

MC300 Vehicle GPS Tracker

User Manual V2.0



Preface

Thank you for choosing the tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

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1. Overview

MC300 is the 2G vehicle tracker support GSM/GPRS. This device can locate and monitor any remote targets by SMS/App/PC. The user also can remote cut off oil/power and check the historical record.

It used for vehicle/motorcycle/truck/Vans tracking and fleet management.

2. Features

- GSM 850/900/1800/1900MHz Global support
- Track by SMS/GPRS/APP
- Real-time position inquire
- Trajectory tracking
- Get the location with Google link
- SOS alarm
- Remote cut off oil and power (optional)
- ACC detection
- Inbuilt Motion Sensor
- Geo-fence alarm
- Low battery alarm
- Over-speed alarm
- CE Certificate

3. Specification

General Specifications	
Dimensions	87mm x 50 mm x 12mm
Weight	65g
Battery	Li- Polymer 700mAh, 3.7V
Standby time	Work mode: 1day; Sleep mode: 5days
Operation Voltage	12 to 24V DC
Operation Temperature	-20°C to 80°C
User Interface	
Connector (5 pin power wire)	Red: 12V-24V(+) Black: Ground(-) Yellow: SOS button White: dedicated for ignition Green: dedicated for ACC
USB port	Configuration the device or upgrade firmware
GSM Antenna	Internal Only
GPS Antenna	Internal Only
Indicator LED	GPS, GSM, Battery status
GSM/GPS Specifications	
Frequency	Quad band: 850/900/1800/1900MHz
Power transmission	GSM 850: less than 31 dBm GSM 900: less than 31 dBm GSM 1800: less than 28 dBm GSM 1900: less than 28 dBm
Modulation Type	GMSK; 8-PSK
GPS Chipset	56 Channels U-blox7020 All-in-one GPS module
Sensitivity	Autonomous: -147dBm Hot Start: -156dBm Reacquisition: -160dBm Tracking: -162dBm
Position Accuracy	10m
TTFB(Open Sky)	Cold start: 27s Warm start: 27s Hot start: 1s

Air Interface Protocol	
Transmit Protocol	TCPIP
Scheduled Timing Report	Scheduled Timing Report
Geo-fence	Geo-fence
Power On/Off Report	Report when the device is powered on or off
Low Power Alarm	Alarm when battery is low
SOS/Emergency:	SOS alarm when function key is pressed
Over Speed Alarm	Alarm when car is over speed

4. MC300 and Accessories

Standard accessories



**Main Unit
built-in battery**



**Power
Wire(5PIN)**



**SOS
Button**



Velcro

Optional accessories



Relay

5. Hardware description

5.1 Appearance



5.2 LED Status

5.2.1 Yellow LED-GSM indication

Status	Description
Light On	GSM work
Flash	No GSM network or SIM card not detected

5.2.2 Blue LED-GPS indication

Status	Description
Flash	GPS No Work or No GPS Signal
Light On	GPS Work

5.2.3 Red LED-Charge indication

Status	Description
Flash	Charging/working
Light Off	No Power

5.3 Wiring connections

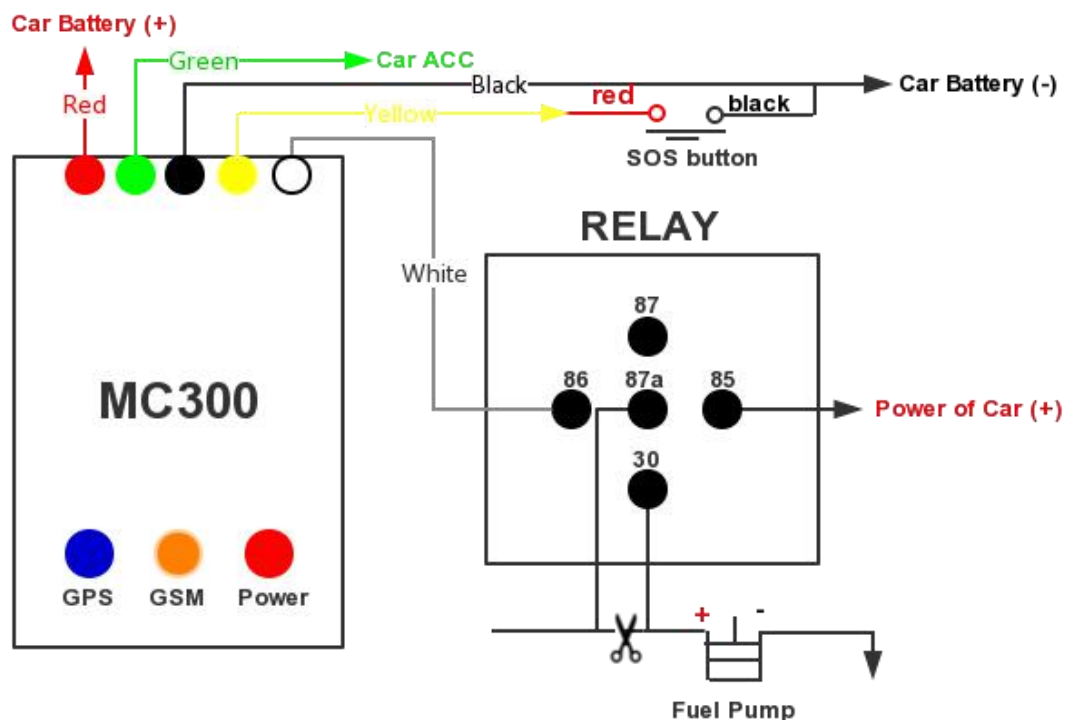
- Red - 12V-24V(+)
- Black - Ground(-)
- Yellow - SOS button(red wire)
- White - Engine immobilizer (-) (optional connection)
- Green - ACC Detect, stop battery charge while vehicle off.

5.4 Install the SOS

- Red: connect to yellow of Power wire
- Black: connect to black of power wire

5.5 Connect the Relay(optional)

The White wire is control the fuel of the car and connect to pin 86 of relay. Pin 85 of relay connect to supply 12V power (please note working volt of the relay is consistent with working volt of the product). Pin 30 and Pin 87a are always closed and connect fuel channel power circuit in series. Please install wire in a correct way and we will not be responsible for device damage caused by wrong installation.



6. Install the SIM Card

Remove the back plate, insert SIM card into SIM slot. Make sure enough charges in the SIM card.

7. Work Mode

This tracker has two work modes which are 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.

8. Detail Operation

8.1 Set the Authorized phone number

Command: Cell phone number+password+space+Sequence number(1-3)

Example: 134243923300000 1

Reply: SET OK

Note:

- Unauthorized number also can control the tracker, but alarm information only to Authorized number
- The defaulted password is:0000

8.2 Work Mode Exchange

SMS Mode Command:700+ user password

Example:7000000

Reply: SET OK.

GPRS Mode Command:710+ user password

Example: 7100000

Reply: SET OK.

8.3 Change user password

Command: 777+new password+old password (4 figures)

Example: 77712340000

Reply: SET OK

8.4 Request the single position

Command: 666+user password

Example: 6660000

Reply: when the tracker receives the command, then will send the position with longitude and latitude as follows:

ID: 8151023474

FIX:A

Lat: N22.62963

Long: E114.03546

Speed:0KM/H

Date:2015-09-13

Time:04:58:3002

BS:2531 6447

STATE:SMS

8.5 Request location with Google Map link

Command:669+ user password

Example: 6690000

Reply: When the tracker receive the command, tracker will send a Google link to the sender.

<http://maps.google.com/maps?q=22.56312%2c114.09191>

FIX:A,2013-12-27

10:15:30

8.6 Daily Report

Command: 665+user password+HHMM

Example: 66500001022

Reply:SET OK.

Close timing report: 665+user password+OFF

Example: 6650000OFF

Reply: SET OFF

Note: HH stands for hour with defined range of [00, 23]. MM stands for minute with defined range of [00, 59].

8.7 SOS Alarm

When press the SOS button more than 3 seconds, it will send location to authorized phone number, the information state included "STATE: SOS"

8.8 Geo-Fence

8.8.1 Set Geo Fence

Command: 005+user password+R

Example: 0050000R1000

Reply: SET OK

8.8.2 Turn On Geo-fence

Command: 211+ password

Example: 2110000

Reply: SET OK

Note : The default is 500 meter

8.8.3 Turn Geo-fence off

Command: 210+ password

Example: 2100000

Reply: SET OK

Note :Tracker will call and send alarm message to the first authorized phone number.

8.9 Low Battery Alarm

While device detect internal battery is low power, it will send coordinate SMS with STATE:LOW POWER

8.10 Cut Off Oil Alarm

Open Cut Oil Command: 940+user password

Example: 9400000

Reply : SET OK

Close Cut Oil command : 941+user password

Example:9410000

Reply: SET OK

8.11 Power OFF alarm

Open Power OFF alarm: 011+user password

Example: 0110000

Reply: SET ON

Close Power OFF alarm:011 + user password

Example: 0110000

Reply: SET OK

Note: Tracker will send message to the three authorized phone number and call the first authorized phone number.

8.12 Tow alarm

Turn on tow truck alert: 181+user password + TX

Example: 181000015

Reply : TOWED ALERT ON

Turn off tow truck alert:180+user password

Example: 1800000

Reply : TOWED ALERT OFF

Note: 1. X is the continuous time, the wide is 【15,100】 ,the unit is second

2.Tracker will send message to the first authorized number

8.13 Phone Tracking

Any phone can call the tracker and tracker will hang off the phone automatically,then send a position message to the sender, if GPS no work, tracker will send a invalid message to sender , tracker will send a valid position message to the sender again once

GPS work normally by automatically.

8.14 Time Zone

Command:896+user password+D+NN

Example:8960000E08

Reply:SET OK

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.

8.15 Over speed Alarm

Command:122+user password+space+X

Example: 1220000 100

Reply: SET OK

Close command: 1220000 0

Note: 1. X is speed benchmark value, which is an integral number. unit is KM/H definition domain of [0, 999].

2. Tracker will call and send alarm message to three authorized number.

8.16 ACC Illegal Start Alarm

Enable ACC Illegal SMS Alarm: 886+Password

Example: 8860000

Reply: SET OK

Disable ACC Illegal SMS Alarm: 887+Password

Example: 8870000

Reply: SET OK

Enable ACC Illegal Phone Alarm: 888+Password

Example: 8880000

Reply: SET OK

Disable ACC Illegal Phone Alarm: 888+Password

Example: 8890000

Reply: SET OK

Note : 1.Tracker need connect the ACC wire to the car .

2. Device will send alarm information to three authorized number and call the first authorized number.

8.17 Sleep Mode

Enable Sleep Mode command : SLEEP+Password+Space+ number

Example : SLEEP0000 1

Reply: SET OK

Disable Sleep command : SLEEP+Password+Space+ 0

Example : SLEEP0000 0

Reply: SET OK

Note : 1 is mean the sleep time, the wide is 1-720 , the unit is “minute” , Tracker will close GPS/GSM/POWER in sleep mode for save power, once shake, tracker will work again.

8.18 Voice ON/OFF

Voice ON command:150+password

Example:1500000

Reply :SET OK

Voice OFF Command:151+password

Example:1510000

Reply :SET OK

Explanation :tracker will call and send message to authorized number in Voice on mode when take alarm, and will not call but only send message to authorized number in voice off when take alarm.

8.19 Set Access Point Name(APN)

Command1:803+user password+space+APN

Example: 8030000 CMNET

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

Example: 8030000 INTERNET INTERNET INTERNET

Reply:SET OK

8.20 Set server IP address and Port

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

Example: 8040000 192.168.1.1 2014

Reply:SET OK

8.21 Set Data upload interval time

Command:805+user password+space+X(**ACC ON**)

Example: 8050000 30

Reply:SET OK

Command:809+user password+space+X(**ACC OFF**)

Example:8090000 60

Reply: SET OK

Note :X is mean interval time, the unit is seconds, the wide is 【10,59999】 ,1 is mean the when X=0,Close the upload function

9. Special Command

- Reset Command: RESET
- Restart Command: RESTART
- Read Configuration Command: RCONF

Tips:

- How to setup APN: <https://www.mictrack.com/apn-settings-for-mictrack-gps-trackers>
- How to use Mictrack Server: <https://www.mictrack.com/how-to-use-mictrack-server>
- Global Frequency bands check: <https://www.mictrack.com/4g-lte-frequency-bands-list>

Note: Please remember to monitor the credit balance of your SIM card, to avoid confusion or delays in setting up your new unit. This can be a common issue, especially when initially setting up a new unit, and the unit fails to reply to a correct SMS command sequence.

If you have any questions please do not hesitate to contact us info@mictrack.com.