User Manual
For GPS Tracker
(Vehicle/Motorcycle/Asset)

Disclaimer

The Ascend Group Company Limited Manual (the "Manual") is proprietary to Ascend Group Company Limited, ("i-Trac GPS") and no ownership rights are hereby transferred. No part of the Manual shall be used, reproduced, translated, converted, adapted, stored in a retrieval system, communicated or transmitted by any means, for any commercial purpose, including without limitation, sale, resale, license, rental or lease, without the prior express written consent of i-Trac GPS.

i-Trac GPS does not make any representations, warranties or guarantees, express or implied, as to the accuracy or completeness of the Manual. Users must be aware that updates and amendments will be made from time to time to the Manual. It is the user's responsibility to determine whether there have been any such updates or amendments. Neither i-Trac GPS nor any of its directors, officers, employees or agents shall be liable in contract, tort or in any other manner whatsoever to any person for any loss, damage, injury, liability, cost or expense of any nature, including without limitation incidental, special, direct or consequential damages arising out of or in connection with the use of the Manual.
1. Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging Voltage</td>
<td>DC 3.7V (MICRO USB)</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-20° to 55° C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>5% to 95% Non-condensing</td>
</tr>
<tr>
<td>GSM Chip</td>
<td>Quad Band GSM 850/900/1800/1900Mhz</td>
</tr>
<tr>
<td>GPS Chip</td>
<td>UBLOX</td>
</tr>
<tr>
<td>GPS frequency</td>
<td>L1, 1575.42 MHz</td>
</tr>
<tr>
<td>C / A code</td>
<td>1.023 MHz chip rate</td>
</tr>
<tr>
<td>Channel</td>
<td>56 channel all-in-view tracking</td>
</tr>
<tr>
<td>Location Accuracy</td>
<td>10 meters, 2D RMS</td>
</tr>
<tr>
<td>Speed Accuracy</td>
<td>0.1 m/s</td>
</tr>
<tr>
<td>Time Accuracy</td>
<td>1 microsecond time synchronization of satellite time</td>
</tr>
<tr>
<td>Default Data</td>
<td>WGS-84</td>
</tr>
<tr>
<td>Updated Time</td>
<td>average 0.1 sec</td>
</tr>
<tr>
<td>Hot Start</td>
<td>Average 1 sec.</td>
</tr>
<tr>
<td>Warm Start</td>
<td>average 30 sec.</td>
</tr>
<tr>
<td>Cold Start</td>
<td>Average 32 sec.</td>
</tr>
<tr>
<td>Maximum Height</td>
<td>18,000 meters (60,000 feet) max.</td>
</tr>
<tr>
<td>Maximum Speed</td>
<td>515 meters/second (1000 knots) max.</td>
</tr>
<tr>
<td>Maximum Acceleration</td>
<td>Less than 4g</td>
</tr>
<tr>
<td>Instantaneous displacement</td>
<td>20 m/sec</td>
</tr>
</tbody>
</table>

2. Wiring connections

For MT-1 GPS Tracker.

- Red  (+) 12V - 24V
- Black  GND(-)
- Yellow  Connect with car ACC
For MT-1C A1X GPS Tracker:

Red   (+)12V -24V  
Black  GND(-)      
Yellow Cut oil     
Orange ACC         

For MT-1X GPS Tracker:

Red   (+)12V -24V
Black  GND(-)
White  Cut oil
Green  ACC
Orange  SOS

For A1 GPS Tracker: connect with car OBDII

3. Led light description

Blue LED Light--- GPS Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash</td>
<td>No gps signal, or searching for gps signal</td>
</tr>
<tr>
<td>Always on</td>
<td>GPS Signal ok</td>
</tr>
</tbody>
</table>

Green LED Light---GSM Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash</td>
<td>No sim card, or searching for gsm signal</td>
</tr>
</tbody>
</table>
always on | gsm signal ok
---|---
red led light | work status
| status | meaning
| flash | working
| not on | power off or sleep

4. important notice:
1. this tracker have two work mode which is sms and gprs mode. sms mode is for off line tracking by mobile phone.
gprs mode is for on line tracking by computer and mobile phone.
2. default password 0000
3. please unlock the sim card in your mobile phone first if your sim card has pin code.
4. a1x and a1 use micro sim card

5. locate by phone call

you can use your mobile phone, call the gps tracker, after get through, then hang up.

gps tracker will send you location report like below to your mobile phone, click the link you will see the address on google map.

http://maps.google.com/maps?q=+22.75042,+114.23867 date:2016-6-4 time:1:35
id:8160578660 state:phone acc off fix:speed:0km/h bat:5

6. locate by sms command

request location with coordinates
command: 666+ user password
eg: 6660000
reply: when the tracker receive the command, then will send the position with longitude and latitude

request location with google map url link
command: 669+ user password
eg: 6690000
command: reply : when the tracker receive the command, tracker will send a google link to the sender
7. Locate by 900D web based tracking software.

1. First you need to Set Access Point Name (APN)
Command1: 803+user password+space+APN
E.g: 8030000 CMNET
Command2: 803+user password+space+APN+space+APN user name+space+APN Password
Reply: SET GPRS APN OK
In the example APN is CMNET, Which is China mobile APN.
APN is Access Point Network, each GSM operator has a unique APN name, please contact your operator to get correct GPRS APN info.

2. Please register the GPS tracker on web platform www1.igpstracking.net (or www1.igpstracking.net, the same) first, then you can see on the iOS android app "itracksafe".
You can search "itracksafe" from Google play store or apple shop to download the mobile application.
Or Scan below QR code to download.

For Android_ios

3. Steps to register on http://www.igpstracking.net (or www1.igpstracking.net, the same)
Please contact us to get user name and password, or see the the user name and password we pasted on the packing box, enter the user name and password we provided. After log in, please go to “User Center-Asset Manage”, click “Add”
Asset Name: Define by yourself; you can enter A-Z number or Numeric

Device ID: On the GPS tracker cover, you can find the “ID”.

**Very Important Note:** Asset name and device ID must be unique on the software, you can add once only, you need to delete it from database before adding it again.

Create time & Activation time: **Do not choose.**

Expiry time: **Define via yourself.**

Forwarding type: **Null**

SIM card: the SIM card phone number you put in MT-1 or any number.

Asset Password: define by yourself.

Click "Submit", and then you add the GPS tracker MT-1 successfully on the software 900D.

**Wait few seconds**, and you will see the GPS Tracker online icon on software
Put a check mark on the device, and right click, you will see the menu as below picture. Now you can track online.

Attention: For 900D GPS Software, "Monitor" and "Asset Name" must be checked till the font becomes blue, then the GPS tracker will update location automatically on map. Like below picture:

8. SMS command list

8.1. Set Controller phone number
Command: controller phone number + user password + space + Sequence number (1-3)
Eg: 158111122220001
Reply: SET USER NUMBER 1 OK.
Eg: 168111122220002
Reply: SET USER NUMBER 2 OK
Eg: 178111122220003
Reply: SET USER NUMBER 3 OK

Note: 1. Tracker can have three pre-saved number
2. New Number can cover the old number
3. No pre-saved number also can control the tracker, but alarm information only to pre-saved number

8.2. Work Mode Exchange:
SMS Mode Command: 700+ user password
Eg: 7000000
Reply: SET MODE OK, CURRENT MODE: SMS
GPRS Mode Command: 710+ user password
Eg: 7100000
Reply: SET MODE OK, CURRENT MODE: GPRS
8.3. Change user password
Command: 777+new password +old password (4 figures)
Eg: 77712340000
Reply: SET USER PASSWORD OK

8.4. Command Get Daily report:
Command : 665+ user password+HHMM
Example: 66500001022
Reply: SET DAILY REPORT OK
Note: HH stands for hour with defined range of [00, 23]. MM stands for minute with defined range of [00, 59].

Close daily report function: 665+password+OFF (Default)
Example: 6650000OFF
Reply: SET DAILY REPORT OFF

8.5. Geo- Fence
Turn On Geo-fence
Command: 211+ password
Eg: 2110000
Reply: GEO-FENCE ON
Set Geo Fence Command: 005+user password+Space+R
E.g: 0050000 1000
Reply: GEOFENCE ON
R=Geo-fence radius, in the unit of meter, for accuracy reason, better more than 1000 meter. 1000 means geo-fence radius is 1000 meter.

Turn geo-fence off
Command: 210+ password
Eg: 2100000
Reply: GEO-FENCE OFF

8.6. Battery low voltage alert
While device detect internal battery is low power, it will send coordinate message with STATE:LOW POWER

8.7. Alert while power off(Available for MT1 MT1C MT1X MT1Z A1 A1X)
Open the power off alert Command: 011 + user password
eg: 0110000
Reply: POWER ALARM ON
Close the power off alert Command: 010 + user password
eg: 0100000
8.8. Power cut (Available for MT1C MT1X A1X only)
Cut power: 940+password
Eg: 9400000
Enable power: 941+password
Eg: 9410000

8.9. Time Zone
Command: 896 + user password + D + NN
Eg: 8960000E08
Note: D takes E or W to indicate east or west time zone respectively. N takes a 2-digit number (1-12) to indicate time zone Number.

8.10. Over speed Alarm
Command: 122 + user password + space + X
Eg: 1220000 120
Reply: SET RATE LIMIT: 120
Close command: 1220000 0
Note: X is speed benchmark value, which is an integral number. Unit is KM/H with defined domain of [0, 999].

8.11. Set Defence Alarm ON/OFF
Set Up Defence: 712 + password
Eg: 7120000
Reply: SF OK
Set Down Defence: 713 + password
Eg: 7130000
Reply: CF OK

8.13. Set ACC alarm (available for MT1 MT1C MT1X MT1Z A1X)
Turn on acc alarm SMS: 886 + user password
Eg: 8860000
Turn off acc alarm SMS: 887 + user password
Eg: 8870000
Turn on acc alarm phone call: 888 + user password
Eg: 8880000
Turn off acc alarm phone call: 889 + user password
Eg: 8890000
8.14. Sleep Mode:

**Turn on sleep mode:**

SLEEP+user password+space+X

X means sleep time, from 1-720, in the unit of minute. If device not receive any command or move at the X time you set, device will close GPS,GSM module, and be in power saving mode.

Eg: SLEEP0000 1

Reply: SET OK

**Turn off sleep mode:**

SLEEP+user password+space+0

Eg: SLEEP0000 0

Reply: SET OK

8.15. Voice monitoring(Available for MTIX only)

**Command:** 66

**Reply:** set ok

**Description:**

You need to set admin number first, then send 66 command from admin number to the gps tracker, after receiving the command from admin number, gps track will call admin number automatically to realize the voice monitoring function.

8.16. Set Access Point Name (APN)

**Command1:** 803+user password+space+APN

Eg: 8030000 CMNET

**Command2:** 803+user password+space+APN+space+APN user name+space+APN Password

Reply: SET GPRS APN OK

**APN is Access Point Network, each GSM operator has a unique APN name, please contact your operator to get correct GPRS APN info.**

8.17. Set server IP address and Port

**Command:** 804+user password+space+IP+space+Port

Eg: 8040000 58.64.205.22 8000

Reply: SET SERVER IP AND PORT OK

**Remark:** we have two server.

If you log in from www1.igpstracking.net, server ip is 58.64.205.22, port 8000

If you log in from 900d.igpstracking.net, server ip is 58.64.205.24, port 8000
8.18. Set Data upload interval time
Command:  805+user password+Space+X
Eg:   8050000 20
Reply: SET OK
Device will upload location to platform every 20 seconds when car acc is on.

Command:  809+user password+Space+X
X is the location upload interval when car acc off, in the unit of seconds.
Eg:   8090000 60
Reply: SET OK
Device will upload location to platform every 20 seconds when car acc is off.
Note: X is mean interval time, the unit is seconds， the wide is 【1， 1800】
We suggest X be no more than 480 seconds to avoid gprs traffic jam.

Special Command:
1、Reset Command : FORMAT
2、Restart Command CQ
3、Read the current setup information Command: CXZT

9. Troubleshooting
1/ Why the GPS tracker can not come online on itrac gps tracker ios andriod app "itracksafe"
Answer: please register the GPS tracker on web platform www1.igpstracking.net first, then you can see on the itracksafe app.

2/ Why the GPS tracker shows "unactive" on www1.igpstracking.net
Answer: please make sure you set the APN correct.
APN is Access Point Network, each GSM operator has their own unique APN, kindly contact your sim card provider for their APN and set the APN according to user manual please.

3/ Why the GPS tracker led light is off?
Answer: please connect gps tracker with external power to charge the built in battery for 5-7 hours, then try again.

4/ Why it said "log in fail" on on itrac gps tracker ios andriod app "itracksafe"
Answer: Kindly choose the correct server, we have two server, please choose 58.64.205.22, default is null.

5/ Why the GPS tracker can not come online after i set IP, Port APN
Answer: send sms command 7100000 switch gps tracker to GPRS mode please.

Thanks for using our products, if you cannot solve the problem by yourself, please contact our technical support team by writing an E-Mail service@i-trac.cn to us. We will be pleased to help you.