G07-W User's Manual

Ver. 1.01 (4/30/2014)

Content

Congratulations for choosing NHR's ZigBee wireless controller gateway. This manual is designed to help set up and get the most from the Gateway in a few short minutes.

Safety notice: Please read and follow the instructions before using this product

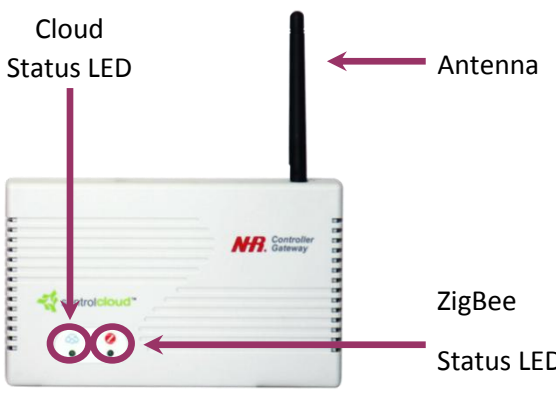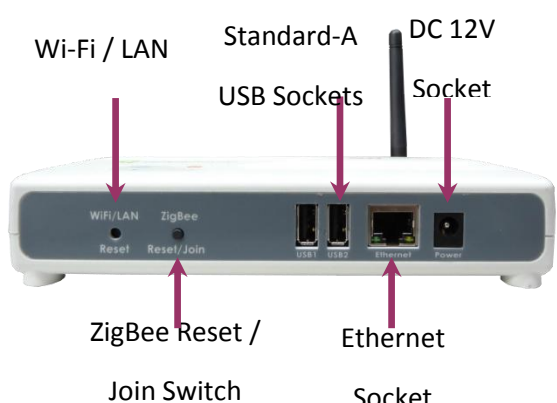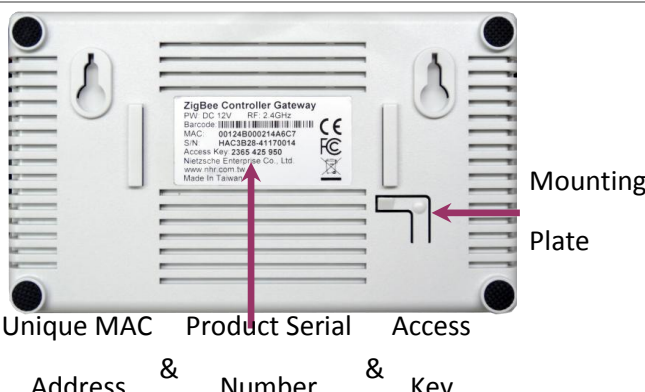- To prevent electrical shock or fire, do not disassemble or expose the unit to liquids of any kind
- Only use attachments and / or accessories specified by the manufacturer

1 Package Content and Views of G07-W

NHR G07-W Controller Gateway	Mounting fixtures (mounting plate, 4 wall plugs, 4 screws)	DC 12V Adapter

If any of the above is missing please contact your supplier.

Top	Back
Cloud Status LED · Antenna · ZigBee Status LED	Wi-Fi / LAN · Standard-A USB Sockets · DC 12V Socket · ZigBee Reset / Join Switch · Ethernet Socket
Side	Bottom
	Mounting Plate · Unique MAC Address & Product Serial Number & Access Key

2 Installing Mounting for G-07W

Requirements:

- Mounting fixtures
- Drill with 5mm (0.2 inches) drill bit size (if using wall plugs) or 3.5mm (0.14 inches) drill bit size (if not using wall plugs)
- Size 1 Phillips screwdriver
- Long, flat (4mm) tool

a) Locate G07-W within 1.0m of AC mains socket and with at least 15cm (approx. 6 inches) spacing on each side (except on mounting side) avoiding the following: direct sunlight, > 85% humidity, RF interference especially 2.4GHz, etc.

b) If necessary, pre-drill mounting holes (use mounting plate for alignment) with the appropriate drill bit – 5mm (approx. 0.2 inches) if using wall plugs or 3.5mm (approx. 0.14 inches) if not using wall plugs.

c) If necessary, first insert wall plugs into the 4 holes, then use size 1 Phillips screwdriver to fasten the screws securing the mounting plate. Note: pay careful attention to the orientation of the mounting plate.

d) Install and remove (using long, flat tool) G07-W as follows to ensure the mounting plate has been correctly and securely installed and G07-W can be installed and removed.

Initial hardware installation for G07-W has been successfully completed.

3 Powering On G07-W

Requirements:

- DC 12V adapter
- Ethernet cable

a) For first time power on and configuration or if using Ethernet for networking to the cloud, connect the Ethernet cable to the Ethernet port on G07-W and to configuring computer or the network.

b) Connect DC 12V adapter's DC jack into G07-W and plug adapter into live mains socket.

c) The Cloud and ZigBee status LEDs on G07-W will indicate its current state:

Cloud LED	ZigBee LED	Status
On	On	Power on test (lasts around 30 seconds)
On	Off	Connected to cloud server
Off	Off	Disconnected from / not yet configured for cloud server
2 flashes	Off	Reconnect to cloud server
2 flashes then stays on	Off	Receiving commands from cloud server

G-07W has been successfully powered on.
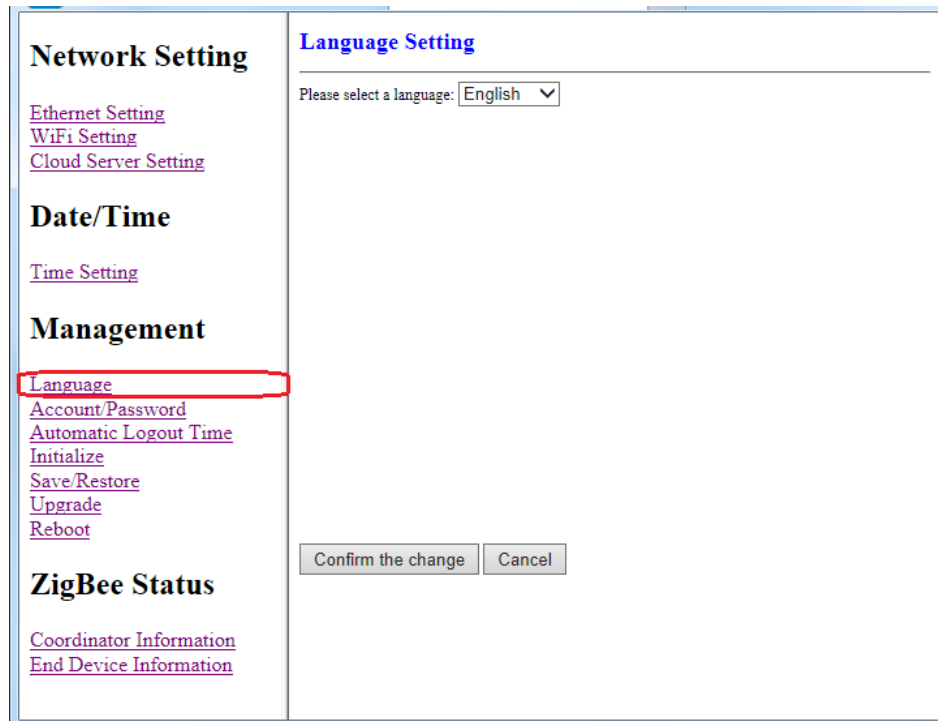
4 Configuring G07-W Settings

Requirements:

- Ethernet Cable
- Internet browser software
- Computer (PC or Mac)

a) Connect G07-W to a computer using an Ethernet cable directly.

b) Ensure G07-W is powered on (see "**Powering On G07-W**").

c) Enter the IP address of G07-W (default IP address is 192.168.1.100) into an Internet browser, the default Username and Password is **admin** and **admin**:
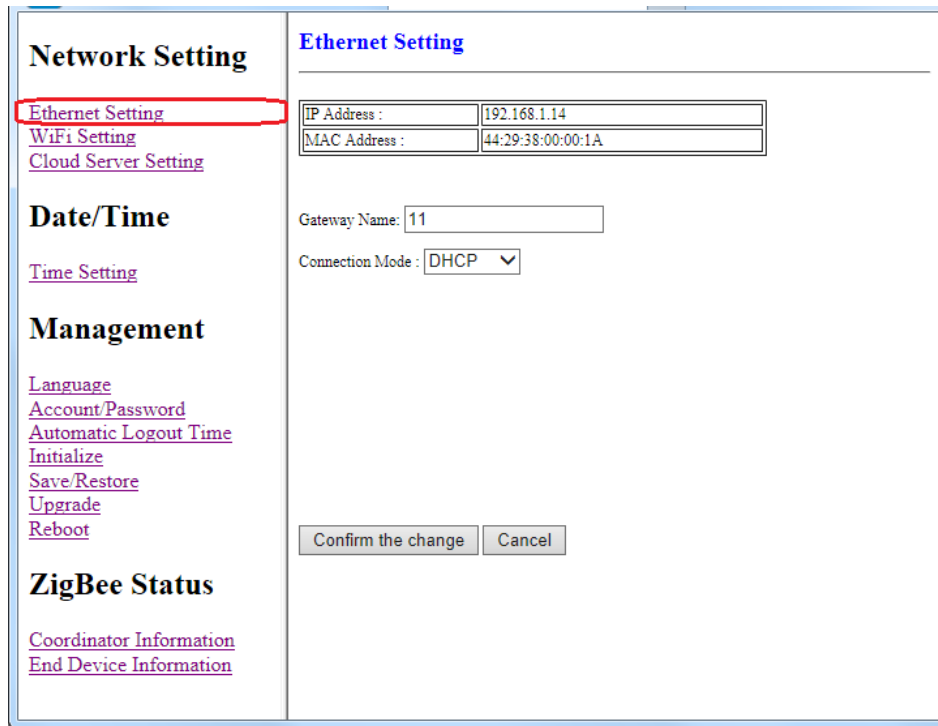

Important: If using Microsoft IE, be sure to use IE 10 or above to access. If using Windows XP, be sure to use Google Chrome.

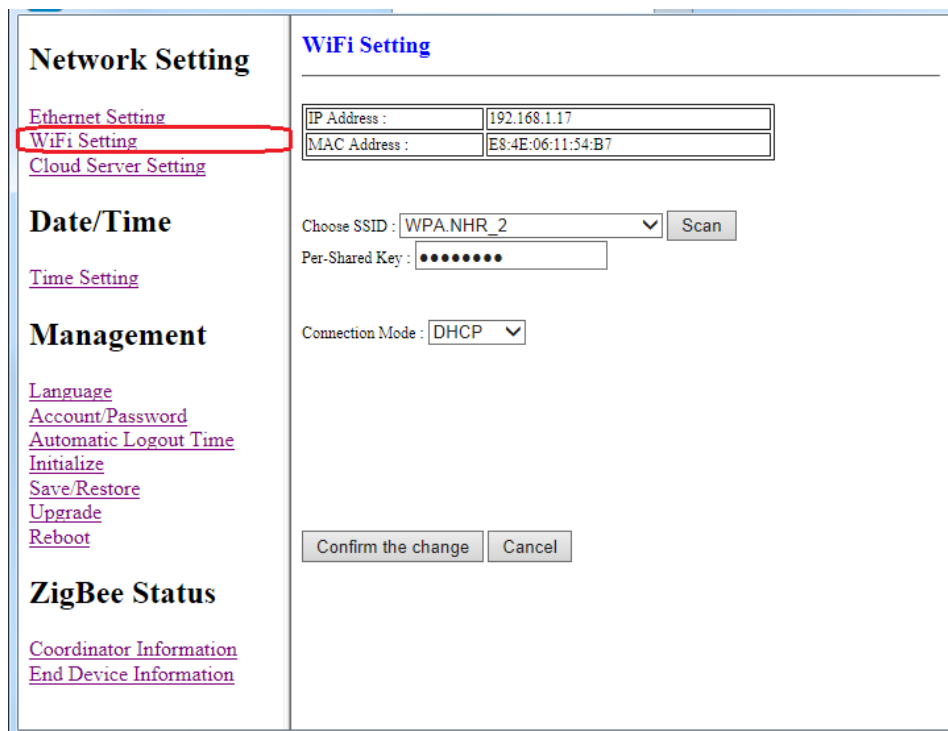d) If necessary, change the language to the desired language:

e) If necessary, change the Gateway Name and Ethernet settings as appropriate (if using static IP, ensure the IP Address, Subnet Mask, and Default Gateway values are correct):
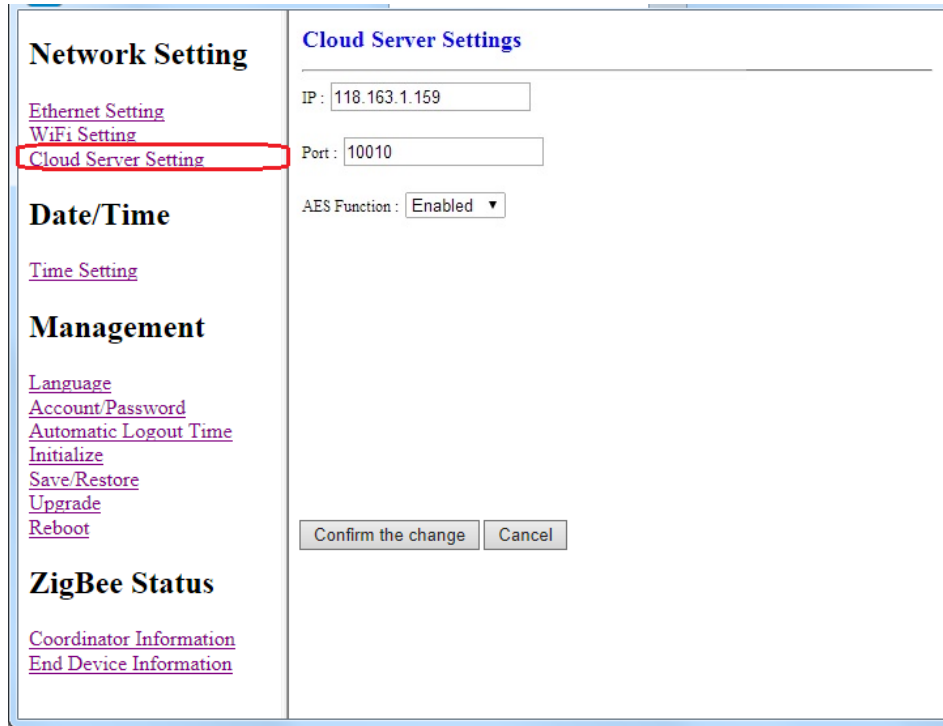
f) If necessary, change the Wi-Fi settings to use Wi-Fi instead of Ethernet to connect to the network:

Important: Be sure to note the IP address and keep in a safe place for future reference.

6

g) If necessary, change the Cloud server settings to use an alternate cloud service, **do not** change these if using SentrolCloud™:
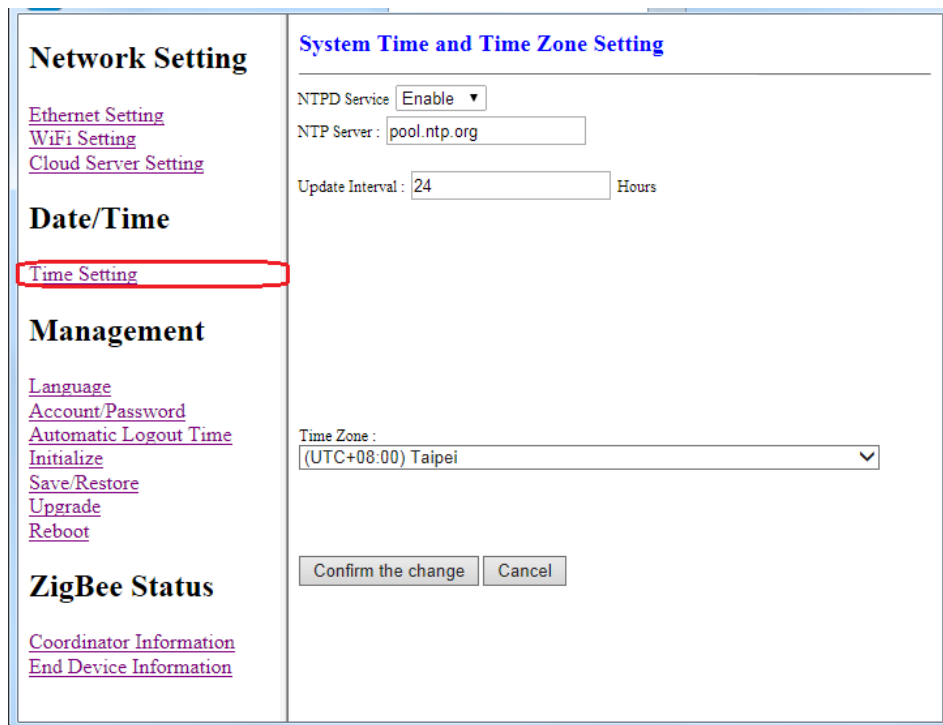
h) Select NTP if using NTP or manually change the system time and time zone settings:

Note: Manual adjustment is needed when there is daylight saving.

i) It is recommended to change the username and password from the default to something more appropriate (default Username and Password is **admin** and **admin**):

j) It is recommended to set an automatic logout time to ensure G07-W settings are not opened to changes from unauthorized personnel:
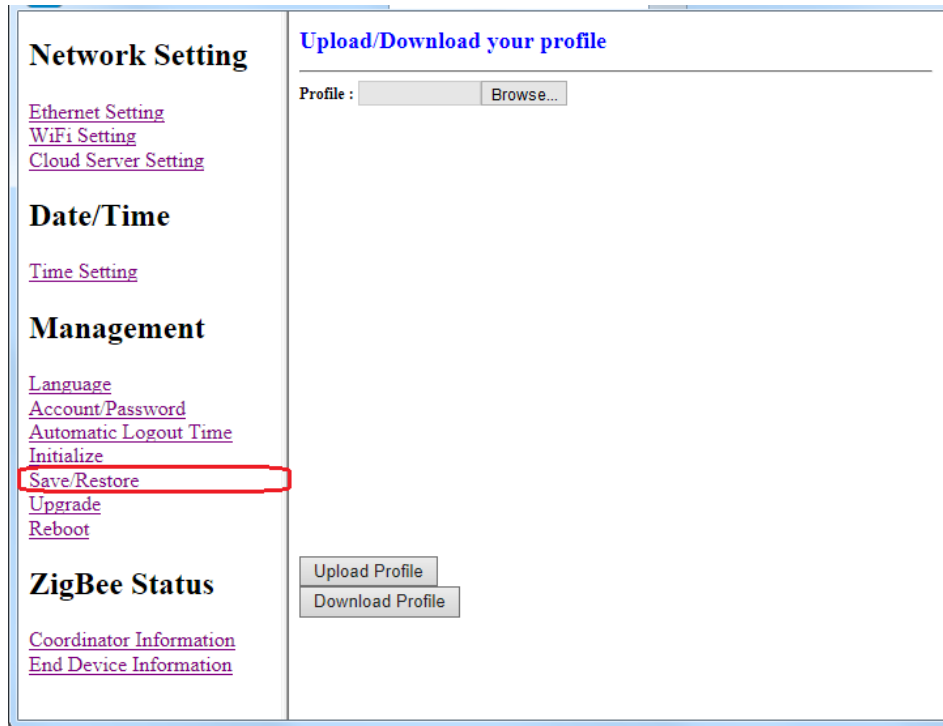
k) If it is necessary to reset G07-W to factory default settings without having to physically press the reset switches on G07-W:

Note: G07-W reset will result in all the settings (including ZigBee network) being restored to factory settings. It is recommended to save these settings before reset if they are needed again (see step "**m)**" below). ZigBee reset on G07-W will result in all ZigBee devices on G07-W's network to be disconnected, it is recommended to remove the devices first from the network (see "**Removing**

Devices from G07-W"); otherwise, each device will need to be individually reset before they can be joined to another network.

l)   If necessary, save G07-W's settings as a profile for later restore:

m) G07-W firmware can be upgraded on this screen:

n) If necessary, G07-W can be rebooted without physically power cycling:

o) If necessary, the ZigBee coordinator's information for G07-W can be displayed:

Display Coordinator Information

Zigbee Mac	00124B000214A80E
PAN ID	F9A6
CHANNEL	20
End Device	1

Network Setting

Ethernet Setting
WiFi Setting
Cloud Server Setting

Date/Time

Time Setting

Management

Language
Account/Password
Automatic Logout Time
Initialize
Save/Restore
Upgrade
Reboot

ZigBee Status

Coordinator Information
End Device Information

p) If necessary, the ZigBee coordinator's end device information for G07-W can be displayed:

Display End Device Information

MAC ADDRESS	SHORT ADDRESS	TYPE
00124B00029AC91A	4472	80

Network Setting

Ethernet Setting
WiFi Setting
Cloud Server Setting

Date/Time

Time Setting

Management

Language
Account/Password
Automatic Logout Time
Initialize
Save/Restore
Upgrade
Reboot

ZigBee Status

Coordinator Information
End Device Information

5 Enabling G07-W to Permit Join Other Devices to its Network

Requirements:

- Child device, such as router (eg. STH-M02ZB, WZB-01USBR, WZB-02485R), or end device (eg. STH-01 series, STH-M02ZB, STH-03ZB, S05 series, WZB series safety and security devices)
- Sharp pointed tool

a) Ensure G07-W is powered on (see "**Powering On G07-W**") and ready to accept the child device.

b) Ensure child device(s) is in *ready to join* status (see relevant device's manual).

c) Using the sharp pointed tool, apply 1 quick press to the *ZigBee Reset / Join* switch on G07-W, the ZigBee LED will flash every 2 seconds for up to 60 seconds to *permit join* devices to its network.

d) When a child device has joined G07-W, the ZigBee LED will show 2 quick flashes; also check the status of the child device to confirm it has been connected (see relevant device's manual)

e) Repeat the above steps until all child devices have been added successfully.

6 Removing Devices from G07-W

Requirements:

- Child device, such as router (eg. STH-M02ZB, WZB-01USBR, WZB-02485R), or end device (eg. STH-01 series, STH-M02ZB, STH-03ZB, S05 series, WZB series safety and security devices)

a) Ensure G07-W is powered on (see "**Powering On G07-W**").

b) Refer to the child devices' manual to remove from parent network.

c) When a child device has been removed from G07-W, the ZigBee LED will show 5 quick flashes.

7 G07-W LED Status

The table below shows the LED status for G07-W:

Cloud LED	ZigBee LED	Status
On	On	Power on test (lasts around 30 seconds)
On	Off	Connected to cloud server
Off	Off	Disconnected from / not yet configured for cloud server
2 flashes	Off	Reconnect to cloud server
2 flashes then stays on	Off	Receiving commands from cloud server

ZigBee LED	Status
1 flash every 2 seconds	**Permit join** – permit requests from devices (routers / sensors) to join the network
2 quick flashes	**Device joined** – device (router / sensor) joined or re-joined the network
5 quick flashes	**Device removed** – device (router / sensor) successfully removed from the network

8 Reset

Requirements:

- Sharp pointed tool

a) ZigBee Reset:

To clear the ZigBee network completely, use a sharp pointed tool to apply a 5-second press to the **ZigBee** link switch on G07-W until the ZigBee LED comes on, release the **ZigBee Reset / Join** switch and the ZigBee LED will remain on for 3 seconds then go off to indicate reset.

Note: ZigBee reset on G07-W will result in all ZigBee devices on its network to be disconnected, it is recommended to remove the devices first from the network (see "**Removing Devices from G07-W**"); otherwise, each device will need to be individually reset before they can be joined to another network.

b) Gateway Reset:

To reset G07-W to factory settings (excluding ZigBee network), use a sharp pointed tool to apply 5-second press to the **WiFi / LAN Reset** switch on G07-W, both the Cloud and ZigBee LEDs will flash 3 times to indicate reset, then both LEDs will stay on for the power on sequence.

Note: Gateway reset on G07-W will result in all the settings (excluding ZigBee network) being restored to factory settings. It is recommended to save these settings before reset if they are needed again.

9 Product Specifications

Wireless	Compliant IEEE 802.15.4, ZigBee2007 / PRO HA Profile, 2.4GHz ISM band
Transmission Range	500m (1640ft) line of sight
RF Output Power	18dBm
Power Supply	DC 12V Adapter
Operating Environment	-10 ~ +60°C, < 80% relative humidity
Power Consumption	TX: 300mA
Network Topology	Star / Tree / Mesh
Dimensions	189(L) x 175(W) x 35(H) mm (including antenna)
Weight	229.6g / 8.10oz (excluding power adapter)
Certifications	CE / FCC