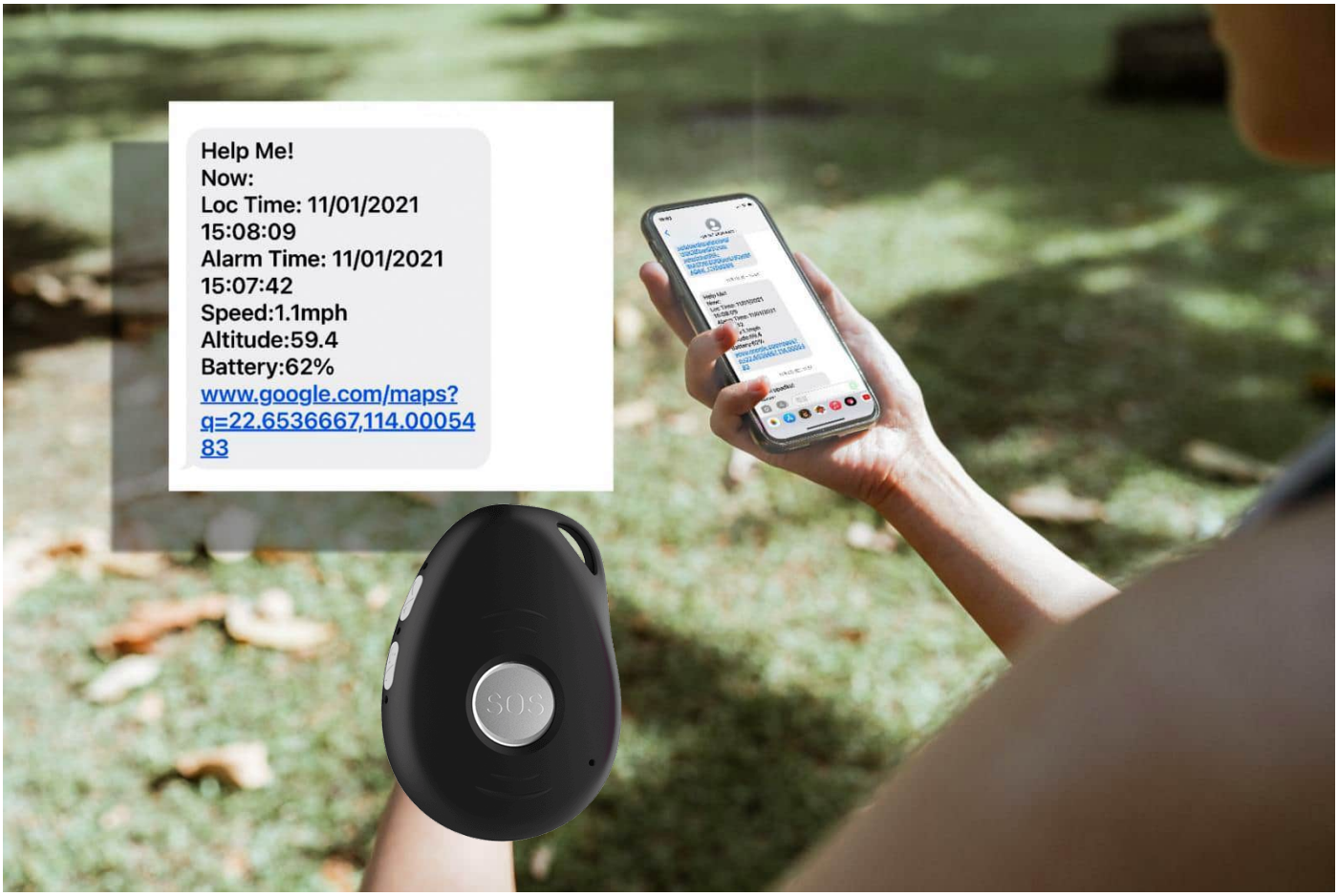
Mercari Personal Alarm SMS Protocol



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Abstract

This document, first of all, provides a quick start list, selecting the most frequently used SMS commands, to help you do the very first sample test.

Secondly, the chapter “general SMS commands” gives the most details respect to each command, in 4 parts, structure, explanations, example, and reply. With a full comprehension of these, you can configure the device in a highly flexible way, as well as to receive relevant Information from it.

In the third section, you can find some particular commands for some product models, not compatible in the others. This difference comes from that in capability of these models.

Last but not the least, some information about working mode and functions are displayed as appendix.

Important to note

- There should be no space “ ” in any command;
- Comma “,” is obligatory as indicated;
- Both capital letter (ABC) and lower-case one (abc) work;
- Please check the SIM card status, if you did not receive any SMS reply from device;
- The SMS format may not be correct, or no credit on the SIM card.
- There are some particular sim cards that don’t support SMS, like some IOT, or GPRS-only cards. Voicemail may also need to be set up first.Please confirm with your SIM card provider;
- In some cases, one long SMS (>150 bytes) can be split into two ones, thus possibly disabling the map link. Please consult your SIM card provider.
- In every section, you can come back to catalog by clicking “back to catalog”;

It's compatible for:

MERCARI TECHNOLOGIES:
FAMILYR BLACK PRO WITH &
WITHOUT BASE STATION

For support, email;
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Catalog

1. Most Frequently used SMS Commands (Quick Start List) 5

2. General SMS Commands 6

G.2 Password 8

G.3 SMS Whitelist 9

G.4 SOS Alarm Settings 10

G.6 Bluetooth 12

G.7 Wi-Fi 13

G.8 LBS 14

G.11 Vibration 16

G.12 Beep 16

G.14 Volume 18

G.16 Time Zone 20

G.17 Prefix 21

G.20 Turn off Device 22

G.21 Device Information 23

G.22 Alarms 23

22.1 SOS Emergency Alarm 23

22.2 Fall Down Alarm 24

22.3 Geo Fence Alarm 24

22.4 No Motion Alarm 25

22.5 Motion Alarm 25

22.6 Tilt Alarm 26

22.7 Over Speed Alarm 27

22.8 Welfare Alarm 27

G.23 Alarm Clock 28

G.25 Internet Setting 29

G.26 Working Mode 32

G.27 Continuous Locate 33

G.28 Stop Sending Stored Historical Data to Server 33

G.29 Check Function Settings 34

G.30 Set GPS Map Link 34

G.31 Beacon 35

G.32 Home Wi-Fi List 37

3. Troubleshooting 38

Appendix 40

1. Most Frequently used SMS Commands (Quick Start List

Item	Command Structure	Command Example
Set Contact Numbers	A1,1,1,(phone number)	A1,1,1,123456789
Set SMS Password	P(password)	P123456
Request Location	loc	loc
Wi-Fi ON/OFF	Wifi(0=off, 1=on)	Wifi1
Microphone Volume	Micvolume(volume)	Micvolume10
Speaker Volume	Speakervolume(volume)	Speakervolume90
Prefix	Prefix(0=off, 1=on),(prefix name)	prefix1,Emma
Check Battery Status	battery	battery
Fall Down Alarm	fl(0=off, 1=on),(sensitivity1-9),(0=no call, 1=call)	fl1,5,1
No Motion Alarm	nmo(0=off, 1=on),(no motion time), (0=no call, 1=call)	NMO1,80M,1
APN	S(0=no call, 1=call),(apn)	S1,internet
Server	IP(0=no call, 1=call),(server IP),(port number)	IP1,www.smart-locator.com,6060
GPRS	S(0=of,2=on)	S2
Working Mode	Mode1	mode1
	Mode2,(motion interval),(no motion interval)	mode2,03M,01h
	Mode3,(interval)	mode3,01H
	Mode4,(interval)	mode4,30m
	Mode5,(interval)	mode5,10h
	Mode6,(motion interval),(no motion interval)	Mode6,03M,01h
Continuous Locate	CL(interval),(duration)	CL10s,600s
Check Function Settings	status	status

2. General SMS Commands

The general SMS commands are compatible for product models EV-07B series, EV-04, EV-05.

G.1 Contact Numbers

Setting contact numbers is the very first step for the device to work. This contact number list is the foundation for all the functions related to calling and sending SMS: SOS, fall down alarm, tilt alarm, no motion alarm, whitelist, etc.

1. Contact Numbers		
1.1 Set Contact Numbers		
Structure	A(n),(SMS Yes/No),(call Yes/No),(phone number)	
Explanation	(n)	Value range: 1~10 Contact number sequence
	(SMS Yes/No)	Value range: 0~1 0 - Do not receive SMS when there is an alarm 1 - Receive SMS when there is an alarm
	(call Yes/No)	Value range: 0~1 0 - Do not receive Call when there is an alarm 1 - Receive Call when there is an alarm
	(phone number)	Mobile number, Landline or emergency services.
Example	A1,1,1,0213456789 NOTE: Contact phone numbers should be in local format. Only use international format if contact is overseas	
Reply	Set contact number 1 ok.	
1.2 Check Contact Numbers		
Structure	A?	

Explanation	To check the current status of contact number list
Example	A?
Reply	A1:1,1,0213456789 A2:1,0,02732770106 A3: 0,1,0986236978
1.3 Remove Contact Numbers	
Structure	removeA(n)
Explanation	To remove contact number “n” Value range: 1~10
Example	removeA5
Reply	Contact number 5 removed.

Back to Catalog

G.2 Password

- With this command sent, a password will be required in head of all commands. For example: 321654Loc, 321654A1.
- The preset password won't be erased by changing a new sim card.
- Be sure to remember the new password, otherwise, you must ask your distributor to reset to factory settings in case the password forgotten.
- Make sure the password is of 6 digits, if not the tracker cannot recognize the password.

2. Password	
2.1 Set Password	
Structure	P(password)
Example	P321654 Password must be 6 digital numbers and the first bit cannot be "0"
Reply	Set password ok.
2.2 Change Password	
Structure	(old password)P(new password)
Example	321654P123456
Reply	Your password has been changed successfully.
2.3 Delete Password	
Structure	(password)P0
Explanation	<pwd> Your current password.
Example	123456P0
Reply	Password deleted successfully.

Back to Catalog

G.3 SMS White List USE WITH CAUTION.

Device will receive SMS only from contact numbers on Whitelist.
NOTE: Incorrect phone number or cellular network changes may cause lock out.

3. SMS Whitelist	
Structure	sms(n)
Explanation	0=whitelist off, 1=whitelist on
Example	sms0
Reply	Allow device to receive text message from all numbers.
Example	sms1
Reply	Allow device to receive text message only from authorized numbers.

Back to Catalog

G.4 SOS Alarm Settings

To set the way to activate the SOS, ring time and talk time.

N means N*0.1 second. (20 means 20*0.1 seconds= 2 seconds)

4. SOS Alarm Settings		
4.1 SOS Button		
Structure	SOS(mode),(time)	
Explanation	(mode)	1=long press, 2=double click
	(time)	(Value range: 1~100)*0.1 second
Example	SOS1,20	
Reply	Set long press 2 seconds ok.	
It means long press 2 seconds to trigger SOS alarm.		
Example	SOS2,20	
Reply	Set double click 2 seconds ok.	
Double click SOS button in 2 seconds to trigger SOS alarm		
4.2 SOS Alarm Ring Time and Talk Time		
Structure	soscall(ring time),(talk time)	
Explanation	Ring time means ringing maximally for xxx seconds, then call to next contact number Value range: 1~60 seconds	
	Talk time is the maximal time to talk during a call Value range: 0~65535 seconds	
Example	Soscall35S,20m	
S=seconds, m=minutes, h=hours		
Reply	Set ring time 35 seconds, talk time 20 minutes ok.	
4.3 SOS Call Loops		
Structure	Loop(time)	

Explanation	Value range: 0~10 loop means SOS calling cycles to all authorized number
	0=infinite loop
	1=only once
Example	Loop5
Reply	Set SOS loop 5 times ok.

Back to Catalog

G.5 Request Location

After sending LOC, the device will be looking for the signal of Bluetooth, Wi-Fi and GPS, if the Bluetooth location is fixed, the device will stop searching for Wi-Fi and GPS signals.

5. Request Location	
5.1 Location	
Structure	Loc
Example Reply	GPS Loc! Now: Loc Time:07/04/2021 17:36:44 Speed:0km/h Altitude:97.0 Battery:57% www.google.com/maps?q=22.6537233,114.0006070
5.2 GPS Location	
Structure	Loc,gps
Explanation	The device will be only looking for the GPS signal. The device only searches GPS location for a maximum of 3 minutes, if up to date GPS location is not available, the device will reply last known GPS location.

Back to Catalog

G.6 Bluetooth - Only required if Base Station is included

The device will not be looking for Bluetooth location if BLE1 is set. You can turn on or off the Bluetooth positioning. Setting the location coordinates for the charging base is the very first step to using the charging base.

6. Bluetooth	
6.1 Keep Device Connected to Charging Base via Bluetooth	
Structure	BK(n)
Explanation	0=not always connected, 1=always connected
Example	BK0
Reply	Stay Connection off.
If the setting is BK0, the device will not stay connected to the charging base, even when the device is in the range of docking. Turn off Bluetooth to save battery if no base station has been purchased.	
6.2 Set Coordinates for Charging Base *	
Structure	BL(latitude),(longtitude)
Example	BL22.6180000,114.0360000
Reply	Set BLE location ok. *
6.3 Turn on/off Bluetooth Location	
Structure	BLE(n)
Explanation	1=on, 0=off
Example	BLE0
Reply	BLE loc off.

*USER MUST PRESS 'CALL2' BUTTON ON BASE WITHIN 3 MIN OF REPLY TO CONFIRM LOCATION. NOTE; CAN TAKE UPTO 5MIN TO REAQUIRE LOC

Back to Catalog

G.7 Wi-Fi

To turn on/off Wi-Fi. It will detect Wi-Fi hot spot and transfers those MAC address to coordinates.

Users will receive Wi-Fi location if GPS location is not available.

7. Wi-Fi	
7.1 Turn on/off Wi-Fi	
Structure	Wifi(n)
Explanation	0=off, 1=on
Example	Wifi0
Reply	WiFi off.
7.2 Set Map Link for Wi-Fi	
Structure	WIFIURL(http)/web/geolocation/%s/%s
Explanation	Change Wi-Fi format when necessary. Note: Please ask your agent before making any changes
Example	WIFIURLtracking.com/web/geolocation/%s/%s
Reply	WIFIURL Set ok.

Back to Catalog

G.8 LBS - Cell Tower Location

To turn on/off LBS. LBS location is fixed based on the cell-towers data which is received by device. Usually, the device will find the nearest cell tower and will show relative location near it. However, the LBS location provided by the device is usually much less accurate than other location methods. (when there is no GPS data, Wi-Fi or BLE, the system uses LBS as a backup.)

8. LBS	
7.1 Turn on/off LBS	
Structure	LBS(n)
Explanation	0=off, 1=on
Example	lbs0
Reply	lbs off.

Back to Catalog

G.9 AGPS (May not be available in all areas)

Assisted GPS is a system that is often able to significantly improve startup performance or time-to-first-fix and improve the GPS location to be more precise. GPS will search for the location, starting from the area around this point, thus improving efficiency to provide location information.

9. AGPS	
9.1 Turn on/off AGPS	
Structure	Agps(n)
Explanation	0=off, 1=on
Example	Agps0
Reply	Agps off.
9.2 Set AGPS Coordinates	
Structure	Agpsloc(n),(latitude,longtitude)
Explanation	n=0, Do not Allow GPS to update coordinates from time to time.

	n=1, Allow GPS to update coordinates from time to time.
Example	agpsloc1,114.1234567,22.1234568
Reply	AGPS Loc set ok.
9.3 Check AGPS settings	
Structure	Agpsloc?
Reply	AGPS Loc 1,1141234567,221234568.

G.10 Side Buttons

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10. Side Buttons		
10.1 Upper Button		
Structure	X(n),(time)	
Explanation	n=0	Upper button does not call
	n=1-10	To call contact number n
	time	(Value range: 1~100)*0.1 second. For example, 20=long press 2 seconds
Example	X2,20	
Reply	Set to dial the A2 ok.	
10.2 Lower Button		
Explanation of functions (no SMS commands)		
Function 1	Double click the button to turn on/off voice prompts.	
Function 2	Press and hold button 3 seconds, and at the same time press the CALL2 button on the charging base, then the device and charging base will pair to each other via Bluetooth.	

Back to Catalog

G.11 Vibration

11. Vibration	
Structure	Vibrate(n)
Explanation	n=0, vibration off
	n=1, vibrate when user push SOS button, tilt alarm, fall alarm, incoming call, press side button, turn on/off device.
Example	Vibrate0
Reply	Vibration Off!

Back to Catalog

G.12 Beep

This command is to control all the voice prompts on/off made by SOS, tilt, fall, motion alarms and other voice warnings.

12. Beep	
Structure	Beep(n)
Explanation	n=0, beep off
	n=1, vibrate when user push SOS button, tilt alarm, fall alarm, incoming call, press side button, turn on/off device.
Example	Beep0
Reply	Beep Off!

Back to Catalog

G.13 Call

To set rules in calling and answering calls.

13. Call	
13.1 Incoming Call	
Structure	callin(n)
Explanation	n=0, All numbers can call in
	n=1, Only authorized numbers can call in
	To decide who can call the device
Example	callin0
Reply	Allow all numbers to call in.
13.2 Answering the Incoming Call	
Structure	Answer(n),(time)
Explanation	n=0, automatic answering the call
	n=1, press any button to answer the call
	Value range: 1~10 seconds automatic answering the call after how many seconds ringing.
	The way to answer the incoming call.
Example	Answer0,5
Reply	Set automatic answering call ok.
Example	Answer1
Reply	Set to press the button to answer the call ok.
13.3 Hang up the Call	
Structure	Hangup(n)
Explanation	n=0, users cannot hang up on their own
	n=1, user can hang up the call by press SOS button
	The way to hang up the call
Example	Hangup0

Reply	Set hangup0 ok.
13.4 Call Back	
Structure	Callback(phone number)
Explanation	Device will call the set number immediately after the message is sent.
Example	Callback123456789
Reply	call 123456789 ok.
13.5 Stop call sequence	
Structure	scs(n)
Explanation	When a call is connected, it will not call the next contact
Example	scs1
Reply	Stop calling sequence set OK!
Example	scs0
Reply	Allow calling sequence set OK!

Back to Catalog

G.14 Voice Volume

To set the volume of incoming call ringtone, microphone, speaker, and voice prompts. Speaker can be turned on and off for SOS call, and call through the side upper button.

14. Volume	
14.1 Incoming Call Ringtone Volume	
Structure	RT(level)
Explanation	Volume range: 0~100
	Volume adjustment for a ringtone
Example	RT50
Reply	Set ringtone volume 50 ok. (incoming call)
14.2 Microphone Volume	
Structure	Micvolume(level)

Explanation	Volume range: 0~15
	Microphone volume adjustment for two-way talking
Example	Micvolume10
Reply	Set microphone volume 10 ok.
14.3 Speaker Volume	
Structure	speakervolume(level)
Explanation	Volume range: 0~100
	Speaker volume adjustment for two-way talking
Example	Speakervolume90
Reply	Set speaker volume 90 ok.
14.4 Voice Volume	
Structure voice(level)	
Explanation	Volume range: 0~100
Example	volume90
Reply	Set voice prompt volume 90 ok.
14.5 SOS Speaker Switch	
Structure	sosspeaker(n)
Explanation	n=0, turn off speaker
	n=1, turn on speaker
	The speaker can be turned on/off if the call made by SOS alarm.
Example	Sosspeaker1
Reply	Turn on speaker ok. (SOS call)
14.6 Call Button Speaker Switch	
Structure	Xspeaker(n)
Explanation	n=0, turn off speaker
	n=1, turn on speaker
	The speaker can be turned on/off if the call made by CALL button
Example	xspeaker0
Reply	Turn off speaker ok. (call button)

Back to Catalog

G.15 LED

15. LED	
Structure	led(n)
Explanation	n=0, turn off LED
	n=1, turn on LED
Example	LED0
Reply	LED off.

Back to Catalog

G.16 Time Zone

The device clock time depends on the time zone, related to the time report, alarm clock, alarm time, location time, etc. Time Zone is UTC. ie NZST = +12UTC (TZ+12)

16. Time Zone	
Structure	TZ(time zone code):(minute)
Explanation	Value range: +00 ~ +14, -00 ~ -14
	Minute=0/15/30/45
Example	NZ tz+12
Reply	Set time zone +12 ok.
Example	tz+10:15
Reply	Set time zone +10:15 ok.

Back to Catalog

G.17 Prefix - Device Name

To identify the device name, when receiving SMS messages from device.

17. Prefix	
Structure	Prefix(n),(text)
Explanation	n=0, prefix off
	n=1, prefix on
	Text=prefix context Value range: maximum characters can be 100.
Example	Prefix1,Emma
Reply	Set Emma ok.

Back to Catalog

G.18 Battery

To set (up to 2) low battery alarms, and to check the battery status.

18. Battery	
18.1 Low Battery Alarm 1- Send SMS to contacts	
Structure	Low(n),(level)
Explanation	n=0, low power alarm off
	n=1, low power alarm on
	Value range: 0~100
Example	Low1,15
Reply	Set low power alarm 15% ok.
18.2 Low Battery Alarm 2 Voice alert at 20%	
Structure	Lowuser(n),(level)
Explanation	n=0, low power alarm off
	n=1, low power alarm on

	Value range: 0~100
Example	Lowuser1,20
Reply	Set low power alarm 20% ok.
18.3 Battery Status	
Structure	battery
Reply	Battery: 88%

Back to Catalog

G.19 Find My Device

After the text message "findme" is sent to the device, device will play voice prompt “I am here” and last for 30 seconds, the voice prompt can be stopped by pressing the button when device is found.

19. Find My Device	
Structure	findme
Reply	(no reply)

Back to Catalog

G.20 Turn off Device

20. Turn off	
Structure	off
Reply	(no reply)

Back to Catalog

G.21 Device Information

To request information respect to IMEI, firmware version, device version.

21. Device Information	
Structure	V?
Reply Example	IMEI:863921033969786 GSM signal quality: 15 Software version: V07BX.8601.2109 version: V1.0.37.1

Back to Catalog

G.22 Alarms

SOS, Fall down alarm, Geo-fence alarm, Motion alarm, Tilt alarm, No motion alarm, Over-speed alarm.

22. Alarms	
22.1 SOS Emergency Alarm	
Structure	(no command)
Alarm Example	Help Me GPS Loc! Now: Loc Time:01/09/2021 09:46:51 Alarm Time:01/09/2021 09:46:33 Speed:0km/h Altitude:85.1 Battery:100% www.google.com/maps?q=22.6537455,114.0005853

22.2 Fall Down Alarm		
Structure	fl(n),(sensitivity level),(call yes/no)	
Explanation	n=0	Fall alarm off
	n=1	Fall alarm on
	sensitivity level 1-9.	1=least sensitive, 9=most sensitive
	call yes/no	Value range: 0~1 0 – Do not receive a call when there is an alarm 1 – Receive call when there is an alarm
Example	FL1,1,1	
Reply	Set fall down alarm ok!	
Alarm Example	Now: Loc Time:26/08/2021 11:23:55 Alarm Time:26/08/2021 11:23:48 Speed:0km/h Altitude:77.6 Battery:100% www.google.com/maps?q=22.6536771,114.0004660	

22.3 Geo Fence Alarm		
Structure	Geo(n),(on/off),(leave/enter),(distance)	
Explanation	n	Geo fence number value range: 1~4
	On/off	0=off, 1=on
	Leave/enter	0=leave, 1=enter
	Distance	Value range: 100~65535 meters
Suggestion	The distance should be no less than 100 meters	
Example	Geo1,1,0,100m	
Reply	Set geo fence 1 in, 100 M radius ok.	

Alarm Example	Geo Fence alarm 1 i GPS Loc! Now: Loc Time:28/08/2021 08:40:17 Alarm Time:28/08/2021 08:40:17 Speed:1km/h Altitude:114.7 Battery:97% www.google.com/maps?q=22.6583923,114.0004503

22.4 No Motion Alarm		
Structure	nmo(n),(static time),(call Yes/No)	
Explanation	n	0=off, 1=on
	Static time	Value range: 60~36000 seconds
	S=seconds, M=minutes, H=hours	
	Call yes/no	0=no, 1=yes
Example	NMO1,80M,1	
If device doesn't move (no motion) for 80 minutes, in 81 minutes, no motion alarm will be activated, device will send a text message or make a call immediately.		
Reply	Set no motion alarm 1 hour 20 minutes ok.	
Alarm Example	No Motion Alarm! GPS Loc! Now: Loc Time:01/09/2021 18:08:39 Alarm Time:01/09/2021 18:08:39 Speed:1km/h Altitude:86.3 Battery:76% www.google.com/maps?q=22.6536985,114.0005760	

22.5 Motion Alarm		
Structure	Mo(n),(static time),(duration time),(call Yes/No)	
Explanation	n	0=off, 1=on

	Static time	Value range: 60~36000 seconds
	Duration time	Value range: 60~36000 seconds
	S=seconds,M=minutes, H=hours	
	Call Yes/no	0=no, 1=yes
Example	mo1,05m,03s,1	
Reply	Set motion alarm ok.	
Motion for 3 seconds after staying no motion for more than 5 minutes		
Alarm Example	Motion Alert!3 seconds! GSM and WIFI-Loc: Loc Time:23/06/2021 17:25:12 Alarm Time:23/06/2021 17:24:45 Battery:100% smart-locator.com/web/geolocation/wg/YyK9-tAnYQQ4qaitPcGApKME07W3gZyqiPhyeFiwo2A6fBzFSalQK3MGyxGs8JK02afBqfCStNy9ma5UdZU3SAexSA7s8OQ2pUAxPPdb_ryoFU3X96asZG6XwxLHpMCl3TofygspzAEBBT0IKcEeBg==	
22.6 Tilt Alarm		
Structure	Tilt(n),(degree),(duration time),(call Yes/No)	
Explanation	n	0=off, 1=on
	Degree	Value range: 30-90
	Duration Time	Value range: 10~3600 seconds
	Call Yes/No	0=no, 1=yes
Example	tilt1,45,30s,1	
Reply	Set tilt alarm 45 degrees ok.	
Device will make a 30 seconds warning beep (20 seconds is fixed, user can't modify the beep time) if the device is detected vertically tilt over 45 degrees and the tilt last for 30 seconds. After 30 seconds beep warning, device will send the alert to contact numbers. or If the device is automatically adjusted to less than 45 degrees before 30 seconds beep finish, the alarm will be automatically canceled.)		

Alarm Example	Tilt Alarm GPS Loc! Now: Loc Time:12/08/2021 15:08:55 Alarm Time:12/08/2021 15:08:55 Speed:2km/h Altitude:97.2 Battery:100% www.google.com/maps?q=22.6538115,114.0006836	
22.7 Over Speed Alarm		
Structure	Speed(n),(speed)	
Explanation	n	0=off, 1=on
	speed	Value range: 20-400 km/h
Example	Speed0	
Reply	Over speed alarm canceled.	
Example	Speed1,100km/h	
Reply	Set over speed alarm 100km/h ok.	
Alarm Example	Over-speed alarm50km/h Now: Loc Time:13/07/2021 18:44:54 Alarm Time:13/07/2021 18:45:05 Speed:73km/h Altitude:32.1 Battery:100% www.google.com/maps?q=22.6645401,113.9950130	
22.8 Welfare Alarm - Welfare Timer		
Structure	Welfare<n>,<set up time>,<warning time>,<call Yes/No>	
Explanation	n	0=off,1=on
	Set up time	Value range: 600~360000 seconds
	Warning time	Value range: 120~600 seconds
	Call Yes/No	0=no,1=yes

Example	Welfare1,600,120,1
Reply	Welfare alarm.
Example	Welfare0
Reply	Welfare check off.
Alarm Example	Welfare Alert GSM and WIFI-Loc: Loc Time:23/06/2021 17:25:12 Alarm Time:23/06/2021 17:24:45 Battery:100% smart-locator.com/web/geolocation/wg/YyK9-tAnYQQ4qaitPcGApKME07W3gZyqiPhyeFiwo2A6fBzFSalQK3MGyxGs8JK02afBqfCStNy9ma5UdZU3SAexSA7s8OQ2pUAxPPdb_ryoFU3X96asZG6XwxLHpMCl3TofygspzAEBBT0lKcEeBg==

To Start Welfare Timer - Press bottom side button for 2 seconds.
To 'Check in' during warning time/ to turn Welfare timer off - Press bottom side button for 2 seconds.

NOTE: Welfare Timer requires to be restarted after each 'check in'

G.23 Alarm Clock

Device will ring, or play voice prompts, when it’s clock time.

23. Alarm Clock		
Structure	CLK(n),(on/off),(time),(type),(date)	
Explanation	n	Value range 1~4. Clock number
	On/off	0=off, 1=on
	time	00:00-24:00
	type	Value range 1~4. Voice/music type
	date	Value range 1~7. Monday to Sunday
Example	CLK1,0	
Reply	Alarm clock 1 off.	
Example	CLK2,1,19:30,3,1,2,4	
Reply	Alarm clock 2 on.	
Clock number2, at 19:30 with alarm type 3, play every Tuesday and Thursday		

Back to Catalog

G.24 No Disturb Time

Device will not make any sound even if someone calls. User will not hear any ringtone when there is an incoming call, and device will not play any voice warnings at all.

24. No Disturb Time		
Structure	ND(n),(start time),(end time)	
Explanation	n	0=off, 1=on
	Start time	Value range: 00:00-24:00
	End time	Value range: 00:00-24:00
Example	ND1,19:00,06:00	
Reply	No disturb from 19:00 to 6:00 ok.	
Example	ND0	
Reply	No disturb off.	

Back to Catalog

G.25 Internet Setting

To set APN, Heartbeat, Server. Heartbeat only works in mode 1,2,3,6.

25. Internet Setting		
25.1 APN		
Structure	S1,(APN),(username),(password)	
Explanation	APN	APN set by particular operators
	Username	(sometimes without)
	Password	(sometimes without)
To make device communicate with data, the user needs to set up the APN. - Some APN without user name and password, so please leave it blank. - Make sure that the SIM card in the tracker supports the internet function. - The APN can be acquired from your local cellular/network operators		
Example	S1,internet	
Reply	Set APN ok.	

25.2 Heartbeat (only required if connected to 3rd party online platforms)		
Structure	GPRSHB(time)	
Explanation	Time	Value range: 60~86400 seconds
	S=seconds,M=minutes, H=hours	
	Time=0	Heartbeat off
The heartbeat packet function is used to keep the Transmission Control Protocol (TCP) connection open when the interval of scheduled GPRS reporting is long		
Example	GPRSHB5M	
Reply	Set heartbeat 5 minutes ok.	
25.3 Server IP&Port		
Structure	IP(n),(IP/domain name),(port)	
Explanation	n	0=off, 1=on
	IP/domain name	Server IP
	port	Server port
Example	IP1,www.smart-locator.com,6060	
Reply	Set IP ok.	
Example	IP0	
Reply	IP connection disabled.	
25.4 GPRS Connection		
Structure	S(n)	
Explanation	n=0, GPRS off	
	n=2, GPRS on	
Example	S2	
Reply	GPRS is connecting.	
25.5 Check GPRS Settings		
Structure	GPRS?	

Reply Example	GRPS: ON APN: internet Username: Password: IP: 1, www.smart-locator.com Port: 6060 Move report time: 30 minutes No move report time: 60 minutes HB: on, 20 minutes

Back to Catalog

G.26 Working Mode

There are currently 6 working modes. Please check appendix 1 and the document 'Working mode' to know more details.

26. Working Mode		
26.1 Mode 1		
Structure	mode1	
Reply	Set mode 1 ok.	
26.2 Mode 2		
Structure	mode2,(movement time interval),(no movement time interval)	
Explanation	movement time interval	Data update interval when moving
	no movement time interval	Data update interval when not moving
Value range for 30~86400 seconds, H=hour, M=minute, S=second		
Example	mode2,03M,01h	
Reply	Set mode2, 3 minutes,1 hour ok.	
26.3 Mode 3 - GPS Always on (Use for GEOFENCE)		
Structure	Mode3, (time interval)	
Explanation	Time interval	Data update interval when Moving or not moving
Value range for 30~86400 seconds, H=hour, M=minute, S=second		
Example	mode3,01H	
Reply	Set mode3, 1 hour ok.	
26.4 Mode 4		
Structure	Mode4, (time interval)	
Explanation	Time interval	Data update interval when Moving or not moving
Value range for 60~604800 seconds, H=hour, M=minute, S=second		
Example	mode4,30m	
Reply	Set mode4, 30 minutes ok.	
26.5 Mode 5		
Structure	mode5, (time interval)	
Explanation	Time interval	Data update interval when Moving or not moving
Value range for 1200~604800 seconds, , H=hour, M=minute, S=second		
Example	mode5,10h	

Reply	Set mode5, 10 hours ok.
26.6 Mode 6	
(Same as mode 2)	

Back to Catalog

G.27 Continuous Locate - For 3rd party online platforms

Continuous locate function will be activated automatically in case of SOS alarm, to track continuously at certain intervals(Seconds), for several minutes.

27. Continuous Locate		
Structure	CL(report interval),(duration time)	
Explanation	report interval	Value range: 10~600 seconds
	duration time	Value range: 60~1800 seconds
H=hour, M=minute, S=second		
Example	CL10S,600S	
Reply	Set live tracking every 10 seconds and last for 10 minutes ok.	

Back to Catalog

G.28 Stop Sending Stored Historical Data to Server. (online platforms)

28. Stop Sending Historical Data to the Server	
Structure	flush
Reply	Flush ok!

Back to Catalog

G.29 Check Function Settings

Check the current settings.

29. Check Settings	
Structure	status
Reply	Mode:4,0 second LED: on Beep: on Vibration: on Time zone: +10:00 GEO Fence:0,0,0,0 Motion alarm: off No Motion alarm: off Tilt alert: off Fall alarm: on, level:5 Low power alarm: on,15% SOS Call:10 minutes, loop:1 side: 3 RT: 100 MIC: 9 Volume: 90

Back to Catalog

G.30 Set GPS Map Link

To change GPS map link format when necessary (When connecting 3rd Party online tracking)

30. Set GPS Map Link	
Structure	GPSURLwww.google.com/maps?q=%.7f,%.7f
Reply	GPSURL Set ok.

Back to Catalog

G.31 Beacon - Sold separately.

To set, add, delete and check Beacon list. To set Beacon leave home alert.

31. Beacon		
31.1 Delete Beacon List		
Structure	BCD	
Reply	Delete beacon list successfully.	
31.2 Automatically Add Beacon List		
Structure	BCA(coordinates),(location name)	
Explanation	coordinates	latitude,longitude
	location name	For example, home, office, garden
To automatically add Beacons nearby, with RSSI > -60		
Example	BCA 22.6535181,114.0009472,office	
Reply	Add successfully Beacon (mac address).	
31.3 Set Beacon List		
Structure	BCS(coordinates),(mac1),(location name1);(mac2),(location name2);.....	
Explanation	coordinates	latitude,longitude
	mac	Beacon mac address
	Location name	For example, home, office, garden
You can set only one location in one command, and you can set more than one beacon for one location.		
Example	BCS22.6535181,114.0009472,f7:37:b7:10:81:ce,room1;E6:6F:80:A9:61:5D,room2	
Reply	Beacon list set OK.	
31.4 Check Beacon List		
Structure	BCQ(n)	
Explanation	n	Check from Beacon (n)
Example	BCQ1	

Reply	1,F7:37:B7:10:81:CE,office1 2,C4:9F:A6:15:24:3F,office2 3,D3:E3:AC:86:5E:46,office7 4,DF:19:ED:B3:63:4C,room1 5,DF:79:14:AF:36:87,room9 6,EA:D9:02:05:82:61,room3 7,F1:19:79:42:18:21,room4 8,CD:B1:31:A7:BB:F9,room2 9,F3:64:2A:58:FB:57,room8 10,F9:2A:AB:5A:2E:E3,room6	
31.5 Turn on/off Beacon Location		
Structure	BCE(n)	
Explanation	n=0	Beacon off
	n=1	Beacon on
Example	BCE1	
Reply	Beacon loc is enabled!	
31.6 Beacon Leave Home Alert		
Structure	Beaconalert(n)	
Explanation	n=0	Beacon alert off
	n=1	Beacon alert on
Example	Beaconalert1	
Reply	beacon leave home alert enable.	

G.32 Home Wi-Fi List. Set/detect home wifi signal location

To set, add, delete and check Home Wi-Fi list.

32. Home Wi-Fi List		
32.1 Delete Home Wi-Fi List		
Structure	WFD	
Reply	Delete home wifi list successfully.	
32.2 Automatically Detect/Add Home Wi-Fi List signals		
Structure	WFA(coordinates),(location name)	
Explanation	coordinates	latitude,longitude
	location name	For example, home, office, garden
Note; Signals received may be from neighboring properties		
Example	WFA22.6535181,114.0009472,office	
Reply	Add successfully Home WiFi (mac address).	
32.3 Set Home Wi-Fi List. Manual setting home wifi location.		
Structure	WFS(coordinates),(mac1),(location name1);(mac2),(location name2);.....	
Explanation	coordinates	latitude,longitude
	mac	Home WiFi mac address
	Location name	For example, home, office, garden
You can set only one location in one command, and you can set more than one Home Wi-Fi for one location. ie, if you have multiple wifi signals or signal extenders within a home/office		
Example	WFS22.6535181,114.0009472,f7:37:b7:10:81:ce,room1;E6:6F:80:A9:61:5D,room2	
Reply	home wifi list set OK.	
32.4 Check Home Wi-Fi List		
Structure	WFQ(n)	

3.0 Troubleshooting

Device is turned on but not communicating

Check that your SIM card has had its voicemail set up and the SIM has credit.

Check SIM is from a recommended Network or compatible frequency cellular network.

Ensure SIM is operating correctly buy removing it from the device and using it in a Smart phone. Make a call, send SMS, check voicemail.

Reinstall into device & restart.

I have installed a working SIM card, but it is not responding

Give the device a restart. Check details above. If still not operating, check that the SIM card holder pin connectors have not been damaged during SIM card installation. Any broken, missing or miss-shaped connectors will cause the unit to be non responsive. Damage to SIM card holder connectors is not covered under warranty.

Check your network provider or issues or try a SIM card from a different compatible provider.

I'm sending the SMS but the device is not responding

Make sure there are no spaces when sending SMS commands. Commands for feature 'on' and 'off' are 1(one) & 0(zero)

Check that the number you are send the SMS to is the same as installed in the device

It says I don't have a GPS location.

It means the device has lost track of the satellite signals. Leave by a window for 15-30mintues to allow it to reacquire the signals. If the device is not seeing a good GPS signal, it will revert to Wifi or Cell Towers (LBS).

My GPS location is not accurate.

GPS location is dependent on a variety of factors and can be inhibited yb environmental factors such as buildings, aerials and trees. Check loc,gps when in full view of sky to get accurate readings.

The GPS Link appears broken within the SMS.

The network SIM being used is going through changes or having issues causing the broken SMS link. Network upgrades can take days to complete. Please check with your SIM card provider for details of any works or upgrades in your area. The broken link may rectify itself over time. Try restarting the device and setting the APN. Please note, this problem is usually localized and your contacts will likely receive a working link.

If the problem persists, you may wish to change the SIM card to an alternate provider.

Some networks have limitations on SMS character length which will cause broken links. Try a different SIM card carrier.

My device sends & receives SMS but call function is not working.

Check your calling functions have not been accidentally turned off whist setting up.

Test in another location as it may be due to network issues or lack of signal.

Try a different carrier SIM card that is compatible with the device

Check the SIM card holder to ensure no pins have been broken during installation

Appendix 1 Summary of Working Modes

Working Mode		Mobile network	Mobile data	Heartbeat	Interval	Call	SMS	Update location
Mode 1		Always on	Always on	Up to you	No	Anytime	Anytime	Only in events
Mode 2	moving	Always on	Always on	Up to you	Yes	Anytime	Anytime	Events& interval
	No-move	Always on	Always on	Up to you	Yes	Anytime	Anytime	Events & interval
Mode 3	moving	Always on	Always on	Up to you	Yes	Anytime	Anytime	Events & interval
	No-move	Always on	Always on	Up to you	No	Anytime	Anytime	Off
Mode 4		Always on	Events & Interval	Off	Yes	Anytime	Anytime	Events & interval
Mode 5		Off	Events & Interval	Off	Yes	Only SOS	Only SOS	SOS
Mode 6	moving	Always on	Always on	Up to you	Yes	Anytime	Anytime	Events & interval
	No-move	Always on	Always on	Up to you	Yes	Anytime	Anytime	Events & interval
Data-off Mode (Default Factory mode)		Always on	Off	Off	/	Anytime	Anytime	Off

Working Mode		GPS	Positioning methods of priority
Mode 1		Only in events	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
Mode 2	moving	Events & interval	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
	not moving	Off	BLE/Beacon→Home Wi-Fi→Wi-Fi & GSM
Mode 3	moving	Always on if no BLE/Beacon, marking every 100min	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
	not moving	Off	/
Mode 4		Events & interval	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
Mode 5		SOS	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
Mode 6	moving	Events & Activated 3 minutes before interval	BLE/Beacon→Home Wi-Fi→GPS→Wi-Fi & GSM
	not moving	Off	BLE/Beacon→Home Wi-Fi→Wi-Fi & GSM
Data-off mode		SOS	/

Appendix 2 Function List

Functions			Action	Scenario
1	Cellphone	SOS	Call, SMS, TCP alert, Continuous locate	Any emergency
2		Receive Call	ringtone	Like a cellphone
3		Call1	Call someone on contact list	Like a cellphone
4	Positioning	GPS	Provide location	Like a tracker
5		Bluetooth		Near Docking/Beacon
6		Wi-Fi&GSM		When no GPS/BLE
7	Sensor	Fall alarm	Call, SMS, TCP alert	When people fall
8		Tilt alarm		Coma, shock
9		No motion alarm		Coma, shock
10		Motion alarm		Asset tracking
11	Overspeed Alert		SMS, TCP alert	Driving too fast
12	Low battery alert			Battery low
13	Power on alert			Turn on
14	Power off alert			Turn off
15	Geo fence			Leaving home/area
16	Home mode	Home Wi-Fi	SMS, TCP alert	Come home
17		Beacon		
18		Beacon fence alert		Come/leave home
19	Alarm clock		Voice	It's time to get up,do exercise, take medicine, sleep...
20	Find me			I'm here

Back to Catalog

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