

GPRS Gateway Instruction

H3 System Co., Ltd

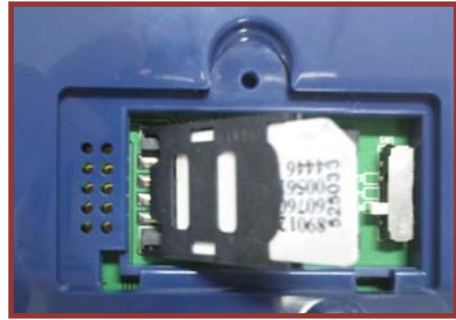
Print: 4th of Oct. 2010

Version: R0.9

Item: GSM/GPRS Gateway

1. Gateway Installation

- 1) Unscrew and open the bottom cover. And insert a simcard.
- 2) To configure, connect a serial cable between a gateway and a PC and run the configuration software. And power on the gateway.



<Picture1: Simcard Insert>

- ① Start command is transmitted from a gateway to configuration software.

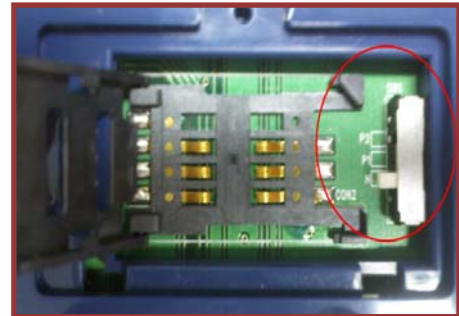
If there is any expected response from PC, communication for set-up mode is on.

Otherwise, regular log is transmitted from the gateway to the configuration software.

- a. Check 'setting' in the configuration software: The set-up mode is activated and log is also transmitted to the configuration software.
- b. Uncheck 'setting' in the configuration software: Only log transmission is activated.

2. Pairing

- 1) Power off.
 - 2) Select the pairing switch and power on.
 - ① N: Normal mode (No pairing)
 - ② P1: Pairing as a slave. Used for A&D weight scale.
 - ③ P2: Pairing as a master. Used for IEM B/P monitor, J&J glucometer and ForaCare thermometer.
- * After pairing is done, it turns to normal operation mode.**



<Picture3: Pairing Switch>

2) LED

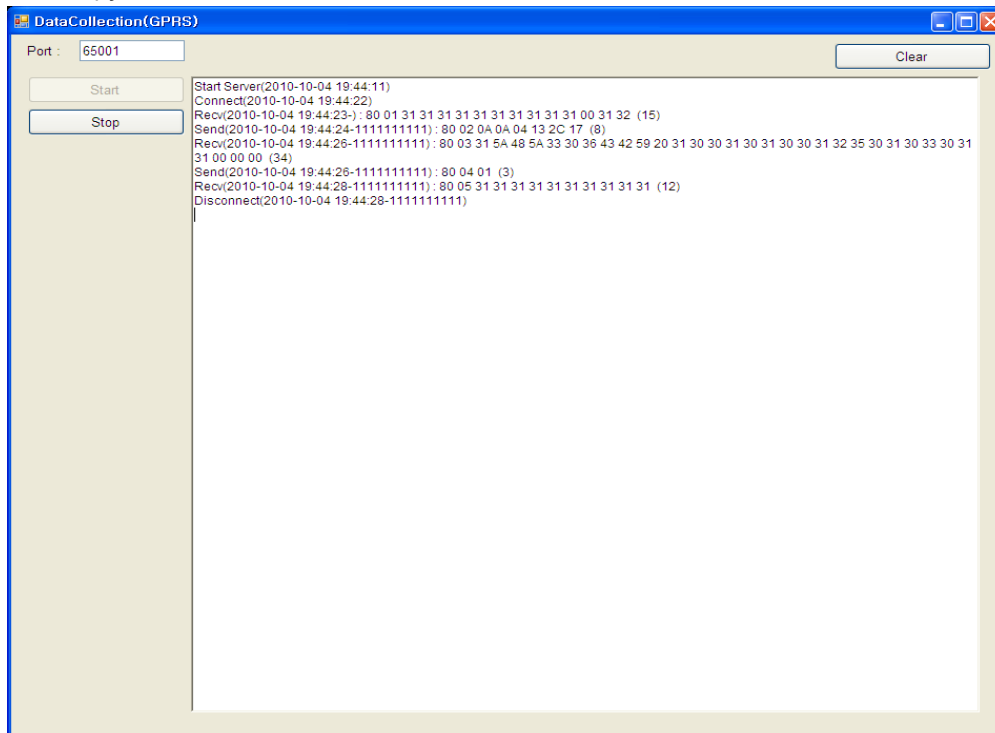
- ① On pairing, Reading LED in GREEN is on.
- ② At the success of pairing, Reading LED blinks GREEN two times.
- ③ At the failure of pairing, Reading LED blinks RED five times.

4) Device pairing method

- ① A&D weight scale: Select P1 and measure a weight with the device
- ② IEM B/P monitor: Select P2 and change into the pairing mode
- ③ J&J glucometer: Select P2 and change into the pairing mode
- ④ FORA thermometer: Select P2 and measure a temperature with the device

3. D/C Software Installation

- 1) Copy 'DataCollection(GPRS)' in the PC and run 'GPRS_Server.exe' file.



<Picture4: DataCollection Server>

1) Description

- ① Port : Set the receiving socket port of DataCollection Server.
- ② Start: Start server
- ③ Stop: End server
- ④ Clear: Clear the log screen

2) Xml, log File

- ① Data and log folders are in DataCollection folder.
- ② Data : In data folder, xml file is created as folder by date, and in the xml file folder , the data is created by time.
- ③ Log: In log folder, log file is created as folder by date, and in the log file folder, the log file is created by time.
- ④ Ex) xml file name : 20101004194422_1111111111.xml
-Creation logic of xml file name : Datetime + gateway Serial no
- ⑤ Ex) log file name : 20101004194422156.log
-Creation logic of log file name : Datetime

4. Measurement & Data Transmission

1) After a measurement, the data is transmitted to the gateway by Bluetooth .
And the data is automatically transmitted to the server via mobile networks.

2) Time set-up

① Gateway time set-up

- a. A gateway time set-up is done at the beginning of the server access.
- b. A gateway time set-up is done before disconnecting the server access.

② Device time set-up

- a. A&D weight scale, A&D thermometer, J&J Glucometer
- Automatic time set-up is taken after sending data by Bluetooth.
- b. IEM B/P monitor: Time set-up should be done in the device manually.

3) Reading LED

- ① Starting Bluetooth communication: Reading GREEN led on
- ② End Bluetooth communication: Reading GREEN led off
- ③ At the success of Bluetooth communication: Reading LED blinks GREEN two times.
- ④ At the failure of Bluetooth communication: Reading LED blinks RED five times.

4) Data transmission to the server

① Sending LED

- a. Starting server communication : Sending LED in GREEN is on.
- b. End server communication: Sending LED in GREEN is off.
- c. At the success of server communication: Sending LED blinks GREEN two times.
- d. At the failure of server communication: Sending LED blinks RED five times.
- ② Notification: Server access is taken at power on and power off.
- ③ Heart beat: Server access is taken every six hours, after power-on.
- ④ At data receiving from device, automatic server access is taken and data is transmitted.
- ⑤ At the failure of server access, reconnection to the server is done periodically.
Period is every hour. (Max. 3 times)

5. XLM File

```
<?xml version="1.0" encoding="utf-8" ?>
<Measure serial="1111111111" dc="0" battery="1.2">
  <Device type="glucose">
    <Data id="ZH306CBY" measuretime="20100101001250" result="103" unit="0" model="1" adapter="1" />
  </Device>
  <Device type="glucose">
    <Data id="ZH306CBY" measuretime="20100101001406" result="112" unit="0" model="1" adapter="1" />
  </Device>
  <Device type="pressure">
```

```

<Data id="61102DM2" measuretime="20100928084220" sys="139" dia="091" pul="094" />
</Device>
<Device type="pressure">
  <Data id="61102DM2" measuretime="20100928084337" sys="160" dia="088" pul="096" />
</Device>
<Device type="weight">
  <Data id="2008071403" measuretime="20100101001716" result="066.90" unit="kg" battery="2.32" />
</Device>
<Device type="glucose">
  <Data id="ZH306CBY" measuretime="20100101001829" result="100" unit="0" model="1" adapter="1" />
</Device>
<Device type="weight">
  <Data id="2008071403" measuretime="20100101001957" result="066.80" unit="kg" battery="2.32" />
</Device>
<Device type="weight">
  <Data id="2008071403" measuretime="20100101002342" result="066.80" unit="kg" battery="2.32" />
</Device>
<Device type="thermometer">
  <Data id="00123E0019B5" measuretime="20100101231100" otemp="98.42" btemp="74.84" unit="F" />
</Device>
</Measure>

```

Item		Description
Common	serial="1111111111"	GateWay Serial No
	dc="0"	Power Adapter Connection Status (0 : Connected ,1 : unconnected)
	battery="1.2"	Gateway battery
	type="glucose"	Device (glucose : Glucometer, pressure : Blood pressure monitor , weight : weight scale)
	id="ZH306CBY"	Device Serial No
	measuretime="20100101001250"	Measurement time
Glucometer	result="103"	Measurement value
	unit="0"	Unit (0 : mg/dL, 1 : mmol/L)
	model="1"	Glucometer Model (0:Ultra, 1:Ultra2, 2:Mini/Easy)
	adapter="1"	Glucometer Adapter (0 : N/A, 1: BA-100)
BP Monitor	sys="139"	Systolic
	dia="091"	Diastolic
	pul="094"	Pulse rate
Weight Scale	result="066.80"	Measurement value
	unit="kg"	Unit (kg or lb)
	battery="2.32"	Battery
Thermometer	otemp="98.42"	Object Temperature (Body temperature)
	btemp="74.84"	Back-ground temperature (Outside temperature)
	unit="F"	Unit (F : Fhar)

Regulatory Statements to be included in the Users Guide for Sputnik

USA-Federal Communications Commission (FCC)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the distance between the equipment and the receiver.
- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution: Exposure to Radio Frequency Radiation.

1. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. To maintain compliance with FCC RF exposure guidelines for bodyworn operation, do not use accessories that contain metallic components.

2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.