

THOMSON TG585n

Wireless-n Multi-User ADSL2+ Gateway



Setup and User Guide

THOMSON TG585n

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 TG585n 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-broadband.com.
- **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.

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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.

1 Installation

1.1 Preliminary Steps

DSL service

The DSL service must be up and running on your telephone line.

If both conventional telephone and DSL service are simultaneously available from the same copper pair, you will need a central splitter or distributed filters for decoupling DSL and telephone signals.



Public telephone lines carry voltages that can cause electric shock. Only try to set up splitter/filters that have been designed to be installed by unqualified personnel. For further assistance, contact your Internet Service Provider.

Computer requirements

- To connect a computer via Ethernet, make sure the computer is equipped with an Ethernet Network Interface Card (NIC).
- For wireless networking, you will need a WiFi-certified wireless client adapter for each computer you want to connect wirelessly.

Internet connection details

You may need the following connection details from your Internet Service Provider (ISP):

- Your ISP'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 ISP may indicate the Service Profile to use during 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.

1.2 Installing your Thomson Gateway

Installation methods

There are two ways to set up your Thomson Gateway:

- Guided Installation
- Manual Installation

Guided Installation

How it works

The Setup wizard included on the CD will guide you through all configuration aspects of your Thomson Gateway. This is the recommended way to install your Thomson Gateway.

Requirements

- Your computer must run one of the following operating systems:
 - ▶ Microsoft Windows Vista (SP1) or higher
 - ▶ Microsoft Windows Vista x64 (SP1) or higher
 - ▶ Microsoft Windows XP SP2 or higher
 - ▶ Microsoft Windows XP x64 SP 1 or higher
 - ▶ Microsoft Windows 2000 SP4
 - ▶ Mac OS X 10.4 (Tiger)
 - ▶ Mac OS X 10.5 (Leopard)
- You must have administrative rights on your computer

Getting started

Proceed with "1.2.1 Guided Installation" on page 6.

Manual Installation

How it works

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.

Requirements

Javascript must be enabled on your web browser.

Getting started

Proceed with "1.2.2 Manual Installation" on page 8.

1 Installation

1.2.1 Guided Installation

Connecting devices: wait!

Do not plug in any cables or connect any devices until you are prompted to do so by the wizard.

In case of problems

If you encounter problems during this installation please refer to “7.1 Setup wizard Troubleshooting” on page 50.

Starting the wizard

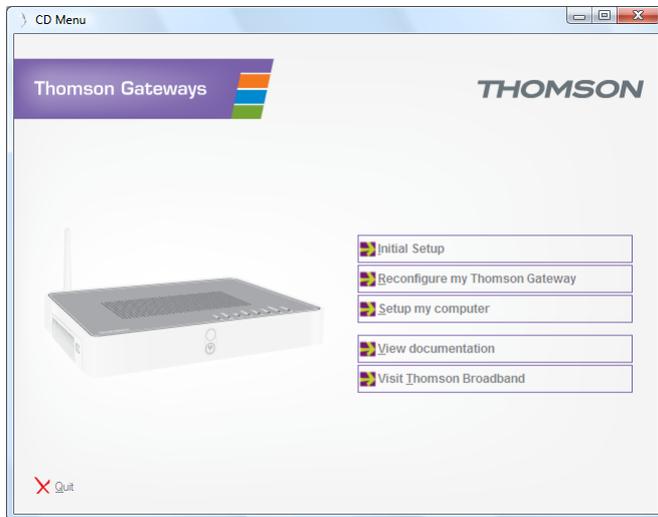
To start the wizard:

- 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.
 - ▶ 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.
- 5 At the end of the installation, following screen appears:



- 6 Select the [Go to the Thomson Gateway Web Interface](#) if you want to go to the Thomson Gateway Web Interface after closing the wizard. On the Thomson Gateway Web Interface, you can further configure your Thomson Gateway.
- 7 Click **Finish**.
- 8 The **CD menu** appears.

CD menu



On the **CD Menu**, click:

- **Initial Setup** to connect your computer to the Thomson Gateway and configure it.
- **Reconfigure my Thomson Gateway** to reconfigure your Thomson Gateway.
- **Setup my computer** to connect your computer to the Thomson Gateway network.
- **View Documentation** to view the documentation that is available for your Thomson Gateway. This list will be automatically updated if you are connected to the Internet.
- **Visit Thomson Broadband** to visit the online support sections on www.thomson-broadband.com.



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

1 Installation

1.2.2 Manual Installation

Procedure

Proceed as follows:

- 1 Connect the cables
- 2 Configure the Thomson Gateway

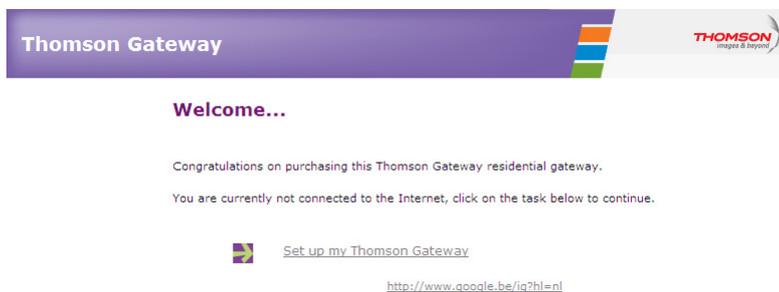
Connect the cables

Proceed as follows:

- 1 Connect your computer to the Thomson Gateway as described in “3 Adding a New Computer to your Network” on page 19.
- 2 Connect the Thomson Gateway to the DSL line.
- 3 Connect the power supply.
- 4 Turn on the Thomson Gateway.

Configure the Thomson Gateway

- 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.

2 Thomson Gateway Basics

In this chapter

Topic	Page
Thomson Gateway LED Behaviour	10
Thomson Gateway Web Interface	15
Backing Up/Restoring your Configuration	18

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 during normal operation.

Power LED

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

Ethernet LED

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

Wireless LED

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

2 Thomson Gateway Basics

Broadband LED

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

Internet LED

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

2.1.2 WPS Button LED

Introduction

The WPS button allows you to add new wireless clients to your network.



For more information, see [Connecting Your Wireless Client via WPS](#).

WPS LED

Colour	State	Description
Green	Solid On	Client successfully registered via WPS
Amber	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 Web Interface

Introduction

The Thomson Gateway Web Interface allows you to configure your Thomson Gateway using your web browser.

Requirements

Javascript must be enabled on your browser. For more information, consult the help of your Internet browser.

Accessing the Thomson Gateway Web Interface

Proceed as follows:

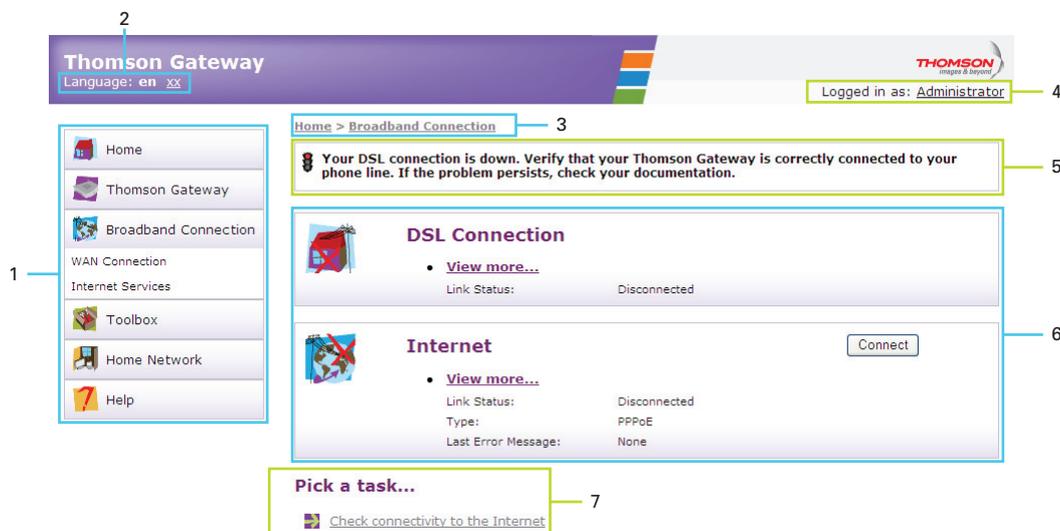
- 1 Open your web browser.
- 2 Browse to <http://dsldevice.lan> or to the IP address of your Thomson Gateway (by default: 192.168.1.254).
- 3 If you have protected your Thomson Gateway with a user name and password, the Thomson Gateway will prompt you to enter these. Enter your user name and password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

If your computer runs Windows Vista or Windows XP, you can also access the Thomson Gateway Web Interface using the Internet Gateway Device icon. For more information, see "5.1 Universal Plug and Play" on page 30.

2 Thomson Gateway Basics

Components

All the pages contain following components:



Label	Description
1	Menu
2	Language bar
3	Location bar
4	Login section
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 assign games or applications to a device and secure your Internet connection.
- **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.

Location bar

The location bar allows you to view the current position in the Thomson Gateway Web interface.

Login section

In this section you can see the current user name.

By clicking your user name, you can:

- Change your password.
- Switch to another user.

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 topic.

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 may be a good idea 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 Web Interface.
- 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 file.
- 6 Save your file to a location of your choice.

Restoring your configuration

Proceed as follows:

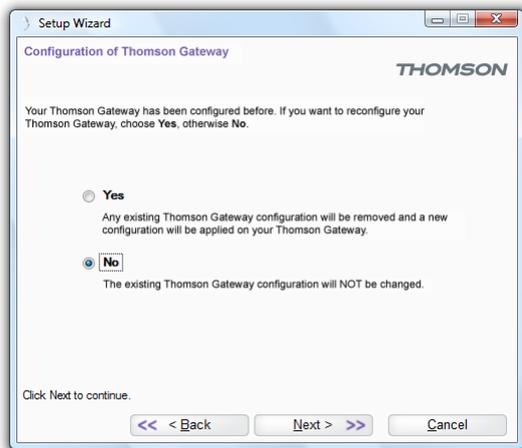
- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Thomson Gateway** menu, click **Configuration**.
- 3 In the **Pick a task** list, click **Save or Restore Configuration**.
- 4 Under **Restore saved configuration**, click **Browse**.
- 5 Open your backup file.
- 6 The Thomson Gateway restores your configuration.

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.

At a specific point in the installation, the Setup wizard will inform you that the Thomson Gateway has already been configured:



Select **No** and click **Next** to continue.

Manual Installation

If you want to connect your computer to the Thomson Gateway using:

- A Wireless connection, continue with “4 Wireless” on page 21.
- The Ethernet cable, continue with “3.1 Connecting a Computer Using the Ethernet Cable” on page 20.

3 Adding a New Computer to your Network

3.1 Connecting a Computer Using the Ethernet Cable

Requirements

- Your computer 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 port(s) 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.

4 Wireless

Introduction

With the built-in wireless access point you are no longer bound by cables to connect to the Internet.

What you need to set up a wireless network

To set up a wireless network, you need following components

- A Wireless Access Point
- 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 the different wireless devices with each other.
- Secures the data sent over wireless connection.

The Thomson Gateway comes with an integrated wireless access point. The only thing you need is a wireless client.

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) are available.

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 wireless access point: the Thomson Gateway.

For more information, see "4.1 Connecting Your Wireless Client via WPS" on page 22 and "4.2 Connecting Your Wireless Client without WPS" on page 24.

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. This means that your neighbour can easily use your connection without you knowing it or that hackers can use your connection to hack into other computers.

You can easily prevent this by securing your wireless connection. For more information, see "4.3 Securing Your Wireless Connection" on page 25.

4 Wireless

4.1 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 of your wireless settings (SSID, encryption,...).

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 WLAN LED is blinking amber when you start WPS on your wireless client. If you still have trouble connecting to the Thomson Gateway, try connecting your wireless client without WPS. For more information, see "4.2 Connecting Your Wireless Client without WPS" on page 24.

Troubleshooting

If you are having trouble connecting your wireless client via WPS, try to configure it manually. For more information, see "4.2 Connecting Your Wireless Client without WPS" on page 24.

4.2 Connecting Your Wireless Client without WPS

Before you start

Before you can connect a computer to your wireless network you need to know which Network Name (SSID) and encryption your Thomson Gateway is using.

Where can I find the SSID?

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

Where can I find the encryption?

You have not yet configured your Thomson Gateway

In this case, no encryption 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 encryption key/passphrase 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 Web Interface on a computer that is already connected to your network.
- 2 On the **Home Network** menu, click **Wireless**.
- 3 In the upper-right corner, click **Details**.
- 4 The wireless Access Point page appears. 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.

Another option is to reset your Thomson Gateway and reconfigure it all over again. For more information, see "7.3 Reset to Factory Defaults" on page 54.

Procedure

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

4.3 Securing Your Wireless Connection

Introduction

By using encryption, communication between the wireless clients and your Thomson Gateway is protected by a passphrase. Only clients which use the correct network name (SSID) and passphrase can connect to your network.

Encryption methods

During the years a number of encryption types have been developed. The list below gives you an overview of the supported encryption types ordered by 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.

WPA-PSK versions

The Thomson Gateway supports the following WPA-PSK versions:

- **WPA2** (also referred to as WPA2-PSK):
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.



To use WPA2 on Windows XP Service Pack 2 (SP2) you first have to install Wi-Fi Protected Access 2 (WPA2)/Wireless Provisioning Services Information Element (WPS IE) update or install SP3.

You can find the WPS IE update on <http://support.microsoft.com/kb/917021>.

Which encryption method should I use?

We strongly recommend you to *use the highest level* of encryption that is supported by all your wireless clients.

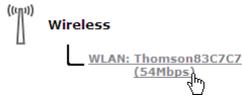
Configuring the wireless encryption

Proceed as follows:

- 1 Open the Thomson Gateway Web Interface.
- 2 On the left menu, click **Home Network**.

4 Wireless

- 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 Location bar, click **Configure**.
- 6 Under **Security**, you can change the **Encryption**. If you want to use:
 - ▶ WPA-PSK Encryption, continue with “4.3.1 Configuring WPA-PSK Encryption” on page 27.
 - ▶ WEP Encryption, continue with “4.3.2 Configuring WEP Encryption” on page 28.

4.3.1 Configuring WPA-PSK Encryption

Procedure

Continuing from “Configuring the wireless encryption”:

- 1 Select **Use WPA-PSK Encryption**.
 - 2 In the **WPA-PSK Encryption Key** box, type a pass phrase (also known as Pre-shared key) of your choice. The pass phrase must consist of 8 to 63 alphanumeric characters or 64 hexadecimal characters (characters from 0 to 9 and from A to F).
 - 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.
-  To use WPA2 on Windows XP Service Pack 2 (SP2) you first have to install Wi-Fi Protected Access 2 (WPA2)/Wireless Provisioning Services Information Element (WPS IE) update or install SP3.
You can find the WPS IE update on <http://support.microsoft.com/kb/917021>.
- 4 Click **Apply**.
 - 5 Configure your wireless client(s) with the same settings.

4.3.2 Configuring WEP Encryption

Procedure

Continuing from “Configuring the wireless encryption”:

- 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.

5 Getting the Most Out of Your Thomson Gateway

In this chapter

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

Topic	Page
Universal Plug and Play	30
Assigning a service (HTTP, FTP,...) to a computer	37
Dynamic DNS	39

Feature availability

Depending on the configuration offered by your Internet Service Provider (ISP), some features may not be available on your Thomson Gateway. For more information, contact your ISP.

5 Getting the Most Out of Your Thomson Gateway

5.1 Universal Plug and Play

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

Following operating systems support UPnP:

- Windows Vista
- Windows XP



If your computer is running Windows XP, you first have to install the UPnP component. For more information, see "5.1.4 Installing UPnP on Windows XP" on page 35.

UPnP and the Thomson Gateway

With UPnP you can:

- Access the Thomson Gateway Web Interface **without having to open the Thomson Gateway Web Interface**. For more information, see [Accessing Your Thomson Gateway with UPnP](#).
- Connect/disconnect **without having to open the Thomson Gateway Web Interface**. For more information, see [Managing your Internet connection with UPnP](#).
- Automatic port configuration for UPnP-enabled games and applications. You do not have to create port to run services on a computer. If the application is UPnP-enabled, UPnP will create these entries automatically. For more information, see [Assigning a service \(HTTP, FTP,...\) to a computer](#).

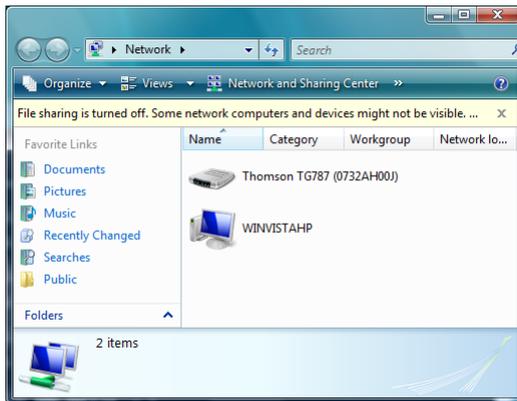
5 Getting the Most Out of Your Thomson Gateway

5.1.1 Accessing Your Thomson Gateway with UPnP

Windows Vista

If your computer runs Windows Vista:

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

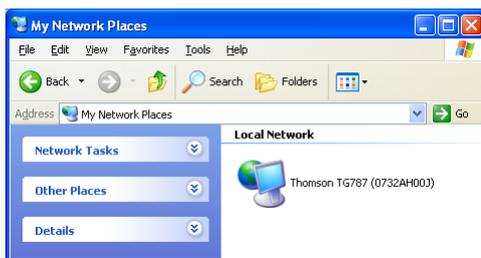


- 3 Right-click your Thomson Gateway (displayed as THOMSON TGXXX) and click **View device web page**.
- 4 The Thomson Gateway Web Interface appears.

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 Web Interface appears.

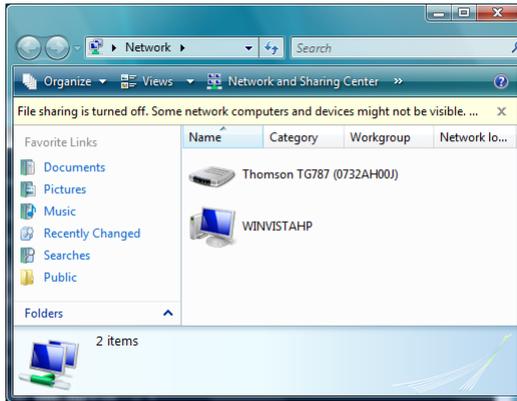
5 Getting the Most Out of Your Thomson Gateway

5.1.2 Managing your Internet connection with UPnP

Windows Vista

If your computer runs Windows 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.

5 Getting the Most Out of Your Thomson Gateway

Disabling this feature

To prevent that users can connect/disconnect you can enable Extended Security. For more information, see "5.1.3 Configuring UPnP on the Thomson Gateway" on page 34.

5 Getting the Most Out of Your Thomson Gateway

5.1.3 Configuring UPnP on the Thomson Gateway

Introduction

On the Thomson Gateway Web Interface you can:

- Enable/Disable UPnP
- Extended Security

Enable/Disable UPnP

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 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 Web Interface
- Address translation mappings can only be added or changed via UPnP for the host on which the UPnP application is running.

Enabling Extended Security

Proceed as follows:

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

5.1.4 Installing UPnP on Windows XP

Adding UPnP

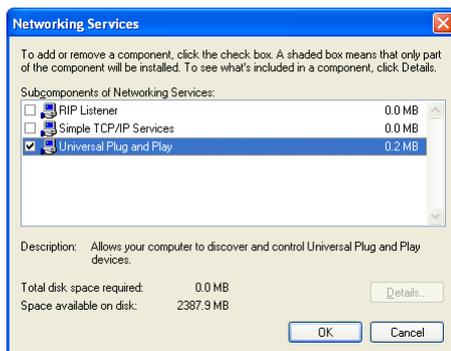
If you are running Microsoft Windows XP, it is recommended to add the UPnP component to your system. Proceed as follows:

- 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.

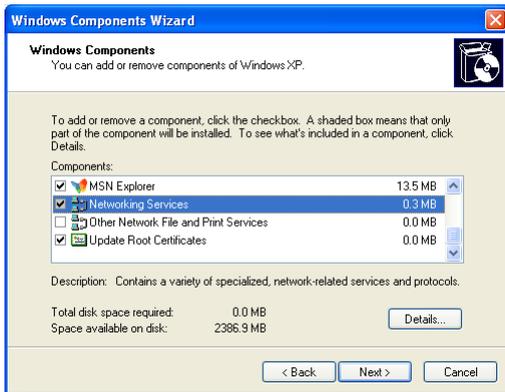
5 Getting the Most Out of Your Thomson Gateway

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.

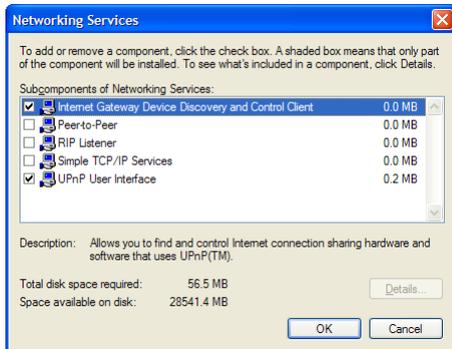
Proceed as follows:

- 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.

5 Getting the Most Out of Your Thomson Gateway

5.2 Assigning a service (HTTP, FTP,...) to a computer

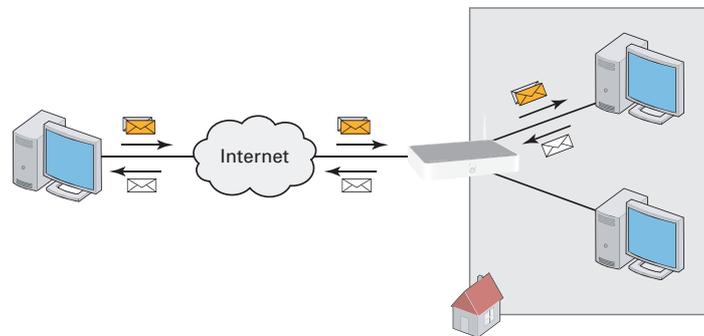
Introduction

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 is connected to the outside world.

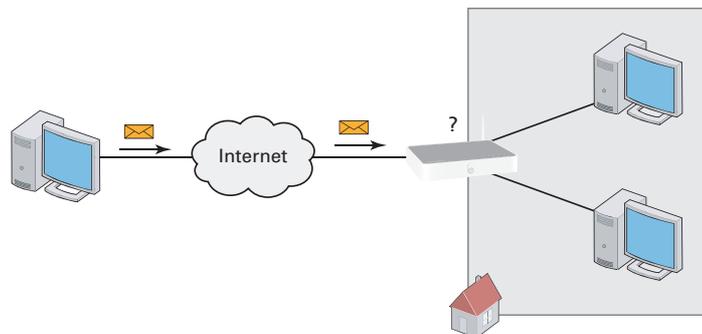
Problem

When the Thomson Gateway receives an incoming message, the Thomson Gateway has to decide to which computer he will have 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 can:

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

5 Getting the Most Out of Your Thomson Gateway

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 more information on UPnP, see “5.1 Universal Plug and Play” on page 30.

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 Web Interface.
- 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 Web Interface.

- 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.

5.3 Dynamic DNS

Introduction

The Dynamic DNS service allows you to assign a dynamic DNS host name (for example john.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 Web Interface.
- 2 On the **Toolbox** menu, click **Dynamic DNS**.
- 3 On the **Location** 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 Getting the Most Out of Your Thomson Gateway

6 Internet Security

Overview

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

Topic	Page
Firewall	42
Web Site Filtering	43

6 Internet Security

6.1 Firewall

Changing the security level

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 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**.

Creating a new security level

If you do not find a security level up to your need, you are able to create a new security level.



This feature is intended for *advanced users only*.

Proceed as follows:

- 1 In the **Toolbox** menu, click **Firewall**.
- 2 In the upper right corner, click **Configure**.
- 3 In the **Pick a task** list, click **Create a new Security Level**.
- 4 In the **Name** box, type a name for the new security level.
- 5 In the **Clone from existing Security Levels** list, click the security level you want to start from.
- 6 Click **Apply**.
- 7 You can now make the necessary changes to the security level.

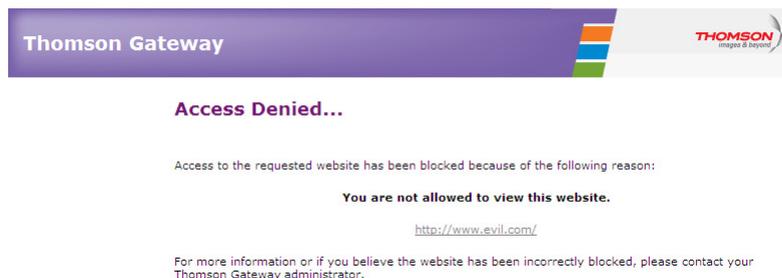
6.2 Web Site Filtering

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 you can *block web sites based on their address*, also called URL (for example www.porn.com).

But as, you know, the Internet consists of a large number of web sites, and that number still increases every day. This makes it almost impossible to keep this list up to date.

To solve this problem Thomson Gateway introduced content based filtering.

Content-based filtering

With content-based filtering allows you can *block web sites based on their content category* (for example pornography) instead of the their URL. This way, you only need select the appropriate categories when you enable this feature and the content category server takes care of the rest. This content category server is updated at regular intervals.

Combining the two filters

Address-based filtering has priority over content-based filtering. This means that when you are blocking a specific category (for example **Finance / Investment**), you can still access (netbanking.mybank.com) provided you create a rule to allow access to that URL (for example netbanking.mybank.com).

Activating content-based filtering

Before you can use content-based filtering you must first activate it by purchasing a license key at your Internet Service Provider (ISP) or by activating the 30-day trial.

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 3 In the **Pick a task** list, click **Activate Web Filtering License**.

6 Internet Security

- 4 The **Web Filtering Activation** page appears. Under **License Type**, select:
 - ▶ **30-days evaluation** if you first want evaluate this feature.
 - ▶ **Standard** if you have already purchased a license key. The License key box appears as soon as you select this option. Type the license key that you received from your ISP in this box.
- 5 Click **Apply**.

Option 1: content-based filter (combined with the address-based filter)

If you want to use the content-based filter:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 3 On the Location bar, click **Configure**.
- 4 Make sure that the **Use Content Based Filter** check box is selected.
- 5 Configure the content based filter. For more information, see "6.2.1 Configuring The Content-based Filter".
- 6 If you want to make exceptions for specific web sites, add the necessary rules in the address-based filter. For more information, see "6.2.2 Adding Rules For The Address Based Filter".

Option 2: address-based filter only

Take this option, if you only want to use the address-based filter or content filtering is not available on your Thomson Gateway.

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 3 On the Location 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. For more information, see "6.2.2 Adding Rules For The Address Based Filter".

6.2.1 Configuring The Content-based Filter

Introduction

Address based filtering has a higher priority than content based filtering. This means that when you are blocking a specific category (for example **Finance / Investment**), you can still access (netbanking.mybank.com) provided you create a rule to allow access to that URL (for example netbanking.mybank.com).

Accessing the configuration page

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering/Parental Control**.
- 3 On the Location bar, click **Configure**.
- 4 Under **Content Based Filtering** you can change the settings of the content based filter.

Configuring the content-based filter

Under **Content Based Filtering**:

- 1 Select **Use Content Based Filter** check box (if needed).
- 2 In the **Action for uncategorised sites** list, select a default action for sites that have not yet been categorised.
- 3 Under **Content Level**, select the content level you want to use.
- 4 If you want a more detailed view of the content that will be blocked for this level, click the **Edit** link next to the content level.

If needed, you can change the **Name**, **Description** and **Configuration** of the content level. Click **Apply** after you have made your changes.

Creating your own content level

Proceed as follows:

- 1 In the **Pick a task** list, click **Create a new content level**.
- 2 Enter a **Name** and **Description** for your content level and click **Next**.
- 3 Under **Configuration**, select:
 - ▶ **Clone Existing Level** if you want to start from an existing level. You can now select the level that you want to clone.
 - ▶ **White list** if you want to block everything and select which content should be allowed.
 - ▶ **Black list** if you want to allow everything and select which content should be blocked.Click **Next**.
- 4 Under **Configuration**:
 - ▶ Select the check boxes of the categories/groups you want to allow.
 - ▶ Clear the check boxes of the categories/groups you want to block.
- 5 Click **Apply**.
- 6 Configure the content-based filter with the new level. For more information, see "Configuring the content-based filter" on page 45.

6.2.2 Adding Rules For 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

Deny access to a specific Web site

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 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 Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 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 Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 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 Web Interface.
- 2 On the **Toolbox** menu, click **Web Site Filtering**.
- 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**.

7 Troubleshooting

Introduction

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

If the suggestions do not resolve the problem, look at the support pages on <http://www.thomson-broadband.com> or contact your service provider.

Topics

This chapter describes the following topics:

Topic	Page
Setup wizard Troubleshooting	50
General Thomson Gateway Troubleshooting	51
Reset to Factory Defaults	54

7 Troubleshooting

7.1 Setup wizard 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, check whether:

- 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

7.2 General Thomson Gateway Troubleshooting

Thomson Gateway does not work

If none of the LEDs light up, 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 on the bottom 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.

Thomson Gateway unreachable

If your Thomson Gateway cannot be reached due to misconfiguration, you might consider a hardware reset to factory defaults as described in “7.3 Reset to Factory Defaults” on page 54.

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.

7.2.1 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 at least UTP CAT5 with RJ-45 connectors.

7.2.2 Wireless Connection Troubleshooting

No Wireless Connectivity

Make sure that:

- Both the wireless client adapter and the Thomson Gateway are allowed to connect through wireless channels as defined for local regulatory domain.
- The wireless client is configured for the correct wireless settings (SSID, 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

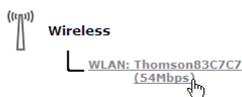
Try the following:

- Change the wireless channel.
- Make sure both the wireless client adapter and the Thomson Gateway are allowed to connect through wireless channels as defined for local regulatory domain.
- Check the location of the Thomson Gateway in the building.
- 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 "4.3 Securing Your Wireless Connection" on page 25.

Change the wireless channel

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 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 Location 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 "4.2 Connecting Your Wireless Client without WPS" on page 24.

7.3 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 WLAN clients will have to be re-associated, as described in "4 Wireless" on page 21.

Methods

You can choose between:

- Software Reset
- Hardware Reset

Software Reset

Proceed as follows:

- 1 Browse to the Thomson Gateway Web Interface.
- 2 On the **Thomson Gateway** menu, click **Configuration**.
- 3 In the **Pick a task** list, click **Reset my Thomson Gateway to default settings**.
- 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).

Hardware Reset

Proceed as follows:

- 1 Make sure the Thomson Gateway is turned on.
- 2 Use a pen or an unfolded paperclip to push the recessed **Reset** button. Push it 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.

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