MONGOOSE

PT301 PERSONAL GPS TRACKER & EMERGENCY MOBILE PHONE

Thank you for purchasing this personal GPS tracker.
Make sure you read this manual carefully before using this product.
Keep this manual handy for future reference.

The PT301 is a personal/portable GPS tracker using satellites to calculate its precise location and both GSM and GPRS technology for communications.

The tracker is also a non-dialing emergency 2 way mobile phone which can be used to summon help or assistance.

A GSM SMS mobile phone, not supplied, is required to communicate and control this tracker.

The tracker transmits its latitude and longitude coordinates only to authorized mobile phone numbers of your choice or via GPRS to a computer.

For GPRS communications, please refer to the separate manual.

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The information contained in this manual was correct at time of publication.
Please visit our website for any updates of this manual.

Contents

NOTES:
Use of this product or certain features may infringe the rights or invade the privacy of others depending on local or country law.
The use of mobile GSM transmitting/receiving devices, such as this GPS tracker, may be restricted in certain locations, especially aircraft. Or other forbidden locations.
It is your responsibility to ensure correct and permitted usage.

Mongoose is not responsible for the non-operation of this product should GPS or GSM signals not be available or be able to be received.

'OUT OF THE BOX' QUICK SET-UP GUIDE

EARPHONE

USB / CHARGE PORT

SOS

ON / OFF   GPS   GSM   MICROPHONE   POWER
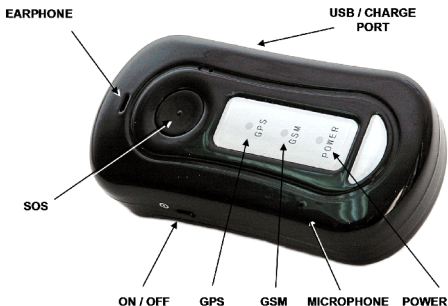
Most of us just want to open the box, turn it on and start using it – here is how you can do just that - almost !

1.   Charge the battery overnight (approx' 8~12 hours)

2.   Insert a SIM card, then the battery

3.   Press ON/OFF switch for 3~5 seconds to turn on – outdoors

4.   Send the text command **7000000** from your mobile phone to the trackers SIM number   This confirms SMS text mode & operation.

5.   Programme your mobile phone number into the tracker by sending the following text message.

<div align="center">

∗phone number∗password∗user number∗∗

(must use ∗ as separators - factory default password is 0000

</div>

   Eg: ∗**yourphonenumber**∗**0000**∗**1**∗∗ Tracker replies by text: **'SET USER NUMBER # OK'**

5.   Now find its location by sending this text message to the tracker:-

<div align="center">

8880000

</div>

6.   Tracker will reply by text message with its map co-ordinates

7.   Use Google Maps/Earth or GPS navigator to see its location.

<div align="center">

<u>NOTE: DO NOT HIDE YOUR MOBILE PHONES IDENTITY</u>

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MAPPING

No mapping software is supplied or required to be purchased as freely available mapping is available on the internet on websites such as Google Maps/Earth.

Other equipment may also be used such as GPS navigators, PDA's, internet capable mobile phones and laptop computers.

The information sent from the tracker to mobile phones will look like this;

Latitude	**36.831546S**
Longitude	**174.745789E**
Speed	80.00KM/H
Direction	168.00
Date	25/12/10
Time	10:22:00
Fix	A/V
ID	1357900000000

If using one of the Google websites, simply type in the latitude and longitude in this format;

36.831546S 174.745789E

It is important to include the '**S**' and the '**E**' – leave a space between co-ordinates. GPS location is then displayed (the above location is Auckland's harbour bridge)

The tracker does not record/store location history. The trackers history can be stored in the receiving mobile phone as text messages contain time and date,

GPS / GSM SIGNALS

For this product to establish accurate map co-ordinates, this GPS tracker should only be used outdoors to enable it to receive GPS signals from multiple satellites.

Operation inside buildings or any other location that prevents the device from receiving signals from the satellites may result in non-operation or inaccurate information. The more satellites it can receive the more accurate the location.

For it to communicate its location, the tracker must also be able to send and receive GSM mobile phone signals.

Remember, text messages and voice calls from the tracker will incur costs to the trackers SIM card. Ensure there is sufficient credit on the SIM card for intended use.

BATTERY CHARGING / INSTALLATION

Before use, please fully charge the battery. On first use, the mains charger will take approximately 8~12 hours. Subsequent re-charging will take 3~5 hours.

There are three methods of charging the trackers battery;
1. Mains adaptor
2. Car power socket
3. USB port from a computer

Li-ion battery

When fully charged, the internal battery will last approximately 16 hours with GPS 'on' or approximately 72 hours in standby with GPS 'off'.

Actual battery life is just like your cellphone – the more you use it, the more battery is used.

Li-ion batteries can be part charged as they do not retain memory.

Mains adaptor charger

The charger indicates:
Red light is On - indicates that it is in charging.
Green light is On - indicates that charging is completed.

USB charger & car charger/power supply

The USB cable supplied can be connected to a computer for charging – please note that charging time takes longer due to a computers lower power supply output.

The car charger plugs into a vehicles cigar lighter socket.
When the vehicle is running (cigar light socket live), the tracker runs off the vehicles power supply and charges the trackers battery.
When the vehicle is not running (cigar lighter socket in most vehicles is inactive when the ignition is off), the tracker is powered by its own internal battery.

SIM CARD – NOT SUPPLIED

This GPS tracker requires a SIM card.
We suggest you do not use a SIM card that was previously used in a mobile phone for if others call the known number, it may interfere with this tracker.

SMS TEXT COMMANDS

The tracker is controlled by GSM text messages or voice calls from your mobile phone. It is advisable to save commonly used text commands together with the trackers password in your mobile phones 'templates' folder for regular use.
Do not hide your mobile phones identity as the tracker needs to identify authorised users.

SIM CARD INSTALLATION

Before inserting, make sure that the SIM card is operating by testing in a mobile phone. Do not activate call transfer and that any PIN code is turned off.

- Open the tracker unit by carefully sliding off the back cover.

- Flip up the SIM card holder clip – see photo

- Place the SIM card correctly into the holder and secure with the clip.

- Insert the fully charged battery and replace the rear cover.

TURNING ON (or OFF) - this should be done outdoors

- Press and hold for 3~5 seconds to turn ON/OFF.

- Within 10 ~ 30seconds, the unit will start to acquire the GSM and GPS signals.

    (Turning on indoors can result in no GPS reception)

- If the LED stays lit solidly, it is looking for GPS and GSM signals.

    The LED flashes once every eight seconds when the unit is receiving the correct signals.

- GSM reception can be checked with the signal strength meter of your mobile phone.

USERS - setting the main phone numbers (maximum 3)
Up to three mobile phones can communicate with this GPS tracker.
The 'user number' sets priority. '1' is main user.
If the SOS function is used, the sequence is 1, 2 then 3 – so set the following carefully in the order you require.

IMPORTANT: Do not hide the 'identity' of the mobile phones of any 'user' as the tracker needs to identify the caller.

The format is:- *phone number(max' 20 numbers)*password* user number**

USER number	Example	Reply
1	*0211234567*0000*1**	CONFIG OK
2	*0279994321*0000*2**	CHANGE OK
3	*0212223322*0000*3**	CHANGE OK

To change one of the users, simply re-send the command for the user being changed.

MANUAL TRACKING – REQUEST CURRENT LOCATION
You can manually request a single location of the tracker 2 ways;
   a.   By voice calling from a mobile phone
   b.   By SMS text message from a mobile phone

a. Telephone calling for location
Any of the three 'user' phone numbers can call the tracker to request its location.
Dial the phone number of the tracker – it automatically hangs up after 3-4 rings.
(If allowed to ring for 10 seconds the tracker will automatically answer – see page 9)
The tracker will reply by text message with its latitude & longitude location.

Note: the tracker will ring unless 'ringer' has been disabled – see 'monitor' page 9.

b. SMS text for location

Feature	Format of text command	Example	Reply
Request location by text message	888 + Password	8880000	LOCATION DETAILS

AUTOMATIC TRACKING – GET LOCATION AT PROGRAMMED TIME INTERVALS

You can programme the tracker to automatically report its position at time intervals of your choice. Reporting time is either minutes or whole hours.

Minute time range is 01-60 (00 = OFF)

Hour(s) time range is 62~99   62 = 2 hours ~   99 = 39 hours

Turn on Auto tracking

Feature	Format of text command	Example	Reply
Turn on automatic tracking	4 xx (xx = time) + Password	4100000 (every 10 mins) 4620000 (every 2 hours)	TIMER START, REPEAT INTERVAL: xx

Please note: The tracker will continue to report until you send the cancel command.

Cancel Auto tracking

Feature	Format of text command	Example	Reply
Turn off automatic tracking	400 + Password	4000000	TIMER STOP

SOS – TEXT ALERTS AND TELEPHONE CALLING THE USERS

The SOS function allows the user of the tracker to make a phone call to the users in sequence and send an SMS text alert to the 'users' with its location.
NOTE: Phone numbers cannot be dialed – the tracker calls the 'users' in the sequence previously programmed, 1 -2-3 (users) – see page 6.

- Press the SOS button for over 10 seconds.

- The tracker will vibrate and make a telephone call to the first user .

- If the first user does not answer within 16 seconds, it will call the second user.

- If that's not answered, again after 16 seconds, it will call the third.

- When the call is answered, use the tracker just like a mobile phone.

- Press the SOS button briefly to terminate the call.

- After the call a text message is sent to all users with the trackers location.

Be aware of battery usage. If 'SOS' is used for a real emergency you may wish to preserve battery life by making voice calls as short as possible so other calls can be made.

8

MAKING A TELEPHONE CALL TO THE TRACKER

Any of the 3 users can make a telephone call to the tracker, just like a mobile phone.
The tracker rings and vibrates when an incoming call is received.
The tracker can be programmed not to ring. – see 'monitor' below

1. Call the tracker
2. The user of the tracker can answer immediately by briefly pressing the SOS button
   otherwise the tracker will answer automatically after 10 seconds.
3. You can now use the tracker as a phone via the built-in microphone and speaker.
4. The tracker will send a text message with its location after hang-up.
5. The user can hang up by briefly pressing the SOS button.

MONITOR ONLY

The telephone ring sound and earphone on the tracker can be disabled.
The tracker will automatically answer the call after 10 seconds and the caller may then
listen to what is happening around the tracker but cannot talk to the user of the tracker.
The user of the tracker will be unaware that someone is listening. The built-in
microphone must be unrestricted for it to operate and needs to be in close proximity to the
sound source. After the call, a location text message will be sent.

Feature	Format of text command	Example	Reply
Ringer ON	000 + Password	0000000	PROFILE NORMAL
Ringer OFF	001 + Password	0010000	PROFILE SILENT

Do not use any features of this product to infringe the rights or privacy of others.

PASSWORD

A password is used in all SMS text commands and is composed of 4 numbers.
The factory default password is "**0000**".
The password should only be changed to prevent others from using the tracker if it gets lost
or is stolen.

Feature	Format of text command	Example	Reply
Change password	777 + New Password + Old Password (4 digit) (4 digit)	77712340000	CHANGE OK

The old password is now replaced – write it down or record it in your mobile phone.
All text commands now use your password, not '0000'.

DO NOT CHANGE THE PASSWORD IF THE GPRS MODE IS USED.

GEO-FENCE – restricting area of travel

You can restrict travel to within a certain area by setting a 'geo-fence'.

A geo-fence is defined by a centre-point (where it currently is) with a permitted radius of travel from that centre-point. This can be from a minimum of 1 kilometre (1.0) to a maximum of 999.9 kilometres .

- If the tracker moves outside this permitted area, it will make a telephone call as an alert to the mobile phone that set the geo-fence.
- It will also send a text alert with its location and includes 'STATE: OS' to show the geo-fence area has been exceeded.

The tracker will repeat the above when the tracker re-enters the geo-fenced area., 'STATE:RS' will show on the text message

To use geo-fence;
1. Set the geo-fence area
2. Turn geo-fence ON
3. Turn geo-fence OFF

Feature	Format of text command	Example	Reply
Set a Geo-fence	005 + Password + Radius	0050000R10.0	Contains co-ordinates of centre point
Turn Geo-fence ON	211 + Password	2110000	GEOFENCE ON
Turn Geo-fence OFF	210 + Password	2100000	GEOFENCE OFF

(Radius is from 1.0 to 999.9 – example above is for 10 km radius)

Radius of less than 1 km, such as 0.1 (100 metres) can be set but may not be accurate

ADJUSTING TIME (DAYLIGHT SAVINGS)

The time on received messages from the tracker can be adjusted to allow for worldwide usage and daylight savings.

Feature	Format of text command	Example	Reply
Adjusting the clock	896 + Password + E/W hours based on GMT	8960000W12	TIME SET: OK

'E' time behind GMT

'W' time ahead of GMT (Australia/NZ uses 'W' plus hours ahead of GMT)

LOW VOLTAGE WARNING

When the trackers nominal working voltage is lower than normal, it will alert all users 3 times at 1 minute intervals before it turns off and becomes inoperable.
The alert will contain location information plus 'STATE: LP' - meaning low power.

POWER SAVER

There may be occasions when your vehicle is not going to be used for some time but you wish to maintain its battery power for as long as possible.
You can turn off the GPS reception to preserve battery life but it will remain connected to the GSM network so it can receive GSM commands when you wish to turn the GPS function back on. A built-in vibration sensor automatically turns the GPS back on if it detects sufficient movement (see below).

Feature	Format of text command	Example	Reply
Turn 'OFF' GPS	333 + Password	333000	GPS OFF OK
Turn 'ON' GPS	222 + Password	222000	GPS ON OK

CONFIRMING MODE OF OPERATION (FACTORY DEFAULT = SMS TEXT)

The tracker can communicate its position by either SMS text or direct to a computer or website via GPRS. This manual is specific to SMS text mode.
To confirm SMS text mode send the command below.

Feature	Format of text command	Example	Reply
SMS text mode	700 + Password	7000000	MODE NOT CHANGED, CURRENT MODE: SMS P2P or SET MODE OK, CURRENT MODE: SMS P2P

See separate manual for GPRS mode operation.

RESET

You can erase all programming, including password change, by carrying out a global reset. With the unit turned off, press and hold both the SOS button and power button at the same time for 6 seconds.

Cautions:

1. Keep the unit dry. Any liquid may destroy or damage the inside circuitry.

2. Don't use or store in damp or dusty places.

3. Don't expose to overheated or overcooled places.

4. Handle carefully. Do not drop, vibrate or shake it violently.

5. Clean with dry cloth. Do not clean with chemicals or detergent, etc.

6. Do not paint the unit or apply metal foil stickers.

7. Do not disassemble, tamper or attempt any repair.

8. Please use the battery and charger provided. Using other batteries and chargers will void warranties.

9. Tampering, abuse and misuse with the unit will void any warranties.

FAQ's

Question	Solution
Does not respond to text commands or text location requests	Has the unit been turned ON and battery charged ? Is the unit in SMS text mode ? Has the mobile phone been programmed to the tracker ? Is the SIM card inserted correctly ? Is there sufficient SIM card credit ? Check the phone number of the SIM card Check text commands are entered correctly Is the identity of the mobile phone hidden ?
Start-up fail	Check battery is charged Is the unit indoors ? Try outdoors for a stronger signal. Check the SIM card is inserted correctly.
Does not respond to voice calls	Has your mobile phone been programmed to the tracker ? Check the phone number of the SIM card. Check that the SIM card is installed correctly. Is your mobile phone caller ID been turned off ?
Didn't receive a text reply	GSM network may be busy or overloaded. Is the unit in SMS text mode ? SIM card has no credit. Incorrect text command sent to the tracker Incorrect SIM number
Location report does not include data for latitude & longitude.	No GPS reception. Position request too soon after power-up GPS turned off – see power saving mode

Any updates to this manual can be found on our websites

Specification

GSM module	GSM 850-1800/900-1900Mhz Quad
GPS sensitivity	-159Db
GPS frequency	L1, 1575.42 MHz
GPS Position Accuracy	3~25m (outdoors)
Velocity Accuracy	0.1 m/s
Time Accuracy	Synchronized to GPS time
Default datum	WGS-84
Hot start	1 sec., average
Warm start	38 sec., average
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/second (1000 knots) max.
Acceleration Limit	Less than 4g
Operating temperature	-20°C to 65° C
Humidity	5% to 95% Non-condensing
Dimension	77 mm × 45 mm × 25 mm
Charging connector	DC 5V (mini USB port)
Chargers	USB, mains & car
Battery	Li-ion 3.7v 800mAh BL-5C
SOS button	Emergency key: urgent call
Speaker & microphone	Built-in for mobile phone use

Red LED — indicates external power state

Unlit	disconnected
Lit	connected and charging

Green LED — indicate the GPS signal state

Unlit	GPS on
Lit or flashing	Locating GPS position

Blue LED – indicates GSM signal state

Flash every 7.5 sec's	connected
Flash every 0.1 sec's	connecting

NOTES

NOTES

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