

# LOWRANCE®

www.lowrance.com

Pub. 988-0158-071



## ***LVR-880 US***

## ***LVR-880 EU***

VHF Radio

## Installation Instructions

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For free owner's manuals and the most current information on this product, its operation and accessories, visit our web site: [www.lowrance.com](http://www.lowrance.com)

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<b>IMPORTANT SAFETY INFORMATION</b> <b>Please read carefully before installation and use.</b>	
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards, Obey all safety messages that follow this symbol to avoid possible injury or death.
	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

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## ***Important Safety Information***

### **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide a 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 and 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 dealer or an experienced radio/TV technician for help.

### **RF Emissions Notice**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device's antenna must be installed in accordance with provided instructions; and it must be operated with minimum 37" (96 cm) spacing between the antennas and all person's body (excluding extremities of hands, wrist and feet) during operation. Further, this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

#### **CAUTION**

The antenna(s) used for this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This device is approved with emissions having a source-based time-averaging duty factor not exceeding 50%.

Maintain a minimum of 89 cm (35 inches) distance between the antenna and any person. Failure to observe these restrictions will result in exceeding the FCC RF exposure limits.

## IMPORTANT

1. DSC functions will not operate until you have entered your user MMSI.
2. The radio channels installed into the radio may vary from country to country, depending upon the model and government or national communications authority regulations.
3. Lowrance recommends that you check the radio operating licensing requirements of your country before using the radio. The operator is solely responsible for observing proper radio installation and usage practices.
4. A DSC warning label is supplied with the LVR-880US. To comply with FCC regulations, this label must be affixed in a location that is clearly visible from the operating controls of this radio. Make sure that the chosen location is clean and dry before applying this label.
5. This radio is designed to generate a digital maritime distress call to facilitate search and rescue. To be effective as a safety device, this radio must be used only within the geographic range of a shore-based VHF marine Channel 70 distress and safety watch system. The geographic range may vary but under normal conditions is approximately 20 nautical miles.

It is the owner's sole responsibility to install and use the instrument in such a manner that will not cause accidents, personal injury or property damage.

Lowrance disclaims all liability for any use of this product in a way that may cause accidents, damage or that may violate the law.

Governing Language: This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of Documentation, the English language version of the Documentation will be the official version of the Documentation.

This manual represents the LVR-880US and LVR-880EU radios at the time of printing. Lowrance reserves the right to make changes to specifications without notice.

# Installation Options

## Checklist

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Check that you have all the following items BEFORE starting the installation. Contact your dealer if an item is missing.

**Note:** A VHF antenna is NOT provided by Lowrance. Consult your Lowrance dealer for advice if necessary.

- LVR-880US or LVR-880EU base station, with microphone attached
- GPS connector
- 70" (1.8 m) FM antenna with phono connection
- FM antenna adapter (phono to automotive type FM antenna)
- 1 GROUND screw and 1 GROUND plain washer (use, if required, to ground the LVR-880)
- Mounting bracket
  - 4 self-tapping screws
  - 4 flat screws
  - 4 plain washers
  - 4 spring washers
  - 4 nuts
  - 2 mounting knobs
- Power supply cable (with 7 A fuseholder incorporated)
- Spare 7 A fuse
- 2 M5 x 32 screws with 2 plain washers and 2 nuts (use for a recessed installation)
- Dust cover
- Operation Manual
- Microphone wall hanger
  - 2 self-tapping screws
  - 2 flat screws
  - 2 plain washers
  - 2 spring washers
  - 2 nuts

You will need the following tools:

- Power drill (or hand drill)
- Philips screwdriver
- Jig saw (for a recessed installation)

## ***Location Requirements***

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Check these location requirements BEFORE doing any drilling or cutting.

Whichever installation option you choose, check that the installation site:

- is at least 39" (1 m) from the antenna location
- allows easy connection to a 10 A fused 13.6 V DC electrical source and the antenna
- is at least 18" (46 cms) from the compass - to avoid creating magnetic deviation of the compass when you are operating the radio
- has a suitable space close by, where you can install the microphone wall hanger and the DSC warning label (LVR-880US only)
- provides easy access to the radio controls on the front panel
- provides reasonable access to the wiring at the back of the radio

## ***Choose an Installation Type***

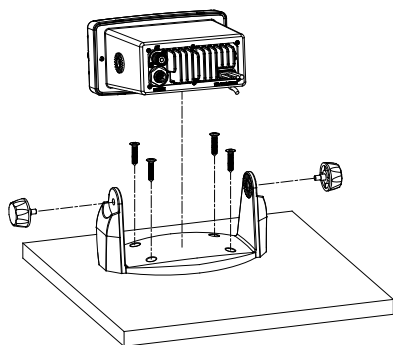
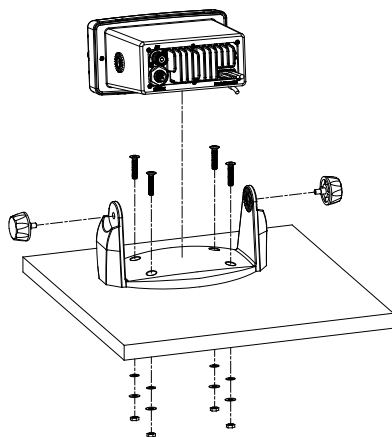
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There are 2 ways to install the radio. You can choose:

- a mounting bracket installation. The radio is held within a mounting bracket that is fixed to a suitable site such as the dashboard or an overhead mounting. The radio can be removed for storage and you can adjust the viewing angle.
- a recessed installation. The radio is screwed into a cavity cut into a bulkhead. The fixture is permanent and you cannot adjust the viewing angle. Use the mounting template supplied with this radio.

## Mounting Bracket Installation

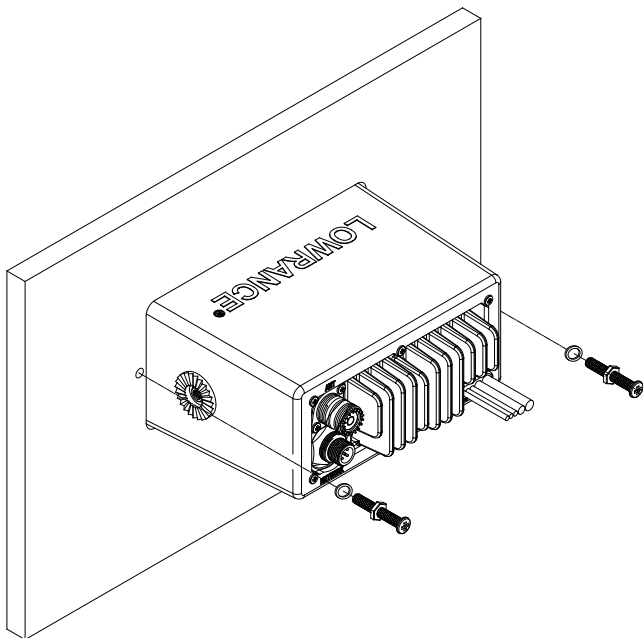
1. Hold the mounting bracket at the chosen location and use a soft pencil to mark the 4 screw hole positions onto the mounting surface.
2. Drill the 4 screw holes where marked. Drill completely through the mounting surface.  
**Note:** If you are drilling into fiberglass, use a small drill bit to drill pilot holes before drilling the screw holes.
3. Use the flat screws, spring washers, plain washers, and nuts to attach the mounting bracket to the location site OR, if you cannot reach behind the mounting surface to attach the nuts, use the self-tapping screws instead of the flat screws.
4. Slide the radio into the mounting bracket.
5. Insert the 2 mounting knobs through the holes and tighten them sufficiently to hold the radio at your preferred viewing angle.
6. You can adjust the viewing angle at any time. The viewing angle has a 20° tilt range.
7. Now install the microphone wall hanger.





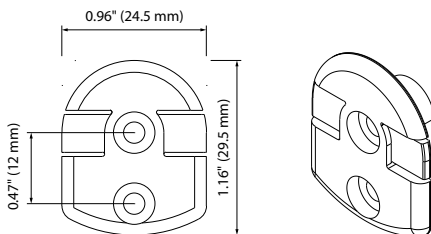
## Recessed Installation

1. Tape the mounting template to the chosen location. Ensure that the template is smooth and taut.
2. Drill the 2 screw holes where marked. Drill completely through the mounting surface.  
**Note:** If you are drilling into fiberglass, use a small drill bit to drill pilot holes before drilling the screw holes.
3. Drill through the corners of the hatched area where marked, then cut out the hatched area to create a cavity in the mounting surface. (The dashed line shows the total area that will be covered by the radio fascia after installation.)
4. Remove the mounting template and slide the radio into the cavity.
5. Working from the rear of the bulkhead, screw the radio firmly to the mounting surface using the 2 M5 x 32 screws with the plain washers and nuts. (The screws should not be visible from the front of the radio.)
6. Now install the microphone wall hanger.



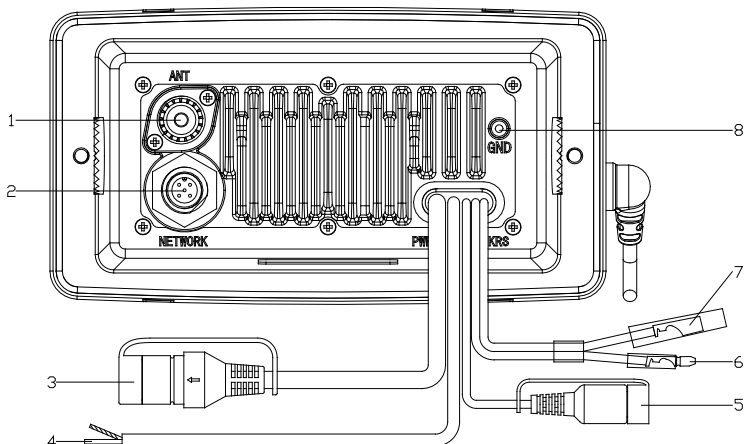
## Microphone Wall hanger

1. Hold the microphone wall hanger at the chosen location and use a soft pencil to mark the 2 screw hole positions onto the mounting surface.
2. If the mounting surface is:
  - non-metallic, use the 2 self-tapping screws and 2 plain washers to attach the microphone wall hanger to the mounting surface.
  - metallic, use the 2 flat screws, 2 spring washers and 2 nuts to attach the microphone wall hanger to the mounting surface.
3. Hang up the microphone. Now connect the radio.



## Connect the Radio

Both NMEA0183 and NMEA2000 is supported by this radio. Use the GPS connector to connect NMEA0183 or the N2K connector for NMEA2000 connections.

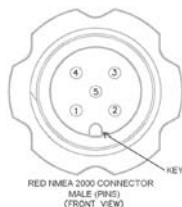
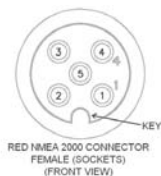


## 1 VHF Antenna

Not supplied. A suitable radio antenna must be mounted and connected before you can operate the radio. Consult your Lowrance dealer for advice, if necessary.

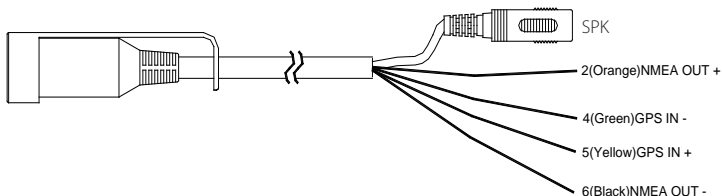
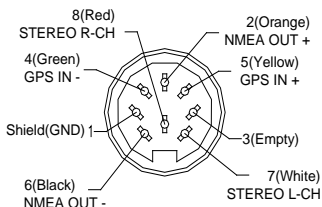
ALWAYS mount the VHF antenna as high as possible and at least 37" (96 cm) from the base station.

## 2 NMEA2000 (N2K) Connector



Pin / Socket	Wire Color	Function (NMEA2000)
1	Green	Can-D, Drain wire, Shield
2	Red	Can-S, Power, +12 V DC
3	Black	Can-C, Ground
4	White	Can-H, Data HIGH
5	Blue	Can-L, Data LOW

### 3 GPS Connector



Line up the arrow on the GPS connector with the arrow on the GPS cable and plug together. The pin details are shown for information.

Pin /Socket	Wire Color	Function
1	Shield	GROUND
2	Orange	NMEA OUT (+) (NMEA0183)
3	Program/clone	<i>(not used)</i>
4	Green	NMEA IN (-) (NMEA0183)
5	Yellow	NMEA IN (+) (NMEA0183)
6	Black	NMEA OUT (-) (NMEA0183)
SPK	-	External speaker - FM Stereo (left channel)
SPK	-	External speaker - FM Stereo (right channel)
SPK	-	External speaker - VHF

#### External Speakers - SPK connector:

- **FM Stereo:** You can connect 2 x 2W 8Ω speakers to the **SPK** connector for Stereo output of the FM stereo radio - **OR**

- **VHF:** You can connect 1 x 2W 8Ω or 1 x 4W 4Ω speaker to the **SPK** connector.

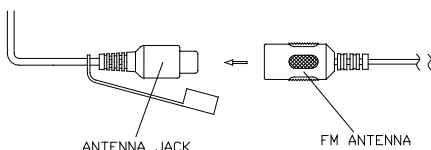
## 4 Hailer Horn

Wire Color	Function	Details
White	(+)	Connect to hailer speaker +
Shield	(-) Shield	Connect to hailer speaker -

**IMPORTANT:** Do not short these 2 wires. Install the hailer horn in a forward-facing location on the boat because the hailer horn will transmit the FOG horn sounds and will 'listen back' when not transmitting.

**Note:** We recommend you use a hailer horn of 4 Ohms to obtain maximum 22 W audio output power.

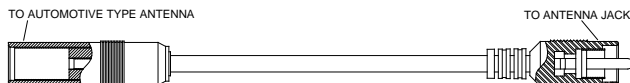
## 5 FM Antenna Jack



Plug in the FM antenna, as shown. Fully stretch out the 70" (1.8 m) long-wire FM antenna in a vertical position for best reception, and tie securely. Be sure to keep the FM antenna separate from other cable wires in the boat.

**NOTE:** If your location is quite far from local FM radio stations, it is recommended a standard 75 OHM FM vertical antenna be used instead of the supplied long wire antenna.

Use the supplied FM antenna adapter to connect to a standard automotive type FM antenna.



## 6,7 DC Power

Wire Color	Function	Details
Red	(+) 13.6 V DC	Connect this wire to the positive battery terminal. Use at least a 10 A fused 13.6 V DC electrical service to the radio.
Black	(-) Ground	Connect this wire to the battery negative terminal.

## 8 GROUND

The battery negative **MUST** be common to the boat's seawater GROUND. (Optional) You can connect the base station to the boat's seawater GROUND. Use the GROUND screw and GROUND plain washer supplied to make this connection.

## Your user MMSI

The user MMSI (Marine Mobile Service Identity) is a unique 9 digit number, similar to a personal telephone number. It is used on marine transceivers that are capable of using DSC (Digital Select Calling).

If you are:

- outside of the USA, contact the appropriate authorities in your country to obtain your user MMSI. If you are unsure who to contact, consult your Lowrance dealer.
- in the USA, you can obtain your FREE user MMSI by visiting **[www.boatus.com/mmsi/](http://www.boatus.com/mmsi/)** and registering your vessel on the database. The database is integrated with FCC and Coast Guard records.

You must enter your user MMSI before you can access the DSC functions.

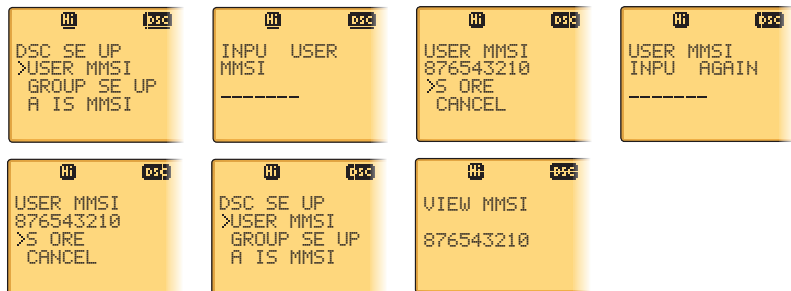
### Enter your USER MMSI

This is a ONCE-ONLY operation. You must enter your user MMSI before you can access the DSC functions.

You can display and read your user MMSI at any time, but you get only one opportunity to enter your user MMSI.

The user MMSI (Marine Mobile Service Identity) is a unique 9 digit number, similar to a personal telephone number. It is used on marine transceivers that are capable of using DSC (Digital Select Calling).

Contact the appropriate authorities in your country to obtain your user MMSI. If you are unsure who to contact, consult your Lowrance dealer.



1. Turn the Power / Volume knob to the right (clockwise) to power on your radio.
2. Hold down DSC MENU for about 3 seconds to put the radio in MENU mode.
3. The cursor is at WAYPOINT. Press + or – on the microphone OR turn the Channel Select knob to move the cursor to DSC SETUP.

4. Push ENTER (the center of the Channel Select knob) to show the DSC SETUP menu.
5. The cursor is at USER MMSI. Push ENTER.

A dashed line appears. Enter your MMSI along the dashed line, one number at a time, as follows:

Press + or – on the microphone OR turn the Channel Select knob on the base station to select the first number of your user MMSI. Push ENTER to confirm each correct entry and to move to the next position.

If you make an error, press – on the microphone until the < character appears, then push ENTER to backup and correct the number.

6. When you have entered the last number, push ENTER.
7. Enter your user MMSI again as a password check, then push ENTER to permanently store your user MMSI and return to the menu.
8. You can view your stored user MMSI at anytime by selecting USER MMSI in the main menu.

Now enter your ATIS MMSI if you will be operating on European inland waterways. If you will not be operating on European inland waterways, specify your FM region.

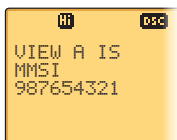
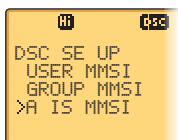
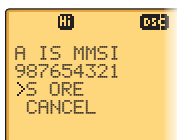
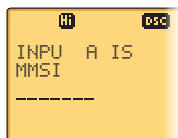
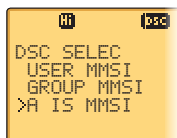
### ***Enter your ATIS MMSI (LVR-880EU only)***

If you are navigating inland waterways within Europe, you must enter your ATIS MMSI to access ATIS functionality.

An ATIS MMSI always starts with 9.

ATIS sends a digital message whenever you release the PTT button. Inland waterways rules require 1 W Tx power on Channels 06, 08, 10, 11, 12, 13, 14, 15, 17, 71, 72, 74, and 77.

**IMPORTANT:** This is a ONCE-ONLY operation. You can view your ATIS MMSI at any time, but you get only ONE opportunity to enter it.



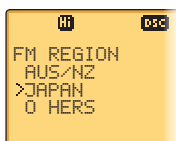
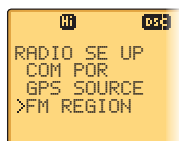
1. Press + or – on the microphone OR turn the Channel Select knob to move the cursor to move the cursor to ATIS MMSI and push ENTER.

A dashed line appears. Enter your ATIS MMSI along the dashed line, one number at a time, using the same method that you used for your user MMSI.

2. When you have entered the last number, push ENTER.
3. Enter your ATIS MMSI again as a password check, then push ENTER to permanently store your ATIS MMSI and return to the menu.
4. You can view your stored ATIS MMSI at anytime by selecting ATIS MMSI in the main menu.

Now specify your FM region.

### ***Specify your FM Region***

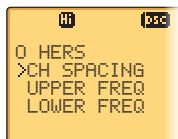


1. Press + or – on the microphone OR turn the Channel Select knob to move the cursor to FM REGION and push ENTER to show the FM REGION options.

**Note:** All of the options cannot be shown on one screen so you may need to scroll the cursor down the listing to show your FM region.

2. The cursor is at USA.
3. If you want to select a different FM region, move the cursor to that FM region and press ENT. If you selected USA, EUROPE, AUS/NZ, or JAPAN, the FM REGION selection is now complete.

If you selected OTHERS, you must also specify the channel spacing, upper frequency, and lower frequency:



4. Press ENT to select CH SPACING then select the channel spacing.
5. Select UPPER FREQ then select the upper frequency (between 108.00 and 106.00 MHz).
6. Select LOWER FREQ then select the lower frequency (between 87.50 and 89.50 MHz).
7. Push ENTER to confirm your selection. Your radio installation and setup is now complete and you can use the radio.



## ***Navico Full Two-Year Lowrance VHF Warranty***

"We," "our," or "us" refers to NAVICO, the manufacturer of this Lowrance VHF 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 two (2) years from the date of original purchase by you. Battery Packs and accessory items have a one (1) year warranty. WE MAKE NO OTHER EXPRESS WARRANTY 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 two years 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 two years 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.

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

## ***How to Obtain Service***

### ***In the USA***

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We back your investment in quality products with quick, expert service and genuine Lowrance replacement 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***

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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***

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If you have technical, return or repair questions, contact the dealer in the country where you purchased your unit. To locate an Lowrance dealer near you, visit our web site or consult your telephone directory for listings.

**[www.lowrance.com](http://www.lowrance.com)**

### ***Accessory Ordering Information for all countries***

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To order Lowrance accessories, please contact:

1. Your local marine dealer or consumer electronics store. Most quality dealers that handle marine electronic equipment or other consumer electronics should be able to assist you with these items.

To locate an Lowrance dealer near you visit our web site or 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](http://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 commend 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 day time 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.

## Notes

[illegible]

# LOWRANCE®

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Navico

MN000797B-G



Industry  
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Industrie  
Canada

