3G QUAD BAND
GPS VEHICLE TRACKER

Model VT900

USER MANUAL & INSTALLATION GUIDE

Included;

- 1 x GPS tracker 12v~24v
- 1 x wiring harness
- 1 x 12v engine immobiliser 4 pin relay & loom
- 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 and/or data only SIM cards are not compatible

IMPORTANT
Record your IMEI (id) number here
(Shown on the tracker's label & carton)

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

VT900 GPS VEHICLE TRACKER

Thank you for purchasing this Mongoose GPS tracker.
To ensure correct operation please read this manual before use and see our FAQ's on our website.

SIM CARD INSTALLATION

IMPORTANT: The trackers 3G mobile SIM card must be activated (turned on) and be capable of text and data.
Data only SIM cards are not compatible

Please test the SIM card in a mobile phone before inserting into the tracker to ensure it is working. Can it send/receive texts, phone calls and get onto the internet ?   Has it sufficient credit if PrePay type?

- Do not make any power connections at this time

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

- Install the tracker – see page 14

- Observe the blue and green LED's next to the SIM card slot – see below

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

NOTE: Inserting the SIM card turns on the trackers battery back-up.
If not using the tracker or disconnecting it, always remove the SIM card.
Continual discharging will damage the battery and void product warranty.

LED's (under the rubber cover)

    Green LED — Mobile communication

Unlit	Mobile reception is off
Lit solid	Searching for signal and/or GPRS transmission
Flashing once every 3 sec's	Working normal

    Blue LED – GPS satellite reception

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

EASY SET-UP TO START TRACKING !
**YOU CONTROL THE TRACKER WITH TEXT MESSAGES FROM YOUR
MOBILE PHONE TO THE TRACKERS SIM PHONE NUMBER**

1

Pair your mobile phone number to the tracker

Send this text message;   **admin123456 xxxxxxxxxx**

⇧

there is a space here

123456 is default password   **xxxxxxxx** is your mobile phone number

Tracker replies: **admin okay**

NOTE: If no reply, check the SIM card is inserted correctly,

activated (turned on by the provider) and has credit.

2

THE MOBILE 'APN' NUMBER

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

a: For all Australian SIM cards, the text message shown below, needs to be sent to the tracker.

b: In New Zealand, Vodafone NZ and 2 Degrees include their APN on their SIM cards , so the APN text
message is not necessary. The text message must be sent for Spark NZ SIM cards.

AUSTRALIA: You can contact your SIM card provider to verify the correct APN.

Telstra	**telstra.internet** or **telstra.wap**
Vodafone	**live.vodafone.com**
Optus	**connect** or **yesinternet** or **connectme**
Aldi	**mdata.net.au**

NEW ZEALAND:

Vodafone	**vodafone.net.nz**
2 Degrees	**internet**
Spark	**internet** .... NZ Spark SIM users <u>must</u> set the APN

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

⇧

there is a space here

xxxxxxx = your trackers SIM card APN

Example: **apn123456 telstra.internet**   Reply: **APN okay**

Download the Mobile APP

The mobile APP can be downloaded to any number of phones and users. Users need to know the IMEI (ID) or Username plus the password to use the APP.

Download the APP - Go to App Store for Apple - Go to Play Store for Android
(or scan the QR code on our GPS website)

Search for :- **MONGOOSEGPS**

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)

LOGON TO THE MOBILE APP

Select either
IMEI / ID (Single tracker users)
or
Username (Multiple tracker users – see page 7)
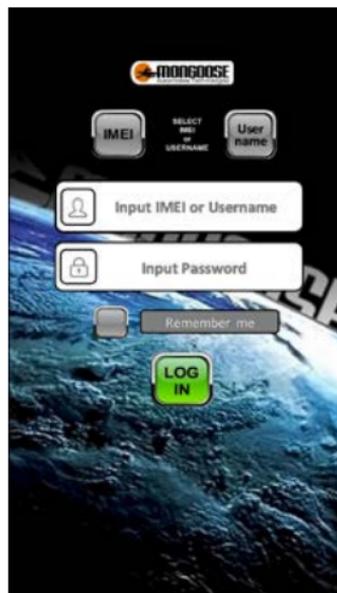
Enter the '**IMEI'** number which is printed on tracker
or
Enter '**Username'** for multiple tracker users

Enter password '**123456'**
(Can be changed later)

Select '**remember me'**
(Saves typing again)

THE APP MENU.

Open the APP and logon as detailed on page 4.

- **The top bar shows the trackers status**

- '**real time**' - shows the current or last reported location
  The blue dot is your mobile phone – the green triangle is the tracker

- '**historical**' to show where the tracker has been and can play the route taken

- '**Geofence**' sets a permitted radius of travel

- '**Commands**' allows you to control the tracker

- '**Alarms**' sets which alerts you wish to receive

- '**Messages**' a record of alerts sent

- '**Device info**' – fill in all details or the tracker may not operate correctly

- '**User info**' - details of the owner/driver

DEVICE INFO' - IMPORTANT

Select '**Device info**'.

1. Edit the device name to one of your choice
2. Enter the vehicles registration number
3. Enter the phone number of the trackers SIM card
4. Enter the name of the main driver
5. Enter the paired mobile phone number – 'contact number'

6. Press the save icon 💾

Important;
Item 5 is required. The tracker needs to know who to send alerts to. If this is left blank, no alerts will be sent .

Device info	
Device name	MONGOOSE PT8
Device ID	4210051234
Expiry date	2016-12-08
License plate number	ABC123
Device model	LK210
Device phone number	02112445566
Contact	TOM
Contact number	02299887766

REAL TIME TRACKING

Select 'Real Time'.
The green triangle is the tracker.
The blue dot is your mobile phone.
The green line shows the direction and distance
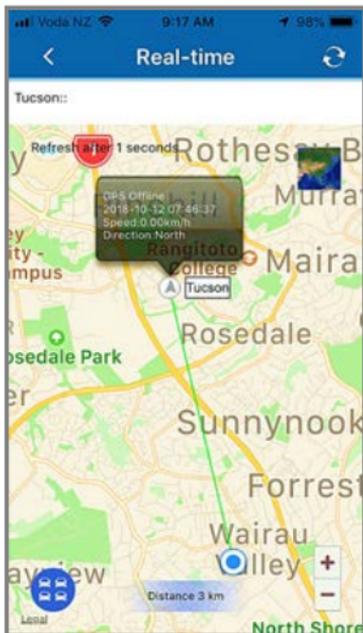your phone is from the tracker.

This location is the last recorded.
This could be now or sometime in the past.
The grey dialogue box gives the time and date of
that recorded location.

You can view in either map or satellite view.

The blue circle with 4 cars showing is for zooming
into the area where your phone is – or where the
tracker is and back to normal view.

HISTORICAL TRACKING

Select 'Historical'
The opening screen allows you to choose;
'Today' – 'Yesterday' or 'Custom'
You can only replay any 24 hour period.

Once you have selected a 24 hour period, the
screen opposite will appear showing start and end
points. The green trace line is the route taken.

The control buttons at the bottom allow you to
play – pause – change progress – change replay
speed.

The dialogue box will change for each recorded
location and displays;
vehicle – time – date – speed - direction
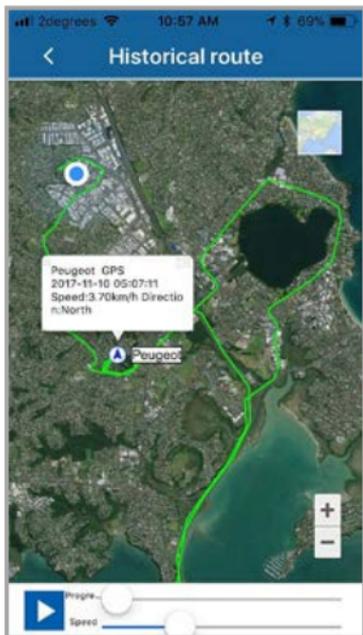
MULTIPLE TRACKER USERS

If you have more than one tracker, contact Mongoose who can create your own GPS account. You can choose your own username and password to logon.

This allows you to monitor and track all your trackers on your mobile phone or the website with just one logon.
By selecting 'monitoring', you can see where all your vehicles are.
Select 'list' and then choose which vehicle you wish to see more details about.

If you have a fleet of vehicles, we can create sub-accounts so selected staff only see those vehicles you wish them to see.

ONLINE WEBSITE
Go to: **www.mongoosegps.com**

Logon to the website with the same details as the mobile APP.

The tracker sends all its location data to the website where it is stored for a continuing 6 month period.

The mobile APP reads the information from the website. Travel is more detailed to include engine start and stop times. Reports can be saved and printed.

FINDING LOCATION BY A TEXT MESSAGE FROM ANY MOBILE PHONE

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 to request location:-

Send:- **123**

You will receive a text reply (fig.1).
Tap the reply to load a preview (fig.2)
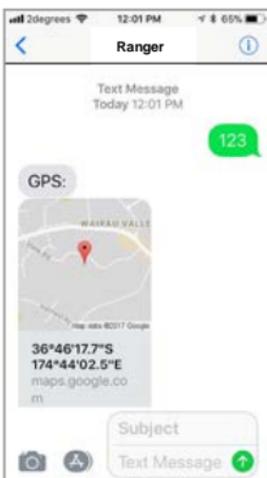Tap again to see location on phones map (fig.3).
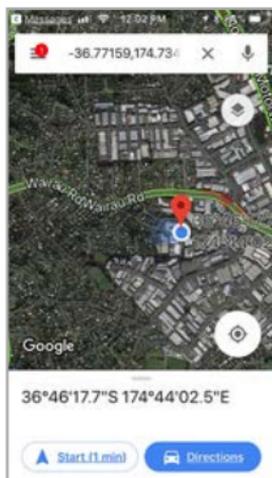

| fig 1 | fig 2 | fig 3 |

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

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

Tap the message to see the location on the phones own maps
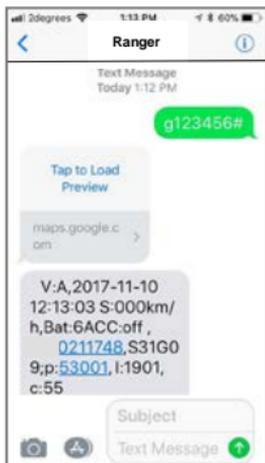
GEO-FENCE

A geo-fence is an invisible programmable boundary.

The boundary has a minimum radius of 100m to a maximum of 5000m.

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 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.

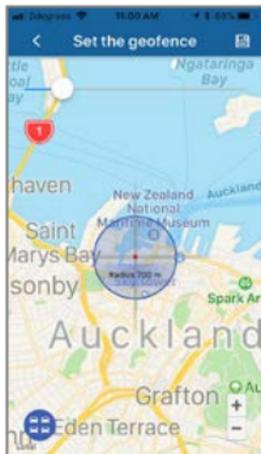Delete a geo-fence if you do not wish to receive alerts.

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.

The text in the centre of the 'cross-hairs' shows the radius chosen (distance from centre to perimeter).

Min' 100m Max' 5000m

Press the save icon top right.

9

USER FEATURES

You can control by either text messages from your mobile phone - see chart on pages 12~13 or from the mobile APP's 'Commands'.

TIME

The time will need to be reset twice a year for daylight saving. It can also be re-set depending on where in the world this product is used. See page 12 for the text that changes the time.

ARM - ALERTS ON

To receive any of these alerts the tracker must be armed.

    a.   A geo-fenced area has been breached (sent whether armed or disarmed)
    b.   Vibration sensor activated
    c.   Vehicle has been 'moved'
    d.   Vehicle speeding
    e.   Ignition has been turned on
    f.   Main power has been disconnected (sent whether armed or disarmed)

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)

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

SHOCK (VIBRATION) ALERT TYPES

On page 12 is a command chart of text messages that can be sent to the tracker.
You can choose the type of alert you wish to receive;

- Phone call only
- Text alert only
- Receive both phone call and text
- None

SHOCK ALERT

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

If the ignition of the vehicle is turned on, you will receive an alert.

SPEED ALERT
A speed limit can be set between 50~300kph.
Speed over the set limit will send an 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.
Movement outside this radius will send a text alert to your mobile phone.
If move alert is on, then geo-fence is automatically off.

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

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.
By text, only the master paired phone can authorise immobilisation.
Any APP user can immobilise the engine as they have the confidential logon details.

SOS NUMBERS
Apart from the main 'master' user, you can add another mobile number that can receive alerts from the tracker. Certain control commands can only be sent by the master user.

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
The default password is 123456.
This may be changed to any 6 digit number.
Must be digits (numerals).
Note:
If changing the password, please make careful note of the new number.

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
Change password	pwd123456,XXXXXX xxxxxx = new password	OK ! New password: xxxxxx Keep safe !
Set time	**timezone123456 XX** (XX = hours ahead of GMT)	time ok
Request location	**g123456#**	Google http link + status
Google map request	**123**	GPS: http link
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
Immobilise (kill engine)	**555**	Cut oil ok !
Run (allow engine starting)	**666**	Resume oil ok !
Vibration alerts 1st digit is alert type 0 = none 1 = Text (SMS) 2 = Phone call 3 = Both text and phone call 2nd digit is vibration sensitivity 1 to 9 1 is most sensitive	**vib0,3**	Off – no alerts
	vib1,3	SMS, 3
	vib2,5	Call, 5
	vib3,5	SMS & Call, 5
Shock alert	**shock123456**	shock ok
Cancel shock alert	**noshock123456**	noshock ok
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
If main power disconnected	**pwr0**	No alerts
	pwr1	Text alert
	pwr2	Phone call alert
	pwr3	SMS then phone call alert
Language	**LAG1** (English) **LAG2** (Chinese)	Switched to XXX
Check tracker	**status**	Shows current status
Check IP address, APN 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

WIRING - INSTALLATION

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

ENGINE IMMOBILISATION

The tracker has the ability to immobilise the starting of the engine via the password protected APP.

We highly recommend installers immobilise the starter motor only as this does not affect the safe operation of the vehicle. **Please ensure that the installation has been carried out correctly.**

If, for some reason, the fuel or ignition is immobilised and the APP command is sent when the vehicle is being driven, this product is designed to safely slow a vehicle down. The tracker will pulse the circuit off and on 20 times within 1 minute finally resulting in an open circuit.

If the immobilisation command is sent with the ignition off, immobilisation is immediate with no pulsing.

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.

Choose a mounting location that allows for the tracker to face towards the sky - patterned side up. Ensure there is no metal above that will shield the trackers built-in antennas.
Do not put the tracker close to other emission sources such as computers, parking system, alarms, Bluetooth units or other electronic equipment.
Once SIM card is inserted, plug in the loom and park outdoors to get good GPS reception.
Verify operation by looking at the LED's.
You can attach the tracker with a cable tie or fix with the supplied Velcro pad.
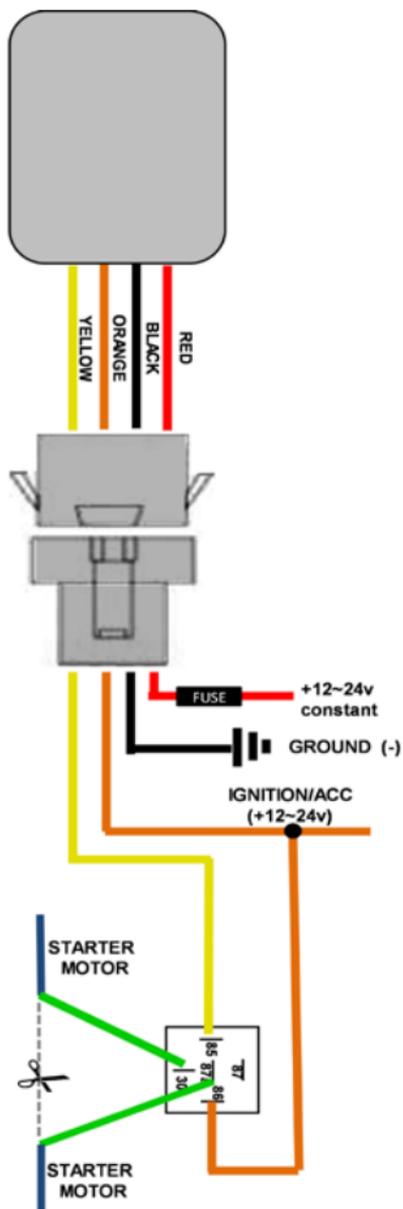
NOTES: This product may not function correctly if the vehicle is parked undercover where it cannot 'see' the GPS satellites.

The APP and website are owned & operated by a 3rd party and are free to use for purchasers of Mongoose GPS trackers. Mongoose is not liable if access or the facilities become unavailable either in the short or long term.

Be aware that use of this product 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, WCDMA or GPRS signals become unavailable for whatever reason.

YELLOW
ORANGE
BLACK
RED

FUSE +12~24v
constant

GROUND (-)

IGNITION/ACC
(+12~24v)

STARTER
MOTOR

85 86
30 87a 87

STARTER
MOTOR

CONNECTION OF A CAR ALARM SIREN.

There is no direct input from a car alarm siren.

However, get an alert if the car alarm is activated, the siren can be connected to the ignition input wire of the tracker.

This will produce the 'ignition alert' (page 10) – there is no 'car alarm' alert on this model of tracker.

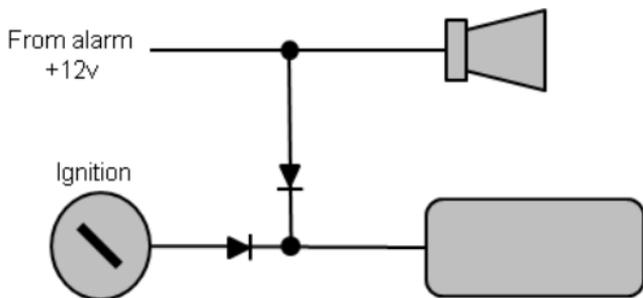For (+) positive sirens (Mongoose)
No relay required, connect siren trigger wire to orange wire of tracker. Use diodes to prevent

ignition sounding the siren and the siren turning the ignition on.
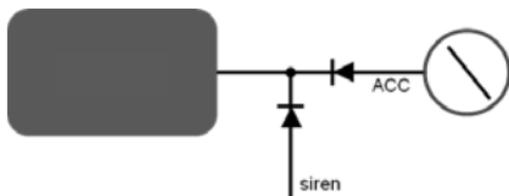
For (-) negative sirens (other alarm types)
Use a suitable low impedance miniature relay, not supplied, to convert negative siren output to positive. Connect as below.

Specification

GSM module	3G Quad Band 850/900/1900/2100
Network	GSM/WCDMA/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	IP67
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.

Help and fault finding

Please visit the Mongoose website detailed on the back page.

Go to 'Products' – 'GPS'

Select FAQ's left of the screen.

There you will find useful information and answer to common questions.

Cautions:

1. Keep the unit dry to extend product life.
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 will void any warranties.

PRODUCT WARRANTY CONDITIONS

Mongoose warrants for the period of 2 YEARS (24 months) that it will make good without charge, at Mongoose's discretion, by way of repair or replacement with the same or with a reasonable equivalent.

It is the product owner's responsibility to return the GPS tracker for service, repair or replacement at their own cost.

Any claim made to Mongoose under this warranty must comply with the following;
(a) any defect has been notified to the supplying Mongoose dealer as soon as the defect was noticed.
(b) a copy of your retail 'proof of purchase' stating where and when it was purchased and (if applicable) who carried out the installation.
(c) the product was manufactured within 12 months prior to the commencement of this warranty period.
(d) the product was purchased from Mongoose or one of its authorised dealers/resellers.
(e) the product has not been disassembled or the manufacturers security seals have not been broken or tampered with.
(f) if installation of the product was required, that it has been installed by a Mongoose approved installation agent or suitably qualified industry recognised person.
(g) that the original installer, or other Mongoose dealer nominated by the original installer, has determined that the reported defect is a genuine product defect and not caused by;
1. incorrect operation, incorrect installation or any other consequential damage caused by other equipment not part of this product.
2. operation of the product after it is known to be defective
3. tampered with, alteration or modification by any person
4. the fitment and/or connection of additional parts or accessories not supplied by or approved of by Mongoose
5. water damage, misuse, accident, deliberate act or abuse, misdirected electrical current, insufficient or excess voltage, ingress of any fluid or fire
6. excessive heat from either the vehicle or the sun

Items not covered by this warranty;
(1) labour costs for removal & refitting of parts
(2) mobile 'onsite' service
(3) normal wear and tear
(4) any consequential loss incurred by the failure of this product or SIM card failure
(5) product purchased from internet trading sites which is not supplied by an authorised dealer
(6) Mobile SIM cards
(7) The download and use of the mobile APP and website

Warranty when not fitted by auto electrician or suitably qualified persons
This warranty may be void or limited to 12 months 'manufacturing defects only' depending on the reasons for repair.

Installation warranty
Warranty on the installation is borne by the installer.

THIS WARRANTY IS NOT TRANSFERABLE

MONGOOSE MOBILE APP & WEBSITE

The mobile APP is designed for smart mobile phones & tablets. (excludes Windows devices)

At times the APP and website may be offline for a short time due to upgrades, maintenance and back-ups. This is for your protection and improvement in product performance and reliability.

Please note:

The access and use of the APP and website is provided free of charge for Mongoose GPS customers.

The APP and website are used by many GPS companies worldwide and features and functions may change without notice.

Some APP features may not be applicable to this model of tracker or your model of mobile phone.

Mongoose accepts no responsibility and has no control of how the APP, website or SIM card operate.

The APP and website are intuitive and self managed. Mongoose can provide initial support if required.

We are not responsible for the non-operation of this product should the mobile service providers of the GPS, GSM, WCDMA or GPRS signals become unavailable for whatever reason.

Mongoose Australia

www.mongoose.com.au
Email: sales@mongoose.com.au
Ph: (02) 9482 4444 (Sydney)
(07) 3344 7611 (Brisbane)

Mongoose New Zealand

www.mongoose.co.nz
Email: sales@mongoose.co.nz
Ph: (09) 443 3128