iGPS-M Pro USER'S MANUAL
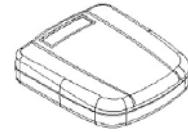
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iGPS-M Pro Introduction

The iGPS-M Pro is an outstanding high sensitivity GPS receiver. Its excellent performance easily conquers the most difficult tasks. In addition, it provides various functions to meet customers' demand.

iGPS-M Pro employs powerful GPS solution. It provides marvelous navigation performance under dynamic conditions in areas with limited sky view like urban canyons. It also has high sensitivity for weak signal operation without compromising accuracy. Undoubtedly, iGPS-M Pro is the best choice for you.

Market Leading System Performance

Ultra-low power consumption makes iGPS-M Pro the best GPS on the market. Nevertheless, there are no compromises in performance. The iGPS receiver has a navigation sensitivity making it applicable even for extremely demanding applications and environments.

iGPS-M Pro Key Feature

❑ Thin module form factor – 64mm(L) x 57mm(W) x 16mm(H)

❑ 32-CH. GPS Technology

❑ Very Fast TTFF

❑ Sensitivity: -158dBm (Tracking)

❑ NMEA0183 V3.01 protocols

❑ Accurate 1PPS timing output (optional)

Possible Application

❑ Mapping devices for PC & Pocket PC

❑ Personal Navigation or touring devices

❑ AVL and Location-Based service system

❑ Data logging for marine Navigation

❑ Support 1pps output for timer

❑ Tracking devices/system

❑ Mileage Management

❑ Fleet Management

❑ Car Navigation

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Installation Guide

Step I：Check your iGPS-M Pro package

Please check the iGPS-M Pro package. If any items are missing or damaging, please contact our distributor immediately.

The standard package of iGPS-M Pro contains:

- iGPS-M Pro Receiver
- **CD ROM (Only USB type is with CD ROM, USB drivers is included)**
- **Y cable (optional)**

With different brand/type of handheld device, the iGPS-M Pro receiver needs to use different type of car charger.

Step II：Connect iGPS-M Pro receiver to PC/Lap top or handheld device

- For PS2 type: No USB Driver Installation is needed.

- For USB type: please follow the illustration as below. Before the USB connector plugs in your PC/Lap top, please have your USB Driver Installation ready.

- For RJ45 type: No USB Driver Installation is needed.

To USB port on PC/Lap top

Step III：Check if the LED is on.

Once your PC/Lap top or car charger supplies power, the iGPS-M Pro receiver should shine on the LED. At meantime, the LED will be flashing and it means iGPS-M Pro is fixed, enable the positioning function.

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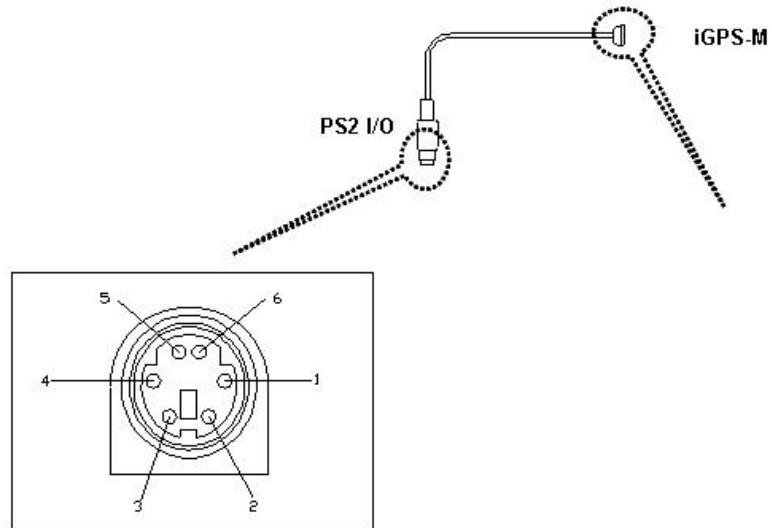
Familiarize your iGPS-M Pro

Specifications

GPS Technology	MTK 32 channels
Sensitivity	-158 dBm (tracking)
Update Rate	1Hz
Accuracy	Position: Without aid: 3.0 m 2DRMS , < 3m CEP(50%) without SA
	Velocity: Without aid: 0.1 m/s
	Time: 50ns RMS
Acquisition Time (Cold/Warm/Hot Start)	36/33/1 sec
Reacquisition	1 sec
Dynamics	Altitude: 18000m max.
	Velocity: 515m/sec
	Vibration: 4G max.
DGPS	WAAS, EGNOS Enable
Operating Temperature	-30℃ to +85℃
Storage Temperature	-45℃ to +90℃
Operating Humidity	5% to 95% non condensing
Primary Power	+5V~7.5V DC
Power Consumption	20mW @3.0V
Interface	PS2/ USB/ RJ45
Protocol	NMEA 0183 v3.01,9600 bps
Antenna	Internal passive antenna
NMEA Message	GGA, GLL, GSA, GSV, RMC, and VTG
Dimension	64mm(L) x 57mm(W) x 16.54mm(H)

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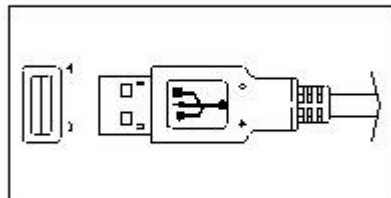

Interface

1. PS2 interface
As shown in the illustration on the right, the length of the wire on iGPS-M Pro receiver is 2 meters. There is a PS-2 connector for the connection to PC/Lap top or handheld device. The pin assignment is shown below.
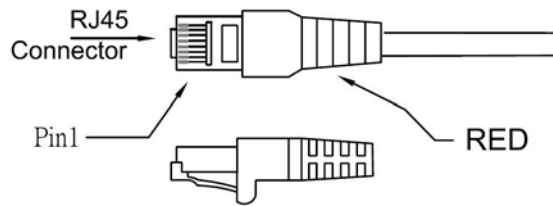

1.1 PS2 female cable definition

Pin	Signal Name RS-232
1	RS232 TX
2	+5VDC
3	NC
4	Ground
5	1 PPS (optional)
6	RS232 RX

2. USB interface

3. RJ45 interface

Pin	Signal Name
	RS-232
2	Red (+5VDC)
8	White (RS232 RX)
6	Green (RS232 TX)
7	Black (Ground)

Water-proof housing with magnet on the bottom

There are 4 magnets on the bottom side of iGPS-M Pro receiver for attaching on your car. The housing of iGPS-M Pro receiver has waterproof, it can avoid the water permeates your iGPS-M Pro receiver while you attach it outside of the car.

LED Light

There is an LED light near the output cable on the back of iGPS-M Pro receiver. When the iGPS-M Pro supplied 5V DC power, the LED will be on. It means your PC/Lap top or car charger start to supply power to iGPS-M Pro receiver.

Troubleshooting

When your iGPS-M Pro receiver could not operate, please follow the instruction to do the troubleshooting as below.

1. iGPS-M Pro receiver does not shine on the LED

- It means iGPS-M Pro does not have power supply. Please check if the connector plugs in properly as the step II.

2. iGPS-M Pro receiver's LED is flashing, but the connection between iGPS-M Pro receiver and the E-map can not be established. Please make sure the settings of COM Port Number and Baud rate are correct.

- Most of E-map provides scan function to search COM Port. Please scan it for the correct COM Port number that iGPS-M Pro receiver is utilizing.

- The default Baud rate is 9600. For COM port, please go to the MS Windows' device manager to check the correct COM port first.

- If a USB cable is used to connect to PC/Lap top, please make sure the UBS driver is installed successfully.