

SpeedTouch™

545/570

Multi-User ADSL Gateways

Setup and User's Guide

Release R4.2.1



THOMSON

speedtouch™

SpeedTouch™

545/570

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1 SpeedTouch™ Installation

Introduction	<p>Thank you for purchasing a SpeedTouch™ Multi-User ADSL Gateway!</p> <p>With the SpeedTouch™545 Wireless Upgradeable and SpeedTouch™570 Wireless Multi-User ADSL Gateways two cutting-edge technologies are combined: ADSL and Wireless LAN (WLAN).</p> <p>With this answer to the increasing popularity of both technologies, users can build a home or small office (Wireless) LAN without any need for network wiring and surf the Internet at high speed; all combined in one device.</p> <p>The SpeedTouch™545 Wireless Upgradeable Multi-User ADSL Gateway allows you to add wireless connectivity at a later stage by installing a wireless upgrade card. With the SpeedTouch™010 wireless upgrade card installed, the SpeedTouch™545 becomes a Wi-Fi™ certified Wireless Multi-User ADSL Gateway.</p>
Contents	<p>This Setup and User's Guide will assist you in getting acquainted with the Speed-Touch™545/570 Wireless Multi-User ADSL Gateways and in getting connected quickly to the Internet.</p>
Terminology	<p>Generally, the SpeedTouch™545(i) and SpeedTouch™570(i) will be referred to as SpeedTouch™ in this Setup and User's Guide unless specifically indicated.</p>
Safety instructions	<p>Before connecting the SpeedTouch™, please read the SpeedTouch™ Quick Installation Guide and Safety Instructions.</p>
UPnP™	<p>The SpeedTouch™ is a UPnP™ certified product. This feature enables your computer to discover and control UPnP™ devices on the network.</p> <p>If you are running Microsoft Windows XP, it is strongly recommended to add the UPnP™ software component to your system.</p> <p>For more information see MS Windows XP Help and "7.5 UPnP™ on Windows XP Systems" on page 89.</p>
Documentation and software updates	<p>The SpeedTouch™ products continue to evolve as extra and new functionalities are made available.</p> <p>For more information on the latest technological innovations, software upgrades, and documents, please visit the SpeedTouch™ web site at:</p> <p style="text-align: center;">www.speedtouch.com</p>

1.1 Getting Acquainted with the SpeedTouch™

Introducing the SpeedTouch™

Prior to proceeding, please make sure to read first the SpeedTouch™ Quick Installation Guide. It provides important package content and safety information. Check whether all items are present in your package.

In the event of damaged or missing items, please contact your local product dealer for further information.

Front panel layout

The SpeedTouch™ is presented in a desktop housing:



Front panel LEDs

The SpeedTouch™ is equipped with five LEDs on its front panel, indicating the state of the device during normal operation:

Indicator			Description
Name	Color	State	
LAN	Green	Flashing	Wireless LAN activity
		Off	No Wireless LAN activity
Line TX	Green	Flashing	ATM cell transmission on DSL line
		Off	No transmission activity
Line RX	Green	Flashing	ATM cell reception from DSL line
		Off	No reception activity
Line Sync	Green	Off	No DSL line
		Flashing	Initialization of DSL line
		On	DSL line synchronized
PWR/Alarm	Green	On	Power on, normal operation
	Amber	Flashing	WLAN client registration
	Red	On	Power on, startup pending

SpeedTouch™545 side panel

The slot on the SpeedTouch™545 side panel allows you to upgrade your SpeedTouch™ for wireless connectivity by installing a SpeedTouch™010 wireless upgrade card:



For more information on how to install the SpeedTouch™010 wireless upgrade card, see “7.1 Upgrading a SpeedTouch™545 for Wireless Networking” on page 74.

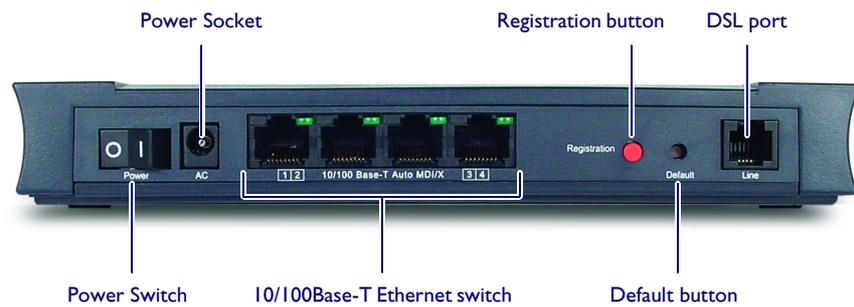
Back panel layout

Depending on the variant you purchased, your SpeedTouch™ is equipped with:

- A single 10/100Base-T Half-/Full-duplex MDI/MDI-X Ethernet port:



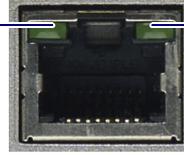
- A four port 10/100Base-T Half-/Full-duplex MDI/MDI-X Ethernet switch:



Ethernet port LEDs

Each Ethernet Port on the rear panel has one LED to indicate the link integrity/activity. A second LED may be provided to indicate the 10/100Base-T selection:

10/100 Base-T ———— Link Integrity/Activity



Indicator		Description
Name	LED Status	
10/100Base-T (Optional)	Off	10Base-T Ethernet connection.
	On	100Base-T Ethernet connection.
Integrity/Activity	Off	No connection on this port.
	On	Ethernet link up.
	Flashing	Data is flowing from/to this port.

1.2 Setting Up the SpeedTouch™

Wall mounting assembly

Part of the package is a wall mounting assembly which allows you to conveniently mount the SpeedTouch™ on a wall. See “7.2 Using the Wall Mounting Assembly” on page 76 for more information.

SpeedTouch™ variants

Two ADSL variants of the SpeedTouch™ exist:

- The ADSL/POTS variant connecting to an analog Plain Old Telephone Service (POTS) line
- The ADSL/ISDN variant connecting to a digital Integrated Services Digital Network (ISDN) line

You can identify your variant by checking the identification label located on the bottom of your SpeedTouch™.

Use only the SpeedTouch™ variant which is appropriate for the DSL service provided to your premises. Check with your Service Provider to determine whether your SpeedTouch™ is adapted to ADSL service requirements.

ADSL service

The appropriate DSL service must be available at your premises:

- ADSL service must be enabled on your telephone line.
- As both telephone and ADSL service are simultaneously available from the same copper pair, you will need a central splitter or distributed filters for decoupling ADSL and telephone signals.

Always contact your Service Provider when installing splitters/filters!

Public telephone lines carry voltages that can cause electric shock. Only install splitter/filters yourself if these are qualified for that purpose.

Connect the DSL line

The DSL port on the SpeedTouch™ is marked “Line”.

Use the DSL cable provided to wire the SpeedTouch™ DSL port to your telephone wall outlet or distributed filter.

Connect the power supply

Always check first whether the power supply adapter provided is suitable for the local power specifications. Contact your Service Provider in case of any doubt.

The power inlet on the SpeedTouch™ is marked “AC”.

Plug the adapter's coaxial jack into the SpeedTouch™'s power inlet and plug the power supply into a power socket outlet.

Turn on the SpeedTouch™

Once all previous steps are completed, you can turn the SpeedTouch™ on (I) with the power switch.

The SpeedTouch™ is ready for service as soon as the start-up procedures are completed, the Power On Self Test (POST) is passed and both Power/Alarm and Line Sync LEDs on the front panel are constantly lit green.

Note You can follow the start-up procedure progress on the PWR/Alarm LED. See “[Front panel LEDs](#)” on page 6 for more information.

For troubleshooting startup failures, see “[7.6 Troubleshooting](#)” on page 91.

Local networking setup

The SpeedTouch™ offers two local networking solutions:

- **Wired Ethernet**

The SpeedTouch™'s Ethernet port(s) on the back panel allow(s) you to connect the SpeedTouch™ to an existing 10 or 100Base-T Ethernet network or one (or more) computer(s) with installed Ethernet card.

- In case of a single Ethernet port SpeedTouch™, you will need an external hub or switch to connect multiple computers.
- In case of a SpeedTouch™ switch, you can create a local Ethernet network of up to four devices, without needing extra networking devices.

Note If an external hub or switch is used for wired Ethernet networking, please follow the installation instructions supplied with the hub for connections and Ethernet cabling.

- **Wireless Ethernet**

The SpeedTouch™ wireless access point allows multiple computers to connect to your local network over the SpeedTouch™ Wireless LAN environment. To be able to connect the computers, make sure that:

- A Wireless Ethernet client adapter (WLAN client) is installed on each of the computers you want to connect via the Wireless Ethernet.
- In case you purchased a SpeedTouch™ 545, the wireless upgrade card is installed as described in “[7.1 Upgrading a SpeedTouch™ 545 for Wireless Networking](#)” on page 74.

For more information on how to proceed for associating WLAN clients, see “[4 Wireless Connectivity](#)” on page 41.

Internet connection setup

To continue with preparing the SpeedTouch™ for Internet connectivity, see “[1.3 SpeedTouch™ Configuration Setup](#)” on page 11.

1.3 SpeedTouch™ Configuration Setup

Internet connectivity

Some configuration may be required to prepare the SpeedTouch™ for Internet connectivity.

Before setting up the SpeedTouch™ for Internet connectivity, make sure that the SpeedTouch™ is prepared as described in “1.2 Setting Up the SpeedTouch™” on page 9.

You can configure the SpeedTouch™:

- Over the traditional wired Ethernet network
- Over the SpeedTouch™ wireless Ethernet network
If you want to configure the SpeedTouch™ over the wireless interface, make sure that your computer's WLAN client is correctly associated with the SpeedTouch™ wireless network according to “4.1 First-time Wireless Client Association” on page 43 before proceeding.

What you need from your ISP

You might need a user account with an Internet Service Provider (ISP) for Internet access. For this user account, your ISP will provide you with:

- A user name (logon ID).
- A password.

Other information may be required, depending on the ISP's specific requirements and Service profile selection.

SpeedTouch™ configuration options

The method for configuring the SpeedTouch™ via the Setup configuration files depends on the Operating System (OS) of your computer system.

If your computer system runs:

- A Microsoft Windows Operating System:
The SpeedTouch™ Setup wizard, included on the SpeedTouch™ Setup CD-ROM, will automatically guide you through the configuration of both the SpeedTouch™ and your PC for setting up the appropriate configuration.
Proceed with “1.3.1 Microsoft Windows SpeedTouch™ Configuration Setup” on page 12.
In addition it is recommended to install Dr SpeedTouch™. See “3 Dr SpeedTouch™” on page 37 for more information.
- Another Operating System (e.g. Apple Mac OS, UNIX, Linux, etc.):
The SpeedTouch™ Embedded Easy Setup wizard, accessible from the SpeedTouch™ web pages, will automatically guide you through the configuration of the SpeedTouch™.
Proceed with “1.3.2 Operating System Independent SpeedTouch™ Configuration Setup” on page 19.

1.3.1 Microsoft Windows SpeedTouch™ Configuration Setup

Supported MS Windows OSs

One of the following MS Windows OSs must be installed on your PC(s):

- MS Windows 98
- MS Windows 98SE
- MS Windows ME
- MS Windows NT4.0 SP6
- MS Windows 2000
- MS Windows XP

You may need the MS Windows installation CD-ROM during installation.

The SpeedTouch™ Setup wizard

The SpeedTouch™ Setup wizard procedure consists of three parts:

- Detection of the SpeedTouch™
- Configuration of the SpeedTouch™ (and PC)
- Additional configuration (if needed)

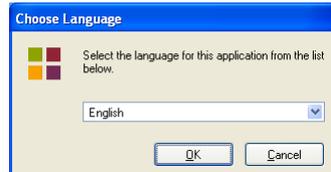
Detection of the SpeedTouch™

Proceed as follows:

- 1 Insert the SpeedTouch™ Setup CD-ROM in your PC's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically.

Note If the SpeedTouch™ CD Browser window does not appear automatically, open a Run window via Start > Run from the Start menu and enter the following path: D:\Menu.exe, where D stands for the drive letter of your CD-ROM drive.

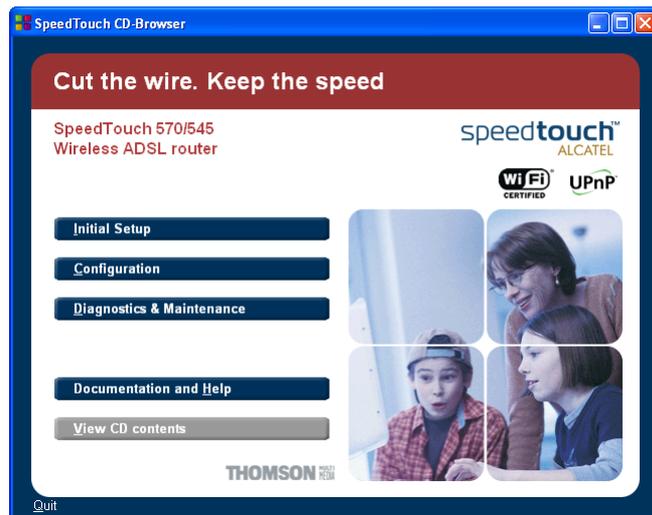
- 2 The Choose Language window prompts you to select a language:



Select the language of your choice and click *OK*.

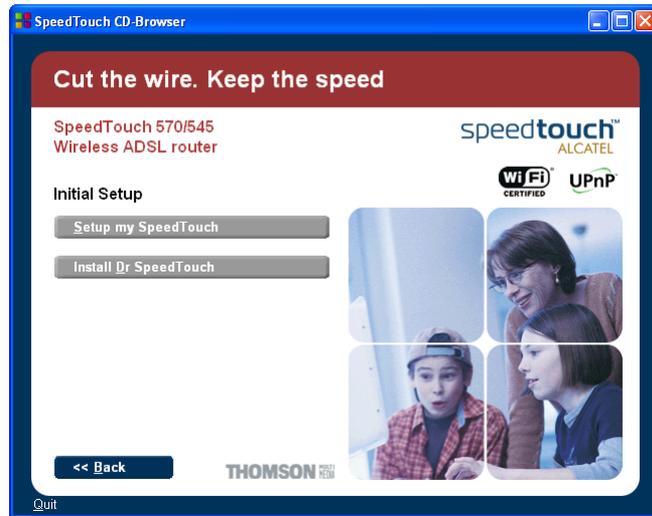
Note The selected language will also be used as default language in the SpeedTouch™ web pages. See “[Language](#)” on page 66 for more information on how to change the web page language.

- 3 The SpeedTouch™ CD Browser menu appears:



Click *Initial Setup*.

4 The Initial Setup window appears:



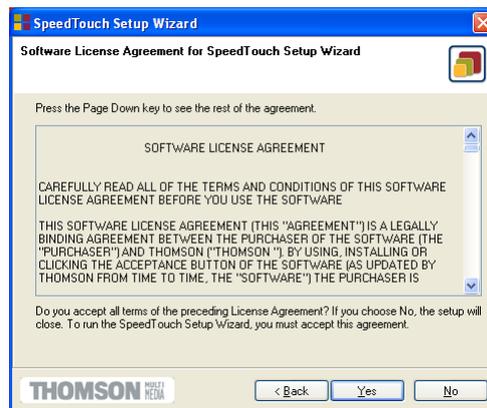
Click *Setup my SpeedTouch™* to start the SpeedTouch™ Setup wizard.

5 The Welcome to the SpeedTouch™ Setup Wizard window appears:



Click *Next*.

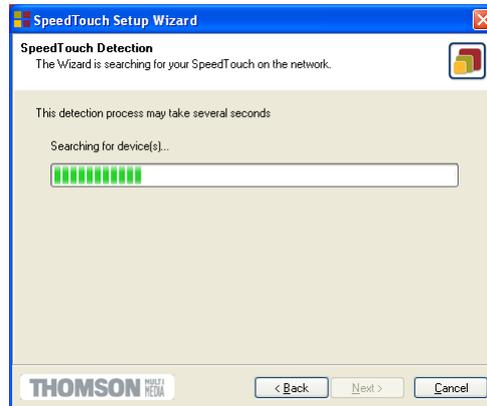
6 The Software License Agreement window appears:



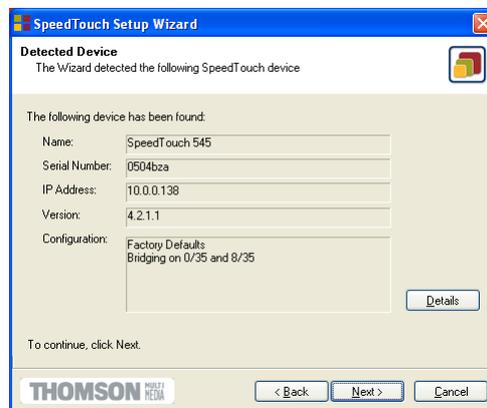
You must accept before continuing. Click *Yes* to accept.

Note If you accepted this License Agreement in a previous configuration setup, this window will not be shown anymore.

- 7 The Setup wizard will search for the SpeedTouch™ on the network. The following window shows the detection progress:



- 8 The Setup wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window:



If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™ 545 or SpeedTouch™ 570) and click *Next*.

Note If the Setup wizard does not find any SpeedTouch™ on the network an error window appears. In this case check that:

- The SpeedTouch™ is turned on and fully initialized.
- Your PC is correctly connected to the SpeedTouch™ or the WLAN client is correctly associated with the SpeedTouch™ WLAN as described in “4.1 First-time Wireless Client Association” on page 43.
- Your PC has a valid IP address (i.e. any IP address but 0.0.0.0).
- No dedicated firewall device or router is placed between your PC and the SpeedTouch™.
- No personal firewall software is running on your PC.
- TCP/IP is correctly installed on your PC.

To repeat the search for your SpeedTouch™, click *Back* and proceed with step 7 of this procedure.

- 9 Click *Next* to start the configuration procedure as described below.

Configuration of the SpeedTouch™ (and PC)

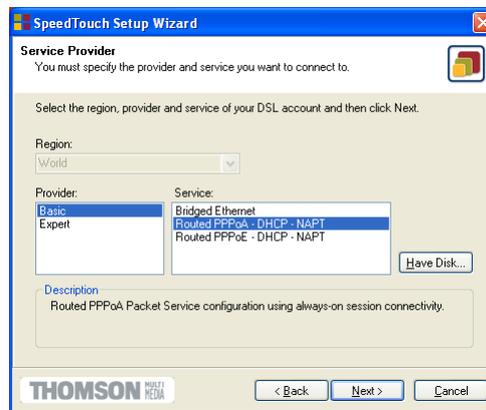
Proceed as follows:

- 1 As soon as the SpeedTouch™ Setup wizard has detected your SpeedTouch™ device, you can proceed with the configuration procedure.

Note If the SpeedTouch™ has been configured before:

- It may be protected by a system password. You must provide this password before you can view the device details or continue with the configuration.
- You will be asked to choose between reconfiguring your SpeedTouch™ or changing your Local Area Network configuration. Select the *Reconfigure the SpeedTouch™* option and click *Next*.

- 2 The following window invites you to select the appropriate service for your Internet connectivity:

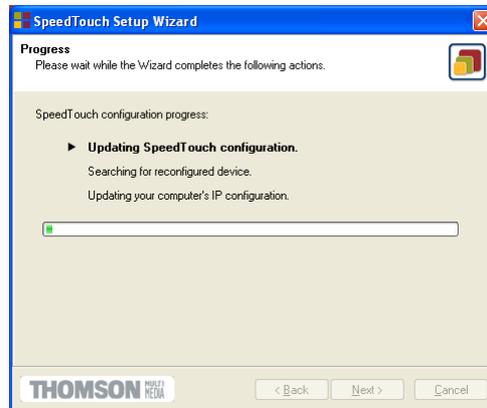


Select Region, Provider and Service as specified by your Service Provider and click *Next* to continue.

Note If the Service Provider has included a separate disk with a dedicated Service profile, click *Have Disk* to navigate to the location of the appropriate Service template file.

- 3 Subsequent screens will guide you through the configuration setup of both the SpeedTouch™ and your PC. Follow the instructions and enter the required information whenever needed. The requested information will depend on the selected Service profile and should be provided by your Service Provider. Click *Next* whenever requested.

- 4 The SpeedTouch™ Setup wizard will update the SpeedTouch™ configuration and your PC's configuration according to the Service profile. You can follow the configuration progress in following window:



- 5 As soon as the SpeedTouch™ Setup wizard completed the update of the SpeedTouch™ configuration and reconfigured your PC, following window will appear:



Click *Finish* to close the wizard.

Note In some cases, the SpeedTouch™ Setup wizard may ask you to restart your computer:



Additional configuration

Some additional configuration may be needed:

- **Wireless Settings**
When running the SpeedTouch™ Setup wizard, the SpeedTouch™ wireless Access Point settings will be set to their default values. You might need to re-associate your WLAN clients, using the factory defaults WLAN settings as specified in [“4.1 First-time Wireless Client Association” on page 43](#).
For additional security of your wireless network it is recommend to “personalize” your SpeedTouch™ wireless Access Point settings. See [“4 Wireless Connectivity” on page 41](#) for more information.
- **MS Windows IP configuration**
Most Service profiles will enable the SpeedTouch™ DHCP server. Since by default a PC’s Ethernet interface is configured for obtaining its IP configuration dynamically (DHCP client), in most cases, no additional configuration is required.
To make sure that all PCs are configured as expected (DHCP or fixed IP addresses):
 - 1 Re-run the SpeedTouch™ Setup wizard on every PC.
 - 2 Select *Change the LAN configuration*.
 - 3 Follow the instructions.

Note For fixed IP configurations, or other advanced settings, please follow the instructions provided by your Service Provider or network administrator.
- It is recommended to install Dr SpeedTouch™ to allow monitoring and troubleshooting of your SpeedTouch™. Proceed with [“3 Dr SpeedTouch™” on page 37](#).

1.3.2 Operating System Independent SpeedTouch™ Configuration Setup

Supported Systems As the SpeedTouch™ is OS-independent, this configuration setup can be used by any computer system.

Prerequisites Make sure that:

- The SpeedTouch™ device is correctly set up and turned on as described in “1.2 Setting Up the SpeedTouch™” on page 9.
- The SpeedTouch™ device is in its default configuration state. See “7.4 SpeedTouch™ Default Configuration” on page 88 for resetting your device.
- If you want to configure the SpeedTouch™ over the wireless network, the computer’s WLAN client is installed and correctly associated with the Speed-Touch™ wireless network according to “4.1 First-time Wireless Client Association” on page 43.
- The computer’s Operating System supports TCP/IP and its Ethernet interface is configured for obtaining its IP configuration dynamically.

Note In case of problems with DHCP you can also configure the computer’s Ethernet interface with a static Net10 private IP address, e.g. 10.0.0.1, 10.0.0.2, but make sure NOT to use the 10.0.0.138 IP address as this is the default IP address of the SpeedTouch™.

- Your web browser is able to run Java scripts.

**SpeedTouch™
Easy Setup**

SpeedTouch™ Easy Setup consists of two parts:

- Configuration of the SpeedTouch™
- Additional configuration (if needed)

Configuration of the SpeedTouch™

Proceed as follows:

- 1 Open a web browser and browse to the SpeedTouch™ web pages at <http://10.0.0.138>. See “5 SpeedTouch™ Web Interface” on page 47 for more information.

Note If you can not access the SpeedTouch™ web pages, it is probably not in its default state. It is recommended to reset the device.

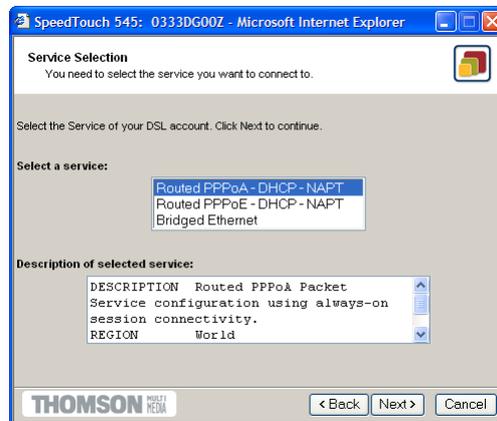
- 2 The embedded Easy Setup wizard will appear automatically:



Click *Next*.

Note If *Easy Setup* doesn't start automatically go to *Advanced > Easy Setup*.

- 3 The following window invites you to select the appropriate Service for your internet connectivity:



In the Service list, select the Service as specified by your Service Provider and click *Next* to continue.

Note If only one Service is available, this window will not be shown.

- 4 Subsequent screens will guide you through the configuration setup of the Speed-Touch™. Follow the instructions and enter the required information whenever needed. The requested information will depend on the selected Service profile and should be provided by your Service Provider. Click *Next* whenever requested.

- 5 Easy Setup will update the SpeedTouch™ configuration according to the Service profile. You can follow the configuration progress in following window:



- 6 As soon as Easy Setup completed the update of the SpeedTouch™ configuration, following window will appear:



Click *Finish* to close the wizard.

Note Due to the reconfiguration the SpeedTouch™'s IP configuration or wireless Access Point settings may have been changed. If this is the case, the last window of Easy Setup will not be shown. If so, refer to the Service Provider's instructions for more information.

Additional configuration

Some additional configuration may be needed:

- **Wireless Settings**
When running the SpeedTouch™ Setup wizard, the SpeedTouch™ wireless Access Point settings will be set to their default values. You might need to re-associate your WLAN clients, using the factory defaults WLAN settings as specified in [“4.1 First-time Wireless Client Association” on page 43](#).
For additional security of your wireless network it is recommend to “personalize” your SpeedTouch™ wireless Access Point settings. See [“4 Wireless Connectivity” on page 41](#) for more information.
- **Computer IP configuration**
Most Service profiles will enable the SpeedTouch™ DHCP server. Therefore, make sure that the computer’s Ethernet interface is configured for obtaining its IP configuration dynamically (DHCP client).

Note For fixed IP configurations, or other advanced settings, please follow the instructions provided by your Service Provider or network administrator.

2 SpeedTouch™ Internet Connectivity

Introduction This chapter provides information on how to configure your SpeedTouch™ according to your preferences and how to access the Internet.

Access methods As soon as the SpeedTouch™ and your computers have been configured as outlined in “1.3 SpeedTouch™ Configuration Setup” on page 11, you are able to connect to the Internet.

Depending on the configuration of the SpeedTouch™ you may have:

- **Direct access**
As soon as the initial configuration has been performed, continuous and immediate access is available via the DSL line.
- **Dial-in access**
Access must be explicitly established, e.g. by “dialing” into a Broadband Remote Access Server (BRAS).

The applied connection protocol model depends on the Service profile you selected to configure the SpeedTouch™ and should correspond with the Service Provider's requirements.

Dial-in access Depending on the SpeedTouch™ configuration, dial-in access is provided via:

- The SpeedTouch™'s Routed PPPoA or Routed PPPoE packet services with embedded PPP client.
See “2.1 Internet Connections via SpeedTouch™'s Embedded PPP Dial-in Client.” on page 24 for more information.
- A broadband dial-in client on your computer.
See “2.2 Connect to the Internet via a Host PPPoE Dial-in Client” on page 29 for more information.

Your Internet connection Regardless of whether a direct access or a dial-in access method is used to make your connection, once the connection is established, opening your web browser is enough to access the World Wide Web (WWW) or Internet.

Note In case of direct access, the remote organization might ask for a user name and password on an Internet welcome page.

2.1 Internet Connections via SpeedTouch™'s Embedded PPP Dial-in Client.

Introduction The SpeedTouch™ supports both most popular connection methods: Routed PPP over ATM (PPPoA) and PPP over Ethernet (PPPoE).

The connection method depends on the Service profile you selected to configure the SpeedTouch™ and should correspond with the Service Provider's requirements.

To use:

- the embedded Routed PPPoA dial-in client, the SpeedTouch™ needs to be configured for the Routed PPPoA Service.
- the embedded Routed PPPoE dial-in client, the SpeedTouch™ needs to be configured for the Routed PPPoE Service.

Both Services are available via the SpeedTouch™ Setup wizard or via the embedded Easy Setup.

Using SpeedTouch™ embedded PPP dial-in client

SpeedTouch™'s embedded PPP dial-in client allows you to establish an Internet connection for all (or a selection of) computers residing on your local network, using only one computer of the network to control the client.

If this computer runs:

- MS Windows XP,
you can use MS Windows XP's Internet Gateway Device Control Client.
See "2.1.1 Using the MS Windows XP Internet Gateway Device Control Client" on page 25 to proceed.
- another Operating System,
you can use the SpeedTouch™ web pages.
See "2.1.2 Using the SpeedTouch™ Web Pages" on page 27 to proceed.

2.1.1 Using the MS Windows XP Internet Gateway Device Control Client

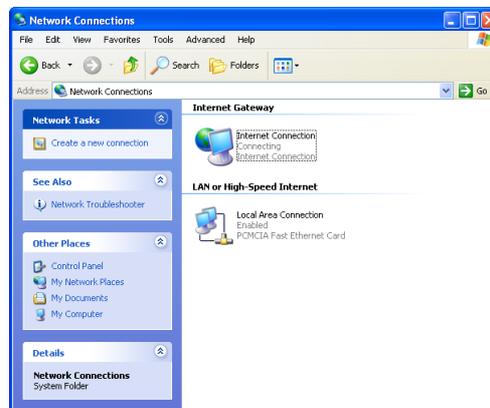
Introduction MS Windows XP users can easily establish PPP sessions, without the need of first browsing to the SpeedTouch™ web pages, due to MS Windows XP's Internet Gateway Device Discovery and Control Client that allows you to control the SpeedTouch™ directly from you PC.

- Preconditions** Following conditions must be met:
- UPnP™ (subcomponent of Windows XP's Networking Services) must be added to your Windows XP system (see "7.5 UPnP™ on Windows XP Systems" on page 89)
 - Internet Gateway Device Discovery and Control Client (subcomponent of Windows XP's Networking Services) must be enabled on your Windows XP system (see "7.5 UPnP™ on Windows XP Systems" on page 89)
 - Make sure UPnP™ is fully enabled on the SpeedTouch™ (see "NAPT" on page 59)

Starting an Internet session

Proceed as follows:

- 1 Click (Settings >) *Control Panel* on the *Start* menu.
- 2 The *Control Panel* window appears. Go to (*Network and Internet Connections* >) *Network Connections*.
- 3 The *Network Connections* window appears:



Next to your Network connection(s), you can find an *Internet Gateway* icon, representing the SpeedTouch™ Internet Gateway Device Internet connection ability.

- 4 Double-click the *Internet Connection* icon.

As a result SpeedTouch™'s embedded PPP dial-in client establishes the Internet connection. The Internet Gateway icon displays *connected* and your PC is online.

You can open a web browser and surf the Internet.

The connected Internet Gateway

As long as the SpeedTouch™’s embedded PPP dial-in client is connected, you are able to overview the connection status and some counters by double-clicking the *Internet Connection* icon in your PC’s *Network Connections* window:



More detailed monitoring is provided via:

- Dr SpeedTouch™
See “3 Dr SpeedTouch™” on page 37.
- The SpeedTouch™ System Information page
See “System Information” on page 50.
- The SpeedTouch™ Diagnostics page
See “Diagnostics” on page 56.

Terminating an Internet session

Proceed as follows:

- 1 Click (*Settings >*) *Control Panel* on the *Start* menu.
- 2 The *Control Panel* window appears. Go to (*Network and Internet Connections >*) *Network Connections*.
- 3 The *Network Connections* window appears.
- 4 Right-click the *Internet Connection* icon and select *Disconnect* to close the session.

Note You can also double-click the icon. As a result the *Internet Connection Status* window appears from which a *Disconnect* button is available to close the session.

As a result SpeedTouch™’s embedded PPP dial-in client will close the Internet connection. The Internet Gateway icon displays *disconnected* and your PC is offline.

2.1.2 Using the SpeedTouch™ Web Pages

Introduction

As the SpeedTouch™ web pages are controllable from any Operating System with installed web browser, the method to establish PPP sessions described below can be used by any computer system.

Starting an Internet session

Proceed as follows:

- 1 Open a web browser on your computer and browse to the SpeedTouch™ web pages (see “Access to the SpeedTouch™ web interface” on page 47 for more information):



By default the SpeedTouch™ shows you the System Information page.

- 2 In the Basic menu, click *Connections* to open the Connections page that allows you to establish dial in-in connections.
- 3 Click ► next to the connection entry you want to establish a connection with. As a result the entry will be highlighted.
- 4 Enter your user name and password in the appropriate fields. If you want the SpeedTouch™ to remember your credentials, select the *Save this password*.
- 5 Click *Connect*.

As a result SpeedTouch™'s embedded PPP dial-in client establishes the Internet connection.

During session-establishment the State column will display *Trying*. As soon as the PPP session is started successfully the field displays *up* and your PC is online.

You can open a web browser and surf the Internet.

During the Internet session

You are able to overview and monitor your Internet connectivity as long as the session is running via:

- Dr SpeedTouch™
See “3 Dr SpeedTouch™” on page 37.
- The SpeedTouch™ System Information page
See “System Information” on page 50.
- The SpeedTouch™ Diagnostics page
See “Diagnostics” on page 56.

Terminating an Internet session

To close an active Routed PPP connection:

- 1 Make sure you have access to the SpeedTouch™ web pages.
- 2 On the Connections page, click ► next to the connection entry you want to close the connection for.
- 3 Click *Disconnect*.

As a result SpeedTouch™’s embedded PPP dial-in client will close the Internet connection. The entry’s session state will change to *Down* and your PC is offline.

2.2 Connect to the Internet via a Host PPPoE Dial-in Client

Introduction

This section explains how you can connect to the Internet using a Broadband PPPoE dial-in application. The PPP over Ethernet connection scenario provides PPP-like dial-in behavior over the virtual Ethernet segment.

To be able to use a broadband dial-in application on your computer for connecting to the Internet, the SpeedTouch™ needs to be configured for Bridged Ethernet or Routed PPPoE (with PPPoE relay) via the SpeedTouch™ Setup wizard or the embedded Easy Setup.

BroadBand dial-in clients

To connect to the Internet you can use:

- An MS Windows XP broadband dial-in client.
See “2.2.1 Using an MS Windows XP BroadBand Connection.” on page 30 for more information.
- A Mac OS X broadband dial-in client.
See “2.2.2 Using the Mac OS X PPPoE Dial-in Client” on page 34 for more information.

- or -

- A broadband PPPoE dial-in client provided by your Service Provider to connect to the Internet

Note Upon availability of OS-specific PPPoE dial-in client applications, the latter method is Operating System independent.
For PPPoE session connectivity from a Mac OS 8.6/9.x system, a host PPPoE dial-in application is mandatory.

2.2.1 Using an MS Windows XP BroadBand Connection.

Configuring a broadband connection

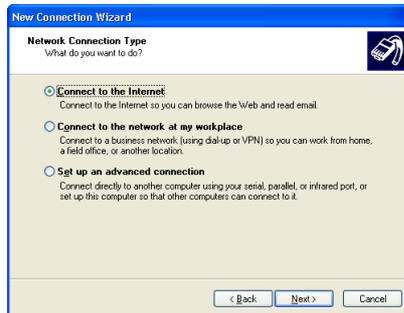
Proceed as follows:

- 1 On the *Start* menu, click (Settings >) *Control Panel*.
- 2 The Control Panel window appears. Go to (Network and Internet Connections >) *Network Connections*.
- 3 In the Network Tasks menu, click *Create a new connection*.
The New Connection Wizard appears:



Click *Next* to continue.

- 4 In the next window, select *Connect to the Internet*:



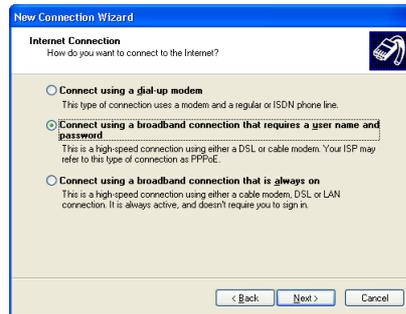
Click *Next* to continue.

- 5 In the next window, select *Set up my connection manually*:



Click *Next* to continue.

- 6 In the next window, select *Connect using a broadband connection that requires a user name and password*:



Click *Next* to continue.

- 7 In the next window, give a name to the connection you are creating, e.g. MyISP:



- 8 In the next window, select whether the connection is available to any user or only to yourself:



Note If you want to share this connection with other users you must select *Anyone's use*.

- 9 In the next window, fill in the Internet account information. This information should be provided by your service provider:



- 10 At the end of the configuration the following window appears:



Click *Finish* to complete the configuration.
The Connect MyISP window (see below) appears.

Starting a broadband Internet session

Proceed as follows:

- 1 On the *Start* menu, point *Connect To* and click the name of the connection you've created e.g. MyISP.

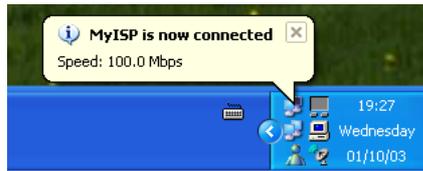
Note If you are using the classic Start menu click *Start > Settings > Network (and Dial-up) connections > MyISP*.

- 2 The Connect MyISP window appears:



- 3 If needed, enter user name and password for your user account at the Service Provider.
4 Click *Connect*.

- 5 As soon as the connection is established, the connection message box and dial-up window are minimized into a DUN icon in the system tray:



You can open your web browser and surf the Internet.

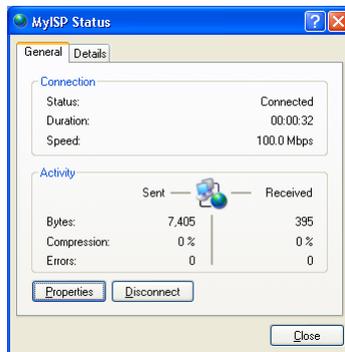
Terminating a broadband Internet session

Proceed as follows:

- 1 On the *Start* menu, point *Connect To* and click the name of the connection you've created e.g. *MyISP*.

Note If you are using the classic *Start* menu go to *Start > Settings > Network (and Dial-up) connections > MyISP*.

- 2 The *MyISP Status* window appears:



- 3 Click *Disconnect*.

The connection is released. As a result no Internet connectivity exists anymore.

2.2.2 Using the Mac OS X PPPoE Dial-in Client

Configuring a broadband connection

Proceed as follows:

- 1 On the Apple menu, click *System Preferences*.
- 2 The System Preferences window appears. Click the *Network* icon.
- 3 The Network window appears. Make sure *Built-in Ethernet* is selected in the Show list and click the PPPoE tab:



- 4 Enter the Account Name and Password provided by your Service Provider.

Note Select *Save password* in case you want the computer to remember the password for this account name. Optionally you can enter a name for this connection in the *Service Provider* field. All other fields may stay empty

- 5 Click *Apply Now*.

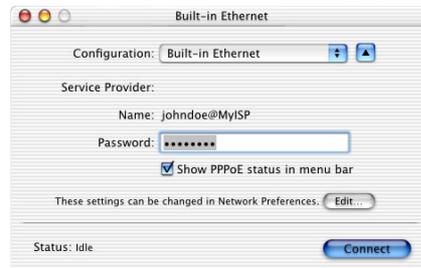
Starting a broadband Internet session

Proceed as follows:

- 1 Click the *Internet Connect* dockling.

Note If the Internet Connect dockling is not available, go to the Applications folder on the system startup disk and double-click *Internet Connect*.

- 2 The following window appears:



Make sure *Built-in Ethernet* is selected in the Configuration list.

- 3 If needed, enter user name and password for your user account at the Service Provider.
- 4 Click *Connect*.

As soon as the connection is established you can open your web browser and surf the Internet.

Terminating a broadband Internet session

Proceed as follows:

- 1 Click the *Internet Connect* dockling.

Note If the Internet Connect dockling is not available, go to the Applications folder on the system startup disk and double-click *Internet Connect*.

- 2 The following window appears:



Make sure *Built-in Ethernet* is selected in the Configuration list

- 3 Click *Disconnect*.

The connection is released. As a result no Internet connectivity exists anymore.

3 Dr SpeedTouch™

Introduction The Dr SpeedTouch™ application allows you to monitor, diagnose and troubleshoot your SpeedTouch™ device.

With Dr SpeedTouch™ you can:

- Monitor the status and performance of the SpeedTouch™ device.
- Run a Diagnostics program to locate a connectivity problem.
- Run a Troubleshooter to help you solve a connectivity problem.

Supported Operating Systems

Installing and using Dr SpeedTouch™ is only supported for following Microsoft Windows Operating Systems:

- MS Windows 98
- MS Windows 98SE
- MS Windows ME
- MS Windows NT4.0 SP6
- MS Windows 2000
- MS Windows XP

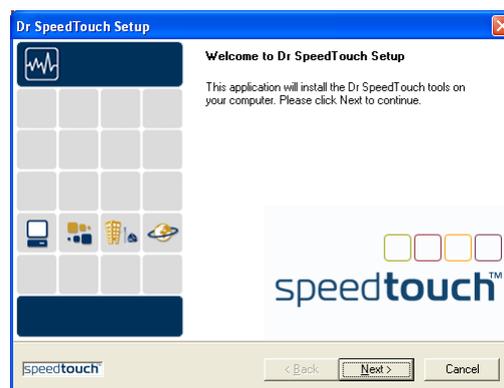
Installation

Proceed as follows:

- 1 Insert the SpeedTouch™ Setup CD-ROM in your PC's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically. Choose your language and browse to *Initial Setup > Install Dr SpeedTouch™*.

Note If the SpeedTouch™ CD Browser window does not appear automatically, open a Run window via Start > Run from the Start menu and enter the following path: D:\Menu.exe, where D stands for the drive letter of your CD-ROM drive.

- 2 The Dr SpeedTouch™ Setup wizard appears:



Click *Next* to continue.

- 3 Subsequent screens will guide you through the installation. Follow the provided instructions and click *Next* whenever requested.
- 4 After installation, Dr SpeedTouch™ is started automatically.

Using Dr SpeedTouch™

By default Dr SpeedTouch™ is started automatically at boot of your system and runs in the background, i.e. minimized in the status area.

Proceed as follows:

- 1 Double-click  in the status area.
- 2 Dr SpeedTouch™ searches your network for SpeedTouch™ devices. If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™ 545 or SpeedTouch™ 570) and click *OK*.
- 3 Dr SpeedTouch™ appears:



Dr SpeedTouch™ features

Dr SpeedTouch™ consists of two sections:

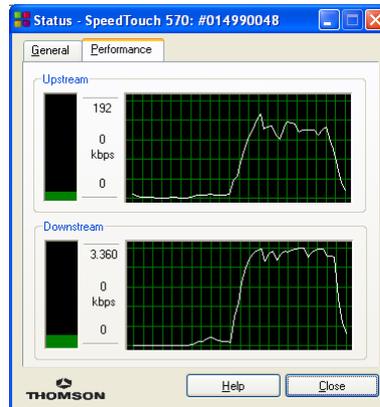
- Select the *General* tab to:
 - View SpeedTouch™ device information and status:
- View activity between your computer, the SpeedTouch™ and the Internet:
- Click *Diagnostics*. This allows you to test and troubleshoot the connectivity of your computer and the SpeedTouch™ device to your ISP and the Internet via the Diagnostics wizard:

Device	
Status:	PPP Connected
DSL Duration:	00:30:15
PPP Duration:	00:25:43
Speed (up/down):	192/3.360 kbps

Activity		
Computer(s)	SpeedTouch	Internet
kBytes Sent	45.424	2.192
kBytes Received	1.970	47.646



- Select the *Performance* tab to monitor the downstream and upstream performance of your DSL connection:



Note For more information on Dr SpeedTouch™ please click *Help* in the application or press F1 for context sensitive help.

4 Wireless Connectivity

Introduction The SpeedTouch™ 570 and SpeedTouch™ 545 (with wireless upgrade card installed) feature a Wireless LAN Access Point (AP) which behaves as a hub and allows wireless connectivity between several devices and the local (W)LAN and - via the SpeedTouch™ DSL router - to the public network, e.g. the Internet.

IEEE802.11b Wireless technology enables these devices to communicate with each other in a locally mobile fashion, without the need for a wired environment.

Wireless basics

The WLAN's 'radio' link is a shared medium. As no physical connection exists between the SpeedTouch™ and wireless clients, a name must be given to allow unique identification of your WLAN radio link. This is done by the Service Set ID (SSID), also referred to as Network Name. Wireless clients must be part of this SSID environment in order to be able to communicate with other clients on the (W)LAN - including the SpeedTouch™.

The IEEE802.11b standard for WLANs allows several WLAN networks using different radio channels to be co-located. Via the Direct Sequence Spread Spectrum (DSSS) system, several channels are available for use which are associated to a slightly different frequency in the allowed range. The SpeedTouch™ supports multiple radio channels and is able to select the best radio channel at each start-up.

The SpeedTouch™ supports all channels allowed for wireless networking according to the US, Asia and most of Europe's regulations.

However, depending on local regulations, the number of channels actually allowed to be used may be restricted.

To determine your regulatory domain check:

- The label on the bottom of the SpeedTouch™ in case you purchased a SpeedTouch™ 570.
- The label on the SpeedTouch™ 010 wireless upgrade card in case you purchased a SpeedTouch™ 545.

If you reside in:

- The ETSI regulatory domain (EC logo) the supported radio channels are channels 1 to 13.
- The FCC regulatory domain (FCC logo) the supported radio channels are channels 1 to 11.

Wireless security

Since the SpeedTouch™ wireless environment is a radio environment, precautions must be taken to ensure that your wireless network is safe from malicious intruders. In addition to providing the possibility of giving a personalized Network Name (SSID) to the wireless network, the SpeedTouch™ features a physical registration mechanism, a managed Access Control List (ACL) and enhanced 64- or 128-bits Wired Equivalent Privacy (WEP) encryption to secure your network and to control wireless client access.

Wireless client requirements

Only wireless client adapters compliant to IEEE802.11b DSSS, will be able to communicate with the SpeedTouch™ and other members of the SpeedTouch™ (W)LAN environment.

It is highly recommended that the wireless client adapter is Wi-Fi™ certified to ensure smooth interoperability.

To use SpeedTouch™'s encryption security features, the wireless client adapters should at least support 64-bit WEP encryption.

Note For initial wireless connectivity (i.e. SpeedTouch™ device with default settings) a wireless client adapter supporting 128-bits WEP encryption is mandatory.

4.1 First-time Wireless Client Association

Initial SpeedTouch™ wireless configuration

When the SpeedTouch™ leaves the factory and after every Reset-to-Defaults (See “7.4 SpeedTouch™ Default Configuration” on page 88 for more information), the SpeedTouch™ wireless configuration returns to its initial default settings.

These settings are as follows:

- The SpeedTouch™ is broadcasting its Network name (SSID)
The default Network Name (SSID) is printed on the identification label located on the bottom of your SpeedTouch™ and is unique for each device.
It consists of the concatenation of the word “SpeedTouch” and 6 hexadecimal characters, without any spaces.
- WEP encryption is enabled at 128-bit encryption level.
The default WEP encryption key is printed on the identification label located on the bottom of your SpeedTouch™ and is unique for each device.
It consists of 26 hexadecimal characters.
- The DSSS radio channel number is set to “automatic”.
- Registration is not activated.
- The Access Control List is empty and open

Note The default wireless settings may differ from the settings listed above depending on your Service Provider’s requirements. If this is the case, refer to the installation/configuration instructions provided by the Service Provider.

Preparing the first-time wireless client

Make sure that:

- The SpeedTouch™ is powered on and ready for service.
- The SpeedTouch™ is in its default configuration.
If needed, reset the SpeedTouch™ to its default configuration (See “7.4 SpeedTouch™ Default Configuration” on page 88 for more information).
- In case of a SpeedTouch™545 - the wireless upgrade card is installed as described in “7.1 Upgrading a SpeedTouch™545 for Wireless Networking” on page 74.
- The wireless client adapter is installed on your computer.
- The wireless client adapter’s IP configuration is set to dynamically obtain its IP configuration (DHCP).

Note Usually this is the default TCP/IP configuration of your computer.

- The wireless client is correctly configured for associating to the SpeedTouch™ wireless access point (See below).

First-time wireless client configuration

For a successful association the wireless client must be correctly configured for:

- the default WEP encryption
- the default Network Name.

As the SpeedTouch™ broadcasts its SSID to the wireless clients, you can select the SpeedTouch™ wireless network (e.g. SpeedTouch012345) from a list of available networks.

Depending on your wireless client a wireless icon may become green or a message similar to the following may pop up: "Successfully joined Wireless network SpeedTouch012345".

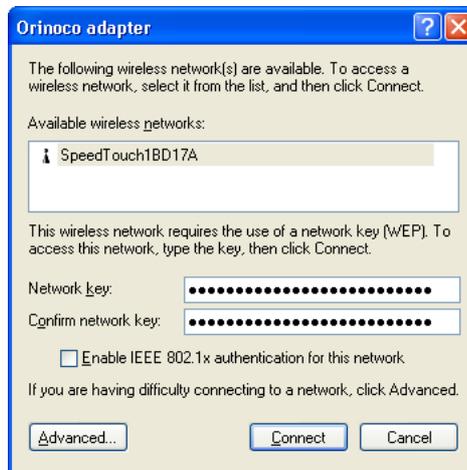
Note Some wireless clients do not automatically join a wireless network. If so, follow the instructions for the wireless client software to initiate association.

First-time association example

Below an example is provided, showing how the SpeedTouch™ wireless network is presented towards an MS Windows XP system:



When clicking, the following window allows you to provide the WEP key (found on the identification label located on the bottom of your SpeedTouch™):



Clicking *Connect* triggers the actual association. A successful association will be notified as shown below:



Note For other Operating Systems the wireless client will in most cases be configured via dedicated client managers.

4.2 Connecting Wireless Clients

Before you connect other wireless clients

In case the SpeedTouch™ has not been configured before (the SpeedTouch™ is still in its default configuration), it is recommended to proceed first with the configuration setup procedures as described in “1.3 SpeedTouch™ Configuration Setup” on page 11.

For enhanced security, after going through the SpeedTouch™ configuration setup procedures, you are able to “personalize” the SpeedTouch™ wireless access point settings by configuring another SSID, and/or optionally another security level.

For more information on the configuration of the SpeedTouch™ Wireless configuration, see “Wireless” on page 52.

Preconditions

Make sure that:

- The SpeedTouch™ is powered on and ready for service.
- The SpeedTouch™ has been configured by the SpeedTouch™ Setup wizard or via uploading the appropriate configuration profile file.
- Optionally, the SpeedTouch™ wireless settings have been personalized.

Further make sure that:

- The wireless client adapters are installed on the computers you want to connect.

Depending on the personalized wireless settings:

- In case WEP encryption is enabled on the SpeedTouch™, you must configure the wireless client to use the same encryption level and WEP key.
- In case SSID broadcasting is disabled, you must configure the wireless client for the SpeedTouch™ SSID.
- Depending on the registration button and Access Control List configuration:
 - In case registration is disabled and the Access Control List unlocked, no further actions are needed for the wireless client to access the SpeedTouch™ WLAN.
 - In case registration is disabled and the Access Control List locked, you must manually add the wireless client to the Access Control List as described in “Wireless” on page 52. Make sure to save your SpeedTouch™ configuration by clicking **Save all**.
 - In case registration is enabled and the Access Control List locked, you must follow the procedure below to register the WLAN client to the SpeedTouch™ Access Control List.

Registering wireless clients

In case registration is enabled, you must register pending wireless network clients as follows:

- 1 Make sure the wireless client is correctly associated to the SpeedTouch™ WLAN. Depending on your WLAN client adapter a wireless icon may become green or a message similar to the following may appear: "Successfully joined Wireless network SpeedTouch012345".

Note Some WLAN clients do not automatically join a WLAN. If so, follow the instructions for the WLAN client software to initiate the association.

- 2 Push the red Registration button on the SpeedTouch™ back panel or click *Register* on the SpeedTouch™ Wireless web page (see "[Wireless](#)" on page 52 for more information).
The SpeedTouch™ will now add the wireless client to the Access Control List and save the current configuration.

Note You can only register one wireless client at a time. So you have to push the registration button for each client you want to add.

- 3 Browse to the SpeedTouch™ Wireless web page to see that the MAC address of your wireless client is added to the Access Control List.

Note If a system password secures the SpeedTouch™ from unauthorized access, you'll need to authenticate first before you can actually browse its web pages.

5 SpeedTouch™ Web Interface

Introduction The SpeedTouch™ comes with integrated local configuration capabilities. The local configuration, via the SpeedTouch™ web interface, is based on the HTTP server/web browser concept. It allows you to configure your SpeedTouch™ via a web browser using HTML pages from any local computer attached to the SpeedTouch™ (Wireless) LAN.

Preconditions Before accessing the SpeedTouch™ web pages, make sure that either:

- Your Web browser is not using a proxy server.
- The SpeedTouch™ IP address is not submitted to a proxy server.

For more information on how to disable your web browser's proxying, please consult the web browser's user's guide.

Use of the SpeedTouch™ web interface In most cases, the SpeedTouch™ is correctly configured for your Internet connectivity via the Service you selected during [SpeedTouch™ Configuration Setup](#), implying that no further configuration on the web interface is needed.

Access to the SpeedTouch™ web interface To access the SpeedTouch™ web pages:

- 1 Start the web browser on your computer.
- 2 Browse to the SpeedTouch™ at the SpeedTouch™'s IP address (in most cases 10.0.0.138).
- 3 If a system password has been set, an authentication window will be displayed. You must enter the user name and system password before access will be granted.

Access to the SpeedTouch™ web interface via UPnP™ If your computer is UPnP™ enabled you can access the pages as follows:

- 1 Click (Settings >) *Control Panel* on the Start menu to open the Control Panel.
- 2 Go to *Network and Internet Connections > My Network Places*.

Note If you use the Control Panel in Classic View, click *Network Connections* in the Control Panel and *Network Places* under *Other Places*.

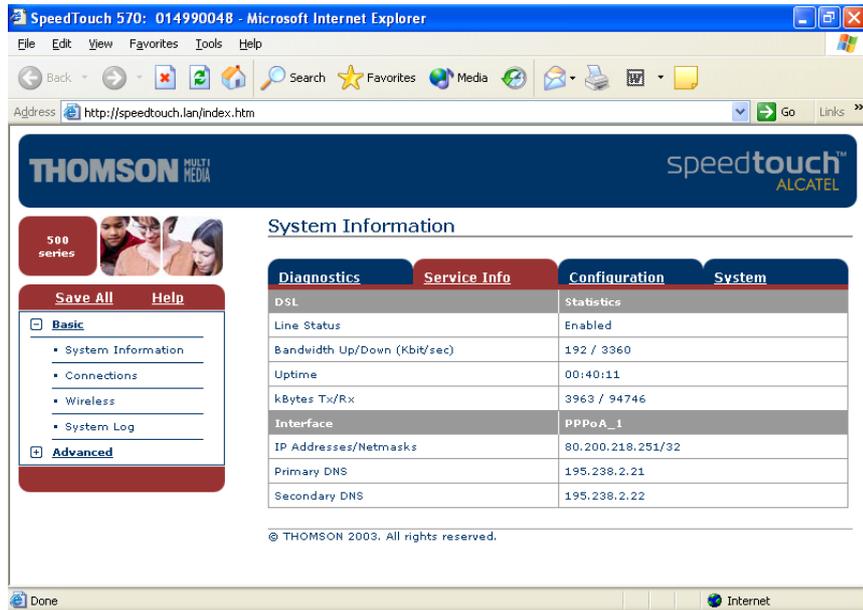
3 The following window appears:



Double-click the SpeedTouch™ icon.

4 If a system password has been set, an authentication window will be displayed. Enter user name and system password in the appropriate fields and click *OK*.

Result As a result the *System Information* page appears:



Note If the SpeedTouch™ is still in its default configuration the embedded **Easy Setup** will appear automatically.

Topic menu and links

On the left of each of the SpeedTouch™ web pages a topics menu is provided. This menu navigates you via links through all configurational aspects of the SpeedTouch™.

For your convenience the links are sorted in two drop-down topics menus: Basic and Advanced. The links in the Basic topic menu lead you to pages for basic SpeedTouch™ configuration and maintenance, i.e. the pages for every-day use. The Advanced topic menu, contains the links which allow advanced configuration of the SpeedTouch™. These pages need only to be accessed for some specific operations.

The following table lists all Basic topic links:

BASIC topic menu	
Click ...	To ...
System Information	View the current configuration profile. View the current ADSL line status.
Connections	Establish dial-in connections.
Wireless	View/configure SpeedTouch™ Wireless LAN settings. Note Not functional on a SpeedTouch™ 545 without installed Wireless Upgrade card.
System Log	View the activity on the SpeedTouch™ since power on.

The following table lists all advanced topic links:

ADVANCED topic menu	
Click ...	To ...
Diagnostics	View SpeedTouch™ diagnostics.
Easy Setup	Configure the SpeedTouch™ via the embedded wizard.
IP Addresses	View/configure the SpeedTouch™ IP interfaces.
IP Routing	View/configure the SpeedTouch™ IP router.
NAPT	View/configure static NAPT entries. View/configure multi-NAT entries. Define a default local server for inbound connectivity. Configure UPnP™.
DHCP	View/configure the SpeedTouch™ DHCP server/client.
DNS	View/configure the SpeedTouch™ DNS server/client.
System	Manage system and configuration.
System Password	Set a system password.
Templates	View/upload templates.
Language	Configure the web page language.

Save all The Save All link on the menu allows you to save the SpeedTouch™ settings. It is advised to back-up your saved configuration on a regular basis. This can be done via the [System](#) link in the Advanced menu.

Help The Help link in the topics menu header allows you to browse the SpeedTouch™ online Help. For more information on a specific topic you can click the context-related [Help](#) links located at the Topic's web pages.

5.1 Basic Topics Menu Links

System Information

Click this link to display the System Information page. This page is also the SpeedTouch™ home page.

The System Information page consists of four sections:

- Click the *Diagnostics* tab to view the results of the System Self Test, LAN connectivity and DSL synchronization test:

Diagnostics		Service Info	Configuration	System
Test	Result			
System Self Test	✓			
LAN	✓			
DSL	✓			

- Click the *Service Info* tab to view the current physical status of the ADSL line:

Diagnostics		Service Info	Configuration	System
DSL		Statistics		
Line Status	Enabled			
Bandwidth Up/Down (Kbit/sec)	192 / 3360			
Uptime	00:17:51			
kBytes Tx/Rx	2187 / 47639			
Interface		PPPoA_1		
IP Addresses/Netmasks	80.200.218.251/32			
Primary DNS	195.238.2.21			
Secondary DNS	195.238.2.22			

The DSL Statistics allow you to view:

- Line Status: this shows whether the DSL link is synchronized (Enabled) or not (Initializing).
- Bandwidth Up/Down: the maximum available bandwidth of the DSL link in both up- and downstream direction.
- Uptime: The duration of the current Enabled Line Status.
- kBytes Tx/Rx: the amount of kilobytes (kBytes) sent (Tx) and received (Rx) since the establishment of the DSL link.
- Click the *Configuration* tab to view the configuration profile currently active on the SpeedTouch™:

Diagnostics		Service Info	Configuration	System
Item	Description			
Region	World			
Provider	Any			
Service Name	Routed PPPoA - DHCP - NAPT			
Service Description	Routed PPPoA Packet Service configuration using always-on session connectivity.			

- Click the *System* tab to view some important system information of the SpeedTouch™:

Diagnostics		Service Info		Configuration		System	
Item				Description			
Product Name				SpeedTouch 545			
Physical Address				00-90-D0-02-8A-2D			
Software Release				4.2.1.1			
Board Name				ADNTA-A			
Serial Number				0504bza			
Product Code				35728530			

The System table lists:

- The SpeedTouch™ product name.
- The unique Medium Access Control (MAC) address of your SpeedTouch™. This MAC address can be used to identify your SpeedTouch™.
- The SpeedTouch™ Software Release.
- The SpeedTouch™ Board Name.
- The SpeedTouch™ Serial Number.
- The SpeedTouch™ Product Code.

Note The information above is also listed on the identification label on the bottom of the SpeedTouch™.

Connections

Click this link to view the Connections page.

This page allows you to establish dial-in connections, if applicable:

Connections				
Interface	Destination	Mode	Link	State
PPPoA_1	PVC_1	always-on	connected	up

Connection properties

Specify your username and password:

User:

Password:

Save this password

[Disconnect](#) [Help](#)

See “2.1.2 Using the SpeedTouch™ Web Pages” on page 27 for more information on how to use the Dial-in Connections table.

Wireless Click this link to display the SpeedTouch™ Wireless page.

Note If you are using a SpeedTouch™ 545 without wireless upgrade card installed, this page will not be available.

This allows you to:

- Click the *Access Point Settings* tab to view the Access Point Settings pages:
- Click the *Network Name (SSID)* tab to view and/or change the Speed-Touch™ Wireless access point SSID:

Access Point Settings		Access Control	Radio Channels
Network Name (SSID)		Data Security	
Network name (SSID):	BUTRA22		
Only stations with correct Network name (SSID) can connect:	<input checked="" type="checkbox"/>		
Drop multicast from DSL to WLAN:	<input type="checkbox"/>		
Apply		Help	

By default the SpeedTouch™ broadcasts its SSID to the WLAN clients. WLAN clients using this broadcasted SSID or a blank SSID can join the SpeedTouch™ WLAN.

To ensure the security of your connection, it is possible to personalize these SSID settings. Proceed as follows:

- 1 Make sure *Only stations with correct Network name (SSID) can connect* is selected.

Note When you enable this option, the SSID will not be broadcasted. Depending on your wireless client, the Speed-Touch™ wireless network will no longer be visible in the list of available networks.

- 2 Enter the SSID of your choice in the *Network name (SSID)* field.
- 3 Click *Apply* to apply the SSID.
- 4 Reconfigure your wireless client(s) to use the changed settings.
- 5 Click *Save all* to save your changes to persistent memory.

By default the SpeedTouch™ allows multicasts from external hosts (i.e. hosts residing on the WAN/Internet). To disable this feature select *Drop multicast from DSL to WLAN*.

- Click the Data Security tab to enable/disable the 64-bit/128-bit WEP encryption:

By default WEP encryption is enabled (at 128-bit encryption). To change the WEP encryption:

- Select the desired WEP encryption level (64-bit or 128-bit).
- Enter a WEP key of your choice. In the case of:
 - 64-bit encryption
The 40-bits WEP key must consist of 10 hexadecimal digits.
 - 128-bit encryption
The 104-bits WEP key consists of 26 hexadecimal digits.

Note Hexadecimal numbers range from 0 to 9, while hexadecimal letters range from A to F.

- Click *Apply* to apply the WEP encryption settings.
- Reconfigure your wireless client(s) to use the changed settings.
- Click *Save all* to save your changes to persistent memory.

To ensure the highest level of security, you may change the wireless settings on a regular basis. However, never use obvious keys.

- View the current Access Control List. Via this table you can also manually add or delete wireless clients and configure whether wireless clients are allowed to participate in the SpeedTouch™ wireless IP environment or not.

To enable/disable the registration button, select/clear *Use Register button for registration*:

- If registration is enabled, the following table is shown:

Station Name	MAC Address	Allowed
▶ Jim	00:02:2D:5F:B8:7B	Yes
▶ Jan	03:34:56:2F:32:3F	Yes
▶ Sammy	23:56:03:1A:EB:2C	No
▶ Portable_home	00:1F:EB:00:01:06	Yes

Clicking the Register button triggers the SpeedTouch™ to unlock the access control list for a maximum time frame of one minute. The first new wireless client successfully attempting to associate with the SpeedTouch™ (having the correct wireless settings (Network Name and, if required, Network key)) will be added to the table as allowed station, after which the access control list is immediately locked again.

Note The SpeedTouch™ automatically saves your current configuration at the end of the registration.

- If registration is disabled, the following table is shown:

Access Point Settings		Access Control		Radio Channels	
Use Register button for registration:		<input type="checkbox"/>			
New Station Allowed:		<input checked="" type="checkbox"/>			
Station Name	MAC Address			Allowed	
▶ Jim	00:02:2D:5F:B8:7B			Yes	
▶ Jan	03:34:56:2F:32:3F			Yes	
▶ Sammy	23:56:03:1A:EB:2C			No	
▶ Portable_home	00:1F:EB:00:01:06			Yes	
Click 'New' to create a new entry.					
Flush		Refresh		New Help	

If *New Station Allowed* is selected, any client with the correct wireless settings (Network Name and, if required, Network key) will be automatically added to the Access Control List and will be allowed to send/receive data via the SpeedTouch™ wireless access point.

If *New Station Allowed* is not selected, you must manually add the wireless clients and their authorization to the access control list.

Note If the registration button is disabled, the button must NOT be pressed to register a WLAN station.

- View the Radio Scan table:

Access Point Settings		Access Control		Radio Channels	
Channel:		Auto			
Best Channel Selected :		6			
Channel	Rating				
1	Good				
2	Good				
3	Good				
4	Good				
5	Good				
6	Recommended				
7	Good				
8	Good				
9	Good				
10	Good				
11	Good				
Recommended communication channel is 6					
Refresh		Scan		Help	

By default the SpeedTouch™ Wireless access point uses automatic radio channel selection (Auto) to ensure maximum performance, communication speeds and radio reaches. To specify a fixed channel, select a channel number from the Channel list and click *Apply*.

The Radio Scan table allows you to overview all radio channels and their respective ratings.

If you want to:

- Refresh the table, click *Refresh*.
- Update the SpeedTouch™'s automatic channel selection, click *Scan*.

Note You can locate adjacent wireless networks via the Site Monitor. See “Diagnostics” on page 56 for more information.

[System Log](#) Click this link to view the System Log page.

This page allows you to view the activity on the SpeedTouch™ since power on:

Logged Messages	
System Up Time	00:13:12 (since power on)
View Mode	All logged messages
Stop AutoRefresh Help	
System Up Time	Message Contents
00:12:51	CONFIGURATION saved by user (/dl/user.ini)
00:02:43	LOGIN User logged in on HTTP (from 10.0.0.1)
00:00:28	DHCP server up
00:00:28	DHCP Auto DHCP: no server detected on LAN, SpeedTouch server started
00:00:02	KERNEL Warm restart
View All View Important only View Critical only	

5.2 Advanced Topics Menu Links

Diagnostics Click this link to display the Diagnostics page.

This page consists of three expandable sections:

- Expand the System section to view some important system information:

☐
✔
System

Product Name = SpeedTouch 545
 Vendor Name = THOMSON
 Software Version = 4.2.1.1
 Serial Number = 0504bza
 CLI Version = 1.2.0
 Bootloader Version = 2.1.0
 ASIC Version = 1b01
 Board Name = ADNTA-A
 Modem Label Version = 2.11.27

- Expand the Lan section to view the LAN configuration:

☐
✔
Lan

☐
✔
Ethernet

Interface name = eth0
 Physical address = 00:90:d0:73:e4:73

☐
✔
Physical Interface 1

Mode = forwarding
 Auto Negotiation = Yes
 Type = 100BaseTHD
 kBytes Tx/Rx = 688 / 202
 Frames Tx/Rx = 2202 / 1787
 Discarded frames = 2

☐
✔
Wireless

Network name (SSID) = BUTRA22
 Physical address = 00:02:2d:55:b1:3b
 State = up
 Type = 802.11b
 Data Security = enabled (64-bit)

⊕
Properties

⊕
Statistics

☐
Site Monitor

00:02:8A:37:01:C3 = Channel 6 SNR -23/-94 Data Security enabled

Expand subsequently the Wireless and the Site Monitor section to allow the SpeedTouch™ wireless access point to scan for and locate adjacent wireless networks.

Note If you are using a SpeedTouch™545 without Wireless Upgrade card installed, the Wireless section will not be available.

- Expand subsequently the Wan, DSL and Connections sections to view the current DSL state and connection information:

The screenshot displays the SpeedTouch web interface configuration for the WAN, DSL, and Connections sections. The 'Wan' section is expanded, showing the 'Dsl' configuration with details: DSL Flavour = ADSL over POTS, Reserved Bandwidth (kbit/s) up/down = 192 / 3360, Uptime = 00:21:42, and kBytes Tx/Rx = 2189 / 47641. Below this are expandable sections for 'Properties' and 'Statistics'. The 'Connections' section is also expanded, showing the 'PPPoA_1' configuration with details: Connection Type = PPPoA, kBytes Tx/Rx = 624 / 41130, Username = johndoe@MyISP, Password = *****, Last Connection Error = None, and Uptime = 00:17:11. Below this are expandable sections for 'IP Connectivity', 'IP', 'PPP', and 'ATM'. A checkmark icon is visible next to the 'Connections' section header.

Click  to instantly check all SpeedTouch™ connections on IP connectivity.

Easy Setup

Click this link to start the SpeedTouch™ Easy Setup wizard.

See “1.3.2 Operating System Independent SpeedTouch™ Configuration Setup” on page 19 for more information.

IP Addresses [Click this link to display the IP Addresses page.](#)

This page allows you to view or add/delete specific IP address entries for SpeedTouch™'s interfaces:

IP address table			
Intf	Address/Netmask	Type	Translation
▶ eth0	169.254.149.35/16	Auto	none
▶ eth0	10.0.0.138/24	User	none
▶ eth0	192.193.195.233/24	Extra	none
▶ loop	127.0.0.1/8	Auto	none

Click 'New' to create a new entry.

[New](#)
[Help](#)

When adding an IP address, all essential IP routes will be automatically be added to the SpeedTouch™ IP routing table. The eth0 interface allows you to assign an IP address to the SpeedTouch™ Ethernet interface.

IP Routing [Click this link to display the IP Routing page.](#)

This page allows you to view or add/delete static IP routes for SpeedTouch™'s IP router:

IP route table				
Destination	Label	Gateway	Intf	Metric
▶ 169.254.141.11/32	-	169.254.141.11	eth0	0
▶ 255.255.255.255/32	-	10.0.0.138	eth0	0
▶ 10.0.0.138/32	-	10.0.0.138	eth0	0
▶ 127.0.0.1/32	-	127.0.0.1	loop	0
▶ 10.0.0.0/24	-	10.0.0.138	eth0	0
▶ 169.254.0.0/16	-	169.254.141.11	eth0	0
▶ 224.0.0.0/4	-	10.0.0.138*	eth0	0

Click 'New' to create a new entry.

[New](#)
[Help](#)

Routing can be useful when subnetting your local network.

NAPT Click this link to display the Network Address and Port Translation (NAPT) page.

This page allows you to:

- View or add/delete specific static NAPT entries:

NAPT Entries		Multi-NAT Entries	Default Server	UPnP	
Nr	Type	Inside address	Outside address	Prot	State
▶ 1	Temp	10.0.0.1:27960	unspecified:27960	tcp	NONE
▶ 2	Temp	10.0.0.1:27960	unspecified:27960	udp	NONE
▶ 3	Temp	10.0.0.1:5631	unspecified:5631	tcp	NONE
▶ 4	Temp	10.0.0.1:5632	unspecified:5632	tcp	NONE

Click 'New' to create a new entry.

New
Help

To add static NAPT entries proceed as follows:

- Click *New*.
- Specify the outside address and inside address for the entry as well as the protocol and port to which the entry applies.

Note If the NAPT entry is applied to a connection's dynamically assigned local peer IP address, you should specify 0.0.0.0 as the outside address.

- Click *Apply* to add the entry to the table.

Instead of manually configuring the required NAPT entries, the NAPT Manager allows you to configure the SpeedTouch™ NAPT entries semi-automatically, simply by selecting the application, requiring these NAPT entries. For more information, see “6 SpeedTouch™ NAPT Manager” on page 67.

- View or add/delete Multi-NAT entries:

NAPT Entries		Multi-NAT Entries	Default Server	UPnP	
Index	intf	Type	Inside address	Outside address	
64	PPPoA_1	Static (M)	10.0.0.1	213.233.196.97	
▶ 65	PPPoA_1	Static (M)	10.0.0.2	213.233.196.98	
▶ 66	PPPoA_1	Static (M)	10.0.0.3	213.233.196.99	
▶ 67	PPPoA_1	Static (M)	10.0.0.4	213.233.196.100	
▶ 68	PPPoA_1	Static (M)	10.0.0.5	213.233.196.101	

Click 'Delete' to remove the entry, 'Apply' to commit changes.

Multi & Transparent NAT properties:

Interface:

Inside IP: Outside IP:

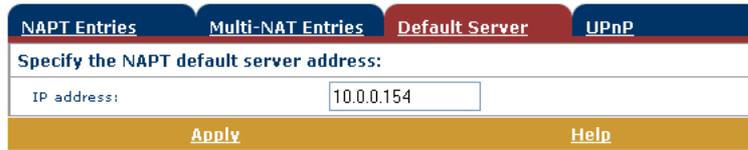
New
Delete
Apply
Help

Multi-NAT is also commonly known as Basic NAT (IETF).

To add Multi-NAT entries proceed as follows:

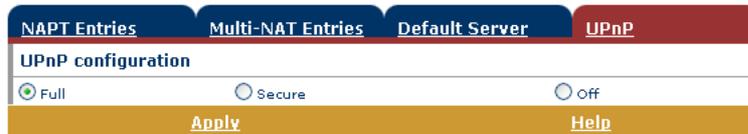
- Click *New*.
- Specify the inside address and put the desired range between brackets e.g. 10.0.0.[1-10]. Specify the outside address and interface.
- Click *Apply*.

- Define a default server:



By specifying a default server IP address (e.g. 10.0.0.154 as shown above), all incoming connections that don't match a specifically configured static NAPT entry will be forwarded to the device with this IP address. This setting should be adequate for most server applications and eliminates the need for specific static NAPT entries.

- Configure UPnP™:



The three UPnP™ configurations are:

- *Full:*
The SpeedTouch™ is UPnP™ enabled, all local hosts are able to detect the SpeedTouch™. Any local host is able to create port mappings for any local device.
- *Secure:*
The SpeedTouch™ is UPnP™ enabled, all local hosts are able to detect the SpeedTouch™. A local host is allowed to make port mappings for its own, i.e. a local host is not allowed to create port mappings for other local devices.
- *Off:*
The SpeedTouch™ is UPnP™ disabled, none of the local hosts is able to detect the SpeedTouch™. Via UPnP™ no port mappings can be created.

DHCP Click this link to display the Dynamic Host Configuration Protocol (DHCP) page.

This page allows you to:

- Click The *DHCP Server* tab to access the DHCP server pages.
- Click the *Server Config* tab to enable/disable the SpeedTouch™ (Auto)DHCP server:

DHCP Server		DHCP Relay		DHCP Client	
Server Config		Server Leases		Address Pools	
Status					
DHCP server running					
Properties					
<input checked="" type="radio"/> DHCP Server					
<input type="radio"/> Auto DHCP		Client timeout (s)		<input type="text" value="10"/>	
<input type="radio"/> No DHCP					
Apply			Help		

Depending on the DHCP server status, following Status message can be displayed:

- **Scanning for other DHCP server**
In case the DHCP server and its Auto DHCP feature are enabled, during local network probing on the SpeedTouch™ Ethernet interface eth0.
- **DHCP server stopped**
In case the DHCP server and its Auto DHCP feature are enabled, and a concurrent DHCP server was found during probing, thus causing its own DHCP server to be stopped and a DHCP client on the Speed-Touch™ Ethernet interface eth0 be created and activated.
- **DHCP server started**
In case the DHCP server and its Auto DHCP feature are enabled, and no concurrent DHCP server was found during network probing, thus starting its own DHCP server on the SpeedTouch™ Ethernet interface eth0.
- **DHCP server running**
In case the SpeedTouch™ DHCP server is enabled by default (without DHCP client)
- **DHCP client**
In case the SpeedTouch™ server is disabled by default, and a DHCP client is running on the SpeedTouch™ Ethernet interface eth0.
- **No DHCP**
In case the SpeedTouch™ server is disabled by default and the Speed-Touch™ Ethernet interface eth0 IP address is statically assigned.

Under Properties, you are able to select:

- *DHCP server*
Enables the SpeedTouch™ DHCP server. If it was not running, it will be enabled immediately.
- *Auto DHCP*
The SpeedTouch™ will not start its DHCP server immediately, but will first probe the network for a possible concurrent DHCP server for some period of time (set by Client timeout in seconds). In case another DHCP server is found, the SpeedTouch™ DHCP server is not started, and a DHCP client will be created on its Ethernet interface instead. If no concurrent DHCP server is found, the SpeedTouch™ DHCP server is started.
- *No DHCP*
Disable the SpeedTouch™ DHCP server. If it was running, it will be stopped immediately.
- Click the *Server Leases* tab to view the current leases provided by the Speed-Touch™ DHCP server.

DHCP Server		DHCP Relay		DHCP Client	
Server Config		Server Leases		Address Pools	
Lease	Client ID	Address	Pool	TTL	State
▶ 1	01:00:e0:98:16:29:01	10.0.0.3	LAN_private	infinite	used
New			Help		

If needed, you can also manually add static DHCP leases for specific hosts. To make dynamically assigned leases static, select the entry and click *Lock*.

- Click the *Address Pools* tab to view the SpeedTouch™ DHCP server lease pool properties:

DHCP Server		DHCP Relay		DHCP Client	
Server Config		Server Leases		Address Pools	
Name	Start Address	End Address	Intf	State	PPP
LAN_private	10.0.0.1	10.0.0.254	eth0	static	-
DHCP pool properties:					
Name:	<input type="text" value="LAN_private"/>	Interface:	<input type="text" value="eth0"/>		
Start address:	<input type="text" value="10.0.0.1"/>	End address:	<input type="text" value="10.0.0.254"/>		
Subnet mask:	<input type="text" value="255.255.255.0"/>	Lease time:	<input type="text" value="7200"/>		
Gateway:	<input type="text" value="10.0.0.138"/>	Server:	<input type="text" value="10.0.0.138"/>		
Primary DNS:	<input type="text" value="10.0.0.138"/>	Secondary DNS:	<input type="text" value="10.0.0.138"/>		
New		Apply		Delete	
Help					

The SpeedTouch™ DHCP server (if enabled) will use the address pools listed in this table to provide IP addresses to requesting DHCP clients. If needed, you can add/delete DHCP address pools manually (e.g. for the purpose of the DHCP relay functionality).

- Click the *DHCP Relay* tab to view the DHCP relay pages. The DHCP relay agent allows you to use DHCP clients and DHCP servers available on different networks.
 - Click the *Relay Config* tab to view the current SpeedTouch™ DHCP relay status:

DHCP Server		DHCP Relay		DHCP Client	
Relay Config			Relay Interfaces		
Relay Server	Interface	Gateway Address			
▶ 127.0.0.1	eth0	10.0.0.138			
New		Help			

Via this table you can also manually add static SpeedTouch™ DHCP relay entries for specific interfaces, if applicable.

- Click the *Relay Interfaces* tab to view the SpeedTouch™ DHCP relay interfaces:

DHCP Server		DHCP Relay		DHCP Client	
Relay Config			Relay Interfaces		
Interface	Admin State	Oper State	Max Hops	Trusted	Remote ID
▶ PPPoA_1	down	down	4	no	
▶ eth0	up	up	4	no	
Help					

- Click the *DHCP Client* tab to view the current SpeedTouch™ DHCP client status:

DHCP Server		DHCP Relay		DHCP Client	
Intf	Address	State	Timeout		
▶ eth0	192.193.195.244	bound	07[d]23:59:56		
New		Help			

Via this table, you can also manually add static SpeedTouch™ DHCP client entries for specific interfaces, if applicable.

DNS Click this link to display the Dynamic Name System (DNS) page.

This page allows you to:

- View the current SpeedTouch™ DNS server hostname leases:

DNS Hostname Table		DNS Server Configuration	
Nr	Hostname	Address	
▶ 1	SpeedTouch		
▶ 2	Sascha2	10.0.0.1	
▶ 3	MyPrinter	10.0.0.10	
▶ 4	HomeServer	10.0.0.254	

Click 'New' to create a new entry.

[New](#) [Help](#)

Via this table you can also add static DNS hostname entries.

This may be useful for devices which do not support DNS, e.g. a printer. By adding a name for your network printer, identified by its IP address, you will be able to contact this printer by name rather than by IP address.

- View and/or supply the SpeedTouch™ DNS domain name and to enable/disable the SpeedTouch™ DNS server:

DNS Hostname Table		DNS Server Configuration	
Domain name: <input type="text" value="lan"/>			
<input checked="" type="checkbox"/> Activate server			

[Apply](#) [Help](#)

Note The use of DNS subdomains is supported, e.g. dsl.office.lan.

System Click this link to display the Configuration page.

This page allows you to:

- Upgrade the SpeedTouch™ system software:

Software Upgrade		
Description	Filename	Size
Active software version	ZZYFAA4.211	(1553793)
Passive software version	ZZYFAA4.210	(1549060)

Specify a build image to upload:

[Remove Passive](#) [Upload](#) [Switch Over](#) [Help](#)

Note: Removing & uploading software may take several minutes to complete.

System Software	
Item	Description
Version	4.2.1.1
File	ZZYFAA4.211
Board type	ADNTA-A

Click [here](#) to get the latest software for your SpeedTouch.

See “7.3 SpeedTouch™ System Software Upgrade” on page 77 for more information on how to upgrade the SpeedTouch™ System Software.

- Back up the current SpeedTouch™ configuration, restore the SpeedTouch™ default configuration, or upload a backup configuration file:

Configuration	
Item	Description
Region	World
Provider	Any
Service Name	Routed PPPoA - DHCP - NAPT
Service Description	Routed PPPoA Packet Service configuration using always-on session connectivity.
Last Configured	Configuration modified manually
Specify a configuration file to upload:	
<input type="text"/> <input type="button" value="Browse..."/>	
Upload	Backup
Restore default	Help

- To backup the current configuration click *Backup* and follow the instructions.
- To restore the SpeedTouch™ defaults:
 - 1 Click *Restore default* to load the default configuration.
 - 2 The SpeedTouch™ prompts you to confirm the reset to defaults. Click *Yes* to load the default configuration
 - 3 The SpeedTouch™ is now in its default configuration.
- To upload and apply a SpeedTouch™ backup configuration file:
 - 1 Click *Browse* to locate the backup file on your local disk you intend to restore. Select the file and click *OK*.
 - 2 Click *Upload* to upload and apply the backup configuration.
 - 3 Once uploaded, the SpeedTouch™ asks you to confirm that you want the SpeedTouch™ to effectively apply the uploaded configuration. Click *Accept* to save the new configuration.

System Password

Click this link to display the System Password page.

This page allows you to configure a system password to restrict access to the Speed-Touch™:

System Password	
Enter your password (max 16 chars):	
User id:	<input type="text" value="johndoe"/>
Password:	<input type="password" value="••••••"/>
Retype your password:	<input type="password" value="••••••"/>
Apply	Help

It is highly recommended to configure a system password, to protect the Speed-Touch™. Make sure however not to use an obvious password such as your name, date of birth, etc.

Enter User id and Password (maximum 16 characters) of your choice and re-enter your password in the appropriate field. Click *Apply* to apply the System password and *Save all* to save your changes to persistent memory.

Note As long as no system password is supplied, a warning is displayed on the SpeedTouch™ web pages.

Templates Click this link to display the Templates page.

This page allows you to:

- View the templates currently stored in the SpeedTouch™ memory. The listed service templates are available for the embedded **Easy Setup** wizard:

Template Overview	
Filename	Service
▶ pppoe.tpl	Routed PPPoE - DHCP - NAPT
▶ pppoa.tpl	Routed PPPoA - DHCP - NAPT
▶ br.tpl	Bridged Ethernet

Select a template to view details

[Help](#)

Note Each template file requires a certain amount of memory. So make sure to limit the number of template files to the minimum necessary.

- Upload new template files, e.g. from the SpeedTouch™ Setup CD-ROM (template files are identified by the extension .tpl):

Template Upload	
Specify a template file to upload:	
<input type="text"/>	<input type="button" value="Browse..."/>

[Upload](#)

By uploading template files you can extend the number of services listed in the **Easy Setup** wizard.

Language Click this link to view the Language page.

This page allows you to select the SpeedTouch™ web page language.

Language Selection	
Language	English ▼

[Apply](#)

By default, the only available language is English.

Another language can be made available on the SpeedTouch™ web pages by running the SpeedTouch™ Setup wizard using the CD Browser.

At the start of the setup procedure, select the desired language. When the setup procedure is finished, this language will have been enabled on your SpeedTouch™ and the language will be available on the SpeedTouch™ web pages (next to English).

6 SpeedTouch™ NAPT Manager

Introduction

The SpeedTouch™ Network Address Port Translation (NAPT) Manager is designed to simplify the configuration of the SpeedTouch™ NAPT engine. Rather than defining the required NAPT entries for a certain application and adding them via the SpeedTouch™ web pages, the NAPT Manager offers you a selection of most popular host applications for which the configuration of NAPT entries can be done automatically.

Supported Operating Systems

The NAPT Manager is supported for following Microsoft Windows Operating Systems:

- MS Windows 98
- MS Windows 98SE
- MS Windows ME
- MS Windows NT4.0 SP6
- MS Windows 2000
- MS Windows XP

Using SpeedTouch™ NAPT Manager

The SpeedTouch™ NAPT Manager procedure consists of two major parts:

- Detection of the SpeedTouch™
- Configuration of the SpeedTouch™

Detection of the SpeedTouch™

Proceed as follows:

- 1 Insert the SpeedTouch™ Setup CD-ROM in your computer's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically.

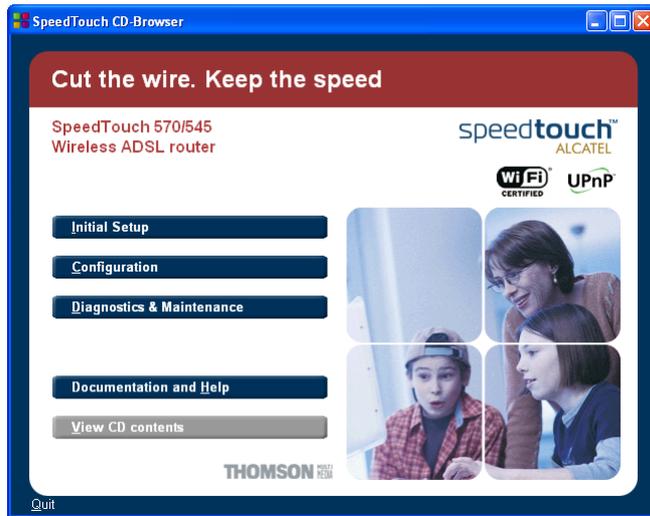
Note If the SpeedTouch™ CD Browser window does not appear automatically, click Run on the Start menu and enter the following path: D:\Menu.exe where D stands for the drive letter of your CD-ROM drive.

- 2 The choose language window prompts you to select a language:



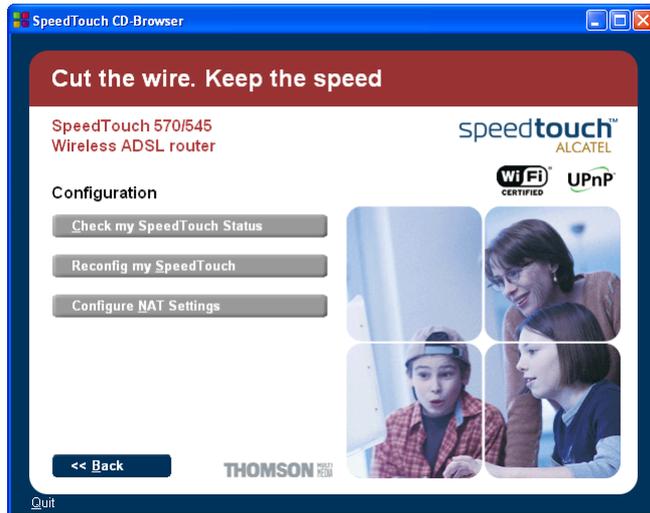
Select your language and click *OK*.

3 The SpeedTouch™ CD Browser menu appears:



Click *Configuration*.

4 The following window appears:



Click *Configure NAPT Settings*.

5 The NAPT Manager window appears:



Click *Next*.

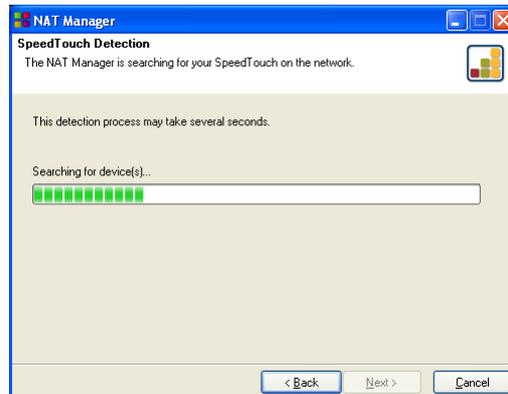
6 The Software License Agreement appears:



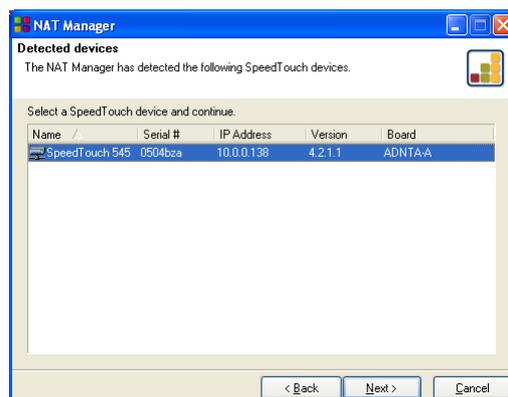
You must accept before continuing. Click **Yes** to accept.

Note If you accepted this Software License Agreement in a previous session of NATP Manager, this window will not be shown anymore.

7 NATP Manager will search for the SpeedTouch™ on the network. The following window shows the detection progress:



8 The NATP manager should find your SpeedTouch™ device on the local network. This is indicated by the following window:



If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™545 or Speed-Touch™570) and click **Next**.

Note If the Setup wizard does not find any SpeedTouch™ on the network an error window appears. In this case check that:

- The SpeedTouch™ is turned on and fully initialized.
- Your PC is correctly connected to the SpeedTouch™ or the WLAN client is correctly associated with the SpeedTouch™ WLAN as described in “4.1 First-time Wireless Client Association” on page 43.
- Your PC has a valid IP address (i.e. any IP address but 0.0.0.0).
- No dedicated firewall device or router is placed between your PC and the SpeedTouch™.
- No personal firewall software is running on your PC.
- TCP/IP is correctly installed on your PC.

To repeat the search for the SpeedTouch™, click *Back* and proceed with step 7 of this procedure.

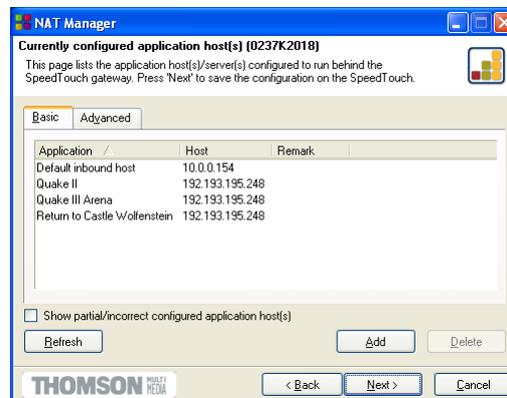
Configuration of the SpeedTouch™

Proceed as follows:

- 1 As soon as the NAPT Manager has detected your SpeedTouch™ device you can proceed with the configuration procedure.

Note The SpeedTouch™ may be protected by a system password. You must provide user name and system password to continue with the configuration.

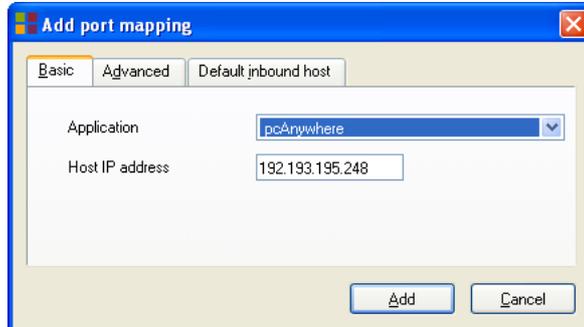
- 2 The following page lists the application hosts currently configured on the SpeedTouch™:



Click *Add* to enter a new application host.

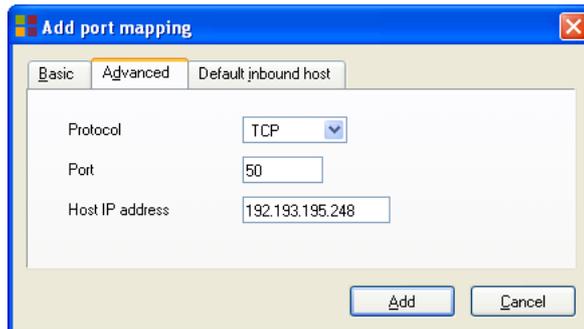
- 3 The Add Port Mapping window appears.
If you want to:

- Enter a port mapping for a specific application:
Click the *Basic* tab. Select an application in the Application list and enter a host IP address.



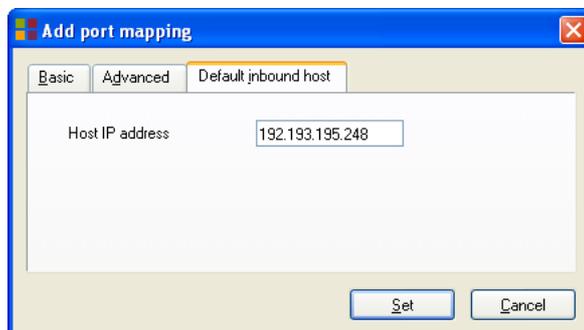
By default, the IP address of the PC from which you are running the NAPT Manager will be taken as host IP address. To add a NAPT entry for another PC, you must change the proposed IP address.

- Manually add a static NAPT entries:
Click the *Advanced* tab. Select a protocol in the Protocol list and enter Port and Host IP address in the appropriate fields.



By default, the IP address of the PC from which you are running the NAPT Manager will be taken as host IP address. To add a NAPT entry for another PC, you must change the proposed IP address.

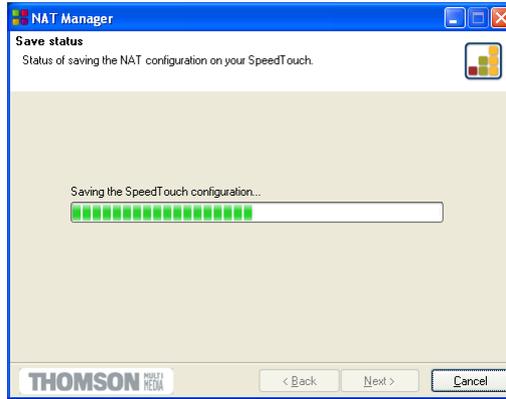
- Specify a default server IP address:
Click the *Default inbound host* tab. Enter the new IP address in the Host IP address field.



Click *Set* to add your entry to the list.

- 4 If all required entries are added click *Next* to save the new entries.

- 5 The NAPT Manager will update the SpeedTouch™ NAPT configuration. You can follow the progress in following window:



- 6 As soon as the NAPT Manager completed the update of the SpeedTouch™ NAPT configuration, following window will appear:



Click *Finish* to close the NAPT Manager.

Note The NAPT manager allows you to delete or modify configured NAPT mappings via the same procedure.

7 Support

In this chapter This chapter contains the following topics:

Topic	Page
Upgrading a SpeedTouch™ 545 for Wireless Networking	74
Using the Wall Mounting Assembly	76
SpeedTouch™ System Software Upgrade	77
SpeedTouch™ Default Configuration	88
UPnP™ on Windows XP Systems	89
Troubleshooting	91

7.1 Upgrading a SpeedTouch™545 for Wireless Networking

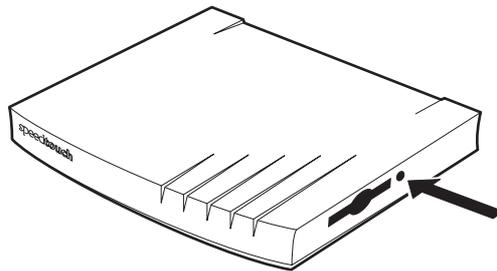
Introduction

If you purchased a SpeedTouch™545, you can upgrade your device for providing wireless networking by installing the SpeedTouch™010 wireless upgrade card.

Installing the wireless upgrade card

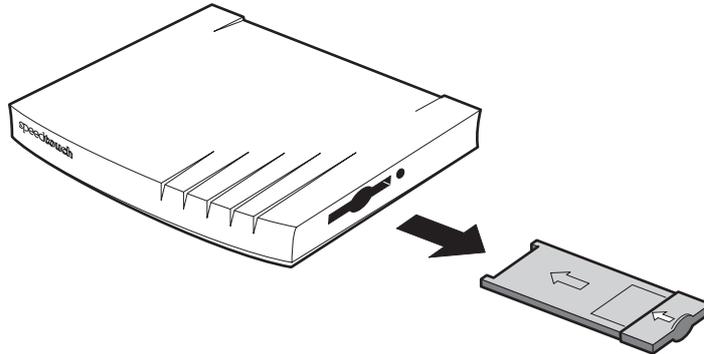
Proceed as follows:

- 1 Make sure the SpeedTouch™ is turned off.
- 2 Use a pencil to press the button next to the slot:

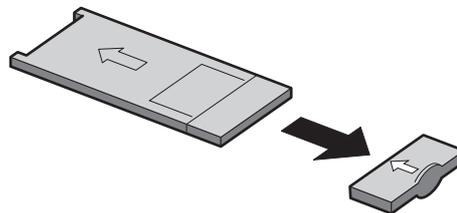


The dummy card ejects from the slot.

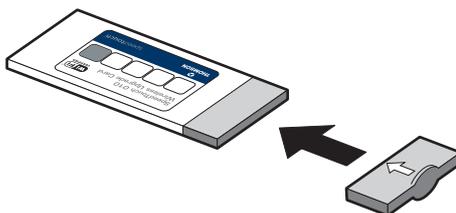
- 3 Remove the dummy card from the slot:



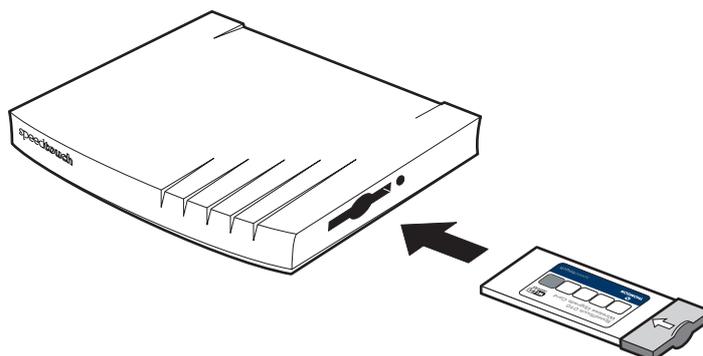
- 4 Remove the cover cap from the dummy card:



- Put the cover cap over the back plastic part of the SpeedTouch™010 wireless upgrade card as indicated below:



- Holding the wireless upgrade card with the label facing up, insert the SpeedTouch™010 wireless upgrade card completely into the slot:



Note The card should slide in easily with little resistance. If not, slowly pull the card back out and check if the cover cap is correctly mounted.

Your SpeedTouch™545 is now ready for wireless connectivity. Proceed with “4 Wireless Connectivity” on page 41 to connect the WLAN clients.

7.2 Using the Wall Mounting Assembly

Wall mounting assembly

Part of the package is a wall mounting assembly which allows you to conveniently mount the SpeedTouch™ on a wall.

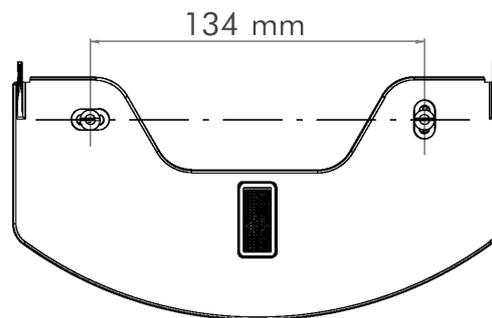
Before you start, check for the following items:

- The wall mounting assembly (with Velcro sticker and counterpart sticker in place)
- 2 screws and 2 wall plugs

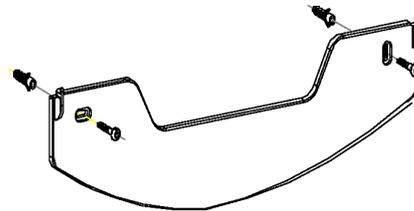
Preparing and using the wall mounting assembly

Proceed as follows:

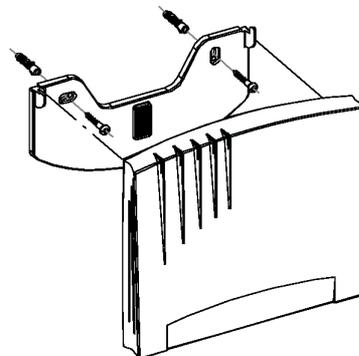
- 1 Mark two hole horizontal positions, 134 mm (5.36 inches) apart:



- 2 Drill the marked holes with a 6mm (0.24 inches) diameter drill bit to a minimum depth of 35mm (1.38 inches).
- 3 Insert the wall plugs in the drilled holes, position the wall fixing assembly over the holes, insert the screws in the wall plugs and tighten them firmly:



- 4 Remove the covering sticker from the (counter) Velcro sticker.
- 5 Position the SpeedTouch™ over the two hooks:



- 6 Slide the SpeedTouch™ down into place and firmly press it to the assembly to stick the counterpart Velcro sticker to the SpeedTouch™ housing.

7.3 SpeedTouch™ System Software Upgrade

Introduction	This chapter describes how to upgrade the SpeedTouch™ system software.
System software updates (all OSs)	<p>For new system software packages, you can:</p> <ul style="list-style-type: none">• Click the link, available on the SpeedTouch™ CD Browser. See “7.3.1 Checking for new System Software via the SpeedTouch™ CD Browser” on page 78 for more information.• Click the link, available on the SpeedTouch™ Upgrade web page. See “7.3.2 Checking for System Software via the SpeedTouch™ Web Pages (all OSs)” on page 80 for more information.• Contact your Network Administrator or your Service Provider• Visit the SpeedTouch™ support pages at:<ul style="list-style-type: none">• http://www.speedtouch.com
System software packages and security	<p>All system software packages for the SpeedTouch™ are digitally signed and encrypted. Packages that may have come corrupted, or been altered in any way, will not be accepted by the SpeedTouch™.</p> <p>This way, the SpeedTouch™, or its service can never be corrupted or lost.</p>
System software upgrades	<p>Depending on the operating system your computer is running, you can upgrade your SpeedTouch™ via:</p> <ul style="list-style-type: none">• The SpeedTouch™ Upgrade Wizard (Microsoft Windows). See “7.3.3 Upgrade via the SpeedTouch™ Upgrade Wizard” on page 81 for more information.• The SpeedTouch™ web pages (all operating systems). See “7.3.4 Upgrade via the SpeedTouch™ Web Pages” on page 86 for more information.
Preliminary steps	<p>Before you start with upgrading the SpeedTouch™, always make sure:</p> <ul style="list-style-type: none">• To inform all people relying on the SpeedTouch™ services, that service may be down for some short period.• That the new system software file is stored on your local disk or another storage device.

7.3.1 Checking for new System Software via the SpeedTouch™ CD Browser

Introduction

If your computer runs a Microsoft Windows operating system you can use the SpeedTouch™ CD Browser to check for new system software.

Checking for new system software

Proceed as follows:

- 1 Insert the SpeedTouch™ Setup CD-ROM in your computer's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically.

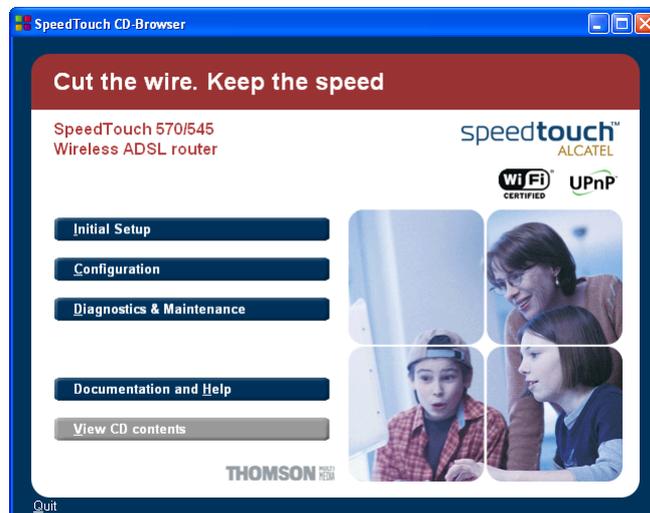
Note If the SpeedTouch™ CD Browser window does not appear automatically, click Run on the Start menu and enter the following path: D:\Menu.exe where D stands for the drive letter of your CD-ROM drive.

- 2 The choose language window prompts you to select a language:



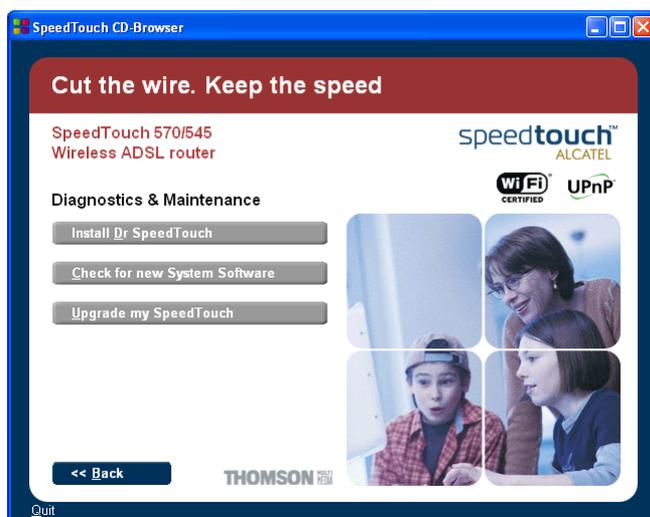
Select your language and click *OK*.

- 3 The SpeedTouch™ CD Browser menu appears:



Click *Diagnostics & Maintenance*.

- 4 The following window appears:



Click *Check for new System Software*.

- 5 Your web browser appears and opens the SpeedTouch™ System Software Upgrade Internet website. Follow the instructions to download the latest system software for your SpeedTouch™.

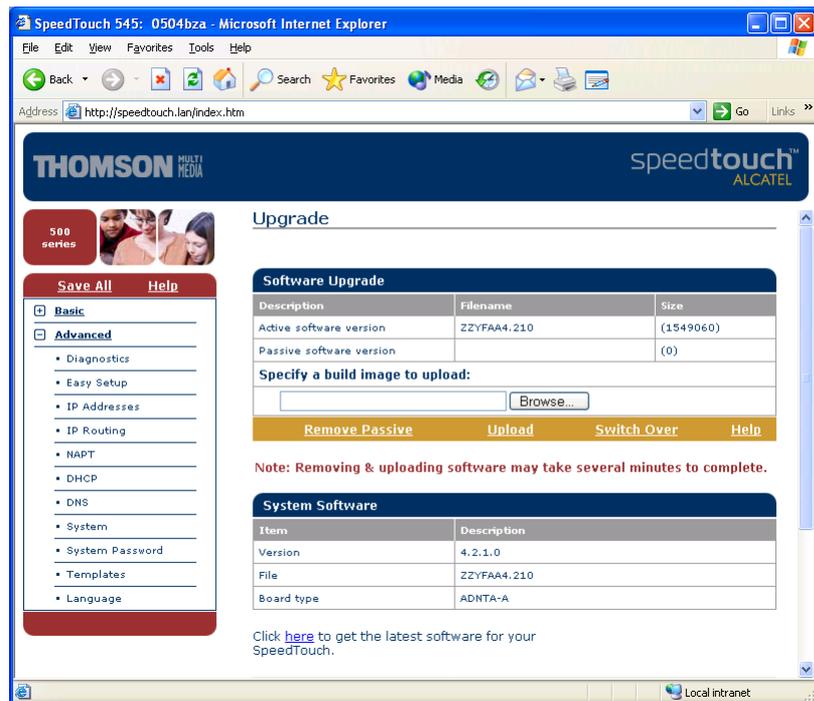
Note You may require a user name and password, prior to be able to access the SpeedTouch™ System Software Upgrade website. Contact your Service Provider for more information.

7.3.2 Checking for System Software via the SpeedTouch™ Web Pages (all OSs)

Checking for new System Software

Proceed as follows:

- 1 Open a web browser and go to the SpeedTouch™ web pages.
- 2 Open the Upgrade page via *Advanced > System*:



- 3 The System Software box shows some information on the currently running system software; underneath an Internet link for getting the latest SpeedTouch™ system software is provided:

System Software	
Item	Description
Version	4.2.1.0
File	ZZYFAA4.210
Board type	ADNTA-A

Click [here](#) to get the latest software for your SpeedTouch.

- 4 Click the link *here* to open the SpeedTouch™ System Software Upgrade Internet website and follow the instructions to download the latest system software for your SpeedTouch™.

Note You may require a user name and password, prior to be able to access the SpeedTouch™ System Software Upgrade website. Contact your Service Provider for more information.

7.3.3 Upgrade via the SpeedTouch™ Upgrade Wizard

Introduction The procedure described in this section are valid only in case:

- You run an MS Windows Operating System.
- Your SpeedTouch™ and computer are connected through a wired network.
- The new system software file is of the type adnta-a_AA42xx.bin, e.g. adnta-a_AA4215.bin.

During the upgrade procedure all configuration settings are backed up by the wizard and restored after uploading the system software. Therefore, you do not need to back up the SpeedTouch™ configuration yourself.

Upgrade procedure Proceed as follows:

- 1 Insert the SpeedTouch™ Setup CD-ROM in your computer's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically.

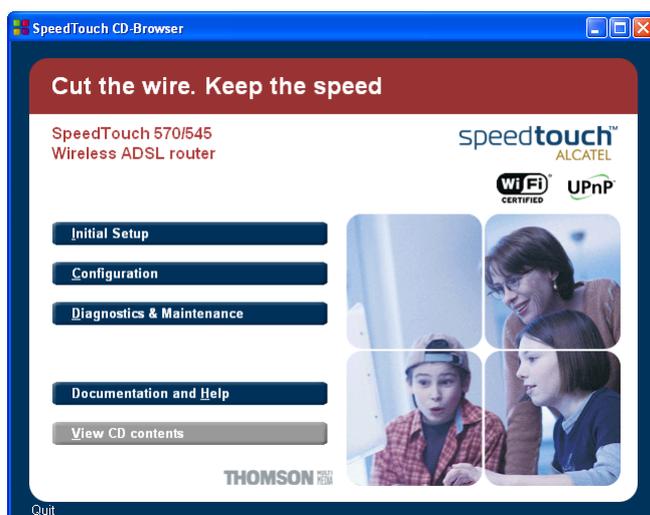
Note If the SpeedTouch™ CD Browser window does not appear automatically, click Run on the Start menu and enter the following path: D:\Menu.exe where D stands for the drive letter of your CD-ROM drive.

- 2 The choose language window prompts you to select a language:



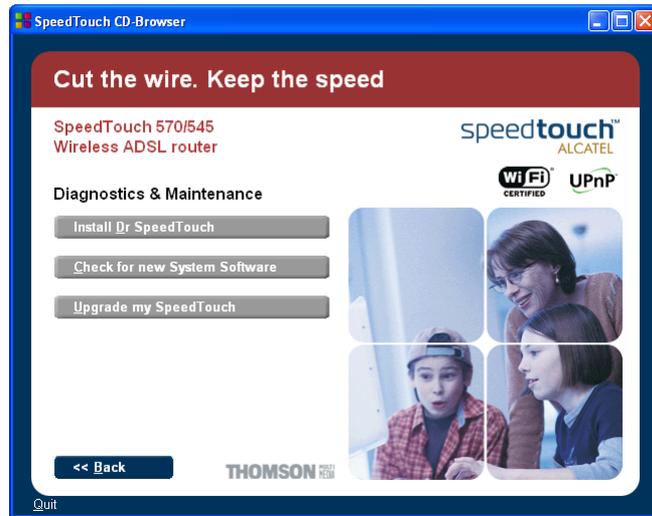
Select your language and click *OK*.

- 3 The SpeedTouch™ CD Browser menu appears:



Click *Diagnostics & Maintenance*.

- 4 The following window appears:



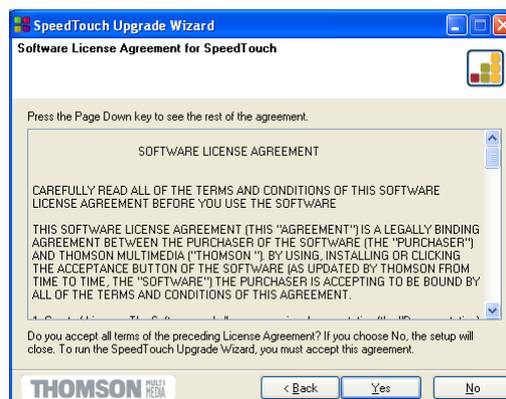
Click *Upgrade My SpeedTouch™*.

- 5 The Welcome to the SpeedTouch™ Upgrade Wizard window appears:



Click *Next*.

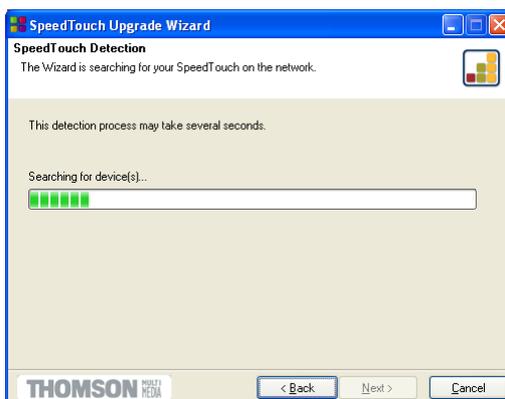
- 6 The SpeedTouch™ Software License Agreement window appears:



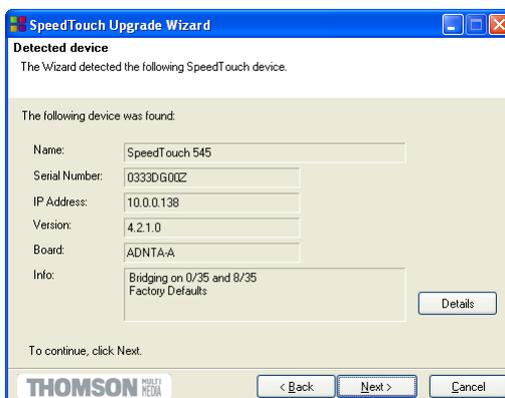
You must accept before continuing. Click *Yes* to accept.

Note If you accepted this License Agreement in a previous upgrade, this window will not be shown anymore.

- 7 The Setup wizard will continue to search for the SpeedTouch™ on the network. The following window shows the detection progress:



- 8 The Setup wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window:



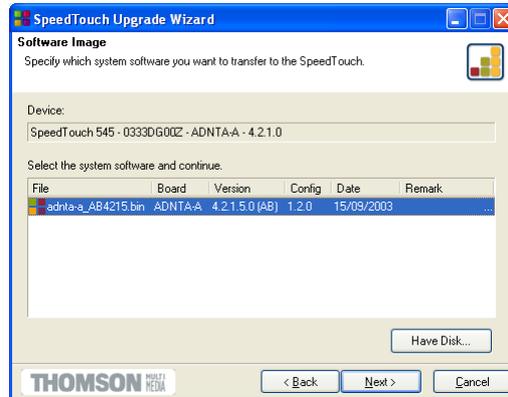
If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™545 or Speed-Touch™570) and click *Next*.

Note If the Setup wizard does not find any SpeedTouch™ on the network an error window pops up. In this case check:

- The SpeedTouch™ is turned on and fully initialized.
- Your PC is correctly connected to the SpeedTouch™ or the WLAN client is correctly associated with the SpeedTouch™ WLAN as described in “4.1 First-time Wireless Client Association” on page 43.
- Your PC has a valid IP address (i.e. any IP address but 0.0.0.0).
- No dedicated firewall device or router is placed between your PC and the SpeedTouch™.
- No personal firewall software is running on your PC.
- TCP/IP is correctly installed on your PC.

To repeat the search for the SpeedTouch™, click *Back* and proceed with step 7 of this procedure.

- 9 The following window shows the system software version currently active on the SpeedTouch™ as well as one or more system software versions available on the CD-ROM:

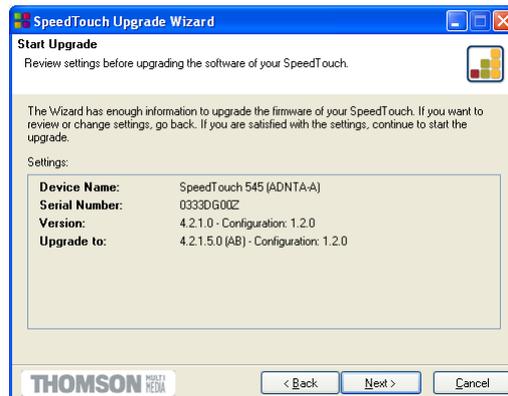


Select the appropriate system software version and click *Next* to continue.

Note If the Service Provider has included a separate disk with dedicated upgrade system software, click *Have Disk* to navigate to the location of the appropriate file.

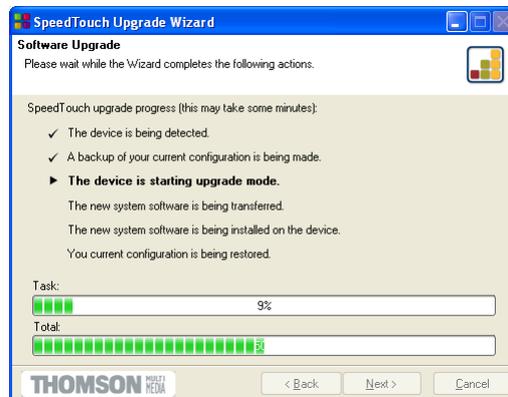
In case of a system software downgrade you must specifically acknowledge your decision before being able to proceed.

- 10 The following window allows you to overview your selection:

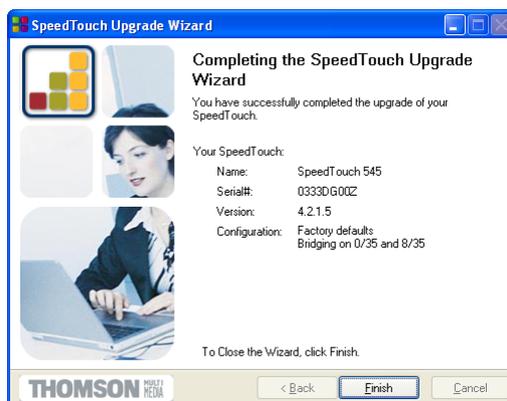


Click *Next* to continue.

- 11 You can follow the upgrade progress in following window:



- 12 After upgrading the SpeedTouch™, a final window appears to announce that the upgrade has been successful



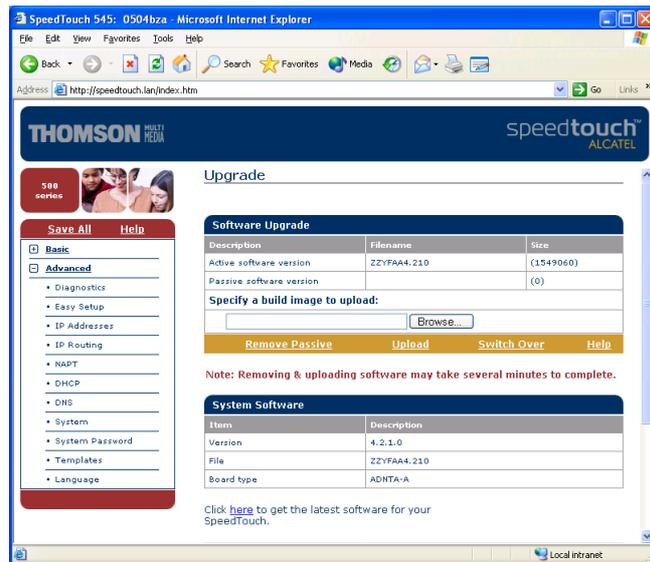
Click *Finish* to close the wizard.

7.3.4 Upgrade via the SpeedTouch™ Web Pages

Upgrade Procedure

Proceed as follows:

- 1 Open a web browser and go the SpeedTouch™ web pages.
- 2 If needed, click *Save All* to save the current configuration.
- 3 Open the Upgrade page via *Advanced > System*:



- 4 On this page you can find the Software Upgrade box:

Software Upgrade		
Description	Filename	Size
Active software version	ZZYFAA4.210	(1549060)
Passive software version		(0)

Specify a build image to upload:

Two fields are shown:

- *Active software version* displays the SpeedTouch™ system software currently running.
- *Passive software version* displays shows the dormant system software version.

- 5 Check whether the *Passive software version* filename field is empty. If not, click *Remove passive* to remove the dormant system software from the SpeedTouch™ permanent storage.

Note Removing the passive system software may take up to 2 minutes to complete. As soon as the removal has been completed, the *Passive software version* fields become empty.

- 6 Click *Browse* to locate and select the upgrade system software on your local disk. If the full path of the upgrade system software is known, you can enter it immediately in the input field next to the Browse button.
- 7 Click *Upload*. This will transfer the upgrade system software to the SpeedTouch™. In case the upload of the upgrade system software was successful, its file name is shown as passive software version:

New software uploaded successfully

Software Upgrade		
Description	Filename	Size
Active software version	ZZYFAA4.210	(1549060)
Passive software version	ZZYFAA4.211	(1553793)

Specify a build image to upload:

[Remove Passive](#) [Upload](#) [Switch Over](#) [Help](#)

Note Uploading the new system software may take up several minutes to complete.

- 8 Click *Switch Over* to restart the SpeedTouch™ and activate the newly uploaded upgrade system software.

During restart, the SpeedTouch™ will switch the passive and active system software and mark the newly uploaded system software as active software version.

You can check the Software Upgrade box to check whether the switch over was successful:

Software Upgrade		
Description	Filename	Size
Active software version	ZZYFAA4.211	(1553793)
Passive software version	ZZYFAA4.210	(1549060)

Specify a build image to upload:

[Remove Passive](#) [Upload](#) [Switch Over](#) [Help](#)

System software downgrade

Via the identical procedure it is also possible - although not recommended - to downgrade the SpeedTouch™ by uploading an older system software than the current running version.

However, be aware that functionality added by previous upgrades may be lost, that system password settings may be lost as well as end-to-end connectivity and other configuration settings.

7.4 SpeedTouch™ Default Configuration

Reset to default configuration

Proceed as follows:

- 1 Make sure the SpeedTouch™ is powered on.
- 2 Use a pencil to press the Default button at the SpeedTouch™ until all the LEDs on the front panel start flashing.



- 3 Release the button.

The SpeedTouch™ reboots and will come online again with factory settings.

WLAN clients

You will need to re-associate and register your WLAN clients, using the factory defaults WLAN settings. See [“4.1 First-time Wireless Client Association”](#) on page 43.

7.5 UPnP™ on Windows XP Systems

Adding UPnP™

If you are running Microsoft Windows XP, it is recommended to add the UPnP™ component to your system.

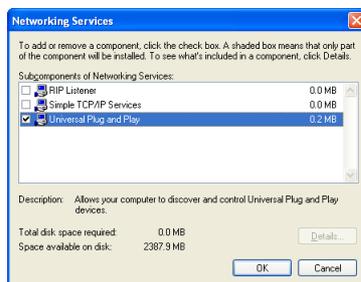
Proceed as follows:

- 1 On the Start menu, click *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:



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

- 5 The Networking Services window appears:



Select *Universal Plug and Play* 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 prompts you that the installation was successful. Click *Finish* to quit.

For more information on UPnP™ and SpeedTouch™ UPnP™ features go to the UPnP™ pages at the SpeedTouch™ web site:

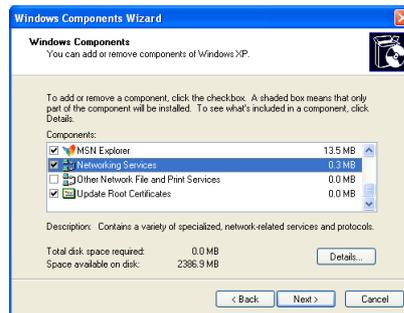
www.speedtouch.com

Adding Internet Gateway Device Discovery and Control

Your MS Windows XP system is able to discover and control Internet Gateway Devices (IGD), like the SpeedTouch™ 545 and SpeedTouch™ 570 on your local network. Therefore it is recommended to add the IGD Discovery and Control client to your system.

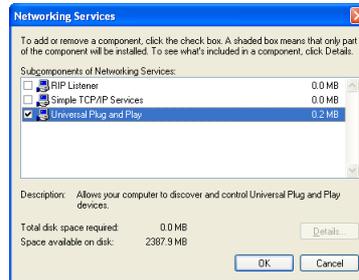
Proceed as follows:

- 1 On the Start menu, click *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:



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 prompts you that the installation was successful. Click *Finish* to quit.

7.6 Troubleshooting

Configuration problems In case your SpeedTouch™ is unreachable due to misconfiguration, you might consider a hardware reset to factory defaults as described in “7.4 SpeedTouch™ Default Configuration” on page 88.

However, note that resetting the SpeedTouch™ to its factory settings will revoke all the changes you made to the configuration.

Dr SpeedTouch™ Dr SpeedTouch™ enables you to test your computer and SpeedTouch™ connectivity via its Diagnostics wizard. The SpeedTouch™ Troubleshoot will report what is wrong with your connection.

For more information on Dr SpeedTouch™ see “3 Dr SpeedTouch™” on page 37.

Troubleshooting table Following table may help you determine the nature of the problem, and provides some plausible solutions:

Problem	Solution
SpeedTouch™ does not work. (none of the LEDs light up)	Make sure that the SpeedTouch™ is plugged into an power socket outlet.
	Make sure that you are using the correct power supply for your SpeedTouch™ device.
	Make sure the power switch on the SpeedTouch™ is turned on.
Wireless client can not participate in the SpeedTouch™ wireless network.	In case registration is enabled, you must press the 'Registration' button to register the wireless client.
	Make sure that the SpeedTouch™ Association Control List is not locked, i.e. allows new wireless client registrations.
	Make sure that the wireless client adapter and SpeedTouch™ share the same IP subnet.
	If you are using a SpeedTouch™ 545 make sure that: <ul style="list-style-type: none"> • The wireless upgrade card is installed as described in “7.1 Upgrading a Speed-Touch™ 545 for Wireless Networking” on page 74. • The wireless upgrade card is of the correct type.

Problem	Solution
No wireless connectivity.	Make sure both wireless client adapter and SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.
	Make sure that the WLAN client is configured for the correct wireless settings (SSID, WEP).
	The SpeedTouch™ uses 128-bits WEP encryption, but the WLAN client only supports 64-bits encryption.
Poor wireless connectivity or reach.	Choose automatic channel selection or be careful to select a DSSS channel that doesn't interfere with other radio channels.
	Check the location of the SpeedTouch™ in the building.
	Make sure both WLAN client adapter and SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.
LAN LED does not light up. Link integrity/Activity LED of Ethernet port does not light up.	Make sure that the LAN cable are securely connected to the 10/100Base-T port.
	Make sure that you are using the correct cable type for your Ethernet equipment.
	Make sure the computer's Ethernet port is configured for auto-negotiation.
Poor SpeedTouch™ performance.	Make sure that the SpeedTouch™ is installed and configured as instructed in this Setup and User's Guide and/or as instructed by the Service Provider.
SpeedTouch™ is not detected by MS Windows XP's UPnP™ or Internet Gateway Device Control Client.	Make sure the UPnP™ and Internet Gateway Device Control Client Networking components are added to your MS Windows XP system.
	Your computer doesn't support UPnP™ if you run an operating system other than MS Windows XP.
	Make sure that UPnP™ is not disabled in the SpeedTouch™ NAPT web page.

Problem	Solution
No Line synchronization achieved. DSL/WAN LED off or flashing.	Check whether the central splitter or dedicated filters are installed correctly and that the correct line is patched to your SpeedTouch™ line port.
	Make sure that ADSL service is enabled on the telephone line the SpeedTouch™ is connected to.
	Make sure that the correct SpeedTouch™ variant is used for your DSL service.
	<p>In case of ADSL/POTS (ADSL/PSTN) services at your premises, ONLY use a SpeedTouch™ ADSL/POTS variant.</p> <p>In case of ADSL/ISDN services at your local premises, ONLY use a SpeedTouch™ ADSL/ISDN variant.</p>
Bad regular telephone service	Check whether a central splitter or dedicated filters are installed properly.



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