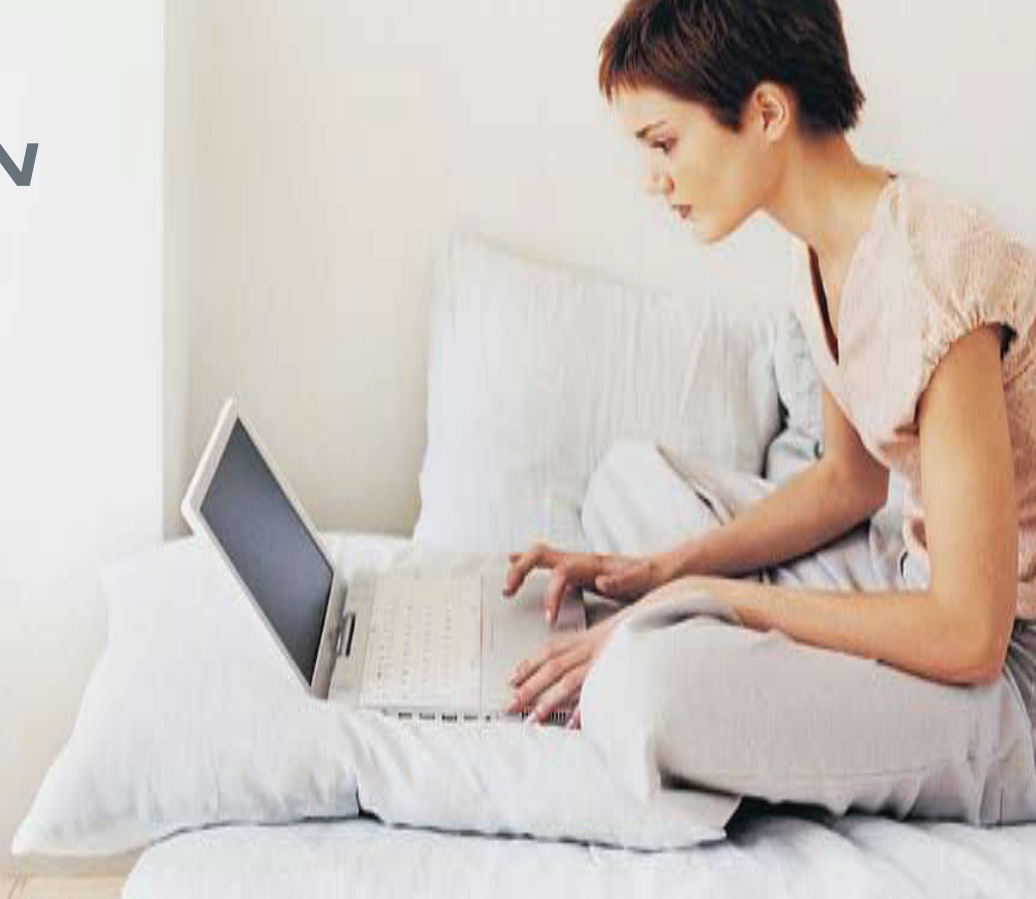




THOMSON



THOMSON TG121n

Wireless USB Adaptor



Setup and User Guide

THOMSON TG121n

Setup and User Guide

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Contents

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 TG121n will be referred to as Wireless USB Adaptor 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

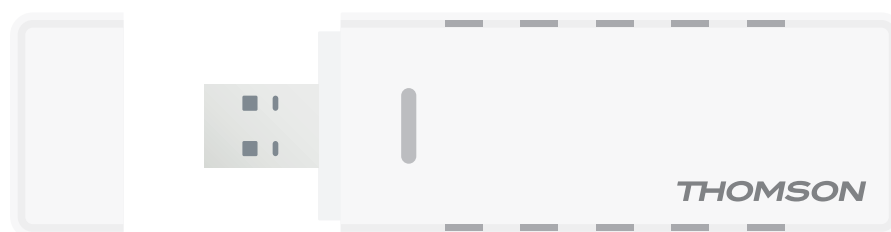
1 About your Wireless USB Adaptor

Introduction

The THOMSON TG121n is a wireless network adaptor that seamlessly integrates with existing Ethernet networks to support applications such as mobile users or temporary conferences. Just install enough wireless access points to cover your network area, plug wireless adaptors into your computers, and start networking.

Using this USB adaptor in conjunction with a wireless access point, you can create an instant network that integrates with existing 10/100 Mbps Ethernet LANs. Moreover, moving or expanding your network is as easy as moving or installing additional access points – no wires!

The THOMSON TG121n



LED indicators

Indicator		Description
Colour	State	
Green	Flashing	Wireless USB Adaptor enabled, and scanning for available networks and/or transmitting or receiving data
	Solid	Wireless USB Adaptor enabled.
Off		Wireless USB Adaptor disabled

Chapter 1

System Requirements

To install the Wireless USB Adaptor, your computer must:

- Have a USB port.



To obtain maximum wireless networking speed, a USB 2.0 compatible port is needed.

- Run one of the following operating systems:
 - ▶ Microsoft Windows Vista
 - ▶ Microsoft Windows XP SP1 or higher
 - ▶ Microsoft Windows 2000 SP4

What do I need to do to before I can use my Wireless USB Adaptor?

To connect your Wireless USB Adaptor to your wireless network you have to:

- 1 Install the Drivers.
- 2 Associate your Wireless USB Adaptor to your Access Point.

The following chapters will describe how to do this.

2 Install the Drivers

Introduction

Before your computer can recognize and use the Wireless USB Adaptor you first need to install the necessary drivers.



Do not connect your wireless device to your computer until you are instructed to do so.

Procedure

Proceed as follows:

- 1 Insert the Setup CD in your computer's CD-ROM or DVD-ROM drive.

Result: The CD should autostart. If not, click **Run** on the **Start** menu and enter the following path:
D:\Setup.exe where D stands for the drive letter of your CD-ROM or DVD-ROM drive.

- 2 Carefully follow all the instructions.



If your security software prompts you that changes have been made to your system, allow these changes.

- 3 Continue with Associate your Wireless USB Adaptor to your Access Point.

3 Associate your Wireless USB Adaptor to your Access Point

Methods

There are two ways to associate your Wireless USB Adaptor to your access point:

- Automatic Association via WPS
- Manual Association

3.1 Automatic Association 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,...).

Association methods

Following registration methods are supported by your Wireless USB Adaptor:

- ***PIN code entry:***
You have to enter a PIN code either on the Wireless Configuration Utility or your access point
- ***Push Button Configuration (PBC):***
You have to put both your Wireless USB Adaptor and access point in registration mode.

Check the documentation of your access point to find out which of these methods are supported/recommended by your access point. Thomson Gateways support both PIN code entry and Push Button Configuration.

Requirements

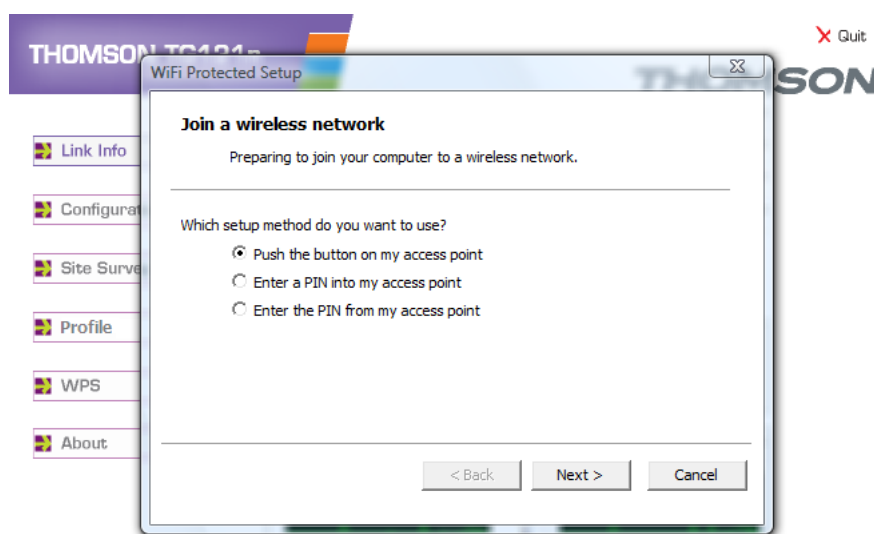
Your access point must support WPS.

3.1.1 Procedure for Thomson Gateways

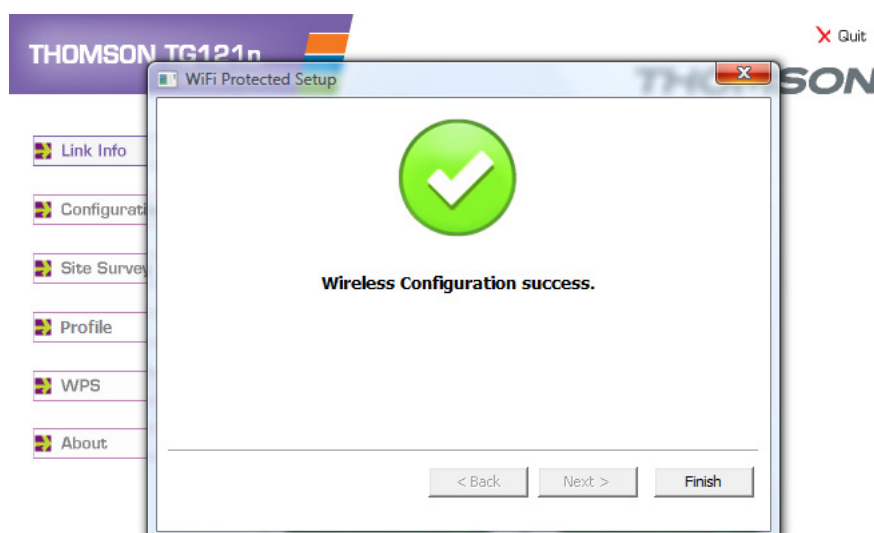
Procedure

Proceed as follows:

- 1 Double-click the Wireless Configuration Utility icon in the notification area.
- 2 The Wireless Configuration Utility appears.
- 3 Click **WPS**.
- 4 The **WiFi Protected Setup** wizard appears:



- 5 Select **Push the button on my access point** and click **Next**.
- 6 Shortly press the association button (📶) on the Thomson Gateway.
- 7 The Wireless Configuration Utility prompts you that the wireless configuration was successful.

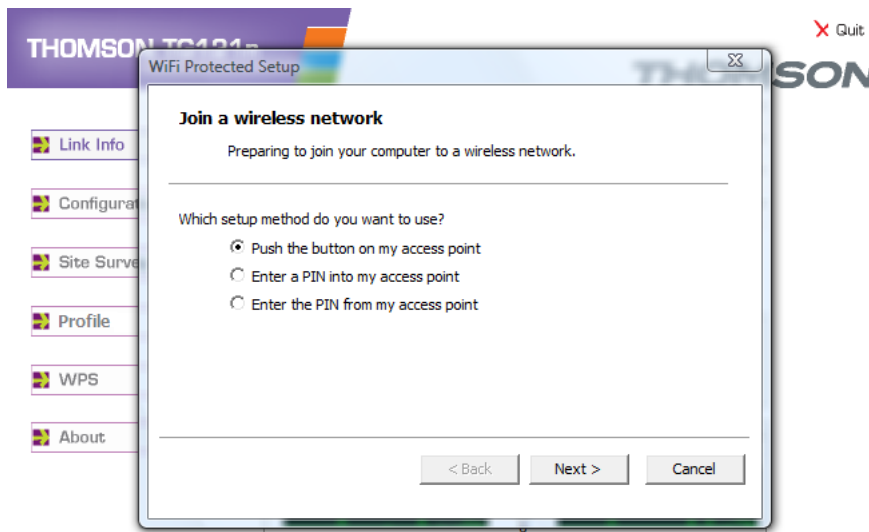


3.1.2 Procedure for All Access Points

Procedure

Proceed as follows:

- 1 Double-click the Wireless Configuration Utility icon in the notification area.
- 2 The Wireless Configuration Utility appears.
- 3 Click **WPS**.
- 4 The **WiFi Protected Setup** wizard appears:



Following options are available:

- ▶ **Push the button on my access point.**
If you select this option, you will have to push a button on your access point to start the WPS registration.
 - ▶ **Enter a PIN into my access point.**
If you select this option the Wireless Configuration Utility will generate a PIN code that you will have to enter on the interface of your access point.
 - ▶ **Enter the PIN from my access point.**
If you select this option, you will have to enter a PIN code provided by your access point. If you are using a Thomson access point, you can find this PIN code on a label on your Thomson access point.
- 5 Select the option of your choice and click **Next**.
 - 6 Follow the instructions.

3.2 Manual Association

What operating system are you using?

If your computer runs:

- Windows Vista, proceed with "3.2.1 Association on Windows Vista" on page 12.
- Windows XP, proceed with "3.2.2 Association on Windows XP" on page 13.
- Windows 2000, proceed with "3.2.3 Association on Other Windows Operating Systems" on page 14.

If you are using the Access Control List (ACL)

Some access points enable you to allow/deny wireless clients to access your network based on their MAC address. If you configured this feature on your access point, you must add the MAC address of the THOMSON TG121n to the ACL.

You can find this MAC address on the back of your Wireless USB Adaptor.

In case of problems

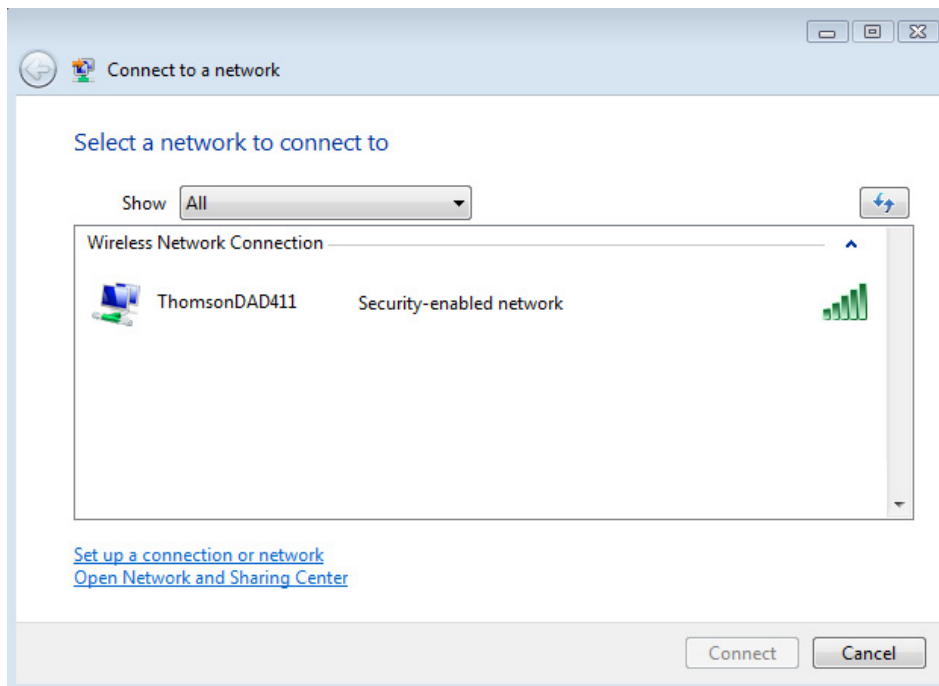
If you encounter problems during the installation, consult "5 Troubleshooting" on page 25.

3.2.1 Association on Windows Vista

Procedure

Proceed as follows:

- 1 On the taskbar, click the **Start** button, and then click **Connect to**.
- 2 A list of the available wireless networks appears.



If your wireless access point does not broadcast its network name (SSID), it will not be displayed in this list. Click **Set up a connection or network** and configure your wireless client manually. For more information, consult the Windows help.

Double-click your wireless access point.

- 3 If your wireless network is:
 - ▶ Secured, you will be prompted to enter your network key. Enter your network key and click **Connect**.
 - ▶ Not secured, you will get a warning that you are trying to connect to an unsecured network. Click **Connect Anyway**.

Your Wireless USB Adaptor now connects to your wireless access point.

- 4 At the end of the procedure, click **Save this network**. The wizard automatically selects **Start this connection automatically**.
- 5 Click **Close**.
- 6 Double-click the location that best suits to your location.

3.2.2 Association on Windows XP

Procedure

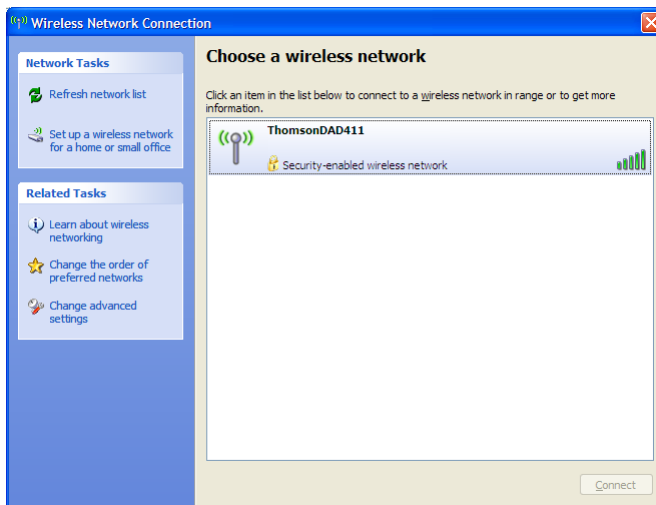
Proceed as follows:

- 1 On the taskbar, click the **Start** button
- 2 Point **Connect To** and click **Wireless Network Connection**.



If you have more than one wireless client, this text will be followed by a number (for example, Wireless Network 2). Choose the one with the highest number.

- 3 A list of the available wireless networks appears.



If your wireless access point does not broadcast its network name (SSID), it will not be displayed in this list. Under **Related Tasks**, click **Change advanced settings** and configure your wireless client manually. For more information, consult the Windows help.


Double-click your wireless access point.

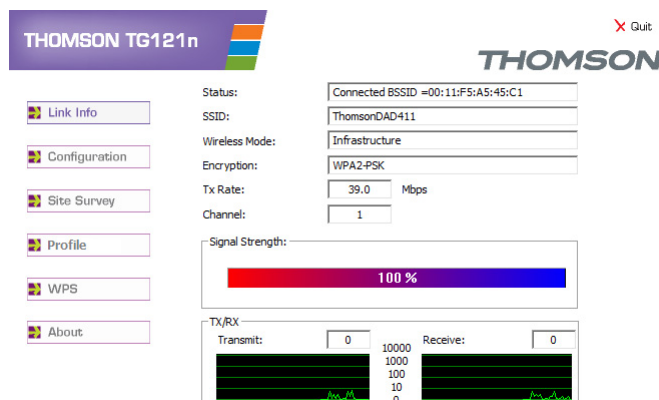
- 4 If your wireless network is:
 - ▶ Secured, you will be prompted to enter your network key. Enter your network key and click **Connect**.
 - ▶ Not secured, you will get a warning that you are trying to connect to an unsecured network. Click **Connect Anyway**.
- 5 You are now connected to your wireless network.

3.2.3 Association on Other Windows Operating Systems

Procedure

Proceed as follows:

- 1 Double-click the Wireless Configuration Utility icon () in the notification area.
- 2 The Wireless Configuration Utility appears:



- 3 Click the **Site Survey** tab.

Result: The Wireless Configuration Utility lists all available wireless access points.

- 4 Double-click your wireless access point.

Result: Depending on the encryption type your wireless access point uses to secure your wireless network, the Wireless LAN utility will show you a number of fields to complete.

- 5 If your wireless access point uses:

- ▶ No Security, proceed with the next step.



It is highly recommended to secure your wireless network, otherwise other persons may try to connect to the internet using your account and your network may be an easy target for hackers.

- ▶ WEP encryption, click **Config** and type your WEP key in the **Network key** field.
- ▶ WPA-PSK or WPA2-PSK, click **Config** and type your passphrase in the **Passphrase** field.
- ▶ WPA or WPA2, click **Config** to select the appropriate certificate.




- 6 Click **Apply**.

Result: The Wireless Configuration Utility opens the **Link Info** tab. Under **Status**, you can check if you are connected to your wireless network. If you are having trouble connecting to your wireless network, see “5 Troubleshooting” on page 25.

Installation result

When the installation is completed, a small icon in your notification area (bottom right corner of most screens) will also appear to indicate the status of your connection.

In case the icon is:

Icon	Description
	You are successfully connected to a wireless network.
	You are not connected to a wireless network.
	The THOMSON TG121n is disabled or unplugged.

Wireless Configuration Utility

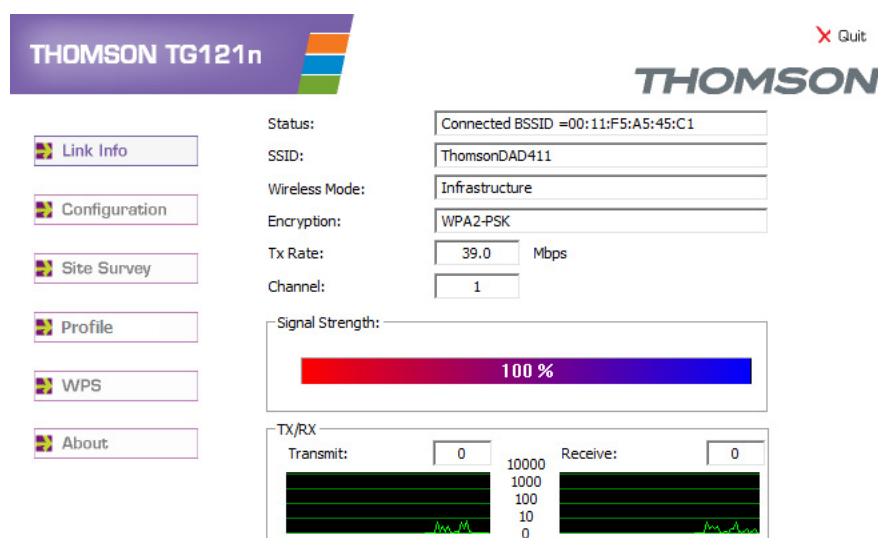
For more information about the Wireless Configuration Utility, see “4 Wireless Configuration Utility” on page 17.

4 Wireless Configuration Utility

Introduction

The Wireless Configuration Utility allows you to configure your Wireless USB Adaptor.

Wireless Configuration Utility window



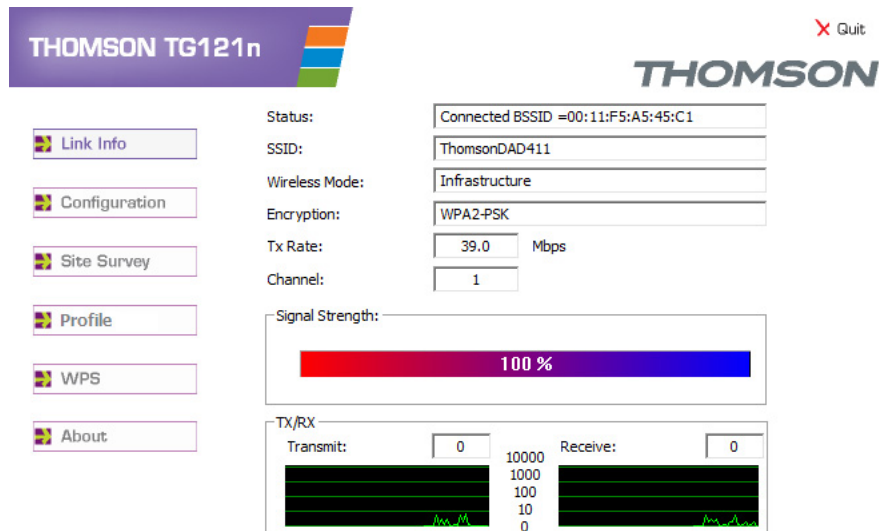
Navigation menu

Following menu items are available:

Click...	To...
Link Info	View information on your wireless connection.
Configuration	View/change the configuration of your Wireless USB Adaptor.
Site Survey	Scans all the wireless devices in range.
Profile	Manage your wireless profiles.
WPS	Connect your computer to a WPS-enabled access point.
About	Show version information for the driver and utility.

4.1 Link Info

The Link Info page



This section allows you to view the current configuration of your wireless connection.

Properties

Following properties are displayed:

- **Status:**
The status of the wireless connection.
- **SSID:**
The network name of the wireless network.
- **Wireless Mode** can have following values:
 - ▶ **Infrastructure:** all traffic passes through an access point.
 - ▶ **Ad-hoc:** traffic is sent from one computer to another.
- **Encryption:**
The encryption type used to transfer data.
- **Tx Rate:**
The maximum speed at which you can send data using this wireless connection.
- **Channel:**
The channel currently used by the Access Point.
- **Signal Strength**
- **Data Rate**

4.2 Configuration

The Configuration page

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Quit

Link Info

Configuration

Site Survey

Profile

WPS

About

Profile Name: Home

SSID: ThomsonDAD411

Wireless Mode: Infrastructure

Authentication: WPA2-PSK

Encryption: AES

WPA2-PSK

Enter your WPA Passphrase. The minimum length is 8 characters.

12345678

Apply Cancel

The configuration tab allows you to view/change the configuration of your Wireless USB Adaptor. Your Wireless USB Adaptor must use the same settings in order to connect to your network.

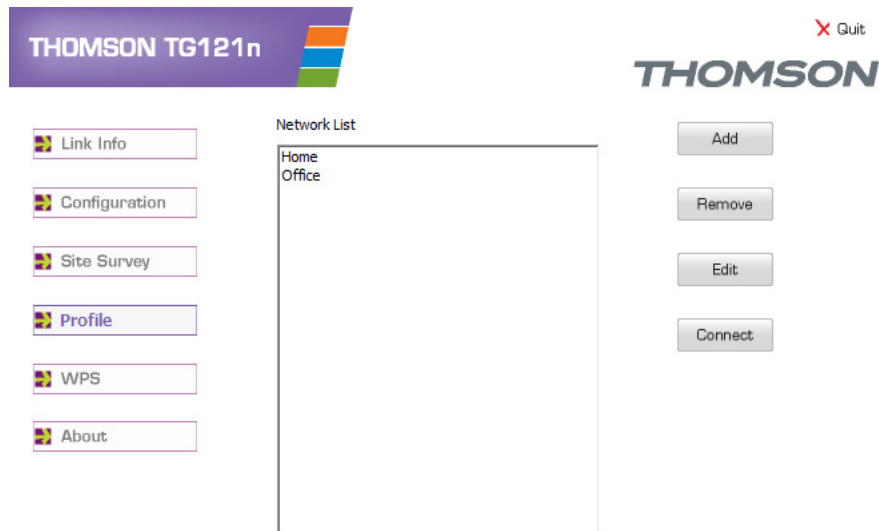
Properties

Following properties are available for configuration:

- **Profile Name:**
You can save the current settings to a profile. This allows you to easily switch between configurations. For example, you can use one profile to connect to your home network and second one to connect to your office network.
- **SSID:**
The network name of the wireless network.
- **Wireless Mode** can have following values:
 - ▶ **Infrastructure:** all traffic passes through an access point.
 - ▶ **Ad-hoc:** traffic is sent from one computer to another.
- **Authentication** can have following value:
Allows you to select the authentication method used by your access point.
- **Encryption:**
Allows you to select the encryption used by your access point. The content of this list may depends on the authentication that you selected in the **Authentication** list. As soon as you select an encryption type, the Wireless Configuration Utility will display a new section where you can enter a passphrase or select a certificate.

4.3 Profile

The Profile page



This tab allows you to manage your wireless profiles.

Use of Profiles

If you regularly need to switch between wireless networks (for example if you use your laptop at the office as well as at home), it might be useful to save these settings to a profile. This way you can easily switch between these settings in a few clicks.

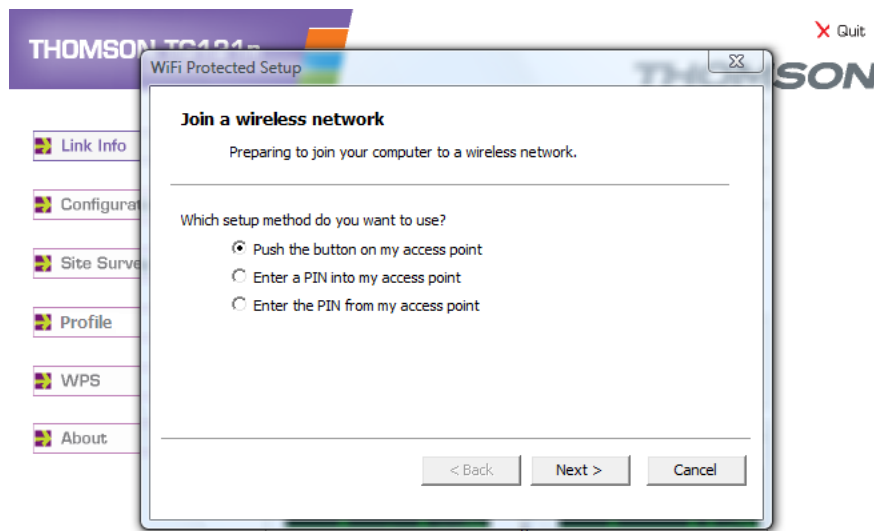
Working with Profiles

Click:

- **Add** to add a new profile.
- **Remove** to delete an selected profile.
- **Edit** to change the settings of an existing profile.
- **Connect** to activate the selected profile.

4.4 WPS

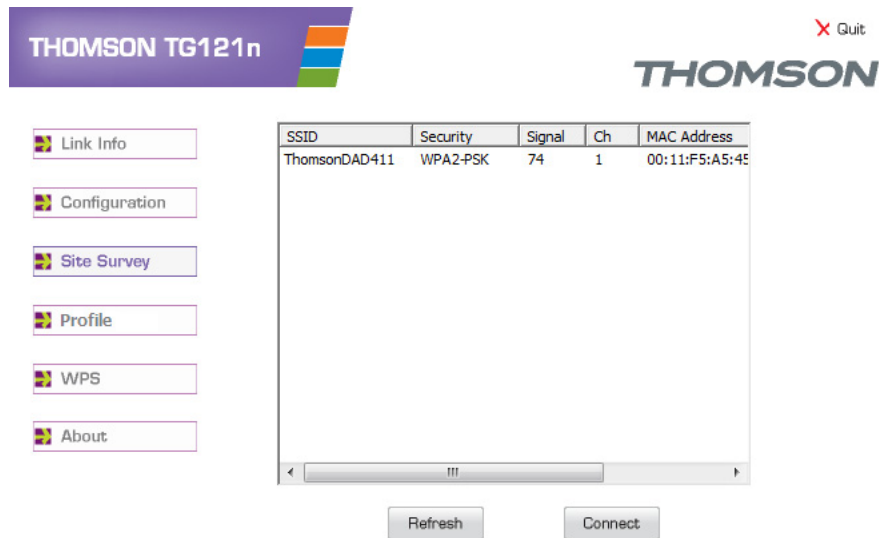
The WiFi Protected Setup wizard



If you click the **WPS** button, the **WiFi Protected Setup** wizard appears. For more information about the **WiFi Protected Setup** wizard, see “3.1 Automatic Association via WPS” on page 8.

4.5 Site Survey

The Site Survey page



This section lists all available wireless access points and allows you to connect your computer to one of them.

Available Network list

Following properties are shown, for each Access Point in the **Available Network** list:

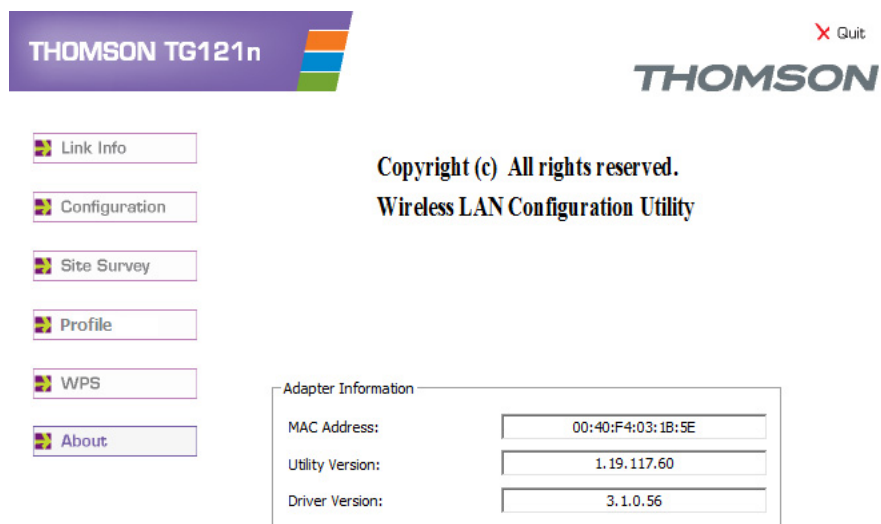
- **SSID:**
The network name of the wireless network.
- **MAC (BSSID):**
The MAC address of the access point.
- **Signal:**
The signal strength from your wireless adaptor to the listed access point.
- **Security:**
Indicates whether the wireless network is secured or not. If so, the encryption type is shown.
- **Channel:**
The channel currently used by the Access Point.

Connecting your computer to one of the networks

For more information, see “3.2.3 Association on Other Windows Operating Systems” on page 14.

4.6 About

The About page



This tab shows:

- Version information of the drivers and wireless utility.
- Network information of your wireless client.

5 Troubleshooting

In this chapter

This chapter covers following problems:

Topic	Page
Problems Encountered When Installing the Drivers	26
Problems Encountered When Connecting To Your Wireless Network	27

5.1 Problems Encountered When Installing the Drivers

Errors while installing the drivers

If your computer cannot find the THOMSON TG121n or the driver software does not install correctly, check the following:

- Make sure the THOMSON TG121n is securely connected with the USB port. Check for any hardware problems, such as physical damage to the card's connector.
- Try the THOMSON TG121n in another USB port. If this also fails, test your computer with another wireless USB adapter that is known to operate correctly.
- Make sure your computer is using the latest BIOS, check the manual of your computer for details.
- If there are other network adapters in the computer, they may be in conflict. Remove the other network adapters from the computer and test the wireless adapter separately.
- Check for a defective computer or USB connection by trying the adapter in another computer that is known to operate correctly.

5.2 Problems Encountered When Connecting To Your Wireless Network

The Link LED does not light

If the Link LED on the THOMSON TG121n does not light, or if you cannot access any network resources from the computer, check the following:

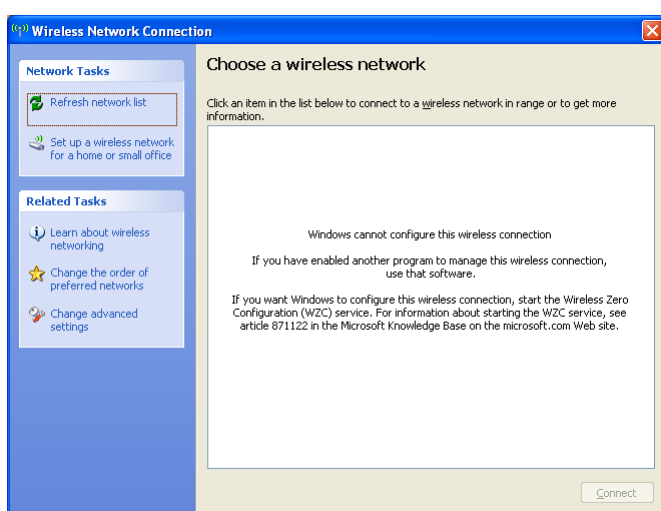
- Make sure the driver and utility software is installed correctly. If necessary, try uninstalling and then reinstalling the software.
- Make sure the computer and other network devices are powered on.
- The access point that you are connecting to might be defective. Try connecting to another access point.
- If you cannot access a Windows or NetWare service on the network, check that you have enabled and configured the service correctly. If you cannot connect to a particular server, be sure that you have access rights and a valid ID and password.
- If you cannot access the Internet, be sure you have configured your system for TCP/IP.

The THOMSON TG121n does not connect to my wireless access point

If your THOMSON TG121n cannot communicate with a device in the Ethernet LAN when configured for Infrastructure mode, check the following:

- Make sure the access point that the THOMSON TG121n is associated with is powered on.
- Check the SSID of the access point that you are connecting to, and make sure you set the THOMSON TG121n to the same SSID.
- If there is still no connection, change the radio channel of the access point and all the clients associated to this access point.
- Check if the WEP or WPA settings have been enabled in the access point to which you are connecting to. Make sure that the encryption, default key and passphrase settings of the adapter are set to the same as the access point. Contact your network administrator for more information.

Windows XP cannot configure the wireless connection



Browse to <http://support.microsoft.com/kb/871122> and follow the instructions.

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