

# GM-48S<sup>®</sup>

< RS-232 >

GPS MOBILE LOCATOR

USER'S MANUAL



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# **Introduction**

**Welcome to GM48S GPS Mobile Locator user's manual.**

***Congratulation on your purchase of the GM-48S® Mobile Locator GPS receiver/antenna. This is the latest in Plug-Navigate-Position innovation from SANJOSE Technology, manufacturer of OEM GPS receiver & antenna around the world.***

***This new concept of Mobile navigation solution is using the devise to integrate with your Personal Computer and map software to display your real time location on the monitor.***

***The GM-48S is an all-weather rugged design product for all applications. Before you get started with your GM-48S®, make sure to read the PC hardware requirements to run the Mapping software.***

## **Applications**

- ◇ Navigation and positioning
- ◇ Finding streets and routes via GPS map software
- ◇ Travel/track planning
- ◇ Application for Marine Navigation
- ◇ Fleet management GPS system
- ◇ In-car navigating/locating for public safety and emergency AVL GPS function

## **Package Contents**

*After opening your package, make sure that the following items are not missing or damaged.*

- *GM-48S® Mobile Locator*
- *User's Manual and Driver's CD*

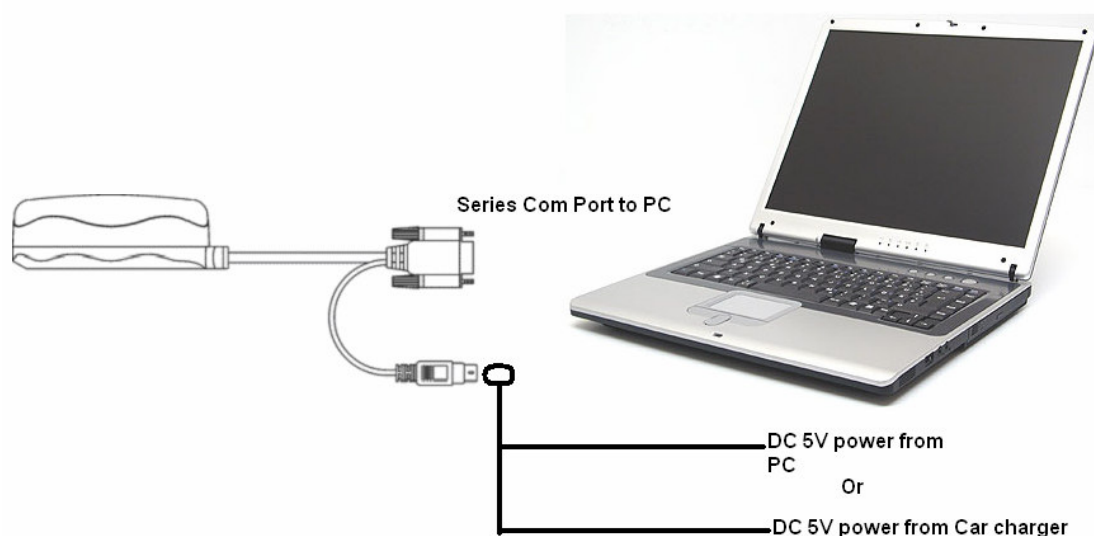
*If above items are missing or damaged, contact SAN JOSE Technology immediately at Tel: 886-2-22694456 Fax: 886-2-22694451*

## Getting Started

*This section will introduce you to simply outfit your new GM-48S® GPS Mobile locator to your PC.*

*GM-48S® is a compact GPS receiver/antenna design for general purpose navigation and position locating when integrated with a computing device for mapping display (Notebook PC, PDA or Palmtop).*

**Hardware standard layout is shown below:**



**Hardware Requirement:** *Computer 486 or Faster CPU, VGA Display card, Sound board (optional), at least 16MB DRAM, CD-ROM drive, Windows OS*  
***Power supply: DC 5V from PC's PS-2 or DC 8V ~ 35V from Cigar Charger provided.***

# **Operating Procedure**

## ***Caution***

**DO NOT TRY TO DO STEPS, WHILE VEHICLE IS IN MOTION.**

**AND KEEP YOUR EYES ON THE ROAD**

***Step 1:*** Wait for the computer finishes executing O/S.

***Step 2:*** Plug in the GM-48S to the computer.

***Step 3:*** The system will find its corresponding driver automatically.

***Step 4:*** When it's done, right click " My computer icon" then click "system properties" and find "device manager".

***Step 5:*** You shall find "Ports (Com1)".

***Step 6:*** Indicate Com port number when you try to use your GM-48S.

# Specification

<b>PHYSICAL CONSTRUCTION</b>		<b>PERFORMANCE</b>		
Dimension	56mm (Diameter) x 28 mm (Height)	Built-in Antenna element	High-reliability ceramic patch	
Weight	85 grams ( $\pm 5\% \sim 10\%$ or 10 ~ 20 grams) without cable	Sensitivity	-159dbm	
		SBAS	Support WAAS, EGNOS, MSAS	
Receiving frequency	1575.42MHZ, C/A code	Receiver architecture	20 parallel channels	
Enclosure	High impact, corrosion-proof	Start-up time	0.1 sec. typical (hot start) 35 sec. typical (warm start) 42 sec. typical (cold start)	
Mounting	Magnetic mount	Position accuracy	Without aid	10.0 m, 2D RMS
			DGPS (WAAS, EGNOS, RTCM)	5.0 m, 2D RMS
Construction	Ultrasonic welded, fully waterproof	Max. Velocity & Altitude	518 m/s; 18000m	
<b>ENVIRONMENTAL CONDITIONS</b>		Update Rate	1Hz	
Temperature	Operating: -30 ~ +75 °C	Power Supply	DC 5V from PS-2	
	Storage: -40 ~ +85 °C		DC 8V ~ 35V from cigar charger provided	
<b>COMMUNICATION</b>		Power Consumption	Acquisition	100mA
			Tracking	80mA
Protocol	NMEA	Baud Rate	4800 bps	
Signal level	RS-232			
<b>INTERFACE CAPABILITY</b>		<b>POWER CABLE</b>		
Standard Output Sentences	GGA, RMC, GSV, GSA	Length	5m	

# APPENDIX

## **Troubleshooting Tips.**

**1. No updated display in your PC while moving.**

- *Check cable connections and COM port setting AT Control Panel/System Properties/Device Manager/Com-Port.*
- *Check raw data by using Window Terminal 4800bps*

**2. No ASCII NMEA data when running terminal program in COM-n,4800 8N1**

- *Check Control Panel/System Properties/Device Manager/Com-Port.*

**3. Navigational software does not auto detect the GPS receiver**

- *Check Installation or you can assign the software to receive the GPS signals from the comport. It is normally Com1.*

**4. If your PC recognizes GM-48S as a mouse**

- *Please remove the GM-48S from the Port of your PC or device and plug it back. If it still happens, please unplug it and restart the computer or device. Then plug in after the O/S finishes executing.*

**5. No GPS data after program initialize.**

- *Check DB-9 connection.*
- *Check for GPS obstruction toward the sky.*

**6. GPS data are visible but no activity on the MAP SOFTWARE.**

- *Check to see if the Map software desire NMEA sentences (GPRMC, GPGGA, GPGSV, GPGSA) are present in viewing using Terminal Windows set at 4800bps.*



## Limited Warranty

GM-48S® is a GPS receiver as part of navigational aids, and is not intended to replace other means of navigation or aids.

SANJOSE TECHNOLOGY, INC. warrants this GPS receiver and accessories to be free of defect for a period of 12 months from the date of original purchase.

**THIS WARRANTY APPLIES ONLY TO ORIGINAL PURCHASE.**

In any event of a product defect while in normal usage, SAN JOSE TECHNOLOGY will replace or repair the product with no charge to the original purchaser for parts and labor. However, SAN JOSE TECHNOLOGY reserves the right of determination to replace or repair the defective product. The replacement or repaired product will be warranted for total of (ninety) 90 days from the date of return shipment, or for the balance of the original warranty, whichever is longer.

### **PURCHASER'S DUTIES**

The purchaser must return the GPS receiver postpaid, with proof of the date of original purchase with the return address to:

SAN JOSE TECHNOLOGY, INC.

11F. No.2, Sec.4, Jhongyang Rd., Tucheng City,  
Taipei County 236, Taiwan (R.O.C.)

URL: <http://www.sanav.com/>

E-mail: [sanav104@sanav.com](mailto:sanav104@sanav.com)

TEL: 886-2-22694456

FAX: 886-2-22694451

