

GPS200 *GPS Antenna/ Receiver*

Maretron's GPS200 is a state-of-the-art 32 channel GPS antenna and receiver capable of producing five 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 (WMM-2010).

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 DSM250 graphical display – and its compact, waterproof housing provides years of reliable performance.



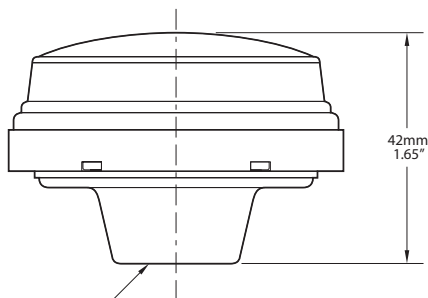
The GPS200 automatically decodes GPS correction signals from Satellite Based Augmentation Systems (SBAS) including the North American Wide Area Augmentation System (WAAS), the European Geostationary Navigation Overlay System (EGNOS), or the Asian Multifunctional Transport Satellite-based Augmentation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

The GPS200 is easily mounted to any 1" standard marine mount with its standard 1"-14" male threads. It can also be mounted directly to a deck.

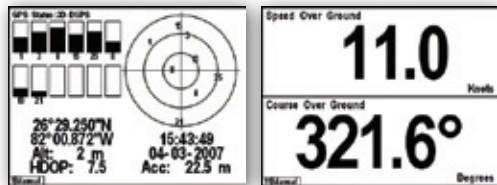
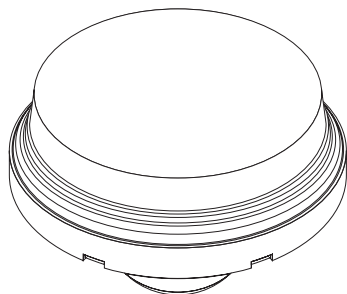
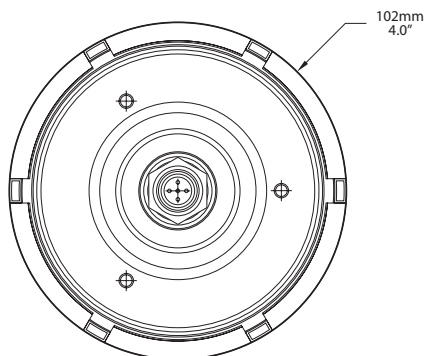
Products

PART NUMBER	DESCRIPTION
GPS200-01	GPS Antenna/Receiver





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



DSM250 Screen Shots

Specifications

Parameter	Value	Comment
Position Accuracy (Autonomous)	<3m	2D RMS (95% of Data Falls Within 10m)
Position Accuracy (WAAS)	<2.5m	2D RMS (95% of Data Falls Within 3m)
Channels	32	Simultaneous Tracking of 32 Satellites
Tracking Sensitivity	-159dBm	
Position Update Rate	5 per Second	5 Hz Position Fix Calculation Rate
Speed Update Rate	4 per Second	
Time Update Rate	1 per Second	
Hot Start	1 Seconds	Start Within Hours of Last Power Down
Warm Start	33 Seconds	Start Within Days of Last Power Down
Cold Start	36 Seconds	Start from Unknown Position
Satellite Based Augmentation System	WAAS	North America
	EGNOS	Europe
	MSAS	Asia
Acceleration Limit	<4g	
Altitude Limit	<1800m	
Velocity Limit	<515 m/sec	
Jerk Limit	20 m/s³	
Battery Backup	Lithium (4-5) days	Holds Position for Hot/Warm Starts

Certifications

Standard	Comment
NMEA 2000® Standard	Level A
Maritime Navigation and Radio Communication 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
	126206	NMEA Request/Command/Acknowledge	N/A

Mechanical 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. (1LEN = 50 mA)
Reverse Battery Protection	Yes	Indefinitely
Load Dump Protection	Yes	Energy Rated per SAE J1113

Parameter	Value	Comment
Size	4" dia. x 1.65" Tall (102mm Dia. X 42mm Tall)	Not Including Antenna Mount Base
Weight	6 Oz. (170 g)	Not Including Antenna Mount Base
Mounting	Deck or Pole	

Environmental

Parameter	Value
IEC 60954 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
Electromagnet 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