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iFINDER® PhD
Mapping GPS & MP3 Player
Operation Instructions

For free owner's manuals and the most current information on this product, its operation and accessories, visit our web site:

www.lowrance.com

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WARNING!
A CAREFUL NAVIGATOR NEVER RELIES ON ONLY ONE METHOD TO OBTAIN POSITION INFORMATION.

CAUTION
When showing navigation data to a position (waypoint), a GPS unit will show the shortest, most direct path to the waypoint. It provides navigation data to the waypoint regardless of obstructions. Therefore, the prudent navigator will not only take advantage of all available navigation tools when traveling to a waypoint, but will also visually check to make sure a clear, safe path to the waypoint is always available.

WARNING!
When a GPS unit is used in a vehicle, the vehicle operator is solely responsible for operating the vehicle in a safe manner. Vehicle operators must maintain full surveillance of all pertinent driving, boating or flying conditions at all times. An accident or collision resulting in damage to property, personal injury or death could occur if the operator of a GPS-equipped vehicle fails to pay full attention to travel conditions and vehicle operation while the vehicle is in motion.

Section 1: Read Me First!

How this manual can get you out on the road, fast!

Welcome to the exciting world of GPS satellite navigation! We know you're anxious to begin finding your way with this hand-held technology, but we have a favor to ask. Before you grab the batteries and head outside, please give us a moment or two to explain how our manual can help you get the best performance from this remarkable little GPS unit.

First, we want to thank you for buying an iFINDER® PhD™. Whether you're a first-time user or a professional navigator, you'll discover that the iFINDER is a true pocket-sized, full-featured mapping GPS receiver. When you team an iFINDER with one of our specialized maps or our custom mapping software MapCreate™ 6, you have an incredible combination. No other consumer GPS mapping system on the market offers so much information and so many features in one package. Not only that, the iFINDER PhD also makes it easy to take your favorite music along wherever you go.

Our goal for this book is to get you on the road fast, with a minimum of fuss. Like you, we'd rather spend more time actually getting somewhere and less time reading about it in the manual!

So, we designed our book so that you *don't* have to read the *whole thing* from front to back for the information you want. At the start (or end) of each segment, we'll tell you what content is coming up next. If it's a concept you're already familiar with, we'll show you how and where to skip ahead for the next important topic. We've also made it easy to look up any tips you may need from time to time. Here's how:

The manual is organized into seven sections. This first section is an introduction to Lowrance GPS. It tells you the basics you need to know before you can make the unit look around and tell you where you are.

Section 2 will help you get the batteries and MultiMedia Card (MMC) correctly installed in your iFINDER. We'll also tell you about some of the accessories available for your unit.

In Section 3, we leave mechanics behind and introduce you to *Music Mode Operation*. We'll tell you everything you need to know about copying music to your MMC, and creating and using play lists. We'll also explain how you can easily browse music on your iFINDER and listen to your favorite tunes while navigating! **If you're in a hurry to get some music playing, skip to the Music Mode Practice Run on Page 21 and start copying music to your MMC card!**

Section 4 covers *Mapping Mode Operation*. It will show you how easy it is to run the iFINDER, right out of the box. This section features a one-page Map Mode Practice Run. **(If you've already jumped ahead and figured out how to set up the unit yourself, and you just *can't* wait any longer, turn to the Practice Run on page 32 and head for the road with your GPS unit!)**

When you come to a GPS menu command on the iFINDER screen, you can look it up in the manual by skimming over the table of contents or index, or by scanning through the commands in Section 4.

The iFINDER is ready to use right out of the box, but you can fine tune and customize its operation with dozens of options. We describe how to use general system options along with GPS options in Section 5, *System Setup and GPS Setup Options*. This section covers both Music Mode and Map Mode options.

In Section 6, we'll go into detail on how to search for and navigate to points of interest, addresses and waypoints you've created. Finally, in Section 7, we offer *Supplemental Material*, including a list of the GPS datums used, warranties, and customer service information.

How iFINDER Works

You'll navigate faster and easier if you understand how iFINDER scans the sky to tell you where you are on the earth — and, where you're going. (But if you already have a working understanding of GPS receivers and the GPS navigation system, skip on ahead to Section 2, *Installation & Accessories* on page 7. If you're new to GPS, read on, and you can later impress your friends with your new-found knowledge.)

First, think of your iFINDER as a small but powerful computer. (But don't worry — we made iFINDER easy to use, so you don't need to be a computer expert to find your way!) The iFINDER includes a keypad and a screen with menus so you can tell it what to do. The screen also lets iFINDER show your location on a moving map, as well as point the way to your destination.

This pocket-sized computer also contains an antenna and specialized scanning receiver, something like your car radio. But instead of your favorite dance tunes, this receiver tunes in to a couple of dozen GPS satellites circling the earth. (It will also listen in to the WAAS satellites in orbit, but more about that in the upcoming segment introducing you to GPS and WAAS.)

iFINDER listens to signals from as many satellites as it can "see" above the horizon, eliminates the weakest signals, then computes its location in relation to those satellites. Once iFINDER figures its latitude and longi-

tude, it plots that position on the moving map shown on the screen. While the screen is updated once a second, your iFINDER is making these internal calculations and determining its position several times a second!

The performance doesn't stop there. Stored in the permanent memory of each iFINDER is a basic background map of the *entire* world. We lock it in here at the factory — you can't change or erase this map.

Another portion of iFINDER's onboard memory is devoted to *recording* GPS navigation information, which includes waypoints, event marker icons, trails and routes. This lets you look back the way you came. Think of this data storage like the hard drive memory in a computer or a tape in a cassette tape recorder. You can save several different GPS data files, erase 'em and record new ones, over and over and over again. Like any computer file, these **GPS Data Files** (file format *.usr) can be shared between iFINDERs, other Lowrance GPS or sonar/GPS units, even personal computers.

iFINDER has one more thing in common with a personal computer. Just as computers have a floppy disk drive for storing and exchanging files, iFINDER has a slot for an MMC (MultiMedia Card) or SD (Secure Digital) Card flash memory card. These solid-state memory devices are about the size of a postage stamp, but can hold data ranging from 8 MB to 512 MB in size. (Compare that to a floppy disk's 1.44 MB capacity!) iFINDER uses all that MMC space for two key purposes.

First, you can backup your onboard GPS Data Files by copying them to the MMC. Since the MMC is removable (like a floppy disk or a cassette tape), you can store these GPS Data Files on a personal computer equipped with an MMC card reader. (Or store them on a pocketful of MMCs, if you don't have a computer.) Our MapCreate mapping software can save, edit or create its own GPS Data Files, which can be copied to the MMC and then loaded from the MMC into iFINDER's memory. (**NOTE:** No matter where they come from, GPS Data Files *must* be loaded from the MMC into memory before iFINDER can use them.)

The other key GPS use for MMCs is storage of special high-detail, custom maps, which you can produce on your computer with our MapCreate software. These MapCreate custom maps contain much greater detail than the basic background map. These **Custom Map Files** (file format *.lcm) can also be shared between iFINDERs, other Lowrance GPS or sonar/GPS units and personal computers.

You make your own Custom Map Files with our MapCreate software, but you don't have to. We also sell ready-to-use FreedomMaps™. These custom maps are pre-loaded on MMCs. (No computer work required!).

iFINDER automatically reads Custom Map Files directly from the MMC or SD Card. To use a custom map, all you need to do is slide an MMC containing a map into the unit.

Introduction to GPS and WAAS

GPS stands for Global Positioning System, a navigational system that can accurately locate your position anywhere on the Earth. This technology is available to everyone, everywhere, 24 hours a day, in all weather conditions. GPS uses 24 satellites orbiting 10,900 miles above the Earth to transmit position data back to Earth. A GPS receiver processes that data to tell you where you are.

For the system to work, 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.

If you would like to know more about GPS and its companion system WAAS, visit our web site and check out the GPS Product Guide section (www.lowrance.com/Support/gps.asp). It includes a GPS tutorial, frequently asked questions and a glossary.

How to Use this Manual: Typographical Conventions

Many instructions are listed as numbered steps. The keypad and arrow "keystrokes" appear as boldface type. So, if you're in a real hurry (or just need a reminder), you can skim the instructions and pick out what menu command to use by finding the boldface command text. The following paragraphs explain how to interpret the text formatting for those commands and other instructions:

Arrow Keys

The arrow keys control the movement of dotted cross-hair lines on your mapping screen called the cursor. The arrow keys also help you move around the iFINDER menus so you can execute different commands. They are represented by symbols like these, which denote the down arrow key, the up arrow, the left arrow and the right arrow: ↓ ↑ ← →.

Keyboard

The other keys perform a variety of functions. When the text refers to a key to press, the key is shown in bold, sans serif type. For example, the "Enter/Save" key is shown as **ENT** and the "Menu" key is shown as **MENU**.

Menu Commands

A menu command or a menu option will appear in small capital letters, in a bold sans serif type like this: **GO TO CURSOR**. These indicate that you are to select this command or option from a menu or take an action of

some kind with the menu item. Text that you may need to enter or file names you need to select are shown in italic type, such as *trail name*.

Instructions = Menu Sequences
Most functions you perform with iFINDER are described as a sequence of key strokes and selecting menu commands. We've written them in a condensed manner for quick and easy reading.

For example, the instructions for deleting a route in Map Mode start like this:

      1. Press **MENU|MENU|↓** to **ROUTE PLANNING|ENT**.

      2. Press ↓ to the route list|↓ or ↑ to select *route name*|**ENT**.

Translated into complete English, step 1 means: "Press the Menu key twice. Next, press the down arrow key to scroll down the menu and select (highlight) the Route Planning menu command. Finally, press the Enter key." Step 2 means, "Press the down arrow key until you enter the route list, then press the up or down arrow keys to select the name of the route you want to delete. Finally, press the Enter key."

Also note that throughout this text, we will refer to the iFINDER PhD as iFINDER, or simply as the unit.

Notes

Section 2:
Installation & Accessories

Power

The iFINDER operates from AA batteries or on 3 volts DC using an optional external power cable with a cigarette lighter adapter. When the power cable is used, the iFINDER automatically switches to it if the external power is greater than the battery voltage. If the external power fails, the unit automatically switches to the batteries.

Flash memory will keep your stored data safe and accessible for the life of the product — after the unit is turned off, no battery or external power is needed to store your data.

Batteries

The unit requires two, 1.5 volt AA batteries. We recommend that you use alkaline batteries for the best trade-off between battery life and cost. We recommend DURACELL® brand, but other brands will work. If you're looking for an extended-life battery, the Duracell® ULTRA battery has performed well in our tests.

You can also use rechargeable AA alkaline batteries, such as those made by RAYOVAC®, or rechargeable AA nickel metal hydride (NiMH) batteries. We do not recommend nickel cadmium (NiCd) rechargeable batteries because we tend to get poor battery life from them.

Rechargeable alkaline batteries will not last as long as standard alkaline batteries. However, rechargeable NiMH batteries should give you suitable battery life.

NOTE:
> The battery gauge on the Satellite Status Page may not read accurately with some battery brands because discharge rates can vary significantly. This is especially true for rechargeables. This battery gauge was calibrated for alkaline batteries.

Do not mix different battery types. Mixing battery types may cause leakage. (For example, don't use both alkaline and NiMH batteries at the same time, and don't use standard alkalines with rechargeable alkalines.)

Battery Installation

Turn the unit over so that the back is facing you. With your thumb or nail, pull back on the small clip to release the battery cover latch as

shown in the following images. Once the latch is released, pull the battery cover up out of the grooves in the bottom of the case.

Remove iFINDER battery cover.

Install the batteries according to the embossed signs in the battery compartment, which shows the correct polarity. Point the positive pole of the upper battery to the left; point the positive pole of the bottom battery to the right.

NOTE:
>   Inside the battery compartment is a rotating MMC card lock. The grip on this lock must be turned parallel with the direction of the batteries for them to fit properly.

Replace the battery compartment cover. First align the latch tabs at the bottom of the cover with the slots at the case's base. Press the cover into place, and then firmly push up on the clip at the top of the cover until it latches in place. There is usually an audible click when the latch engages.
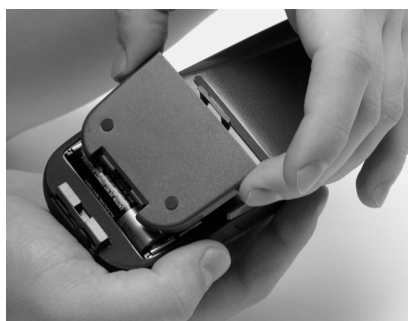
**Replace battery compartment cover. Align tabs with slots
in the base, left. Press latch firmly until it clicks, as shown right**

Cigarette Lighter Power Adapter with Headphone Adapter

To use external DC power: Plug the power cable's cigarette lighter adapter into a cigarette lighter receptacle. Next, pull aside the rubber cover on the bottom of the unit and insert the other connector as shown

in the following image. A small clip on the connector should hold the connector in place.

Attach external power cable to iFINDER.

WARNING:

> **Do not remove the cigarette lighter adapter and splice the exposed wires directly to a 12-volt power system. The cigarette lighter adapter contains *in the plug* a protective fuse and a voltage regulator to convert 12 volts down to about 3 volts. Without this regulator, connecting your unit to a 12-volt power source will destroy the unit. This damage will not be covered by your warranty.**

The iFINDER can use two other optional external cables to supply a NMEA/serial data connection or a combination of power and data. These cables are discussed in the following segment on NMEA connections.

Headphone Adapter
The iFINDER PhD comes with a cable adapter that allows you to plug in your headphones. To use this adapter: Plug your headphones into the standard audio socket on the adapter. Next, pull aside the rubber cover on the bottom of the unit and insert the other connector as shown in the following image. A small clip on the connector should hold the connector in place.

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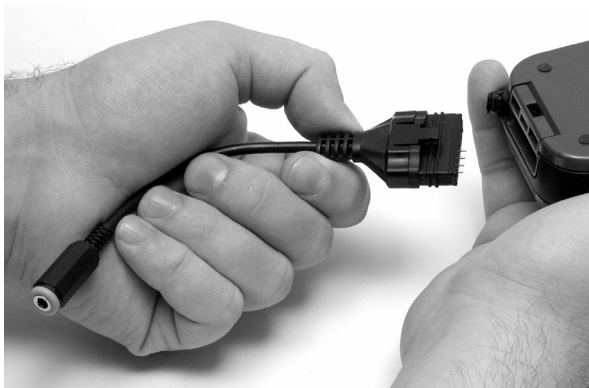
Attach headphone adapter to iFINDER.

NMEA Cable Connections

NMEA is a standard communications format for marine electronic equipment. For example, an autopilot can connect to the NMEA interface on this unit and receive positioning information. The unit can exchange information with any device that transmits or receives NMEA 0183 data.

To exchange NMEA data, Lowrance offers an optional data only cable and a power/data combo cable:

The PC-DI7 is a NMEA/serial communications cable. It has a standard female DB-9 connector on one end to attach your unit to a computer's serial communications port.

The PC-DI8 combines a cigarette lighter power adapter with a DB-9 plug for a NMEA/serial com port connection to a laptop computer or other device. This is our favorite cable for connecting the iFINDER PhD to a laptop computer in an RV or other vehicle. By transmitting NMEA data to the computer, you can get live position data for GPS-compatible mapping software.

You can also run one of our free Lowrance GPS emulators on your laptop, and operate it with real-time position information.

To use it, plug the power adapter into a cigarette lighter socket, plug the DB-9 connector into a serial port on the computer and attach the cable to the iFINDER. Then see "Com Port Configuration" in Sec. 5.

MMC or SD Memory Card Installation

Your iFINDER uses a MultiMedia Card to store information, such as custom maps, waypoints and other GPS data. The unit can also use Secure Digital Cards (SD cards) to store information.

NOTE:

> Throughout this manual, we will use the term MMC, but just remember that your unit can use an MMC *or* SD card to store data.

Both of these solid-state flash memory devices are about the size of a postage stamp. An SD card is slightly thicker than an MMC. As this manual went to press, MMCs were available in storage capacities of 8 MB, 16 MB, 32 MB, 64 MB and 128 MB. SD cards were available in capacities of 8 MB, 16 MB, 32 MB, 64 MB, 128 MB, 256 MB and up. We have successfully tested SD cards up to 1 GB.

Additional MMC cards are available from LEI Extras; see ordering information inside the back cover of this manual. MMCs and SD cards are also available at many consumer electronics stores.

The MMC slot is located in the battery compartment, beneath the batteries on the right side of the unit. The contact pins are springy, to make it easier to insert and remove the MMC card.

To remove an MMC

1. Remove battery compartment cover.

2. Remove batteries, if present.

3. Hold unit facedown in right hand. Use your thumb or index finger and press down on the center of the MMC label.

Remove an MMC Card.

4. Drag the MMC from the slot into the battery compartment.

5. Turn the iFINDER face up and give it a shake to dump the MMC into your hand or onto a work surface.

To add an MMC or SDC

1. Remove battery compartment cover.

2. Remove batteries, if present.

3. Hold unit facedown in right hand. Drop the MMC card into the slot, label-up, with the notched edge toward the right.

4. Press down on the center of the label and slide the card to the right.

Add an MMC Card.

5. Turn the plastic rotating card lock until it holds the card firmly in place, with the grip parallel to the direction of the batteries.

6. Replace the batteries and battery cover.

FreedomMaps™

FreedomMaps are pre-made custom maps that cover multiple states, provinces, countries or other geographic regions on a single memory card. They give you all the features found in our MapCreate™ mapping software, but without the necessity of using a computer. FreedomMaps are available for the United States, Canada and Europe. In 2004, FreedomMaps with topographic contours will become available for the United States and Canada.

Like custom maps built in MapCreate, the custom map on a FreedomMap card contains all of these features: rivers/lakes/tributaries; more than 60,000 critical navigation aids; more than 10,000 wrecks/obstructions in coastal and Great Lakes waters; interstate/federal/state highways; interstate exit services; searchable Points-of-Interest (POI) database including: airports, hotels, restaurants, entertainment, emergency services; rural roads and city streets; cities and towns; railways; key landmarks; searchable street intersections and street addresses; national parks and forests with boundaries; wildlife preserves; and more!

FreedomMaps come to you preloaded on a single 128 or 256 MB memory card. Simply insert the memory card into your Lowrance GPS unit, and you're ready to go.

FreedomMaps are available through LEI-Extras. To order a card (or for a list of the areas available) see the ordering information in the back of this manual.

External Antenna

A GPS antenna requires a clear view of the sky for optimum operation. Inside a vehicle, your iFINDER can sometimes maintain satellite lock while sitting on the seat beside you, but we don't recommend this for optimum performance.

Since the "view" is restricted to what can be seen through the windows, this operating mode will reduce position accuracy and will increase the chance of losing satellite lock. Inside a vehicle, the unit operates best with an optional external antenna mounted on the windshield, on the dash or on the top of the vehicle.

The optional external antenna can use a magnetic base that allows temporary mounting on any flat ferrous metal surface. A suction-cup mount allows you to attach the antenna to a windshield.

The iFINDER PhD can use the passive FA-8 antenna or the active RAA-3 antenna. The active antenna offers a further performance boost by amplifying the satellite signals it receives. This is especially helpful when operating in areas such as dense forests, which can obstruct GPS signals. Your unit will automatically switch between the active RAA-3 and its internal antenna (located in the top of the case). If you purchase the passive FA-8, you must use a menu check box to manually switch between it and the internal antenna. See the topic "External Passive Antenna" in Sec. 5.
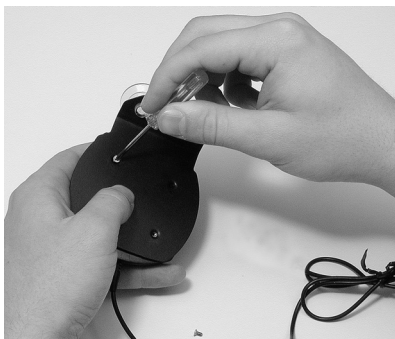
Attach iFINDER antenna to windshield bracket with two screws.

You may achieve good results by simply placing the external antenna on the top of the dash, at the base of the windshield. A piece of the rubber non-skid shelf liner material available in recreational vehicle supply stores will also help hold the antenna in place.

To use the antenna: Mount it in a location with an unobstructed view of the sky. Plug the connector into the unit's antenna socket, located on the back, in the upper left corner of the case.

R-A-M® Bracket Mounting Systems

Several R-A-M® mounting brackets are available for your iFINDER. There are permanent mounts and temporary mounts suitable for virtually any boat, aircraft or other vehicle, even motorcycle handlebars.

One of the R-A-M mounting systems for your unit.

One model has a mounting arm and cradle attached to a swivel ball plate that can be screwed or bolted to a supporting surface. Another has a strong suction-cup mount for attachment to windscreens or fiberglass surfaces. See your Lowrance dealer or visit the LEI web site for the latest options; accessory ordering information is on the inside back cover of this manual. For a complete look at the many mounting options, visit the R-A-M web site at www.ram-mount.com.

Other Accessories

Other iFINDER accessories include MMC cards, MMC card readers and MapCreate™ 6 custom mapping software for your computer. (The iFINDER PhD Plus model ships with the GPS Accessory Pack, which is composed of the MapCreate CDs, the card reader, and one memory card.)

If these accessories are not available from your dealer, see the accessory ordering information on the inside back cover of this manual.

MapCreate™ 6 CD-ROM and MMC card reader for USB ports.

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Section 3:
Music Mode Operation

This section addresses the unit's *Music Mode* operation. Music Mode is designed as a powerful but simple interface for playing back your music collection while navigating. If you'd rather skip ahead, you can look at Sec. 5, which starts on page 59 and is full of details on setting up and customizing the iFINDER's various options. Or you could turn to Sec. 6 starting on page 89, where you'll learn about Searching.

Before you start playing your music, it's a good idea to learn about the different keys, the two Page screens and how they work together. BUT, if you just can't wait to get going, you can skip ahead to the one-page *Music Mode Practice Run* on page 21.

Keypad

iFINDER PhD keypad.

Many of the keys have two functions: one for Music Mode, one for Map Mode. The Music Mode names always come second. Throughout this section, we'll refer to the keys by their Music Mode names, but in the following list you can see the full name for each of the keys.

1. **MAP/MUSIC** – Press this key to toggle between the two page screens. Each page represents one of the unit's major operation modes. See Sec. 4 for full details on the Map Mode.

2. **MENU** – Press this key to show the menus, which allow you to select or adjust a feature from a list.

3. **PWR** (Power)**/LIGHT** – The PWR key turns the unit on and off and activates the backlight.

4. **ARROW KEYS/Previous Song & Next Song** – These keys are used to navigate through the menus, make menu selections, move the map cursor and enter data. When no menus are open, the left and right arrows act as the Skip Previous and Skip Next buttons, to let you move to the beginning of the song before or after the one currently playing.

5. **ZOUT** (Zoom Out)**/Decrease Volume** – This key lets you turn down the volume of the music playback.

6. **ZIN** (Zoom In)**/Increase Volume** – This key lets you zoom the screen in to see greater detail in a smaller geographic area on the map.

7. **FIND/SONGS** – The Find key launches the iFINDER search menus and some navigation functions.

8. **EXIT/Stop Music** – The Exit key lets you return to the previous screen, clear data or erase a menu.

9. **ENT** (Enter)**/Play & Pause Music** – This key allows you to save data, accept values or execute menu commands.

Power/Lights On and Off

To turn on the unit, press **PWR**. To turn on the backlight, press **PWR** again. Pressing **PWR** once again will turn off the backlight. (Press **EXIT** to clear any message or alarm displays.)

Turn off the unit by pressing and holding the **PWR** key for 3 seconds.

Main Menu

The iFINDER has a single Main Menu accessible from either operation mode. The Main Menu contains some function commands and some setup option commands. Access it by pressing **MENU|MENU**. Each page also has its own page menu, which is accessed by pressing **MENU** one time. (All of these options come with default values so that you can use the iFINDER right out of the box, but if you want to learn about the various options, see *Sec. 5, System Setup and GPS Setup Options*.)

To clear the menu screen and return to the page display, press **EXIT**.

The Main Menu.

The Main Menu commands and their functions are:

Screen command: changes the contrast or brightness of the display screen as well as the backlight delay.

Sounds command: enables or disables the sounds for key strokes and alarms, sets the alarm style and controls speaker volume.

Alarms command turns GPS alarms on or off and changes alarm thresholds.

Route Planning command lets you plan, view or navigate a route.

My Trails command: shows, creates and deletes trails. You can control how trails are recorded and you can navigate trails forward and backward with this command.

Cancel Navigation command: turns off the navigation command after you have reached the end of a back trail or your destination waypoint, Point of Interest or map cursor location.

GPS Setup command sets the GPS receiver options.

System Setup command sets general configuration options.

Utilities command lets you access a Sun/Moon rise and set calculator, a trip calculator, an alarm clock and other timers.

Browse MMC Files command gives you information about the installed MMC card and the files it contains.

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The Music Mode Display and Keyboard Commands

The Music Mode screen contains a battery power indicator and a volume display for quick reference. When a song or play list is playing, the name of the current song will appear at the top of the screen, as well as the song's quality (in kbps).

NOTE:

> We've found that songs using a bitrate of 128 kbps work well in the unit. Playing a song with a higher bitrate may slow down the unit's overall functionality. To ensure consistent performance in map re-draw and menu response, 56 kbps is preferred. Try the unit with various settings to find what works best for you.
>
> Other options for improving the iFINDER's performance (without sacrificing audio quality) include activating the unit's Power Save mode. Changing the Update Rate will free-up some processor power to allow simultaneous map re-draws, searches *and* music playback.

If you're playing a list, then the play list's name and the song's position in the list are both displayed as well.

To switch to Music Mode from Map Mode, press the **MAP/MUSIC** button. The Music Mode display is designed to be simple. The following image shows the Music Mode in action, with a song playing. Using only these buttons and the simple Music Menu, you can listen to what you want, when you want.

Music Mode display, with all the on-screen command buttons shown.

Most of the music player's commands are available at the touch of a single button. The most important tools are the play control buttons: **PLAY & PAUSE**, **STOP**, **PREVIOUS SONG** and **NEXT SONG**. You can also press the **SONGS** key to open the file browser and choose a new song or play list.

Music Mode always runs using a "play list," even if this consists of a single song. You can copy pre-made play list files from your PC to your MMC card and play the songs in these play lists by selecting them from the song browser. It's just as easy to organize your music when you copy it to the MMC, by arranging it into folders from your computer. That way you can simply play a folder at a time. When you select a folder to play, the iFINDER automatically creates a play list out of all of the songs contained in that folder.

Later in this section we'll explain how to play folders, how to copy music and play lists from your PC, and how to manage them all on the iFINDER.

Using the Play Control Buttons

All of the play control buttons are represented by symbols on the keyboard, not names. These symbols are fairly standard, and are probably already familiar to you.

PREVIOUS SONG is shown as a double arrow pointing to the left. **NEXT SONG** is a double arrow pointing to the right. These correspond to the left and right arrow, respectively.

PLAY & PAUSE are both on the same button – when the music is playing, this button pauses it. When music is paused, this button resumes play. The Play symbol is a single arrow pointing to the right. The Pause symbol is a pair of vertical bars. **STOP** is shown as a solid square.

NOTE:

Some advanced Map Mode operations, such as achieving a satellite lock or searching for POIs, require intense processing power. If you're having trouble performing advanced GPS operations while listening to music, use the **PAUSE** key to pause your music, switch over to the Map Mode until your unit achieves a lock (for instance), then switch back to Music Mode and resume playing music. Normal Map Mode operation will work fine with music playing.

INCREASE VOLUME is shown as a plus sign (+) and **DECREASE VOLUME** as a minus sign (–). As you push these buttons, you can see the current volume display shift on-screen. Move the level to the left or right to get the desired volume. The far left is mute, the far right is maximum volume.

Using the SONGS key to Launch Music Browser

You can push the **SONGS** key at any time to open the music browser, which lets you choose the song or play list to play next. The music browser is a screen showing the file structure of your MMC card, includ-

ing all of the songs and play lists available as well as any subfolders. If you've sorted your music on the MMC by album or artist, you can select the folder you wish and play only the songs in that folder, or you can choose a particular song to play right away.

We'll describe the Music Browser under the heading "Play Lists" later in this section.

In addition to all these keyboard commands, the Music Mode has its own menu, which is used to access several commands and to set various options. To access the Music Menu, in Music Mode press the **MENU** key. Later in this section we'll describe the various options in the Music Menu in detail.

The following page contains an 11-step "Practice Run" that will walk you through the most basic Music Mode operations. Following just the steps outlined here, you can start using the iFINDER to listen to your favorite songs in no time.

Music Mode Practice Run

Start at your computer. You should already have some MP3 or Ogg Vorbis music files available. If you need help ripping your CDs to these formats, consult the documentation for the CD ripper software.

1. Insert an MMC card with free space into your MMC card reader.

2. Select a few of your favorite songs and copy them onto the MMC card. For now, copy only a few songs and place them directly in MMC card's main folder. (Later, you might prefer to set up subfolders on the card and organize your music by artist, album or genre.)

3. Wait until the songs are finished copying, then transfer the MMC card to your iFINDER. (You can find instructions for this in Sec. 2, starting on page 7.)

4. To turn on the unit, press and release the **PWR/LIGHT** key.

5. The opening screen displays either a map of North America or the music player. If the Map Mode opens up, press the **MAP/MUSIC** key to switch to Music Mode.

6. Open the file browser by pressing the **SONGS** key, which will display a list of the songs available on your iFINDER. These should match the songs you just copied there. Using the arrow keys, choose one from the list and press **PLAY**. This is a quick and convenient combination to start your music playing: **SONGS|PLAY**.

7. The song will begin playing. Make sure you've attached your headphones (or other external speakers) as described in Sec. 2. You can use the Browse Music Files screen (activated by pressing the **SONGS** key) to choose another song, if you want. If you'd prefer to play several songs, move on to step 8.

8. Cancel the song currently playing by pressing **STOP**. To have the iFINDER create a play list of all of the songs on the MMC, press **SONGS|PLAY** with the **PLAY ALL** option selected. The iFINDER will begin playing the first song on the MMC.

9. Press **MENU|↓** to **SOUNDS|ENT** to open up the Sounds Menu. Press ↓ to **SHUFFLE** and press **ENT** to toggle it on. Now press **EXIT** repeatedly until you get back to the Music Mode display. Press **SONGS|PLAY** again and the iFINDER will begin playing a randomly sorted play list.

10. Listen to your favorite music. Now you can return to your computer and add more songs or play lists to your MMC.

11. To turn off the unit, press and hold **POWER** key for three seconds.

Play Lists

The iFINDER can play both MP3 and Ogg Vorbis music files. It can also recognize m3u-style play list files. Use the **SONGS** key to launch the Browse Music Files screen.

Use the Browse Music Files screen to choose which songs to play next.

From the music browser you can choose individual songs, play list files, or subfolders to play. Choose **PLAY ALL** to play all of the music files in the selected folder and its subfolders.

Getting the Music onto Your iFINDER

Of course, to use your iFINDER's Music Mode, you'll need to get some music onto the unit. To do this, simply use an MMC card reader to copy the MP3 or OGG Vorbis files from your PC onto an MMC card. Insert the MMC card in the iFINDER as described in Sec. 2, and the music will immediately be available in the file browser. It's that simple.

Before you copy your music onto the MMC card, consider setting up some subfolders to sort your music by artist, album or genre – however you prefer to arrange your music. The iFINDER makes it easy to play a whole folder at a time, so if you arrange your music well when you're installing it, playing the right songs when you want to hear them will be a breeze.

The Music Menu

Any time you're using the iFINDER in Music Mode you can press **MENU** to open a special Music Menu containing several settings and commands relating to Music Mode operation. You can use these settings to change the way the iFINDER plays back music. The iFINDER works great right out of the box, but as you become more familiar with the unit and what it can do, you'll eventually want to begin tweaking some of these settings.

We'll spend the rest of this section introducing you to the options and settings available from the Music Menu.
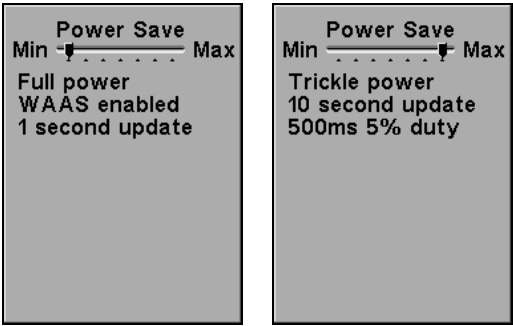
Power Saving

If you're using your iFINDER for both mapping and music, you can control how much of each get out of it. One of the biggest drains on the iFINDER's battery is the position update rate – that is, how *often* the iFINDER checks its location from the GPS signal.

You can tell the iFINDER to check less often, giving you inferior position accuracy but longer battery life. To do this, use the Power Saving command. Just remember that the higher your Power Saving setting, the less reliable your position information on the map display.

To access the Power saving feature from Music Mode, press **MENU|↓** to **POWER SAVING|ENT**. Press → or ← to move the slider bar. The left end of the scale is minimum power saving (full battery power); the right end of the scale is maximum power saving (minimum battery power.)

To return to the last page displayed, press **EXIT|EXIT**.

**The Power Save menu at Min Power save (shown left center)
and Max Power Save (shown right).**

For a more detailed description of Power Saving, look for the same topic in Sec. 5.

Use Indoors

When you're *only* using your iFINDER to listen to music, you can preserve battery life by turning off the GPS satellite search. To do this, turn on the Use Indoors option.

To toggle this feature on or off from the Music Mode, press **MENU|↓** to **USE INDOORS|ENT**. The box is checked when the feature is turned on, and unchecked when the feature is off. The iFINDER will automatically resume searching for satellites the next time you turn it on.

Sounds Menu

The Sounds command on the Music Menu opens the same Sounds Menu accessible from the Main Menu. We've added this option to the Music Menu for your convenience. From the Sounds Menu you can adjust the volume of both the unit's internal speaker, and the Line Out volume to your headphones. The most important options on this menu for Music Mode, though, are at the very bottom.
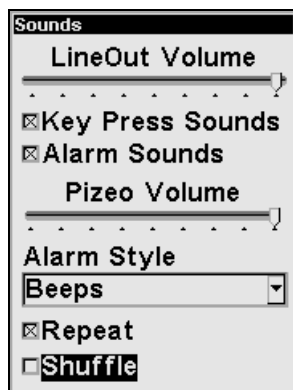
Sounds Menu, with the Repeat command activated and the Shuffle command selected.

To access the Sounds Menu, from Music Mode press **MENU|↓** to **SOUNDS|ENT**.

Shuffle (On/Off)

When Shuffle is turned on, every time the iFINDER generates a play list, it will randomly sort the order of the songs. When Shuffle is turned off, play lists will be built generated alphabetically by filename.

From the Sounds Menu, press ↓ to **SHUFFLE|ENT** to toggle whether the option is on or off. The box is checked when the feature is turned on, and unchecked when the feature is off.

Repeat (On/Off)

When Repeat is turned on, at the end of a play list (or song, if you're only playing one song) the iFINDER will immediately start playing the play list again, from the beginning. When Repeat is turned off, it will simply stop playing music and wait for you to select a new song or play list.

From the Sounds Menu, press ↓ to **REPEAT|ENT** to toggle whether the option is on or off. The box is checked when the feature is turned on, and unchecked when the feature is off.

Section 4:
Map Mode Operation

This section addresses the unit's *Mapping Mode* operation. Mapping Mode includes all navigation features, from finding the nearest restaurant to plotting a road trip across the country. If you would prefer to start out using the built-in music player, make sure to read Sec. 3, Music Mode Operation.

Before you turn on the unit and find where you are, it's a good idea to learn about the different keys, the two Page screens and how they work together. BUT, if you just can't wait to get navigating, turn to the one-page ***Map Mode Practice Run*** on page 32.

Keypad

iFINDER PhD keypad.

Many of the keys have two functions: one for Music Mode, one for Map Mode. The Map Mode names always come first. Throughout this section, we'll refer to the keys by their Map Mode names, but in the following list you can the full names for each of the keys.

1. **MAP/MUSIC** – Press this key to toggle between the two page screens. Each page represents one of the unit's major operation modes. See Sec. 3 for full details on the Music Mode. When the unit is in Sleep Mode, holding down the MAP/MUSIC key will display the Instant-On Compass.

2. **MENU** – Press this key to show the menus, which allow you to select or adjust a feature from a list, or switch to the Navigation Page.

3. **PWR** (Power)**/LIGHT** – The PWR key turns the unit on and off and activates the backlight. When the unit is in Sleep Mode, the PWR key will restore the unit to normal operation.

4. **ARROW KEYS/Fast Forward-Rewind** – These keys are used to navigate through the menus, make menu selections, move the map cursor and enter data.

5. **ZOUT** (Zoom Out)**/Decrease Volume** – This key lets you zoom the screen out to see a larger geographic are on the map. Less detail is seen as you zoom out.

6. **ZIN** (Zoom In)**/Increase Volume** – This key lets you zoom the screen in to see greater detail in a smaller geographic area on the map.

7. **FIND/SONGS** – The Find key launches the iFINDER search menus and some navigation functions.

8. **EXIT/Stop Music** – The Exit key lets you return to the previous screen, clear data or erase a menu.

9. **ENT** (Enter)**/Play-Pause Music** – This key allows you to save data, accept values or execute menu commands.

Power/Lights On and Off

To turn on the unit, press **PWR**. To turn on the backlight, press **PWR** again. Pressing **PWR** once again will turn off the backlight. (Press **EXIT** to clear any message or alarm displays.)

Turn off the unit by pressing and holding the **PWR** key for 3 seconds.

Main Menu

The iFINDER has a single Main Menu accessible from either operation mode. The Main Menu contains some function commands and some setup option commands. Access it by pressing **MENU|MENU**. Each page also has its own page menu, which is accessed by pressing **MENU** one time. (All of these options come with default values so that you can use the iFINDER right out of the box, but if you want to learn about the various options, see *Sec. 5, System Setup and GPS Setup Options*.)

To clear the menu screen and return to the page display, press **EXIT**.

The Main Menu.

The Main Menu commands and their functions are:

Screen command: changes the contrast or brightness of the display screen as well as the backlight delay.

Sounds command: enables or disables the sounds for key strokes and alarms, sets the alarm style and controls speaker volume.

Alarms command turns GPS alarms on or off and changes alarm thresholds.

Route Planning command lets you plan, view or navigate a route.

My Trails command: shows, creates and deletes trails. You can control how trails are recorded and you can navigate trails forward and backward with this command.

Cancel Navigation command: turns off the navigation command after you have reached the end of a back trail or your destination waypoint, Point of Interest or map cursor location.

GPS Setup command sets the GPS receiver options.

System Setup command sets general configuration options.

Utilities command lets you access a Sun/Moon rise and set calculator, a trip calculator, an alarm clock and other timers.

Browse MMC Files command gives you information about the installed MMC card and the files it contains.

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The Map Mode Display

The map screens show your course and track from a "bird's-eye" view. By default, this unit shows the map with north always at the top of the screen. (This can be changed. See the topic *Map Orientation*, in Sec. 5.) If you're navigating to a waypoint, the map shows your starting location, present position, course line and destination. You don't have to navigate to a waypoint, however, to use the map.

NOTE:

> When our text says, "navigating to a waypoint," we really mean navigation to *any* selected item, whether it is a waypoint you made, a map feature or an item (like a restaurant) from the POI database.

Using the map is as simple as pressing the **MAP/MUSIC** key to enter Map Mode. A screen similar to those in the following images appears. The arrow flashing in the center of the screen is your present position. It points in the direction you're traveling. The solid line extending from the arrow is your plot trail, or path you've taken. (Remember, a flashing question mark on the arrow symbol or flashing text displays means iFINDER has not yet calculated a position.)

The map zoom range is the distance across the screen. This number shows in the lower left corner of the screen. In the first example below left, the range is 4,000 miles from the left edge of the map to the right edge of the map.

The Zoom In and Zoom Out keys zoom the map to enlarge or reduce its coverage area and the amount of mapping detail shown. There are several available map zoom ranges, from 0.02 miles (35.2 yards) to 4,000 miles.
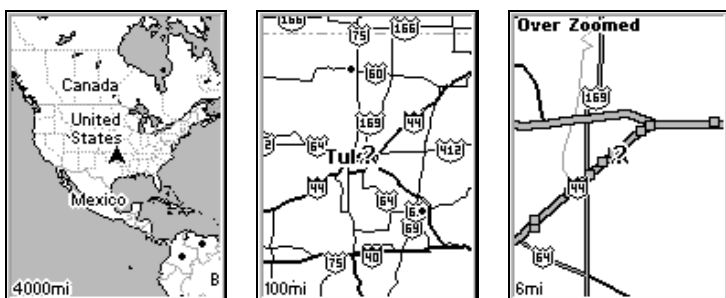
Far left, Map Page opening screen.. Center, zoomed to 100 miles and right, zoomed to 6 miles. Over Zoomed means you have reached the detail limits in an area covered only by the basic background map. Zooming in any closer will reveal no more map details because a high-detail custom map has not been loaded on the MMC for this area.

If you're using only the factory-loaded background map, the maximum zoom range for showing *additional* map detail is 10 miles. You can continue to zoom in closer, but the map will simply be enlarged without revealing more map content (except for a few major city streets). Load your own high-detail custom map made with MapCreate, and you can zoom in to 0.02 miles (35.2 yards) with massive amounts of accurate map detail.
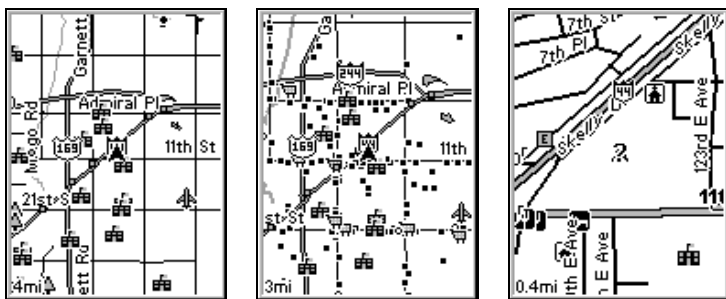
Map Pages with high-detail map of an urban area loaded on the MMC. At left, arterial streets appear at the 4 mile zoom range, with a few Point of Interest icons visible. Center, numerous dots representing Points of Interest become visible at the 3 mile range. Right, at the 0.4 mile zoom, you can see an interstate highway with an exit, major and minor streets as well as Point of Interest icons.

### Background map vs. MapCreate map content
The background map includes: low-detail maps of the whole world (containing cities, major lakes, major rivers, political boundaries); and medium-detail maps of the United States.

The medium-detail U.S. maps contain: all incorporated cities; shaded metropolitan areas; county boundaries; shaded public lands (such as national forests and parks); some major city streets; Interstate, U.S. and state highways; Interstate highway exits and exit services information; large- and medium-sized lakes and streams; and more than 60,000 navigation aids and 10,000 wrecks and obstructions in U.S. coastal and Great Lakes waters

MapCreate custom maps include massive amounts of information not found in the background map. MapCreate contains: the searchable Points of Interest database, all the minor roads and streets, all the landmark features (such as summits, schools, radio towers, etc.); more rivers, streams, smaller lakes and ponds and their names.

What's more important is the large scale map detail that allows your GPS unit to show a higher level of position accuracy. For example, the

background map would show you the general outline and approximate shape of a coastline or water body, but the higher detail in MapCreate shows the shoreline completely and accurately (finer detail). Many smaller islands would not be included in the background map, but are, of course, in MapCreate.
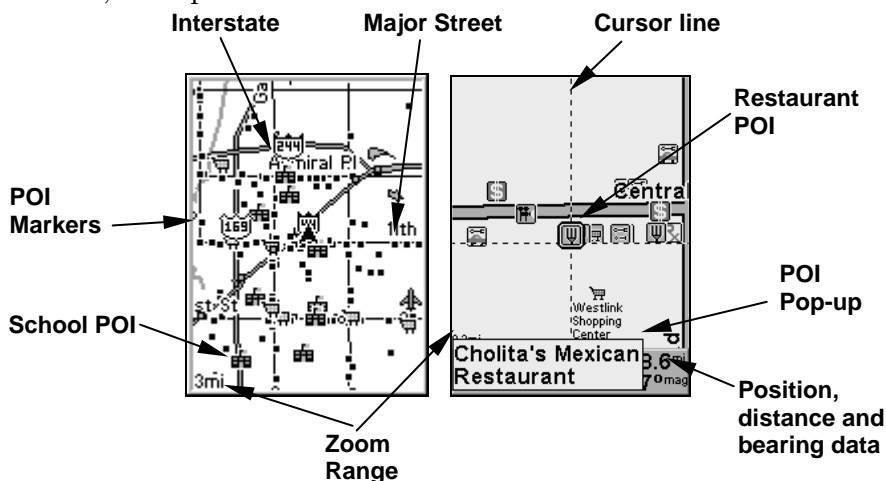
When the map is zoomed out far enough, most POIs appear as square dots. As you zoom in closer, the symbols become readable icons. In the 0.3 mile zoom example at right, the cursor has selected the Cholita's Mexican Restaurant POI, which triggers a pop-up box with the POI name. This pop-up box works on POIs at any zoom range.

Tip:

In some urban areas, businesses are so close to one another that their POI icons crowd each other on the screen. In the preceding figure, you can see a packed string of POIs all along the west half of 11th. You can reduce screen clutter and make streets and other map features easier to see by simply turning off the *display* of POIs you're not watching for. (To see how, check the text on Map Detail Category Selection, in Sec. 5. It shows how to use the Map Categories Drawn menu to turn individual POI displays off and on.) Even though their display is turned off, you can still search for POIs and their icons will pop-up when your unit finds them for you.

NOTE:

The screen shows an indicator of what iFINDER's microprocessor is doing, similar to the floppy drivel light on a PC. In the lower right corner of the screen, a special icon (MMC symbol) will appear and disappear from time to time. When this icon appears, iFINDER is reading information from the MMC.

Map Page, left, Map Menu, right.

The Map Mode has its own menu, which is used to find distances, change the orientation of your map, view map data, and other helpful map functions. To access the Map Menu, in Map Mode, press the **MENU** key. We'll describe the various options in the Map Menu in detail later in this section.

The following page contains an 11-step "Practice Run" that will walk you through the most basic Map Mode operations. Using just the steps outlined here, you can operate your iFINDER's Map Mode well enough to find your current location and find your way to a destination.

If you don't want to carry the manual with you as you practice with the iFINDER, you might consider photocopying this practice run page and tucking it into your pocket.

Map Mode Practice Run

Start outdoors, with a clear view of the open sky. As you practice, try navigating to a location a few blocks away. Navigation in too small a space, like a backyard, will constantly trigger arrival alarms.

1. Install two AA batteries (and MMC card if desired) in battery compartment on back of case. (See installation details beginning on page 7.)

2. To turn on iFINDER PhD, press and release **PWR** key.

3. The opening screen displays either a map of North America or the music player. If the Music Mode opens up, press the **MAP/MUSIC** key to switch to Map Mode.

4. Wait while unit locates satellites and calculates current position. Flashing question mark or data boxes indicate a position has not been determined. Position calculation takes an average of one minute or less under clear sky conditions (unobstructed by terrain or structures). When position is found, a tone sounds, a position acquired message appears, data boxes stop flashing and the flashing question mark disappears.

5. With position acquired, the Map Page shows your location on the map in a bird's eye view of the earth. You can move around the map by:
    Zoom in closer to see greater detail: press **ZIN** (zoom in key.)
    Zoom out to see more area, less detail: press **ZOUT** (zoom out key.)
    Scroll map north, south, east or west using arrow keys $\uparrow \downarrow \rightarrow \leftarrow$.
To stop scrolling and return to current position on map, press **EXIT** key.

6. Set a waypoint at your current position so you can navigate back here: press **ENT|ENT**.

7. Zoom/scroll map to find a nearby object or location. Use arrow keys to center cursor cross-hair over the map object or location.

8. To navigate to the selected location: press **MENU|↓** to **GO TO CURSOR|ENT|EXIT**. Follow steering arrow on map display or press **MENU|ENT** to follow compass bearing arrow on navigation display.

9. At destination, Arrival Alarm goes off; to clear it, press **EXIT**. Cancel navigation: press **MENU|MENU|↓** to **CANCEL NAVIGATION|ENT|←** to **YES|ENT**.

10. Now navigate back to your starting waypoint. Press **FIND|↓** to **MY WAYPOINTS|ENT|ENT|↓** to select the waypoint you created in step 6**|ENT|ENT**. Wait while route is calculated, then follow arrows.

11. Back home, Arrival Alarm goes off; press **EXIT**. Cancel navigation: press **MENU|MENU|↓** to **CANCEL NAVIGATION|ENT|←** to **YES|ENT**.

12. To turn off iFINDER, press and hold **PWR** key for three seconds.

Digital Data Display

The Digital Data display provides detailed information about your environment, including your ground speed, bearing, and current compass heading. Some of the most useful information on this display, though, are the pressure history and weather prediction utility.

When time the iFINDER is on, it takes barometric pressure and altitude readings once every hour. By monitoring the trend in these readings (whether the atmospheric pressure is rising or falling), the iFINDER can predict how the weather will behave.

The top of the Digital Data display is a bar chart (seen in the following image) representing the pressure history available in the iFINDER.
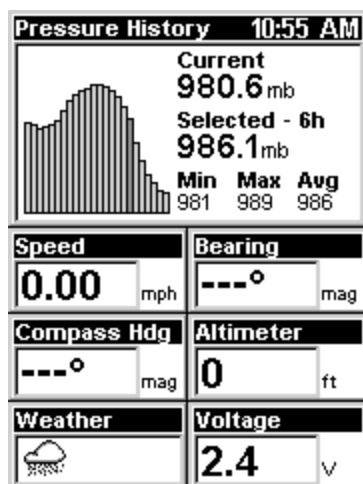
The Digital Data display, with pressure history bar chart

NOTE:

> In order to provide more accurate weather prediction, the unit will discard old pressure readings whenever it fails to add a new reading within three hours. It also needs at least three hours of data before it can make a weather prediction.

If you want the iFINDER to record your altitude as well, you must first calibrate the altimeter by providing the known altitude at a current location. To do this, from the Digital Data display, press **MENU** then choose **CALIBRATE ALTITUDE**. You can accept the altitude value provided by your GPS position, or manually enter the altitude of your current location. Then select **SAVE CALIBRATION** and press **ENT**. The iFINDER will now track your altitude with its built-in altimeter.

You can use the arrow keys to move back and forth through the available pressure history. Use ← to move back in time, selecting previous readings, or → to move forward in time. The exact value of the selected reading is displayed on screen. You can also use ↑ to switch to altitude values, or ↓ to return to atmospheric pressure values.

Sleep Mode

Of course, when the iFINDER has more information to work with, it can provide better predictions. In order to help with this, we've designed the iFINDER with a Sleep Mode that allows it to conserve battery life, while occasionally waking up just enough to take a pressure reading. This allows the unit to continue to build an accurate pressure history even when you're not actively using it.

There are two ways to enable Sleep Mode. If you're viewing the Digital Data display, simply press **MENU** and select **ENABLE SLEEP MODE**, then press **ENT**.

If you're viewing one of the other displays, press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **ENABLE SLEEP MODE|ENT**.

A dialog will ask you to confirm your choice. Choose **YES**, and the iFINDER will appear to turn off.

NOTE:
> Sleep mode can be activated from any page by holding down the **MAP/MUSIC** key for 5 seconds.

When the iFINDER is in Sleep Mode, you can return to normal operation by pressing **PWR**. You can also use the Instant-On Compass feature to briefly display the compass reading, without reactivating the entire unit.

Instant-On Compass

When the iFINDER is in Sleep Mode, you can still quickly check your compass bearing by pressing and holding the **MAP** key. This activates the screen and shows the current Compass display, including your current heading and any information you are displaying in the customizable data boxes. As soon as you release the **MAP** key the iFINDER will return to **SLEEP MODE**.

Compass Display

This display has a compass rose. It shows your facing direction and the direction to a selected destination. The navigation screen looks like the one in the following image when you're not navigating to a waypoint or other destination. No graphic course information is displayed. Your facing direction is shown by an arrow on the edge of the compass rose.

You can choose how to display the Compass's orientation. The options are "North Up," "Heading Up," and "Bearing Up."

With North Up, North the unit always places North at top of the screen. As you turn and change your facing direction (your heading), the heading indicator arrow will move along the edge of the compass rose.
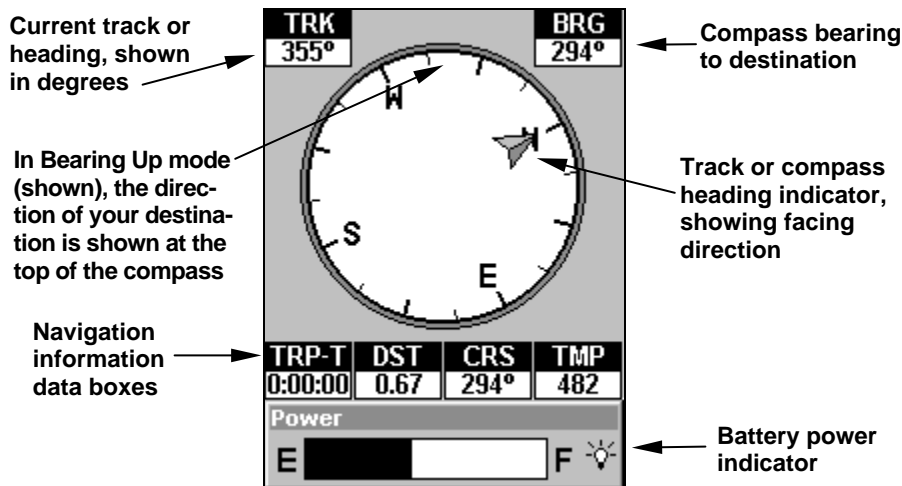
When using Heading Up, the unit keeps your heading indicator arrow at the top of the screen, so no matter which was you turn, the arrow stays up, but the compass rotates under it to tell your facing.

When you're navigating to a waypoint or any other destination, you can turn on Bearing Up, which keeps the direction to your destination at the top of the screen while your heading indicator swings around the compass rose. That way, all you have to do to navigate to your destination is keep turning so that your arrow points closer and closer to the top of the screen.
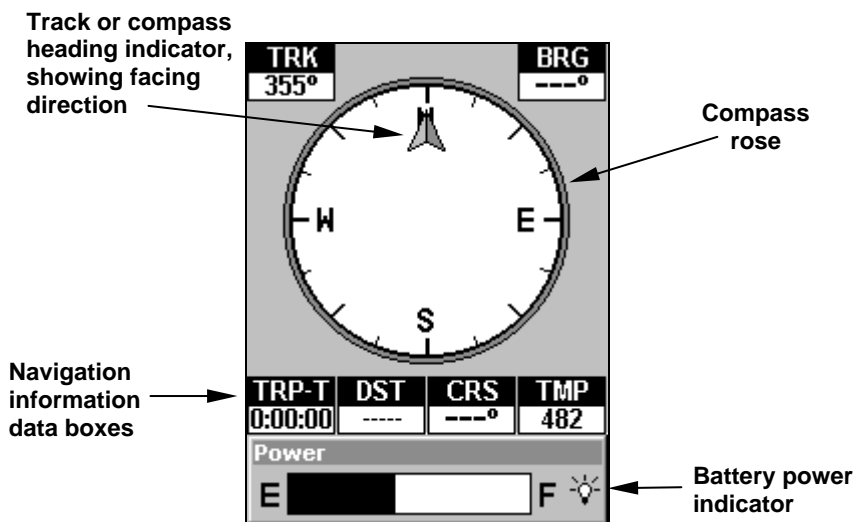
Navigation Page, recording a trail, traveling east. Page looks like this when iFINDER is not navigating to a waypoint, following a route, or backtracking a trail.

When navigating to a waypoint or following a route, the Navigation screen looks like the one shown in the following image. Customizable data boxes on this screen can show information such as your ground speed, track, distance and bearing to destination.

Current track or heading, shown in degrees → TRK 355°

BRG 294° ← **Compass bearing to destination**

In Bearing Up mode (shown), the direction of your destination is shown at the top of the compass

Track or compass heading indicator, showing facing direction

Navigation information data boxes →

TRP-T	DST	CRS	TMP
0:00:00	0.67	294°	482

Power
E [████   ] F ☼ ← **Battery power indicator**

Navigation Page, going to an address. The compass is in Bearing Up mode, so you can see that the destination is to your west. Your current facing is north (a 294° heading) toward an address 355° (bearing) away. If you were navigating to a waypoint, the waypoint's icon would appear on the edge of the compass rose, indicating the proper direction. An information box on this screen indicates the destination is 0.67 miles away.

Calibrate Compass

To find your heading, the iFINDER uses a sensor that detects the magnetic field in the area. This field can be affected by any large object, particularly by metallic items such as your car or the barrel of your rifle. Over time, all these variations gradually interfere with the iFINDER's measurements, and will result in poor performance by the compass.

In order to keep your iFINDER reporting accurate compass headings, all you have to do is calibrate it when you begin to notice this deterioration. To do this, use the **CALIBRATE COMPASS** command on the Compass Page menu.

1. From the Compass Page, press **MENU|↓** to **CALIBRATE COMPASS|ENT**.
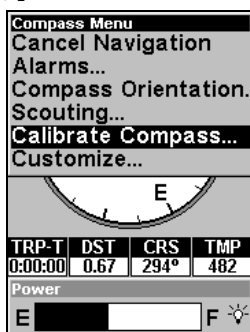
Compass Page menu with Calibrate Compass selected.

A new screen will appear showing a simple drawing of a circle with a line pointing from the center to a point on the edge. At the top of the screen, the **START CALIBRATION** button is selected.
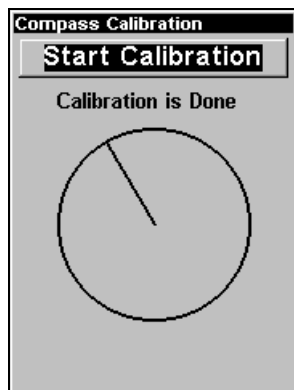
The Calibrate Compass page, with Start Calibration selected.

2. Choose a reference point. The reference point is for you alone, the iFINDER doesn't need to know anything about it. But choose a reference point nearby such as a tree, your car, or even use your own body.

NOTE:
    While calibrating, hold the iFINDER as parallel to the ground as possible. Tilting the iFINDER makes compass measurements more difficult for the unit.

3. Now press **ENT** to start calibration. You'll notice the line moving slowly around the circle. Turn the iFINDER so that the line is pointing from the center of the circle directly to your reference point. As the line continues moving around the circle, rotate the iFINDER to keep the line pointing at your reference point. Remember to keep the iFINDER level as you rotate it, so that the back of the unit is parallel to the ground.

4. The line will travel all the way around the circle at least once, and may go twice around the circle. Continue rotating your iFINDER in time with the movement of the line until the words "Calibration is Done" appear at the top of the screen. When you see this, you're finished! Your iFINDER should now report accurate compass headings.

Find Your Current Position

Finding your current position is as simple as turning iFINDER on. Under clear sky conditions, the unit automatically searches for satellites and calculates its position in approximately one minute or less.

NOTE:

"Clear sky" means open sky, unobstructed by terrain, dense foliage or structures. Clouds do not restrict GPS signal reception.

If for some reason satellite acquisition takes longer, you may be inside a structure or vehicle or in terrain that is blocking signal reception. To correct this, be sure you are positioned so that the unit has as clear a view of the sky as possible, then turn the unit off and back on again.

Find Distance From Current Position To Another Location

1. While on the Map page press: **MENU**|↓ to **FIND DISTANCE**|**ENT**.

2. Center your cursor over the position you want to find the distance to. A rubber band line appears, connecting your current position to the cursor's location. The distance along that line will appear in the lower left-hand corner of the screen.

3. Press **EXIT** to return to regular operation.
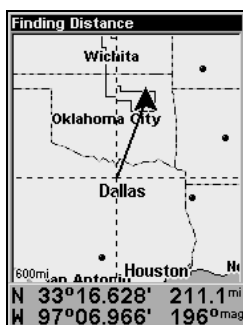
The distance to Dallas from the starting point is 211.1 miles.

Find Distance From Point to Point

You can also measure distance between two other points on the map.

1. While on the Map page press: **MENU**|↓ to **FIND DISTANCE**|**ENT**.

2. Center your cursor over the first position. (A rubber band line appears, connecting your *current* position to the cursor's location.) Press **ENT** to set the first point, and the rubber band line disappears.

3. Move the cursor to the second position. The rubber band line reappears, connecting the first point you set to the cursor. The distance along that line will appear in the lower left-hand corner of the screen.

4. Press **EXIT** to clear the command and return to the page screen.

Moving Around the Map: Zoom & Cursor Arrow Keys

The map is presented from a bird's eye view perspective. The current zoom range shows in the lower left corner of the screen.

1. Press the **ZIN** key (zoom in) to move in closer and see greater detail in a smaller geographic area.

2. Press the **ZOUT** key (zoom out) to move farther away and see less map detail, but a larger geographic area.

When you are walking or riding in a vehicle, the map will automatically move as you move. This keeps your current location roughly centered on the screen.

You can manually pan or scroll the map northward, southward, eastward or westward by using the arrow keys, which launches the crosshair map cursor. This allows you to look at map places other than your current position. To clear the cursor, press **EXIT**, which jumps the map back to the current position or the last known position.
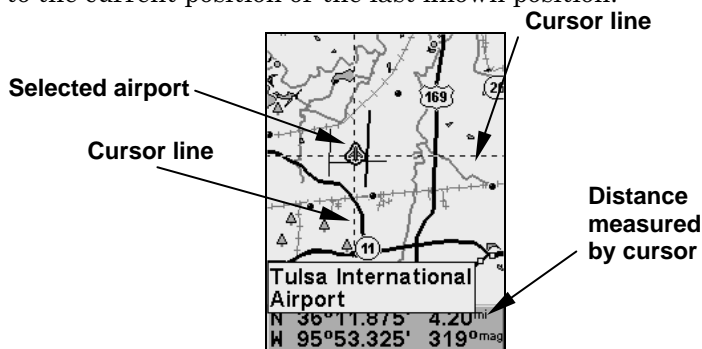
The selected airport to the northwest is 4.2 miles away.

Tip:

> Use the cursor to determine the distance from your current position (or last known position, when working indoors) to any map object or location. Simply use the arrow keys to position the cursor over the object or place. The distance, measured in a straight line, appears in the data box at the bottom of the map. Press **EXIT** to clear the cursor.

Tip:

> The iFINDER PhD has an extremely handy Cursor Undo feature that lets you instantly return to the previous location you were looking at. It works like this: Use the cursor (arrow keys) to scroll the map to some far away location or waypoint. Press **EXIT** clear the

cursor and jump back to your current position on the map. When you want to take another peek at that distant place, just press **EXIT** again. You can use this trick to toggle between your current position and your destination without a lot of scrolling.

Selecting Any Map Item with the Cursor

1. Use the zoom keys and the arrow keys to move around the map and find the item you wish to select.

2. Use the arrow keys and center the cursor cross-hair on the desired object. On most items, a pop-up box will give the name of the selected item.

You will also notice a black ring surrounds the item as it becomes selected. Once that happens, if you press **FIND** the Find Menu will pop up with an extra option at the top of the list: **SELECTED ITEM**. Press **ENT** to see the Waypoint Information screen for the selected item.

Icons

Icons are graphic symbols used to mark some location, personal point of interest or event. They can be placed on the map screen, saved and recalled later for navigation purposes. These are sometimes referred to as event marker icons. iFINDER has 42 different symbols you can pick from when creating an icon.

Icons are similar to waypoints, but they do not store as much information (like names) as waypoints do. You can't use a menu to navigate to icons as you can with waypoints.(But, you *can* use the map cursor and navigate to any icon on the map.)

You can create an icon at the cursor position on the map, or at your current position while you are navigating.

Create Icon on Map

1. Use the arrow keys to move the cursor to the place where you want to make an icon.

2. Press and *hold* **ENT** until the screen shows a "Save Icon" menu, then *release* the **ENT** key.

3. Press ← or ↑ or → or ↓ to select your icon symbol, then press **ENT**. The icon appears on the map.
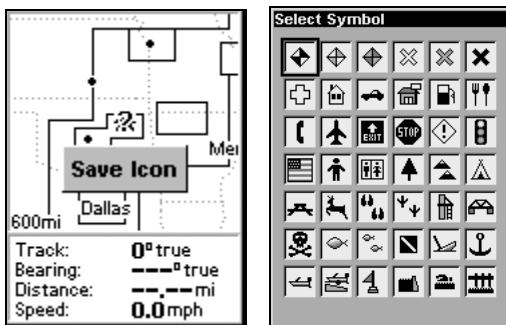
**Save icon menu, left, Select symbol menu, right.**

Create Icon at Current Position
1. While you are traveling, press and *hold* **ENT** until the screen shows a "Save Icon" menu, then *release* the **ENT** key.

3. Press ← or ↑ or → or ↓ to select your icon symbol, then press **ENT**. The icon appears on the map.

Delete an Icon
You can delete all the icons at one time, you can delete all icons represented by a particular symbol, or you can use the cursor to delete a selected icon from the map.

1. Press **MENU**|↓ to **DELETE MY ICONS**|**ENT**.

2. Press ↓ to **DELETE ALL ICONS**, **DELETE BY SYMBOL**, or **DELETE FROM MAP** and press **ENT**.
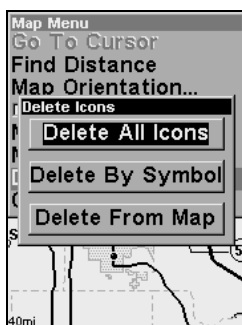
Delete icons menu.

Load GPS Data Files from an MMC

GPS Data files, containing waypoints, routes, trails and event marker icons, must be copied from an MMC to iFINDER's internal memory before iFINDER can read them. Here's how:

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1. Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **TRANSFER MY DATA|ENT** and the screen below appears.

The Transfer My Data submenu asks if you want to save data to the MMC or load data from the MMC into iFINDER's memory.

2. The Transfer My Data menu includes a message which tells you if an MMC is present or not. If no MMC is present, you must first insert a card into iFINDER in order to activate the Load or Save commands.

To load data from the MMC to iFINDER: press → to **LOAD|ENT**.

3. **Loading**: There may be more than one GPS Data File (*.USR) on the card. To select a file, press **ENT** to activate the selection box, use ↓ or ↑ to highlight the file, then press **ENT** to accept the selection. Next, press ↓ to **LOAD|ENT**. The unit will display a completion message when the data transfer is finished. To return to the Page view, press **EXIT|EXIT|EXIT**.
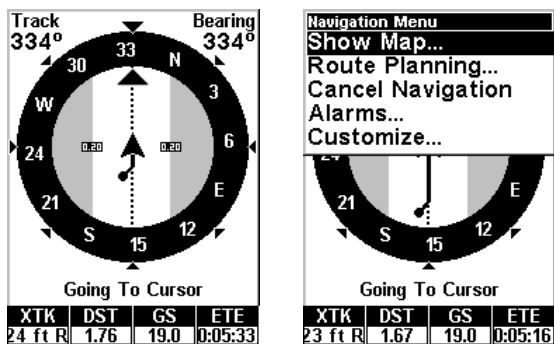
Navigate
Navigation is one of the most powerful reasons for owning an iFINDER. With the navigation options available you can get accurate information about where you want to go, how to get there, how long it will take, and other useful trip information.

Navigation Display
This screen has a compass rose that not only shows your direction of travel, but also the direction to a recalled waypoint. The navigation screen looks like the one below when you're navigating to a waypoint. Your position is shown by an arrow in the center of the screen. Your trail history, or path you've taken is depicted by the line extending from the arrow. The large arrow pointing down at the top of the compass rose indicates the current track (direction of travel) you are taking.

1. To get to the navigation display: from the Map Mode, press **MENU|ENT**.

2. To get to navigation display menu: from the navigation display, press **MENU**.

Navigation Page, left, Navigation Menu, right.

Navigation Menu

The Navigation Menu allows you to return to the map display, cancel navigation, set up alarms, and plan or edit your route.

Set Man Overboard (MOB) Waypoint

One of boating's most terrifying events is having a friend or family member fall overboard. This situation can be deadly on any body of water — fresh or salt. It's particularly dangerous at night or if you're out of sight of land. Of course, the first thing to do is remain calm and try all standard safety measures to try and rescue the person.

This unit has a man overboard feature that shows navigation data to the location where the feature was activated. To activate it, press the **ZOUT** and **ZIN** keys at the same time. Your position at the time these keys are pressed is used as the man overboard position.

Caution:

Saving a new "Man Overboard" waypoint will overwrite and erase the previous "Man Overboard" waypoint.

Navigate Back to MOB Waypoint

Find your way back to the accident position with the Compass Page or Map Page. When MOB is activated, the Compass Page automatically shows the compass rose with its bearing arrow pointing toward the man overboard position, and the destination name says "Going To Man Overboard." The Map Page displays a Man Overboard waypoint, represented by a human figure, and the steering arrow points where to steer to reach that position.

The man overboard position is also stored in the waypoint table for future reference. It can be edited the same as any other waypoint. This prevents the inadvertent loss of the current Man Overboard position.

Tip:

> You don't need to have an emergency to use the MOB waypoint. When you set the MOB point, just cancel navigation and then use MOB like a regular waypoint. (Remember, you can set up to 2,000 waypoints.)

To cancel navigation to MOB, press **MENU**|↓ to **Cancel Navigation**|**ENT**|← to **Yes**|**ENT**. If you want to return to the map, press **MENU**|↓ to **Show Map**|**ENT**. iFINDER stops showing navigation information.

Cancel Navigation
Press **MENU**|**MENU**|↓ to **Cancel Navigation**|**ENT**|← to **Yes**|**ENT**.

Navigate a Route
1. Press **MENU**|**MENU**|↓ to **Route Planning**|**ENT**.

2. Press ↓ to select *route name*|**ENT**|**ENT**.

3. Upon arrival at your destination, cancel navigation:
press **MENU**|**MENU**|↓ to **Cancel Navigation**|**ENT**|← to **Yes** |**ENT**.

Navigate to Cursor Position on Map
The **Go To Cursor** command navigates to the current cursor position on the map. It's a quick and handy way to navigate to anything you can see on the map display.

1. Use the cursor (controlled by the arrow keys) with the zoom in and zoom out keys to maneuver around the map until you find a location you want to go to.

2. Center the cursor over the location to select it. See the example below. (Many map items such as waypoints, Points of Interest, towns, etc. can be "selected," and appear "highlighted" with a pop-up box. Other features, such as a river or a street intersection will not appear "highlighted," but the cursor will take you to those locations just the same.)

Navigate to cursor. In this example, the cursor has selected the town of Oologah, Oklahoma.

3. Press **MENU|↓** to **GO TO CURSOR|ENT** and iFINDER will begin navigating to the cursor location.

The Map Page will display a dotted line from your current position to the cursor position. The Compass Page displays a compass rose showing navigation information to your destination. See the following examples.
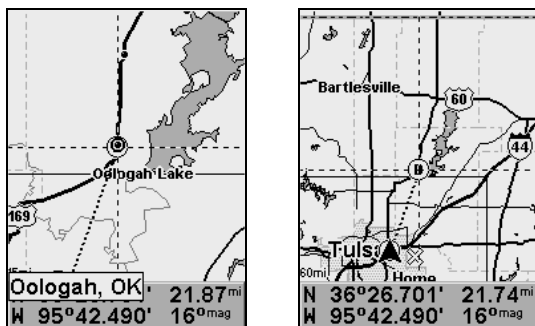
The 15-mile zoom figure at left clearly shows the dotted course line connecting your current position to your destination. The 60-mile zoom, at right, shows both current position and destination on screen.

To stop navigating to the cursor, use the Cancel Navigation command: press **MENU|MENU|↓** to **CANCEL NAVIGATION|ENT|←** to **YES|ENT**. The iFINDER stops showing navigation information.

Navigate to an Icon
Use the Navigate to Cursor command above, after selecting the icon with the cursor.

Navigate to Point of Interest (POI)
For POIs that are in view on the map, you can easily use the Navigate to Cursor command above; just use the cursor to select the POI.

Another method involves searching for POIs with the Find Map Places command, launched with the **FIND** key. Turn to Sec. 6*, Searching*, for detailed instructions on POI searches.)

After you have looked up an item with the Find Map Places command, use the ← to make sure the **GO TO** command is highlighted at the bottom of the screen, then press **ENT**. iFINDER begins showing navigation information to the item.

To cancel navigation, press **MENU|MENU|↓** to **CANCEL NAVIGATION|ENT|←** to **YES|ENT**. The iFINDER stops showing navigation information.

Navigate to a Waypoint

You can select any waypoint visible on the Map Page with the cursor, then use the Navigate to Cursor command. However, you can avoid scrolling the map to pick your waypoint if you use the Find commands:

1. Press **FIND|ENT**. To look up the nearest waypoint, press **ENT**, or to look by name (and scroll through the entire waypoint list), press ↓|**ENT**. For this example, look by name.

2. If your waypoint list is a long one, you can spell out the waypoint name in the **FIND BY NAME** box to search for it. (Press ↑ or ↓ to change the first character, then press → to move the cursor to the next character and repeat until the name is correct, then press **ENT** to jump to the list below.)

3. If the list is short, you can jump directly to the **FIND IN LIST** box by pressing **ENT**. Use ↑ or ↓ to select the waypoint name, press **ENT** and the waypoint information screen appears with the **GO TO** command selected.

4. To begin navigating to the waypoint, press **ENT**.

Navigate a Trail

1. Press **MENU|MENU|↓** to **MY TRAILS|ENT** and a screen similar to the one below appears.

Trails Menu.

2. Press ↓ then use ↓ or ↑ to select a trail to navigate.

3. With the trail name highlighted, press **ENT|↓** to **NAVIGATE|ENT**.

4. Wait while iFINDER creates a route from the trail. When the progress message disappears, the unit displays a trail information screen, with the **NAVIGATE** command highlighted in the top command box.

Tip: Back Track a Trail

Simply running the Navigate command will lead you along the trail from its starting point to its ending point — forward order. You can also *back track* a trail, or follow it in *reverse* order (from its ending point to its starting point.) First select the Reverse command to reverse the trail point order before you start navigating: press → to **REVERSE** | **ENT** | ← to **NAVIGATE**.

5. To follow the trail, press **ENT**. The unit begins showing navigation data along the trail. Follow the steering arrow on the Map Page or the compass bearing arrow on the Navigation Page.

NOTE:

If you are at or near the start of the trail, the arrival alarm will go off as soon as navigation begins because of your proximity to the trail's first point. Just press **EXIT** to clear the alarm.

6. Upon arrival at your destination, cancel navigation:
press **MENU** | **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

Backtrack a Trail

See the "tip" paragraph in the previous entry, *Navigate a Trail*.

Routes

A route is a series of waypoints, linked together in an ordered sequence, that's used to mark a course of travel. You can visualize a route as a string of beads: The beads represent waypoints and the string represents the course of travel connecting waypoint to waypoint.

The course from one waypoint to the next is a leg; routes are composed of one or more legs. The legs of all GPS routes are based on straight lines between waypoints.

A route provides the automatic capability to navigate through several waypoints without having to reprogram the unit after arriving at each waypoint. Once programmed into the GPS unit, a route provides the option of navigating forward through the route waypoints or in reverse order (you can even begin navigating in the middle of a route!).

Create and Save a Route

You have the option of creating a route in the unit, or on your computer if you have purchased our MapCreate 6 software.

PC-created Routes

MapCreate is the easiest method for preparing a route, simply because your PC's larger screen, keyboard and mouse are easier to manipulate than the pocket-sized iFINDER.

To load a MapCreate route into iFINDER, follow instructions in Map-Create's manual for creating a route and saving it as part of a GPS Data File (file format *.usr). Copy the GPS Data File to an MMC and insert the MMC in iFINDER. (See Sec. 2 for instructions on installing MMCs. To load the GPS Data File into iFINDER memory, see the entry on *Transferring GPS Data Files between iFINDER and a Computer* in this section.)

Routes Created in iFINDER

You can create a route by selecting existing waypoints from the way-point list or you can set a series of route waypoints on the map with cursor arrows and the Enter key. In this example, we'll create a route from the map.

1. From the **NAVIGATION PAGE**, press **MENU|ENT** or from the **MAP PAGE**, press **MENU|MENU|↓** to **ROUTE PLANNING|ENT**.

2. Press **ENT|↓** to **(ROUTE END)|ENT|↓** to **ADD FROM MAP|ENT**. The Map Page appears with the cursor showing.

3. Use the Zoom keys and arrow keys to move the map and cursor until the cursor is centered on the spot where you want your route to begin. (If you are starting at your current position or the current cursor posi-tion, you are already at the starting spot.)

4. Set the first route waypoint: press **ENT**. In this example we moved to the intersection of 11th Street and 145th E. Ave. to start our route to a public hunting area next to a river.
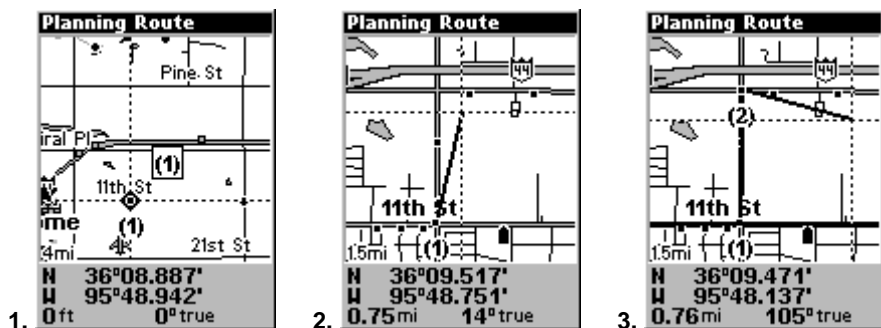
Route creation sequence, from left: Fig. 1. Set route waypoint (1) at 11th St. & 145th Ave. Fig. 2. Zoom in; move cursor north to set point (2) at 145th & Admiral. Fig. 3. With point (2) set, move cursor east to mark interstate on-ramp with waypoint (3). In figures 2 and 3, notice the rubber band line extending from the previously set waypoint to the cursor. This line will become the course for the route.
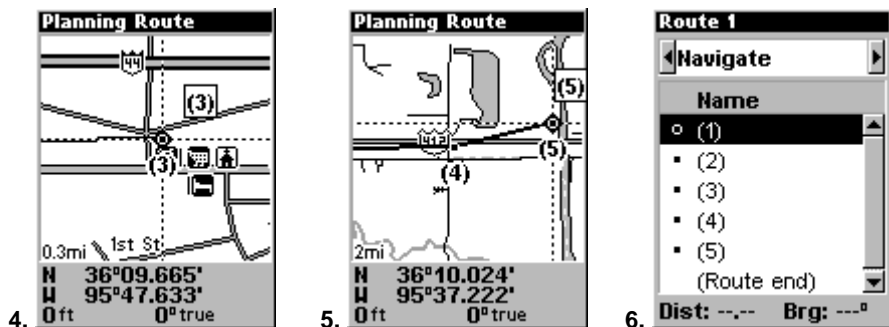
Route creation sequence, continued: Fig. 4. Point (3) set at on-ramp turn. Fig. 5. Waypoint (4) set at highway exit to frontage road leading to river. Waypoint (5) ends the route at a tree stand in the hunting area. Fig. 6. Press EXIT to save the route and you return to this screen.

5. Move the cursor to the next point in the route, a spot where you need to turn or change direction, and press **ENT** to set the next waypoint.

6. Repeat step five until the route reaches your destination.

7. To save your route, press **EXIT**. iFINDER reverts to the Route screen, with the route automatically named "Route 1" and stored in iFINDER's internal memory.

8. You can edit the name if you wish. Press ↑ to select the screen's command box, then press → to **EDIT NAME | ENT**. Press ↑ or ↓ to change the first character, then press → to move the cursor to the next character and repeat until the name is correct, then press **ENT**.

9. You can execute other route commands, such as **NAVIGATE**. With the command box active, just press → to highlight a different command, then press **ENT**.

10. If you are finished with the route for now, you can return to the last page displayed by pressing **EXIT | EXIT | EXIT**.

Delete a Route
1. Press **MENU | MENU | ↓** to **ROUTE PLANNING | ENT**.

2. Press ↓ to the route list | ↓ or ↑ to select *route name* | **ENT**.

3. Press ← to **DELETE | ENT | ←** to **YES | ENT**.

Save GPS Data Files to an MMC
1. Press **MENU | MENU | ↓** to **SYSTEM SETUP | ENT | ↓** to **TRANSFER MY DATA | ENT**.

2. The Transfer My Data menu includes a message which tells you if an MMC is present. If no MMC is present, you must first insert a card into iFINDER in order to activate the Save command.

3. To save data *from* iFINDER *to* the MMC: press **ENT** (for **SAVE**).

4. To accept the default name "Data" for the GPS Data File, press ↓ to **SAVE|ENT**. (If you wish to rename the file, press **ENT** to activate the selection box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Then, press **ENT|↓** to **SAVE|ENT**.)

The unit will display first a progress then a completion message when the data transfer is finished. To return to the Page view, press **EXIT|EXIT|EXIT**.

Searching

Now that you've seen how iFINDER can find where *you* are, let's search for something somewhere else. Searching is one of the most powerful new features in the Lowrance GPS product line.

In this example, we'll look for the *nearest* fast-food restaurant. For more information on different types of searches, refer to *Sec. 6, Searching*.

NOTE:

    This example requires the Point of Interest (POI) database included with a FreedomMap or a high-detail MapCreate custom map.

After iFINDER has acquired a position:

1. Press **FIND|↓** to **MAP PLACES|ENT|↓** to **POI-RESTAURANTS**.

2. You could search the entire restaurant category, but in this example we will narrow our search. Press → to **FAST FOOD CHAINS|ENT|ENT**.
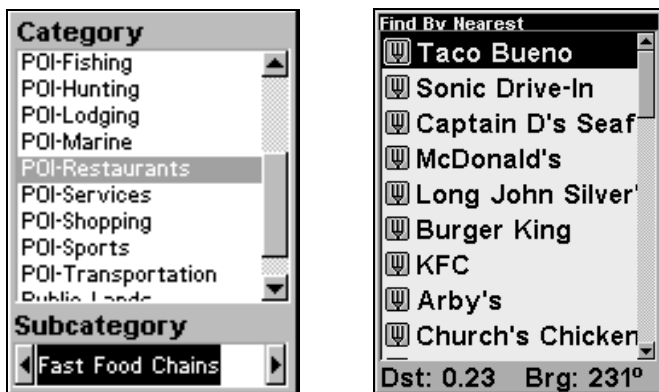
**At left, the Category Selection menu,
with a list of the nearest restaurants at right.**

3. iFINDER says it is calculating, then a list of restaurants appears, with the closest at the top of the list, and the farthest at the bottom of the list. The nearest is highlighted.

4. If you wish, you could scroll ↑ or ↓ here to select another restaurant, but for now we will just accept the nearest one. Press **ENT**.

5. The POI's Waypoint Information screen appears. (This is how you can use iFINDER as a business phone directory!) If you wanted to navigate there, you could press Enter, since the Go To command is highlighted. But we just want to see it on the map, so press → to **FIND ON MAP | ENT**.
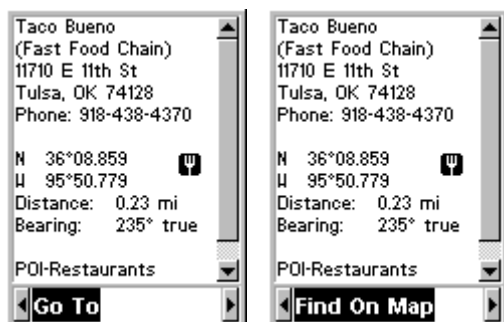
POI information screen on fast food restaurant nearest this position. Screen shows name, street address, phone number, latitude/longitude, distance to the restaurant and its compass bearing. Figure at left shows Go To command; right figure shows Find On Map command.

6. iFINDER's map appears, with the cross-hair cursor highlighting the restaurant's POI symbol. A pop-up name box identifies the POI. A data box at the bottom of the screen continues to display the location's latitude and longitude, distance and bearing.
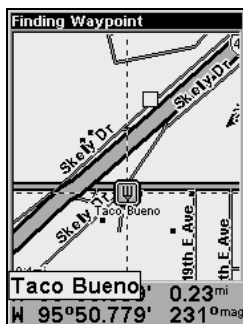
Map screen showing Finding Waypoint, the result of a restaurant search.

7. To clear the search and return to the last page displayed, press **EXIT | EXIT | EXIT**. (Before you completely exited out of the Search menus, you could have gone looking for another place.)

NOTE:

Search works from mapping and POI data loaded in iFINDER. If you do not have a high-detailed custom map (containing POI data) for the area you are searching loaded on the MMC, you may not find anything.

Trails

A trail, or plot trail, is a string of position points plotted by iFINDER as you travel. It's a travel history, a record of the path you have taken. Trails are useful for repeating a journey along the same track. They are particularly handy when you are trying to retrace your trip and go back the way you came.

The iFINDER lets you save up to 10 trails in its memory. Since you can copy these trails to MMCs in the form of GPS Data Files (*.usr format), the only true limit on the number of trails you can record is the number of MMCs you can carry in your pockets.

(For various trail options, see the *Trail Options* entry in Sec. 5.)

Create and Save a Trail

iFINDER is set at the factory to automatically create and record a trail while the unit is turned on. It will continue recording the trail until the length reaches the maximum trail point setting (default is 2,000, but the unit can record trails 9,999 points long). When the point limit is reached, iFINDER begins recording the trail over itself.

To preserve a trail from point A to point B, you must :"turn off" the trail by making it inactive before heading to point C or even back to point A. When a trail is set inactive, iFINDER automatically creates and begins recording a new trail.

Delete a Trail

To erase or delete a trail, press **MENU|MENU|↓** to **MY TRAILS|ENT|↓** to *trail name*|**ENT|↓** to **DELETE TRAIL | ENT |←** to **YES|ENT**.

Edit a Trail Name

To edit a trail name: press **MENU|MENU|↓** to **MY TRAILS|ENT|↓** to *trail name*|**ENT|ENT**. Press ↑ or↓ to change the first character, then press → to the next character and repeat until the name is correct. Press **EXIT|EXIT|EXIT|EXIT** to return to the previous page display.

Transfer Custom Maps and GPS Data Files
Custom Maps:
Custom maps work only from the MMC card or SD card. When a card containing a Custom Map File is loaded into the unit, it automatically loads the map into memory when the unit is turned on.

Instructions for copying Custom Map Files to an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software. For instructions on inserting an MMC into the iFINDER, *see Sec. 2, Installation/Accessories*.

GPS Data files:
GPS Data Files contain waypoints, routes, trails and event marker icons. Instructions for copying GPS Data Files between your computer and an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software.

GPS data automatically recorded in the unit's internal memory must be saved to the MMC (as a GPS Data File) in order to store it on your personal computer. GPS Data Files stored on an MMC must be copied from the card to the iFINDER's internal memory before the unit can read them. Here's how:

1. Insert the MMC into your unit. Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **TRANSFER MY DATA|ENT**.

2. The Transfer My Data menu includes a message which tells you if an MMC is present or not. If no MMC is present, you must first insert a card into the iFINDER in order to activate the Load or Save commands.

> To transfer data *from* **the iFINDER** *to* **the MMC**: press **ENT** (for **SAVE**.)

> To transfer data *from* **the MMC** *to* **the iFINDER**: press **→** to **LOAD|ENT**.

3. **Saving to MMC**: To accept the default name "Data" for the GPS Data File, press ↓ to **SAVE DATA|ENT**. If you wish to rename the file, press **ENT** to activate the selection box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Then, press **ENT|↓** to **SAVE DATA|ENT**.

The unit will display first a progress then a completion message when the data transfer is finished. To return to the Page view, repeatedly press **EXIT**.

4. **Loading to unit memory**: There may be more than one GPS Data File (*.USR) on the card. To select a file, press **ENT** to activate the selection box, use ↓ or ↑ to highlight the file, then press **ENT** to accept the selection. Next, press ↓ to **LOAD** | **ENT**. The unit will display a completion message when the data transfer is finished. To return to the Page view, press **EXIT** | **EXIT** | **EXIT** | **EXIT**.

Utilities
Utilities are useful tools for traveling or for outdoor activities.

Alarm Clock
To get to the alarm clock menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **ALARM CLOCK** | **ENT**.

Sun/Moon Rise & Set Calculator
To get to the Sun/Moon menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | **ENT**.

Trip Calculator
To get to the Calculator menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **TRIP CALCULATOR** | **ENT**.

Trip Down Timer
To get to the Down Timer menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **DOWN TIMER** | **ENT**.

Trip Up Timer
To get to the Up Timer menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **UP TIMER** | **ENT**.

Waypoints
A waypoint is simply an electronic "address," based on the latitude and longitude of a position on the earth. A waypoint represents a location, spot, or destination that can be stored in memory, then be recalled and used later on for navigation purposes. Simply think of it as an electronic address. You can create a waypoint at the cursor position on the map, or at your current position while you are navigating.

Create a Waypoint
These techniques use the Quick Save method, the fastest and easiest way to create a waypoint.

Create Waypoint on Map
1. Use the arrow keys to move the cursor to the place where you want to make a waypoint.

2. Press **ENT|ENT**. The waypoint is saved and automatically given a name with a sequential number, such as "waypoint 001." The waypoint symbol and number appear on the map.

Create Waypoint at Current Position
1. While you are traveling, press **ENT|ENT**. The waypoint is saved and automatically given a name with a sequential number, such as "waypoint 002." The waypoint symbol and number appear on the map.

Create a Man Overboard Waypoint
This unit has a man overboard feature that shows navigation data to the location where the feature was activated. To activate it, press the **ZOUT** and **ZIN** keys at the same time. Your position at the time these keys are pressed is used as the man overboard position. The unit automatically begins navigating to the MOB waypoint. For further details, read the discussion of the Man Overboard feature under the heading "Navigation" earlier in this section.

Create a Waypoint by Average Position
This feature sets a waypoint at the current position after taking several position readings and averaging them. This boosts waypoint position accuracy by helping to eliminate errors caused by atmospheric conditions and other factors.

1. Press **ENT|↓** to **AVERAGE POSITION|ENT|**(cursor jumps to highlight **CREATE**)**|ENT**.

2. Wait while the unit takes points to average for the position. (The greater the number of points, the greater the accuracy.) When the desired number of points accumulates, press **ENT** to create and save the waypoint.

3. The Edit Waypoint menu appears. You can simply save the waypoint by pressing **EXIT|EXIT** or you can edit the waypoint.

Create a Waypoint by Projecting a Position
This feature sets a waypoint at a point located a specific distance and bearing from a reference position. The reference position can be selected from your waypoint list, a map feature or from the Points of Interest list.

1. Press **ENT|↓** to **PROJECTED POSITION|ENT|**(cursor jumps to highlight **CREATE**)**|ENT**.

2. Press **↓** to **SET REFERENCE|ENT**. Use **↑** and **↓** to select a waypoint, map feature or Point of Interest. When the point has been selected, press **ENT** and the point's position appears as the reference position.

3. Press ↑ to **DISTANCE**|**ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the distance is correct. Press **ENT**.

4. Press ↑ to **BEARING**|**ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the bearing is correct. Press **ENT**.

5. Press ↓ to **PROJECT**|**ENT**. The Edit Waypoint menu appears. You can simply save the new projected waypoint by pressing **EXIT**|**EXIT** or you can edit the waypoint. (Press **EXIT**|**ENT** if you want to immediately begin navigating to the new waypoint.)

Select a Waypoint
To select a waypoint on the map (for navigating to, for editing, etc.,) use the arrow keys and center the cursor over the waypoint. A highlighted halo will appear around the waypoint.

Delete a Waypoint
To delete a waypoint: press **FIND**|**ENT**|↓ to **NAME**|**ENT**|**ENT**|↓ to *waypoint name*|**ENT**|→ to **DELETE**|**ENT**|← to **YES**|**ENT**. To return to the previous page, press **EXIT**|**EXIT**.

Edit a Waypoint
Waypoint Name
To edit waypoint name: press **FIND**|**ENT**|↓ to **NAME**|**ENT**|**ENT**|↓ to *waypoint name*|**ENT**|→ to **DELETE**|**ENT**|← to **YES**|**ENT**. To return to the previous page, press **EXIT**|**EXIT**.

Waypoint Symbol
To edit waypoint symbol: 1. Press **FIND**|**ENT**|↓ to **NAME**|**ENT**|**ENT**|↓ to *waypoint name*|**ENT**|→ to **EDIT SYMBOL**|**ENT**. 2. Use arrow keys to select desired symbol and press **ENT**. To return to the previous page, press **EXIT**|**EXIT**|**EXIT**.

Waypoint Position
To edit waypoint position: 1. Press **FIND**|**ENT**|↓ to **NAME**|**ENT**|**ENT**|↓ to *waypoint name*|**ENT**|→ to **EDIT POSITION**|**ENT**.

2. Latitude: press **ENT**, then press ↑ or ↓ to change the first character, then press → to the next character and repeat until the latitude is correct. Press **EXIT**.

3. Longitude: press ↓|**ENT**, then press ↑ or ↓ to change the first character, then press → to the next character and repeat until the latitude is correct. Press **EXIT**.

4. When latitude and longitude are correct, return to the previous page: press **EXIT|EXIT|EXIT|EXIT**.

Waypoint Altitude
To edit waypoint altitude: 1. Press **FIND|ENT|↓** to **NAME|ENT|ENT|↓** to *waypoint name*|**ENT|→** to **EDIT ALTITUDE|ENT**.

2. Press **ENT**, then press ↑ or ↓ to change the first character, then press → to the next character and repeat until the altitude is correct. Press **EXIT**.

3. To return to the previous page: press **EXIT|EXIT|EXIT**.

Notes

Section 5:
System & GPS Setup Options

Alarms

This unit has several GPS alarms. The factory default setting has all the alarms turned on. You can turn the alarms off and on and change their distance settings.

You can set an arrival alarm to flash a warning message and sound a tone when you cross a preset distance from a waypoint. For example, if you have the arrival alarm set to 0.1 mile, then the alarm will flash a message when you come within 0.1 mile of the recalled waypoint.

The off course alarm warns you when your track drifts too far to the right or left of the course line to the waypoint. For example, if the alarm is set to 0.1 mile, then the alarm flashes a message if you drift 0.1 mile or more to the right or left of the line to the waypoint.

The anchor alarm is triggered when you drift outside of a preset radius. Again, using the 0.1 mile as an example, if you're anchored and your boat moves more than 0.1 mile, the alarm will flash a message and sound a tone.
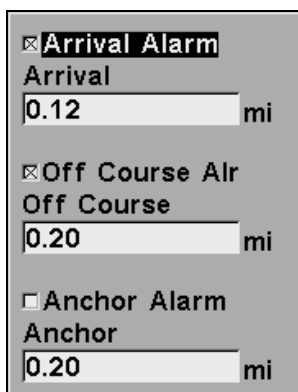
The iFINDER Alarm menu.

To change alarm settings:

1. Press **MENU|MENU|↓** to **ALARMS|ENT**.

2. Scroll ↓ or ↑ to select the desired category, then press **ENT** to check or clear the enabled box. This turns the alarm on (checked) or off (unchecked).

3. To change distance settings, scroll ↑ or ↓ to select the desired category, then press **ENT** to activate the distance dialog box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the distance is correct.

4. When your adjustments are finished, return to the last page displayed by repeatedly pressing **EXIT**.

IMPORTANT ALARM NOTES:

Anchor Alarm – The anchor alarm may be triggered even when you're sitting still. This typically happens when using small (less than 0.05 mile) anchor alarm ranges.

Arrival Alarm – If you set the arrival alarm's distance to a small number and you run a route (see the Navigate Routes segment), this unit may not show navigation data to the next waypoint, once you arrive at the first one, since you may not be able to come close enough to the first waypoint to trip the arrival alarm.

Auto Satellite Search

To lock onto the satellites, the GPS receiver needs to know its current position, UTC time and date. (Elevation (altitude) is also used in the equation, but it's rarely required to determine a position.) It needs this data so that it can calculate which satellites should be in view. It then searches for only those satellites.

When your GPS receiver is turned on for the first time, it doesn't know what your position or elevation (altitude) is. The unit begins searching for the satellites using data that it acquired the last time it was turned on. This was probably at the factory. Since it's almost certain that you're not at our factory, it's probably looking for the wrong satellites.

If it doesn't find the satellites it's looking for after a short time, it switches to Auto Search. The receiver looks for any satellite in the sky. Due to advanced technology, the auto search time has shrunk significantly from the early days of GPS.

Once the unit locks onto the satellites, it should take less than a minute to find your position the next time it's turned on, provided you haven't moved more than approximately 100 miles from the last location it was used.

You can force the unit to immediately kick into auto search mode. While in Map Mode , press **MENU|MENU|↓** to **GPS SETUP|ENT|↓** to **GPS AUTO SEARCH|ENT** then ← to **YES|ENT**.

Check MMC Files and Storage Space

To check MMC Files:
1. Press **MENU|MENU|↓** to **MMC FILES|ENT**.
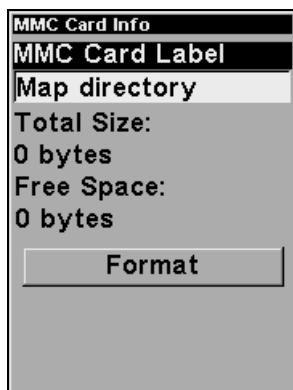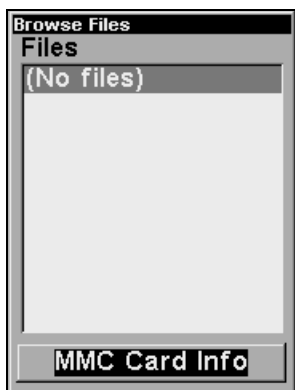
At left, the MMC File Browser, with Card Info screen shown at right.

Com Port Configuration

iFINDER has one NMEA 0183 version 2.0 compatible communication port, or com port for short. The Com Port Menu, which is accessed from the System Setup Menu, allows you to configure the communications port to send data to another electronic device, such as an autopilot.
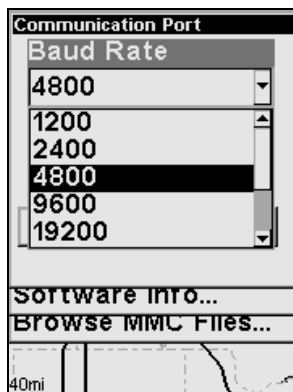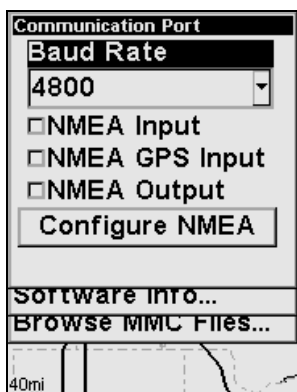
**Menus for changing Com Port settings.**

For connectors and wiring information for another device, consult the factory; phone numbers are in the back of this manual. To set Com Port Configuration:

1. Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT**.

2. Press **↓** to **COM PORT|ENT**.

Configure NMEA

You can configure the unit to use specific NMEA sentences.

1. Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT**.

2. Press **↓** to **COM PORT|ENT|↓** to **CONFIGURE NMEA|ENT**.

3. A menu appears showing the prefixes of the available NMEA sentences. A check mark next to a prefix means the prefix is in use. Use ↑ ↓ → ← to select a prefix, then press **ENT** to turn off the prefix. (Press **ENT** again to check the box and turn a prefix on.)
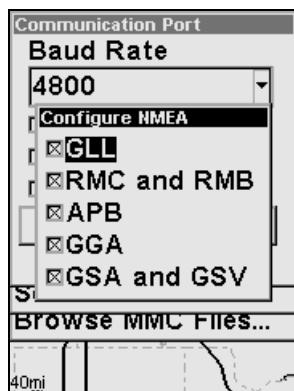
Configure NMEA menu, showing all prefixes turned on (checked).

NOTE:

The names of the NMEA sentences are abbreviated in this menu. These are the functions of the various selectable prefixes:

- GLL transmits latitude and longitude of present position, time of position fix, and status.

- RMC and RMB transmits navigation information messages.

- APB transmits autopilot information.

- GGA transmits time, position, and fix related data.

- GSA and GSV transmits fix mode, DOP values, and satellites in view information.

4. When the desired prefixes are checked or unchecked, press **EXIT|EXIT|EXIT|EXIT** to return to the previous page.

Coordinate System Selection

The Coordinate System Menu lets you select the coordinate system to use when displaying and entering position coordinates.
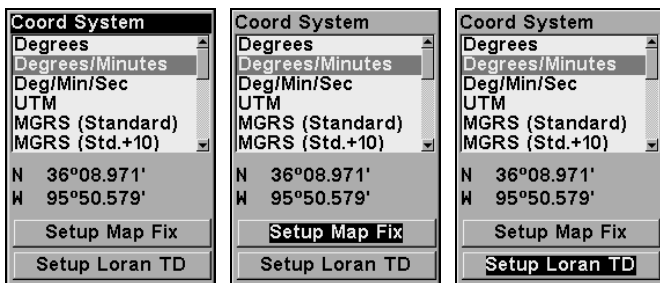
Menus for changing coordinate system used to display positions.

To get to Coordinate System Selection:
1. Press **MENU|MENU|↓** to **GPS SETUP|↓** to **COORDINATE SYSTEM|ENT**.

2. Press **↓** to **COORD SYSTEM|ENT**.

This unit can show a position in degrees (36.14952°); degrees, minutes and thousandths of a minute (36° 28.700'); or degrees, minutes, seconds and tenths of a second (36° 28' 40.9"). It can also show position in: UTM (Universal Transverse Mercator) projection; MGRS (Standard); MGRS (Standard + 10); Map Fix; Loran TD; British, Irish, Finnish, German, New Zealand, Swedish, Swiss, Taiwan, Greek and Military grids.

UTM's are marked on USGS topographic charts. This system divides the Earth into 60 zones, each 6 degrees wide in longitude.

British, Irish, Finnish, German, New Zealand, Swedish, Swiss, Taiwan, and Greek grid systems are the national coordinate system used only in their respective countries. In order to use these grid systems, you must be in the respective country. This unit will pick the matching datum for you when you select the grid. See the entry on Map Datum Selection for more information.

The military grid reference system (MGRS) uses two grid lettering schemes, which are referred to as standard and alternate MGRS on this unit. Your position and datum in use determines which one to use. If you use standard, and your position is off significantly, then try the alternate.

NOTE: When the position format is changed, it affects the way all positions are shown on all screens. This includes waypoints.

To select a coordinate system:
To change the coordinate system, press **ENT** while **COORDINATE SYSTEM** is highlighted. Press the ↑ or ↓ arrow keys to highlight the desired format. Press **ENT** to select it. Press **EXIT** to erase the menus.

NOTE:

> If the Loran TD conversion is chosen, you must enter the local Loran chain identification for the master and slaves. Do this by selecting "Setup Loran TD" at the bottom of the "Coordinate System" menu and select the ID. Press **EXIT** to erase this menu.
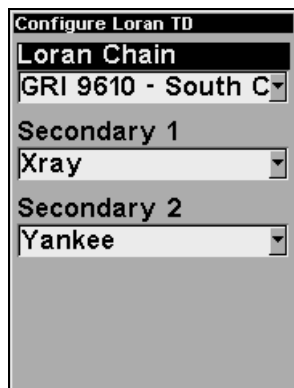
Configure Loran TD menu.

Map Fix

Map Fix is used with charts or maps. This system asks for a reference position in latitude/longitude, which you take from a marked location on the map. It then shows the present position as distance on the map from that reference point.

For example, if it shows a distance of UP 4.00" and LEFT 0.50", you then measure up four inches and to the left a half-inch from the reference point on the map to find your location.

To configure a map fix:

To use this format, you need to follow these steps in order. First, take your map of the area and determine a reference latitude/longitude. (Note: in order for this system to work, the latitude/longitude lines must be parallel with the edge of the map. USGS maps are parallel, others may not be. Also, this works better with smaller scale maps.) The reference position can be anywhere on the map, but the closer it is to your location, the smaller the numbers will be that you'll have to deal with.

Once you've decided on a reference position, you can save it as a waypoint. See the waypoint section for information on saving a waypoint. Save the reference position as a waypoint. Exit from the waypoint screens.

Now press **MENU|MENU|↓** to **GPS SETUP|ENT|↓** to **COORDINATE SYSTEM|ENT|↓** to **SETUP MAP FIX|ENT**. The following screens appear, and **MAP SCALE** is highlighted. Press **ENT** and enter the map's scale. This is generally at the bottom of the paper map. It's shown as a ratio, for example 1:24000. Press **EXIT** and the unit returns to the Configure Map Fix screen.

Configure Map Fix	Configure Map Fix
Map Scale	Map Scale
1: 0	1: 24000
Select Origin	**Select Origin**
Origin	Origin
N 0°00.000'	N 0°00.000'
W 0°00.000'	W 0°00.000'

Configure a map fix so iFINDER can find your position on a printed chart or topographical map.

Press **↓** to **SELECT ORIGIN|ENT|ENT** (**MY WAYPOINTS**) if you saved the reference point as a waypoint. Select the waypoint name that you assigned to the reference point and press **ENT**. The unit displays a waypoint information screen with the command **SET AS ORIGIN** selected; press **ENT** and the unit returns to the Configure Map Fix menu. Finally, press **EXIT** to erase this menu. Now press **↑** to **COORD SYSTEM|ENT**, select **MAP FIX** from the list and press **ENT**. All position information now shows as a distance from the reference point you chose.

Customize Page Displays

The Navigation and Map pages both have customizable options. These options control which information is displayed on each page. Any information added to a page's customized display will appear in data boxes at the bottom of the screen.

To add new data to a page display, press **MENU|↓** to **CUSTOMIZE|ENT**. A list of all of the available information will appear. Press **↓** or **↑** to select a display option. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After all options are set, press **EXIT** to return to the page display.

Enable Sleep Mode

In order to predict weather trends, the iFINDER takes barometric pressure readings whenever it is on. Of course, when the iFINDER has more

information to work with, it can provide better predictions. In order to help with this, we've designed the iFINDER with a Sleep Mode that allows it to conserve battery life, while occasionally waking up just enough to take a pressure reading. This allows the unit to continue to build an accurate pressure history even when you're not actively using it.

There are two ways to enable Sleep Mode. If you're viewing the Digital Data display, simply press **MENU** and select **ENABLE SLEEP MODE**, then press **ENT**.

If you're viewing one of the other displays, press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **ENABLE SLEEP MODE|ENT**.

A dialog will ask you to confirm your choice. Choose **YES**, and the iFINDER will appear to turn off.

When the iFINDER is in Sleep Mode, you can return to normal operation by pressing **PWR**. You can also use the Instant-On Compass feature to briefly display the compass reading, without reactivating the entire unit.

GPS Simulator

The GPS simulator lets you use the unit as if you were outdoors navigating somewhere. You can set the starting location in latitude/longitude (Starting Position) or from a stored waypoint, map place or POI location (Select Starting Waypoint). You can steer your position on the map by using the arrow keys (**STEER W/ ARROWS**) or by setting the track and speed in the boxes provided on simulator screen.

To get to the GPS Simulator:
1. Press **MENU|MENU|↓** to **GPS SETUP|ENT**.

2. Press **↓** to **GPS SIMULATOR|ENT**.
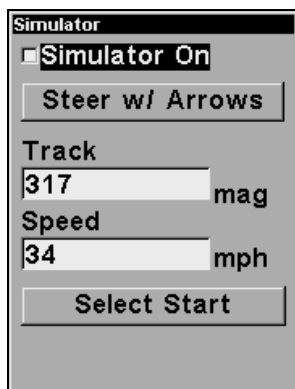
The GPS Simulator Menu.

Make the desired settings, then turn the simulator on by highlighting the **SIMULATOR ON** box and pressing **ENT** key. Press **EXIT** to erase this menu. A message appears periodically, reminding you that the simulator is on. To turn the simulator off, repeat the above steps or turn the unit off.

While in simulator mode, you can press **EXIT** to clear the steering and speed boxes from the screen while continuing the simulation. This will allow you to use the map cursor during a simulation. To turn steering and speed boxes back on again, return to the GPS Simulator menu, select the **STEER WITH ARROWS** command, and press **ENT**, then press **EXIT | EXIT | EXIT** to return to the previous page.

Simulating Trail or Route Navigation
In Simulator mode, your unit can automatically follow a trail or route without manual steering if you use these steps:

1. From the Map Page, go to the simulator menu. Pick a **STARTING POSITION** at or near the beginning of your trail/route. Enter an approximate **TRACK** (shown in compass degrees) that will point you toward the start of the trail/route.

2. Set **SPEED** to zero. Select **STEER WITH ARROWS** command and press **ENT**, which turns on the simulator and returns you to the Map Page.

3. Begin navigating along the trail/route. (If you are close enough to the first waypoint, the arrival alarm will usually go off as soon as navigation begins. Press **EXIT** to clear the alarm.) When navigation starts, press ↑ (since you're using the Simulator's **STEER WITH ARROWS** command) to increase speed to the desired setting.

4. Press **EXIT** to turn off the steering and speed boxes. The unit will now automatically "steer" along the trail or route. When you arrive at your "destination," cancel navigation as you normally do.

Instant-On Compass
When the iFINDER is in Sleep Mode, you can still quickly check your compass bearing by pressing and holding the **MAP** key. This activates the screen and shows the current Compass display, including your current heading and any information you are displaying in the customizable data boxes. As soon as you release the **MAP** key the iFINDER will return to **SLEEP MODE**.

Map Auto Zoom
This receiver has an auto zoom feature that eliminates much of the button pushing that other brands of GPS receivers force you to make. It works in conjunction with the navigation features.

First, start navigation to a waypoint. (See the waypoint section for more information on navigating to a waypoint.) Then, with the auto zoom mode on, the unit zooms out until the entire course shows, from the present position to the destination waypoint. As you travel toward the destination, the unit automatically begins zooming in — one zoom range at a time — always keeping the destination on the screen.

To turn this feature on, from the **MAP PAGE**, press **MENU|↓** to **AUTO ZOOM|ENT**. Repeat these steps to turn it off.

Map Data

This menu lets you turn the map off, if desired (which turns the map screen into a GPS plotter); turn off or on the pop-up map info boxes; draw the map boundaries or boxes around the areas of detail; or fill land areas with gray. You can also turn on or off Map Overlays, which display latitude and longitude grid lines or range rings on the map. This menu lets you select Navionics Maps; for instructions, see the *Navionics Charts* entry in this section.

To get to Map Data:
1. From the Map Page, press **MENU|↓** to **MAP DATA|ENT**.

Map Data Menu.

Show Map Data
Press **MENU|↓** to **MAP DATA|ENT**. Press **ENT** to enter the **EARTH MAP DETAIL** selection list, and choose how much detail you want, from Off (so the unit operates like a GPS plotter) to High. After the option is set, press **EXIT** to return to the page display.

Popup Map Information
Press **MENU|↓** to **MAP DATA|ENT**. Press **↓** to **POPUP INFORMATION**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT** to return to the page display.

Draw Boundaries

Press **MENU|↓** to **MAP DATA|ENT**. Press **↓** to **DRAW BOUNDARIES**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT** to return to the page display.

Fill Land With Gray

Press **MENU|↓** to **MAP DATA|ENT**. Press **↓** to **FILL LAND WITH GRAY**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT** to return to the page display.

Map Overlays (Range Rings; Lat/Long Grid)

The map screen can be customized with four range rings and/or grids that divide the plotter into equal segments of latitude and longitude.

Range rings are handy for visually estimating distances on the map. The ring diameters are based on the current zoom range. For example: at the 100 mile zoom, the screen will show two rings with your current position in the center. The large ring touching the left and right sides of the screen is 100 miles in diameter (same as the zoom range). The second smaller ring is 50 miles in diameter (always 1/2 the zoom range).

The distance from your current position to the smaller ring (the ring's radius) is 25 miles (always 1/4 the zoom range). With the arrow keys and map cursor, you can scroll the map to see the third and fourth rings. In this example, the distance to the third ring is 75 miles and distance to the fourth ring is 100 miles from your current position.

To set range rings: Press **MENU|↓** to **MAP DATA|ENT**. Press **↓** to **RANGE RINGS**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT** to return to the page display.

To set Lat/Lon Grid: Press **MENU|↓** to **MAP DATA|ENT**. Press **↓** to **LAT/LON GRID**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT** to return to the page display.

Map Datum Selection

Maps and charts are based on a survey of the area that's covered by the map or chart. These surveys are called "Datums." Maps that are created using different datums will show the same latitude/longitude in slightly different locations.

All datums are named. The GPS system is based on the WGS-84 datum, which covers the entire world. Other datums may also cover the

entire world, or just a small portion of it. By default, your position shows using the WGS-84 datum. However, it can show your position using one of 191 different datums.

To change the datum:

1. Press **MENU|MENU|↓** to **GPS SETUP|ENT|↓** to **DATUM SELECTION|ENT**.

2. Scroll **↓** or **↑** to select the desired datum, then press **ENT**.

3. To return to the last page displayed, press **EXIT|EXIT**.

A list of the datums used by this unit is in the back of this manual.

Map Datum Selection Menu.

Map Detail Category Selection

This menu determines which of the mapping features are shown on the screen. This includes, waypoints, trails, icons, cities, highways, etc. You can selectively turn on or off any of these items, customizing the map to your needs.

To get to Map Categories:
1. Press **MENU|↓** to **MAP CATEGORIES|ENT**.

2. Press **↑** or **↓** to select a category or subcategory. Press **ENT** to turn it off (no check) or on (checked).

3. To return to the last page displayed, press **EXIT|EXIT**.

Map Categories Menu.

Map Orientation

By default, this receiver shows the map with north always at the top of the screen. This is the way most maps and charts are printed on paper. However, you can change the map orientation to Track Up or Course Up if desired.

In Track Up mode, map shows "N" and arrow to indicate north.
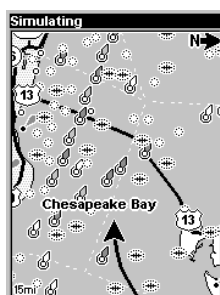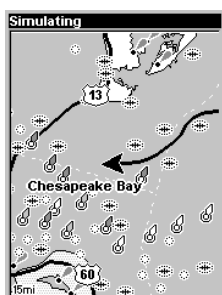
Map orientation at left is shown in north up and at right, track up.

The default North Up setting is fine if you're always traveling due north. What you see to your left corresponds to the left side of the map, what you see to your right is shown on the right side of the map, and so on. However, if you travel any other direction, the map doesn't line up with your view of the world.

To correct this problem, a track-up mode rotates the map as you turn. Thus, what you see on the left side of the screen should always be to your left, and so on.

Another option is course-up mode, which keeps the map at the same orientation as the initial bearing to the waypoint. When either the track-up or course-up mode is on, an "N" shows on the map screen to help you see which direction is north.

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Which option you use is a matter of personal taste; we sometimes switch back and forth depending on the circumstances. For example, when we are in an area we know fairly well, we usually run the unit in default North Up. But, we'll sometimes switch to Track Up when we're in an unfamiliar area and want to instantly coordinate what we see out the window with what we see on the screen. Try all three modes to find what works best for you.

To change map orientation: from the Map Page, press **MENU|↓** to **MAP ORIENTATION|ENT**. Press **↑** or **↓** to select an orientation option, then press **ENT**. Press **EXIT|EXIT** to return to the page display.

Navionics® Charts

Your unit can display Navionics® electronic charts on MMCs. Both the GOLD™ and CLASSIC™ format charts are accepted. They work just like a MapCreate custom map on an MMC.
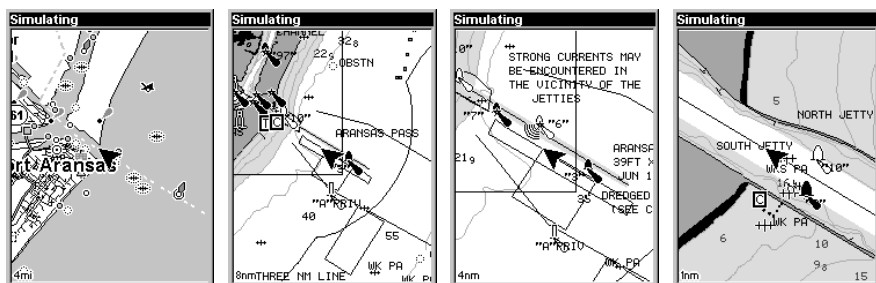
Left, entrance to Aransas Pass in a MapCreate 6 custom map, 4 mile zoom. Remaining images, from left to right: same position on Navionics GOLD™ chart at 8 mile, 4 mile and 1 mile zoom ranges.

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

To display a Navionics chart:

1. Install the Navionics MMC in the memory card compartment and turn on the unit. (For full card install instructions, see Sec. 2.)

2. From the Map Page, press **MENU|↓** to **MAP DATA|ENT|↓** to **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 West Gulf of Mexico area.

3. To turn off a Navionics chart, From the Map Page, press **MENU**|↓ to **MAP DATA**|**ENT**|↓ to **MAP CHOICE**|**ENT**. Use ↑ or ↓ to select **LOWRANCE**, then press **ENT**|**EXIT**|**EXIT**.

Port Information

Navionics charts contain Port Services information, represented by anchor icons on the map display. These icons appear at the 2 nautical mile zoom range. An example is displayed in the following figures.

To view Port Services information:

1. Use the arrow keys to move the cursor over a Port Services icon. When selected, a pop-up name box appears.

2. Press **FIND**|**FIND** to display the Port Services Information screen.
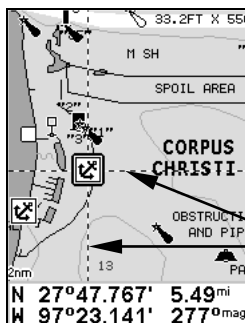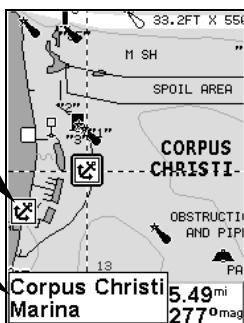
Navionics chart showing Port Services icon selected by cursor. When first highlighted, the Pop-Up name box appears. After a few seconds, the name box disappears, and the position, distance and bearing are displayed at the bottom of the screen.

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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.

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**.
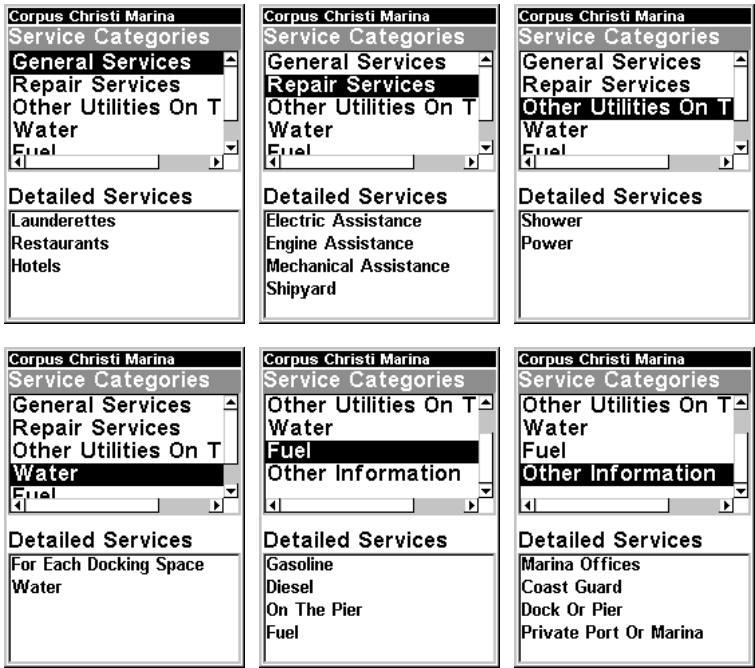
Port Services information screens.

4. Depending on the location, the Detailed Services window may have a long list of services under the General Services category. To scroll through the Detailed Services window: from **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|↑**.

Tidal Current Information

Navionics charts contain Tidal Current information, represented at large zoom ranges by a box icon with the letter "C." The icon stands for a Tidal Current Station location. An example is displayed at right.

When you zoom in to a sufficiently small zoom range (1/2 nautical mile), the icon itself becomes an animated arrow showing tidal current velocity and direction *for the selected tidal station* at the present time. At larger zoom ranges, you can select the boxed "C" icon and it becomes an animated arrow with a pop-up name box (the name box disappears after a few seconds). Examples are displayed in the following figures.

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.

2. Press **FIND|FIND** to display the Tidal Current Information screen.
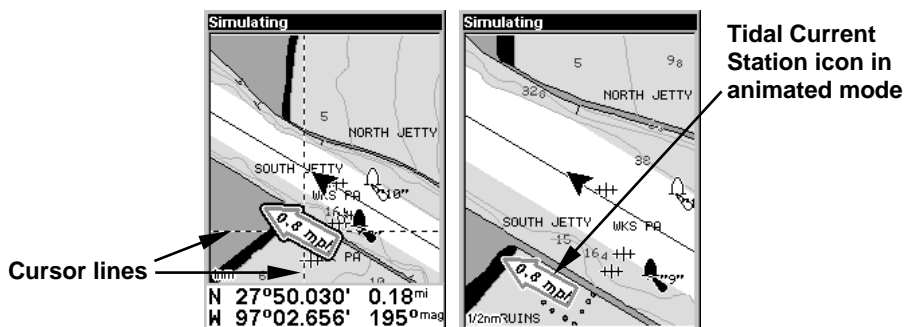
Left, Navionics chart showing Tidal Current Station icon selected by cursor. Right, the icon animates automatically without selecting it at the 1/2 mile zoom range. The tidal current is flowing toward the northwest at a velocity of 0.8 mph.
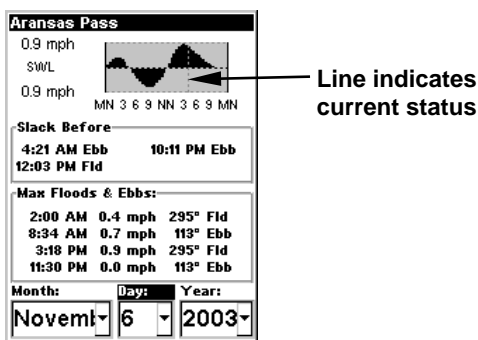
Current Information screen.

The Tidal Current Information screen displays daily tidal current data for this station on this date at the present time. The graph at the top of the screen is an approximate view of the flood and ebb pattern for the day, from midnight (MN), to noon (NN) to midnight (MN). The velocity scale at the top 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 Tidal Information, represented at large zoom ranges by a box icon with the letter "T." The icon stands for a Tidal Station location. An example is displayed at right.

When you zoom in to a sufficiently small zoom range (1/2 nautical mile), the icon itself becomes an animated gauge showing a rising or falling tidal height *for the selected station* at the present time. At larger zoom ranges, you can select the boxed "T" icon and it becomes an animated gauge with a pop-up name box. Examples are displayed in the following figures.

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 **FIND|FIND** to display the Tide Information screen.
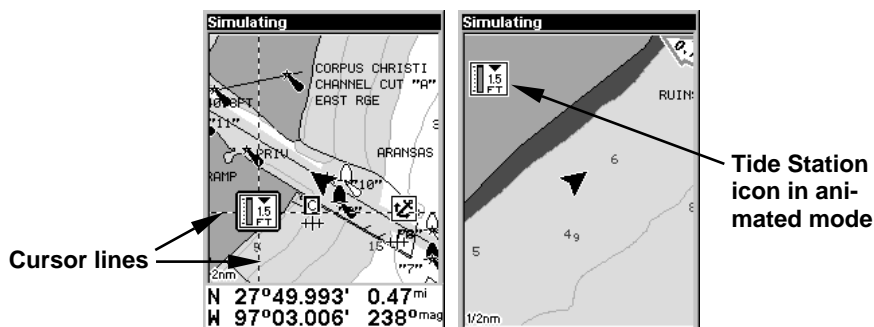
At left, Navionics chart showing Tide Station icon selected by cursor. Right, icon animates automatically without selection at the 1/2 mile zoom range. In the example above, the tide is at 1.5 feet and falling, as shown by the down arrow at the top of the icon.
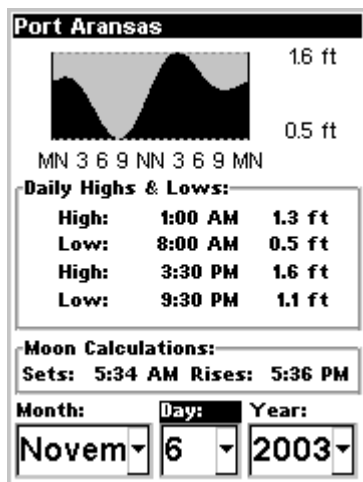
Tide Information screen.

The Tide Information screen displays daily tidal data for this station on this date at the present time. 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 top 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 → 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**.

Pop-up Help

Help is available for virtually all of the menu labels on this unit. By highlighting a menu item and leaving it highlighted for a few seconds, a "pop-up" message appears that describes the function of the menu item. This feature is on by default.

To set up Popup Help: Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **POPUP HELP**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.) After the option is set, press **EXIT|EXIT** to return to the page display.

This example shows the Pop-up Help message for the Screen command, located on the Main Menu.

Power Saving

iFINDER contains a battery capacity indicator, and will also flash low battery warning messages when battery power declines to a certain level. When plugged into the DC cigarette lighter adapter, the power indicator displays the "External Power" message. This message sometimes appears for a few minutes when using fresh batteries.

The battery capacity shown in the Power box on the Music Mode display.

The power save feature conserves battery power by changing the position update rate. We recommend you test the power save feature in known surroundings and determine its capabilities before venturing into unknown territory. Experiment with modest settings, such as 1 second update (300 ms) or 1 second update (200 ms) and see if accuracy is adequate for you.

WARNING:

Full power settings will always give you the best, most accurate performance with iFINDER. Power save functions can extend battery life, but aggressive power saving settings can reduce GPS accuracy, particularly in demanding situations when signal availability is less than ideal. It is up to you to decide if position accuracy or battery consumption is the most important consideration for a particular navigation situation.

In potentially risky navigation situations, we suggest you consider the standard operating procedure of professional cave explorers, who never enter an undeveloped cave with fewer than *three* sources of light (a main light and *two* backups.) Even if you do carry a couple of spare sets

of batteries, remember: *a prudent navigator never depends on only one source of navigation information.* A good map and compass are important companions for you and your iFINDER.

To access the Power saving feature:
1. Press **MENU|MENU|↓** to **GPS SETUP|ENT|↓** to **POWER SAVING|ENT**.

2. Press → or ← to move the slider bar. The left end of the scale is minimum power saving (full battery power); the right end of the scale is maximum power saving (minimum battery power.)

3. To return to the last page displayed, press **EXIT|EXIT**.
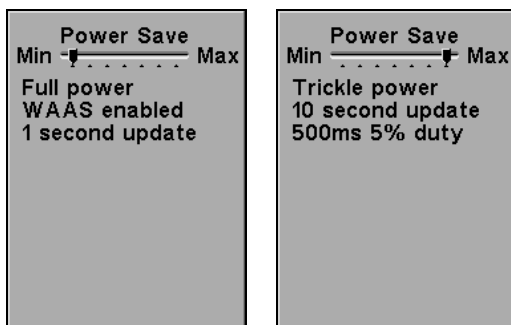
The Power Save menu at Min Power save (shown left center) and Max Power Save (shown right).

For even greater power efficiency you can stop receiving GPS signals entirely by activating the Use Indoors command. Use Indoors is described later in this section.

Reset Options
To reset all features to their factory defaults:

Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **RESET OPTIONS|ENT|←** to **YES|ENT**.
NOTE:
    Reset Options does *not* erase any waypoints, routes, icons or plot trails.

Screen Contrast and Brightness
To access the Screen Menu, press **MENU|MENU|ENT**. Once in the Screen Menu, you can adjust the various levels using the following instructions.

To adjust the display's contrast:
1. The **CONTRAST** slider bar is already selected. Press → or ← to move the bar. The left end of the scale is minimum contrast; the right end is maximum contrast.

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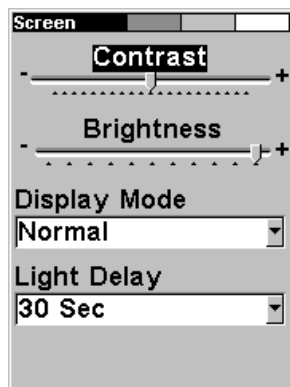
Screen Menu, with Contrast bar selected.

To adjust the display's brightness:
Press ↓ to **BRIGHTNESS**. Press → or ← to move the bar. The left end of the scale is minimum contrast; the right end is maximum contrast.

To adjust the screen's display mode:
Press ↓ to **DISPLAY MODE**|**ENT** then press ↑ or ↓ to select *mode*|**EXIT**.
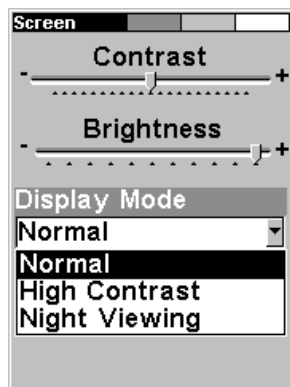
Display Mode menu.

To adjust the display's back light delay options:
1. Press ↓ to **LIGHT DELAY**|**ENT**|press ↑ or ↓ to select *mode*|**EXIT**.

2. To leave screen settings and return to the last page displayed, press **EXIT**|**EXIT**.
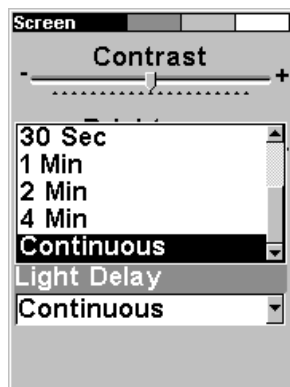
Light Delay menu. Setting shown is "continuous," which is ideal for night travel in a vehicle on external power.

Satellite Status Screen

This command provides detailed information on the status of the iFINDER's satellite lock-on and position acquisition. On any Map Mode display a flashing current position indicator/question mark symbol and flashing GPS data displays indicate that satellite lock has been lost and there is no position confirmed. This command shows you the quality and accuracy of the current satellite lock-on and position calculation.

WARNING:
> Do not begin navigating with this unit until the numbers have stopped flashing!

To get to the Satellite Status screen: press **MENU**|**MENU**|↓ to **GPS SETUP**|**ENT**|↓ to **SATELLITES**|**ENT**.

The Satellite Status screen.

Set Language

This unit's menus are available in 10 languages: English, French, German, Spanish, Italian, Danish, Swedish, Russian, Dutch and Finnish. To select a different language:

1. Press **MENU|MENU|↓** to **SYSTEM SETUP|ENT**.

2. Press **↓** to **SET LANGUAGE…|ENT**.

3. Use **↓** or **↑** to select a different language and press **ENT**. All menus now appear in the language you selected.

Set Local Time

The local time and date are saved when a waypoint is created. To access the **SET LOCAL TIME** command, press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|↓** to **SET LOCAL TIME|ENT**.

The Time Settings menu.

Once in the Time Setting Menu, you can adjust the various levels using the following instructions.

To set Local Time: Press **ENT**. Press **↑** or **↓** to change the first character, then press **→** to move the cursor to the next character. Repeat until the time is correct, then press **ENT**.

To set the Month: Press **↓** to **MONTH|ENT**. Press **↑** or **↓** to select the month, then press **ENT**.

To set the Day: Press **↓** to **DAY|ENT**. Press **↑** or **↓** to select the day, then press **ENT**.

To set the Year: Press **↓** to **YEAR|ENT**. Press **↑** or **↓** to select the year, then press **ENT**.

Adjusting the time, left, Adjusting the month, right.

The last field in this menu is **CONFIG DST**. This feature allows your unit to automatically adjust with the time change caused by Daylight Saving Time (you should only have to set it once). You may select which set of rules matches DST in your region, or simply accept the default.

Once you have each field set the way you want, press **EXIT** repeatedly until you return to the previous page.

Software Version Information

From time to time, Lowrance updates the operating system software in some of its products. These software upgrades are usually offered to customers as free downloads from our web site, www.lowrance.com. These upgrades make the unit perform better or introduce a new feature or function. You can find out what software version is running in your iFINDER by using the Software Info command.
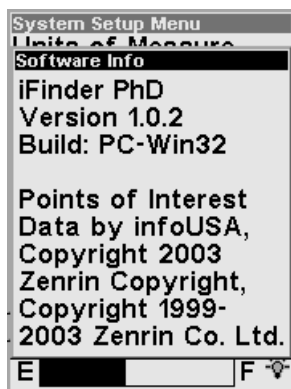
The Software Info screen.

1. Press **MENU|MENU|↓** to Sᴏᴏᴜᴍ Sᴇᴛᴜᴘ|**ENT|↓** to Sᴏꜰᴛᴡᴀʀᴇ Iɴꜰᴏ|**ENT**.

2. Read the information displayed on the screen.

3. To return to the previous display, press **EXIT|EXIT**.

Sounds and Alarm Sound Styles

Sounds triggered by key strokes and alarms can be adjusted. The unit has an internal speaker (controlled using the Pizeo Volume slider) for playing alarms and notification beeps, and is also capable of playing sounds through an external speaker connected to the power port (controlled using the LineOut Volume slider).

To make adjustments to either of these speakers, you first press **MENU|MENU|↓** to Sᴏᴜɴᴅs|**ENT**.
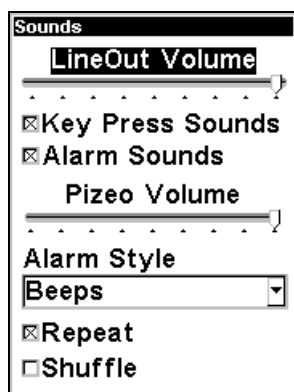
The Sounds Menu with LineOut Volume selected.

Once in the Sounds menu:
To adjust LineOut or Pizeo Volume: Press ↑ or ↓ to select the speaker type you wish to adjust, then press ← to decrease the speaker's volume or → to increase it.

To set Key Sounds: With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off). After the option is set, press **EXIT|EXIT** to return to the page display.

To set Alarm Sounds: Press ↓ to Aʟᴀʀᴍ Sᴏᴜɴᴅs. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off). After the option is set, press **EXIT|EXIT** to return to the page display.

To set Alarm Style: Press ↓ to Aʟᴀʀᴍ Sᴛʏʟᴇ|**ENT**. Press ↑ or ↓ to change the style, then press **ENT**. After the option is set, press **EXIT|EXIT** to return to the page display.

Track Smoothing

This is a factory setting that *should always be left on*. When stopped or traveling at slow speeds (such as walking or trolling), Track Smoothing prevents wandering of trails, the steering arrow, compass rose and a map in track-up mode.

Trail Options

There are several options you can use with trails. Some affect all trails, other options can be applied to a particular trail. You can change the way trails are updated, you can display or hide trails, make them flash on the screen or not flash, create a new trail, delete a trail, etc.

General Trail Options

To access the Trails Menu:

1. Press **MENU|MENU|↓** to **MY TRAILS|ENT|ENT**.
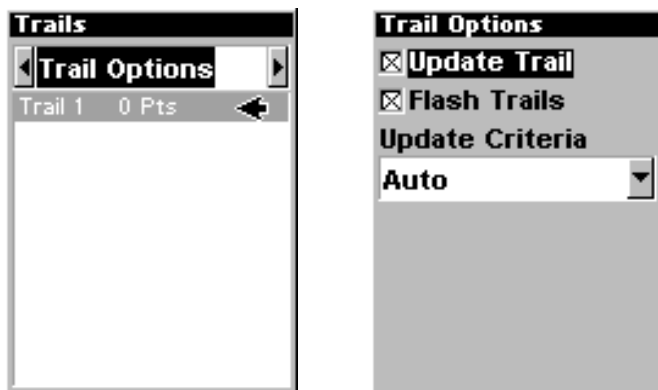
At left, the Trails Menu, with Trail Options shown right.

Delete All Trails

To remove all of the trails from memory: from the Trails Menu, press → to **DELETE ALL|ENT|←** to **YES|ENT**.

Flash Trails on Screen Option

Press ↓ to **FLASH TRAILS**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.)

Update Trail Option

This menu lets you change the way the trail updates occur.

WARNING:

> If you *uncheck* the Update Trail option, automatic trail creation and recording will be turned *off*, and you must turn it back on to record trails. The default setting is on.

Press ↓ or ↑ to **UPDATE TRAILS**. With the option highlighted, press **ENT** to check it (turn on) and uncheck it (turn off.)

Update Trail Criteria (Auto, Time, Distance)

The options are automatic, time, or distance. When it's in the default automatic mode, the unit doesn't update the plot trail while you're traveling in a straight line. Once you deviate from a straight line, the unit "drops" a plot point (trail waypoint) onto the trail. This conserves plot trail points. If a plot trail uses all of the available points allotted to it, the beginning points are taken away and placed at the end of the trail.
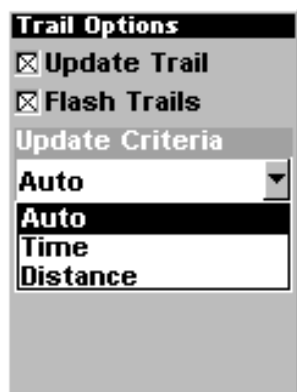
Trail Options menu.

Press ↓ to **UPDATE CRITERIA** | **ENT** | press ↓ or ↑ to select *criteria type* | **ENT**.

Trail Update Rate (Time, Distance)

You can update a trail by time, with a range from 1 second to 9999 seconds; the default is 3 seconds. You can update by distance, with a range from 0.01 mile/nm/km to 9.99 mile/nm/km; the default is 0.10 mile.

With Update Criteria selected, press ↓ to either the rate or distance data entry boxes and press **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the entry is correct. Press **EXIT** | **EXIT** to return to the Trail Options Menu.
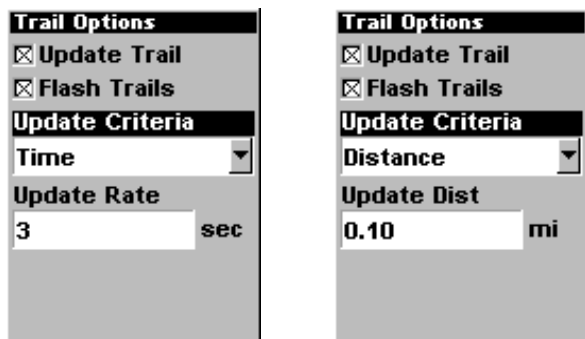
Trail Options menu.

Specific Trail Options

Delete Trail

To delete a specific trail: From the Trails menu, press ↓ to *trail name*|**ENT**. The Edit Trail menu appears as seen in the following figure. Press ↓ to **DELETE TRAIL**|**ENT**|← to **YES**|**ENT**.

New Trail

To manually start a new trail or delete a trail: From the Trail Options Menu, press → to **NEW TRAIL**|**ENT**. The trail menu appears as seen below:

Trail menu.

Trail Visible/Invisible and Other Trail Options

The name, maximum number of points in the trail, activity, and visibility are all changed on the Edit Trail screen. The Active setting determines whether or not iFINDER is recording new points for a particular trail.

On the Edit Trail menu, press ↓ or ↑ to highlight the section you wish to change, then press **ENT**. Make your changes, then press **EXIT** to erase this menu.

You can also change the trail line color and pattern. For instructions, see the entries on Edit a Trail Color and Edit a Trail Pattern in Sec. 4, Advanced GPS Operations.

Units of Measure

This menu (shown in the following image) sets the speed and distance (statute or nautical miles, meters), depth (feet, fathoms, or meters), altitude (feet or meters), heading (true or magnetic), and pressure (millibars or inches) units. To change the units, press **MENU|MENU|↓** to **SYSTEM SETUP|ENT|ENT**.
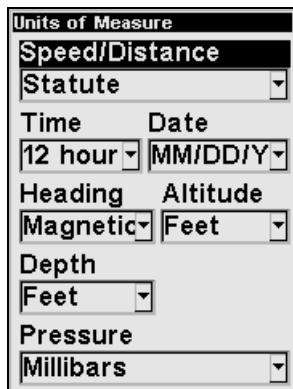
The Units of Measure Menu.

To set Unit of Measure: Use the arrow keys to select the label of the unit of measure you want to change and then press **ENT**. Press ↑ or ↓ to select the display unit you want, then press **ENT**. After the option is set, press **EXIT|EXIT** to return to the page display.

Use Indoors

When you're *only* using your iFINDER to listen to music, you can preserve battery life by turning off the GPS satellite search. To do this, turn on the Use Indoors option.

To toggle this feature on or off from the Music Mode, press **MENU|↓** to **USE INDOORS|ENT**. The box is checked when the feature is turned on, and unchecked when the feature is off. The iFINDER will automatically resume searching for satellites the next time you turn it on.

Section 6: Searching

NOTE:

The background map loaded in your unit lets you search for U.S. Interstate Highway exits and exit services, as well as some land features, including cities and lakes. For a full set of searchable land features, including landmarks, streets, addresses and Points of Interest, you must load your own high-detail custom map produced with our MapCreate 6 software. For a complete description of what detail is found in the background map and custom MapCreate maps, see the discussion beginning on page 29.

The iFINDER's search functions all begin with the **FIND** key.

The iFINDER Find menu.

NOTE:

You can search for items even if iFINDER hasn't acquired a position yet, or start from a position other than your own. When you do a search, distance and bearing to the selected item will be calculated from iFINDER's current position. If iFINDER hasn't acquired a position, it will use the last known position. If the cursor is active, iFINDER will always begin the search at the cursor. You can look up items by name, or search for the item nearest to you.

Find Addresses

1. Press **FIND**|↓ to **ADDRESSES**|**ENT**.

2. Press **ENT** to search in the Address field.

Find Address Menu.

3. **To enter an address number**, press ↑ or ↓ 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**. To return to the previous page, press **EXIT**.

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. To return to the previous page, press **EXIT**.

Tip:

When entering a street name, do *not* enter the street's compass direction (N, S, E or W) in the street name field. Just enter the number, or name. If the example below had been a search for "324 E. 9th St," you would enter "9th" and press **ENT**. The iFINDER will generate a list of all possible 9th streets, and let you choose the one you want.

Find street field, left, Find street by name menu, center, Street 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. To return to the previous page, press **EXIT**.

NOTE:
> We recommend that you do *not* enter a city name unless the list you are given is too large when you try searching without it. iFINDER can actually search quicker without a city and you save time by not entering a city name.
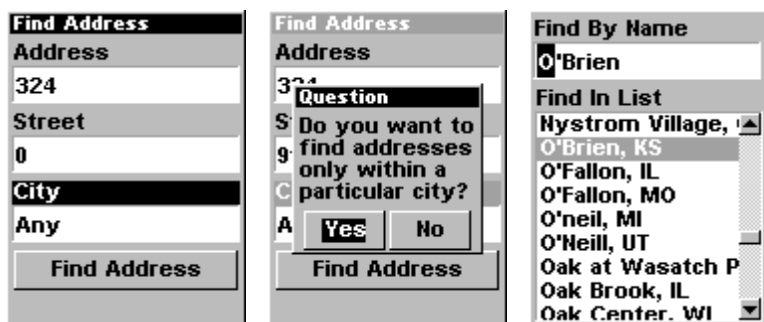
Find city field, left, Search in particular city only option, center, Find City by name, right.

6. When the necessary search fields are filled in, press ↓ to FIND ADDRESS|**ENT**. Your units 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.

8. To navigate to the address, press **MENU|ENT|EXIT** and your iFINDER 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.

Find Any Item Selected by Map Cursor

With a POI or map feature selected by the cursor, press **FIND|ENT**. To return to the previous page, press **EXIT**.
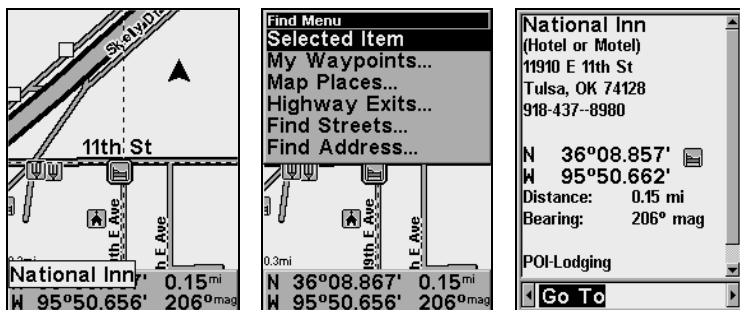

A POI selected by the cursor, left, The Find Menu, center, POI information screen, right.

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

Find Interstate Highway Exits

1. Press **FIND|↓** to **HIGHWAY EXITS|ENT**, which calls up the Find Exit Menu.

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**.
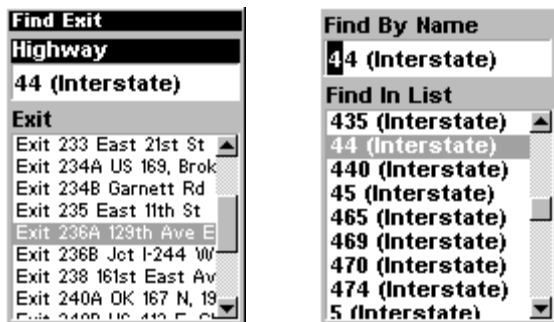
Find Exit using the Highway Name.

3. 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 you want, then press **ENT**.

Find Exit
Highway

44 (Interstate)

Exit

Exit 233 East 21st St
Exit 234A US 169, Brok
Exit 234B Garnett Rd
Exit 235 East 11th St
Exit 236A 129th Ave E
Exit 236B Jct I-244 W
Exit 238 161st East Av
Exit 240A OK 167 N, 19
Exit 240B US 412 E St

Selected exit.

4. 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.

I-44 Exit 234B

Garnett Rd
Mile 234

◄Go To ►

Services

Executive Inn
Country Tire Inc.
Jiffy Lube

I-44 Exit 234B

Garnett Rd
Mile 234

◄Find On Map ►

Services

Executive Inn
Country Tire Inc.
Jiffy Lube

"Go To" 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**|↓ or ↑ to select *service name*|**ENT**.

Find Map Places or Points of Interest (POI)

1. Press **FIND**|↓ to **MAP PLACES**|**ENT**.

2. Press ↓ or ↑ to select a Map Place or POI category then press **ENT**.

(To narrow your search, press ← or → to select a subcategory before pressing **ENT**.) You will be given two options: Search by Name or by Nearest.

Map Places category menu.

3. **Search by nearest POI.** At the Find By menu, press **ENT**. The Find by Nearest menu will show a "calculating" screen then a list of nearest POIs will appear. Press ↓ or ↑ to select the POI you want and press **ENT** to call up the POI's Waypoint Information screen.
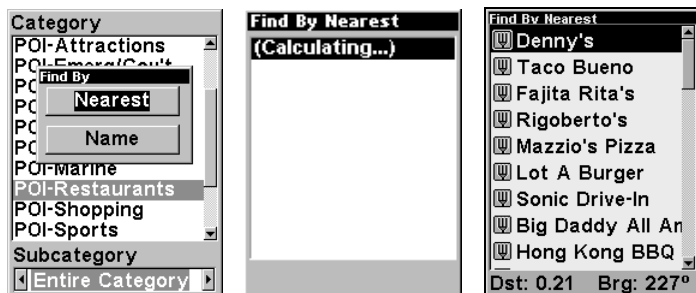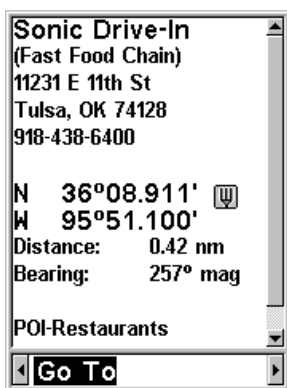

Find by nearest option, left, Calculating screen, center, POI list, right.

4. **Search by name of POI.** At the Find By menu, 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.

Category	Find By Name
POI-Attractions	Son❚
POI-Emerg/Gov't	**Find In List**
Find By	Solid Rock Cafe
Nearest	Son Set Grill
	Sonic Drive-In...
Name	Sooner Barbeque
	Sooners Corner Res
POI-Marine	Sophisti-Catering Co
POI-Restaurants	Souper Salad Resta
POI-Shopping	South Tulsa Grill
POI-Sports	Southeast Bingo
Subcategory	Southeast Carry Ou
◄ Entire Category ►	
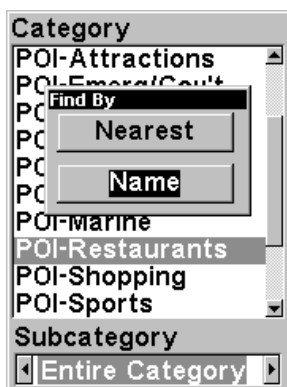
Find by name option, left, Find by name menu, right.

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

```
Sonic Drive-In
(Fast Food Chain)
11231 E 11th St
Tulsa, OK 74128
918-438-6400

N   36°08.911'  ▣
W   95°51.100'
Distance:    0.42 nm
Bearing:     257° mag

POI-Restaurants
◄ Go To                ►
```

```
Sonic Drive-In
(Fast Food Chain)
11231 E 11th St
Tulsa, OK 74128
918-438-6400

N   36°08.911'  ▣
W   95°51.100'
Distance:    0.42 nm
Bearing:     257° mag

POI-Restaurants
◄ Find On Map          ►
```
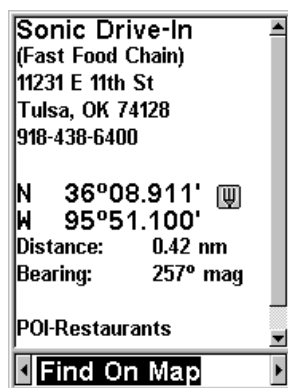
"Go To" POI option, left, "Find on Map" POI option, right.
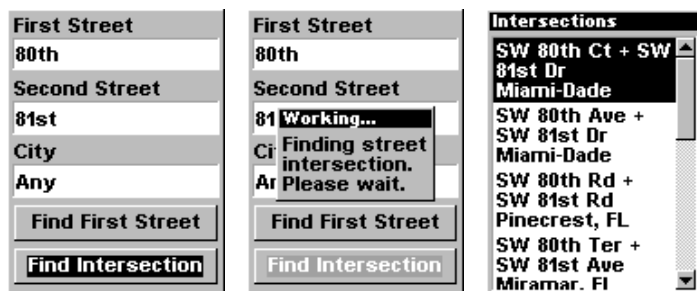
Find Streets or Intersections

Find a Street

1. Press **FIND**|↓ to **STREETS**|**ENT** and the Find Streets menu appears.

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.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a street from the list, then press **ENT**.

Find streets or intersections menu, left, Find street by name, right.

3. The Find Streets menu reappears with the street you're searcing 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 ↑ or ↓ to the street you are searching for and press **ENT**.

Find first street, left, Street found, right.

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. Press **FIND|↓** to **STREETS|ENT** and the Find Streets menu appears.

2. You must first fill in a screet 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.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a street from the list, then press **ENT**.

3. The Find Streets menu reappears with the street you're searcing for in the First Street box.

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 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.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select the second street from the list, then press **ENT**.

5. The Find Streets menu reappears with the first and second streets dialog boxes filled in. In this example we selected 81st 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, left, and "Working" menu, center, Intersection list, right.

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 previous example, we selected the intersection of SW 80th Court and SW 81st Drive in Miami, Fla.)

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

Find Waypoints

1. Press **FIND|ENT**.

2. If searching for the *Nearest* waypoint, press **ENT**. If searching for a waypoint *By Name*, press ↓ to **NAME|ENT**. (To search by name, jump to step 5 below.)
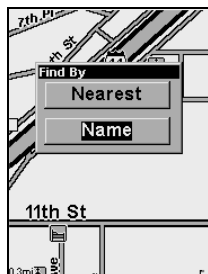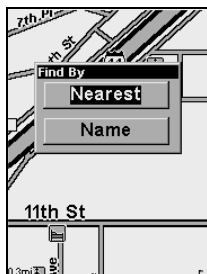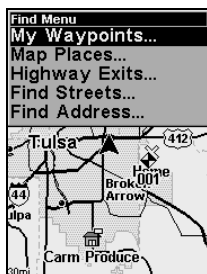
Find menu, left, and Find By Nearest, center, Find by Name, right.

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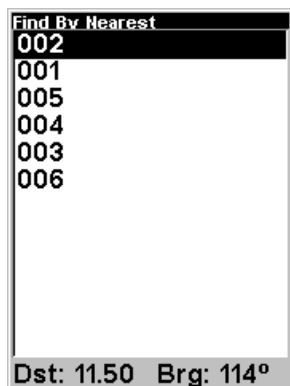
Calculating message, left, and list of the nearest waypoints, right.

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 press **ENT**. (The Go To Way-point 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 the 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.** 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

```
Find By Name
008
Find In List
001
002
003
004
005
006
```
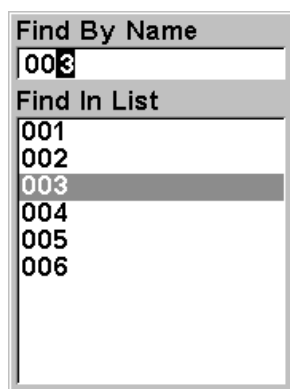
Find By Name menu.

A. ***To navigate*** to the waypoint, press 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.

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

Notes

Section 7: Supplemental Material
Datums Used by This Unit

WGS 1984
Default

Adindan
Mean for Ethiopia,
Sudan

Adindan
Burkina Faso

Adindan
Cameroon

Adindan
Ethiopia

Adindan
Mali

Adindan
Senegal

Adindan
Sudan

Afgooye
Somalia

Ain el Abd 1970
Bahrain

Ain el Abd 1970
Saudi Arabia

Anna 1 Astro 1965
Cocos Islands

Antigua Island Astro
1943; Antigua (Lee-
ward Islands)

Arc 1950; Mean for
Botswana, Lesotho,
Malawi, Swaziland,

Zaire, Zambia and
Zimbabwe

Arc 1950 - Botswana

Arc 1950 - Burundi

Arc 1950 - Lesotho

Arc 1950 - Malawi

Arc 1950 - Swaziland

Arc 1950 - Zaire

Arc 1950 - Zambia

Arc 1950 - Zimbabwe

Arc 1960 - Mean for
Kenya, Tanzania

Ascension Island
1958 - Ascension
Island

Astro Beacon E 1945
- Iwo Jima

Astro DOS 71/4 - St.
Helena Island

Astro Tern Island
(FRIG) 1961 - Tern
Island

Astronomical Station
1952 - Marcus Island

Australian Geodetic
1966 - Australia &
Tasmania

Australian Geodetic
1984 - Australia &
Tasmania

Ayabelle Lighthouse -
Djibouti

Bellevue (IGN) -
Efate & Erromango
Islands

Bermuda 1957 -
Bermuda

Bissau - Guinea-
Bissau
Bogota Observatory -
Colombia

Bukit Rimpah - Indo-
nesia (Bangka & Be-
litung Islands)

Camp Area Astro -
Antarctica (McMurdo
Camp Area)

Campo Inchauspe -
Argentina

Canton Astro 1966 -
Phoenix Islands

Cape - South Africa

Cape Canaveral -
Bahamas, Florida

Carthage - Tunisia

Switzerland

Chatham Island Astro
1971; New Zealand
(Chatham Island)

Chua Astro
Paraguay

Corrego Alegre
Brazil

Dabola
Guinea

Djakarta (Batavia)
Indonesia (Sumatra)

DOS 1968
New Georgia Islands
(Gizo Island)

Easter Island 1967
Easter Island

European 1950
Mean for Austria,
Belgium, Denmark,
Finland, France,
West Germany, Gi-
braltar, Greece, Italy,
Luxembourg, Neth-
erlands, Norway,
Portugal, Spain,
Sweden, Switzerland

European 1950
Mean for Austria,
Denmark, France,
West Germany,
Netherlands, Swit-
zerland

European 1950
Mean for Iraq, Israel,
Jordan, Lebanon,
Kuwait, Saudi Arabia,
Syria

European 1950
Cyprus

European 1950
Egypt

European 1950
England, Channel
Islands, Ireland,
Scotland, Shetland
Islands

European 1950
Finland, Norway

European 1950
Greece

European 1950
Iran

European 1950
Italy (Sardinia)

European 1950
(Sicily)

European 1950
Malta

Ireland 1965
Ireland

ISTS 061 Astro 1968
South Georgia Is-
lands

ISTS 073 Astro 1969
Diego Garcia

Johnston Island 1961
Johnston Island

Kandawala
Sri Lanka

Kerguelen Island
1949
Kerguelen Island

Kertau 1948
West Malaysia &
Singapore

Kusaie Astro 1951
Caroline Islands

L.C. 5 Astro 1961
Cayman Brac Island

Leigon
Ghana

Liberia 1964
Liberia

Luzon
Philippines (Exclud-
ing Mindanao)

Luzon
Philippines (Min-
danao)

Mahe 1971
Mahe Island

Massawa
Ethiopia (Eritrea)

Merchich
Morocco

Midway Astro 1961
Midway Islands

Minna
Cameroon

Minna
Nigeria

Montserrat Island
Astro 1958; Montser-
rat (Leeward Islands)

M'Poraloko
Gabon, Nahrwan,
Oman (Masirah Is-
land)

Nahrwan
Saudi Arabia

Nahrwan
United Arab Emirates

Naparima BWI
Trinidad & Tobago

North American 1927
Mean for Antigua,
Barbados, Barbuda,
Caicos Islands,
Cuba, Dominican
Republic, Grand
Cayman, Jamaica,
Turks Islands

North American 1927
Mean for Belize,
Costa Rica, El Sal-
vador, Guatemala,
Honduras, Nicaragua

North American 1927
Mean for Canada

North American 1927
Mean for CONUS
(Continental United
States)

North American 1927
Mean for CONUS
(East of Mississippi
River) including Lou-
isiana, Missouri, Min-
nesota

North American 1927
Mean for CONUS
(West of Mississippi
River)

North American 1927
Alaska

North American 1927
Bahamas (Except
San Salvador Island)

North American 1927
Bahamas (San Sal-
vador Island)

North American 1927
Canada (Alberta,
British Columbia)

North American 1927
Canada (Manitoba,
Ontario)

North American 1927
Canada (New
Brunswick, New-
foundland, Nova
Scotia, Quebec)

North American 1927
Canada (Northwest
Territories, Sas-
katchewan)

North American 1927
Canada (Yukon)

North American 1927
Canal Zone

North American 1927
Cuba

North American 1927
Greenland (Hayes
Peninsula)

North American 1927
Mexico

North American 1983
Alaska, Canada,
CONUS

North American 1983
Central America,
Mexico

Observaorio Metereo
1939; Azores (Corvo
& Flores Islands)

Old Egyptian 1907
Egypt

Old Hawaiian
Mean for Hawaii,
Kauai, Maui, Oahu

Old Hawaiian
Hawaii

Old Hawaiian
Kauai

Old Hawaiian
Maui

Old Hawaiian
Oahu

Oman
Oman

Ordinance Survey
Great Britain 1936 -
Mean for England,
Isle of Man, Scotland,
Shetland Islands,
Wales

Ordinance Survey
Great Britain 1936 -
England

Ordinance Survey
Great Britain 1936 -
England, Isle of Man,
Wales

Ordinance Survey
Great Britain 1936 -
Scotland, Shetland
Islands

Ordinance Survey
Great Britain 1936 -
Wales

Pico de las Nieves
Canary Islands

Pitcairn Astro 1967
Pitcairn Island

Point 58

Sweden

Santo (DOS)
1965 Espirito Santo
Island

Sao Braz
Azores (Sao Miguel,
Santa Maria Islands)

Sapper Hill 1943
East Falkland Island

Schwarzeck
Namibia

Selvagem Grande
Salvage Islands

SGS 85
Soviet Geodetic
System 1985

South American 1969
Mean for Argentina,
Bolivia, Brazil, Chile,
Colombia, Ecuador,
Guyana, Paraguay,
Peru, Trinidad & To-
bago, and Venezuela

South American 1969
Argentina

South American 1969
Bolivia

South American 1969
Brazil

South American 1969
Chile

South American 1969
Colombia

South American 1969
Ecuador

South American 1969
Ecuador (Baltra, Ga-
lapagos)

South American 1969
Guyana

South American 1969
Paraguay
South American 1969
Peru

South American 1969
Trinidad & Tobago

South American 1969
Venezuela

South Asia

Singapore

Tananarive Obser-
vatory 1925; Mada-
gascar

Timbalai 1948
Brunei, East Malay-
sia (Sabah, Sarawak)

Tokyo
Mean for Japan, Ko-
rea, Okinawa

Tokyo
Japan

Tokyo
Korea

Tokyo
Okinawa

Tristan Astro 1968
Tristan da Cunha

Viti Levu 1916
Fiji (Viti Levu Island)

Wake

Eniwetok 1960

Marshall Islands

Wake Island Astro
1952
Wake Atoll

WGS 1972
Global Definition

Yacare
Uruguay

Zanderij
Suriname

FCC Compliance

This device complies with Part 15 of the U.S. Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and receiver.

•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the factory customer service department for help.

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1. This License Agreement applies to the one or more databases that your product may contain. We refer to these singly as a "Database" and together as the "Databases." Your product may thus include the "WBS Database" which contains worldwide background surface mapping data, the "SmartMap Database" which contains inland mapping data, or other Databases.

2. The Databases that your product may contain are licensed, not sold. We grant to you the nonexclusive, nonassignable right to use these Databases for supplemental navigation reference purposes, but only as long as you comply with the terms and conditions of this License Agreement. We reserve the right to terminate this license if you violate any aspect of this License Agreement. You are responsible for using official government charts and prudent navigation for safe travel.

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DATABASES LIMITED WARRANTY

"We", "our", or "us" refers to Lowrance Electronics, Inc., the manufacturer of this product. "You" or "your" refers to the first person who purchases the product as a consumer item for personal, family, or household use. The Databases Limited Warranty applies to the one or more databases that your product may contain. We refer to each of these as a "Database" or together as the "Databases." Your product may thus include the "WBS Database" which contains worldwide background surface mapping data, the "SmartMap Database" which contains inland mapping data, or other Databases.

We warrant to you that we have accurately compiled, processed, and reproduced the portions of the source material on which the Databases are based. However, we are under no obligation to provide updates to the Databases, and the data contained in the Databases may be incomplete when compared to the source material. WE MAKE NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND ABOUT THE ACCURACY OF THE SOURCE MATERIAL ITSELF, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MER-CHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

If there is a defect in any Database, your exclusive remedy shall be, at our option, either a refund of the price you paid for the product containing the defective Database or a replacement of such product. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSE-QUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Your remedies under this warranty will be available so long as you can show in a reasonable manner that the defect occurred within one (1) year from the date of your original purchase, and we must receive your warranty claim no later than 30 days after such 1-year period expires. Your claim must be substantiated by a dated sales receipt or sales slip.

LOWRANCE ELECTRONICS
FULL ONE-YEAR WARRANTY

"We," "our," or "us" refers to LOWRANCE ELECTRONICS, INC., the manufacturer of this product. "You" or "your" refers to the first person who purchases this product as a consumer item for personal, family or household use.

We warrant this product against defects or malfunctions in materials and workmanship, and against failure to conform to this product's written specifications, all for one (1) year from the date of original purchase by you. WE MAKE NO OTHER EXPRESS WAR-RANTY OR REPRESENTATION OF ANY KIND WHATSOEVER CONCERNING THIS PRODUCT. Your remedies under this warranty will be available so long as you can show in a reasonable manner that any defect or malfunction in materials or workmanship, or any non-conformity with the product's written specifications, occurred within one year from the date of your original purchase, which must be substantiated by a dated sales receipt or sales slip. Any such defect, malfunction, or non-conformity which occurs within one year from your original purchase date will either be repaired without charge or be replaced with a new product identical or reasonably equivalent to this product, at our option, within a reasonable time after our receipt of the product. If such defect, malfunction, or non-conformity remains after a reasonable number of attempts to repair by us, you may elect to obtain without charge a replacement of the product or a refund for the product. THIS REPAIR, OR REPLACEMENT OR REFUND (AS JUST DESCRIBED) IS THE EXCLUSIVE REMEDY AVAILABLE TO YOU AGAINST US FOR ANY DEFECT, MALFUNCTION, OR NON-CONFORMITY CONCERNING THE PRODUCT OR FOR ANY LOSS OR DAMAGE RESULTING FROM ANY OTHER CAUSE WHATSOEVER. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

REMINDER: You must retain the sales slip or sales receipt proving the date of your original purchase in case warranty service is ever required.

LOWRANCE ELECTRONICS
12000 E. SKELLY DRIVE, TULSA, OK 74128
(800) 324-1356

How to Obtain Service...
...in the USA:

We back your investment in quality products with quick, expert service and genuine Lowrance parts. If you're in the United States and you have technical, return or repair questions, please contact the Factory Customer Service Department. Before any product can be returned, you must call customer service to determine if a return is necessary. Many times, customer service can resolve your problem over the phone without sending your product to the factory. To call us, use the following toll-free number:

800-324-1356

8 a.m. to 5 p.m. Central Standard Time, M-F

Lowrance Electronics may find it necessary to change or end our shipping policies, regulations, and special offers at any time. We reserve the right to do so without notice.

...in Canada:

If you're in Canada and you have technical, return or repair questions, please contact the Factory Customer Service Department. Before any product can be returned, you must call customer service to determine if a return is necessary. Many times, customer service can resolve your problem over the phone without sending your product to the factory. To call us, use the following toll-free number:

800-661-3983
905-629-1614 (not toll-free)
8 a.m. to 5 p.m. Eastern Standard Time, M-F

...outside Canada and the USA:

If you have technical, return or repair questions, contact the dealer in the country where you purchased your unit. To locate a dealer near you, visit our web site, www.lowrance.com and look for the Dealer Locator.

Accessory Ordering Information for all countries

To order Lowrance GPS accessories, please contact:

1) Your local sporting goods, marine, aviation, automobile or consumer electronics store. Most quality dealers that handle outdoor electronic equipment or other consumer electronics should be able to assist you with these items.

To locate a Lowrance dealer near you, visit our web site, and look for the Dealer Locator (www.lowrance.com/support/dealerlocator). Or, you can consult your telephone directory for listings.

2) U.S. customers: LEI Extras Inc., PO Box 129, Catoosa, OK 74015-0129 Call 1-800-324-0045 or visit our web site www.lei-extras.com.

3) Canadian customers can write:
Lowrance/Eagle Canada, 919 Matheson Blvd. E. Mississauga, Ontario L4W2R7 or fax 905-629-3118.

Shipping Information

If it becomes necessary to send a product for repair or replacement, you must first receive a return authorization number from Customer Service. Products shipped without a return authorization will not be accepted. When shipping, we recommend you do the following:

1. Please do not ship the knobs or mounting bracket with your unit.

2. If you are sending a check for repair, please place your check in an envelope and tape it to the unit.

3. For proper testing, include a brief note with the product describing the problem. Be sure to include your name, return shipping address and a daytime telephone number. An e-mail address is optional but useful.

4. Pack the unit in a suitable size box with packing material to prevent any damage during shipping.

5. Write the Return Authorization (RA) number on the outside of the box underneath your return address.

6. For your security, you may want to insure the package through your shipping courier. Lowrance does not assume responsibility for goods lost or damaged in transit.

Visit our web site:

lowrance.com

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