

TV101B Waterproof 4G GPS

User Guide



1.Product overview

This is a simple vehicle positioning terminal. Its product model is TV101F, it is waterproof IP67.

2.Product Functions

Items	Functions
4G LTE	Support 4G/2G cellular network. TCP connection
GNSS Module	GPS+BD+Glonass multiple systems for high precision real-time positioning
Tracking and positioning	The default combination conditions are reported as follows: report a current position information in 10s of movement, report a static position information in 120s, and report the current position information when the turning angle exceeds 30 degrees.
Ignition on/off report	Reporting of ignition and flameout events, and reporting immediately when ignition or flameout events occur
Main power failure alarm	After detecting that the main power line is disconnected, report the current location information and alarm information
Data records buffer	Support local storage of the last 1000 location records
fuel control	Support platform and SMS sending for fuel cut-off and recovery of fuel control operations
Remote upgrade	Support remote OTA terminal firmware
Air configuration	Support platform and SMS device and query for parameters
Electronic fence	Support for entering and exiting the fence alarm
Dual positioning	Report location information, including base station and GPS positioning information
Towing alarm	Support acc off, vehicle movement exceeding the set range alarm
Intelligent power saving	Support turning off GPS module partial hibernation in still mode to save power.
Speed Alarm	The platform sets a maximum speed limit value. When the GPS speed is greater than the set value, an overspeed alarm reminder will be reported.
Low voltage alarm	If the main power supply voltage is detected to be low (the lower limit of 12V is 10.5V, and the lower limit of 24V is 21V), the current position and alarm information will be reported

3.Specifications

Items	Specifications	
size	80*40*18mm	
Weight	70g	
Working voltage	DC9-90V	
Working current	25mA@12V /In power saving mode 10mA@12V	
Positioning method	Base station positioning+GPS positioning	
Positioning accuracy	Positioning accuracy <10m (CEP95) Base station positioning accuracy based on the density of base stations in the interval	
Communication network	LTE/GPRS	
Communication method	TCP	
Working temperature	-25 °C – 65 °C	
Storage temperature	-40 °C – 85 °C	
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: 850/900/1800MHz/1900MHz -EU LTE FDD: Band 1,3,5,7,8,20 GSM: 850/900/1800MHz/1900MHz -LA LTE FDD: Band 1,2,3,4,5,7,8,28,66 GSM: 850/900/1800MHz/1900MHz
GNSS Module	SYSTEM	GPS+BEIDOU+ GLONASS
	Chipset	UC6226
	Receiver	64 Channel
	Cold start	≤32s
	Hot start	≤1s
	Cold start capture sensitivity	-147dBm

	Tracking sensitivity	-160dBm
	Accuracy	<10m (CEP95)

4. Standard Package and Optional Accessories

		
TV101Main unit (Standard)	Sticker (Standard)	Ribbon (Standard)
		
Packing Box (Standard)	Power Cable (Standard)	Relay (Optional)

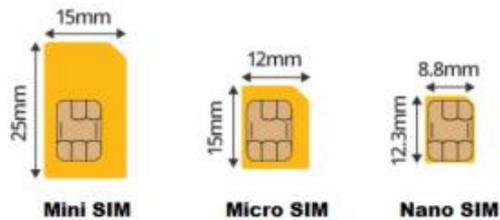
Note: the above is the standard configuration list of the whole set of products, and the accessories outside the above scope need to pay extra fees.

5.Wire definition

Line color	Definition
yellow	Output control line
white	ACC detection line
Black	Power ground
Red	Positive power supply
Blue (Optional)	Negative detection wire

6.First Use

Installing a SIM Card



Please note: Slide the SIM card holder to lock it in place
Ensure that the SMS/cellular network services of the SIM card are available.
Ensure that the phone card PIN lock is properly closed.

Product installation process

1. Check the product

Check if the equipment appearance is good and if the relevant accessories are complete

2. Install SIM card

Open the device and place the SIM card in the card holder. Please avoid damaging the card holder with excessive force, and do not insert or unplug the SIM card while the device is powered on. Please ensure that the SIM card has internet access function.

3. Select the terminal installation location

Waterproof: It is recommended to choose a location that is not prone to water ingress to ensure the dryness of the terminal. Attention should be paid to keeping it away from the air outlet of the air conditioner to prevent condensation water from accumulating inside the terminal and seriously affecting the service life of the product when the temperature difference changes.

Shockproof: The terminal cannot be installed in a position with significant long-term vibration in the air.

Anti interference: The terminal should be kept away from electronic devices such as audio, video, and intercom in the vehicle to prevent conducted and radiated interference.

LED light Indicators

LED Light	Indication	Description
Red GSM	Constant extinction	Sleep or light damage
	Always on	GPRS has a signal. But it hasn't been launched yet.
	Slow flashing (5 times/second)	Effective GPS positioning
Green GPS	Constant extinction	The positioning module is damaged or enters sleep mode
	Always on	The terminal searched for satellite signals but did not locate them effectively.
	Slow flashing (5 times/second)	Effective GPS positioning

Product installation process

GSM red light	Normally off: sleep or lamp damage
	Always on: the terminal goes online normally
	Flash (2 times / s): GPRS has a signal, but it is not online
GPS green light	Normally off: the positioning module is damaged or enters sleep mode
	Always on: GPS effective positioning
	Flash (1 time / s): the terminal searches for satellite signals but fails to locate them effectively

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 Instructions
Terminal response	U:dxapi.sny.net,7018,1;A:cmnet,,;SN:34512968;M:6;N:1,30,60,0;R:0;Q:0;G:0,0;Z:+0000,+0000;E:1;P:1;W:100,3,0;ET:30,10;F:0,0
Description	U: IP address, port number; A: APN name, APN username, APN password; SN: Device ID; M: Networking status (6 indicates online); N: Type, reporting interval (in seconds), reporting interval (in seconds), reserved bits; R:CREG; Q: Signal strength value; G: Positioning status (1: positioning; 0: not positioning), number of satellites; Z: GPRS data time zone, SMS time zone; E: ACC status (1: ACCON, 0: ACCOFF); P: Main power connection status (1: Connected to main power, 0: Not connected to main power); W: Reserved, reserved, vbs oscillator threshold; ET: Corner, corner reporting interval; F: Reservation

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.sny.net,7018,1,#
Description	*SPJLX * P: 753869 * U: IP address/domain name, port number, connection type (1 TCP, 0 udp)#
Terminal response	U:dxapi.sny.net,7018,1;

Description	U: IP address/domain name, port number, connection type (1 TCP, 0 udp)
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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:cmnet,,#
Description	*SPJLX * P: 753869 * A: APN name, APN username, APN password#
Terminal response	A:cmnet,,
Description	A: APN name, APN username, APN password

The factory default is motion reporting, with 30 seconds of motion reporting and 60 seconds of static reporting. You can use the following command to configure.

Command content	*SPJLX*P:753869*E:1,30,60#
Description	*SPJLX * P: 753869 * E: 1, ACCON reporting interval (in seconds), ACCOFF reporting interval (in seconds)#
Terminal response	E:1,30,60,0,0,10;
Description	E: 1. ACCON reporting interval, ACCOFF reporting interval, reserved, corner, corner reporting interval

Track by SMS, send the follow command by SMS to get the latest position of the device.

Command content	*WHERE2#
Description	Query current location
Terminal response	TRACK <a +22.68858,+114.22392"="" href="http://maps.google.com/maps?hl=en&q=">http://maps.google.com/maps?hl=en&q="+22.68858,+114.22392 2023-4-4 14:02
Description	Google link for address

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	D:165;
Description	Fuel and power outage has been executed

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	D:0;

Description	Recovery of oil and electricity has been carried out
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7.Tracking the device in Web Platform

Get the login ID

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

Login Software Platform

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

Sny Web App link:

Web.sny.com

Login Interface as below:

