

WiFi/Zigbee Gateway user manual Mode:GWZ2100



Manual overview

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Handbook amendments

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Directory

Product overview

Specification	
Context	5
System	5
Function	5
Installation (for quickly setting)	
Gateway connection set	6
Gatway basic group State set	7
WIFI wireless network established	8
Zigbee sensor pairing	9
WAN Internet set	10
Config backup set	11
camera setting	11
Detailed function	
HES Settings (HES Gateway basic parameter)	
ZigBee (Zigbee wireless signals)	14
IP Camera Settings (IP camera set)	16
Wireless (Wi-Fi wireless network)	16
IPv4 Network Settings (IPv4 network set)	19
VPN Settings (Agent server set)	22
Management (State Management)	22
Logout (cancellation)	27



Product overview

Package contents

Gateway Host, power supplies adapter DC12V/1A X1, and 3dB Antenna X2, the instructions say this

Function overview

Through Zigbee smart management architecture based on the agreement, which applies to indoor advantage, integration of TCP/IP concepts, using Wi-Fi through wireless data collector link Ethernet to cloud background, offering users surveillance, monitoring, calculation, analysis services, and then with the HMI Interface, smart device zero interaction with the user, a smart home management system distribution, however.

Features

- Via Ethernet, local area network, WLAN, and LAN Ethernet complete IPv4/IPv6 network connection
- This device is looking forward to cure network commands and Web user interface support
- Secure server identity authentication and connection
- Reliable control and rapid response program logic controls
- Keep 32 nodes in wireless sensor networks, maximum expandable up to 64 nodes
- Pairing simplified Network Setup for wireless sensor networks
- ActiveSync to manage data and status between the WAN and local managers
- Support USB PORT can connect pen drive



Installation (for quickly setting)

Gateway Connect DC power supply after about 30 seconds: normal operation, Please note the following new devices what time:

- 1. Wi-Fi functionality is not turned on , use a cable way to do set up for the first time.
- 2. LAN 's factory default IP to 192.168.5.1
- 3. User ID: Admin / password: 123456

First, Gateway connection setting

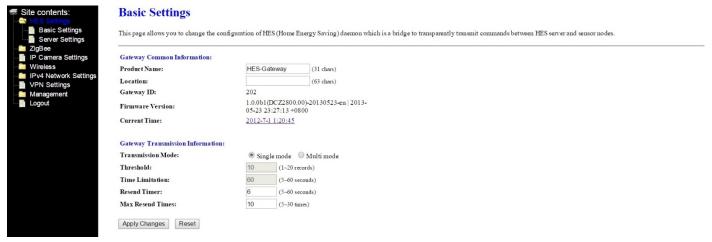
- 1. Use a CAT5 network cable, one end connected Gateway LAN, connect one end of your network card.
- 2. Open up your Control Panel > network and sharing Center > change adapter settings > you are connected to the network card > right mouse button.
- 3. Confirm that your network card is the IPv4 DHCP (Automatic IP, Gateway distribution).
- 4. Or manually set to the 192.168.5.X segments (the x stands for any number, not with the same equipment, such as $2 \sim 199$).
- 5. Open your browser (IE or Chome)
- 6. At the URL input 192.168.5.1 (Gateway IP), and press Enter.
- 7. Show login authentication screen, enter your account number: Admin password: 123456
- 8. Login complete show Gateway present information, as well as set menus.

Second, the Gatway basic configuration settings

**HES Settings > Basic Settings

Product Name: This way you can freely enter the project name (limited English and Arabic numerals)

Location: Improvised narrative installation (limited English and Arabic numerals)



XHES Settings > Server Settings

Enable Management Server (this option Select the checkbox to enable this feature)
Auto Account Generation (not checked, logged in using a personal account)



Username: Service and enter your registered account (31 chars)

Password: Enter your service provider registration password (31 chars)

Server Address: 60.251.200.67 or eHome.sensingtek.com

Server Listen Port: 3000



Third, the WIFI wireless network set up

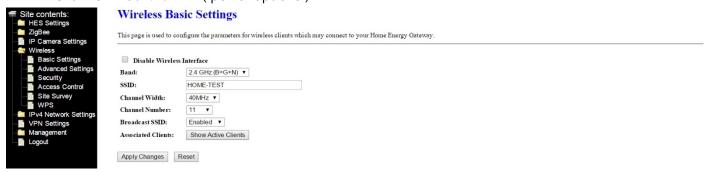
***Wireless Basic Settings**

Disable Wireless Interface (this option checked and turned off the Wi-Fi function, Please check the open Wi-Fi)

Band :: 2.4 GHz (B+G+N) (using different modes)

SSID: Set you want to use Wi-Fi name (letters and numbers)

Channel Width: 40MHz (power options)



****Wireless Security Setup**

Encryption: WPA2

Authentication Mode: Personal (Pre-Shared Key)

WPA2 Cipher Suite: AES

Pre-Shared Key Format: Passphrase (password-sharing system, necessary)

Pre-Shared Key: Set your wireless network password (secret keys to a total of ten characters)

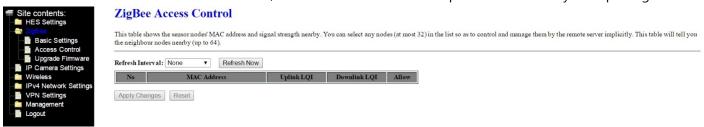


Wireless Security Setup

This page allows you setup the wi	reless security. Turn on WEP or WPA by using Encryption Keys could prevent any unauthorized access to your wireless network.
HOME-TEST ▼ Apply Ch	nanges Reset
Encryption:	WPA2 ▼
Authentication Mode:	© Enterprise (RADIUS) ® Personal (Pre-Shared Key)
WPA2 Cipher Suite:	□ TKIP ♥ AES
Pre- Shared Key Format:	Passphrase ▼
Pre-Shared Key:	

Four, Zigbee sensor pairs

- *Zigbee sensor (temperature, humidity, smart Sockets, alarms, smoke detectors, carbon monoxide detection, PIR And so on).
- * The new sensor has not been paired, while operating in the power transmission for the first time automatically with your Gateway pairing, pairing simply follow the steps again to reconnect the sensor Rester can match mode is entered automatically, and to complete the pairing.
- * The match started advising you to Gateway with a sensor is placed in your hand, in order to facilitate confirmation information.
- ** The pairing process begins first Gateway transmission operation , login to Zigbee Access Control page .
- * Reference sensors Sensor Reset , Reset transmission will take place automatically after pairing.



* Use the Refresh Now to update the page and check the sensor MAC Address confirm pairing is successful or not.



X Matched Sensor, at this point in the Allow column check enabled (uncheck the causes APP program does not display), and then click

Apply Changes Store settings, you can complete all the matching operation.

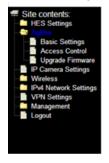


ZigBee Access Control

This table shows the sensor nodes' MAC address and signal strength nearby. You can select any nodes (at most 32) in the list so as to control and manage them by the remote server implicitly. This table will tell you the neighbour nodes nearby (up to 64).



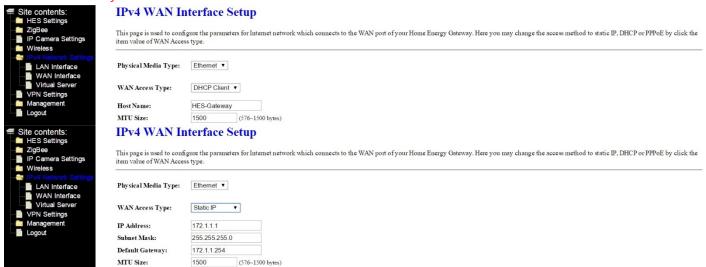
* Each row in the list represents the sensor, pairing complete recall checked Allow and press Apply Changecompleted.





Five, WAN Internet setting

- **Gateway Ethernet settings through DHCP (floating IP), and Static IP (fixed IP), and PPPoE (dial)
- * Please choose one according to your Internet habits online.
- ****Gateway** is a substitute home AP external connected device.



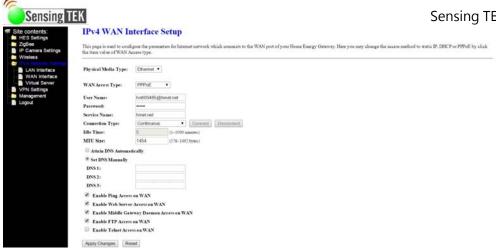
** Recommended regardless of the connection mode selection, we recommend you the following features enabled all checked.

Enable Ping Access on WAN

Enable Web Server Access on WAN

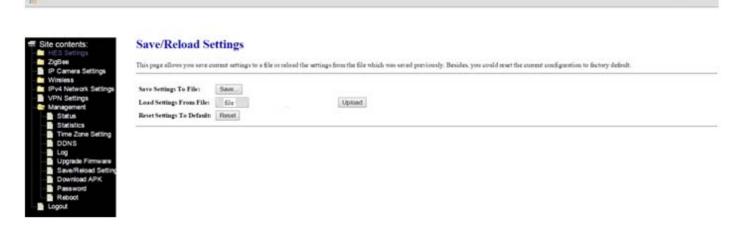
Enable Middle Gateway Daemon Access on WAN

Enable FTP Access on WAN



Five, Config configuration file backup sets

X You can backup all your saved settings, to facilitate response to demand to use it again.
Management options select Save/Reload Settings > Save Settings To File: click SAVE path selection screen appears in the box, you select path and press the store button to complete the backup operation.



Six, camera setting

- X Please refer to the camera's manual through the Wi-Fi settings and Gateway online.
- * The online way to use WPS quickly online, enter the camera changed to a fixed IP, and the date is automatically updated.
- ** To go back to Gateway settings page of IP Camera Settings you set the login account and password for the camera to fill

Username: (31 chars) / Password: (31 chars) Click Apply Changes store settings, you can finish setting, set successful camera will appear in the list.



Sensing TEK Gateway User manual V1.0

IP Camera Settings

This page show the IP cameras nearby up to 16. The username and password is used for authentication to access the resource on cameras, for instance image capturing, video recording, etc. Per camera information is shown, such as IP address, MAC address, device name and alias name. If the camera failed to get IP address from gateway, there will be no detail icon for you to test the function of capturing. Each camera can have its own alias name assigned by you for being recognized easily.

Username:	:	(31 chars)			
Password:		(31 chars)			
Scan					
# IF	PAddress	MAC Address	Device Name	Alias Name	Detail
1 192	2.168.5.199	28:10:7B:02:36:30	DCS-932L		9



Detailed function

SensingTEK Gateway

Site contents:

- 1. HES Settings (HES Gateway basic parameters)
 - 1.1. Basic Settings (basic settings)

This page allows you to change the HES(Home Energy Saving) the basic configuration settings, Gateway is a bridge designed to transport HES server and Sensor sensor commands among the nodes.



Gateway Common Information:

Product Name: (Product name, you can enter 31 chars except for special symbols)

Location: (Install location, you can enter a 63 chars except for special symbols)

Gateway ID: (The Gateway ID number, the factory default and cannot be modified)

Firmware Version: (Firmware version)

Current Time: (System time)

Gateway Transmission Information:

Transmission Mode: Single mode (stand-alone mode, the factory default) Multi mode (multiple

models)

Threshold: (Factory default, no modification)

Time Limitation: (Factory default, no modification)

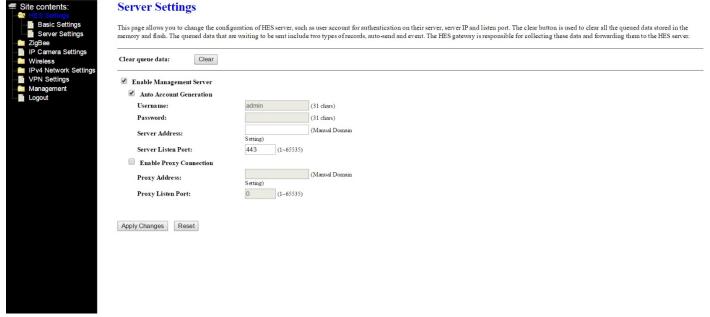
Resend Timer: (Reverberation time again, the scope of $5\sim60$ seconds, default 6) Max Resend Times: (Maximum feedback time, range $5\sim30$ times, default 10)



1-2. Server Settings (server settings, upload their data to the cloud)

This page allows you to change the basic configuration settings for connecting to the server, such as a user through the server's authentication configuration data to the server in the cloud measured is recorded and utilized.

For example: Wireless socket power consumption data upload to the server in the cloud through software can be recorded into history data in the cloud, a calculation of the cost of the electricity bill. Clear button to clear the stored in the memory and all sensors record data in Flash memory.



Before enabling this data back to the cloud feature, and must be obtained from the service provider registration uses the account and password.

Enable Management Server (whether to return data to the cloud server is enabled)

Auto Account Generation (If the owner of the server cloud accounts, this option is not checked)

Username: (Account number, you can enter 31 chars)

Password: (Password, you can enter 31 chars)

Server Address: (Server domain or IP, Manual Domain Setting, the default eHome.sensingtek.com)

Server Listen Port: (Datagram sockets, 1~65535, default 3000, no proposed changes)

(Cloud server socket port 3000, tampering will cause information to be normal, then fax it to the cloud server.)



2. ZigBee (Zigbee wireless signals)

2-1.Basic Settings (ZigBee basic configuration settings)

This page allows you to change the ZigBee network configuration.

(11~25)



ZigBee Settings This page allows you to change the configuration of ZigBee network. PAN ID: 1052 Application ID: 13238273 Coordinator MAC: bc4N79020000041c Firmware Version: 2.1.5 Group ID: 47225 (1-65534)

Apply Changes Reset

Channel ID:

PAN ID: (Factory default / no modification)

Application ID: (Factory default / no modification)

Coordinator MAC: (Factory default / no modification)

Firmware Version: (Firmware version)

Group ID : ($1\sim65534$), and(using the factory default can be subject to change sensor needs to match

what has been paired.)

Channel ID: (11~25), and(using the factory default can be subject to change sensor needs to match

what has been paired.)

2-2. Access Control (Zigbee pairing settings)

The table displayed in the vicinity of the sensor node's MAC address and signal strength. You can select any node in the list (up to 32), in order to control and manage them by the remote server. The table will tell a neighbor near you (up to 64).

Pairing successful Zigbee sensor included in the table, pairing process can use Refresh Now to update to see if the new success, new device if you want displayed in the APP must be in the unit Allow tick option is enabled.



ZigBee Access Control

This table shows the sensor nodes' MAC address and signal strength nearby. You can select any nodes (at most 32) in the list so as to control and manage them by the remote server implicitly. This table will tell you the neighbour nodes nearby (up to 64).



2-3. Upgrade Firmware (Zigbee firmware version update)

This page allows you to upgrade the ZigBee firmware version.

Update procedure make sure that the Gateway cannot have power failure happens, in order to ensure normal operation of the system.



Upgrade ZigBee Firmware

This page allows you to upgrade ZigBee famouse (it could be for a specific type of tensor according to the famouse you provide se coordinator. For instance, uplanding a meter famouse will upgrade all the online meters but not inclode the other type of sensors, work as Siren, PSR. . etc.) to never version. Please note, do not power off the device thring the opdate because it may be handful to the ZigBee system.

Select File:

Upload

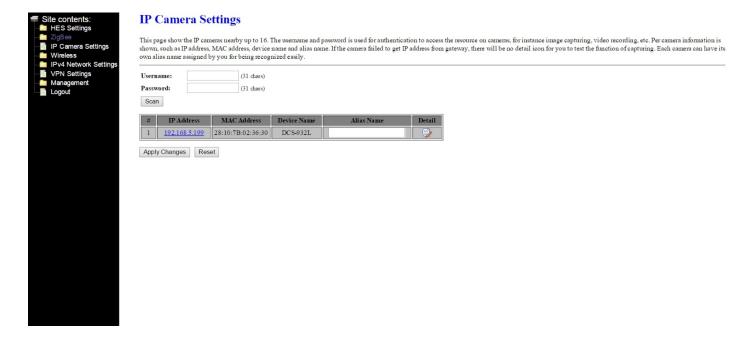
Reset



3.IP Camera Settings (IP camera settings)

This page displays and supports 10 IP cameras online, which IP camera should first of all as a matched set, such as a user name and password for authenticated access to resources of the camera.

This table displays the IP address, MAC address, device name, and alias. If the camera is not in this successful pairing in the APP to use its functionality.



4. Wireless (Wi-Fi wireless network)

4-1.Basic Settings (wireless network basic settings)

This page is used to configure client parameters are set, such as Wi-Fi enabled and shuts down, SSID, channel, ... And so on.



Wireless Basic Settings

This page is used to configure the parameters for wireless clients which may connect to your Home Energy Gateway.

Disable Wireless Interface

Band: 2.4 GHz (B+G+N) ▼

SSID: HESGW00120ef6a295

Channel Width: 20MHz ▼

Channel Number: 11 ▼

Broadcast SSID: Enabled ▼

Associated Clients: Show Active Clients

Reset

Disable Wireless Interface (Open / Wi-Fi feature on or off, default is off)

Band: (Signal mode), 2.4 GHz (b, andg, andn or multiple optional)

SSID: (Wireless network name)

Channel Width: (Power 20MHz, and 40MHz optional)

Channel Number: (Wireless networking channel Autoand the 1 and the 2 ~ 11 optional)

Broadcast SSID: (Webcast features Disabled, and Enabled)

(Must be Enabled, otherwise you cannot search network.)

Associated Clients: (Lists the devices through this network link)

4-2. Advanced Settings (wireless network advanced settings)

These settings only apply to users of wireless technology is enough.

Unless you know and understand the following settings on the Gateway: what impact, such as signal strength ... And so on.



Wireless Advanced Settings

These settings are only for Energy Gateway.	more technically advanced users who have a sufficient knowledge about wireless. These settings should not be changed unless you know what effect the changes will have on your Home
Fragment Threshold: RTS Threshold:	2346 (256-2346) 2347 (0-2347)
RF Output Power:	● 100% ○ 70% ○ 50% ○ 35% ○ 15%
Apply Changes Res	set



4-3. Security (wireless network security password settings)

This page allows you to set up your wireless network's security mechanisms.

By using the enable WEP or WPA encryption key you can prevent unauthorized access to your wireless network.

Encryption: (Encryption mode, Disable, and WPA, and WPA2, and WPA2-Mixed)

Authentication Mode: (Certification model Enterprise RADIUSand the Personal Pre-Shared Key, by default, Personal)

Pre-Shared Key Format: (Coded Passphrase, and HEX 64 characters, the default Passphrase necessary setting.)

Pre-Shared Key: (Password)



4-4. Access Control (wireless network access control)

Used to manage and control the devices that can access the network.

Sensing TEK	Sensing TEK Gateway User manual V1.0
Site contents: ■ HES Settings ■ HES Tellings ■ H	Wireless Access Control
☐ ZigBee ☐ IP Camera Settings ☐ Wireless	If you choose 'Allowed Listed', only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Home Energy Gateway. When 'Deny Listed' is selected, these wireless clients on the list will not be able to connect the Home Energy Gateway.
Basic Settings Advanced Settings Security	Wireless Access Control Mode: □Disable ▼
Access Control Site Survey	MAC Address: (20 chars)
□ □ □ □ WPS □ □ □ IPv4 Network Settings □ □ VPN Settings	Apply Changes Reset Reset
Management Logout	Current Access Control List: # MAC Address Comment Select
	Delete Selected Delete All Reset

Wireless Access Control Mode:

Disable: (Turning off this feature)

Allow Listed: (Via MAC identification devices in the list are allowed online-only access to this network.)

Deny Listed: (Via MAC identification equipment online in the list are not allowed to access the

network.)

4-5.Site Survey (wireless network scan)

This page is covered in the available tools are available to scan for nearby wireless networks and the wireless information networks; provide users reference when setting up a wireless network, you can avoid the same set of name, channel interference ... And so on.



Wireless Site Survey

This page provides tool to scan the wireless network

SSID BSSID Channel Type Encrypt Signal

4-6.WPS (WIFI Quick Online Setup)

This page allows you to change the settings of the WPS. Using this feature allows you to keep your wireless device in less than a minute can be connected and connected to the network.



Wi-Fi Protected Setup

This page allows you to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client automatically synchronize its setting and connect to the Home Energy Gateway in a minute without any hassle.

Disable WPS

Apply Changes

Reset

WPS Status:

Configured

UnConfigured

Self-PIN Number:

94205657

Push Button Configuration:

Start PBC

Client PIN Number:

Start PIN

5. IPv4 Network Settings (IPv4 Network Setup)

5-1.LAN Interface (IPv4 LAN ports, internal network settings)

This page is used to configure the parameter, connects to your home energy gateway's LAN port LAN. Here, you can change the settings of IPv4 editorial office address, subnet mask, and DHCP and so on.





IPv4 LAN Interface Setup

				. Siconomic Sico		-	200	sk, DHCP, etc
IP Address:	192.168.5.1							
Subnet Mask:	255.255.255.0							
DHCP:	Server ▼							
DHCP Client Range:	192.168.5.100	- 192.168.5.200	Show Client					
Domain Name:								
Apply Changes Res	set							

IP Address: (IP address, default 192.168.5.1)

Subnet Mask: (Network mask, and the default 255.255.255.0)

DHCP: (DHCP mode, Disabled, and Server mode can be selected, if need to

assign IP selected Server mode)

DHCP Client Range: (Assigned IP range setting)

Domain Name: (Domain settings)

5-2.WAN Interface (IPv4 WAN port external networking settings)

This page is used to configure WAN parameters let your Gateway through the WAN port can be connected to the Internet.

Here, you can change the access method for the static IP,DHCP or PPPoE single online.

Site contents: HES Settings	IPv4 WAN Interface Setup					
ZigBee IP Camera Settings Wireless	This page is used to configure the parameters for Internet network which connects to the WAN port of your Home Energy Gateway. Here you may change the access method to static IP, DHCP or PPPoE by click the item value of WAN Access type.					
IPv4 Network Settings LAN Interface WAN Interface	Physical Media Type: Ethemet v					
Virtual Server VPN Settings	WAN Access Type: □HCP Client ▼					
Management Management	Host Name: HES-Gateway					
Logout	MTU Size: (576–1500 bytes)					
	® Artain DNS Automatically					
	Set DNS Manually					
	DNS 1:					
	DNS 2:					
	DNS 3:					
	Enable Ping Access on WAN					
	Enable Web Server Access on WAN					
	Enable Middle Gateway Daemon Access on WAN					
	Enable FTP Access on WAN					
	Enable Telnet Access on WAN					
	Apply Changes Reset					

Physical Media Type: (Internet online mode, and Ethernet, and WiFi)

WAN Access Type: (WAN connection types, Static IP fixed IP and the DHCP Client automatically, and PPPoE dialup)

Enable Ping Access on WAN (enable Ping links, it is recommended that check)

Enable Web Server Access on WAN (enable support WEB pattern links, it is recommended that check)



Enable Middle Gateway Daemon Access on WAN (enable Gateway program links built in, it is recommended that check)

Enable FTP Access on WAN (enable FTP mode links, it is recommended that check) Enable Telnet Access on WAN (enable Telnet mode links)

5-3. Virtual Server (virtual server)

This feature provides a place for IP address can be in the same IP zhixia, using a different Port port numbers to distinguish between different services, so as to achieve the function of external or internal single channel.

For example:192.168.0.1:80 or 192.168.0.1:10000 single IP can have different services.

When your device is placed in the other Gateway, and AP devices, Firewall IP correspond or transfer port have to be set.



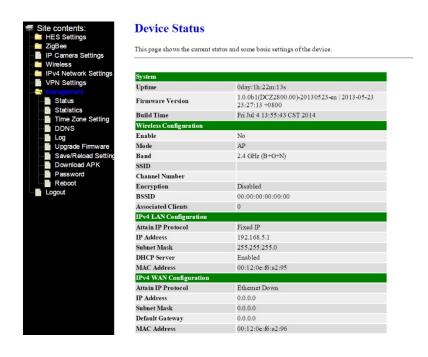
6. VPN Settings (proxy settings)

This page is used to enable / disable the VPN feature, and select Add / edit / remove the connection of the VPNproxy.



- 7. Management (configuration management)
- 7-1. Status (Gateway device status)

This page displays the current status and some of the basic settings for the device.



7-2. Statistics (network statistics)

This page displays all wired, wireless, sensor, Ethernet packet statistics.



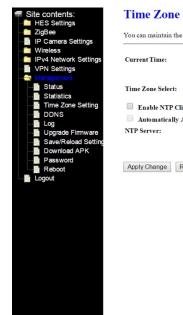
Statistics

This page shows the packet counters for transmission and reception regarding to wireless, WSN and Ethernet networks.

Ethernet LAN	Sent Packets	7422	
Ethernet LAN	Received Packets	7670	
Ethernet WAN	Sent Packets	0	
Ethernet WAN	Received Packets	0	
wex	Sent Packets	15	
WSN	Received Packets	15	

7-3. Time Zone Setting (time / time zone settings)

You can enable Internet time servers synchronize system time.



Time Zone Setting



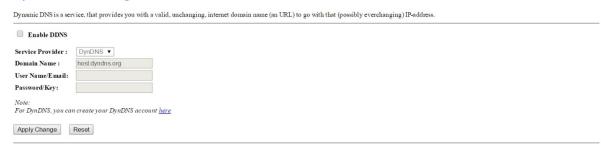
7-4.DDNS (dynamic DNS settings)

Dynamic DNS is a service, which provides an effective and constant, domain name (URL), this feature is available through the domain name corresponding to a floating IP transformation brings problems.



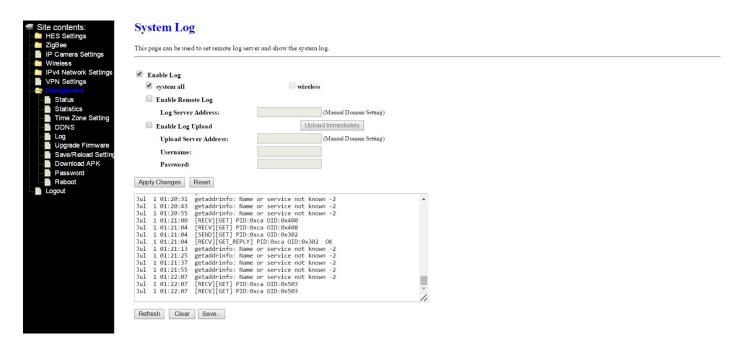


Dynamic DNS Setting



7-5.Log (Gateway records)

Operation of the system event log for engineering analysis or judgment system operates in practice.



7-6. Upgrade Firmware (Gateway firmware version update)

This page allows you to upgrade the Gateway 's firmware version; please note that in the process of upgrading to the new version to keep power shall not be cut off, otherwise it will cause the system to



not function.



7-7.Save/Reload Settings (saved / overload to set)

This page allows you to set the parameters of downloaded files saved, of course, can use this feature to restore to its original settings.





This page allows you to download E-Home software can use the Android device.



Download E-Home Software

Download Android APK For Tablet: Download

This page allows you to downlaad E-Home software which can be used by Android devices

7-9.Password (login password / change)

This page is used to set the user access Gateway required authentication password.

Login account provides both an Admin (top right), a user (some functions shielding)

User Name: Admin (Manager / factory default)

Password: 123456 (factory default)

User Name: User (user / factory default)

Password: User (factory default)



Password Setup

This page is used to set the account to access the web server of Home Energy Gateway.

User Name:

New Password:

Confirmed Password:

Apply Changes

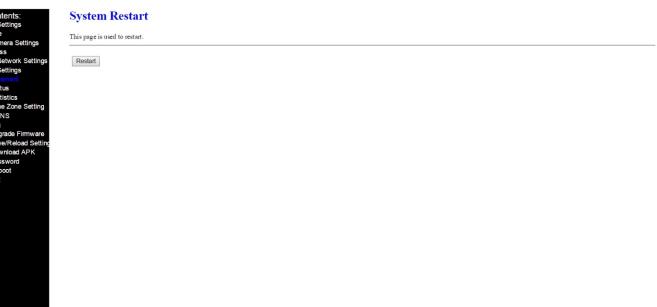
Reset

7-10.Reboot (restart the Gateway)



This page is used to restart the Gateway, please confirm any changes before you restart settings have been stored.





8. Logout (cancelled)

Cancellation of Gateway WEB page.



Logout		
This page is used to logout.		
Do you want to logout ?		
Apply Change		



FCC Statement

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 and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, 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 turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

This device complies with Part 15 of 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.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate this equipment.

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

SAR Statement

The MPE meet the requirements when device maintain a distance more than 20cm from the body. Device should Installation at a place more than 20cm from the body all the time. Any modified to the device (e.g. add metallic components, replace antenna) may cause it not comply with FCC RF exposure requirements, and should be avoided.