

# Manual

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## 1. Product Overview

### n 1.1 Simply Description

EL-001 provide an easy way to expend your wired Ethernet to wireless. It work well on gateway, and you could configure it via Web. It could meet both enterprise and the home's requirements economically, its user could browser the internet and time and anywhere. It has multi-function ,high-performance and easy install. Will be your best choice to build your own WLAN. About the wireless security, EL-001 provide multi-protection, support unale SSID broadcast , also provide 64/128/152 bit WEP encryption , support for WPA / WPA-PSK, WPA2/WPA2-PSK security mechanism , in order to protect your data .Comply with 802.11a/ 802.11n/ 802.11g/ 802.11b/ 802.113/802.113u standard has 300Mbps , Our smart antenna management, makes the EL001 performs much better than other similar product in WiFi transmission distance, perfectly compatible with other network device.

### n 1.2 Features and Specification

#### u 1.2.1 Main Features

- Ø Provide 5 10M/100M Ethernet ports
- Ø DHCP server
- Ø Support RTS/CTS protocol , ensure the communication quality
- Ø Roaming technology , efficient wireless connect
- Ø DHCP serve static IP address
- Ø Web manage

#### u 1.2.2 Specification

- Ø Comply with /802.11n/802.11g/802.11b/802.113/802.113u standard
- Ø Support TCP/IP、DHCP、ICMP protocol
- Ø Auto MDI/MDIX port
- Ø Indicator LED, power adapter(12V 1A)
- Ø Work temperature 0℃- 40℃
- Ø Operating Humidity: 10%~90% non-condensing

## 2. Hardware Description

### n 2.1 Panel Layout

#### u 2.1.1 Front Panel



Pic 2-1 Front Panel

Indictor LED (Will adjust with the specific mode)

Indictor LED	Description	Function
POWER	Power LED	Keep ON - Power in Keep Off - No Power
PCIE	PCIE	Flashing - PCIE module work Keep Off - PCIE module not work

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LAN	LAN LED	On - The relevant port connect Off - No connect to the relevant port Flashing- Data transmission on the relevant port
WLAN	Wifi LED	Off - Wireless function unable On - Wireless function enable

### 2.1.2 Back Panel



Pic 2-2 Back Panel  
Port(Will adjust with the specific mode)

Port	Description	Function
DC	Power Port	Connect the supplied power adapter.
LAN	LAN Port (RJ45)	Connect to the devices in the LAN, such as HUB, switches or PC
WAN	WAN Port (RJ45)	Connect to the WAN device, data exchange with the internet

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Audio	Audio port	Connect to Audio for listening
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Button(Will adjust with the specific mode)

Button	Description	Function
RESET/WPS	RESET/WPS Multi-function button	Rest: Press for 8 seconds WPS: Press one times.
Antenna	2* 5Dbi omni internal antenna	Wireless data transfer and receive

## n 2.2 Rest

If you want to rest to the factory default settings, please refer the below steps

- 1) To plug the power adapter.
- 2) When the router works normally, press the REST/WPS button for 8 seconds.
- 3) All the router's LEDs will off and then on again, wait until it work normally.
- 4) When above 3 steps done, the router will rest to the factory default setting.

### **Warming:**

**Before steps finishing, don't cut the power off, or it will break your router.**

## n 2.3 System Requirements.

- Ø Network card and Ethernet cable
- Ø TCP/TP net software (Windows 95 or higher version has pre-install)
- Ø IE 5.0 or higher version

## n 2.4 Install Condition

When you install the router, please refer the below

- Ø Put the device horizontally
- Ø Keep away from any heat device
- Ø Do not put it in some place which is too dirty or too humidity.

### **Remark:**

**The environment will effect the transfer distance , recommend using environment:**

**Temperature: 0℃~40℃ ,Humidity: 10%~95% RH**

## **3. TCP/IP Configuration**

Before using the device, you need to configure the network correctly, this manual is based on the Windows 2000/XP, the IP of the device is 192.168.1.1 , subnet mask is 255.255.255.0 .

Firstly, connect your PC to the LAN port, and then you can configure the IP of your PC in 2 ways.

### **2 Set the IP**

Set your PC's IP as 192.168.1.xxx(xxx could be any number in 2~254), subnet mask to be 255.255.255.0 , default gateway 192.168.1.1 , DNS server 192.168.1.1

### **2 Auto set the IP by the DHCP server.**

Set the TCP/IP to "automatically get IP address", after setting , you could use the

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Ping command to check if the device has connected to the PC. For an example, in Windows 2000, run the cmd.exe, and then enter ping 192.168.1.1. If the screen shows as the below, means OK, the device connected to the PC.

```
Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<10ms TTL=64
Reply from 192.168.1.1: bytes=32 time<10ms TTL=64
Reply from 192.168.1.1: bytes=32 time<10ms TTL=64
Reply from 192.168.1.1: bytes=32 time<10ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If it shows as below, it means fail

```
Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

When it fails to connect, you could check as below.

1): If the hardware connect in right way?

**>>The relevant LED to the PC must be on**

2): If your PC's TCP/IP sets right?

**>>If the IP of the device is 192.168.1.1, your PC's IP must be 192.168.1.xxx(xxx should be 2~253)**

## 4. Configuration Guide

### 4.1 Start and Login

The router provide the UI based on the IE, this solution could work in any MS Windows, Macintosh or UNIX system. Run the browser, enable the VPN (if the VPN is working), and then input the 192.168.1.1 in browser. After doing that, you will see the login page, you should enter it as the administrator, which means you should enter the username: root /Password: admin, and then click the "log in"



## The system of the ZBT-EL-001 is OpenWrt

OpenWrt

**No password set!**  
There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
[Go to password configuration...](#)

**Authorization Required**  
Please enter your username and password.

Username

root

Password

Login

Reset

Powered by [LuCI Trunk \(svn-r10457\)](#) OpenWrt Barrier Breaker unknown

### 4-1 Log in webpage

When everything goes well, the browser will show as the 4-2. There are several tag, click some tag, you could configure relevant function settings.

OpenWrt   Status ▾   System ▾   Services ▾   Network ▾   Logout   [AUTO REFRESH ON](#)

**No password set!**  
There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
[Go to password configuration...](#)

**Status**

**System**

Hostname	OpenWrt
Model	AWF-5G
Firmware Version	OpenWrt Barrier Breaker unknown / LuCI Trunk (svn-r10457)
Kernel Version	3.10.44
Local Time	Fri May 27 00:45:42 2016
Uptime	0h 3m 37s
Load Average	0.06, 0.16, 0.08

**Memory**

Total Available	<div>107440 kB / 126504 kB (84%)</div>
Free	<div>92732 kB / 126504 kB (73%)</div>
Cached	<div>11012 kB / 126504 kB (8%)</div>
Buffered	<div>3696 kB / 126504 kB (2%)</div>

### 4-2

I will explain each menu.

## n 4.2 us

### u 4.2.1 Overview

Click the “Overview” You could check the running information, included system information, Memory, network, DHCP leases, wireless and associate stations, as 4.2.1

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## Status



### System

Hostname	OpenWrt
Model	AWF-5G
Firmware Version	OpenWrt Barrier Breaker unknown / LuCI Trunk (svn-r10457)
Kernel Version	3.10.44
Local Time	Fri May 27 00:47:15 2016
Uptime	0h 5m 10s
Load Average	0.01, 0.12, 0.07

### Memory

Total Available	107892 kB / 126504 kB (85%)
Free	93184 kB / 126504 kB (73%)
Cached	11012 kB / 126504 kB (8%)
Buffered	3696 kB / 126504 kB (2%)

### Network

IPv4 WAN Status	 ? Not connected
IPv6 WAN Status	 ? Not connected
Active Connections	346 / 16384 (2%)

### DHCP Leases


Hostname	IPv4-Address	MAC-Address	Leasetime remaining
Anna	192.168.1.125	00:15:98:00:24:99	11h 54m 59s

### DHCPv6 Leases

Hostname	IPv6-Address	DUID	Leasetime remaining
----------	--------------	------	---------------------

There are no active leases.

### Wireless

Generic 802.11bgn Wireless Controller (ra0)	 SSID: OpenWrt 0% Mode: Master Channel: 1 (2.412 GHz) Bitrate: 300 Mbit/s
---	---

#### 4.2.1 Status

- Ø System: Router name, Router model, Firmware version, Kernel version, Local Time, Uptime, Load average.
- Ø Memory: Total available , Free, Caches, Buffered
- Ø Network: The connection status of the WAN port.
- Ø DHCP Leases: Show the IP address ,MAC, and the Lease time
- Ø Wireless: It is about the wireless status , will included SSID, Mode, Work Channel, Bitrates, the MAC of the wireless interface , the Encryption of the transmission.
- Ø Associate: Shows the status of all the device connect to the router via Wireless

#### u 4.2.2 Firewall

Click the firewall tag, you could check the firewall status of the device

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

General settings

Port Forwards

Traffic Rules

Custom Rules

## Firewall - Zone Settings

The firewall creates zones over your network interfaces to control network traffic flow.

### General settings

Enable SYN-flood protection

☒

Drop invalid packets

☐

Input

accept

Output

accept

Forward

reject

### Zones

Zone → Forwardings	Input	Output	Forward	Masquerading	MSS clamping	
lan: lan:  ⇒ wan	accept	accept	accept	<input type="checkbox"/>	<input type="checkbox"/>	<div>EditDelete</div>
wan: wan:  wan6:  ⇒ REJECT	reject	accept	reject	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<div>EditDelete</div>

Add

## 4.2.2

### 4.2.3 Routing List

Click the status-routes, you could check the routing list of the device, the currently active on the device.

## Routes

The following rules are currently active on this system.

## ARP

IPv4-Address	MAC-Address	Interface
192.168.1.125	00:15:98:00:24:99	br-lan

## Active IPv4-Routes

Network	Target	IPv4-Gateway	Metric
lan	192.168.1.0/24	0.0.0.0	0

## Active IPv6-Routes

Network	Target	IPv6-Gateway	Metric
lan	FD82:FDCB:C7EC:0:60F9:C5FC:7D46:6B5D	0:0:0:0:0:0:0/0	00000000
lan	FD82:FDCB:C7EC:0:0:0:0:0/60	0:0:0:0:0:0:0/0	00000100
loopback	FD82:FDCB:C7EC:0:0:0:0:0/48	0:0:0:0:0:0:0/0	7FFFFFFF
loopback	0:0:0:0:0:0:0:0/0	0:0:0:0:0:0:0/0	FFFFFFFF
loopback	0:0:0:0:0:0:0:1	0:0:0:0:0:0:0/0	00000000
loopback	FD82:FDCB:C7EC:0:0:0:0:0	0:0:0:0:0:0:0/0	00000000

## 4.2.3

## 4.2.4 System Log

Click the System-Log, you could check the running status and the operate history

## System Log

```
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.450000] hub 1-0:1.0: no of_node; not parsing pinctrl DT
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.450000] hub 1-0:1.0: USB hub found
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.460000] hub 1-0:1.0: 1 port detected
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.460000] ohci_hcd: USB 1.1 'Open' Host Controller (OHCI) Driver
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.470000] ohci-platform 101c1000.ohci: Generic Platform OHCI Controller
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.480000] ohci-platform 101c1000.ohci: new USB bus registered, assigned bus number 2
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.480000] ohci-platform 101c1000.ohci: irq 26, io mem 0x101c1000
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.550000] usb usb2: no of_node; not parsing pinctrl DT
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.550000] hub 2-0:1.0: no of_node; not parsing pinctrl DT
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.550000] hub 2-0:1.0: USB hub found
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.550000] hub 2-0:1.0: 1 port detected
Fri May 27 00:42:21 2016 kern.warn kernel: [ 5.560000] leds-gpio gpio-leds.4: pins are not configured from the driver
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.570000] rt2880-pinctrl pinctrl.1: request pin 11 (io11) for pio:11
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.570000] rt2880-pinctrl pinctrl.1: request pin 38 (io38) for pio:38
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.570000] rt2880-pinctrl pinctrl.1: request pin 72 (io72) for pio:72
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.570000] rt2880-pinctrl pinctrl.1: request pin 14 (io14) for pio:14
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.580000] sdhci: Secure Digital Host Controller Interface driver
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.590000] sdhci: Copyright(c) Pierre Ossman
Fri May 27 00:42:21 2016 kern.warn kernel: [ 5.600000] MTK MSDC device init.
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.640000] mtk-sd: MediaTek MT6575 MSDC Driver
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.640000] sdhci-pltfm: SDHCI platform and OF driver helper
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.650000] usbcore: registered new interface driver usb-storage
Fri May 27 00:42:21 2016 kern.err kernel: [ 5.660000] Error: Driver 'gpio-keys-pollled' is already registered, aborting...
Fri May 27 00:42:21 2016 kern.err kernel: [ 5.670000] Error: Driver 'gpio-keys-pollled' is already registered, aborting...
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.780000] usb 1-1: new high-speed USB device number 2 using ehci-platform
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.950000] usb 1-1: no of_node; not parsing pinctrl DT
Fri May 27 00:42:21 2016 kern.debug kernel: [ 5.950000] hub 1-1:1.0: no of_node; not parsing pinctrl DT
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.950000] hub 1-1:1.0: USB hub found
Fri May 27 00:42:21 2016 kern.info kernel: [ 5.960000] hub 1-1:1.0: 4 ports detected
Fri May 27 00:42:21 2016 kern.err kernel: [ 8.770000] Error: Driver 'gpio-keys-pollled' is already registered, aborting...
Fri May 27 00:42:21 2016 kern.notice kernel: [ 9.390000] jffs2: notice: (341) jffs2_build_xattr_subsystem: complete building xattr subsystem, 1 of xdatum (0 un
Fri May 27 00:42:21 2016 kern.notice kernel: [ 9.580000] jffs2: notice: (336) jffs2_build_xattr_subsystem: complete building xattr subsystem, 1 of xdatum (0 un
Fri May 27 00:42:21 2016 kern.info kernel: [ 11.990000] NET: Registered protocol family 10
Fri May 27 00:42:21 2016 kern.info kernel: [ 12.010000] NET: Registered protocol family 8
Fri May 27 00:42:21 2016 kern.info kernel: [ 12.010000] NET: Registered protocol family 20
Fri May 27 00:42:21 2016 kern.info kernel: [ 12.030000] NTFS driver 2.1.30 [Flags: R/O MODULE].
Fri May 27 00:42:21 2016 kern.info kernel: [ 12.040000] tun: Universal TUN/TAP device driver, 1.6
```

## 4.2.4

## u 4.2.5 Kernel Log

Click the Kernel Log , you could check some information about the device's system

OpenWrt   Status ▾   System ▾   Services ▾   Network ▾   Logout

### Kernel Log

```
[ 0.000000] Linux version 3.10.44 (zbt123@zbt-server) (gcc version 4.8.3 (OpenWrt/Linaro GCC 4.8-2014.04 unknown) ) #35 Fri May 27 08:42:21 CST 2016
[ 0.000000] Board has DDR2
[ 0.000000] Analog PMU set to hw control
[ 0.000000] Digital PMU set to hw control
[ 0.000000] SoC Type: Ralink MT7620A ver:2 eco:6
[ 0.000000] bootconsole [early0] enabled
[ 0.000000] CPU revision is: 00019650 (MIPS 24KEc)
[ 0.000000] MIPS: machine is AWF-5G
[ 0.000000] Determined physical RAM map:
[ 0.000000]   memory: 08000000 @ 00000000 (usable)
[ 0.000000] Initrd not found or empty - disabling initrd
[ 0.000000] Zone ranges:
[ 0.000000]   Normal [mem 0x00000000-0x07ffff]
[ 0.000000] Movable zone start for each node
[ 0.000000] Early memory node ranges
[ 0.000000]   node 0: [mem 0x00000000-0x07ffff]
[ 0.000000] On node 0 totalpages: 32768
[ 0.000000] free_area_init_node: node 0, pgdat 80304990, node_mem_map 81005b20
[ 0.000000]   Normal zone: 256 pages used for memmap
[ 0.000000]   Normal zone: 0 pages reserved
[ 0.000000]   Normal zone: 32768 pages, LIFO batch:7
[ 0.000000] Primary instruction cache 64kB, VIPT, 4-way, linesize 32 bytes.
[ 0.000000] Primary data cache 32kB, 4-way, PIPT, no aliases, linesize 32 bytes
[ 0.000000] pcpu-alloc: s0 r0 d32768 u32768 alloc=1*32768
[ 0.000000] pcpu-alloc: [0] 0
[ 0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 32512
[ 0.000000] Kernel command line: console=ttyS0,115200 rootfstype=squashfs,jffs2
[ 0.000000] PID hash table entries: 512 (order: -1, 2048 bytes)
[ 0.000000] Dentry cache hash table entries: 16384 (order: 4, 65536 bytes)
[ 0.000000] Inode-cache hash table entries: 8192 (order: 3, 32768 bytes)
[ 0.000000] Writing ErrCtl register=00061c38
[ 0.000000] Readback ErrCtl register=00061c38
[ 0.000000] Memory: 126296k/131072k available (2547k kernel code, 4776k reserved, 633k data, 208k init, 0k highmem)
[ 0.000000] SLUB: HWalign=32, Order=0-3, MinObjects=0, CPUs=1, Nodes=1
[ 0.000000] NR_IRQS:256
[ 0.000000] CPU Clock: 580MHz
[ 0.050000] Calibrating delay loop... 385.84 BogoMIPS (lpj=1929216)
[ 0.060000] pid_max: default: 32768 minimum: 301
```

## u 4.2.6 Processes

Click the processes, you could check an overview over currently running system processes and their status. Such as CPU usage, Memory usage. You could hang up ,terminate or even kill the program, depends on your requirements.

As the 4.2.6


































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OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

Processes

This list gives an overview over currently running system processes and their status.

PID	Owner	Command	CPU usage (%)	Memory usage (%)	Hang Up	Terminate	Kill
1	root	/sbin/procd	0%	1%	 Hang Up	 Terminate	 Kill
2	root	[kthreadd]	0%	0%	 Hang Up	 Terminate	 Kill
3	root	[ksoftirqd/0]	0%	0%	 Hang Up	 Terminate	 Kill
4	root	[kworker/0:0]	0%	0%	 Hang Up	 Terminate	 Kill
5	root	[kworker/0:0H]	0%	0%	 Hang Up	 Terminate	 Kill
6	root	[kworker/u2:0]	0%	0%	 Hang Up	 Terminate	 Kill
7	root	[khelper]	0%	0%	 Hang Up	 Terminate	 Kill
81	root	[writeback]	0%	0%	 Hang Up	 Terminate	 Kill
83	root	[bioset]	0%	0%	 Hang Up	 Terminate	 Kill
85	root	[kblockd]	0%	0%	 Hang Up	 Terminate	 Kill
97	root	[khubd]	0%	0%	 Hang Up	 Terminate	 Kill

4.2.6

## 4.2.7 Realtime Graphs

Click the Realtime Graphs ,you could check the load, traffic, wireless and connection of the device.

OpenWrt


Status ▾System ▾Services ▾Network ▾Logout

AUTO REFRESH ON

No password set!  
There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
Go to password configuration...

LoadTrafficWirelessConnections

Realtime Load



(3 minute window, 3 second interval)

1 Minute Load:	0.00	Average:	0.00	Peak:	0.00
5 Minute Load:	0.05	Average:	0.04	Peak:	0.05
15 Minute Load:	0.05	Average:	0.04	Peak:	0.05



图 4.2.7

## 4.3.1 System

Click the System tag, you could check and edit some basic information of the device, including Local time, Hostname, time zone.

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

### System


Here you can configure the basic aspects of your device like its hostname or the timezone.

#### System Properties

General settingsLoggingLanguage and Style

Local Time

Fri May 27 00:53:37 2016

 Sync with browser

Hostname

OpenWrt

Timezone

UTC

▾

#### Time Synchronization

Enable NTP client

☒

Provide NTP server

☐


NTP server candidates


0.openwrt.pool.ntp.org


1.openwrt.pool.ntp.org


2.openwrt.pool.ntp.org

3.openwrt.pool.ntp.org









4.3.1

## 4.3.2 Administration

You can edit the administrator password for accessing the device

## Router Password

Changes the administrator password for accessing the device




Password


Confirmation

## SSH Access


Dropbear offers [SSH](#) network shell access and an integrated [SCP](#) server


### Dropbear Instance

Interface ☐ lan:  ☐ wan:  ☐ wan6:  ☒ unspecified

 Listen only on the given interface or, if unspecified, on all

Port

 Specifies the listening port of this *Dropbear* instance

Password authentication ☒  Allow [SSH](#) password authentication

### U 4.3.3 Software

Click the software page, you could download and install the package , do not operate it without a professional engineer.

### U 4.3.4 Start-up

Click to the Start-up page, You can enable or disable installed init scripts here. Changes will applied after a device reboot, do not operate it without a professional engineer.

### U 4.3.5 Schedule Tasks

This is the system crontab in which scheduled tasks can be defined., do not operate it without a professional engineer.

### U 4.3.6 Mount Points, LED Configuration



Do some edition about the system , do not operate it without a professional engineer.

## u 4.3.7 Backup/Flash Firmware

You could upgrade the firmware or backup it in this page, as below.

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
Go to password configuration...

Flash operations

ActionsConfiguration

Backup / Restore

Click "Generate archive" to download a tar archive of the current configuration files. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).

Download backup: 

Generate archive

Reset to defaults: 

Perform reset

To restore configuration files, you can upload a previously generated backup archive here.

Restore backup: 

浏览...

 未选择文件。 

Upload archive...

Flash new firmware image

Upload a sysupgrade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware image).

Keep settings: ☒

Image: 

浏览...

 未选择文件。 

Flash image...

4.3.7

## u 4.3.8 Reboot

Select menu system to restart, you can restart your device.

When you click the Reboot tag, the device will reboot.

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

No password set!

There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
Go to password configuration...

System

Reboot

Reboots the operating system of your device

[Perform reboot](#)

## n 4.4. Service

### u 4.4.1 Dynamic DNS

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Dynamic DNS allows that your router can be reached with a fixed hostname while having a dynamically changing IP address

## n 4.5 Network

### u 4.5.1 Interfaces

Click the Interface tag, you could check the wired port's status and edit it.

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout

AUTO REFRESH ON




WAN

WAN6

LAN

Interfaces

Interface Overview

Network	Status	Actions
<div>LAN</div> <div>br-lan</div>	<div>Uptime: 0h 12m 40s</div> <div>MAC-Address: 78:A3:51:2A:AE:A4</div> <div>RX: 568.60 KB (6961 Pkts.)</div> <div>TX: 879.15 KB (3125 Pkts.)</div> <div>IPv4: 192.168.1.1/24</div> <div>IPv6: FD82:FCDB:C7EC:0:0:0:1/60</div>	<div>Connect</div> <div>Stop</div> <div>Edit</div> <div>Delete</div>
<div>WAN</div> <div>eth0.2</div>	<div>Uptime: 0h 0m 0s</div> <div>MAC-Address: 78:A3:51:2A:AE:A4</div> <div>RX: 0.00 B (0 Pkts.)</div> <div>TX: 86.93 KB (257 Pkts.)</div>	<div>Connect</div> <div>Stop</div> <div>Edit</div> <div>Delete</div>
<div>WAN6</div> <div>@wan</div>	<div>MAC-Address: 00:00:00:00:00:00</div> <div>RX: 0.00 B (0 Pkts.)</div> <div>TX: 0.00 B (0 Pkts.)</div>	<div>Connect</div> <div>Stop</div> <div>Edit</div> <div>Delete</div>

Add new interface...

Global network options

IPv6 ULA-Prefix

fd82:fdcb:c7ec::/48

4.5.1

### u 4.5.2 Wireless

Click the Interface tag, you could check the wireless port's status and edit it.

OpenWrt

Status ▾System ▾Services ▾Network ▾Logout


AUTO REFRESH ON

No password set!

There is no password set on this router. Please configure a root password to protect the web interface and enable SSH.  
Go to password configuration...

ra0: Master "OpenWrt"

Wireless Overview

Ralink/MTK RT2860v2 802.11bgn (ra0)

Channel: 1 (2.412 GHz) | Bitrate: 300 Mbit/s

Scan

Add

SSID: OpenWrt | Mode: Master

0% BSSID: 78:A3:51:2A:AE:A4 | Encryption: None

Disable

Edit

Remove

Associated Stations

SSID	MAC-Address	IPv4-Address	Signal	Noise	RX Rate	TX Rate
No information available						

4.5.2

## 4.5.3 DHCP/DNS、 Hostnames, Static Routes,

You could edit these setting in relevant page. do not operate it without a professional engineer.

## 4.5.4 Firewall

The firewall creates zones over your network interfaces to control network traffic flow

OpenWrt Status System Services Network Logout

General settings Port Forwards Traffic Rules Custom Rules

### Firewall - Zone Settings

The firewall creates zones over your network interfaces to control network traffic flow.

#### General settings

Enable SYN-flood protection ☒

Drop invalid packets ☐

Input accept

Output accept

Forward reject

#### Zones

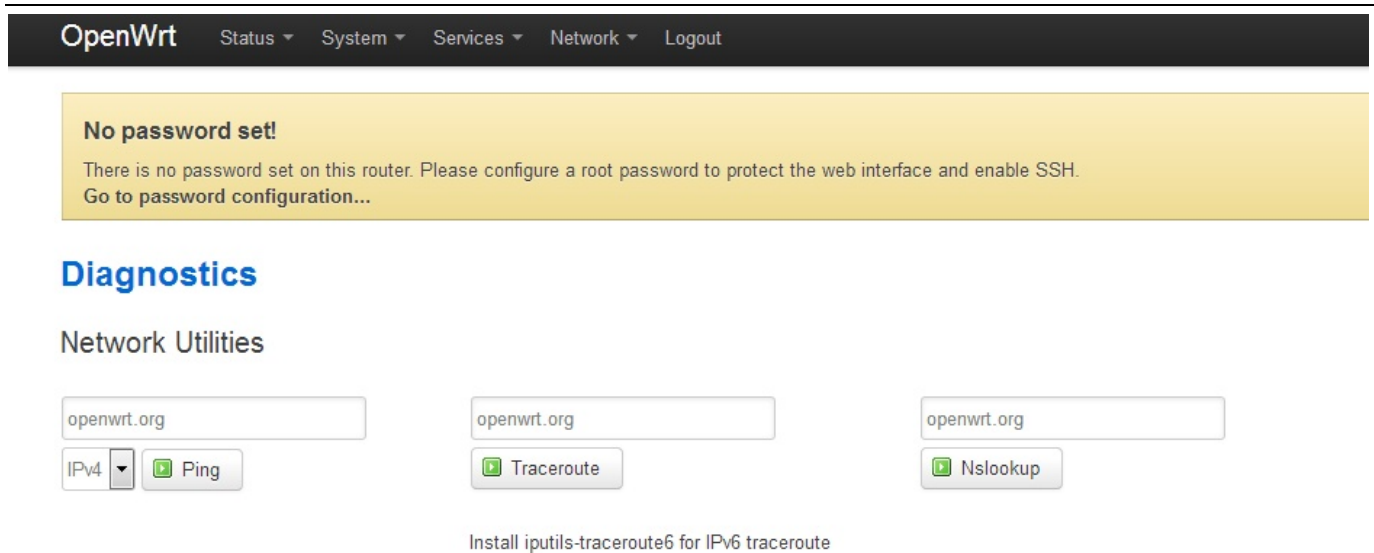
Zone ⇒ Forwardings	Input	Output	Forward	Masquerading	MSS clamping	
lan: lan: ⇒ wan	accept	accept	accept	<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">Edit</a> <a href="#">Delete</a>
wan: wan: wan6: = REJECT	reject	accept	reject	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<a href="#">Edit</a> <a href="#">Delete</a>

[Add](#)

Pic 4.5.4

## 4.5.5 Diagnostics

With Diagnostics you can choose the network utilities



Pic 4.5.5

## n 4.6 Log out

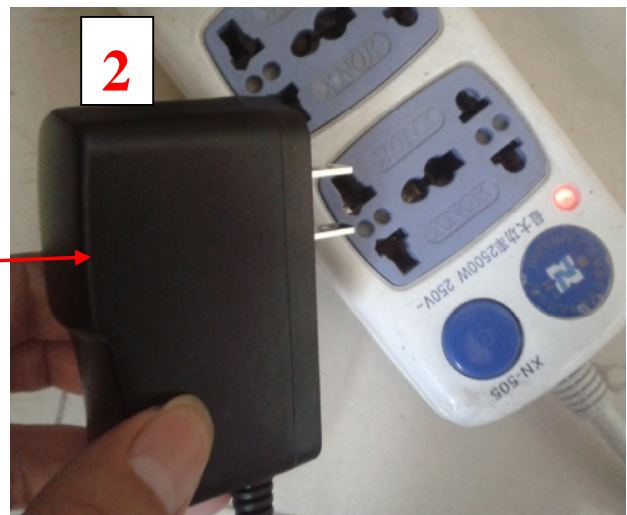
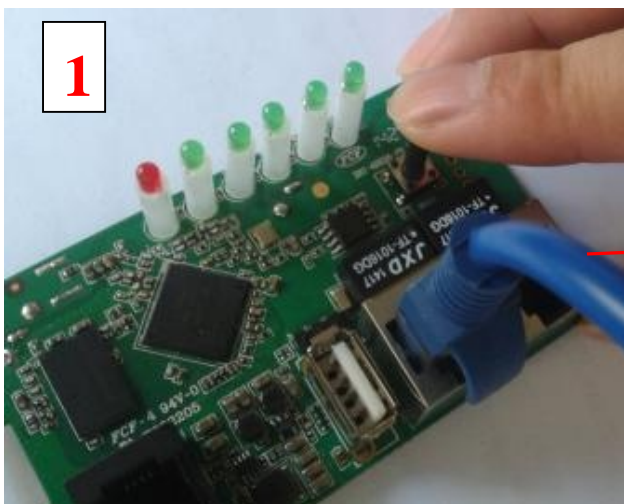
Click the Log Out tag, you will log out the website.

**More details about the system. Please refer the <https://openwrt.org/>**

## n 4.7 Flash Firmware

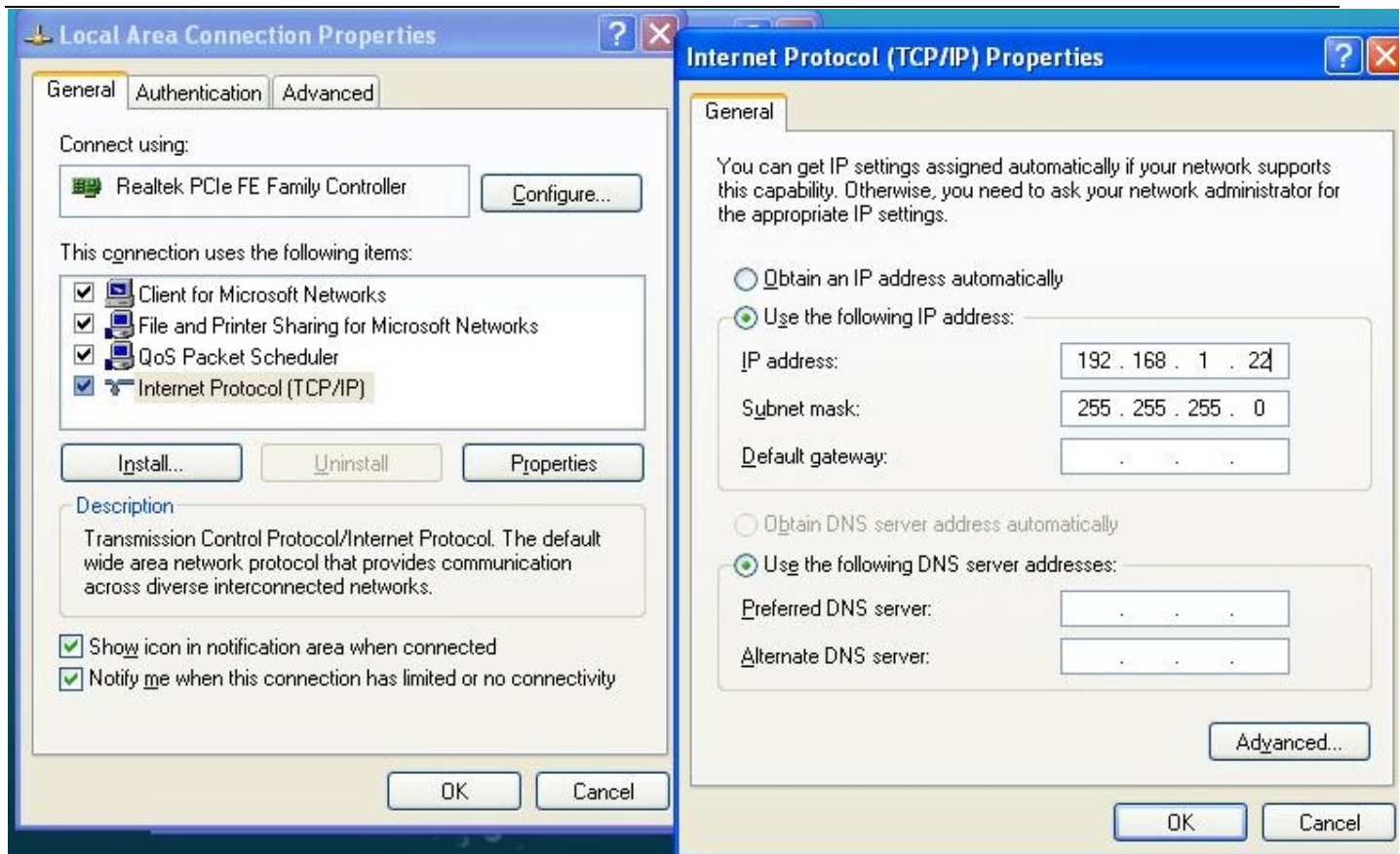
Operate this keep the router connecting computer status.

First, use sharp item Pressing the RESET button as “Picture 1” below, then power on the router.



Second, set the computer TCP/IP in to static IP 192.168.1.X ( X means any number between 2 to 255 ) and Subnet mask into 255.255.255.0

# Proxicast, LLC



Third, key in 192.168.1.1 into browser, come into “ Firmware recovery page” as below pic.  
(this system developed based on Chinese ,so the page shows Chinese word)

Click “ Browser ” button find the firmware “root\_ulmage.ulmage” from your computer, double click “root\_ulmage.ulmage” to hang on it. Then click “Recovery Mode”to start uploading

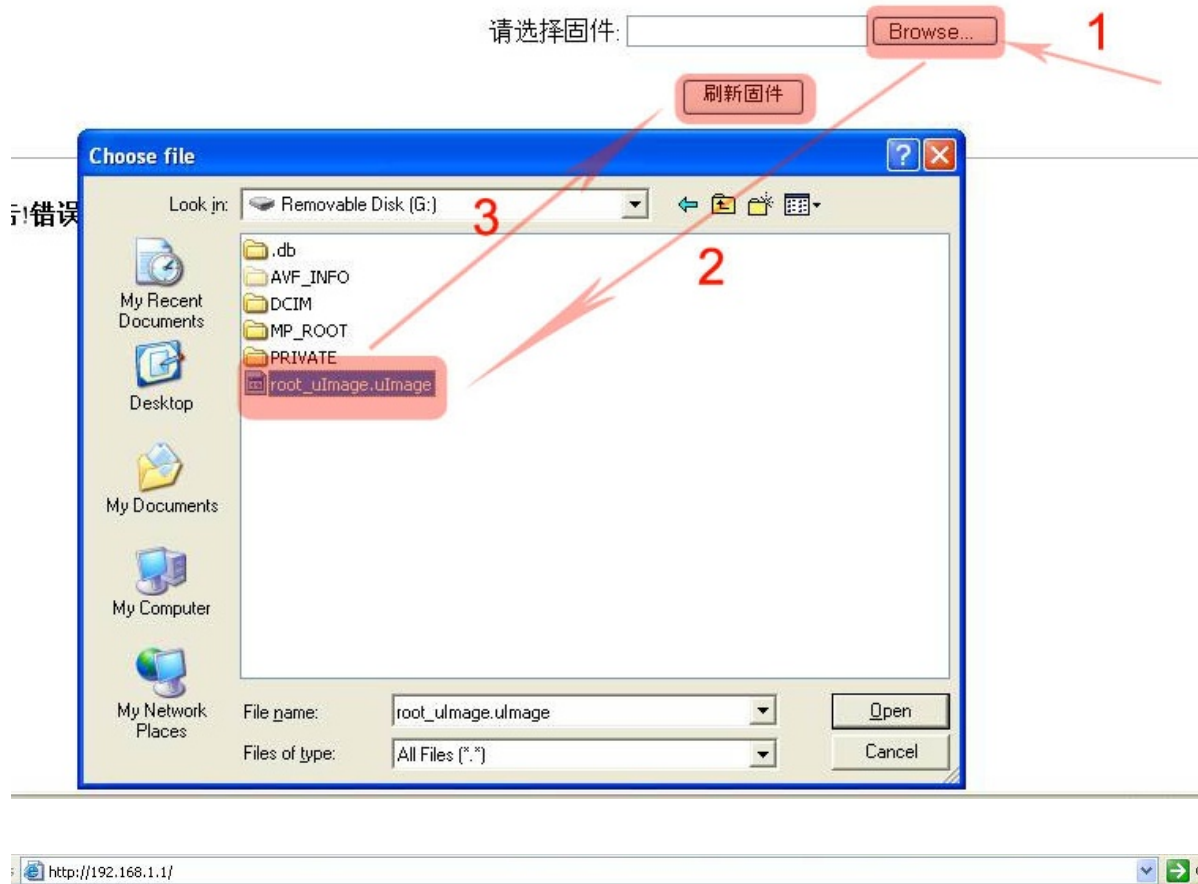
(During uploading time,don't move or power off the router!! Otherwise will cause the router dead !!)



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http://192.168.1.1/

## 固件恢复模式



## 拯救模式

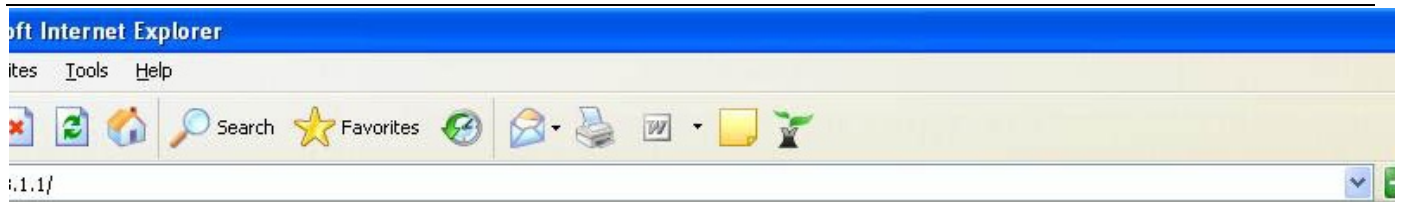
正在升级固件, 请等待...96 秒。  
系统将在更新完成后自动重启。

更新过程中请不要断电或者重启。

**File Uploading, don't restart or power off the router during this time!!**

About 100seconds, the file upload success will show “升级完毕” as below picture show. And the router will automatic restart

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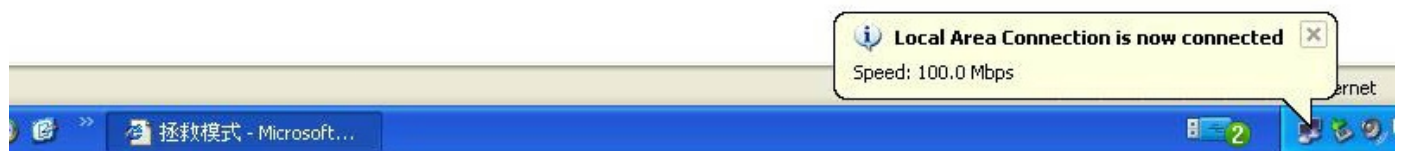
## 拯救模式

升级完毕!

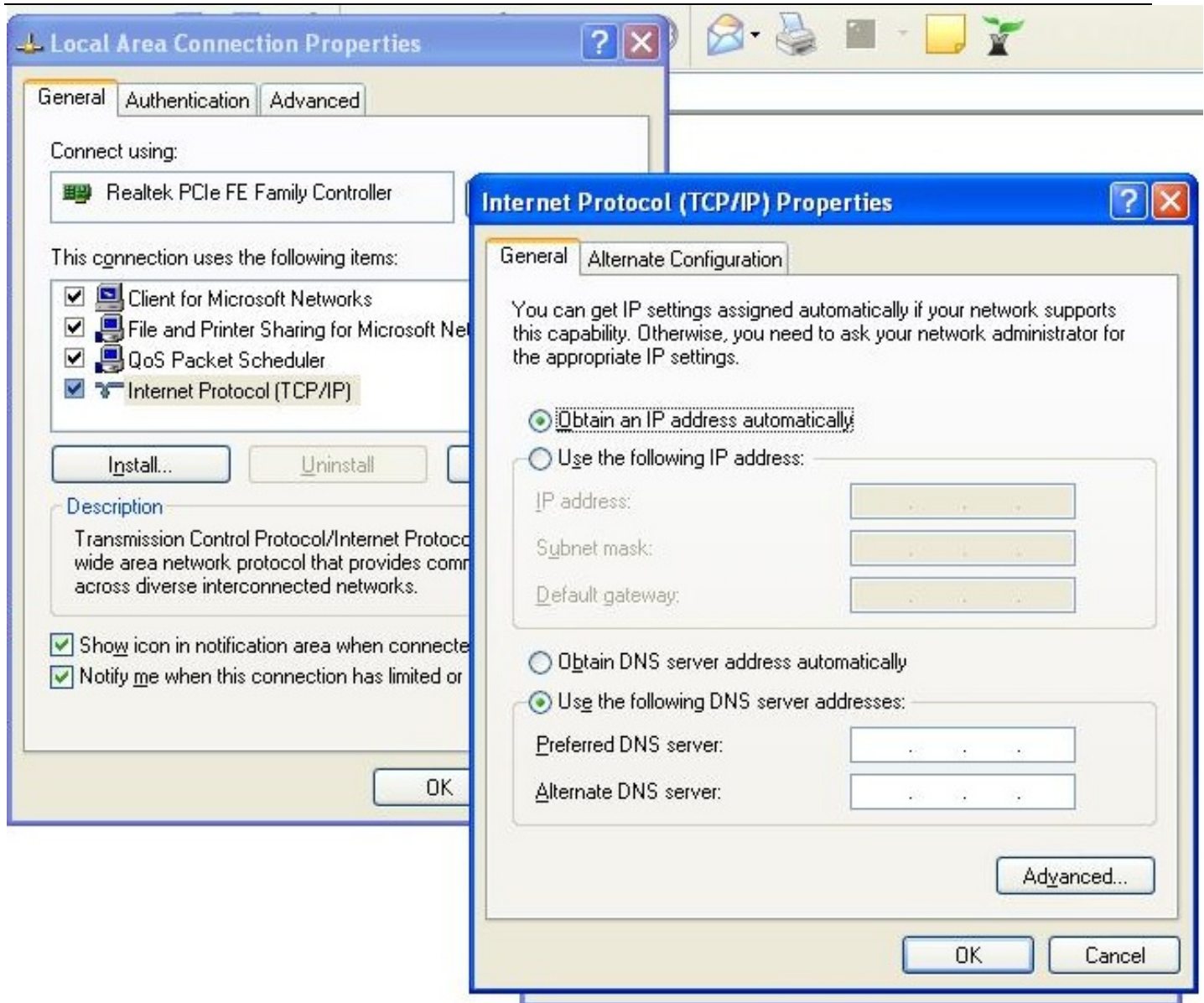
系统将在更新完成后自动重启。

请不要断电或者重启。

Upload success, router will restart.



Fourth, Set the computer TCP/IP into automatic obtain IP



## 5. FAQ

### 1、 LAN LED off

It is about the hardware connection issue, you could check follow below steps

- Ø To check if the Ethernet cable plug into the port firmly.
- Ø To check if the network device is power on
- Ø Make sure the Ethernet cable are working well

### 2、 The device work normally after setting . But the link will become unsteady after working some time, such as delay and package dropping.

It means there are some interference in the work environment, you could follow the below steps to solve such problem.

- Ø To check if each part of the connection are steady.



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- Ø If the signal strength are too weak, you can try to change the work channel, in order to reduce the reference.
  - Ø Reboot the device.
- Reset to the factory default setting.

After all the above steps, if it still have the same questions, please contact to the reseller or our FAE.

## **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 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 to an outlet on a circuit different from that to which the receiver is connected.

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.

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

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

**Note: Modifications to this product will void the user's authority to operate this equipment.**