ATrack

AP3
User Manual

Revision: 02
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1. Notification

1.1. Disclaimer

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1.3. Warning

Connecting of the input wires can be hazardous to both the installer and your vehicle's electrical system if done by an inexperienced installer. This document assumes you are aware of the inherent dangers of working in and around a vehicle and have qualified understanding of electrical behaviors.

2. Introduction

Congratulations on your purchase of the ATrack AP3 GPS device, combining with the easiest installation and economical vehicle tracking solution, which provides real-time location monitoring. The GPS data is transmitted to the control center over a LTE Cat. 1 mobile network. This product does not require the OBD port, which many people concern about the vehicle safety and warranty. Furthermore, you may configure other advanced driving behavior events such as harsh braking, sudden acceleration, speeding, cornering, and much more in order to reduce the risks of vehicle damage and the fuel cost.

3. Installation

3.1. Package Content

Package Default Content:
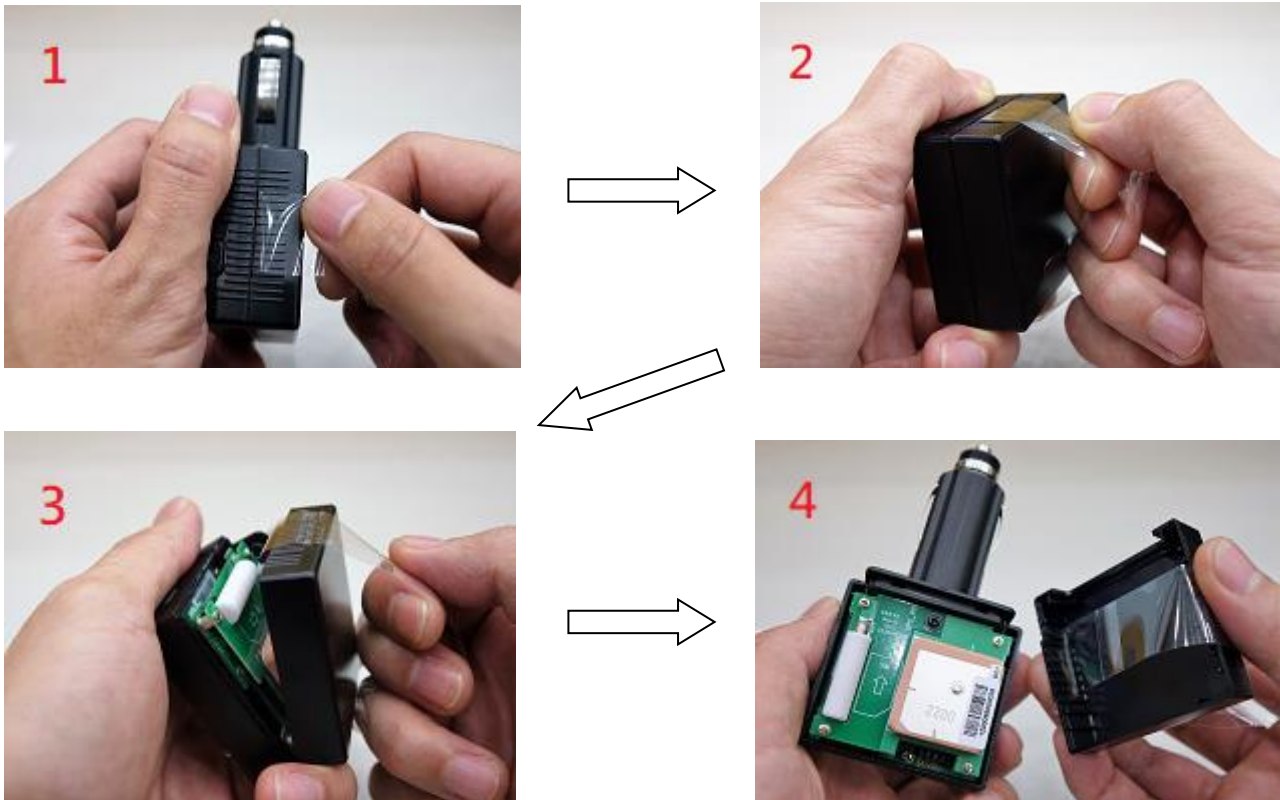
- AP3 Device * 1

Operational accessories:

- USB Configuration Cable * 1

3.2.   How to open AP3's case

Hold AP3 firmly on the left hand and pull the plastic band to open AP3's case as below steps.

Note: Remember to remove the plastic band and the cigar plug plastic wrap before using it. Also, do not try to open the cigar plug as it will damage the device.

4. Hardware Features

4.1. Built-in Push (SOS) Button

On the side of AP3, a push button is embedded on the case.

4.2. Configuration Port and Setting

The configuration cable is used to connect to the socket inside the AP3 and PC for configuring parameters and firmware upgrade. When the configuration cable is connect to your PC/laptop, a "USB Serial Port" will show up in the device manager. This will be used as serial port to communicate with AP3. Please note down the COM port in order to select it correctly when using a terminal emulator.

Next, connect the 4-pin board-to-board connector as shown below:

Note that the black wire (GND) is on the side of GPS patch-type antenna, and yellow wire is on the side of polar-type antenna. Once it is done, please open a terminal emulator with serial port as noted before with setting of 57600-N-8-1 and line characters of "\r\n" (or 0x0D 0x0A).

4.3. Buzzer Operation

The internal buzzer of the AP3 can be configured by any events or triggered by a remote server. Refer to the ATrack Protocol Document for details. When a device is configured and plugged into a cigarette lighter socket, it performs some basic function tests. You can simply verify whether it is installed properly via buzzer indication. Please refer to the following table for details:
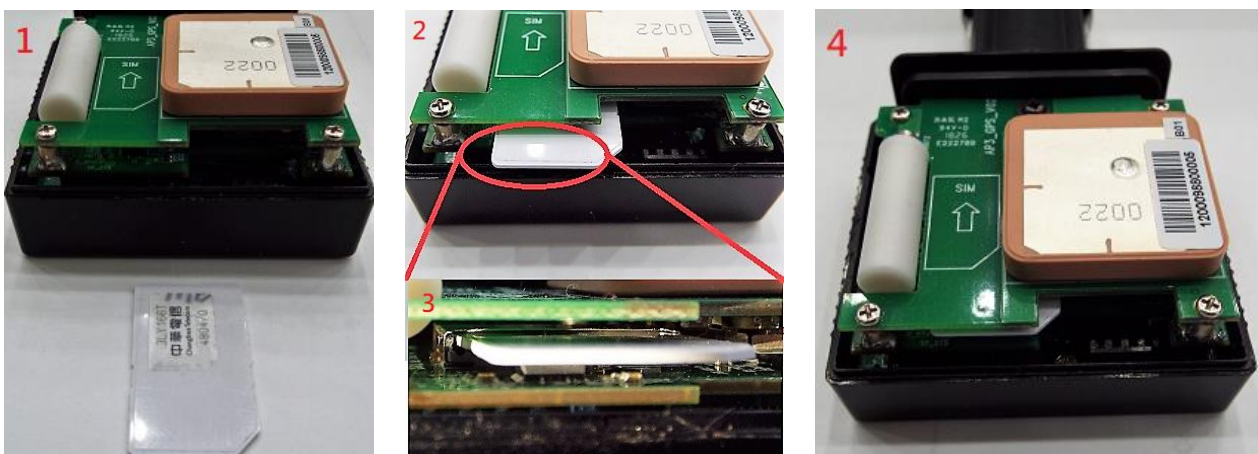
Buzzer Indication	Description
Short Beep 1 time	Device Power ON
Short Beep 3 times	GSM/GPRS Connected
Short Beep 4 times	GPS Fix
Long Beep 1 time	G Sensor Calibrated

4.4. Power Supply

The AP3 device is connected to the cigarette lighter socket of a vehicle and draws power from the socket. No additional power cabling is required for the operation.

4.5. SIM Card Installation

AP3 supports SIM cards with 1.8V (ISO/IEC 7816-3 class C) or 3V (ISO/IEC 7816-3 class B) operating voltages. To install SIM, remove the cover, and follow the diagram below：

4.6. LED Indicators

The following table describes the LED states:

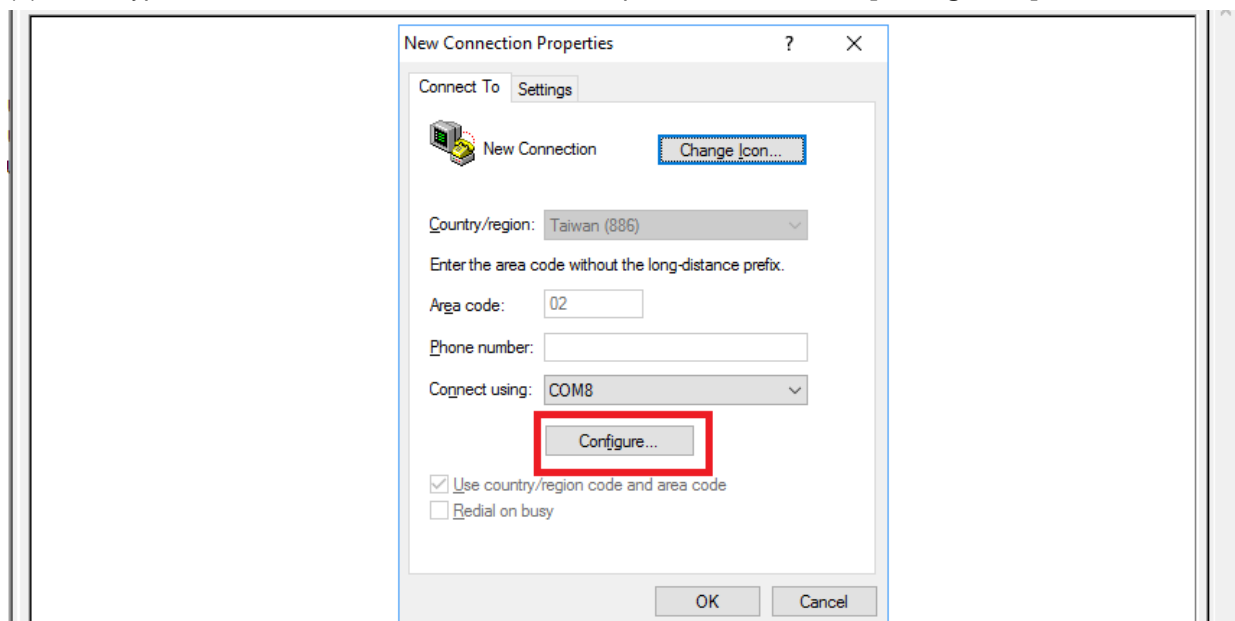| LED Indicators	Color	LED Status	Description
GPS	**Blue**	Solid OFF	GPS power OFF
		Blinking every 1 second	GPS not fix
		Solid ON	GPS Location Fix
		Blinking every 10 seconds	Sleep/Deep sleep mode
GSM	**Red**	Solid OFF	GSM Power OFF
		Blinking every 1 second	GSM no signal
		Blinking every 2 second	GSM registered
		Blinking twice every 2 second	GPRS connected

5. Configuration

You can explore many of AP3's great features through AT commands. The commands can be sent to AP3 via configuration cable, SMS or LTE data network.
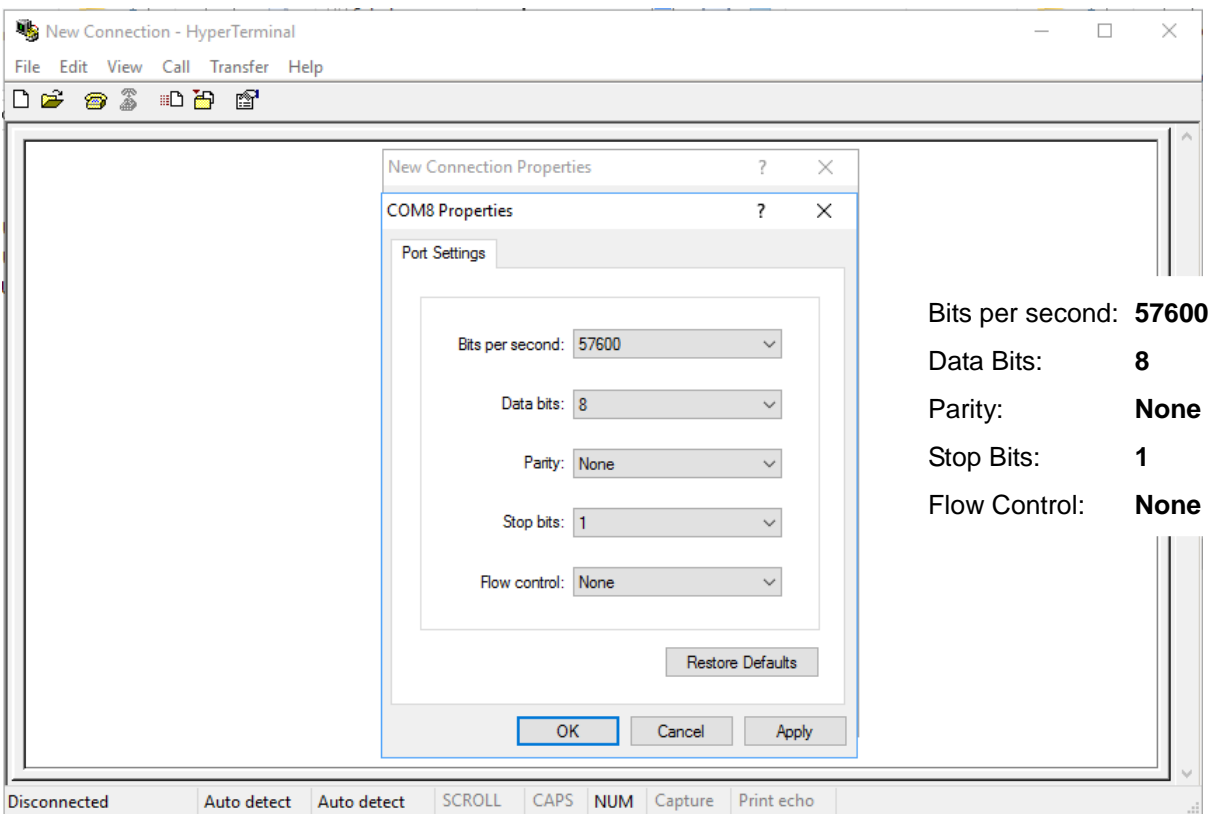
5.1. Connecting a Device Using HyperTerminal

The following example shows how to connect the AP3 through Hyper Terminal. You may use other popular terminal emulators such as Putty or Tera Term Pro to establish a console session with the AP3.
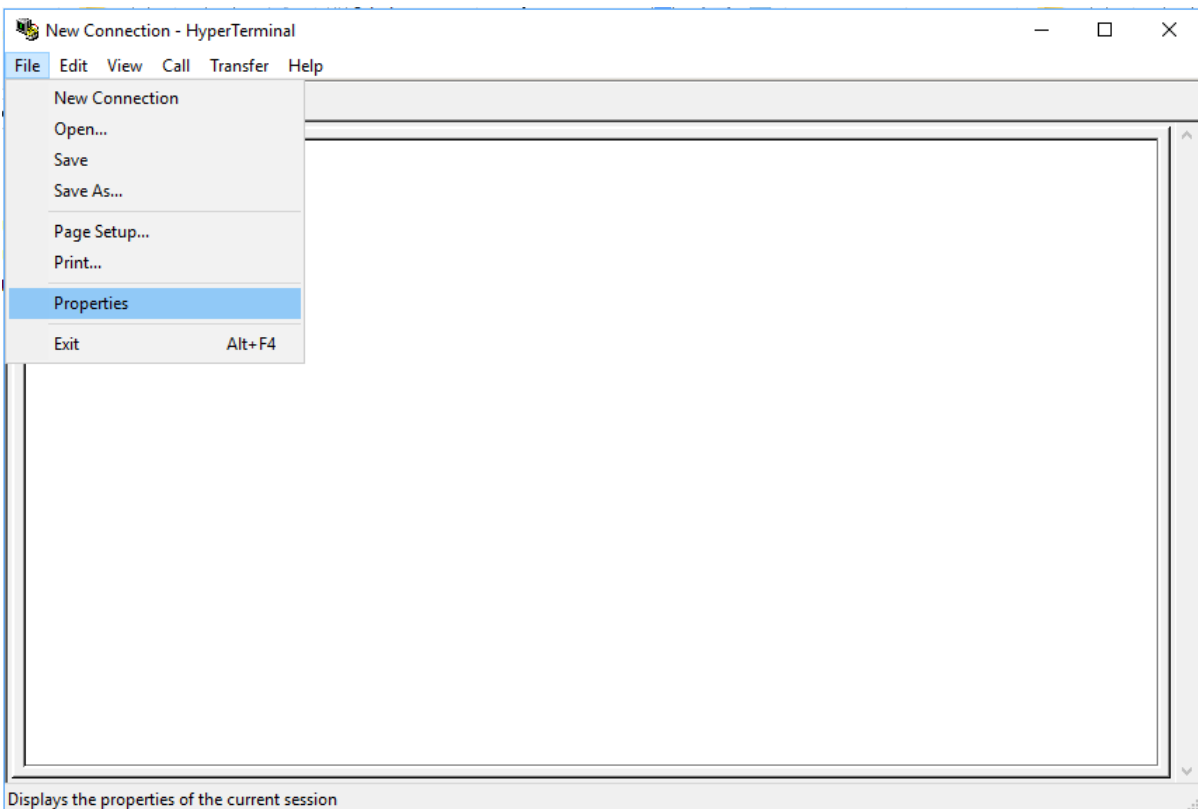
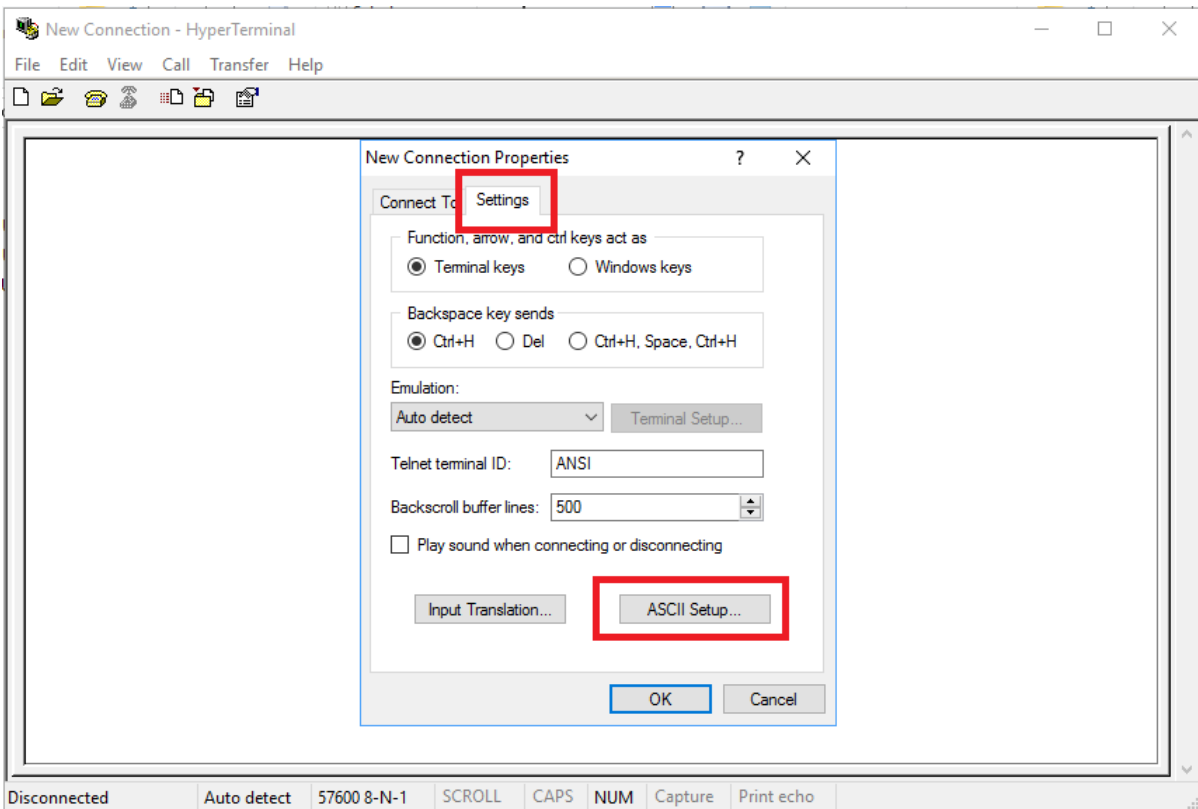(1) Run HyperTerminal and select the correct COM port and click on the **[Configure…]** button.

(2) Port Settings should be as follows. Click on the **[OK]** button to close the Properties window.

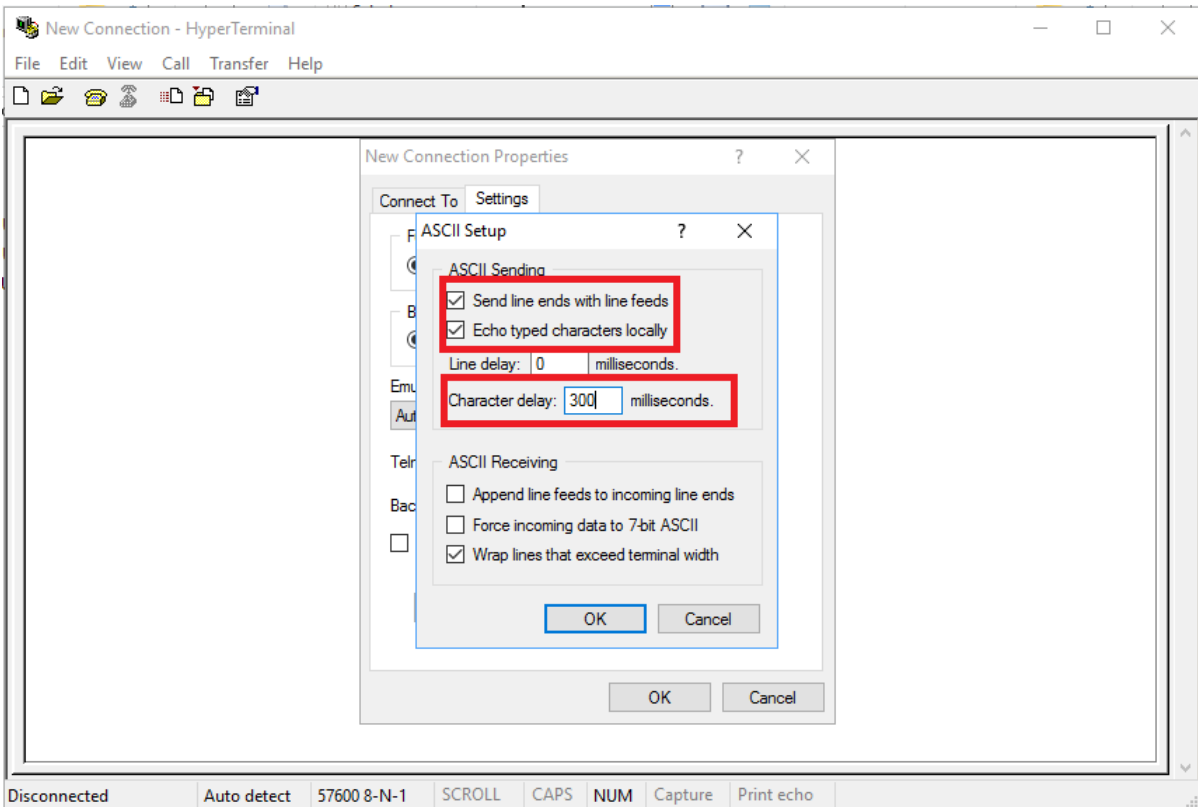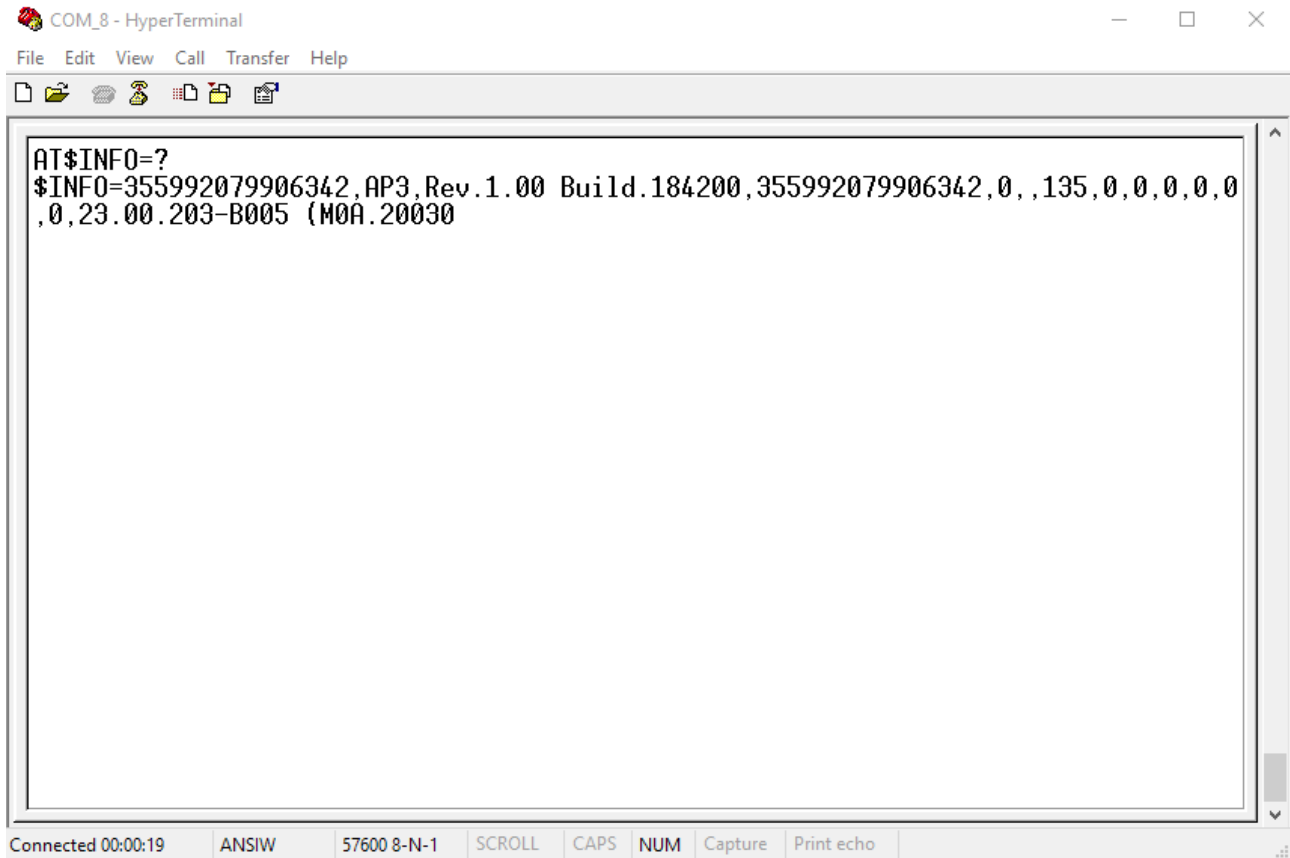|	
Bits per second:	**57600**
Data Bits:	**8**
Parity:	**None**
Stop Bits:	**1**
Flow Control:	**None**

(3) Click on **[File]→[Properties]**

(4) Click on the **[Settings]** tab and click on the **[ASCII Setup…]** button.

(5) Check the following options and click on the **[OK]** button.

(6) Power up the device and you can now begin to send AT commands to query the device. Please refer to the ATrack AP3 Protocol Document for details.


```
COM_8 - HyperTerminal
File   Edit   View   Call   Transfer   Help

AT$INFO=?
$INFO=355992079906342,AP3,Rev.1.00 Build.184200,355992079906342,0,,135,0,0,0,0,0
,0,23.00.203-B005 (M0A.20030

Connected 00:00:19      ANSIW      57600 8-N-1      SCROLL   CAPS   NUM   Capture   Print echo
```