

※※※CAUTION※※※

Caution content: changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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 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.

Asoka USA PlugLAN™

PL8651-RSB PLC Turbo Smart RS-Bridge

User's Manual

Version: 1.01a

© Copyright 2005. Asoka USA Corportation. All rights reserved .Asoka USA reserves the right to modify product offerings or specifications without advance notice. No part of this publication may be produced in any format without the express written permission of Asoka USA Corporation.

1. Introduction.....	4
1.1 Features	4
1.2 Package	5
2. Hardware Installation.....	5
2.1 The Front Panel.....	错误! 未定义书签。
2.2 Connect Device and PC	5
3. Smart Bridge Configuration.....	5
3.1 Login.....	6
3.2 System.....	6
3.2.1 System Details.....	6
3.2.2 System Password.....	7
3.2.3 System Logs.....	8
3.2.4 System Reset.....	8
3.2.5 System Backup.....	9
3.2.6 Firmware upgrade	10
3.3 Advanced.....	12
3.3.1 SNMP Configuration.....	12
3.3.2 Relay Control	13
3.4 IP ADDRESS	14
3.4.1 IP Address	14
3.5 POWER LINE.....	15
3.5.1 Password Setting.....	15
3.5.2 Device Scan.....	16

Technical Support

You can download latest software from our website. If you have any question or difficulty during installation or using PlugLAN™ PL8651-RSB, please contact our technical support engineer.

About User's Manual

User's Manual of PL8651-RSB is released in **August, 2008**, the version is 1.01a. This manual illustrate how to installation and configure PL8651-RSB. Please spend some time to read this manual before using our smart bridge.

1. Introduction

Thanks for your selection of Asoka USA PlugLAN™ PL8651-RSB. We are devoting to provide powerful, high-performance and applied power line networking system. The product is designed for hotel, office, apartment . It provides a full commercial network solution with PLC technique.

1.1 Features

- Complies IEEE 802.3, IEEE 802.3u, IEEE802.3x, IEEE 802.3z/ab standards
- Complies with IEEE802.1Q VLAN tag
- Complies with HomePlug 1.0
- Supports QAM 256/64/16,DQPSK,DBPSK and ROBO modulation schemes
- Supports OFDM with patented signal processing techniques
- Supports up to 85M bps with PLC
- Supports SNMP
- Supports RIPV1/2 including static routing and dynamic routing
- Supports Web-based GUI (CGI , SSL)
- Supports TFTP for firmware upgrade
- Supports RS232/RS485 industrial interface

1.2 Package

Please make sure the package with contents as below:

- 1 PL8651-RSB (PL8651-RS1 or PL8651-RS2)
- 1 CAT-5 UTP Cable
- User's Manual
- 1 CD with Product Document
- 1 202 thermostat board

If you find any item as upper lost or damaged, please contact the local sales.

2. Hardware Installation

2.1 Connect Device and PC

- a. Connect PL8651-RSB to AC power lines(just plug it into the AC plug if use PL8651-RS1, but connect the wires to other connectors if use PL8651-RS2).
- b. Connect the smart bridge to a PC or Laptop with CAT5 cable through RJ45 port.

c. Set network configuration of PC to communicate with the smart bridge. The default IP address of the smart bridge is as below:

- Default LAN IP address: 192.168.1.253

d. Power on the smart bridge, Use command “ping” in PC side to test the connection between the Gateway and PC. For example, you connect PC to LAN port, the IP address of PC should be set to “192.168.1.x” ($1 < x < 255$ and $x \neq 253$), the network mask is “255.255.255.0”.

2.2 Connect Device and thermostat board

- a. Plug the cable connector into the connector on the device.

3. Smart Bridge Configuration

The Smart Bridge provides Web-based GUI for user to configure the device. It means user can use any web explorer (Internet Explorer ,Netscape Communicator etc.) to implement configuration of PL8651-RSB.

3.1 Login

Connect monitor PC to RJ45 port, Start web explorer program, input corresponding IP address of the smart bridge, then will display login page as Figure 1, input correct User ID & Password, then can enter management interfaces.

Please enter **User ID** and **Password** and click **Login**.

User ID:

Password:

Figure 1. system login

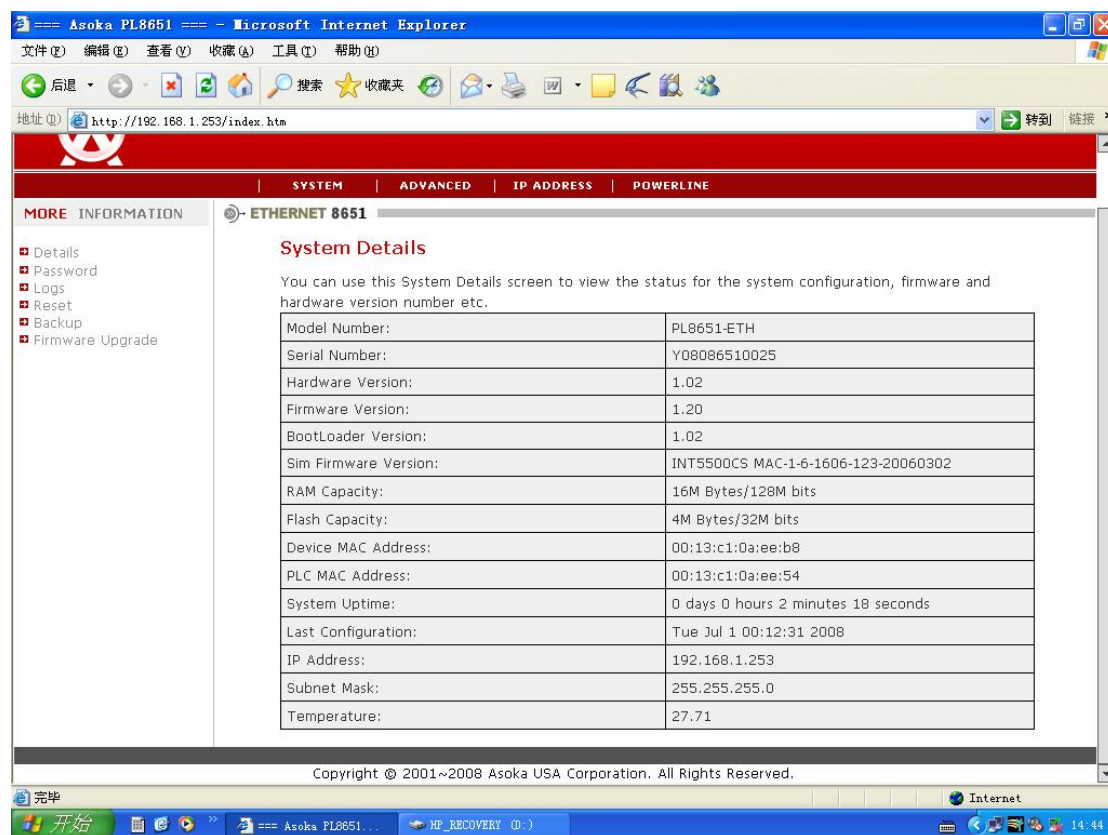
The default User ID is “admin” and the default Password is “welcome”. Please remember to modify User ID and Password after you login successfully first time.

3.2 System

System configuration provides interface to view the general configuration and status and set general configuration of the device including Date & Time, Password & User ID etc. It also provides interface to backup configuration, reset system, update firmware etc.

3.2.1 System Details

When you login the web-based GUI of PL8651-RSB, The pages as below will be shown as Figure 2 of the system details including status and basic configuration.



The screenshot shows a web browser window displaying the 'System Details' page for the Asoka PL8651. The page has a red header with navigation tabs: SYSTEM, ADVANCED, IP ADDRESS, and POWERLINE. A left sidebar contains a 'MORE INFORMATION' section with a tree view of options: Details, Password, Logs, Reset, Backup, and Firmware Upgrade. The main content area is titled 'System Details' and includes a brief description: 'You can use this System Details screen to view the status for the system configuration, firmware and hardware version number etc.' Below this is a table of system parameters.

Model Number:	PL8651-ETH
Serial Number:	Y08086510025
Hardware Version:	1.02
Firmware Version:	1.20
BootLoader Version:	1.02
Sim Firmware Version:	INT5500CS MAC-1-6-1606-123-20060302
RAM Capacity:	16M Bytes/128M bits
Flash Capacity:	4M Bytes/32M bits
Device MAC Address:	00:13:c1:0a:ee:b8
PLC MAC Address:	00:13:c1:0a:ee:54
System Uptime:	0 days 0 hours 2 minutes 18 seconds
Last Configuration:	Tue Jul 1 00:12:31 2008
IP Address:	192.168.1.253
Subnet Mask:	255.255.255.0
Temperature:	27.71

Copyright © 2001~2008 Asoka USA Corporation. All Rights Reserved.

Figure 2. system details

- From the page, we can find that there is one main menu in the upper part for configuration.
- The submenu in the left part of the page show all items for each menu selected.

3.2.2 System Password

To change User ID or Password of the gateway, click submenu “SYSTEM->password”, the page as Figure 3 will display.

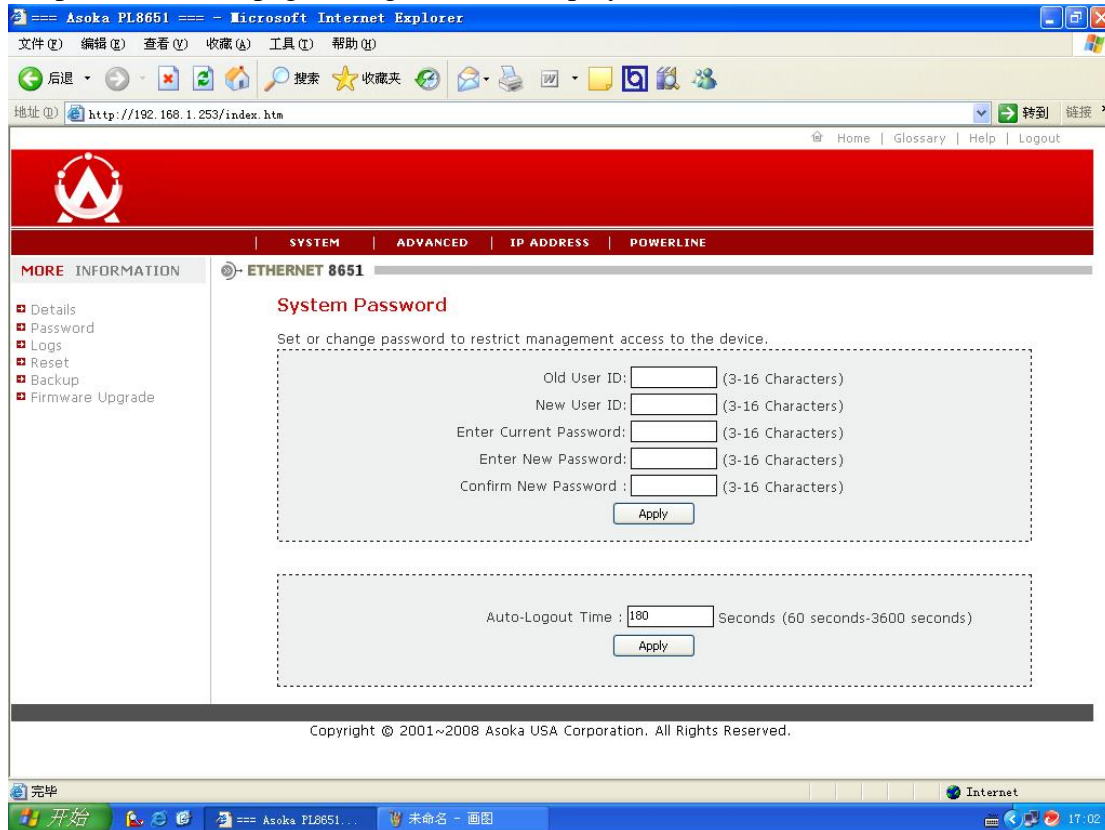


Figure 3. access configuration

- Input old user id in the first text box
- Input new user id in the second text box (input old user id means keep user id without change)
- Input current password in the third text box
- Input new password in the fourth text box
- Reinput new password in the fifth text box
- Click button ‘Apply’ begin set new user id or password, then a new page will show the result of the setting

3.2.3 System Logs

To view the system logs and set some parameters of logs, click submenu “SYSTEM->System Logs”, a page as Figure 4 will display.

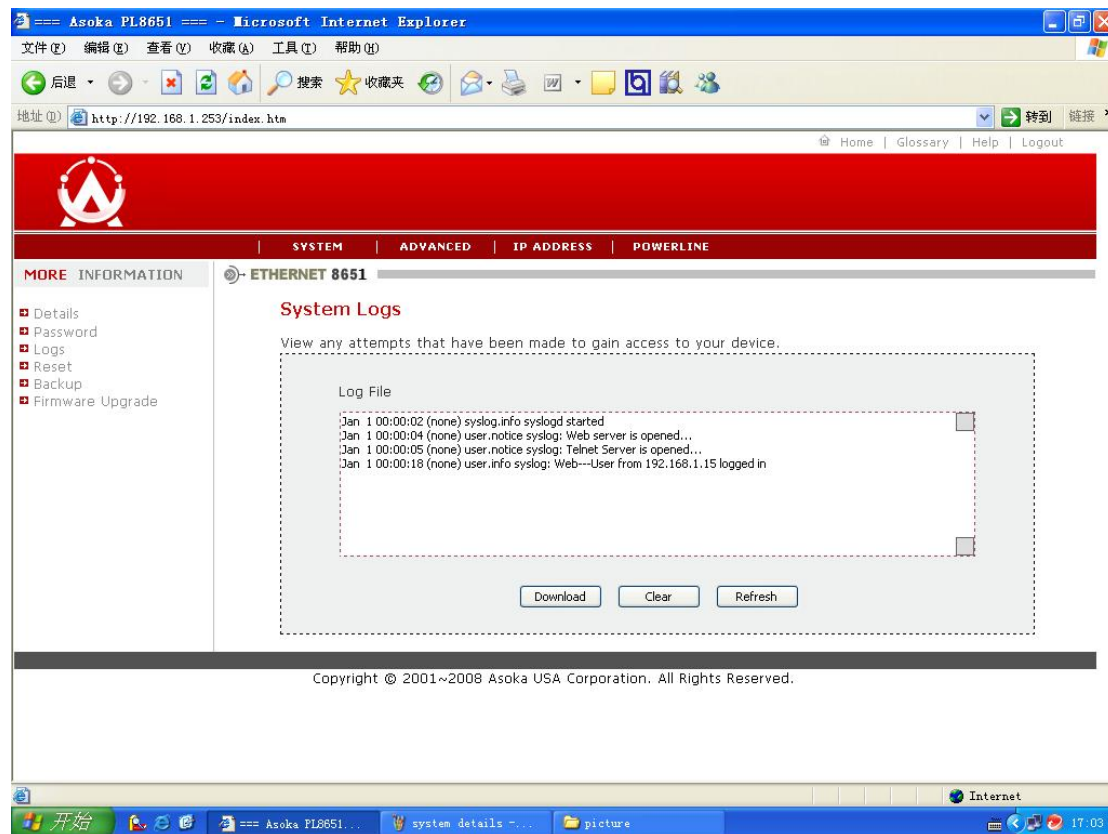


Figure 4.

- The upper list box shows the current system logs
- Click button “Download”, a dialog will display to begin log file downloading
- Click button “Clear” to delete all current logs
- Click button “Refresh” to refresh this page to show latest logs

3.2.4 System Reset

To reset the smart bridge or set the configuration to factory default, click submenu “SYSTEM->Reset”, a page as Figure 5 will be shown.

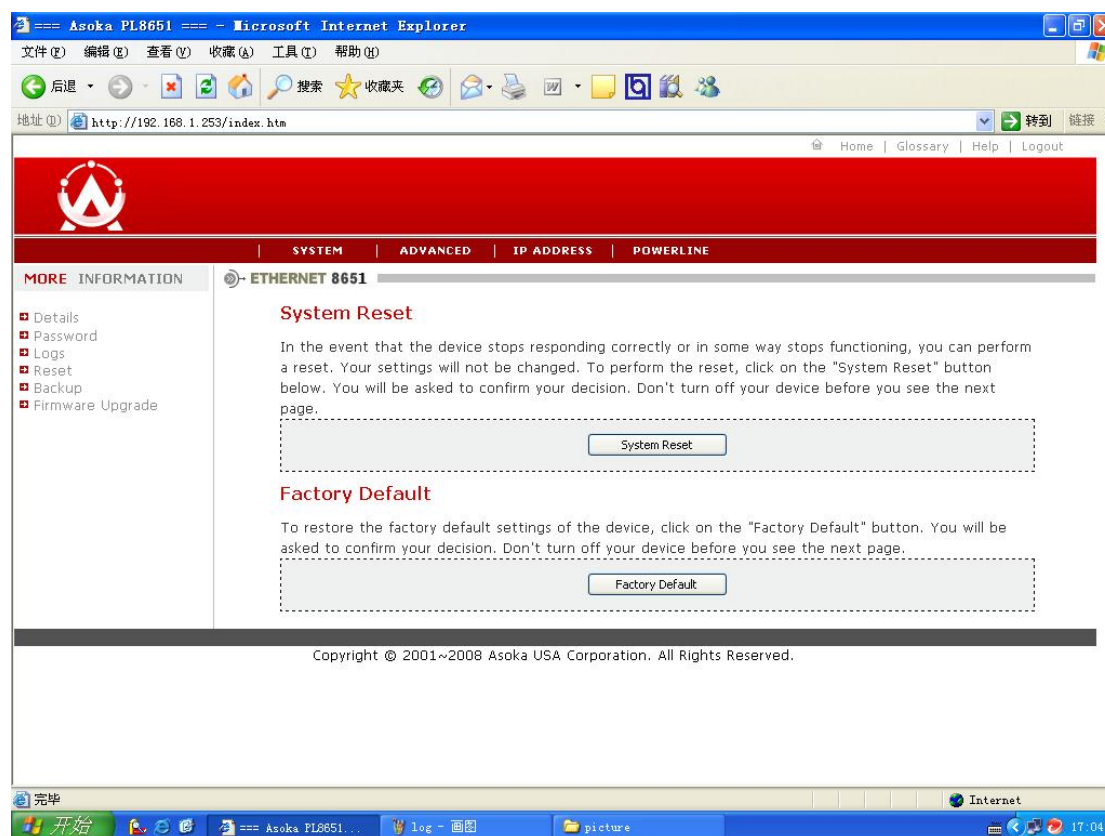


Figure 5. System reset

- To reset system, click button “System Reset”. If you confirm your decision, please wait a minute for the system reboot.
- To restore the factory setting to the gateway, click button “Factory Default”. If you confirm your decision, please wait a minute because the system need to be reboot.

3.2.5 System Backup

To save the system configuration or restore the system configuration with saved file, click submenu “SYSTEM-> Backup”, a page as Figure 6 will be shown.

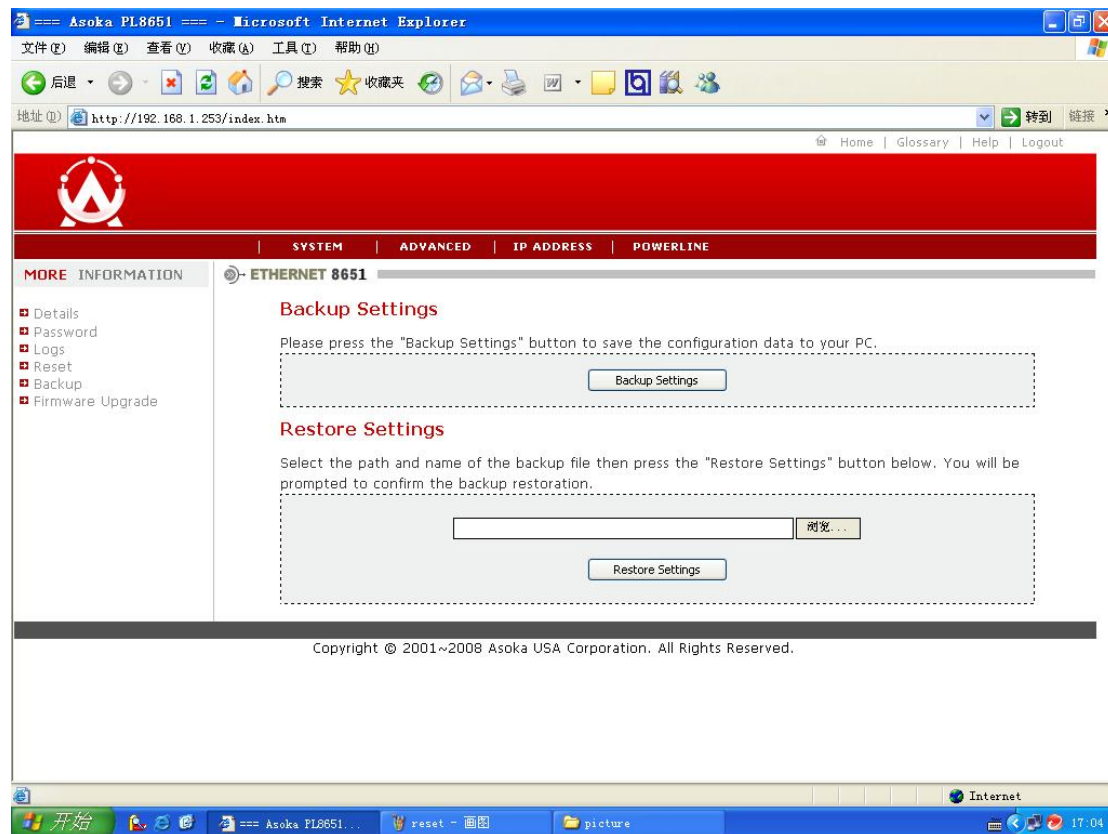


Figure 6. system reset

- To save the system configuration in local disk, click button “Back Settings”, then a windows dialog will be pop to guide you how to save the file to local disk.
- To restore settings of the smart bridge, click button “Browser” to select the configuration file which saved in local host. then click button “Restore Settings” begin to restore.

3.2.6 Firmware upgrade

To upgrade firmware, click submenu “System->Firmware upgrade”, then a page as Figure 7 will be displayed.

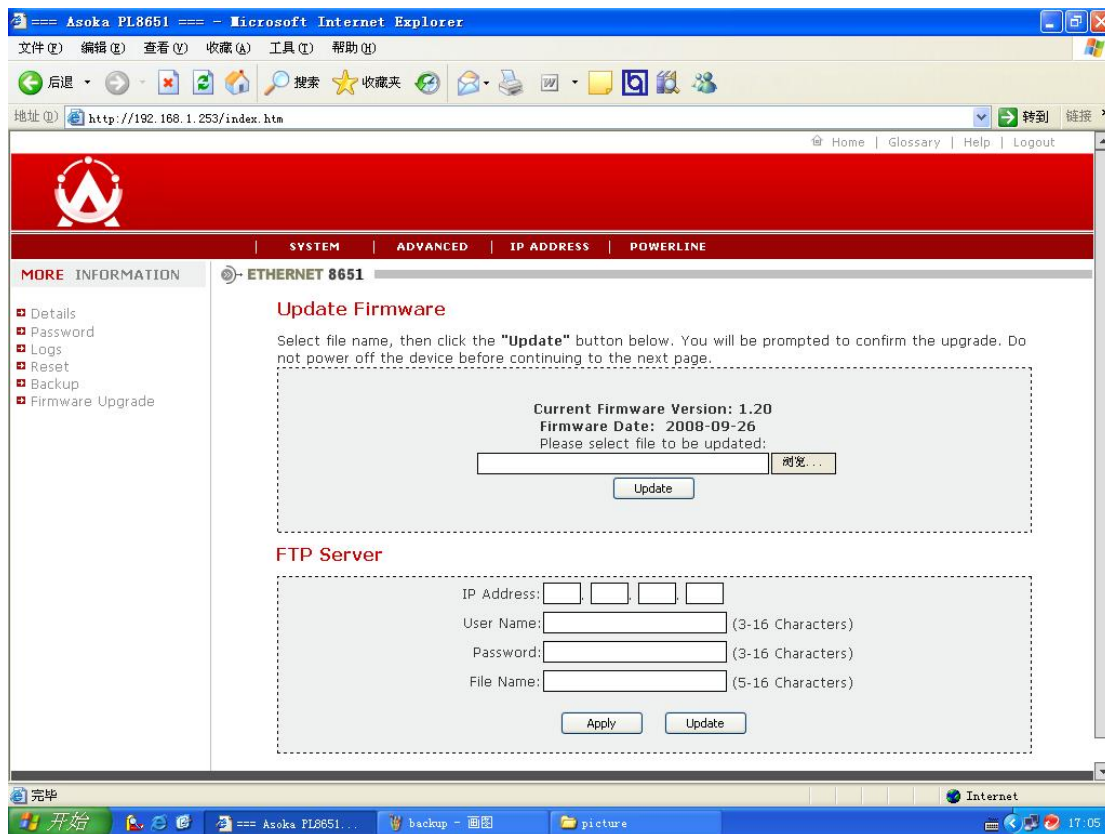


Figure 7. Firmware upgrade

- Click button “Browse” to select firmware file, then one windows dialog will be popped up for user to select local file
- Click button “Update” to begin update. if you confirm your decision, It will update the firmware and reboot the gateway, the process will cost about 2 minutes.

3.3 Advanced

Advanced Menu provides the interface for advanced administrator to set the smart bridge including SNMP and control relays in thermostat 202.

3.3.1 SNMP Configuration

To view or set SNMP configuration, click on the link SNMP Configuration of the left submenu, a screen is displayed as shown in Figure 8.

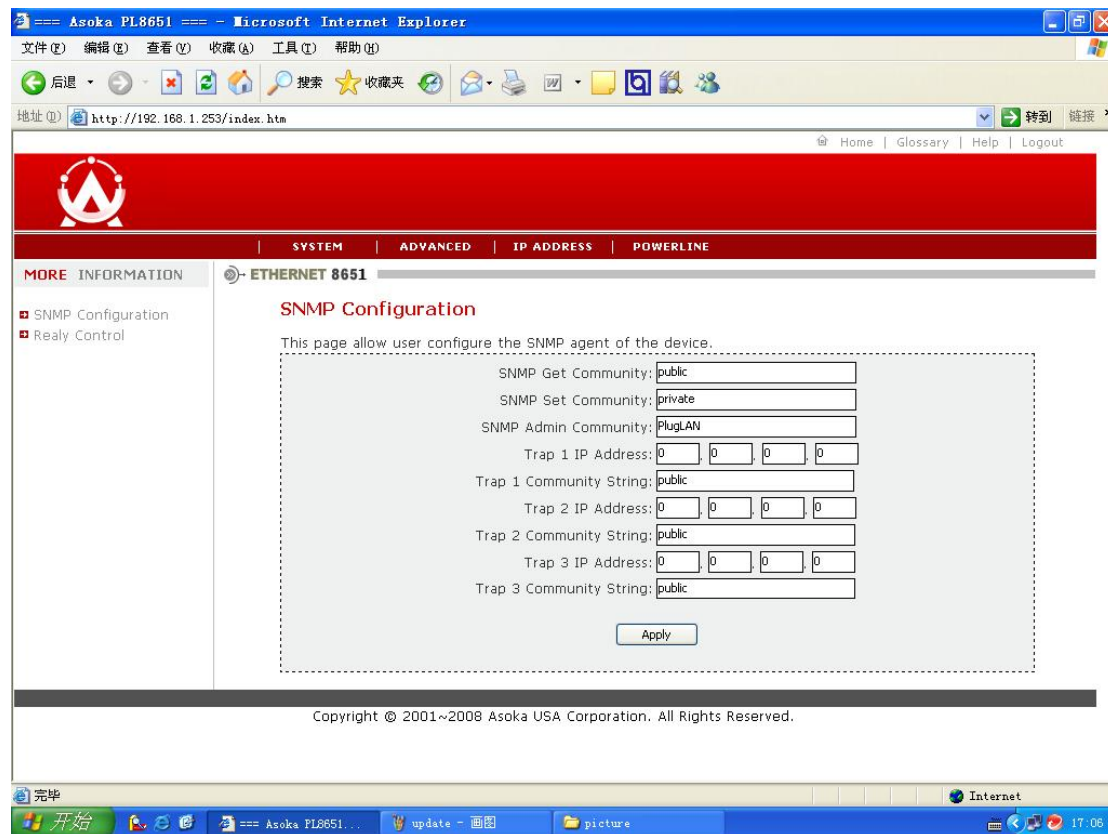


Figure 8. SNMP Configuration

The screen contains the following details.

- Enable/Disable SNMP: To enable or disable SNMP agent. Select the check box to enable SNMP agent
 - Server IP: To enter the IP address of the SNMP Server
- Click button “Apply” to save the information had entered.

3.3.2 Relay control

To view or control relay, click on the link Relay Control of the left submenu, a screen is displayed as shown in Figure 9.



Figure 9. Relay control

The screen contains the following details.

- #1 Relay on/off To switch on/off relay1 in the thermostat 202
- #2 Relay on/off To switch on/off relay2 in the thermostat 202

3.4 IP ADDRESS

IP ADDRESS menu provides interface to set IP address of the smart bridge, user can access smart bridge by this IP address.

3.4.1 IP Address

To configure the IP Address of the smart bridge, click on the link IP Address in the left submenu, a screen is displayed as shown in Figure 10.

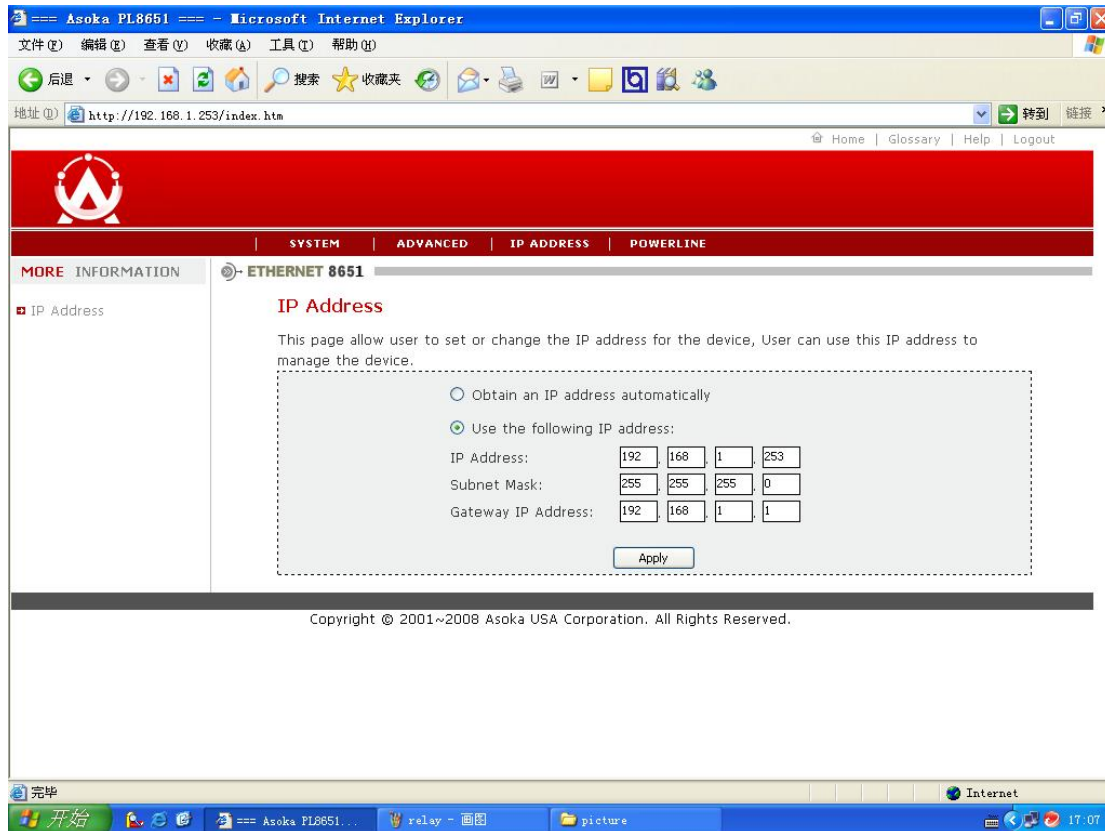


Figure 10. IP Address Configuration

The screen contains the following details:

1. IP Address: To enter the IP address of the smart bridge
2. Subnet mask: The fix subnet mask is “255.255.255.0”

Click button “Apply” to save the configuration and renew system IP address.

3.5 POWER LINE

PowerLine menu provides interface to set NEK or scan devices of the Power line network.

3.5.1 Password Setting

To set NEK of the smart bridge, click on the link NEK Configuration of the left submenu, a screen is displayed as shown in Figure 11.

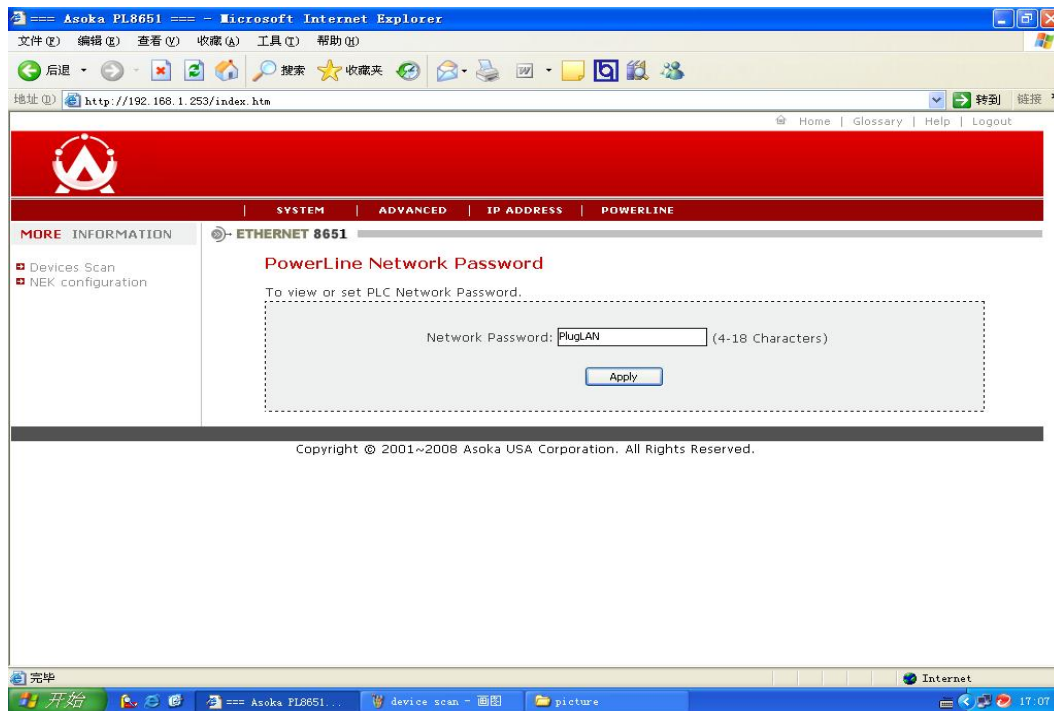


Figure 11. NEK setting

- Input new NEK configuration of the power line network
- Click button “Apply” to save and set the configuration

3.5.2 Device Scan

To view and scan devices in the same power line network with smart bridge, click on the link Device Scan in the left submenu, a screen is displayed as shown in Figure 12.

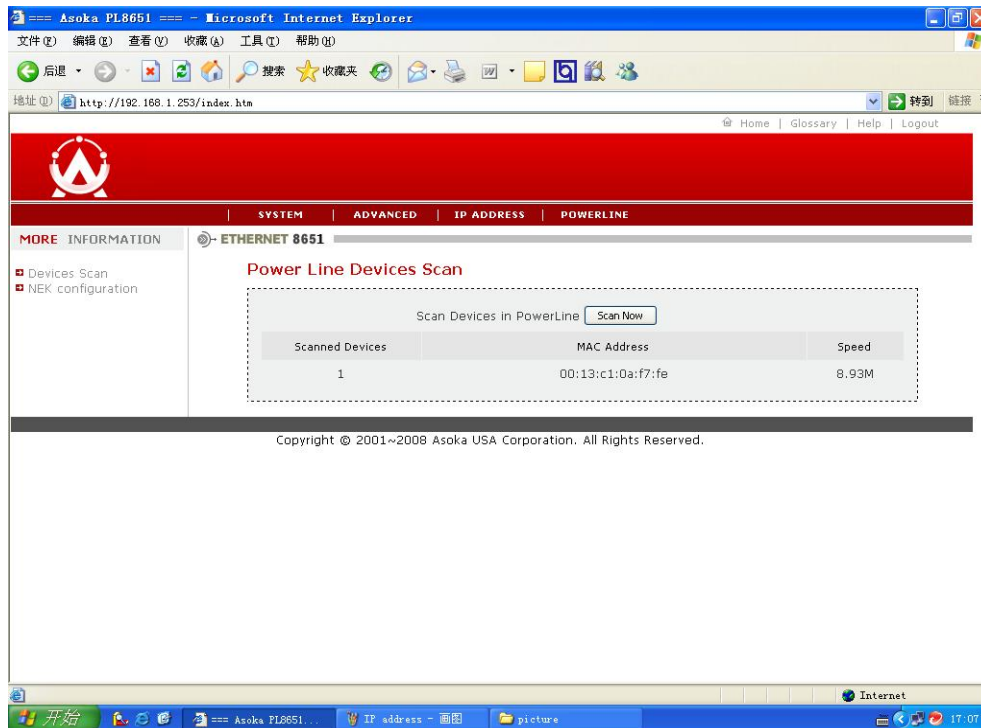


Figure 12.

The screen contains the following details.

1. Scanned Devices: The No. of the device have been scanned
2. MAC Address: The MAC address of the device in the same power line network

Click button “Scan Now” to refresh the device list.