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DEVICE COMMUNICATION TABLE

Dec Value	Name	Description
01	Network Command	Perform Defined Network Command
03	General Command	Perform Defined General Command
...
10	Network / SMS / RPT Settings	
13	Alert Config 1	
16	Tracking Setting	
19	Accelerometer / Power	
...		
...		
99		
...		
129	Status Report	Status report from the device
130	Alert ID Report	Alert ID report sent from the device
...
144	ACK Report	
145	Status Report (req. ACK)	Status report from the device. Requires acknowledgment response from platform.
146	Alert ID Report (req. ACK)	Alert ID report sent from the device. Requires acknowledgment response from platform.
...
...

Command Structure:

- CMD;[DEVICE_ID];[Param ID];[Param Value]
- “AT^” must be added when sending commands from PC by USB.
<Example>
AT^CMD; 4309999001;01;01

01: Network Commands

0101: Check-In to Maintenance Server


Following command will prompt the device to report to the maintenance server to check for updates.

<Example>

Command: CMD;4309999001;01;01

Response: RES; 4309999001;01;01

0102: Requesting IMSI

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The server sends the device this command requesting IMSI (International Mobile Subscriber Identity) if the server wants to receive IMSI from the device.

If the device receives the command from the server, it sends the IMSI to the server.

Response Options:

- When the device has no SIM or is under power-on process, the IMSI number cannot be read.
 - RES;4309999001;01;02;NotReady

<Example>

Command: CMD;4309999001;01;02

Response: RES;4309999001;01;02;724031111553779

0103: Requesting ICCID

How to request ICCID (Integrated Circuit Card Identifier), which is a sequence number that is displayed on SIM. If device receives this command, it sends the server ICCID.

Response Options:

- When the device has no SIM or is under power-on process, the ICCID number cannot be read.
 - RES;4309999001;01;03;NotReady

<Example>

Command: CMD;4309999001;01;03

Response: RES;4309999001;01;03;89550230000084256668

0104: Check if connected to 2G, 3G, or 4G

Following table shows Radio Access Technology which the device is currently connected.

Response options:


- 0: GSM
- 1: GSM COMPACT
- 2: UTRAN
- 3: GSM with EDGE availability
- 4: UTRAN with HSDPA availability
- 5: UTRAN with HSUPA availability
- 6: UTRAN with HSDPA and HSUPA availability
- 7: Reserved
- 8: LTE Cat M1
- 9: LTE Cat NB1
- 255: Invalid

<Example>

Command: CMD;4309999001;01;04

Response: RES;4309999001;01;04;3

0105: Request its Own Phone Number

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Requesting own phone number.

Response Options:

- When the device has no SIM or is under power-on process, the own phone number cannot be read.
 - RES; 4309999001;01;05;NotReady
- If the own number field in SIM is empty, the device reports with “NoData”.
 - RES; 4309999001;01;05;NoData

<Example>

Command: CMD;4309999001;01;05

Response: RES;4309999001;01;05;82220275656

0107: Enable Server Locking(Hidden Command)

This command is made by the server to the device when the server wants to enable server locking.

- Enable Server Lock command is available only when this command is sent by GPRS/HSPA.
- Once Server Lock is Enabled and the first report is made to the server, the server starts being locked.
- If Server is LOCKED, you can change IP and port (including backup server) only by GPRS/HSPA. The other parameters are configurable by SyncTrak or GPRS/HSPA or SMS.
- In order to Disable the Server Locking, you have to use PC program (ServerLock) with USB Dongle.

<Example>

Command: CMD;4309999001;01;07

Response: RES;4309999001;01;07

0108: Disable Server Locking(Hidden Command)

This command is made by the server to the device when the server wants to disable a function of 'server locking'.

- Disable Server Lock command can be effective only when the command is sent by GPRS/HSPA.
- This command is used to disable the state of the server locking.

<Example>

Command: CMD;4309999001;01;08

Response: RES;4309999001;01;08

0109: Request Server Lock Status

This command is sent when you request about the activation and deactivation status of the 'Server Lock' function.

0: Server Lock Disable status.

<Example>

Command: CMD;4309999001;01;09


Response: RES;4309999001;01;09;0

1: Server Lock Enable status.

<Example>

Command: CMD;4309999001;01;09

Response: RES;4309999001;01;09;1

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02: Location Commands

0201: Location query sent via smart phone(Hidden Command)

If you are a smart phone user, you can use it to easily find the current location on the Google map, just send one of the following messages by your smart phone:

<Example>

Command: CMD;4309999001;02;01

And, then the Google Map will be responding to you by sending the address on your smart phone. You can see the current location of the device just by opening the message containing that address on the web browser.

In order to enable the device to accept your SMS message, you have to add your smart phone number to one of the 4 optional numbers such as SMS_MT1 to SMS_MT4 or disable SMS_LOCK. Before you start using this function, you should get to know the URL (server address) of the Google map first.

You can have more information about how to get the server address of the Google map in section "Command to Get Google Map Address" of this document

0202: Set Google Map Address

In a case that you use a smart phone operating a function of "Where Are You", you can use the server of the Google as set below *in italic bold letters*, "Google map address". The users of the Google map should check what the right map address of the Google is and that the right address should be set. The Google map address needs to be checked. If the Google map address is not right, this function ("Where Are You") can't be used.

Set location link address format (Google map address).

This command is either followed by "=" or inserted inside the address.

<Example>

Command: CMD;4309999001;02;02;***http://maps.google.com/maps?q=***

Response: RES;4309999001;02;02

<Note>

The max of input string is 96 characters.

0203: Get Google Map Address

In case this command is made, the pre-set existing Google Map address will be known.


Definition: Get Google Map Address.

<Example>

Command: CMD;4309999001;02;03

Response: RES;4309999001;02;03;***http://maps.google.com/maps?q=***

03: Command for General Use

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After device is configured, user may need to check/query values of the parameters if he/she wants to change those values. This chapter shows user how to change the parameters values that have been set already.

0301: Requesting Status Report

Once this command is made, some interactions will be made between the server and the device as described in the '*Meaning*' section of the table below.

Requesting Status of the device

If device receives this 'Request' command from the server, it sends the Status string to the server promptly.

<Example>

Command: CMD;4309999001;03;01

Response: [Defined Status Report Structure]

0302: Re-setting (Restoring to factory defaults and Rebooting)

Once this command is made, some interactions will be made between the server and the device as described in the '*Meaning*' section of the table below.

Re-setting the current parameters values

This command is used to initialize all the parameters with the values set in the factory of the devices and to reboot the device.

<Example>

Command: CMD;4309999001;03;02

Response: RES;4309999001;03;02

0303: Reboot

This command is made by the server to the device which needs to be rebooted.

<Example>

Command: CMD;4309999001;03;03

Response: RES;4309999001;03;03;Reboot

0304: Request Device Version


Requesting information about version of the device

If the device receives this command, it reports to the server about:

CMD; 4309999001;03;04;<Type>

<Type>

- 1 : Main Firmware
- 2 : MCU Firmware(Not Support)
- 3 : Accessory Firmware(Not Support)

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- 4 : Modem firmware
- 5 : BLE Firmware
- 6 : WIFI Firmware

<Example>

Command: CMD;4309999001;03;04;01
Response: RES;4309999001;03;04; 01;STG.56.1.0.2

Command: CMD;4309999001;03;04;02
Response: RES;4309999001;03;04;02;M007
Response: RES;4309999001;03;04;02;NotSupport

Command: CMD;4309999001;03;04;03
Response: RES;4309999001;03;04;03;A.0.0.7
Response: RES;4309999001;03;04;03;NotSupport

Command: CMD;4309999001;03;04;04
Response: RES;4309999001;03;04;04;BG96MAR02A07M1G_01.014.01.014
Response: RES;4309999001;03;04;04;NotReady

Command: CMD;4309999001;03;04;05
Response: RES;4309999001;03;04;05;B.1.0.0
Response: RES;4309999001;03;04;05;NotSupport

Command: CMD;4309999001;03;04;06
Response: RES;4309999001;03;04;06;W.2.0.1
Response: RES;4309999001;03;04;06;NotSupport


0305: Preset

This command sends the saved settings of the parameter

- Support Parameter List
- 1) Network Parameter
 - 2) Report Config/Setting
 - 3) SMS
 - 4) Accelerometer
 - 5) Power
 - 6) Ignition
 - 7) Mode Config
 - 8) 1-Wire Settings

<Example>

Command: CMD;4309999001;03;05
Response: RES;4309999001;03;05;10;00#02;01#;02#;03#;04#0000;05#211.118.107.218;06#15300;07#00;08#;09#0;10#00;11#0;12#0;14#0;16#0;20#suntechscuti.com;21#9000;22#24;23#00:00;17#60;18#2;19#4,10;55#00;58#00;72#00;73#,10;25#;30#00;31#;32#;33#;34#,19;00#00;01#0.08,19;30#00;36#00;37#3.40;38#3.50;39#3.60,17;01#60;02#10;17#01,16;49#2400;50#2400;51#2400;52#2400,19;70#00;80#100;81#-50

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0306: PresetP

This command sends the saved settings of the specified parameter

* Value : 0~tab total count

- List of unsupported parameters

- 1) Register BLE
- 2) Circular Geofence
- 3) Command String

<Example>

Command: CMD;4309999001;03;06;[value]
Response: RES;4309999001;03;06;[Setting Data]
Response: RES;4309999001;03;06;Not Support

Command: CMD;4309999001;03;06;0

Response:
 RES;4309999001;03;06;10;00#02;01#;02#;03#;04#0000;05#211.118.107.218;06#15300;07#00;08#;09#0;10#00;11#0;12#0;14#0;16#0;20#suntechscuti.com;21#9000;22#24;23#00:00;17#60;18#2;19#4

Command: CMD;4309999001;03;06;1

Response: RES; 4536435435;03;06;10;55#00;58#00;72#00;73#

Command: CMD;4309999001;03;06;4

Response: RES;4536435435;03;06;Not Support

05: COMMAND FOR VARIOUS USAGES

0502: Erase all the saved reports → Erase All

This command is used if you want to erase all the saved reports and disable the outputs. This command is needed to initialize the device which is to be delivered to a new customer.

<Example>

Command: CMD;4309999001;05;02

Response: RES;4309999001;05;02

0504: Initialize Message Number

This command is used if you want to initialize sequence number of the message.

<Example>

Command: CMD;4309999001;05;04


Response: RES;4309999001;05;04;0

0506: Initialize Circular Geo-fence

This command is used for erasing all circular geo-fence setting data.

Command: CMD;4309999001;05;06

Response: RES;4309999001;05;06

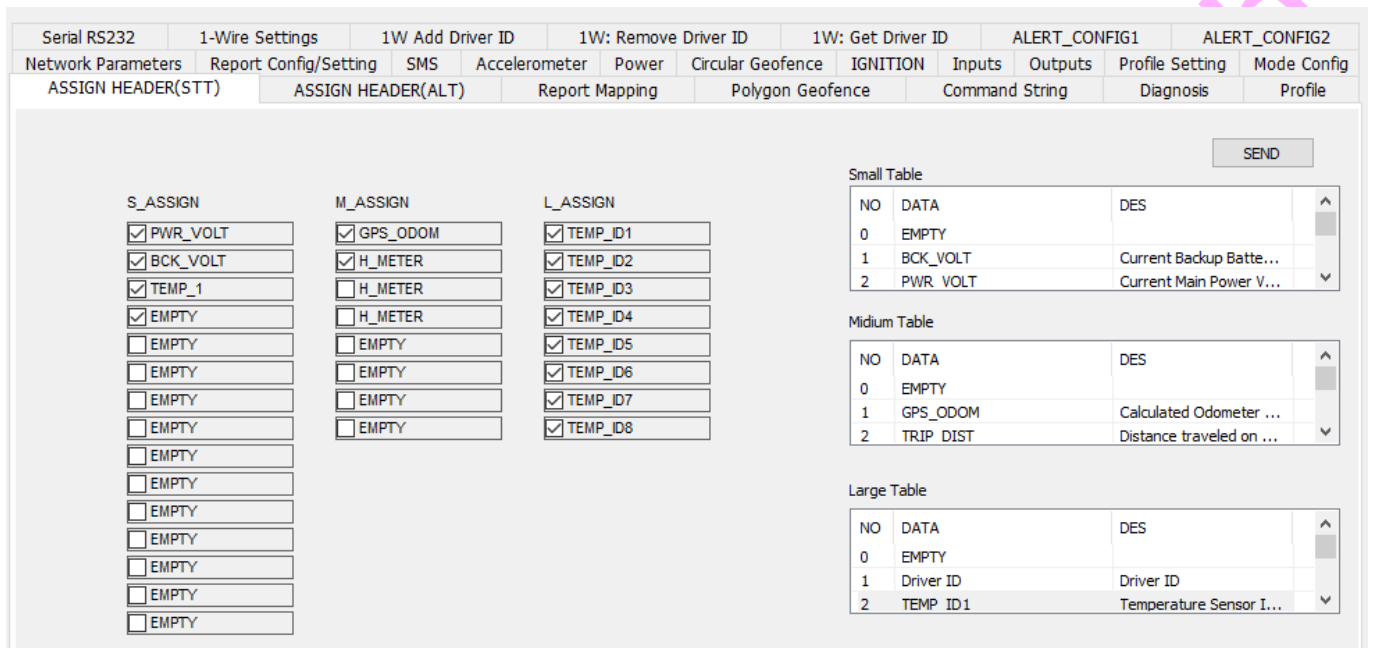
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0507 : Request Complete STT Assign Map

This command is sent when you request about the current configuration for the Short, Medium and Long Assign. This device sends only enabled assign header

Command: CMD;4309999001;05;07

Response: RES;4300999021;05;07;STT ASSIGNMAP;S_ASSIGN,M_ASSIGN,L_ASSIGN



The screenshot shows a configuration interface with a top navigation bar and a main content area. The top bar includes tabs for 'Serial RS232', '1-Wire Settings', '1W Add Driver ID', '1W: Remove Driver ID', '1W: Get Driver ID', 'ALERT_CONFIG1', and 'ALERT_CONFIG2'. Below this are sub-tabs for 'Network Parameters', 'Report Config/Setting', 'SMS', 'Accelerometer', 'Power', 'Circular Geofence', 'IGNITION', 'Inputs', 'Outputs', 'Profile Setting', and 'Mode Config'. The main content area is titled 'ASSIGN HEADER(STT)' and contains three columns of checkboxes for 'S_ASSIGN', 'M_ASSIGN', and 'L_ASSIGN'. To the right, there are three tables: 'Small Table', 'Midium Table', and 'Large Table', each with columns for 'NO', 'DATA', and 'DES'. A 'SEND' button is located at the top right of the main content area.

<Example>

Command: CMD;4309999001;05;07

Response: RES;4309999001;05;07;7F81800F;02,01,03,00;01,06;02,03,04,05,06,07,08,09

*STT ASSIGN MAP : 7F881800F

*S_ASSIGN : 02,01,03,00

*M_ASSIGN : 01,06


*L_ASSIGN : 02,03,04,05,06,07,08,09

0508 : Request Complete ALT Assign Map

This command is sent when you request about the current configuration for the Short, Medium and Long Assign. This device sends only enabled assign header

Command: CMD;4309999001;05;08

Response: RES;4300999021;05;08;ALT ASSIGNMAP;S_ASSIGN,M_ASSIGN,L_ASSIGN

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Serial RS232	1-Wire Settings	1W Add Driver ID	1W: Remove Driver ID	1W: Get Driver ID	ALERT_CONFIG1	ALERT_CONFIG2				
Network Parameters	Report Config/Setting	SMS	Accelerometer	Power	Circular Geofence	IGNITION	Inputs	Outputs	Profile Setting	Mode Config
ASSIGN HEADER(STT)	ASSIGN HEADER(ALT)	Report Mapping	Polygon Geofence	Command String	Diagnosis	Profile				

S_ASSIGN

TEMP_1

TEMP_2

TEMP_3

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

M_ASSIGN

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

L_ASSIGN

Driver ID

TEMP_ID1

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

EMPTY

Small Table

NO	DATA	DES
0	EMPTY	
1	BCK_VOLT	Current Backup Batte...
2	PWR_VOLT	Current Main Power V...

Midium Table

NO	DATA	DES
0	EMPTY	
1	GPS_ODOM	Calculated Odometer ...
2	TRIP_DIST	Distance traveled on ...

Large Table

NO	DATA	DES
0	EMPTY	
1	Driver ID	Driver ID
2	TEMP ID1	Temperature Sensor I...

<Example>

Command: CMD;4309999001;05;08

Response: RES;4309999001;05;08;0380000F;03,04,05,00;;01,02,00

*ALT ASSIGN MAP : 0380000F

*S_ASSIGN : 03,04,05,00

*M_ASSIGN :

*L_ASSIGN : 01,02,00

0513: Initialize Register BLE

This command is used for erasing all registered ble setting data.

Command: CMD;4309999001;05;13

Response: RES;4309999001;05;13

0516: Initialize Driving Time and Parking Time

This command is used if you want to initialize driving time and parking time.

Command: CMD;4309999001;05;16

Response: RES;4309999001;05;16


07: USER COMMANDS

0720: FW Update using USB

This command is used if you want to update using DFU interface of USB.

SMS does not support it. For Updating, the 'DfuSe' application must be used.

This command is supported only at 'synctrack'.

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<Example>

Command: CMD;4309999001;07;20

Response: RES;4309999001;07;20

0721: Turn off


This command turns the device off. It works with backup battery operating only.

<Example>

Command: CMD;4309999001;07;21

Response: RES;4309999001;07;21

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REVISIONS

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Rev. 1.00	2020-03-18	DRAFT	BC.Jeon
Rev. 2.00	2020-03-20	FW update command added.	BC.Jeon
Rev. 3.00	2020-04-10	Added 'AGPS enable' command.	BC.Jeon
Rev. 4.00	2020-04-14	Deleted 'hidden' mark of 'AGPS enable' command.	BC.Jeon
Rev. 5.00	2020-05-19	Deleted 'AGPS enable' command.	BC.Jeon
Rev. 6.00	2020-05-26	Added 'Location' command.	BC.Jeon
Rev. 7.00	2020-07-08	Added 'Initialize circular geofence' command	BC.Jeon
Rev. 8.00	2020-10-23	Added 'Initialize driving time and parking time ' command	YH Choe
Rev. 9.00	2020-12-15	Added 'Preset' command.	KSH
Rev. 10.00	2020-12-17	Added Option of ReqVer Command String (5 - BLE FW VER, 6 - WIFI FW VER)	JH SIM
Rev. 11.00	2020-12-28	Updated 'Preset' command.	YH Choe
Rev. 12.00	2021-03-18	Document revision.	KS Hong
Rev. 13.00	2021-03-29	Added command of ID(0507, 0508)	JH SIM
Rev. 13.01	2021-04-12	Add (0513: Initialize Register BLE) Initialize Driving Time and Parking Time(05;13 → 05;16)	KSH
Rev. 13.02	2021-04-22	Changed the description 0305: Preset, 0306: PresetP	KSH
Rev. 13.03	2021-05-06	Changed the description 0306: PresetP	KSH