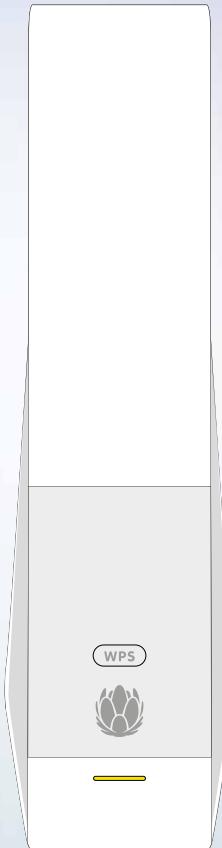


# Connect Box



## Installation, Tips & Tricks



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## 1 Overview

The Connect Box is the worldwide most compact EuroDOCSIS 3.0 Voice Gateway which provides the ideal all-in-one wired and wireless solution, 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 Connect Box. It also provides instructions for installing the wireless gateway and configuring the Wireless LAN, Ethernet, Router, DHCP, and Security settings.

## Contact Information

- For any questions or assistance with the Connect Box, contact your Internet Service provider.
- For information on customer service, technical support, or warranty claims; see the Connect Box Software License, Warranty, Safety, and Regulatory Information card provided with the Connect Box.

## Standard Features

The Connect Box 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 – an EURO DOCSIS® 3.0 cable modem, IEEE 802.11a/b/g/n/ac wireless access point, Ethernet 10/100/1000 Base T connections, VoIP Internet telephone 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 10/100/1000 Base-T Ethernet uplink ports supporting half- or full-duplex connections with auto-MDI<sub>X</sub> 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.

- Connect Box wireless function supports Wi-Fi 2.4G/5G 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.
- Connect Box Configuration Manager (CMGR) which provides a graphical user interface (GUI) for easy configuration of necessary wireless, Ethernet, router, DHCP, and security settings.

## Connect Box LAN Choices

You can connect up to 253 client computers to the Connect Box 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 (Connect Box model shown)

Your maximum wireless operation distance depends on the type of materials through which the signal must pass and the location of your Connect Box and clients (stations). Wireless performance cannot be guaranteed for all supported distances in all environments.

**Note:** To get better wireless coverage, please put your Connect Box wireless gateway vertically.

## Wired Ethernet LAN

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



Sample Ethernet to Computer Connection (Connect Box model shown)

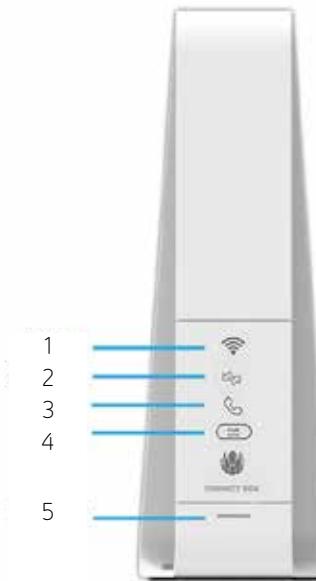
A wired Ethernet LAN with more than four computers requires one or more hubs, switches, or routers. You can:

- Connect a hub or switch to any Ethernet port on the Connect Box.
- Use Ethernet hubs, switches, or routers to connect up to any combination of 253 computers and wireless clients to the Connect Box.

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

## Front Panel

The Connect Box 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 Connect Box network.

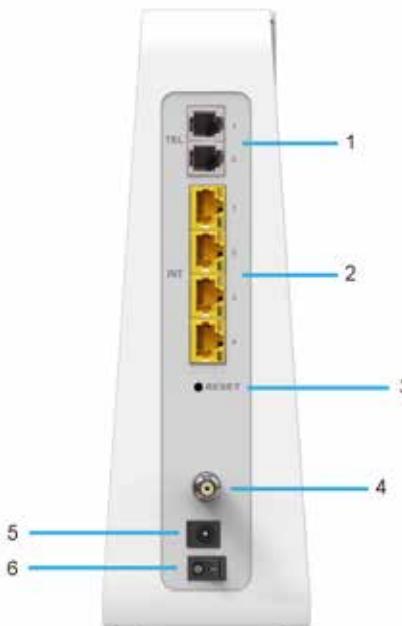


The Connect Box front panel LED indicators provide the following status information for power, communications, and errors:

S.no	LED	Status	On
1	WI-FI	Red: Wireless function is fail.	Green: Wireless interface is active now.
2	Internet	Blinking Green :Scanning for Internet connection, transmitting or receiving data over the Internet	Green: Connected to Internet
3	TEL	LED does not blink	Green: Telephone is connected and activated; on-hook

S.no	LED	Status	On
4	WPS	WPS Button	Push this button to connect with other WPS enabled devices.
5	Power	Blinking White: Booting up Device	Solid White: Device is ready

## Rear Panel

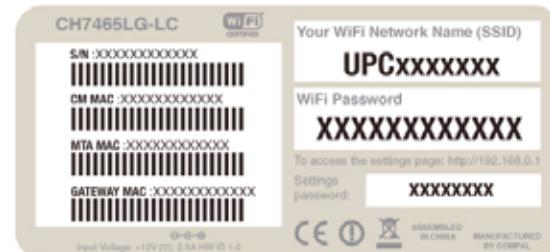


The Connect Box (shown above) rear panel contains the following cabling port and connectors:

S.no	Item	Description
1	TEL	Use this port to connect telephone for VOIP function.
2	Ethernet LAN port	Use these ports to connect local computers.
3	RESET	Press and hold the RESET button for five seconds or longer to restore Connect Box 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.
4	COAX	Connect your coaxial cable line to this port.
5	POWER	Connect the supplied power adapter to this port.
6	POWER SWITCH	Power on/off button.

## MAC Label

The Connect Box Media Access Control (MAC) label is located on the bottom of the Connect Box. The label contains the MAC address which is a unique, 48-bit value that identifies each Ethernet network device.



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

## 2 Getting Started

### Inside the Box

Before you install the Connect Box, verify that the following items are included in the box with the Connect Box.

Item	Description
Power Adapter	Connect the Connect Box to an AC electrical outlet
Ethernet Cable	Connect the Connect Box to an Ethernet port
Wi-Fi Card	Provides default SSID and password and QR code for Wi-Fi access
Connect Box Install Sheet	Provides basic information for setting up the Connect Box

### Before You Begin

Take the following precautions before installing the Connect Box:

- 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 Connect Box rear panel.
- To prevent overheating the Connect Box, 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, 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 Connect Box

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

- Connect one end of the coaxial cable to the cable outlet or splitter.
- Connect the other end of the coaxial cable to the Cable connector on the Connect Box. Hand-tighten the connectors to avoid damaging them.
- Plug the power cord into the Power port on the Connect Box.
- 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 Connect Box, allow it 5 to 30 minutes to find and lock on the appropriate communications channels.
- Plug the other end of the telephone cord of a single or two-line telephone into the TEL 1/2 port on the rear of the Connect Box.
- Plug the telephone cord of a single or two-line telephone into the telephone.
- 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.



8. Check that the LEDs on the front panel cycle through the following sequence:

#### Connect Box LED Activity during Startup

LED	Description
Online	Flashes during Connect Box registration and configuration. Changes to solid green when the Connect Box is registered successfully and ready for Internet access

## Setting up Internet Access

After installing the Connect Box, 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 Connect Box 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 XP

1. Open the Control Panel.
2. Double-click Network Connections to list the Dial-up and LAN or High-Speed Internet connections.
3. Right-click the network connection for your network interface.
4. Select Properties from the drop-down menu to display the Local Area Connection Properties window. Be sure Internet Protocol (TCP/IP) is checked.
5. Select Internet Protocol (TCP/IP) and click Properties to display the Internet Protocol (TCP/IP) Properties window.
6. Select Obtain an IP address automatically and Obtain DNS server address automatically.
7. Click OK to save the TCP/IP settings and exit the TCP/IP Properties window.
8. Close the Local Area Connection Properties window and then exit the Control Panel.
9. When you complete the TCP/IP configuration, continue with Verifying the IP Address in Windows XP

## Verifying the IP Address for Windows XP

1. On the Windows taskbar, click Start.
2. Select Run to open the Run window.
3. Type cmd and click OK.
4. Type ipconfig and press Enter to display your IP configuration.

## 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 pane will now appear.
3. On the settings pane, 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 (TCP/IPv4) properties window.
13. Click ok to close the Local Area Connection properties window.
14. Close the remaining windows and exit the control panel.
15. 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 key on your keyboard and then enter command prompt" to display the Command Prompt shortcut. A search box on right side of the screen will appear.
2. Click Command Prompt
3. In the Command Prompt, Type ipconfig and press Enter to display the IP configuration

## Renewing the IP Address for Windows XP, Windows 7 & Windows 8

1. Open a command prompt window.
2. From the Windows taskbar, click Start.
3. Select Run to open the Run window.
4. Type cmd and click OK to open a command prompt window.
5. Type ipconfig /renew and press Enter. A valid IP address should appear indicating that Internet access is available.
6. Type exit and press Enter to close the command prompt window.
7. 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 Connect Box:

1. Power on the Connect Box.
2. Power on the WPS-enabled devices you want to have access to the network, such as a PC, router, or telephone.
3. The Wi-Fi network will automatically detect the WPS devices.
4. Press WPS button on the Connect Box.
5. If applicable, press WPS button on the other WPS devices.

## ③ Start

### Starting the Connect Box

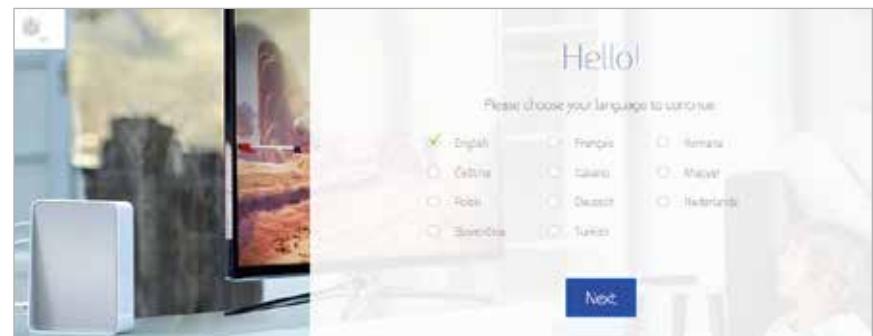
1. On a computer on the LAN, open a web browser.
2. In the Address or Location field, type 192.168.0.1 and press ENTER to display the Login window
3. You can see the below welcome page



Click Next to continue

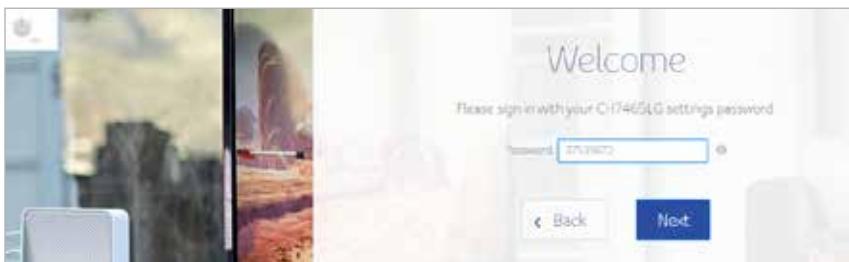
### Multiple Language Support

Choose your Language Preference, all the text will switch to the selected language immediately. Default Language is English.



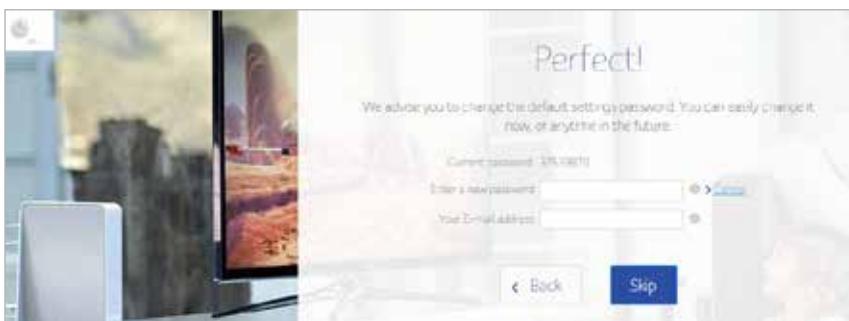
## Log in

In order to login Connect Box Wi-Fi Modem router, type the password which is located in the product label on the bottom of the Wi-Fi modem router.



## Change password

To change your default password, click change. Enter your new password & a valid email address that is used to recover your password. If you don't want to change the default password click skip.



To prevent unauthorized configuration, change the default password immediately when you first configure the Connect Box Wireless Cable Modem Gateway.

The following screens will appear after the above process.



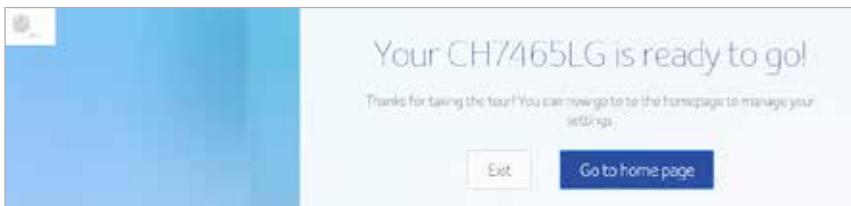
Press continue

## Wi-Fi Configuration

Click change button to change your Wi-Fi Network name and Wi-Fi password, if you don't want to change click Next.



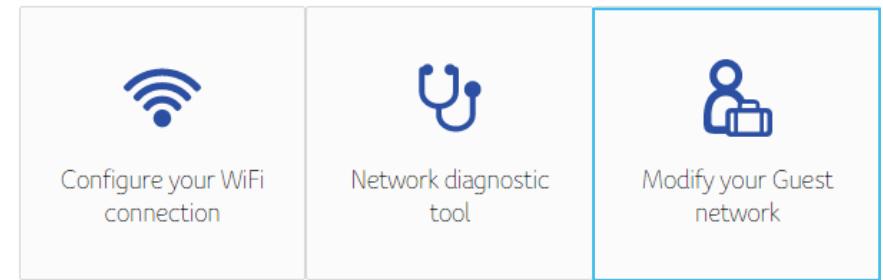
After the above process you can see the below screen, to manage your settings click go to home page or click exit.



For normal operation, you do not need to change most default settings.

## 4 Home

Connect Box Home Page displays Quick Set-Up wizards and the Connect Box Status Overview.



## Quick Set up Wizards

**Configure Your Wi-Fi Connection** – Click this to view or change the wireless settings for your Wi-Fi modem router.



**Network Diagnostic Tool** - Click this to check the Broadband Service, Telephone Service, Ethernet Connection Service and WI-FI Connections status.



**Guest Network** - Click this to configure Wireless Network for Guests. Set up a guest network to allow visitors to use your Wi-Fi modem router's Internet connection.



## Connect Box Status Overview

This section displays the Wireless, Internet and Telephony Status and also provides information about the Wireless and Ethernet connected devices to the Connect Box Wi-Fi modem router.

Your Connect Box status

- Wireless (On - 2.4 and 5GHz)
- Internet (Online)
- Telephony (Disabled)

Wireless connected devices: 1

- TH45025-4750

Ethernet Connected devices: 1

- TH45025-4750

## 5 Connected Devices

This section displays the information of the devices which is connected to Connect Box Wi-Fi modem router.

Connected devices				
Device name	MAC address	IP address	Speed (Mbps)	Comments
TH45025-4750	20:8A:8A:81:27:65	192.168.0.10/24	1000	Ethernet 1
TH45025-4750	10:9E:82:07:72	192.168.0.10/24	11	Wi-Fi 2.4G URCSNAC001

## 6 Modem Mode

This section allows you to choose Modem Mode. Click Enable Modem Mode and apply changes.

### Modem mode

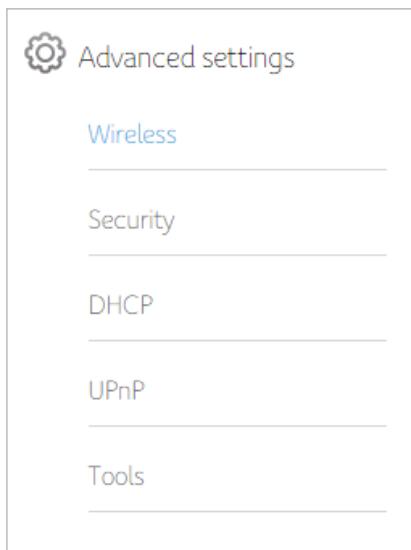
Modem mode disables all routing of the CH7465LG, so you can use your own wireless router.

Enabled Modem Mode  Enabled Router Mode

**Note:** To log in Web UI input default Modem Mode IP address 192.168.100.1.

## 7 Advanced Settings

ADVANCED SETTINGS screen help to configure Wireless setting, Security Setting, DHCP setting, UPNP and Tools.



### Wireless

The Connect Box Wireless screen allows you to configure your wireless LAN (WLAN). Click wireless submenu option to view or change the configuration information for that option.



### Wireless Signal

Connect Box is a dual band product and all the basic settings of 2.4GHz and 5GHz can be changed in this screen. You can configure basic features of your Wi-Fi wireless network, including enable or disable the wireless interface, to choose wireless mode, to set the channel to manual or auto and to select channel width.

Wireless frequency 2.4GHz	
<input checked="" type="radio"/> Enable 2.4 GHz	<input type="radio"/> Disable 2.4 GHz
Wireless mode	802.11b/g/n mixed
Channel	<input checked="" type="radio"/> Manual <input checked="" type="radio"/> Auto      Channel 11
Channel width	20 MHz

Wireless frequency 5GHz	
<input checked="" type="radio"/> Enable 5 GHz	<input type="radio"/> Disable 5 GHz
Wireless mode	802.11a/n/ac mixed
Channel	<input checked="" type="radio"/> Manual <input checked="" type="radio"/> Auto      Channel 104
Channel width	80 MHz

## Security

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.

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.

**2.4 GHz Wireless security settings**

WiFi Network Name (SSID): **UPC52ADEFE**

WiFi Network Name (SSID) broadcast:  Yes  No

Security: **WPA-PSK/WPA2-PSK**

WiFi password (security key): **z7whxEbv8hpm**

Strength: **Strong**

**5 GHz Wireless security settings**

WiFi Network Name (SSID): **UPC52ADEFE**

WiFi Network Name (SSID) broadcast:  No  Yes

Security: **WPA-PSK/WPA2-PSK**

WiFi password (security key): **z7whxEbv8hpm**

Strength: **Strong**

## Wireless MAC Filtering

The wireless MAC filter is a layer of security that allows only specific MAC addresses to connect to your router via Wi-Fi. This section allows you to specify a list of MAC addresses that are authorized. When a device tries to connect to your Wi-Fi network, if its MAC address does not match one on the authorized list, it will not be able to establish a connection. Alternatively, you can ban a certain list of MAC addresses and every other MAC address that is not on the list will be able to connect.

When you enable MAC address filtering on the Connect Box, you can set up a list of MAC addresses, and then specify whether you want to:

- Disabled – The default setting is MAC Filtering disabled
- Allow the devices on the list to access the network (in which case no other devices can access the network)
- Deny the devices on the list access to the Connect Box and the network (in which case all other devices can access the network)

**Wireless MAC filtering**

This section allows configuration of MAC address filters in order to block or only allow internet traffic to specific devices on your WiFi network.

**Disabled**

**Allow**

**Deny**

Displays the device which is attached through Wi-Fi

Attached devices			
	Device name	Mac address	Connectivity
<input checked="" type="radio"/>	Wi-Fi 2.4G	00:0E:67:26:12	Wi-Fi 2.4G UPC52ADEFE

Click Add device to add a device manually

Add device

Device name	HelloWorld
MAC address	5C : 35 : 3B : DA : 3B : 84
Wireless radio	<input checked="" type="radio"/> 2.4GHz <input type="radio"/> 5GHz <input type="radio"/> Both 2.4GHz and 5GHz

Displays the Wireless Filtered Device details

Wireless filter list

Device name	MAC address	Wireless radio	Delete
HelloWorld	5c:35:3b:da:3b:84	2.4 GHz	<input type="checkbox"/>

## Guest Network

The Guest network is a feature of the Connect Box Wi-Fi Gateway that creates a separate network for guests. This secured network provides Internet access to wireless devices for your guests. The Guest network SSID is the same as the 2.4 GHz Wireless Network Name (SSID) however, followed by a Guest suffix. It is a totally different network with a different password from the network which means devices connected to the guest network will not be able to share files and printers connected to the main network.

Enable guest network
  Disable guest network

WiFi Network Name (SSID)	UPC-guest52ADEFE
WiFi Network Name (SSID) broadcast	<input checked="" type="radio"/> Yes <input type="radio"/> No
Security	WPA-PSK/WPA2-PSK
WiFi password (security key)	sujr2wniwpzWx 

## WPS

Connect Box 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.

WiFi Protected Set-up (WPS)	
WPS Push button	<input checked="" type="checkbox"/> Enable <input type="radio"/> Disable
WPS PIN	<input type="radio"/> Enable <input checked="" type="checkbox"/> Disable

To generate WPS Pin number press Generate new AP WPS PIN

AP WPS configuration	
AP WPS PIN number	37539870
<button>Generate new AP WPS PIN</button>	

Choose the method to add WPS client

Add WPS client	
<input checked="" type="checkbox"/> Push Button	<input type="radio"/> PIN
<button>Add client</button>	

## Security

The Connect Box security section allows you to view and configure Firewall, MAC Filtering, IP and Port Filtering, Port Forwarding, Port Triggering and DMZ. You can click any security submenu option to view or change the configuration information for that option.

Security	
>	Firewall
>	MAC filtering
>	IP and Port filtering
>	Port forwarding
>	Port triggering
>	DMZ

## Firewall

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

IPv4 firewall	
Firewall protection	<input checked="" type="checkbox"/> Enabled
Block fragmented IP packets	<input type="checkbox"/> Enabled
Port scan detection	<input checked="" type="checkbox"/> Enabled
IP flood detection	<input checked="" type="checkbox"/> Enabled
ICMP flood detection	<input checked="" type="checkbox"/> Enabled
ICMP flood detect rate	15

IPv6 firewall	
Firewall protection	<input checked="" type="checkbox"/> Enabled
Block fragmented IP packets	<input type="checkbox"/> Enabled
Port scan detection	<input type="checkbox"/> Enabled
IP flood detection	<input type="checkbox"/> Enabled
ICMP flood detection	<input checked="" type="checkbox"/> Enabled
ICMP flood detect rate	15

## MAC Filtering

This page allows configuration of MAC address filters in order to block Internet traffic to specific network devices on your local network.

The screenshot shows a table with three columns: Device name, MAC address, and Connected to. One row is visible, showing T145025-4750, 20:6A:BA:83:27:85, and Ethernet 3. A 'Refresh' button is located at the top right of the table area.

Device name	MAC address	Connected to
T145025-4750	20:6A:BA:83:27:85	Ethernet 3

Select Device name to add filter rule

The form includes a 'Device name' input field containing 'T145025-4750'. Below it is a 'MAC address' input field with segments 20, 6A, BA, 83, 27, 85, followed by '(example: 01.23.45.67.89.AB)' and an 'Add rule' button.

Enable or delete from the MAC filter list

The table has columns for Device name, MAC address, Enabled (checkbox), and Delete (checkbox). One row is shown with T145025-4750, 20:6A:BA:83:27:85, checked in the Enabled column, and an empty checkbox in the Delete column.

Device name	MAC address	Enabled	Delete
T145025-4750	20:6A:BA:83:27:85	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Choose the time period to activate the MAC filtered device

The interface includes a title 'When would you like your MAC filtering to be active?' with two radio button options: 'Always on' (unchecked) and 'I only want to restrict internet access at...' (checked). Below are two more radio button options: 'The same time every day' (unchecked) and 'Different times on different days of the week.' (checked). A grid for setting times is shown, with rows for days of the week (Monday-Sunday) and columns for hours (0-23). A blue square in the first hour of Monday indicates a blocked day and time. Buttons for 'Clear All' and 'Inverse' are at the bottom right, and a tip 'Click on the tiles to block' is present.

## IP and Port Filtering

This page allows you to specify the IP packet filtering rules to prevent the service accessed from the Internet hosts or limit the Internet access for local hosts. This page allows configuration of port filters in order to block specific Internet services to all devices on your local network.

1. Press Create a new rule button to add IPv4 Rule.

The interface shows a title 'IPv4 port filtering' and a 'Create a new rule' button. Below is a table with columns: Source address, Destination address, Protocol, Source port, Destination port, Enabled, and Delete. A message 'No filtering rule!' is displayed in the center of the table area.

Source address	Destination address	Protocol	Source port	Destination port	Enabled	Delete
No filtering rule!						

2. Fill in needed information, and then press Apply button.

### New IPv4 filtering rule

This section allows you to specify packet filtering rules to limit the internet access for local hosts. The rule is created with the function specified below:

<input checked="" type="radio"/> Enabled	<input type="radio"/> Disabled
Protocol	TCP
Source IP address	All
Destination IP address	All
Source port range	Start: 21 End: 21
Destination port range	Start: 21 End: 21

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

Source address	Destination address	Protocol	Source port	Destination port	Enabled	Delete
All	All	TCP	21	21	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Press Create IPv6 Rule button to add new rules.

### IPv6 port filtering

This section allows you to configure the traffic policy for your internet service.

Inbound  Outbound

**Create a new rule**

Source IPv6 address	Destination IPv6 address	Protocol	Source port	Destination port	Allow	Enabled	Delete
No filtering rule!							

2. Fill in needed information, and then press Apply button.

### New IPv6 inbound filtering rule

This section allows you to configure the traffic policy for your internet service. The rule is created with the function specified below:

<input checked="" type="radio"/> Enabled	<input type="radio"/> Disabled
Traffic policy	<input checked="" type="radio"/> Yes <input type="radio"/> No
Protocol	UDP
Source IP address	Single
IPv6 address	3731:54:65fe:2::8
Destination IP address	Range
IPv6 address	2001:db8:0:0:0:21
Prefix length	64
Source port range	Start: 23 End: 23
Destination port range	Start: 23 End: 23

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

Source IPv6 address	Destination IPv6 address	Protocol	Source port	Destination port	Allow	Enabled	Delete
373154:65fe:2:a8/128	2001:db8:21:64	UDP	23	23	✓	✓	□

Choose the time period to activate IP and Port filtering

When would you like your IP and Port filtering to be active?

Always on  
 I only want to restrict internet access at:  
 The same time every day  
 Different times on different days of the week

Hours	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Monday																									
Tuesday																									
Wednesday																									
Thursday																									
Friday																									
Saturday																									
Sunday																									

Blocked day and time       Clear All       Inverse

**tip** Click on the tiles to block

## Port Forwarding

This allows for incoming requests on specific port numbers to reach web servers, FTP servers, mail servers, etc. so they can be accessible from the public Internet.

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

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

2. Fill in needed information, and then press Apply button.

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

Local IP	192.168.0.3
Local start port	66
Local end port	66
External start port	77
External end port	77
Protocol	TCP
Enabled	On

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

Local		External			
IP address	Port range	Port range	Protocol	Enabled	Delete
192.168.0.3	66	77	TCP	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 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.

1. Press Create rule button to create a new rule

The Port Triggering area allows you to enable dynamic port forwarding for certain services/applications. The CH7465LG 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
77	66	UDP	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No triggering rule!

2. Fill in needed information and then press apply button.

The Port Triggering area allows you to enable dynamic port forwarding for certain services/applications. The CH7465LG 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.

Trigger start port:	77
Trigger end port:	77
Target start port:	66
Target end port:	66
Protocol:	UDP
Enabled:	On

3. One Rule is created and also you can delete the existed rule.

Trigger range	Target range	Protocol	Enabled	Delete
77	66	UDP	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## DMZ

This page is for DMZ (Demilitarized Zone) configuration. You can fill in the exposed host and select enable button.

**DMZ function**

Enabled    Disabled

DMZ address : 192.168.0.4

## DHCP

Connect Box provides DHCP server to manage IP addresses to CPEs and supports reserved IP Address for users' private and static clients.

This section allows you to configure how the CH7465LG 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 192.168.0.10

Number of CPEs 245

Lease time 3600 seconds

### Configure IPv6 address

This section allows you to configure how the CH7465LG assigns IPv6 addresses.

<input checked="" type="radio"/> Enabled	<input type="radio"/> Disabled
<input type="radio"/> Stateful	<input checked="" type="radio"/> Stateless
Start address	2002:db53:0:3::/64
Number of addresses	512
DHCPv6 valid lifetime	7200 seconds
Router advertisement lifetime	1800 seconds
Router advertisement interval	180 seconds

### Displays the details of the device

Attached devices					
	Device name	MAC address	IP address	Lease time	Connected to
1	TH465LG-4750	20:6ABA:03:27:65	192.168.0.10/24	00:00:31:88	Ethernet 1
2	TH465LG-4750	ED:0E:0B:27:8F:F2	192.168.0.11/24	00:00:33:50	Wi-Fi 4G (WPS3400CN)

### Select the device to add rule

Add reserved rule

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

IP address 192.168.0.10

Displays the device reserved list

Reserved list		
MAC address	IP address	Delete
20:6A:8A:83:27:85	192.168.0.10	<input type="checkbox"/>

## UPnP

Select enable to enable the UPnP agent in the cable modem. If you are running an application that requires UPnP, check this box.

UPnP function
<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

## Tools

Tools
➤ Network status
➤ Ping
➤ Traceroute
➤ MTU size

## Status

The Cable modem status page is a read-only screen that shows your cable modem upstream and downstream channel status.

Status	Downstream	Upstream	Configuration	Network Log
<a href="#">Refresh data</a>				
Cable Modem Status				
Item	Status	Comments		
Acquired Downstream Channel(Hz)	41800000	Locked		
Ranged Upstream Channel(Hz)	44600000	Ranged		
Provisioning State	Online	Operational		

## Downstream

The Downstream bonded channels page is a read-only screen that shows your cable modem downstream bonded channel status

Status	Downstream	Upstream	Configuration	Network Log	
<a href="#">Refresh data</a>					
Downstream bonded channels:					
Channel	Frequency (Hz)	Power (dBmV)	SNR (dB)	Modulation	Channel ID
1	41800000	-5	40	256qam	51
2	42600000	-6	40	256qam	52
3	43400000	-6	40	256qam	53

## Upstream

The Upstream bonded channels page is a read-only screen that shows your cable modem upstream bonded channel status

Upstream bonded channels					
Channel	Frequency (Hz)	Power (dBmV)	Symbol Rate (ksp/s)	Modulation	Channel ID
1	44600000	47	1280	64qam	1
2	57200000	47	1280	64qam	4
3	54000000	47	1280	64qam	3

Upstream bonded channels					
Channel	Channel Type	T1 Timeouts	T2 Timeouts	T3 Timeouts	T4 Timeouts
1	2.0	0	0	0	0
2	2.0	0	0	0	0
3	2.0	0	0	0	0

## Configuration

The configuration page is a read-only screen that shows your cable modem General configuration status, Primary Downstream Service Flow & Primary Upstream Service Flow.

General Configuration	
Network access	Allowed
Maximum Number of CPEs	3
Baseline Privacy	Enabled
DOCSIS Mode	DOCSIS 3.0
Config file	Yiu_clone_Eurobasic30_CBNvif

Primary Downstream Service Flow	
SID	4B
Max Traffic Rate	0 bps
Max Traffic Burst	3044 bytes
Min Traffic Rate	0 bps

Primary Upstream Service Flow	
SID	47
Max Traffic Rate	0 bps
Min Traffic Burst	3044 bytes
Min Traffic Rate	10000 bps
Max Concatenated Burst	3044 bytes
Scheduling Type	Best Effort

## Network Log

Connect Box allows users to review critical system events in chronological order in the SNMP event log.

The screenshot shows a web-based interface for managing a network device. At the top, there are five tabs: Status, Downstream, Upstream, Configuration, and Network Log, with Network Log being the active tab. Below the tabs is a button labeled 'Refresh data'. The main area is titled 'Network Log' and contains a table with three rows of event data. The columns are Time, Priority, and Description. The events are as follows:

Time	Priority	Description
19-08-2015 14:44:11	warning	MIMO Event: MIMO-1 post cfg file MIMO-1; CM-MAC=dc:53:7c:74:4d:1c; CMTS-MAC=68:ef:bd:86:42:3a; CM-QOS=11; CM-VER=3.0;
01-01-1970 00:01:40	warning	MDD message timeout; CM-MAC=dc:53:7c:74:4d:1c; CMTS-MAC=68:ef:bd:86:42:3a; CM-QOS=11; CM-VER=3.0;
01-01-1970 00:01:40	warning	Lost MDD Timeout; CM-MAC=dc:53:7c:74:4d:1c; CMTS-MAC=68:ef:bd:86:42:3a; CM-QOS=11; CM-VER=3.0;

## Ping

The Connect Box Diagnostics page allows you to troubleshoot connectivity problems. Two utilities are provided for troubleshooting network connectivity: Ping and Traceroute.

Ping allows you to check connectivity between the cable modem and devices on the LAN.

The screenshot shows the 'Ping' diagnostic tool. At the top, it says 'Ping' and provides a brief description: 'This page provides ping diagnostics to help troubleshoot IP connectivity problems.' Below this are input fields for 'Target' (IP address or name) set to '192.168.0.10', 'Ping size' (bytes) set to '64', and 'No. of pings' set to '3'. There are also 'Abort test' and 'Clear results' buttons, and a prominent blue 'Start test' button. Below the configuration is a section titled 'Results' containing the output of a ping command:

```

PING 192.168.0.10 (192.168.0.10) from 172.16.75.29: 64 data bytes
72 bytes from 192.168.0.10: seq=0 ttl=128 time=0.000 ms
72 bytes from 192.168.0.10: seq=1 ttl=128 time=0.000 ms
72 bytes from 192.168.0.10: seq=2 ttl=128 time=0.000 ms
--- 192.168.0.10 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 0.000/0.000/0.000 ms

```

## Traceroute

Traceroute allows you to map the network path from the cable modem to a public host.

The screenshot shows the 'Traceroute' configuration page. At the top, it says 'Traceroute'. Below that, a note states: 'This page provides traceroute function to help troubleshoot IP connectivity problems.' Configuration fields include:

- Target:** www.google.com (IP address or name)
- Max hops:** 30 (1 - 255)
- Base port:** 33434 (0 - 65535)

Below these fields are two buttons: 'Abort test' and 'Clear results'. To the right is a large blue button labeled 'Start test'. Underneath the 'Start test' button is a scrollable 'Results' window containing the output of a completed traceroute test. The results show the path from the local network to Google's servers, listing each hop's IP address, latency, and round-trip time.

```

Results
6 60.199.5.29 10.000 ms 10.000 ms 30.000 ms
7 60.199.16.98 20.000 ms 60.199.23.26 20.000 ms 20.000 ms
8 * 72.14.212.145 20.000 ms 20.000 ms
9 72.14.233.20 20.000 ms 209.85.243.30 30.000 ms 72.14.233.20 20.000 ms
10 209.85.246.223 20.000 ms 209.85.252.161 20.000 ms 10.000 ms
11 209.85.246.218 10.000 ms 20.000 ms 20.000 ms
12 ****
13 74.125.203.104 20.000 ms 20.000 ms 20.000 ms
[trace_route finish]

```

## MTU Size

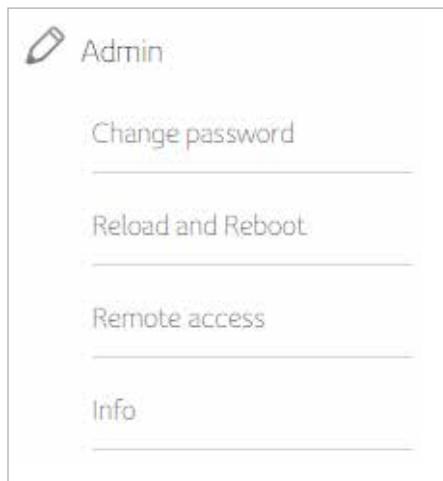
MTU (Maximum Transfer Unit) specifies maximum transmission unit size.

The screenshot shows the 'MTU Size' configuration page. It displays the current 'Gateway MTU size' as 1500 bytes, with a note indicating the range is 1000 - 1500 bytes.

Set the Connect Box MTU, in bytes. The minimum is 68 bytes. The default is 1500 bytes.

## 8 Admin

This section describes the settings for administering and maintaining your Wi-Fi modem router and home network.



### Change password

This feature allows you to change the default password that is used to log in to the Wi-Fi modem router.

Configure Password and then click Apply and when you login in next time, you must use this new password. For secure reasons, we strongly suggest to change default password as soon as possible.

The page title is 'Change password'. A sub-instruction says 'Change the password of the admin account used for signing into the settings pages'. There are two input fields: 'Current password' containing '37539870' and 'Password' containing '12345'. A small info icon is next to the password field.

### Reload and Reboot

The configuration settings of the Wi-Fi DSL Modem Router are stored within the Wi-Fi modem router in a configuration file. You can back up (save) this file to your computer, restore it, or reset it to the factory default settings.

Click Backup to save a copy of the current settings, choose a location to store the .cfg file on your computer.

The page title is 'Backup configuration settings'. It contains the instruction 'Click to save your hub settings on your local machine.' and a blue 'Backup' button.

Enter the full path to the the file backup file on your network, or click select file to find the file. After locating the .cfg file click reload button to upload the file to the Wi-Fi modem Router.

The page title is 'Reload configuration settings'. It contains the instruction 'Restore your saved Hub settings from a backup stored on your local machine.' Below this are three buttons: 'Configuration file' (with a file input field), 'Select file' (blue), and 'Reload' (blue).

Click Restore default button to return to your Connect Box to its factory default settings.

### Restore factory defaults

Restoring to factory default will mean any changes you have made to the settings of your CH7465LG will be lost.

[Restore default](#)

Click Reboot button to restart your Connect Box Wi-Fi Modem Router

### Restart

Clicking on the 'Reboot' button will restart your CH7465LG immediately. This can take up to 5 minutes to complete.

[Reboot](#)

### Remote Access

The remote management feature lets you upgrade or check the status of your Wi-Fi DSL Modem Router over the Internet.

### Remote access

Enabling remote access allows your CH7465LG settings to be accessed from a device located outside of your home network. We recommend that you disable remote access when not required, as leaving it enabled could introduce an unnecessary security risk to your network.

Enabled  Disabled

Port:

### Info

The info page is a read-only screen that shows your cable modem device information and WAN IP settings.

Standard specification compliant	DOCSIS 3.0
Hardware version	4.01
Software version	CH7465LG-NCIP-4.50.18.8c-5H
Cable MAC address	DC53:7C:74:4D:1C
Cable modem serial number	DDAPS1540096
System up time	0day(s)1h:48m:43s
Network access	Allowed

MAC address	DC53:7C:74:4D:1E
IPv4 address	fe80::de3:37ff:fe74:4d1e/64
IPv6 default gateway	2002::db50:fa13:701c:13fa:79dc9:8d7d:7d29
IPv6 interface	D0:HJ:MO:50
IPv6 lease expire	Mon Aug 17 15:44:26 2015
IPv6 DNS servers	2002::db50:fa13:1:2
IPv4 address	172.16.75.29
Default gateway	172.16.75.1
IPv4 lease time	0:0:123 M:28 S:30
IPv4 lease expire	Tue Aug 18 13:12:51 2015
IPv4 DNS servers	172.16.1.2

## 9 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 Connect Box. 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

Problem	Possible Solution
None of the LEDs Turn On	<p>The Connect Box is not receiving power, or there is a fault with the device.</p> <ul style="list-style-type: none"> <li>• Ensure that you are using the correct power adaptor</li> <li>• Using a power adaptor other than the one that came with your Connect Box can damage the Connect Box.</li> <li>• Ensure that the power adaptor is connected to the Connect Box and the wall socket (or other power source) correctly.</li> <li>• Ensure that the power source is functioning correctly. Replace any broken fuses or reset any tripped circuit breakers.</li> <li>• Disconnect and re-connect the power adaptor to the power source and the Connect Box.</li> <li>• If none of the above steps solve the problem, consult your vendor.</li> </ul>

Problem	Possible Solution
Cannot send or receive data	<p>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> <ul style="list-style-type: none"> <li>• Check the coaxial cable at the Connect Box and wall outlet. Hand-tighten, if necessary.</li> <li>• Check the IP address.</li> <li>• Check that the Ethernet cable is properly connected to the Connect Box and the computer.</li> <li>• If a device is connected via the Ethernet port, verify connectivity by checking the LINK LEDs on the rear panel.</li> </ul>

Problem	Possible Solution
<p>Wireless client(s) cannot send or receive data</p> <ul style="list-style-type: none"> <li>Perform the first four checks in «Cannot send or receive data.» Check the Security Mode setting on the Wireless Security Page:</li> <li>If you enabled WPA and configured a passphrase on the Connect Box, be sure each affected wireless client has the identical passphrase. If this does not solve the problem, check whether the wireless client supports WPA.</li> <li>If you enabled WEP and configured a key on the Connect Box, 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 Connect Box.</li> <li>To temporarily eliminate the Security Mode as a potential issue, disable security.</li> </ul> <p>After resolving your problem, be sure to re-enable wireless security.</p> <ul style="list-style-type: none"> <li>On the Wireless Access Control Page, be sure the MAC address for each affected wireless client is correctly listed.</li> </ul>	

Problem	Possible Solution
<p>Slow wireless transmission speed with WPA enabled</p>	<p>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.</p>