



## GSD™ 24/26 Installation Instructions

To obtain the best performance and to avoid damage to your boat, install the Garmin® GSD 24/26 unit according to the following instructions. Professional installation of the unit is highly recommended, because specific knowledge of boat construction is required to properly install the unit.

**Read all installation instructions before proceeding with the installation.** If you experience difficulty during the installation, contact Garmin Product Support.

### Registering Your Device

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.

### Contacting Garmin Product Support

Contact Garmin Product Support if you have any questions about this product.

- In the USA, go to [www.garmin.com/support](http://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](http://www.garmin.com/support) and click **Contact Support** for in-country support.

### Important Safety Information

#### WARNING

You are responsible for the safe and prudent operation of your vessel. Sonar is a tool that will enhance your awareness of the water beneath your boat. It does not relieve you from the responsibility of observing the water around your boat as you navigate.

When drilling or cutting, always check the opposite side of the surface. Be aware of fuel tanks, electrical cables, and hydraulic hoses.

#### CAUTION

Failure to install and maintain this equipment in accordance with these instructions could result in damage or injury.

Always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

#### NOTICE

This equipment must be installed by a qualified marine installer.

### Transducers

A transducer is required to send and receive the sonar signal from the GSD 24/26. Proper transducer selection and installation are critical to the operation of the GSD 24/26. Because mounting locations vary, see your local Garmin dealer or contact Garmin Product Support for more information. Go to [www.garmin.com](http://www.garmin.com) to view a full list of transducers.

## GSD 24/26 Installation

### NOTICE

The GSD 24/26 must be installed according to the following instructions to get the best possible performance. If you experience difficulty with the installation, contact Garmin Product Support.

Because every boat is different, you must carefully plan the GSD 24/26 sounder installation.

- 1 Select a mounting location ([page 1](#)).
- 2 Mount the sounder ([page 1](#)).
- 3 Connect the sounder to the Garmin Marine Network and to power ([page 2](#)).
- 4 Connect the sounder to the transducer ([page 2](#)).

### Tools Needed

**NOTE:** If you are not using the mounting hardware included in the kit, use the most appropriate tool for securing that hardware.

- Drill
- #8 (5 mm) drill bit appropriate for mounting surface
- 1 1/4 in. (32 mm) paddle drill bit or hole saw appropriate for mounting surface
- #2 Phillips screwdriver
- 3 mm flat screwdriver
- Cable ties (optional)
- Wire cutter
- Wire stripper
- 1 in. (24 mm) and 19/32 in. (15 mm) wrenches
- Marine sealant (optional)

### Mounting the Sounder

#### Mounting Location Considerations

- The sounder dimensions and mounting hole locations can be reviewed on the templates included in the sounder package.
- The sounder must be mounted in a location where it cannot be submerged.
- The sounder must be mounted in a location with adequate ventilation where it will not be exposed to extreme temperatures.
- The sounder should be mounted in such a way that the LED is visible.
- The sounder should be mounted so that the power and network cables can be easily connected.
- The sounder should be mounted so that the transducer cable can be connected. If required, transducer extension cables up to 20 ft. (6 m) are available through your Garmin dealer.

#### Mounting the Sounder

- 1 After you select a mounting location ([page 1](#)), determine the mounting hardware needed for the surface.  
Mounting hardware is included with the sounder, but it may not be suitable for the mounting surface.
- 2 If necessary, purchase the mounting hardware.
- 3 Complete an action:
  - Hold the sounder in the intended mounting location and mark the locations of the mounting holes in the mounting surface, using the sounder as a template.
  - Use the template included with your sounder to mark the locations of the mounting holes.
- 4 Drill the mounting holes through the mounting surface.
- 5 Secure the sounder to the mounting surface using the selected mounting hardware.

## Connecting the Sounder

### NOTICE

Do not force a cable into its port. Forcing the cable can damage the pins. If the cable is properly aligned, the cable should connect easily.

If you are connecting 6-pin transducer to a GSD 24 you must use the included adaptor. Refer to the *GSD 24 Transducer Adaptor Installation Instructions* included in the package for more information.

Before you connect the sounder to the network, power, and the transducer, you must mount the sounder ([page 1](#)).

- 1 Route the cables using appropriate tie wraps, fasteners, and sealant to secure the cables along the route and through any bulkhead or deck ([page 2](#)).
- 2 Install the locking rings on the marine network and power cables ([page 2](#)).
- 3 Connect the bare-wire end of the power cable to a 12 Vdc power source and to ground.
- 4 Align the notch on the end of the power cable with the power port on the device, and press the cable into place.
- 5 After the cable is seated, turn the locking ring clockwise until it stops.
- 6 Select an option:
  - If you are installing a GSD 24, repeat steps 4 and 5 for the network and transducer cables.
  - If you are installing a GSD 26, repeat steps 4 and 5 for the network cable, and refer to "Connecting the GSD 26 to a Transducer" on [page 2](#).
- 7 Select an option:
  - If your boat is equipped with a GMS™ 10 network port expander, connect the network cable to an available port on the GMS 10.
  - If your boat is not equipped with a GMS 10 network port expander, connect the network cable directly to the NETWORK port on your chartplotter.

## Connecting the GSD 26 to a Transducer or Sensor

### NOTICE

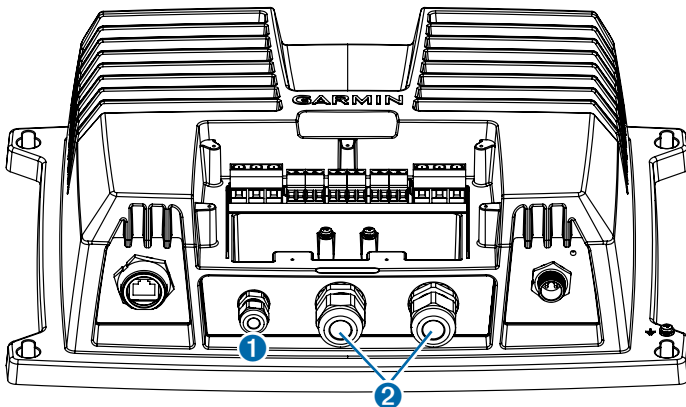
You must install cord grip plugs in any unused cord grip to ensure that water cannot enter the transducer wiring block area and damage the sounder.

The terminal blocks are not removable.

### Preparing the Cable

- 1 Remove the terminal block lid from the sounder with a #2 Phillips screwdriver.
- 2 Select an option:
  - Feed a sensor cable through the small cord grip ①, and pull it into the terminal block area.
  - Feed a transducer cable through one of the large cord grips ② on the housing, and pull it into the terminal block area.

Do not tighten the cord grips at this time.



## Connecting the Wires

Before you connect the wires, consult the wiring diagrams on [pages 3–4](#) to view the proper wiring configuration for your transducer and the wiring tables on [page 4](#) to view specific examples of many Garmin/Airmar transducer wire colors.

- 1 Connect the uninsulated section of each wire to the terminal block using a 3 mm flat screwdriver.
- 2 Connect the bare shield wire to one of the two ground posts under the terminal block using a #2 Phillips screwdriver.

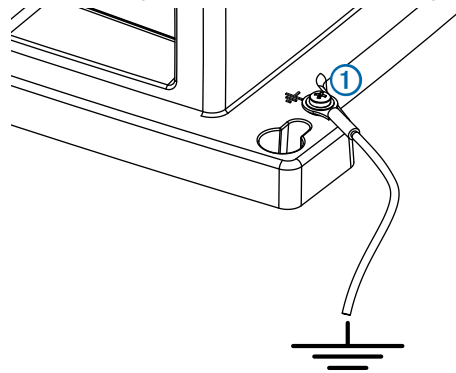
### Finalizing the Connection

- 1 After all the wire connections are secure, use a 1 in. (24 mm) wrench to tighten the nut around the transducer cable.  
When tightening correctly you will not be able to pull the transducer cable out of the housing.
- 2 Install cord grip plugs in the unused cord grips.
- 3 Replace and secure the terminal block lid on the sounder with a #2 Phillips screwdriver.  
The sounder will not operate with the lid removed.

### Grounding the Sounder

Before you ground the sounder, you must mount it ([page 1](#)) and connect the marine network, power, transducer, and sensors ([page 2](#)). The chassis ground post is located on the exterior of the chassis, adjacent to a corner mounting hole.

Connect the chassis ground post ① to the boat water ground circuit.



## Cable Routing Grommets

### NOTICE

Cable routing grommets do not create a waterproof seal. To create a waterproof seal, apply a marine sealant around the grommet and cable after installation. Be sure to test the system before sealing the grommets.

When routing cables through your boat, it may be necessary to drill holes to route the connector end of the cables. Rubber grommets are provided to cover the cable holes for a finished look. You can purchase additional grommets from your Garmin dealer or directly from Garmin at [www.garmin.com](http://www.garmin.com).

### Installing the Cable Grommet

- 1 Mark the location where you want to route the cable.
- 2 Using a 1 1/4 in. (32 mm) paddle drill bit or hole saw, drill the installation hole.
- 3 Route the cable through the hole to the sounder.
- 4 Spread the grommet apart at the split, and place it around the cable.
- 5 Firmly push the grommet into the installation hole until it is seated.
- 6 Apply marine sealant, as needed, to weatherproof the installation hole (optional).

## Installing Locking Rings on the Cables

Before you install locking rings on the cables, you must route the cables.

To help make the cable-routing process easier, the locking rings are packaged separately from the cables. Each locking ring is packaged in a small bag with a number on the label for easy identification.

- 1 Separate the two halves of the locking ring ①.



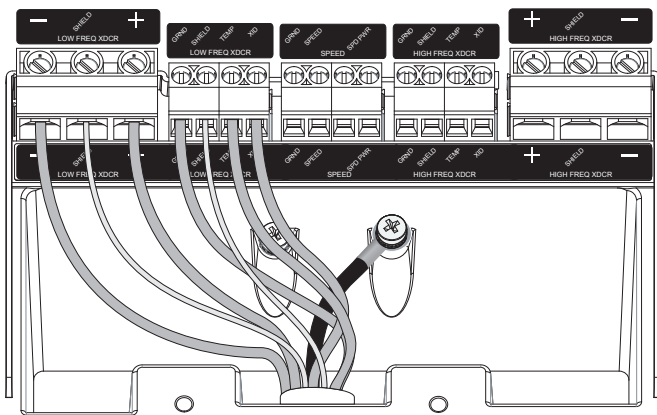
- 2 Align the two halves ② of the locking ring over the cable and snap them together.
- 3 Insert the o-ring ③ into the end of the connector.

## Transducer Wiring Diagrams

You can use these diagrams to identify the connection points for your transducer wires on the GSD 26 terminal block. Locate your transducer model in the wiring color tables on [page 4](#) for more information.

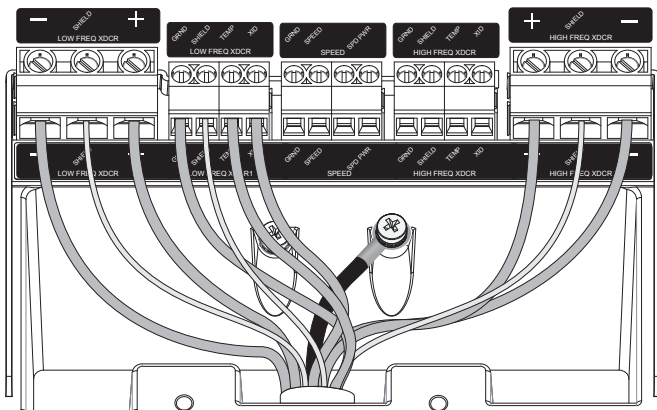
In all cases, the outer shield wire connects to one of the two screw posts below the terminal block with the included ring crimp terminal.

### Single-Element Broadband



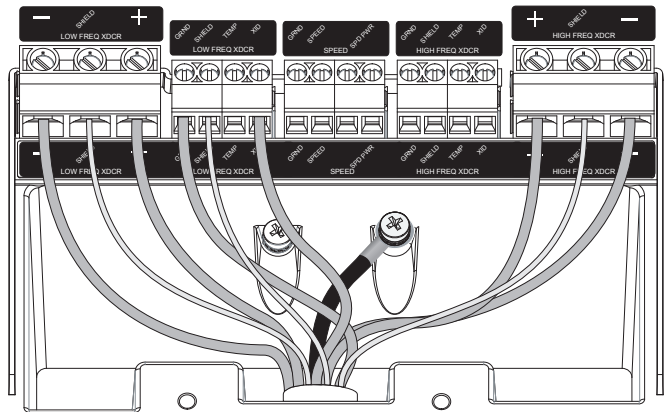
### Dual-Element Broadband with Temperature and XID

NOTE: The temperature and XID wires can be connected at either location.



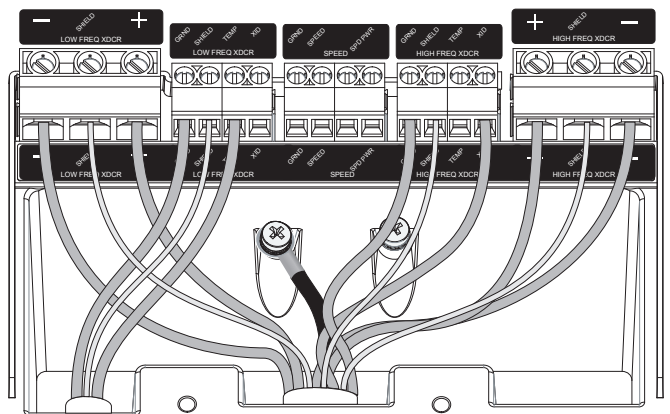
### Dual-Element Broadband with XID

NOTE: The XID wires can be connected at either location.



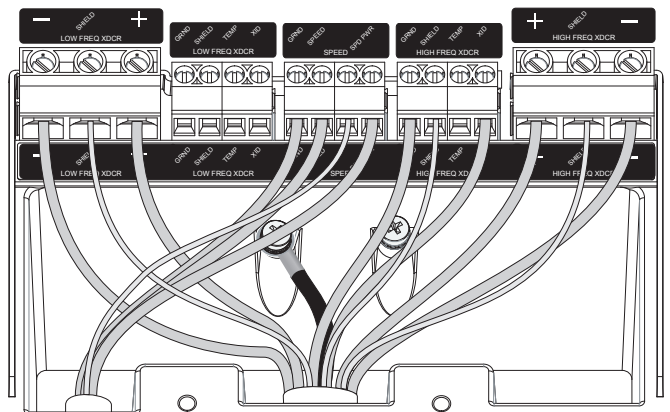
### Dual-Element Broadband with Separate Temperature Sensor

NOTE: The temperature and XID wires can be connected at either location.



### Dual-Element Broadband with Separate Speed Sensor

NOTE: The XID wires can be connected at either location.



## Transducer Wire Color Tables

You can use these tables to help identify wire functions on certain Garmin or Airmar® transducers.

### 50/200 kHz Dual-Frequency Transducers

Garmin Part	Description	+	-	Ground	Temp	Temp (Ground)	XID	Speed Power	Speed Data
010-10272-00	Garmin 50/200	Red	Black	Bare	White	Green	NA	NA	NA
010-10182-00	Airmar B117 depth only	Blue	Black	Bare	NA	NA	NA	NA	NA
010-10182-01	Airmar B117 with temp	Blue	Black	Bare	White	Brown	NA	NA	NA
010-10183-02	Airmar B744V	Blue	Black	Bare	White	Brown	NA	Red	Green
010-10192-01	Airmar P66	Blue	Black	Bare	White	Brown	NA	Red	Green
010-10193-02	Airmar B744VL Long stem	Blue	Black	Bare	White	Brown	NA	Red	Green
010-10194-00	Airmar P319 depth only	Blue	Black	Bare	NA	NA	NA	NA	NA
010-10194-01	Airmar P319 with temp	Blue	Black	Bare	White	Brown	NA	NA	NA
010-10327-00	Airmar P79 adjustable in-hull	Blue	Black	Bare	NA	NA	NA	NA	NA
010-10445-00	Airmar M260 for 500W sonar units	Blue	Black	Bare	NA	NA	Orange**	NA	NA
010-10451-00	Airmar B260 for 500W sonar units	Blue	Black	Bare	White	Brown	NA	NA	NA
010-10982-00	Airmar B60 with 20° tilt	Blue	Black	Bare	White	Brown	NA	NA	NA
010-10982-01	Airmar B60 with 12° tilt	Blue	Black	Bare	White	Brown	NA	NA	NA
010-10983-00	Airmar B45 Narrow Stem	Blue	Black	Bare	White	Brown	NA	NA	NA

\*\* Brown before 2/1/07

### High-Power Dual-Frequency Transducers

Garmin Part	Description	+	-	Ground	Temp	XID
010-10640-00	Airmar B260	Blue	Black	Bare	White	Orange**
010-10641-00	Airmar M260	Blue	Black	Bare	NA	Orange**
010-10642-00	Airmar R99	Blue	Black	Bare	White	Orange**
010-10643-00	Airmar R199	Blue	Black	Bare	NA	Orange**
010-10703-00	Airmar B258	Blue	Black	Bare	White	Orange**
010-11010-00	Airmar B164 with 20° tilt	Blue	Black	Bare	White	Orange
010-11010-01	Airmar B164 with 12° tilt	Blue	Black	Bare	White	Orange
010-11140-00	Airmar SS270W widebeam	Blue	Black	Bare	White	Orange
010-11395-00	Airmar TM260	Blue	Black	Bare	White	Orange

\*\*Brown before 2/1/07

### CHIRP/Spread Spectrum Transducers

Garmin Part	Description	Low Freq +	Inner Shield	Low Freq -	Ground	Inner Shield	Temp	XID	High Freq +	Inner Shield	High Freq -	Outer Shield
010-11640-20	Airmar R509LH	Blue/White**	Bare	Black/White	Brown	Bare	White	Orange	Blue	Bare	Black	Bare
010-11641-20	Airmar R599LH	Blue/White**	Bare	Black/White	Brown	Bare	White	Orange	Blue	Bare	Black	Bare
010-11642-20	Airmar R109LH	Blue/White**	Bare	Black/White	Brown	Bare	White	Orange	Blue	Bare	Black	Bare
010-11643-20	Airmar R111LH	Blue/White**	Bare	Black/White	Brown	Bare	White	Orange	Blue	Bare	Black	Bare
010-11644-20	Airmar M265LH	Blue/White**	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11645-20	Airmar B265LH	Blue/White**	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11646-20	Airmar TM265LH	Blue/White**	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11647-20	Airmar B265LM	Blue/White**	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11650-20	Airmar TM265LM	Blue/White**	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11808-20/21/22	Airmar B175H	NA	NA	NA	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11809-20/21/22	Airmar B175L	Blue/White	Bare	Black/White	Brown	NA	White	Orange	NA	NA	NA	Bare
010-11810-20/21/22*	Airmar B175M	Blue	Bare	Black	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11811-20	Airmar PM265LH	Blue/White	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Black	Bare
010-11812-20	Airmar PM265LM	Blue/White	Bare	Black/White	Brown	NA	White	Orange	Blue	Bare	Blue	Bare
010-11813-20	Airmar CM599LH	Blue/White	Bare	Black/White	Brown	Bare	White	Orange	Blue	Bare	Black	Bare

\* Can be connected to either Low Freq or High Freq terminal blocks. XID must be connected on the same side.

\*\* Yellow before 11/2010

## Blink Codes

When the sounder is installed, it turns on when the chartplotter is turned on. The two-color (green and red) LED on the sounder indicates the current operational status of the device.

LED Color	Blink Speed	Status
Green	Slow	Sounder is connected to a chartplotter and is operating properly. You should see sonar data on the chartplotter
Red	Slow	Sounder is turned on, but is not connected to a chartplotter, is waiting to connect to a chartplotter, or has a malfunctioning XID. If the sounder is connected to the chartplotter and this code persists, check the wiring and connections.
Red/Green	Fast	Sounder is in test mode.
Red	Very Fast	System alarm. The chartplotter displays a message indicating the type of failure. When the alarm condition is fixed, the sounder must be completely disconnected from and reconnected to its power source to clear the alarm.
Red	Solid	Sounder has a hardware failure. Contact Garmin Product Support for assistance.

## Specifications

Size	GSD 24: L × W × H: 8 × 11.2 × 3.2 in. (204 × 283 × 81 mm) GSD 26: L × W × H: 10.8 × 14.7 × 3.9 in. (274 × 373 × 100 mm)
Weight	GSD 24: 5.27 lb. (2.39 kg) GSD 26: 11.37 lb. (5.16 kg)
Case Material	GSD 24: Fully gasketed, aluminum and steel housing, waterproof to IEC 529-IPx7. GSD 26: Fully gasketed, aluminum and steel housing with plastic access panel, waterproof to IEC 529-IPx7.
Temperature Range	From 5°F to 158°F (from -15°C to 70°C)
Power Input	10–35 V
Power Usage	GSD 24: 40 W maximum GSD 26: 100 W maximum
Fuse	GSD 24: 7.5 A GSD 26: 10 A
Compass Safe Distance	GSD 24: 15.75 in. (40 cm) GSD 26: 23.6 in. (60 cm)
Sounder Power	GSD 24: 25–2,000 W rms* GSD 26: 25–3,000 W rms* *dependent upon transducer rating and depth
Frequency	GSD 24: 50/200 kHz GSD 26: 25–210 kHz (dependent upon transducer)
Depth	GSD 24: 5,000 ft. (1,512 m)** GSD 26: 10,000 ft. (3,048 m)** **maximum depth, dependent upon transducer, water salinity, bottom type, and other water conditions
Data Output	Garmin Marine Network

## Declaration of Conformity

Hereby, Garmin International, Inc. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EEC. The Declaration of Conformity may be obtained at [www.garmin.com/compliance](http://www.garmin.com/compliance).

## FCC Compliance

This device complies with part 15 of the 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. 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 may cause harmful interference to radio communications if not installed and used in accordance with the instructions. 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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet that is on a different circuit from the GPS unit.
- Consult the dealer or an experienced radio/TV technician for help.

## Industry Canada Compliance

Category I radiocommunication devices comply with Industry Canada Standard RSS-210. Category II radiocommunication devices comply with Industry Canada Standard RSS-310. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## 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 apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iv) damage caused by service performed by anyone who is not an authorized service provider of Garmin; or (v) damage to a product that has been modified or altered without the written permission of Garmin. In addition, Garmin reserves the right to refuse warranty claims against products or services that are obtained and/or used in contravention of the laws of any country.

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.

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Garmin retains the exclusive right to repair or replace (with a new or newly-overhauled replacement product) the device 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 device 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 device, freight charges prepaid, to any Garmin warranty service station.

**Online Auction Purchases:** Products purchased through online auctions are not eligible for warranty coverage. 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 may be provided by international distributors for devices purchased outside the United States depending on the country. If applicable, this warranty is provided by the local in-country distributor and this distributor provides local service for your device. Distributor warranties are only valid in the area of intended distribution. Devices 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.

**Australian Purchases:** Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under our Limited Warranty are in addition to other rights and remedies under applicable law in relation to the products.

Garmin Australasia  
Unit 19, 167 Prospect Highway  
Seven Hills, NSW, Australia, 2147  
Phone: 1800 822 235

**Garmin's Marine Warranty Policy:** Certain Garmin Marine products in certain areas have a longer warranty period and additional terms and conditions. Go to [www.garmin.com/support/warranty.html](http://www.garmin.com/support/warranty.html) for more details and to see if your product is covered under Garmin's Marine Warranty Policy.

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