# AVL-900

Quick Start Guide

AVL-900 Hardware Quick Installation Guide

1. Precaution before Installation

- Check if all the parts are included.
- Prepare a SIM card for **GSM** communication. Use some other mobile phone to confirm that the **PIN code** has not been set, and that it can dial out and receive telephone calls without problem.
- Before install the SIM card, make sure to cut off power from the AVL unit. The correct installation method is to push the tray completely into the AVL unit, until you feel it is hooked by something.
- **It takes longer time (over 20 minutes) to get a position fix for the very first time positioning.**
- The factory **default password** is "**8888**".

2. Panel Description
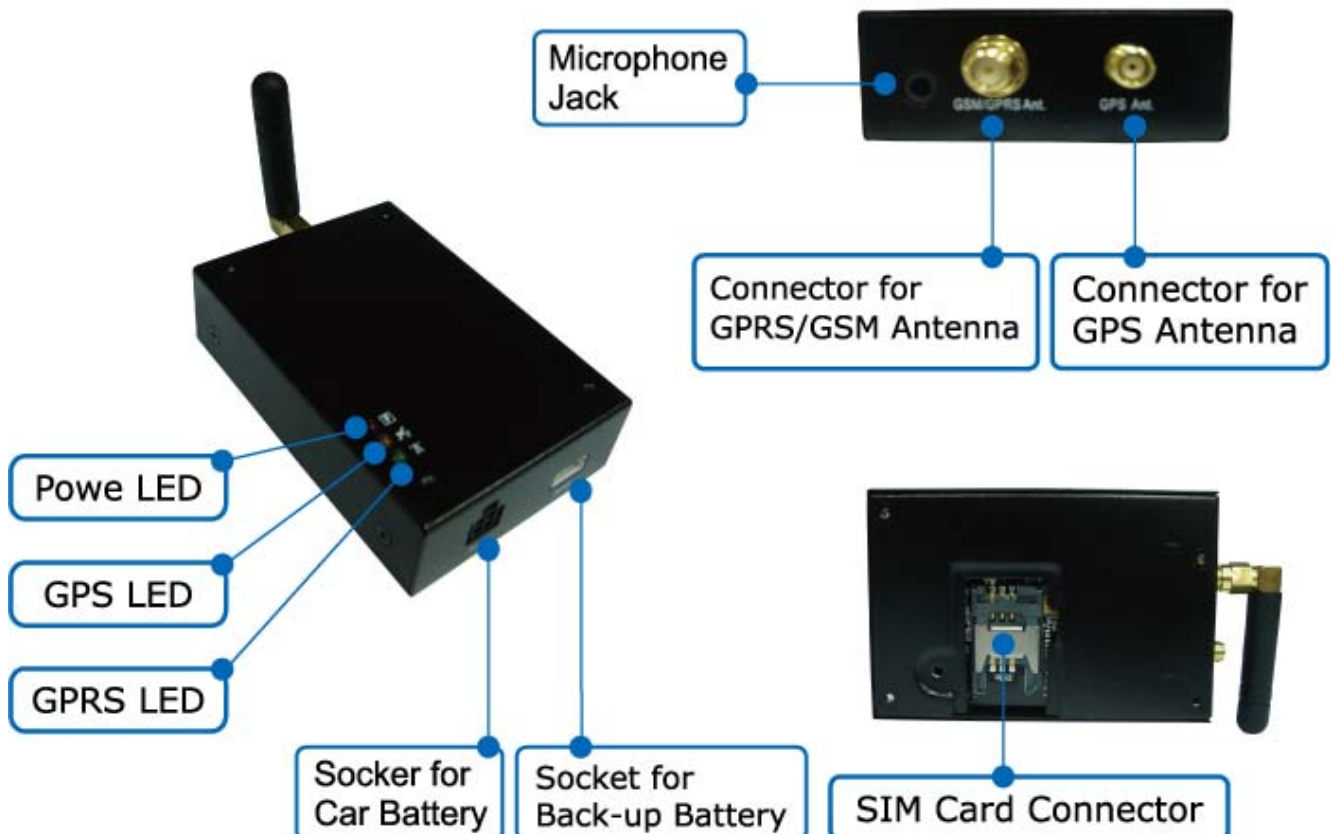
3. Installation

Step 1: Install GPRS Antenna

- ◆ Connect the GPRS Antenna to the unit.
- ◆ Fasten the connection by turning the screw in the bottom. Please do not swing round the antenna itself.

Step 2: Install SIM Card

(1) Unscrew and remove the back cover of the device. Push the holder top upward to loose it.

(2) Insert the SIM card by sliding it into the card holder slot, with the chip module facing to the connectors on PCB, as shown in the picture.

(3) Flip down the holder top. Push the holder top leftward, and let it snap in completely.
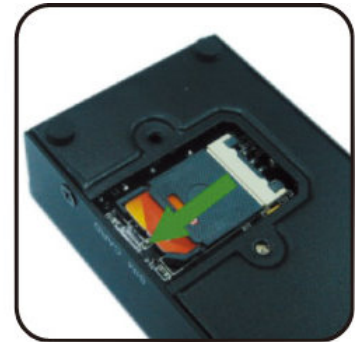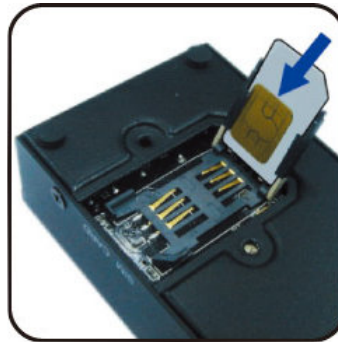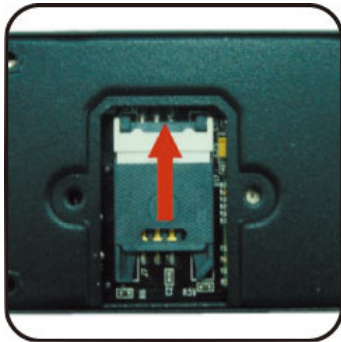
Step 3: Connect GPS Antenna

- ◆ **GPS antenna is used to receive satellite signals in the sky. It should be positioned at a place where it will have an unobstructed view of the sky, such as the metallic windshield.**
- ◆ If your car is with metallic windshield, please cut a hole on the windshield above the place where you put the GPS antenna, so that the antenna can receive the GPS signals.
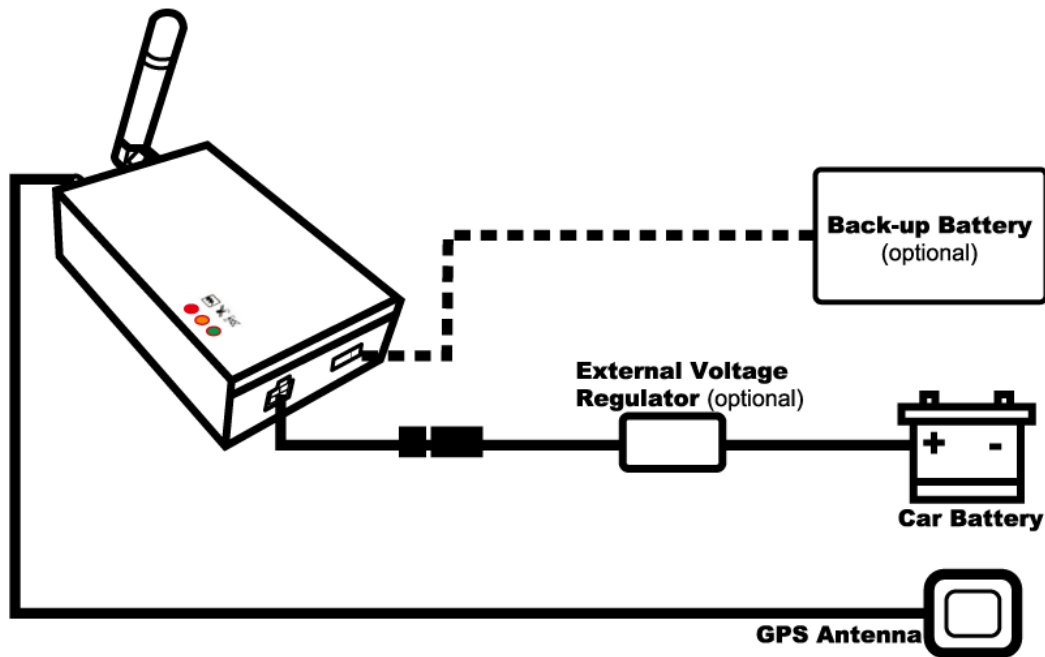
Step 4: Connect to the power source, and turn on the unit

Step 5: Check if GPS can works properly

- ※ **Method**：When GPS has got **position fix**, the GPS LED will turn from constant glow to "**blinking light**". Check if the GPS LED has turned to "blinking light".

2

4. Power Charging

5. Description of the LED Indicators

	System State （RED LED）	GPS State （ORANGE LED）	GSM/GPRS State （GREEN LED）
Flash	---	GPS is on, and position is fixed	GSM is sending or receiving data
Constant Glow	normal	GPS is on, but position not yet fixed	GSM is on, but not yet connected to the network
Constant Dark	in trouble or no power	GPS is off, or GPS has troubles	GSM is in the standby mode; or SIM Card was installed improperly; or in trouble

6. Inspection Items after Installation

◆ After connected to the power source, the **RED LED** indicator should be "constant glow".

◆ The **GREEN LED** for GSM/GPRS state should "flash" when sending or receiving data.

◆ The status of the **ORANGE LED** for GPS state:
   - go to an open air place, check the status of the orange indicator
   - make sure GPS has got position fixed, and the Orange LED "flashes once per second"
   - make a phone call to the AVL unit, and ask it to report its current position

◆ Complete the installation, and restore the interior of the car.

3

Track GPS Location by SMS

You can get the latitude & longitude data by sending "**111#Password**" SMS (short message) command Code to the GPS Tracker. Input the received latitude & longitude data to *Google Earth* (from earth.google.com) or *Google Maps* (maps.google.com), then you can find the position fix in the map. Please find below the example.

Step1. Send a SMS Command Code "**111#8888**" to the GPS Tracker.
Step2. GPS Tracker will send back the **latitude & longitude data**.

Step3. Input the latitude/longitude data (**N52 21.6911', E004 48.5627)** into the column of "**Search**" and click on search button, *Google Earth*/*Google Maps* will display the position map for you.
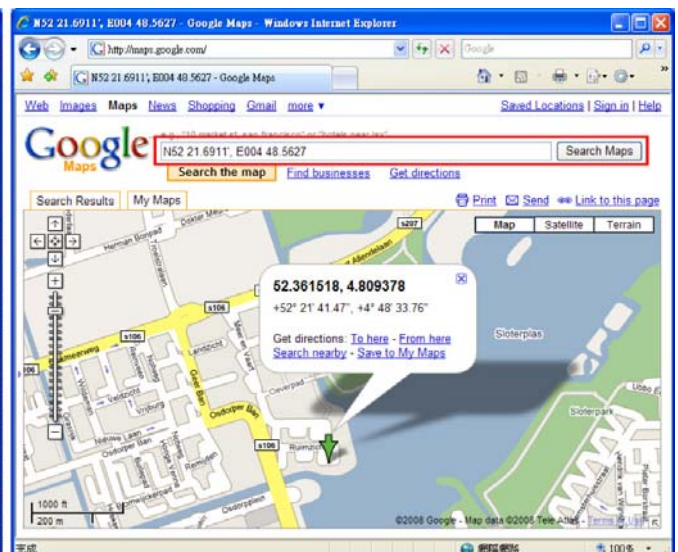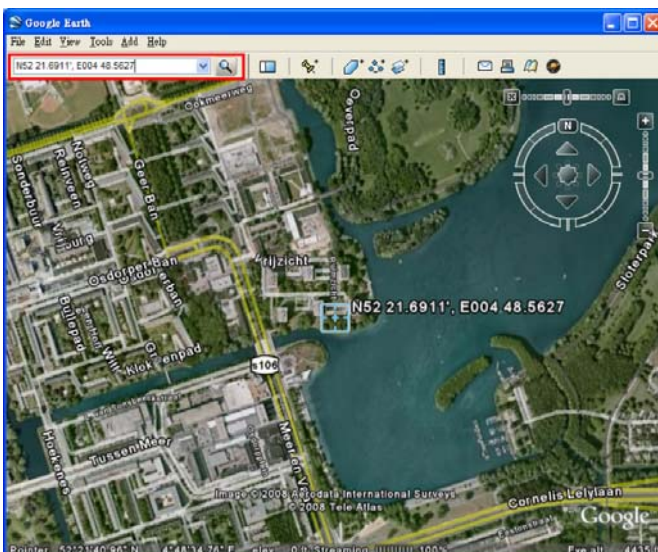
[About how to track by **PDA Phone**, please read **SMS Track User Manual** in the CD.]

GooTrac Software Quick Installation Guide

1. Requirements

(1) Make sure you did have installed a GSM SIM Card to AVL; and its **GPRS function** had been enabled.

(2) **FIX IP Address** is required for GooTrac Server (the computer to receive the GPS data sent by GPRS from the vehicle trackers); Intranet is not workable for the operation. If you do not have a FIX IP, you can use our FIX IP (59.120.2.234) for the real-time tracking.

(3) Your PC should be 100% compatible with **Windows O.S**.

(4) Your PC must support **3D graphic**.

(5) *Google Earth* **Free Version** (4.0 or later) should be installed in your PC in advance.

(6) To display the route in different color/ width for different speed, please go to Google Earth -> Tools -> Options -> 3D View -> Graphics Mode and choose **OpenGL mode**.
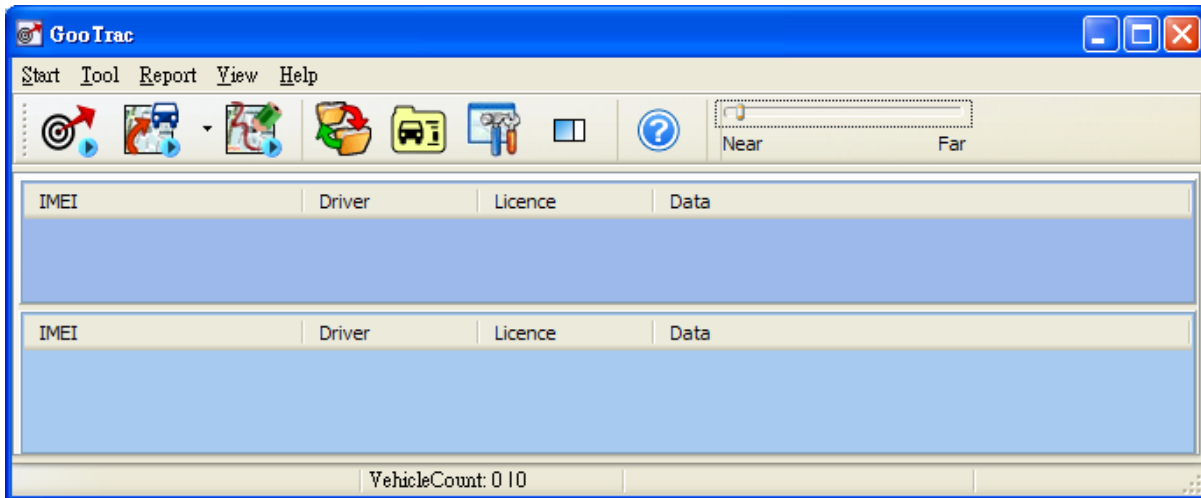
2. Installation

Put the CD delivered with the tracker to the CD driver of your computer; click on **"GooTrac"** to install the software into your computer.

3. Set Up The GPS Tracker

First of all, run GooTrac software in your PC.

Step1. Set GPRS APN - send SMS command 600# to the tracker.

600#Password #APN#IP#User#APN_Password

ex. 600#8888#airtelnet.es#0.0.0.0#vodafone#vodafone

(You can find the right command in http://www.gopasstech.com by clicking "**send my GPRS APN command**".)

Step2. Set IP Address - send SMS command 999# to the tracker.
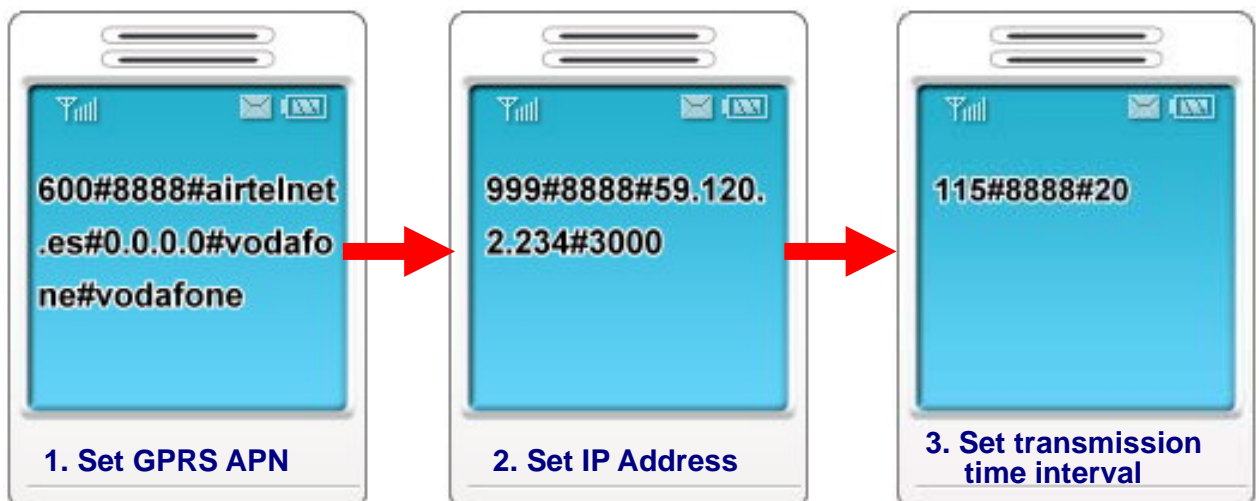
999#Password#ServerIP#Port

ex.999#8888#59.120.2.234#3000 - send the data to GoPass server

(Go to http://www.gopasstech.com; click "**See my IP Address**" to get the data.)

Step3. Set transmission time interval - send SMS command 115# to the tracker.

115#Password#XX

ex.115#8888#20 - send the GPS data once each 20 seconds

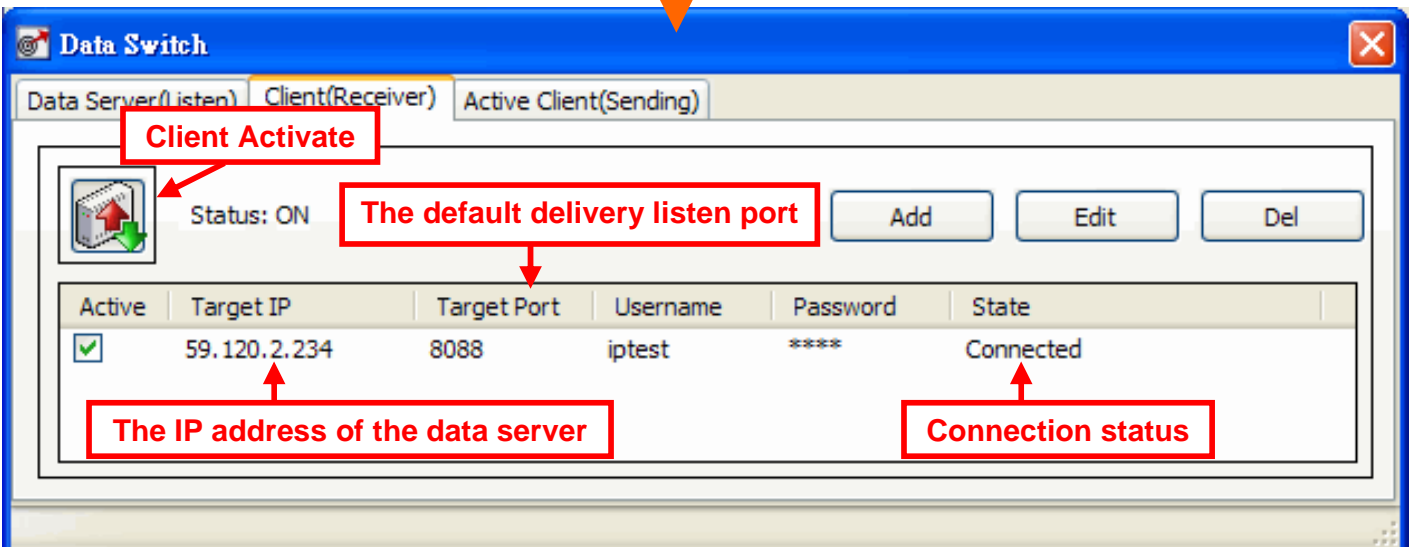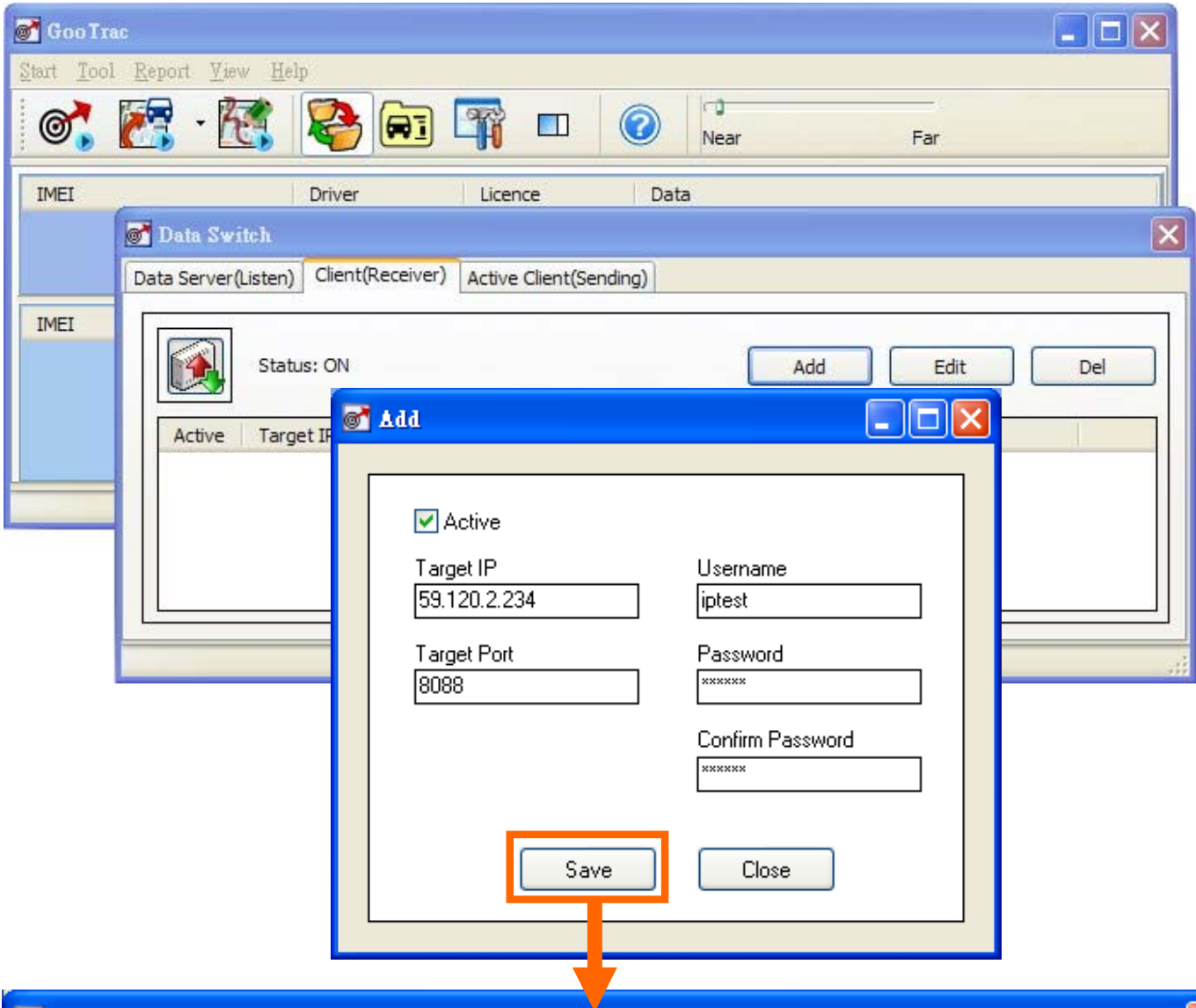**1. Set GPRS APN**　　　　**2. Set IP Address**　　　　**3. Set transmission time interval**

4. Data Switch -> Client

After set up the GPS tracker, please go to "GooTrac" -> Tool" -> "Data Switch" -> "Client" -> "Add" and key-in the columns as follows.
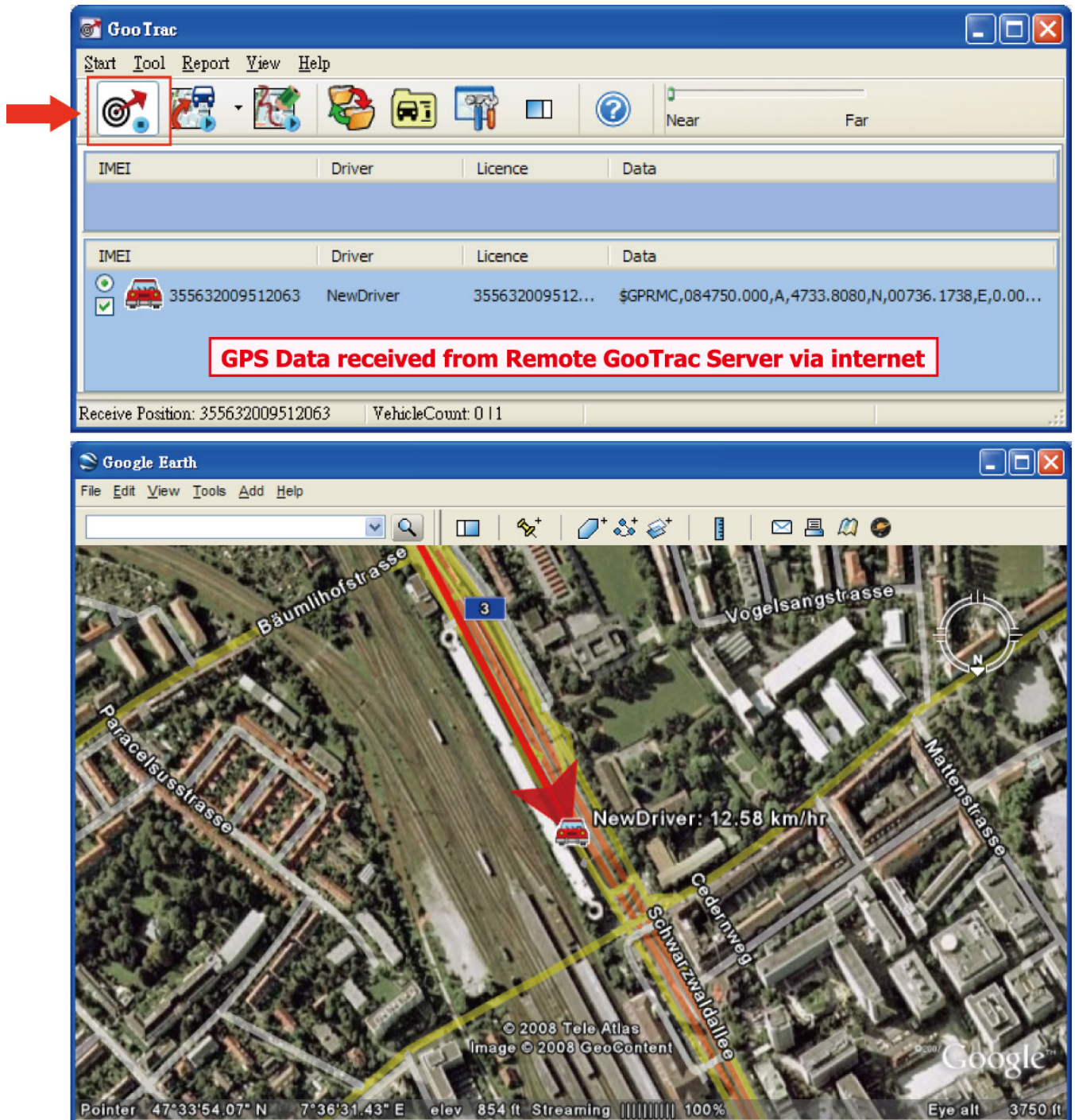
Target IP: 59.120.2.234   Target Port: 8088
Username: iptest   Password: iptest   Confirm Password: iptest

5. Get GPS data

The position GPRMC data will be displayed in GooTrac main screen; you can start to track over *Google Earth*.

- Press down ⊙ icon will have the GPS position data forwarded to Google Earth.
- Pick "⊙**Select Button**" will have the camera fly to the vehicle position automatically, once when its GPS position data is received.
- Tick the "☑**Visible Box**" will create a vehicle object in Google Earth. Un-tick it will remove the object in Google Earth.

[For other functions, please read **GooTrac User Manual** in the CD.]

How to set GPRS APN?

Please check with your telecom company for the following data beforehand.

- The Access Point Name (APN) of the telecom company.
- Is the User_Name and APN_Password required for the APN setting?
- You can refer to http://www.gopass.com.tw/other/APN_Table.pdf for the examples of the GPRS APN set-up.
- Please make sure the SIM card does support GPRS communication; and the GPRS function has been activated.
- Please note that WAP and MMS are not workable for real-time tracking; GPRS is a must for the operation.

Please send the SMS command "**600#Password#APN#IP#User#APN_Password**" referring to following examples.

Example 1: Vodafone (Airtel) - from Spain

APN: airtelnet.es | Username: vodafone| Password: vodafone

600#8888#airtelnet.es#0.0.0.0#vodafone#vodafone

(*must key in "0.0.0.0" as the IP, when "User" & "APN_Password" is required)

Example 2: Telefonica (Movistar)   - from Spain

APN: movistar.es | Username: movistar | Password: movistar

600#8888#movistar.es#0.0.0.0#movistar#movistar

Example 3: Telmore (TDC) - from Denmark

APN: internet | Username: tdc

600#8888#internet#0.0.0.0#tdc

(*must key in "0.0.0.0" as the "IP", when "User" is required)

Example 4: Telia - from Denmark

APN: www.internet.mtelia.dk | Username: telia

600#8888#www.internet.mtelia.dk#0.0.0.0#telia

Example 5: Taiwan Cellular

APN: internet

600#8888#internet

(*no need to key in the "IP", when "User" & "APN_Password" are not required)

Why I can't find the IMEI# of my device in GooTrac main screen?

It is because the position data of your device still can not be sent back to GooTrac server by GPRS. There must be some problem with the SIM card, or the GPRS APN settings, or some other telecom problem.

Following are some of the possible factors which may cause the data can not be sent back to GooTrac server by GPRS.

1. The APN setting is not correct

Please check with your mobile operator for the latest & exact GPRS APN settings; if Username & APN_Password required for the APN settings. Please note that the data provided by us were what found in the internet, which maybe out of date. You must check with your local telecom company for the correct APN data.

2. The SIM card does not support GPRS communication

Please check with the telecom company if the GPRS function of the SIM card has been activated. Maybe the SIM card does support GPRS; but not yet been activated. You must call & ask the telecom company to have the GPRS function opened.

(Please note that one can link to internet by WAP, or MMS, or GPRS; but only GPRS is good for real-time tracking; WAP & MMS are not workable - i.e. it is not for sure that the SIM Card does work on GPRS, even though you can link to internet with the SIM card.)

3. The GPRS communication is simplex, not duplex

Please check with your telecom company if the GPRS communication is duplex not simplex - i.e. the device can both receive & send out GPRS data.

4. The 3 SMS commands to set up the GPS tracker were not sent correctly

Please double check the 3 SMS commands sent to the device, and make sure the commands were sent correctly.

5. Firewall or Anti-virus Software

The operation of GooTrac is blocked by firewall or anti-virus software. We suggest you to disable all the firewall/protection for the PC used for testing; and have this PC linked to internet directly, not thru router/intranet... After the communication problem solved, then you add on the required protection one by one, so that you can find out where the problem resulted from.

For software update or technique support, please contact your local distributor or contact:

GOPAS®
GoPass Technology Corp.

http://www.gopasstech.com
E-mail: support@gopasstech.com