



# USER MANUAL ROBO-GM

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DATE OF PUBLISHING: 25<sup>Th</sup> July, 2013 MANUAL VERSION # 1

#### **INTRODUCTION:**

Dear Customer,

Congratulations on being the owner of this product which has been designed and manufactured to the highest automotive standards utilizing the latest technology for total reliability.

Vehicle tracker unit "**TRACKAR**" is a new remote vehicle security system with a host of comfort features. The "**TRACKAR**" enables you to communicate directly with your vehicle. Locate and/or immobilize the vehicle in real-time if the car is lost or robbed.

The possibility to interact with the system by means of short text message (SMS), gives the owner total management of the events concerning their vehicle. (i.e. it can also arm, disarm, speak to the car, and cut off fuel and ignition connection.

The **TRACKAR** addresses customer needs to the fullest by incorporating State of the Art Technology and Design of Automotive Standards accompanied with best after sales service and unparalleled network throughout India.

Please read this manual to get the full benefit of the system. We suggest you keep this manual at a secure place. It will be easier for you to find the information in the event of emergency to locate your vehicle at any unknown place, through remote control system. Your dealer will be pleased to clarify any queries, you may have with the system or its operation. Hope you derive as much pleasure in using it, as we have derived from developing it.

Yours Truly, MANAGING DIRECTOR.

## PACKAGING CONTENTS:

Unpack the **TRACKAR** Box carefully, in the package you will find:

- Operation Manual -1 No.
- Vehicle Tracker Unit ROBO-GM with internal battery -1 No.
- Speaker -1 No.
- Microphone -1 No.
- Wire Jointer- 2 Nos.
- Relay With Socket -2 Nos.
- Wiring Harness -1 Set.
- GSM/GPS Combo Antenna -1 No.

\* Note -We suggest that you keep the packing material for future use.

#### **RECOMMENDATION:**

We recommend that you keep this manual and your car documents together. It is important that you read the complete user manual for trouble free operation.

Although protected by a high level security system the installation of the security system is not an insurance against theft, it is only a step towards precaution. It is advisable and good practice to always take a series of precautions when the vehicle is left unattended.

## **PRECAUTIONS:**

While washing the engine, protect the TRACKAR by all suitable means from being struck directly by water jet or flow.

The GSM functionalities are dependent on the Network.

Postpaid/Prepaid SIM card can be used.

Pay special attention to the amount of remaining credit & expiry date of mobile connection in case of prepaid SIM card.

Do not remove SIM while the TRACKAR is in power-on condition.

**Note:** Availability of location name is dependent on mobile service provider. If the service provider is giving the name of locality in cell info display, TRACKAR will also show name of locality.

Please note that "ARM MODE" or "FUEL OFF" commands will immediately bring the vehicle to a sudden halt. Hence, we strongly recommend that these commands should not be used when vehicle is moving, as sudden stop may result in some mishappening.

#### TRACKAR UNIT FEATURES:

- 1. High sensitive GPS chipset.
- 2. Combination of GPS, GSM/GPRS wireless network.
- 3. Durable and highly reliable GPS tracker.
- 4. Easy to install or hide in the vehicle to perform tracking.
- 5. Ideal application for vehicle tracking and equipment/assets monitoring.
- 6. External DC power supply.
- 7. Configuration can be done via SMS commands.
- 8. Real-time GSM/GPS location monitoring on SMS and website.
- 9. Real-time asset monitoring with related alerts.
- 10. Vehicle control with Immobilization.
- 11. Voice monitor function with live discreet/two-way sound conversation.
- 12. Generation of reports on web-site in html/xls format. Reports include drive/stop summary, Performance (based on speed), Detail (with time, date, latitude, longitude, speed).
- 13. Replay and analysis of trip logs.
- 14. Add on users with customized access to web accounts
- 15. Register the vehicle with user mobile number, no other number will work.
- 16. Deregister the vehicle with only user mobile number; no other number can be used to deregister from the system.
- 17. Location of the vehicle can be found at user defined interval, it can be set for 1 minute to 365 days. Location feature can be started /stopped by the user on the mobile.
- 18. Last five location of the vehicle can also be found.
- 19. Door sense can be started /stopped by the user.\*
- 20. Vehicle control function (Ignition off/on, fuel off/on, Horn off/on) can be started /stopped by the user.
- 21. Incoming call to the vehicle can be answered by the TRACKAR, when the call is from the registered mobile number.

- 22. Confirmation of command SMS will be received by the user, if any feature of the TRACKAR is activated or deactivated.
- 23. Easy installation and easy SMS commands.
- 24. Gain for voice communication can be adjusted to improve the sound quality.
- 25. If wrong SMS command sent by the user then, TRACKAR will delete SMS and send "SMS NOT ACCEPTED" to user mobile number.
- 26. User can check the balance of TRACKAR Mobile No. by themselves.\*
- 27. User can get the location on his mobile by sending GETLOC command.
- 28. User would get a google map link on mobile with Latitude /longitude.
- 29. Over The Air (OTA) software updation.
- 30. User can control TRACKAR through 3 more nos.
- 31. User can take the ODOMETER reading on Mobile as well as on website.
- 32. Panic Button can be used to generate SMS and call in case of emergency.\* \*Note: - This function will work if you have additionally purchased the Panic Button Kit.
- 33. Fuel Liquid sensing to know the amount of fuel present in tank.\*
  \*Note: This function will work if you have additionally purchased the Fuel Calibrator/Digital Fuel Sensor.

## **HARDWARE DESCRIPTION:**

- a. Power Requirement: 8V to 33V
- b. Normal operation temperature: -10 °C to +70 °C
- c. Restricted operation temperature: Above -10 °C and below +70 °C
- d. Storage temperature: -45°C to +90°C
- e. Humidity: 5% to 95%

## **SMS COMMANDS DESCRIPTION:**

- 1. **SYSSTARTZ** This command is used to register the TRACKAR with Subscriber number. Now TRACKAR will respond to subscriber number only, no other phone number will work. Confirmation message "SYSTEM START HAS BEEN ACTIVATED" will be received by the registered number.
- 2. **SYSSTOPZ-** This command is used to stop the system with Subscriber number. (Now a new number can be registered with TRACKAR).
- 3. **RESET-** This command brings the TRACKAR on factory defaults, the subscriber name and all other stored information is deleted from TRACKAR. Conformation message "SYSTEM RESET COMPLETE" will be received by the registered number. System has to be started again.
- 4. **TRACKERSTART**<**xxxD**>/<**xxxH**>/<**xxxM**>- This command is used to start the TRACKAR for tracking of vehicle. TRACKAR will send location of the area to the subscriber number at a particular interval described by the subscriber.

#### Example 1- "TRACKERSTART001D"

By sending the above command, TRACKAR will start tracking the location of Vehicle immediately. When location is found by the TRACKAR, it will send this location to subscriber number and the next location will come after one day exactly at same time and this sequence will continue. (In our example we mentioned 001D, here D stands for DAY, 001 for 1, meaning 1 day. Confirmation message "TRACKING START 001D HAS BEEN ACTIVATED" will be received by the user).

#### Example 2– "TRACKERSTART002H"

By sending the above command, TRACKAR will start tracking the location of Vehicle immediately. When location is found by the TRACKAR, it will send this location to subscriber number and the next location will come after 2 hour and this sequence will continue. (In our example we mentioned 002H, here H stands for HOUR, 002 for 2, meaning 2 hours. Confirmation message "TRACKING START 002H HAS BEEN ACTIVATED" will be received by the user).

#### Example 3– "TRACKERSTART005M "

By sending the above command, TRACKAR will start tracking the location of Vehicle immediately. When location is found by the TRACKAR, it will send this location to subscriber number and the next location will come after 5 minutes and this sequence will continue. (In our example we mentioned 005M, here M stands for MINUTE, 005 for 5, meaning 5 minutes. Confirmation message "TRACKING START 005M HAS BEEN ACTIVATED" will be received by the user).

Note: The Tracking Timing May Vary Depending Upon The Network Congestion.

- 5. **TRACKERSTOPZ** TRACKAR will stop tracking the location of the vehicle. Confirmation message "TRACKER STOP HAS BEEN ACTIVATED" will be received.
- 6. **SENSESTARTZ -** TRACKAR will start sensing doors. Confirmation message "SENSE START HAS BEEN ACTIVATED" will be received.
- 7. **SENSESTOPZ** TRACKAR will stop sensing doors. Confirmation message "SENSE STOP HAS BEEN ACTIVATED" will be received.
- 8. VCSTARTZ TRACKAR will start controlling FUEL ON/OFF, IGNITION ON/OFF,HORN ON/OFF Confirmation message "VEHICLE CONTROL START HAS BEEN ACTIVATED" will be received.\*
- 9. VCSTOPZ TRACKAR will stop controlling vehicle FUEL, IGNITION, HORN and confirmation message "VEHICLE CONTROL OFF HAS BEEN ACTIVATED" will be received. \*
- 10. **IGNITIONOFFZ** TRACKAR will stop ignition and confirmation message "CAR IGNITION OFF HAS BEEN ACTIVATED" will be received. This command will work only when vehicle control on has been activated.\*
- 11. **IGNITIONONZ** TRACKAR will start ignition and confirmation message "CAR INGITION HAS BEEN ACTIVATED" will be received. This command will work only when vehicle control on has been activated. \*
- 12. **FUELONZ** TRACKAR will start fuel and confirmation message "FUEL ON HAS BEEN ACTIVTED" will be received. This command will work only when vehicle control on has been activated. \*
- 13. **FUELOFFZ** TRACKAR will stop fuel and confirmation message "FUEL OFF HAS BEEN ACTIVTED" will be received. This command will work only when vehicle control on has been activated. \*
- 14. **CARHORNONZ** TRACKAR will start the vehicle horn and confirmation message "CAR HORN ON HAS BEEN ACTIVATED" will be received. This command will work only when vehicle control-on has been activated.
- 15. **CARHORNOFFZ** TRACKAR will stop vehicle horn and confirmation message "CAR HORN OFF HAS BEEN ACTIVATED" will be received. This command will work only when vehicle control-on has been activated.
- 16. **IMEI -** TRACKAR will display International Mobile Equipment Identity Number (15 Digits).
- 17. **GETTEMP-** Displays Temperature in °C (degree-Celsius) of vehicle.

- 18. ALLLOC TRACKAR will send previous locations of the vehicle and confirmation message "LOCATION < FOLLOWED BY LAST FIVE STORED BTS LOCATION>" will be received, TRACKAR will accept this command only in TRACKERSTART mode.
- 19. **GAINxx-** TRACKAR adjusts the gain for voice communication by sending this command. The value of xx can be adjusted from 01 to 15.
- 20. **ARM -** TRACKAR will start monitoring the vehicle. It will start sensing the doors,lock the door, cut the ignition and fuel of the vehicle and confirmation massage "ARM MODE HAS BEEN ACTIVATED" will be received.
- 21. **DISARM -** TRACKAR will stop monitoring the vehicle. It will stop sensing the doors, Start the ignition and fuel of the vehicle an conformation massage "DISARM MODE HAS BEEN ACTIVATED" will be received.
- 22. **#config::APN::username::password;** This command is used to configure your GPRS account.

APN (access point name) which is used to get to the GPRS gateway provided by network operator.

Username: for your GPRS account, username is provided by your by network operator or else put ABC.

Password: for your GPRS account, username is provided by your by network operator or else

put ABC.

#### **Response SMS of this command-**

- i) If the SIM is not GPRS activated you will receive "GPRS not available on SIM card"
- ii) If APN settings do not match with your network operator or in case you have mistyped you will receive:

"GPRS Settings Invalid:"

- "Your Inputs:"
- "APN: XXX"

"Usr\_nm: XXX"

"Pwd: XXX"

"Pls confirm with n/w operator & resend"

iii) If APN settings are working you will receive:

"GPRS configured successfully:"

"GPRS APN: XXX"

"GPRS USER NAME: XXX" "GPRS PASSWORD: XXX"

23. **#config?** - This command replies with GPRS APN, User Name and Password already saved.

## **Response SMS of this command**i) GPRS APN: XXX

GPRS USERNAME: XXX GPRS PASSWORD: XXX ii) No GPRS\_APN, Usr\_nm, Pwd stored

#### 24. Further response of TRACKERSTART in ROBO GM

In addition to the location you will receive the following information at the decided interval:

Lat: XXX (It will tell you the latitude of the location) Long: XXX (It will tell you the longitude of the location) Speed: XXX (It will tell you the speed of the vehicle in KPH) Date: XXX (It will tell you the date of this particular data) Time: XXX (It will tell you the time of this particular data in IST) Web link to view location(It will show you the location on map)\*

25. To start live tracking on internet :

Send "WEBSTART<xxxD/H/M/S>" to TRACKAR, TRACKAR will send confirmation SMS and then start sending data to our web server.

- xxx means digits from 0-9
- D means DAYS (the system will accept from 1 to 365 days, it will reject less than 1 day or more than 365 days)
- H means HOURS (the system will accept from 1 to 24 hours, it will reject less than 1 hour or more than 24 hours)
- M means MINUTES (the system will accept from 1 to 60 minutes, it will reject less than 1 minute or more than 60 minutes)
- S means Seconds (the system will only accept WEBSTART030S, it will reject any other value)

Example – when we send this command WEBSTART002M, TRACKAR will start sending the data to our web server at the given interval time.

#### NOTE: Before first WEBSTART command it is mandatory to send #config command.

## **Response SMS of this command-**

If GPRS configuration (#config) is not send, you will receive

"Pls send #config msg & resend "

- If GPRS configuration is already done, you will receive "Data sending to web started @XXX"
- 26. To Stop live tracking on internet

#### Send "WEBSTOPZ" to TRACKAR

#### Response SMS of this command-

Data Sending to WEB Stopped

27. To get GPS data for one time

Send "GETGPS" to TRACKAR

#### **Response SMS of this command-**

TRACKAR will send:

- i) If the GPS satellites are unreachable, you will receive "GPS NOT FOUND"
- ii) If the GPS satellites are reachable, you will receive

Lat: XXX (It will tell you the latitude of the location) Long: XXX (It will tell you the longitude of the location) Speed: XXX (It will tell you the speed of the vehicle in KPH) Date: XXX (It will tell you the date of this particular data) Time: XXX (It will tell you the time of this particular data in IST) Imei: XXX(It will tell you International Mobile Equipment Identity Number) Web link to view location(It will show you the location on map)\*

28. To observe the exact location on Google map for a corresponding LAT – LONG, open www.maps.google .com, in the search bar enter the latitude and longitude coordinates separated with a comma (,). It will show you the location.

#### 29. **SLEEPON**:

By default sleep mode is on. Sleep mode is used to deactivate data sending on GPRS when the vehicle is on a stand still for a particular time. As soon as the Vehicle starts moving again the trackar will start sending data again. This mode is provided to save battery when the Vehicle is in stand still

#### **Response SMS of this command-**

Sleep on GPRS activated

#### 30. SLEEPOFF:

This command is used to disable SLEEPON mode

#### **Response SMS of this command-**

Sleep on GPRS De-activated

#### 31. SLEEP?

To check whether the unit is IN SLEEP OR NOT.

## 32.SYSSTATUS

<b>Response:</b>	GSM_ON – XXXM/H/D	GSM_OFF
	GPRS_ON – XXXM/H/D/S	GPRS_OFF
	Test Mode	<b>Customer Mode</b>
	Door(S) Open	Door(S) Closed
	Ign_ON	Ign_OFF
	VC_ON	VC_OFF
	ARM	DISARM
	Sleep_ON	Sleep_OFF
	Fuel:c	Fuel:N.C.

33. **GSENSE** -This command is used to check the condition of vehicle (whether IN MOTION OR NOT) and status of tracker (whether IN SLEEP OR NOT).

#### **Response:-**

GSENSOR WORKING- UNIT IS IN(/NOT IN) MOTION AND IT IS NOT IN(/IN) SLEEP MODE

34. **SETODO::12345:** -- This command is used to calibrate the odometer where 12345 is the present odometer reading.

#### **Response:-**Odometer set to: 12345.00

35. **SETODO?** --- This command is used to get/read the present accelerometer reading of vehicle.

#### **Response:-**

Odometer reading:: 12345.00

36. **BAL::\*123#:** ---- This command is used to check the balance amount of a TRACKAR SIM , where \*123# is the number for balance check in airtel network and may be different for different opereators.

#### **Response:-**

Response for this command would be the replay from network

37. **CON\_NO?** --- This command is used to check controlling number of a particular device.

#### **Response:-**

CONTROLLING NUMBER IS : +91xxxxxxx

38. **GETLOC** -- This command is used to get the present location of vehicle on his mobile.

#### **Response:-**

Location name

Note:- GPS and API KEY must be valid fr this

39. LFD::0/1; ----This command is used to enable or disable location name fetching during GPRS

#### **Response:-**

LFD::0; -----LOC FETCHING ENABLED LFD::1; -----LOC FETCHING DISABLED

#### 40. PNS::a::b::mobile no;

----This command is used to add two extra controlling numbers.

Where

a = 1for first number and a=2 for the second number,
b = 1 for alert ON and b=0 for alert OFF,
Mobile number in the format+91.....

**Example** PNS::1::1::+919999999999;

Response:-Personal number stored PNS1: +919999999999::1; PNS2:

# 41. **RCALL::+919876543210;** ----This command is used to MAKE CALL TO THE NUMBER +919876543210.

**Response:-**

TRACKER would make call to the given mobile

## 42. **REMINDERS**

There are three remainders in tracker

- a. POLLUTION ----- For vehicle pollution remainder
- b. INSURANCE -----For vehicle insurance remainder
- c. OTHER -----here the user can set any remainder

#### a) RMDR::P::YY:MM:DD;

Is the command to set pollution remainder for a particular day Eg. RMDR::P::11:08:01; would give you a reminder for pollution on 01/08/2011.

#### b) RMDR—P

Command to remove pollution remainder

#### c) RMDR::I::YY:MM:DD;

Is the command to set insurance remainder for a particular day. Eg. RMDR::I::11:08:01; would give you a reminder for insurance on 01/08/2011.

#### d) RMDR—I

Command to remove insurance remainder

#### e) RMDR::O::YY:MM:DD::message;

Is the command for user set remainder for a particular day Eg. RMDR::O::11:08:01::B'DAY OF MOHAN; would give you a reminder on 01/08/2011 with message as ' B'DAY OF MOHAN'.

### f) RMDR—O

Command to remove user set remainder

## g) RMDR?

To check the stored remainders

#### h) **RMDR--\*\***

To remove all reminders

## 43.GEO FENCING

Geo fencing can be defined in two ways

#### a) Based on area in kilometers

a. Command to add geo fencing based on distance

#### GEOFENCE::+R::5;

Where '+' stands for adding geo-fence, 'R' stands for geo fence based on distance and '5' stands for distance in kilometer

b. Command to remove geo fencing based on distance

#### GEOFENCE::-R;

Where '-' stands for adding geo-fence and 'R' stands for geo fence based on distance

#### b) Based on area name

1. Command to add geo fencing based on area name

#### **GEOFENCE::**+N::Delhi;

Where '+' stands for adding geo-fence, 'N' stands for geo fence based on area name and 'Delhi' stands for area name

2. Command to remove geo fencing based on area name

#### **GEOFENCE::-N;**

Where '-' stands for adding geo-fence and 'N' stands for geo fence based on area name

# c) To check geo-fencing GEOFENCE?

Note: - GPS must be valid to set geo fencing

44. **MADD::0/1;** ----This command is used to enable or disable the antitheft mode based on missed call

#### **Response:-**

MADD::0; ------ MISSED CALL BASED ARM-DISARM FEATURE ENABLED MADD::1; ------ MISSED CALL BASED ARM-DISARM FEATURE DISABLED

45. GETLOCAGPS ----- This command is used to get location name based on AGPS

Note- AGPS key must be valid for this.

- 46. CO? ------This command is used to check the GSM operator name.
- 47. CCID? ------This command is used to check the GSM operator cell ID
- 48. CAD::0/1; ------ This command is used to enable or disable the ALERTS

#### **Response:-**

CAD::0; ------ COMMON ALERTS ENABLED CAD::1; ------ COMMON ALERTS DISABLED

## **OPERATION MANUAL:**

Insert a SIM card in TRACKAR. Please remember the card number & assigned mobile number.

## **REGISTRATION MODE:**

Using your mobile phone send "SYSSTARTZ" SMS to TRACKAR, now your mobile phone is registered to TRACKAR. TRACKAR will not accept SMS from any other phone number.

## **DEREGISTRATION MODE:**

Using subscriber mobile phone send "RESET" SMS to TRACKAR, now TRACKAR will Reset itself to factory default. Working of the entire system stops after sending this command.

## **TRACKING MODE:**

## 1) Start tracker

Send "TRACKERSTART<xxxD/H/M> to TRACKAR. TRACKAR will send confirmation SMS and then send location of the vehicle if found and next location will come after set interval.

- xxx means digits from 0-9
- D means DAYS (the system will accept from 1 to 365 days, it will reject less than 1 day or more than 365 days)
- H means HOURS (the system will accept from 1 to 24 hours, it will reject less than 1 hour or more than 24 hours)
- M means MINUTES (the system will accept from 1 to 60 minutes, it will reject less than 1 minute or more than 60 minutes)

Example – when we send this command TRACKERSTART002M, TRACKAR will give first location immediately after receiving this SMS and next location will come after every 2 minutes (as we have wrote 002M) and this process will continue. You can program this tracker from minimum 1 minute to maximum 365 days, Default interval is for 60 minutes.

## 2) Stop tracker

Send "TRACKERSTOPZ" to TRACKAR. TRACKAR will stop sending location of the vehicle.

## All location

Send "ALLLOC" to TRACKAR to receive previous five locations of the vehicle. TRACKAR will accept this command only in TRACKERSTART mode.

## To start live tracking on INTERNET :

1. **#config::APN::username::password;** – This command is used to configure your GPRS account.

APN (access point name) which is used to get to the GPRS gateway provided by network operator.

Username: for your GPRS account, username is provided by your by network operator or else put ABC.

Password: for your GPRS account, username is provided by your by network operator or else

put ABC.

- 2. Send "WEBSTART<xxxD/H/M/S>" to TRACKAR, TRACKAR will send confirmation SMS and then start sending data to our web server.
  - xxx means digits from 0-9
  - D means DAYS (the system will accept from 1 to 365 days, it will reject less than 1 day or more than 365 days)
  - H means HOURS (the system will accept from 1 to 24 hours, it will reject less than 1 hour or more than 24 hours)
  - M means MINUTES (the system will accept from 1 to 60 minutes, it will reject less than 1 minute or more than 60 minutes)
  - S means Seconds (the system will only accept WEBSTART030S, it will reject any other value)

Example – when we send this command WEBSTART002M, TRACKAR will start sending the data to our web server at the given interval time.

## FUEL CALIBRATION IN TRACKAR

In TRACKAR fuel can be calibrated in two ways

1. Using Existing CAR SENSOR

In this method we use variable resister to restrict the sensor output with in the range  $\ 0\text{-}\ 2.5\text{V}$  .

2. Using Separate FMB

In this method we place an extra device called FMB with car sensor to filter noise. For both the above methods calibration procedure would be as follows.

- a. Tank would be emptied
- b. Tank would be gradually filled in appropriate steps (2, 5, 10, 20, 50LTRs etc.).
- c. For each step a SMS is required to be send from the controlling number in the following format

#### #fuelcal::SN::LTR;

Where SN is serial number within the range of 00 to 19 And LTR is the fuel available in the tank at the given step and its range is from 000 to 999.

For each SMS the controlling number would get a reply

- Eg: for '#fuelcal::03::050;' would give replay as
  - '03 Fuel value calibrated for volume 050 litres with ADC value 557.980'
- d. Repeat 'step c' until the tank is full.
- e. Send '#fuelcalFS' from controlling number to start fuel calculation.

## ARM MODE:

When you send "ARM" SMS to TRACKAR, TRACKAR activates the arm mode.

## **DISARM MODE:**

When you send "DISARM" to TRACKAR, TRACKAR activates the disarm mode.

## **SENSING MODE:**

- 1) Using subscriber mobile phone send "SENSESTARTZ" SMS to TRACKAR. TRACKAR will now be able to sense door.
- 2) If door is open in this mode then TRACKAR will send "DOOR IS OPEN" SMS and dial the subscriber phone number.

## **CONTROL MODE:**

- Using subscriber mobile phone send "VCSTARTZ" SMS to TRACKAR, TRACKAR will now be able to control fuel, Ignition, Horn .Subscriber can send desired SMS command to ON/OFF fuel, ON/OFF Ignition, and ON/OFF Horn.
- To OFF Fuel send "FUELOFFZ" SMS to TRACKAR.
- To ON Fuel send "FUELONZ" SMS to TRACKAR.
- To OFF Ignition send "IGNITIONOFFZ" SMS to TRACKAR.
- To ON Ignition send "IGNITIONONZ" SMS to TRACKAR.
- To OFF Vehicle horn send "CARHORNOFFZ" SMS to TRACKAR.
- To ON Vehicle horn send "CARHORNONZ" SMS to TRACKAR.

## **TWO WAY COMMUNICATION:**

- Dial the TRACKAR number from subscriber mobile phone, TRACKAR will answer this call; no other number can be accepted by the TRACKAR.
- Gain adjustment- Adjust the GAIN of TRACKAR by sending command GAINxx for voice communication. The value of xx can be adjusted from 01 to 15.

# **COMMAND LIST OF TRACKAR:**

S.NO	SYNTAX	FUNCTION	DESCRIPTION
1.	SYSSTARTZ	System Start	Phone Number Stored If Previous Number Of Subscriber Not Found
2.	SYSSTOPZ	System Stop	Entire System Will Stop Working
3.	RESET	Reset	Resets Full System, bringing it to factory defaults. System has to e started again.
4.	TRACKERSTART <d h="" m=""></d>	Tracker Start	Tracker Start With <duration></duration>
5.	TRACKERSTOPZ	Tracker Stop	Tracker Stops, Check Only For New SMS.
6.	SENSESTARTZ	Sensing Starts	Door Sense Starts Working
7.	SENSESTOPZ	Sensing Stops	Door Sense Stops Working
8.	VCSTARTZ	Vehicle Control Starts	Ignition, Horn, Fuel Control Starts
9.	VCSTOPZ	Vehicle Control Stops	Ignition, Horn, Fuel Control Stops
10.	IGNITIONOFFZ	Ignition Off	Ignition Off
11.	IGNITIONONZ	Ignition On	Ignition On
12.	FUELONZ	Fuel On	Switches On The Fuel
13.	FUELOFFZ	Fuel Off	Switches Off The Fuel
14.	CARHORNONZ	Car Horn On	Continuously blows The Car Horn
15.	CARHORNOFFZ	Car Horn Off	Stops blowing the Car Horn
16.	IMEI	Displays IMEI	International Mobile Equipment Identity Number (15 Digits)
17.	GETTEMP	Displays Temperature	Displays Temperature in °C (degree- Celsius)
18.	ALLLOC	All Location	Previous 5 Location Display
19.	GAIN <xx></xx>	Adjusts The Gain	Adjusts The Gain for better communication
20.	ARM	ARM Mode Active	ARM Mode Is Activated
21.	DISARM	DISARM Mode Active	DISARM Mode Is Activated
22.	VERSION	Shows the current VERSION	Current version of the system is obtained
23.	WEBSTART <d h="" m=""></d>	Start web tracking	Starts sending GPS data to server
24.	WEBSTOPZ	Stop web tracking	Stops sending GPS data to server
25.	#config?	Check GPRS settings	Replies with apn,usrname,password previously stored
26.	#config::APN::username::password;	GPRS settings	Enables GPRS on the SIM card
27.	SLEEPON	Enables sleep mode	Sleep mode is activated to save battery
28.	SLEEPOFF	Disables sleep mode	sleep mode is de-activated

29.	GETGPS	Get gps data on sms	Replies with latitude, longitude, speed, time information
30.	NS::+91xxxxxx;	Pre-feed numbers to make call on SOS	Stores numbers for call out on sos and sms server
31.	NS::?::;	Check pre-feeded numbers	Replies with the prefeed call-in/out, sos and sms server numbers
32.	SYSSTATUS	Status inquiry	Get the status of the tracker
33.	PNS::a::b::c;	Used to store two pre- defined numbers	PNS1 Number stored for 1 <sup>st</sup> Parallel number PNS2 Number stored for 2 <sup>nd</sup> Parallel number
34.	PNS?	Query the numbers already stored	To know the PNS numbers already stored
35.	SLEEP?	Used to check the sleep	To check whether the unit is IN SLEEP OR NOT.
36.	GSENSE	Check the status of vehicle.	To check the condition of vehicle (whether IN MOTION OR NOT) and status of tracker (whether IN SLEEP OR NOT).
37.	SETODO::12345;	Set the odometer reading of vehicle	To calibrate the odometer where 12345 is the present odometer reading.
38.	SETODO?	Get the status of odometer	To get/read the present accelerometer reading of vehicle.
39.	SIMSERVER?	check current sim server.	check current sim server.
40.	SIMSERVER::+91xxxxxxx;	To add/change new simserver	To add/change new simserver
41.	SIMSERVER::;	To remove current simserver	To remove current simserver
42.	BAL::*123#;	Used to know the Trackar sim balance	To check the balance amount of a SIM, where *123# is the number for balance check in airtel network and may be different for different opereators.
43.	GETLOC	For current location	To get present location name of tracker.
44.	LFD::0;	To enable location fetching property	To enable location fetching property
45.	LFD::1;	To disable location fetching property.	To disable location fetching property.
46.	CON_NO?	To check controlling number of a particular device	To check controlling number of a particular device
47.	GETLOCAGPS	To get location name based on AGPS	To get location name based on AGPS

48.	RMDR::P::YY:MM:DD;	To set the pollution alert	To set the pollution alert for the day YY::MM:DD
49.	RMDR::I::YY:MM:DD;	To set the insurance alert	To set the insurance alert for the day YY:MM:DD
50.	RMDR::O::YY:MM:DD::message;	To set user defined alert	To set the user defined alert for the day YY:MM:DD with message
51.	RMDRP	To remove the pollution alert	To remove the set pollution alert
52.	RMDRO	To remove the user defined alert	To remove the set user defined alert
53.	RMDRI	To remove the insurance alert	To remove the set insurance alert
54.	RMDR**	To remove all alerts	To remove all set alerts
55.	RMDR?	To check the alert	To check all the set alerts
56.	GEOFENCE::+N::Delhi;	To set geofence based on area name	To set geofence alert based on the area name 'Delhi'
57.	GEOFENCE::-N;	To remove geofence alert	To remove geofence alert based on area name
58.	GEOFENCE::+R::2;	To set radius based geofence alert	To set radius based geofence alert for a radius of 2km
59.	GEOFENCE::-R;	To remove radius based geofence alert	To remove set radius based geofence alert
60.	GEOFENCE?	To check the set geofence alerts	To check the set geofence alerts
61.	MADD::0;	To enable missed call based ARM-DISARM property	To enable missed call based ARM- DISARM property
62.	MADD::1;	To disable missed call based ARM-DISARM property	To disable missed call based ARM- DISARM property
63.	RCALL::+91;	To make call from the TRACKAR	To make call to the given mobile number
64.	CO?	To chek GSM operator name	To check the GSM operator of SIm c ard using in the TRACKAR
65.	CCID?	To check GSM operator cell ID	To check the GSM operator cellID
66.	CAD::0;	To enable common alerts	To enable the alert firing

67.	CAD::1;	To disable common alerts	To disable alert sending
68	#fuelcal::SN::LTR;	To caliberate the fuel	'SN' Fuel value calibrated for volume 'LTR' litres with ADC value 'xxx.xxx'
69	#fuelcalFS	To start fuel calculation	Fuel calculation started

## **COMMAND and RESPONSE SMS:**

S.NO	SMS – COMMAND	SMS – RESPONSE
1.	SYSSTARTZ	SYSTEM START HAS BEEN ACTIVATED
2.	SYSSTOPZ	SYSTEM STOP HAS BEEN ACTIVATED
3.	RESET	SYSTEM RESET COMPLETE
4.	TRACKERSTART <d h="" m=""></d>	A) TRACKING START XXXM/H/D HAS BEEN ACTIVATED B) LOCATION < NAME OF BTS AREA LOCATION>
5.	TRACKERSTOPZ	TRACKER STOP HAS BEEN ACTIVATED
6.	SENSESTARTZ	CAR SENSE HAS BEEN ACTIVATED
7.	SENSESTOPZ	CAR SENSE STOP HAS BEEN ACTIVATED
8.	VCSTARTZ	VEHICLE CONTROL START HAS BEEN ACTIVATED
9.	VCSTOPZ	VEHICLE CONTROL STOP HAS BEEN ACTIVATED
10.	IGNITIONOFFZ	IGNITION OFF HAS BEEN ACTIVATED
11.	IGNITIONONZ	IGNITION ON HAS BEEN ACTIVATED
12.	FUELONZ	FUEL ON HAS BEEN ACTIVATED
13.	FUELOFFZ	FUEL OFF HAS BEEN ACTIVATED
14.	CARHORNONZ	CAR HORN ON HAS BEEN ACTIVATED
15.	CARHORNOFFZ	CAR HORN OFF HAS BEEN ACTIVATED
16.	IMEI	15 DIGIT INTERNATIONAL MOBILE EQUIPMENT IDENTITY NUMBER
17.	GETTEMP	Temp: XX CELCIUS
18.	ALLLOC	LOCATION < FOLLOWED BY LAST FIVE STORED BTS LOCATION>
19.	GAIN <xx></xx>	GAIN HAS BEEN ACTIVATED
20.	ARM	ARM MODE HAS BEEN ACTIVATED
21.	DISARM	DISARM MODE HAS BEEN ACTIVATED
22.	VERSION	SYSTEM VERSION NO. xxx
23.	WEBSTART <d h="" m=""></d>	Data sending to web started @XXX
24.	WEBSTOPZ	Data Sending to WEB Stopped
25.	#config?	GPRS APN: XXX GPRS USERNAME: XXX GPRS PASSWORD: XXX

26.	#config::APN::username::password;	"GPRS configured successfully:" "GPRS APN: XXX" "GPRS USER NAME: XXX" "GPRS PASSWORD: XXX"
27.	SLEEPOFF	Sleep on GPRS activated
28.	SLEEPON	Sleep on GPRS De-activated
29.	GETGPS	Lat: XXX (It will tell you the latitude of the location) Long: XXX (It will tell you the longitude of the location) Speed: XXX (It will tell you the speed of the vehicle in KPH) Date: XXX (It will tell you the date of this particular data) Time: XXX (It will tell you the time of this particular data in IST) Imei: XXX(It will tell you International Mobile Equipment Identity Number)
30.	NS::y::xxxxx;	Numbers Stored NS1: XXX NS2: XXX NS3: XXX NS4: XXX
31.	NS::?::;	
32.	SYSSTATUS	GSM_ON - XXXM/D/HGSM_OFFGPRS_ON-XXXM/D/H/SGPRS_OFFTest ModeCustomer ModeDoor(S) OpenDoor(S) ClosedIgn_ONIgn_OFFVC_ONVC_OFFARMDISARMSleep_ONSleep_OFFFuel:CFuel:N.C.
33.	PNS?	Phone Numbers Stored PNS1: c::b; PNS2: c::b;
34.	PNS::a::b::c; a = 1 for PNS1 a = 2 for PNS2 b = 0 for alerting off b = 1 for alerting on c = +91xxxxxxxxx	Phone Numbers Stored PNS1:c::b; PNS2:c::b;

35.	SLEEP?	UNIT IS OUT OF SLEEP(if not in sleep) UNIT IS IN SLEEP(if in sleep)
36.	GSENSE	GSENSOR WORKING- UNIT IS IN(/NOT IN) MOTION AND IT IS NOT IN(/IN) SLEEP MODE
37.	SETODO::12345;	Odometer set to: 12345.00
38.	SETODO?	Odometer reading:: 12345.00
39.	BAL::*123#;	/* REPLAY FROM NETWORK */
40.	GETLOC	Location name would come
41.	SIMSERVER?	CURRENT SERVER NO. IS :: +91xxxxxx
42.	SIMSERVER::+91xxxxxxx;	SIM SERVER CHANGED TO :: +91xxxxxx
43.	SIMSERVER::;	SIM SERVER REMOVED
44.	LFD::0;	LOC FETCHING ENABLED
45.	LFD::1;	LOC FETCHING DISABLED
46.	CON_NO?	CONTROLLING NUMBER IS : +91XXXXXXX
47.	GETLOCAGPS	Location name would come
48.	RMDR::P::YY:MM:DD;	Pollution alert set for
49.	RMDR::I::YY:MM:DD;	Insurance alert set for
50.	RMDR::O::YY:MM:DD::message;	Other alert set for
51.	RMDRP	Pollution alert removed
52.	RMDRO	Other alerts removed
53.	RMDRI	Insurance alert removed
54.	RMDR**	Removed all alerts
55.	RMDR?	The set alerts are
56.	GEOFENCE::+N::Delhi;	GEOFENCING SET FOR NAME::Delhi
57.	GEOFENCE::-N;	NAMED GEOFENCE REMOVED
58.	GEOFENCE::+R::2;	RADIUS GEO FENCE SET
59.	GEOFENCE::-R;	RADIUS GEOFENCE REMOVED
60.	GEOFENCE?	/*gives set geo-fence details if any*/
61.	MADD::0;	MISSED CALL BASED ARM-DISARM FEATURE ENABLED
62.	MADD::1;	MISSED CALL BASED ARM-DISARM FEATURE DISABLED
63.	RCALL::+91;	/*No replay from tracker, Trackar would make call to the given number*/
64.	CO?	/*GSM operator name would come*/
03.		/ OSIVI operator cen ID would come*/

66.	CAD::0;	COMMON ALERTS ENABLED
67.	CAD::1;	COMMON ALERTS DISABLED
68	#fuelcal::SN::LTR;	'SN' Fuel value calibrated for volume 'LTR' litres with ADC value 'xxx.xxx'
69	#fuelcalFS	Fuel calculation started

## **TROUBLE SHOOTING:**

S.NO	SCENARIO IN GENERAL	SEND SMS	TROUBLE SHOOTING
1.	Unexpected error:	"UNEXPECTED ERROR"	If you receive unexpected error message, then sensing, tracking, vehicle control needs to be reactivated.
2.	Send previous message:	"SEND PREVIOUS MESSAGE"	Resend the previous command.
3.	SMS not accepted :	"SMS NOT ACCEPTED"	There may be some spelling mistake in the command or the command may be invalid. Please recheck the command phrase and resend.
4.	No response from TRACKAR:		<ul> <li>Check your balance in case of Pre Paid connection.</li> <li>Check the network status. (No or weak network connection could be the reason)</li> <li>Resend the desired commands again.</li> <li>Reset the TRACKAR.</li> </ul>
5.	SMS is not received:		Please check the network status.
6.	Location identification is in progress		Trackar is fetching the GSM location from the cell tower
7.	Invalid GPRS Settings	Invalid GPRS Settings	Try resending the command Check with the network operator.

#### WIRING DIAGRAM OF TRACKAR:



## DATE OF PUBLISHING: 25<sup>th</sup> July, 2013 MANUAL VERSION # 1