

Fishfinder 90/140

full feature sonar





© 2008 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street,
Olathe, Kansas 66062, USA
Tel. (913) 397.8200 or (800) 800.1020
Fax (913) 397.8282

Garmin (Europe) Ltd.
Liberty House
Hounsdown Business Park,
Southampton, Hampshire, SO40 9RB UK
Tel. +44 (0) 870.8501241 (outside the UK)
0808 2380000 (within the UK)
Fax +44 (0) 870.8501251

Garmin Corporation
No. 68, Jangshu 2nd Road,
Shijr, Taipei County, Taiwan
Tel. 886/2.2642.9199
Fax 886/2.2642.9099

All rights reserved. Except as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this manual onto a hard drive or other electronic storage medium to be viewed and to print one copy of this manual or of any revision hereto, provided that such electronic or printed copy of this manual must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this manual or any revision hereto is strictly prohibited.

Information in this document is subject to change without notice. Garmin reserves the right to change or improve its products and to make changes in the content without obligation to notify any person or organization of such changes or improvements. Visit the Garmin Web site (www.garmin.com) for current updates and supplemental information concerning the use and operation of this and other Garmin products.

Garmin® is a trademark of Garmin Ltd. or its subsidiaries, registered in the USA and other countries. This trademark may not be used without the express permission of Garmin.



December 2008

Part Number 190-00582-10 Rev. A

Printed in Taiwan





Introduction

This manual covers the features and operation of the Fishfinder 90/140.

About This Manual

To get the most out of your Fishfinder 90/140, take time to read this manual and learn the operating procedures for your unit in detail. This manual is organized into the following sections.

The Introduction sections contains the Table of Contents, Product Registration, and Product Support Information.

The Getting Started sections contain information about sonar and the Fishfinder.

The Installing Your Fishfinder section provides instruction on installing the Fishfinder and the Transducer. If you experience difficulty installing the Fishfinder, contact Garmin Product Support or an installation professional in your area.

The Operating Your Fishfinder section describes the features and operation of the Fishfinder 90/140.

The Appendix contains unit specifications ,optional accessories, and care information. You can also find warranty information, the Software License Agreement and European Licensing Requirements in the Appendix.

An Index is provided at the end of the manual for reference.

Manual Conventions

This manual uses the term Warning to indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

This manual uses the term Caution to indicate a potentially hazardous situation, which, if not avoided, may result in minor injury or property damage. It may also be used without the symbol to alert you to avoid unsafe practices.





Introduction

Table of Contents

Introduction	iii
About This Manual	iii
Manual Conventions	iii
Product Registration	v
Contact Garmin.....	v
Warning.....	vi
Getting Started	1
Understanding the Fishfinder.....	1
Using Simulator Mode.....	4
Installing Your Fishfinder	5
Installing the Transducer	6
Installing the Fishfinder Unit.....	10
Installing the Wiring Harness	12
Testing the Transom Mount Installation	13
Operating Your Fishfinder	14
Understanding Basic Functions	14
Using the Main Menu	15
Using the Setup Menu	16

Appendix	19
Specifications	19
Optional Accessories	19
Caring for the Fishfinder	19
Software License Agreement	21
Limited Warranty	21
Declaration of Conformity (DoC).....	23
Index	24



Product Registration

Help us better support you by completing our online registration today. Go to <http://my.garmin.com>. Keep the original sales receipt, or a photocopy, in a safe place.

Contact Garmin

Contact Garmin Product Support if you have any questions while using your Fishfinder 90/140. In the USA, go to www.garmin.com/support, or contact Garmin USA by phone at (913) 397.8200 or (800) 800.1020.

In the UK, contact Garmin (Europe) Ltd. by phone at 0808 2380000.

In Europe, go to www.garmin.com/support and click **Contact Support** for in-country support information, or contact Garmin (Europe) Ltd. by phone at +44 (0) 870.8501241.



Introduction



Warning

Failure to avoid the following potentially hazardous situations could result in an accident or collision resulting in death or serious injury.

When navigating, carefully compare information displayed on the Fishfinder 90/140 to all available navigation sources, including information from visual sightings, and maps. For safety, always resolve any discrepancies or questions before continuing navigation.



Getting Started

To get the most out of your new Fishfinder:

- Before you install and use your Fishfinder, read the information in this manual.
- Assemble and install the hardware (page 5).
- Practice using your Fishfinder in Simulator Mode (page 4).
- Use the Fishfinder (page 14).

Understanding the Fishfinder

The Fishfinder 90 or 140 is a fully automatic sonar unit that allows you to go out on the water and find fish without having to configure a lot of settings; or, if from experience you know exactly how you want your Fishfinder screen to look and function, you can customize each setting to your specific needs.

If you have used a Fishfinder before, and you know how to interpret the sonar information on the screen, you can skip this section. If you have not used a Fishfinder before,

Fishfinder 90/140 Owner's Manual

you might want to learn a bit about sonar: what it is, how it works, and what you might see on the Fishfinder 90 or 140 screen. This manual does not go into technical detail about sonar, but it can give you a general understanding of those things that you need to know about sonar that can help you interpret the screen and find the fish.

Understanding Sonar

During installation, you connect your Fishfinder 90 or 140 to a transducer. The transducer uses sound to determine information about what is in the water beneath your boat. Then the transducer sends the information to your Fishfinder to be displayed on the screen for you to view and interpret.

The transducer sends sound waves down into the water in a cone shape, similar to a flashlight beam (covering a smaller circular area at the top and angling out to a larger circular area at the bottom). These sound waves reflect off of any object that they hit, and then the waves travel back up to the transducer. These objects could be fish, branches, the bottom, or any other object that has density that is different from the water. The transducer receives the sound

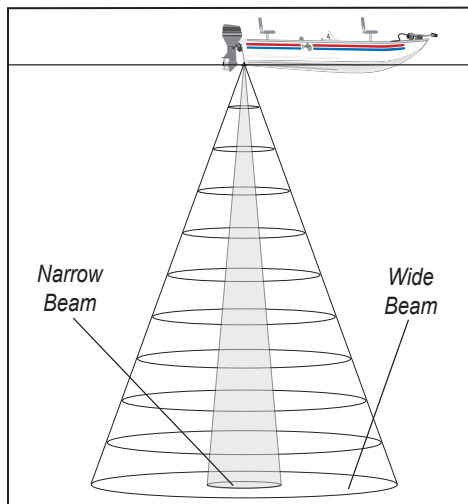


Getting Started

wave information, and then sends the information to the Fishfinder. The Fishfinder displays the information on the screen for you to see and interpret. The type of transducer and settings you choose determine how the information is shown on the screen.

Understanding Dual Beam Transducer Coverage

A dual beam transducer can transmit a narrow or a wide beam. The water area covered by the transmitted sound waves is determined by the beam width of the transducer and the water depth. The narrow beam provides crisp detail of what is under your boat, and is helpful if you are fishing in deeper water where the beam covers more area (for example, at a 30-foot depth, the narrow beam covers the area of about a 7-foot circle).



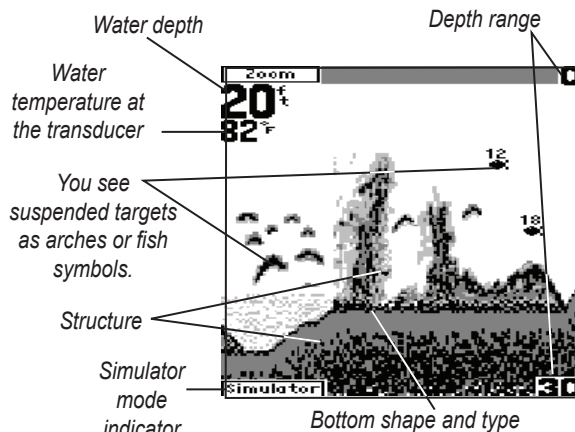
The wide beam is more helpful in shallow water, because it gives you a much wider view of objects in the water, including areas beyond the sides of your boat. At a 30-foot depth, the wide beam covers the area of approximately a 20-foot circle.



Understanding the Fishfinder Screen

Experimentation and experience are the keys to successfully interpreting your Fishfinder screen. We recommend that you take your Fishfinder out on familiar water, and spend time learning to interpret what you see on the Fishfinder 90 or 140 screen.

Think of the Fishfinder screen as if you took a picture from the side of an aquarium in your home. You can see how deep a fish is in the water (how close it is to the top or bottom), but you cannot tell where the fish is located horizontally in the water (whether it is near the front or the back of the aquarium). Remember this when you are trying to locate exactly where something is in the water.



The strongest sonar returns appear on your screen as solid, dark areas. The weakest returns appear less intense, less solid. The bottom of the water body returns the strongest signal, so you can identify the bottom as the continuous, solid line running across the bottom of the screen. The strength of the sonar return can also help you interpret the hardness of the bottom. The thicker the bottom line, the harder the bottom.





Getting Started

The Fishfinder 90 and 140 include the latest technology in interpreting bottom signals; they can see through fish, structures, and thermoclines (shown in the weakest hues). Even so, large schools of fish or dense structures close to the bottom can affect water depth return readings.



NOTE: If the Fishfinder is unable to track the bottom for any reason, the digits which indicate depth flash on and off to alert you that the Fishfinder is not tracking the bottom.

Along the top of the screen, you might see a grouping of intense hues. This area is surface clutter, which can be caused by waves or any other sonar interference at the surface of the water. Too much surface clutter can obscure your view of fish. You can turn down the Gain setting to reduce this surface clutter ([page 15](#)).

You can see in the previous illustration how the fish are indicated in a few different ways. By default, fish appear as arches. Actual fish returns might not always appear as perfect arches, due to the speed, fish orientation, or other conditions. You can also turn on the Fish Symbols setting if you want to see suspended targets indicated by a fish shape

4

instead of arches ([page 17](#)).

Using Simulator Mode

Use Simulator Mode to practice and learn the operation of the Fishfinder. If the Fishfinder does not detect a transducer at startup, it automatically starts in Simulator Mode.

While in Simulator Mode, the Fishfinder displays a bottom scene, and you can control the Fishfinder (except the Gain and Auto Gain options) just as if it were on the water. If no keys are pressed for two minutes, the Fishfinder automatically resets to default settings while in Simulator Mode.

To exit Simulator Mode, turn off the Fishfinder.



Installing Your Fishfinder

Installing Your Fishfinder

Make sure you completely read and understand all instructions before you install and use your Fishfinder. If you have problems, contact Garmin Product Support, or seek other professional assistance.

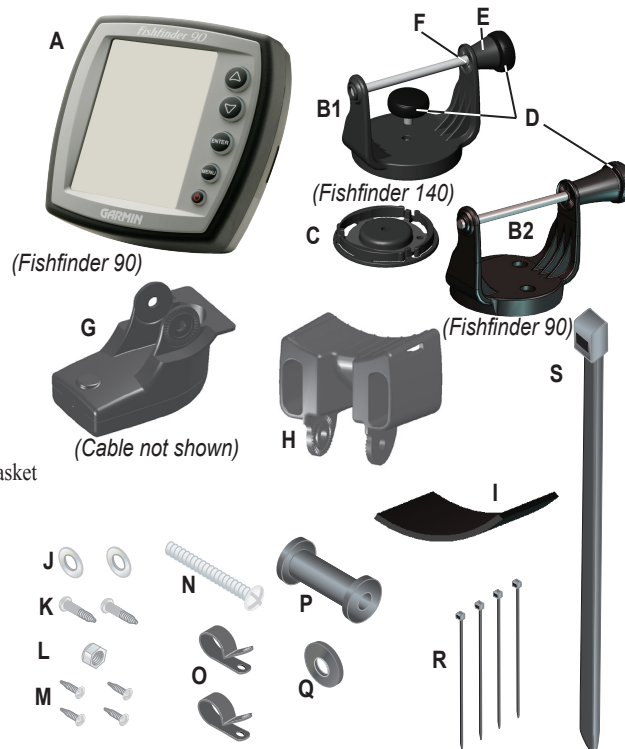
You can install the Fishfinder hardware on a transom or on a trolling motor. Before installation, make sure the wiring harness can reach the Fishfinder and transducer locations.

Check the packing list below. If you are missing any items, contact your Garmin dealer.

Packing List (one of each, unless otherwise noted):

- A**—Fishfinder sonar unit
- B1**—Swivel mount bracket (Fishfinder 140; optional for Fishfinder 90); or
- B2**—Tilt mount bracket (Fishfinder 90)
- C**—Swivel base (Fishfinder 140)
- D**—Mounting knobs
- E**—Mounting knob spacer
- F**—Snap ring
- G**—Transducer with power cable
- H**—Transducer mount
- I**—Trolling motor mount gasket
- J**—5 mm Flat washers (2)
- K**—5 x 30 mm Screws (2)
- L**—10-32 Lock nut
- M**—4 x 12 mm Screws (4)
- N**—10-32 x 1.75 Screw
- O**—1/4" Cable clamps (2)
- P**—Plastic spacer
- Q**—1/4" Rubber washer
- R**—Cable tie, 5.6" (4)
- S**—Cable tie, 20"

Fishfinder 90/140 Owner's Manual



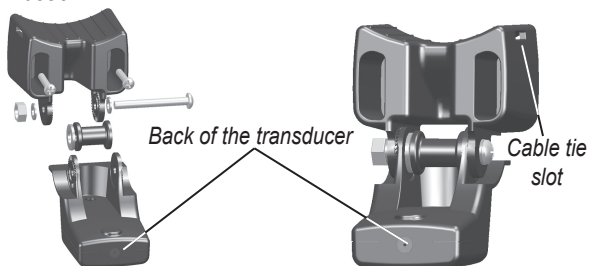


Installing Your Fishfinder

Installing the Transducer

Assembling the Transducer

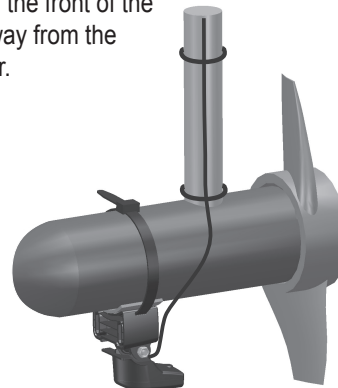
1. Insert the rubber washer (Q) and plastic spacer (P) into the transducer (G) at the same time. **DO NOT** lubricate the rubber washer.
2. Route the cable toward the back of the transducer. Slide the transducer into the transducer mount (H).
3. Place a 5 mm flat washer (J) on the 10-32 x 1.75" screw (N), and insert the screw through the transducer mount, spacer, and rubber washer.
4. Place the remaining 5 mm flat washer on the exposed end. Install the 10-32 lock nut (L) finger tight. You can tighten the transducer further after installation on the boat.



6

Mounting the Transducer on a Trolling Motor

1. Slide the large cable tie (S) through the slot on the transducer mount (H) with the ridges of the band facing up until equal lengths extend on both sides of the mount. (**NOTE:** For cold water, or heavy timber or debris areas, a metal 4-5" worm gear clamp is recommended.)
2. Position the mount gasket (I) on the curved top of the transducer mount.
3. Place the transducer assembly against the motor body of the trolling motor, with the front of the transducer pointed away from the trolling motor propeller.



Fishfinder 90/140 Owner's Manual





4. Wrap the two ends of the cable tie around the motor body. Place the pointed end of the cable tie through the fastener hole on the opposite end and pull it through until it is snug but not tight. (The cable tie clicks when you pull it.)
5. Position the transducer so that it is parallel with the bottom when in use, and make sure the gasket is aligned properly. Pull the cable tie end until tight. Trim off the excess, if necessary. Tighten the 10-32 locking nut until it touches the mounting bracket and then tighten 1/4 turn more. (Do not overtighten.)
6. Route the 20' (6 m) transducer cable using the supplied cable ties to secure the cable to the motor shaft. You can fill the forward-facing portion (except the cable tie pocket) of the transducer mount with sealant to avoid accumulating debris.

Mounting the Transducer on a Transom

Tool List (not included)—drill, 3/8" wrench or socket, 5/32" and 1/8" drill bits, masking tape, #2 Phillips screwdriver, and marine sealant.

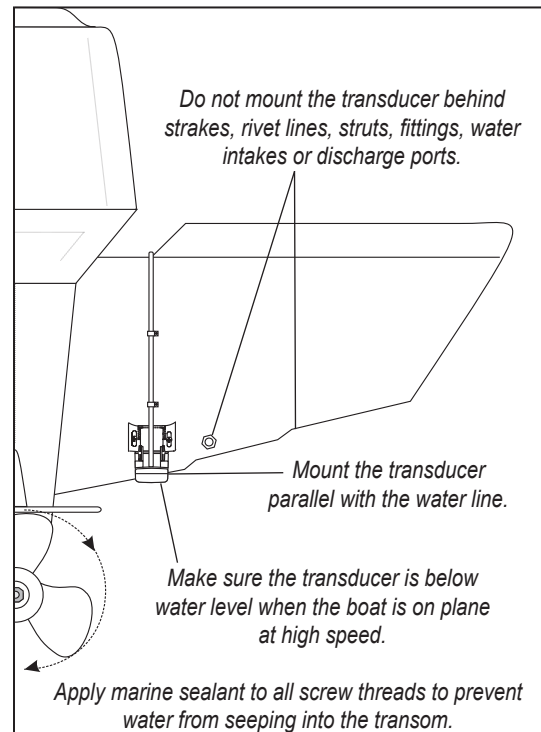
When selecting a transom mount location, consider the following for optimal performance:

- For your sonar to operate properly, the transducer must be located in calm water. **DO NOT** mount the transducer behind strakes, rivet lines, struts, fittings, water intake, discharge ports, eroding paint, or anything that creates turbulence.
- Mount the transducer as close to the center of the boat as possible.
- **DO NOT** cut the transducer lead. (This voids your warranty.)
- **DO NOT** mount the transducer in locations where it might be jarred when launching, hauling, trailering, or storage.



Installing Your Fishfinder

- DO NOT mount the transducer in the path of the prop on single-drive boats. The transducer can cause cavitation that can degrade the boat's performance and damage the prop. On twin-drive boats, mount the transducer between the drives, if possible.





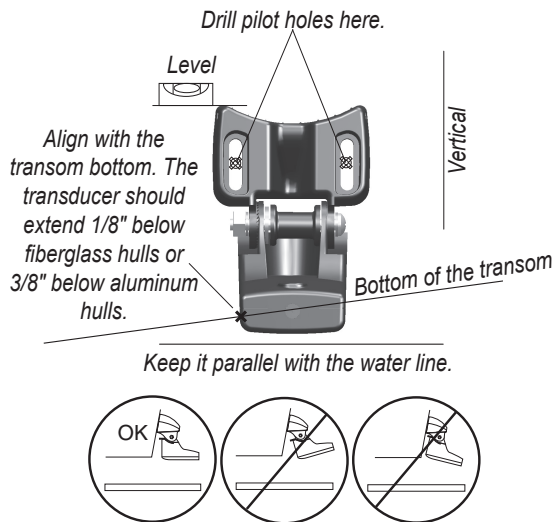
Installing Your Fishfinder

To mount the transducer on a transom:

1. Position the transducer mount at the selected transom location. Make sure the transducer is parallel with the water line. Mark the center locations of each hole on the transducer mount. (See the figures on the next page.)
2. Using a 5/32" bit, drill the pilot holes approximately 1" (25 mm) deep at the marked locations. To avoid drilling the holes too deep, wrap a piece of tape around the bit at 1" from the point of the bit.
3. Apply marine sealant to the 5 x 30 mm screws. Attach the transducer assembly to the transom using the 5 x 30 mm screws. Adjust the transducer assembly to extend beyond the bottom of the transom approximately 1/8" (3 mm) on fiberglass hulls or 3/8" (10 mm) on aluminum hulls. Adjust the transducer assembly to be aligned parallel with the water.
4. Tighten the 10-32 locking nut until it touches the mounting bracket, and then tighten 1/4 turn more. (Do not overtighten.)
5. Place the first cable clamp on the transducer cable approximately one third of the distance between the transducer and the top of the transom. Mark the location. Using a 1/8" bit, drill a pilot hole approximately 3/8" (10 mm) deep.
6. Attach the cable clamp using a 4 x 12 mm screw. Coat the screw with marine sealant before installation. Repeat steps 5 and 6 using the other cable clamp.
7. Route the transducer cable, as needed, to the Fishfinder. **DO NOT CUT THE CABLE.** Avoid routing the cable with electrical wires or other sources of electrical interference.



Installing Your Fishfinder



Installing the Fishfinder Unit

Selecting a Fishfinder installation Location

Select a Fishfinder installation location that allows you to view and operate it easily while operating the vessel. Select a mounting surface strong enough to support the weight of the Fishfinder and protect it from excessive vibration or shock. DO NOT mount the bracket in a location where the Fishfinder is exposed to extreme temperature conditions. When installing the mounting bracket, be sure to allow room to connect and rout the power cable.

Mounting the Bracket Assembly

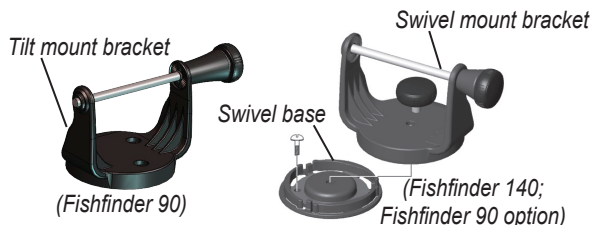
Tool List (not included)—drill, screwdriver (Phillips or standard), three #8 pan-head machine bolts with matching nuts and washers, and a 5/32" drill bit; or three #8 pan-head, self-tapping screws and a 1/16" drill bit.





To mount the bracket assembly:

1. Using the tilt mount bracket (Fishfinder 90) or the swivel base (Fishfinder 140; Fishfinder 90 option) as a template, mark the location of the three holes that you use to secure the bracket to the mounting surface.
2. If securing the base with machine bolts, drill three 5/32" holes at the locations you marked; or, if securing the base using self-tapping screws, drill 1/16" starter holes at the locations you marked. Drill starter holes no deeper than half the screw length.
3. Secure the tilt mount bracket or swivel base with three bolts or screws. **DO NOT OVERTIGHTEN.**
4. If you are using the swivel mount, place the swivel mount bracket over the swivel base and secure it with the short knob.



Fishfinder 90/140 Owner's Manual

To install the Fishfinder on the mount bracket:

1. Align the slot on the back of the Fishfinder with the long mounting knob, and slide the Fishfinder into place. If necessary, adjust the long knob to spread the bracket arms apart. (Turn counter-clockwise to widen the bracket arms and clockwise to tighten.)
2. Adjust the Fishfinder angle, and tighten the long mounting knob until snug.
3. For the Fishfinder 140 (Fishfinder 90 option), rotate the swivel mount bracket by twisting it left or right. The bracket clicks as you turn it. Select a good viewing angle, and then tighten all knobs.





Installing Your Fishfinder

Installing the Wiring Harness

The Fishfinder comes with a wiring harness that connects the Fishfinder to power and the transducer with one easy-to-remove connection. If it is necessary to extend the power wires, use 22 AWG wire. **DO NOT** cut the transducer cable, because this voids your warranty. If your boat has an electrical system, you might be able to wire the Fishfinder directly to an unused holder on your current fuse block. If you are using the boat's fuse block, remove the in-line fuse holder supplied with the Fishfinder. You can also wire the Fishfinder directly to the battery.



CAUTION: The Fishfinder input voltage is 10–18 volts DC. Do not exceed this voltage, because this can damage the Fishfinder and void the warranty.

To install the wiring harness:

1. Determine the polarity of the power source using a test light or volt meter.
2. Install the red (+) wire on the positive fuse holder or battery terminal.

3. Install the black (-) wire on the negative fuse holder or battery terminal.
4. Install a 2 Amp fuse in the fuse holder (fuse block only).
5. Align the notches on the cable plug and on the back of the Fishfinder. Insert the cable into the connector and turn the lock ring counter-clockwise until it stops.





Testing the Transom Mount Installation

Perform this test after you install the Fishfinder. Because you need water to carry the sonar signal, the Fishfinder does not function properly with the transducer out of the water. When you place your boat in the water, CHECK FOR LEAKS around the screw holes that are below the water line. DO NOT leave your boat in the water for an extended period of time without checking for leaks.

To test the transom mount installation:

1. Begin testing the installation at a slow speed. If the sonar appears to be working properly gradually increase the boat's speed observing the sonar's operation. If the sonar signal suddenly is lost or the bottom return is severely degraded, note the speed at which this occurs.
2. Return the boat to the speed at which the signal was lost. Make moderate turns in both directions, and see if the signal improves.
3. If the signal strength improves while turning, adjust the transducer so that it extends another 1/8" below the transom of the boat. It might take several adjustments to eliminate the degradation.
4. If the signal does not improve, it might be necessary to move the transducer to a different location.



Operating Your Fishfinder



14

Understanding Basic Functions

To turn on the Fishfinder:

Press and release the **Power** key.

To turn off the Fishfinder:

Press and hold the **Power** key.

To change the backlight level:

Press the **Power** key repeatedly to cycle between off, low, and high.

To view or change settings for your Fishfinder, use the Main menu and the Setup menu.

To change a setting:

1. Press **MENU**. The Main menu appears.
2. Use the **Arrow** keys to move the selection arrow to an option, and press **ENTER**. The settings appear.

If you select **Setup**, the Setup menu appears. See “Using the Setup Menu” on page 16.



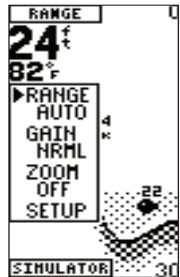


3. To select a setting, use the **Arrow** keys to move the selection arrow, and press **ENTER**. (When you reach the end of a menu, the selection arrow wraps to the beginning.) Press and hold an **Arrow** key to rapidly advance the selection speed.
4. To close a setting or a menu, press **MENU**.

Using the Main Menu

From the Main menu, you can change the Range, Gain, Scroll, Zoom, and View settings.

- To view the current menu settings, press **MENU**.



- To exit any window, press **MENU**.

- To quickly change a setting for the current option that appears in the upper-left corner of the screen (for example, the Range option in the above screen), press an **Arrow** key.

Options and Settings

The following settings reset to the system defaults each time you turn on the Fishfinder.

Range—sets the maximum depth that you want the Fishfinder to display. **Auto** (default) automatically tracks the bottom, or you can set the range, **5–600 feet**.

Gain—controls the sensitivity of the Fishfinder’s sonar receiver. **Auto** (default) automatically sets the sonar sensitivity, or you can set the gain. To see more detail on the screen, increase the receiver sensitivity by selecting a higher gain. If there is too much detail or if the screen is cluttered, lower the sensitivity (lower the gain) to increase the clarity of the screen.





Operating Your Fishfinder

Scroll—sets the rate that the graph scrolls from right to left. If you are sitting still or the graph is moving too fast, slowing or pausing the graph can help. The settings are **Ultra**, **Fast** (default), **Medium**, **Slow**, and **Paused**.

Zoom—sets the zoom level for the screen. **Off** is the default.

View—when you select a **2X** or **4X** Zoom setting, you can select a specific area to view on the screen. You can also allow the Fishfinder to automatically select a zoomed viewing area based on the bottom.

Using the Setup Menu

To access the Setup menu:

Press MENU. Use the Arrow keys to move the selection arrow to Setup, and press ENTER. The options appear.

Options and Settings

Your changes to the following settings are used until you set the System Defaults option to **Yes**.

Alarms

Battery—controls an alarm that sounds when the battery is reaching a critical state of discharge. The settings are **Off** (default) and **8.5–16.0** volts remaining.

Shallow—sets an alarm for a shallow water warning at a specific depth. The settings are **Off** (default) and **1.0–600 feet**.

Deep—sets an alarm for a deep water warning at a specific depth. The settings are **Off** (default) and **1.0–600 feet**.

Fish—turns on or off (default) an alarm that sounds when the Fishfinder detects what it determines to be a fish.





Graphs

Fish ID—sets how the Fishfinder shows underwater targets and background information. If you select a fish symbol, the screen shows only the information related to that symbol (large, medium, and small sizes). When using wide beam, fish symbols that are to the sides of the boat appear hollow. Those that are directly below the boat appear as solid black fish symbols.

Off (default) the Fishfinder does not interpret the sonar return data. Fish appear as arches

- Suspended targets appear as symbols. No background information appears
- Same as previous with the target depth shown.
- Suspended targets appear as symbols. Background information appears, making the distinction between fish and structure easier.
- Same as previous with target depth shown.

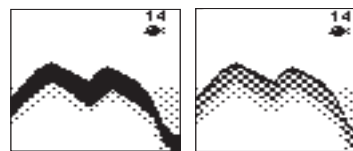
Beam—controls the angle of the transducer beam. **Wide** beam allows you to see more fish in shallow water, even off

Fishfinder 90/140 Owner's Manual

the sides of the boat. You can also choose **Narrow** (default) beam.

Whiteline—sets how the Fishfinder shows information about the bottom type.

- **Off**—the bottom return appears as solid black.



Whiteline Off

Whiteline On

- **On** (default)—the bottom return appears as a grayscale pattern and can help to determine bottom hardness. A hard bottom displays a thicker bottom layer. A soft bottom appears as a thinner bottom layer.



Operating Your Fishfinder

Auto Gain—controls the aggressiveness of the Auto Gain. The higher the setting, the greater the number of targets appear on the screen. The lower the setting, the less clutter on the screen. The settings are **High**, **Medium** (default), and **Low**.

Numbers

Size—sets the appearance of depth, temperature, and battery numbers. The settings are **Small** and **Large** (default).

Battery—sets whether the current battery voltage appears on the screen. The settings are **Hide** (default) and **Show**

Water Temperature—sets whether the water temperature appears on the screen. This appears only if you have a temperature-capable transducer. The settings are **Hide** and **Auto** (default).

Units

Depth—sets the measurements in **Feet** (default), **Meters**, or **Fathoms**.

Temperature—sets the water temperature units. The settings are **Fahrenheit** (default) and **Celsius**.

System

Simulator—controls the simulator mode. The settings are **Off** and **On** (default). See page 4 for more information.

Language—sets your language choice.

Beeper—controls all Fishfinder sounds. The settings are **Off** and **On** (default).

Contrast—adjusts the contrast of the screen to compensate for light levels or viewing angles. Use the Arrow keys to increase or decrease the screen contrast.

Defaults—restores all default settings.



Appendix

Specifications

Fishfinder 90

Size: 4.7" W x 4.9" H x 2.43" D (11.9 x 12.4 x 6.1 cm)

Weight: 15.5 oz (.439 kg)

Display: 2.0" W x 3.3" H (5.0 x 8.4 cm), 3.9" (9.9 cm) diagonal, 64 x 128 pixels, black-and-white FSTN display

Usage: 3.5 watts maximum, Nominal: 12 VDC @ 0.15 Amps

Fishfinder 140

Size: 6.1" W x 4.9" H x 2.6" D (15.5 x 12.5 x 6.6 cm)

Weight: 18.7 oz (.530 kg)

Display: 3.2" W x 3.1" H (8.1 x 7.9 cm), 4.7" (9.9 cm) diagonal, 128 x 240 pixels, 4-level gray scale FSTN display

Usage: 8 watts maximum, Nominal: 12 VDC @ 0.5 Amps

Fishfinder 90 and Fishfinder 140

Case: Fully Gasketed, high-impact plastic alloy Waterproof: IEC 529, level IPX-7 (submerged to 1 meter for 30 minutes)

Temperature Range: +5°F to 158°F (-15°C to 70°C)

Internal memory backup to retain user settings

Fishfinder 90/140 Owner's Manual

Input: 10 to 18 VDC with high voltage protection

Sonar Power Output: 100 watts (RMS), 800 watts (peak-to-peak)

Frequency: 80 kHz (wide) and 200 kHz (narrow)

Depth: 600 foot max depth. (Depth capacity is dependent on water salinity, bottom type, and other water conditions.)

Specifications are subject to change without notice.

Optional Accessories

Purchase the following optional accessories on the Garmin Web site:

Swivel mount for the Fishfinder 90—allows your Fishfinder 90 to tilt and swivel on its mounting bracket.

Portable case with battery pack and suction mount transducer—makes your Fishfinder portable, so that it can go on any boat, with no installation (requires eight D-cell batteries, not included).

Flush mounting kit—mounts your fishfinder flush on the bulkhead or cabin wall. Press the side clips to release the Fishfinder so you can take it with you.

Protective cover—protects your product when you are not using it.

Caring for the Fishfinder

The Fishfinder case is constructed of high quality materials and does not require user maintenance except cleaning.



Appendix

Cleaning the Case

Clean the Fishfinder's outer casing (except for the screen) using a cloth dampened with a mild detergent solution, and then wipe it dry. Avoid chemical cleaners and solvents that may damage plastic components.

Cleaning the Screen

The Fishfinder screen should be cleaned using a soft, clean, lint-free cloth. Water or eyeglass cleaner can be used if needed. If these are used, apply the liquid to the cloth and then gently wipe the screen with the moistened cloth.



WARNING: The Fishfinder screen is coated with a special anti-reflective coating which is very sensitive to skin oils, waxes, and abrasive cleaners. **CLEANERS CONTAINING AMMONIA WILL HARM THE ANTI-REFLECTIVE COATING.** It is very important to clean the screen using an eyeglass lens cleaner which is specified as safe for anti-reflective coatings and a clean, lint-free cloth.

Storage

Do not store the Fishfinder where prolonged exposure to temperature extremes may occur (such as in the trunk of a car), because permanent damage may result.

Water Immersion

The Fishfinder is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the Fishfinder. After submersion, be certain to wipe and air dry the Fishfinder before reuse.



Software License Agreement

BY USING THE FISHFINDER YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the “Software”) in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Garmin.

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret of Garmin. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

Limited Warranty

This Garmin product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Garmin will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident, or unauthorized alteration or repairs.

This product is intended to be used only as a travel aid and must not be used for any purpose requiring precise measurement of direction, distance, location, or topography. Garmin makes no warranty as to the accuracy or completeness of map data in this product.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE.

IN NO EVENT SHALL GARMIN BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE



Appendix

PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Garmin retains the exclusive right to repair or replace the unit or software or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, contact your local Garmin authorized dealer or call Garmin Product Support for shipping instructions and an RMA tracking number. Securely pack the unit and a copy of the original sales receipt, which is required as the proof of purchase for warranty repairs. Write the tracking number clearly on the outside of the package. Send the unit, freight charges prepaid, to any Garmin warranty service station.

Online Auction Purchases: Products sold through online auctions are not eligible for rebates or other special offers from Garmin. Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Garmin will not replace missing components from any package purchased through an online auction.

International Purchases: A separate warranty is provided by international distributors for units purchased outside the United States. This warranty is provided by the local in-country distributor and this distributor provides local service for your unit. Distributor warranties are only valid in the area of intended distribution. Units purchased in the United States or Canada must be returned to the Garmin service center in the United Kingdom, the United States, Canada, or Taiwan for service.

Garmin International, Inc.
1200 East 151st Street,
Olathe, Kansas 66062, USA
Tel. (913) 397.8200 or
(800) 800.1020
Fax (913) 397.8282

Garmin (Europe) Ltd.
Liberty House,
Hounsdown Business Park,
Southampton, Hampshire, SO40
9RB UK
Tel. +44 (0) 870.8501241 (outside
the UK)
0808.2380000 (within the UK)
Fax +44 (0) 870.8501251

Garmin Corporation
No. 68, Jangshu 2nd Road,
Shijr, Taipei County, Taiwan
Tel. 886/2.2642.9199
Fax 886/2.2642.9099





Declaration of Conformity (DoC)

Hereby, Garmin, declares that this Fishfinder 90/140 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product:

www.garmin.com.



Index

Index

A

- accessories 19
- alarms 16
 - battery 16
 - deep 16
 - fish 17
 - shallow 16
- Anti-reflective coating 20
- arches 4
- assembling the transducer 6

B

- backlight 14
- battery alarm 16
- battery number 18
- Beam 2, 17
- beeper setting 18
- bottom of the water 3
- bracket assembly 10

C

- cleaning the case and screen 20
- clutter 4
- contrast setting 18

D

- defaults setting 18
- depth units 18
- dual beam 2

E

- enter key 14

F

- fish alarm 17
- fish ID graph 17
- fish symbols 4

G

- gain 15
- gain setting 4
- graphs 17
 - auto gain 18
 - beam 17
 - fish ID 17
 - Whiteline 17

H

- hardness of the bottom 3

I

- installing
 - the Fishfinder unit 10
 - the transducer 6
 - the unit on the
 - mount bracket 11
 - the wiring harness 12
 - your Fishfinder 5

K

- key
 - arrow 14
 - enter 14
 - menu 14

L

- language setting 18
- limited warranty 21
- location, installation 10

M

- menu
 - main 15
 - setup 16
- menu key 14
- mounting the bracket assembly 10
- mounting the transducer on a transom 9
- mounting the transducer on a trolling motor 6

N

- narrow beam 2
- numbers 18
 - battery 18
 - water temperature 18

O

- optional accessories 19

P

- packing list 5
- product registration v

**R**

range 15

S

scroll 16

selecting a transom mount

location 7

setting, changing a 14

setup menu 16

setup menu option 14

shallow alarm 16

simulator mode 4

simulator setting 18

size, number 18

software license agreement 21

Sonar 1

sound waves 1

specifications 19

storage 20

strongest sonar returns 3

surface clutter 4

swivel mount bracket 11

T

temperature number 18

temperature units 18

testing the transom mount

installation 13

transducer 1

assembling 6

installing 6

mounting on a transom 7

mounting on a trolling

motor 6

transom mount installation 13

U

units 18

depth 18

temperature 18

V

view 16

W

warning statement vi

warranty, limited 21

water immersion 20

water temperature number 18

weakest sonar returns 3

whiteline 17

wide beam 2

wiring harness 12

Z

zoom 16



For the latest free software updates (excluding map data) throughout the life of your Garmin products, visit the Garmin Web site at www.garmin.com.



© 2008 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street, Olathe, Kansas 66062, USA

Garmin (Europe) Ltd.
Liberty House, Hounsdown Business Park, Southampton, Hampshire, SO40 9RB UK

Garmin Corporation
No. 68, Jangshu 2nd Road, Shijr, Taipei County, Taiwan

www.garmin.com

December 2008

Part Number 190-00582-10 Rev. A

Printed in Taiwan

