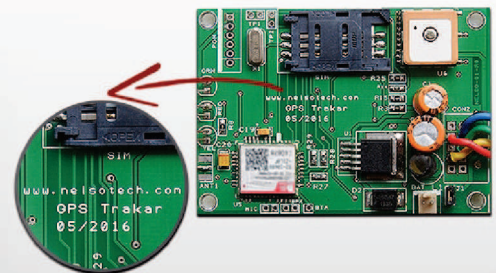


GPS Vehicle Tracker

Model: Smile NT-01



Proof of manufacturer

- *Pin point location identification.*
- *Easy to install*
- *User-friendly application*





Applications Area:

- Logistics
- Fleet management
- Commercial Vehicle Monitoring
- Public Transport Systems
- Delivery & Courier services
- Taxi Services
- Emergency Vehicles
- School Bus Tracking

Preface:

This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

General Description:

Nelso® is manufacturer of GPS based Vehicle Tracking System(VTS) in Kolkata, India. This product is designed to realtime monitor all activity of a vehicle remotely with the help of user friendly online tracking application from your computer or mobile phone which has internet connectivity. GPS based vehicle tracking system are commonly used by fleet operators for fleet management functions. Vehicle tracking system (VTS) are also popular in consumer vehicles as a theft prevention and retrieval device. Police can simply follow the signal emitted by the tracking system and locate the stolen vehicle.

Specification:

GSM Part:

Network:	GSM/GPRS
Band:	Quad-band 850/900/1800/1900MHz
GPRS Data:	GPRS class 12: max. 85.6 kbps (downlink/uplink)
GPRS Connectivity:	GPRS multi-slot class 12/10

GPS Part:

Horizontal Position Accuracy:	< 2.5 m
Velocity & Acceleration Accuracy:	< 0.1 m/s & < 0.1 m/s ²
Sensitivity:	Acquisition: -147dBm, Tracking: -165dBm
Receiver Channel:	132

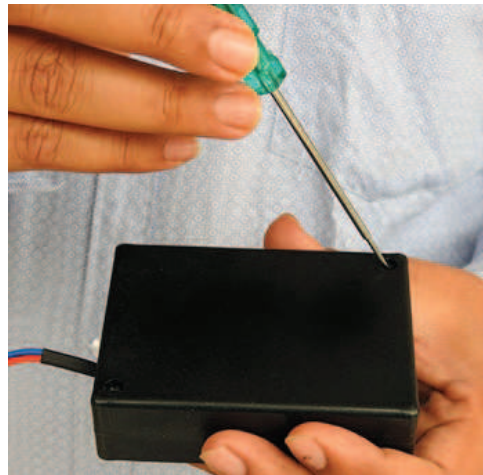
General:

Supply Voltage:	10V to 38V DC
Operating Temperature:	-40 to 80 °C
Humidity:	Up to 95% RH
Dimension (Height x width x depth):	85 x 60 x 25 mm
Weight:	70 gm

Brief Description:

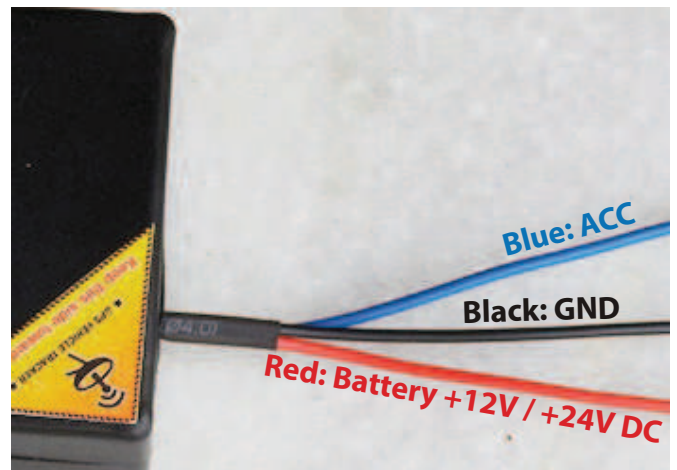
- *Pin point location identification* - Get exact location of your vehicle on map .
- *Ease of Use* - Completely Web-Based Application. User friendly web interface. Web-Based report generation for date-wise total distance traveled, idle time, no. of over-speed occurrence etc.
- *Local Memory (optional)* - In absence of network the device is capable to store data in its local memory for up to 15 hrs. depending upon the vehicle movement status.
- *Configurable via SMS* - User can change the location data update rate, user mobile no., digital outputs etc. by sending corresponding SMS.
- *Over Speed Alert* - User may set speed limit (ex.: 80Km/hr.) from his web site control panel against each vehicle separately. A SMS alert will be generated if the vehicle runs over this speed limit (ie. 80Km/hr).
- *Device Tampering Alert* - A SMS alert will be generated if the main power cable is removed.
- *Status Request* - Know status of the vehicle like Speed, Latitude, Longitude and Network Location etc. by sending corresponding SMS to the device.
- *Panic Switch (SOS Optional)* - This is an emergency switch. A SMS will be delivered to owner/user mobile number upon pressing it in case of emergency.
- *Avoid Vehicle Theft* - Pin Point your stolen vehicle on map.
- *Swift off engine remotely (Optional)*. - In case of theft, hijack or other security reasons, users can remotely immobilize the engine either from an authorized cell phone, or by requesting our support center.
- *24x7 Visibility* - User can monitor vehicles using PC, laptop or mobile phone.
- *Notification Management* - User can choose his preferred condition like vehicle speed vehicle route or boundary through geofencing for notification via SMS alerts.
- *No software installation required*.
- *Maintenance Free* - Robust improved hardware.
- *Geofencing* - User may draw a boundary at his desired location and able to get alert through SMS upon entering or exiting from this boundary.
- *History Replay* - User can view past three month movement of their vehicle for any date and time.

Open back cover by opening 2 screws.

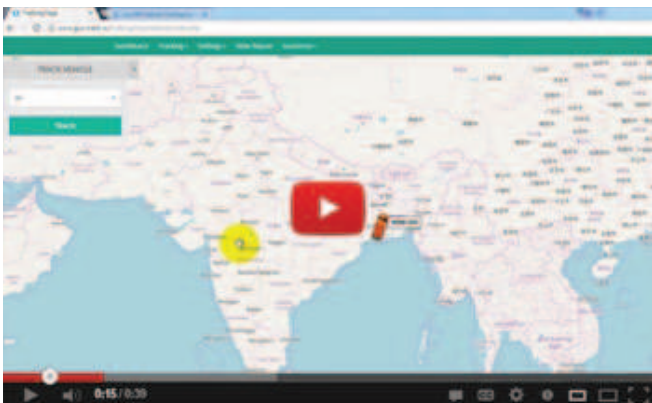


Open SIM card holder by sliding it. Insert SIM Card into the holder and lock it.

Connect three wire as shown in the figure. Mount the device inside dashboard keeping the yellow sticker towards sky.



Register your device in www.gps-track.in:



Visit this link and see the video about how to register the device with gps-track.in software.
<https://youtu.be/nCkvDqHqAik>

Configuring Device through SMS:

You may configure the device by sending corresponding SMS to its SIM No. Each SMS starts and ends with \$ symbol. First 3 characters of SMS content after \$ symbol are command and others are value.

- *Over Speed Limit Setting:* Send SMS \$OSL65\$ from User Mobile Number to set over speed value. Here "OSL" is the command and 65 is the value in Km/Hr. You will receive a confirmation SMS.
- *Store User Mobile No.:* You may store a mobile no. to which you want all types of alert through SMS and configure the device by sending SMS. For this you have to send SMS \$Un19874228400\$. Here Un1 is command and 9874228400 is admin mobile number. In that case you should have agreed to receive all SMS related to tracking system.
- *Ignition Cut-off (optional):* Send SMS \$CUT\$ from admin Mobile Number that is stored in the device to cut-off ignition/ fuel pump and immobilize the vehicle. You will receive a confirmation SMS.
- *Recovery from Ignition Cut-off (optional):* Send SMS \$ION\$ from admin Mobile Number to recover from the cut-off condition. You will receive a confirmation SMS.
- *Set Vehicle Number:* Send \$CVN<Your Vehicle No>\$. For example \$CVNWB24-1234\$ will set vehicle no. WB24-1234 to the device.
- *Set APN of GPRS service provider (Not recommended):* This device is programmed for automatic SIM detection and apply APN settings for all Indian SIM Cards. So it is not recommended to set APN manually within India. If you are from outside of India or need to change APN then firstly you have to inquire APN of your SIM Card provider by calling customer care. Now you have to set it in the device by sending \$APN<apn>,<User ID>,<Password>\$. For example the APN of Vodafone in India is "www", User ID and Password is blank, so send \$APNwww,,\$.
- *Enable/Disable all SMS Alert:* To enable/disable all SMS alert send \$EMSx\$. Here x is 1 to enable and 0 to disable.
- *Change Data Update Rate:* To change data update rate in moving condition send \$SIMx\$ where x is in minute. For example if you want data to be updated on every 2 minute at moving condition then send \$SIM2\$. For continuous data update you have to set x=0. Similarly data update rate at stop condition can be changed by sending SMS \$SIS15\$. Here data update interval at stop condition is 15 minutes.
- *Resetting Device:* Send \$RST\$ to reset the device.
- *Set PROXY and PORT (Not recommended):* If you want to configure the device to send data to your own server then set Proxy, Host and URL accordingly. Send \$PXY<proxy address>:<Port>\$. For example if proxy is 10.10.1.100 and port is 9401 then send \$PXY10.10.1.100:9401\$. If the proxy is blank then send your website address instead of proxy. For example \$PXYwww.example.com:80\$. Here www.example.com is your website address and 80 is the port number.

- *Change Host Address (Not recommended):* Send \$HST<DomainName>\$. For example if your domain name is www.example.com then send \$HSTwww.example.com\$.
- *Change URL Address (Not recommended):* Send \$URL<PageURL>\$ to set URL where the device will post data. For example if your page URL is www.example.com/upload.php where the device will post data, then send \$URL/upload.php\$.

Summarized SMS settings:

Command:	Default:	Description:
\$UN1<UserNumber>\$		Change User Number (Ex.: \$UN19874228400\$)
\$CVN<VehicleNumber>\$		Set Vehicle Number (Ex.: \$CVNWB23OP-2595\$)
\$OSL<xx>\$	80 Km/hr	Set Over Speed Limit in Km/Hr (Ex.: \$OSL80\$)
\$RST\$		Reset the device.
\$APN<ApnName>,<UID>,<PWD>\$	Auto detect	Set APN,User ID, Password (Ex.: \$APNwww,,)
\$SIM<xx>\$	2 Minute	Data Update Interval at Moving condition
\$SIS<xx>\$	15 Minute	Data Update Interval at Stop condition
\$STA\$		Report status of the vehicle to user
\$EMS<x>\$	Enable (1)	Enable all alert SMS (x is 0-Disable, 1-Enable)
\$ABT\$		Get device info like firmware version etc.
\$CUT\$	Optional	Ignition Cut
\$ION\$	Optional	Ignition ON
\$PXY<DomainName:port>\$		Set Proxy:Port (Ex.: \$PXYwww.example.com:80\$)
\$HST<DomainName>\$	www.gps-track.in	Set host address
\$URL<PageURL>\$	/post.php	Web page URL where to post data

How to configure device for your own server:

If you want to configure the device so that it sends data to your own server (We assume that the domain name here is www.example.com) then follow the instruction as given below:

- 1) Create a page named upload.php in your domain root directory.
- 2) Send SMS \$PXYwww.example.com:80\$ to the device. You will get a confirmation SMS.
- 3) Send SMS \$HSTwww.example.com\$ to the device. You will get a confirmation SMS.
- 4) Send SMS \$URL/upload.php\$ to the device. You will get a confirmation SMS.

Note: The SIM Card inserted into the device must have sufficient balance to send confirmation SMS after each settings applied.

Restart the device and it is configured for sending data to your server. Now edit upload.php file in your server to receive data from this device.

PHP Code (upload.php):

```

<?php
/*-----
* Author: Nelso Technology Pvt. Ltd.   Last modified On: 08/03/2018
*-----*/
$settings="";
$r = file_get_contents('php://input');      //raw data
/* Dummy Position data: (Uncomment to check if data is inserted properly to database.)*
//$r = "$866104025429336,WB24K-7980,2016-08-
11/15:55:00,24.799030,90.377548,0,4,97%,0,0,0,0,1,1,184,0,0,11.8,,12,-66.0,,,";

//Upon first power on device sends model information to the server
//$r = "#5555555555555555~MODEL~DG-Tracker Smile HW Ver-1.0~1.1~2016-01-18~Airtel#";
if(substr_count("$r","$") == 2){
    $str = str_replace('$', ',', $r);
    $exploded = explode(";", $str);
    $IMEI = $exploded[0];    //IMEI of device
    $vehicle = $exploded[1]; //Vehicle Number
    $date = $exploded[2];   //Date (2016-08-11/15:55:00,24)
    $lat = $exploded[3];   //Latitude
    $lon = $exploded[4];   //Longitude
    $velocity = $exploded[5]; //Speed (Km/hr)
    $state = $exploded[6]; //State (Numeric Value as defined below)
    $fuel = $exploded[7];  //Fuel in Tank (%)
    $analog1 = $exploded[8]; //Reserved
    $analog2 = $exploded[9]; //Reserved
    $digital1 = $exploded[10]; //Reserved
    $digital2 = $exploded[11]; //Reserved
    $digital3 = $exploded[12]; //Reserved
    $digital4 = $exploded[13]; //Reserved
    $digital5 = $exploded[14]; //Reserved
    $course = $exploded[15]; //Course
    $distance = $exploded[16]; //Odometer Reading
    $battery_voltage = $exploded[17]; //Vehicle Battery Voltage
    $temperature = $exploded[18]; //Device Temperature
    $satellite = $exploded[19]; //No. of satellite in view
    $altitude = $exploded[20]; //Altitude
    $field1 = $exploded[21]; //Reserved
    $field2 = $exploded[22]; //Reserved
    $field3 = $exploded[23]; //Reserved
    $explodedDate = explode("/", $date);
    $datetime = $explodedDate[0] . "." . $explodedDate[1]; //2016-08-11 15:55:00,24

```

```
//STATE INDICATION ($state):
//START-----1
//MOVE -----2
//STOP-----3
//OVER SPEED-----4
//ENGINE ON & VEHICLE STOP ----5
//MAIN POWER CUT----6
//MAIN POWER ON----7
//DEVICE RESTART----8
//PANIC-----9
//Low Batt-----10
//GPS not Found ----- 11
    if("1"==$state){
        $state = "Start";
    }else if("2"==$state){
        $state = "Move";
    }else if("3"==$state){
        $state = "Stop";
    }else if("4"==$state){
        $state = "Over Speed";
        $notification = $vehicle.' - Over speed. Running at !$.velocity! Km/hr';
    }else if("5"==$state){
        $state = "ACC On"; //Engine on vehicle stop
    }else if("6"==$state){
        $state = "Main Power Cut";
        $notification = $vehicle.' - Main power removed!';
    }else if("7"==$state){
        $state = "Main Power On";
        $notification = $vehicle.' - Main power connected!';
    }else if("8"==$state){
        $state = "Device Restart";
    }else if("9"==$state){
        $state = "PANIC";
        $notification = $vehicle.' - Panic switch pressed!';
    }else if("10"==$state){
        $state = "Low Battery";
        $notification = $vehicle.' - Low battery!';
    }else if("11"==$state){
        $state = "GPS not available";
    }
}
```



```

/*
Now open database connection
Insert data
Close database connection
And echo four $ symbol and settings(If any) for the device if data inserted successfully

```

Value of \$settings: to configure the device

```

#UN19874228400# ----- Set User Number (9874228400) in which all SMS will be delivered
#OSL080# ----- Set Over Speed Limit of vehicle (080 Km/hr))
#CVNWB24-2536# ----- Set Vehicle Number
#APNwww,UID,PWD# ----- Set APN,User ID, Password
#PXYwww.gps-track.in:80# - Set Proxy:Port
#HSTwww.gps-track.in# ---- Set host address (www.gps-track.in)
#URL/upload.php# ----- url address whwre to upload data (www.gps-track.in/upload.php)
#SIM2# ----- Data Update Interval at Moving condition (2 Minute)
#SIS15# ----- Data Update Interval at Stop condition (15 Minute)
#STA# ----- Report STAtus of the vehicle to registered user mobile number
#STD# ----- Request Stored settings.
#EMS0# ----- Enable automatic mobile originated SMS (0-Disable, 1-Enable)
#IGS0# ----- Enable Ignition Start/Stop Data (0-Disable, 1-Enable)
#RST# ----- Reset to factory defaults
#ABT# ----- About module version
#TMZ+5:30# ----- Set time zone
*/

```

```

//Echo four $ symbol which is very important because device expect it to check successful
transmission

```

```

//Device will try to send same data repeatedly if it do not get four $ symbol

```

```

echo "$$$$".$settings;

```

```

}
exit();
?>

```

Nelso Technology Pvt. Ltd.

P-96, Sreebhumi, Ichapur, 24PGS(N)

PIN: 743144, West Bengal, India

Mob: 9874-228-400 / 9088-999-888

email: info@nelsotech.com