

Protocol for GPS Watch

V1.1

Communication protocol

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Revised record:

2016/8/8	Engineer kaka	original version
2016/9/8	Engineer kaka	add multiple bases AP02 and
2016/10/12	Engineer kaka	add wifi data
2016/12/12	Engineer Jean	Add voice message
2017-3-22	Engineer Jean	Add reminder
2017-6-18	Engineer Jean	Add heartrate Add Blood Pressure
2018-6-29	Engineer kaka	Add fall down alert Add
2019-5-8	Engineer kaka	Add new sms command
2021-03-21	Engineer kaka	Add ECG command
2023-09-16		Add AP97 sleep data
2023-10-08		Add BPWT weather synchronomization

Content

1. Communication agreement	4
≡: Commands sent from end user (device → server)	6
1. AP00-Login package(responds:BP00)	6
2. AP01 Locating package, GPS+LBS+Status+Base +WIFI combining package (responds:BP01)	6
3. AP02 Multiple bases locating package (responds:BP02)	7
4. AP03 Heartbeat package(responds:BP03)	8
5. AP07 Upload audio message (responds:BP07)	9
6. AP10 Alarm and Return address Package(responds:BP10)	10
7 AP49 Upload heart rate (responds: BP49)	11
8 APHT Upload heart rate and BP (responds: BPHT)	11
9 APHP Upload heart rate、BP、SPO2、blood sugar (responds: BPHP)	12
10 AP50 Upload body temperature (responds: BP50)	12
11 AP97 Sleep data (responds: BP97)	13
12 APWT Weather synchronization (responds: BPWT)	13
13 ECG upload (upload: APHD, reply: BPHD)	15
≡: Commands sent from server (server →device)	16
1. BP12 Set sos numbers(three) (respond: AP12)	16
2. BP14 Set white list(Phone book) numbers(ten) (respond: AP14)	16
3. BP16 Real-time locating command (respond: AP16)	17
4. BP17 Factory reset (respond: AP17)	17
5. BP18 restart device (respond: AP18)	18
6. BP20 set timezone (respond: AP20)	18
7. BP28 Send audio message to device (responds:AP28)	19
8. BP31 POWER OFF (responds: AP31)	20
9. BP33 Working Mode (respond: AP33)	20

10.	BP34 Working Mode for free setting (respond: AP34)	21
11.	BP40 send text message (responds: AP40)	21
12.	BP76 fall down switch (responds: AP76)	22
13.	BP77 fall down sensitivity (responds: AP77)	22
14.	BP84 Switch for White list (respond: AP84)	23
15.	BP85 Set an alarm/reminder (respond: AP85)	23
16.	BP86 Set the interval of heart rate auto testing (respond: AP86)	24
17.	BPXL Test heart rate (respond: APXL)	25
18.	BPXY Test blood pressure (respond: APXY)	25
19.	BPXT Test temperature (respond: APXT)	26
20.	BPJZ blood pressure calibration (respond: APJZ)	26
21.	BP87 set the interval of auto Test temperature (respond: AP87)	27
22.	BPXZ Test blood oxygen (respond: APXZ)	27

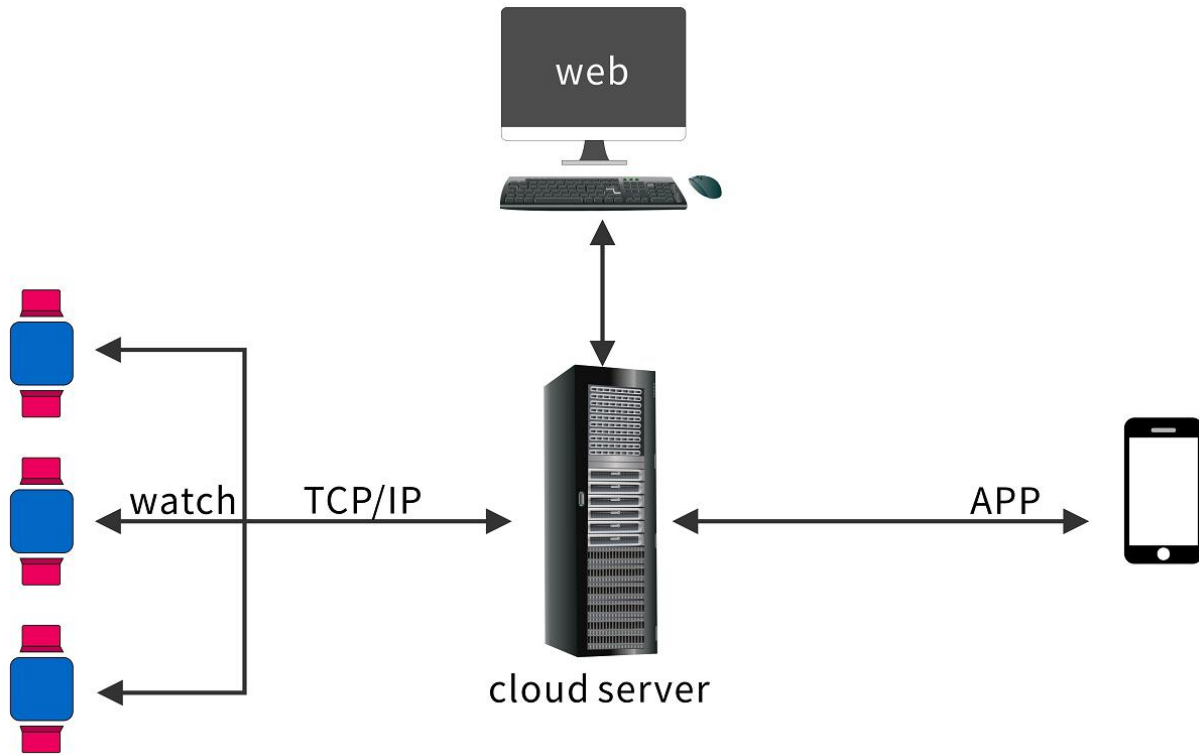
1. Communication agreement

1.1 Introduction

This document defines the GPS locator positioning service platform for the application layer interface protocols. The relevant interface protocols Only apply to the interaction between the platform and positioning terminal.

1.2 Network connection way

Long connection is through 2G GSM/4G LTE using TCP connection. The relationship between watch and server and app is shown in the figure below. Watch send data(login data and location data and health data) to server by mobile network; Server can reply watch and send command to watch. App and web can get data from server and show to user.



1.3 Terms and definitions

Terms	abbreviations	Meaning
	CMPP	China Mobile Peer to Peer
	GPS	Global Positioning System
	GSM	Global System for Mobile Communication
	GPRS	General Packet Radio Service
	TCP	Transport Control Protocol
	LBS	Location Based Services
	IMEI	International Mobile Equipment Identity
	MCC	Mobile Country Code
	MNC	Mobile Network Code
	LAC	Location Area Code
	CI	Cell ID
	RSSI	Received Signal Strength Indicator
	UDP	User Datagram Protocol
	SOS	Save Our Ship/Save Our Souls

CRC	Cyclic Redundancy Check
NITZ	Network Identity and Time Zone,
GIS	Geographic Information System

二: Commands sent from end user (device → server)

1. AP00-Login package(responds:BP00)

Example:	
IW AP00 353456789012345#	
Notice:	
IW: Identifier AP00:Command word 353456789012345: IMEI number of devices, default as 15 digits #:Terminator	
platform responds:	platform replies: IW BP00 , 20150101125223, 8# 20150101125223 is server time service, the format is year month date hour minute second, it's UTC0 time. 8 is the present time zone of server
Notice:	New login package will be sent every time the device connects with server.

2. AP01 Locating package, GPS+LBS+Status+Base +WIFI combining package (responds:BP01)

Example:	
IW AP01 080524A2232. 9806N11404. 9355E000. 1061830323. 8706000908000102, 460, 0, 9520, 3671, Home 74-DE-2B-44-88-8C 97& Home1 74-DE-2B-44-88-8C 97&Home2 74-DE-2B-44-88-8C 97& Home3 74-DE-2B-44-88-8C 97#	
Notice:	
IW Identifier AP01: Command word 080524: 24 th May 2008 A: "A" shows valid data," V" shows invalid data and will get LBS data	

<p>2232.9806N11404.9355E000.1: 22 degrees north latitude 32.9806 points, 114 degrees east longitude 04.9355 points, speed is 000.1 km/h, it's default as 0 if the latitude and longitude are invalid, such as 0000.0000N00000.0000E</p> <p>061830: GMT 06:18:30</p> <p>323.87:direction angle is 323.87°</p> <p>06000908000102: 060 is GSM signal,009 is the number of satellites,080 is battery level, 0 is remaining space,01 is fortification state,02 is working mode, (it shows none setting if fortification and working mode are 00)</p> <p>460,0,9520,3671 : LBS is base data MCC is country code,460 means China,0:MNC,0 is moving,9520:LAC,decimal,3671,CID, decimal</p> <p>If state in GPS package is V or latitude and longitude are “ 0000.0000N00000.0000E”,it will get LBS data.</p> <p>Home 74-DE-2B-44-88-8C 97 : one set of WIFI information, Home is SSID, 74-DE-2B-44-88-8C is MAC address, 97 is signal strength, variables are separated by “ ” ,wifi information can be multiple sets and are separated by “&” .</p>	
platform responds:	platform replies: IWBPO1#
Notice:	

3. AP02 Multiple bases locating package (responds:BP02)

Example:
<p>IWAP02,zh_cn,0,7,460,0,9520 3671 13,9520 3672 12,9520 3673 11,9520 3674 10,9520 3675 9,9520 3676 8,9520 3677 7,4,1 D8-24-BD-79-FA-1F 59&2 3C-46-D8-6D-CE-01 81&3 0C-4C-39-1A-7C-65 69&4 70-A8-E3-5D-D7-C0 65#</p>
Notice:
<p>IW Identifier</p> <p>AP02: Command word</p> <p>zh_cn: language notice</p> <p>0:reply flag, not use.</p> <p>7: 7 sets of bases</p> <p>460: MCC is country code</p> <p>0: MNC operator code</p> <p>9520 3671 10: LAC CID dbm shows a set of base information and the numbers should correspond to the</p>

<p>number of bases. 10: dbm is signal strength, multiple bases signal strength is suggested to be arranged from high to low then downloaded, signal strength are using absolute values: 150 - abs(dbm)</p> <p>4: sets of wifi</p> <p>1 D8-24-BD-79-FA-1F 59: ssid mac address signal strength, signal strength are using absolute values:150 - abs(signal strength)</p>	
platform responds:	platform replies: IWBP02#
Notice:	

4. AP03 Heartbeat package(responds:BP03)

Example :	
IWAP03, 06000908000102, 5555, 30#	
Notice:	
<p>IW: Identifier</p> <p>AP03: Command word</p> <p>Heartbeat message , Device can use this message to keep long connection with server</p> <p>06000908000102:</p> <p>060 is GSM signal , not use</p> <p>009 is the number of satellites</p> <p>080 is battery level</p> <p>0 is remaining space</p> <p>01 is fortification state, Here shows by two hexadecimal,00 if no value, the length should be two digits. There're 8 digits in total and each digit is defined as below (unlisted one is unused states,1 shows effective and 0 shows invalid)</p> <p>Bit0 fortification state<the device is invalid></p> <p>Bit1 :1 shows the night-light open,0 shows night-light off</p> <p>02 is working mode, (it shows none setting if fortification and working mode are 00)</p> <p>5555: counting steps. Recount from 0 after reaching 99999 steps (9999 is for an example, here is 2 bytes int and overflow to zero)</p> <p>30: Rolls frequency</p>	
platform responds:	platform replies: IWP03#

Notice:	
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5. AP07 Upload audio message (responds:BP07)

Example:	
IW AP07 , 20140818064408, 6, 1, 1024, XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX#	
Notice:	
<p>IW: Identifier</p> <p>AP07 : Command word</p> <p>20140818064408 :yyyyMMddHHmmss , device record time</p> <p>6: the total number of audio data packet</p> <p>1 : sequence of the audio data packet</p> <p>1024 :the length of audio data</p> <p>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX: audio data as bytes, each packet can not beyond 1024 byte, the last audio data packet maybe less than 1024 byte, if less than 1024 byte then send length as actual size</p> <p>The rule for audio upload:</p> <p>1: if device not received the responds from server, it will repeat upload the same audio data packet</p> <p>2: if the server responds that received succesfully, device will upload the next audio data packet if current sequence not reach the total packet number</p> <p>3: if the server responds that received failed, it will repeat upload the same audio data packet</p>	
platform responds:	<p>IWBP07, 20140818064408, 6, 1, 1#</p> <p>20140818064408: device record time</p> <p>6: the total number of audio data packet</p> <p>1: current sequence of the audio data packet the sever received</p> <p>1: the server responds that received succesfully, 0:the server responds that received failed</p>
Notice:	Now only support amr audio between device and server

6. AP10 Alarm and Return address Package(responds:BP10)

Example:	
IWAP10080524A2232.9806N11404.9355E000.1061830323.8706000908000502,460,0,9520,3671,00,zh-cn,00,HOME 74-DE-2B-44-88-8C 97&HOME1 74-DE-2B-44-88-8C 97&HOME2 74-DE-2B-44-88-8C 97&HOME3 74-DE-2B-44-88-8C 97#	
Notice:	
<p>IW : Identifier</p> <p>AP10: Command word</p> <p>080524: 24th May 2008</p> <p>A: "A" shows valid data," V" shows invalid data and will get LBS data 2232.9806N11404.9355E000.1: 22 degrees north latitude 32.9806 points, 114 degrees east longitude 04.9355 points, speed is 000.1 km/h, it's default as 0 if the latitude and longitude are invalid, such as 0000.0000N00000.0000E</p> <p>061830: GMT 06:18:30</p> <p>323.87: direction angle is 323.87°</p> <p>06000908000102: 060 is GSM signal,009 is the number of satellites,080 is battery level, 0 is remaining space,01 is fortification state,02 is working mode, (it shows none setting if fortification and working mode are 00)</p> <p>460,0,9520,3671 : LBS is base data MCC is country code,460 means China,0:MNC,0 is moving,9520:LAC,decimal,3671,CID, decimal</p> <p>00 is alarm state,00 is no alarm (01: SOS,03: not wear, 05/06: fall down alarm)</p> <p>zh-cn: device language</p> <p>00:The first one 0:whether the reply address is needed,0:no reply,1 reply.</p> <p>The second 0:whether mobile hyperlink is contained in address information,0 not contained,1 contained</p> <p>Home 74-DE-2B-44-88-8C 97 : one set of WIFI information, Home is SSID, 74-DE-2B-44-88-8C is MAC address, 97 is signal strength, variables are separated by " " ,wifi information can be multiple sets and are separated by "&" .</p>	
platform responds:	<p>platform responds BP10,if return address is not needed, there should be space in return package.</p> <p>IWBP106df157335e0253575c71533a53576d7759279053003100300037003953f700200020068007400740070003a002f002f007700770077002e006700700073002e0063006f006d002f006d00610070002e0061007300700078003f006c00610074003d00320033002e0031003200330026006c006e0067003d003100310033002e003100320033#</p>

	<p>UNICODE encoded reply message from server which contains address, above example shows:</p> <p>深圳市南山区南海大道 1079 号</p> <p>http://www.gps.com/map.aspx?lat=23.123&lng=113.123</p> <p>The language and content automatically judge according to language in AP10 package, whether to reply hyperlink according to states of AP10.</p>
Notice:	

7 AP49 Upload heart rate (responds: BP49)

Example:	
IWAP49, 68#	
Notice:	
<p>IW: Identifier</p> <p>AP49 : Command word</p> <p>68 : Heart rate</p>	
platform responds:	IWBP49#
Notice:	

8 APHT Upload heart rate and BP (responds: BPHT)

Example:	
IWAPHT, 60, 130, 85#	
Notice:	
<p>IW: Identifier</p> <p>APHT : Command word</p> <p>60 : Heart rate</p> <p>130: systolic pressure</p> <p>85 : diastolic pressure</p>	
platform responds:	IWBPHT#

Notice:	
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9 APHP Upload heart rate、BP、SPO2、blood sugar (responds: BPHP)

Example:	
IWAPHP, 60, 130, 85, 95, 90, 36.5, , , , , , #	
Notice:	
<p>IW: Identifier</p> <p>APHT : Command word</p> <p>60 : heart rate</p> <p>130: blood pressure[SBP]</p> <p>85 : blood pressure[DBP]</p> <p>95: SPO2</p> <p>90: blood sugar</p> <p>36.5: temperature</p>	
platform responds: :	IWBPHP#
Notice:	Each value is not necessary. if there is no value, the packet leave it blank

10 AP50 Upload body temperature (responds: BP50)

Example:	
IWAP50, 36.7, 90#	
Notice:	
<p>IW: Identifier</p> <p>AP50 : Command word</p> <p>36.7 : body temperature</p> <p>90: device battery level</p>	
platform responds: :	IWBP50#

Notice:	Each value is not necessary. if there is no value, the packet leave it blank
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11 AP97 Sleep data (responds: BP97)

Example :	
IWAP97, 2300@0800, 109, 001222222113. . . #	
Notice :	
<p>IW: Identifier</p> <p>AP97: Command word</p> <p>2300@0800 : data statistical period, from yesterday 23:00 to this 8:00</p> <p>109 : total count of data, one data every 5 minutes</p> <p>001222222113: status of sleep description , 0: awake, 1: light sleep, 2: deep sleep, 3: not wear</p>	
platform responds: :	IWBP97#
Notice :	not all models support this feature

12 APWT Weather synchronization (responds: BPWT)

Example:	
IWAPWT#	
Notice:	
<p>IW: Identifier</p> <p>APWT : Command word</p>	
responds:	<p>IWBPWT,California,2018-12-24 16:45:5,2018-12-25,1, 3,1, sunny,2018-12-26,-1,4,2, grey,2018-12-27,3,7, 3, light rain#</p> <p>The watch needs to receive the following data , all weather descriptions need to be converted to Unicode:</p> <p>IWBPWT, 00430061006c00690066006f0072006e00690061, 2018-</p>

12-24 16:45:5,2018-12-25,1, 3, 1,00730075006e006e0079,2018-12-26, -1,4, 2, 0067007200650079,2018-12-27,3,7, 3, 006c00690067006800740020007200610069006e #

California,city,

2018-12-24 16:45:51 time of weather forecast

2018-12-25: date of the day

1: the lowest temperature of the day, 1°C

3: maximum temperature of the day, 3°C

1: weather category (1-sunny、2-cloudy、3-rainy、4-snowy、5-unknown)

sunny: weather sub-categories, detailed description

2018-12-26: date of tomorrow

-1: the lowest temperature of tomorrow, -1°C

4: maximum temperature of tomorrow, 4°C

2: weather category (1-sunny、2-cloudy、3-rainy、4-snowy、5-unknown)

grey: weather sub-categories, detailed description

2018-12-27: the weather of the day after tomorrow

3: the lowest temperature of the day after tomorrow, 3°C

7: maximum temperature of the day after tomorrow, 7°C

3: weather category (1-sunny、2-cloudy、3-rainy、4-snowy、5-unknown)

light rain: weather sub-categories, detailed description

if there is no weather data, leave the relevant fields space

Notice:

13 ECG upload (upload: APHD, reply: BPHD)

Example:	
IWAPHD, 20200707111800, 6, 1, 1. 3, 20. 2, 1, 1000, 1024, XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX#	
Notice:	
<p>IW: Identifier</p> <p>APHD: Command word</p> <p>20200707111800: date and time; 2020Y 7m 7d 11h8m00s</p> <p>6: 6 data packets</p> <p>1: now it is the first data packet</p> <p>1.3: gain</p> <p>20.2: 0 point voltage</p> <p>1: Lead number</p> <p>1000: sampling rate</p> <p>1024: Data length, max is 1024</p> <p>XXXXXXXXXXXXXXXX: Ecg data</p>	
Server reply:	<p>IWBPHD,0, 98, 59, 156, 296, 369,7aa660275fc35f8b4e0d9f50 623f98a4 #</p> <p>0: AI analysis OK 1: AI analysis NG</p> <p>98: average heart rater</p> <p>59: Qrs</p> <p>156: PR</p> <p>296: Q-t</p> <p>369: QTc</p> <p>7aa660275fc35f8b4e0d9f50 623f98a4: atrial fibrillation</p>
Notice:	

☰: Commands sent from server (server →device)

1. BP12 Set sos numbers(three) (respond: AP12)

Example:	
IWBP12, 353456789012345, 080835, 135XXXXXXXX, 135XXXXXXXX, 135XXXXXXXX#	
Notice:	
<p>IW: Identifier</p> <p>BP12 : Command word</p> <p>353456789012345:IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p> <p>135XXXXXXXX, 135XXXXXXXX, 135XXXXXXXX : SOS numbers,max set 3 SOS, all the phone no. should be set one by one , If one of the SOS not be set, the corresponding position leave space.</p>	
device responds:	IWAP12, 080835, 135XXXXXXXX, 135XXXXXXXX, 135XXXXXXXX# 080835: The device responds with response journal no.
Notice:	

2. BP14 Set white list(Phone book) numbers(ten) (respond: AP14)

Example:	
IWBP14, 353456789012345, 080835, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx#	
Notice:	
<p>IW: Identifier</p> <p>BP14 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p> <p>D3590D54 135xxxxxxxxxxx : A set of contacts and use to separate name and phone number, names encode UNICODE and different sets are separated by a comma, If a phone number is not set, the corresponding position leave space.</p>	

device responds:	IWAP14, 080835, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx, D3590D54 135xxxxxxxxxxx# 080835: The device responds with response journal no.
Notice:	

3. BP16 Real-time locating command (respond: AP16)

Example:	
IW <i>BP16</i> , 353456789012345, 080835#	
Notice:	
IW: Identifier BP16 : Command word 353456789012345: IMEI number and the unique ID of the device 080835 : journal no.	
device responds:	IWAP16, 080835# 080835: journal no. device will Async send AP01 location data after responds.
Notice:	

4. BP17 Factory reset (respond: AP17)

Example:	
IW <i>BP17</i> , 353456789012345, 080835#	
Notice:	
IW: Identifier BP17 : Command word 353456789012345: IMEI number and the unique ID of the device 080835 : journal no.	
device responds:	IWAP17, 080835#

	080835: journal no.
Notice:	

5. BP18 restart device (respond: AP18)

Example:	
IW <i>BP18</i> , 353456789012345, 080835#	
Notice:	
<p>IW: Identifier</p> <p>BP18 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p>	
device responds:	<p>IWAP18, 080835#</p> <p>080835: journal no.</p>
Notice:	

6. BP20 set timezone (respond: AP20)

Example:	
IW <i>BP20</i> , 353456789012345, 080835, 0, 8#	
Notice:	
<p>IW: Identifier</p> <p>BP20 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p> <p>0: language ,not use</p> <p>8: timezone, eastern time zone great than zero , west time zone great than zero ,for example -8, now</p>	

only supports integer time zones	
device responds:	IWAP20, 080835# 080835: journal no.
Notice:	

7. BP28 Send audio message to device (responds:AP28)

Example:	
IWBP28, D3590D54, XXXX, 6, 1, 1024, XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX#	
Notice:	
<p>IW: Identifier</p> <p>BP28 : Command word</p> <p>D3590D54: UNICODE, the sender name</p> <p>XXXX: additional data</p> <p>6: the total number of audio data packet</p> <p>1 : sequence of audio data packet</p> <p>1024 :the length of data packet</p> <p>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX: audio data, each audio can not beyond 1024 byte, the last audio data packet maybe less than 1024 byte, if less than 1024 byte then send length as actual size</p> <p>The rule for audio upload:</p> <p>1: if server don't received the responds from device, it will repeat send the same audio data packet</p> <p>2: if the device responds that received succesfully, it will send the next audio data packet</p> <p>3: if the device responds that received failed, it will repeat send the same audio data packet</p>	
device responds:	IWAP28, D3590D54, XXXX, 6, 1, 1# D3590D54:UNICOD, sender name XXXX: additional data,return the same content received from the server 6: the total number of audio data packet

	1: sequence of the audio data packet the device received 1: device have received the audio data, 0:device don't have received the audio data
Notice:	Now only support amr audio between device and server

8. BP31 POWER OFF (responds: AP31)

Example:	
IW <i>BP31</i> , 353456789012345, 080835#	
Notice:	
<p>IW: Identifier</p> <p>BP31 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835: journal no.</p>	
device responds:	IWAP31, 080835# 080835: journal no.
Notice:	

9. BP33 Working Mode (respond: AP33)

Example:	
IW <i>BP33</i> , 353456789012345, 080835, 1#	
Notice:	
<p>IW: Identifier</p> <p>BP33 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835: journal no.</p> <p>1: working mode of the device,</p>	

1: normal mode, every 15minute a position report with WIFI and lbs	
2: Power-saving mode, every 60 minute a position report with WIFI and lbs	
3: emergency mode 1 minute a position report with GPS and WIFI and lbs	
device responds:	IWAP33, 080835, 1# 080835: journal no.
Notice:	

10. BP34 Working Mode for free setting (respond: AP34)

Example:	
IW BP34 , 353456789012345, 080835, 8, 30, 1#	
Notice:	
<p>IW: Identifier</p> <p>BP34 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835: journal no.</p> <p>8: mode 8</p> <p>30 seconds is the interval of the location report</p> <p>1: is mean GPS is ON and if it is 0 mean GPS off</p>	
device responds:	IWAP34, 080835, 1# 080835: journal no.
Notice:	

11. BP40 send text message (responds: AP40)

Example:	
IW BP40 , 353456789012345, 080835, 00610072006500200079006f00750020006f006b003f#	
Notice:	

IW: Identifier	
BP40 : Command word	
353456789012345: imei	
080835: journal no.	
00610072006500200079006f00750020006f006b003f: text encode UNICODE , the example is 'are you ok?'	
platform responds:	IWAP40, 080835#
Notice:	

12. BP76 fall down switch (responds: AP76)

Example:	
IW <i>BP76</i> , 353456789012345, 080835, 1#	
Notice:	
IW: Identifier	
BP76 : Command word	
353456789012345: imei	
080835: journal no.	
1/0: enable/disable	
platform responds:	IWAP76, 080835#
Notice:	

13. BP77 fall down sensitivity (responds: AP77)

Example:	
IW <i>BP77</i> , 353456789012345, 080835, 1#	
Notice:	

IW: Identifier BP77 : Command word 353456789012345: imei 080835: journal no. 1/2/3: level 3 is the most sensitive	
platform responds:	IWAP77, 080835#
Notice:	

14. BP84 Switch for White list (respond: AP84)

Example:	
IW <i>BP84</i> , 353456789012345, 080835, 1#	
Notice:	
IW: Identifier BP84 : Command word 353456789012345: IMEI number and the unique ID of the device 080835 : journal no. 1: white list on 0: white list off	
device responds:	IWAP84, 080835, 1# 080835: journal no. 1: device have run the command , 0: device don't have run the command
Notice:	

15. BP85 Set an alarm/reminder (respond: AP85)

Example:	
IW <i>BP85</i> , 353456789012345, 080835, 1, 3, 0900,135,1,1@0900 ,135,1,2@0900 ,135,1,3#	
Notice:	

<p>IW: Identifier</p> <p>BP85 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p> <p>1: master switch for all alarm, 1 is on, 0 is off</p> <p>3: total number of all alarm</p> <p>0900 ,135,1,1 : a reminder , 0900 mean reminder time 09:00, 135 mean Monday,Wednesday,Friday , 24 hour system</p> <p>1 switch for this alarm 1 is on 0 is off</p> <p>1 Take the medicine reminder</p> <p>2 Drink water reminder</p> <p>3 A sedentary reminder</p> <p><i>Each alarm Separated by "@"</i></p>	
device responds:	IWAP85, 080835, 1, 3, 0900,135,1,1@0900 ,135,1,2@0900 ,135,1,3#
	080835:The device responds with response journal no.
Notice:	

16. BP86 Set the interval of heart rate auto testing (respond: AP86)

Example:	
IW BP86 , 353456789012345, 080835, 1, 720#	
Notice:	
<p>IW: Identifier</p> <p>BP86 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p> <p>0: close measurement;</p> <p>1: turn on auto measurement;</p> <p>720 is 720minutes</p>	
device responds:	IWAP86,080835#

	080835:The device responds with response journal no.
Notice:	

17. BPXL Test heart rate (respond: APXL)

Example:	
IW <i>BPXL</i> , 353456789012345, 080835#	
Notice:	
IW: Identifier BPXL : Command word 353456789012345: IMEI number and the unique ID of the device 080835 : journal no.	
device responds:	IWAPXL, 080835# 080835:The device responds with response journal no.
Notice:	

18. BPXY Test blood pressure (respond: APXY)

Example:	
IW <i>BPXY</i> , 353456789012345, 080835#	
Notice:	
IW: Identifier BPXY : Command word 353456789012345: IMEI number and the unique ID of the device 080835 : journal no.	
device responds:	IWAPXY, 080835# 080835:The device responds with response journal no.
Notice:	

19. BPXT Test temperature (respond: APXT)

Example:	
IWBPXT, 353456789012345, 080835#	
Notice:	
<p>IW: Identifier</p> <p>BPXT : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p>	
device responds:	<p>IWAPXT, 080835#</p> <p>080835:The device responds with response journal no.</p>
Notice:	This command used to test once temperature

20. BPJZ blood pressure calibration (respond: APJZ)

示例:	
IWBPJZ, 353456789012345, 080835, 110, 75, 80, 1#	
Notice:	
<p>IW: Identifier</p> <p>BPJZ : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>110: SBP of blood pressure</p> <p>75: DBP of blood pressure</p> <p>80: age</p> <p>1/0: male/female</p> <p>080835 : journal no.</p>	
device responds:	<p>IWAPJZ, 080835#</p> <p>080835: The device responds with response journal no.</p>

Notice:	
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21. BP87 set the interval of auto Test temperature (respond: AP87)

Example:	
IWBP87, 353456789012345, 080835, 1, 720#	
Notice:	
<p>IW: Identifier</p> <p>BP87 : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>1 mean on the auto test of temperature; 0 means off the auto test of temperature</p> <p>720 means the interval is 720 minutes</p> <p>080835 : journal no.</p>	
device responds:	<p>IWAPXT, 080835#</p> <p>080835:The device responds with response journal no.</p>
Notice:	This command used to test once temperature

22. BPXZ Test blood oxygen (respond: APXZ)

示例:	
IWBPXZ, 353456789012345, 080835#	
说明:	
<p>IW: Identifier</p> <p>BPXZ : Command word</p> <p>353456789012345: IMEI number and the unique ID of the device</p> <p>080835 : journal no.</p>	
设备响应:	<p>IWAPXZ, 080835#</p> <p>080835: The device responds with response journal no.</p>

说明:	
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三: Some questions and answers

SMS command:

Set server' s ip and port	
Format	#host#=Domain name, port# or #IP#=ip address, port#
Example	#host#=api. gswatch. com, 5088# or #ip#=198. 11. 183. 28, 5088#
Reply sms	Host set ok or IP set ok
Add a new apn	
Format	#apn#=mcc, mnc, APNname, accname, username, pwd, auth_type#
Example	#apn#=460, 00, cmnet, cmnet, , , PAP#
Reply sms	Apn set ok
Check imei	
Format	#status#
Example	#status#
Reply sms	APN:cmnet;SOS NUM:,, ;DOMAIN:105. personalalarmwatch. com, 8090;IP IN USE:118. 178. 155. 223, 8090;IMEI:865513041152601;BATTERY:025%;F ALL DOWN:1;SW version:L05_W002_V1.75_EVAN_7068_7981_20211015 10-16-2021 12:01:07
Set time zone	
Format	#timezone
Example	#timezone:-8.00
Reply sms	timezone: -8.00 ok
Set time for watch: if you want set watch time by sms, you should off getting time from server first	
Format	#timedate:

Example	#timedate:2019.06.18,19:24
Reply sms	#timedate:2019.06.18,19:24 ok