



LGC-12

GPS Module

Installation Instructions

This package contains an LGC-12 GPS antenna/receiver module with the parts needed for mounting the module on a flat surface or pole. A magnet is included for temporary mounting on any ferrous metal surface.

This module is compatible with the following products: Lowrance® LCX-15 series, LCX-16 series, LMS-240, GlobalMap® 3000 and GlobalMap® 2400. The module can also send and receive NMEA data to a personal computer or any other NMEA-compatible device with RS-232 I/O.

Tools required for installation are: wire pliers, flat screwdriver, drill, 1" drill bit and 3/16" drill bit.

The LGC-12 GPS module contains a 12 parallel channel GPS receiver. There are several different models of this GPS module: The **LGC-12** model attaches directly to Lowrance® products that display GPS position information. It has a gray connector on the end of the cable. The **LGC-12 PC** model has a connector for use with a personal computer and a cigarette lighter adapter for power. The **LGC-12 OEM** model has bare wires for a serial connection to any device with RS-232 I/O.

All models require 9 to 20 volts DC power. The LGC-12 is supplied power from the equipment it's attached to. The other models require power to be supplied externally.

All of the GPS modules can be mounted on any flat surface, provided there is access behind the mounting surface for the screws. The supplied magnet allows the module to be easily used on cars or off-road vehicles. The pole mount adapter lets you mount the antenna on a pole or swivel mount that uses standard marine 1" - 14 threads.

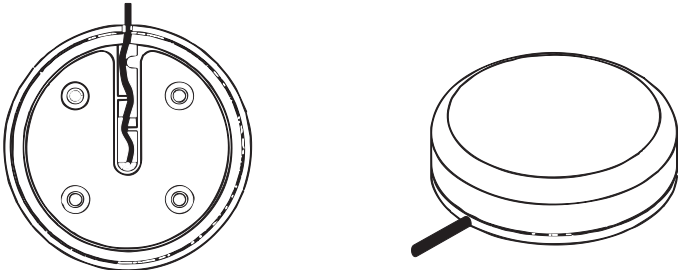
The LGC-12 PC and LGC-12 OEM come with 25 feet of cable. The LGC-12 has a short cable with a gray connector on the end. A 25-foot extension cable is supplied with this model. The extension cable has a male connector on one end and a female connector on the other. Be sure to install the cable with the female connector at the antenna.

GPS MODULE INSTALLATION

Surface Mount

The GPS module can be easily installed on any flat surface that is at least 90 mm (3-1/2") wide. Be sure that a clear, unobstructed view of the sky is available at the selected location. GPS signals travel "line-of-

sight" at very high frequencies, so nearly anything blocking the antenna can stop the unit from finding a satellite. *Caution: Do not mount in line with a radar antenna. Radar radiates high energy signals that can interfere with GPS signal reception.*



LGC-12 Module, bottom view (left) and top view (right).

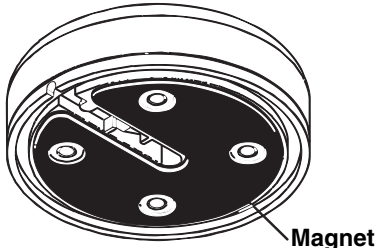
Once you've determined the mounting location, use the template on page 3 to drill the screw holes. The screws supplied with this unit are 4mm x 30mm (about 1-1/8" long). Drill 4.75 mm (3/16") holes for the mounting screws.

If you're installing the LGC-12 model and need to route the cable through the mounting surface, you'll need to drill a 25mm (1") hole for the cable's connector. There is a notch in the antenna housing that allows the cable to pass through to the outside, if desired, instead of routing it through the mounting surface.

After drilling the holes, pass the O-ring over the cable and press it into the groove on the bottom of the antenna housing. Now attach the antenna to the mounting surface, using 4mm screws and the supplied lock washers. Route the cable and the GPS module installation is finished.

Magnet Mount

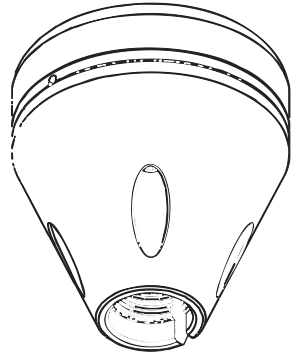
A magnet lets you temporarily mount the GPS module on any ferrous metal surface (such as a car). To use the magnet, simply peel the backing off the magnet's adhesive coating and press the magnet to the bottom of the antenna housing. The module is ready for use.



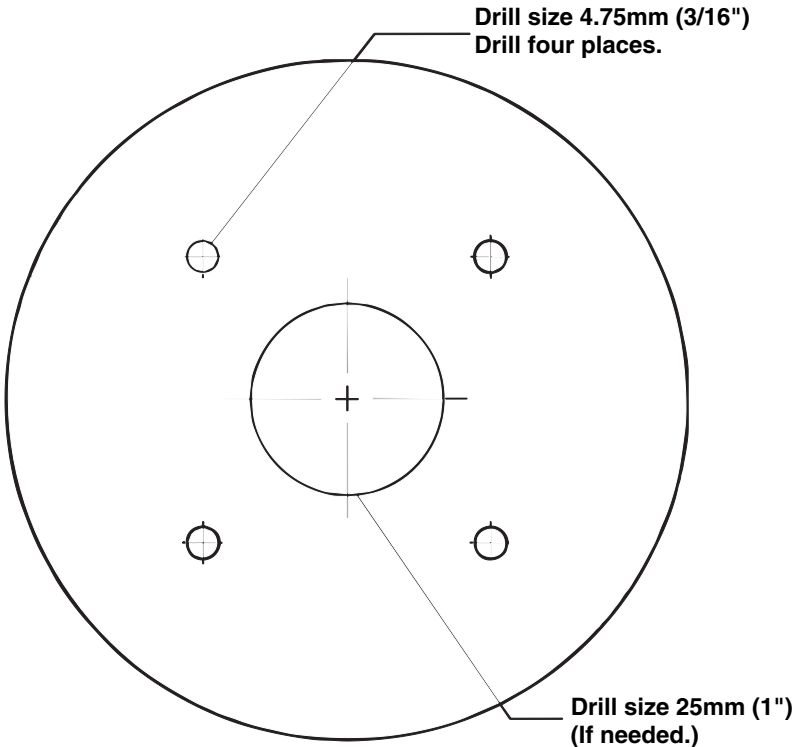
Under side view showing magnet.

Pole Mount

The GPS module attaches to the pole mount adapter with the supplied 4mm screws. You can route the cable through the slot in the side of the module and down the side of the pole. Or, you can pass it down through the pole mount adapter and run the cable inside the pole. The 1"-14 threads on the pole mount adapter accept a standard marine antenna mount.



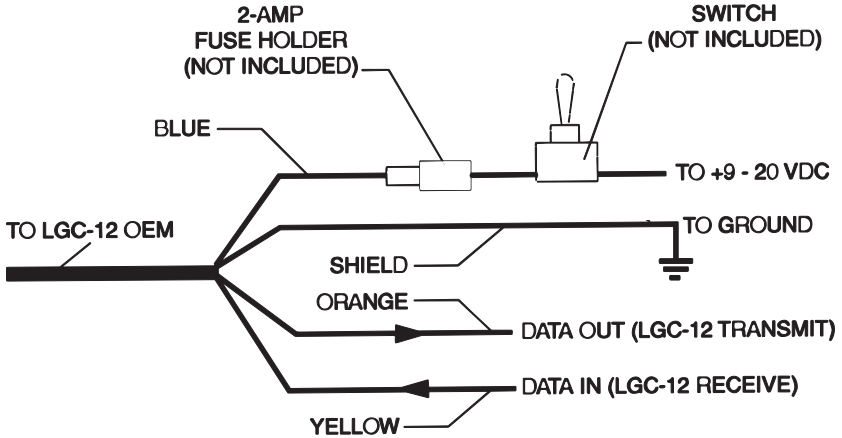
Pole mount adapter with module attached.



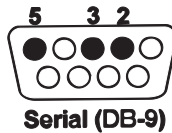
GPS module mounting template.

WIRING DIAGRAMS

LGC-12 OEM



LGC-12 PC Cable



**Computer
(Male Connector)**

**LGC-12 PC
(Female Connector)**

Ground	Pin 5	Ground
PC Transmit	Pin 3	GPS Module Recieve
PC Receive	Pin 2	GPS Module Transmit

(Note LGC-12 PC has a 2-amp fuse inside the cigarette lighter adapter.)

LOWRANCE ELECTRONICS FULL ONE-YEAR WARRANTY

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

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

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

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

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

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

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

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

How to Obtain Service...

...in the USA:

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

800-324-1356

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

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

...in Canada:

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

800-661-3983

905-629-1614 (not toll-free)

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

...outside Canada and the USA:

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

Accessory Ordering Information

To order Lowrance accessories, please contact:

1) Your local marine dealer or consumer electronics store. To locate a Lowrance dealer, visit our web site, www.lowrance.com. Click on Support, then click Dealer Locator. 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.

3) Canadian customers can write:

Lowrance/Eagle Canada, 919 Matheson Blvd. E. Mississauga, Ontario L4W2R7
or fax 905-629-3118.