

# GPS200 *GPS Antenna/ Receiver*

Maretron's GPS200 is a state-of-the-art GPS/GLONASS antenna and receiver capable of producing ten position fixes per second. The GPS200 has unprecedented sensitivity and can even be mounted underneath a fiberglass deck. An additional benefit of the GPS200 is that it broadcasts precision magnetic variation information using the current position and world magnetic model (WMM2015).

The GPS200 antenna/receiver is a plug-and-play device that is fully compliant and certified to the NMEA 2000® Standard. It will directly connect to any NMEA 2000® network and communicate with navigational software, chart plotters, autopilots and dedicated instrument displays – such as Maretron's DSM150 or DSM250 graphical display – and its compact, waterproof housing provides years of reliable performance.

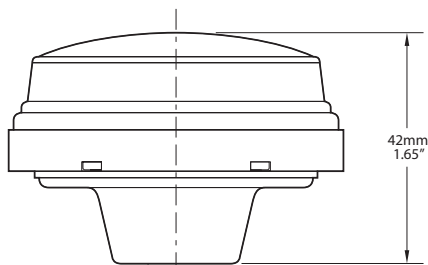


The GPS200 automatically decodes GPS correction signals from Satellite Based Augmentation Systems (SBAS) including the North American Wide Area Augmentation System (WAAS), the European Geostationary Navigation Overlay System (EGNOS), or the Asian Multifunctional Transport Satellite-based Augmentation System (MSAS) to provide better than 2.5m accuracy.

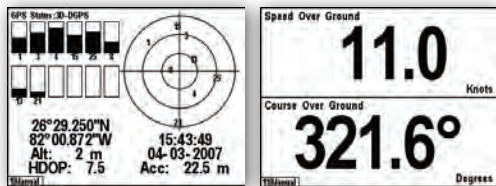
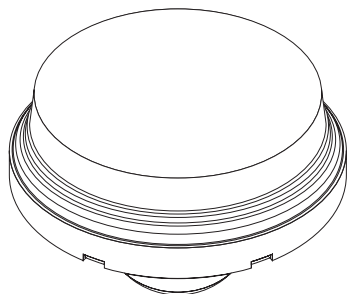
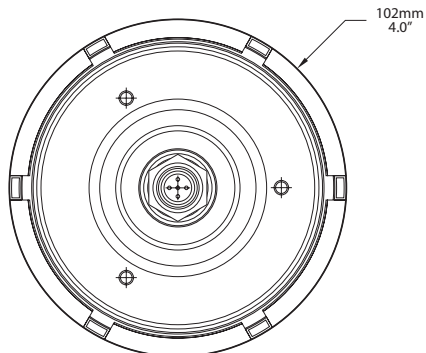
The GPS200 is easily mounted to a standard marine mount with 1"-14 TPI male pipe end. It can also be mounted directly to a deck.

## **Products**

PART NUMBER	DESCRIPTION
GPS200-01	GPS Antenna/Receiver



1" - 14 - UNS-2B Thread  
(1" - 14 TPI Standard Marine Mount)



DSM150 & DSM250 Screen Shots

**Specifications**

Parameter	Value	Comment
Supported Positioning Systems	GPS, GLONASS	Simultaneously
Position Accuracy (Autonomous)	<3m	2D RMS
Position Accuracy (WAAS)	<2.5m	2D RMS (depends on accuracy of correction data)
Channels	99	33 Tracking, 99 Acquisition
Tracking Sensitivity	-161dBm	
Position Update Rate	10 per Second	10 Hz Position Fix Calculation Rate
Speed Update Rate	10 per Second	
Time Update Rate	1 per Second	
Hot Start	1 Seconds	Start Within Hours of Last Power Down
Cold Start	33 Seconds	Start from Unknown Position
Satellite Based Augmentation System	WAAS	North America
	EGNOS	Europe
	MSAS	Asia
	GAGAN	India
Altitude Limit	□18000 m	
Velocity Limit	□515 m/sec	
Battery Backup	Lithium (4-5 Days)	Holds Position for Hot Starts

**Certifications**

Standard	Comment
NMEA 2000®	Level A
Maritime Navigation and Radiocommunication Equipment & Systems	Tested to IEC 60945
FCC and CE Mark	Electromagnetic Compatibility

**NMEA 2000® Parameter Group Numbers (PGNs)**

Description	PGN #	PGN Name	Default Rate	
Periodic Data PGNs	126992	System Time	1 Time/Second	
	128259	Speed	Disabled	
	129025	Position, Rapid Update	5 Times/Second	
	129026	COG and SOG, Rapid Update	4 Times/Second	
	129029	GNSS Position Data	1 Time/Second	
	129539	GNSS DOPs	1 Time/Second	
	129540	GNSS Satellites in View	1 Time/Second	
	127258	Magnetic Variation	1 Time/Second	
	Response to Requested PGNs	126464	PGN List (Transmit and Receive)	N/A
		126996	Product Information	N/A
126998		Configuration Information	N/A	
129538		GNSS Control Status	N/A	
129541		GPS Almanac Data	N/A	
059392		ISO Acknowledge	N/A	
Protocol PGNs	059904	ISO Request	N/A	
	060416	ISO Transport Protocol, Connection Management	N/A	
	060160	ISO Transport Protocol, Data Transfer	N/A	
	060928	ISO Address Claim	N/A	
	065240	ISO Address Command	N/A	
	126208	NMEA	N/A	

**Electrical**

Parameter	Value	Comment
Operating Voltage	9 to 32 Volts	DC Voltage
Power Consumption	<100mA	Average Current Drain
Load Equivalence Number (LEN)	2	NMEA 2000® Spec. (LEN = 50 mA)
Reverse Battery Protection	Yes	Indefinitely
Load Dump Protection	Yes	Energy Rated per SAE J1113

**Mechanical**

Parameter	Value	Comment
Size	4" Diameter x 1.65" Tall	Not Including Antenna Mount Base
Weight	6 oz.	Not Including Antenna Mount Base
Mounting	Deck or Pole	Fits 1"-14 TPI Standard Marine Mount

**Environmental**

Parameter	Value
IEC 60945 Classification	Exposed
Degree of Protection	IP67
Operating Temperature	-25°C to 55°C
Storage Temperature	-40°C to 70°C
Relative Humidity	93%RH @40° per IEC60945-8.2
Vibration	2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s² per IEC 60945-8.7
Rain and Spray	12.5mm Nozzle @ 100liters/min from 3m for 30min per IEC 60945-8.8
Solar Radiation	Ultraviolet B, A, Visible, and Infrared per IEC 60945-8.10
Corrosion (Salt Mist)	4 times 7days @ 40°C, 95%RH after 2 hour Salt Spray Per IEC 60945-8.12
Electromagnetic Emission	Conducted and Radiated Emission per IEC 60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12

