX-16 series units. It is the model TH-50/200-DX, part number 106-33, which is a bronze thru-hull mount without temp and speed sensor.

GPS and Mapping Features

MapCreate™ 6

Your unit is compatible with our MapCreate™ 6 custom mapping software. MapCreate 6 contains more categories of mapping detail than version 5, including a searchable Points of Interest (POI) database and information on available services near Interstate Highway exits.

The Points of Interest data in the unit are by infoUSA; © copyright 2001, All Rights Reserved. infoUSA is a trademark of infoUSA, Inc.

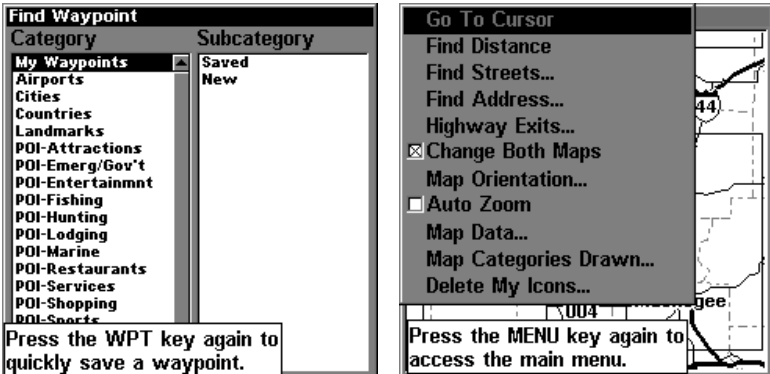
eXitSource Database in the unit is © copyright 2001 by Zenrin Co., Ltd. Exit Authority™ and eXitSource™ are trademarks of Zenrin Co., Ltd.

The POI and exit information are contained in MapCreate 6 custom maps and are visible on your computer screen while running MapCreate. However, you can only *search* for exit info and POIs in your GPS unit, with a custom map stored on the MMC card.

Here's how you can search for addresses, highway exits, map places, Points of Interest, streets, intersections and waypoints:

Searching

Your unit's varied search functions all begin with either the Find Waypoint menu or the Map Page menu. Press **WPT** and the Find Waypoint menu appears for waypoints and Points of Interest (POI). From the Map Page, press **MENU** and the Map Page menu appears for streets, addresses and highway exits.



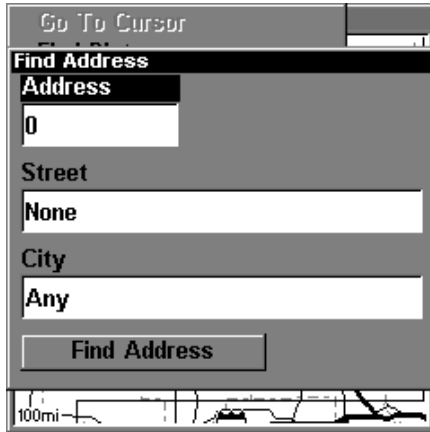
Find Waypoint menu, left and Map Page menu, right.

NOTE:

You can search for items after your unit has acquired a position, or while using the unit in the "indoor" mode. Distance and bearing to the selected item will be calculated from the unit's current position, or the last known position if operating indoors (without a position determined). You can look up items by name, or search for the item nearest to you.

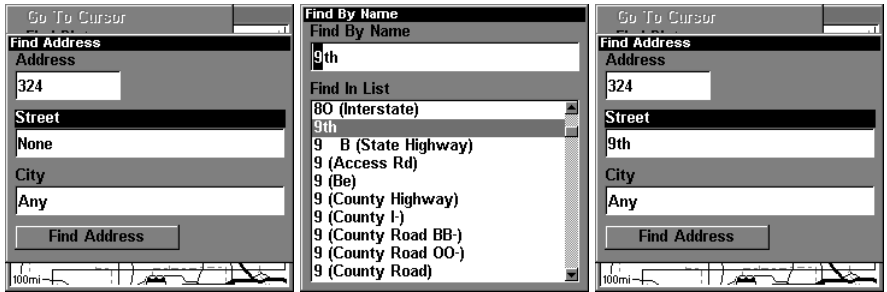
Find Addresses

1. From the Map Page, press **MENU** | **↓** to **FIND ADDRESS** | **ENT**.
2. Press **ENT** to search in the Address field.



Find Address Menu.

3. **To enter an address number**, press **↑** for **↓** to change the first number, then press **→** to move the cursor to the next number and repeat until the number is correct, then press **ENT**.
4. **To enter a street name**, press **↓** to **STREET** | **ENT**. There are two options: **A.** You can **spell out** the name in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press **↓** or **↑** to select a street name from the list, then press **ENT**. The street name you selected is now in the street field.



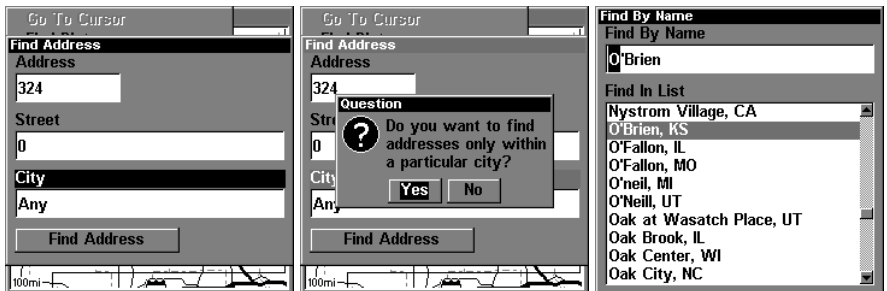
Find Address menu, left; Find Street menu, center, with Find By Name field active; street name entry complete, right.

5. **To enter a city name**, press ↓ to **CITY** | **ENT**. You will be asked if you want to find addresses only within a particular city. This option is designed so you can limit an address search to a single city if necessary (see the note below.)

If you select yes, there are two options: **A.** You can **spell out** the city name in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a city name from the list, then press **ENT**. The city name you selected is now in the city field.

NOTE:

We recommend that you do *not* enter a city name unless the list you are given is too large when searching without it. The unit can actually search quicker without a city and you save time by not entering a city name.

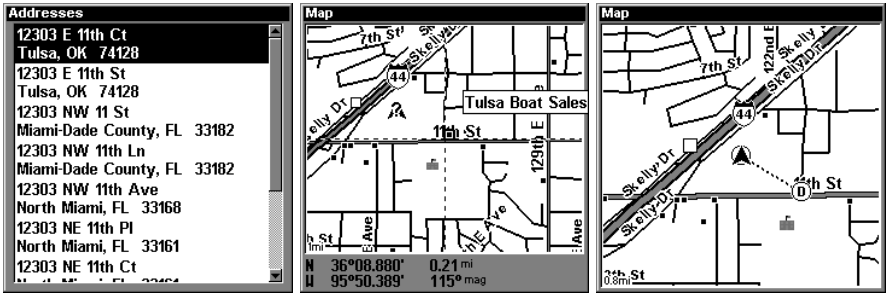


Find city field, left, Search in particular city only option, center; Find City by name, right.

6. When the necessary search fields are filled in, press ↓ to **FIND ADDRESS** | **ENT**. Your unit asks you to wait while it searches for the address.

(If an address is not in the database, a message appears saying the address could not be found.)

7. The unit will display a list of addresses. If the address you are looking for is highlighted at the top of the list, press **ENT**. If not, use **↓** and **↑** to select the correct address from the list, then press **ENT**. The Map Page will then appear with the location selected by the cursor. (In the example below, we are looking for 12303 East 11th Street in Tulsa, so we had to scroll down the list to select the right one.)

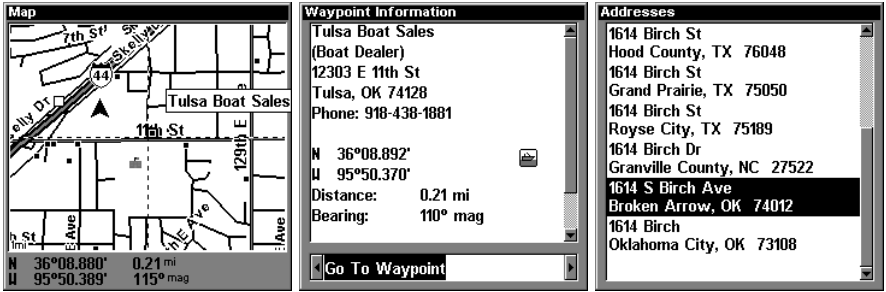


Address search result list, left. At center, Map Page showing location of the address on the map, highlighted by cursor. At right, after the address is located, you can navigate to it ("D" symbol for destination).

8. To navigate to the address, press **MENU | ENT | EXIT** and The unit will begin showing navigation information to the address pointed out by the cursor. If you are only looking up an address (not navigating), just press **EXIT** to return to the previous page.

Tip:

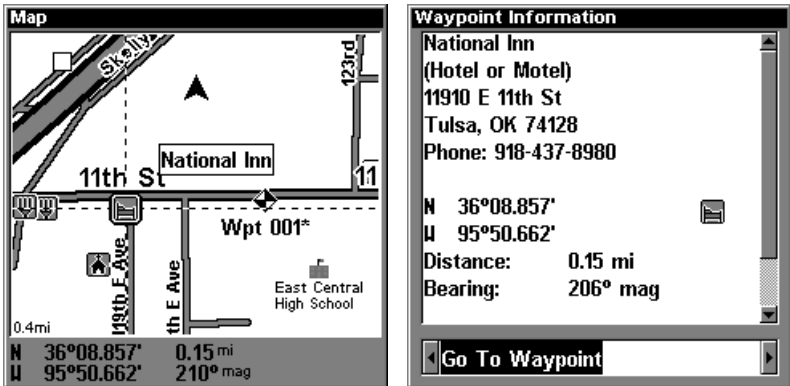
If the address also happens to be an item in the Point of Interest database, you can look up the item's phone number in the Waypoint Information list. With the address location selected by the cursor on the map, press **WPT**. The POI's Waypoint Information window appears, with the Go To Waypoint command highlighted. If you want to go ahead and navigate to the POI address, just press **ENT | EXIT**.



Left, Map Page showing location of the address on the map, highlighted by cursor. Center, this address is a business in the POI database, so you can display the POI information window, then navigate to it. At right, this address is not in the POI database, so the Waypoint key will not display any information for this address.

Find Any Item Selected by Map Cursor

1. On the Map Page: with a POI or map feature selected by the cursor press **WPT**. To return to the previous page, press **EXIT**.



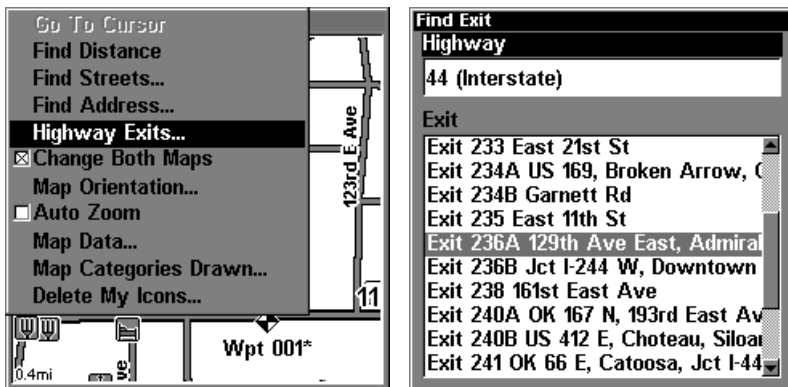
A POI selected by the cursor, left, POI information screen, right.

NOTE:

Since the Go To Waypoint command is highlighted, you can navigate to the selected POI by pressing **ENT|EXIT** while in the POI Waypoint Information screen.

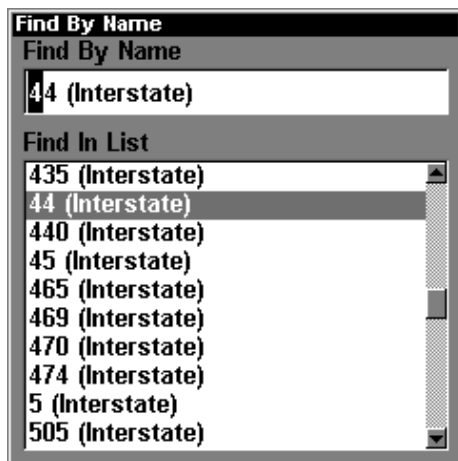
Find Interstate Highway Exits

1. From the Map Page, press **MENU|↓ HIGHWAY EXITS|ENT**, which calls up the Find Exit menu.



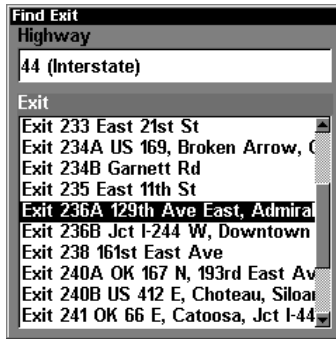
Find Highway Exits command, left, and Find Exit menu, right.

2. First, select a highway name by pressing **ENT**, which calls up the Find By Name menu. There are two highway search options: **A.** You can **spell out** the highway name in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press **↑** or **↓** to select a highway from the list, then press **ENT**.



Find By Name menu, right.

2. Once you have selected a highway name you can then select an exit. Press **↓** to switch to the Exit List, then press **↓** or **↑** until you highlight the exit, then press **ENT**.



Find Exit menu, with an exit selected in the Exit List.

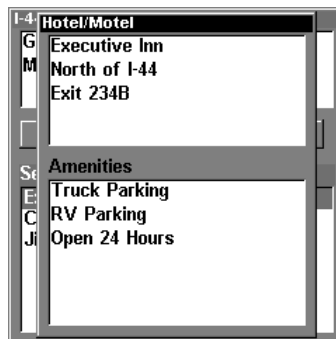
3. In the Exit Information screen you have two choices. **A.** Press **ENT** to navigate or "go to" the exit. **B.** Press **→** | **ENT** to find the exit on the map.



"Go To Exit" option, left, "Find On Map" option, right.

Tip:

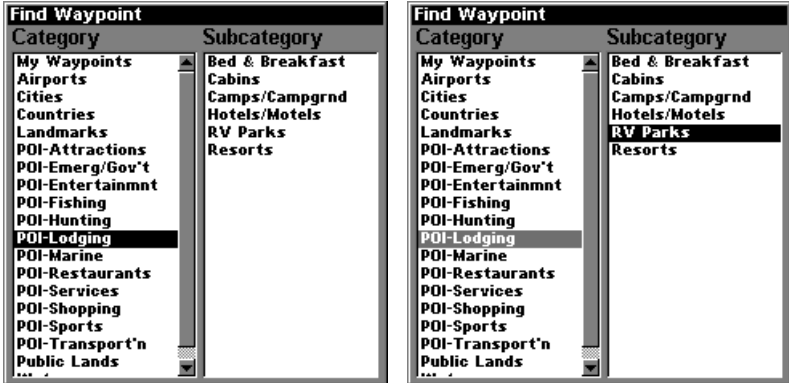
You can also look up some additional information on the Exit Services located near this exit. Press **↓** to **SERVICES** | press **↓** or **↑** to select *Service Name* | **ENT**.



Exit Information screen, left; general location and amenities information, at right.

Find Map Places or Points of Interest (POI)

1. Press **WPT**, press ↓ or ↑ to select a map place or POI category, then press **ENT**. (To narrow your search, press → then press ↓ or ↑ to select a subcategory before pressing **ENT**.) You will be given two options; Search By Name or By Nearest.



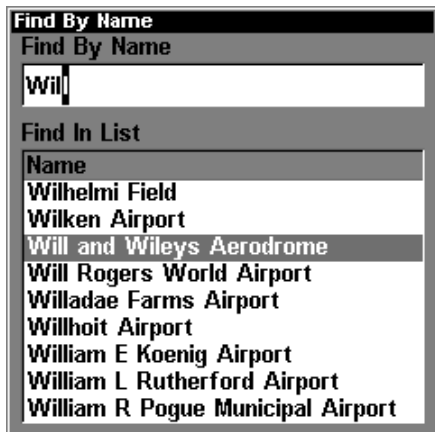
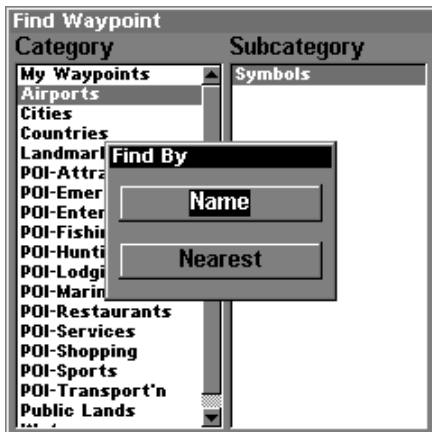
Find Waypoint menu with Lodging POI category selected, left, and with the RV Parks subcategory selected, right.

2. **Search by nearest POI.** Press ↓|**ENT**. The "find by nearest" menu will show a "calculating" screen, then a list of the nearest POI's will appear. Press ↓ or ↑ to the selected POI and press **ENT** to call up the POI's Waypoint Information screen.



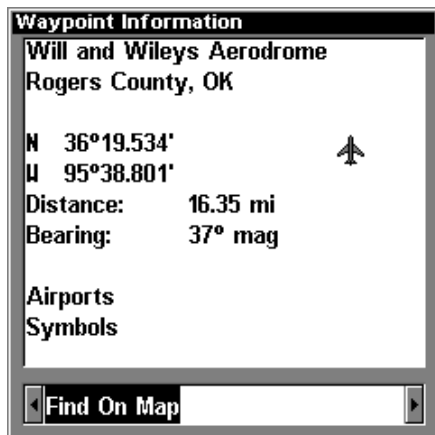
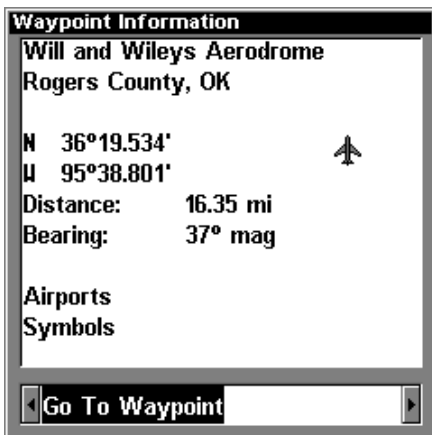
Find by nearest option, left, Calculating screen, center, POI list, right.

3. **Search by name of POI.** Press **ENT**. There are two options: **A.** You can **spell out** the POI in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↑ or ↓ to select a POI from the list, then press **ENT** to call up the POI's Waypoint Information screen.



Find by name option, left, Find by name menu, right.

4. When the POI's Waypoint Information screen is displayed, you can choose to "Go To" the POI waypoint by pressing **ENT** or find it on the map by pressing **→|ENT**.

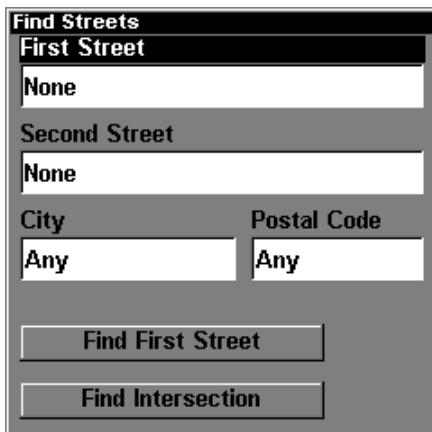
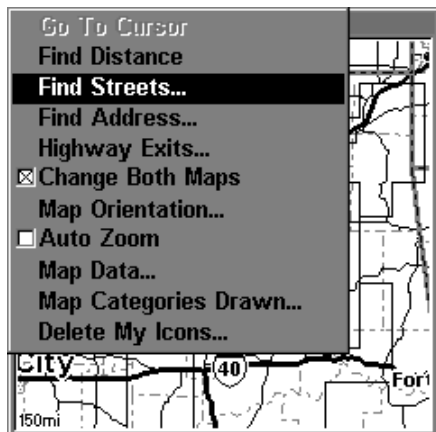


"Go To" POI option, left, "Find on Map" POI option, right.

Find Streets or Intersections

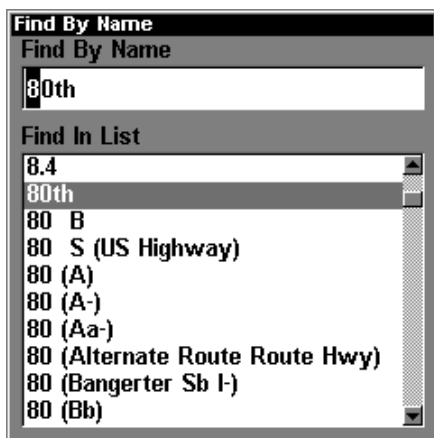
Find a Street

1. From the Map Page, press **MENU|↓** to **FIND STREETS|ENT** and the Find Streets Menu appears.



Find Streets command, left, Find Streets menu, right.

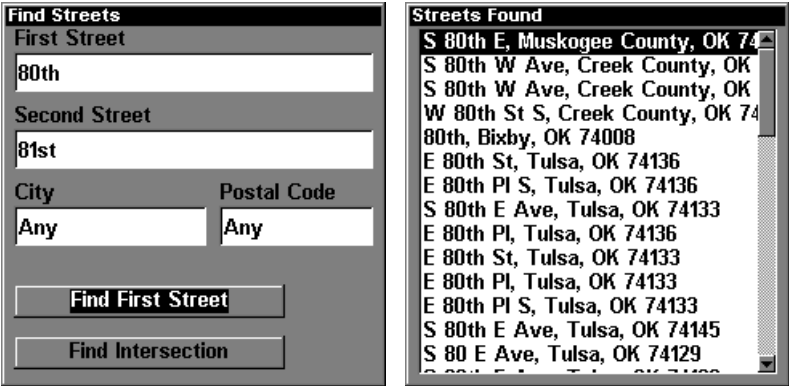
2. You must first fill in a street name in the First Street dialog box. Press **ENT** to display the Find By Name menu. There are two options:
A. You can **spell out** the street in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Or you can jump down to the lower box and pick a street from the **selection list**. Press **ENT**, then press **↑** or **↓** to select a street from the list and press **ENT**.



Find Street By Name menu. Spell out name in the top box, or select from the list in the lower box.

3. The Find Streets menu reappears with the street you're searching for in the First Street box. (In this example, it's 80th Street.) To search for that street, press **↓** to **FIND FIRST STREET|ENT**. A message appears asking

you to wait while the unit finds the street. When the Streets Found list appears, press \uparrow or \downarrow to select the street you are searching for and press **ENT**.



At left, the Find Streets menu with the Find First Street command highlighted. At right, Streets Found list.

4. The Map Page appears, with the cursor pointing to the found street.



Map Page showing results of a street search. The cursor points to the located street.

If you want to navigate to the found street at the cursor location, just press **MENU | ENT | EXIT**.

Find an Intersection

You must enter one street in the First Street dialog box and enter the next street in the Second Street dialog box.

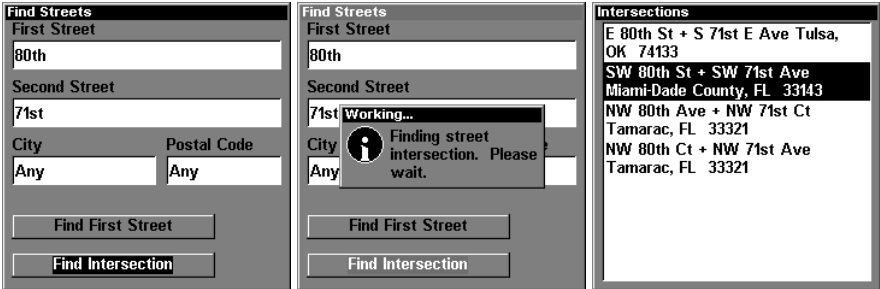
1. From the Map Page, press **MENU | \downarrow to FIND STREETS | ENT** and the Find Streets Menu appears.

2. You must fill in a street name in the First Street dialog box. Press **ENT** to display the Find By Name menu. There are two options: **A.** You can **spell out** the street in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Or you can jump down to the lower box and pick a street from the **selection list**. Press **ENT**, then press **↓** or **↑** to select a street from the list and press **ENT**.

3. The Find Streets menu reappears with the street you're searching for in the First Street box. (In this example, it's 80th Street.)

4. Now fill in the second street. Press **↓** to **SECOND STREET|ENT** and the Find By Name menu appears again. Just like before, there are two options: **A.** You can **spell out** the second street in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Or you can jump down to the lower box and pick the second street from the **selection list**. Press **ENT**, then press **↓** or **↑** to select a street from the list and press **ENT**.

5. The Find Streets menu reappears with the first and second street dialog boxes filled in. In this example, we selected 71st Street as our second street. You could now use similar techniques to select a city or Zip code, but your search will probably be faster if you leave those boxes blank. (You can specify a city and/or Zip code later on to narrow the search, if the resulting list is too long.)



Find Intersection command highlighted, left, and "Working" message, center. At right is the Intersections Found list.

6. To search for the intersection of the two streets, press **↓** to **FIND INTERSECTION|ENT**. A message appears asking you to wait while the unit finds the intersection. When the Intersections Found list appears, press **↑** or **↓** to select the intersection you are searching for and press **ENT**. (In

the example above, we selected the intersection of SW 80th Street and SW 71st Avenue in Miami, Fla.)

7. The Map Page appears, with the cursor pointing to the found intersection. The intersection in our example is shown below.

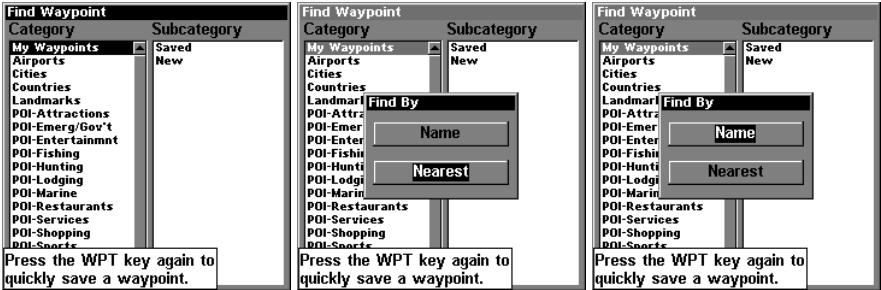


Map Page showing results of an intersection search. The cursor points to the located intersection.

If you want to navigate to the found intersection, just press **MENU | ENT | EXIT**.

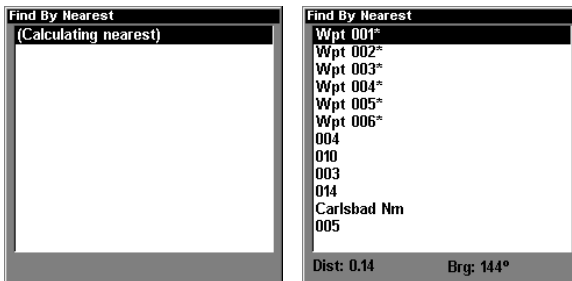
Find Waypoints

1. Press **WPT | ENT**.
2. If searching for the waypoint *By Name*, press **ENT**. If searching for the *Nearest* waypoint, press **↓** to **NEAREST|ENT**. (To search by name, jump to step 5 below.)



Find Waypoint menu, left; Find By Nearest command, center, Find by Name command, right.

3. If you're looking for nearest, The unit says it is calculating, then a list of waypoints appears. The closest is highlighted at the top of the list and the farthest at the bottom of the list.

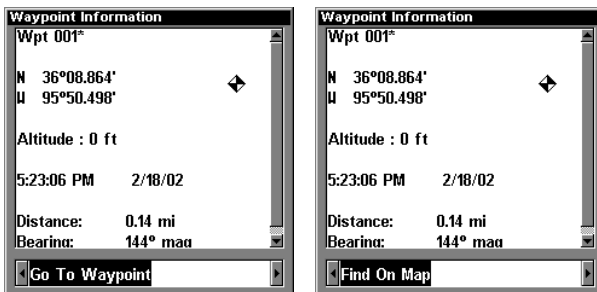


Calculating message, left, and list of the nearest waypoints, right.

4. To see location information on the closest (highlighted) waypoint, press **ENT** and the Waypoint Information screen appears. (If you wanted to, you could select another waypoint from the list with the **↑** or **↓** keys.)

A. *To navigate* to the waypoint, press **ENT**. (The Go To Waypoint command is already highlighted.) The unit will show navigation information to the waypoint.

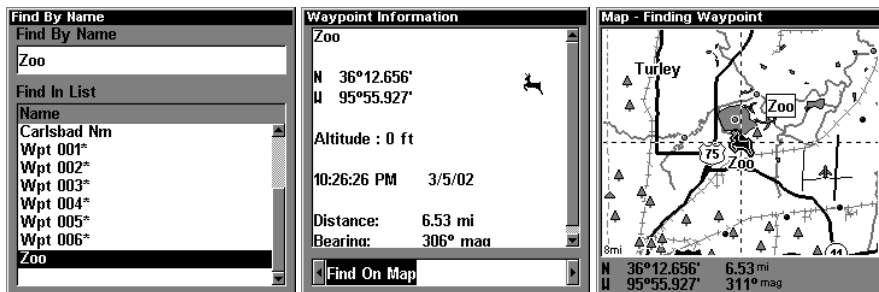
B. *To find* the waypoint, press **→** to **FIND ON MAP|ENT**. The Map Page appears with the cursor highlighting the found waypoint.



Waypoint Information screens with the Go To Waypoint command selected, left, and the Find on Map command selected, right.

To clear these menus and return to the previous page, press **EXIT** repeatedly.

5. **If you're looking by name**, there are two options: **A.** You can **spell out** the name in the top selection box. Press **↑** or **↓** to change the first letter, then press **→** to move the cursor to the next letter and repeat until the name is correct, then press **ENT|ENT**. **B.** Or you can jump down to the lower selection list by pressing **ENT**, then press **↓** or **↑** to select a waypoint from the list, then press **ENT**. The waypoint information screen appears.



Find By Name menu, left. Waypoint Information screen, center. At right, the found waypoint is highlighted by the cursor on the Map Page.

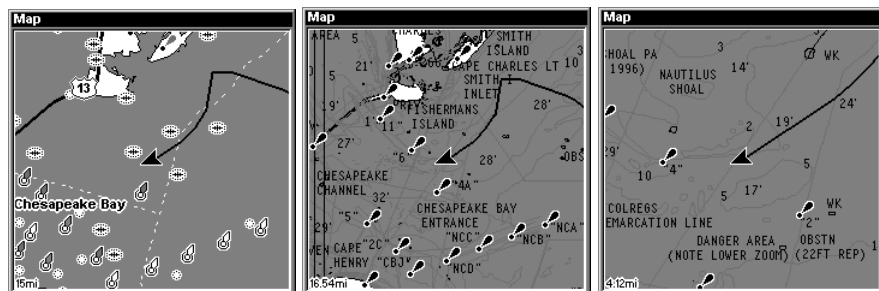
A. *To navigate* to the waypoint, press **ENT**. (Go To Waypoint command is already highlighted.) The unit will show navigation information to the waypoint.

B. *To find* the waypoint, press **→** to **FIND ON MAP** | **ENT**. The Map Page appears with the cursor highlighting the found waypoint.

To clear these menus and return to the previous page, press **EXIT** repeatedly.

Navionics® Charts

Your unit can display Navionics® electronic charts on MMCs. They work just like a MapCreate custom map on an MMC.



Left, entrance to Chesapeake Bay in a MapCreate 6 custom map, 15 mile zoom. Center, same position on Navionics chart at 16.54 mile zoom and right, 4.12 mile zoom.

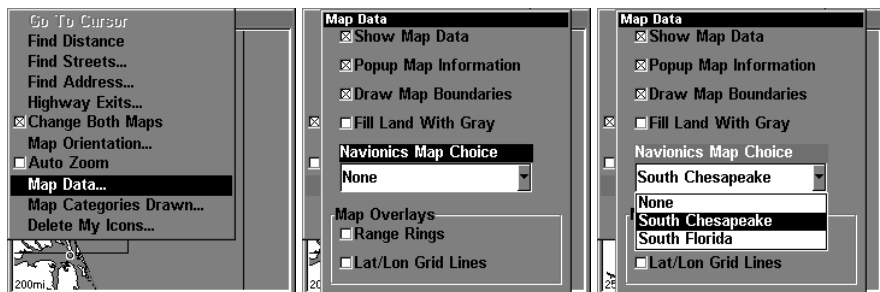
To display a Navionics chart:

1. Install the Navionics MMC in the memory card compartment and turn on the unit. (For card install instructions, see the unit's manual.)

WARNING:

You should never format the MMC containing your Navionics chart. Formatting the MMC will permanently erase the chart from the card.

- From the Map Page, press **MENU** | **↓** to **MAP DATA** | **ENT** | **↓** to **NAVIONICS MAP CHOICE** | **ENT**. Use **↑** or **↓** to select the *Map Name*, then press **ENT** | **EXIT** | **EXIT**.



These figures show menu sequence (from left to right) for selecting a Navionics chart for the South Chesapeake Bay area.

- To turn off a Navionics chart, From the Map Page, press **MENU** | **↓** to **MAP DATA** | **ENT** | **↓** to **NAVIONICS MAP CHOICE** | **ENT**. Use **↑** or **↓** to select **NONE**, then press **ENT** | **EXIT** | **EXIT**.

Port Information

Navionics charts contain Port Services information, represented by anchor icons on the map display. An example is displayed on the next page.

To view Port Services information:

- Use the arrow keys to move the cursor over a Port Services icon. When selected, a pop-up name box appears.
- Press **WPT** to display the Port Services Information screen.

The Port Services information screen has two windows. The top window lists the various service categories. The lower window lists the detailed services available in each basic category.

Port Services icons



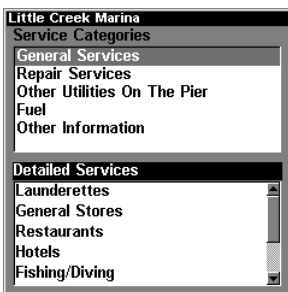
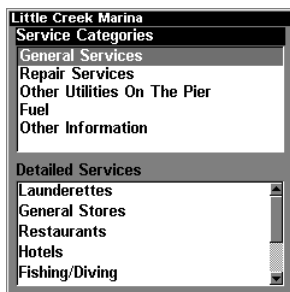
Pop-up name box

Cursor lines

Navionics chart showing Port Services icon selected by cursor.

3. To scroll through the Service Categories window: press **ENT** then use **↑** or **↓** to see the types of services available. As you highlight a different category, the list in the lower window changes. To return to the Map Page, press **EXIT | EXIT**.

4. The General Services category includes a long list of items in the Detailed Services window. To scroll through the Detailed Services window: from **GENERAL SERVICES**, press **ENT** to highlight **SERVICE CATEGORIES |** press **↓** to **DETAILED SERVICES | ENT**, then use **↑** or **↓** to read the list of available services. To return to the Map Page, press **EXIT | EXIT**. To return to the top service category window, press **ENT | ↑**.



Port Services information screens.

Tidal Current Information

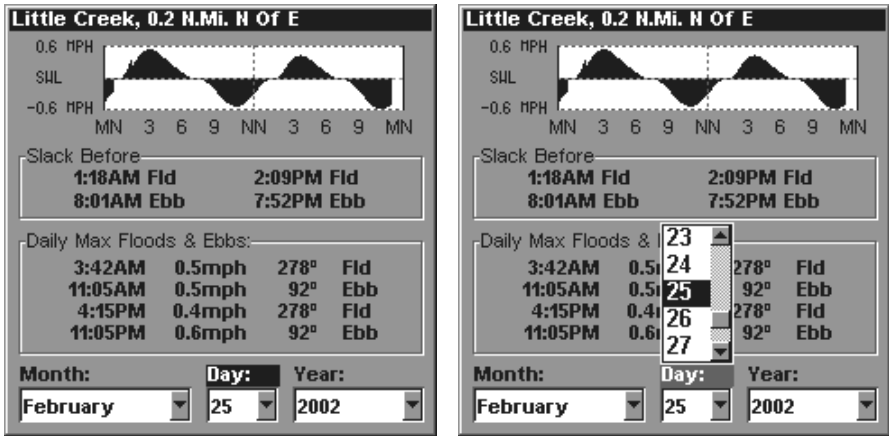
Navionics charts contain Tidal Current information, represented by large arrow icons on the map display. The icon stands for a Tidal Current Station location. An example is displayed on the next page.

To view Tidal Current information:

1. Use the arrow keys to move the cursor over a Tidal Current Station icon. When selected, a pop-up name box appears. (The icon itself shows tidal current velocity and direction *for the selected station* at the present time.)
2. Press **WPT** to display the Tidal Current Information screen.



Navionics chart showing Tidal Current Station icon selected by cursor. In the example above, the tidal current is ebbing, with the current flowing to the southeast at 0.4 mph.



Current Information screen.

The Tidal Current Information screen displays daily tidal current data for this station on this date. The graph at the top of the screen is an

approximate view of the flood and ebb pattern for the day, from mid-night (MN), to noon (NN) to midnight (MN). The velocity scale at the left side of the graph changes dynamically based upon the maximum velocity of the current for that day.

Slack water, the period of little or no current, is represented by the Slack Water Line (SWL). The flood appears above the SWL and the ebb appears below the SWL.

You can look up tidal current data for other dates by changing the month, day and year selection boxes. To select another date:

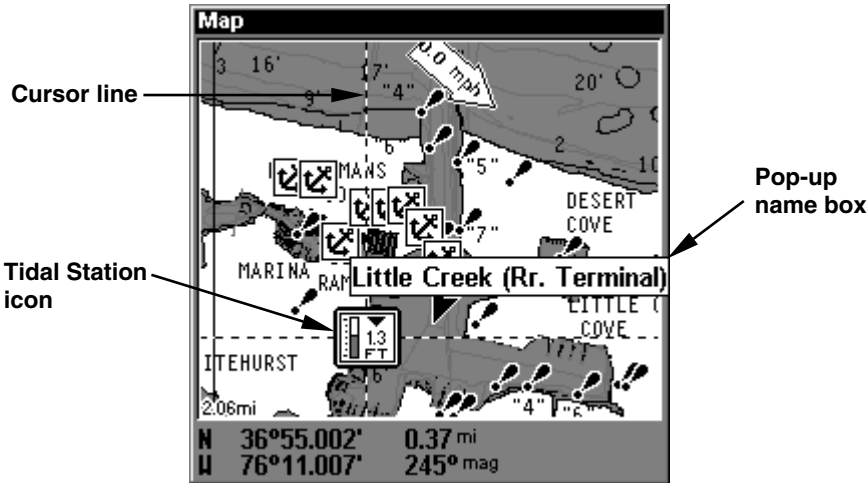
- 1. Use → and ← to highlight month, day or year, then press **ENT**.
 - 2. Use ↑ and ↓ to select the desired month, day or year, then press **ENT**.
- To clear the information screen, press **EXIT**.

Tide Information

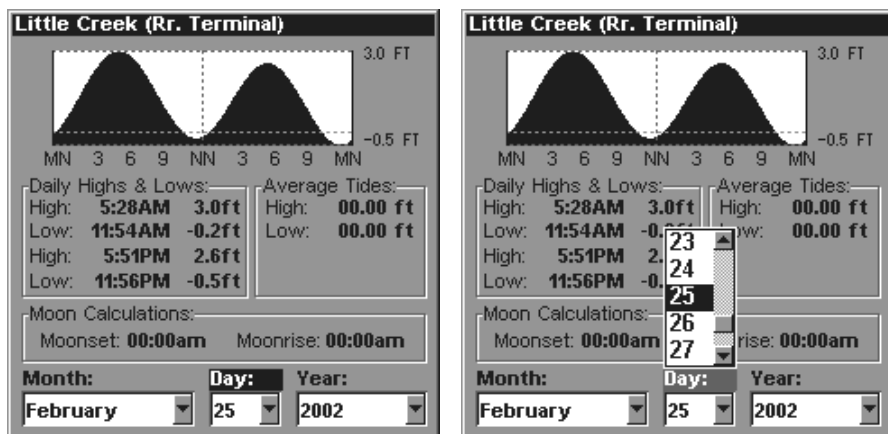
Navionics charts contain Tide Information, represented by tidal gauge icons on the map display. The icon stands for a Tidal Station location. An example is displayed below. (The icon shows a rising or falling tidal gauge *for the selected station* at the present time.)

To view tide information:

- 1. Select a Tide Station icon: use the arrow keys to move the cursor over an icon. When it is selected, a pop-up name box appears.
- 2. After selecting the Tide Station icon, press **WPT** to display the Tide Information screen.



Navionics chart showing Tide Station icon selected by cursor. In the example above, the tide is at 1.3 feet and falling, as shown by the down arrow at the top of the icon.



Tide Information screen.

The Tide Information screen displays daily tidal data for this station on this date. The graph at the top of the screen is an approximate view of the tidal range pattern for the day, from midnight (MN), to noon (NN) to midnight (MN). The dotted line across the graph is the Mean Lower Low Water line (MLLW).

The height scale on the right side of the graph changes, based upon the maximum *range* of the tide for that day. The MLLW line also adjusts its position as the height scale changes.

You can look up tidal data for other dates by changing the month, day and year selection boxes. To select another date:

1. Use \rightarrow and \leftarrow to highlight month, day or year, then press **ENT**.
2. Use \uparrow and \downarrow to select the desired month, day or year, then press **ENT**.

To clear the information screen, press **EXIT**.

WAAS, DGPS and GPS update

In addition to GPS and DGPS signals (with an optional DGPS antenna), your unit also uses WAAS signals to increase position accuracy. The unit automatically processes WAAS information without any action required by you.

The status of GPS, DGPS and WAAS has changed since your unit's manual was printed, so this segment replaces the "*Introduction to GPS*" section of the manual. Some of the content is similar to that printed in the manual, but there is new material which updates the current conditions of satellite navigation.

The Global Positioning System (GPS) was launched July 17, 1995 by the United States Department of Defense. It was designed as a 24-hour-a-day, 365-days-a-year, all weather global navigation system for the armed forces of the U.S. and its allies. Civilian use was also available at first, but it was less accurate because the military scrambled the signal somewhat, using a process called Selective Availability (SA.)

GPS proved so useful for civilian navigation that the federal government discontinued SA on May 2, 2000, after the military developed other methods to deny GPS service to enemy forces. Reliable accuracy for civilian users jumped from 100 meters (330 feet) under SA to the present level of 10 to 20 meters (about 30 to 60 feet) for basic GPS.

Twenty-four satellites orbit 10,900 nautical miles above the Earth, passing overhead twice daily. A series of ground stations (with precisely surveyed locations) controls the satellites and monitors their exact locations in the sky. Each satellite broadcasts a low-power signal that identifies the satellite and its position above the earth. Three of these satellites are spares, unused until needed. The rest virtually guarantee that at least four satellites are in view nearly anywhere on Earth at all times.

The system requires signal reception from three satellites in order to determine a position. This is called a 2D fix. It takes four satellites to determine both position and elevation (your height above sea level — also called altitude.) This is called a 3D fix.

Remember, the unit must have a clear view of the satellites in order to receive their signals. Unlike radio or television signals, GPS works at very high frequencies. These signals can be easily blocked by trees, buildings, an automobile roof, even your body.

Like most GPS receivers, your unit doesn't have a compass or any other navigation aid built inside. It relies solely on the signals from the satellites to calculate a position. Speed, direction of travel, and distance are all calculated from position information. Therefore, in order for your unit to determine direction of travel, you must be moving and the faster, the better. This is not to say that it won't work at walking or trolling speeds — it will. There will simply be more "wandering" of the data shown on the display.

When Selective Availability (SA) was in effect, the United States Coast Guard developed a system for boosting GPS accuracy called Differential GPS or DGPS for short. Even though SA has been discontinued, DGPS has grown in popularity to become the international maritime standard

for increasing GPS accuracy to within 10 meters. It's primarily used by marine navigators.

DGPS employs a network of land based stations that calculate basic GPS signal errors (and previously SA errors). A DGPS station then transmits the necessary correction information to mobile GPS receivers in the area that are connected to DGPS beacon receivers. Your unit is ready for DGPS use with the purchase of an optional DGPS receiver.

GPS alone is plenty accurate for route navigation, but the U.S. Federal Aviation Administration has special needs for aircraft traffic control that go beyond basic GPS and the Coast Guard's DGPS. The FAA has a plan under way to boost GPS performance even further with its Wide Area Augmentation System, or WAAS. This GPS add-on will include a time control element that will help airliners fly closer together while avoiding collisions. In addition to carefully spacing airplanes along travel corridors, WAAS will eventually make instrument landings and takeoffs more accurate as it replaces existing aviation navigation systems.

As with DGPS, non-aviators can use WAAS signals to make their GPS navigation even more accurate. Your unit receives both GPS and WAAS signals automatically. However, WAAS has some limits you should know about.

First, the U.S. government has not completed construction of the WAAS system, so it is not yet fully operational. The ground stations are in place, but only a few of the needed WAAS satellites have been launched.

WAAS *can* boost the accuracy of land GPS navigation, but the system is designed for aircraft. The satellites are in a fixed orbit around the Equator, so they appear very low in the sky to someone on the ground in North America. Aircraft and vessels on open water can get consistently good WAAS reception, but terrain, foliage or even large man-made structures frequently block the WAAS signal from ground receivers.

You'll find that using your GPS receiver without WAAS is both easy and amazingly accurate. It's easily the most accurate method of electronic navigation available to the general public today. Remember, however, that this receiver is only a tool. Always have another method of navigation available, such as a map or chart and a compass.

Also remember that this unit will always show navigation information in the shortest line from your present position to a waypoint, regardless

of terrain! It only calculates position, it can't know what's between you and your destination, for example. It's up to you to safely navigate around obstacles, no matter how you're using this product.

Accessories

Face Cover

Your unit comes with a white protective cover that snaps on and off the front of the unit. This cover is intended for use when your unit and the vehicle it's mounted in are idle.

WARNING:

When the unit is mounted in an unprotected area, such as an open boat cockpit, the protective face cover must be removed when the vehicle is moving at high speed. This includes towing a boat on a trailer at highway speeds. Otherwise, wind blast can pop off the cover.

Free Software

If you have Internet access, you can get a free copy of our sonar viewer software and our LCX-15 & LCX-16 Demo software from our web site, **WWW.LOWRANCE.COM**.

The LCX-15 & LCX 16 Demo is a downloadable PC-based software application that simulates the operation of these sonar/GPS combo units on your computer. This virtual sonar/GPS unit acts just like the real one!

It works the same as if you were experimenting with a demo unit at a retail store or practicing with your own unit in your living room. Instead of your fingers, you use the mouse and computer keyboard to "press" the unit's keys and navigate through the menus and functions.

The demo will play recorded sonar logs and display MapCreate™ custom maps. The demo can't actually navigate or show "live" sonar returns (since there's no connection to an antenna or transducer) but all other features are functional.

Lowrance is the only company in the industry that provides this sort of demonstration software. It's useful and fun whether you are a new owner or a power user.

The Sonar Viewer is another downloadable PC-based software application that plays back any file recorded with an LCX-15 or LCX-16 product. Features include:

- Adjustable range, zoom, sensitivity, color line, noise rejection, surface clarity, etc. of the recorded file.
- Color interpretation of sonar signals can be user defined.
- Operates like a Windows Multimedia Player with forward, reverse, pause, fast forward, fast reverse, and scroll buttons.
- Adjustments update the entire record displayed
- Can print in full color.
- Window can dynamically be sized on your monitor.
- Mouse cursor shows GPS position, depth and sounding number anywhere on the visible record.

Sunscreen Hood

To install the sunscreen hood, you will need to remove the bezel around the lens covering the liquid crystal display (LCD).

If you look closely at your unit's display, you will see a thin bezel ring which goes around the display lens. Also notice two narrow horizontal slots on the bottom outside of the bezel ring, between the bezel and the faceplate/keyboard assembly.

Using a small thin object (we recommend a coin) as a tool, place the tool in the slots and pry out the bottom of the bezel. Once this is done, grasp the bottom corners of the bezel and remove it from the unit. Store this bezel in a safe place to use again when you remove the sunscreen.

Once the bezel is removed the sunscreen simply snaps into the same position as the bezel, around the faceplate lens.

To remove the sunscreen hood, simply press in on the locking tabs from the outside of the sunscreen to dislodge the locking tabs and remove. When removed, place the original bezel back in place by inserting the top first and then pressing in the bottom of the bezel.

Notes

Notes

This addendum contains information that has changed or was unavailable when the manual was printed. This addendum supplements the following manuals: LCX-15 series Sonar/GPS, part numbers 988-0133-49 Rev. 1 and 988-0133-58; LCX-16 series Sonar/GPS, part number 988-0133-48; and GlobalMap[®] 3000 GPS, part number 988-0133-56 Rev. A.

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