



# VEHICLE TRACKER USER MANUAL (VT04)

**Spectrum**   
EMBEDDED SOLUTIONS



## User Manual – Vehicle Tracker

### Who we are

Spectrum Embedded Solutions is a next generation upcoming technology company established in 2006. We are a Rapidly Blooming Electronic Product Development Consultant, offering extensive customized services and solutions along with Low Volume Manufacturing. We offer end-2-end product design, services including Industrial design, mechanical design, and hardware/software design and manufacturing support, to global OEMs in the wireless and consumer electronics industry. We are a team of experts with high degree of integrity and passion for engineering.

Our Focal Industries:

- Automotive Industries
- Industrial Automation
- Commercial Products
- Domestic Products

### What is VT04?

VT04 is a well-built robust vehicle tracker designed with authentic and astute methodology of tracking the vehicles for a better utilization and easy management of vehicles.

This VT04 can also operates on low-power consumption mode that withstands up to 300 days for eminent tracking with live tracking, location status tracing, history playback on-the-map and report playback (for speed, distance, location and time calculation) features.

VT04 is a well-equipped tracker focused on round-the-clock real-time tracking. Based on GPS and GSM or GPRS communication, the exact location of your vehicle can be easily addressed on our Google-assisted maps which can be seen through our server supported desktop user logins and also by our android mobile Apps.

Having an internal backup data memory, during no GSM signal areas VT02 can able to store the locations (it travelled) with respect to time for a period of 15 days.



## User Manual – Vehicle Tracker

### Features of VT04

- All-time live tracking
- Tracking on demand
- Tracking by time interval
- Login through Web Application as well as Android Application
- Engine Immobilizer
- Tracking and Monitoring History
- Ignition On/Off Status and Alerts
- Fuel Tank Open/Close Status and Alerts
- Fuel Level Sense
- Temperature Monitor
- Vehicle Battery Status
- 2 Digital Inputs, 2 Digital Outputs and 2 Analog Inputs
- Configurable through SMS
- In-built Embedded Antenna
- Low-power consumption mode
- Tamper proof
- Vibration alert
- Low battery alert
- Over Speed, Idle Time and Scheduled Alerts
- SMS and GPRS TCP communication
- Data logger mechanism during the un-availability of GSM signal
- Downloadable Reports in PDF or Excel
- One Time Server & App Charges
- Onsite Support
- 1 Year Manufacturer Warranty
- Made in India



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### VT04 Characteristics

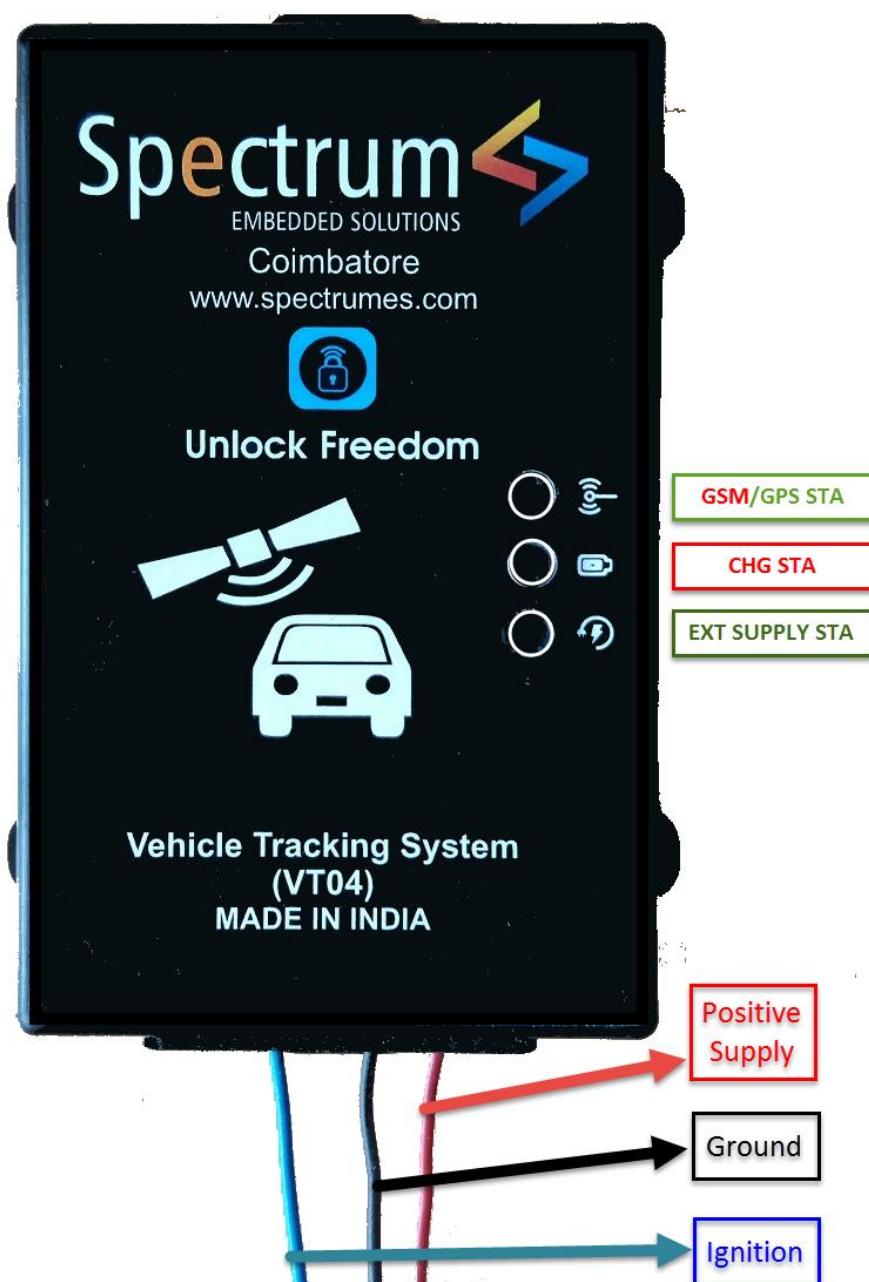
Parameters	Specification
Input Voltage	DC 9.0 – 30.0V
Power Consumption	1mA in Sleep Mode 100mA in Active Mode
Battery Backup	3.7V, 1100mAh (Lithium ion battery) Up to 8Hrs Standby
Dimensions	96mm X 62mm X 28mm
Weight	104g (including battery)
Operating Temperature	-20 <sup>0</sup> C to 55 <sup>0</sup> C
Humidity	5% to 95% (Non-condensing)
GSM Module	Quad band(850,900,1800,1900 MHz)
SIM Type	Normal SIM
GPS Type	AGPS
GPS Sensitivity	Acquisition : -148dBm Tracking : -165dBm Reacquisition : -160dBm
GPS Frequency	L1 (1575.42MHZ)
Channels	22 (Tracking) / 66 (Acquisition)
Position Accuracy	< 10 M 2D RMS
Velocity Accuracy	< 0.1m/s
Acceleration Accuracy	0.1m/s <sup>2</sup>
Timing Accuracy	1PPS Out (10ns)
Reacquisition	< 1s
Hot Start	< 1s
Cold Start	< 15s
Warm Start	< 5s
Altitude Limitation	Max.18000m
Velocity Limitation	Max.515m/s
Acceleration Limitation	4G



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### Product Wiring Information

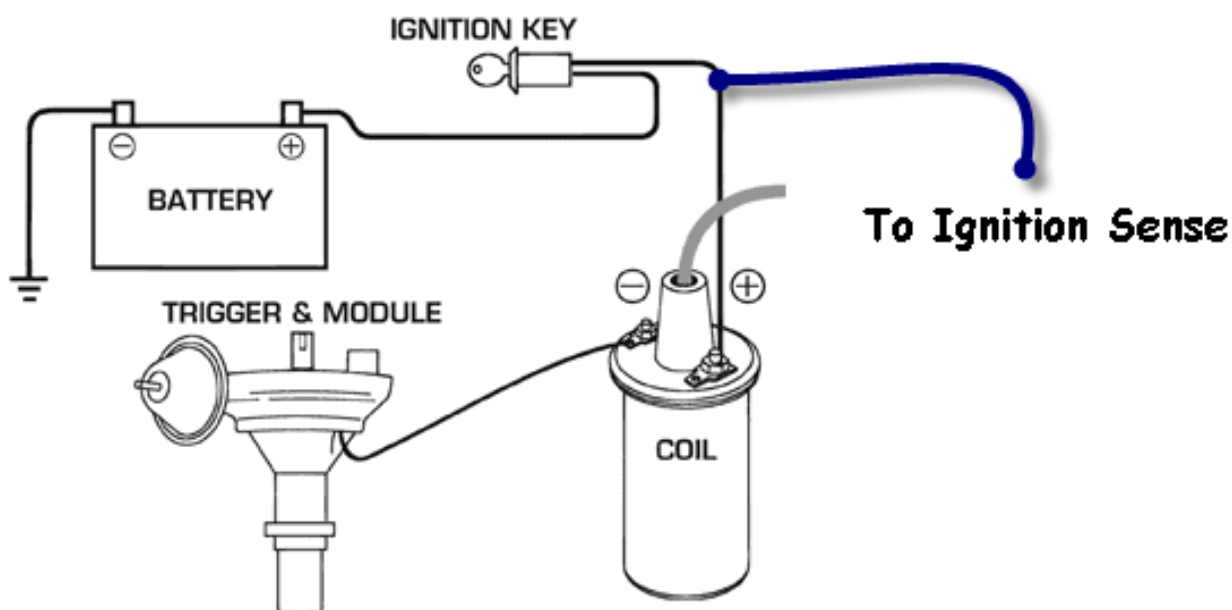
- Any high power devices such as reversing radar, anti-theft device or communication equipment would affect the signal of the device.
- All metallic cases of the windshield will attenuate the signal on the tracking device. It's simply due to the shielding effects of the metal compound of the case.





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- Connect the **RED** wire to the Positive (+) Terminal of the Battery and **BLACK** wire to the Negative (-) Terminal of the Battery.
- To sense the Ignition Connect the Blue wire.
- The wiring Diagram is shown below.



**Connection of Ignition wire**



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### LED Indications

#### GSM / GPS STA - RED

Status	Indication
Off	The module is not running.
Quick Flashing (64ms On/ 800ms Off)	The module is not synchronized with network
Slow Flashing (64ms On/ 2000ms Off)	The module is synchronized with network
Rapid Flashing	GPRS data transmission over TCP/IP

#### GSM / GPS STA - GREEN

Status	Indication
Continuously Off	The module is not running.
Flashing at Every 1 sec(100ms On/ 900ms Off)	GPS Module has started obtaining Location data from satellite

#### CHG STA - RED

Status	Indication
Continuously Off	Internal Battery Charging Completed
Continuously ON	Internal Battery Charging Continues

#### EXT SUPPLY - GREEN

Status	Indication
Continuously Off	External Power Supply(Vehicle Battery)Disconnected
Continuously ON	External Power Supply(Vehicle Battery) Connected

### Install/Remove GSM SIM card

- Disconnect the External Power Supply
- Open the Enclosure and Remove the Jumper
- Open the SIM slot and put the GSM SIM card(Micro SIM) in the SIM card slot.
- Close the Enclosure, Insert the Jumper and Connect the power supply.



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### Cautions While Installing the Device:

- The Voltage of the Battery Should be 9V to 30V. The Battery Should be in good Condition.
- Power Supply to the device should be connected before the Ignition key.
- The Device should not be placed near (<1 Feet) or Enclosed in a Metal.
- Default APN is Airtel.
- The Device should be housed in a Stable Position, use tape to ensure the device is positioned stable.
- The Device should be placed facing upwards.
- Do not keep Device near High Temperature/Flammable substance.
- For better accuracy the device should be placed under direct sky visibility\*.

### Business Details

**Our aim is to provide client/customers with timely and comprehensive service. For any assistance, please contact our company headquarters:**

#### **Spectrum Embedded Solutions**

23/6, IV Floor, Viswa Paradise, Kalidas Road, RamNagar, Coimbatore –641 009.

Tamilnadu, India.

Mob: +91 9842504344

Mail: followus@spectrumes.com

**For more details, please visit:**

<http://www.spectrumes.com/>

#### **GENERAL NOTES**

THE INFORMATION SUPPLIED HEREIN IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.





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**23/6, VISHWA PARADISE,  
KALIDAS ROAD,  
RAM NAGAR,  
COIMBATORE - 641 009,  
TAMILNADU.**

Write to Us

**Contact**

E-mail Us

[info@spectrumes.com](mailto:info@spectrumes.com)

Call Us

**+91 422 421 2812  
+91 984 250 4344**

Visit Us

[www.spectrumes.com](http://www.spectrumes.com)

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