MEITRACK MT90 GPRS Protocol

Applicable Model: MT90V4/MT90G

Change History

File Name	MEITRACK MT90 GPRS Protocol	Created By	Kyle Lv
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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>,<Event code>,<(-)Latitude>,<(-)Longitude>,<Date and time>,<Positioning status>,<Number of satellites>,<GSM signal strength>,<Speed>,<Direction>,<Horizontal dilution of precision (HDOP)>,<Altitude>,<Mileage>,<Run time>,<Base station info>,<I/O port status>,<Analog input value>,<Geo-fence number><*Checksum>\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.
- All multi-byte data complies with the following rule: High bytes are prior to low bytes.
- The size of a GPRS data packet is about 160 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.	Q
Data length	Indicates the length of characters from the first comma (,) to \r\n. Decimal. Example: $$*<Data identifier><Data length>,<IMEI>,<Command type>,<Command><* Checksum>*\r\n	25
IMEI	Indicates the tracker IMEI number. The number type is ASCII. It has 15 digits generally.	353358017784062
Command type	Hexadecimal For details, see chapter 2 and chapter 3.	AAA
Event code	Decimal For details, see section 1.3 "Event Code."	1
Latitude (-)yy.dddddd	Unit: degree Decimal When a minus (-) exists, the tracker is in the southern hemisphere.	22.756325 (indicates 22.756325°N) -23.256438 (indicates

	When no minus (-) exists, the tracker is in the northern hemisphere. **yy** indicates the degree. **dddddd** indicates the decimal part.	23.256438°S)
Longitude (-)xxx.dddddd	Unit: degree Decimal When a minus (-) exists, the tracker is in the western hemisphere. When no minus (-) exists, the tracker is in the eastern hemisphere. **xxx** indicates the degree. **dddddd** indicates the decimal part.	114.752146 (indicates 114.752146°E) -114.821453 (indicates 114.821453°W)
Date and time yymmddHHMMSS	**yy** indicates year. **mm** indicates month. **dd** indicates day. **HH** indicates hour. **MM** indicates minute. **SS** indicates second. Decimal	091221102631 Indicates 21 December 2009, 10:26:31 am.
Positioning status	Indicates the GPS signal status. **A** = Valid **V** = Invalid	A The GPS is valid.
Number of satellites	Indicates the number of received GPS satellites. Decimal	5 Five GPS satellites are received.
GSM signal strength	Value: 0–31 Decimal	12 The signal strength is 12.
Speed	Unit: km/h Decimal	58 The speed is 58 km/h.
Direction	Indicates the driving direction. The unit is degree. When the value is **0**, the direction is north. The value ranges from 0 to 359. Decimal	45: indicates that the location is at northeast. 90: indicates that the location is at east.
HDOP	The value ranges from 0.5 to 99.9. The smaller the value is, the more the accuracy is. Decimal When the accuracy value is **0**, the signal is invalid. 0.5–1: Perfect 2–3: Wonderful 4–6: Good 7–8: Medium 9–20: Below average 21–99.9: Poor	5 The HDOP is 5.
Altitude	Unit: meter Decimal	118
Mileage	Unit: meter	564870

	Decimal Indicates the total mileage. The maximum value is 4294967295. If the value exceeds the maximum value, it will be automatically cleared.	
Run time	Unit: second Decimal Indicates the total time. The maximum value is 4294967295. If the value exceeds the maximum value, it will be automatically cleared.	2546321
Base station info	The base station information includes: MCC|MNC|LAC|CI The MCC and MNC are decimal, while the LAC and CI are hexadecimal. Note: Base station information in an SMS is empty.	460|0|E166|A08B
I/O port status	Hexadecimal Status values of eight input ports and eight output ports: Bit0 to Bit7 corresponds to status of output ports 1 to 8. Bit8 to Bit15 corresponds to status of input ports 1 to 8.	0421 (hexadecimal) = 0000 0100 0010 0001
Analog input value	Separated by "|". Hexadecimal AD1|AD2|AD3|Battery analog|External power analog **Voltage formula of battery analog (AD4):** MT90V4: (AD4 x 3.3 x 2)/4096 MT90G: (AD4 x 3.0 x 2)/4096 **Formula of battery percentage:** MT90V4: (AD4-2114)/492 x 100% MT90G: (AD4-2321)/442 x 100%	123|456|235|1456|222 (Hexadecimal)
Geo-fence number	32-bit unsigned Only available by GPRS event code 20 or 21.	02 00 00 00 (indicates geo-fence 2)
*	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*>,<*Command*><*Checksum*>\r\n	BE
\r\n	2 bytes. The parameter is an ending character. The type is ASCII. (Hexadecimal value: 0x0d 0x0a)	\r\n

1.3 Event Code

Event Code	Event	Default SMS Header (At Most 16 Bytes)
1	**SOS Pressed**	SOS
2	**Input 2 Active**	In2 Active
17	**Low Battery**	Low Battery

18	**Low External Battery**	Low Ext-Battery
19	**Speeding**	Speeding
20	**Enter Geo-fence**	Enter Fence N (N means the number of the fence)
21	**Exit Geo-fence**	Exit Fence N (N means the number of the fence)
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
41	**Stop Moving**	Stop moving
42	**Start Moving**	Start Moving
70	**Reject Incoming Call**	/
71	**Get Location by Call**	/
72	**Auto Answer Incoming Call**	/
73	**Listen-in (Voice Monitoring)**	/
79	**Fall**	Fall

2 Command List

Command	Command Description
A10	Real-Time Location Query (GPRS)
A11	Setting a Heartbeat Packet Reporting Interval (GPRS)
A12	Tracking by Time Interval (GPRS)
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B36	Setting the GPRS Time Zone
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B99	Setting Event Authorization
C02	Notifying the Tracker of Sending an SMS
C03	Setting a GPRS Event Transmission Mode
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 (GPRS) – A10

GPRS Sending	A10
GPRS Reply	AAA,34,(-)*Latitude*,(-)*Longitude*,*Date and time*,*Positioning status*,*Number of satellites*,*GSM signal strength*,*Speed*,*Direction*,*HDOP*,*Altitude*,*Mileage*,*Run time*,*Base station info*,*I/O port status*,*Analog input value*
Description	**34**: indicates the GPRS command event code.
Example	
GPRS Sending	@@Q25,353358017784062,A10*6A\r\n
GPRS Reply	$$Q128,353358017784062,AAA,34,22.543176,114.078448,100313093738,A,5,22,2,205,5,-14,0,60,0|0|10133|4110,0000,149|153|173|2707|914,*91\r\n

3.2 Setting a Heartbeat Packet Reporting Interval (GPRS) – 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. A heartbeat report is to confirm the device is online, but positioning data is invalid.
Example	
GPRS Sending	@@S28,353358017784062,A11,10*FD\r\n
GPRS Reply	$$S28,353358017784062,A11,OK*FE\r\n *After the above command is run successfully, the tracker will send the following GPRS heartbeat packet to the platform every 10 minutes in sleep mode:* *$$a131,353358017784062,AAA,31,22.913458,114.083183,080229123628,V,9,23,21,83,1,18,1350,127,0|0|10133|4110,0000,169|181|184|2714|919,*60*

3.3 Tracking by Time Interval (GPRS) – A12

GPRS Sending	A12,*Interval*
GPRS Reply	A12,OK
Description	Unit: x10 seconds 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	$$V28,353358017784062,A12,OK*02\r\n *After the above command is run successfully, the tracker will send the following GPRS data packet to the platform every 1 minute:* *$$W129,353358017784062,AAA,35,22.540113,114.076141,100313094354,A,5,22,1,174,4,129,0,435,0|0|10133|4110,0000,166|224|193|2704|916,*BE\r\n*

3.4 Setting the Cornering Report Function (GPRS) – 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	$$X28,353358017784062,A13,OK*05\r\n *After the above command is run successfully, if the cornering angle is greater than 120 degree, the tracker will send the following GPRS data pakcet to the server:* *$$Y129,353358017784062,AAA,32,22.540968,114.077455,100313094534,A,4,22,1,166,3,175,0,534,0|0|10133|4110,0000,141|138|159|2691|904,*D9\r\n*

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. Note: When both the GPRS time interval and distance tracking functions are enabled, the "first reach first report" rule will be applied. For example, set the time interval to 6 x 10 seconds and distance to 200 meters. If the road is clear, a distance data packet will be reported first; if there is heavy traffic on the road, a time interval data packet will be reported first. Then both the time interval and distance counters will be reset to 0. **300** is recommended.
Example	
GPRS Sending	@@D30,353358017784062,A14,1000*4A\r\n
GPRS Reply	$$D28,353358017784062,A14,OK*F2\r\n *After the above command is run successfully, if the driving distance reaches 1000m, the tracker will send a data packet to the server.* *$$D131,353358017784062,AAA,33,22.547271,114.047405,080310080929,A,8,21,13,89,1,12,8525,561,0|0|10133|4110,0000,163|185|186|2712|939,*31\r\n*

3.6 Waking the Device Up by Vibration – A19

GPRS Sending	A19,X
GPRS Reply	A19,OK
Description	This function is used to determine whether the device will be woken up by vibration in deep mode. X = 0: The device will not be woken up by vibration. X = 1: The device will be woken up by vibration (default). Note: When the MT90G disables the function of waking the device up by vibration, the heartbeat packet sent is positioning data.
Example	
GPRS Sending	@@H27,353358017784062,A19,1*C9\r\n
GPRS Reply	$$H28,353358017784062,A19,OK*F8\r\n

3.7 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

3.8 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

3.9 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

3.10 Setting the Man Down Alarm Function – A29

GPRS Sending	A29,*Switch*,*Time*,*Grade*
GPRS Reply	A29,OK
Description	**Switch**: Whether to enable the man down alarm detection function. The value is **0** or **1** and is in decimal format. When the parameter value is **1**, the man down alarm function is enabled. When the parameter value is **0**, the man down alarm function is disabled. The default value is **0**. **Time**: indicates the buzzing and vibration time after the device falls to the ground. During this period, you can press any button of the device to clear the alarm, so as to avoid misinformation. If no button is pressed during this period, a man down alarm (event 79) will be generated or the tracker will call the designated contact. Unit: second; value range: 0–255; decimal; default value: 10. **Grade**: indicates the man down alarm level. Value range: 0–3; decimal; default value: 1. The smaller the value is, the higher the alarm probability is.
Example	
GPRS Sending	@@S44,353358017784062,A23,182.92.69.175,8800*35\r\n
GPRS Reply	$$S28,353358017784062,A23,OK*01\r\n

3.11 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

3.12 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: 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

3.13 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

3.14 Setting the 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 module will stop working and the GSM module will enter sleep mode. Once an event is triggered, the GPS 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, GPS antenna cutoff alarm, towing alarm, high temperature, low temperature, fuel theft, vehicle theft, ACC ON, (button) changes on any input port, vibration, incoming call, SMS receiving, call, and heartbeat event (The GPS is disabled during heartbeat wakeup.). Note: ● The MT90 can enter sleep mode under vibration, and vibration cannot wake the MT90 up from sleep mode. If the A19 command is enabled, the MT90 can be woken up. By default, MT90 cannot be woken up by vibration. ● 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. ● When the MT90G enables the function of waking the device up by vibration, the heartbeat packet sent is not positioning data.
Example	
GPRS Sending	@@W27,353358017784062,A73,2*D9\r\n
GPRS Reply	$$W28,353358017784062,A73,OK*0A\r\n

3.15 Automatic Event Report – AAA

GPRS Event Report	AAA,*Command type*,(-)*Latitude*,(-)*Longitude*,*Date and time*,*Positioning status*,*Number of satellites*,*GSM signal strength*,*Speed*,*Direction*,*HDOP*,*Altitude*,*Mileage*,*Run time*,*Base station info*,*I/O port status*,*Analog input value*
Description	When an event occurs, the tracker automatically reports the event to the server.
Example	
GPRS Reply	*When you press the SOS button, the tracker will send the following information to the server:* *$$G127,353358017784062,AAA,1,22.538169,114.075958,100313095653,A,3,21,4,46,5,581,0,148,0|0|10133|4172,0000,166|204|205|2709|878,*77\r\n*

3.16 Deleting a GPRS Event in the Buffer – AFF

GPRS Sending	AFF,*Number of deleted GPRS events*
GPRS Reply	Use the AFF command to clear the existing data when the GPRS connection mode is UDP. AFF,*Number of remaining cache*,*Command type*, (-)*Latitude*,(-)*Longitude*,*Data and time*,*Positioning status*,*Number of satellites*,*GSM signal strength*,*Speed*,*Direction*,*HDOP*,*Altitude*,*Mileage*,*Run time*,*Base station info*,*I/O port status*,*Analog input value*
Description	Number of deleted GPRS events: hexadecimal. In general, the number is 1. Number of remaining cache: indicates the number of events in the buffer; hexadecimal.
Example	
GPRS Sending	@@h27,353358017784062,AFF,1*0B\r\n
GPRS Reply	$$h28,353358017784062,AFF,OK*3D\r\n

3.17 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	$$H28,353358017784062,B05,OK*F7\r\n *When the tracker exits the geo-fence (latitude: 22.913191; longitude: 114.079882; radiu: 1000m), it will send the following GPRS data packet to the server:* *$$J132,353358017784062,AAA,21,22.918046,114.089726,080229123812,A,10,22,12,32,1,21,6667,847,0|0|10133|4110,0000,124|181|183|2714|922,*5A\r\n*

3.18 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.*

3.19 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	$$P28,353358017784062,B07,OK*01\r\n *When the tracker driving speed reaches 60 km/h, it will send the following information to the server:* *$$k134,353358017784062,AAA,19,22.916675,114.088813,080229123718,A,10,22,61,31,1,21,* *6635,395,460|0|10133|4110,0000,164|185|181|2712|915,*F7\r\n*

3.20 Setting the Towing Alarm Function – B08

GPRS Sending	B08,*Vibration duration*
GPRS Reply	B08,OK
Description	When the tracker's vibration duration exceeds the preset value, the tracker will send an alarm to an authorized phone number or the server. Before using the towing alarm function, use the A73 command to set the smart sleep level to **2** and use the B08 command to set the consecutive vibration duration. Otherwise, the towing alarm function is unavailable. Vibration duration = 0: function disabled (default). Vibration duration = [1…255]: function enabled. Unit: second.
Example	
GPRS Sending	@@I27,353358017784062,B08,3*CB\r\n
GPRS Reply	$$I28,353358017784062,B08,OK*FB\r\n *When the tracker vibrates for more than consecutive 3 seconds, it will send the following information to the server:* *$$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*

3.21 Turning off the LED Indicator – B31

GPRS Sending	B31,A
GPRS Reply	B31,OK
Description	When A is **00**, the tracker's indicator is turned on (default). You can query the device's running status according to the indicator status. When A is **10**, the tracker's indicator is turned off.
Example	
GPRS Sending	@@J28,353358017784062,B31,10*F7\r\n
GPRS Reply	$$J28,353358017784062,B31,OK*F8\r\n

3.22 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 GPSLog or 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

3.23 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 SMS report time zone 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 -32768 to 32767, 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).*

3.24 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 MS02 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 -32768 to 32767, 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).*

3.25 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.*

3.26 Setting a GPRS Event Flag – B92

GPRS Sending	B92,*GPRS event flag*
GPRS Reply	B92,OK
Description	Set one or multiple GPRS event flags. GPRS event flag: 16 hexadecimal strings (64 bits). High bit: indicates the 64th event flag (bit 63). Low bit: indicates 1st event (SOS) flag (bit 0).
Example	
GPRS Sending	@@q42,353358017784062,B92,1234567890ABCDEF*62\r\n
GPRS Reply	$$q28,353358017784062,B92,OK*26\r\n

3.27 Reading a GPRS Event Flag – B93

GPRS Sending	B93
GPRS Reply	B93,*GPRS event code flag*
Description	Read a GPRS event code flag.
Example	
GPRS Sending	@@V25,353358017784062,B93*7B\r\n
GPRS Reply	$$V42,353358017784062,B93,00000007E01C001F*B5\r\n

3.28 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*] 0000,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, CAMERA, GPRS, 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

3.29 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

3.30 Setting a GPRS Event Transmission Mode – C03

GPRS Sending	C03, X
GPRS Reply	C03,OK
Description	X = 0: automatic event report (default) X = 1: Before another event can be transmitted, existing event reports need to be confirmed and deleted on the server by the AFF command. Select this mode when GPRS uses UDP.
Applicable Model	Excluding T322X
Example	
GPRS Sending	@@f27,353358017784062,C03,0*E1\r\n
GPRS Reply	$$f28,353358017784062,C03,OK*14\r\n

3.31 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

3.32 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

3.33 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

3.34 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

3.35 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

3.36 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

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