

Faria[®]

**MARINE
INSTRUMENTS**



Owners's Manual

GPS100 Antenna

IS0216
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FCC Statement

Note: 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 normal 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 to 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 output on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help
- A shielded cable must be used when connecting a peripheral to the serial ports

Important

It is the owner's sole responsibility to install and use the antenna in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

Global Positioning System: The Global Positioning System (GPS) is operated by the US government which is solely responsible for its operation, accuracy and maintenance. The GPS system is subject to changes which could affect the accuracy and performance of all GPS equipment anywhere in the world.

Installation: If installation is not correct, the unit can not perform at its designed potential. If in doubt, consult your Faria dealer. Ensure that any holes made are in a safe position and will not weaken the boat's structure. If in doubt, consult a qualified boat builder.

FARIA MARINE INSTRUMENTS, USA 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 the Documentation, the English language version of the Documentation will be the official version of the Documentation.

1 Introduction

This installation manual describes how to install Faria's GPS100 antenna using two methods: surface mounting and pole mounting.

What comes with your GPS 100 antenna

GPS 100: includes 10 m (32.8 ft) cable or

This installation guide

For surface mounting:

Gasket (doubles as mounting template)

4 threaded rods: thread M4 x 40 mm (2")

4 washers

4 nuts

For pole mounting:

Pole mount adaptor

4 screws

Also available:

GPS 100: 10 m (32.8 ft) extension cable



2 Choosing a suitable location for the antenna

Mount the antenna with a good view of the sky and horizon. The view should not be blocked by large parts of the superstructure.

The unit can be under glass, perspex, fibreglass or fabric, but not under metal or wood.

Mount the antenna away from any source of electrical signals or noise. Do not mount the antenna within 3 m (10 ft) of a radio transmitter antenna or within 0.5 m (20") of the plane of a radar antenna.

Do not fit the antenna too high, such as up a

mast, or boat rocking will cause errors in speed and bearing.

Do not mount the antenna where it can be used as a hand hold, where it will interfere with the operation of the boat or where it might be submerged.

Mount the antenna within the connection range of the cable in it's final secured position, keeping the cable away from sources of electrical signals or noise and ensuring the cable is not pinched or crushed.

3 Mounting

There are two mounting options:

Surface mounted



Pole mounted



3-1 Surface mounting

Select a suitable location which allows access for affixing nuts and has a suitable mounting surface. Avoid high traffic areas where the antenna may be a tripping hazard.

Ensure that any holes made are in a safe position and will not weaken the boat's structure. If in doubt, consult a qualified boat builder.

1. Clean the surface where the antenna will be mounted.

2. Peel the back off one side of the gasket and stick the gasket in the final mounting position.



3. Using the gasket as a template, drill four 4 mm (5/32") holes.



4. The cable may either pass through the surface the antenna is mounted on, or exit the side of the antenna:

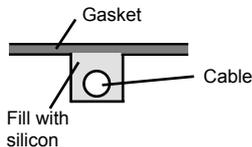
4A For GPS 100 if passing cable through the surface, drill an 18 mm (23/32") hole for the connector.



4B If exiting the side of the antenna, remove three plastic tabs, then seal cable into place with silicon.



Ensure that the channel is filled with silicon to provide a seal when gasket is in place.



5. Attach the four threaded pins to the antenna.



6. Peel the plastic off the gasket.

7. Place antenna in final position.



8. Attach the four nuts to the threaded rod. Do not overtighten.

9. Attach to instrument, then secure the cable at regular intervals.



3-2 Pole mounting

Note: Do not mount the antenna too high, such as up a mast, or boat rocking will cause errors in speed and bearing.

Attach only to 1" (25.4 mm) diameter pole with a thread of 14 TPI UNB.

Thread the cable through the pole mount adaptor.

Position the pole mount adaptor onto the antenna, using the positioning tabs.

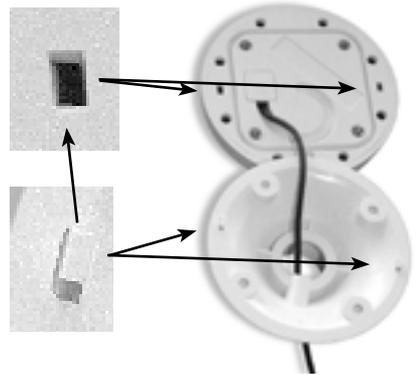
Attach with the four screws provided, do not overtighten.

The cable may pass through the pole, or exit the side of the antenna.

Screw onto the pole. Do not overtighten.

Attach to instrument, then secure the cable at regular intervals.

Positioning tabs



4 Cleaning and maintenance

Clean the antenna with a damp cloth or mild detergent. Avoid abrasive cleaners, petrol or other solvents.

When repainting the surrounding area, cover the antenna with masking to protect from paint. Do not paint the antenna.

Technical specifications

	GPS 100
Weight (with cable):	490 g (16 oz)
Power supply:	via instrument
Typical power consumption:	30 mA (at 12 V DC)
GPS dynamics:	950 m/s (2125 mph) acceleration 4 G
Operating temperature:	0 to 60°C (32 to 140°F)
Re-aquisition times:	2 sec typical (<10 sec blockage)
TTFF* (warm start):	< 38 sec
TTFF* (cold start):	< 45 sec
Update rate:	Typically every second once fix established
Output:	NMEA: GGA, RMC, GSA, GSV, VTG
Case:	UV stable plastic radome
Environment:	IP67
Connector:	8 pin Liang Tei



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