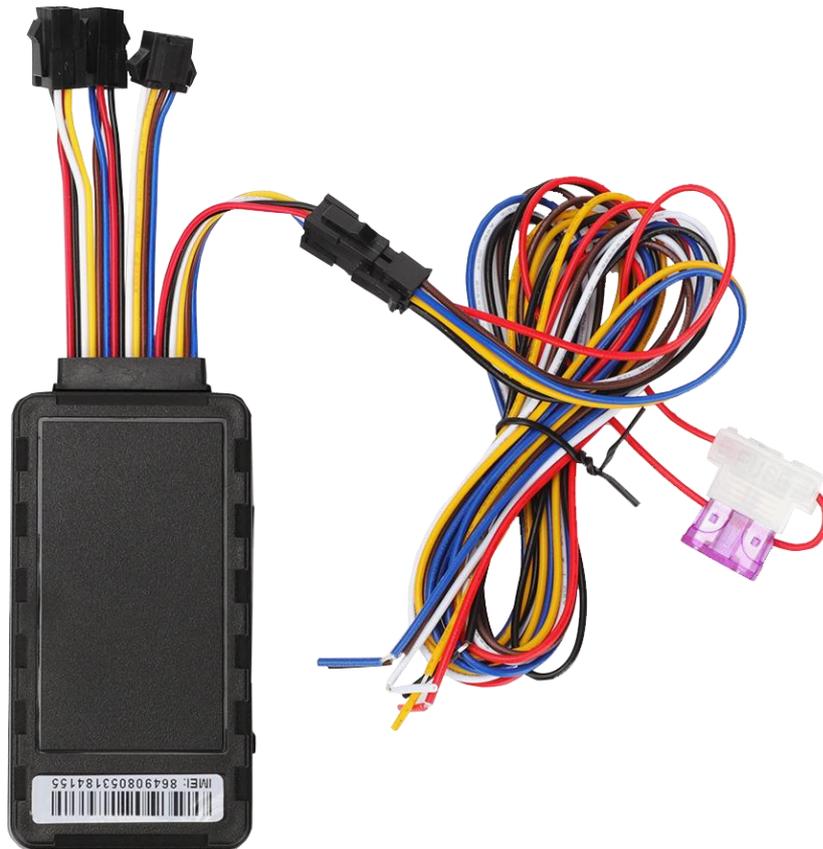


TV106 User Guide



1.Product overview

TV106 is mainly applied to DLT regulatory requirements for operating vehicles, fleet management, school buses and buses.

2.Product Function

Item	Explain
4G network	Support 4G CAT1 mobile network, TCP connection
GNSS positioning	GPS+Beidou --+GLONASS, multiple positioning system ensures accurate real-time positioning system
Remote fuel cut-off	Remote disconnection of vehicle power/fuel
SOS	Trigger and report the alarm to the cloud platform in case of emergency
Fuel consumption monitoring	Support analog fuel consumption sensor for fuel consumption monitoring
OTA	The in-flight configuration and in-flight firmware upgrade make after-sales maintenance convenient and fast
Anti-theft	Automatic arming after ACC flame out, disconnection of oil circuit, combined with preset magnetic stripe card information to realize vehicle anti-theft
Driver's driving behavior	Built-in G-sensor, supporting driver driving behaviors such as sharp turning, rapid acceleration, idle speed, parking timeout, etc
MSR100 magnetic stripe card information collection	MSR100 magnetic stripe card information collection supporting DLT technical specifications, complete driver identification and attendance
ACC/AC detection	Detect the engine ignition and air conditioning switch, and report the event
SMS call alarm	The alarm type can be preset to trigger SMS or telephone to notify the user
Monitor	After SOS is triggered, remote monitoring can be performed to understand the surrounding environment of the device
Mileage statistics	Accumulated mileage statistics and reporting
Main power detection	Main power failure detection and report
Standby power	150mAh standby power, supporting power-saving mode, can work for 1 hour
Electronic fence	Support 25 rectangular or circular electronic fences and event reporting
Speed Alarm	Support preset threshold, over speed alarm and local buzzer prompt
RS232 peripheral	RS232 peripherals can be docked, and development and application can be docked according to project requirements
Single bus peripheral	Support the docking of single bus peripherals, including 18B20, anti-theft device, ibutton and other peripherals

3.Specifications

Items	Description	
Size	100*52*18mm	
Weight	0.16KG	
Working voltage	DC-9-40V	
Working current	130mA@DC12V	
Reserve capacity	150mAh@3.7V	
Working temperature	-20℃-80℃	
Working humidity	5% - 95% non-condensing	
Input IO	4-way (ACC SOS AC custom by default)	
Output IO	3-way (default for fuel cut-off, buzzer, DC5V peripheral power supply)	
Analog input	2-way (default for fuel consumption customization)	
RS232 interface	1 way (default docking MSR100 magnetic stripe reader)	
Voice call	One two-way MIC and one horn	
Motion sensor	3D acceleration gravity sensor	
Memory	8MB flash (1.3MB available to users)	
Antenna	GSM/GPS default internal antenna	
LED	3-way	
SIM	Medium card	
GNSS Module	System	GPS+BEIDOU+GLONASS
	Chipset	AT6558R
	Receiver	32 channel
	Cold start	≤32s
	Hot start	≤1s
	Cold start capture sensitivity	-148dBm
	Tracking sensitivity	-165dBm
	Accuracy	< 2.5m (CEP50)
Cellular Module	Chipset	LTE(CAT1)/GSM/GPRS
	Bands	-CN LTE FDD: Band 1,3,5,8 LTE TDD: Band 34,38,39,40,41 GSM: 900/1800MHz -EU LTE FDD: Band 1,3,7,8,20,28* GSM: 900/1800MHz -LA LTE FDD: Band 1,2,3,4,5,7,8,28,66 GSM: 850/900/1800MHz/1900MHz

4. Standard Package and Optional Accessories

		
Main unit (Standard)	Power Cable (Standard)	Sticker (Standard)
		
Ribbon (Standard)	Packing Box (Standard)	
		
Relay (Optional)	SOS button (Optional)	I button (Optional)
		
Analog Fuel Sensor (Optional)	Configuration cable (Optional)	Buzzer (Optional)

5. Product Appearance



1 and 2: Built-in GPS antenna, please put this side up, otherwise it will affect the positioning



- 1:USB data**
- 2: Standby switch**
- 3: SIM card**

6.First Use

6.1 Installing a SIM Card



(1) The device supports 2G/4G Micro SIM card (medium card).

(2) Precautions:

- ① Please confirm that the SIM PIN function is off;
- ② Please confirm that the SIM card has sufficient balance, the data service is activated, and the SIM card APN is correctly configured;
- ③ If you need SMS function, please confirm that SMS function of SIM card is activated;
- ④ If you need to turn off the main power and alarm, turn the standby battery switch to ON to turn on the standby power.

(3) Installation steps:

- ① Unplug the power cord and check that the on-board standby battery is off. Before installing the SIM card, make sure that the device is fully powered off;
- ② Open the waterproof adhesive strip of the host, with the SIM card chip facing upward and the gap facing inward;
- ③ Confirm that the card is inserted properly (there will be a locking sound when it is inserted correctly).

6.2 LED Indicators Description

LED light	Description	Note
Green (location)	Off	Dormancy or turn off
	location	Flash every five seconds
	Not positioned	Flash every second
Red (communication)	Off	Dormancy or turn off
	Go online	Flash every five seconds
	Not online	Flash every second
Blue	Power lamp	

6.3.Initializing Device Parameters via Configuration Tool

Use the SMS or serial port configuration tool to configure the following commands

Check factory default parameters:

Command content	*SPJLX*P:753869*C:#
Description	Query parameters
Terminal response	C:dxapi.trac4you.com,7018,1;*N:013653184155;*A:internet,;;*M:6;*Q:26;*S:1;*E:30,30,30,0,1;*G:1,11;*W:50,3,0;*Z:+0000,+0000;*p:1105;
Description	<p>*C: IP address, port number, connection method (1: TCP 0: UDP);</p> <p>*N: Device ID</p> <p>*A: APN name, APN user name, APN password;</p> <p>*M: Networking status (6: successfully connected and online)</p> <p>*Q: CSQ value (signal strength value)</p> <p>*S: SIM card (1 exists, 0 does not exist);</p> <p>*E: ACCON report interval, ACCOFF report interval, corner, type,</p> <p>*G: GPS module status (0 no positioning, 1 positioning, 2 short circuit, 3 open circuit, 4 module failure (communication failure)), number of satellites;</p> <p>*W: Vibration threshold and duration (determine that the equipment is in vibration state after several seconds of vibration);</p> <p>*Z: GPRS data time zone, SMS time zone</p> <p>*p: Main power voltage</p>

If the terminal server parameter does not point to the correct IP, use the following command to configure

Command content	*SPJLX*P:753869*U:dxapi.trac4you.net,7018,1,#
Description	Set server IP parameters
Terminal response	U:dxapi.trac4you.net,7018,1;
Description	IP address, port number, connection method (1: TCP 0: UDP)

If SIM card APN parameters and terminal factory default parameters are inconsistent, please use the following command to configure. Please obtain SIM card APN parameters from SIM card provider.

Command content	*SPJLX*P:753869*A:internet,;#
Description	Set APN parameters, * SPJLX * P: 753869 * A: APN name, APN user name, APN password#
Terminal response	A:internet,;#
Description	A: APN name, APN user name, APN password;

The factory default is motion reporting, with 15 seconds of motion reporting and 180 seconds of static reporting. You can use the following command to configure.

Command content	*SPJLX*P:753869*E:1,15,180#
-----------------	-----------------------------

Description	*SPJLX * P: 753869 * E: 1, reporting interval when ACC is ON, and reporting interval when ACC is OFF#
Terminal response	E:1,15,180,0,30;
Description	E: 1. Reporting interval when ACC is ON, reporting interval when ACC is OFF, reservation, inflection point angle;

Cut fuel pump, send the following command via SMS or TCP channel to cut-off the vehicle.

Command content	*SPJLX*P:753869*D:O21#
Description	Cut off oil and electricity
Terminal response	cut out:1
Description	Fuel cut-off has been performed

7.4.5 Recover fuel, send the following command via SMS or TCP channel to recover the vehicle.

Command content	*SPJLX*P:753869*D:O20#
Description	Restore oil and electricity
Terminal response	cut out:1
Description	Oil and electricity recovery has been performed

6.4 Wire definition

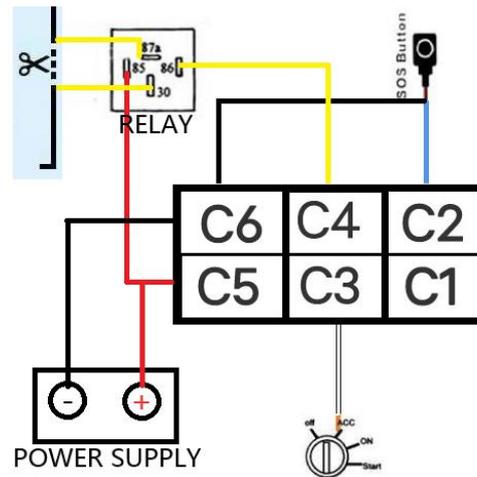
interface	Wire No	Wire color	Function
	C1	brown	High detection
	C2	Blue	SOS detection
	C3	white	ACC detection
	C4	yellow	Fuel cut-off - output
	C5	red	Positive pole of power supply
	C6	black	Voltage negative (earth wire)
	C7	red	Low trigger detection - multiplex single bus
	C8	black	Analog quantity 1 input
	C9	white	Analog quantity 2 input
	C10	yellow	Second output control
	C11	red	DC5V
	C12	black	earth wire
	C13	yellow	TXD

	C14	white	RXD
	C15	Reserved undefined	reserve
	C16		reserve
	C17		MIC_N
	C18		MIC_P

6.5 Product foundation installation

This section will introduce the installation method of wire sequence 1-6. Please carry out selective installation according to the requirements, and wrap the exposed part of the copper wire with insulating tape for the unused wire.

- ① C1: high detection, reserved, not connected;
- ② C2: SOS. If this function is used, an external SOS button can be connected. The button has two wires, one is grounded, and the other is connected to the SOS wire corresponding to the locator (C2);
- ③ C3: It can be connected to ACC line (key switch line) to monitor whether the vehicle is ignited;
- ④ C4: It is used for remote disconnection of oil and electricity. As shown in the figure below, the yellow line of the position-er needs to be connected to the 86 pin of a normally closed relay, the 85 pin of the relay needs to be connected to the positive pole of the power supply, and the black line is the cut oil pump power line. Connect the 87a pin and the 30 pin of the relay to both ends of the cut line, so that the relay is connected in series in the oil pump power line;
- ⑤ C5 and C6: connect the positive and negative sides of the power supply respectively.



7.Tracking the device in Web Platform

8.1 Get the login ID

Please get the Login ID of GPS tracking system from Platform providers (from trac4you sales), and monitor the device' s current position and others.

8.2 Login Software Platform

Please get the Web App link / PC based software / Android/IOS App and Manuals from trac4you sales or other Platform Providers, and manage your TA107 in the software Platform.

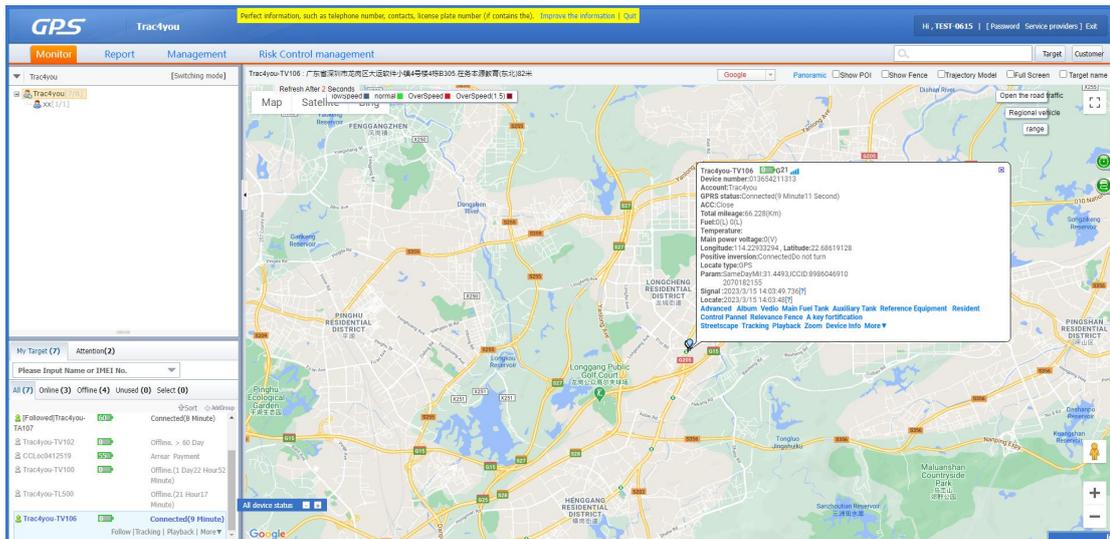
8.3 Trac4you Web App link:

Web.trac4you.com

Login Interface as below:



Main Interface as below:



Whatsapp/wechat/Telegram : +86 013714350920

Email : iris@jlinkiot.com