Product overview
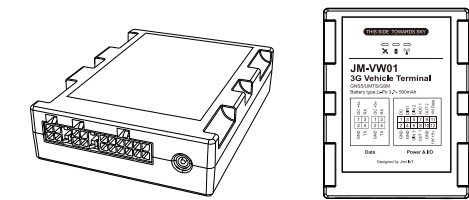
Tracking
UMTS & GSM communication
GPS & LBS positioning
External GPS antenna assisted
Real-time location query
Track by time/distance/cornering/ignition

Anti-theft
Remote power/fuel cut-off
SOS emergency call
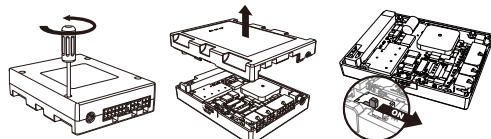External power supply cut-off alert
Geo-fence alert
Towing alert

Monitoring
Ignition detection
Over-speed alert
Vibration alert
Vehicle door status alert
Driver authentication (optional)
Fuel level monitoring (optional)
Temperature monitoring (optional)
Buzzer (optional)

Specification

Frequency	GSM: 850/900/1800/1900MHz
	UMTS: 850/900/1900/2100MHz
GNSS Type	All-in-one GNSS receiver
Sensitivity	Cold start: <45s
	Warm start: <35s
	Hot start: <1s
Position Accuracy (CEP50)	2.5m CEP
Dimensions	85 mm x 65 mm x 20 mm
Weight	92g
Backup Battery	Li-Polymer, 500 mAh
Operating Voltage	11V to 36V DC
Operating Temperature	−30°C to +70°C
	−30°C to +70°C for storage
Transmit Protocol	TCP, SMS

Product setup

Insert SIM and Power on

1.Loosen the screws, and remove the front cover.
2.Insert the SIM card into the card slot with its gold-plated contacts towards the Printed Circuit Board.
3.Toggle the battery switch besides the SIM slot to power on.
4.Close the cover, and tighten the screws.

Power off
1.Disconnect the tracker from external power.
2.Remove the cover and switch to "OFF" .

LED indications
Power Status (Red)

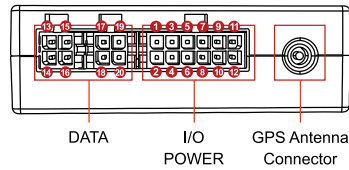| Behavior	Meaning
Quickly blinking	Low internal battery
On for 2s and off for 2s	Charging finished
On for 0.1s and off for 2s	Normal mode
Solid on	The device is charging
Off	Power off or battery error

Interface

DATA | I/O POWER | GPS Antenna Connector

GNSS Status (Blue)

Behavior	Meaning
Quickly blinking	GNSS synchronizing
Solid on	Positioned
Off	GNSS module is in sleep mode or not working

Wireless Network Status (Green)

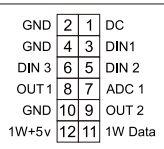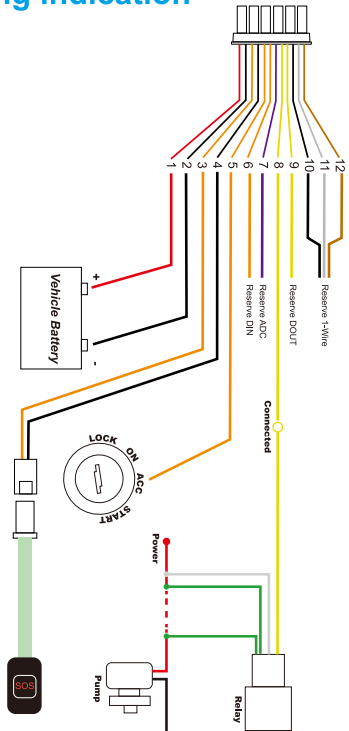| Behavior	Meaning
Quickly blinking	Module initializing
Slowly blinking	Registered but no inbound acknowledgement
Solid on	Network available
Off	No signal received or no SIM card detected

DATA

DC 5v 13 15 RX
GND 14 16 TX

DC 5v 17 19 RX
GND 18 20 TX

I/O AND POWER

GND	2	1	DC
GND	4	3	DIN1
DIN 3	6	5	DIN 2
OUT 1	8	7	ADC 1
GND	10	9	OUT 2
1W+5v	12	11	1W Data

No.	Meaning	Color	Description
1	DC IN	Red	Supply voltage 11~36V (max. 40V). Protect device against overvoltage.
2	GND	Black	Grounding wire
3	DIN1	Orange	SOS by default, negative triggered.
4	GND	Black	Grounding wire
5	DIN2	Orange	ACC by default, positive triggered.
6	DIN3	Orange	Negative triggered. Configurable. It can connect to the door signal cable to detect its status. (Most Chinese, Korean, and Japanese vehicles are negative edge-triggered.)
7	ADC	Purple	Input voltage range 0-6V, high precision on 0.01V
8	DOUT1	Yellow	Open drain output, immobilization by default.
9	DOUT2	Yellow	Open drain output by default. Configurable. Valid: low level (0V) Maximum current for output low voltage (valid):500mA; Maximum voltage for open drain output (invalid):60V You can also configure it as PWM output (output time and pulse width).
10	GND	Black	Grounding wire
11	1-W Data	White	1-wire communication interface by default. It can be configured as OUT3 (open drain output).
12	1-W PWR	Brown	It is the DC 5V output. Drain current 500mA.
13/17	DC OUT	Red	Output 5V/1A. It supplies power only when device connected to power.
14/18	GND	Black	Grounding wire
15/19	RS232-RX	Blue	Input for data receive through RS232
16/20	RS232-TX	Green	Output for data transmission through RS232

Wiring indication

Power connection
The standard power supply ranges from 11V to 36VDC.
During installation, negative side should connect to the ground.
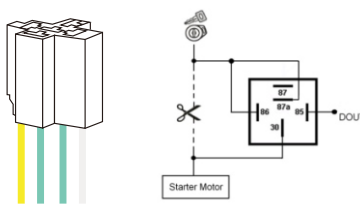Do not connect with other ground wires simultaneously.

Ignition wire
ACC line (orange) connects to vehicle's ACC, detecting ignition.
Be sure to check if it's a real ignition wire i.e.power does not disappear after starting the engine.

Relay wiring
Relay's white line(85) connects to the positive side of fuel pump while the yellow line(86) connects to the device's relay control (yellow line on power cord).

Find the fuel pump of the vehicle and cut off its positive power line. The positive side of fuel pump connects to the green line(87a) while the side closing to starter motor connects to green line(30), as the below chart. Switch of the two green lines have the same effect.

12V relay is standard. The device is suitable for vehicles with 12V supply. If the vehicle power supply is 24V, use 24V relay.

SMS configuration

Tracked by mobile phone
Send the command URL# by SMS to the device's SIM card number. The device will reply with a map link. Click the link to have the location displayed on Google Maps on your mobile phone.
If device in somewhere not positioned, device will reply "Positioning, please wait for a moment" or "Positioning fail".

Monitored by tracking platform
APN & Server setting
To ensure normal network operation, please confirm your APN and server setting before you login. In most countries, APN could be automatically adapted to local mobile operators. If not, please send SMS to set the APN.

If user name and password are required for APN, please add it into the command,
APN,apnname#
E.g.APN,internet#
APN,apnname,user,pwd#
E.g.APN,internet,CLENTE,AMENA#

Confirm the server address and setting with distributors. If server is incorrect, please send SMS to change.
SERVER,mode,domain name/IP,port,0#
E.g: SERVER,1, www.ydpat.com, 8011,0#
        SERVER,0, 211,154,135,113,8011,0#
mode=1 means set with domain name
mode=0 means set with IP address

Please login the designated service platform and enjoy your monitoring experience.

GPS upload interval setting
By time interval (Default Valid)
TIMER,T1,T2#
T1 means upload interval when ACC ON
T2 means upload interval when ACC OFF
Range: 5~18000 or 0 (second); 0 means no upload
Default valid setting: TIMER,10,10#
Query current TIMER setting: TIMER#

By distance interval (Default OFF)
DISTANCE,D#
D ranges 50~10000 or 0 (meters)
Note: When user enable uploading by DISTANCE, the preset TIME uploading turns invalid.

SOS emergency call
In emergent case, press SOS for 3 seconds to activate SOS alert. The device will send SMS alert to preset SOS numbers and dial the numbers in a loop for three times until the call is picked up. Alarm message will also be sent to the tracking platform.
To add SOS number: SOS,A,number1,number2,number3#
To delete the SOS number: SOS,D,phone number#
Query SOS number: SOS#

Remote power/fuel cut-off
When vehicle is stolen, fuel/power command can be sent by platform, APP or SMS.

Notice:
1.Make sure ACC is correctly connected.
2.When ACC is OFF, command will be executed immediately.
3.When ACC is ON but GPS is not fixed, command will defer.
4.When ACC is ON and GPS is fixed, command will be executed when vehicle speed is less than 20km/h.

To cut-off/restore the fuel by SMS command, you have to authorize a center number.
Set the center number: CENTER,A,mobile number#
Delete the center number: CENTER,D#

Notice:
Only the preset SOS number can set/delete the center number. Only one center number can be set.

To cut-off fuel/power connection: RELAY,A#
A=0/1 (0=restore fuel; 1=cut-off fuel)   Default value:0
E.g.RELAY,1#

Over-speed alert (Default OFF)
SPEED,S,T,V,M#
S=1 means ON; S=0 means OFF
T means duration of speeding, ranges 5~600 (second)
SPEED ranges 1-255 (km/h)
M means alert way
M=1 SMS+GPRS; M=0 means GPRS
E.g. SPEED,ON,20,100,1#
When vehicle speed is over 100km/h for 10 seconds, you will receive SMS alert and GPRS alert on server.
Note: SPEED,OFF# Disable over-speed alert

Towing alert (Default OFF)
When vehicle is dragged, device could send alert.
MOVING,S,R,M#
S=1 means ON; S=0 means OFF
R means radius, range 100~1000 (meter)
M means alert way
M=1 SMS+GPRS; M=0 means GPRS
Note: MOVING,OFF# Disable towing alert

Common SMS setting command

Command	Description	Remark
STATUS#	Check device's status	
VERSION#	Check firmware version	
GPRSSET#	Check device network setting	
DEFENSE,A#	Delayed defense setting	A:1-60 min, default:10min
DEFENSE#	Check the current parameters	
SENALM,S,M#	Enabled vibration alarm	S=1 means ON; S=0 means OFF M=0/1/2/3, way of alarming, 0: GPRS only, 1: SMS+GPRS, 2: GPRS+SMS+Call, 3: GPRS+Call
SENALM,OFF#	Disabled vibration alarm	
SENALM#	Check the alarm setting	
RESET#	Reboot	Device will reboot in 20s
DOOR,X#	Car door negatively/ positively trigger detection setting	X=0, negative triggering; X=1, positive triggering

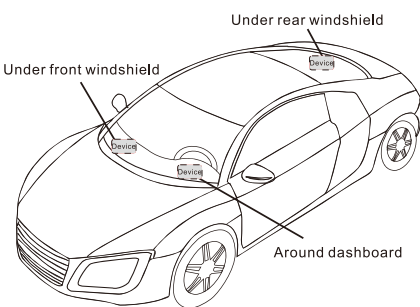# Package & Optional accessories

Standard package
JM-VW01 device
12-pin cable
Relay(12V/24V)
SOS button cable

Optional accessories

Type	Use
4 PIN connector	For data reading from peripheral accessories
External GPS antenna	Achieve reinforced GPS signal
Fuel sensor	Detect the fuel level
RFID	Identify the driver ID and grant permission to start the vehicle

Installation recommendation

Under rear windshield
Under front windshield
Around dashboard

1) The device should face up to the sky.
2) Metal thermal barrier or heating layer of the windshield affects the signal.

Troubleshooting

Type	Use
Unable to connect to tracking platform	Check the APN and IP settings. Check whether the data service of SIM card is enabled. Check the balance of SIM card.
Tracker shows offline	Check whether external power is still connected. Check if the vehicle entered network blind area. Check the balance of SIM card.
Unable to locate	Make sure the top side facing upward without metallic things shielded. Make sure it's not in area with no satellite coverage.
Location drift	In area with poor GNSS signal(tall building around or basement), drifting may happen. Check whether vibration happens around to trigger the accelerator.
No command reply	Make sure command format is correct, Vehicle may be in network blind area. Make sure SIM card is well inserted and have SMS service.

Warranty instructions

1. The warranty is valid only when the warranty card is properly completed, and upon presentation of the proof of purchase consisting of original invoice indicating the date of purchase, model and serial No.of the product. We reserve the right to refuse warranty if this information has been removed or changed after the original purchase of the product from the dealer.
2. Our obligations are limited to repair of the defect or replacement the defective part or at its discretion replacement of the product itself.
3. Warranty repairs must be carried out by our Authorized Service Centre. Warranty cover will be void, even if a repair has been attempted by any unauthorized service centre.
4. Repair or replacement under the terms of this warranty does not provide right to extension or renewal of the warranty period.
5. The warranty is not applicable to cases other than defects in material, design and workmanship.

Maintenance Record

Date		Serviced by	
Product Model			
IMEI Number			
Fault Descriptions			
Comments			

JM-VW01
3G VEHICLE TERMINAL
Quick Start Manual
V2.0

▶