

R h i n o T r a c k s - P T
R h i n o T r a c k s - V T D
R h i n o T r a c k s - V T A



I n s t r u c t i o n M a n u a l

**GPS / GPRS Vehicle Tracking
for use with Online Mapping
Services**

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Default Settings

PIN Code	8888
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Important Safety Notices and General Disclaimer

Global Positioning System

- The Global Positioning System (GPS) is a satellite-based system that provides location and timing information around the globe. GPS is operated and controlled under the sole responsibility of the Government of the United States of America, who are responsible for its availability and accuracy. Any changes in GPS availability and accuracy may impact the operation of RhinoTracks. Environmental conditions may also affect the operation of the GPS receiver. RhinoCo Technology does not accept any liability for the availability and accuracy of GPS, or any direct or indirect loss suffered as a result of reliance on the system.

Prohibitive Use

- Use of devices with an antenna is prohibited on most aircraft, in many hospitals and in many other locations. The RhinoTracks GPS receiver must not be used in these environments. Please consult appropriate authorities before use.
- The use of GPS tracking devices and communication devices are subject to provisions under the *Privacy Act 1988 (Cth)* or other Federal and State regulations. It is the responsibility of the user to ensure the device is used in compliance with all applicable laws. RhinoCo Technology does not accept any responsibility for the illegal use RhinoTracks.

Hardware Installation and Operation

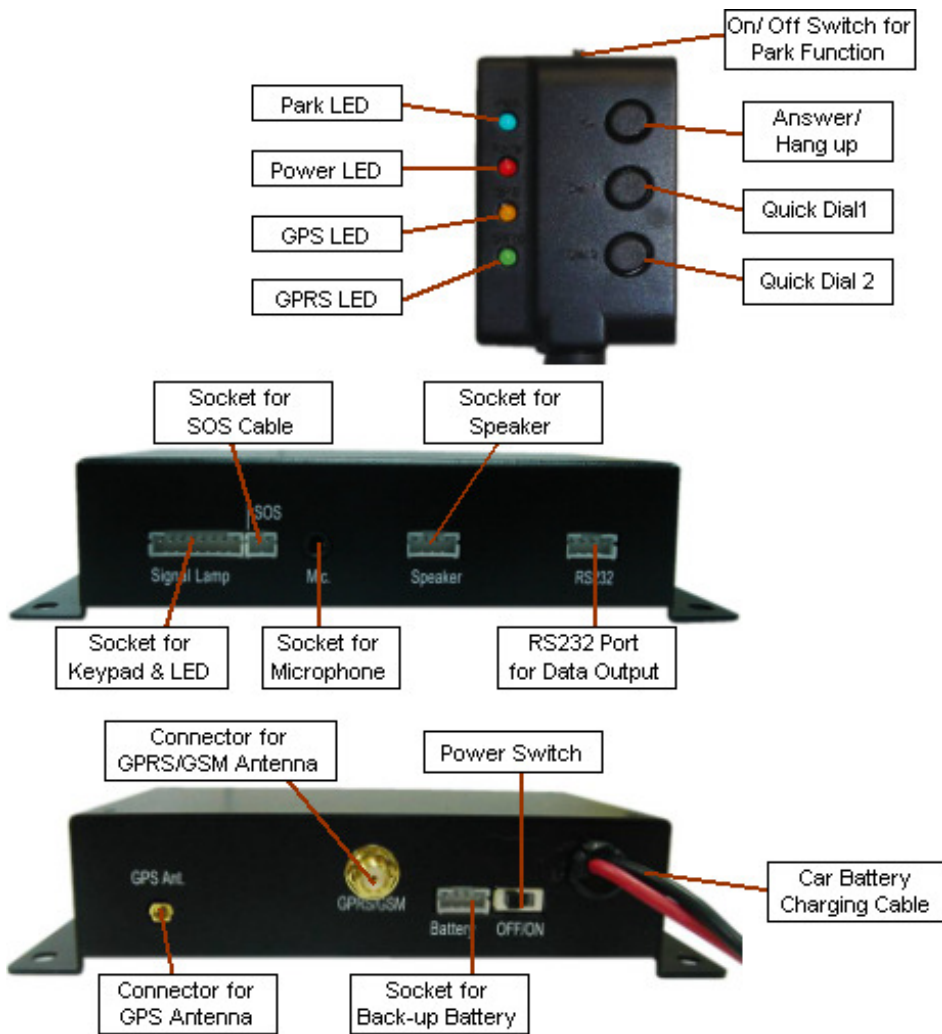
Pre-installation checklist

- Your RhinoTracks module may have been supplied with a SIM card already. If not, please obtain a SIM card that supports GPRS.
- The amount of data used (each month) by the SIM card will depend on the frequency of location updates. Each update uses just under 512 bytes of data (0.5KB).
- The SIM card must not have a PIN code set.
- Before installing or removing the SIM card, make sure the module is turned off.

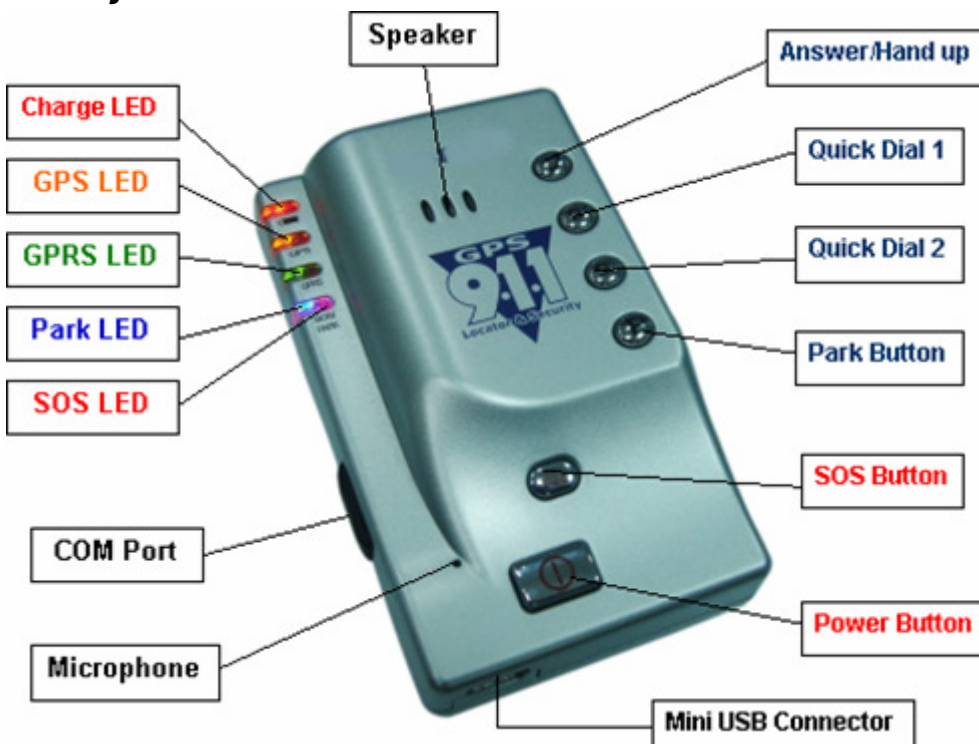
VTD Layout



VTA Layout



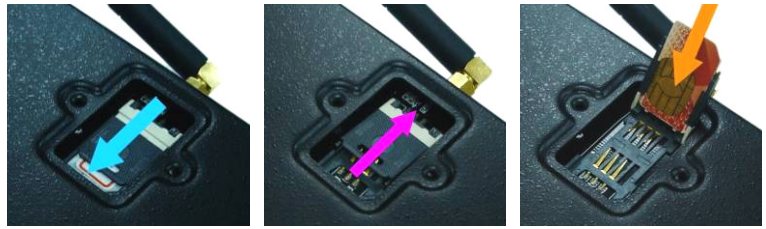
PT Layout



SIM Card Installation

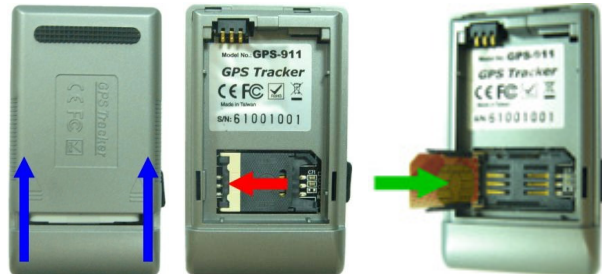
For **VTA** and **VTD** models, unscrew the cover for the SIM card on the underside of the unit. Flip the SIM holder upwards.

Insert the SIM card with the connectors facing down, as shown in the picture. Flip the holder down, then sideways until it locks. Replace the cover.



For **PT** models, slide the back cover off the underside of the unit. Remove the battery so the SIM holder is exposed. Flip the SIM holder upwards.

Insert the SIM card with the connectors facing down, as shown in the picture. Flip the holder down, then sideways till it locks. Replace the battery and back cover.



GSM Antenna

For **VTD** and **VTA** models, connect the GSM antenna to the unit. Do not twist the actual antenna – just the screw.

For the **PT** model the GSM antenna is inbuilt.



GPS Antenna

For **VTD** and **VTA** models, connect the GPS antenna to the unit. For the **PT** model the GPS antenna is inbuilt.

For successful operation the GPS antenna must be able to see the sky. The GPS antenna can pick up signals through glass and plastic, but it will not “see the sky” through metal or other conductive surfaces. If your car has a metallic windshield, please cut a hole on the windshield above the location of the GPS antenna.

The GPS antenna in the **PT** models is located on the underside of the device. The device should be placed on the dashboard of a vehicle when in transit.

Connect Power Source / Charge Battery

The **VTD** and **VTA** models require a 12 Volt DC connection for operation.

The **VTA** model must be hardwired into a vehicle. The module supports a battery backup option (available as an accessory).

The **VTD** model must be hardwired into a vehicle. The module supports a battery backup option (available as an accessory).

The **PT** model has an inbuilt battery. The device can be charged via USB. *You should charge the battery for 8 hours before using the device.*

Check GPS Connectivity

After turning on the unit, the orange GPS LED light will glow constantly. This means that the device is trying to obtain a position fix. Within 30 to 45 seconds the light should start flashing. A flashing LED means the device is successfully obtaining position data via GPS.

Check GSM Connectivity

To confirm that the GSM connection is working you should try calling the phone number of the SIM card. On the **PT** and **VTA** models you should be able to answer the call using the pickup button and converse using the microphone and speaker.

Geo-fence (Park)

The Geo-fence (Park) features allow you to be notified if your vehicle has travelled a preset distance from where it was parked. You will need to program the distance of the Geo-fence using either SMS commands or via the RhinoTracks software. *More information on programming can be found further on in the manual.*

The Geo-fence (Park) feature is turned on and off using the *Park* button on your unit. The range of the Geo-fence feature should be set at 200 metres or more – to prevent false alarms.

SOS Emergency Call

When the SOS button is pressed for 3 seconds, the device will send enter an emergency state. During this state it will send an SMS message for emergency help, every 3 minutes. The person/people who receive the message can activate the voice monitoring function to listen to what is happening inside the vehicle.

The device will constantly send the emergency SMS messages until the device is sent a command (via the RhinoTracks software or SMS) to reset.

Voice Communications

Call In: A remote user can call the RhinoTracks module by simply dialling the SIM card number. To receive the incoming phone call, the local user simply has to press the “Pick-Up/ Hang-Up” button to start a phone conversation.

Call Out: The RhinoTracks module has two buttons for speed dial; you can preset two phone numbers. The local user can make phone call to the preset phone numbers by simply pressing down either of the two speed dial buttons, “Dial 1” or “Dial 2”.

Sound Monitoring

Users can send an SMS command code (**100#Password**) to the unit to listen to what is happening inside the car. The module will then call them back and the can listen to what is happening inside the vehicle.

Volume and Ringtone (PT and VTA Models)

Volume: Press “Dial 1” for 5 seconds and the device will start ringing. Press Dial 1(+) or Dial 2(-) to adjust volume up/ down; and press “Pick-Up/ Hang-Up” button to confirm the setting.

Ringtone: Press “Dial 2” for 5 seconds and the device will start ringing. Press Dial 1(+) or Dial 2(-) to select the ringtone; and press “Pick- Up/ Hang-Up” button to confirm the setting.

SMS Command Codes

Code	Function	Examples
001	get version data	001#Password
010	reset to the default setting	010# Password
020	reboot the device	020#Password
100	send back current position data by SMS; and then call back for voice monitoring	100#Password
110	send back current position data by SMS; and then enter into power saving mode	110#Password
111	send back current position data by SMS	111#Password
115	set the time interval for AVL to send back data (115#30 => send the data each 30 seconds)	115#Password#-1 115#Password#30 * -1 => no need to send back the data
116	get the preset time interval for AVL to send back data	116#Password
119	send back current position data by SMS; and wake up from power saving mode	119#Password
120	set the phone number list, which can get the position data from the GPS tracker	120#Password #Phone1#Phone2#Phone3.... 120#Password #0212345678
121	get the phone number list, which can get the position data from the GPS tracker	121#Password
122	Activate or shut off the function for getting position data thru phone call Phone numbers should either country code + area code + phone number ; or area code w/o the prefix "o" + phone number. Ex. +886 4 12345678 4 12345678 (without prefix 0)	122# Password #1 (activate) 122# Password #0 (shut off) 122#Password #1#Phone1#Phone2#Phone3.... (activate and set the phone list)
130	Set the present time	130#Password#yy/mm/dd,hh:nn:ss 130#8888#yy/mm/dd,hh:nn:ss
131	Get the present time	131#Password 131#8888
150	Set the time table for the GPS tracker to call back every day	150# Password #set#time[#enable] 150#8888#set#time[#enable] (#set# is variable from 1 to 5 for setting 5 different times for the GPS tracker to call back) ([#enable] is either "1" for enable, or "0" for disable. The default is enable.) 150#8888#1#hh1:nn1 [#enable] 150#8888#2#hh2:nn2 [#enable] ... 150#8888#5#hh5:nn5 [#enable]
151	Activate or shut off the function of calling back automatically at the preset time(s) every day	151#Password#set#enable set from 1~5 enable 1 or 0

		151#8888#2#1
152	Set the phone numbers to receive the phone calls of each day call back at the preset time	152#Password#Phone1#Phone2#Phone3 ... 152#8888#0212345678#0287654321
153	Get the list of the ones who receive the phone calls of each day call back at the preset time	153#Password
155	Get the time table for the GPS tracker to call back automatically every day	155#Password
200	send back GPS data in GPRMC format (200#30#9 => send back data each 30s for 9 times) (200#30#-1 => send back data each 30s continuously)	200#Password#interval#times * 0 times => stop the transmission * -1 times => send back data continuously
222	send back IMEI code of the SIM card put in the AVL	222#Password
331	get the number of the 1st set dial-out phone number	331#Password
332	re-set the first set dial-out phone number	332#Password#0912345678#Name (can be without #Name)
41	get the number of the 2nd set dial-out phone number	341#Password
342	re-set the 2nd set dial-out phone number	342#Password#0912345678#Name * the 10 digits after "342" is the mobile no. * #Name => the owner of the mobile number
400	set auto answering phone call mode (400#5 => into auto answer mode after rings 5 times) (400#-1 => disable auto answer mode)	400#Password#-1 400#Password#5
505	set the phone numbers for AVL to send back the SMS message, when SOS button is pressed down	505#Password#phone1#phone2#phone3.... * maximum 50,000 sets
506	cancel SOS status and return to normal condition	506#Password
507	Get the phone number list of the ones who receive the SOS emergency calls	507#Password
600	Set APN	600#Password#APN#IP#User#APN_Password * can be without #User and #Password Ex: 600#8888#cmnet#0.0.0.0
610	Get APN	610#Password
881	get the phone number for geo-fence parking function	881#Password
882	set the phone number for AVL to call back when car is moved over the geo-fence setting range	882#Password#0912345678

883	set the time interval for AVL to send back the SMS message, if the car has been moved over the preset geo-fence range	883#Password#30 * send the message each 30 seconds
884	set geo-fence range. AVL will send SMS message to the preset mobile number if the range is over the preset distance	884#Password#30 * geo-fence range = 30 meters.
885	Set the mode for Geo-fence Park function	There are 2 modes: SMS or TEL 885#Password #TEL
886	Get the setting details about Geo-fence Park function	886#Password
888	Activate Geo-fence Park Function	888#Password 888#Password[#phone number] If you have set the phone number for "882" command, then you do not need to key-in the phone number here; otherwise it will alter the original setting of "882" command.
889	disable geo-fence parking function	889#Password
911	clear all the data saved in the SIM card put in the AVL	911#Password
980	set the password	980#Password#Old Password#New Password
989	send back the IP address of the computer used for the tracking/ monitoring	989#Password
990	firmware update	990#Password#ServerIP/Name#UserID#UserPassword#filename(include path) 990#Password#gis.gopass.com.tw:2100#UserID#UserPassword#/usr/gopass/900B-v1.05.frm
999	change the IP address of the PC used for tracking	999#Password#ServerIP#Port

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