ML910G/ML920G User Manual V1.0

Learn how to set up your new MiCODUS Tracker

1.Main Features


4G LTE+2G GSM


Real-time Tracking


Historical Route Playback


Superstrong Magnetic


Waterproof IP65


Movement Aalarm


10000/20000mAh


Voice Monitor


Overspeed Alarm


Vibration alarm


Geo-fence


Teardown Alarm

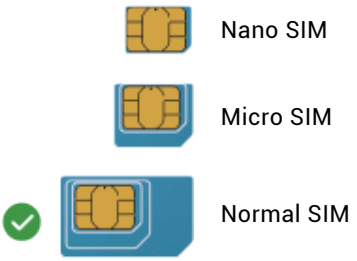
2.Specifications

Device Information	Model	ML910G/ML920G
	Weight	ML910G:306g ML920G:467g
	Dimensions	ML910G: 115(L)*65(W)*31(H)mm ML920G: 115(L)*65(W)*47(H)mm
	Battery	3.7V 10000/20000mAh Li-Polymer Battery
Working Parameters	Battery Life	ML910G: Real-time Tracking mode: 12-15 days; Power Saving Mode: around 30 days; Hibernate Mode: around 60 days
		ML920G: Real-time Tracking mode: 25-30 days; Power Saving Mode: around 60 days; Hibernate Mode: around 120 days
	Working Temperature	-20℃ - 60C℃
	Working Humidity	5%-95%RH
Celluar Specifications	SIM Card	Normal Size
	Celluar Antenna	Built-in
	Working Frequency	4G LTE CAT1: LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66; LTE-TDD: B34/B38/B39/B40/B41
		2G GSM/GPRS: 850/900/1800/1900MHz
GNSS Specifications	GNSS	GPS+GLONASS+BDS
	Hot/warm/cold Start	<3s, <35s, <45s @ Open Sky
	GNSS Antenna	Built-in Ceramics GNSS Antenna
	Positioning Type	GNSS+LBS+AGPS
	Accurancy	GNSS Accuracy: <5M @ Open Sky
		LBS Accuracy: 100-2000m (Depend on density of base stations)

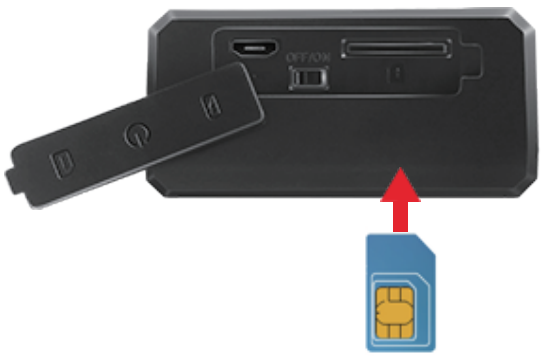
3.Activate Device

First Step： Prepare And Install Sim Card

* If use your local SIM card, please make sure the SIM card already enabled SMS, internet data traffic, call and caller ID displaying functions;
* If use our spionlink SIM card, then please recharge it via this website www.spionlink.com to get data plan firstly



[ML910G]



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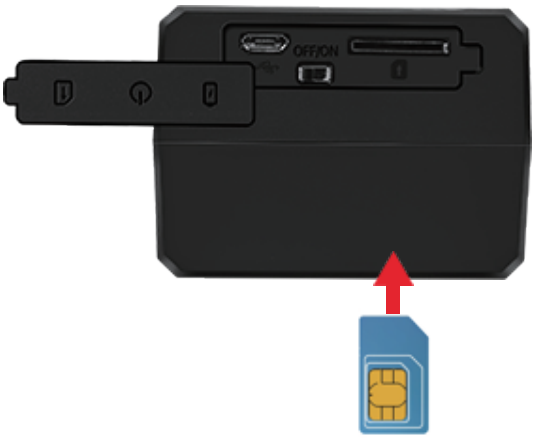


LED	Event	State
POWER LED (RED)	Charging	Solid
	Charger inserted and battery has been fully charged	Dark
	Charger has not been inserted	Dark
CELL LED (YELLOW)	Searching for network	Flash every 1 second
	Network has been registered	Solid
GPS LED (Blue)	GPS is in fixing	Flash every 1 second
	GPS has fixed	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	

Second Step: Configure APN

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,apn content, apnuser,apnpasswd#	apn ok	apn,orange,orange, orange#	If there has APN user and APN apnpassword, then please use this command for configuration
apn,apn content#	apn ok	apn,internet#	If there doesn't have APN user and APN password, then please use this command for configuration

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

ML910G or ML920G Tracker	x 1
USB Charging Cable	x 1
User Guide	x 1
Packing Box	x 1

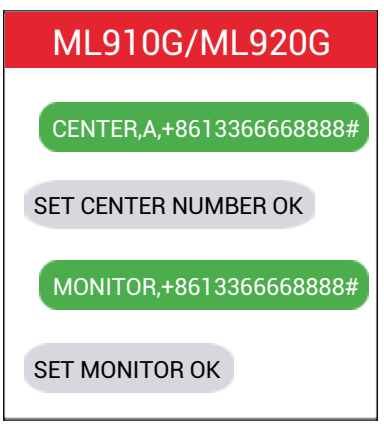
5.Functions Explanation

1. Voice Monitor

* Set up a center number for the device:
CENTER,A,CENTER NUMBER#

For example, if you want to set up this number as center number:+8613366668888, the command should be sent like this:
CENTER,A,+8613366668888#

For example:



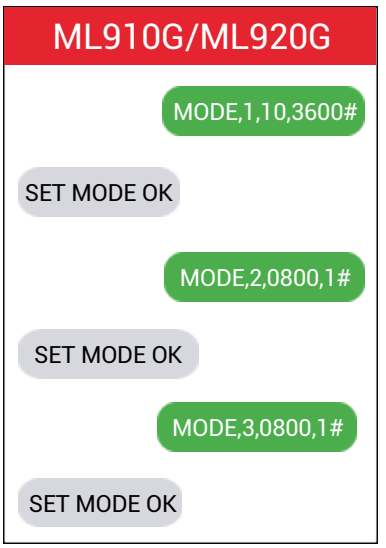
Note: Please put the country code as prefix with the center number!

* Use the center number to set up a number for the tracker to call back: MONITOR,number for monitor#

For example, if your send this command: MONITOR,+8613366668888#,then the tracker will make a call to this number +8613366668888 and this number can pick up the call to monitor the voice around it.

2. Set Working Mode

For example:



* Command format: MODE,A,T1,T2#

* For example: Realtime Tracking Mode: MODE,1,10,3600#

This means the tracker will upload every 10 seconds when it is moving, and every 3600 seconds when it is static.

* For example: Power Saving Mode: MODE,2,0800,1#

This means the tracker will enter into power saving mode at 08:00am and upload every 1 hour. If now is 09:00am, then the tracker will enter power saving mode at 08:00am of tomorrow.

* For example: Hibernation Mode: MODE,3,0800,1#

This means the tracker will enter into power saving mode at 08:00am and upload every 1 hour.

Note: The difference between the mode 2 and mode 3 is that, under mode 2, the device can be waked up by sms, call and light sensor, under mode 3 the device will just can be waked up by light sensor.

3. Vibration Alarm

* Set up a center number for the device:
CENTER,A,CENTER NUMBER#

For example, if you want to set up this number as center number:+8613366668888, the command should be sent like this:CENTER,A,+8613366668888#

Note: Please put the country code as prefix with the center number!

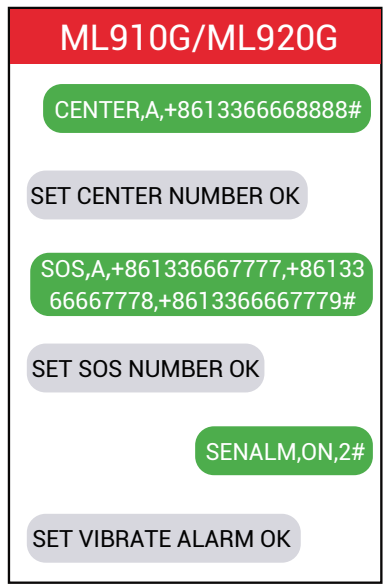
* Set up SOS contact numbers:
SOS,A,SOS1,SOS2,SOS3#

For example,: SOS,A,+8613366667777, +8613366667778,+8613366667779#

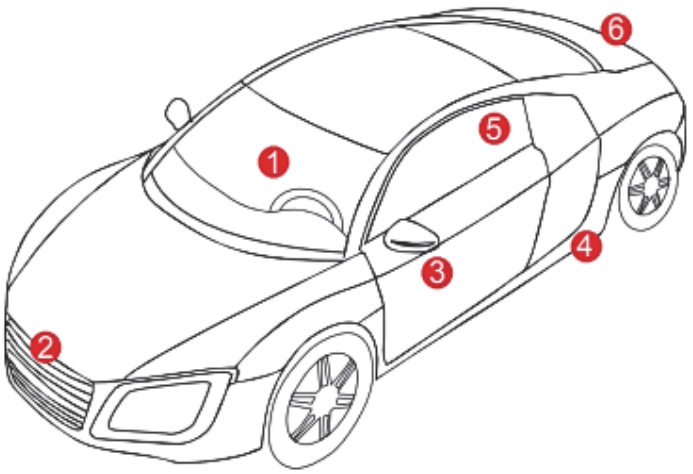
Note: You can set up 3 SOS alarm numbers for the device at the same time

* Set up the vibration alarm way: SENALM,ON,2#

For example:



6.Installation Recomendation



① Driving seat sundries box
② Front bumper
③ Driving sundries box
④ Under the chassis
⑤ Rear windscreen
⑥ Rear bumper

7.Trouble Shooting

Type	Use
Unable to connect to tracking platform	Check the APN and settings. Check whrther 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 netword 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

Query Commands

Functions	Command Format	Example
Version Inquiry	VERSION#	Device Reply Example: ID: ID number of the tracker IMEI: IMEI number of the tracker ICCID: The ICCID number of the SIM card in the tracker VERSION:The firmware version of the tracker
Parameter Inquiry	PARAM#	Device Reply Example: ID: ID number of the tracker IMEI:IMEI number of the ICCID:The ICCID number of the SIM card in the tracker APN:APN name,APN user,APN password, IP: Domain name and port number or IP address, port pumber MODE:Working mode;interval or starting time, upload interval SPEEDLIMIT:The overspeed threshold ANGLERPT: Data uploading angle CENTER: Center number of the tracker SOS: SOS1,SOS2,SOS3 GMT: Time zone
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(The current speed of the target) SENSOR: ON/OFF (Sensor on or off), LEVEL: 3 (Sensitivity level 1-9) STATE: ARM (Arm or Disarm)
Alarms Parameters	ALARM#	ID: 19172012644(Device ID number) STATE: ARM(DISARM)(Fortified state of device) SPEED: ON(OFF);30km/h(speed limit); alarm ways SHIFT: ON(OFF);300m(shift limit);alarm ways VIBRATE: ON(OFF);3(sensitivity of sensor);alarm ways LOW BATTERY: ON(OFF);alarm ways TEARDOWN: ON(OFF);alarm ways

Functions	Command Format	Example
Latitude& Longitude Inquiry	WHERE#	LAT:N23.02930,LON:E114.32180,SPEED:0.00KM/H,DATETIME:2023-01-05 14:39:11
Map URL Inquiry	URL#	http://map.google.com/?q=22.557868,113.935090 <0.0km/h 0.0> <2023-01-05 14:39:11> IMEI: 354188047752402

Setting Commands

Functions	Command Format	Example
APN Setting	APN,APN Name, APN User, APN Password#	Example: APN,CMNET# (if no APN User & APN Password) APN,internet,internet,internet# (if with APN User & APN 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#	FACTORY OK
Restart device	RESTART#	RESTART OK
Internet Traffic Switch	TRAFFIC,ON#	OPEN TRAFFIC OK
	TRAFFIC,OFF#	CLOSE TRAFFIC OK
Set the angle upload	ANGLEREP,X,A,B#	Example: ANGLEREP,ON,30,3# (Means the tracker will send a data supplement when the angle change exceeds 30 degrees and lasts for 3 seconds) 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#	CANCEL UPLOAD ANGLE OK

Functions	Command Format	Example
Time Zone Setting	GMT,Time zone orientation,Whole Time Zone [,Half Time Zone]#	Example: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
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,13800138000,13800138001,13800138002# Set the first number separately: 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#
Add Center Number	CENTER,A,center number#	Example: CENTER,A,+8613800138000# NOTE: Please set up the center number with the country code as prefix!
Delete Center Number	CENTER,D#	DEL CENTER OK
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#	CANEL SLEEP MODE OK
Voice Monitor	MONITOR,N#	Example: MONITOR,+8613366669999# (Means the tracker will make call to +8613366669999, and this number +8613366669999 can pick up the call to monitor the voice) N: Number for Voice Monitoring NOTE: 1. Please send this monitor command via the center number; 2. Any number can be set up to monitor the voice, the tracker will make a call to the number N and it will can pick up the call to monitor voice

Functions	Command Format	Example
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 (For example: MODE,1,10,3600# means the tracker will work under mode 1, it will upload every 10s under moving status and 3600s under static status) 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, 180-65535s; default: 3600s A=2 (For example: MODE,2,0800,1# means the tracker will work with power saving mode since the next 08:00am, and upload every 1 hour) T1: interval start time,format: HH:MM T2: time interval,range: 1-72 unit: hour,default interval: 24hours A=3 (For example: MODE,3,0800,1# means the tracker will work with hibernation mode since the next 08:00am, and upload every 1 hour) 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 under Mode 2 the device can be wake up by SMS, Call and light sensor, but under Mode 3 the device just can be wake up by light sensor!
Heartbeat Packet Upload	HBT,time#	Example: HBT,3# (Means the tracker will send hearbeat data package to server very 3min to keep the network connected) Time: 1-60min, default 3min
Sensor Sensitivity	SENLEVEL, sensitivity#	Example: SENLEVEL,4# (Means shake sensor level is set to 4) A=1-9 NOTE: 1-9 is from week to strong vibration
LED Switch	LED ,A#	Example: LED,ON#(Turn on LED indicators) LED,OFF #(Turn off LED indicators)

Alarm Setting Commands

Functions	Command Format	Example
Vibration Alarm Setting	SENALM,A,M#	Example: SENALM,ON,2# (Means the vibration alarm already been enabled and the alarm message will be sent via Server, SMS and Call) 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
	SENALM,OFF#	CANEL VIBRATE ALARM OK
Overspeed Alarm Setting	SPEED,A,B,M#	Example: SPEED,ON,120,1# (Means the speed limit is 120km/h and the alarm way is via SMS and Server) A=ON/OFF, open or close over speed alarm, default: OFF B=1～255(km/h), speed limit, default: 100(km/h); M=0/1/2, way of alarm, 0 : GPRS only, 1: SMS+GPRS, 2:GPRS+SMS+CALL; default: 1
	SPEED,OFF#	CANCEL OVERSPEED ALARM OK
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 and the alarm message will be sent via Server and SMS) A=ON/OFF; default:ON B=Shift Distance (Range: 100-9999m) M=0/1/2; way of alarm, 0 : SERVER only, 1: SERVER+SMS, 2: SERVER+SMS+CALL, default:1
	SHIFT,OFF#	CANCEL SHIFT ALARM OK
Low Battery Alarm Setting	BATALM,A,M#	Example: BATALM,ON,1# (Means the low battery alarm already been enabled and the alarm message will be sent via Server and SMS) A=ON/OFF,default: ON; M=0/1/2, way of alarming,0: SERVER only,1: SERVER+SMS, 2: SERVER+SMS+Call, default:1; NOTE: Once the battery level is below 20% device will alarm
	BATALM,OFF#	CANCEL LOW BATTERY ALARM OK

Functions	Command Format	Example
Disassemble Alarm Setting	TEARDOWN,A,M#	Example: TEARDOWN,ON,2#(Means the teardown alarm already been enabled and the alarm message will be sent via Server, SMS and Call) A=ON/OFF; default:ON M=0/1/2; way of alarm, 0 : SERVER only, 1: SERVER+SMS, 2: SERVER+SMS+CALL, default:1
	TEARDOWN,OFF#	CANCEL DISASSEMBLE ALARM OK

9.After-sale Contact Information

E-mail:support@micodus.com
Skype:MiCODUS

10. Download APP

Search "MiCODUS" in iOS APP store or Google Play Store, or just scan the QR code as below to download

MiCODUS APP:

Download on the APP Store

Download for Android

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference
(2) this device must accept any interference received, including interference that may cause undesired operation.Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.