

ZTE中兴

ZXV10 H108L Home Gateway

User Manual

Version 1.0



ZTE CORPORATION

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Revision History

Revision No.	Revision Date	Revision Reason
R1.1	20100325	Abridged version
R1.0	20100118	First Edition

Serial No. SJ-20100115161948-001

Publishing Date: 20100325

1 Safety Instructions

During Installation and Application

- Use the power adapter delivered with the product. Other power adapter may make the device unable to work normally or even damage the device.
- Check load capacity of power socket and power cable. Overloading of power socket or broken power cable may cause an electric shock or fire. It is recommended to check cables periodically and replace the broken one immediately.
- Appropriate space for heat dissipation is required to prevent the product from overheating.
- Keep the product away from heat sources. Do not expose the device to high temperature environment and direct sunlight.
- Keep the product away from moisture or vapor. Do not splash any fluid on the product.
- Do not place the product on any unstable surface.
- Switch OFF and unplug this product carefully when it is not in use or before cleaning. Pay attention to the high temperature on the surface of the transformer.
- Delay between switching OFF and switching ON should be more than 3 seconds.
- Do not block the heat dissipation opening of the product.
- When the product is not used for a long period of time, unplug the power cord.
- Watch out the children especially when they are using the device without any custody.
- If any abnormal phenomenon appear on this product (such as smoke, weird sound and/or smell), unplug the power adapter.
- Do not use the device in the thunderstorm.

For Service

Do not attempt to disassemble, repair, or open this product, which will cause you lose the warranty services. Contact qualified service personnel in case of problems, especially under the following conditions:

- The power socket or cable is damaged.
- Liquid is splashed into the product.
- The product is exposed to rain or water.
- The product does not work normally when the operating instructions are followed.
- The product is dropped or struck, causing the product damaged.

2 Introduction

2.1 Product Overview

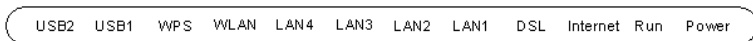
Thank you for using ZXV10 H108L (hereafter referred to as H108L) Home Gateway.

H108L can serve as the center of a home network where various devices can share the Internet connection to provide data, communication, and entertainment services.

The delivery of services needs the support of local operators, contact local operators for more information.

2.2 Introduction to Indicators

Indicators on the front panel are used to show the status of H108L, which is shown in the figure below.



Indicators on the front panel are described in the table below.

Indicator	Status	Description
Power	Constantly on	The power is connected and switched on.
	Off	The power is not connected or the device fails to function
Run	Flashing	The device is functioning.
	Off	The device fails to function.
Internet	Constantly on	The connection is established and the IP address is allocated.
	Flashing	Data is being transmitted.
	Off	The following problems may be present: <ul style="list-style-type: none">• The system is not powered on.• ADSL connection is not established.• The IP or PPP session is terminated due to a reason other than Idle Timeout.• ADSL is in the bridge mode only.
DSL	Constantly on	ADSL connection is established.
	Flashing	ADSL connection is being established.
	Off	ADSL connection is not established.

Indicator	Status	Description
LAN1–LAN4	Constantly on	LAN connection is established.
	Flashing	Data is being transmitted.
	Off	LAN connection is not established.
WLAN	On	WLAN RF is switched on.
	Flashing	Data is being transmitted.
	Off	WLAN RF is switched off.
WPS	On	WPS is switched on and functioning. The indicator will turn off in five minutes.
	Slowly flashing	Negotiation is in process through WPS.
	Fast flashing	WLAN terminal's WPS access encountered an error.
	Off	Device failure or not in use.
USB1/USB2	On	USB storage device connected.
	Flashing	Identifying USB storage devices or performing data read/write.
	Off	Non-USB storage device connected.

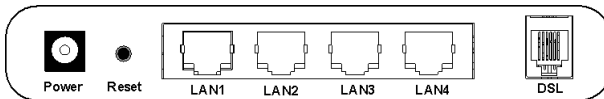
Notes:

The quantity of USB indicators ranges from 0 to 2 depending on the actual product model.

2.3 Introduction to Sockets and Buttons

- Sockets and buttons on the rear panel of H108L

The sockets and buttons on the rear panel of H108L are as follows:



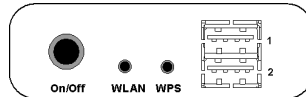
The description of sockets and buttons on the rear panel of H108L is as follows:

Name	Function	Description
Power	Power socket	Connects to standard power adapter to obtain DC power supply.
Reset	Reset button	When the device is operating, keep pressing the button for more than 5 seconds to restore the default settings. Then the system restarts automatically.

Name	Function	Description
LAN1–LAN4	Ethernet ports	Connects to PC's network adapter or other network device via RJ-45 cable.
DSL	DSL socket	Connects to ADSL cable or splitter via RJ-11 telephone line.

- Sockets and buttons on the side panel of H108L

Socket and buttons on the side panel of H108L are as follows:



The description of sockets and buttons on the side panel of H108L is as follows:

Name	Function	Description
On/Off	Power switch	Switches on or off power supply.
WLAN	WLAN RF switch	keep pressing the button for more than 5 seconds to switche on or off WLAN RF.
WPS	WPS access switch	Switches on or off WPS access.
USB1/USB2	USB port	Connects USB storage devices.

Notes:

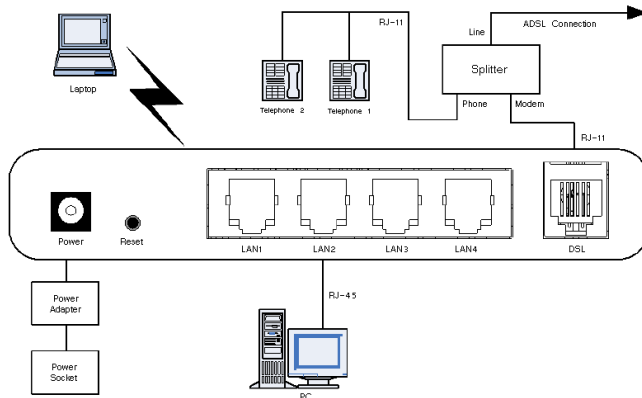
The quantity of USB ports ranges from 0 to 2 depending on the actual product model.

3 Installation

3.1 Installing Device

Appropriate space for heat dissipation is required to prevent the device from overheating. Do not place the device close to heat sources or under direct sunlight. Do not block the heat dissipation opening.

1. Placement: Place the device at a place where its surface is plane and where there will be less obstacles when communicating with the wireless terminals to ensure the best signal strength. It is recommended to use wireless terminals in the room where H108L is placed or the immediate room.
2. H108L adopts the ADSL uplink mode to get connected to the Internet. It is recommended to connect the device as the approach shown in the following figure.



3. If a telephone is required to be installed before the splitter, make sure to connect a voice filter properly to the **Line** socket of the splitter, and then connect the telephone to the filter. Connect other sockets as the above figure.

Notes:

Please use the power adapter delivered with the device. Otherwise the device might be damaged.

3.2 Setting Preparations

3.2.1 Checking PC Settings

It is recommended to turn off VPN and firewalls on your PC.

The following uses Microsoft IE as an example to introduce the steps to disable IE proxy service.

1. Select [**Tools**→**Internet Options**] in the browser. Then the **Internet Options** window pops up.
2. In the **Internet Options** window, select **Connections** tab and click **LAN Settings**.
3. Uncheck **Use a proxy server for your LAN** in the pop-up window. Then click **OK** to submit.

3.2.2 Configuring TCP/IP

The following uses Windows XP as an example to introduce the steps to configure TCP/IP.

1. In the Windows taskbar, select [**Start**→**Control Panel**].
2. In the **Control Panel** window, double-click **Network Connection**.
3. In the **Network Connection** window, right-click **Local Area Connection**. In the pop-up menu, click **Properties**. Then the **LAN Properties** dialog box pops up.
4. Select **Internet Protocol (TCP/IP)** and click **Properties**. Then the **Internet Protocol (TCP/IP) Properties** dialog box pops up.
5. There are two approaches to configure TCP/IP. However, the first approach is recommended.

- First approach: Acquire an IP address automatically from H108L via DHCP.
 - a. In the **Internet Protocol (TCP/IP) Properties** dialog box, check **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
 - b. Click **OK** to save configuration.
- Second approach: Specify a static IP address for PC.
 - a. In the **Internet Protocol (TCP/IP) Properties** dialog box, check **Use the following IP address** to set the IP addresses of PC and H108L to the same network segment, in the form of 192.168.1.x (x is an integer between 2 to 254).

For example, IP is set to **192.168.1.2**, subnet mask is set to **255.255.255.0**, and both default gateway and DNS server are set to **192.168.1.1**.
 - b. Click **OK** to save configuration.

3.3 Configuring Wireless Connection

1. The PC is able to connect to WLAN network when it is equipped with wireless network card.
2. Before the PC is able to get connected with a WLAN network, the installation and configuration of wireless network card must be completed.
3. The wireless network card will search for wireless networks automatically after installation and configuration is completed. The PC will be ready for use after search succeed. If encryption is enabled on H108L, users will be prompted for corresponding encryption key.

3.4 Restoring Default Settings

If the device fails to function or users forget their login password due to incorrect configurations, the problem can be resolved by restoring default settings.

Refer to the label on the bottom of device for detailed default setting parameters.

1. When the device is operating normally, keep pressing the **Reset** button for more than 5 seconds (using a needle or a pin).
2. The system will restore default settings and restart automatically.

4 WEB Configuration

4.1 Login/Logout

H108L provides Web-based configuration, which enables users to configure and manage H108L via Web browser.

1. Type `http://192.168.1.1` (the default IP address of the LAN-side interface of H108L) in the address bar of IE browser and press **Enter**. Then the **Login** page shown in the following figure pops up.

Please login to continue...

Username

Password

2. Input username and password (default username and password are `admin` and `admin`) and click **Login** to enter H108L page.
3. Click **Logout** at the top-right corner of corresponding page to exit.

4.2 Network Configuration

4.2.1 Creating WAN Connection

1. Select [**Network**→**WAN**→**WAN Connection**] to open the **WAN Connection** page as shown in the figure below.

Connection Name

Type

New Connection Name

Enable NAT

Enable VLAN

VLAN ID

802.1p

VPI/VCI

New VPI/VCI

Encapsulation Type

Service Type

Username

Password

Authentication Type

Connection Trigger

Idle Timeout sec

2. Set the parameters according to the description below.

Parameter Name	Description
Connection Name	The default value is Create WAN Connection . Users can select created network connections from the drop-down menu.
Type	Type of connection. Select WAN connection type from five options including PPPoE, PPPoA, Static (need the operator to provide IP address), DHCP and Bridge Connection. The default value is PPPoE.
New Connection Name	Contains 1 to 256 characters.

Parameter Name	Description
Enable NAT	Enable/disable Network Address Translation (NAT). This function can be configured in route mode only. It cannot be configured in bridge mode.
Enable VLAN	Enable/disable VLAN configuration. VLAN ID and 802.1p are used to define to which VLAN the device belongs as well as the priority.
VLAN ID	VLAN ID of data packets at WAN interface. The value ranges from 1 to 4094.
802.1p	Deals with priority, suitable for multiple WAN connections only. The value ranges from 0 to 7. The default value is 0, which indicates no priority set. The greater the value is, the higher the priority is.
VPI/VCI	VPI/VCI (Virtual Path/Channel Identifier) identifies virtual path and virtual channel of a link. In the case of first-time configuration, select Create , and then configure the VPI/VCI values. Otherwise, select a previously used VPI/VCI values from the drop-down list.
New VPI/VCI	Configures VPI/VCI values, which range from 0 to 255 and from 0 to 65535 respectively. Both of which are provided by the ISP.
Encapsulation Type	The protocol encryption type, which supports LLC and VCMUX.
Service Type	Configuration of ATM QoS which imposes restrictions on uplink traffic. Four types are available: CBR, RT-VBR, nRT-VBR and UBR.
Username/Password	Username and password for WAN connection authentication. Both of which are provided by the ISP.
Authentication Type	Authentication protocol type. Options: Auto, PAP and CHAP. The value is Auto by default.
Connection Trigger	Connection triggering mode. Options: Always On, On Demand, and manual. The mode is Always on by default.
Idle Timeout	The default value is 1200 seconds. It can be set when the Connection Trigger is set to On Demand only.

3. Click **Create** to create connection.

4.2.2 WLAN Configuration

1. Select [Network→WLAN→Basic 11n] to open the **WLAN Basic Parameter** page, as shown in the figure below.

2. Set the parameters according to the description below.

Parameter Name	Description
Enable Wireless RF	Enable/disable WLAN RF.
Enable Isolation	Enable/disable internal isolation.
Mode	Wireless communication mode, including Mixed (802.11b+802.11g) and Mixed 802.11b+802.11g+802.11n.
Country/Region	Country or region where the device to be used.
Band Width	Band width to be set. Options: 20MHz and 40MHz. The value is 20MHz by default. Configurable when Mixed (802.11b+802.11g+802.11n) is enabled only.
Channel	Wireless signal channel. Select from auto and integers from 1 to 13 according to the country code. The default value is Auto. Wireless channel used in the communication between the wireless access point and wireless station, which channel to use depends on the local administration. All stations communicating with H108L must use the same channel.
SGI Enable	Enable/disable SGI. Configurable when 802.11n mode is enabled only.
Beacon Interval	The default value is 100ms.

Parameter Name	Description
Transmitting Power	Transmitting power level. Options: 100%, 80%, 60%, 40% and 20%. The default value is 100%. Transmitting Power indicates the ration of the output power to the maximum power. The higher the power is, the longer the transmitting distance is.
QoS Type	The default value is WMM.

3. Click **Submit** button to complete WLAN configuration.

4.2.3 WLAN Security Configuration

1. Select [**Network**→**WLAN**→**Security**] to open the **WLAN Security Configuration** page.

2. Configure parameters on the basis of the following description.

Parameter Name	Description
Choose SSID	The default value is SSID1.
Authentication Type	Options: Open System (indicating no encryption), shared key, WPA-PSK, WPA2-PSK and WPA/WPA2-PSK.
WPA Passphrase	WPA encryption key, which contains 8 to 63 characters.
WPA Group Key Update Interval	The interval of WPA group key update. The default value is 600 seconds.
WPA Encryption Algorithm	WPA encryption algorithm, which supports TKIP, AES and TKIP+AES. If users want to enable TKIP or TKIP+AES encryption algorithm, please firstly enable Mixed (802.11b+802.11g) wireless communication mode.

Available encryption methods include WPA encryption, WEP encryption, and no encryption.

- WPA encryption

Wi-Fi Protected Access (WPA) includes WPA-PSK, WPA2-PSK, and WPA/WPA2-PSK.

- Select **WPA-PSK, WPA2-PSK** or **WPA/WPA2-PSK** from the drop-down list of **Authentication Type** option to enable WPA encryption.
- Set the parameters according to the description above.

- WEP encryption

Wired Equivalent Privacy (WEP) is a widely used WLAN security protocol.

- Select **Shared Key** from the drop-down list of **Authentication Type** option to open the page as shown in the following figure.

The screenshot shows a configuration form for WEP encryption. The fields are as follows:

- Choose SSID: SSID1
- Authentication Type: Shared Key
- WEP Encryption: Enable
- WEP Encryption Level: 64bit
- WEP Key Index: 1
- WEP Key1: 11111
- WEP Key2: 22222
- WEP Key3: 33333
- WEP Key4: 44444

13 ASCII chars or 26 hexadecimal digits can be entered for 128-bit WEP Encryption Key.
5 ASCII chars or 10 hexadecimal digits can be entered for 64-bit WEP Encryption Key.

- Set the parameters according to the description below.

Parameter Name	Description
WEP Encryption	Enable/disable WEP encryption. The encryption is disabled by default.
WEP Encryption Level	The length of WEP encryption key is 64bit or 128bit.
WEP Key Index	Index of WEP encryption key.
WEP Key1–WEP Key4	WEP encryption keys. 64 bit WEP encryption key corresponds to 5 ASCII characters or 10 hexadecimal characters. 128bit WEP encryption key corresponds to 13 ASCII characters or 26 hexadecimal characters.

- Click **Submit** button to complete WLAN security configuration.

5 Troubleshooting

You may encounter some problems when installing or using H108L. Please try the following solutions. If the problem still exists, please contact the service provider for help.

Problem	Solution
The power indicator is off after the device is switched on	Use standard power adapter, such as the power adapter delivered with the device. Make sure that the adapter is connected properly to both H108L and the power socket.
The LAN indicator is off after Ethernet cable is connected	Make sure that the Ethernet, PC, and H108L are correctly connected, and that the PC and H108L are switched on.
The DSL indicator is off after telephone line is connected.	Make sure that the telephone line in use is standard line (delivered with the device) and all devices are correctly connected according to the previous description. Check whether the cables are properly plugged in. Please allow 60 seconds for H108L to establish connection to the operator.
The DSL indicator flashes slowly after telephone line is connected	Indicates that H108L failed to get connected with the DSLAM system of the operator. Please make sure that H108L is correctly connected according to the previous solutions. If a telephone is installed before the splitter, please make sure that the splitter is correctly installed.
WLAN cannot be connected	<ul style="list-style-type: none"> ● Make sure that the WLAN RF is switched on, and the WLAN indicator is on. ● Check whether the wireless network card is correctly configured. ● Check whether the network name, encryption mode, and encryption key stored in the PC are consistent with the settings of H108L.
PC is unable to access the network	<ul style="list-style-type: none"> ● Check whether the IP address of H108L(192.168.1.1 by default) can be pinged successfully from the PC. If cannot, please check the Ethernet connection and whether the indicator status is normal. ● It is recommended to set the IP address and DNS server address to be obtained automatically. ● It is recommended to disable all running firewall or security software. ● Disable the proxy server of the Web browser. ● Check whether the indicator status is normal.

6 Specification

Physical Specification

- Size
 - Excluding bracket: 200mm * 168mm * 36mm (length * width * height)
 - Including bracket: 200mm * 168mm * 75mm (length * width * height)
- Weight
 - Excluding bracket: 300g (excluding power adapter)
 - Including bracket: 360g (excluding power adapter)

Electric Specification

- Non-USB Scenario
 - Power supply: Input 220V AC/50Hz, output 12V AC/750mA
 - Power: 9W
- USB Scenario
 - Power supply: Input 220V AC/50Hz, output 12V AC/1A
 - Power: 12W

Environmental Requirements

Temperature: 0°C-45°C, humidity: 5%-95%.

Qualifications

CCC, Network Access License, Wi-Fi, Radio Transmitter Model Authorization.

ZTE CORPORATION reserves the right to upgrade or make technical change to this product without further notice.

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