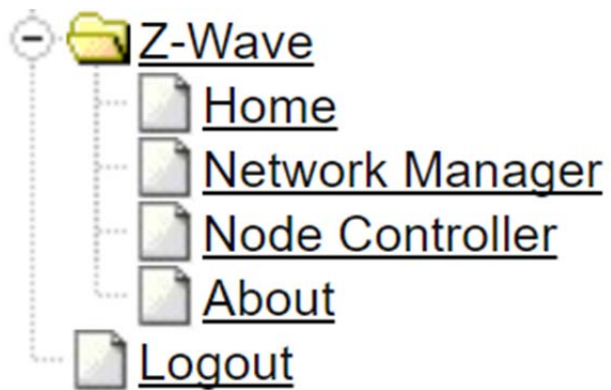


## HSGW Z-Wave User Manual

Note:

For Z-Wave Function operate only need access Z-Wave Folder in the Web page.



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# 1. Introduction

This section covers unpacking your IP Security System with HSGW Series IP Panel and Security Sensors. Refer to later chapters for information on setting up and configuring the system over the Web Page in more detail.

The advanced IP Security System with fully integrated TCP/IP technology and Ethernet connectivity is able to take full advantage of new advances in IP Home Security and Home Automation and multi-path signalling.

## 1.1. HSGW Information:

HSGW Firmware information	
Library Type	Bridge Controller
Protocol Version	6.2
Application Version	6
Application Sub Version	1
FlIRS Device	No
Sleeping Device	No

HSGW Device information	
Generic Device Class	Static Controller
Specific Device Class	Gateway

Command class 0x86 - COMMAND\_CLASS\_VERSION ver.2 Select

Command 0x12 - VERSION\_REPORT

Z-Wave Library Type	07
Z-Wave Protocol Version	06
Z-Wave Protocol Sub Version	02
Firmware 0 Version	06
Firmware 0 Sub Version	01
Hardware Version	01
Number of firmware targets	03
▼ vg	<input type="button" value="+"/> <input type="button" value="-"/>
▼ vg	<input type="button" value="+"/> <input type="button" value="-"/>
Firmware Version	02
Firmware Sub Version	51
▼ vg	<input type="button" value="+"/> <input type="button" value="-"/>
Firmware Version	01
Firmware Sub Version	00
▼ vg	<input type="button" value="+"/> <input type="button" value="-"/>
Firmware Version	01
Firmware Sub Version	00

## 1.2. HSGW Supported Command Classes:

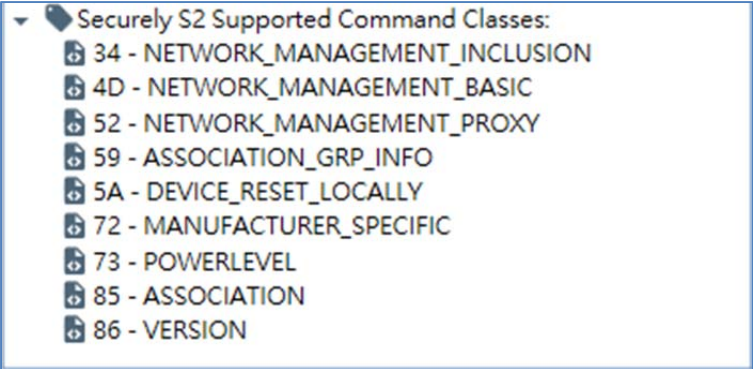
Gateway Mandatory Command Classes			
Support	Ver.	Control (refer to 3.6.3)	Ver.
Association	2	Association	2
Association Group Information	3	Basic	2
CRC-16 Encapsulation	1	CRC-16 Encapsulation	1
Device Reset Locally	1	Multi Channel	4
Inclusion Controller (if CSC)	1	Multi Channel Association	3
Manufacturer Specific	2	Security 0 (S0) (if CSC)	1
Power Level	1	Security 2 (S2) (if CSC)	1
Security 0 (S0)	1	Wake up (if CSC)	2
Security 2 (S2)	1		
Supervision	1		
Transport Service	2		
Version	2		
Z-Wave Plus Info	2		

HSGW Supported Command Classes			
Support	Ver.	Control (refer to 3.6.3)	Ver.
Application Capability	1	Switch Binary	2
Network Management Basic	2	Configuration	2
Network Management Proxy	3		
Network Management Inclusion			

NIF Must supported Command Classes			
Support	Ver.	Control (refer to 3.6.3)	Ver.
Application Status	1		
CRC-16 Encapsulation	1		
Inclusion Controller	1		
Multi Command	1		
Security 2	2		
Supervision	1		
Transport Service	2		

Z-Wave Plus Info	2		
------------------	---	--	--

**Command supported securely only when HSGW is include into another network**



The support of the Association CC information:

One group is supported

One node is supported

The purpose of this group is: lifeline

## **2. Panel Information**

### **2.1. The Power Supply:**

An AC power adapter is required to connect to a wall outlet. Be sure only to use an adapter with the appropriate AC voltage rating to prevent component damage. DC 12V 2A switching power output adaptor is generally used to power the Control Panel for standard version.

#### **Rechargeable Battery**

- In addition to the adapter, there is a rechargeable battery inside the Control Panel, which serves as a back up in case of a power failure.
- During normal operation, the AC power adapter is used to supply power to the Control Panel and at the same time recharge the battery. Slide the Battery Switch to ON to activate and charge the battery. It takes approximately 72 hours to fully charge the battery
- The battery status information is displayed in the Panel section of local area webpage.

### **2.2. System Requirements:**

The system requires a TCP/IP network environment for you to connect to the Control Panel for system programming.

Hardware requirement for programming the panel vial LAN webpage:

- Microsoft Windows 98, ME, NT4.0, 2000, XP, Windows 7 or 8operating system.
- Microsoft Internet Explorer 6.x, or later and Mozilla Firefox 3.0 compatible.
- CD-ROM drive
- CPU: Intel Pentium II 266MHz or above
- Memory: 32MB (64MB recommended)
- VGA resolution: 800x600 or above

## 3. Getting Started

Read this section of the manual to set up your Control Panel and program System Settings over the Web page.

### 3.1. Software Installation

※ THIS INSTALLATION IS ONLY REQUIRED FOR FIRST TIME USER ※

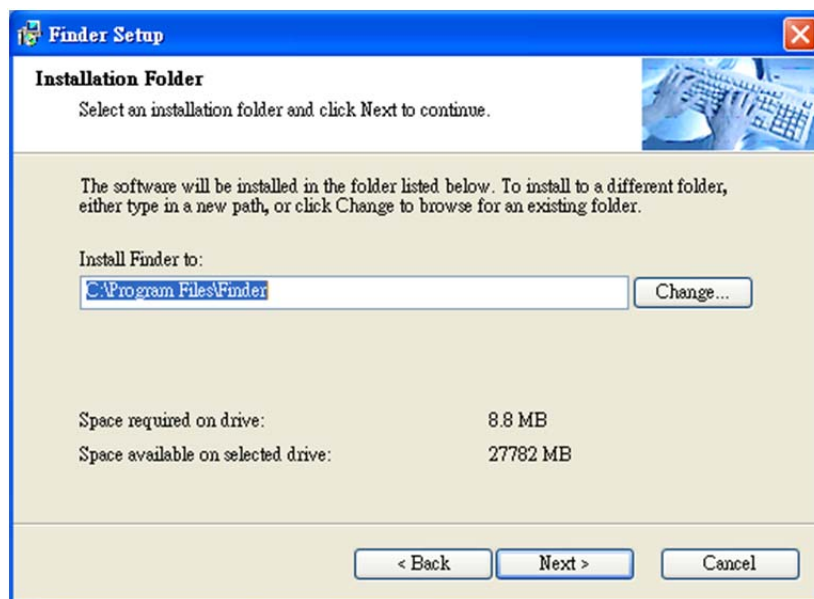
#### 1. RUNNING THE FINDER SOFTWARE

The Finder software is required for your computer to identify the control panel on the LAN. To install the “Finder” software”

**Step 1.** Insert the supplied CD-ROM into your CD-ROM drive

**Step 2.** Find the **Finder** software in the CD-ROM.

**Step 3.** Double click on the **Finder\_v1.x** to initiate the installation.

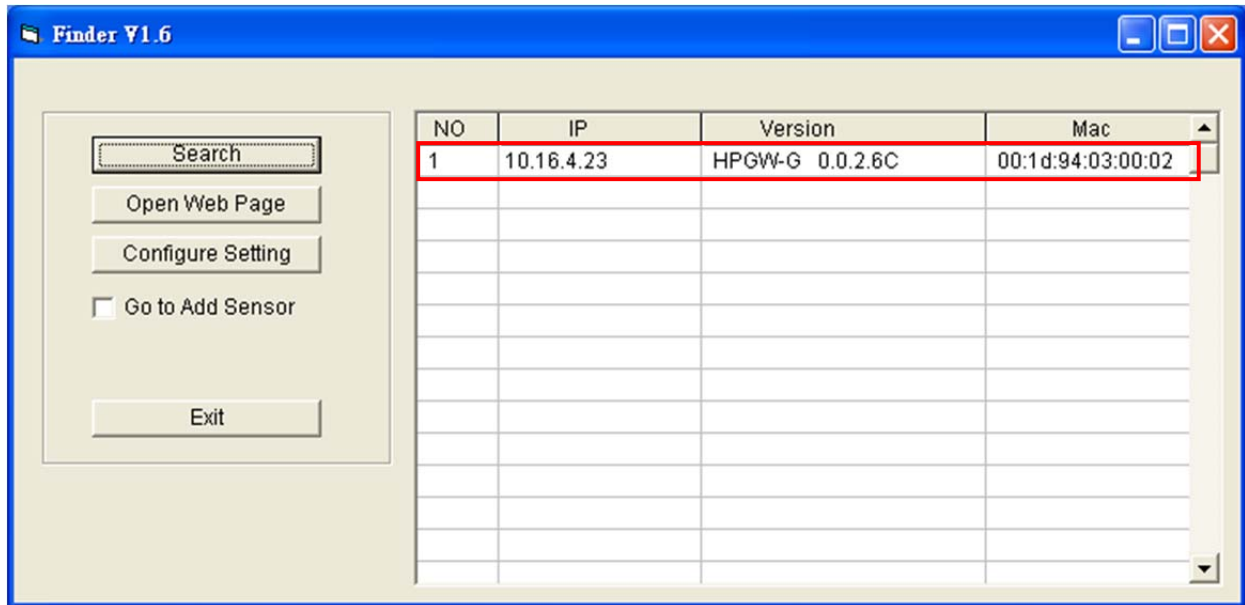


**Step 4.** Follow on screen instruction to complete installation

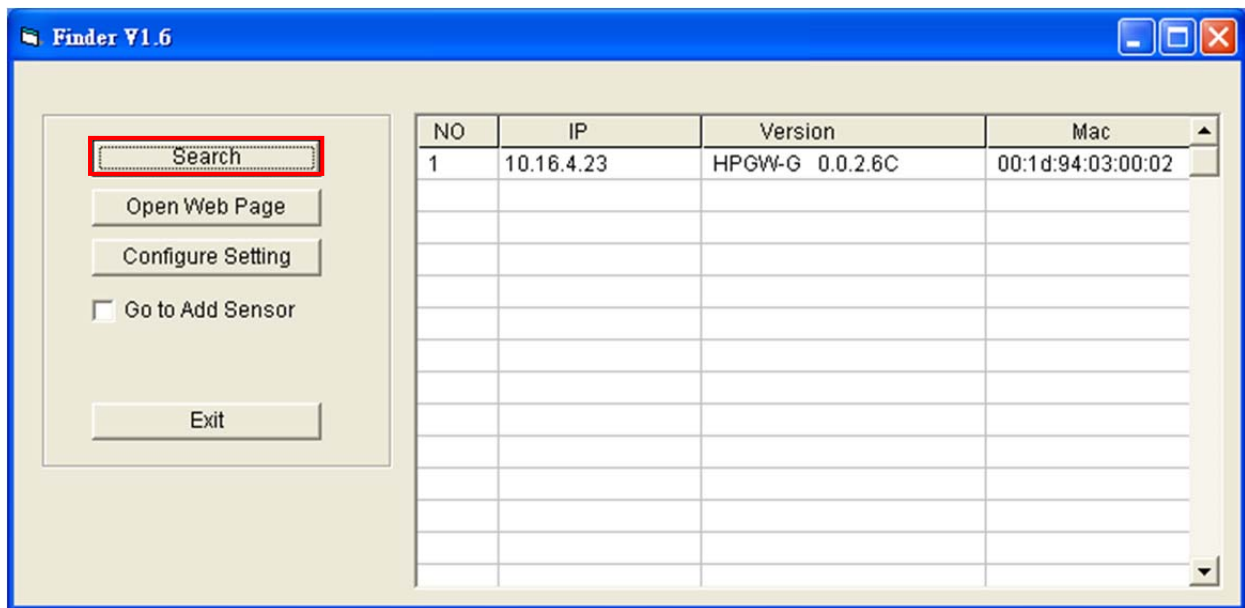
**Step 5.** Once complete, the Finder icon will be displayed on your desktop.



**Step 6.** Double click on the “**Finder.exe**” to start the software. Finder will automatically search for control panel on the LAN and display its information. If available, the panel’s LAN IP address, Firmware version and MAC address will be displayed

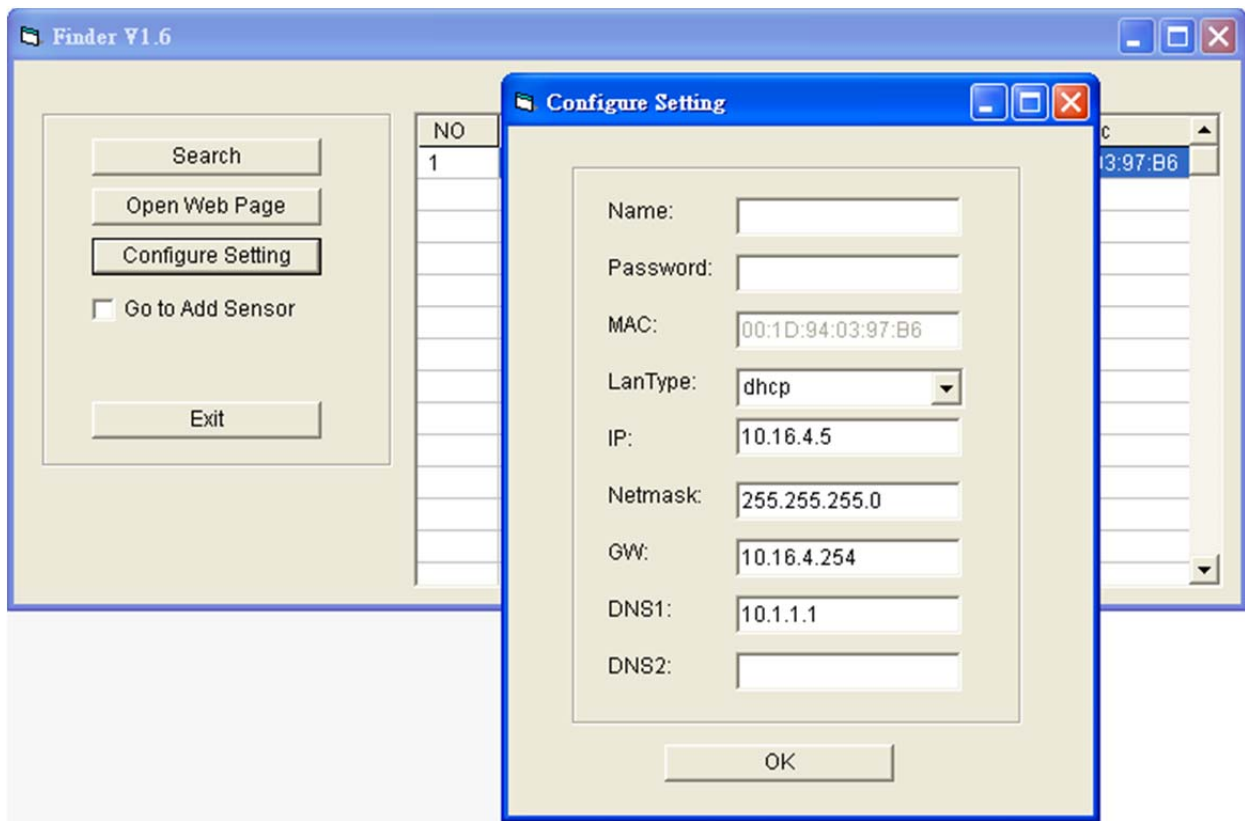


**Step 7.** If the panel information is not displayed, check panel power and Ethernet connection and click on “**Search**” to update the panel information.





**Step 8. (Optional)** You can choose to edit the panel's network setting by clicking on the panel column, then click "Configure Setting"



The LanType is default to **DHCP** and does not require manual input of IP/Netmask/Gateawy/DNS setting. If you wish to configure these setting manually, change LanType to **Static**.

After finish changing network setting, enter the user name (default: **admin**) and password (default: **cX+HsA\*7F1**) then click **OK** to confirm. The user name and password can be changed later in panel configuration webpage

**Step 9.** Click the panel information column and click on "**Open Web Page**", or double click on the panel column to link to the panel configuration webpage. Your default browser will start automatically to connect to the LAN IP displayed in Finder.

## 4. Connection to Panel Webpage

For first time setup, webpage connection is only available within 1 hour after the panel is powered on; if the panel has been powered on for more than 1 hour. Webpage access will be disabled. Reboot the panel to enable webpage function again.

**Change default password after login to gain unrestricted webpage access.**

**Step 1.** Select the Control Panel in the Finder software and click on “Open Webpage” to connect to panel webpage.

Alternatively, enter the Control Panel IP address displayed in Finder into your browser’s address section and proceed.

**Step 2.** Enter the User name & Password to proceed

Default user name: **admin**

Default password: **admin1234**

(If wrong user name and password are entered for **5** times, the local webpage login will be disabled for **5** minutes.)

**Step 3.** You will enter change password page. Enter and repeat a new password (username change is optional), take care that both username and password are case sensitive. Click OK to confirm.



The screenshot shows a web browser window with a title bar that says "Change Password". The page content includes:

- User Name: **admin**
- New Name:
- New Password:
- Repeated Password:
- Buttons:
- Copyright notice: ©2016 Climax Tech. Co., Ltd.

**Step 4.** Upon confirming new username and password. You will enter panel Welcome page. The panel will prompt you to re login with new username and password.

**Step 5.** You will enter panel Welcome page. The Control Panel’s information will be displayed. Click on the pages and folders on the left to access the Control Panel’s various functions



- Home
- Panel
- History Records
- Event Log
- Panel Setting
- PIN Code
- Captured Events
- Reported Events
- Device History
- + Device Management
- + Network Setting
- + System Setting
- Z-Wave
  - Home
  - Network Manager
  - Node Controller
  - About
- Logout

## Welcome to Alarm Panel!

Firmware revision:	HPGW-G 0.0.2.19 HPGW-L1-XA36Rt 3.1.2.6.1
Firmware/RF revision:	HPGW-L1-XA36Rt
ZigBee revision:	3.1.2.6.1
GSM revision:	
Public IP Address:	59.124.230.221
Internal IP Address:	192.168.50.6
MAC Address:	00:1D:94:03:00:00

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The Welcome page displays current control panel firmware version information according to different panel model and MAC address.

### <IMPORTANT NOTE>

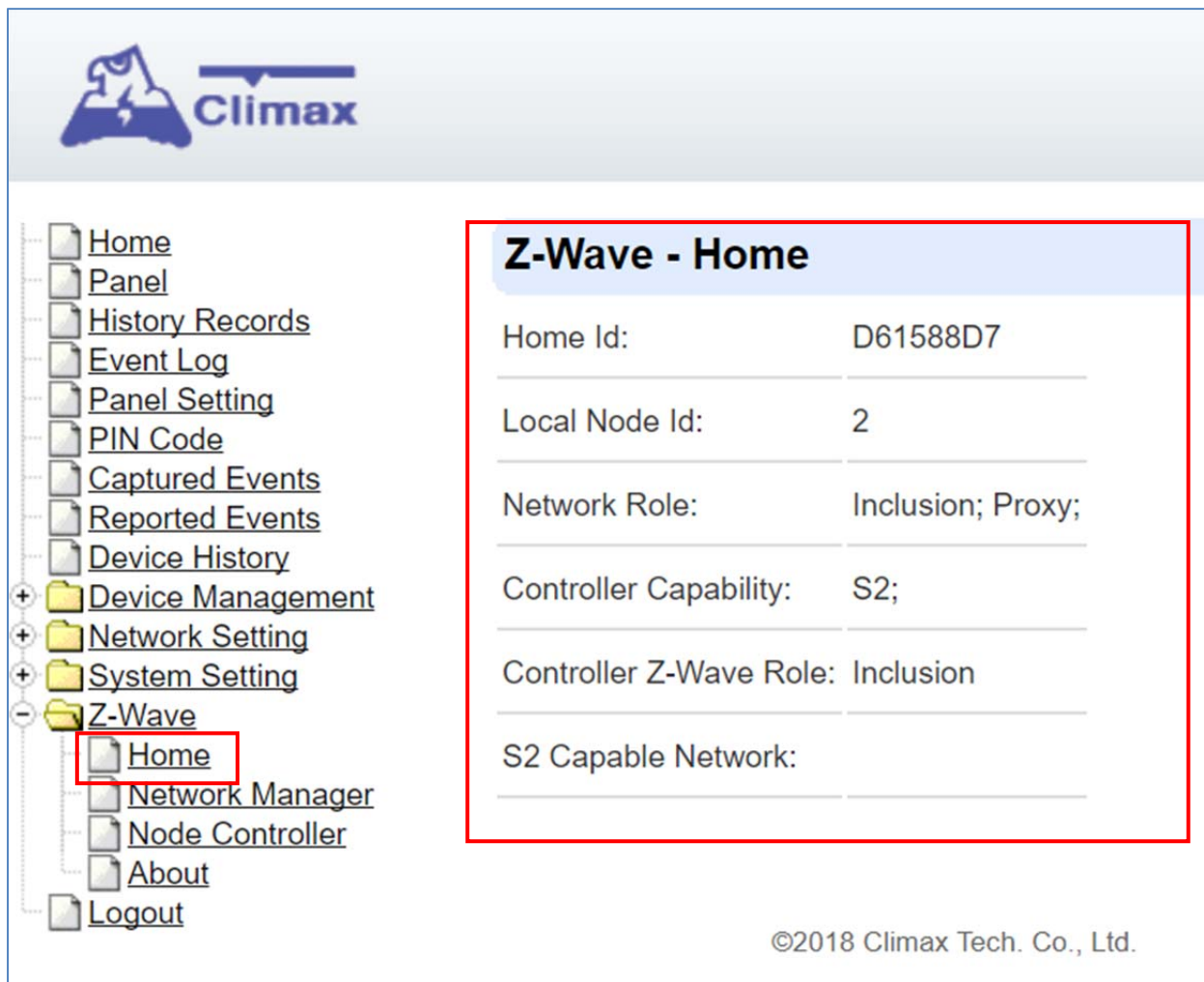
- ☞ If the default login password is not changed, webpage access will be disabled 1 hour after power on. Reboot the panel and changed password to allow unrestricted webpage access.

## 5. Z-Wave Function

The Device Management section allows you to add/remove, edit, control and view all available accessory devices that can be included in the HSGW Series Control Panel.

### 5.1. Z-Wave Home

After successful login, the user can see the Home page under Z-Wave folder, if the controller has already been initialized. All web pages have a navigation menu on the left. The home page shows the details of the local controller.



The screenshot shows the Climax web interface. The top left features the Climax logo. A navigation menu on the left lists various options, with 'Z-Wave' expanded and 'Home' selected. The main content area displays the 'Z-Wave - Home' page, which is highlighted with a red border. The page shows the following details:

Z-Wave - Home	
Home Id:	D61588D7
Local Node Id:	2
Network Role:	Inclusion; Proxy;
Controller Capability:	S2;
Controller Z-Wave Role:	Inclusion
S2 Capable Network:	

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Figure 1: Home Page

The menu bar on the left is used to navigate to the other pages described in the following chapters. The user may log out anytime by clicking "Logout" Menu option.

## 5.2. Z-Wave Network Manager

The Network Manager menu lists nodes in the network and allows network operations like include/exclude.

The Z-Wave node/vendor/product ID, product types and categories are shown. Further:

Nodes that support Z-Wave Plus are shown with a 'Z+' icon.

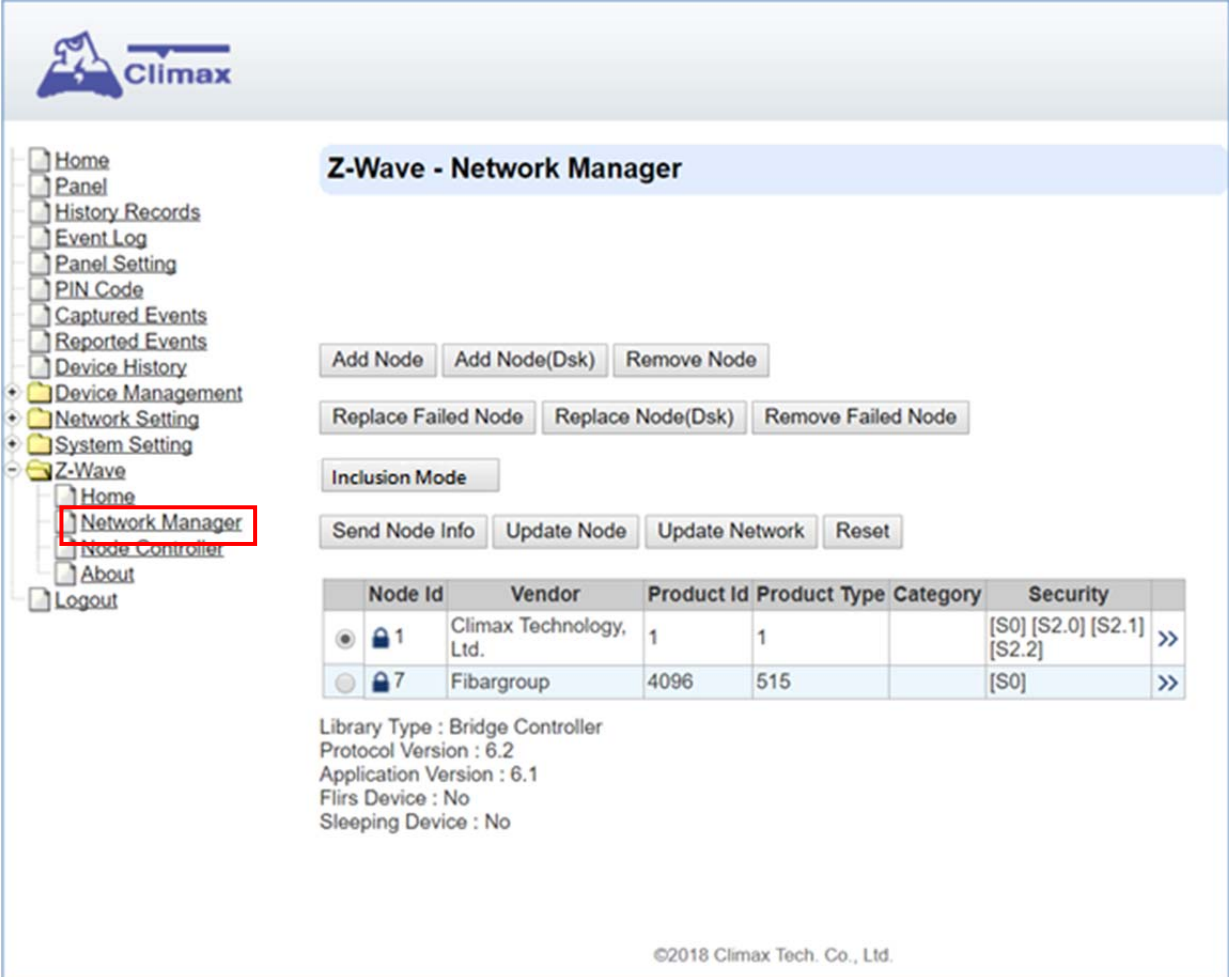
**HSGW as a Security Enabled Z-Wave Plus Product that can use encrypted Z-Wave Plus messages to communicate with other Security Enabled Z-Wave Plus devices.**

Securely included nodes that are with a lock icon.

Security capable nodes that were included insecurely are shown with a crossed lock icon.

Failed nodes are shown in red and can be selected for replace/remove failed node operations.

Z-Wave Plus information and version information from the node is also displayed at the bottom when the ">>" icon in the node entry is clicked.



**Z-Wave - Network Manager**

Buttons: Add Node, Add Node(Dsk), Remove Node, Replace Failed Node, Replace Node(Dsk), Remove Failed Node, Inclusion Mode, Send Node Info, Update Node, Update Network, Reset

Node Id	Vendor	Product Id	Product Type	Category	Security	
1	Climax Technology, Ltd.	1	1		[S0] [S2.0] [S2.1] [S2.2]	>>
7	Fibargroup	4096	515		[S0]	>>

Library Type : Bridge Controller  
Protocol Version : 6.2  
Application Version : 6.1  
Flirs Device : No  
Sleeping Device : No

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Figure 2: Network Manger Page

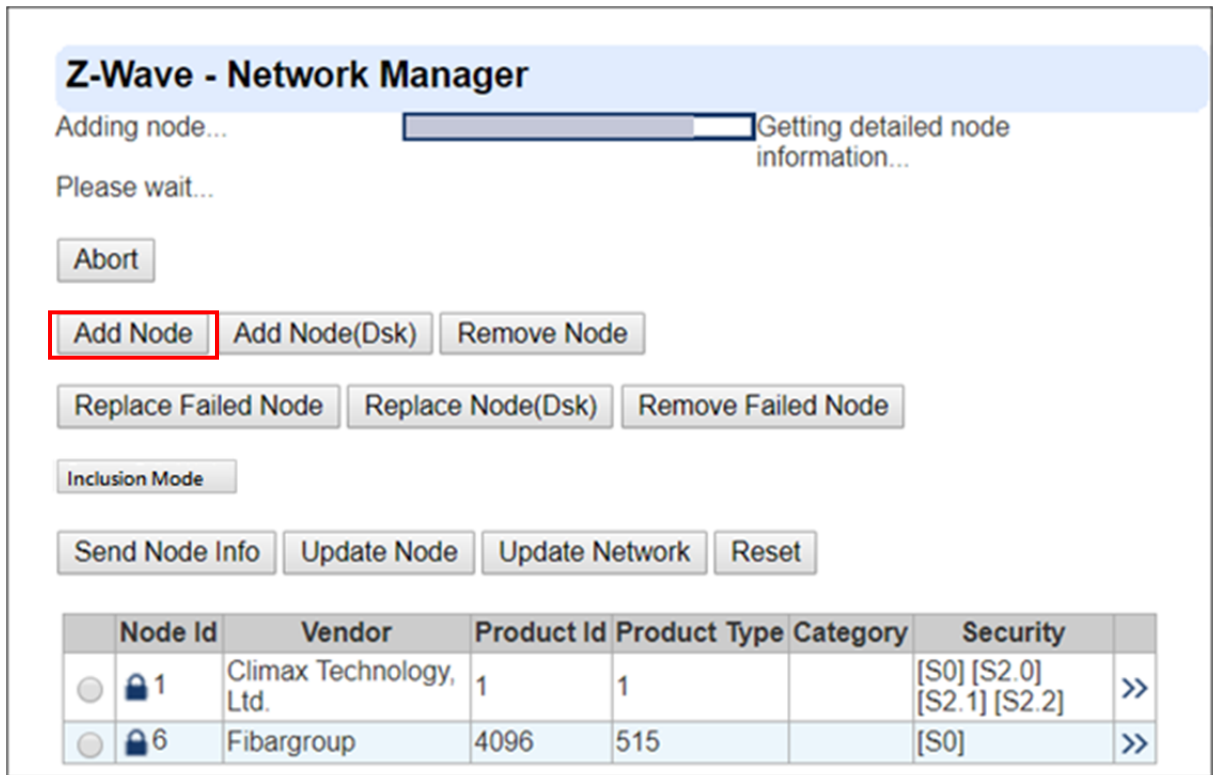


Figure 3: Network operation progress page

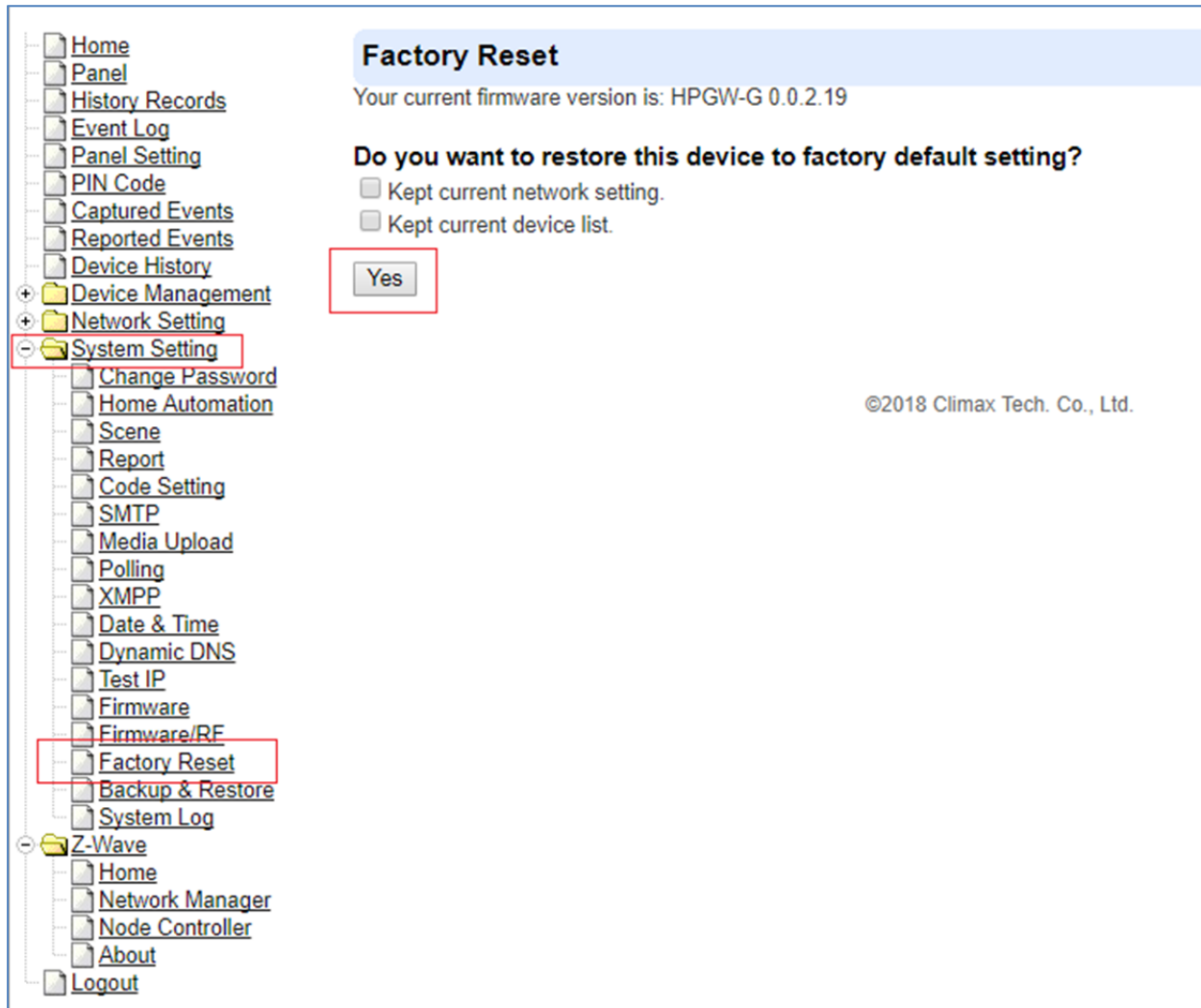
The network operations are similar to what the PC Controller software can do, and therefore will not be elaborated here. A quick map of operations to buttons is provided below.

Table 1: Z-Wave Network Buttons mapping

Z-Wave Network Operation	Button(s)
Include nodes	Add Node
Exclude nodes	Remove Node
Factory Reset	Reset

**Note:**

If the Z-Wave reset function does not work for any reason, an additional system reset could solve this. This can be found as shown below. [Hint](#)



## Devices from multiple manufacturers in one network:

HSGW can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.



## Replication:

Z-Wave supports Initiate (Inclusion mode) but this is not exposed in the Consumer UIs. Controller replication (copy) is achieved through Inclusion and Initiate.

## 5.2.1. Inclusion mode


**Adding the HSGW to another network-** Z-Wave device Inclusion mode, allowing to add the device to existing Z-Wave network.

To add the device to the Z-Wave network:

1. Place the HSGW within the direct range of your Z-Wave controller.
2. Identify the Inclusion mode button .
3. Set the main controller in (security/non-security) add mode (see the controller's manual).
4. Click .
5. Wait for the adding process to end.
6. Successful adding will be confirmed by the Z-Wave controller's message.

**Removing the HSGW from another network -** Z-Wave device inclusion mode, allowing to remove the device from existing Z-Wave network.

To remove the device from the Z-Wave network:

1. Place the HSGW within the direct range of your Z-Wave controller.
2. Identify the Inclusion mode button.
3. Set the main controller in remove mode (see the controller's manual).
4. Click .
5. Wait for the removing process to end.
6. Successful removing will be confirmed by the Z-Wave controller's message.

## 5.2.2. S2 Inclusion Mode

If the main controller in S2 add mode

1. Click  if need.
2. click 



Please enter the following DSK on the controller if prompted  
**14622-64276-21165-38981-58230-16260-12713-30029**

3. Enter DSK Value **14622** as main controller prompt



4. Waiting complete.

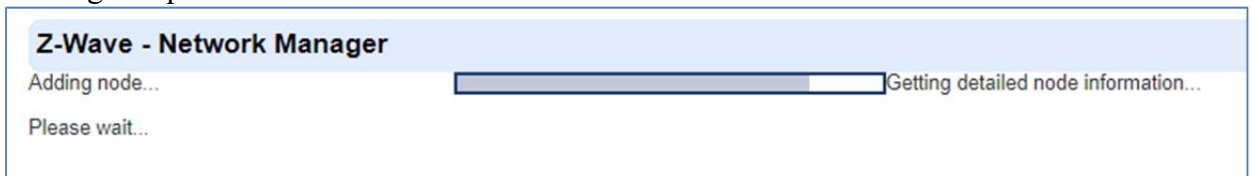


### 5.2.3. Add Nodes

1. Click 
2. The process will start



3. Force device enter Inclusion mode
4. Waiting complete.

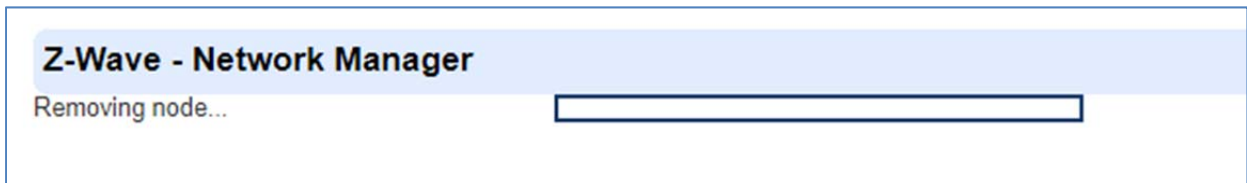


	Node Id	Vendor	Product Id	Product Type	Category	Security	
<input type="radio"/>	1	Climax Technology, Ltd.	1	1		[S0] [S2.0] [S2.1] [S2.2]	>>
<input type="radio"/>	6	Fibargroup	4096	515		[S0]	>>

Added device will appear in the page

### 5.2.4. Remove Nodes

1. Click 



2. Force device enter inclusion mode
3. Waiting to complete.

### 5.2.5. S2 Add nodes

1. Click 
2. The process will start



3. Force device enter inclusion mode
4. Security setting:

**Z-Wave - Network Manager**

Adding node...  Getting requested keys information...

Extract security information...

Warning: Only experienced user, who knows the concept of Z-Wave security class, should change security class settings.

- Security 2 Class 2 - Access Control
- Security 2 Class 1 - Authenticated
- Security 2 Class 0 - Unauthenticated
- Security 0 - Unauthenticated

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5. Fill in 5 digits numbers

**Z-Wave - Network Manager**

Adding node...  Getting DSK information...

Match security code...

Fill the first 5 digits from the device label. The other 7\*5 digits in device label should match the number below.

-29089-41880-11790-21458-46253-56861-58998

Fill all digits number when SIS hands inclusion over.

**Z-Wave - Network Manager**

Adding node...  Getting DSK information...

Match security code...

Fill all digits DSK in device label.

Reference to S2 Device’s DSK information, for example:

Abort

Please enter the following DSK on the controller if prompted  
19345-29089-41880-11790-21458-46253-56861-58998

Node	Vendor	Product	Product Category	Security	Health
1	Sigma Designs	1	1	[S0] [S2.0] [S2.1]	>>

6. Getting DSK information process

**Z-Wave - Network Manager**

Adding node...  Getting DSK information...

Abort

7. Getting detailed node information

**Z-Wave - Network Manager**

Adding node...  Getting detailed node information...

Please wait...

8. Waiting complete, include device will appear as below,

	Node Id	Vendor	Product Id	Product Type	Category	Security	
<input type="radio"/>	1	Climax Technology, Ltd.	1	1		[S0] [S2.0] [S2.1] [S2.2]	>>
<input type="radio"/>	6	Fibargroup	4096	515		[S0]	>>
<input type="radio"/>	7	Sigma Designs (Former Zensys)	1	1		[S0] [S2.0] [S2.1] [S2.2]	>>

### 5.2.6. Reset

If this controller is the primary controller for your network, resetting it will result in the nodes in your network being orphaned and it will be necessary after the reset to exclude and re-include all of the nodes in the network. If this controller is being used as a secondary controller in the network, use this procedure to reset this controller only in the event that the network primary controller is missing or otherwise inoperable.

### 5.3. Z-Wave Node controller

This page also lists all the nodes in the network. The selected node's endpoints and device classes; and the selected endpoint's interfaces are shown. Secure interfaces are shown with a lock icon. Clicking the arrow on the interface tab reveals the elements within for specific control.

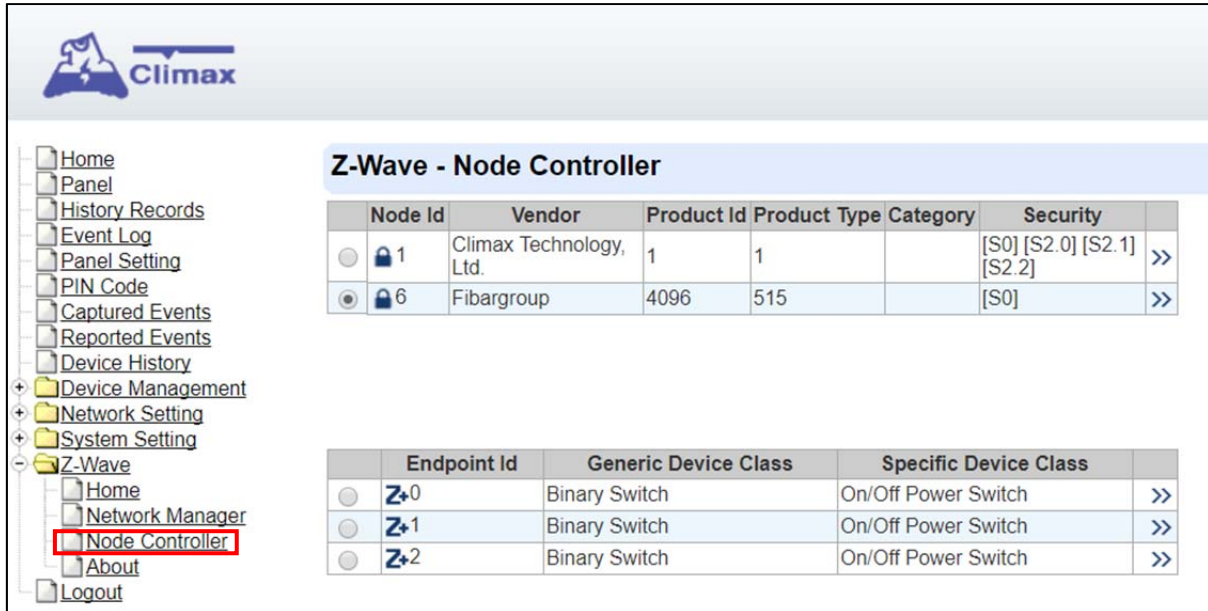


Figure 4: Node Controller Page

Clicking on the “>>” icon on the right of a node provides version information on the firmware and if it is a FLIRS or Sleeping Device.



Figure 5: Node Version/Info Page

Clicking on the “>>” icon on the right of an endpoint provides any Z-Wave Plus information.

	Endpoint Id	Generic Device Class	Specific Device Class	
<input type="radio"/>	Z+0	Binary Switch	On/Off Power Switch	>>
<input type="radio"/>	Z+1	Binary Switch	On/Off Power Switch	>>
<input type="radio"/>	Z+2	Binary Switch	On/Off Power Switch	>>

Role Type : Always On Slave  
 Node Type : Z-Wave+ node  
 Installer icon : 1792  
 User icon : 1792

Figure 6: Endpoint Z-Wave Plus Info Page

Clicking on the  icon on the right of an endpoint provides any Z-Wave Plus basic control

1. Basic Settings
2. Binary Switch Settings
3. Configuration Settings
4. Group Settings

	Endpoint Id
<input type="radio"/>	Z+0
<input type="radio"/>	Z+1
<input checked="" type="radio"/>	Z+2

Figure 7: Endpoint Z-Wave Plus Control Page select

### 5.3.1. Basic Settings

If it receives a Basic Command will *Do nothing*.

Send Get and Set command to device

Basic Settings	
Current state : Unavailable	<input type="button" value="Get"/> <span style="margin-left: 20px;">Level : 0 ▼</span> <input type="button" value="Set"/>

Figure 8: Basic Settings UI

### 5.3.2. Binary Switch Settings

Send Get and set command to device and also can do On/Off control



Figure 9: Binary Switch Settings UI

### 5.3.3. Group Setting

The user can add or remove node or endpoints (depending on interface support) to any group supported by the interface limited by its storage.

Group configuration of a node that doesn't support Association Group Information (AGI) is shown below.

Group configuration of a node that supports Association Group Information (AGI) is shown below.

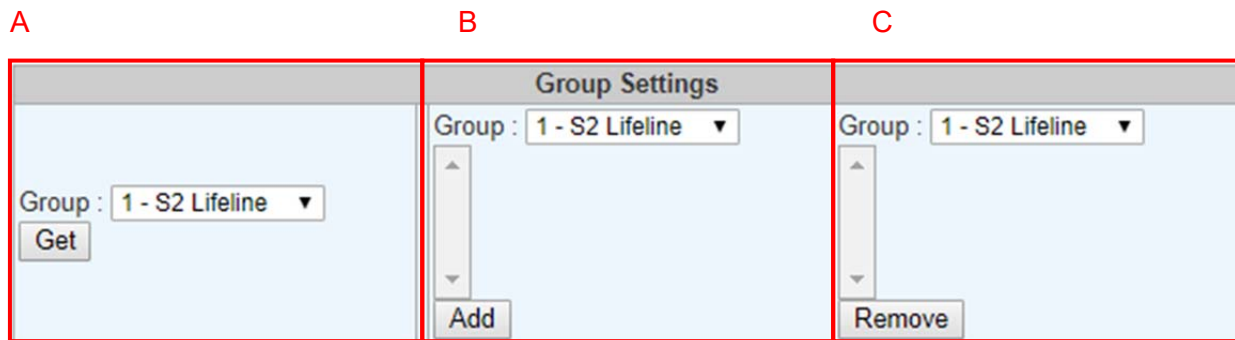


Figure 9: Group Settings UI

- A. Get group information.
- B. Add group members to group.
- C. Remove group member from group.

## 5.3.4. Configuration Settings

Configuration is a manufacturer specific setting which requires referring to the product manual. 'Size' can be specified explicitly or as the minimum size needed for the given value.

### 5.3.4.1 Set

1. Go to the device options by clicking the icon as below:

	Endpoint Id
<input checked="" type="radio"/>	Z+0
<input type="radio"/>	Z+1
<input type="radio"/>	Z+2

2. Select parameter Number and setting parameter as device operation manual description

Configuration Settings	
Parameter Number : 20 Current Value (Hex) : 00 Last Updated Time : May 09, 2018 5:24:59 PM	Parameter Number : 20 ▼ <input type="button" value="Get"/>
	Parameter Number : 20 ▼ Value (Hex) : 00 <input type="checkbox"/> Default <input type="button" value="Set"/>

3. Click

4. Waiting complete

**5.3.4.2 Get** device's operation parameter by the device operation manual.

Click

Waiting complete

Configuration Settings	
Parameter Number : 9 Current Value (Hex) : 01 Last Updated Time : May 09, 2018 5:18:26 PM	Parameter Number : 9 ▼ <input type="button" value="Get"/>
	Parameter Number : 1 ▼ Value (Hex) : <input checked="" type="checkbox"/> Default <input type="button" value="Set"/>

## 5.4. Z-Wave About

The About page displays the information obtained from the server by using zw\_info API. The information is as shown below.

The screenshot shows the Climax web interface. On the left is a navigation menu with the following items: Home, Panel, History Records, Event Log, Panel Setting, PIN Code, Captured Events, Reported Events, Device History, Device Management, Network Setting, System Setting, Z-Wave, Home, Network Manager, Node Controller, About, and Logout. The Z-Wave menu item is expanded, showing sub-items: Home, Network Manager, Node Controller, About, and Logout. The main content area displays the 'Z-Wave - About' page with the following information:

Vendor:	Climax Technology, Ltd.
Product:	HPGW/HSGW security gateway
Home Id:	C63020B4
Local Node Id:	1
Z-Wave Lib Version:	8.12

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Figure 9: Group Settings UI

## 6. System Settings

### 6.1. Administrator Setting

For setting new Administrator Log-in Name and Password. Please note both User Name and Password are **case sensitive**.

**Step 1.** Enter the preferred **User Name**.

**Step 2.** Enter the preferred **Password** in the “New Password” field and repeat the same Password in the **Repeat Password** field.



The screenshot displays the Climax web interface. At the top left is the Climax logo. On the left side, there is a sidebar menu with various options. The 'System Setting' folder is expanded, and the 'Change Password' option is highlighted with a red rectangle. On the right side, the 'Change Password' form is visible. It includes a 'User Name' field with the value 'admin', a 'New Name' field, a 'New Password' field, and a 'Repeated Password' field. Below these fields are 'OK' and 'Reset' buttons.

**Change Password**

User Name: **admin**

New Name:

New Password:

Repeated Password:

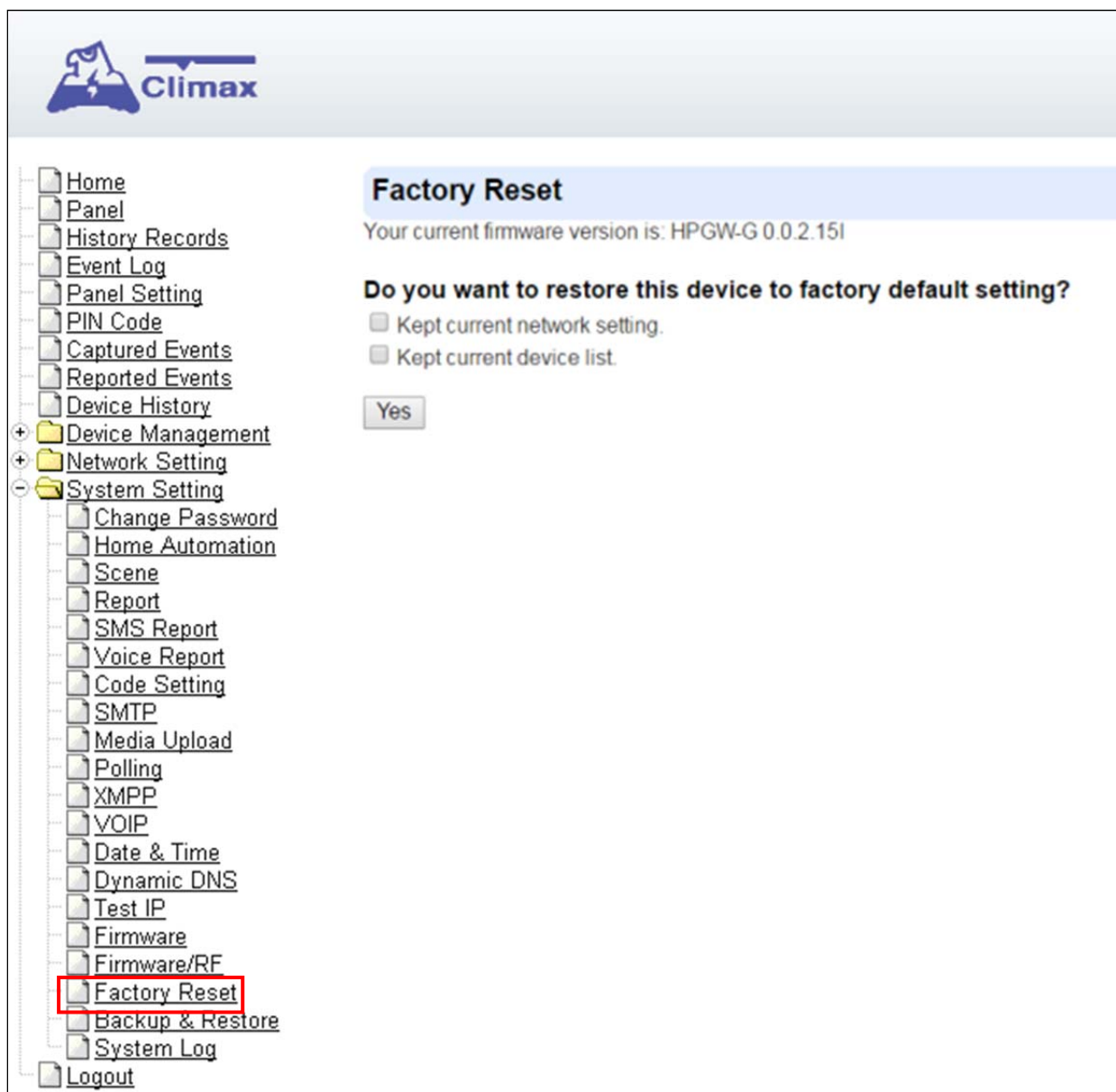
## 6.2. Factory Reset

You can clear all programmed parameters in the Control Panel and reset it to Factory Default.

Once the **Factory Reset** is executed, all the programmed settings will be returned to their default value, and all the added devices will be removed. You will need to restart the programming and adding process again.

### Remote Reset

- Step 1.** Tick the **Kept current network setting** box to keep the current Network settings. Otherwise, the system will reset its value back to factory default.  
Tick the **Kept current device list** box to keep the current added devices. Otherwise, the system will reset its value back to factory default.
- Step 2.** Press **Yes** to continue the Reset procedure.
- Step 3.** Wait for 1 min and do NOT power off during this time.
- Step 4.** Once reset is complete, it will automatically reboot the main unit.



### 6.3. Firmware Upgrade

You can update the firmware via this web page.

- Step 1.** Click on **“Browse”** and locate the latest firmware file (**“unzipped image.bin”** file) in your PC.

**Climax**

- Home
- Panel
- History Records
- Event Log
- Panel Setting
- PIN Code
- Captured Events
- Reported Events
- Device History
- Device Management
- Network Setting
- System Setting
  - Change Password
  - Home Automation
  - Scene
  - Report
  - SMS Report
  - Voice Report
  - Code Setting
  - SMTP
  - Media Upload
  - Polling
  - XMPP
  - VOIP
  - Date & Time
  - Dynamic DNS
  - Test IP
  - Firmware**
  - Firmware/RF
  - Factory Reset
  - Backup & Restore
  - System Log
- Logout

### Firmware Upgrade

This page applies a firmware update to your alarm panel. You should only apply updates with the correct firmware.

Your current firmware version is: HPGW-G 0.0.2.6C

Firmware File:  No file chosen

To locate the correct file, click on the browse file button and find the directory you downloaded it to. Click on the file and then OK. When the filename appears in the box, click the apply button. DO NOT interrupt the update process.

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**Step 2.** Press “**Apply**” to upload the latest firmware to Control Panel

**Step 3.** Wait for 1 min and do NOT power off during this time.

**Step 4.** Once Firmware upgrading is complete, the Control Panel will reboot automatically