

LOWRANCE

SIMRAD

B&G

# GPS Antenna With built-in Heading Sensor

## Installation Guide ENGLISH

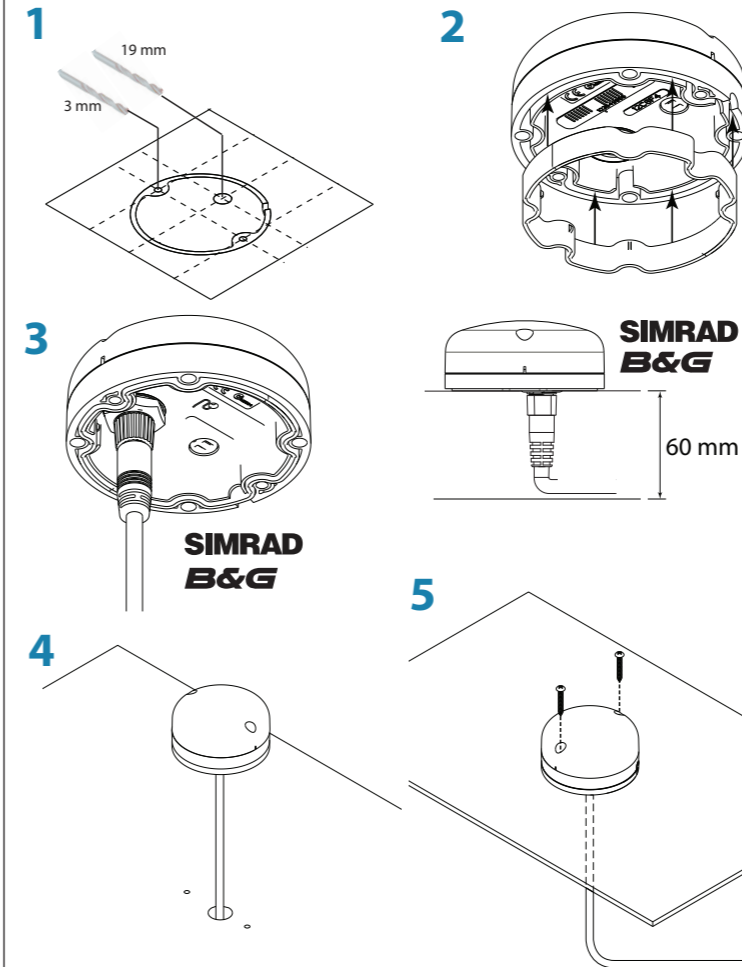


www.bandg.com | www.simrad-yachting.com | www.lowrance.com

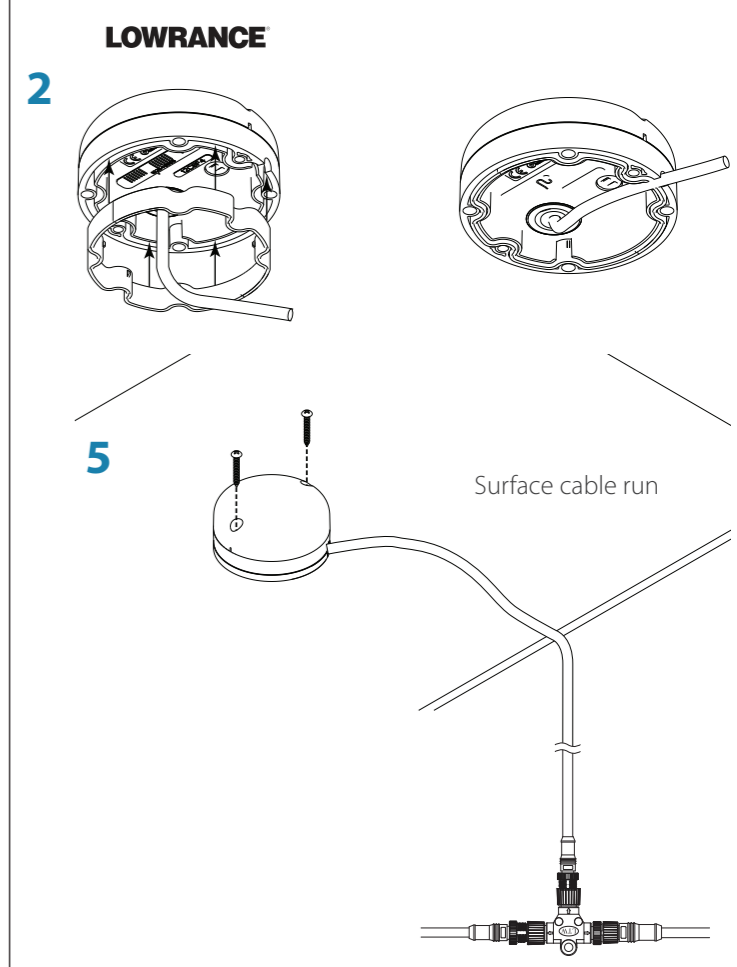
### Supplied parts

Lowrance Point-1	Simrad GS25	B&G ZG100
Attached NMEA 2000 Drop Cable 1.2 m (4 ft) + NMEA 2000 Drop Cable 4.5 m (15 ft)	NMEA 2000 Drop Cable 4.5 m (15 ft)	NMEA 2000 Drop Cable 1.8 m (6 ft)

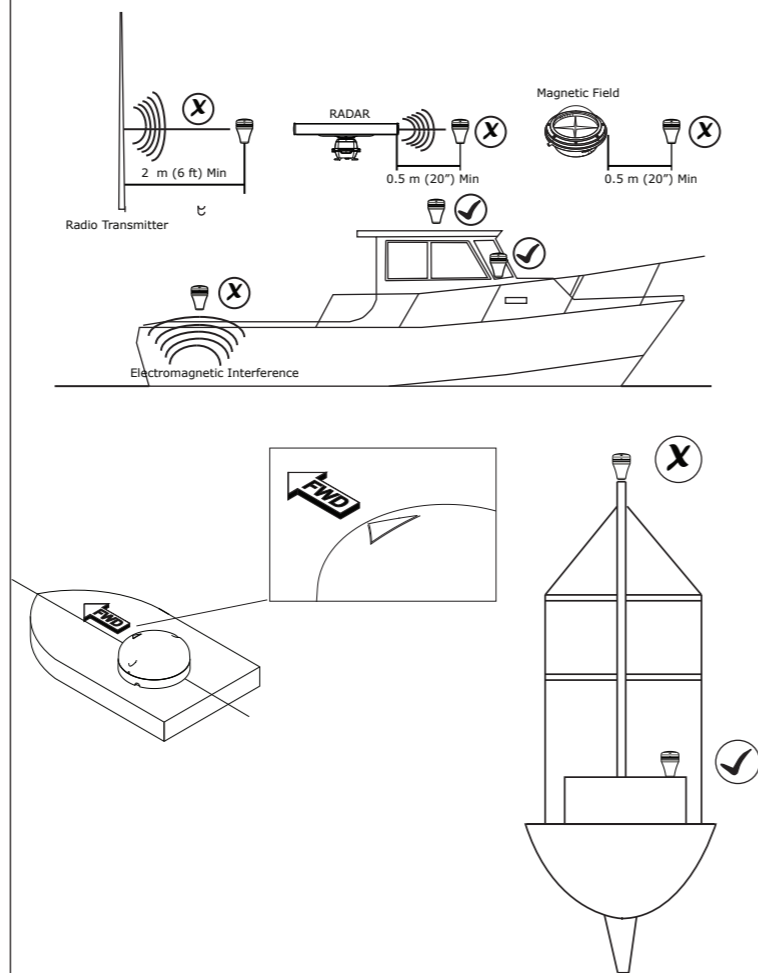
### Surface mount the antenna



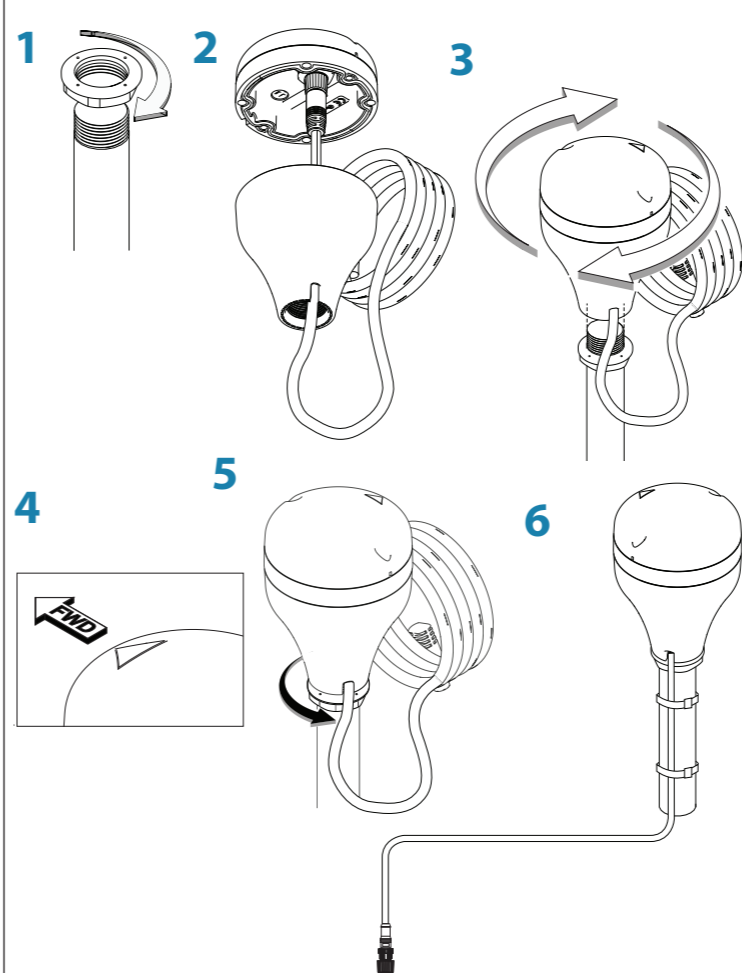
### Surface mount: Surface cable run



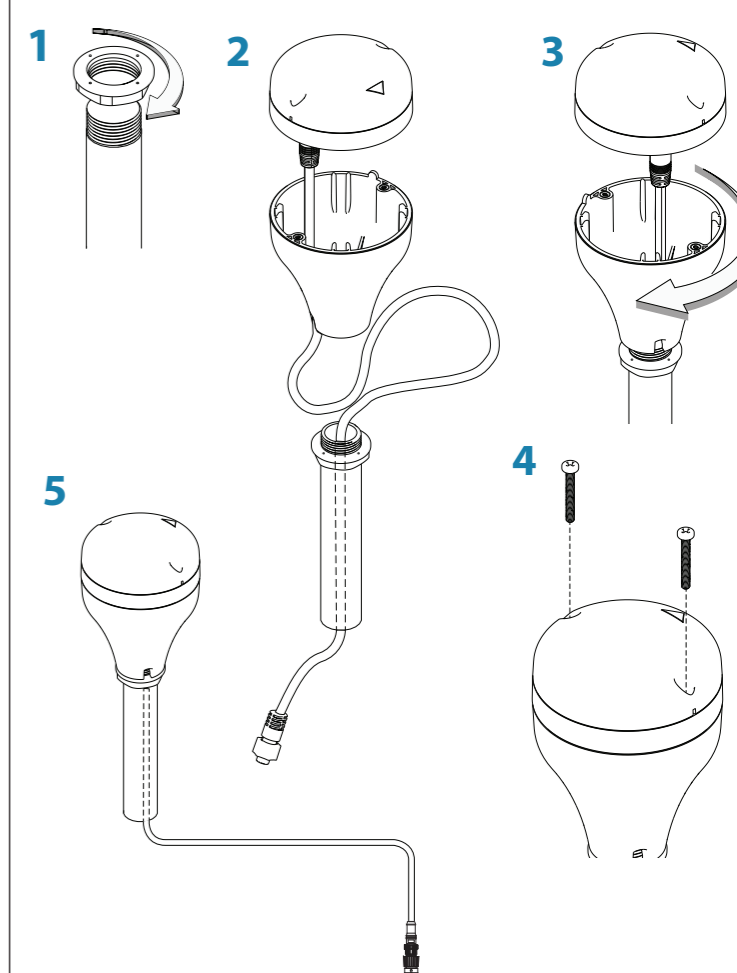
### Antenna mounting location



### Pole mount (external cable)



### Pole mount (Internal cable)



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Specifications	
General	
Receiver Type	L1, C/A code, 1.575 GHz Frequency/L2 C/A code, 1.602 GHz Frequency
Channels	32 channels
Position Update Rate	Up to 10 Hz (1,5,10)
Horizontal Accuracy	3 m (9.8 ft)
Heading Accuracy	+/- 3°
Rate of Turn	+/- 3°
Pitch / Roll Accuracy	@30 degrees 1 grade error
Cold Start	50 sec
Start-Up Time	3 sec
Satellite Reacquisition	5 sec
Environmental	
Operating Temperature	-25° C to +60° C
Storage Temperature	-40° C to +85° C
Splash Proof	IPX7
Humidity	40° C, 93%RH, operating
Electrical	
Input Voltage	9 V DC - 18 V DC
Reverse Polarity Protection	Yes
Power Consumption	< than 2w
Current Consumption	< 100 mA @ 12 V DC
Dimensions	90 mm (diam) x 38mm (height) 3.54" (diam) x 1.50" (height)
Weight	0.14 Kg (0.3 lbs) aprox
Power/Data Cable	NMEA 2000 thru NMEA 2000 network
Antenna Connector	NMEA 2000 Micro C
Mounting	Flush mount / Standard Pole Mount

Communications	
Data I/O Protocol	NMEA 2000
NMEA 2000 PGNs	
PGN Number	PGN Title
126992	System Time
129025	Position, Rapid Update
129026	COG & SOG RU
129029	Position Data
129539	GNS DOP
129540	GNS Satellites in view
127258	Magnetic Variation
127250	Compass Heading (Vessel Heading)
127251	Rate of Turn
127257	Attitude

**Compliance Statements**

**CE**

Lowrance Point-1, Simrad GS25 and B&G ZG100

Meet the technical standards in accordance with Part 15.103 of the FCC Rules. Comply with CE under R&TTE directive 1999/5/EC

Comply with the requirements of level 2 devices of the Radio-communications (Electromagnetic Compatibility) standard 2008.

The relevant Declaration of Conformity is available in the following website under model documentation section:

<http://www.lowrance.com/>  
<http://www.simrad-yachting.com>  
<http://www.bandg.com>

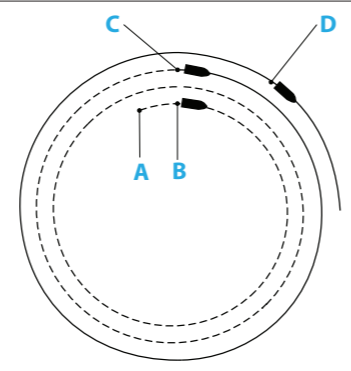
### Heading sensor calibration

The built in heading sensor will need to be calibrated before use to compensate for local magnetic fields on your vessel for accurate chart with radar overlay.

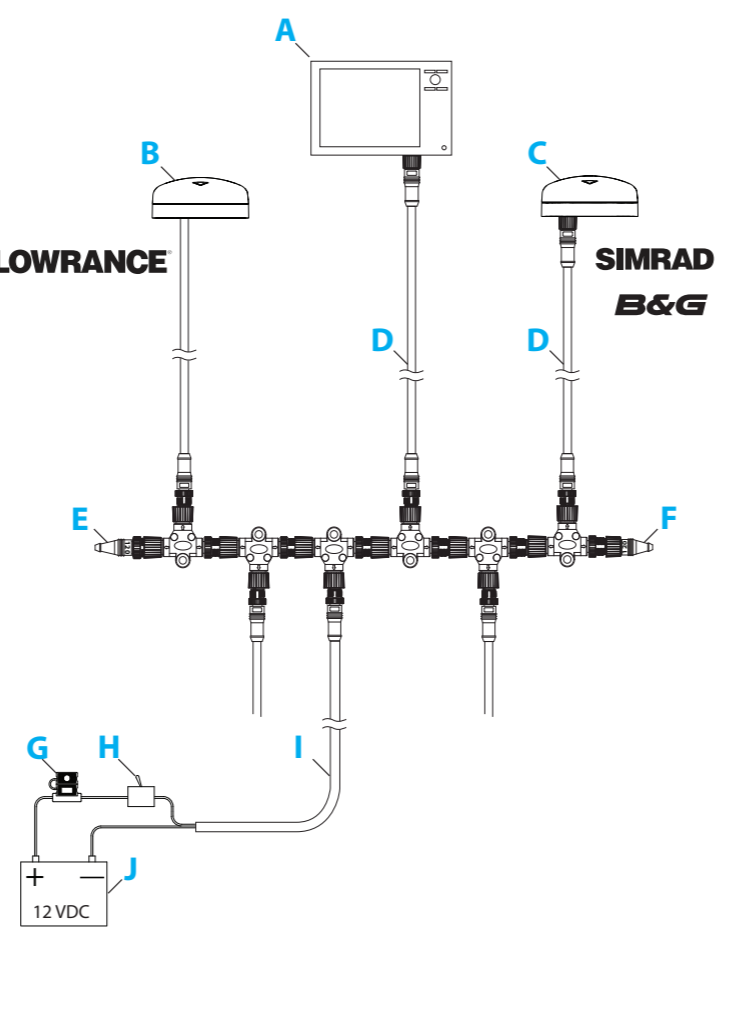
#### Auto Calibrate mode

Before the heading sensor calibration is started, make sure that there is enough open water around for the vessel to make multiple full turns. The calibration should be done in calm sea conditions and with minimal wind to obtain best results.

- A Disconnect then re-connect the sensors NMEA 2000 cable.
- B Make two consecutive turns of 360 degrees. The completion of these two turns automatically activates the Auto Calibration procedure.
- C Continue with a smooth third turn and a quarter (of at least 390 degrees) within 2 to 5 minutes, to complete the calibration.
- D Calibration should be complete. If the time is outside the limits, the calibration is void and the radar overlay may not appear accurate on your chart. Repeat steps A-D again.



### Connection

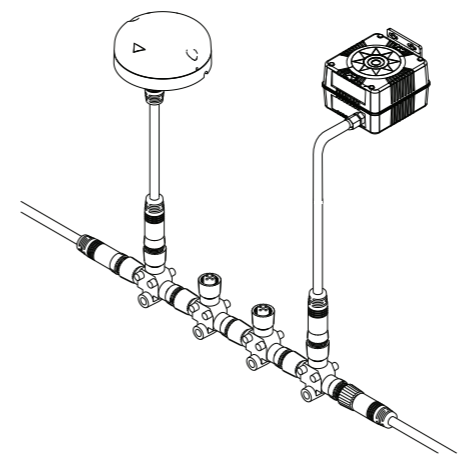


### Calibration from a Multifunction Display

Calibration can be performed from a compatible Multifunction Display, instrument display or autopilot controller. (Please refer to the operator/installation manual).

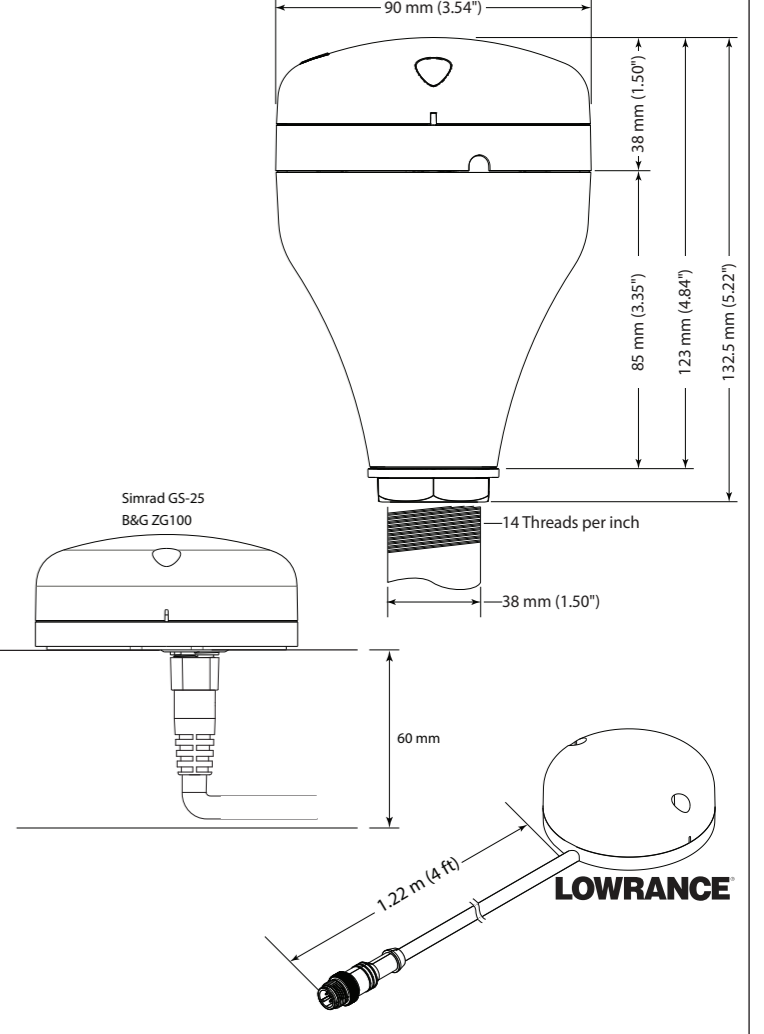
### Multiple heading sensors on the network

**WARNING:**  
 If there are two Point-1 units (or an additional heading sensor) on the network, the Point-1 antenna(s) will stop sending heading information.  
 This does not apply to Simrad GS25 and B&G ZG100.



A	Chart Plotter
B	Lowrance Point -1 or Baja has molded cable 1.2 m (4 ft)
C	Simrad GS25 or B&G ZG100 : Requires NMEA 2000 Drop Cable (D)
D	NMEA 2000 drop cable max length 4.55 m (15 ft)
E	120 Ohm Terminator (Male)
F	120 Ohm Terminator (Female)
G	Fuse (5 Amp)
H	Switch
I	NMEA 2000 Power cable 1.8 m (6 ft)
J	12 VDC Power supply

### Dimensions



### Heading sensor application

This sensor includes an electronic heading sensor to provide chart stabilization, course over ground at low speeds, and overlay of radar on charts.

✓	Acceptable performance for the application	
✗	A rate stabilized heading sensor such as RC42N will provide the most robust performance for demanding applications.	
	Point-1 GS25 ZG100	RC42N Rate compass
	✓	✓
	✗	✓
	✗	✓