

# LGC-12S GPS Module Installation Instructions

The LGC-12S GPS module contains a12 parallel channel GPS receiver. This unit attaches directly to select Lowrance<sup>®</sup> products capable of displaying GPS position information. Power for the LGC-12S is supplied from that equipment. It has a gray connector on the end of the cable.

The GPS module can be mounted on any flat surface, provided there is access behind the mounting surface for the screws. A pole mount adapter lets you mount the antenna on a pole or swivel mount that uses standard marine 1" - 14 threads.

The LGC-12 has a short cable with an gray connector on the end. A 25foot extension cable is supplied with this module with a male connector on one end and a female connector on the other. Make certain 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. Make certain that a clear view of the sky is available at the selected location. Since the GPS signals travel "line-of-sight", nearly anything blocking the antenna can potentially obstruct the unit from finding a satellite. Do not mount in line with a radar antenna. Radar radiates high energy that can interfere with the GPS signal.

Once you've determined the mounting location, use the template on this page to drill the holes for the screws. 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-12S, and need to route the cable through the mounting surface, you'll need to drill a 25 mm (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.



#### **GPS MODULE TEMPLATE**

## **Pole Mount**

The GPS module attaches to the pole mount adapter with the supplied 4 mm screws. You can route the cable through the slot in the side of the module and down the side of the pole. Alternatively, 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.



# **MMC** Interface

The MMC Interface lets you transfer maps and other data from the computer to the MMC. It connects to the PC's parallel port to transfer data and to the keyboard for power.

# Connections

First, turn the computer off.

The keyboard "Y" cable on the MMC interface has an adapter plug on one end. If your keyboard uses the small connectors, attach the keyboard to the "Y" adapter cable and plug the other end of the "Y" cable into the keyboard connector on the PC as shown below.



If your keyboard uses the large connectors, unplug the adapter from the "Y" cable, turn it over and plug it into the small connector on the other end of the "Y" cable. Plug the keyboard into one end of the "Y" cable and plug the other end of the "Y" cable into the PC.



Plug the large, 25-pin connector into the parallel port of your PC. The MMC interface is now ready for use.

# MapCreate<sup>™</sup> Installation Instructions

- 1. Insert the USA-EAST CD-ROM into the computer's drive.
- 2. Click the Start button, then Run
- 3. Type D:\setup.exe (where D: is the drive letter for your CD-ROM)
- 4. Click OK to begin the installation.

Follow the on-screen instructions.

# Types of installations

There are three types of installations:

- Typical Installs an overlay data (nav aids) and the small detail (background map) and medium detail maps. Takes approximately 70 mb.
- Compact Installs the MapCreate program with Help only
- Custom Defaults to typical. Allows the installation of all maps on the hard drive. This takes approximately 1 gigabyte of hard disk space.

## Hints:

Make certain your sonar or mapping unit's software is version 1.1.0 or greater. If it isn't, then run the Update program. Make certain the MMC Interface is connected to the computer's parallel port and an MMC cartridge is in the interface before running the Update program. After running the program, insert the MMC into the sonar or mapping unit, then turn the unit on. It will automatically update the system software, if needed.

Use the Typical or Compact installation if you are not making maps of the United States.

The more maps that you install on the hard drive, the faster the program will run because it takes less time to read maps from the hard drive than from the CD-ROM.

If speed is a problem, don't run MapCreate with the large scale data loaded (don't put in the CD for your area) until you go to build the map. Then put it in (wait 30 sec) and build the map.

These maps take a lot of RAM to build - if your system is low on RAM, then make several small maps and send them one by one to the MMC card. (All MMC cards can hold up to 30 files regardless of their size)

# Starting MapCreate<sup>™</sup>

If you installed the Typical or Compact version of MapCreate<sup>™</sup>, make certain the CD-ROM for the area you intend to use is in the CD-ROM drive. Note: The detailed map data is split down the middle of the United States. If you need a map from the eastern half of the United States, use the USA-EAST CD. Use the USA-WEST CD if you are making a map from the western half of the US.

Double-click the MapCreate icon in the MapCreate5 program group. The opening screen appears while the program is loading. It will take some time for the program to load the map detail.



Once it's finished loading, you'll see a screen that looks like this:



# Navigating the Map Center Map



To center the map, click on the crosshair button at the top left of the screen. Now click on the part of the map that you want centered in the map window.

# Zoom

You can zoom on any portion of the map using the crosshair button. To do this, place the crosshair cursor on the map near the location that you want zoomed. Now click and drag the cursor. A box appears on the map. Drag the box until it covers the desired zoom area. Now release the mouse key. The program will zoom in on the selected area.

Z-Out Z-In 6086.49 The zoom-in and zoom-out buttons are located at the bottom right corner of the map. Click on the zoom-in button to enlarge the centered area of the map; the zoom-out buttom works the opposite. The current scale shows in the window next to the zoom-in button. You can change the scale two ways. The first is to click on the down arrow at the right of the box, then select a preset scale. The other method is to click inside the box, then enter the desired scale.

# **Creating a Map**

To create a map to download to an MMC cartridge, first center the map on the desired area, then adjust the zoom so that you can see the entire area that you wish to cut the map from. Next, select the "Create Border" button.

# **Click and Drag**

There are two methods of selecting a map. The first is to click and drag the Create Border tool as shown at right. This creates a box. Release the mouse button when the box is at the desired size.

The selected map is inside the green box. This is the area that will be transferred to the MMC.

To erase the box and start over, simply hold



the Create Border tool on a corner of the box and click the right mouse button. The box is immediately erased.

## **Draw Line**

Selecting an area of the map using the line draw feature gives you much more versatility than simply drawing a box.

To use the line drawing feature, simply click on the "Create Border" button, then click on the map for the beginning of the line. Now move the pointer to the location for the ending of the line and click the left mouse button again.



To continue the line in another direction, move the pointer to the next location and click the left mouse button.



Continue moving the mouse along the chosen area and clicking the left mouse button each time you need to change direction.





When you get to the end, click the right mouse button. This erases the last area. This map is now ready to be saved.

You can combine selections and save them together as shown here.



# Saving a Map



Once you've finished selecting a map, you will need to save it. Click on the

A new window appears that shows the progress

When the computer has finished building the map,

the total size of the finished map shows in a new window. Click the OK button and you're finished

"Build Map" button. The screen at right appears.

Enter a file name and click the "Save" button.

of the map construction.

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# Transferring a map to the MMC

with the map build.

The final step in building a map is transferring it to a MMC. Insert a MMC into the MMC Interface. Next, click on the "Connect to

MMC" button. MapCreate will recognise the MMC and show its status in a window near the bottom left corner of the screen.

Note: If the label name and bytes free does not appear in the "Available MMC Cards" window, then the MMC will need to be formatted by selecting *Communications - Format Card*. This will take a few seconds.

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Now click on the Transfer Map button. A



window similar to the one at right appears.



When the map has finished downloading to the MMC, its filename appears in the "Files Stored on Card" box at the bottom of the screen.

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The MMC card can now be removed from the MMC Interface and placed into the mapping unit.

If you need further assistance with the software, please click on Help. There are extensive help files available. If this does not resolve the problem, call our customer service department at 1-800-324-1356. A representative will be happy to help you.

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

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

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

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

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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, INC

12000 E SKELLY DR TULSA, OK 74128 (800) 324-1356 www.lowrance.com

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We back your investment in quality products with quick, expert service and genuine Lowrance<sup>®</sup> replacement parts. If you're in the United States and you have questions, please contact the Factory Customer Service Department using our toll-free number listed below. You must send the unit to the factory for warranty service or repair. Please call the factory before sending the unit. You will be asked for your unit's serial number. Use the following toll-free number:

# 800-324-1356

Your unit is covered by a full one-year warranty. (See inside this manual for complete warranty details.) If your unit fails and the failure is not covered by the original warranty, Lowrance has a flat-rate repair policy that covers your unit and accessories packed with the unit at the factory. There is a 180-day warranty on all non-warranty repairs from the factory, which is similar to the original warranty, but is for 180 days rather than one year. For further details, please call us at the above number.

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