



# Mini GPS Locator

## MODEL: GM-44

*The smallest GPS locator with excellent software compatibility that provides real-time positioning to your palmtop/desktop PC or PDA.*



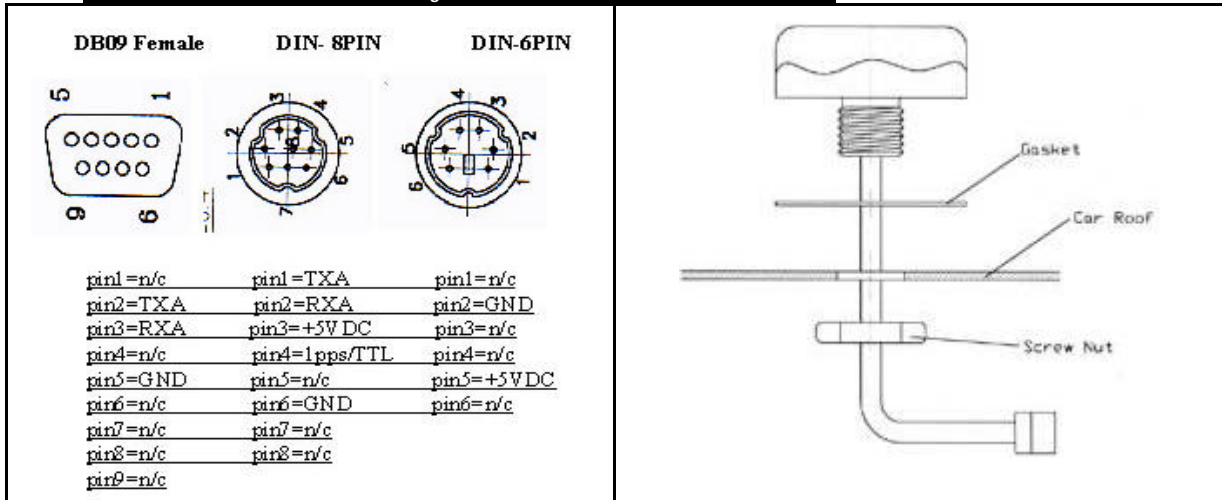
Plug-Navigate-Position is the new **GM-44** Receiver/Antenna concept in mobile navigational GPS solution. When integrated with your computer, real-time position of your vehicle helps you navigate to your next destination. The GM-44 mobile locator is a low cost/ high quality GPS solution for AVL, Fleet Management System and Marine Navigational Aids. The unit is a single GPS Receiver/Antenna in a low profile, waterproof

enclosure with bolt mount. It interfaces to a RS-232 or a USB serial comm ports of your computing device that utilizes NMEA 0183 data output sentences.

The GM-44 Mobile Locator provides real time GPS position, speed, distance travel and heading information in NMEA-0183 format (GPRMC, GPGGA, GPGSV, GPGLL, GPGSA, etc.) to your portable PC, PDA or Palmtop.

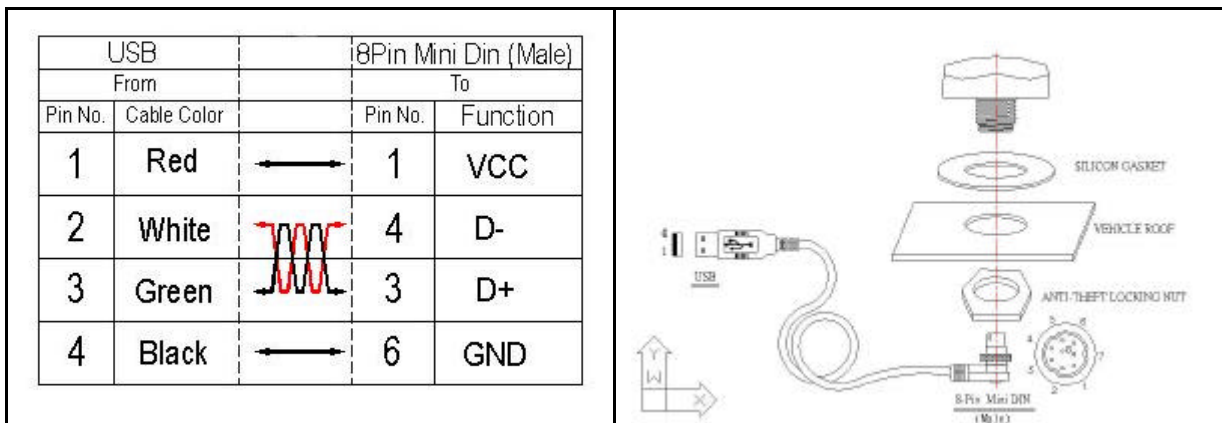
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Map software is available at Sunninghill Systems: <http://www.gpss.co.uk>.



RS-232 Interface Drawing

RS-232 Assembly Drawing



USB Interface Drawing

USB Assembly Drawing

**SPECIFICATIONS**

**PHYSICAL**

- Dimension : 52mm(Diameter) x 22 mm(Height)
- Weight : 85 grams without cable
- Enclosure : High impact, corrosion-proof PC (polycarbonate) resin
- Construction : Ultrasonic welded, fully waterproof
- Mounting : Bolt mount

**ENVIRONMENTAL**

- Temperature : Operating : -30 ~ +75 degree C
- : Storage : -40 ~ +85 degree C
- Humidity : 95% non-condensing

**PERFORMANCE**

- Antenna element : High-reliability ceramic patch
- Antenna LNA : Gain : 23+/-2dB, NF : 2.0 max.
- Receiving frequency : 1575.42MHZ, C/A code
- Receiver architecture : 12 parallel channels, tracks & uses up to 12 satellites
- DGPS capability (optional) : Direct RTCM-SC104 interface providing 2~5 m accuracy
- Acquisition time : 18 sec. typical (warm start)
- Position accuracy : 15m or 50 feet RMS\*(DOP<3)
- Velocity accuracy : 0.1 Knot RMS steady state
- Update rate : 1 sec. continuous
- Dynamics : Up to 50m/s.s. (tracking sustained)
- Supply : DC 7~35V, with reverse protection



# SAN JOSE NAVIGATION, INC.

**Professional in Navigation & Communication**

*\*Subject to degradation of position to 100m 2DRMS under US Department of Defense imposed Selective Availability Program*

Voltage regulator : Built-in switching-mode regulator  
Consumption : 0.65 watt max.  
EMI filter : Rejects power line interference

## **COMMUNICATION**

Protocol : NMEA 0183 at 4800 Baud rate  
Signal level : RS 232 (standard), USB (optional)

## **DATA CABLE**

Length : 5m (standard), other length (optional)  
Description : Multiconductor shielded cable with  
9-pin DB9 receptacle with strain relief

## **POWER CABLE**

Length : 1m side branched from DB9 receptacle

## **INTERFACE CAPABILITY**

Output Protocol : NMEA 0183  
  
Standard output : GGA : GPS position & Time  
sentences : ZDA : time & date  
: VTG : course & speed over ground  
: GSV : satellite details  
Custom outputs : GLL : Latitude & Longitude  
: RMC: position, time, speed, course  
: GSA : receiver status, DOPs

*San Jose Navigation, Inc. may add other NMEA sentences to the standard output to maximize interfacing capabilities.*

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