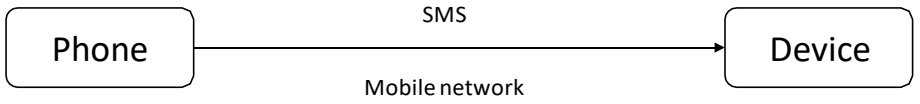
Content

1、Instruction list purpose

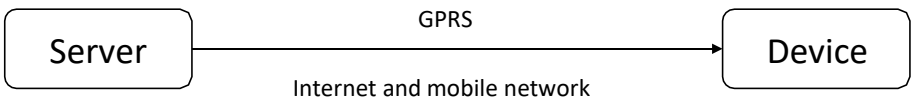
1. Set clear the device parameters.
2. Obtain device setting parameters, positioning data, and other data.
3. Control the hardware output of the device.
4. The device sends a request to the server.

2、How to use instructions

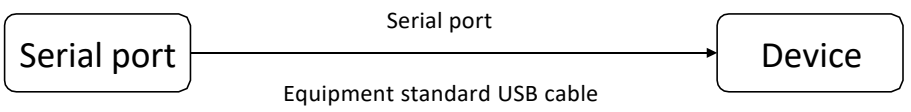
1. The user sends an SMS to the device via the mobile phone.



2. The user sends GPRS data to the device through the server.



3. The user sends data to the device through the serial port.



3、Instruction format

Instruction format refers to the instruction data format sent to the device by mobile phone, server or PC via SMS, GPRS or serial port.

3.1、 Format 1 (single instruction format):

< Instruction start flag>< Instruction key>;< Instruction >;< Instruction end flag>

Example of SMS command in single command format：$SMS,000000;R001;!

Single command format GPRS command example: $GPRS,860719020009480;R001;!

Example of single command format serial port command：$USB,000000;R001;!

3.2、Format 2 (multi-instruction format):

<Instruction start flag><Instruction key>;<Instruction>;<Instruction>;……<Instruction end flag>

Multiple instruction message instruction exemplary format：$SMS,000000; R001;R002;R003;!

Multi-Instruction format GPRS command example：$GPRS,860719020009480; R001;R002;R003;!

Multi-instruction format serial command example：$USB,000000; R001;R002;R003;!

Project	Description			
<Command start flag>	Fixed as the character $			
<Command key>	Command key head	SMS	Fixes string SMS	
	Command key content	GPRS data	Fixes string GPRS	
		Serial data	Fixes string USB	
		SMS	Device password	
		GPRS data	Device IMEI	
		Serial data	Device password	
	Example: 1.SMS command key SMS,0000000 2.GPRS data command key GPRS,860719020009480 Serial data command key USB,000000			
;	Semicolon, separator.			
<instruction>	See the contents of the command list (set (W), read (R), clear (C)).			
……	The ellipsis indicates that more <commands> can be added;			
<End of instruction flag>	Fixed as characters!			
Precautions	1.The command is not case sensitive; 2.Only the password or IMEI is correct, the command can be recognized by the device; 3.The use of multi-instruction format can effectively reduce the number of instructions sent; The maximum length of the instruction is 2000 bytes;			

4、Command feedback data format

The command feedback data format refers to the feedback data format sent to the mobile phone,

server or PC via SMS, GPRS or serial port after the device receives the command.

The command feedback data format of SMS, GPRS, and serial port are all the same, the format is as follows：

<Instruction start flag><IMEI>;<Instruction feedback>;<Instruction feedback>;……<Instruction end flag>

Example 1：$860719020009480;R001,OK,000000;!

Example 2：$860719020009480;R001,OK,000000;R002,OK,cmnet,user,password;R003,OK,192.168.1.1,7000;!

Project	Description
<Command start flag>	Fixed as the character $
<IMEI>	Equipment IMEI.
;	Semicolon, separator.
<Command feedback>	Please refer to the instruction list (instruction response).
……	Please refer to the instruction list (instruction response).
<Command end flag>	Fixed as characters
Precautions	Fixed as characters

5、Equipment query instruction

The device query instruction refers to the request instruction sent by the device to the server via GPRS, which can be used to request the basic information of the server or the parameter information set by the customer on the server for the device, and it can also be used to request the server to operate the device.

The format of the device query command is as follows：

<Instruction start flag><IMEI>;<Inquiry instruction>;<Inquiry instruction>;……<Instruction end flag>

Example：$860719020009480;Q030;!

project	Description
<Command start flag>	Fixed as the character $
<IMEI>	Equipment IMEI.
;	Semicolon, separator.
<Query command>	See the contents of the command list (query (Q)).
...	The ellipsis indicates that more <query commands> can be added.
<Command end flag>	Fixed as characters!
Precautions	1. The maximum length of the device query command is 255 bytes. 2. After the device successfully sends the query command, the server will use the setting command to send the information to the device or operate the device.

6、Instruction list

6.1 Command summary

serial number	Keyword	Set(W), read(R), clear(C) query(Q) options	Instruction number	instruction(Black characters indicate fixed characters, red characters indicate non-fixed characters, <*> indicates parameter value, semicolon is the end of the instruction)	definition
1	password	W	001	W001,<1>;	Set device password.
		R		R001;	Read the device password.
		C		C001;	Clear the device password.
2	APN	W	002	W002,<1>,<2>,<3>;	Set APN, APN username, and APN password.
		R		R002;	Read APN, APN user name, and APN password.
		C		C002;	Clear APN, APN username, and APN password.
3	server address 1	W	003	W003,<1>,<2>;	Set the server 1 IP or domain name and server port.
		R		R003;	Read the server 1 IP or domain name and server port.
		C		C003;	Clear the server 1 IP or domain name and server port.
4	Device ID	W	004	W004,<1>;	Set the device ID.
		R		R004;	Read the device ID.
		C		C004;	Clear the device ID.
5	GPRS interval	W	005	W005,<1>;	Set GPRS scheduled upload interval.
		R		R005;	Read GPRS scheduled upload interval.
		C		C005;	Clear the GPRS scheduled upload interval.
9	GPRS mode	W	009	W009,<1>;	Set the GPRS upload mode.
		R		R009;	Read GPRS upload mode.
		C		C009;	Clear GPRS upload mode.
10	Authorization number	W	010	W010,<1>,<2>,<3>;	Set an authorized number and the functions supported by the corresponding authorized number.
		R		R010,<1>;	Read an authorized number and the functions supported by the corresponding authorized number.
				R010;	Read all authorized numbers and the functions supported by the corresponding authorized numbers.
		C		C010,<1>;	Clear an authorized number and the functions supported by the corresponding authorized number.
				C010;	Clear all authorized numbers and functions supported by the corresponding authorized numbers.
13	server address 2	W	013	W013,<1>,<2>;	Set the server 2 IP or domain name and server port.
		R		R013;	Read the server 2 IP or domain name and server port.
		C		C013;	Clear the server 2 IP or domain name and server port.

15	SIM card switching	W	015	W015,<1>,<2>;	Set to switch SIM card 1 and the corresponding APN, or SIM card 2
		R		R015;	Read switched SIM card information
16	Device mode	W	016	W016,<1>;	Set the device mode.
		R		R016;	Read the device mode.
		C		C016;	Clear the device mode.
18	electric fence	W	018	W018,<1>,<2>,<3>,<4>,<5>;	Set up an electronic fence (Geo-fence).
		R		R018,<1>;	Read an electronic fence (Geo-fence).
		C		C018,<1>;	Clear an electronic fence (Geo-fence).
				C018;	Clear all electronic fence (Geo-fence).
20	Time zone	W	020	W020,<1>;	Set the time zone(time zone).
		R		R020;	Read the time zone(time zone).
		C		C020;	Clear the time zone(time zone).
28	Data log	W	028		no
		R		R028;	Read the number of GPRS stored data.
		C		C028;	Clear all GPRS storage data.
29	Basic information of equipment interest	W	029		no
		R		R029;	Read the basic information of the device。
		C			no
30	AGPS latitude and longitude	W	030	W030,<1>,<2>;	Set AGPS latitude and longitude.
		R		R030;	Read AGPS latitude and longitude.
		C		C030;	Clear AGPS latitude and longitude.
36	Motor vibration	W	036	W036,<1>;	Set the number of motor vibrations
39	WIFI switch	W	039	W039,<1>;	Set to turn on/off WIFI. 1 = turn on, 0 = turn off.
		R		R039;	Read the WIFI switch status.
		C		C039;	Clear the WIFI status, and it will be closed after clearing.
40	WIFI /Bluetooth mode	W	040	W040,<1>;	Set the WIFI /Bluetooth mode of the device. Parameters: 1--home monitoring mode ,0--normal mode ,2-- Bluetooth scan mode
		R		R040;	Read the WIFI/Bluetooth mode of the device.
42	WIFI base station/Bluetooth MAC address	W	042	W042,<1>,<2>,<3>;	Set the WIFI base station/Bluetooth MAC address to which the device is connected.
		R		R042;	Read the WIFI base station/Bluetooth MAC address.
		C		C042;	Clear the WIFI base station/Bluetooth MAC address..
43	Alarm play related Settings	W	043	W043,<1>,<2>,<3>;	Set the alarm to play
		R		R043,<1>,<2>,<3>;	Read the alarm play Settings
		C		C043	Clear alarm playback Settings
44	Function switch	W	044	W044,<1>,<2>;	Set the function switch and water soak interval.
		R		R044;	Read function switch and soaking interval time.
45	Switch voice broadcast language	W	045	W045,<1>;	Set the switching voice broadcast language, 0 stands for Chinese, 1 for English, 2 for Spanish, 3 for Thai
		R		R045;	Read the speech broadcast language
50	Device acquisition parameters	W	050		No
		R			no
		C		C050;	The server sends parameters to complete.
		Q		Q050;	The device obtains parameters from the server.
52	Real-time location query	W	052	W052;	Start real-time location query.
		R			no
		C			no
98	Remote upgrade	W	098	W098,<1>;	Start remote upgrade (default data check method: CRC-CCITT).
		R		R098;	Read the remote upgrade status of the device.
		C		C098;	Stop remote upgrade.
99	Factory settings	W	099		no
		R			no
		C		C099;	Clear all parameters (restore factory settings).
100	Remote restart	W	100	W100;	Restart the device remotely.
Unlock				$,unlock;password;!	$,unlock;221088;!
Lock				$,lock;000000;!	$,lock;000000;!
Change the unlock password				$, original password; New password; !	$,221088;123456;!

6.2 Instruction details table

6.2.1 Password

Numbering	Instruction description			Functions and precautions
1	Instruction	W001,<1>;		Function: Set device password. When using SMS or serial port to set the parameters of the device, the device password is required. Note:
	Parameter	<1>	Device password, range: 6 characters, default: 000000	
	Example	W001,000000;		
	Reply	Success	W001,OK;	
		Fail	W001,FAIL;	
	Instruction	R001;		Function: Read the device password. Note:
	Parameter	No		
	Example	R001;		
	Reply	Success	R001,OK,000000;	
		Fail	R001,FAIL;	
	Instruction	C001;		Function: Clear the device password. Note: After clearing the password, it will be restored to the default password: 000000.
	Parameter	No		
	Example	C001;		
	Reply	Success	C001,OK;	
		Fail	C001,FAIL;	

6.2.2 APN

Numbering	Instruction description			Functions and precautions
2	instruction	W002,<1>,<2>,<3>;		Function: Set APN, APN user name, APN password. When using GPRS to connect to the server, these parameters need to be set. Note: The parameter can be empty, as shown in Example 2.
	parameter	<1>	APN (Access Point), range: 0~29 characters.	
		<2>	APN user name, range: 0~29 characters.	
		<3>	APN password, range: 0~29 characters.	
	Example 1	W002,cmnet,username,password;		
	Reply 1	success	W002,OK;	
		failure	W002,FAIL;	
	Example 2	W002,cmnet,,; (Note: The APN username and APN password in this example are empty)		
	instruction	R002;		Function: Read APN, APN user name, APN password. Note:
	parameter	no		
	Example	R002;		
	Reply	success	R002,OK,cmnet,username,password;	
		failure	R002,FAIL;	
	instruction	C002;		Function: Clear APN, APN user name, and APN password. Note:
	parameter	no		
	Example	C002;		
	Reply	success	C002,OK;	
		failure	C002,FAIL;	

6.2.3 Server address 1

Numbering	Instruction description			Functions and precautions
3	instruction	W003,<1>,<2>;		Function: Set server 1 IP or domain name, server port. When using GPRS to connect to the server, these parameters need to be set. Note:
	parameter	<1>	Server 1 IP or domain name, range: 0~29 characters	
		<2>	Server 1 port, range: 0~65535	
	Example 1	W003,218.133.34.184,7000;		
	Reply 1	success	W003,OK;	
		failure	W003,FAIL;	
	Example 2	W003, twinmask.oicp.net,7000; (Note: In this example, the domain name and port are used as the server range)		
	instruction	R003;		Function: Read server 1 IP or domain name, server port. Note:
	parameter	no		
	Example	R003;		
	Reply	success	R003,OK,218.133.34.184,7000;	
		failure	R003,FAIL;	
	instruction	C003;		Function: Clear server 1 IP or domain name, server port. Note:
	parameter	no		
	Example	C003;		
	Reply	success	C003,OK;	

		failure	C003,FAIL;	

6.2.4 Device ID

Numbering	Instruction description			Functions and precautions
4	instruction	W004,<1>;		Function: Set the device ID. The device ID is the identification of the device, and the server distinguishes different devices according to the device ID in the uploaded data. Note: Generally, the IMEI number of the GSM module is used as the device ID.
	parameter	<1>	Device ID, range: 0-15 characters.	
	Example	W004,MyDeviceID;		
	Reply	success	W004,OK;	
		failure	W004,FAIL;	
	instruction	R004;		Function: Read the device ID. Note:
	parameter	no		
	Example	R004;		
	Reply	success	R004,OK, My Device ID;	
		failure	R004,FAIL;	
	instruction	Function: Clear the device ID. note:		Function: Clear the device ID. Note:
	parameter	no		
	Example	C004;		
	Reply	success	C004,OK;	
		failure	C004,FAIL;	

6.2.5 GPRS interval

Numbering	Instruction description			Functions and precautions
5	instruction	W005,<1>;		Function: Set GPRS scheduled upload interval. When using GPRS to connect to the server, this parameter needs to be set. Note: When set to 0, the GPRS scheduled upload will be can celled, but the device will still connect to the server, but the scheduled data will not be sent.
	parameter	<1>	GPRS scheduled upload interval, range: 0~65535, default: 0, unit: 30 seconds. (For example: set to 2, that is, the scheduled upload time interval is 60 seconds)	
	Example	W005,2;		
	Reply	success	W005,OK;	
		failure	W005,FAIL;	
	instruction	R005;		Function: Read GPRS scheduled upload interval. Note：
	parameter	no		
	Example	R005;		
	Reply	success	R005,OK,2;	
		failure	R005,FAIL;	
	instruction	C005;		Function: Clear GPRS scheduled upload interval. Note: After clearing, the timed upload interval is 0.
	parameter	no		
	Example	C005;		
	Reply	success	C005,OK;	
		failure	C005,FAIL;	

6.2.6 GPRS mode

Numbering	instruction description			Functions and precautions
9	instruction	W009,<1>;		Function: Set GPRS upload mode. When using GPRS to connect to the server, this parameter needs to be set. Note: When set to 0, cancel the GPRS function, otherwise the device will connect to the server.
	parameter	<1>	GPRS upload mode, range: 0~2 (0 means disable GPRS function, 1 means TCP connection, 2 means UDP connection),Default: 0	
	Example	W009,1;		
	Reply	success	W009,OK;	
		failure	W009,FAIL;	
	instruction	R009;		Function: Read GPRS upload mode. Note:
	parameter	no		
	Example	R009;		
	Reply	success	R009,OK,1;	
		failure	R009,FAIL;	
	instruction	C009;		Function: Clear GPRS upload mode. Note: After clearing, the GPRS upload mode is 0.
	parameter	no		
	Example	C009;		
	Reply	success	C009,OK;	
		failure	C009,FAIL;	

6.2.7 Authorization number

Numbering	Instruction description		Functions and precautions
10	Instruction	W010,<1>,<2>,<3>;	Function: Set an authorized number

	Parameter	<1>	Authorization number serial number, range: 1~3.		and the functions supported by the corresponding authorized number. Note:
		<2>	Authorization number, range: 0~19 characters.		
		<3>	A	Electronic fence function, range: 0 or 1 (0 means off, 1 means on), default: 0.	
			B	Monitor function, range: 0 or 1 (0 means off, 1 means on), default: 0. Note: After monitoring is turned on, two-way conversation cannot be performed, and it needs to be turned off to have two-way conversation, automatic answering, and manual answering functions.	
			C	SOS outgoing call function, range: 0 or 1 (0 means off, 1 means on), default: 0.Function Description: 0: Answer the call manually, disable the SOS broadcast call function 1: Answer the call manually and enable the SOS broadcast call function	
	Example	W010,1,13874557455,100;			
	Reply	Success	W010,OK;		
		Failure	W010,FAIL;		
	Note	1. What is an authorization number? The authorized number is the mobile phone number set by the user and saved in the device. The authorized number can receive the device's location, alarm, and query text messages, but the non-authorized number cannot. 2. Regardless of authorized number and non-authorized number, as long as the password in the instruction is correct, you can use SMS to set the parameters of the device. 3. When using the monitoring function, make sure that the SIM card in the device has the caller ID function. And only authorized numbers can realize the monitoring and call functions.			
	Instruction	R010,<1>;			Function: read an authorized number and the functions supported by the corresponding authorized number. Note:
	Parameter	<1>	Authorization number serial number, range: 1~3.		
	Example	R010,1;			
	Reply	Success	R010,OK,13874557455,100;		
		Failure	R010,FAIL;		
	Instruction	R010;			Function: Read all authorized numbers and the functions supported by the corresponding authorized numbers. Note:
	Parameter	No			
	Example	R010;			
	Reply	Success	R010,OK,13874557455,100,13874557456,110,13874557457,111;		
		Failure	R010,FAIL;		
	Instruction	C010,<1>;			Function: Clear an authorized number and the functions supported by the corresponding authorized number. Note:
	Parameter	<1>	Authorization number serial number, range: 1~3.		
	Example	C010,1;			
	Reply	Success	C010,OK;		
		Failure	C010,FAIL;		
	Instruction	C010;			Function: Clear all authorized numbers and functions supported by the corresponding authorized numbers. Note:
	Parameter	No			
	Example	C010;			
	Reply	Success	C010,OK;		
		Failure	C010,FAIL;		

6.2.8 Server address 2

Numbering	Instruction description			Functions and precautions
13	Instruction	W013,<1>,<2>;		Function: Set server 2 IP or domain name, server port. When using GPRS to connect to the server, these parameters need to be set. Note:
	Parameter	<1>	Server 2 IP or domain name, range: 0~29 characters	
		<2>	Server 2 port, range: 0~65535	
	Example 1	W013,218.133.34.184,7000;		
	Reply 1	Success	W013,OK;	
		Failure	W013,FAIL;	
	Example 2	W013, twinmask.oicp.net,7000; (Note: In this example, the domain name and port are used as the server range)		
	Instruction	R013;		Function: Read server 2 IP or domain name, server port. Note:
	Parameter	No		
	Example	R013;		
	Reply	Success	R013,OK,218.133.34.184,7000;	
		Failure	R013,FAIL;	
	Instruction	C013;		Function: Clear server 2 IP or domain name, server port. Note:
	Parameter	No		
	Example	C013;		
	Reply	Success	C013,OK;	
		Failure	C013,FAIL;	

6.2.9 SIM card switching

Numbering	Instruction description			Functions and precautions
15	Instruction	W015,<1>,<2>;		Function: switch SIM card. Note: The e-SIM APN of switch card 2 is empty by default, and the APN of the local operator needs to be filled in when switching card 1
	Parameter	<1>	SIM card switching, range: 1, 2 (1 is normal SIM card, 2 is e-SIM card), default: 1	
		<2>	APN (Access Point), range: 0~29 characters.	
	Example	W015,1,cmnet;		
	Reply	Success	W015,OK;	
		Failure	W015,FAIL;	
	Instruction	R015;		Function: read SIM card information Note:
	Parameter	No		
	Example	R015;		
	Reply	Success	R015,OK,1,cmnet;	
		Failure	R015,FAIL;	

6.2.10 Device mode

Numbering	Instruction description			Functions and precautions
16	Instruction	W016,<1>;		Function: Set the device mode. Note:
	Parameter	<1>	Device mode, range: 0~2 (0 means personal mode, 1 means smart mode, 2 means car mode), default: 1.	
	Example	W016,1;		
	Reply	Success	W016,OK;	
		Failure	W016,FAIL;	
	Note	1. What is the device mode? There are three device modes: personal mode, smart mode, and car mode. In personal mode, GPS will automatically turn off regardless of whether the device is in motion or not. In smart mode, GPS will automatically turn off when the device is stationary. In car mode, GPS will not turn off regardless of whether the device is in motion or not. 2. Comparison of standby time in different device modes. Standby time from long to short: personal mode, smart mode, car mode.		
	Instruction	R016;		Function: Read the device mode. Note:
	Parameter	No		
	Example	R016;		
	Reply	Success	R016,OK,1;	
		Failure	R016,FAIL;	
	instruction	C016;		Function: Clear the device mode. Note: After clearing, the device mode is 0; after restoring the factory settings, the device mode is 1;
	parameter	no		
	Example	C016;		
	Reply	success	C016,OK;	
		failure	C016,FAIL;	

6.2.11 Electric fence

Numbering	Instruction description			Functions and precautions
18	Instruction	W018,<1>,<2>,<3>,<4>,<5>;		Function: Set up an electronic fence. Note: The latitude is a positive number, which means north latitude (N), and the latitude is a negative number, which means south latitude (S); longitude is a positive number, which means east longitude (E), and longitude is a negative number, which means west longitude (W).
	Parameter	<1>	The serial number of the electronic fence, range: 1~5.	
		<2>	The name of the electronic fence, range: 0-9 characters.	
		<3>	Latitude of the center point of the electronic fence, range: -90.00000000~90.00000000, unit: degree.	
		<4>	Longitude of the center point of the electronic fence, range: -180.00000000~180.00000000, unit: degree.	
		<5>	The electronic fence is semi-long, range: 0.0~1.79E+308, unit: meter.	
	Example 1	W018,1,Home,-22.12345678,114.12345678,500;		
	Reply 1	Success	W018,OK;	
		Failure	W018,FAIL;	
	Example 2	W018,2,School, , ,300; (Note: When setting the electronic fence, do not enter the latitude and longitude, that is, the latitude and longitude is empty, the device will automatically start GPS to obtain the latest latitude and longitude as the longitude and latitude of the center point)		
	Reply 2	Set successfully	W018,OK,geo2:School start auto center;	
		Setup failed	W018,FAIL;	
		Automatically obtain the center point Latitude success	geo2:School set auto center OK	
		Automatically obtain the center point Latitude failed	geo2:School set auto center fail	
	Instruction	R018,<1>;		Function: read an electronic fence.

	Parameter	<1>	The serial number of the electronic fence, range: 1~5.	Note:
	Example	R018,1;		
	Reply	Success	R018,OK, Home,-22.12345678,114.12345678,500.0;	
		Failure	R018,FAIL;	
	instruction	C018,<1>;		Function: Clear an electronic fence. Note:
	parameter	<1>	The serial number of the electronic fence, range: 1~5	
	Example	C018,1;		
	Reply	Success	C018,OK;	
		failure	C018,FAIL;	
	Instruction	C018;		Function: Clear all electronic fences. Note:
	Parameter	No		
	Example	C018;		
	Reply	Success	C018,OK;	
		Failure	C018,FAIL;	

6.2.12 Time zone

Numbering	Instruction description			Functions and precautions
20	Instruction	W020,<1>;		Function: Set time zone. Note: After the time zone is modified, the time and date in the SMS data will be updated to the local time and date, while the time and date in the GPRS data will still be Green Time and Date.
	Parameter	<1>	Time zone value, range: -720~780, default: 0, unit: minute. (Explanation: 1 hour equals 60 minutes, +8 time zone equals 480 minutes)	
	Example	W020,480;		
	Reply	Success	W020,OK;	
		Failure	W020,FAIL;	
	Instruction	R020;		Function: Read time zone. Note:
	Parameter	No		
	Example	R020;		
	Reply	Success	R020,OK,480;	
		Failure	R020,FAIL;	
	Instruction	C020;		Function: Clear time zone. Note: After clearing, the time zone is 0.
	Parameter	No		
	Example	C020;		
	Reply	Success	C020,OK;	
		Failure	C020,FAIL;	

6.2.13 Data log

Numbering	Instruction description			Functions and precautions
28	Instruction	R028;		Function: read the number of GPRS stored data Note:
	Parameter	No		
	Example	R028;		
	Reply	Success	R028,OK,58;	
		Failure	R028,FAIL;	
	Instruction	C028;		Function: Clear all GPRS stored data. Note:
	Parameter	No		
	Example	C028;		
	Reply	Success	C028,OK;	
		Failure	C028,FAIL;	

6.2.14 Basic equipment information

Numbering	Instruction description			Functions and precautions
29	Instruction	R029;		Function: Read the basic information of the device. Basic equipment information includes: 1.MT70_ALPHA_20131223-1_standard, firmware version number. 2. spiflash ok, external storage chip status. 3. gsensor ok, acceleration sensor status. 4. gps fix 062917.00 241213, the latest GPS positioning time (UTC time and date). Note:
	Parameter	no		
	Example	R029;		
	Reply	Success	R029,OK,MT70_ALPHA_20131223-1_standard,spiflash ok,gsensor ok,gps fix 062917.00 241213;	
		Failure	R029,FAIL;	

6.2.15 AGPS latitude and longitude

Numbering	Instruction description	Functions and precautions

30	Instruction	W030,<1>,<2>;		Function: Set AGPS latitude and longitude. Note:
	Parameter	<1>	AGPS latitude, range: -90.00000000~90.00000000, unit: degree.	
		<2>	AGPS longitude, range: -180.00000000~180.00000000, unit: degree.	
	Example	W030,22.639788,114.043863;		
	Reply	Success	W030,OK;	
		Failure	W030,FAIL;	
	Instruction	R030;		Function: Read AGPS latitude and longitude. Note:
	Parameter	No		
	Example	R030;		
	Reply	Success	R030,OK,22.639788,114.043863;	
		Failure	R030,FAIL;	
	Instruction	C030;		Function: Clear AGPS latitude and longitude. Note: After clearing, the latitude and longitude are all 0.
	Parameter	No		
	Example	C030;		
	Reply	Success	C030,OK;	
		Failure	C030,FAIL;	

6.2.16 Motor vibration

Numbering	Instruction description			Functions and precautions
36	Instruction	W036,<1>;		Function: Set the number of times the device motor vibrates immediately. Note:
	Parameter	<1>: The number of times the motor vibrates (range 1-255) 0 means no vibration		
	Example	W036;		
	Reply	Success	W036,OK;	
		Failure	W036,FAIL;	

6.2. 17 WIFI switch

Numbering	Instruction description			Functions and precautions
39	Instruction	W039,<1>;		Function: Set device WIFI on turn off. Note: 1 = turn on, 0 = turn off.
	Parameter	<1>	Device WIFI switch parameter, default 1	
	Example	W039,1;		
	Reply	Success	W039,OK;	
		Failure	W039,FAIL;	
	Instruction	R039;		Function: Read the WIFI switch status of the device. Note:
	Parameter	No		
	Example	R039;		
	Reply	Success	R039,OK,1;	
		Failure	R039,FAIL;	
	Instruction	C039;		Function: Clear the WIFI switch status of the device. Note: After clearing, the WIFI status of the device is turned off.
	Parameter	No		
	Example	C039;		
	Reply	Success	C039,OK;	
		Failure	C039,FAIL;	

6.2.18 WIFI /Bluetooth module

Numbering	Instruction description			Functions and precautions
40	Instruction	W040,<1>;		Function: Set the device WIFI mode. Parameter 2: Enable Bluetooth scan to scan for a specific Bluetooth MAC address (a specific Bluetooth MAC address can be written through the 042 command); Parameter 1: Enable home monitoring mode and connect to WIFI base station; If the parameter is 0, the mode is common.
	Parameter	<1>	WIFI /Bluetooth mode control, the default is 0	
	Example	W040,2;		
	Reply	Success	W040,OK;	
		Failure	W040,FAIL;	
	Instruction	R040;		Function: read the WIFI /Bluetooth mode of the device Note:
	Parameter	No		
	Example	R040;		
	Reply	Success	R040,OK,2,;	
		Failure	R040,FAIL;	

6.2.19 WIFI base station/Bluetooth MAC address added

Numbering	Instruction description	Functions and precautions

42	Instruction	W042,<1>,<2>,<3>;		Function: Set the WIFI base station or Bluetooth MAC address to be connected to the device. Note:
	Parameter	<1>	WIFI base station/Bluetooth MAC address 1, empty by default	
		<2>	WIFI base station/Bluetooth MAC address 2, empty by default	
		<3>	WIFI base station/Bluetooth MAC address 3, the default is empty	
	Example 1	W042,2077826840510433,,;		
	Reply	Success	W042,OK;	
		Failure	W042,FAIL;	
	Example 2	W042,c3:00:00:22:66:ec,,;		
	Reply	Success	W042,OK;	
		Failure	W042,FAIL;	
	Note : The Bluetooth MAC address is entered in lowercase letters and can only be written to the first one.			
	Instruction	R042;		Function: read the WIFI base station/Bluetooth MAC address written by the device Note:
	Parameter	No		
	Example	R042;		
	Reply	Success	R042,OK, c3:00:00:22:66:ec,,;	
		Failure	R042,FAIL;	
	Instruction	C042;		Function: Clear the WIFI base station/Bluetooth MAC address of the device. Note:
	Parameter	No		
	Example	C042;		
	Reply	Success	C042,OK;	
		Failure	C042,FAIL;	

6.2.20 Alarm play Settings

Numbering	Instruction description			Functions and precautions
43	Instruction	W043,<1>,<2>,<3>;		Function: Set the alarm sound to play Note:
	Parameter	<1>	Turn off other sounds except the wristband alarm, the default is 1 (1=on, 0=off) (can be omitted)	
		<2>	Turn off/on the wristband alarm sound, the default is 1 (1=on, 0=off) (can be omitted)	
		<3>	Whether to play the wristband alarm sound immediately/play the call center, the default is 0 (0=No sound is played,1=play the wristband alarm sound immediately, 2=play the call center)	
	Example	W043,1,1,1;		
	Reply	Success	W043,OK;	
		Failure	W043,FAIL;	
	Instruction	R043;		Function: Read the alarm sound play back settings written by the device Note:
	Parameter	No		
	Example	R043;		
	Reply	Success	R043,OK,1,1,1;	
		Failure	R043,FAIL;	
	Instruction	C043;		Function: Clear the alarm sound playback switch. Note:
	Parameter	No		
	Example	C043;		
	Reply	Success	C043,OK;	
		Failure	C043,FAIL;	

6.2.21 Function switch

Numbering	Instruction description				Functions and precautions
44	instruction	W044,<1>,<2>;			Function: Set the function switch and water detection time. Note: The detection time setting must be greater than 0
	parameter	<1>	A	Belt alarm switch (1= on, 0= off). The default value is 0 off	
			B	Click the alarm switch (1= on, 0= off), the default is: 0 off	
			C	433 Communication switch (1= on, 0= off), the default is: 0 off	
			D	Light activated switch (1= on, 0= off), default: 0 off	
			E	Water soak alarm switch (1=on, 0=off). default: 0 off(Reserved)	
		<2>	The water soaking alarm detection time of bubble alarm is 20 minutes by default, with 100 milliseconds as the unit, 1min=600ms, and the range is 1-65535. (For example: set to 12000, that is, 20min * 600ms =12000)		
	Example	W044,00000,12000;			

	Reply	success	W044,OK;	
		failure	W044, FAIL;	
	instruction	R044;		Function: Read the function switch and water detection time. Note:
	parameter	NO		
	Example	R044;		
	Reply	success	R044,00000,12000;	
		failure	R044,FAIL;	

6.2.22 Switch voice broadcast language

Numbering	Instruction description			Functions and precautions
45	instruction	W045,<1>;		Function: Set the switching voice broadcast language, 0 stands for Chinese, 1 for English, 2 for Spanish, 3 for Thai Note:
	parameter	<1>	Set the switching voice broadcast language, 0 stands for Chinese, 1 for English, 2 for Spanish, 3 for Thai	
	Example	W045,1;		
	Reply	success	W045,OK;	
		failure	W045, FAIL;	
	instruction	R045;		Function: Read the voice broadcast language of the device. Note:
	parameter	NO		
	Example	R045;		
	Reply	success	R045,OK,1;	
		failure	R045,FAIL;	

6.2.23 Device acquisition parameters

Numbering	Instruction description			Functions and precautions
50	Instruction	C050;		Function: After the server sends an instruction to set the parameters successfully, you can issue this instruction to make the device actively disconnect from the server, and then reconnect to the server according to the parameters. Note: If the reconnected server is different, the feedback data will be sent to the last connected server.
	Parameter	No		
	Example	C050;		
	Reply	Success	C050,OK;	
		Failure	C050, FAIL;	
	Instruction	Q050;		Function: The device sends this instruction to request the server to set the parameters of the device. Note:
	Parameter	No		
	Example	Q050;		
	Reply	Success	After the device successfully sends the query command to the server, the server should immediately set the parameters of the device.	
		Failure	No feedback from the server.	

6.2.24 Real-time location query

Numbering	Instruction description			Functions and precautions
52	Instruction	W052;	Function: Start real-time location query.	Function: Start real-time location query. Note：
	Parameter	No		
	Example	W052;		
	Reply	Success	After receiving the real-time location query instruction, the device will first perform positioning, and then reply the real-time location information to the mobile phone or platform after the positioning is successful or timed out. (Note: When the instruction is issued by the mobile phone, the instant location information will be returned to the mobile phone and the server; when the instruction is issued by the server, the instant location information will only be returned to the server.)	
		Failure	No feedback.	

6.2.25 Remote upgrade

Numbering	Instruction description			Functions and precautions
98	Instruction	W098,<1>;		Function: Start remote upgrade (default data verification method: (CRC-CCITT). Note:
	Parameter	<1>	Upgrade firmware name, range: 0-49 characters.	
	Example	W098,tracker.bin;		
	Reply	Success	W098,OK;	
		Fail	W098,FAIL;	
	Instruction	R098;		Function: Read the remote upgrade status of the device. Note:
	Parameter	No		
	Example	R098;		
	Reply	Success	R098,OK, Upgrade firmware name, number of received packages, total number of packages, verification method;	
		Fail	R098,FAIL;	
	Instruction	C098;		Function: Stop remote upgrade. Note:
	Parameter	No		
	Example	C098;		
	Reply	Success	C098,OK;	
		Fail	C098,FAIL;	

6.2.26 Factory settings

Numbering	Instruction description			Functions and precautions
99	Instruction	C099;		Function: Clear all parameters (restore factory settings). Note:
	Parameter	No		
	Example	C099;		
	Reply	Success	C099,OK;	
		Fail	C099,FAIL;	

6.2.27 Remote restart

Numbering	Instruction description			Functions and precautions
100	Instruction	W100;		Function: Restart the device remotely. Note: The device will not restart until 15 seconds after receiving the remote restart command.
	Parameter	No		
	Example	W100;		
	Reply	Success	W100,OK;	
		Fail	W100,FAIL;	