



Compal Broadband Networks

CH8568G

User Guide

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Overview

The CBN CH8568 DOCSIS 3.1 11ac Wireless Gateway is the worldwide most compact DOCSIS 3.1 11ac Wireless Gateway with stylish and elegant outlook, designed for your home, home office, or small business/enterprise. It can be used in households with one or more computers capable of wireless connectivity for remote access to the wireless gateway.

This user guide provides product overview and setup information for the CH8568G. It also provides instructions for installing the wireless gateway and configuring the wireless LAN, Ethernet, router, DHCP, and security settings.

Standard Features

The CH8568G Wireless Gateway combines high-speed Internet access, networking, and computer security for a home or small-office LAN. It offers the following features:

- Combination of five separate products in one compact unit — a DOCSIS® 3.1 cable modem, IEEE 802.11a/b/g/n/ac wireless access point, Ethernet 10/100/1000 Base-T connections, and firewall.
- An integrated high-speed cable modem for continuous broadband access to the Internet and other online services with much faster data transfer than traditional dial-up or ISDN modems.
- Advanced firewall for enhanced network security from undesired attacks over the Internet. It supports stateful-inspection, intrusion detection, DMZ, denial-of-service attack prevention, and Network Address Translation (NAT).
- One broadband connection for up to 253 computers to surf the web; all computers on the LAN communicate as if they were connected to the same physical network.
- Four 10/100/1000Base-T Ethernet uplink ports supporting half-duplex or full-duplex connections with auto-MDIX capability.
- An IEEE 802.11a/b/g/n/ac wireless access point to enable users to remain connected while moving around the home or small office or to connect desktop computers without installing network wiring. Depending on distance, wireless connection speeds can vary.
- CH8568G wireless function supports Wi-Fi 2.4GHz/5GHz dual-band mode.
- A secure Wireless Fidelity (Wi-Fi) broadband connection for Wi-Fi enabled devices on your network, such as your mobile, laptops, tablet, printers, PDAs, and desktops.
- Routing for a wireless LAN (WLAN) or a wired Ethernet LAN; you can connect more than four computers using hubs and/or switches.
- A built-in DHCP server to easily configure a combined wired and/or wireless Class C private LAN.
- Virtual private network (VPN) pass-through operation supporting IPSec, PPTP, or L2TP to securely connect remote computers over the Internet.
- CH8568G Configuration Manager (CMGR) which provides a graphical user interface (GUI) for

easy configuration of necessary wireless, Ethernet, router, DHCP, and security settings.

CH8568G LAN Choices

You can connect to 253 client computers to the CH8568G using one or any combination of the following network connections:

- Wi-Fi wireless LAN (WLAN)
- Ethernet local area network (LAN)

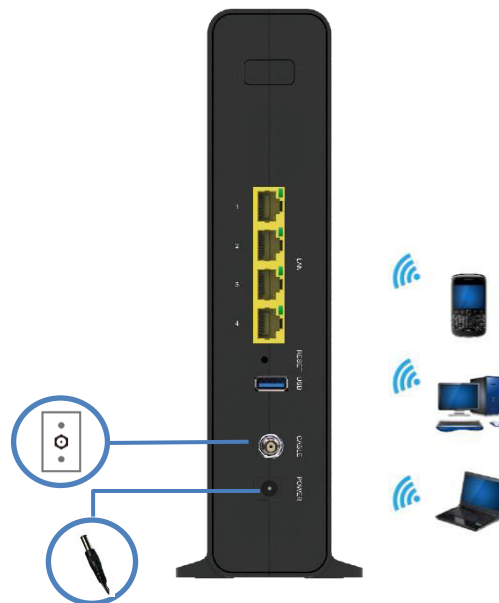
Wireless LAN

Wireless communication occurs over radio waves rather than a wire. Like a cordless telephone, a WLAN uses radio signals instead of wires to exchange data. A wireless network eliminates the need for expensive and intrusive wiring to connect computers throughout the home or office. Mobile users can remain connected to the network even when carrying their laptop to different locations in the home or office.

Each computer or other device on a WLAN must be Wi-Fi enabled with either a built-in or external wireless adapter.

Laptops — Use a built-in wireless notebook adapter, a wireless PCMCIA slot adapter, or a wireless USB adapter.

Desktops — Use a wireless PCI adapter, wireless USB adapter, or compatible product in the PCI slot or USB port, respectively



Sample Wireless Network Connections (CH8568G model shown)

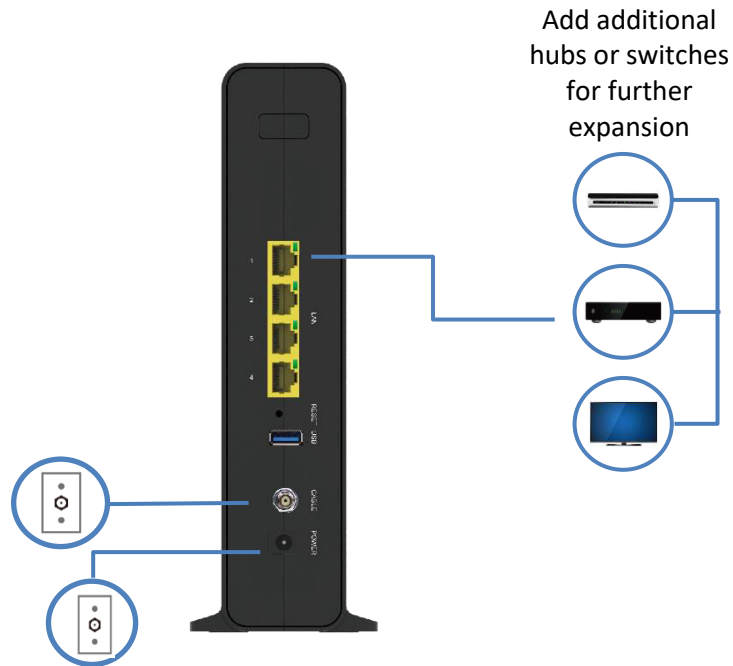
Your maximum wireless operation distance depends on the type of materials through which the signal must pass and the location of your CH8568G and clients (stations). CBN cannot guarantee wireless

operation for all supported distances in all environments.

*Note: To get better wireless coverage,
please put your CH8568 DOCSIS 3.1 11ac Wireless
Gateway vertically.*

Wired Ethernet LAN

You can easily connect any PC with an Ethernet cable to the CH8568G Ethernet port. Because the CH8568G Ethernet port supports auto-MDIX, you can use a straight-through or cross-over cable to connect a hub, switch, or computer. Use CAT-5, or better, cabling for all Ethernet connections.



Sample Ethernet to Computer Connection (CH8568G model shown)

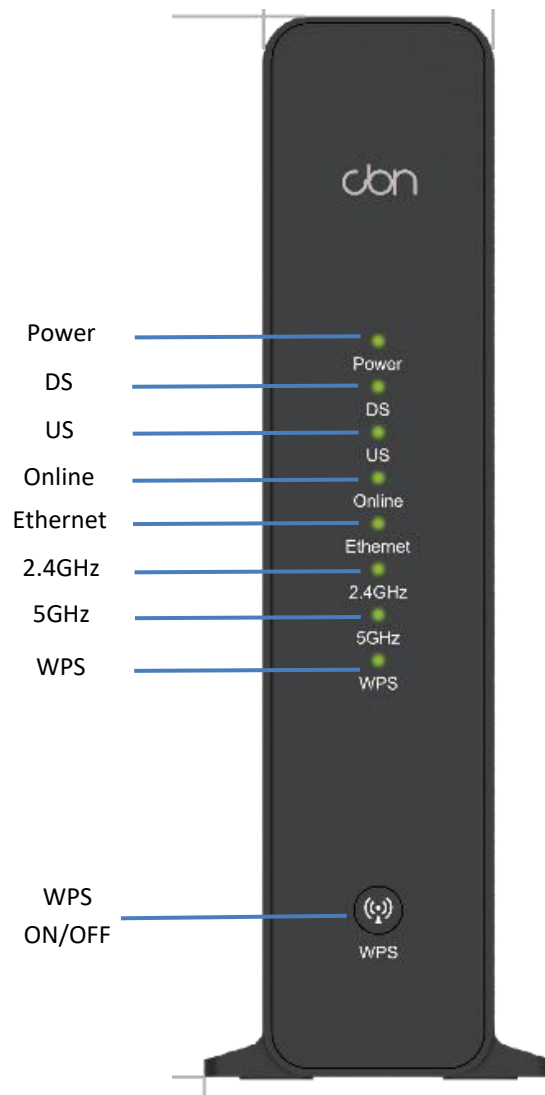
A wired Ethernet LAN with more than four computers requires one or more hubs, switches, or routers. You can:

- Connect a hub or switch to any Ethernet port on the CH8568G.
- Use Ethernet hubs, switches, or routers to connect to any combination of computers and wireless clients to the CH8568G.

More detailed information on Ethernet cabling is beyond the scope of this document.

Front Panel

The CH8568G front panel contains indicator lights and the Wi-Fi / WPS button which is used to configure Wi-Fi Protected Security (WPS) on compatible clients connected to the CH8568G network.

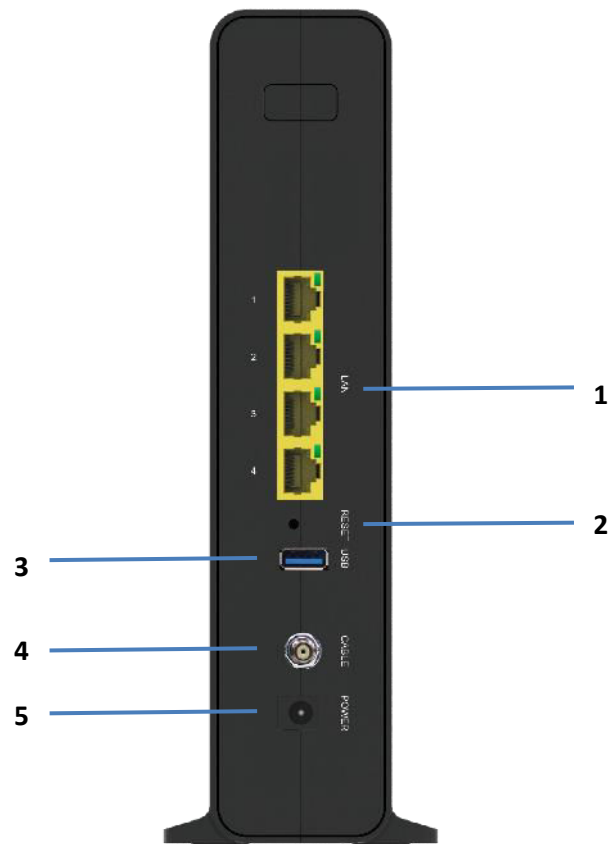


The CH8568G front panel LED indicators provide the following status information for power, communications, and errors:

LED	Status	Description
Power	Solid Green	Power On
	Blinking Green	Booting
	Off	Power Off
Downstream	Solid Green	Downstream channel is connected, Locked
	Blinking Green	Downstream channel scanning
Upstream	Solid Green	Upstream channel is connected
	Blinking Green	Acquiring Upstream
	Off	Waiting for DS to complete scanning
Online	Solid Green	The cable router is synchronized and has successfully registered
	Blinking Green	Registering or Provisioning
	Off	DS/US channel not locked yet. Unable to connect CMTS
Ethernet	Solid Green	One or more devices connected to RJ45.
	Blinking Green	Any RG45 connector is transmitting data.
	Off	No device connected

LED	LED	Description	LED	Sta
2.4GHz	Solid Green	Wi-Fi 2.4G is active		
	Off	Wi-Fi 2.4G is disabled / no function		
5GHz	Solid Green	Wi-Fi 5G is active		
	Off	Wi-Fi 5G is disabled / no function		
WPS	Solid Green	WPS service Available		
	Off	WPS Service disable / Both 2.4G and 5G are not in function		
DS + US	Blinking Green	Firmware Upgrade in Progress		

Rear Panel

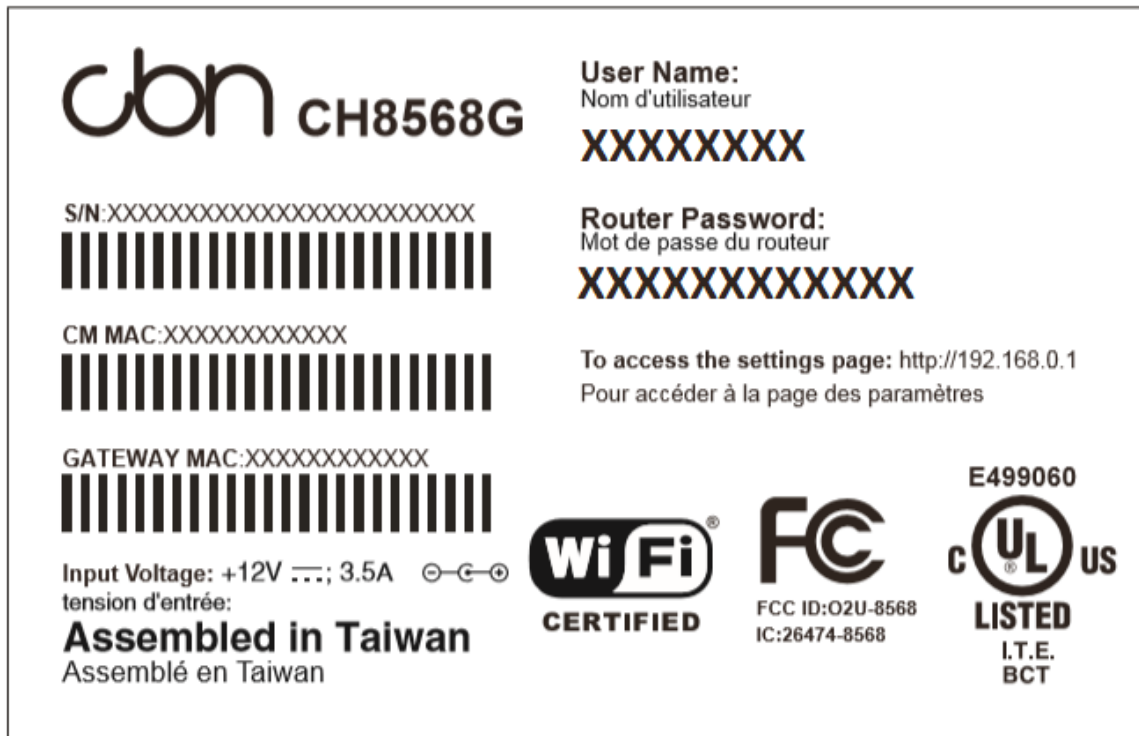


The CH8568G (shown above) rear panel contains the following cabling port and connectors:

Item		Description
1	Ethernet	Use any Ethernet port to connect an Ethernet-equipped computer, hub, bridge, or switch using an RJ-45 cable.
2	RESET	Press and hold the RESET button for five seconds or longer to restore CH8568G to factory default settings. After factory default settings are restored, the gateway will restart and may take 5 to 30 minutes to find and lock on the appropriate communication channels.
3	USB	USB host port for USB storage devices like flash drives or hard drives
4	CABLE	Connect the CH8568G to a cable wall outlet.
5	Power port	Plugged into the AC adapter and wall outlet

MAC Label

The CH8568G Media Access Control (MAC) label is located on the bottom of the CH8568G. The label contains the MAC address which is a unique, 48-bit value that identifies each Ethernet network device. To receive data service, you will need to provide the MAC address marked HFC MAC ID to your Internet Service provider.





Note: Label may differ according to local settings or requirements.

Getting Started

Inside the Box

Before you install the CH8568 DOCSIS 3.1 11ac Wireless Gateway, verify that the following items are included in the box with the CH8568G:

Item	Description
	
	
Power Adapter	Connect the CH8568G to an AC electrical outlet
Ethernet Cable RJ 45 (TAE)	Connect the CH8568G to PC or Notebook

You must have the latest service packs and patches installed on your computer for your operating system.

You will need a 75-ohm coaxial cable with F-type connectors to connect the CH8568G to the nearest cable outlet. If a TV is connected to the cable outlet, you may need a 5 to 900 MHz RF splitter and two additional coaxial cables to use the TV and the CH8568G.

Before You Begin

Take the following precautions before installing the CH8568G:

- The CH8568G should always be put in a vertical upright position.
- There should always be a clearance of at least 30 mm between each of the side covers and

any object that might block the air flow through the unit.

- If the unit is attached by means of the comprised bracket, the FNC connector should protrude on the left hand side when attaching the unit to the bracket.
- Strive to deploy the unit in a central location of the livable areas where most of the wireless devices are used.

Take into account the following environmental conditions

- Avoid physical obstructions of the wireless signal for optimal line of sight (walls, ceilings, floors, furniture)
- Avoid reflective surfaces (Wi-Fi signals may bounce off Windows, mirrors, metal file cabinets, stainless steel countertops, aluminum foil)
- Avoid electrical home appliances like microwaves, home security systems, cordless/mobile phones, fans that might cause interference with the wireless signal
- Postpone installation until there is no risk of thunderstorm or lightning activity in the area.
- To avoid potential shock, always unplug the power cord from the wall outlet or other power source before disconnecting it from the CH8568G rear panel.
- To prevent overheating the CH8568G, do not block the ventilation holes on the sides of the unit. Do not open the unit. Refer all service to your Internet Service provider.

Check that you have the required cables, adapters, and adapter software. Verify that the proper drivers are installed for the Ethernet adapter on each networked computer. For information on WLAN setup, see Setting up Your Wireless LAN.

System Requirements

Your computer must meet the following minimum requirements:

- Computer with Pentium[®] class or better processor Windows XP, Windows 7, Windows 8, Windows 10, Macintosh, or UNIX operating system with available operating system CD-ROM
- Any web browser, such as Microsoft Internet Explorer, Netscape Navigator[®], or Mozilla[®] Firefox

Connecting the CH8568G

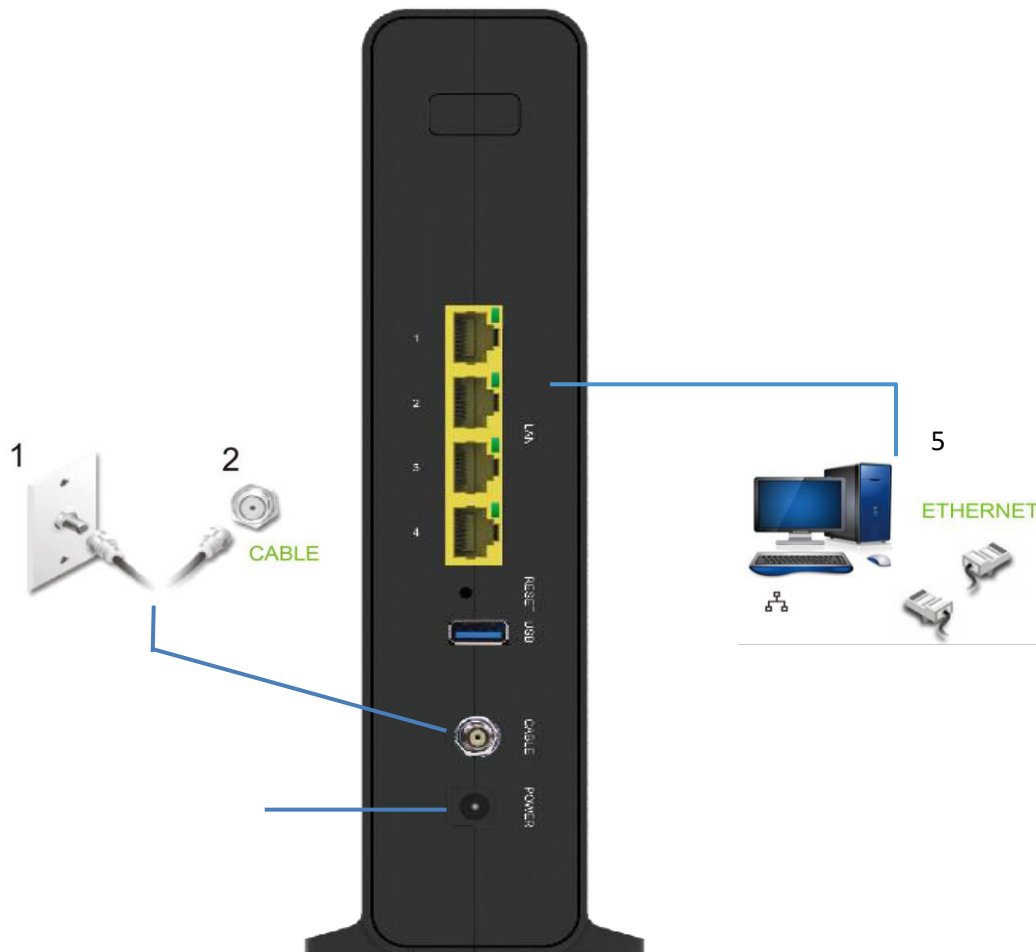
Before starting, be sure the computer is turned on and the CH8568G power cord is unplugged.

1. Connect one end of the coaxial cable to the cable outlet or splitter.
2. Connect the other end of the coaxial cable to the Cable connector on the CH8568G. Hand-tighten the connectors to avoid damaging them.

3. Plug the power cord into the Power port on the CH8568G.
4. Plug the other end of the power cord into an electrical wall outlet.

This automatically powers on the gateway. You do not need to unplug the gateway when it is not in use. The first time you plug in the CH8568G, allow it 5 to 30 minutes to find and lock on the appropriate communications channels.

5. Connect the Ethernet cable to the Ethernet port on the computer, and connect the other



end of the Ethernet cable to the Ethernet port on the gateway.

6. Check that the LEDs on the front panel cycle through the following sequence:
CH8568G LED Activity during Startup

LED	Description
POWER	Off: No power
	Blinking Green: Booting
	Solid Green: Power on

	Off: No Internet connection available (error)
INTERNET	Fast Blinking Green: Registering with CMTS / Acquiring DOCSIS Channels
	Solid Green: Internet connection available

Setting up Internet Access

After installing the CH8568G, check that you can connect to the Internet. You can retrieve an IP address for your computer's network interface using one of the following options:

- Retrieve the statically defined IP address and DNS address
- Automatically retrieve the IP address using the Network DHCP server

The CBN CH8568 DOCSIS 3.1 11ac Wireless Gateway provides a DHCP server on its LAN. It is recommended that you configure your LAN to obtain the IPs for the LAN and DNS server automatically.

Make sure all computers on your LAN are configured for TCP/IP. After configuring TCP/IP on your computer, you should verify the IP address.

Note: For UNIX or Linux systems follow the instructions in the applicable user documentation.

Configuring TCP/IP in Windows 7

1. Open the Control Panel.
2. Click Network and Internet to display the Network and Internet window.
3. Click Network and Sharing Center to display the Network and Sharing Center window.
4. Click change adapter settings
5. Right-click the network connection for the network interface you want to change.
6. Click Properties to display the Local Area Connection Properties window
7. Select Internet Protocol Version 4(TCP/IPv4), double click it or click Properties
8. Select Obtain an IP address automatically and Obtain DNS server address automatically.
9. Click OK to save the TCP/IP settings and close the Internet Protocol Version 4 (TCP/IPv4) Properties window.
10. Click OK to close the Local Area Connection Properties window.
11. Close the remaining Windows and exit the Control Panel.
12. When you complete the TCP/IP configuration, continue with Verifying the IP Address in Windows 7

Verifying the IP Address for Windows 7

1. On the Windows taskbar, click Start.
2. Click All Programs.
3. Click Accessories.
4. Click Run to open the Run window.
5. Type cmd and click OK to open a command prompt window.
6. Type ipconfig and press Enter to display the IP Configuration.

Configuring TCP/IP in Windows 8

1. Press Windows key on the keyboard to go into Desktop mode.
2. Move the mouse's cursor to the lower right corner of the screen. A right panel will now appear. Click the settings icon. The settings panel will now appear.
3. On the settings panel, click the Control panel link.
4. Open the Control Panel.

5. Click network and internet to display the network and Internet window.
6. Click Network and sharing center to display the Network and Sharing Centre window.
7. Click change adapter settings.
8. Right click the network connection for the network interface you want to change
9. Click properties to display the Local Area Connection properties window.
10. Select Internet protocol version 4 (TCP/IPv4), double click it or click properties.
11. Select obtain IP address automatically and obtain DNS server address automatically.
12. Click ok to save the TCP/IP settings and close the internet protocol version 4
13. (TCP/IP) settings and close the internet protocol version 4 (TCP/IPV4) properties window.
14. Click ok to close the Local Area Connection properties window.
15. Close the remaining Windows and exit the control panel.
16. When you complete the TCP/IP configuration, continue with verifying the IP address in Windows 8.

Verifying the IP Address in Windows 8

1. Press the Windows + R keys on your keyboard.
2. Enter CMD in the Open field
3. Type ipconfig and press Enter to display the IP Configuration.

Configuring TCP/IP in Windows 10

1. Open the Control Panel
2. Click Network and Internet to display the Network and Internet window.
3. Click Network and Sharing Center to display the Network and Sharing Center window.
4. Click change adapter settings
5. Right-click the network connection for the network interface you want to change.
6. Click Properties to display the Local Area Connection Properties window
7. Select Internet Protocol Version 4(TCP/IPv4), double click it or click Properties
8. Select Obtain an IP address automatically and Obtain DNS server address automatically.
9. Click OK to save the TCP/IP settings and close the Internet Protocol Version 4 (TCP/IPv4) Properties window.
10. Click OK to close the Local Area Connection Properties window.
11. Close the remaining Windows and exit the Control Panel.
12. When you complete the TCP/IP configuration, continue with Verifying the IP Address in Windows 10

Verifying the IP Address for Windows 10

1. On the Windows taskbar, click Start.
2. Click All Programs.
3. Click Accessories.
4. Click Run to open the Run window.
5. Type cmd and click OK to open a command prompt window.
6. Type ipconfig and press Enter to display the IP Configuration.

Renewing the IP Address for Windows 7 ,Windows 8 & Windows 10

1. Press the Windows key / Windows +R key
2. Type cmd and click OK to open a command prompt window.
3. Type ipconfig/renew and press Enter. A valid IP address should appear indicating that Internet access is available.
4. If, after performing this procedure, your computer still cannot access the Internet, call your service provider.

Setting up a WLAN

Do the following to set up a Wi-Fi network using the WPS button on the CH8568G:

1. Power on the CH8568G.
2. Power on the WPS-enabled devices you want to have access to the network, such as a PC & Router.
3. The Wi-Fi network will automatically detect the WPS devices.
4. Press WPS button on the CH8568G for 5 seconds until WLAN LED starts flashing.
5. If applicable, press WPS button on the other WPS devices.

Start

For normal operation, you do not need to change most default settings. Carefully consider the following caution statements:

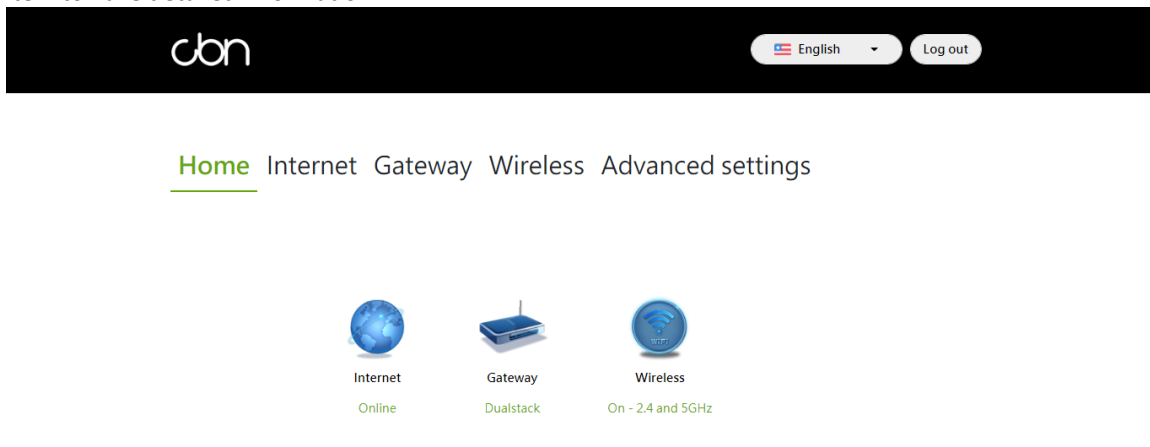
Starting the CH8568G Configuration Manager (CMGR)

The CH8568G Configuration Manager (CMGR) allows you to change and view the settings on your CH8568G. You can reach the configuration manager at <http://192.168.0.1>

In order to login CMGR, you should key in the correct Password. By default, it should be “admin”. To prevent unauthorized configuration, change the default password immediately when you first configure the CH8568G Wireless Cable Modem Gateway.



After login management system, the home page shows the current status of CH8568G. You can click in the item to have detailed information.



Internet

This item shows how many devices connect to CH8568G.

Internet

Gateway

This item displays the status of Gateway. Users can press it to connect to the next page for more details.

Gateway

Wireless

This item shows current Wi-Fi status and you can press it to connect to the next page for more details.

Wireless

Multiple Language Support

Your CH8568G Wireless Cable Modem Supports English, Deutsch Netherlands, Français, Čeština, Polski, Slovenčina, Italiano, Turkish, Romana, Magyar, Russian, 中文(繁體), 中文(简体) languages. Default Language is English. There is a bar at the top right corner to select the preferred language.

[Home](#) [Internet](#) [Gateway](#) [Wireless](#) [Advanced settings](#)

Select the preferred Language.

All the text will switch to the selected language immediately.




Internet

The CH8568G Internet section allows you to configure your Internet. You can click Internet submenu option to view or change the configuration information for that option.

Info
DOCSIS
Connected
devices

Info

The CH8568G WAN settings of home gateway interface are displayed below.



English

Log out

Home

Internet

Gateway

Wireless

Advanced settings

Info

DOCSIS

Connected devices

Internet » Info

CH8568G device information

Standard specification compliant	DOCSIS 3.1
Hardware version	91.11
Software version	CH8568G-7.13.198.41-NOSH
Cable MAC address	34:2C:C4:FE:09:97
Cable modem serial number	710113000957
System up time	Y:0000 W:00 D:00 H:01 M:42 S:06
Network access	Allowed

WAN IP settings

MAC address	34:2C:C4:FE:09:99
IPv6 address	fe80::362c:c4ff:fe99:999 2002:db50:fa13:160:2cc8:4e0a:b398:7a63
IPv6 default gateway	fe80::217:10ff:fe9f:c988
IPv6 DNS servers	2002:db50:fa13:1::2
IPv4 address	172.16.165.41
Default gateway	172.16.165.1
IPv4 DNS servers	172.16.1.233

Docsis

The connection page is a read-only screen that shows your cable modem Downstream Bonded Channels & Upstream Bonded Channels.

[Internet » DOCSIS](#)

Downstream bonded channels

Channel	Frequency (Hz)	Power (dBmV)	SNR (dB)	Modulation	Channel ID	Locked Status
1	345000000	-1.799999	43.376591	QAM256	2	Locked

OFDM Downstream Overview

Receiver	FFT Type	Subcarr 0 Frequency (MHz)	PLC Locked	NCP Locked	MDC1 Locked	PLC Power (dBmV)
0	4K	821600000	YES	YES	YES	-4.200001

Upstream bonded channels

Channel	Frequency (Hz)	Power (dBmV)	Modulation	Symbol Rate (ksps)	Locked Status	Channel Type
---------	----------------	--------------	------------	--------------------	---------------	--------------

Connected devices

The page can show Cable Modem all connections to the Cable Modem devices, such as cable network and wireless network.

[Internet » Connected devices](#)

All devices connected to your CH8568G are listed below:

Refresh

Device name	MAC address	IP address	Connected to
No connected devices!			

Gateway

CH8568G Gateway section provides seven major items including DHCPv4, DHCPv6, UPnP, Firewall, Port forwarding, Port triggering, DMZ settings to control all gateway functions. Described respectively as below.

DHCPv4 server
DHCPv6 server
UPnP
Firewall
Port forwarding
Port triggering
DMZ

You can click any Gateway submenu option to view or change the advanced configuration information for that option.

UPnP

Universal Plug and Play (UPnP) helps devices, such as Internet appliances and computers, access the network and connect to other devices as needed. UPnP devices can automatically discover the services from other registered UPnP devices on the network. In this section, CH8568G allows you to enable UPnP Function.

Gateway » UPnP

UPnP function

☒ Enabled

☐ Disabled

Apply changes

DHCPv4 Server

The Dynamic Host Configuration Protocol (DHCPv4) is a standardized network protocol used on Internet Protocol networks for dynamically distributing network configuration parameters, such as IP addresses for interfaces and services. DHCP also supports a mix of static and dynamic IP addresses.

CH8568G allows users to configure private LAN IP for their home gateway. And also in this section allows you provides DHCP server to manage IP addresses to CPEs and supports Reserved IP Address for users' private and static clients.

Gateway » DHCPv4 server

DHCPv4 server

This sections allows you to configure how the CH8568G assigns IPv4 addresses. It is configured to be a DHCP (Dynamic Host Configuration Protocol) server by default. This provides the TCP/IP configuration for all connected devices.

☒ Enabled ☐ Disabled

Starting local address 192 . 168 . 0 .

Number of CPEs

Lease time seconds

Apply changes

Reserved IP addresses

Refresh

Choose	Device name	MAC address	IP address
No connected devices!			

Add reserved rule

MAC address
(example: 01:23:45:67:89:AB)

IP address 192 . 168 . 0 .

Add rule

DHCPv6 Server

CH8568G support stateful (DHCPv6) IPv6 address auto-configuration simultaneously. For stateful auto-configuration, if gateway WAN interface acquires global IPv6 address and receives delegation prefix during provisioning, DHCPv6 server will run on gateway LAN interface and start to release IPv6 address from delegation prefix for LAN side IPv6 users.

Gateway » DHCPv6 server

DHCPv6 server

This section allows you to configure how the CH8568G assigns IPv6 addresses.

<input checked="" type="radio"/> Enabled	<input type="radio"/> Disabled
Auto configuration type	<input checked="" type="radio"/> Stateful <input type="radio"/> Stateless
Start address	2002:DB65:0000:0014 :0000:0000:0000:0001 / 64
Number of addresses	255
DHCPv6 valid lifetime	25799 seconds
Router advertisement lifetime	180 seconds
Router advertisement interval	30 seconds

Firewall

This page is used to configure Firewall Protection level and display all allowed services.

Gateway » Firewall settings

IPv4 firewall

Firewall protection	<input checked="" type="checkbox"/> Enabled
Block http	<input type="checkbox"/> Enabled
Block ICMP	<input type="checkbox"/> Enabled
Block Multicast	<input type="checkbox"/> Enabled
Block P2P applications	<input type="checkbox"/> Enabled
Block IDENT	<input type="checkbox"/> Enabled

IPv6 firewall

Firewall protection	<input checked="" type="checkbox"/> Enabled
Block http	<input type="checkbox"/> Enabled
Block ICMP	<input type="checkbox"/> Enabled
Block Multicast	<input type="checkbox"/> Enabled
Block P2P applications	<input type="checkbox"/> Enabled
Block IDENT	<input type="checkbox"/> Enabled

Apply changes

Port Forwarding

This section allows you to run a publicly accessible server on the LAN by specifying the mapping of TCP/UDP ports to a local PC. This enables incoming requests on specific port numbers to reach web servers, FTP servers, mail servers, etc. so that they can be accessible from the public Internet.

The ports used by some common applications are:

HTTP: 80
FTP: 20, 21
Telnet: 23
SMTP e-mail: 25
SNMP: 161

To map a port, you must enter the range of port numbers that should be forwarded locally and the IP address to which traffic to those ports should be sent. If only a single port specification is desired, enter the same port number in the “start” and “end” locations for that IP address.

1. Press Create a new rule button to add new rules.

Gateway » Port forwarding

This function allows for incoming requests on specific port numbers to reach web servers, FTP servers and mail servers, etc:

Create a new rule

Local				
IP address	Port range	Protocol	Enabled	Delete
No forwarding rule!				

Apply changes

2. Fill in needed information, and then press Add rule button.

Gateway » Port forwarding

This function allows for incoming requests on specific port numbers to reach web servers, FTP servers and mail servers, etc:

Local IP	192.168.0.	12
Local start port	<input type="text" value="21"/>	
Local end port	<input type="text" value="21"/>	
Protocol	TCP ▼	
Enabled	On ▼	

Add rule

Cancel

3. One rule is created. And also, you can delete the existed rules.

Gateway » Port forwarding

This function allows for incoming requests on specific port numbers to reach web servers, FTP servers and mail servers, etc:

Create a new rule

Local				
IP address	Port range	Protocol	Enabled	Delete
192.168.0.12	21	TCP	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Apply changes

Port Triggering

Port triggering function is a conditional port forwarding feature. When this device detects outbound traffic on a specific port (triggered ports), it will set up the port forwarding rules temporarily on the port ranges you specify to allow inbound traffic. This is supposed to increase the support for Internet gaming, video conferencing, and Internet telephony due to these applications require multiple connections.

Gateway » Port triggering

The Port Triggering area allows you to enable dynamic port forwarding for certain services/applications. The CH8568G monitors outgoing traffic on the ports specified in the Trigger Range. When it detects activity on these ports, it remembers the IP address of the device sending the data and routes incoming traffic on ports in the Target Range to that IP address on your network.

Create a new rule

Trigger range	Target range	Protocol	Enabled	Delete
No triggering rule!				

Apply changes

DMZ

A DMZ host is a computer on your local network that can be accessed from the Internet regardless of port forwarding and firewall settings.

Gateway » DMZ

DMZ function

☒ Enabled

☐ Disabled

DMZ address

192 . 168 . 0 .

1

Apply changes

Wireless

CH8568G Wireless section provide four major items including Wireless signal, Security, Guest network and WPS, describing respectively as below.

Wireless signal
Security
Guest network
WPS

You can click any Wireless submenu option to view or change the advanced configuration information for that option.

Wireless signal

CH8568G is a dual band product and all the basic settings of 2.4GHz and 5GHz can be changed in this page. You can configure basic features of your Wi-Fi wireless network, including to enable or to disable the wireless interface, to hide the network from active scans, to set the wireless network name (also known as SSID) and to select the working channel.

Wireless » Wireless signal

Wireless frequency 2.4GHz

☒ Enable 2.4 GHz

☐ Disable 2.4 GHz

Wireless mode

802.11b/g/n mixed

Channel

☐ Manual

☒ Auto

Channel 1

Channel width

40 MHz

Wireless frequency 5GHz

☒ Enable 5 GHz

☐ Disable 5 GHz

Wireless mode

802.11a/n/ac mixed

Channel

☐ Manual

☒ Auto

Channel 124

Channel width

80 MHz

Apply changes

Restart

Field Description for the WLAN Basic

Field	Description
Frequency (Enable/Disable)	The basic settings of 2.4GHz and 5GHz are enable. User can disable the frequency you don't need.
Wireless mod	According to 2.4/5 GHz setting, User can change to 802.11b/g/n mixed, 802.11n or 802.11g/n mixed to let system accept the clients.
Channel	Select the current channel number or control channel, you can select "Auto" for selecting best quality channel automatically. This value depend on Transmission mode.
Channel width	When 20/40MHz is selected 802.11n clients experience improved throughput using 40 MHz, while legacy clients (either 802.11a or 802.11b/g) can still be serviced without interruption using 20MHz.

Security

Wireless » WiFi configuration

2.4 GHz WiFi configuration

WiFi Network Name (SSID)	<input type="text" value="CBN_E0997"/>	!
WiFi Network Name (SSID) broadcast	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Security	<input type="text" value="WPA-PSK/WPA2-PSK"/>	!
WiFi password (security key)	<input type="text" value="admin20200909"/>	!

5 GHz WiFi configuration

WiFi Network Name (SSID)	<input type="text" value="CBN_E0997"/>	!
WiFi Network Name (SSID) broadcast	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Security	<input type="text" value="WPA-PSK/WPA2-PSK"/>	!
WiFi password (security key)	<input type="text" value="admin20200909"/>	!

Apply changes

Field Description for the WLAN Basic

Field	Description
Wi-Fi Network Name (SSID)	The basic settings of Wi-Fi Network Name is CBN_E0997. The Network Name must start and finish with letter, a special character or a number and can be a maximum of 32 characters.
Wi-Fi Network Name (SSID) broadcast	With a Wi-Fi Network Name (SSID) broadcast, users type the SSID into the client application instead of selecting the SSID from a list. This feature makes it slightly more difficult for the user to gain access.
Security	To prevent unauthorized data transmitted over the wireless LAN, you must enable wireless security. You can manually configure the security for your gateway from the Wireless Settings security screen. Select the type of security that you want to use:

-
- a. Select Disabled to use no security. Anyone in the coverage area can enter your network.
 - b. Select WPA2-PSK to use the Wi-Fi Protected Access (Personal) security protocol.
 - c. Select WPA-PSK/WPA2-PSK mixed mode which can provide broader support for all wireless clients.
-

Wi-Fi password (security key)

The Wi-Fi password minimum requirements:

- a. 8 Characters long.
 - b. Must include at least 1 lower case letter.
 - c. Must include at least 1 number.
-

Guest Networks

CH8568G can configure basic features of your Wi-Fi wireless network, including to enable or to disable the wireless interface, to hide the network from active scans, to set the wireless network name (also known as SSID) and to change security key for wireless connection.

Wireless » Guest network

☐ Enable guest network

☒ Disable guest network

WiFi Network Name (SSID)

CBN_GUEST_3-E0997

WiFi Network Name (SSID) broadcast

☒ Yes ☐ No

Security

WPA-PSK/WPA2-PSK

WiFi password (security key)

h548k7QGhcNP

Apply changes

Field Description for the WLAN Guest Networks

Field	Description
Guest network(enable/disable)	Guest networking provides a way for users to access a network in seconds with little to no setup on their part. The basic settings is disable the guest network. User can check enable guest network to switch on the function.
SSID	Sets the Network Name (also known as SSID) of the Primary wireless network. This is a 1-32 ASCII character string.
Wi-Fi Network Name(SSID) broadcast	With a Wi-Fi Network Name (SSID) broadcast, users type the SSID into the client application instead of selecting the SSID from a list. This feature makes it slightly more difficult for the user to gain access.
Security	<p>To prevent unauthorized data transmitted over the wireless LAN, you must enable wireless security. You can manually configure the wireless settings and security for your gateway from the Wireless Settings security screen.</p> <p>Select the type of security that you want to use.</p> <ol style="list-style-type: none">Select Disabled to use no security. Anyone in the coverage area can enter your network.Select WPA2-PSK to use the Wi-Fi Protected Access (Personal) security

protocol.

- c. Select WPA-PSK/WPA2-PSK mixed mode which can provide broader support for all wireless clients.
-

WPS

CH8568G provide WPS (Wi-Fi Protected Setup) function, with it enable will support WPS clients to join the network very easily. It is a standard for easy and secure establishment of a wireless network. With WPS you can setup and protect your wireless network in just a few easy steps.

We suggest users to press Add Client button to start WPS directly. By default, that will be PBC (Push Button Configuration) and easy for users.

Wireless » WiFi Protected Set-up (WPS)

WPS Push button

☒ Enable

☐ Disable



WPS PIN

☐ Enable

☒ Disable



Apply changes

AP WPS configuration

AP WPS PIN number 98635917

Generate new AP WPS PIN

Add WPS client

☒ Push Button

☐ PIN

Add client

Field Descriptions for the WLAN WPS

Field	Description
WPS Push button	Select to Enable WPS Push button to help User simplify the process of connecting compatible wireless devices. By either pressing the WPS Pair button on the front of your device (for a minimum of 3 seconds) or by clicking on the add client button below during the connection process.
WPS PIN	Select to Enable WPS PIN then press Apply change. System will create AP WPS PIN number allow you to connect device. User can either entering the AP WPS PIN number on your device or by adding a WPS PIN client which will prompt you to enter the PIN of the device

Advanced

The CH8568G support management for web browser login password including change password and Event Log. .



Admin Account

CH8568G allows changing admin password for web browser login. Configure Password and retype the Password again and then click Apply and when you login in next time, you must use this new password. For secure, we strongly suggest to change default password as soon as possible.

Advanced settings » Admin

Username	<input type="text"/>	
Current password	<input type="password"/>	
Re-enter New username	<input type="text"/>	<input type="checkbox"/>
Enter a New Password	<input type="password"/>	<input type="checkbox"/>
Re-enter New Password	<input type="password"/>	

Apply changes

Event Log

This page displays the contents of the SNMP event log.

[Advanced settings » Event Log](#)

Refresh data

System	Network	DOCSIS	Firewall
Time	Priority	Description	
<div><div></div><div></div></div>			

Troubleshooting

If the solutions listed here do not solve your problem, contact your service provider.

Before calling your service provider, try pressing the Reset button on the rear panel of the CH8568G. Please note, if you press the Reset button, you will lose all your custom configuration settings, including Firewall and Advanced settings. Your service provider may ask for the front panel LED status; see Front-Panel LEDs and Error Conditions.

Solutions

Table 1 – Troubleshooting Solutions

Problem	Possible Solution
Power light is off	<p>Check that the CH8568G is properly plugged into the electrical outlet.</p> <p>Check that the electrical outlet is working.</p>
Cannot send or receive data	<p>On the front panel, note the status of the LEDs and refer to Front-Panel LEDs and Error Conditions to identify the error. If you have cable TV, check that the TV is working and the picture is clear. If you cannot receive regular TV channels, the data service will not function.</p> <p>Check the coaxial cable at the CH8568G and wall outlet. Hand-tighten, if necessary.</p> <p>Check the IP address.</p> <p>Check that the Ethernet cable is properly connected to the CH8568G and the computer.</p> <p>If a device is connected via the Ethernet port, verify connectivity by checking the LINK LEDs on the rear panel.</p>
Wireless client(s) cannot send or receive data	<p>Perform the first four checks in “Cannot send or receive data.”</p> <p>Check the Security Mode setting on the Wireless Security Page:</p> <ul style="list-style-type: none">• If you enabled WPA and configured a passphrase on the CH8568G, be sure each affected wireless client has the identical passphrase. If this does not solve the problem, check whether the wireless client supports WPA.• If you enabled WEP and configured a key on the CH8568G, be sure each affected wireless client has the identical WEP key. If this does not solve the problem, check whether the client’s wireless adapter supports the type of WEP key configured on the CH8568G.

	<ul style="list-style-type: none"> To temporarily eliminate the Security Mode as a potential issue, disable security. <p>After resolving your problem, be sure to re-enable wireless security.</p> <ul style="list-style-type: none"> On the Wireless Access Control Page, be sure the MAC address for each affected wireless client is correctly listed.
Slow wireless transmission speed with WPA enabled	On the Wireless Primary Network Page, check whether the WPA Encryption type is TKIP. If all of your wireless clients support AES, change the WPA Encryption to AES.

Front-Panel LEDs and Error Conditions

The CH8568G front panel LEDs provides status information for the following error conditions:

Table 2 – Front-Panel LEDs and Error Conditions

LED	Status	if, During Startup:	if, During Normal Operation:
POWER	OFF	The CH8568G is unplugged	The CH8568G is unplugged
INTERNET	FLASHING	IP registration is unsuccessful	The IP registration is lost

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