



Leveraging Tracking for Organised Fleet Management

1. Start Guide

1.1 Packaging

- GPS Tracker
- I/O Cables
- GPS Antenna
- GSM Antenna
- MIC
- Relay
- User Manual

1.2 Main Functions

- Real-time GPS+AGPS Tracking
- · Track by Time Interval or Distance
- · Remotely fuel/power cut-off
- Listen-in
- TTL
- · Instant Alerts for fuel theft, overspeed, etc.
- External power-supply cut-off alarm
- Two-way Talk
- Door Status Detection
- Multiple analogue & digital I/O's
- · Battery charging protection

1.3 Specifications:

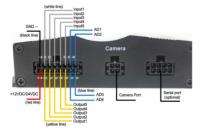
Working voltage:	+6.0 ~+60VDC/2.0A
Backup battery:	Rechargeable 3.7V 500mAh Li-ion battery
Dimension (Main unit)	110*70*30 (mm)
Weight (main unit):	175g
GSM frequency:	2G: 850MHz/900MHz/1800MHz/1900MHz (Quad-band) 3G: 900Mhz/2100Mhz@UMTS, or 850Mhz/1900Mhz@UMTS or 850Mhz/210Mhz@UMTS
Weight (main unit):	175g
GPS chipset:	U-blox7 chipset
GPS sensibility	110*70*30 (mm)
GPS receiving channel	56 channels
Working frequencies	1575.42Mhz C/A(GPS)
Positioning accuracy	≤10m (wide-open area)
Speed accuracy	≤0.1M/S (wide-open area)
Positioning mode	Auto 2D/3D
Hot start	1 sec., average
Warm start	2 sec., average
Cold start	40 sec., average
Working temperature:	-20 ~ 85°C
Humidity:	0 ~ 95%
Interface	5 inputs,5 outputs, 4 A/D ports, MIC & Speaker port, camera port, RS232 port.

2. My Device

2.1 Appearance



3. Wire Connection



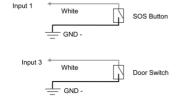
PIN No.	Color	Usage Description
Power	Red	+12VDC/24VDC. +
GND	Black	Ground
Input1	White	Digital input, (negative triggering), SOS button
Input2	White	Digital Input, (negative triggering), e.g. detecting tamper of the wiring harness.
Input3	White	Digital Input, (negative triggering), door switch.
Input4	White	Digital Input (positive triggering), ACC On
Input5	White	Digital Input, (positive triggering)
OUT1	Yellow	Digital output, connect with relay to stop the car
OUT2	Yellow	Digital output, connect with siren to sound
OUT3	Yellow	Digital output, NC
OUT4	Yellow	Impulse output,(Negative) Lock/unlocked car door
OUT5	Yellow	Impulse output,(Negative) Lock/unlocked car door
AD1	Blue	10 bits Resolution Analog Inputs. 0-5V DC detection , connect with temperature/fuel sensor etc.
AD2	Blue	10 bits Resolution Analog Inputs. 0-5V DC detection , connect with temperature/fuel sensor etc.
AD3	Blue	For optional use
AD4	Blue	For optional use

Power/GND

Connect Power (+Red) & GND (-Black) wires to the battery of vehicle.

• Input1, Input2 & Input3 (Negative Triggering)

Connect Power (+Red) & GND (-Black) wires to the battery of vehicle.



Input2 is connected to negative (ground), once it is disconnected from negative signal(Ground), it will trigger the power cut alarm. It is useful to protect the cargo by binding the wire around it.

Input4 & Input5 (Positive Triggering)

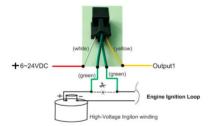
Connect Power (+Red) & GND (-Black) wires to the battery of vehicle.



Input 4 is connected to ACC ON position to detect the engine ON/OFF status; Input 5 can also be used to detect any positive (+12V) triggering signal, when it has continuous 5 seconds of +12VDC signal, it will trigger the alarm. The input 5 can also be used for arm/disarm automatically if it is connect to Engine ON/OFF status & switch the function by sending SMS command: till*IEXT±0,

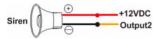
Output1

Output 1 is connected with relay to stop the car, the wiring is as following:



Output2

Output 2 is connected with siren for alarm, the wiring is as following:



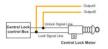
Output3

Output 3 is for optional use, the connection is same as output/output2.

Output4

Output $4\overset{\bullet}{\&}$ output5 are negative impulse output to lock/unlock the car door, the impulse shape of signal & connection is as following:

Activate the impulse output4, SMS command: 111111LCK0, Activate the impulse output5, SMS command: 11111LCK1, Activate the impulse output4/output5, SMS command: 11111LCK1, Activate the impulse output4/output5, SMS command: 111111NIILM9-T IT is the time in seconds, default 3 seconds)

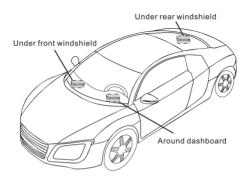




• Installation Notes:

- We strongly recommend you to ask the professional car electrician to do the installation.
- Please prepare a valid GSM SIM card in advance.
- IMPORTANT: Please do not insert or pull out the SIM card when the
 main unit has power. Before doing this operation, please disconnect the outside power
 supply lines, and turn off the internal backup battery's switch firstly. The wrong operation
 might damage the main unit.
- Please fix the main unit at secret place to avoid being destroyed by theft. Please keep it away from the high-temperature, humidity or strong magnetic object. Please fasten it tightly.
- While mounting the GPS antenna, the flat magnetic side must be placed downside.
 There could not be any metal or shielded obstacles around the upside of the GPS antenna, so that it can receive the satellite signal from upside the sky very well, the GPS antenna should be placed at broad & secret place too. It should be drew straight and kept away from the sound box or speaker.
- While mounting the GSM antenna, it should be placed at broad & secret place where there is no shielded obstacle.
- The GSM antenna can't be placed along with the GPS antenna in parallel. It should be drew straight and kept away from the sound box or speaker.
- After installation, please test the system & make sure that it can GSM signal & GPS signal very well. Otherwise, fix the GSM antenna or GPS antenna at other places until the signals are OK.
- For security, please fix the GSM & GPS antenna in secret places.
 Recommended places: (1),Downside the fore windshield class (2),Downside the dashboard (3),Downside water brusher (no metal coat) (4). Inside the upper door edge which is nearby the driving room.

4. Device Installation:



Note:

The device should face up to the sky

Metal thermal barrier or heating layer of the windshield affects the signal. Please change installation places to receive better signals

5. Device Operation: On/Off

Once you insert a valid SIM card in the device and connect all the wires, turn on the device. The device connects through wires but comes with an in-built battery. This means that if the device's internal battery switch is turned on, the device will continue to send data back to the Tookan Platform even if the device is tampered with and wires are cut off.

6. Main Functions

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In emergent case, press SOS for 3 seconds to activate SOS alarm. Then the device will send SOS SMS to preset SOS numbers. Alarm message will also send to platform.

6.2 Power cut-off alarm

When the electricity supply of device is cut off, it will activate cut-off alarm.

6.3 Vibration alarm

When vehicle vibrates for several times, the vibration alarm will be triggered, the device will send vibration alarm message immediately.

6.4 Voice monitoring

This is used to monitor the voice around the vehicle or two-way talking.

6.5 Fuel loss Alarm

When the engine is OFF, if the fuel level is down, it will trigger the alarm.

6.6 Lock/Unlock Doors

The device is able to detect door status. It uploads car status to platform and APP timely.

6.7 Lithium battery charging protection

Built-in battery won't be charged when the temperature is over 50°C or less than -20°. As soon as the temperature is lower than 48°C or above -18", battery charging will be restored.

6.8 Controllable output

The device supports highflow level output, which could be configured by com-

7. Platform Integration

7.1 Insert the sim card in the device:

Tookan Trackers work with standard size SIM cards.

7.2 Set the APN as follows:

SMS format:

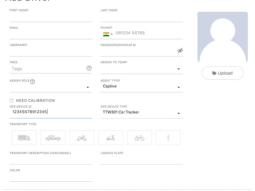
111111WWW:APN:apn,user,password;

ΔPN: The Access Point Name for the GSM SIM card

7.3 Integration with Tookan:

- · Get registered on Tookan and open dashboard
- · Add your fleet in Tookan
- Assign the tracker ID to the fleet. Tracker ID is the last 14 digits of the IMEI number at the bottom of the tracker
- As soon as you save this information, the tracker will start sending the data which will then start to display on the dashboard

Add Driver



8. Common Command List

The default user password is 111111.

If the user password is changed, user should send the SMS command with

the new user password instead of 111111.

XXX is the control code, all the letters must be capital letters or in small letters, command with mixed capital letter & small letter is not recognized by

svstem

Check the Vehicle's Status: 111111CHK (or 111111chk)
Check the location by Google Map's URL: 111111MAP

Change User Password: 111111PSWnnnnnn Get IMEI number: 111111CMD:AT+GSN To Open/Close GPRS: 111111WWW:RUN:X;

X=0; is to close down the GPRS; X=1: is to open the GPRS via TCP

X=1; is to open the GPRS via TCP

X=2; is to open the GPRS via UDP

Monitor Voice Around the Car (SIM pays) : 1111111MON

Monitor Voice Around the Car (Telephone Pays) : 111111MON!

Two-Way Talking: 111111MON:P1*

9. Troubleshooting

FAQ	Troubleshooting
I call the tracker, it does not ring	(1) The GSM SIM card has no credit; (2) The SIM card is protected by PIN code; (3) Check the power supply, if 2 LEDs flash; (4) The SIM card is placed correctly in the slot;
I call the tracker, it rings, but it doesn't response with SMS	(1)The user password is wrong, please use the correct password or reset the password to test; (2) Low power, please use outside power supply to power on the unit to test
I can not get the alarm message	(1) The SIM card inside the device has no credit; (2) The Alert-received mobile number is not programmed correctly, or the SMS command is not in correct format; (3) The mailbox of the user's mobile is full;
I can not get the correct GPS coordinates or the location is wrong	(1) Please make sure there is no metal obstacles above the tracker. Please place the side with GPS antenna upside to the sky; (2) Please check it at broad place; (3) Please check if the CPS LED flash once every 3 seconds; place the tracker to other place, so as to make sure that it can receive the GPS siganl well (4) In cloudy condition, it is a little hard to get the GPS signal, and the GPS coordinate might have some errors.
Tracker fails to connect to server by GPRS	The SIM card must be activated with GPRS function; Do the correct setting for GPRS connection

10. Warranty & Maintenance

Tookan Tracker comes with a 6 month replacement warranty in case of faulty devices Users must intimate the Tookan Tracker Team within 48 hours in case of receiving a broken device

Warranty is not applicable in cases other than broken, faulty devices Physical Damages/Breakage accounted upon use do not become applicable for warranty

11. Support

Tookan Tracker offers full support to all it's partners.

Visit www.jungleworks.com/tookantracker and click on chat icon for all tracker related queries

We can also be directly reached at tracker@jungleworks.com

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