iStartek SMS Protocol

Between GPS Tracker and Phone

Version 1.1

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SMS Command List

Note: ****** is user's password and the default password is 000000. The tracker will only accept commands from a user with the correct password. Commands with wrong password will be ignored.

000 - Track on Demand	
SMS Command	W******,000
Description	To get the current location of the tracker, send this command as an SMS or make a telephone call directly to the tracker. After doing so, the device will report its longitude and latitude by SMS with format as follows: Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 40.5Km/h, 2011-12-24,01:50
Reply	current location.
Example	W000000,000

100 - Track on Demand	
SMS Command	W******,100
Description	Send this command to the tracker and you will receive an SMS with a http link. Click on the link and the location can be shown directly on your mobile phone using Google maps. For example: http://maps.google.com/?q=22.540103,114.082329 (Note: Only smart phones and PDAs support this function.)
Reply	current location.
Example	W000000,100

001 - Change Password	
SMS Command	W******,001,######
Description	To change user's password. ###### is the new password. Password should be 6 digits.
Reply	Device ID,001,code code: OK - success response. Error - failure response.
Example	W000000,001,123456 Change the password to 123456

002 - Track by Interval	
SMS Command	W******,002,XXX
Description	set interval for SMS automatic timed report. XXX is the interval in minutes. If XXX=000, turn off SMS tracking by time.
Reply	Device ID,002,code code: OK - success response. Error - failure response.
Example	W000000,002,030 Tracker will send location data back to your mobile phone every 30 minutes.

003 – Set Authorization	
SMS Command	W******,003,F,P,T1 W******,003,F,P,T1,T2
Description	Set authorize phone numbers for button/Inputs for receiving location reports, SMS alarms or

	phone calls. F=0, to turn off this function; (default) F=1, only sends SMS to the authorized phone number; F=2, only calls the authorized phone number; F=3, both SMS and calling. P=1, set an authorized number for Input 1; P=2, set an authorized number for Input 2; P=3, set an authorized number for Input 3; T1: Preset phone number for receiving SMS . Max.16 digits. T2: Preset phone number for receiving phone calls . Max.16 digits. If you need to set different numbers for receiving SMS and phone call, you can use W******,003,F,P,T1,T2, In this case T1 is the phone number for receiving SMS and T2 for receiving phone calls. If tracker doesn't support two-way conversation. Calling only gives ring and reminder to the authorized phone.
Reply	Device ID,003,code code: OK - success response. Error - failure response.
Example	W000000,003,3,1,88888888 W000000,003,3,1,88888888,99999999

005 – Set Speeding Alarm

SMS Command	W******,005,XX
Description	When the tracker speeds higher than the preset value, it will send an SMS to the authorized phone number for Input1. XX is the preset value of speed and in 2 digits. =00 , to turn off this function; =[01, 20] (unit: 10Km/h).
Reply	Device ID,005,code code: OK - success response. Error - failure response.
Example	W000000,005,08 Set the preset value to 80km/h.

006 – Set Movement Alarm

SMS Command	W******,006,X
Description	When the tracker moves out of a preset circle scope, it will send an SMS alarm to the authorized phone number for input1. x is the preset radii to the tracker's original place. =0, to turn off this function; =1, 30m | =2, 50m | =3, 100m | =4, 200m =5, 300m | =6, 500m | =7, 1000m | =8, 2000m
Reply	Device ID,006,code code: OK - success response. Error - failure response.
Example	W000000,006,6 Set the preset circle scope to 500m.

008 – Set Extended Functions	
SMS Command	W******,008,ABCDEFGHIJK###
Description	A=0, turn off the function of replying with an SMS position report after a call; A=1, turn on the function of replying with an SMS position report after a call. B=0, SMS location data is normal mode; For example, Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 40.5Km/h, 2011-12-24,01:50 B=1, SMS location data is Google link mode. For example, http://maps.google.com/?q=22.540103,114.082329 C=0, turn off the function to automatically hang up an incoming call; C=1, turn on the function to automatically hang up an incoming call. D=0, turn off the function of sending an SMS when the tracker is turned on; D=1, turn on the function of sending an SMS when the tracker is turned on. E, reserved and defaulted as 1. F=0, turn off the SMS alarm when the tracker enters GPS blind area; F=1, turn on the SMS alarm when the tracker enters GPS blind area. G=0, all LEDs work normally; G=1, all LEDs stop flashing when the tracker is working. H, reserved and defaulted as '0'. I=0, turn off the function of sending SMS alarm when the extra power of the vehicle tracker is cut; I=1, turn on the function of sending SMS alarm when the extra power of the vehicle tracker is cut. J, reserved and defaulted as 1. K=0, turn off the function that stopping when ACC Off; K=1, turn on the function that stopping when ACC Off. ### is the ending character. (ABCDEFGHIJK defaulted as 10001000010)
Reply	Device ID,008,code code: OK - success response. Error - failure response.
Example	W000000,008,10111000111###

009 – Set DNS Server IP	
SMS Command	W******,009,IP
Description	If the domain name you set by the last command (W******,012,IP, Port) doesn't work, your server IP is not properly set. You can first use this command to set DNS Server IP (please check with your DNS server provider for the DNS Server IP) and then redo the command

	W******,012,IP,Port.
Reply	Device ID,009,code code: OK - success response. Error - failure response.
Example	W000000,009,202.105.21.232

011 – Set APN	
SMS Command	W******,011,APN,Username,Password
Description	If no APN username and password are required, just input APN only. APN defaulted as 'CMNET'.
Reply	Device ID,011,code code: OK - success response. Error - failure response.
Example	W000000,011,CMNET

012 – Set IP and Port	
SMS Command	W******,012,IP,Port
Description	IP is your server's IP or the domain name. Port: [1,65534]
Reply	Device ID,012,code code: OK - success response. Error - failure response.
Example	W000000,012,istartracker.com,8011

013 – Enable GPRS Tracking	
SMS Command	W******,013,X
Description	X=0, to turn off GPRS tracking (default); X=1, to enable GPRS tracking via TCP; X=2, to enable GPRS tracking via UDP.
Reply	Device ID,013,code code: OK - success response. Error - failure response.
Example	W000000,013,1

014 – Set GPRS Interval	
SMS Command	W******,014,X
Description	Set time interval for sending GPRS packets. X should be in decimal string and in unit of 10 seconds. X=0, to turn off this function; X=1~65535, time interval for sending GPRS packet and in unit of 10 seconds.
Reply	Device ID,014,code code: OK - success response. Error - failure response.

Example	W000000,014,6 Tracker will send every 60 seconds

015 – Set Heartbeat Interval	
SMS Command	W******,015,time
Description	Set interval for heartbeat. Heartbeat will be sent when sleeping time: in unit of minute time=0, to turn off this function; time=1~255, set interval for heartbeat. In this example, the tracker will send heartbeat every 10 minutes.
Reply	Device ID,015,code code: OK - success response. Error - failure response.
Example	W000000,015,60 Set heartbeat time interval as 60 minutes. The tracker will send heartbeat to the server every 60 minutes when sleeping.

020 – Output Control (Immediate)	
SMS Command	W******,020,P,F
Description	P =1, Output1; P =2, Output2; P =3, Output3; P =4, Output4; P =5, Output5; F =0, to close the output (open drain) F =1, to open the output (Low voltage)
Reply	Device ID,020,code code: OK - success response. Error - failure response.
Example	W000000,020,1,1 If you have connected Output1 with a relay, you can send W000000,020,1,1 to stop the engine.

026 – Set Power Down Mode	
SMS Command	W******,026,time
Description	power down mode when the tracker is inactive (stationary) for a period of time. In Power Down mode, GPS stops working and GSM enters sleep and stop sending out message until it is activated by message, incoming calls, movement or input changes. time=0, to turn off this function. time=1~255, to turn on Power Down after a specified period of being inactive. It is in unit of minute.
Reply	Device ID,026,code code: OK - success response. Error - failure response.
Example	W000000,026,10 The tracker will enter power down mode after it is inactive for 10 minutes.

030 – Set Listening-in Phone (Voice Monitoring)	
SMS Command	W******,030,T
Description	Authorize a phone number to make a silent call to the tracker. The tracker will answer the call automatically and allows the caller to listen to what happens around the tracker. There is no sound when the tracker is working. T is phone number, Max. 16 digits; If incoming call is not from authorized phone number, it will be treated as a normal call and would not enter Listening-in status.
Reply	Device ID,030,code code: OK - success response. Error - failure response.
Example	W000000,030,13800000000

031 – Set GPS Log Interval	
SMS Command	W******,031,time
Description	Set the interval for storing GPS data into tracker's flash memory. (Note: this interval is not relevant to the interval of SMS/GPRS tracking) time =0, to turn off this function. time =[1, 65535] to set interval, in unit of second.
Reply	Device ID,031,code code: OK - success response. Error - failure response.
Example	W000000,031,6 The tracker will store location data every 6 seconds.

032 – Set Time Zone	
SMS Command	W******,032,time
Description	Default time of the tracker is GMT, you can use this command to correct it to your local time. This command is for SMS tracking only. time = [-720,720] to set time difference in minute to GMT. For those ahead of GMT, just input the time difference in minute directly. For example, GMT+8, W000000,032,480; '-'is required for those behind GMT. For example, W000000,032,-120.
Reply	Device ID,032,code code: OK - success response. Error - failure response.
Example	W000000,032,480 W000000,032,-120

033 – Set SMS Header	
SMS Command	W******,033,P,String
Description	Set initial characters for SOS message when IN1, IN2, IN3 is pressed. P= Input1 P= Input2 P= Input3

	String is the character in alert message and max 32 characters and defaulted as: Input1: SOS Alarm! Input2: Cry For Help! Input3: Call The Police!
Reply	Device ID,033,code code: OK - success response. Error - failure response.
Example	W000000,033,1,help

035 – Set Sensitivity of Tremble Sensor	
SMS Command	W******,035,X
Description	Set sensitivity of tremble sensor. X=[1,255], it will be more sensitive if X is smaller. Default value is 2.
Reply	Device ID,035,code code: OK - success response. Error - failure response.
Example	W000000,035,5

036 – Set Heading Change Report	
SMS Command	W******,036,degree
Description	When the heading direction of the tracker changes over the preset degree, a message with location data will be sent back to the server by GPRS. degree=0, to turn off this function; degree=[1,180], to set degree of direction change.
Reply	Device ID,036,code code: OK - success response. Error - failure response.
Example	W000000,036,30

042 – Set Speeding and output Alarm	
SMS Command	W******,042,degree
Description	speed =[0,255], in unit of Km/h; If speed = 0, to close this function; Out1 connect to a buzzer, when the tracker is over this preset speed limit, an alarm message will be sent to the server, and Out1 will be actived to alarm.
Reply	Device ID,042,code code: OK - success response. Error - failure response.
Example	W000000,042,80

119 – Output Control (Immediate)	
SMS Command	W******,119,ABCDE
Description	This output is achievable Immediate.

	ABCDE represents Out1, Out2, Out3, Out4, and Out5 respectively. If A or B or C or D or E, =0, to close the output (open drain) =1, to open the output (low voltage) =2, to remain previous status
Reply	Device ID,119,code code: OK - success response. Error - failure response.
Example	W000000,119,10000

120 – Output Control (speed is below 10km/h)	
SMS Command	W******,120,ABCDE
Description	This output is achievable only when the speed is below 10km/h and meantime GPS is available. ABCDE represents Out1, Out2, Out3, Out4, and Out5 respectively. If A or B or C or D or E, =0, to close the output (open drain) =1, to open the output (low voltage) =2, to remain previous status
Reply	Device ID,120,code code: OK - success response. Error - failure response.
Example	W000000,120,10000

220 – Output Control (speed is below 20km/h)	
SMS Command	W******,220,ABCDE
Description	This output is achievable only when the speed is below 20km/h and meantime GPS is available. ABCDE represents Out1, Out2, Out3, Out4, and Out5 respectively. If A or B or C or D or E, =0, to close the output (open drain) =1, to open the output (low voltage) =2, to remain previous status
Reply	Device ID,220,code code: OK - success response. Error - failure response.
Example	W000000,220,10000

302 – Set Geo-fence Alarm	
SMS Command	W******,302,latitude,longitude,radius,in,out
Description	Set Geo-fencing alarm. When the tracker moves in/out the preset scope, it will send an SMS alarm to the authorized phone number for SOS. 2. Latitude and longitudes should be in ASCII format as follows: Latitude is ddd.dddddd, '0' is needed to be stuffed if no value available. '-' should be added for south. Longitude is dd.dddddd, '0' is needed to be stuffed if no value available. '-' should be added for west. 3. Radii: [1, 4294967295] meter(s), suggest to be set above 100 meters, if set above 8, it is

	corresponding radii. 4. If In and Out are 0, corresponding function is invalid, if are 1, valid. Send W******, 302 to turn off Geo-fence function.
Reply	Device ID,302,code code: OK - success response. Error - failure response.
Example	W000000,302,22.000000,-114.123456,3000,1,1

303 – Track by Distance	
SMS Command	W******,303,X
Description	Set distance interval X= [1, 4294967295], suggest to be set above 300 meters; X=0, turn off.
Reply	Device ID,303,code code: OK - success response. Error - failure response.
Example	W000000,303,1000

304 – Set ACC Off GPRS Interval	
SMS Command	W******,304,X
Description	Set time interval for sending GPRS packets when ACC Off. X should be in decimal string and in unit of 10 seconds. X=0, to turn off this function; X=1~65535, time interval for sending GPRS packet and in unit of 10 seconds.
Reply	Device ID,304,code code: OK - success response. Error - failure response.
Example	W000000,304,60 Tracker will send every 600 seconds when ACC Off.

305 – Set ACC Off Interval Function	
SMS Command	W******,305,X
Description	X: =0, cancel; =1, enable this function. Input3 is used as the ACC detect input. When enable this function, it will track by ACC off interval(304 command) with ACC off, and track by time interval(014 command) with ACC on. Only for GPRS report.
Reply	Device ID,305,code code: OK - success response. Error - failure response.
Example	W000000,305,1

307 – Set GSM Jamming(Customized)	
SMS Command	W******,307,X
Description	X: =0, cancel; =1, enable this function. When the Jamming function is enabled, when the GSM jamming is detected, there will be a GPRS event 0x57 alarm and SMS alarm, and output1 will turn on to cut the power of the oil pump or buzzer alarm. When GSM jamming disappeared, output1 will turn off.
Reply	Device ID,307,code code: OK - success response. Error - failure response.
Example	W000000,307,1

308 – Set Ext-Power Low Alarm	
SMS Command	W******,308,volt
Description	volt=[0.0, 25.5], in unit of volt, default 10.0V; =0.0, disable this function. When the Ext-power is low then volt, there is will be a GPRS alarm and a SMS alarm.
Reply	Device ID,308,code code: OK - success response. Error - failure response.
Example	W000000,308,11.0 The command will set the volt to 11.0V.

312 – Set Harsh Accelerate and Deceleration Alarm	
SMS Command	W******,312,a1,a2,T1,T2
Description	a1 is the accelerated variation, default as 7 km/h/s; a2 is the decelerated variation, default as 7 km/h/s; T1 is the time for Continuous acceleration, in unit of second, default as 3s; T2 is the time for continuous deceleration, in unit of second, default as 3s; When the a1 variation is continuous for T1 time or the a2 variation is continuous for T2 time, there will be an alarm.
Reply	Device ID,312,code code: OK - success response. Error - failure response.
Example	W000000,312,6,6,2,2 The command will set the a1 and a2 to 6 km/h/s, and set T1 and T2 to 2s.

352 – Set Mileage	
SMS Command	W******,352,mileage
Description	Set the total mileage of GPRS packets. When mileage is deleted, the server should have a corresponding program to avoid calculation mistake.

	mileage=[0, 4294967295], in unit of meter.
Reply	Device ID,352,code code: OK - success response. Error - failure response.
Example	W000000,352,1000 Set the total mileage of GPRS packets to 1000m.

503 – Clear Buffer	
SMS Command	W******,503
Description	This command clears the data stored in the buffer when there is no GSM coverage.. Note: Deleted data can't recover any more.
Reply	Device ID,503,code code: OK - success response. Error - failure response.
Example	W000000,503

563 – Set RFID/Ibutton ID(Customized)	
SMS Command	W******,563,index,ID1,ID2,ID3,ID4,ID5……ID10
Description	Max 100 IDs can be set, one command can set 10 IDs at most. Index: decimal string, set the IDs from index position. RFID ID: decimal string, 10 digitals; Ibutton ID: Hex string, 12 characters.
Reply	Device ID,563,code code: OK - success response. Error - failure response.
Example	W000000,563,3,0000010488B4,000001285E4F,0000013E9EBB Set IDs(0000010488B4,000001285E4F,0000013E9EBB) from the third position.

564 – Set RFID/Ibutton to control out1(Customized)	
SMS Command	W******,564,flag
Description	flag: =0, cancel; =1, enable this function. When enable this function, out1 will control the power of the oil pump, it need the authorized ID to drive car.
Reply	Device ID,564,code code: OK - success response. Error - failure response.
Example	W000000,564,1

565 – Set Buzzer Time(DLT Customized)	
SMS Command	W******,565,time

Description	time: decimal string. time = 0: no alarm; time = [1,255]: the minutes for the alarm. Default as 10 minutes.
Reply	Device ID,565,code code: OK - success response. Error - failure response.
Example	W000000,565,20 Set the buzzer time to 20 minutes.

566 – Set Magnetic Card ID(DLT Customized)

SMS Command	W******,566,ID1,ID2,…IDn
Description	ID =[0,65535], decimal string, Support max 16 IDs settings. All ID default as 0 . Once set, the new value will cover all the previous values.
Reply	Device ID,566,code code: OK - success response. Error - failure response.
Example	W000000,566,20,24 Set the ID 20 and 24.

570 – Get SIM Card CCID(Customized)

SMS Command	W******,570
Description	Read the CCID of SIM card.
Reply	Device ID,570,CCID CCID: the CCID of SIM card.
Example	W000000,570

571 – Set Only Use Track3 Data(DLT Customized)

SMS Command	W******,571,X
Description	X=0: read the data of track1, track2 and track3, default 0. X=1: only read the data of track3.
Reply	Device ID,571,code code: OK - success response. Error - failure response.
Example	W000000,571,1

572 – Delete RFID/Ibutton ID(Customized)

SMS Command	W******,572,ID1,ID2,ID3,ID4,ID5……ID10
Description	One command can delete 10 IDs at most. RFID ID: decimal string, 10 digitals; Ibutton ID: Hex string, 12 characters;
Reply	Device ID,572,code code: OK - success response. Error - failure response.

Example	W000000,572,0000010488,0000012854,0000013847

573 – Check RFID/Ibutton ID(Customized)

SMS Command	W******,573,ID
Description	Check the ID whether has been authorized, and each command can only check one ID. RFID ID: decimal string, 10 digitals; Ibutton ID: Hex string, 12 characters;
Reply	Device ID,573,code code: Non - unauthorized. Yes - authorised.
Example	W000000,573,0000010488

600 – Get device's SN, IMEI & firmware version

SMS Command	W******,600
Description	Get device's Serial Number, IMEI and firmware version.
Reply	Device ID,600,SN,IMEI,Version
Example	W000000,600 132160521394,600,132160521394,863835025730784,VT600_3G_V1.65

605 – Get GPRS parameters

SMS Command	W******,605
Description	Get the flag,type,IP,Port,APN,user name,APN password,interval of the tracker. flag: =0, disable GPRS; =1, enable GPRS. type: TCP or UDP. interval: GPRS report time interval, in unit of 10s.
Reply	Device ID,605,flag,type,IP,Port,APN,user name,APN password,interval
Example	W000000,605 132160521394,605,1,TCP,istartracker.com,8011,CMNET,,,3

606 – Get Tracker's Status

SMS Command	W******,606
Description	Get the GPRS status,GPS status,Ext-power/IN1/IN2/IN3/OUT1/OUT2,CSQ of the tracker. GPRS status: =0, disconnected; =1, connected. GPS status: =V, GPS invalid; =A, GPS valid. Ext-power: =0, disconnected; =1, connected. IN1: =0, inactived, =1, actived. IN2: =0, inactived, =1, actived. IN3: =0, inactived, =1, actived. OUT1: =0, closed, =1, opened. OUT2: =0, closed, =1, opened. CSQ: the value of GSM signal.
Reply	Device ID,606,GPRS status,GPS status,Ext-power/IN1/IN2/IN3/OUT1/OUT2,CSQ
Example	W000000,606 132160521394,606,1,A,100100,27

607 – Get USSD(Customized)

SMS Command	W******,607,USSD command
Description	Check the expenses information of SIM card.
Reply	Device ID,607,USSD data USSD data: the expenses information of SIM card.
Example	W000000,607,*121#

901 – Reboot GSM

SMS Command	W******,901###
Description	Reboot the GSM module of the tracker. ### is the ending character.
Reply	Device ID,901,code code: OK - success response. Error - failure response.
Example	W000000,901###

902 – Reboot GPS

SMS Command	W******,902###
Description	Reboot the GPS module of the tracker. ### is the ending character.
Reply	Device ID,902,code code: OK - success response. Error - failure response.
Example	W000000,902###

903 – Reboot device

SMS Command	W******,903###
Description	Reboot the device. ### is the ending character.
Reply	No reply.
Example	W000000,903###

990 – Initialization

SMS Command	W******,990,099###
Description	Send SMS “Default?” to the device first, and then send (within 120 seconds) this SMS command to the tracker to make all settings (except for the password) back to factory default. ### is the ending character.
Reply	Device ID,902,code code: OK - success response. Error - failure response.
Example	W000000,990,099###

999 – Password Initialization

SMS Command	W888888,999,666
Description	In case you forget your password, Send SMS “Default?” to the device first, and then send

	(within 120 seconds) this SMS command to the tracker to make the password back to factory default (000000).
Reply	Device ID,Device Reset Password
Example	W888888,999,666 132160521394,Device Reset Password