

Gwatch LD21M Personal GPS Tracker

(GPS+GSM+SMS/GPRS)

User Manual Version 1.8



Thank you for purchasing the GPS tracker. This manual explains how to operate the device; read it carefully before operating the device. Please note that the specification and information contained in this manual are subject to change without prior notice; any change will be integrated into the latest release. The manufacturer does not accept liability for any errors or omissions that may be contained in this document.

I. Accessories ·

Your package contains the following:

Quantity	Item
1	GPS tracker unit
1	Electrical plug
1	USB cable
1	User manual

Before continuing, ensure that you are familiar with your GPS tracker:



LED Screen Icon Instructions:

Display Screen Icon Instructions	
Icon	Instructions
	GPS mould opened, but doesn't get GPS signal
	GPS mould opened also get GPS signal well
	GSM signal strength volume
	No GSM SIM card
	Battery volume
	Battery in charging under working status
	Battery in charging under off-working status
	Battery fully
SOS	Status of SOS

II. Technical data

GSM Frequency	GSM 850/900/1800/1900 MHz
GSM/GPS chip	MTK6260 / MTK3337
GPS sensitivity	-163dBm
GPS center frequency	L1, 1575.42MHz
GPS positioning accuracy	5-25m
GSM positioning accuracy	100-500m
Speed accuracy	0.1 m/s
Time accuracy	Synchronous with GPS
GPS Datum	WGS-84
Hot start	< 1s
Warm start	< 38s
Max. altitude	18000m
Max. speed	515m/s
Gravitational acceleration	< 4g

(2). Others

Operating temperature	-30---75°C
Humidity	5%---95%
Dimensions	48mm×48mm×17.5 mm (main unit)
Voltage	Rechargeable 450mAh battery
Power supply	DC5V
Standby time	>72h
Buttons	POW: power on/off, hang off
	SOS: SOS call
	CALL: quick-dial, receive call

III • Be prepared before start-up

1. Prepare a SIM card in tracker

- a) SIM card needs to be GSM Network;
- b) SIM card needs to have Caller Identification function;
- c) SIM card needs to have GPRS function;
- d) SIM card needs to have SMS function;

Important note: Please turn power off before installing or removing the SIM card;



2. Switch on/off the device:

Long press Power button to switch on/off the device.

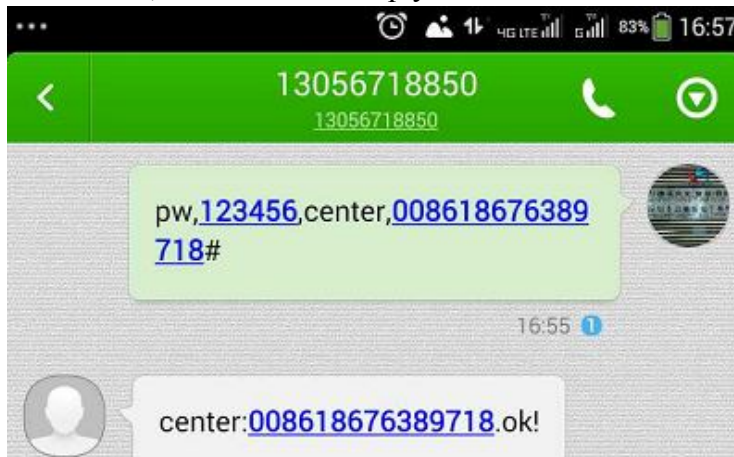
Quick start-up

1. Set up the administration number. This is the phone number the tracker will accept commands from. To setup the administration number, simply send the following SMS message to the tracker's mobile number from your mobile phone: SMS Template:

pw,123456,center,<the_administration_phone_number>#

Example:pw,123456,center,008618676389718#

If successful, the device will reply with: center:008618676389718.ok!



2. Set up SOS numbers(3 SOS numbers can be set)
The device will call each of these numbers in order until someone picks up, if there is no answer to any of the three, it will call each of them once more then stop. Once someone answers, you can have a two way conversation like on a normal phone with its built in microphone and speaker.

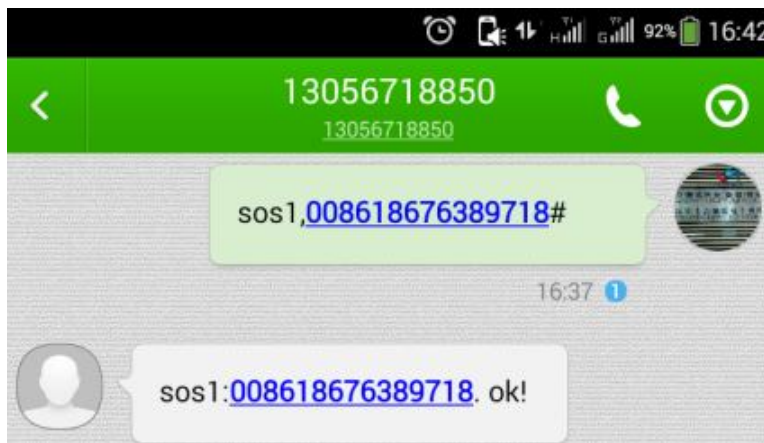
SMS Template:

sos1,<the_administration_phone_number>#

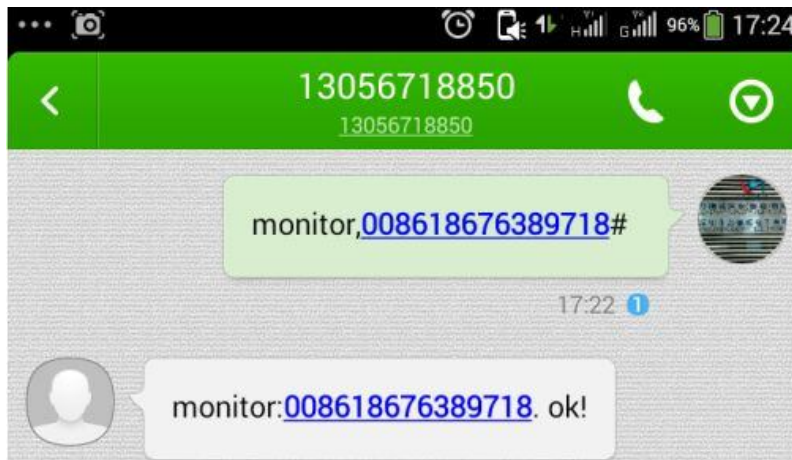
Example: sos1,008618676389718#

sos2,008613418840863#

If successful, the device will reply with: sos1,008618676389718. ok!



3. Set up monitor number(Only monitor number can call and listen-in to the sounds surrounding the tracking device)



4. Set up your time zone.

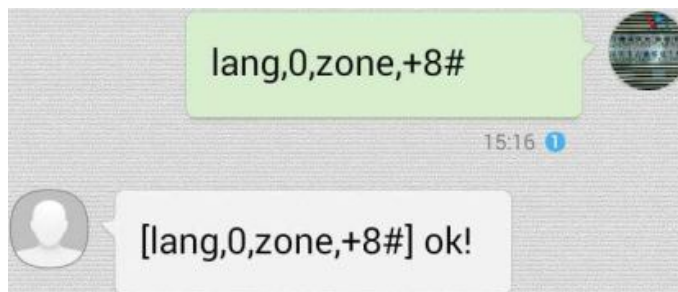
SMS Template:lang,0,zone,<time_zone>#

where <time_zone> is the time difference to GMT.

For example to set up China time zone, send the following message:

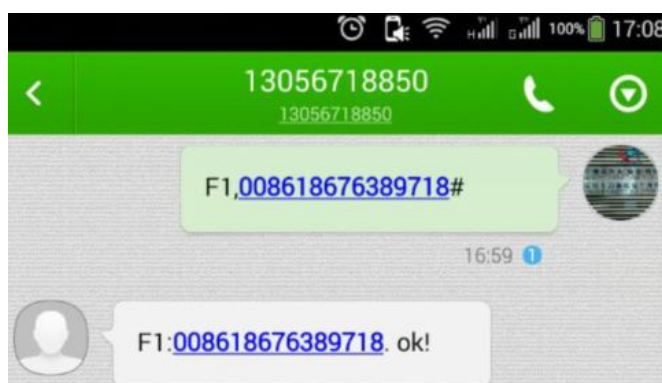
lang,0,zone,+8#

When successful, the device will reply with:[lang,0,zone,+8#] ok!



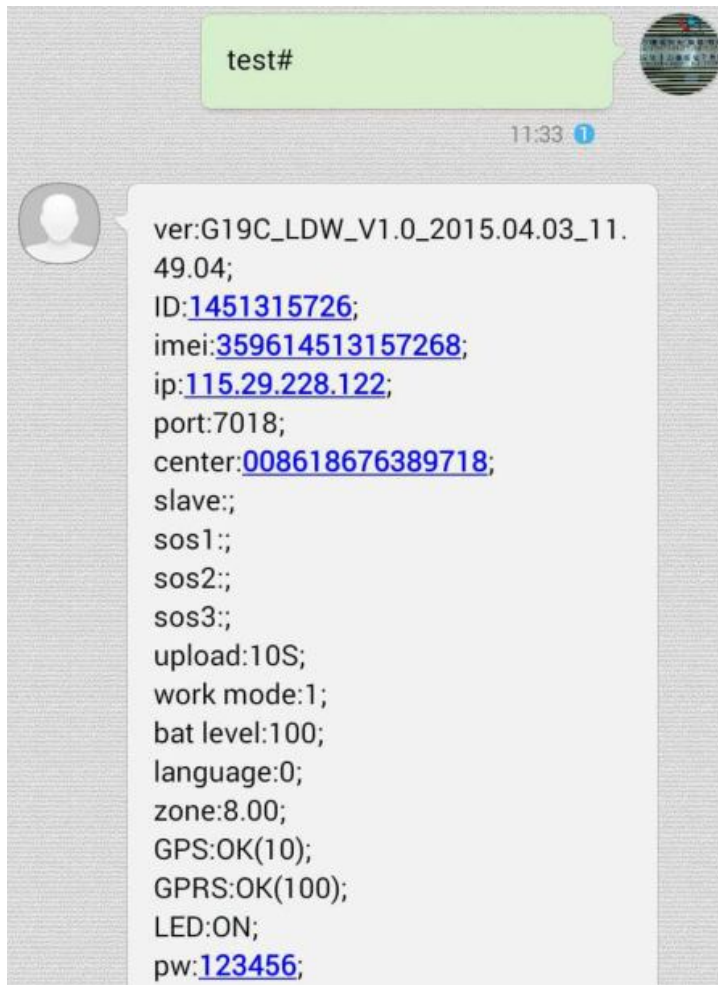
5. Set quick-dial number, after it is set, you can call the number by just a click of "Call" button

SMS Template:F1,<phone number>#



6.To check the status and all information of the device, please send below command

test#

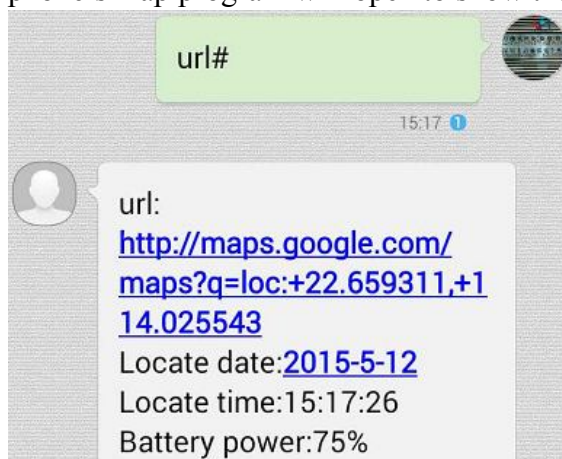


7.To check your GPS tracker is operating correctly, send the following SMS to the tracker's number:

SMS Template:

url#

The tracker will reply by SMS with a link. Simply select the link and your phone's map program will open to show the current location of the device.



8. If you intend to use the mobile App or the platform, then you may need to set the APN. You probably won't need to set this as most networks will provide a SIM which automatically allows access.

a) Please refer to test# reply, if GPRS:OK, that means APN no need to set.

```
GPRS:OK(100);  
LED:ON;  
pw:123456;
```

b) If GPRS:NO, that means APN need to set. Contact your network provider for the APN name.

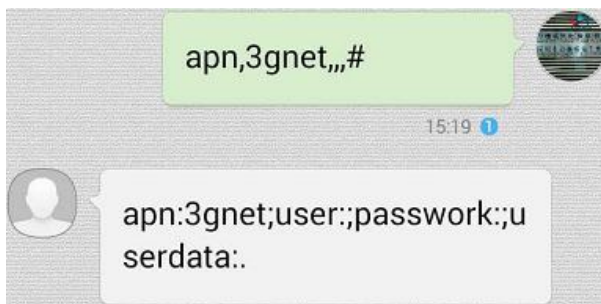
```
GPRS:NO(93);  
LED:ON;  
pw:123456;
```

*SMS Template: **apn,apn name,user,password,#***

For example, if you are using a SIM card from China Unicom, the APN is '3gnet' and does not require a user name nor password. You should send the following command:

apn,3gnet,,,#

You will get SMS reply as below as long as the format is correct.

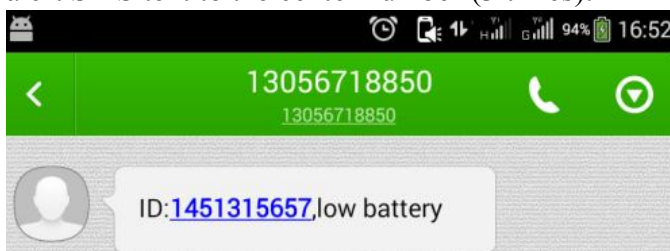


After the APN is set, please resend command of test# to check if GPRS is OK. If still NO, please double confirm with your network provider.



9. Low battery alarm

When the battery level reaches less than 20%, the device will send a low power alert SMS text to the center number (3 times).



IV. Commands summary

The following are commands that you can send to your GPS tracker using SMS. The tracker will process the request and reply accordingly. Note that the commands should be sent using the exact case (lower or uppercase) as in the table below:

Description	SMS template	Example
Set up an administration phone number	pw,123456,center,<the_administration_phone_number>#	pw,123456,center,008618676389718#
Change the default password (a) (<i>see below</i>)	pw,<new_password>#	pw,8888888#
Set up an auxiliary administration phone number	pw,123456,slave,<the_administration_phone_number>#	pw,123456,slave,008618676389718#
Set up an SOS phone number (b)	sos<number>,<phone_number>#	sos1,008618676389718#
Unset (remove) an SOS number (b)	sos<number>#	sos1#
Set up the time	lang,<language_id>,zone,<time_zone>#	lang,0,zone,-0#
Check the tracker's settings	test#	test#
Request the tracker's current position	url#	url#
Set up the tracker for use with Mobile App and the internet	apn,<mobile_network_apn>,<apn_user_name>,<apn_password>#	apn,data.xyz.com#
Change the tracker's operation mode (c)	m<mode_number>,<upload_interval_in_seconds>#	m2,600#
Change the data upload time interval (c)	upload,<upload_interval_in_seconds>#	upload,300#
Restart the tracker	reset#	reset#
Restore factory settings	factory#	factory#
Set a different platform server	ip,<ip_address>,port,<port_number>#	ip,59.188.20.67,port,7018#
Set up a monitoring phone	monitor,<phone_number>#	Monitor,008618676389718#

- a) The default password is 123456. The new password has to be 6 digits long.
- b) Three phone numbers can be set for SOS, so <number> should be 1, 2 or 3
- c) There are four modes of operation, so <mode_number> varies from [1-4] depending on the mode you wish to select. The <upload_time_interval> is expressed in seconds and varies from [10-65535] seconds.

Mode 1 – (Command: m1,10#) – Default Working Mode. GSM and GPS are active, the device will send GPS data to the server every 10s (10#). (10s to 65535s, default 10s).

Mode 2 – (Command: m2,600#) – Power saving mode. Device sleeps, but turns on GPS and sends the data to the server at set intervals (Minimum 600s).

Mode 3 – (Command: m3,20#) – LBS (Location Based Service) mode. GPS is switched off; the device uses its closest mobile network tower to determine a (less accurate) location.

Mode 4 – (Command: m4#) – Sleep Mode. Always sleeps unless woken up by calling or SMS text. It can send a Google Maps link by SMS.

V. Using the mobile App

The app can be downloaded by scanning the QR code below:



VI. Using the platform

Platform website: <http://www.track188.com/>

Use the ‘test#’ command to find out your device ID. Unless you have changed it, the default password is ‘123456’.