MEITRACK T399G GPRS Protocol

Applicable Model: T399G

Change History

File Name	MEITRACK T399G GPRS Protocol		
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Contents

1 Command Format

1.1 GPRS Command Format

- GPRS command sent from the server to the tracker:
  @@<Data identifier><Data length>,<IMEI>,<Command type>,<Command><*Checksum>\r\n
- GPRS command sent from the tracker to the server:
  $$<Data identifier><Data length>,<IMEI>,<Command type>,<Command><*Checksum>\r\n

1.2 Tracker Command Format

$$<Data identifier><Data length>,<IMEI>,<Command type>,<Number of remaining cache records><Number of data packets><Data packet 1><Data packet 2>…….<*Checksum>\r\n

Example: $$A158,868998030732297,CCE, <0x00 0x00 0x00 0x00>< 0x01 0x00 ><0x7C 0x00 0x18 0x00 0x06 0x05 0x00 0x06 0x00 0x07 0x1C 0x14 0x00 0x15 0x00 0x1B 0x00 0x0A 0x08 0x00 0x00 0x09 0x00 0x00 0x0A 0x00 0x00 0x0B 0x00 0x00 0x16 0x01 0x00 0x17 0x00 0x00 0x18 0x00 0x00 0x19 0x96 0x01 0x1A 0xEE 0x03 0x40 0x23 0x00 0x06 0x02 0x72 0x88 0x57 0x01 0x03 0xF5 0x5B 0xCC 0x06 0x04 0xFE 0x1E 0x78 0x23 0x0C 0x35 0x28 0x00 0x00 0x0D 0x82 0xBA 0x00 0x00 0x1C 0x00 0x00 0x00 0x00 0x02 0x0E 0x0C 0xCC 0x01 0x00 0x00 0x92 0x27 0x89 0x0E 0x00 0x00 0x00 0x00 0x37 0x1D 0x00 0x01 0x38 0x36 0x38 0x39 0x39 0x38 0x30 0x33 0x30 0x30 0x30 0x33 0x36 0x30 0x38 0x00 0x01 0x00 0x02 0x01 0xCD 0x87 0x57 0x01 0x31 0x60 0xCC 0x06>*1F\r\n

Note:

- A comma (,) is used to separate data characters. The character type is the American Standard Code for Information Interchange (ASCII). (Hexadecimal is represented as 0x2C.)
- Symbols "<" and ">" will not be present in actual data, only for documentation purpose only.
- The size of a GPRS data packet is about 50–1046 bytes.

Descriptions about GPRS packets from the tracker are as follows:

Parameter	Description	Example
@@	Indicates the GPRS data packet header sent from the server to the tracker. The header type is ASCII. (Hexadecimal is represented as 0x40.)	@@
$$	Indicates the GPRS data packet header sent from the tracker to the server. The header type is ASCII. (Hexadecimal is represented as 0x24.)	$$
Data identifier	Contains 1 byte. The type is the ASCII, and its value ranges from 0x41 to 0x7A.	A
Data length	Indicates the length of characters from the first comma (,) to \r\n. Decimal. Example: $$*<Data identifier><Data length>,<IMEI>,<Command type>,<Hexadecimal data packet><*Checksum>*\r\n	158
IMEI	Indicates the tracker's IMEI number. The number type is ASCII. It has 15 digits generally.	868998030732297

Command type		Hexadecimal For details, see chapter 2 and chapter 3.	CCE
The following data is hexadecimal:			
Number of remaining cache records		0x00 0x00 0x00 0x00 4 bytes; hexadecimal; little-endian	0x00 0x00 0x00 0x00 The quantiy of remaining cache data is 0.
Number of data packets		Indicates the number of data packets that a piece of data includes. 2 bytes; hexadecimal; little-endian	0x01 0x00 There is 1 data packet.
Length of a data packet		2 bytes; hexadecimal; little-endian	0x7C 0x00 The length of a data packet is 124bytes.
ID number of a data packet		2 bytes; hexadecimal; little-endian	0x18 0x00 There are 24 ID numbers in this data packet.
Number of 1-byte parameter ID		Value: 0x00–0xFF A parameter ID corresponds to a value of 1 byte.	0x06 There are 6 parameter ID numbers. 0x00: no parameter ID
GPS positioning status	Parameter ID: 0x05	**0x01**: The GPS positioning is valid. **0x00**: The GPS positioning is invalid.	0x00 The GPS positioning is invalid.
Number of satellites	Parameter ID: 0x06	Indicates the number of received GPS satellites.	0x00 No GPS satellite is received.
GSM signal strength	Parameter ID: 0x07	Value: 0x00–0x31	0x1C The signal strength is28.
Output port status	Parameter ID: 0x14	Bits0–7 correspond to status of input ports 1–8.Hexadecimal digits need to be converted to binary digits.	0x00 Indicate:Output invalid
Input port status	Parameter ID: 0x15	Status values of eight input ports Bits 0–7 correspond to status of input ports 1–8. Hexadecimal digits need to be converted to binary digits.	0x00 Status: Input inactive
Geo-fence number	Parameter ID: 0x1B	Only available by GPRS event code 20 or 21.	0x00 Indicate no geo-fence number.
Number of 2-byte parameter ID		Value: 0x00–0xFF A parameter ID corresponds to a value of 2 bytes.	0x0A There are 6 parameter ID numbers.
Speed	Parameter ID: 0x08	Unit: km/h; little-endian	0x00 0x00 The speed is 0 km/h.
Driving direction	Parameter ID: 0x09	The unit is degree. When the value is **0**, the direction is north. Value: 0–359; little-endian	0x00 0x00 The driving direction is0 degrees.

Horizontal dilution of precision (HDOP)	Parameter ID: 0x0A	Value: 5–999; unit: 1/10; little-endian	0x00 0x00The HDOP isinvalid. when the GPS valid,the HDOP will be available.
Altitude	Parameter ID: 0x0B	Unit: meter; little-endian	0x00 0x00 The altitude is 0.
AD1	Parameter ID: 0x16	Analog value 1 <AD1> Little-endian;	0x01 0x00 Convert the digits to decimal digits.
AD2	Parameter ID: 0x17	Analog value 2 <AD2> Little-endian;	0x01 0x00 Convert the digits to decimal digits.
AD3	Parameter ID: 0x18	Analog value 3 <AD3> Little-endian;	0x01 0x00 Convert the digits to decimal digits.
AD4	Parameter ID: 0x19	Battery analog <AD4>; little-endian Voltage formula of battery analog (AD4): AD4/100 Formula of battery percentage: (AD4/100 - 3.4)/0.8 x 100%	0x8B 0x01 Convert the digits to decimal digits. 395/100=3.95 The voltage is 3.95 V.
AD5	Parameter ID: 0x1A	External power analog <AD5>; little-endian Voltage formula of external power supply (AD5): AD5/100	0xEE 0x03 Convert the digits to decimal digits. 1006/100=10.06 The voltage is 10.06V.
Event code	Parameter ID:0x40	Check in the list of Event Code for more details	0x23 0x00 In Little-endian format;convert to the decimal digit. Indicate the event 35.
Number of 4-byte parameter ID		Value: 0x00–0xFF A parameter ID corresponds to a value of 4 bytes.	0x06 There are 6 parameter ID numbers. 0x00: no parameter ID
Latitude	Parameter ID: 0x02	little-endian;4byte	0x72 0x88 0x57 0x01 Convert the digits to decimal digits. Indicate the 22513778*1/1000000(milionth of a 22513778), Unit: degree The latitude is 22.513778 degrees.
Longitude	Parameter ID: 0x03	little-endian;4byte	0X F5 0x5B 0xCC 0x06 Convert the digits to decimal digits. Indicate the 114056181*1/1000000(milionth of a 114056181), Unit: degree The longitude is 114.056181 degrees.
Date and time	Parameter ID: 0x04	4 bytes; little-endian; unit: second Start point: 1 January, 2000, 00:00:00 am.	0xFE 0x1E 0x78 0x23The value is 595074814 seconds.

Mileage	Parameter ID: 0x0C	Indicates the total mileage. Unit: meter; little-endian	0x35 0x28 0x00 0x00 The total mileage is 10293meters.
Run time	Parameter ID: 0x0D	Indicates the total time. Unit: second; little-endian	0x82 0xBA 0x00 0x00 The run time is 47746seconds.
System flag	Parameter ID: 0x1C	Only available by GPRS event code 35. Bit 0: Whether to change the EEP2 parameter. When the value is **1**, the EEP2 parameter is changed. Bits 1–31: reserved	0x00 0x00 0x00 0x00 The device parameters haven't changed.
Number of *n*-byte parameter ID		Value: 0x00–0xFF A parameter ID corresponds to a value of 8 bytes or 12 bytes. For details, see chapter 4 "Appendix 1: Parameter ID."	0x02 There are 9 parameter ID numbers. 0x00: no parameter ID
Base station info	Parameter ID: 0x0E	<Data length><MCC><MNC><LAC><CELL_ID><RX_LEVEL> Data length: indicates the length of base station data; hexadecimal. MCC: indicates Mobile Country Code; 16-bit unsigned; little-endian. MNC: indicates Mobile Network Code; 16-bit unsigned; little-endian. LAC: indicates Location Area Code; 16-bit unsigned; little-endian. CELL_ID: indicates the cell ID; 32-bit unsigned; little-endian. RX_LEVEL: indicates the signal strength; 16-bit signed; little-endian.	0x0C 0xCC 0x01 0x00 0x00 0x92 0x27 0x89 0x0E 0x00 0x00 0x00 0x00 0x0C: The data length is 12 bytes. 0xCC 0x01: The MCC is 460. 0x00 0x00: The MNC is 00. 0x45 0xA5: The LAC is 10130. 0x89 0x0E 0x00 0x00：CELL_ID为37210x00 0x00: The signal strength is 0 dbm.
K211G lock information	Parameter ID:0x37	<ID_Len><Number><ID1><ID2>...<IDn> ID_Len：the date length in this parameter ID，2 byte Number：indicate the amount of K211G connected , range from1~30. 1 byte ID1：indicate the information in the first K211G IDn：indicate the information in number n of K211G <ID1> include the following data: <K211G ID>:the default ID is IMEI number,16byte < connection status with T399G>: 00:disconnect ,01connected. 1byte <remian battery capacity >: unit:percentage. 1byte	Example: 0x1D 0x00 0x01 0x38 0x36 0x38 0x39 0x39 0x38 0x30 0x33 0x30 0x30 0x30 0x33 0x36 0x30 0x38 0x00 0x01 0x00 0x02 0x01 0xCD 0x87 0x57 0x01 0x31 0x60 0xCC 0x06 0x1D 0X00:the data length is 29 byte 0x01：the amount of K211G connected is 1. 0x38 0x36 0x38 0x39 0x39 0x38 0x30 0x33 0x30 0x30 0x30 0x33 0x36 0x30 0x38 0x00：indicate the lock ID is 868998030003608 in this

		<K211G lock status>: 00:unknown,01:unlock, 02:locked, 03:lock cut. 1byte <shell status>: 00:unknown, 01:shell opened 02:shell normal. 1byte <latitude>: unit: millionth of a degree. signed number, little-endian,4byte <longitude > : unit: millionth of a degree. signed number, little-endian,4byte <IDn> the data same as above	ID1 message 0x01：indicate the status between K211G and T399G is already connected 0x00：indicate the remain battery capacity 0x02：indicate the lock status is locked 0x01：indicate the shell opened 0xCD 0x87 0x57 0x01：indicate the latitude value is 22.513613 0x31 0x60 0xCC 0x06：indicate the longitude value is 114.057265
*		Separates commands from checksums. 1 byte and ASCII (Hexadecimal is represented as 0x2A)	*
Checksum		2 bytes. The parameter indicates the sum of all data (excluding the checksum and ending mark). It is a hexadecimal character. Example: $$<*Data identifier*><*Data length*>,<*IMEI*>,<*Command type*>,<*Hexadecimal data packet*><**Checksum*>\r\n	1F
\r\n		2 bytes. The parameter is an ending character. The type is ASCII. (Hexadecimal value: 0x0d 0x0a)	\r\n

Notice:the entire ID parameter is attach in the appendix 1

1.3 Event Code

Event code	Event describe	Default SMS Header (At Most 16 Bytes)
1	SOS Pressed	SOS
2	Input 2 Active	In2 Active
3	Input 3 Active	In3 Active
4	Input 4 Active	In4 Active
9	Input 1 Inactive	In1 Inactive
10	Input 2 Inactive	In2 Inactive
11	Input 3 Inactive	In3 Inactive
12	Input 4 Inactive	In4 Inactive
17	Low Battery	Low Battery
18	Low External Battery	Low Ext-Battery
19	Speeding	Speeding
20	Enter Geo-fence	Enter Fence N
21	Exit Geo-fence	Exit Fence N

22	External Battery On	Ext-Battery On
23	External Battery Cut	Ext-Battery Cut
24	GPS Signal Lost	GPS Signal Lost
25	GPS Signal Recovery	GPS Recovery
26	Enter Sleep	Enter Sleep
27	Exit Sleep	Exit Sleep
29	Device Reboot	Power On
31	Heartbeat	/
32	Cornering	Cornering
33	Track By Distance	Distance
34	Reply Current (Passive)	Now
35	Track By Time Interval	Interval
36	Tow	Tow
37	RFID (change uart rate)	/
41	Stop Moving	Quiet
42	Start Moving	Moving
44	GSM Jamming	GSM Jamming
50	Temperature High	Temp High
51	Temperature Low	Temp Low
52	Full Fuel	Full Fuel
53	Low Fuel	Low Fuel
54	Fuel Theft	Fuel Theft
56	Armed	Armed
57	Disarmed	Disarmed
58	Vehicle Theft	Vehicle Theft
63	No GSM Jamming	No GSM Jamming
70	Reject Incoming Call	/
72	Auto Answer Incoming Call	/
78	Impact	Impact
82	Fuel Filling	Fuel Filling
90	Sharp Turn to Left	Harsh Cornering
91	Sharp Turn to Right	Harsh Cornering
94	Output 1 Active	Out1 Active
95	Output 2 Active	Out2 Active
99	Output 1 Inactive	Out1 Inactive
100	Output 2 Inactive	Out2 Inactive
129	Harsh braking	Harsh Braking
130	Harsh acceleration	Fast Accelerate
133	Idle Overtime	Idle Overtime
134	Idle Recovery	Idle Recovery
135	Fatigue Driving	Fatigue Driving

136	Enough Rest after Fatigue Driving	Enough Rest
139	Maintenance Notice	Maintenance

2 Command List

Command	Command Description
A10	Real-Time Location Query
A11	Setting a Heartbeat Packet Reporting Interval
A12	Tracking by Time Interval
A13	Setting the Cornering Report Function
A14	Tracking by Distance
A15	Setting the Parking Scheduled Tracking Function
A16	Enabling the Parking Scheduled Tracking Function
A17	Controlling Output 1 Status by RFID/iButton
A21	Setting GPRS Parameters
A22	Setting the DNS Server IP Address
A23	Setting the Standby GPRS Server
A70	Reading All Authorized Phone Numbers
A71	Setting Authorized Phone Numbers
A72	Setting Listen-in Phone Numbers
A73	Setting a Smart Sleep Mode
B05	Setting a Geo-Fence
B06	Deleting a Geo-Fence
B07	Setting the Speeding Alarm Function
B08	Setting the Towing Alert
B09	Setting the Vibration Sensitivity Level
B10	Setting the Towing Alarm Function
B11	Setting a Polygonal Geo-Fence
B14	Setting the Idling Alert
B15	Setting Driver Fatigue Parameters
B21	Setting the Anti-Theft Function
B26	Setting the filtering time for input
B27	Setting Auto Arming
B31	Turning off the LED Indicator
B34	Setting a Log Interval
B35	Setting the SMS Time Zone
B36	Setting the GPRS Time Zone
B37	Setting the Auto Sleep Function
B43	Enable\disable the roaming table switching
B60	Determining Vehicle Status by ACC Status
B91	Setting SMS Event Characters

B99	Setting Event Authorization
C01	Controlling Output Status
C02	Notifying the Tracker of Sending an SMS
C03	Setting a GPRS Event Transmission Mode
C07	Setting the input mode
C08	Setting the mode of I/O port
C40	Registering a Temperature Sensor Number
C41	Deleting a Registered Temperature Sensor
C42	Reading the Temperature Sensor SN and Number
C43	Setting the Temperature Threshold and Logical Name
C44	Reading Temperature Sensor Parameters
C46	Checking Temperature Sensor Parameters
C47	Setting Fuel Parameters
C48	Reading Fuel Parameters
C49	Enable the alarm of oil stealing
C61	Transparently Transmitting Data over the Serial Port
C70	Setting a Serial Port and a Peripheral
C77	Enable\disable power button
C85	Setting the GSM Jamming Detection Function
D10	Authorizing an iButton Key/RFID Card
D11	Authorizing iButton Keys/RFID Cards in Batches
D12	Checking iButton/RFID Authorization
D13	Reading an Authorized iButton Key
D14	Deleting an Authorized iButton Key
D15	Deleting Authorized iButton Keys in Batches
D16	Checking the Checksum of the Authorized iButton ID Database
D65	Setting the Maintenance Mileage
D66	Setting Maintenance Time
D71	Setting GPS Data Filtering
D72	Setting Output Triggering
D73	Allocating GPRS Cache and GPS LOG Storage Space
D79	Setting Harsh Acceleration and Harsh Braking Parameters
D80	Setting Harsh Cornering Parameters
CCE	Automatic Event Transmission
CCF	Deleting an Event in the Buffer
E91	Reading Device's Firmware Version and SN
F01	Restarting the GSM Module
F02	Restarting the GPS Module
F08	Setting the Mileage and Run Time
F09	Deleting SMS/GPRS Cache Data
F11	Restoring Initial Settings

3 Command Details

3.1 Real-Time Location Query – A10

GPRS Sending	A10
GPRS Reply	$$<*Data identifier*><*Data length*>,<IMEI>,<CCE>,<*Number of remaining cache records*><*Number of data packets*><*Data packet on event 34*><**Checksum*>\r\n
Description	**34**: indicates the GPRS command event code.
Example	
GPRS Sending	@@A25,865789020991321,A10*62\r\n
GPRS Reply	$$A118,865789020991321,CCE,<00 00 00 00 01 00 54 00 12 00 06 01 22 05 00 06 00 07 15 14 00 15 00 04 08 00 00 09 14 01 0A E7 03 0B 00 00 06 02 25 87 57 01 03 E3 60 CC 06 04 41 3A 2D 20 0C 74 0D 00 00 0D EC 50 03 00 1C 00 00 00 00 02 0E 0C CC 01 01 00 45 A5 8B D4 E9 01 01 FF 1D 08 00 25 86 A7 0B 0A D5 FF>*1D\r\n

3.2 Setting a Heartbeat Packet Reporting Interval – A11

GPRS Sending	A11,*Interval*
GPRS Reply	A11,OK
Description	The heartbeat packet function is used to keep the Transmission Control Protocol (TCP) connection open when the interval of scheduled GPRS reporting is long. Interval = 0: function disabled (default). Interval = [1…65535]: function enabled. Unit: minute. The heartbeat function is available only in conjunction with deep sleep mode. When the device enters deep sleep mode, heartbeat reports will be sent at the specified interval. Note: 1. The GPS positioning will be enabled first. If it cannot work normally, enable the WiFi positioning, which will take at most 5 seconds. If you want to obtain a hearbeat packet with valid positioning information, run the A83 command to enable the GPS module. 2. If the device is in LBS positioning mode, an event will be generated immediately.
Example	
GPRS Sending	@@S28,353358017784062,A11,10*FD\r\n
GPRS Reply	$$S28,353358017784062,A11,OK*FE\r\n *After the above command is run successfully, the tracker will send a GPRS heartbeat packet to the platform every 10 minutes in sleep mode.*

3.3 Tracking by Time Interval – A12

GPRS Sending	A12,*Interval*
GPRS Reply	A12,OK
Description	Unit: x10 seconds by default (changed by A84 command)

	Interval = 0: function disabled. The maximum time interval is 65535 x 10 seconds. 6 x 10 seconds are recommended.
Example	
GPRS Sending	@@V27,353358017784062,A12,6*D5\r\n
GPRS Reply	$$V28,353358017784062,A12,OK*02\r\n *After the above command is run successfully, the tracker will send a GPRS data packet to the platform every 1 minute.*

3.4 Setting the Cornering Report Function – A13

GPRS Sending	A13,*Angle*
GPRS Reply	A13,OK
Description	When the driving angle exceeds the preset value, the tracker will send a GPRS data packet with location information to the server, which ensures a smoother route on the platform. Angle = 0: function disabled (default). Angle = [1…359]: function enabled. Recommended value: **30**.
Example	
GPRS Sending	@@X29,353358017784062,A13,120*37\r\n
GPRS Reply	$$X28,353358017784062,A13,OK*05\r\n *After the above command is run successfully, if the cornering angle is greater than 120 degree, the tracker will send a GPRS data pakcet to the server.*

3.5 Tracking by Distance – A14

GPRS Sending	A14,*Distance*
GPRS Reply	A14,OK
Description	Distance = 0: function disabled (default). Distance = [1…65535]: function enabled. Unit: meter.
Example	
GPRS Sending	@@D30,353358017784062,A14,1000*4A\r\n
GPRS Reply	$$D28,353358017784062,A14,OK*F2\r\n *After the above command is run successfully, if the driving distance reaches 1000m, the tracker will send a data packet to the server.*

3.6 Setting the Parking Scheduled Tracking Function – A15

GPRS Sending	A15,*Interval*
GPRS Reply	A15,OK
Description	The function is available for vehicle trackers only. With the function, the number of GPRS messages is reduced, and thus GPRS traffic is saved.

	After the A15 function is set, the A16 function is automatically enabled. For details about engine status, see section 3.7 "Enabling the Parking Scheduled Tracking Function – A16." Interval unit: x10 seconds Interval = 0: function disabled. The maximum interval is 65535 x 10 seconds. Note: If data needs to be sent at the specified interval after the vehicle starts or stops, the function needs to work with the A12 function.
Example	
GPRS Sending	@@E27,353358017784062,A15,6*C7\r\n
GPRS Reply	$$E28,353358017784062,A15,OK*F4\r\n

3.7 Enabling the Parking Scheduled Tracking Function – A16

GPRS Sending	A16,*Status*
GPRS Reply	A16,OK
Description	**The function is available for vehicle trackers only. The first positive input port (high level) of a vehicle tracker must connect to engine detection. Otherwise, the function is unavailable.** When the activation status is **1**, the parking scheduled tracking function is enabled; when the activation status is **0**, the function is disabled. GPRS data is sent at the following interval: ● Interval of the A12 function when the engine is on ● Interval of the A15 function when the engine is off
Example	
GPRS Sending	@@F27,353358017784062,A16,0*C3\r\n
GPRS Reply	$$F28,353358017784062,A16,OK*F6\r\n

3.8 Controlling Output 1 Status by RFID/iButton – A17

GPRS Sending	A17,X
GPRS Reply	A17,OK
Description	X = 1: function enabled. Before using the function, ensure that ACC detection is connected to input 3 and a RFID card has been authorized. X = 0: function disabled (default). For example: After swiping the authorized RFID card, you must start the engine within 1 minute. If the time exceeds 1 minute, you need to swipe the card again. After the engine is started, input 3 has been detecting the ACC status. If ACC ON is detected (that is, input 3 is the high level), output 1 will not generate data. If ACC OFF is detected, after 1 minute, swipe the authorized RFID card to start the engine as required. For details about how to authorize a RFID card or an iButton key, see commands D10–D15.

Example	
GPRS Sending	@@T27,353358017784062,A17,1*D3\r\n
GPRS Reply	$$T28,353358017784062,A17,OK*05\r\n

3.9 Setting GPRS Parameters – A21

GPRS Sending	A21,*Connection mode*,*IP address*,*Port*,*APN*,*APN user name*,*APN password*
GPRS Reply	A21,OK
Description	Connection mode = 0: function disabled. Connection mode = 1: function enabled; use TCP/IP reporting mode. Connection mode = 2: function enabled; use UDP reporting mode. IP address: IP address or domain name. A maximum of 32 bytes are supported. Port: a maximum of 5 digits. APN/APN user name/APN password: a maximum of 32 bytes respectively. If no user name and password are required, leave them blank. Note: 1. If you want to change a parameter (named **A**), the parameter before **A** cannot be empty. 2. If you do not want to change the parameters after **A**, no comma is required when you edit the command. 3. If you want to clear the parameters after **A**, commas are required when you edit the command. For example, if you want to change the IP address and port only, send **A21,1,192.168.1.1,8800**.
Example	
GPRS Sending	@@H48,353358017784062,A21,1,67.203.13.26,8800,,,*C9
GPRS Reply	$$H28,353358017784062,A21,OK*F4\r\n

3.10 Setting the DNS Server IP Address – A22

GPRS Sending	A22,*DNS server IP address*
GPRS Reply	A22,OK
Description	An incorrect DNS server IP address may lead to GPRS data reporting failures after the A21 command is used. Use the A22 command to set the DNS server IP address (confirm the IP address with your domain name provider.). Then use the A21 command to reset the domain name. DNS server IP address: a maximum of 16 bytes
Example	
GPRS Sending	@@K38,353358017784062,A22,75.127.67.90*FD\r\n
GPRS Reply	$$K28,353358017784062,A22,OK*F8\r\n

3.11 Setting the Standby GPRS Server – A23

GPRS Sending	A23,*IP address*,*Port*
GPRS Reply	A23,OK
Description	IP address: a maximum of 32 bytes Port: a maximum of 5 digits When the tracker fails to send data to the active server set by command A21, data is automatically sent to the standby server to prevent data loss.
Example	
GPRS Sending	@@S43,353358017784062,A23,67.203.13.26,8800*F0
GPRS Reply	$$S28,353358017784062,A23,OK*01\r\n

3.12 Reading All Authorized Phone Numbers – A70

GPRS Sending	A70
GPRS Reply	A70,*SOS phone number 1*,*SOS phone number 2*,*SOS phone number 3*,*Listen-in phone number 1*,*Listen-in phone number 2*
Description	Read all authorized phone numbers.
Example	
GPRS Sending	@@T25, 353358017784062,A70*93\r\n
GPRS Reply	$$T85,353358017784062,A70,13811111111,13822222222,13833333333,13844444444,13855555555*21\r\n

3.13 Setting Authorized Phone Numbers – A71

GPRS Sending	A71,*Phone number 1*,*Phone number 2*,*Phone number 3*
GPRS Reply	A71,OK
Description	Phone number: A phone number has a maximum of 16 bytes. If no phone numbers are set, leave them blank. Phone numbers are empty by default. Phone number 1/2/3: SOS phone number. When you call the tracker by using the phone number, you will receive SMS notification about the location, geo-fence alarm and low power alarm. When the SOS button is pressed, the tracker will dial phone numbers 1, 2, and 3 in sequence. The tracker stops dialing when a phone number responds.
Example	
GPRS Sending	@@U61,353358017784062,A71,13811111111,13822222222,13833333333*7D\r\n
GPRS Reply	$$U28,353358017784062,A71,OK*06\r\n

3.14 Setting Listen-in Phone Numbers – A72

GPRS Sending	A72,*Listen-in phone number 1*,*Listen-in phone number 2*
GPRS Reply	A72,OK

Description	When you call the tracker by using authorized listen-in phone numbers, the tracker will answer the call automatically and enter the listen-in state. In this way, the tracker will not make any sound. A maximum of two phone numbers can be set. Each phone number has a maximum of 16 digits. If no phone numbers are set, leave them blank. Phone numbers are empty by default. If no phone numbers are set and commas are remained, phone numbers set before will be deleted.
Example	
GPRS Sending	@@V49,353358017784062,A72,13844444444,13855555555*55\r\n
GPRS Reply	$$V28,353358017784062,A72,OK*08\r\n

3.15 Setting a Smart Sleep Mode – A73

GPRS Sending	A73,*Sleep level*
GPRS Reply	A73,OK
Description	Set the automatic smart sleep mode when the tracker is idle. Sleep level = 0: function disabled (default). Sleep level = 1: normal sleep. The GSM module always works, and the GPS module occasionally enters the sleep mode. The tracker works 25% longer in the normal sleep mode than that in the normal working mode. This mode is not recommended for short interval tracking; this will affect the route precision. Sleep level = 2: deep sleep. If no event is triggered after five minutes, the GPS/WiFi module will stop working and the GSM module will enter sleep mode. Once an event is triggered, the GPS/WiFi and GSM modules will be woken up. A heartbeat event will be triggered only in the deep sleep mode, which will be uploaded every one hour by default. Triggering events include: SOS alarm, low internal/external battery, external power status, towing alarm, (button) changes on any input port, vibration, incoming call, SMS receiving, call, and heartbeat event. Note: In any condition, you can use an SMS or a GPRS command to disable the sleep mode, and then the tracker exits the sleep mode and returns back to the normal working mode.
Example	
GPRS Sending	@@W27,353358017784062,A73,2*D9\r\n
GPRS Reply	$$W28,353358017784062,A73,OK*0A\r\n

3.16 Setting a Geo-Fence – B05

GPRS Sending	B05,*Geo-fence number*,*Latitude*,*Longitude*,*Radius*,*IN Geo-fence alarm*,*OUT Geo-fence alarm*

GPRS Reply	B05,OK
Description	Geo-fence number: 1–8. A maximum of eight geo-fences can be set. Latitude: latitude of the geo-fence center; decimal; accurate to 6 digits after the decimal point. If there are only 4 digits after the decimal point, add two digits 0. Otherwise, the command cannot be used successfully. Longitude: longitude of the geo-fence center; decimal; accurate to 6 digits after the decimal point. If there are only 4 digits after the decimal point, add two digits 0. Otherwise, the command cannot be used successfully. Radius: The value ranges from 1 to 4294967295. The unit is meter. IN Geo-fence alarm = 0: function disabled. IN Geo-fence alarm = 1: function enabled. OUT Geo-fence alarm = 0: function disabled. OUT Geo-fence alarm = 1: function enabled.
Example	
GPRS Sending	@@H57,353358017784062,B05,1,22.913191,114.079882,1000,0,1*96\r\n
GPRS Reply	$$H28,353358017784062,B05,OK*F7\r\n *When the tracker exits the geo-fence (latitude: 22.913191; longitude: 114.079882; radiu: 1000m), it will send a GPRS data packet to the server.*

3.17 Deleting a Geo-Fence – B06

GPRS Sending	B06,*Geo-fence number*
GPRS Reply	B06,OK
Description	Geo-fence number: 1–8. Only one geo-fence can be deleted each time by SMS or GPRS command.
Example	
GPRS Sending	@@J27,353358017784062,B06,1*C8\r\n
GPRS Reply	$$J28,353358017784062,B06,OK*FA\r\n *After the above command is run successfully, the first geo-fence will be deleted.*

3.18 Setting the Speeding Alarm Function – B07

GPRS Sending	B07,*Driving speed*
GPRS Reply	B07,OK
Description	Driving speed = 0: function disabled (default). Driving speed = [1…255]: function enabled. Unit: km/h. When the driving speed reaches the preset value, a speeding alarm will be generated.
Example	
GPRS Sending	@@P28,353358017784062,B07,60*05\r\n
GPRS Reply	$$P28,353358017784062,B07,OK*01\r\n *When the tracker driving speed reaches 60 km/h, it will send a GPRS data packet to the server.*

3.19 Setting the Towing Alert – B08

GPRS Sending	B08,*Vibration time*
GPRS Reply	B08,OK
Description	When the tracker's vibration time exceeds the preset value, the tracker will send an alert to an authorized phone number or the server. Before using the towing alert function, use the A73 command to set the smart sleep level to **2** and use the B08 command to set the consecutive vibration time. Otherwise, the towing alert function will be unavailable. Vibration time = 0: function disabled (default). Vibration time = [1…255]: function enabled. Unit: second.
Example	
GPRS Sending	@@I27,353358017784062,B08,3*CB\r\n
GPRS Reply	$$I28,353358017784062,B08,OK*FB\r\n *When the tracker vibrates for more than three consecutive seconds, it will send the following information to the server:* *$$K133,353358017784062,AAA,36,22.916675,114.088813,080229123718,A,10,22,61,31,1,21,6635,395,460|0|1013|4110,0000,164|185|181|2712|915,*A2*

3.20 Setting the Vibration Sensitivity Level – B09

GPRS Sending	B09,*Sensitivity level*
GPRS Reply	B09,OK
Description	The vibration sensitivity level is used to detect whether the tracker stops moving, starts moving or is woken up by vibration, or a towing alert is generated. Sensitivity level: The parameter value ranges from **1** to **65535**. The default value is **1**, and the parameter value cannot be **0**. The smaller the parameter value is, the stronger the sensitivity is.
Example	
GPRS Sending	@@I27,353358017784062,B09,1*CA\r\n
GPRS Reply	$$I28,353358017784062,B09,OK*FC\r\n

3.21 Setting the Towing Alarm Function – B10

GPRS Sending	B10,*Vibration duration*,*Idling time*
GPRS Reply	B10,OK
Description	Vibration duration = 0: function disabled (default). Vibration duration = [1…255]: function enabled. Unit: second. Idling time: The unit is minute. The default value is **2**. Idling time = 0: The power-saving mode will be disabled. Idling time = [1…255]: When the idling time exceeds the preset value, the power-saving mode will be enabled.
Example	
GPRS Sending	@@I27,353358017784062,B10,3*6E\r\n

GPRS Reply	$$I28,353358017784062,B10,OK*9E\r\n *When the tracker vibrates for more than three consecutive seconds, it will send a GPRS data packet to the server.*

3.22 Setting a Polygonal Geo-Fence – B11

GPRS Sending	B11,*Geo-fence number*,*Latitude 1*,*Longitude 1*,*Latitude 2*,*Longitude 2*...*Latitude N*,*Longitude N*,*Enter Geo-fence alert*,*Exit Geo-fence alert*
GPRS Reply	B11,OK
Description	Geo-fence number: The parameter value ranges from **1** to **8**. (The maximum value varies depending on customization projects.) Latitude: accurate to 6 digits after the decimal point. For example, 22.512517 or -22.512517. Longitude: accurate to 6 digits after the decimal point. For example, 114.057200 or -114.057200. Enter Geo-fence alert: The parameter value is **0** or **1**. ● **0**: An alert will not be generated when the tracker enters the geo-fence. ● **1**: An alert will be generated when the tracker enters the geo-fence. Exit Geo-fence alert: The parameter value is **0** or **1**. ● **0**: An alert will not be generated when the tracker exits the geo-fence. ● **1**: An alert will be generated when the tracker exits the geo-fence. If the command only cotains the parameter **Geo-fence number**, related geo-fences will be deleted.
Example	
GPRS Sending	@@I94,353358017784062,B11,1,22.526922,114.052695,22.526946,114.056232,22.523720,114.053521,1,1*D5\r\n
GPRS Reply	$$I28,353358017784062,B11,OK*F5\r\n

3.23 Setting the Idling Alert – B14

GPRS Sending	B14,*Time (second)*,*Speed (km/h)*
GPRS Reply	B14,OK
Description	The function is used to detect idling. The tracker must be connected to ACC detection. Otherwise, the function will be unavailable. Time: indicates the consecutive time for the speed. The parameter value ranges from **0** to **60000**. Unit: second. Speed: The parameter value ranges from **0** to **200**. Unit: km/h. (5 km/h is recommended.) An idling alert will be generated when the following conditions are met simultaneously: the device detects that the ACC is on; the speed is lower than the preset value; and the consecutive time for the speed is larger than the preset value. If you want to read the parameters, send **B14**. Note: The alert activation conditions may be affected due to static drift. Therefore, you are advised to set the speed to a value between 5 km to 10 km and the consecutive

	time for the speed to a value that is larger than 60 seconds.
Example	
GPRS Sending	@@I30,353358017784062,B14,60,5*56\r\n
GPRS Reply	$$I28,353358017784062,B14,OK*F8\r\n

3.24 Setting Driver Fatigue Parameters – B15

GPRS Sending	B15,*Consecutive driving time (min)*,*Reserved value*,*Rest time (min)*,*Related to speed or not*
GPRS Reply	B15,OK
Description	The command is used to detect driver fatigue. Consecutive driving time: The parameter value ranges from **0** to **1000**. Unit: minute. When the consecutive driving time exceeds the preset value, driver fatigue detection will be activated. Reserved value: Leave the parameter blank for later use. Rest time: The parameter value ranges from **0** to **1000**. Unit: minute. Drivers must have a rest based on the preset time. When the tracker detects that the ACC is off or the speed is 0, the driver fatigue alert will be cleared. Related to speed or not: The parameter value is **0** or **1**. **0**: The driving status is related to the ACC only. **1**: The driving status is related to the ACC and speed. Each parameter can be set separately, and the commas in this command need to be remained. For example, the command for setting the parameter **Related to speed or not** is **B15,,,,1**, and the command for setting the parameter **Consecutive driving time** is **B15,300**. If you want to read the parameters, send **B15**.
Example	
GPRS Sending	@@I35,353358017784062,B15,120,,20,1*3F\r\n
GPRS Reply	$$I28,353358017784062,B15,OK*F9\r\n

3.25 Setting the Anti-Theft Function – B21

GPRS Sending	B21,*Status*
GPRS Reply	B21,OK
Description	Status = 1: function enabled (default). Status = 0: function disabled. Note: A vehicle theft alert will be generated only when the device is in arming state.
Example	
GPRS Sending	@@C27,353358017784062,B21,1*BE\r\n
GPRS Reply	$$C28,353358017784062,B21,OK*F0\r\n

3.26 Setting the filtering time for input – B26

GPRS Sending	B26, 1:T1,2:T2,.....n:Tn

GPRS Reply	B26,OK
Description	n range from 1-5,indicate the Input 1-5 Tn are defined as the filtering time,range from0-65535, unit:10ms Note:the command could be send with one or more parameter, if the input doesn't need to configure , just keep it blank and delete comma followed. Sending command without the parameter, will return the value of filtering time
Example	
GPRS Sending	@@Y39,868998030732297,B26,1:1000,2:1000*30 \r\n
GPRS Reply	$$Y28,868998030732297,B26,OK*1E\r\n

3.27 Setting Auto Arming – B27

GPRS Sending	B27,X
GPRS Reply	B27,OK
Description	X: Whether to enable auto arming. When the parameter value is **1**, auto arming will be enabled. When the parameter value is **0**, auto arming will be disabled. When the device is in sleep mode and the auto arming function has been enabled, the device will enter auto arming state. You can set disarming by B21 command or remote control.
Applicable Model	T366/T366G
Example	
GPRS Sending	@@I27,353358017784062,B27,1*CA\r\n
GPRS Reply	$$I28,353358017784062,B27,OK*FC\r\n

3.28 Turning off the LED Indicator – B31

GPRS Sending	B31,AB
GPRS Reply	B31,OK
Description	When A is **0**, the tracker's indicator is turned on (default). You can query the device's running status according to the indicator status. When A is **1**, the tracker's indicator is turned off. B = 0: The buzzer's sound will be enabled (default). B = 1: The buzzer's sound will be disabled.
Example	
GPRS Sending	@@J28,353358017784062,B31,10*F7\r\n
GPRS Reply	$$J28,353358017784062,B31,OK*F8\r\n

3.29 Setting a Log Interval – B34

GPRS Sending	B34,*Log interval*
GPRS Reply	B34,OK
Description	Set the interval for recording data to device's memory when the GPS signal is valid.

	Recorded logs can only be read by Meitrack Manager software. Log interval = 0: function disabled (default). Log interval = [1…65535]: function enabled. Unit: second.
Example	
GPRS Sending	@@N28,353358017784062,B34,60*03\r\n
GPRS Reply	$$N28,353358017784062,B34,OK*FF\r\n

3.30 Setting the SMS Time Zone – B35

GPRS Sending	B35,*SMS minute*
GPRS Reply	B35,OK
Description	The default time zone of the tracker is GMT 0. You can run the B35 command to change the time zone of an SMS report to the local time zone. The SMS report time zone is different from the GPRS data packet time zone. When **SMS minute** is **0**, the time zone is **GMT 0**. When **SMS minute** is a value ranging from -720 to 780, set time zones.
Example	
GPRS Sending	@@O29,353358017784062,B35,480*3C\r\n
GPRS Reply	$$O28,353358017784062,B35,OK*01\r\n *After the above command is run successfully, the tracker SMS time zone is changed to UTC+08:00 (China time zone).*

3.31 Setting the GPRS Time Zone – B36

GPRS Sending	B36,*GPRS minute*
GPRS Reply	B36,OK
Description	When **GPRS minute** is **0**, the time zone is **GMT 0** (default). The MS03 can automatically detect the user time zone, so that the GPRS time zone does not need to be changed. Otherwise, inaccurate data occurs. When **GPRS minute** is a value ranging from -720 to 780, set time zones.
Example	
GPRS Sending	@@P29,353358017784062,B36,480*3E\r\n
GPRS Reply	$$P28,353358017784062,B36,OK*03\r\n *After the above command is run successfully, the GPRS time zone is changed to UTC+08:00 (China time zone).*

3.32 Setting the Auto Sleep Function – B37

GPRS Sending	B37,X
GPRS Reply	B37,OK
Description	Whether the tracker will enter deep sleep mode automatically when it detects that the voltage of the external power supply is lower than the preset value (see command B38).

	X: The parameter value is **0** or **1**. **0**: The auto sleep function will be disabled. **1**: The auto sleep function will be enabled. The default value is **1**.
Example	
GPRS Sending	@@P27,353358017784062,B37,1*D2\r\n
GPRS Reply	$$P28,353358017784062,B37,OK*04\r\n

3.33 Enable\disable the roaming table switching

GPRS Sending	B43,X
GPRS Reply	B43,OK
Description	X range from0-1, 0:indicate the switching of roaming table disable 1:indicate the switching of roaming table enable. Sending command without parameter will return the parameter value .
Example	
GPRS Sending	@@Y27,868998030732297,B43,1*EB \r\n
GPRS Reply	$$Y28,868998030732297,B43,OK*1E\r\n

3.34 Determining Vehicle Status by ACC Status – B60

GPRS Sending	B60,X
GPRS Reply	B60,OK
Description	X = 0: function disabled (default). X = 1: function enabled. When the device detects that the ACC is off, device's longitude and latitude will not be updated, so as to avoid static drift. The first positive input of the tracker connects to engine detection by default.
Example	
GPRS Sending	@@U27,353358017784062,B60,1*D3\r\n
GPRS Reply	$$U28,353358017784062,B60,OK*05\r\n

3.35 Setting SMS Event Characters – B91

GPRS Sending	B91,*SMS event code*,*SMS header*
GPRS Reply	B91,OK
Description	Header: a maximum of 16 bytes
Example	
GPRS Sending	@@R31,353358017784062,B91,1,SOS*F0\r\n
GPRS Reply	$$R28,353358017784062,B91,OK*06\r\n *After you press the SOS button (input 1), the tracker will send an alarm SMS whose header is SOS to a preset authorized phone number.*

3.36 Setting Event Authorization – B99

GPRS Sending	B99,<SMS>/<0>,*<Phone number location>*/*<Authorized phone number>*,*<Operation*

	code>, [*Event code 1*]……[*Event code n*] B99,<CALL>/<1>,<*Phone number location*>/<*Authorized phone number*>,<*Operation code*>, [*Event code 1*]……[*Event code n*] B99,<GPRS>/<2>,<*Operation code*>, [*Event code 1*]……[*Event code n*] B99,<CAMERA>/<3>,<*Operation code*>, [*Event code 1*]……[*Event code n*] B99,<BUZZER>/<4>,<*Operation code*>, [*Event code 1*]……[*Event code n*].
GPRS Reply	B99,<SMS>/<0>,<*Phone number location*>,<*Authorized phone number*>, [*Event code 1*]……[*Event code n*] B99,<CALL>/<1>,<*Phone number location*>,<*Authorized phone number*>, [*Event code 1*]……[*Event code n*] B99,<GPRS>/<2>,[*Event code 1*]……[*Event code n*] B99,<CAMERA>/<3>,[*Event code 1*]……[*Event code n*] B99,<BUZZER>/<4>,[*Event code 1*]……[*Event code n*]
Description	Fields SMS, CALL, GPRS, CAMERA, and BUZZER can be presented by 0–4 in decimal string. Operation codes GET, SET, ADD, and DEL can be presented by 0–3 in decimal string. These characters are not case-sensitive. Note: Ensure that an authorized phone number is set by using the A71 command or the parameter configuration tool before the B99 command is used to set the SMS/CALL event code. The tracker compares the authorized phone number issued by B99 with the authorized phone number (excluding +86 characters) of the tracker. If the phone numbers are the same, the new event code will be stored. If the phone numbers are inconsistent, an error SMS will be sent.
Example	
GPRS Sending	@@B34,863070010825791,B99,gprs,get*BC\r\n
GPRS Reply	$$B33,863070010825791,B99,1,17,18*B5\r\n

3.37 Controlling Output Status – C01

GPRS Sending	C01,*Speed*,ABCDE
GPRS Reply	C01,OK
Description	When the speed is **0**, no speed limit exists. That is, when the tracker receives a command, the function will take effect immediately. When the speed is a value ranging from 1 to 255 (unit: km/h), set the speed limit. When the driving speed is lower than the speed limit, the function will take effect. A=0, close output (output 1) - open drain A=1, open output (output 1) - connect to GND A=2, remain previous status. B=0, close output (output 2) - open drain B=1, open output (output 2) - connect to GND B=2, remain previous status. C=0, close output (output 3) - open drain C=1, open output (output 3) - connect to GND

	C=2, remain previous status. D=0, close output (output 4) - open drain D=1, open output (output 4) - connect to GND D=2, remain previous status. E=0, close output (output 5) - open drain E=1, open output (output 5) - connect to GND E=2, remain previous status.
Example	
GPRS Sending	@@M34,353358017784062,C01,20,10122*18\r\n
GPRS Reply	$$M28,353358017784062,C01,OK*F9\r\n

3.38 Notifying the Tracker of Sending an SMS – C02

GPRS Sending	C02, X,*Phone number*,*Content*
GPRS Reply	C02,OK
Description	Used for the platform to notify the tracker of sending an SMS to a mobile phone. X = 0: in TEXT mode X = 1: in Unicode mode Phone number: a maximum of 16 digits Content: a maximum of 140 characters After receiving the message, the tracker sends Content information to specified phone numbers.
Example	
GPRS Sending	@@f47,353358017784062,C02,0,15360853789,Meitrack*B1\r\n
GPRS Reply	$$f28,353358017784062,C02,OK*13\r\n

3.39 Setting a GPRS Event Transmission Mode – C03

GPRS Sending	C03, X
GPRS Reply	C03,OK
Description	X = 0: automatic event report (default; CCE command) X = 1: Before another event can be transmitted, existing event reports need to be confirmed and deleted on the server by the CFF command.
Example	
GPRS Sending	@@f27,353358017784062,C03,0*E1\r\n
GPRS Reply	$$f28,353358017784062,C03,OK*14\r\n

3.40 Setting the input mode – C07

GPRS Sending	C07,IN1:M1,IN2:M2 … INn:Mn
GPRS Reply	C07,IN1:C1,IN2:C2 … INn:Cn
Description	n:indicate the input number, range from1-n depend on the different model

	Mn：indicate the input mode 0:Low active 2:AD input 1:High active 3:the signal of remote control input Cn:indicate the current inout are applying
Example	
GPRS Sending	@@A37,868998030732297,C07,IN1:0,IN2:1*36\r\n
GPRS Reply	$$A43,868998030732297,C07,IN1:0,IN2:1,IN3:2*5D\r\n

3.41 Setting the mode of I/O port – C08

GPRS Sending	C08,I01:M1,I02:M2 … I0n:Mn
GPRS Reply	C08,I01:C1,I02:C2 … I0n:Cn
Description	n:indicate the input number, range from1-n depend on the different model Mn：indicate the IO port mode 0:Low active 4:open-drain 1:High active 5:ground 2:AD input 6:PMW output 3:the signal of remote control input 7:buzzer signal output Cn:indicate the current inout are applying Apply the parameter one or more piece by sending command without the parameter and value. If the command without the parameter, it will return the parameter value.
Example	
GPRS Sending	@@A37,868998030732297,C07,IN1:0,IN2:1*36\r\n
GPRS Reply	$$A43,868998030732297,C07,IN1:0,IN2:1,IN3:2*5D\r\n

3.42 Registering a Temperature Sensor Number – C40

GPRS Sending	C40,SN1 & number 1,SN2 & number 2,…,SNn & number n
GPRS Reply	C40,SN1 & number 1 & result, SN2 & number 2 & result,…SNn & number n & result
Description	Commands C40 to C46 are used to read or set a temperature sensor. Installation steps: 1) Check whether the temperature sensor number in AAA GPRS data is 0. 2) If the number is 0, the temperature sensor is not numbered. Then send the C42 command to read the mappings of sensor SNs and numbers. 3) Use the C40 command to index all sensors and bind information in the database, such as the IMEI number, SN, number, and customized name. 4) If a high or low temperature alert is required, send the C43 command to set the temperature value and customize a name. You are advised to use the installation path as the name and save the name to the database. 5) If the sensor is pulled out or replaced when the device is online, use the C46 command to check the sensor. If data is inconsistent, use the C40 and C43

	commands to set data. The device uploads current temperature data by the AAA event. If the number in temperature data is 0, the temperature sensor is not registered. The platform automatically sends the C42 command to obtain the temperature sensor SN and number list. Find out the sensor whose number is 0, and register it. n: The maximum value is 8. SN: unique number to identify a temperature sensor. Eight bytes. Hexadecimal string. The SN is displayed on the platform like 28 1B D5 23 04 00 00 57, which is the same as that on the sensor label. Number: one byte. Hexadecimal. The value ranges from 1 to 254. Registration result: 0x01, 0x02, 0x03, and 0x04 0x01: The registration is successful. 0x02: The number or SN already exists. 0x03: All sensors are registered. 0x04: Registration failed. Hexadecimal.
Example (ASCII is used to display examples because hexadecimal characters cannot be displayed.**)**	
GPRS Sending	@@q35,012896001078259,C40,(1BD5#040000W02*50\r\n
GPRS Reply	$$q36,012896001078259,C40,(1BD5#040000W0201*1B \r\n

3.43 Deleting a Registered Temperature Sensor – C41

GPRS Sending	C41,*Number 1*,*Number 2*,…*Number n*
GPRS Reply	C41,*Number 1*,*Result*,*Number 2*,*Result*,…*Number n*,*Result*
Description	Number: indicates the registered sensor number; hexadecimal. The value ranges from 1 to 254. Result: Decimal. **1** indicates deletion succeeded. **2** indicates that the number does not exist. **3** indicates deletion failed. To delete all registered temperature sensors, send command C41 only. If deletion is successful, **OK** is returned. If not, **Error** is returned.
Example	
GPRS Sending	@@n28,012896001078259,C41,01*19\r\n
GPRS Reply	$$n30,012896001078259,C41,01,1*37\r\n

3.44 Reading the Temperature Sensor SN and Number – C42

GPRS Sending	C42
GPRS Reply	C42,SN1 and number 1,SN2 and number 2,…SNn and number n
Description	SNn: indicates the n(th) sensor SN, and has eight bytes in hexadecimal format. Number n: indicates the n(th) sensor number, and has one byte in hexadecimal format. The value ranges from 0 to 255. If the value is **0**, the temperature sensor is not registered.
Example (ASCII is used to display examples because hexadecimal characters cannot be displayed.)	
GPRS Sending	@@m25,012896001078259,C42*89\r\n

GPRS Reply	$$t45,012896001078259,C42,(B4v#040000R00,(1BD5#040000W00*13\r\n

3.45 Setting the Temperature Threshold and Logical Name – C43

GPRS Sending	C43,*Number 1/SN1/High temperature value 1/Low temperature value 1/High temperature alert 1/Low temperature alert 1/Logical name 1/…Number n/SNn/High temperature value n/Low temperature value n/High temperature alert 1/Low temperature alert 1/Logical name n*
GPRS Reply	C43,*Number 1/Result 1/Number 2/Result 2…/Number n/Result n*
Description	n: The maximum value is 8. Number: one byte in hexadecimal format. SN: indicates the temperature sensor SN, and has eight bytes in hexadecimal format. High/Low temperature value: two bytes in hexadecimal format. The first byte is the integer part. When the high bit is **1**, the first byte is a negative integer. When the high bit is **0**, the first byte is a positive integer. The second byte is the decimal part. High temperature alert: one byte in hexadecimal format. Low temperature alert: one byte in hexadecimal format. Logical name (customized name): 16 bytes in hexadecimal format. If the name length is less than 16 bytes, add 0x00. There are 15 English characters, and # is located at the end of English characters to distinguish the Unicode and English characters. A maximum of eight Chinese characters can be supported. Chinese characters must be the Unicode. Result: one byte in hexadecimal format. **0x01** indicates setting succeeded. **0x02** indicates that the number is not located. **0x03** indicates that setting failed due to wrong parameters. Note: Separators (/) are not required between parameters.
Example (ASCII is used to display examples because hexadecimal characters cannot be displayed.)	
GPRS Sending	@@o57,012896001078259,C43,01(1BD5#040000W<0005000101T1#000000000000000000000000000*3F
GPRS Reply	$$o28,012896001078259,C43,0101*85

3.46 Reading Temperature Sensor Parameters – C44

GPRS Sending	C44
GPRS Reply	C44,*Number 1/SN1/High temperature value 1/Low temperature value 1/High temperature alert 1/Low temperature alert 1/Logical name 1/…Number n/SNn/High temperature value n/Low temperature value n/High temperature alert 1/Low temperature alert 1/Logical name n*
Description	n: The maximum value is 8. Number: one byte in hexadecimal format. SN: indicates the temperature sensor SN, and has eight bytes in hexadecimal format. High/Low temperature value: two bytes in hexadecimal format. The first byte is the integer part. When the high bit is **1**, the first byte is a negative integer. When the high bit is **0**, the first byte is a positive integer. The second byte is the decimal part.

	High temperature alert: one byte in hexadecimal format. Low temperature alert: one byte in hexadecimal format. Logical name (customized name): 16 bytes in hexadecimal format. If the name length is less than 16 bytes, add 0x00. There are 15 English characters, and # is located at the end of English characters to distinguish the Unicode and English characters. A maximum of eight Chinese characters can be supported. Chinese characters must be the Unicode. Note: Separators (/) are not required between parameters.
Example (ASCII is used to display examples because hexadecimal characters cannot be displayed.)	
GPRS Sending	@@r25,012896001078259,C44*90\r\n
GPRS Reply	$$r274,012896001078259,C44,01(B4v#040000R0000000000000000000000 0000000000000000000000002(1BD5#040000W000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 000000000000000000000000000000000000000000000000000000000000000 00000000000000000000*1E\r\n

3.47 Checking Temperature Sensor Parameters – C46

GPRS Sending	C46
GPRS Reply	C46,*Checksum*
Description	Checksum: two bytes in hexadecimal format. Use CRC-CCITT to calculate parameters of eight temperature sensors (in sequence: number, SN, high temperature value, low temperature value, high temperature alert, low temperature alert, and logical name). The calculation result is used as the temperature sensor checksum.
Example	
GPRS Sending	@@i25,012896001078259,C46*89\r\n
GPRS Reply	$$i28,012896001078259,C46,12_*F1\r\n

3.48 Setting Fuel Parameters – C47

GPRS Sending	C47,*Sensor type*,*Alert percentage upper limit*,*Alert percentage lower limit*
GPRS Reply	C47,OK
Description	Sensor type: The parameter value is **0**, **1**, **2**, and **3**. ● **0**: No fuel level sensor is connected. ● **1**: A C-type fuel level sensor (AD2) is connected. ● **2**: A R-type fuel level sensor (AD2) is connected. ● **3**: A V-type fuel level sensor (AD2) is connected. The AD2 of the T1 and T333 is connected to the fuel level sensor by default. In general, a R-type fuel level sensor will be selected. Alert percentage upper limit: When the value is **0**, the alert will be cleared. When the value is not **0**, GPRS and SMS event flags will take effect automatically. When the fuel

	percentage is higher than or equal to the value, an alert is generated, and the alert event code is **52**. Alert percentage lower limit: When the value is **0**, the alert wil be cleared. When the value is not **0**, GPRS and SMS event flags will take effect automatically. When the fuel percentage is lower than or equal to the value, an alert is generated, and the alert event code is **53**. If you want to modify a parameter, other parameters need to be left blank and separators (,) must be remained. If you only send **C47**, all parameter values will be initialized to **0**. All the parameter values are decimal characters. Note: When a fuel level sensor is set, the remaining fuel data will be uploaded according to the fuel percentage described in procotol version 1. For details, see the descriptions about protocol version 1 in section **错误!未找到引用源。** "**错误!未找到引用源。**". And the AD2 of the T1 and T333 is connected to the fuel level sensor by default.
Example	
GPRS Sending	@@i33,012896001078259,C47,2,80,20*09\r\n
GPRS Reply	$$i28,012896001078259,C47,ok*5B\r\n

3.49 Reading Fuel Parameters – C48

GPRS Sending	C48
GPRS Reply	C48,*Sensor type*,*Alert percentage upper limit*,*Alert percentage lower limit*
Description	The format of returned parameters is the same as that of the C47 command. All the parameter values are decimal characters.
Example	
GPRS Sending	@@i25,012896001078259,C48*8B\r\n
GPRS Reply	$$i33,012896001078259,C48,2,80,20*D2\r\n

3.50 Transparently Transmitting Data over the Serial Port – C61

GPRS Sending	C61,*Server date & time*,*Config*,*Interface device No.*,*Data packet*
GPRS Reply	C61,*GPS date & time*,*Interface device No.*,*<Data packet>/<Error code>*
Description	Interface device No.: contains 1 byte; hexadecimal. Server date & time: indicates the date and time of the server; 14 characters. For example, **20121114235959**. GPS date & time: indicates the date and time of the tracker; 14 characters. For example, **20121114235959**. Config: Reserved value for later use. Interface device No.: The default value is **2**. Data packet: at most 512 bytes; only support GPRS. Note: When the tracker receives data from a peripheral, data packets will be uploaded. If data packets are not detected from a peripheral, an error code will be sent.

3.51 Setting a Serial Port and a Peripheral – C70

GPRS Sending	C70,X,Y
GPRS Reply	C70,OK
Description	X: Select a serial port. The default value is **2**. Y: Select a peripheral; decimal. Y = 0: camera Y = 2: LED display Y = 4: RFID
Example	
GPRS Sending	@@f29,353358017784062,C70,2,0*17\r\n
GPRS Reply	$$f28,353358017784062,C70,OK*8B\r\n

3.52 Enable/disable the power button – C77

GPRS Sending	C77,Value
GPRS Reply	C77,OK
Description	Value=1, indicate the powerbutton was enabled Value=2, indicate the powerbutton was disabled
Example	
GPRS Sending	@@h27,868998030732297,C77,0*01\r\n
GPRS Reply	$$h28,868998030732297,C77,OK*34\r\n

3.53 Setting the GSM Jamming Detection Function – C85

GPRS Sending	C85,X,Y
GPRS Reply	C85, OK
Description	X: The parameter value is **0** or **1**. **0**: function disabled (default). **1**: function enabled. Y: The parameter value ranges from **0** to **9999**. When input 1 is triggered in ACC ON state and GSM jamming lasts *Y* minutes, an alert will be generated and output 1 will be activated. When the parameter value is **0**, an alert will be generated and output 1 will be activated immediately. If you want to read the parameters, send **C85**. Note:

GSM jamming for *Y* mins	ACC ON	ACC OFF
GPS valid & speed ≤ 20 km/h	Output 1 (fuel/power cut-off) will be triggered immediately, and a GSM jamming event will be generated.	Output 1 (fuel/power cut-off) will be triggered immediately, and a GSM jamming event will be generated.
GPS invalid	Output 1 will be triggered for 1 second and then will recover to the inactive state. The action will be	The tracker detects that the ACC is off for more than 10 consecutive seconds. Then output 1

		cycled every 5 seconds until the tracker detects that the ACC is off for more than 10 consecutive seconds. Then output 1 will be triggred all the time and a GSM jamming event will be generated.	will be triggred all the time and a GSM jamming event will be generated.

If a driver can not drive due to GSM jamming, he or she can activate output 1 by triggering input 1 for 5 times within 1 minute.

Example	
GPRS Sending	@@f29,353358017784062,C85,1,5*4F\r\n
GPRS Reply	$$f28,353358017784062,C85,OK*1E\r\n

3.54 Authorizing an iButton Key/RFID Card – D10

GPRS Sending	D10,iButton(1),iButton(2),…,iButton(n)
GPRS Reply	D10,OK
Description	iButton (n): indicates the authorized iButton ID number. The value ranges from 1 to 4294967295. Decimal. A maximum of 50 iButton keys can be authorized at a time.
Example	
GPRS Sending	@@f43,353358017784062,D10,13737431,13737461*17\r\n
GPRS Reply	$$f28,353358017784062,D10,OK*13\r\n

3.55 Authorizing iButton Keys/RFID Cards in Batches – D11

GPRS Sending	D11,*iButton start number*,n
GPRS Reply	D11,OK
Description	iButton start number: The value ranges from 1 to 4294967295. Decimal. n: indicates the number of batch-authorized iButton keys. Decimal. The maximum value is **128**.
Example	
GPRS Sending	@@e36,353358017784062,D11,13737431,1*AA\r\n
GPRS Reply	$$e28,353358017784062,D11,OK*13\r\n

3.56 Checking iButton/RFID Authorization – D12

GPRS Sending	D12,iButton
GPRS Reply	D12,n
Description	iButton: ranges from 1 to 4294967295. Decimal. n: When **n** is **0**, the iButton key is not authorized.

Example	
GPRS Sending	@@C34,353358017784062,D12,13737431*2A\r\n
GPRS Reply	$$C27,353358017784062,D12,0*87\r\n

3.57 Reading an Authorized iButton Key – D13

GPRS Sending	D13,*iButton packet start number*
GPRS Reply	D13,*Number of iButton packets*,*Current iButton packet number*,iButton (1)iButton (2)…iButton(n)
Description	iButton packet start number: indicates the start sequence number of the iButton packet. The minimum value is **0**. For example, when the value is **0**, you can obtain the package list from the first iButton packet. When the value is **4**, you obtain the package list from the fifth iButton packet. Number of iButton packets: indicates the number of authorized iButton packets. One iButton packet contains a maximum of 100 iButton IDnumbers. The minimum value is **0**. iButton (n): has eight hexadecimal characters.
Example	
GPRS Sending	@@w27,353358017784062,D13,0*F4\r\n
GPRS Reply	The example cannot be displayed because of hexadecimal characters.

3.58 Deleting an Authorized iButton Key – D14

GPRS Sending	D14,iButton(1),iButton(2),…,iButton(n)
GPRS Reply	D14,OK
Description	iButton (n): indicates the iButton ID to be deleted. The value ranges from 1 to 4294967295. Decimal. A maximum of 50 iButton keys can be deleted at a time. One SMS (including protocols) cannot exceed 140 bytes.
Example	
GPRS Sending	@@Q34,353358017784062,D14,13723455*3B\r\n
GPRS Reply	$$Q28,353358017784062,D14,OK*02\r\n

3.59 Deleting Authorized iButton Keys in Batches – D15

GPRS Sending	D15,*iButton start number*,n
GPRS Reply	D15,OK
Description	iButton start number: ranges from 1 to 4294967295. Decimal. n: indicates the number of iButton keys to be deleted in batches. Decimal. The maximum value is **128**. When the start number is a value ranging from 1 to 4294967295 and **n** is greater than or equal to 65536, all authorized numbers will be deleted.
Example	

GPRS Sending	@@K36,353358017784062,D15,13723455,3*97\r\n
GPRS Reply	$$K28,353358017784062,D15,OK*FD\r\n

3.60 Checking the Checksum of the Authorized iButton ID Database – D16

GPRS Sending	D16
GPRS Reply	D15,XOR
Description	This command is used to check whether the existing authorized iButton ID database is consistent with that recorded in the server. When the tracker receives the D16 command, the XOR result of all authorized iButton ID numbers is regarded as the database checksum for responding. After the server receives the checksum, compare with the XOR result of all authorized iButton ID numbers recorded in the server. If the result is the same, the existing authorized iButton ID database is consistent with that recorded in the server. Otherwise, data errors occur in the authorized iButton ID database.
Example	
GPRS Sending	@@u25,353358017784062,D16*97\r\n
GPRS Reply	$$u28,353358017784062,D16,18*F7\r\n

3.61 Setting the Maintenance Mileage – D65

GPRS Sending	D65,*Mileage point 1*<,*Mileage point 2*><,*Mileage point 3*><,*Mileage point 4*><,*Mileage point 5*><,*Mileage point 6*><,*Mileage point 7*><,*Mileage point 8*>
GPRS Reply	D34,OK
Description	Set 8 mileage points. Otherwise, the function will be unavailable. Mileage point: The parameter value ranges from **0** to **4294967295**. Unit: meter. Note: When the tracker detects that the mileage nearly reaches the preset value, a maintenance mileage reminder will be generated in advance. Users will be alerted by default when the mileage is 300 km ahead of the preset value. If a maintenance time alert is generated in advance, the maintenance mileage will skip to the next one automatically.
Applicable Model	T366/T366G
Example	
GPRS Sending	@@u78,353358017784062,D65,50000,60000,70000,80000,90000,100000,1100000,1200000*9C\r\n
GPRS Reply	$$u28,353358017784062,D65,OK*28\r\n

3.62 Setting Maintenance Time – D66

GPRS Sending	D66,*Time point 1*<,*Time point 2*><,*Time point 3*><,*Time point 4*><,*Time point 5*><,*Time point 6*><,*Time point 7*><,*Time point 8*>
GPRS Reply	D66,OK

Description	Set 8 time points. Otherwise, the function will be unavailable. Time point: The parameter value ranges from **0** to **4294967295**. Unit: second. Note: When the tracker detects that the time nearly reaches the preset value, a maintenance time reminder will be generated in advance. Users will be alerted by default when the time is 7 days ahead of the preset value. If a maintenance mileage alert is generated in advance, the maintenance time will skip to the next one automatically.
Applicable Model	T366/T366G
Example	
GPRS Sending	@@u78,353358017784062,D66,50000,60000,70000,80000,90000,100000,1100000,1200000*9D\r\n
GPRS Reply	$$u28,353358017784062,D66,OK*2D\r\n

3.63 Setting GPS Data Filtering – D71

GPRS Sending	D71,X,Y1,Y2,Y3,Y4
GPRS Reply	D71,OK/<*Error code*>
Description	**X**: Whether to enable the GPS data filtering function. **1**: Enable the function. **0**: Disable the function (default). **Y1**: indicates the minimum value of the driving speed. Value range: 0–999 km/h. **Y2**: indicates the maximum value of the driving speed. Value range: 0–999 km/h. **Y3**: indicates the number of satellites. Value range: 0–99. When the number of satellites is greater than **Y3**, GPS data will be updated. **Y4**: indicates the positioning accuracy. Unit: x10. Value range: 0–999. When the positioning accuracy value is less than **Y4**, GPS data will be updated. Note: When the GPS data filtering function is enabled, if all conditions of Y1, Y2, Y3 and Y4 are met, GPS data will be updated.
Applicable Model	T366/T366G
Example	
GPRS Sending	@@I40,865328022075252,0D71,1,5,255,4,0.4*38\r\n
GPRS Reply	$$I28,865328022075252,D71,OK*F8\r\n

3.64 Setting Output Triggering – D72

GPRS Sending	D72,X,Y1,Y2,Y3,Y4
GPRS Reply	D72,OK/<*Error code*>
Description	**X**: Select an output port. **1**: output 1. **2**: output 2. **Y1**: indicates the output time when an event is triggered. Unit: 10 ms. Value range: 0–4294967295. **Y2**: Value: 0, 1, and 2. ● **0**: Output high level. ● **1**: Output low level (default). ● **2**: Output PWM wave. **Y3**: indicates the PWM duty cycle. Value range: 0–100. **Y4**: indicates the PWM period. Unit: μs. Value range: 2000–50000000.

Applicable Model	T366/T366G
Example	
GPRS Sending	@@s42,865328022075252,0D72,1,100,0,0,10000*B0\r\n
GPRS Reply	$$s28,865328022075252,D72,OK*23\r\n

3.65 Allocating GPRS Cache and GPS LOG Storage Space – D73

GPRS Sending	D73,X,Y
GPRS Reply	D73,OK/<*Error code*>
Description	**X**: Set the storage percentage of GPRS cache. Decimal in percentage. **Y**: Set the storage percentage of GPS logs. Decimal in percentage. The sum of X and Y must be 100.
Applicable Model	T366/T366G
Example	
GPRS Sending	@@Q31,865328022075252,D73,50,50*90\r\n
GPRS Reply	$$Q28,865328022075252,D73,OK*02\r\n

3.66 Setting Harsh Acceleration and Harsh Braking Parameters – D79

GPRS Sending	D79,X,Y
GPRS Reply	D79,OK/<*Error code*>
Description	X: indicates the harsh acceleration alert value. Decimal; unit: mG; value range: [90…1000]; default value: 150. Y: indicates the harsh braking alert value. Decimal; unit: mG; value range: [-1500…-100]; default value: -180. Harsh acceleration level: ● Level 1: 150 ● Level 2: 170 ● Level 3: 200 ● Level 4: 230 ● Level 5: 250 ● Level 6: 280 ● Level 7: 300 ● Level 8: 320 ● Level 9: 350 ● Level 10: 400 Harsh braking level: ● Level 1: -180 ● Level 2: -200 ● Level 3: -250 ● Level 4: -300 ● Level 5: -350 ● Level 6: -400

	● Level 7: -450 ● Level 8: -500 ● Level 9: -550 ● Level 10: -600 The higher the level is, the lower the alert probability is. Note: When you install the tracker, the direction and angle of the tracker and vehicle should be consistent. And ensure that the tracker is installed firmly.
Example	
GPRS Sending	@@Q34,865328022075252,D79,150,-180*2B\r\n
GPRS Reply	$$Q28,865328022075252,D79,OK*08\r\n

3.67 Setting Harsh Cornering Parameters – D80

GPRS Sending	D80,X1,X2,X3,X4,Y1,Y2,Y3,Y4
GPRS Reply	D80,OK/*<Error code>*
Description	X: indicates the Sharp Left Turn parameter. Y: indicates the Sharp Right Turn parameter. X1 or Y1: indicates the acceleration value while accelerating. Unit: mG; value range: [10…3000]. X2 or Y2: indicates the time while accelerating. Unit: ms; value range: [10…1000]. X3 or Y3: indicates the acceleration value while braking. Unit: mG; value range: [-3000…-10]. X4 or Y4: indicates the time while braking. Unit: ms; value range: [10…1000]. To set Sharp Left Turn and Sharp Right Turn alerts, you only need to set the parameter values of **X3** and **Y3**, and other parameter values remain unchanged (X1 & Y1: 150; X2 & Y2: 80; X4 & Y4: 80). The levels of **X3** and **Y3** parameters are as follows: ● Level 1: -110 ● Level 2: -150 ● Level 3: -200 ● Level 4: -250 ● Level 5: -280 ● Level 6: -310 ● Level 7: -350 ● Level 8: -390 ● Level 9: -450 ● Level 10: -500 The higher the level is, the lower the alert probability is. Note: When you install the tracker, the direction and angle of the tracker and vehicle should be consistent. And ensure that the tracker is installed firmly.
Example	
GPRS Sending	@@Q55,865328022075252,D80,150,80,-110,80,150,80,-110,80*1C\r\n
GPRS Reply	$$Q28,865328022075252,D80,OK*00\r\n

3.68 Reading Device's Firmware Version and SN – E91

GPRS Sending	E91
GPRS Reply	E91,*Version*,*SN*
Description	Read the tracker's firmware version and SN.
Example	
GPRS Sending	@@W25,353358017784062,E91*7D\r\n
GPRS Reply	$$W38,353358017784062,FWV1.00,12345678*1C\r\n

3.69 Restarting the GSM and GPS Modules – F00

GPRS Sending	F01,GSM,GPS
GPRS Reply	F01,OK
Description	GSM: The parameter value is **0** or **1**. **0**: no action. **1**: Restart the GSM module. GPS: The parameter value is **0** or **1**. **0**: no action. **1**: Restart the GPS module.
Example	
GPRS Sending	@@j29,353358017784062,F00,1,1*45\r\n
GPRS Reply	$$j28,353358017784062,F00,OK*18\r\n

3.70 Restarting the GSM Module – F01

GPRS Sending	F01
GPRS Reply	F01,OK
Description	Restart the GSM module.
Example	
GPRS Sending	@@j25,353358017784062,F01*88\r\n
GPRS Reply	$$j28,353358017784062,F01,OK*19\r\n

3.71 Restarting the GPS Module – F02

GPRS Sending	F02
GPRS Reply	F02,OK
Description	Restart the GPS module.
Example	
GPRS Sending	@@Z25,353358017784062,F02*79\r\n
GPRS Reply	$$Z28,353358017784062,F02,OK*0A\r\n

3.72 Setting the Mileage and Run Time – F08

GPRS Sending	F08,*Run time*,*Mileage*
GPRS Reply	F08,OK

Description	Run time: ● Value range: [0…4294967295] ● Decimal ● Unit: second If you do not want to set the parameter, leave it blank. Mileage: ● Value range: [0…4294967295] ● Decimal ● Unit: meter If you do not want to set the parameter, leave it blank.
Example	
GPRS Sending	@@D40,353358017784062,F08,0,4825000*51\r\n
GPRS Reply	$$D28,353358017784062,F08,OK*FA\r\n

3.73 Deleting SMS/GPRS Cache Data – F09

GPRS Sending	F09,*Number*
GPRS Reply	F09,OK
Description	If the number is **1**, SMS cache data to be sent is deleted. If the number is **2**, GPRS cache data to be sent is deleted. If the number is **3**, SMS and GPRS cache data to be sent is deleted.
Example	
GPRS Sending	@@E27,353358017784062,F09,1*CA\r\n
GPRS Reply	$$E28,353358017784062,F09,OK*FC\r\n

3.74 Restoring Initial Settings – F11

GPRS Sending	F11
GPRS Reply	F11,OK
Description	Restore initial settings except the SMS password.
Example	
GPRS Sending	@@[25,353358017784062,F11*7A\r\n
GPRS Reply	$$[28,353358017784062,F11,OK*0B\r\n

4 Appendix 1: Parameter ID

Parameter ID	Parameter	Data Analysis	Data Type	Data Length (Byte)	Remarks
0x05	GPS	**01**: The GPS positioning is valid.	BYTE	1	

	positioning status	**00**: The GPS positioning is invalid.			
0x06	Number of satellites	Indicates the number of received GPS satellites.	BYTE	1	
0x07	GSM signal strength	Value: 0–31	BYTE	1	
0x14	Output port status	Status values of eight output ports Bits 0–7 correspond to status of output ports 1–8.	BYTE	1	
0x15	Input port status	Status values of eight input ports Bits 0–7 correspond to status of input ports 1–8.	BYTE	1	
0x1B	Geo-fence number	Only available by GPRS event code 20 or 21.	BYTE	1	
0x08	Speed	Unit: km/h	WORD	2	
0x09	Driving direction	The unit is degree. When the value is **0**, the direction is north. Value: 0–359	WORD	2	
0x0A	HDOP	Value: 5–999; unit: 1/10	WORD	2	
0x0B	Altitude	Unit: meter	SINT16	2	
0x16	AD1	Analog 1<AD1>	WORD	2	
0x17	AD2	Analog 2<AD2>	WORD	2	
0x18	AD3	Analog 3<AD3>	WORD	2	
0x19	AD4	Battery analog <AD4>	WORD	2	
0x1A	AD5	External power analog <AD5>	WORD	2	
0x02	Latitude	Unit: millionth of a degree	SINT32	4	
0x03	Longitude	Unit: millionth of a degree	SINT32	4	
0x04	Date and time	Unit: second Start point: 1 January, 2000, 00:00:00 am.	DWORD	4	
0x0C	Mileage	Indicates the total mileage. Unit: meter	DWORD	4	
0x0D	Run time	Indicates the total time. Unit: second	DWORD	4	

0x1C	System flag	Only available by GPRS event code 35. Bit 0: Whether to change the EEP2 parameter. When the value is **1**, the EEP2 parameter is changed. Bit 1: indicates ACC status. When the value is **1**, the ACC is on. Bit 2: indicates anti-theft status. When the value is **1**, the device is in the arming mode. Bit 3: vibration flag. When the value is **1**, the device is vibrating. Bit 4: moving flag. When the value is **1**, the device is moving. Bit 5: whether to connect the external power supply. When the value is **1**, the external power supply is connected. Bit 6: Whether the device is charging. When the value is **1**, the device is charging. Bit 7: Whether to enable the sleep mode. When the value is **1**, the sleep mode is enabled. Bit 8: Whether to connect the FMS. When the value is **1**, the FMS is connected. Bit 9: Whether to enable the FMS function. When the value is **1**, the function is enabled. Bits 10–31: reserved	DWORD	4	
0x0E	Base station info	<MCC><MNC><LAC><CELL_ID><RX_LEVEL> MCC: indicates Mobile Country Code; 16-bit unsigned; little-endian. MNC: indicates Mobile Network Code; 16-bit unsigned; little-endian. LAC: indicates Location Area Code; 16-bit unsigned; little-endian. CELL_ID: indicates the cell ID; 32-bit unsigned; little-endian. RX_LEVEL: indicates the signal strength; 16-bit signed; little-endian.	STRUCT	12	Upload data when its value is valid.
0x25	RFID	D7 9D D1 00 Indicate ：RFID number 13737431 Describe the IC identification The card number could be obtained in the raw data uploaded in event code 37	DWORD	4	
0x27	Temperature sensor ID	Example:07 Indicate the High/Low temperature in sensor ID 7	BYTE	1	

		Available in event 50 or 51 of raw data			
0x28	picture name	Example: CB 0F 23 19 01 1E 0C 00 Indicated the following data in DWORD type, little-endian 0x19230FCB(Date&Time) Convert to decimal: 130513024323, means 2013/05/13 2:43:23 0x000C1E01(the file name in suffix) The picture name show like this: 130513024323_C1E01.jpg Only available in event code 39	Struct	8	
0x29	Remain Fuel percentage	Example: 2E 0E Indicate the remain fuel percentage is 36.30%	WORD	2	
0X2A	Temperature sensor 1	Example: 01 09 1A 01: indicate the temperature ID number. 09 1A: 2 byte signed,little-endian Indicate the temperature value 66.65℃			
0X2B	Temperature sensor 2	same as above	STRUCT	3	
0X2C	Temperature sensor 3	same as above	STRUCT	3	
0X2D	Temperature sensor 4	same as above	STRUCT	3	
0X2E	Temperature sensor 5	same as above	STRUCT	3	
0X2F	Temperature sensor 6	same as above	STRUCT	3	
0X30	Temperature sensor 7	same as above	STRUCT	3	
0x31	Temperature sensor 8	same as above	STRUCT	3	

0x37	the smart lock K211G info	<ID_Len><Number><ID1><ID2>...<IDn> ID_len:the data length in this ID parameter Number:indicate the amount of K211G which bind in advance ID 1:indicate the first Lock K211G info ID n:indicate the number N Lock of K211G info Example: 01 30 31 32 33 34 35 36 37 38 39 31 32 33 34 35 00 01 3C 01 02 E5 3B 5B 01 B3 F6 27 F9 Illustration: 01: indicate the amount of smart lock K211G, range from1~30. 30 31 32 33 34 35 36 37 38 39 31 32 33 34 35 00:the smart lock K211G ID,the default value is the IMEI .16 byte. 01:indicate the status connected with T399G. 00:disconnected 01:connected 3C:indicate the remain power of battery ,unit:percentage 01:indicate the lock status in K211G 00:unknow status 01:unlock 02:locked 03:lock cut 02 indicate the shell status in K211G: 00:unknow 01:shell open 02:normal E5 3B 5B 01:indicate the northen latitude 22.756325,4 byte B3 F6 27 F9：indicate the western longitude 114.821453,4 byte	Struct		
0x40	Event code	For details, see the section 1.3”event code”	WORD	2	

5 Appendix 2: Data Type

Data Type	Description	Transmission Rule
BYTE	Unsigned; 1 byte (8 bits)	The data is transmitted as a stream of bytes.
WORD	Unsigned; 2 bytes (16 bits)	Little-endian
DWORD	Unsigned; 4 bytes (32 bits)	Little-endian
BYTE[n]	*n* bytes	The data is transmitted as a stream of bytes.
BCD[n]	BCD-8421 encoding; *n* bytes	The data is transmitted as a stream of bytes.

STRING	GBK encoding If no data is generated, leave the parameter blank.	Little-endian
SINT8	Signed; 1 byte	The data is transmitted as a stream of bytes.
SINT16	Signed; 2 bytes	Little-endian
SINT32	Signed; 4 bytes	Little-endian
STRUCT	Depend on data descriptions.	Transmit data based on a struct.

If you have any questions, do not hesitate to email us at info@meitrack.com.