



THOMSON TG585 v8

Wireless Multi-User ADSL2+ Gateway



Setup and User Guide

THOMSON TG585 v8

Setup and User Guide

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About this Setup and User Guide

Used Symbols



A **note** provides additional information about a topic.



A **caution** warns you about potential problems or specific precautions that need to be taken.

Terminology

Generally, the **THOMSON TG585 v8** will be referred to as **Thomson Gateway** in this Setup and User Guide.

Typographical Conventions

Following typographical convention is used throughout this manual:

- **Sample text** indicates a hyperlink to a Web site.
Example: For more information, visit us at www.thomson.net.
- **Sample text** indicates an internal cross-reference.
Example: If you want to know more about guide, see "1 Introduction" on page 7".
- **Sample text** indicates an important content-related word.
Example: To enter the network, you **must** authenticate yourself.
- **Sample text** indicates a GUI element (commands on menus and buttons, dialog box elements, file names, paths and folders).
Example: On the **File** menu, click **Open** to open a file.

Documentation and software updates

THOMSON continuously develops new solutions, but is also committed to improving its existing products. For more information on THOMSON's latest technological innovations, documents and software releases, visit us at www.thomson.net.

About this Setup and User Guide

1 Installation

Introduction

In a few minutes you will be able to access the Internet using your Thomson Gateway.

This Setup and User Guide will show you how to set up your Thomson Gateway and how to connect your computer(s) to the Internet.

Main features

As soon as you have completed the installation of your Thomson Gateway you will be able to benefit from all the services offered by your Thomson Gateway. This Setup and User Guide will focus on the following features:

- **Broadband Internet** connection.
The first chapter describes how to connect your Thomson Gateway to the Internet.
- **Wired and wireless access** to your local network devices.
For more information, see "1.4 Connecting a Computer Using the Ethernet Cable" on page 12 and "3 Wireless Access" on page 23.
- **Useful networking tools** like UPnP, Dynamic DNS and many more.
For more information, see "4 Thomson Gateway Tools" on page 31.
- **Internet Security:**
For more information, see "5 Internet Security" on page 41.

Before you can start to use these features, we will first set up your Thomson Gateway.

1 Installation

1.1 Before you start

DSL Service

The DSL service must be activated on your telephone line by your service provider.

Decoupling the voice and DSL signal

As soon as the DSL service is activated two kinds of signals will be available on your telephone line:

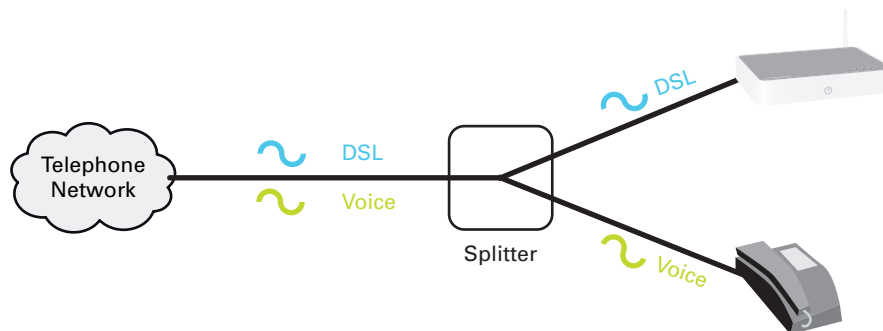
- Voice signals
- DSL signals

To ensure the sound quality of your phone calls, the DSL signal must be omitted from the telephone line before it reaches your phone, otherwise you might hear a noise in the background when using your phone.

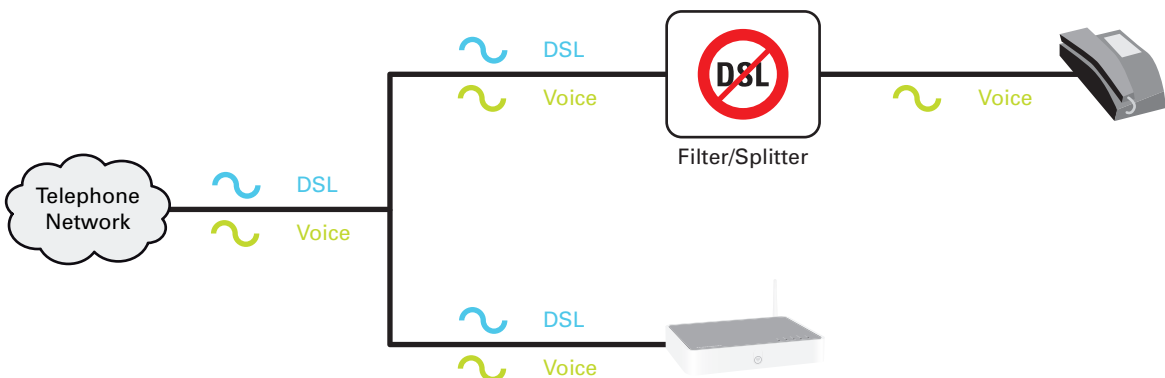
Filters and splitters

To split the DSL signal from the telephone line, you can use one of the following solutions:

- A **splitter** that splits the telephone signal into a DSL and Voice signal.



- A **filter** between your telephone outlet and your phone. This filter removes the DSL signal and passes the Voice signal.



Wireless connection

If you want to connect your computer using a wireless connection, you will need a WiFi-certified wireless client adapter for each computer you want to connect wirelessly.

Wired connection

If you want to connect one or more computer using a wired connection, make sure those computers are equipped with an Ethernet Network Interface Card (NIC).

Internet connection

You may need the following connection details from your service provider:

- Your service provider's method for connecting to the Internet (for example PPPoE)
- The VPI/VCI (for example 8/35)
- Your user name and password to connect to the Internet for PPP connections
- Your IP settings in case of static configurations



Optionally your service provider may indicate the service profile to use during the setup.

You may have received this information when you subscribed at your Internet Service Provider. You may be prompted for this information at a given step in the installation procedure.

1 Installation

1.2 Installing your Thomson Gateway

Warning

Do not plug in any cables or connect any devices until you are instructed to do so.

Installation methods

There two ways to set up your Thomson Gateway:

- **Guided Installation**
The Setup wizard included on the Setup CD will guide you through all configuration aspects of your Thomson Gateway. This is the recommended way to install your Thomson Gateway.
- **Manual Installation**
The Setup and User Guide will first help you to connect your computer to the Thomson Gateway. After this is done, you can configure your Thomson Gateway using your web browser.

1.2.1 Guided Installation

Requirements

- Your computer must run one of the following operating systems:
 - ▶ Microsoft Windows 7 or higher
 - ▶ Microsoft Windows 7 x64 or higher
 - ▶ Microsoft Windows Vista (SP1) or higher
 - ▶ Microsoft Windows Vista x64 (SP1) or higher
 - ▶ Microsoft Windows XP SP2 or higher
 - ▶ Microsoft Windows XP x64 SP1 or higher
 - ▶ Microsoft Windows 2000 SP4
 - ▶ Mac OS X 10.4 (Tiger)
 - ▶ Mac OS X 10.5 (Leopard)

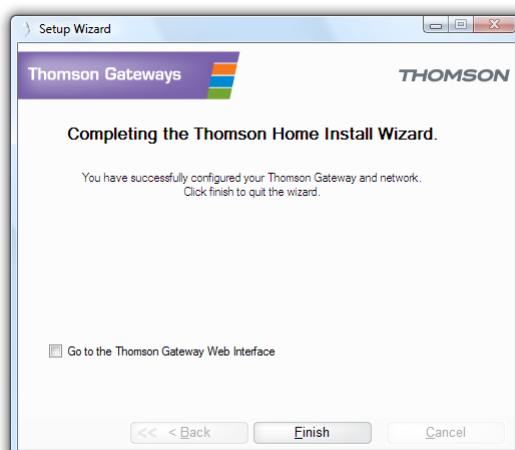
If you are using another operating system, use the Manual Installation.

- You must have administrative rights on your computer

Starting the wizard

To start the wizard:

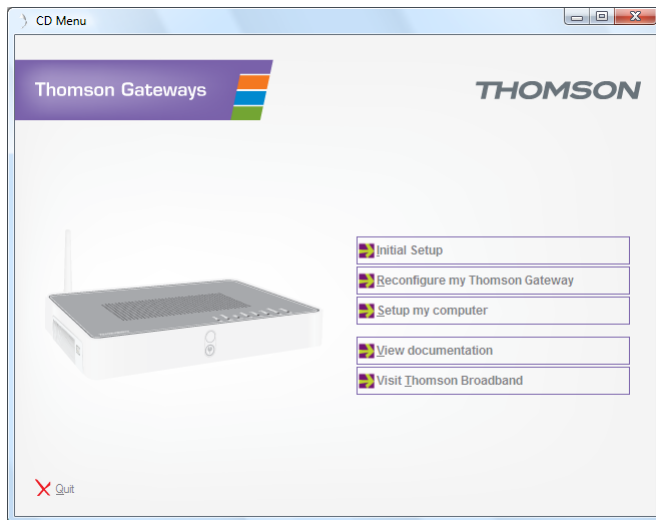
- 1 Insert the Setup CD into your computer's CD- or DVD-ROM drive.
- 2 If your computer runs:
 - ▶ Microsoft Windows: The CD should autostart.
If the CD does not autostart, see "The Setup CD does not start automatically" on page 46.
 - ▶ Mac OS X: Double-click **Menu** in the window with the content of the CD.
- 3 Select the language of your choice and click **OK**.
- 4 The Setup wizard will now guide you through the installation of your Thomson Gateway.
- 5 At the end of the installation, the following screen appears:



- 6 Select **Go to the Thomson Gateway Web Interface** if you want to go to the Thomson Gateway GUI after closing the wizard. On the Thomson Gateway GUI, you can configure all services of your Thomson Gateway.
- 7 Click **Finish**.
- 8 The **CD menu** appears.

1 Installation

CD menu



On the **CD Menu**, you can click:

- **Initial Setup** to connect your computer to the Thomson Gateway and configure it.
- **Reconfigure my Thomson Gateway** to fully reconfigure your Thomson Gateway.



If you reconfigure your Thomson Gateway via the **CD menu**, the Thomson Gateway will be reconfigured from scratch. All your current settings will be lost. If you only want to make small changes to your configuration (e.g. changing the security), we recommended you to do this via the Thomson Gateway GUI. For more information, see “2.2 Thomson Gateway GUI” on page 19.

- **Setup my computer** to connect your computer to the Thomson Gateway network.
- **View Documentation** to view a list of the documentation that is available for your Thomson Gateway. This list will be automatically updated if you are connected to the Internet.
- **Visit thomson.net** to visit the online support sections.



Actual available items may depend on the Setup CD delivered with your Thomson Gateway.

In case of problems

If you encounter problems during this installation please refer to “6.1 Setup Troubleshooting” on page 46.

1.2.2 Manual Installation

Requirements

JavaScript must be enabled (this is the default setting) on your browser. For more information, consult the help of your web browser.

Procedure

Proceed as follows:

- 1 Connect the Thomson Gateway to your broadband service.
- 2 Power on the Thomson Gateway.
- 3 Connect your computer to the Thomson Gateway.
- 4 Configure the Thomson Gateway.

This is described in the sections below.

Connect the Thomson Gateway to your broadband service

Proceed as follows:

- 1 Take the DSL cable with the grey connectors. This cable is included in your box.
- 2 Plug one end of the cable in the grey DSL port on the back of your Thomson Gateway.
- 3 If you are:
 - ▶ Using a splitter, plug the other end of the cable into the Modem/ADSL out put of your splitter.
 - ▶ **Not** using a splitter, plug the other end of the cable directly in the wall outlet.

For more information about splitters, see "Filters and splitters" on page 4.

Power on the Thomson Gateway

Proceed as follows:

- 1 Connect the power cord to the Thomson Gateway's power port.
- 2 Plug the other end into an electrical outlet.
- 3 Push the power button to turn on the Thomson Gateway.
- 4 Wait two minutes to allow the Thomson Gateway to complete the start up phase.

Connect your computer to the Thomson Gateway

Setting up a wireless connections

For more information on how to setup a wireless connection to your Thomson Gateway, see "3 Wireless Access" on page 23.

Setting up a wired connection

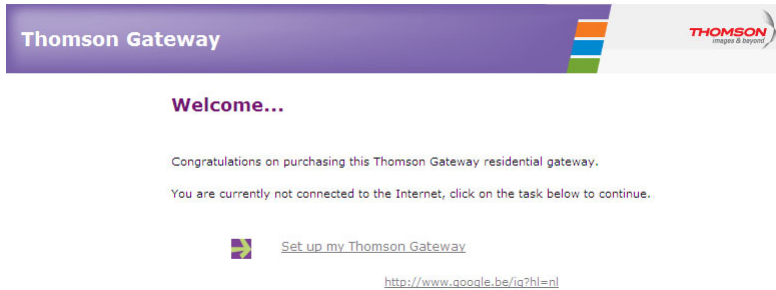
For more information on how to setup a wired connection (i.e. an Ethernet connection) to your Thomson Gateway, see "1.4 Connecting a Computer Using the Ethernet Cable" on page 12.

1 Installation

Configure the Thomson Gateway

Proceed as follows:

- 1 Open your web browser.
- 2 The Thomson Gateway informs you that you have not yet configured your Thomson Gateway.



If this window does not appear browse to <http://dsldevice.lan> or to the IP address of your Thomson Gateway (by default: 192.168.1.254) and click **Thomson Gateway** on the menu on the left-hand side.

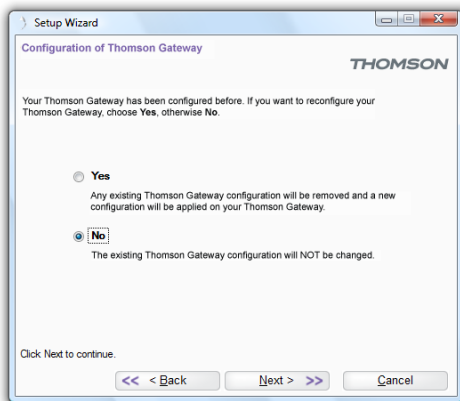
- 3 Click **Setup my Thomson Gateway**.
- 4 The **Easy Setup** wizard appears. This wizard will guide you through the configuration of your Thomson Gateway. Click **Next** and follow the instructions.

1.3 Adding a New Computer to your Network

Guided Installation

If you configured your Thomson Gateway using the Guided Installation, use the same procedure on the computer that you want to add.

When the **Setup wizard** informs you that the Thomson Gateway has already been configured, select **No** and click **Next** to continue.



Manual Installation

Setting up a wireless connections

For more information on how to setup a wireless connection to your Thomson Gateway, see “3 Wireless Access” on page 23.

Setting up a wired connection

For more information on how to setup a wired connection (i.e. an Ethernet connection) to your Thomson Gateway, see “1.4 Connecting a Computer Using the Ethernet Cable” on page 12.

1 Installation

1.4 Connecting a Computer Using the Ethernet Cable

Requirements

- Both your computer and Thomson Gateway must have a free Ethernet port.
- Your computer must be configured to obtain an IP address automatically. This is the default setting.

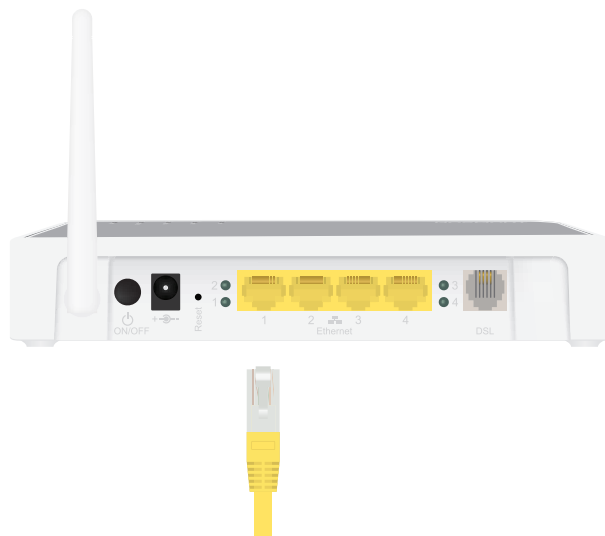
Ethernet cable

In your package, you will find a cable with yellow connectors. This is the Ethernet cable.

Procedure

Proceed as follows:

- 1 Connect one end of the Ethernet cable to one of the **yellow** Ethernet ports of your Thomson Gateway:



- 2 Connect the other end of the Ethernet cable to your computer.
- 3 Your computer is now connected to your network. No additional configuration is needed.

2 Thomson Gateway Basics

In this chapter

Topic	Page
Thomson Gateway LED Behaviour	14
Thomson Gateway GUI	19
Backing Up/Restoring your Configuration	22

2 Thomson Gateway Basics

2.1 Thomson Gateway LED Behaviour

Content

This chapter describes the behaviour of:

- Status LEDs
- WPS Button LED
- Ethernet LEDs

2.1.1 Status LEDs

Introduction

On the top panel of your Thomson Gateway, you can find a number of status LEDs, indicating the state of the device.

Power LED

Colour	State	Description
Green	Solid on	Power on, normal operation
Red	Solid on	Power on, self-test failed, indicating device malfunction
Orange	Blinking	Bootloader active (during upgrade)
Off		Power off

Ethernet LED

Colour	State	Description
Green	Solid on	Ethernet connection, no activity
	Blinking	Ethernet activity
Off		No Ethernet connection

Wireless LED

Colour	State	Description
Green	Solid on	No wireless activity, WPA(2) encryption
	Blinking	Wireless activity, WPA(2) encryption
Orange	Solid on	No wireless activity, WEP encryption
	Blinking	Wireless activity, WEP encryption
Red	Solid on	No wireless activity, no security
	Blinking	Wireless activity, no security
Red/green	Toggling	Wireless client registration phase
Off		WLAN disabled

2 Thomson Gateway Basics

Broadband LED

Colour	State	Description
Green	Solid on	DSL line synchronised
	Blinking	Pending DSL line synchronisation
Off		No DSL line

Internet LED

Colour	State	Description
Green	Solid on	Internet connectivity, no activity
	Blinking	Internet activity
Red	Solid on	Internet connection setup failed
Off		No Internet connection

2.1.2 WPS Button LED

WPS button

The Wi-Fi Protected Setup (WPS) button allows you to add new wireless clients to your network.



For more information, see “3.1 Connecting Your Wireless Client via WPS” on page 24.

WPS Button LED

Colour	State	Description
Green	Solid On	Client successfully registered via WPS
Orange	Blinking	WPS registration ongoing
Red	Blinking	Error occurred

2 Thomson Gateway Basics

2.1.3 Ethernet LEDs

Ethernet LED

A LED may be provided per Ethernet port to indicate link integrity (or activity).

LED Status	Description
Off	No connection on this port
Solid on	Ethernet link up
Blinking	Data is flowing from/to this port

2.2 Thomson Gateway GUI

Introduction

The Thomson Gateway Graphical User Interface (GUI) allows you to configure your Thomson Gateway using your web browser.

Requirements

JavaScript must be enabled (this is the default setting) on your browser. For more information, consult the help of your web browser.

Accessing the Thomson Gateway GUI

Proceed as follows:

- 1 Open your web browser.
- 2 Browse to <http://dsldevice.lan> or to the IP address of your Thomson Gateway (by default: 192.168.1.254).
- 3 If you have protected your Thomson Gateway with a user name and password, the Thomson Gateway will prompt you to enter these. Enter your user name and password and click **OK**.
- 4 The Thomson Gateway GUI appears.

Access the Thomson Gateway via UPnP

You can also access the Thomson Gateway GUI using the Internet Gateway Device (IGD) icon if your computer runs one of the following operating systems:

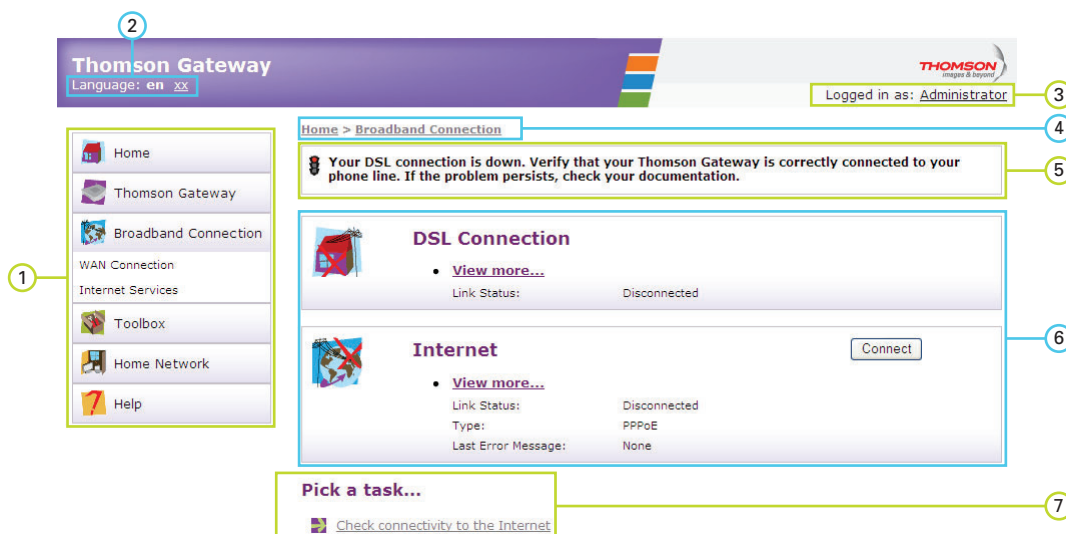
- Windows 7
- Windows Vista
- Windows XP

For more information, see "4.1 UPnP" on page 32.

2 Thomson Gateway Basics

Components

All the pages contain following components:



Label	Description
1	Menu
2	Language bar
3	Login section
4	Navigation bar
5	Notification area
6	Content pane
7	Tasks

Menu

The menu consists of the following menu items:

- **Home:**
Allows you to go back to the home page.
- **Thomson Gateway:**
Provides basic information on the Thomson Gateway.
- **Broadband Connection:**
Allows you to view/configure your broadband connections.
- **Toolbox:**
Allows you to configure the network services and Internet security settings of your Thomson Gateway.
- **Home Network:**
Allows you to manage your local network.
- **Help:**
Allows you to view context-related help information.

Language bar

The language bar allows you to change the language of the Thomson Gateway Web interface.



The language bar will only be shown if more than one language is available.

Login section

In this section you can see the current user name.

By clicking the user name, you can:

- Change your password.
- Switch to another user.

Navigation bar

The location bar displays your current position on the Thomson Gateway GUI.

Notification area

The notification area is used to display:

- Error messages, indicated by a red traffic light.
- Warnings, indicated by an orange traffic light.
- Information, indicated by a green traffic light.



If none of these events occur, the notification area will not be shown.

Content pane

The content pane displays the information and configurable items of the selected item.

Tasks

To allow a quick configuration of your Thomson Gateway, some pages may offer you a number of related tasks in the **Pick a task** list. These tasks will guide you to the page where you can perform the selected task.

2 Thomson Gateway Basics

2.3 Backing Up/Restoring your Configuration

Introduction

Once you have configured your Thomson Gateway to your needs, it is recommended to backup your configuration for later use. This way you can always return to your working configuration in case of problems.

Backing up your configuration

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Thomson Gateway** menu, click **Configuration**.
- 3 In the **Pick a task** list, click **Save or Restore Configuration**.
- 4 Under **Backup current configuration**, click **Backup Configuration Now**.
- 5 The Thomson Gateway prompts you to save your backup file.
- 6 Save your file to a location of your choice.

Warning

Do not edit the backup files, this may result in corrupt files making them worthless as a configuration backup.

Restoring your configuration

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Thomson Gateway** menu, click **Configuration**.
- 3 In the **Pick a task** list, click **Save or Restore Configuration**.
- 4 Under **Restore saved configuration**, click **Browse**.
- 5 Browse to your backup file and open it.



These files usually have **.ini** as extension.

- 6 The Thomson Gateway restores your configuration.

3 Wireless Access

Introduction

With the built-in wireless access point you do no longer need a cable connection between your computer and your Thomson Gateway.

What you need to set up a wireless network

To set up a wireless network, you need the following components:

- A Wireless Access Point (integrated into your Thomson Gateway)
- A Wireless client

Wireless Access Point

You can consider the wireless access point as the heart of your wireless network. The wireless access point:

- Connects different wireless devices with each other.
- Secures the data sent over wireless connection.

The Thomson Gateway comes with an integrated wireless access point.

Wireless client

The wireless client allows you to connect a device, typically a computer, to a wireless access point. Both built-in and external (for example via USB) clients are available.



Other devices like media players and smartphones may also have a built-in wireless client. Check the documentation of your device for more information.

Check the documentation of your computer if you are not sure if your computer is equipped with a wireless client.

Configuring your wireless clients

Before you can start surfing the internet with a wireless connection, you must first connect your wireless client to your Thomson Gateway wireless access point.

For more information, see “3.1 Connecting Your Wireless Client via WPS” on page 24 and “3.2 Connecting Your Wireless Client without WPS” on page 26.

Secure your wireless connection!

Because you no longer need a physical connection, everyone who is within the range of your Thomson Gateway can access your network. If you do not protect your wireless network, the following could happen:

- People can use your connection to access the Internet.
- Hackers can use your connection to commit computer crimes.

You can easily prevent this by securing your wireless connection. For more information, see “3.3 Securing Your Wireless Connection” on page 27.

3 Wireless Access

3.1 Connecting Your Wireless Client via WPS

WPS

Wi-Fi Protected Setup (WPS) allows you to add new wireless clients to your network in a swift and easy way, without the need to enter all your wireless settings (network name, wireless key, encryption type).

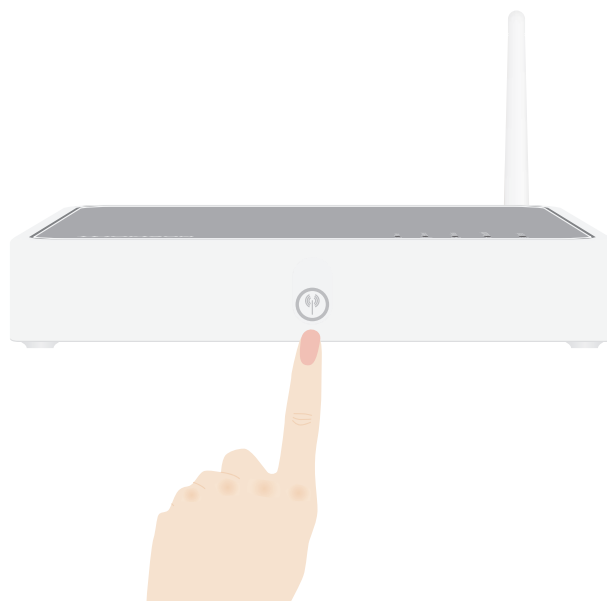
Requirements

- Your wireless client must support WPS. Check the documentation of your wireless client for this.
- Your Thomson Gateway must use WPA(2)-PSK encryption (default encryption) or no encryption. WPS with WEP encryption is not possible.

Procedure

Proceed as follows:

- 1 Shortly press the WPS button on the Thomson Gateway:



- 2 The WPS button LED starts blinking orange. This indicates that the Thomson Gateway is now searching for wireless clients that are in registration mode. You now have two minutes to start WPS on your wireless client.
- 3 Start WPS on your wireless client.

The WPS button LED is solid green

This indicates that you have successfully registered your wireless client. You are now connected to the Thomson Gateway network.

The WPS button LED is blinking red

This indicates that the Thomson Gateway could not find your wireless client. Make sure that the WPS button LED is blinking orange when you start WPS on your wireless client.

Troubleshooting

If you are having trouble connecting your wireless client via WPS, try to configure it manually. For more information, see "3.2 Connecting Your Wireless Client without WPS" on page 26.

3 Wireless Access

3.2 Connecting Your Wireless Client without WPS

Before you start

Before you can connect a computer to your wireless network you need to know the wireless settings that are currently used by the Thomson Gateway, i.e.:

- The Network Name (SSID)
- The wireless key

What Network Name (SSID) is my Thomson Gateway using?

If you did not change the SSID manually, your Thomson Gateway uses the Network Name that is printed on the bottom panel label of your Thomson Gateway.

What wireless security is my Thomson Gateway using?

You have not yet configured your Thomson Gateway

In this case, no wireless key is used.

You have already configured your Thomson Gateway using the Guided Installation

If you choose to use the wireless settings proposed by the Setup wizard, you can find the wireless key on the label on the bottom of your Thomson Gateway.

Forgot your wireless settings?

If you have changed the wireless settings manually and you can't remember your settings, try one of the following:

- If one of your computers is already connected to your network:
 - 1 Browse to the Thomson Gateway GUI on that computer.
 - 2 On the **Home Network** menu, click **Wireless**.
 - 3 In the upper-right corner, click **Details**.
 - 4 Under:
 - ▶ **Configuration**, you can find the network name (SSID).
 - ▶ **Security**, you can find the encryption.
- If none of your computers is connected to your network, connect a computer using a wired connection and follow the procedure above to find out what your wireless settings are.

The last option is to reset your Thomson Gateway (all your changes will be lost!) and reconfigure it. For more information, see "6.5 Reset to Factory Defaults" on page 50.

Procedure

Configure your computer with the same wireless settings as your Thomson Gateway. For more information, consult the documentation of your wireless client.

3.3 Securing Your Wireless Connection

Introduction

By using encryption, you can protect the wireless communication between the wireless clients and your Thomson Gateway with a wireless key. This way, only clients which use the correct Network Name (SSID) and wireless key can connect to your network.

Encryption types

Over the years a number of encryption types have been developed. The list below gives you an overview of the supported encryption types ordered by descending security level, you will find the highest level of security at the top of the list:

- **WPA-PSK Encryption:**
The wireless data is being encrypted with a user-defined key. Wireless clients must be configured with this key before they can connect to the Thomson Gateway.
- **WEP Encryption:**
The first encryption type used for wireless connections. Like WPA-PSK it uses a user-defined key, but WEP has been proven to have some security issues. *We strongly recommend you to use WPA-PSK instead.*

Which encryption type should I use?

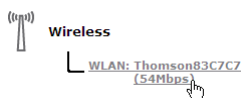
We strongly recommend you to **WPA-PSK**.

Although the Thomson Gateway allows you to use WEP or no security, it is not recommended to use these settings. Only use WEP if you have wireless clients that don't support a higher encryption level.

Configuring the wireless encryption

Proceed as follows:

- 1 Open the Thomson Gateway GUI.
- 2 On the left menu, click **Home Network**.
- 3 Under **Wireless**, click your access point.




Your access point is listed in the following format: "WLAN:<Network Name> (<Actual Speed>)". For example, **WLAN: Thomson83C7C7 (54Mbps)**.

- 4 The **Wireless Access Point** page appears.
- 5 In the Navigation bar, click **Configure**.
- 6 Under **Security**, you can change the **Encryption**. If you want to use:
 - ▶ WPA-PSK encryption, continue with "3.3.1 Configuring WPA-PSK Encryption" on page 28.
 - ▶ WEP encryption, continue with "3.3.2 Configuring WEP Encryption" on page 29.

3.3.1 Configuring WPA-PSK Encryption

Procedure

Continuing from “Configuring the wireless encryption” on page 27:

- 1 Select **Use WPA-PSK Encryption**.
 - 2 In the **WPA-PSK Encryption Key** box, type a the key of your choice. The key must be in one of the following formats:
 - ▶ 8 to 63 alphanumeric characters. For example: MyKey123
 - ▶ 8 to 64 hexadecimal characters (characters from 0 to 9 and from A to F). For example: C54F48A5.
 - 3 In the **WPA-PSK Version** list, click the WPA-version of your choice. Following options are available:
 - ▶ **WPA2:**
WPA2 is the most secure version, but not all wireless clients already support it. Before you select this version, make sure all of your wireless clients support it.
 - ▶ **WPA+WPA2:**
If not all of your wireless clients support WPA2 or you are not sure if they support WPA2, we recommend you to choose WPA+WPA2. Wireless clients that support WPA2 will use WPA2, the others will use WPA.
 - ▶ **WPA:**
If none of your wireless clients support WPA2 choose this option.
- 
- If you want to configure WPA2 on the built-in wireless utility of Windows XP Service Pack 2 (SP2), you first have to:
- Upgrade your Windows XP to Service Pack 3.
 - or -
 - Install the following update: <http://support.microsoft.com/kb/917021>.
- 4 Click **Apply**.
 - 5 Configure your wireless client(s) with the same settings.

3.3.2 Configuring WEP Encryption

Warning

Although the Thomson Gateway allows you to use WEP or no security, it is not recommended to use these settings. Only use WEP if you have wireless clients that do not support any higher encryption levels.

Procedure

Continuing from “Configuring the wireless encryption” on page 27:

- 1** Select **Use WEP Encryption**
- 2** In the **WEP Key Length** list, click the desired key length (a higher key length offers higher security).
- 3** In the **Encryption key** box, type a Network key of your choice. If you are using:
 - ▶ A 64-bit key:
Type 10 hexadecimal characters (characters from 0 to 9 and from A to F) or 5 alphanumeric characters.
 - ▶ A 128-bit key:
Type 26 hexadecimal characters (characters from 0 to 9 and from A to F) or 13 alphanumeric characters.
- 4** Click **Apply**.
- 5** Configure your wireless client(s) with the same settings.

3 Wireless Access

4 Thomson Gateway Tools

In this chapter

In this chapter we will take a closer look at following features:

Topic	Page
UPnP	32
Assigning a service (HTTP, FTP,...) to a Computer	38
Dynamic DNS	40

Feature availability

Depending on the configuration offered by your service provider, some features may not be available on your Thomson Gateway. For more information, contact your service provider.

4 Thomson Gateway Tools

4.1 UPnP

Introduction

UPnP is designed to automate the installation and configuration of a (small) network as much as possible. This means that UPnP-capable devices can join and leave a network without any effort of a network administrator.

Supported Operating Systems

The following operating systems support UPnP:

- Windows 7
- Windows Vista
- Windows XP



If your computer is running Windows XP, you first have to install the UPnP component. For more information, see “4.1.4 Installing UPnP on Windows XP” on page 36.

UPnP and the Thomson Gateway

With UPnP:

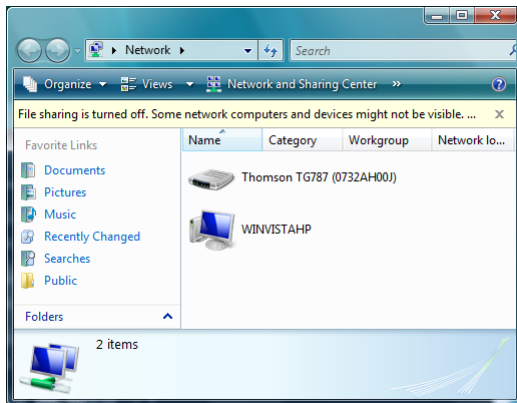
- You can access the Thomson Gateway GUI without having to remember the address of the Thomson Gateway. For more information, see “4.1.1 Accessing Your Thomson Gateway with UPnP” on page 33.
- You can connect/disconnect without having to open the Thomson Gateway GUI. For more information, see “4.1.2 Managing your Internet connection with UPnP” on page 34.
- You do not have to manually create port mappings to run services on a computer. The automatic port configuration mechanism for UPnP-enabled games and applications will do this for you. If the application is UPnP-enabled, UPnP will create these entries automatically. For more information, see “4.2 Assigning a service (HTTP, FTP,...) to a Computer” on page 38.

4.1.1 Accessing Your Thomson Gateway with UPnP

Windows 7/Vista

If your computer runs Windows 7/Vista:

- 1 On the Windows **Start** menu, click **Network**.
- 2 The **Network** window appears:

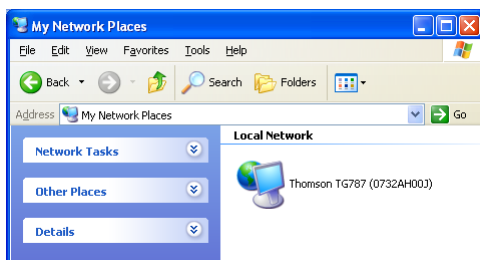


- 3 Right-click your Thomson Gateway (displayed as THOMSON TGXXX) and click **View device web page**.
- 4 The Thomson Gateway GUI appears.

Windows XP

If your computer runs Windows XP:

- 1 Go to **My Network Places**.
- 2 The **My Network Places** window appears:



- 3 Double-click your Thomson Gateway (displayed as THOMSON TGXXX).
- 4 The Thomson Gateway GUI appears.

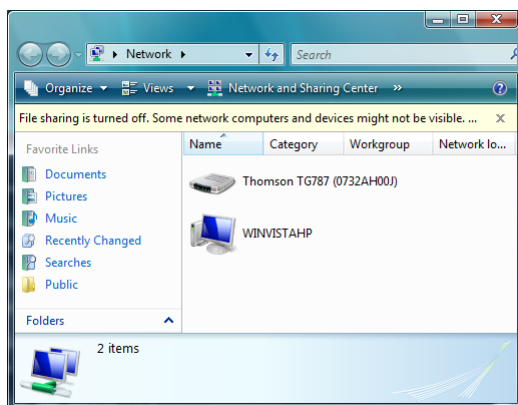
4 Thomson Gateway Tools

4.1.2 Managing your Internet connection with UPnP

Windows 7/Vista

If your computer runs Windows 7/Vista:

- 1 On the Windows **Start** menu, click **Network**.
- 2 The **Network** window appears:

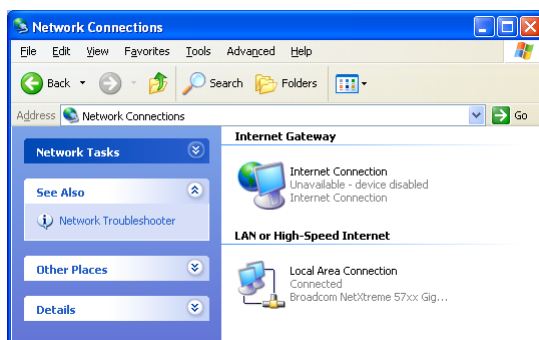


- 3 Right-click your Thomson Gateway (displayed as THOMSON TGXXX).
- 4 If you are currently:
 - ▶ Connected to the Internet, click **Disable** to disconnect from the Internet.
 - ▶ Not connected to the Internet, click **Enable** to connect to the Internet.

Windows XP

Proceed as follows:

- 1 On the Windows **Start** menu, click **(Settings >) Control Panel**.
- 2 The **Control Panel** window appears. Click **(Network and Internet Connections) > Internet Connections**.
- 3 The **Network Connections** window appears;



- 4 If you right-click the **Internet Connection** icon, you can connect/disconnect your connection to the Internet.

Disabling this feature

To prevent that users can connect/disconnect you can enable Extended Security. For more information, see "4.1.3 Configuring UPnP on the Thomson Gateway" on page 35.

4.1.3 Configuring UPnP on the Thomson Gateway

Introduction

On the Thomson Gateway GUI you can:

- Enable/Disable UPnP.
- Enable/Disable Extended Security.

Enable/Disable UPnP

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Game & Application Sharing**.
- 3 Under **Universal Plug and Play**:
 - ▶ Select the **Use UPnP** check box, to enable UPnP.
 - ▶ Clear the **Use UPnP** check box, to disable UPnP.
- 4 Click **Apply**.

Extended Security

If Extended Security is enabled only limited UPnP operation between the host and the Thomson Gateway is allowed:

- A local host is not allowed to connect/disconnect the Thomson Gateway Internet connection. You can then only connect/disconnect the Internet connection via the Thomson Gateway GUI
- Address translation mappings can only be added or changed via UPnP for the host on which the UPnP application is running.

Enable/Disable Extended Security

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Game & Application Sharing**.
- 3 Under **Universal Plug and Play**, select **Use Extended Security**.
- 4 Click **Apply**.

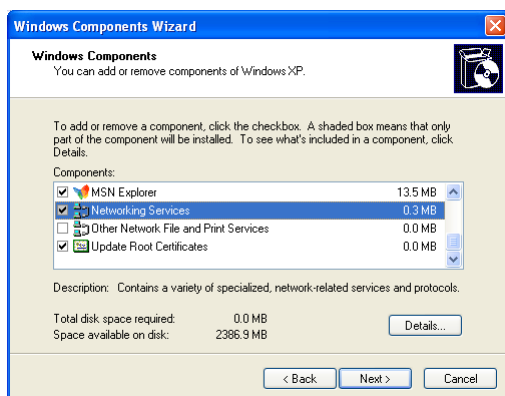
4 Thomson Gateway Tools

4.1.4 Installing UPnP on Windows XP

Adding UPnP

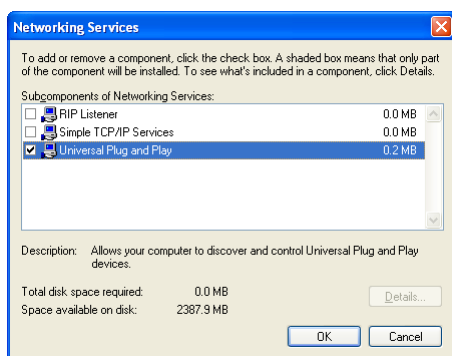
If you are running Microsoft Windows XP, it is recommended to add the UPnP component to your system. Proceed as follows:

- 1 In the **Start** menu, click **(Settings >) Control Panel**.
- 2 The **Control Panel** window appears.
Click **Add or Remove Programs**.
- 3 The **Add or Remove Programs** window appears.
Click **Add/Remove Windows Components**.
- 4 The **Windows Components Wizard** appears:



In the **Components** list, select **Networking Services** and click **Details**

- 5 The **Networking Services** window appears:



Select **Universal Plug and Play** or **UPnP User Interface** and click **OK**.

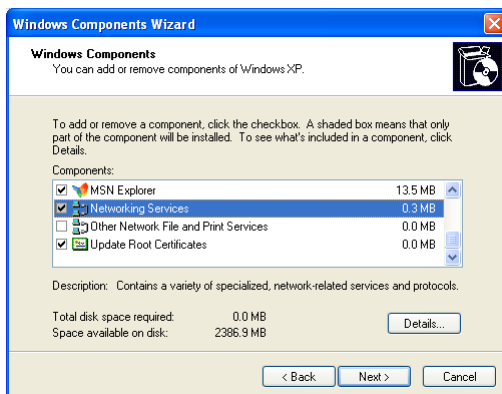
- 6 Click **Next** to start the installation and follow the instructions in the **Windows Components Wizard**.
- 7 At the end of the procedure the wizard informs you that the installation was successful. Click **Finish** to quit.

Adding IGD Discovery and Control

Your Windows XP system is able to discover and control Internet Gateway Devices (IGD), like the Thomson Gateway on your local network. Therefore, it is recommended to add the IGD Discovery and Control client to your system.

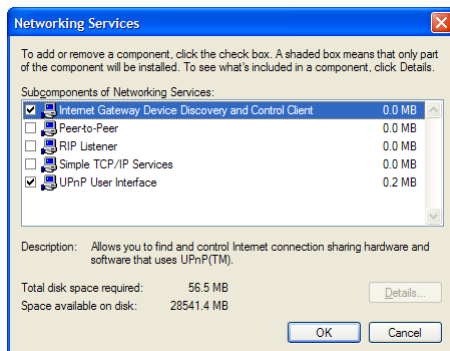
Proceed as follows:

- 1 On the Windows taskbar, click **Start**.
- 2 Select **(Settings >) Control Panel > Add or Remove Programs**.
- 3 In the **Add or Remove Programs** window, click **Add/Remove Windows Components**.
- 4 The **Windows Components Wizard** appears:



Select **Networking Services** in the **Components** list and click **Details**.

- 5 The **Networking Services** window appears:



Select **Internet Gateway Device Discovery and Control Client** and click **OK**.

- 6 Click **Next** to start the installation and follow the instructions in the **Windows Components Wizard**.
- 7 At the end of the procedure, the wizard informs you that the installation was successful. Click **Finish** to quit.

4 Thomson Gateway Tools

4.2 Assigning a service (HTTP, FTP,...) to a Computer

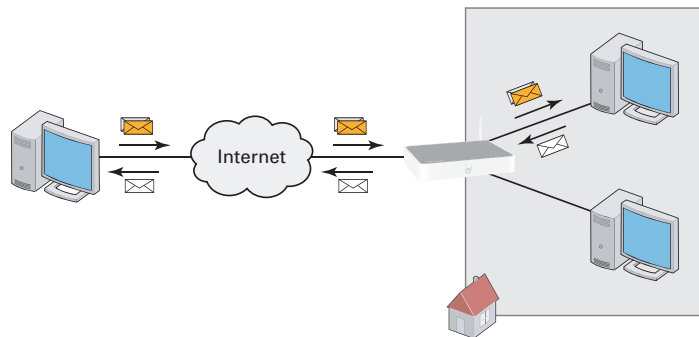
Introduction

The Thomson Gateway allows you to use one internet connection for multiple computers. This means that all your computers share one public IP address, as if only one computer were connected to the outside world.

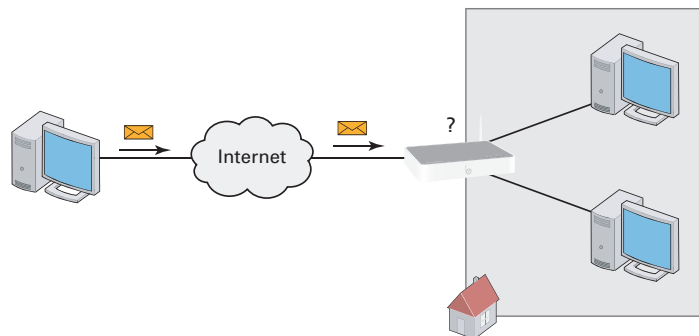
Issue

When the Thomson Gateway receives an incoming message, the Thomson Gateway has to decide to which computer he has to send this message.

If the incoming message is a response to an outgoing message originating from one of your computers, the Thomson Gateway sends the incoming message to this computer.



If you are running a server or an application that acts as a server (for example a HTTP server, internet game), the initial message will come from the internet and the Thomson Gateway has to decide to which computer he should forward the incoming message.



Solution

To avoid this problem you must:

- Enable UPnP.
- Assign a game or application to a local networking device.

UPnP

UPnP is a technology that enables seamless operation of a wide range of games and messaging applications. Your computer will use UPnP to communicate to the Thomson Gateway which services are running on the computer.

For example, when you start a UPnP-enabled application on your computer, it will automatically create the necessary port mappings to this computer.

For more information on UPnP, see "4.1 UPnP" on page 32.

Assign a game or application to a local networking device

If you assign a game or application to a local networking device, you will basically tell the Thomson Gateway that if it receives requests for a specific game or application, it has to forward these messages to a specific computer.

Proceed as follows to do so:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Game & Application Sharing**.
- 3 In the **Pick a task** list, click **Assign a game or application to a local network device**.
- 4 In the **Game or application** list, click the service you want to run on the computer. For example, **HTTP Server (World Wide Web)**.



If the service is not available in the list, click **Create a new game or application** in the **Pick a task** list. For more information, click **Help** on the Thomson Gateway GUI.

- 5 In the **Device** list, select the computer to which you want to assign the service. Your computer will be listed with its computer name.
- 6 All incoming request for the selected service will now be directed to the selected device. The Thomson Gateway will also configure the its firewall to allow this service.

4 Thomson Gateway Tools

4.3 Dynamic DNS

Introduction

The Dynamic DNS service allows you to assign a dynamic DNS host name (for example mywebpage.dyndns.org) to a broadband connection even if it is using a dynamic IP address. As soon as the device gets a new IP address, the dynamic DNS server updates its entry to the new IP address.

What you need

Before you can configure Dynamic DNS, you first have to create an account at a Dynamic DNS service provider. For example:

- www.dyndns.org
- www.no-ip.com
- www.dtdns.com

Procedure

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Dynamic DNS**.
- 3 On the Navigation bar, click **Configure**.
- 4 Select the **Enabled** check box.
- 5 If necessary, select the broadband connection to which you want to assign the Dynamic DNS host name in the Interface list.
- 6 Type the user name and password of your Dynamic DNS service account in the corresponding fields.
- 7 In the **Service** list, click the name of your Dynamic DNS service provider.
- 8 In the **Host** box, type the host name that you got from the Dynamic DNS service provider (for example mywebpage.dyndns.org).
- 9 Click **Apply**.

5 Internet Security

Overview

The Thomson Gateway offers you various options to secure your network:

Topic	Page
Firewall	42
Parental Control	43

5.1 Firewall

Introduction

The Thomson Gateway comes with an integrated firewall. This firewall has a number of predefined levels to allow you to adjust the firewall to your needs.

The Firewall is disabled by default.

Changing the security level

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Firewall**.
- 3 The **Firewall** page appears. In the upper-right corner, click **Configure**.
- 4 A list with security settings with a brief description is displayed.
- 5 Select the security level of your choice and click **Apply**.

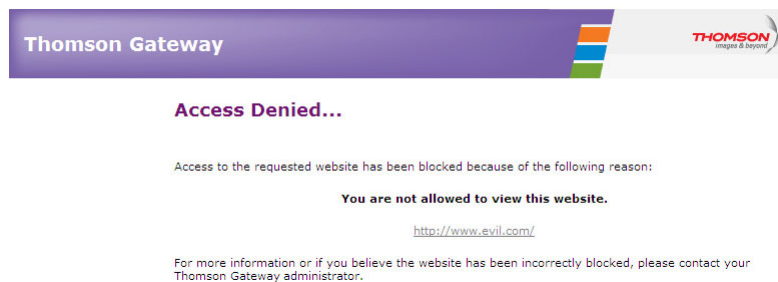
5.2 Parental Control

Introduction

The Thomson Gateway allows you to deny access to specific web sites.

Access Denied page

When a user tries to access a page that is being blocked, the following page is displayed:



Address-based filtering

With address-based filtering (or URL-filtering) you can *block web sites based on their address* (for example www.porn.com).

To configure address-based filtering:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Parental Control**.
- 3 On the Navigation bar, click **Configure**.
- 4 Make sure that the **Use Address-Based Filter** check box is selected.
- 5 In the **Action for Unknown Sites**, select:
 - ▶ **Allow** as the default rule if you want to allow access to *all* web sites and manually specify which web sites may not be accessed.
 - ▶ **Block** as the default rule if you want to deny access to *all* web sites and manually specify a number of web sites that may be accessed.
- 6 Click **Apply**.
- 7 If you want to make exceptions for specific web sites, add the necessary rules in the address-based filter.

Options

With the address-based filter you can:

- Deny access to a specific web site.
- Allow access to a specific web site.
- Redirect a web site.
- Redirect all web sites.

5 Internet Security

Deny access to a specific web site

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Parental Control**.
- 3 Make sure the **Use Address-Based Filter** check box is selected.
- 4 Type the URL of the Web site you want to block (for example "mail.provider.com") in the **Web Site** box.
- 5 In the **Action** list, click **Block**.
- 6 Click **Add**.

Allow access to a specific web site

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Parental Control**.
- 3 Make sure the **Use Address-Based Filter** check box is selected.
- 4 Type the URL of the Web site you want to allow (for example "netbanking.bank.com") in the **Web Site** box.
- 5 Click **Allow** in the **Action** list.
- 6 Click **Add**.

Redirect a web site

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Parental Control**.
- 3 Make sure the **Use Address-Based Filter** check box is selected.
- 4 Type the URL of the Web site you want to redirect (for example "cracks.am") in the **Web Site** box.
- 5 Click **Redirect** in the **Action** list.
- 6 Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 7 Click **Add**.

Redirect all web sites

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Toolbox** menu, click **Parental Control**.
- 3 Make sure the **Use Address-Based Filter** check box is selected.
- 4 Type "*" in the **Web Site** box.
- 5 Click **Redirect** in the **Action** list.
- 6 Type the URL of the Web site you want to redirect to (for example "mycompany.com/internetpolicy.htm") in the **Redirect** box.
- 7 Click **Add**.

6 Troubleshooting

Introduction

This chapter suggests solutions for problems you may encounter while installing, configuring or using your Thomson Gateway.

If the suggestions do not resolve the problem, look at the support pages on www.thomson.net or contact your service provider.

Topics

This chapter describes the following topics:

Topic	Page
Setup Troubleshooting	46
General Thomson Gateway Troubleshooting	47
Reset to Factory Defaults	50

6 Troubleshooting

6.1 Setup Troubleshooting

The Setup CD does not start automatically

If your computer runs:

- Microsoft Windows:
 - 1 Click the Windows **Start** button.
 - 2 Click **Run**.
 - 3 In the **Open** field, type the following path: **D:\Setup.exe**, where D stands for the drive letter of your CD- or DVD-ROM drive.
- Mac OS X:
 - 1 On your desktop, double-click the CD icon.
 - 2 Double-click **Menu**.

Your Thomson Gateway has not been found

If you see this error during setup, make sure that:

- The Thomson Gateway is turned on and fully initialized.
- Your computer has a valid IP address, that is any address but 0.0.0.0. For more information, consult the help of your operating system.
- No dedicated firewall device or router is placed between your computer and the Thomson Gateway.
- No personal network security software (for example firewall software) is running on your computer.
- Your computer is correctly connected to the Thomson Gateway.

6.2 General Thomson Gateway Troubleshooting

None of the lights light up (Thomson Gateway does not work)

Make sure that:

- The Thomson Gateway is plugged into a power socket outlet.
- You are using the correct power supply for your Thomson Gateway device.



The power requirements for your Thomson Gateway are clearly indicated on the identification label of the Thomson Gateway. Only use the power adaptor supplied with your Thomson Gateway.

- The Thomson Gateway is turned on via the push button or rocker switch on the back panel.

The Broadband LED does not light up

Make sure that:

- The DSL cable is correctly connected. For more information, see “1.2 Installing your Thomson Gateway”.
- The DSL service is enabled on your telephone line. For more information, contact your Internet Service Provider.

The Internet LED does not light up

Make sure that your user name and password are correct.

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Broadband** menu, click **Internet Services**.
- 3 Under **Internet**, click **View More**.
- 4 Check your user name
- 5 Re-enter your password.
- 6 Click **Connect**.

Thomson Gateway unreachable

If your Thomson Gateway cannot be reached, you might consider a hardware reset as described in “6.5 Reset to Factory Defaults” on page 50.

Poor Thomson Gateway performance

Make sure that the Thomson Gateway is installed and configured as instructed in “1 Installation” on page 3 or as instructed by the Service Provider.

6 Troubleshooting

6.3 Wired Connection Troubleshooting

Ethernet LED does not light up

Make sure that:

- The Ethernet cable is securely connected to the Ethernet port on your Thomson Gateway and your computer.
- You are using the correct cable type for your Ethernet equipment, that is UTP CAT5 with RJ-45 connectors.

6.4 Wireless Connection Troubleshooting

No Wireless Connectivity

Try the following:

- Change the wireless channel.
- Make sure that the wireless client is configured for the correct wireless settings (Network Name, security settings).
- Check the signal strength, indicated by the wireless client manager. If the signal is low, try repositioning the Thomson Gateway or directing the Thomson Gateway's antenna(s) for optimal performance.
- Make sure that the wireless client adapter is enabled (message like "radio on").

Poor Wireless Connectivity or Range

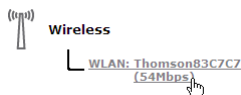
Try the following:

- Change the wireless channel.
- Check the signal strength, indicated by the wireless client manager. If the signal is low, try to place the Thomson Gateway or to direct the Thomson Gateway's antenna(s) for optimal performance.
- Use WPA(2)-PSK as encryption.
For more information, see "3.3 Securing Your Wireless Connection" on page 27.

Change the wireless channel

Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the left menu, click **Home Network**.
- 3 Under **Wireless**, click your access point.



Your access point will be listed in the following format: "WLAN:<Network Name> (<Actual Speed>)". For example, **WLAN: Thomson83C7C7 (54Mbps)**.

- 4 The **Wireless Access Point** page appears.
- 5 In the Navigation bar, click **Configure**.
- 6 Under **Configuration**, select the channel of your choice in the **Channel Selection** list.
- 7 Click **Apply**.

Can not connect via WPS

If you are having trouble connecting your wireless client via WPS, try to configure it manually. For more information, see "3.2 Connecting Your Wireless Client without WPS" on page 26.

6 Troubleshooting

6.5 Reset to Factory Defaults

Resetting your Thomson Gateway

If at some point you can no longer connect to the Thomson Gateway or you want to make a fresh install, it may be useful to perform a reset to factory defaults.

Warning

A reset to factory default settings deletes all configuration changes you made. Therefore, after the reset, a reconfiguration of your Thomson Gateway will be needed.

Also your wireless clients will have to be re-associated, as described in “3 Wireless Access” on page 23.

Methods

You can choose between:

- Resetting the Thomson Gateway via the Thomson Gateway GUI
- Reset the Thomson Gateway via the Reset button

Resetting the Thomson Gateway via the Thomson Gateway GUI

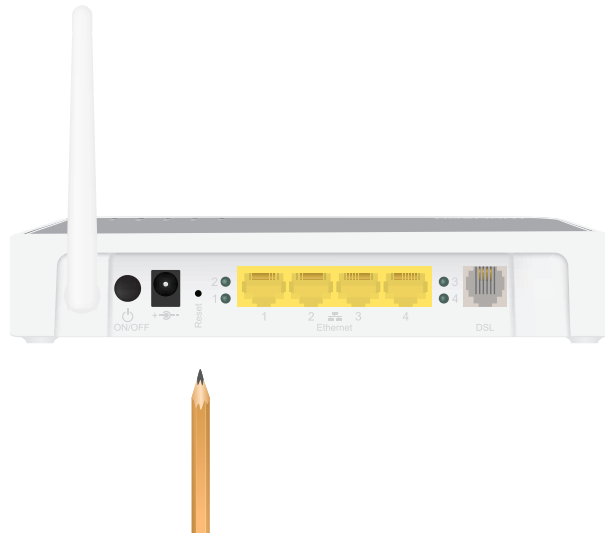
Proceed as follows:

- 1 Browse to the Thomson Gateway GUI.
- 2 On the **Thomson Gateway** menu, click **Configuration**.
- 3 In the **Pick a task** list, click **Reset my Thomson Gateway**.
- 4 The Thomson Gateway restores the initial configuration and restarts.
- 5 The Thomson Gateway returns to the Thomson Gateway home page (unless the IP address of your computer is not in the same subnet as the default IP address of the Thomson Gateway, being 192.168.1.254).

Reset the Thomson Gateway via the Reset button

Proceed as follows:

- 1 Make sure the Thomson Gateway is turned on.
- 2 Push the **Reset** button until the **Power** LED lights red - this will take about 7 seconds.



- 3 Release the **Reset** button.
- 4 The Thomson Gateway restarts.



Your system administrator may have disabled the physical reset button of the Thomson Gateway. In this case, a hardware reset to defaults is not possible.

6 Troubleshooting

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