



# **Fleets Vehicle GPS Tracker**

## **TR-11E User Manual**

(Version 1.0)



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## 1. Introduction:

TR-11E is a GSM/GPS tracker for car tracking application. It's with superior GPS receiver sensitivity, fast TTFF and Quad bands (850/900/1800/1900MHz) design. And it can continuously report current position to backend server.

TR-11E is developed by "openCPU" technology which brought lower cost, lower power consumption and fast response speed advantages.

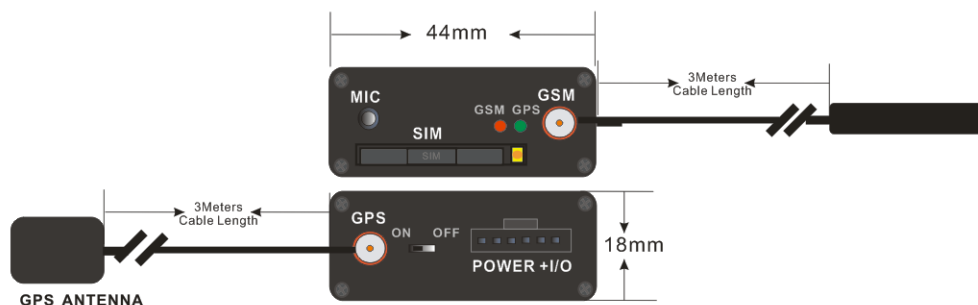
### 1.1 Features

- SMS/GPRS Communication
- Wide Power range: 9-36V DC/1.5A
- I/O Ports: Ignition, Immobilizer, Panic, Door Status detection
- Low Power consumption with Open CPU technology
- Internal memory store for GPRS null zone data 2000waypoints
- Time based/Distance based position report
- Mileage Report
- Alarm alerts: GEO Fence, Speed over, Power tamper and Panic
- Voice Listen-in
- Backup Internal battery included
- OTA

### 1.2 Specification

- **GSM / GPRS features:**
  - . FIBOCOM G510 (Quad-bands, 850/900/1800/1900MHz)
  - . GPRS class 10
  - . SMS (text, data)
  - . Voice calling
- **GPS features:**
  - . Skylab GPS Receiver (Sirf III chip)
  - . -160dB Sensitivity
- **Hardware features:**
  - . *OpenCPU* Technology
  - . 2000Waypoints for GPRS Null zone data storage
  - . External GSM/GPS Antenna
  - . Internal backup battery with 350mAH

### 1.3 Mechanical Size:



Unit Size: 18x44x71mm



## 2. Knowledge before Usage:

### 2.1 Factory Default Setting

- IP/Port: Empty
- APN, User and pass: Empty
- Speed Limit: Off=000Km/H
- Position data Update Time Interval: 60Minutes
- Authorized Phone numbers A/B/C: None
- Device SMS password: 1234

### 2.2 Power Supply and consumption

This device is expected to connect with a DC power source with range of 11.2-36V DC. Working current maximum 2A input.

In standby mode, device working current < 40mA @12V DC  
In sleep mode, working current is less than 6mA @12V DC.

### 2.3 How to Insert Simcard

N/A

### 2.4 Device configuration

TR-11E allow user to use SMS Commands to configure necessary parameters. Details please check as follows instruction:

#### - **Configure GPRS Parameter**

##### **SMS Command:**

**\*1234\*GPRS:211.154.142.150,9114,T,apnName,apnUser,apnPass#**

T is data transmit mode. T=1 is using UDP mode. T=0, is using TCP mode. Default as 0.

#### - **Device ID**

TR-11E doesn't need configure device ID. The device is default using Device SN code as ID.



On the unit case side is with a barcode sticker. please use this code as device ID when you register device tracking platform.

#### - **Configure Authorized Phone Numbers for alarm alerts:**

##### **SMS command:**

**\*1234\*A8613554806820\*B13554806821\*C13554806822#**



## 2.5 Change SMS Password

TR-11E only will accept SMS command with correct password and correct command format.

The factory default password is 1234.

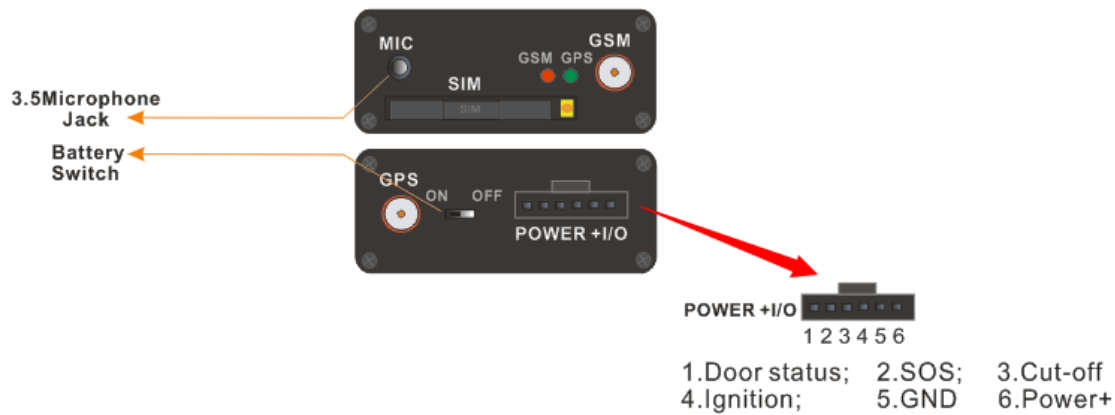
User can change it with SMS command:

**\*1234\*E4321#**

<<1234 is the original password.

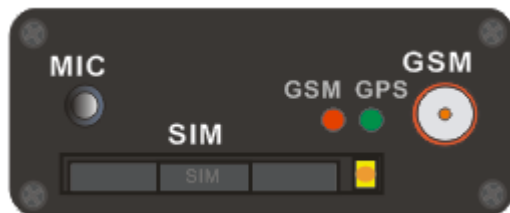
4321 is the new password>>

## 2.6 I/O Ports Introduction and slot Pin definition



Item	Pin No.	Wire Color	Remark
Power	5	Black	Power Ground
	6	Red	Power +(12-36V DC)
I/O	1	Blue	Door Status detection(=0V Effective)
	2	Brown	High Trigger Input
	3	Yellow	Cut-off, Digital output
	4	White	Ignition Detection(ACC)

## 2.7 LED Indication



### - Green Indicator (GPS):

Blink every second (Off 0.5S, ON 0.5S)

>> After Power on, Antenna or GPS receiver is malfunction

Blink every 2Seconds (Off 1.5S, ON 0.5S)

>>After Power ON, Searching GPs signal

Blink every 5Seconds ( Off 4.5S, ON0.5S) >> After Power ON, GPS position fixed and working normal

**- GSM Indicator (GSM):**

Blink every second (Off 0.5S, ON 0.5S) >> No SIMCARD found, network register failure  
 Blink every 2Seconds (Off 1.5S, ON 0.5S) >>in registering network  
 Blink every 5Seconds ( Off 4.5S, ON0.5S) >> GPRS connected  
 Solid ON for 5 Seconds >> Voice call or GPRS data in sending

**2.8 Time zone Localization Setting:**

TR-11W adopts UTC time as standard system time. In order to get correct Local time in SMS data, please use command to configure your time zone to device.  
 SMS Command:

**\*1234\*GMT+/-AABB#**  
 <AA= Hour, BB=Minutes>

Example: China is in Eastern 8 Zone.  
 So we need to send command as \*1234\*0800 to device.

**3. Functionality and Operation:**

**3.1 Voice Listen-in**

By connect the microphone to TR-11E, it can achieve Voice listen-in feature.  
 The user can use this function by two methods:

- Authorized Number A/B/C call device in, device auto pickup to activate voice Listen-in

- By send following SMS command to get device call back to you:  
**\*1234\*VMxxxxxxx#** <xxxxxxx is call back phone No. for system>

- Activate from GPS tracking center platform.  
 Details please check 7-24Tracking Platform user guide.

**3.2 Remote Cut-engine (Immobilizer)**

User can use any phone to send SMS command to cut-off engine immediately by correct Password and command format.

**\*1234\*Stop#** < Wireless cut-off engine SMS command>  
**\*1234\*K#** <Wireless disable engine lock status SMS command>

By connecting TR-11E to remote GPRS server, the server platform also can achieve the same.  
 Please refer to 7-24Tracking Platform user's guide.

**3.3 Reset Mileage report value**

In every GPRS Position data packet to GRPS server,TR-11E data package includes the current travel mileage. And the user can by SMS command to reset or adjust the mileage report value.

**\*1234\*M:1,115,15000#** <Reset Mileage report value SMS command>

Explain:  
 1: Unit. =1 Km, =0 Meter. Default=0



115: Different rate, default=100.  
15000: Mileage. Default as 0 Meter

### 3.4 Tracking parameter setting:

By following SMS command to setup device data update interval in Moving/Static:

**\*1234\*E:1,30,180#** <Tracking parameter configuration>

1: Monitoring mode. Define position data update by moving/Static.  
30: Position update interval, 30Seconds when in moving.  
180: Position update interval, 180seconds when in static

Default setting: 1,30,30. <Update interval cannot less than 10seconds>

### 3.5 Tracking location by SMS command

TR-11E can track location by SMS commands.  
Check details as:

– **Query vehicle status:**

SMS command: **\*1234\*X#**

Device reply:

<Unarmed; Engine:On/Off; Door:Off/On;LAC:xxxxxx;CID:xxxxx;Signal Strength:xx  
\$GPRMC,xxxxxx.xxx,A,xxxx.xxxx,N,xxxxx.xxxx,E,x.x,xxx.x, xxxxxx,,A\*xx >

– **Query GPRMC data:**

SMS command: **\*1234\*GPS#**

Device reply:

<\$GPRMC,063231.00,A,2232.64712,N,11355.45466,E,0.581,195.93,050811,,A\*6C>

– **Query Google map Position Link:**

SMS command: **\*1234\*P#**

Device reply:

<2011-12-08 12:32:13,V,60Km/H,Heading:60,LAC:2638,CID:0ECF;  
<http://maps.google.com/maps?hl=en&q=22.537222,114.020948>>

### 3.6 Recover factory setting

By SMS command or GPRS command, TR-11E can be initialized to be factory default setting status.

SMS Command: **\*1234\*V#**

### 3.7 Remote reboot

By SMS command **<\*1234\*Z#>** user can reboot TR-11E wirelessly.

### 3.8 Alarm Alerts

TR-11E only provide two type alarm alerts. See:

- Power tamper alarm alert < Disconnect TR-11E external power to trigger>
- Panic(SOS) alarm alert <By press panic button to trigger>

### 3.9 OTA Operation:



TR-11E allow user to do firmware upgrading via GPRS connection. Details operation command and procedure, please consult with your seller.

#### 4. Appendix

##### - SMS command List

<Please check separate document>

##### - Wiring Diagram

<Separate document available>

