



MP90G User Manual V2.0

Learn how to set up your new MiCODUS Tracker

1. Main Features



4G LTE+
2G GSM



Historical Route
Playback



Real-time
Tracking



SOS



Waterproof
IP65



Voice
Monitor



Overspeed
Alarm



Vibration
Alarm



Geo-fence



3000mAh

2.Specifications

Device Information	Model	MP90G
	Weight	120g
	Dimensions	76mm(L) * 40mm(W) * 27mm(H)
	Charging Time	Around 6 hours
Working Parameters	Battery Working Time	Tracking Mode, 1 minutes' reporting: 5 days
	Working Voltage	DC 3.4V - 4.5V
	Working Current	4V/Average 45mA
	Sleep Current	4V/less than 5mA
	Battery Capacity	3.7V 3000mAh Lion Polymer battery
	Working Temperature	-20℃ - 75℃
	Working Humidity	10%-85%RH non-condensing
Cellular Specifications	Working Frequency	4G LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28/B66 2G GSM/GPRS/EDGE: 850/900/1800/1900MHz
	SIM Card	Micro SIM Card
	Cellular Antenna	Built-in
GNSS Specifications	Positioning Type	GPS+BEIDOU+LBS
	GPS Antenna	Built-in
	Cold Start	≤32 Seconds
	Hot Start	≤1 Second
	Tracking sensitivity	-162 dBm
	GPS Channels	64

	Position Accuracy	5-10m
External Interface	Microphone, SOS, Type-C Recharging	

3. Activate Device

Install the SIM card via the correct direction as below:



LED	Event	State
POWER LED (RED)	Charging	Solid
	Charger inserted and battery has been fully charged	Dark
	Charger has not been inserted	Dark
CELL LED (YELLOW)	Searching for network	Flash every 1 second
	Network has been registered	Solid
GPS LED (BLUE)	GPS is in fixing	Flash every 1 second
	GPS has fixed	Solid
ALL LED	Device is working but stopped more than 5min	ALL LED TURN OFF
	Device has not been turn on	
	Device ran out of battery	

Please get the exact correct APN name from local SIM card provider. Take the tracker to a good signal place for operation and configure the APN for it as below:

SMS Command Format	Reply	Example	Note
APN,ApnName,User, Password#	SET APN OK	APN,orange, orange,orange#	If the SIM card has APN user and APN password, then use this command.
APN,ApnName#	SET APN OK	APN,internet#	If the SIM card operator doesn't have APN user and APN password, then please use this command.

Note: The APN information is very important, it must 100% correct to match with the sim card of the tracker, if you configured wrong APN, the tracker also will reply "SET APN ok" but it will can't get online!

4. Package Content

Main Unit MP90G	x 1
Charging Cable	x 1
Screws	x 4
Screwdriver	x 1
Rubber Pad	x 1
SIM Card Slot Cover	x 1
User Guide	x 1
Genunie Packing Box	x 1

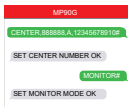
5. Functions Explanation

Please follow with the quick user guide carefully!

a. Voice Monitor:

- * Set center number by this sms command:
CENTER,password,A,center number#
- * Switch the tracker to voice monitor mode by this sms command:**MONITOR#**
- * Dial the sim number of the tracker from the center number, then the tracker will pick up the call automatically and you will can remote monitor the voice around it.

For example:



b. Vibration Alert:

This vibration alert function just work under stationary status. How to use this function:

- * Configure SOS numbers for the tracker by this sms command:**SOS,A,1st number,2nd number,3rd number#**
3 SOS numbers supports at the most
- * Enable the device to enter into arm mode by this sms command: **ARM#**
- * Configure the alarm ways by this sms command:
SENALM,[A],[M]#
A=ON/OFF, default: OFF;
M=0/1/2, way of alarming,
0 :GPRS only, 1: SMS+GPRS, 2: GPRS+SMS+phone call, default:1
- * Keep the device under stationary status more than 5min to let it enter into sleep arm mode;
- * Vibrate the device then the tracker will send the vibration alarm messages

For example:



d. Enable SOS Emergency Call

- * Set sos alarm numbers via this sms command:
SOS,A,1st number,2nd number,3rd number#
- * Press the SOS panic button 3 times continuously, then the SOS emergency message and call will be sent out to the SOS numbers.

For example:



6. Applications



Personal



Valuables



Suitcase



Vehicles

7. Troubleshooting

Type	Use
Unable to connect to tracking platform	Check the APN and settings. Check whether the data service of SIM card is enabled. Check the balance of SIM card.
Tracker shows offline	Check whether external power is still connected. Check if the vehicle entered network blind area. Check the balance of SIM card.
Unable to locate	Make sure the top side facing upward without metallic things shielded. Make sure it's not in area with no satellite coverage.
Location drift	In area with poor GNSS signal (tall building around or basement), drifting may happen. Check whether vibration happens around to trigger the accelerator.
No command reply	Make sure command format is correct. Vehicle may be in network blind area. Make sure SIM card is well inserted and has SMS servi.

8. Full SMS Commands List

Functions	Command Format	Explanation
APN Setting	APN,Network name[,name,password]#	APN,CMNET# (if no name & Password) APN,internet,internet,internet# (if with name & Password)
Server Setting	If set with Domain Name: SERVER,1,Domain,Port#	SERVER,1,d.micodus.net,7700#
	If set with IP: SERVER,0,IP,Port#	SERVER,0,47.254.77.28,7700#
Restore factory settings	FACTORY#	
Restart device	RESTART#	
Internet Traffic Switch	INTERNET,ON#	
	INTERNET,OFF#	
Version Inquiry	VERSION#	

Functions	Command Format	Explanation
Parameter Inquiry	PARAM#	
Status Inquiry	STATUS#	BATTERY: XX% (Built-in Battery Power Percent) INTERNET: CLOSED (No Network) FAILED (Connecting Network or Failure) SUCCESS (Connected to Network) NET: NONE (No GSM Signal) , HIGH / MED / LOW (Signal Strength) 18 GPS: CLOSED (GPS Module Closed) FIXED,N (Positioned and satellite number) UNFIX,0 (Not Positioned yet) SPEED:30KM/H SENSOR: ON/OFF (Sensor on or off), LEVEL: 3 (Sensitivity level 1-9) STATE: ARM (Arm or Disarm)
Alarms Parameters	ALARM#	ID: 19172012644 (ID number of device) STATE: ARM(DISARM)(Defense status of device) SPEED: ON/OFF(alarm status); 30km/h(alarm value); 0/1/2(alarm way) SHIFT: ON/OFF(alarm status); 300m(alarm value); 0/1/2(alarm way) VIBRATE: ON/OFF(alarm status);3(sensitivity level); 0/1/2(alarm way) LOW BATTERY: ON/OFF(alarm status);1/2/3 (alarm way) NOTE: Alarm Ways: 0/1/2 (0 :GPRS only, 1: SMS+GPRS, 2 : GPRS+SMS+phone call)
Latitude & Longitude Inquiry	WHERE#	
Map URL Inquiry	URL#	
Time Zone Setting	GMT,Time zone orientation, Whole Time Zone[,Half Time Zone]#	GMT,E,8# (if no half time zone) GMT,W,9,30# (if has half time zone) NOTE: Parameter : E / W; 0 ~ 12; 0/15/30/45
Working Mode Setting	MODE,A,T1,T2#	A=1/2/3, 1.Tracking mode 2: Power saving mode 3: Hibernation mode; Default mode: 1 A=1 T1: upload interval of GPS data in moving status, unit: second,10-3600s; default: 10s T2: upload interval of GPS data in static status, unit: second, 180-85535s; default: 3600s A=2 T1: interval start time,format: HH:MM T2: time interval,range: 1-72 unit: hour,default interval: 24hours A=3 T1: interval start time,format: HH:MM T2: time interval,range: 1-72 unit: hour,default interval: 24hours Note: The difference between mode 2 and mode 3 is that in mode 2, sms commands and phone calls can wake up the device, but vibration cannot. In mode 3, only manual restart operation can wake up the device, after that, device will work for 5 minutes and then go to sleep.

Functions	Command Format	Explanation
Set the angle upload	ANGLEREP,[X],[A],[B]#	X=ON/OFF, default: ON; A=5~180 degrees, diversion angle degree, default: 30 degrees; B=2~5 seconds, detecting time, default: 3 seconds,
	ANGLEREP,OFF#	
Mileage Statistics	MILEAGE,[A],[B]#	A=ON/OFF, On/Off mileage calculation, default: Off B=0~999999, Mileage initial value, unit: km; default: 0, mileage return to zero
	MIELEAGE#	Query current mileage
Add SOS Administrator Number	SOS,A,1st number, 2nd number,3rd number#	Set 3 numbers at a time: SOS,A,13800138000,1380013800 1,13800138002# Set the first numberseparately: SOS,A,13800138000# Set the second number separately: SOS,A,,13800138001# Means to set 3rd number separately: SOS,A,,,13800138002#
Delete SOS Administrator Number	SOS,D,1st number, 2nd number,3rd number# or SOS,D,1,2,3#	Directly delete the number: SOS,D,13800138000# Delete 1st number: SOS,D,1# Delete 2nd number: SOS,D,2# Delete the 2nd and 3rd number: SOS,D,2,3#
Change IMEI	IMEICHG,354188046912460#	NEW IMEI No. : 354188046912460
Add Center Number	CENTER,password,A, center number#	Example: CENTER,888888,A,+8613800138000# Note: Please set up the center number with the country code as prefix!
Delete Center Number	CENTER,password,D#	Example: CENTER,888888,D#
Set the instruction password	PWD,password,ON#	Enable instruction password successfully!
	PWD,password,OFF#	Cancel instruction password successfully!
Change the instruction password	PWDCHG,[A],[B]#	A=old password, six digitals, digital range: 0-9, default: 888888; B=new password, six digitals, digital range: 0-9
Reset password	RSTPWD,A#	A=ID Number, ID number of the device;
Data Upload Time Zone Setting	DATAGMT,Time zone orientation,Whole Time Zone [Half Time Zone]#	DATAGMT,E,8# (if no half time zone) DATAGMT,W,9,30# (if has half time zone) NOTE: Parameter : E / W; 0 ~ 12; 0/15/30/45

Functions	Command Format	Explanation
Sleep Mode Setting	SLEEP#	NOTE: After set this sleep mode, the device will enter into sleep mode automatically when the device keep stationary status more than 5min.
	SLEEP,OFF#	
Voice Monitor Mode	MONITOR#	NOTE: Before monitoring the voice around the device, the user must change the device to this monitor mode firstly.
Track Mode	TRACK#	NOTE: After used the voice monitor mode, user can switch the device back to track mode by this command.
Heartbeat Packet Upload	HBT,time#	HBT,3# NOTE: Range :1-60min, default 3min.
Sensor Sensitivity	SENLEVEL,sensitivity#	SENLEVEL,2# NOTE: Sensitivity Level: 1-9 (1-9 is from week to strong vibration)
Vibration Alarm Setting	SENALM,[A],[B],[C]#	A=ON/OFF; default:ON M=0/1/2, way of alarming, 0 :GPRS only, 1: SMS+GPRS, 2: GPRS+SMS+phone call, default:1
	SENALM,OFF#	Cancel vibration alarm
Overspeed Alarm Setting	SPEED,[A],[B],[C]#	A=ON/OFF, open or close over speed alarm, default: OFF B=1~255(km/h), speed limit, default: 100(km/h); C=0/1/2, way of alarm, 0 : GPRS only, 1: SMS+GPRS, 2: GPRS+SMS+CALL; default: 1
	SPEED,OFF#	Cancel speed alarm
Shift Alarm Setting	SHIFT,[A],[B],[M]#	Example: SHIFT,ON,100,1# (Means Setting 100 meters shift alarm range, when the ignition turned off, vehicle's 100 meters' shift will trigger the alarm.) A=ON/OFF; default:ON B=Shift Distance (Range: 100-9999m) M=0/1/2; way of alarm, 0 : GPRS only, 1: SMS+GPRS, 2: GPRS+SMS+CALL, default:1
	SHIFT,OFF#	Cancel shift alarm

Low Battery Alarm Setting	BATALM, [A][, M]#	A=ON/OFF, default: ON; M=0/1/2, way of alarming, 0: GPRS only, 1: SMS+GPRS, 2: SMS+GPRS+Call,default:1; NOTE: Once the battery level is below 20% device will alarm.
	BATALM,OFF#	Cancel low battery alarm
SOS Alarm Setting	SOSALM, [A][, M]#	A=ON/OFF, default: ON; M=0/1/2, way of alarming, 0: GPRS only, 1: SMS+GPRS, 2: SMS+GPRS+Call,default:2; NOTE: Press the SOS button 3 times continuously to trigger the SOS alarm. And please configure SOS numbers firstly.
	SOSALM,OFF#	Cancel SOS alarm

9. Any Questions?

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