GPS VEHICLE TRACKER
Model **PT890**
USER MANUAL & INSTALLATION GUIDE

Included;

- 1 x GPS tracker 12v~24v
- 1 x wiring loom
- 1 x engine disable relay & loom 12v
- Free to download mobile APP (Android and IOS)
- Free access to an international 24/7 website

This product requires a 3G mobile SIM card (not included)

4G or DATA only SIM card not compatible

IMPORTANT
Record your IMEI number here
(Shown on the tracker label)

Mongoose Australia PTY Limited
www.mongoose.com.au
Mongoose (New Zealand) Limited
www.mongoose.co.nz

PT890 GPS VEHICLE TRACKER

How GPS tracking works;

GPS satellites are in fixed orbit above the earth and are used so a GPS tracker can find its location – anywhere in the world. The tracker monitors multiple satellites to get an accurate location 'fix' on where it is. If satellite reception is blocked by buildings, terrain or anything metal, GPS locations may not be found. The LBS function will show nearest mobile transmission tower. (see page 15)

So you can see the locations and other details, trackers use a 2G/3G mobile SIM card to send and receive information to and from your mobile phone and the website .

GPS locations are automatically sent using inexpensive mobile data. The website saves the data which always maintains the last 6 months history.

The tracker, APP and website work seamlessly together with virtually no delay in operation.

Apart from the purchase price of this GPS tracker, the only other costs are the SIM card usage which is payable to the SIM card provider.

The trackers mobile SIM card must have credit for voice, text and mobile data.

Due to the nature of this product, a PrePay SIM card is usually more than sufficient and less expensive than a contract. On Prepay, Long Life plans can offer most cost effective option compared to other plans and contracts and allow flexibility to find best GSM network for your area as GSM coverage and performance with Pt890 may vary based on Network coverage

- -

With the tracker installed and the SIM card inserted, just send these 2 text messages to program the tracker.   See page 12 for SIM card installation

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1.   Pair your mobile phone to the tracker

Send this text message from your mobile phone to trackers mobile SIM phone number;

admin123456 xxxxxxxxxx

⇧

there is a space here

123456 is default password   xxxxxxxxx is your mobile phone number

Tracker replies: **admin okay**

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2.   Set the current time according to GMT

Send this text message   **timezone123456 10**   (=10 hours ahead of GMT for Sydney)

⇧

there is a space here

Australia range:-   10 no daylight saving   11 for daylight saving
New Zealand range:-   12 no daylight saving   13 for daylight saving

The Mobile APP and Website

Mobile APP download & login details

Download the Android or IOS APP :- **TKSTAR**
(or scan the QR code on the GPS website)

Single Tracker User
Log in by 'IMEI'
IMEI (id printed on the tracker & carton)
Password = 123456

Multiple Tracker User
Log in by 'username'
Username (your choice – call Mongoose to set-up)
Password (your choice – call Mongoose to set-up)

Link to the website:-

Go to:- **www.zg666gps.com**

Save the page in your computers favourites.
The international website will open with language options.
Select your chosen language by clicking on the corresponding flag.
The next time you go to the website, it will default to your language.

Log in with same details as the mobile APP.

DEVICE INFO' - IMPORTANT

Logon and open the mobile APP.
Select '**device info**'.
Complete all the details.
If not completed, some functions will not operate.

Important;
a. The trackers SIM phone number must be entered in
   'device phone number'.
b. Your own mobile phone number must be entered in 'contact number'.

If details are not entered, the tracker will not function correctly.

Device info	
Device name	MONGOOSE PT890
Device ID	4210051234
Expiry date	2016-12-08
License plate number	ABC123
Device model	LK210
Device phone number	02112445566
Contact	TOM
Contact number	02299887766

THE MOBILE 'APN' NUMBER

If you have followed the previous pages, the tracker should now be reporting locations.

Open and logon to the mobile APP.

If there is a message at the top of the screen saying 'not enabled', this means that the website has not yet received any data/information from the tracker. One reason may be the mobile providers APN needs to be set.

The APN (Access Point Name) is the address of the SIM card provider's data connection.

Some SIM cards, such as Vodafone and 2 Degrees in New Zealand, already record their APN on their SIM cards, so this following instruction is not necessary.

Here are some Australian examples;

Telstra   **telstra.internet or telstra.wap**

Vodafone   **live.vodafone.com**

Optus   **connect or yesinternet or connectme**

Aldi   **mdata.net.au**

Here are the New Zealand examples;

Vodafone   **vodafone.net.nz**

2 Degrees   **internet**

Spark   **internet**

Contact your SIM card provider to verify the correct APN.

To set the APN, send this text message:- **apn123456 xxxxxxxxx**

xxxxxxxx = your trackers SIM card APN

You should get the reply: **apn ok**

After sending the SMS, wait a few minutes then open the mobile APP and check to see if it is now reporting by selecting 'real time'
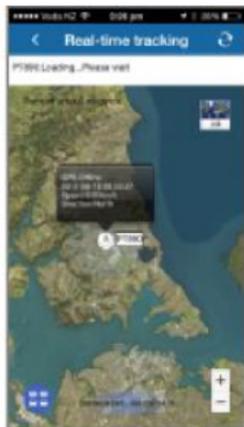
HOW TO START TRACKING

MOBILE APP

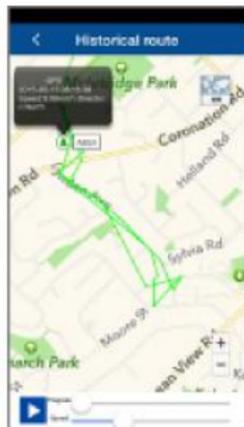Open the app and logon as detailed on page 3 and try out the features.

- 'real time' - shows the current or last reported location
- 'historical route' to show where the tracker has been and can play the route taken

APP menu

Real time location
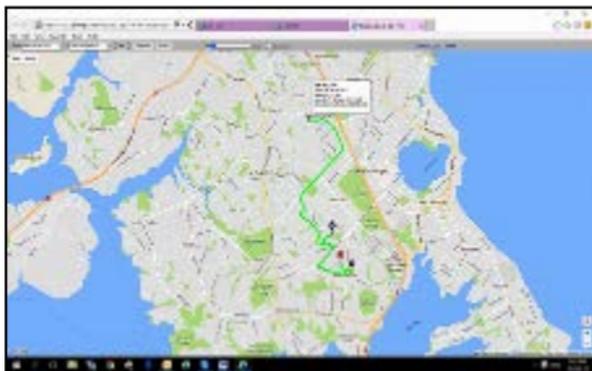

Historical travel replay

ONLINE WEBSITE

The website stores all the location data sent from your GPS tracker.
The mobile APP gets its information from the website.
Travel is more detailed with engine start times, stop times etc.
Reports can be saved and printed.

Multiple tracker users: If you have more than one tracker, contact Mongoose to request a GPS account which has your own username and password to login by. This allows you to monitor and track all devices either all at the same time or individually. There is no charge for this service.
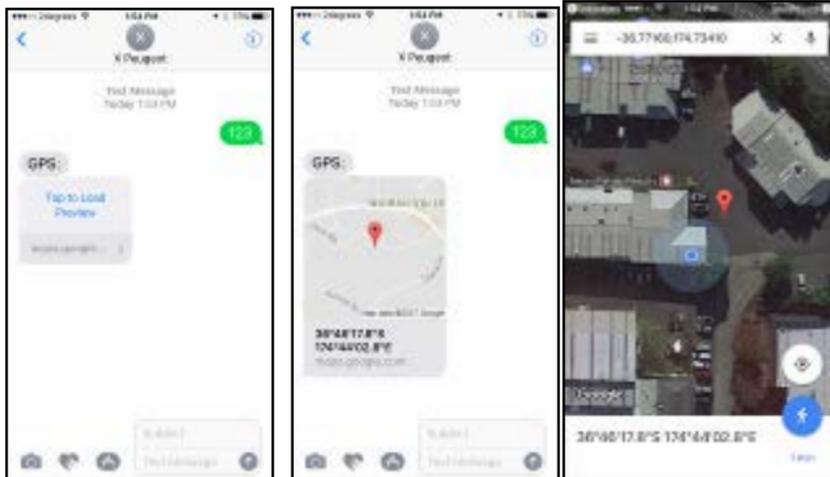
TEXT (SMS) LOCATION REQUEST

If you have difficulty logging on to the APP or website or are using a mobile phone without the APP, you can find a trackers location by simply texting the tracker directly:-

Send:- **123**

You will receive a text reply.

Tap the reply to load a preview - tap again to see the phones' own map and the location.

If you require a status update as well as the link, send this text:- **G123456**

- **Google link:** tap the link, it opens opens the phones map to show location.
- **v:A** = GPS signal ok. v:**V** = no GPS signal
- **2013-08-30 20:54:15:** the last reported date and time of GPS information.
- **Spd:000km/h:** the speed of tracker.
- **Bat:6** state of battery back-up charge
- **ID:4102000759:** Unique IMEI code of device
- **S19G04 ; plmn : 46001** GSM operator data
  Lac:9516, cellid:23596 LBS data

Tap the message to see the location on the phones own maps

CONTROLLABLE FEATURES

The tracker can be controlled by either text messages from your mobile phone, see chart at rear of this manual, or from the mobile APP's 'Commands'.

FREQUENCY OF REPORTING – default 30 seconds

Set how often the tracker reports when moving or stationary with the engine running.
Typically, 30 seconds is used when moving as this gives a good map plot when history is viewed.
60 seconds is commonly used when not moving but the engine is still running (eg: traffic jams).
Set you own times to suit your requirements.

ENGINE IMMOBILISATION (12volt relay supplied)

The tracker has the ability to immobilise the engine via the mobile APP or by a text message.
We highly recommend the installer only immobilises the starter motor as this does not affect the safe operation of the vehicle. It means the engine cannot be started after it's switched off.
Should the fuel or ignition be immobilised when the vehicle is being driven, this product is designed not to immobilise above 20kph. Once below this speed, the tracker will pulse the circuit on and off 20 times within 1 minute finally resulting in an open circuit.
If the immobilisation command is sent with the ignition off, immobilisation is immediate.
NOTE: For vehicles greater than 12 volt, use a voltage appropriate relay – not supplied.

ARM - ALERTS ON

To receive these alerts (text and phone call) from the tracker, it must be armed.

    a. Your car alarm has been activated (also sent when not armed)
    b. A geo-fenced area has been breached – (also sent when not armed)
    c. Vibration sensor activated
    d. Vehicle has been 'moved'
    e. Ignition has been turned on
    f. Main power has been disconnected

With ignition off, the tracker is 'armed' by using the APP under 'Command'
or send this text message **111**

The reply will show the tracker status:- GSM:2   Power:7   Arm delay in 0s
eg: GSM is signal strength 1 = strong ~ 5 = weak. Power is percentage.

DISARM - ALERTS OFF (Disarm before driving the car to avoid false alerts)

It is disarmed via the APP or send a text message:-   **000**

AUTOMATIC DELAYED ARMING

The system will arm automatically 10 minutes after ignition off.

Set by:	**auto1**	Reply: Auto arm - standby 10 mins: ON
Cancel by:	**auto0**	Reply: Auto arm - standby 10 mins: OFF

GEO-FENCE

A geo-fence is an area with an invisible boundary.

This boundary can have a minimum radius of 100m to a maximum of 999km.

200m is the recommended minimum to avoid false alerts.

The area is easily set from the APP or website.

If the tracker moves outside this area, and the tracker is armed, it will send an alert to the paired mobile phone. You will also receive an alert when it re-enters the area.
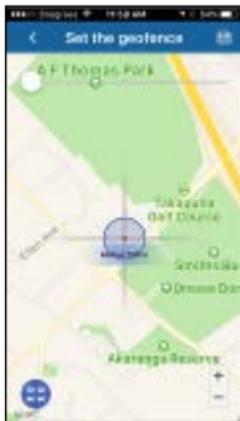
Multiple geo-fences can be set, for instance, around your home, your place of work, usual parking places, shopping centres, friend's houses, etc.

Enter a name for your geo-fence.
Then tap 'longitude'

The map on the right opens.
Move the map so the cross-hairs are over where you want the centre of your geo-fence to be.

Use the slider bar to increase or decrease the size of the geo-fenced area.

Press the save icon top right.

The screen on the right appears.

Press the save icon again to confirm.

A minimum of 200m radius is recommended to avoid false alerts.
Multiple geo-fenced areas can be set.

VIBRATION ALARM
When 'armed', a shock/vibration will cause the tracker to send you an alert.
These alerts can be a either a text message, a phone call or both.
See the programming chart for programming and sensitivity options.

IGNITION ALERT
When armed, if the ignition of the vehicle is turned on, you will receive a text alert.

POWER DISCONNECT ALERT
If the power to the tracker is disconnected, the tracker will send a text alert.

SPEED ALERT
A speed limit can be set between 50~300kph.
Speeding over the set speed limit will send a text alert to your mobile phone.

MOVE 'TOW' ALERT
This is similar to geo-fence but is not at a fixed location – the location is where your vehicle is parked when you activate 'move'.
When stationary for more than 3 minutes, a 'move' command can be sent and sets a permitted radius of travel of your choice (100m~5000m) from the parked location.
200m is the recommended minimum to avoid false alerts which can be caused by poor satellite reception. (heavy weather, inside or close to buildings/garages can cause false alerts)
Movement outside this radius will send a text alert to your mobile phone.
This feature should be turned on or off as and when needed.
If move alert is on, then geo-fence is automatically off.

BATTERY BACK-UP
The GPS tracker has an internal battery which is charged once connected to your vehicle.
It provides 2~3 hours back-up in the event the vehicle battery is disconnected.

PASSWORD FOR COMMANDS – does not affect your logon password.
The default password is 123456.
This may be changed to any 6~8 digit number.
Must be digits (numerals).

Note: If changing the password, please make careful note of the new number.
Mongoose can re-set it back to default if the new number is forgotten.

APP ICONS

'Real time'   – shows current or last reported position
'Historical'   – graphically shows the route taken over different time periods
'Geofence'   – allows you to set defined areas
'Command'   – sets tracker parameters & commands
'Device info'   - Details about the tracker, SIM number etc
'Messages'   - A record of texts sent from device to you
'Alarm setting'   - Define which alerts are required
'Logout'   - Closes the APP

Most of the tracker functions can be controlled from within the APP under '**command**' and '**alarm setting**' either by GPRS (data) or by SMS (text).
Some phone~APP combinations may not have all options given in this manual.

SMS (TEXT) COMMANDS -

Instruction	Text to send to tracker	Reply
Cell phone pairing (master user #1)	**admin123456 xxxxxxxx** *(xxxxxxxx = your mobile number)*	admin ok
Cancel pairing	**noadmin123456 xxxxxxxx**	noadmin ok
SOS Alerts (2 numbers) Cancel SOS Check SOS numbers	**SOS, XXXXXXXX** **SOS, XXXXXXXX** **SOS,,** **SOS**	SOS! S1:XXXXXXXX SOS! S2:XXXXXXXX SOS Alarm: Call & SMS
Set time zone	**timezone123456 13** *(13 hours ahead of GMT)*	time ok
Request location & status	**g123456#**	Google http link + status
Google map request	**123**	GPS: http link
Change password	**pwd123456,XXXXXX** Must be 6 digit	OK ! New password: 123456 Keep safe !
Reporting interval moving - engine on	**run,30 or upload123456 30**	OK! acc on GPRS Reptime: 30s
Reporting interval stationary – engine on	**stop,180**	OK! acc off GPRS Retime: 180s
Alarm Arm Disarm	**111** **000**	GSM:5 Power:6 Arm delay on 0s GSM:4 Power:6 DISARMED

Instruction	Text to send to tracker	Reply
Auto arm - on off	**auto1** **auto0**	Auto arm – standby 10 mins - ON Auto arm – standby 10 mins - OFF
Immobilise (kill engine) Run (allow engine starting)	**555** **666**	Cut oil ok ! Resume oil ok !
Alert types for vibration 1st digit is alert type 0 = off, 1=SMS, 2 = call, 3 = both 2nd digit is vibration sensitivity 1 to 9 (5 default)	**vib0,3**	Off – no alerts
	vib1,3	SMS, 3
	vib2,5	Call, 5
	vib3,5	SMS & Call, 5
Report interval of vibration alert	**tim5** (1~30 mins – default 5)	OK! Alarm frequency: XXXmins
Speed alert Cancel speed	**spdX** (where X = 50~300km/h) **spd0**	OK! Over speed alarm: X km/h OK! Over speed alarm: off
Move alert Cancel move	**moveXXXX** (where xxxx = 100~5000m) **move0**	OK! Move alarm on OK! Move alarm off
Low power alert	(once tracker battery voltage below 3.7v)	Warning, low power !
If main power disconnected	**pwr0** **pwr1** **pwr2** **pwr3**	No alerts SMS alert Phone call alert SMS then call alert
Language	**LAG1** (English) **LAG2** (Chinese)	Switched to XXX
Check tracker	**status**	Shows current status
Check IP address and IMEI number	**(S42,1234)**	Shows date/time/IMEI/IP/APN
Reset	**format**	Re-sets all settings to default
Re-boot	**RST**	Re-starts the tracker

SIM CARD INSTALLATION

SIM CARD

Make sure that the mobile 3G SIM card is operational (activated with its supplier) by testing in a mobile phone. It cannot be activated when inside the tracker.

- Do not insert SIM card with power cable connected – you can damage the SIM card.

- Do not hide your mobile phones identity.

- Keep SIM credit up to date – choose auto top-up with the SIM card provider.

Add this SIM to your phones 'contacts', such as "GPS TRACKER" so you know where alerts have come from.

- Carefully lift up the SIM card rubber cover –

- Insert the SIM card correctly, as shown. It will click into place.

- Fully replace the rubber cover to ensure a good seal.

NOTE: Inserting the SIM turns on the battery back-up. If not using the tracker or returning it for service, always remove the SIM card. Long term flattening will damage the battery.

LED's (under the rubber cover)

Green LED — Mobile GPRS signal state

Unlit	GSM off
Lit solid	Searching
Flashing once every 3 sec's	GPRS working

Blue LED – GPS signal state

Unlit	GPS off
Lit solid	Searching
Flashing once every 3 sec's	GPS working

Cautions:

1. Keep the unit dry to extend product life. Always insert the rubber cover over SIM slot
2. Clean with dry cloth. Do not clean with chemicals or detergent, etc.
3. Do not paint the unit or apply metal foil stickers.
4. Do not disassemble, tamper or attempt any repair.
5. Tampering, abuse and misuse with the unit will void any warranties.

WIRING - INSTALLATION

If unfamiliar with vehicle electrics, we advise professional installation.
Wiring connections should be bare wire soldered and insulated or bullet connected.

IMMOBILISATION

This tracker is supplied with a 12v engine immobiliser relay.
We only recommend interrupting the starter motor so the vehicle cannot be started.
Do not immobilise the ignition, fuel pump or other circuit that may affect safety.

If the ignition is off, immobilisation is immediate.

If the ignition is on, immobilisation will not occur with speeds above 20kph. Once below this speed, the tracker will pulse the circuit 20 times within one minute to further slow the vehicle. It will then immobilise that circuit.

Apart from providing accurate GPS locations, this product can also prevent theft of a vehicle due to its various alerts and engine immobilisation. It should therefore be hidden from tampering.

1. Do not put the tracker close to other emission sources, such as the parking system, alarms and other electronic equipment.
2. You can attach the tracker with a cable tie or fix with the supplied Velcro pad.
3. The tracker has both GSM and GPS antennas inside. The GPS antenna needs to be able to receive signals from many GPS satellites for accuracy. Make sure the reception side of GPS is facing up (patterned side) and there is no metal shielding the tracker. A good area is under the dashboard below the front windshield.
4. Once SIM card is inserted, plug in the loom and park outdoors to get good GPS reception.
5. Verify operation by looking at the LED's located under the rubber cover.


NOTES:
The APP and website are owned & operated by a 3rd party. Purchasers of Mongoose GPS trackers have free usage under current access terms. Mongoose is not liable or responsible if access terms change or the facilities become unavailable.

Use of this product or features may infringe the rights or invade the privacy of others.

We are not responsible for the non-operation of this product should the mobile service providers of the GPS, GSM or GPRS signals become unavailable for whatever reason.
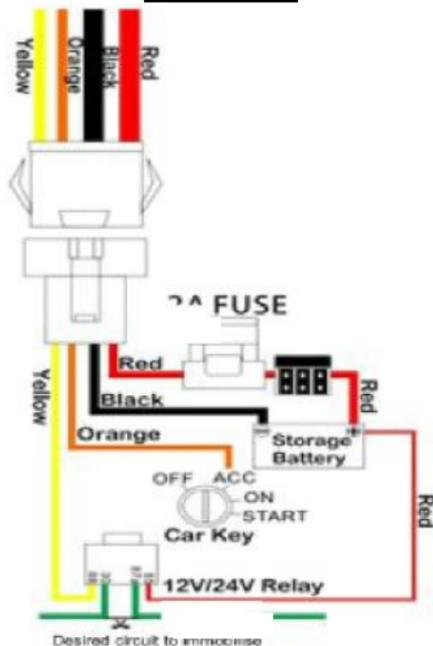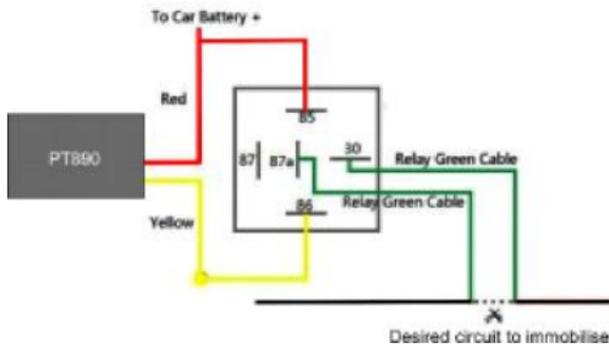
Immobiliser wiring – 12v relay supplied
Use an alternative relay where voltages are greater than 12v
Mongoose only recommends the immobilisation of the starter circuit only
to prevent engine starting as this is the safest method.
The stopping of an engine via the ignition or fuel pump whilst being driven
may have dangerous consequences.

CONNECTION OF A CAR ALARM SIREN.

There is no direct input from a car alarm siren.

However, it can be connected to the ignition input yellow wire of the tracker so that the user can get an alert text message if the car alarm activates.
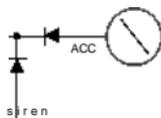
For (+) positive sirens (Mongoose)

No relay required, connect siren trigger wire to

orange wire of tracker. Use diodes to prevent

ignition sounding the siren and the siren turning

the ignition on.

For (-) negative sirens (other alarm types)

Use a suitable low impedance miniature relay, not supplied, to convert negative siren output to positive. Connect as above.

GSM module	3G GSM / WCDMA
Network	GSM/GPRS/LBS
GPS sensitivity	-159dB
GPS chipset	UBLOX-7 or SIMTK6260
GPS Position Accuracy	5m(outdoors)
Time Accuracy	Synchronized to GPS time &GMT
Cold start	35~80 sec
Hot/warm start	1 sec., /35 sec., average
Operating voltage	10~75v DC
Operating temperature	-20°C to 55°C
Dimensions	70x40x20mm 50g
Humidity	5% to 95% Non-condensing
Dust/Water resistance	IPX-6
Back-up battery	2~3 hours

TERMINOLOGY

GPRS – This stands for Global Packet Radio System. It is the method of sending data over the mobile phone network.

LBS – This stands for Location Based Service. It is a method of locating a tracker to the closest mobile transmission tower. Normally used for search and rescue. There is no actual location accuracy, just the location within the radius of the mobile tower – narrows any possible search area.

Sometimes when replaying history, you may see straight lines from some distance away. This is caused by a lack of GPS signal and the tracker 'pings' off the nearest mobile tower. Uncheck 'LBS' on the date selection screen to prevent this occurring.

SMS – This stands for Short Message Service - most of us know it as 'text'.

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