

GSM / GPRS / GPS MOTORBIKE /VEHICLE SMART TRACKER XT-009S



1. Overview

A.features:

- FIFO
- FOAT
- Tlimit
- Relay cut off
- 2Cpus Control
- Waterproof /IP68
- Voice monitoring
- Blind Area data log
- Intelligent Power Saving
- GPS+AGPS+LBS Tracking
- ACC alarm
- SOS alarm
- Move alarm
- Park alarm
- Angle alarm
- Speed alarm
- Shake alarm
- Geo-fence alarm
- Low battery alarm
- Main power missing alarm

B. Advantages:

- ◆SOS
- ◆LED
- ◆Relay
- ◆Shaking sensor
- ◆Microphone for voice monitor
- ◆Built-in battery (3.7v **850mah**)
- ◆Smart Size: 73.5*46*24mm and 44g
- ◆GPS Module: **U-BLOX**(-165 dB)+AGPS
- ◆Built in storage space (GSM/GPRS blind zone data)
- ◆GSM/GPRS :**SIM800C** (**850/900/1800/1900MHZ**)
- ◆**6-36V** (can be modified according to clients requests)
- ◆No need to add password when send command by gprs
- ◆**2 CPUs**: ARM+MCU one is for operation, the other is for stability
- ◆**ADC** input :(can be customized for oil sensor ,temperature sensor ,Voltage measuring)
- ◆**EMC** circuit (Lightning protection, over voltage, over current protection and electromagnetic interference)
- ◆The tracker will be in ultra-power-saving mode when the tracker is in standby mode and no external power. The whole tracker is less than **5MA**
- ◆ADC(Analog Digital Signal Converting) INPUT: (Optional : Oil sensor , temperature sensor , DC voltage measuring)

2.Application

- Vehicle/Boat/motorcycle / rental / fleet management
- Assets safety
- Vehicle management
- Tracking an offense

3.XT009S and accessories



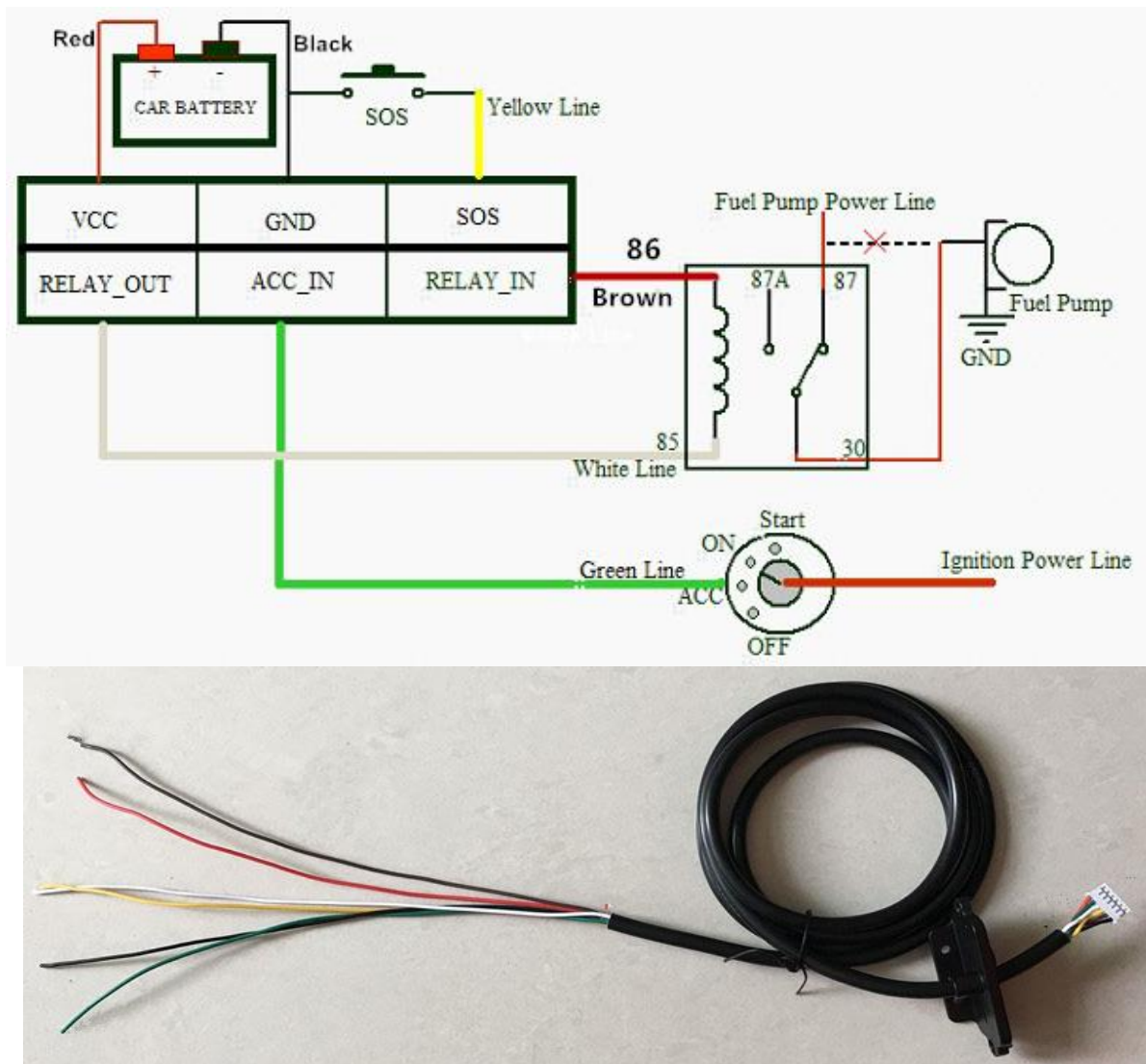


Relay



SOS Button

4. Wires connection



- **Red**: Connect to constant DC+ Car Battery(6-36V)
- **Black**: Connect to Earth (Chassis) Car battery(-)
- **Green**: Connect to ACC
- **Yellow**: Connect to SOS button
- **Orange**: Connect to SOS button
- **White**: Connect to Relay terminal (85 or 86Pin)

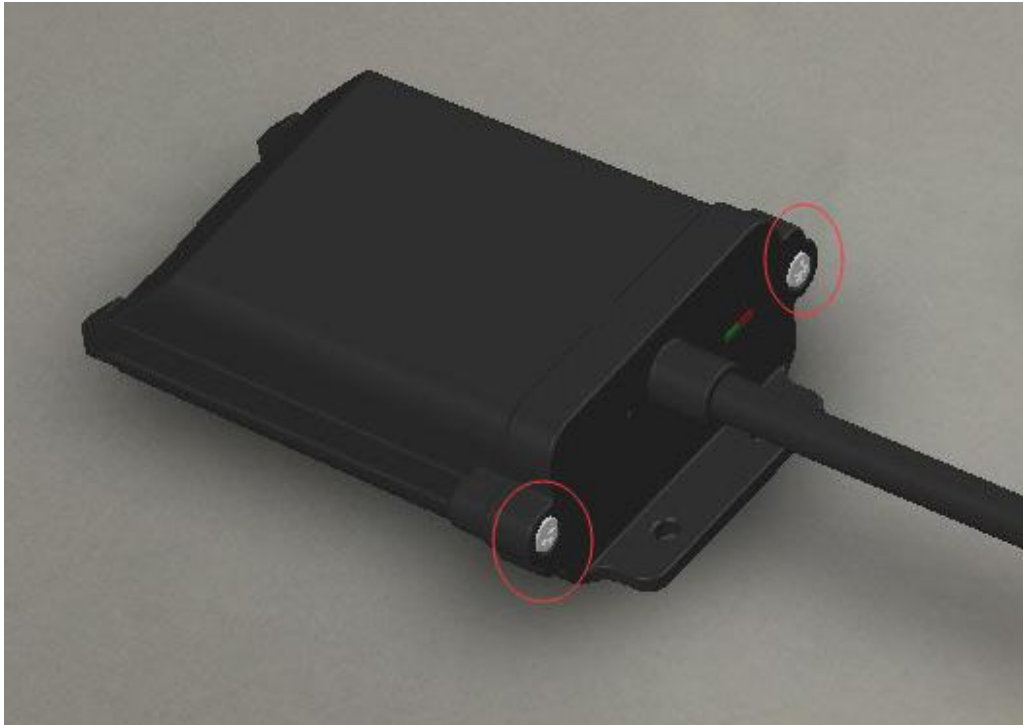
Note: Relay is optional for fuel / ignition cut off.

5. Specifications

Item	Specifications
Dimension	73.5(L)*46(W)*24(H)mm
Frequency bands	GSM: 850/900/1800/1900Mhz
Weight	44g
DC Input Voltage	6V-36V
Backup battery	850mAh/3.7v
Power consumption	10mA standby current standby time 3-5days
Working temperature	-20°C to 70°C
GPS Chip	U-BLOX7
GPS Sensitivity	-159dBm
Positioning Accuracy	5-10m
Standby time	3-5days
Channel	56 Channel
Hot start	1s on average
Warm start	15s on average
Cold start	30s on average
Humidity	5%~95% non-concretion
Antennas	Internal GSM & GPS antennas
LED Light	Red for DC power and Working ,Green for working status
SIM Card interface	Nano Size SIM

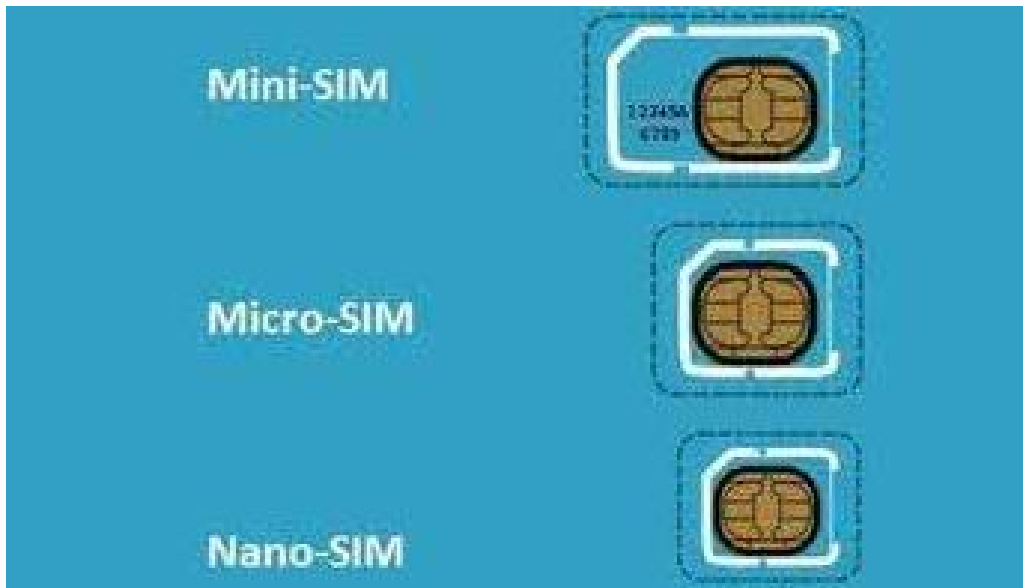
6. Installation

I. Open XT009S

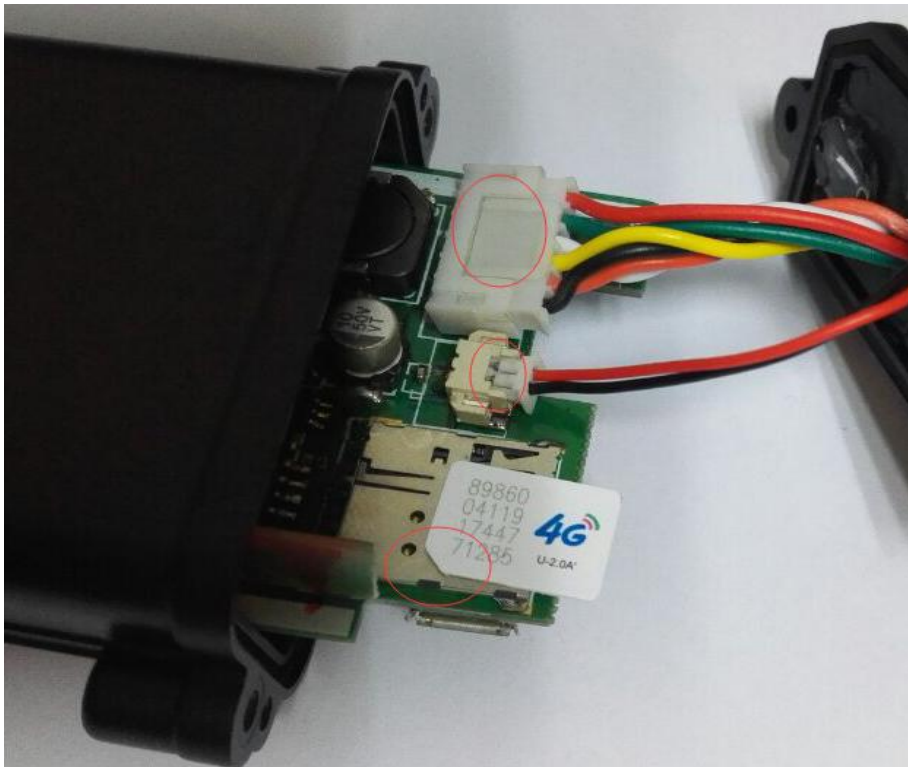


II.Install :

A.Prepare a Nano sim-card



B. Install Nano size Sim-card and Microphone

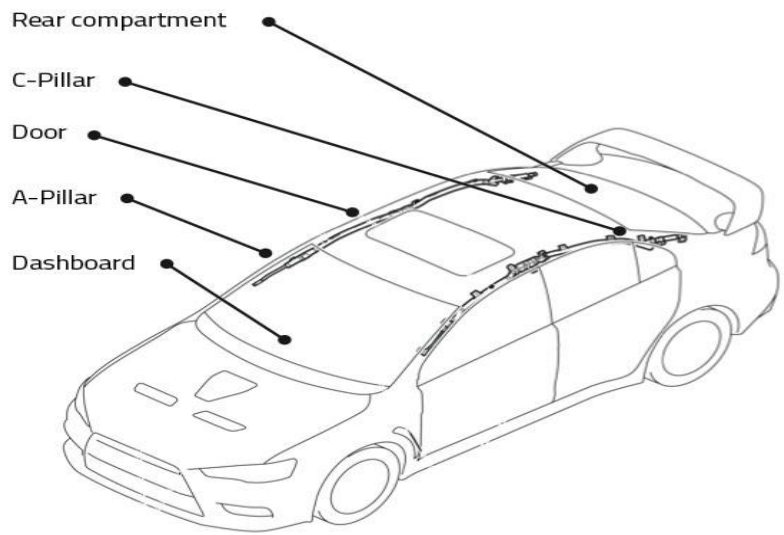


C.Connect the Backup battery



III.Locations for XT009S Installation

Below are the recommended areas available within a vehicle for TM009 installation. These are suggestions only, as depending on the vehicle type, there may be many possible locations to hide/install the unit.



7.Startup

- Make sure : SIM card in right place,backup battery connected and DC 6-36V connected . Tracker will turn on automatically.
- The green light will blink 2 times per second after start up. after 10-20 seconds, the light will on 1 seconds, off 3 seconds, GSM signal working normal.
- It takes 20~50 seconds to receive the GPS signals, in order to get good GPS signals, please put the tracker outdoor.

8. LED Indications

Power indicator (RED)

Status	Description
Constant ON	DC+ Connected /Charging the Backup Battery
OFF	DC+ Disconnected

System indicator (Green)

Status	Description
Constant ON	Backup Battery no enough power
Quick flash	Searching signals
Flash slowly	Normal Working Mode
OFF	In sleep mode

9. Commands Function:

All commands are not case sensitive ,123456 is the default password.GPRS commands (no password required).

A. For connecting Server/Mobile Apps via GPRS:

T030S***N123456

Adminip123456 122.10.36.11 2020

Apn123456 cmnet

Apnuser123456 username

ApnPasswd123456 password

B. User gets the sms on mobile :

1. Call to tracker :

Get: 18682286009 lat:22.566629 long:114.039810 speed:1.85 170728093318 Batt:3.72v,0, Signal:F 24
imei:864811037009987

2. smsone123456

Get: 18682286009 lat:22.566629 long:114.039810 speed:1.85 170728093318 Batt:3.72v,0, Signal:F 24
imei:864811037009987

3. Admin123456 18682286009

Get: SOS, MOVE, GEOFENCE, Low battery etc alerts .

C. User Self Checking

Check123456

Get:

imei=864811037009987
admin=18682286009,,,,
gprs=122.10.36.11,2020,cmnet,,
tz=8.0h
tsn=40s
22.564871,114.032768
0km/h
,ok!

10. Commands List

1. **Password**123456 667788
Password changed to 667788
2. **Adminip** 123456 122.10.36.11 2020
Set Sever's IP (or DNS) ,port
3. **Apn**123456 cmnet
Set Sim card Apn
4. **Apnuser** 123456 username
Set Apn user name
5. **Apnpasswd**123456 password
Set Apn password
6. **T030S***N**123456
Set interval as 30s to upload a data to platform,Unit: H(h),M(m),S(s)
7. **Move** 123456 50
Unit:m
8. **Admin**123456 18682286001 18682286002 18682286003 18682286004 18682286005
Set Authorization numbers (Max: 5)
9. **Time Zone**123456 -8.5
Range: -15H to +15H
10. **Monitor**123456
Voice Monitor when phone call in
11. **Tracker**123456
Hang up when phone call in and reply a sms with location
12. **Smsone**123456
Position Once
13. **Tlimit**123456 1000
Upload the data by real Distance
14. **Speed**123456 66
Over speed alarm Unit:KM/H
15. **IMEI**123456
Get device IMEI number (15 digits)
16. **Powercar**123456 1
Cut off the oil/power by relay
17. 123456**FOTA,HTTP,SERVER**=http://www.xxxx.com/Down/Fota.bin
Upgrade the firmware remotely
18. **Begin**123456
Default user parameter

19.

Geofence123456,**01**=11402.6460/2233.9750/500,**02**=11302.6460/3333.9750/600,**03**=11502.6460/4233.9750/700,**04**=11602.6460/5233.9750/800,**05**=11502.6460/4233.9750/900,en=1

En=1 ,enable the Geofence En=0, disable

500 600 700 800 900 are the radius of each geo-fence Unit: M (meter)

IN/OUT of each fence , will generate an alert “ Geof**n** out/Geof**n** in” (n range 1`5)

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Smslink123456 -----tracker reply sms with google map link

Smstext123456 ----- tracker reply sms with coordinate

11. GPRS data protocol

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,,A*6E,F,imei:864811037009987,11,27,F:3.98V,0,133,39982,460,0,2495,12e1..

170728061315 === 2017,28th,July,06:13:15 GMT+8 time ,can be changed by timezone command

18682286009==The last phone number operated on tracker

GPRMC === Protocol header

221315.000 === 22:13:15.000 GMT 0 time

A === GPS valid V: GPS Invalid

2234.1622,N === latitude / North

11357.2742=== longitude / East

0.00 === speed

0.00 === course

270717 === 2017,27th,July (GMT 0) date

A*6E === CRC16 correction for GPRMC it is standard GPRS format,hexadecimal number, it is the correction for the GPRMS format

F === valid GPS signal

imei:864811037009987 == Tracker 15 IMEI numbers

11 === can get signal for 6 satellites

27=== altitude

F:3.98V === Voltage of the backup battery

0 === no charging state. If the USB connector on the tracker is connected with power, it is 1, otherwise 0

133 === the byte in this data

39982=== CRC16 correction for the whole gprs data, decimal system

460 === MCC (mobile country code)

0 === MNC (mobile network code)

2495=== LAC (location area code)

12e1=== cell ID

460,0,2495,12e1 is GSM ID, please ask your GSM network for this information. Generally speaking, the gsm operator will not give this information to others. When the tracker is lost, you can offer this data to the police and they can ask GSM operator to help by this data.

12 . Data string

Power connected

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,
Poweron,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

SOS

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,
help,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

Firmware FOTA successfully

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,**fota**
success,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

Main DC+ missing

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,
MainBattery,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

ACC ON

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,
ACCStart,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

ACC OFF

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,
ACCStop,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

Over speed Alert

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,**speed**,imei:864
811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

Shake Alert

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,**shake**,imei:864
811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

Low battery Alert

170801152818,18682286009,GPRMC,072818.000,A,2233.9750,N,11402.6460,E,0.00,0.00,010817,,A
*6C,F,**LowBattery**,imei:864811037009987,9,42,L:3.69V,0,142,64286,460,0,2480,116f..

To admin number

Park (Car stops and in sleep)

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,**Park**,imei:8648

11037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

Geo-fence

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,stockade,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

Move out

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,Move out,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number

Move in

170728061315,18682286009,GPRMC,221315.000,A,2234.1622,N,11357.2742,E,0.00,0.00,270717,,A*6E,F,Move in,imei:864811037009987,11,27,L:3.76V,0,133,39982,460,0,2495,12e1..

To admin number