speedtouch™

# SpeedTouch™

## 516/536/546/510v5/530v5

Multi-User ADSL Gateways

# Setup and User's Guide

Release R5.2.7


UPnP™

A THOMSON BRAND

THOMSON

# SpeedTouch™

## 516/536/546
## 510v5/530v5

Setup and User's Guide

R5.2.7

speedtouch™

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# Contents

# About this Setup and User's Guide

## In this Setup and User's Guide

This User's Guide will assist you in getting acquainted with the SpeedTouch™ Multi-User ADSL gateways and in getting connected quickly to the Internet.

## Used Symbols

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

A ***tip*** provides an alternative method or shortcut to perform an action.

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

## Terminology

Generally, the SpeedTouch™516, SpeedTouch™536, SpeedTouch™546, SpeedTouch™510v5 and SpeedTouch™530v5 will be referred to as SpeedTouch™ in this Setup and User's Guide.

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# 1 SpeedTouch™ Installation

## Introduction

Thank you for purchasing the SpeedTouch™ Multi-User ADSL Gateway!

With the SpeedTouch™ Multi-User Asymmetric Digital Subscriber Line (DSL) Gateways, surfing the Internet will become a whole new experience.

## Safety instructions

Prior to connecting the SpeedTouch™, read the SpeedTouch™ Quick Installation Guide and Safety Instructions.

## UPnP™

The SpeedTouch™ is a UPnP™ certified product. This feature enables your computer to discover and control UPnP™ devices on the network.

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

For more information see MS Windows XP Help and "5.3 UPnP™ on Windows XP Systems" on page 75.

# 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

A set of LEDs is provided to overview the SpeedTouch™ status:

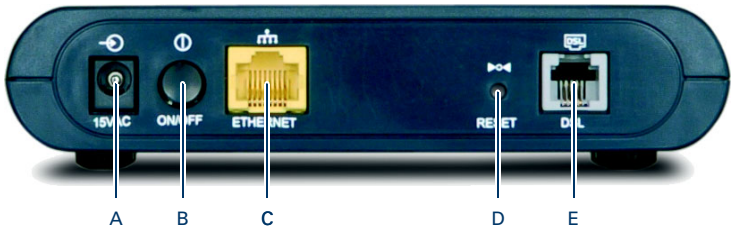
| Indicator | | | Description |
|---|---|---|---|
| Name | Colour | State | |
| Power | Green | On | Power On, normal operation |
| | Red | On | Startup pending |
| | Off | | Power Off |
| Ethernet | Green | Flashing | Ethernet activity |
| | | On | Ethernet connection, no activity |
| | Off | | No ethernet activity, no connection |
| USB | Green | Flashing | USB activity |
| | | On | No USB activity, USB connection |
| | Off | | No USB activity, no USB connection |
| DSL | Green | Flashing | Pending DSL line synchronization |
| | | On | DSL line synchronized |
| | Off | | No DSL line |
| Internet | Green | Flashing | Internet activity |
| | | On | Internet Connection |
| | Red | Solid | No Internet Connection |

The USB LED is available on SpeedTouch™ variants that offer USB connectivity.

## SpeedTouch™ back panel layout

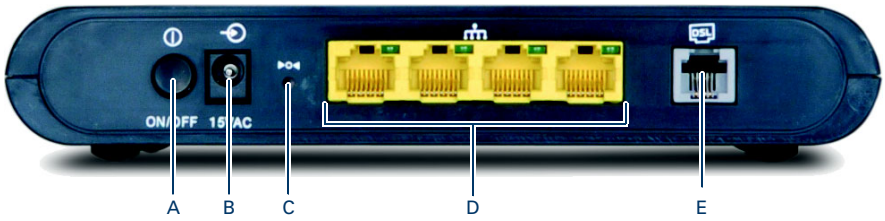
Depending on the variant you purchased, your SpeedTouch™ is equipped with:

- A single 10/100Base-T Ethernet port:



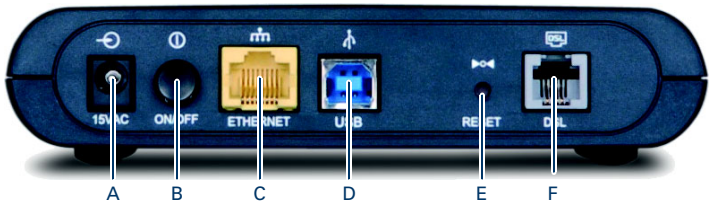

| | | | |
|---|---|---|---|
| A | Power inlet (15VAC) | D | Recessed Reset button |
| B | Power Button (ON/OFF) | E | DSL line port (marked grey) |
| C | 10/100Base-T Ethernet port (marked yellow) | | |

- A four port 10/100Base-T Ethernet switch:




| | | | |
|---|---|---|---|
| A | Power Button (ON/OFF) | D | 10/100Base-T Ethernet switch (marked yellow) |
| B | Power inlet (15VAC) | E | DSL line port (marked grey) |
| C | Recessed Reset button | | |

- A single 10/100Base-T Ethernet port and a USB port:




| | | | |
|---|---|---|---|
| A | Power inlet (15VAC) | D | USB port (marked blue) |
| B | Power Button (ON/OFF) | E | Recessed Reset button |
| C | 10/100Base-T Ethernet port (marked yellow) | F | DSL line port (marked grey) |

## Ethernet port(s) LED functionality

If you purchased a SpeedTouch™546, each Ethernet port on the rear panel has one LED to indicate the connection integrity (activity).

| LED Status | Description |
|---|---|
| Off | No connection on this port. |
| On | Ethernet link up. |
| Flashing | Data is flowing from/to this port. |

# 1.2 Setting up the SpeedTouch™

## 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 easily 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.

## Support of the latest ADSL standards

The SpeedTouch™ supports the latest ADSL standards:

- ADSL2
- RE-ADSL
- ADSL2+

## ADSL2

ADSL2 (ITU G.992.3 and G.992.4), being the successor of the well-known ADSL standard, adds new features and functionality targeted at improving performance and interoperability, and adds support for new applications, services and deployment scenarios. Among the changes are

- Improvements in data rate and reach performance.
- Rate adaption.
- Diagnostics.
- Stand-by mode.

## RE-ADSL

G.992.L Reach Extended ADSL (RE-ADSL) is an extension to G.992.3 ADSL2 that allows to significantly extend the reach of throughput capabilities.

## ADSL2+

ADSL2+ (ITU G.992.5) is an extension to the ADSL2 standard that goes even further in offering optimal broadbanding; it nearly doubles the maximum ADSL downstream data rates to up to 20Mb/s.

## Connect the DSL line

The grey DSL port on the SpeedTouch™ is marked DSL.

Use the grey 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 ⏻.

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

## Turn on SpeedTouch™

Once all previous steps are completed, you can turn the SpeedTouch™ on with the power button located on the SpeedTouch™ rear panel.

- Push in the button to switch on the SpeedTouch™.
- Push to release the button to switch off the SpeedTouch™.

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

For troubleshooting startup failures, see "5.4 Troubleshooting" on page 78.

## Local networking setup

Depending on the SpeedTouch™ variant you have, various solutions are available to connect your computer(s) to the device:

- Ethernet connectivity
  See "1.2.1 Local Ethernet Connection Setup" on page 13 for more information.

  If you purchased a SpeedTouch™536/530v5 and you are not using the USB connection, make sure to place the protective cap on the SpeedTouch™536/530v5 USB port.
- USB connectivity
  USB connectivity is supported for MS Windows 98SE/ME, MS Windows 2000/XP. Before being able to connect to the SpeedTouch™ through the USB connection you must first install USB drivers.
  See "1.2.2 SpeedTouch™ USB Connection Setup for Microsoft Windows Operating Systems" on page 14 for more information.

In case of a SpeedTouch™ with USB connectivity you can use both local networking solutions simultaneously to form a single local network.

## Internet connection setup

To continue with preparing the SpeedTouch™ for Internet connectivity, see "1.3 SpeedTouch™ Configuration Setup" on page 17.

## 1.2.1 Local Ethernet Connection Setup

### Local network

For Ethernet connectivity you will need at least:

- A computer that already has an Ethernet Network Interface Card (NIC) installed
- If required, a hub or switch and the necessary connection cables

### Ethernet cables

In the SpeedTouch™ package, a yellow full-wired straight-through RJ45/RJ45 Ethernet cable, hereafter referred to as a LAN cable, is included.

As all SpeedTouch™ variants feature 10/100Base-T auto-sensing MDI/MDI-X Ethernet ports, you can use any type of full wired LAN cable to connect your equipment.

### Standard wiring procedure

Use the yellow LAN cable provided to wire your computer's Ethernet port to (one of) the SpeedTouch™'s Ethernet port(s).

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.

If you purchased a SpeedTouch™536/530v5 and you are not using the USB connection, make sure to place the protective cap on the SpeedTouch™536/530v5 USB port.

### Ethernet link check

The SpeedTouch™ LED indicator(s) allow(s) you to check your Ethernet.

See “1.1 Getting Acquainted with the SpeedTouch™” on page 8 for more information.

# 1.2.2 SpeedTouch™ USB Connection Setup for Microsoft Windows Operating Systems

## Supported Operating Systems

Installing and using the SpeedTouch™ USB connection is supported by Microsoft for following Microsoft Operating Systems:

- MS Windows 98SE
- MS Windows Millennium
- MS Windows 2000
- MS Windows XP

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

The installation procedures might be slightly different depending on the MS Windows OS you are using:

## System requirements

- For Windows 98SE/ME:
  - Pentium processor 166 MHz or compatible
  - 32 megabytes (MB) of memory
- For Windows 2000/XP:
  - Pentium II processor or compatible
  - 64 MB of memory
- 30 MB of free disk space

## Prerequisites

It is strongly advised to remove any SpeedTouch™ driver installation that may reside on your PC before you install the USB drivers from the SpeedTouch™ Setup CD delivered with your SpeedTouch™ product.

Make sure both your PC and SpeedTouch™ are turned on and operational.

In the SpeedTouch™ package, a blue USB cable is included to connect a single computer to your SpeedTouch™.

## Installing the SpeedTouch™ USB connection

The installation is plug and play, meaning that installation will require almost no effort.

Proceed as follows:

1. Insert the blue USB cable provided into the SpeedTouch™ USB port marked with the USB logo:  .

2. The other end of the USB cable fits in (one of) the USB port(s) of your PC. In most cases your PC's USB port is marked with the same USB symbol.

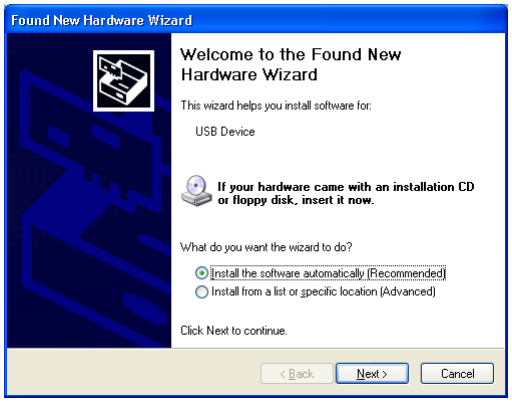
   You can also connect your PC to the SpeedTouch™ via a USB hub.

3. Windows will automatically recognize the Thomson USB Remote NDIS device:


4. The Windows Found New Hardware Wizard appears:
   This wizard will guide you through the installation procedure of the USB drivers.
   Click **Next** to continue.

   The Windows Found New Hardware Wizard may ask your authorisation to connect to Window Update to search for software. If this is the case, select **No, not this time** and click **Next**.

5. The following window allows you to select locations where it should search for drivers:



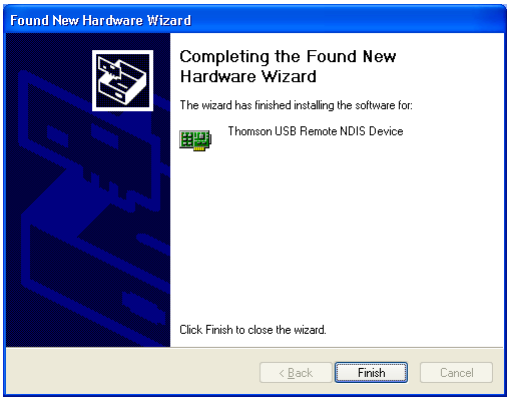

   Insert the SpeedTouch™ Setup CD-ROM, make sure that the wizard looks for the drivers on the CD-ROM drive and click **Next** to continue.

6. The wizard will notify that it found drivers for the device on the CD-ROM. Click **Next** to continue.

7. The installation procedure continues with the installation of the USB drivers.

8. In the following windows you can follow the installation procedure. Click **Next** whenever requested to continue the installation.

9 At the end of the procedure, the following window appears:

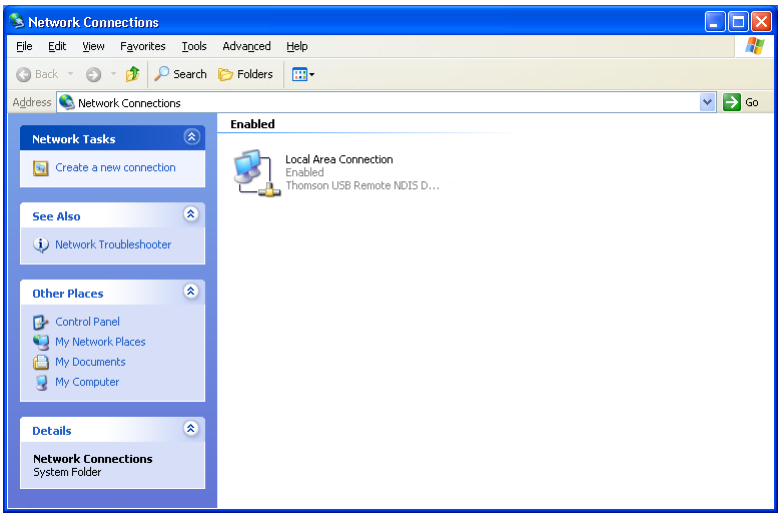



Click **Finish** to complete the installation.

10 As a result your USB connection is installed and ready for use.

## Verifying USB connectivity

The SpeedTouch™ USB connection is represented as a local network interface. You can easily check this interface by opening the Network Connections window from Windows' Control Panel:




## Connecting to the Internet

To continue with preparing the SpeedTouch™ for internet connectivity, see "1.3 SpeedTouch™ Configuration Setup" on page 17.

# 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 11.

## What you need from your ISP

In most cases, you 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.

## Configuration of the SpeedTouch™

Depending on your computer's Operating System (OS) the configuration of your Internet connectivity can be done automatically or manually.

If your computer runs:

- A Microsoft Windows OS.
  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 Configuration Setup for Microsoft Windows Operating Systems" on page 18.
- Another OS (for example Mac OS, Unix, Linux).
  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 23.

# 1.3.1 Configuration Setup for Microsoft Windows Operating Systems

## Microsoft Windows

One of the following Windows operating systems must already be installed on your PC(s):

- Windows 98SE
- Windows ME
- Windows NT4.0 SP6 (Ethernet only)
- Windows 2000
- Windows XP

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

## The SpeedTouch™ Setup wizard

The SpeedTouch™ Setup wizard procedure consists of two major parts:

- The detection procedure
- The configuration procedure
- Additional configuration (if needed)

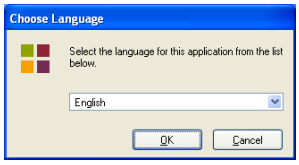
## The detection procedure

The detection procedure proceeds as follows:

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

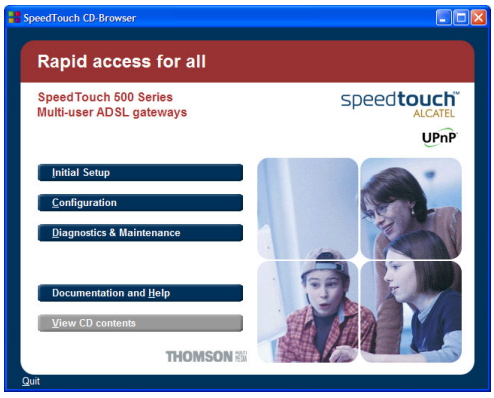
   If the SpeedTouch™ CD Browser window does not appear automatically, open a Run window via **Start > Run** from the **Start** menu and enter the following path: **D:\Menu.exe**, where D stands for the drive letter of your CD-ROM drive.

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



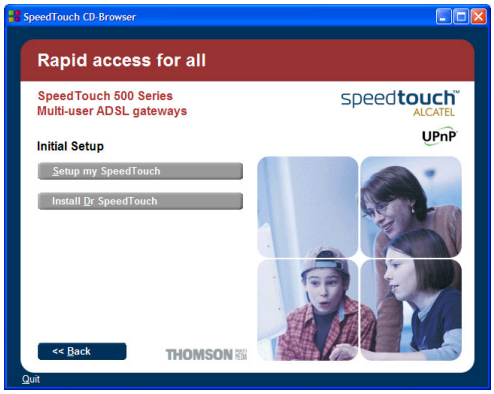

   Select the language of your choice and click **OK**.

3. The **SpeedTouch™ CD Browser** appears:




   Click **Initial Setup**.

**4** The Setup and Installation window appears:

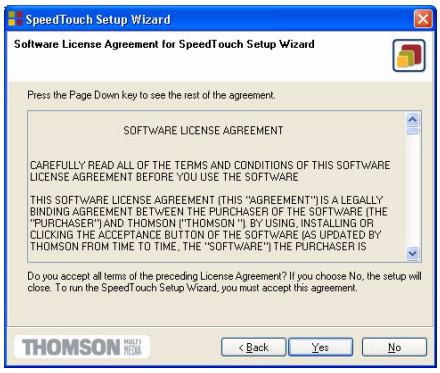



To start the SpeedTouch™ Setup wizard, click **Setup my SpeedTouch™**.

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


Click **Next** to proceed.

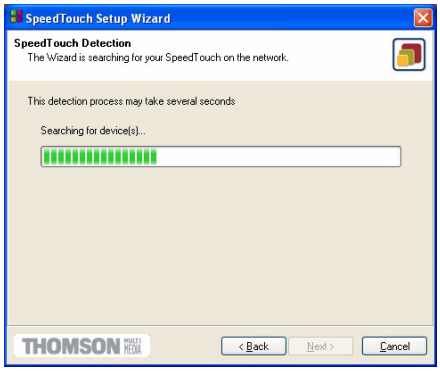
**6** The Software License Agreement window appears:



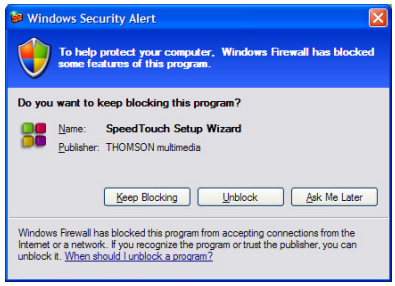

You must accept before continuing. Therefor click **Yes** to accept.

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

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

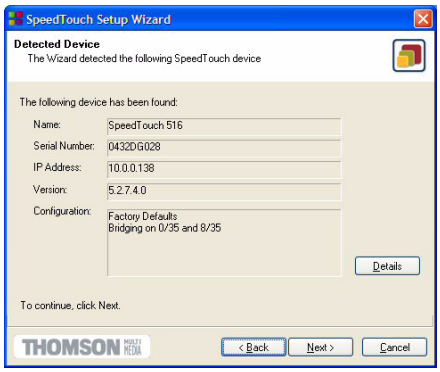



A **Windows Security Alert** window may prompt you that Windows has blocked some features of the SpeedTouch™ Setup wizard:




Click **Unblock** to allow the SpeedTouch™ Setup wizard to access the local network.

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




In case more than one SpeedTouch™ device is found, a listing is provided from which you can select your SpeedTouch™.

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

- Whether the SpeedTouch™ is turned on and fully initialized.
- Whether your PC is correctly connected to the SpeedTouch™ (Ethernet or USB).
- Whether no dedicated firewall device or router is placed between your PC and the SpeedTouch™ and whether no personal firewall software is running on your PC (in case of Ethernet connectivity).
- Whether the SpeedTouch™ USB drivers are correctly and fully installed (in case of USB connectivity).

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

**9** To continue with the configuration of your SpeedTouch™ and your PC, proceed with the configuration procedure described below.

## The configuration procedure

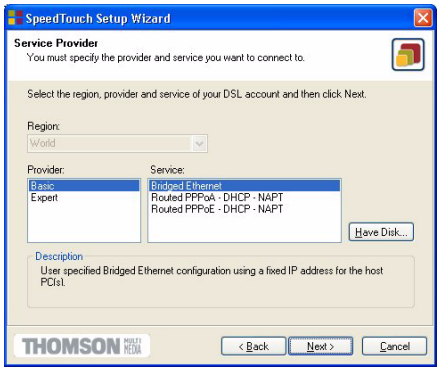
The Configuration procedure proceeds as follows:

**1** Once the SpeedTouch™ Setup wizard has detected your SpeedTouch™ device, you can proceed with the configuration procedure.
If more than one SpeedTouch™ device is listed, select the appropriate one. Then, click **Next** to proceed.

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 connection profile for your Internet connectivity:

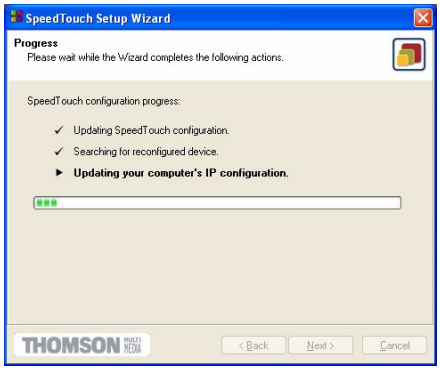



Select the connection profile of your choice and click **Next** to continue.

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

**3** Subsequent screens will guide you through the configuration setup of both your SpeedTouch™ and/or your PC. Follow the instructions and enter the required information where needed. This information should be provided by your Service Provider.

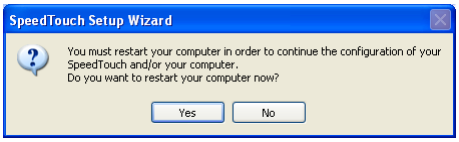
**4** In a final step all configurations will be applied to the SpeedTouch™ and your PC. You can follow the configuration progress in following window:



5 The SpeedTouch™ Setup wizard will appear again to announce that the configuration has been successful:


Click **Finish** to close the wizard.

In some cases, the SpeedTouch™ Setup Wizard may ask you to restart your computer. First close all your programs and then click **Yes**. If you want to reboot later click **NO**:




## Additional configuration

Most configuration profiles will enable SpeedTouch™'s DHCP server - and a PC's Ethernet port is configured as DHCP client by default. Therefore, in most cases, no additional configuration of your PCs must be done if you want to enable multiple PCs on your local network for accessing the Internet via the SpeedTouch™.

To make sure that all PCs are configured as expected (DHCP or fixed IP addresses) you can re-run the SpeedTouch™ Setup wizard on every PC and select the Change the LAN configuration option.

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

# 1.3.2 Operating System Independent SpeedTouch™ Configuration Setup

## Supported Systems

As the SpeedTouch™ is OS-independent, this configuration setup can be used from 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 11.
- The SpeedTouch™ device is in its default configuration state.
  See "5.2 SpeedTouch™ Default Configuration" on page 74 for resetting your device.
- The computer's Operating System supports TCP/IP and it's Ethernet interface is configured for obtaining its IP configuration dynamically.

  In case of problems with DHCP you can also configure the computer's Ethernet or USB 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 Javascripts.

## SpeedTouch™ Easy Setup

SpeedTouch™ Easy Setup consists of two parts:

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

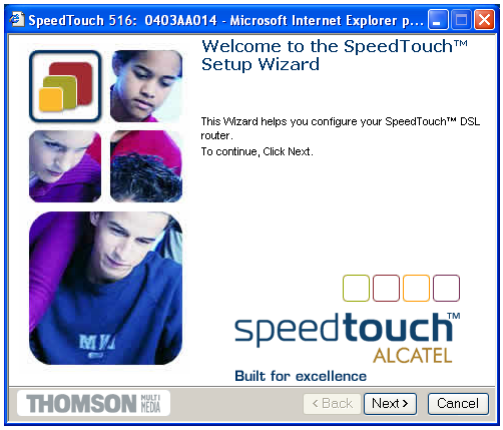
## Configuration of the SpeedTouch™

Proceed as follows:

1. Open a web browser and browse to the SpeedTouch™ web pages at http://10.0.0.138. See "3 SpeedTouch™ Web Interface" on page 41 for more information.

   If you can not access the SpeedTouch™ web pages, it is probably not in its default state. It is recommended to reset the device. See "5.2 SpeedTouch™ Default Configuration" on page 74 for more information.

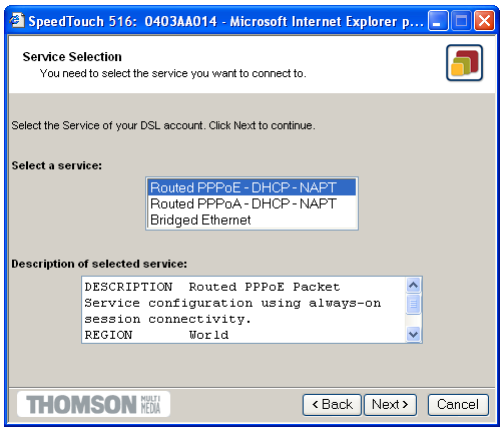
2. The embedded Easy Setup wizard will appear automatically:




   Click **Next**.

   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:

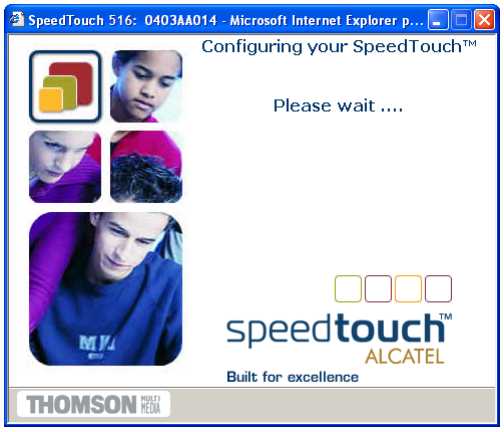



   In the Service list, select the Service as specified by your Service Provider and click **Next** to continue.

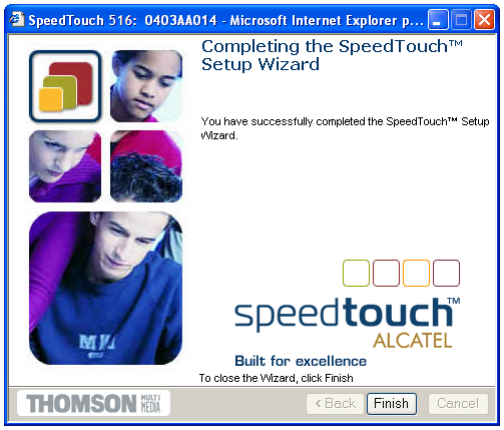
   If only one Service is available, this window will not be shown.

4. Subsequent screens will guide you through the configuration setup of the SpeedTouch™. 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.

## Additional configuration

Some additional configuration may be needed:

- 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).

  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 17, you are able to connect to the WAN or Internet.

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

- Direct access
  As soon as the initial configuration has been done, 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.

## Direct access

As mentioned, as soon as the initial configuration has been done, immediate and uninterrupted WAN access is provided.

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

## 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 28 for more information.
- A broadband dial-in application on your computer.
  See "2.2 Connect to the Internet via a Host PPPoE Dial-in Client" on page 33 for more information.

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

## Introduction

The SpeedTouch™ supports both most popular connection methods: 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.

- 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 Agent" on page 29 to proceed.
- another Operating System
  you can use the SpeedTouch™ web pages.
  See "2.1.2 Using the SpeedTouch™ Web Pages" on page 31 to proceed.

# 2.1.1 Using the MS Windows XP Internet Gateway Device Control Agent

## 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

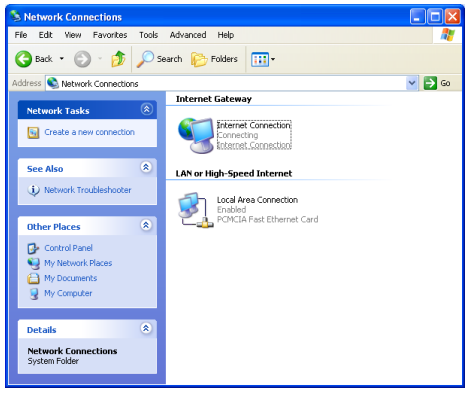
Following conditions must be met:

- UPnP™ (subcomponent of Windows XP's Networking Services) must be added to your Windows XP system (see "5.3 UPnP™ on Windows XP Systems" on page 75).
- Internet Gateway Device Discovery and Control Client (subcomponent of Windows XP's Networking Services) must be enabled on your Windows XP system (see "5.3 UPnP™ on Windows XP Systems" on page 75).
- If your computer runs Windows XP Service Pack 2 (SP2) and you are using the Windows Firewall, make sure the Windows Firewall allows incoming network connections for the UPnP service (see " Windows firewall configuration" on page 76).
- Make sure UPnP™ is enabled on the SpeedTouch™ (see "Configure UPnP" on page 52).

## 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.

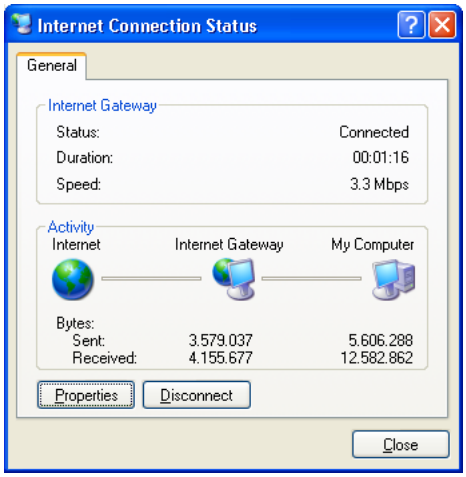
4. Double-click the **Internet Connection** icon.

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:

- The SpeedTouch™ System Information page
  See " System Information" on page 45.
- The SpeedTouch™ Diagnostics page
  See " Diagnostics" on page 48.

## 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**.

   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 computers are offline.

## 2.1.2 Using the SpeedTouch™ Web Pages

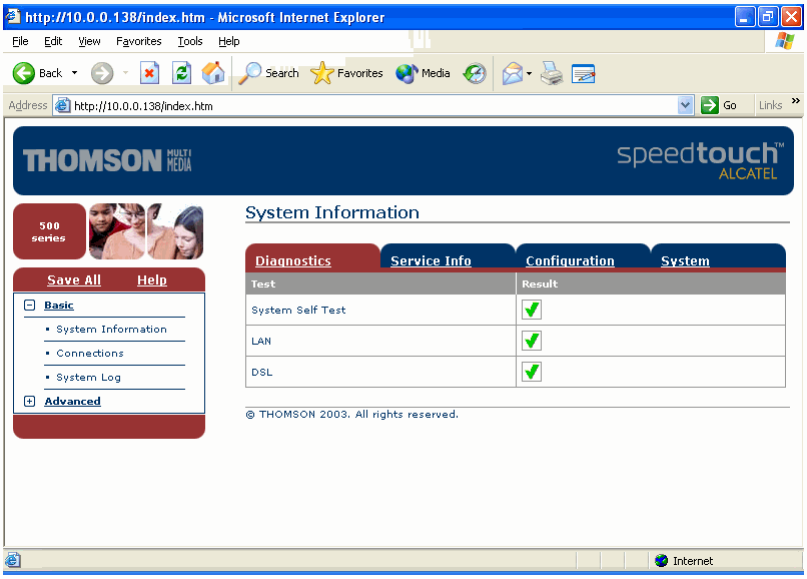
### Introduction

As the SpeedTouch™ web pages are controllable from any Operating System with an 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 "3 SpeedTouch™ Web Interface" on page 41 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 **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 computers are online.

You can open another web browser or continue with this one 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:

- The SpeedTouch™ System Information page
  See " System Information" on page 45.
- The SpeedTouch™ Diagnostics page
  See " Diagnostics" on page 48.

### 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 behaviour 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 34 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 39 for more information.

- or -

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

  Upon availability of OS-specific PPPoE dial-in client applications, the latter method is Operating System independent.
  For PPPoE session connectivity from a Mac OS8.6/9.x, MS Windows 95/98(SE)/ME/2000 or a Linux system, a host PPPoE dial-in application is mandatory.

# 2.2.1 Using an MS Windows XP BroadBand Connection

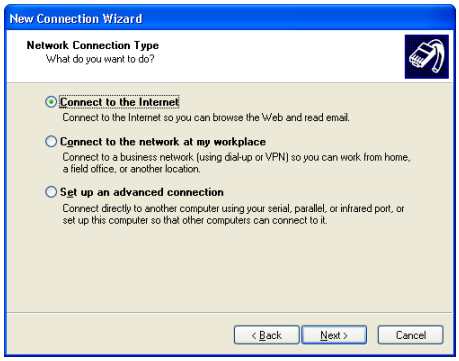
## Configuring a broadband connection

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**:

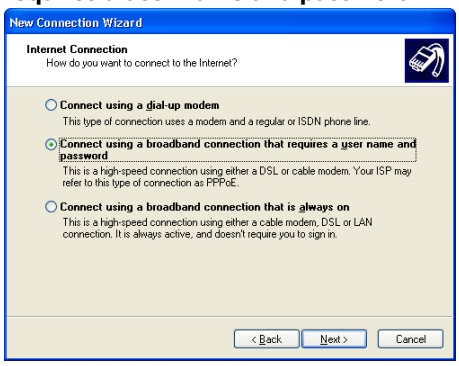



   Click **Next** to continue.

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

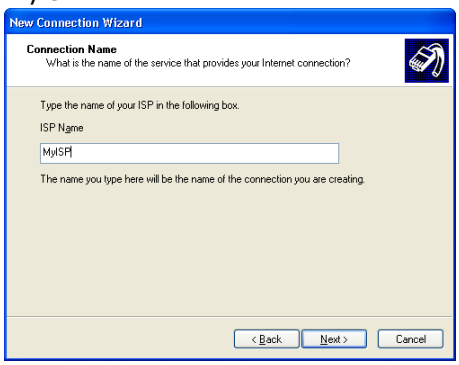

   Click **Next** to continue.

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

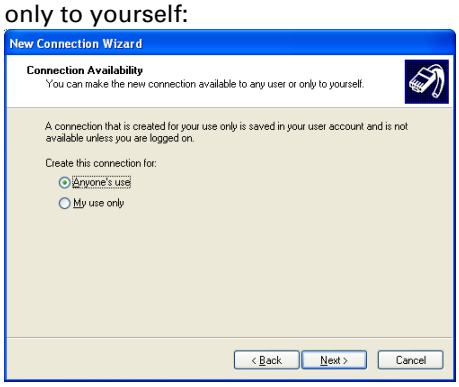



Click **Next** to continue.

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

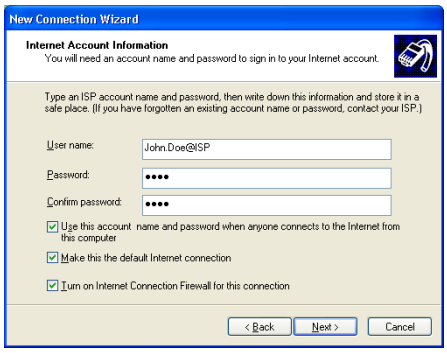



8 In the next window, select whether the connection is available to any user or only to yourself:

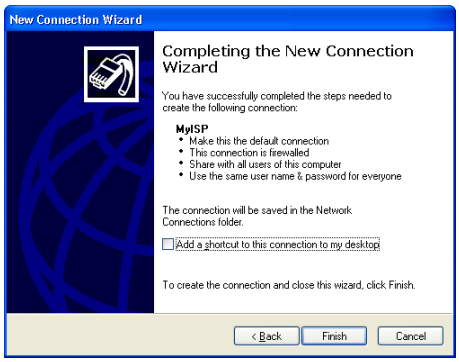



If you want to share this connection with other users you must select **Anyone's use**.

**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.

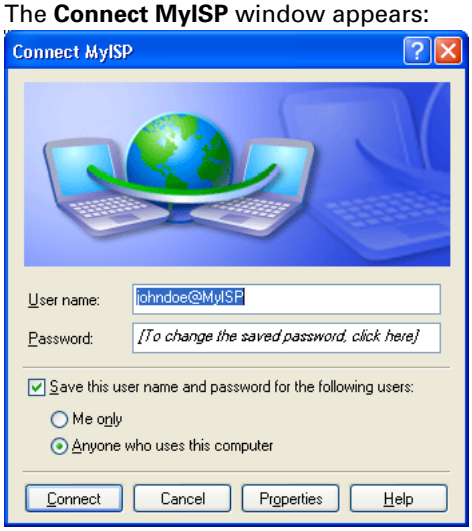
## Starting a broadband Internet session

Proceed as follows:

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

   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 **Dialup** window are minimized into a **DUN** icon in the system tray:


You can open your web browser and surf the Internet.

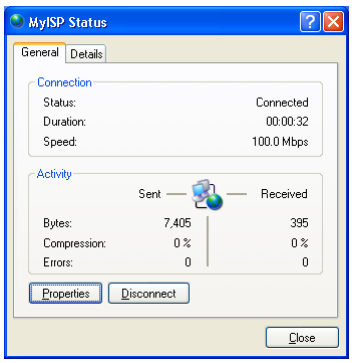
## Terminating a broadband Internet session

Proceed as follows:

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

   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**.

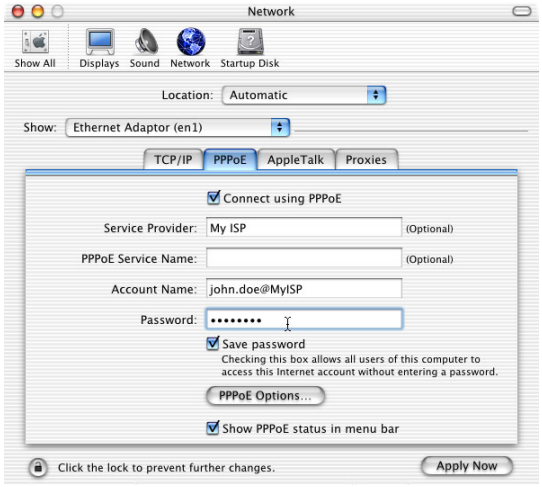
The connection is released. As a result no Internet connectivity exists anymore.

# 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**.

   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**.

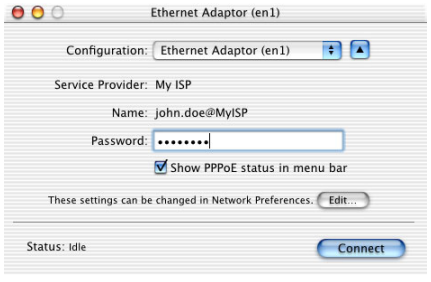
## Starting a broadband Internet session

Proceed as follows:

1. Click the **Internet Connect** dockling.

   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.

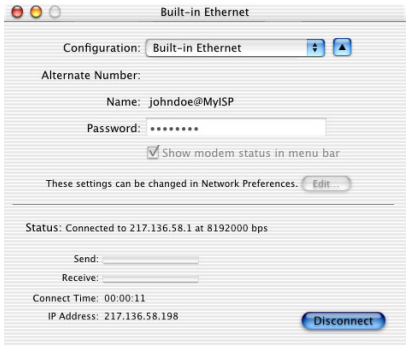
## Terminating a broadband Internet session

Proceed as follows:

1 Click the **Internet Connect** dockling.

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 SpeedTouch™ Web Interface

## Introduction

The SpeedTouch™ comes with integrated configuration web pages.

It allows you to configure your SpeedTouch™ simply by using a web browser from any local computer connected to the SpeedTouch™.

In most cases the SpeedTouch™ is correctly configured for your internet connectivity via the appropriate configuration profile/file and no further configuration on the web interface is needed.

Only for using and/or configuring the advanced SpeedTouch™ features, access to the web pages is required for specific configuration.

This chapter aims to give a brief overview of the SpeedTouch™ web pages and their respective functionality.

## Preconditions

Before you can access the SpeedTouch™ web pages, make sure that:

- The SpeedTouch™ and your computer share the same IP subnet (10.0.0.0/24). By default the SpeedTouch™ has a local IP address 10.0.0.138. To be able to access the web pages, your computer needs to be configured for an IP address in the same subnet, e.g. 10.0.0.1
- Your web browser is not using a proxy server and the SpeedTouch™ IP address is not submitted to a proxy server.

To configure your computer with an IP address, please consult the Operating System's Help. For more information on how to disable your web browser's proxying, please consult the web browser's Help.

## Browsing to the SpeedTouch™ web pages

To access the SpeedTouch™ web pages:

1. Start the web browser on your computer.
2. Browse to the SpeedTouch™ at its IP address at 10.0.0.138.

   10.0.0.138 is the SpeedTouch™ default IP address in the very most cases. If not, please contact your Internet Service Provider (ISP) for more information.
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.

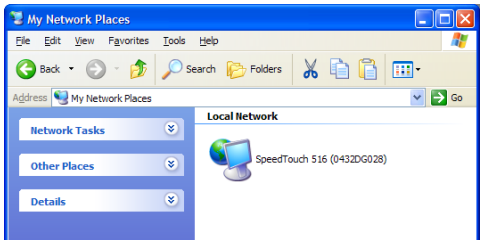
## Access to the SpeedTouch™ web interface via UPnP™

If your computer runs Windows XP Service Pack 2 (SP2) and you are using the Windows Firewall, make sure the Windows Firewall allows incoming network connections for the UPnP service (see " Windows firewall configuration" on page 76).

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**.

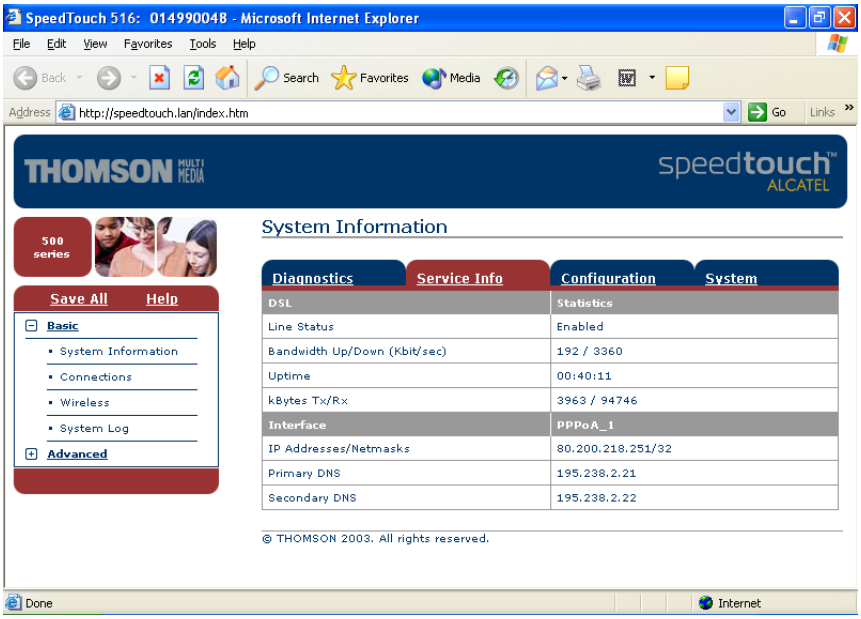
   If you use the **Control Panel** in Classic View, click **Network Connections** in the **Control Panel** and **Network Places** under **Other Places**.
3. The following window appears:




   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**.

## The SpeedTouch™ Start Page

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




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 expandable 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.<br>View the current ADSL line status. |
| Connections | Establish dial-in connections. |
| 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™. |
| IP Addresses | View/configure the SpeedTouch™ IP interfaces. |
| IP Routing | View/configure the SpeedTouch™ IP router. |
| NAPT | View/configure static NAPT entries.<br>View/configure multi-NAT entries.<br>Define a default local server for inbound connectivity.<br>Configure UPnP. |
| DHCP | View/configure the SpeedTouch™ DHCP server/client. |
| DNS | View/configure the SpeedTouch™ DNS server/client. |
| System | Backup and/or upload configuration files.<br>Restore the SpeedTouch™ default settings. |
| 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.

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.

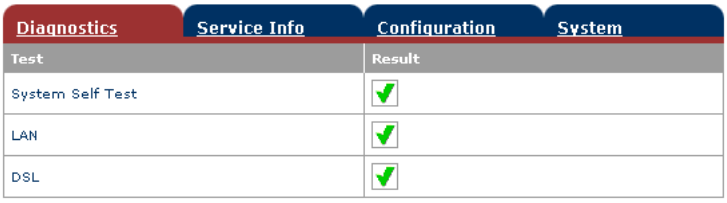
# 3.1 Basic Topics Menu Links

## System Information

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

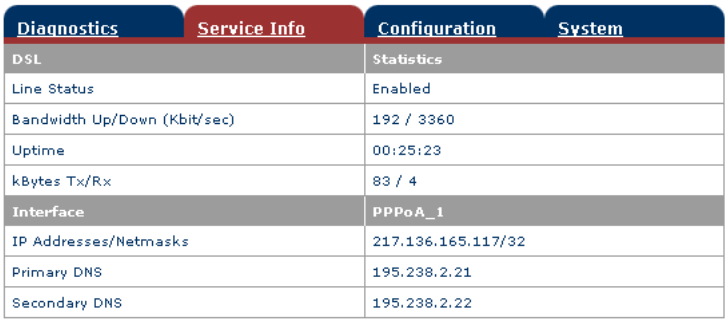
The **System Information** page consists of four sections:

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




| Test | Result |
|---|---|
| System Self Test | ✓ |
| LAN | ✓ |
| DSL | ✓ |

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

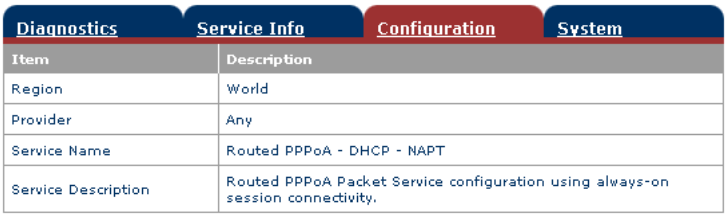



| DSL | Statistics |
|---|---|
| Line Status | Enabled |
| Bandwidth Up/Down (Kbit/sec) | 192 / 3360 |
| Uptime | 00:25:23 |
| kBytes Tx/Rx | 83 / 4 |
| **Interface** | **PPPoA_1** |
| IP Addresses/Netmasks | 217.136.165.117/32 |
| Primary DNS | 195.238.2.21 |
| Secondary DNS | 195.238.2.22 |

The DSL Statistics allow you to view:

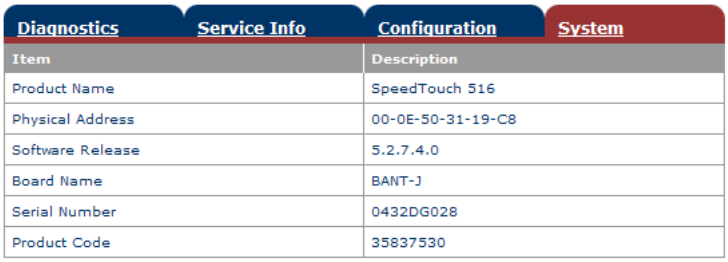
- **Line Status**: this shows whether the DSL link is synchronized (Enabled) or not (Initializing).
- **Bandwidth Up/Down**: the maximum available bandwidth of the DSL link in both up- and downstream direction.
- **Uptime**: The duration of the current Enabled Line Status.
- **kBytes Tx/Rx**: the amount 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™:




| 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™:




| Item | Description |
|---|---|
| Product Name | SpeedTouch 516 |
| Physical Address | 00-0E-50-31-19-C8 |
| Software Release | 5.2.7.4.0 |
| Board Name | BANT-J |
| Serial Number | 0432DG028 |
| Product Code | 35837530 |

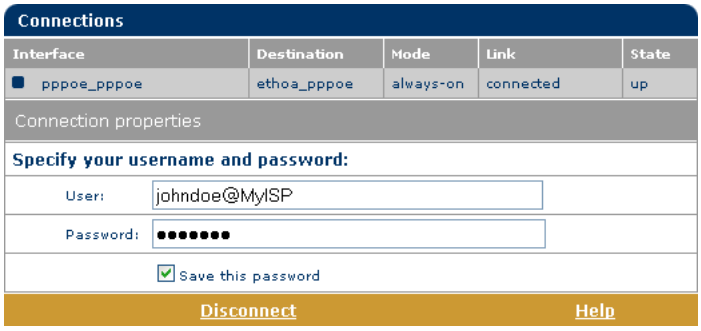
The System table lists:

- 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.

## Connections

Click this link to view the **Connections** page.

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




See “2.1.2 Using the SpeedTouch™ Web Pages” on page 31 for more information on how to use the Dial-in Connections table.

## 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 | 02:20:59 (since power on) |
| View Mode | Most important messages only (priority >= notice) |

Stop AutoRefresh | Help

| System Up Time | Message Contents |
|---|---|
| 00:00:09 | DHCP 192.193.195.251 deleted: ok |
| 00:00:06 | DHCP Auto DHCP: server detected on LAN, own dhcp server disabled |
| 00:00:06 | DHCP lease ip-address 192.193.195.251 bound to intf eth0 |
| 00:00:06 | DHCP 192.193.195.251 (255.255.255.0) set on intf eth0: ok. |
| 00:00:06 | DHCP server (192.193.195.2) offers 192.193.195.251 to intf eth0 |
| 00:00:06 | DHCP offer received from 192.193.195.2 (can be relay agent) for intf eth0 |
| 00:00:00 | KERNEL Warm restart |

View All | View Important only | View Critical only

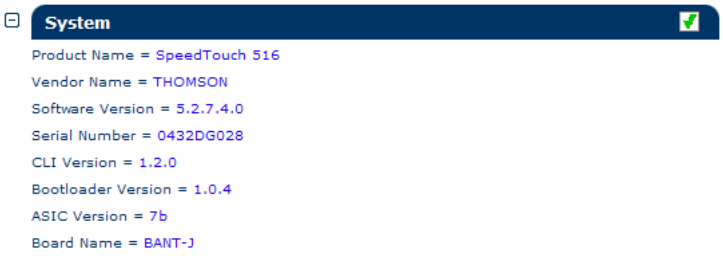
# 3.2 Advanced Topics Menu Links

## Diagnostics

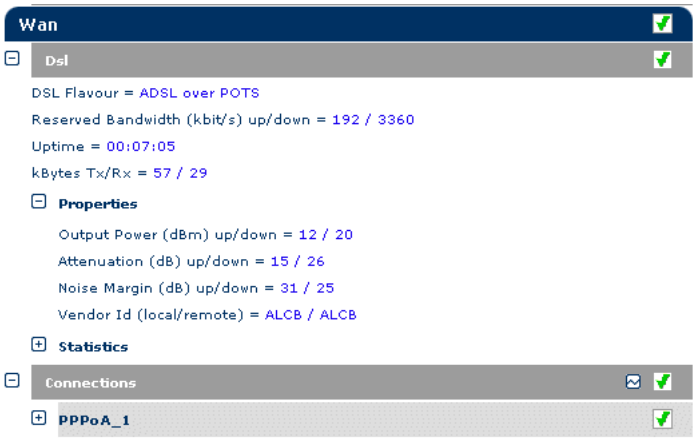
Click this link to display the **Diagnostics** page.

This page consists of three expandable sections:

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

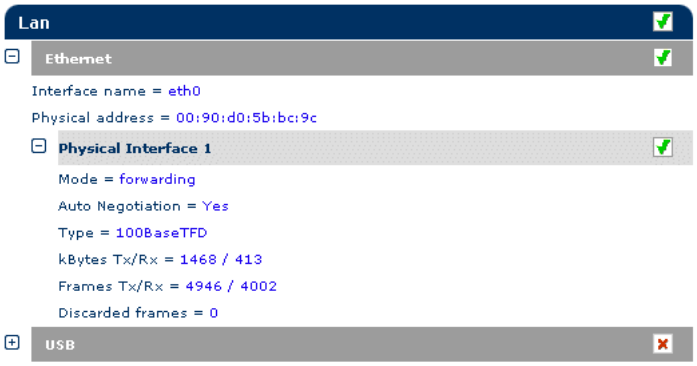



- Expand the **Wan** section to view the current DSL state and connection information click the plus next to DSL and Connections:




Click to perform an IP connectivity test.

- Expand the **Lan** section to view the LAN configuration:




## Easy Setup

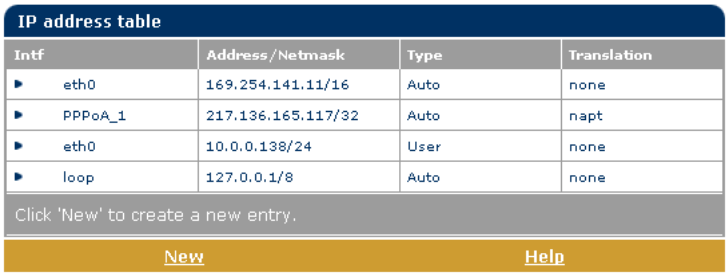
Click this link to start the SpeedTouch™ Easy Setup wizard.

See "1.3.2 Operating System Independent SpeedTouch™ Configuration Setup" 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:




To add an IP address for one of the SpeedTouch™ interfaces:

1. Click **New**.
2. Select the interface to which the IP address applies (use eth0 for assigning to the SpeedTouch™ Ethernet interface).
3. Provide IP address and (sub)netmask in IP prefix notation (e.g. 192.6.11.150/24) or select **Obtain an IP address automatically** for assigning a dynamic IP address to the interface.
4. Optionally select NAPT in case you want to enable address translation on this IP address.
5. Click **Apply**
6. Click Save all to save your changes to persistent memory.

## 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 |
| 80.200.210.1/32 | - | 80.200.210.173 | PPPoA_1 | 0 |
| 80.200.210.173/32 | - | 80.200.210.173 | PPPoA_1 | 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 |
| default | - | 80.200.210.173 | PPPoA_1 | 1 |

Click 'New' to create a new entry.

New Help

Routing can be useful when subnetting your local network. To add a static IP route proceed as follows:

1. Click **New**.
2. Specify the destination IP address (use the prefix notation to apply a subnetmask), Gateway, Interface and Metric.

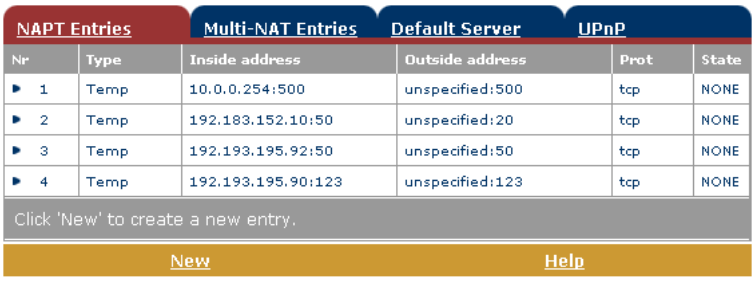
   If applicable, you can also select a label for packet classified IP Routing.
3. Click **Apply** to add the entry to the table.
4. Click Save all to save your changes to persistent memory.

## NAPT

Clicking this button displays the Network Address and Port Translation (NAPT) page.

This page allows you to:

- View or add/delete specific static NAPT entries:

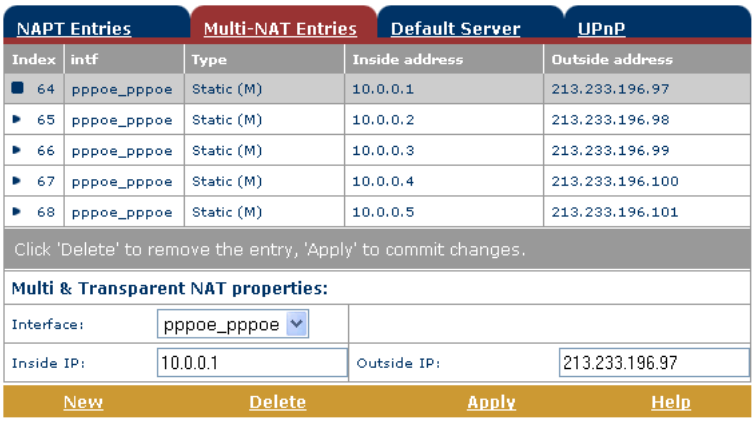



To add static NAPT entries proceed as follows:

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

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

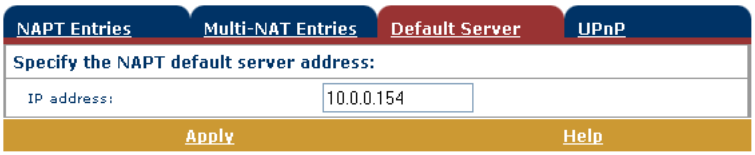
- View or add/delete Multinat Entries:




To add Multinat Entries proceed as follows:

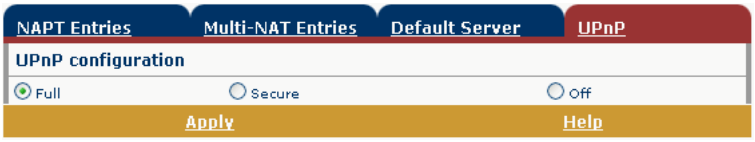
4. Click **New**.
5. Specify the inside address and put the desired range between brackets e.g. 10.0.0.[1-10]. Specify the outside address and interface.
6. Click **Apply**.

- Define a default server:




By specifying a default server IP address, 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:

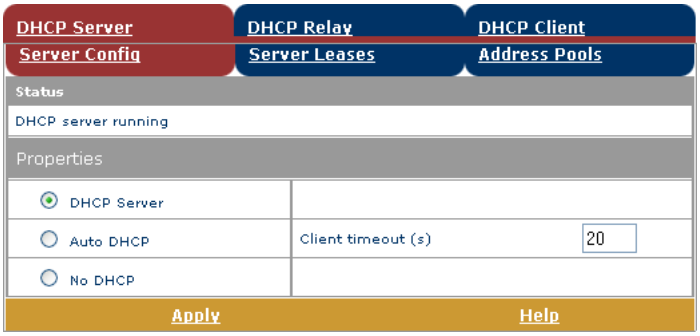
- **Full**
  The SpeedTouch™ is UPnP enabled, all local hosts are able to detect the SpeedTouch™. Any local host is able to create port mappings for any local device.
- **Secure**
  The SpeedTouch™ is UPnP enabled, all local hosts are able to detect the SpeedTouch™. A local host is allowed to make port 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:



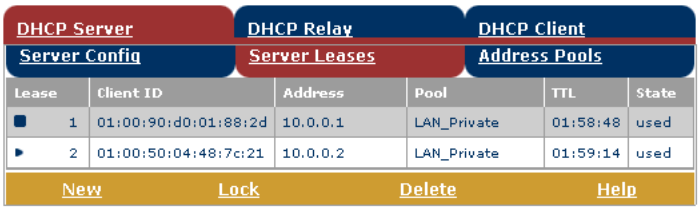

Depending on the DHCP server status, following Status may be shown:

- 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 SpeedTouch™ 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 SpeedTouch™ Ethernet interface eth0 IP address is statically assigned.

Under **Properties** you can select:

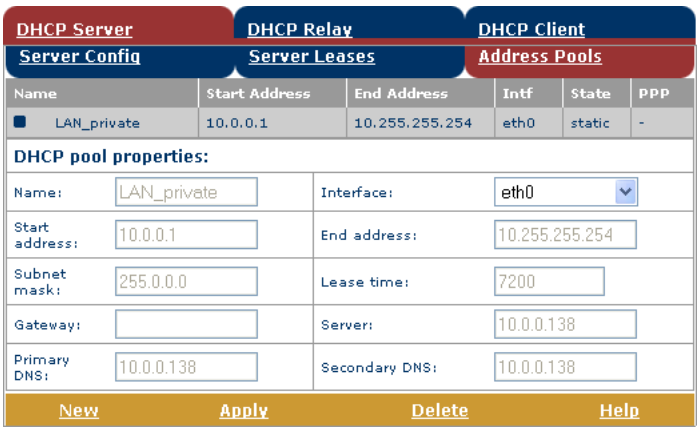
- DHCP server
  To enable the SpeedTouch™ DHCP server. In addition, select the appropriate Auto DHCP
- Auto DHCP
  The SpeedTouch™ will not start its DHCP server immediately, but will first probe the network for a possible concurrent DHCP server for some period of time (set by Client timeout in seconds). 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
  To 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 SpeedTouch™ DHCP server.



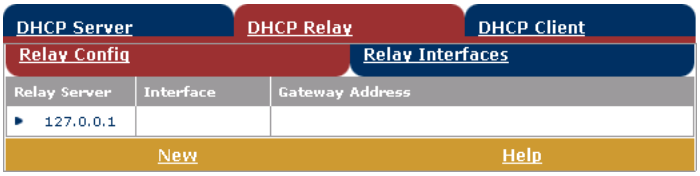

If needed, you can also manually add static DHCP leases for specific hosts or make dynamically assigned leases static by clicking Lock.

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

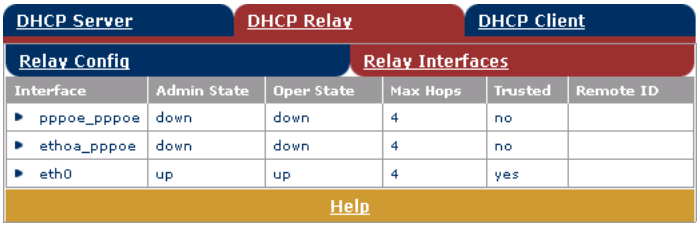



The SpeedTouch™ DHCP server (if enabled) will use the address pools listed in this table to provide IP addresses to requesting DHCP clients. If needed, you can add/delete DHCP address pools manually.

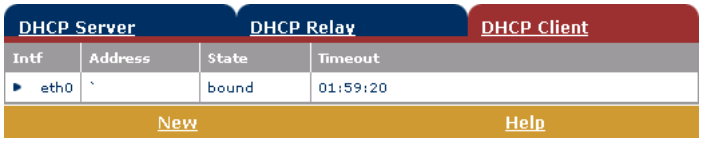
- Click the **DHCP Relay** tab to view the DHCP relay pages.
  - Click the Relay Config tab to view the current SpeedTouch™ DHCP relay status:




    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:




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



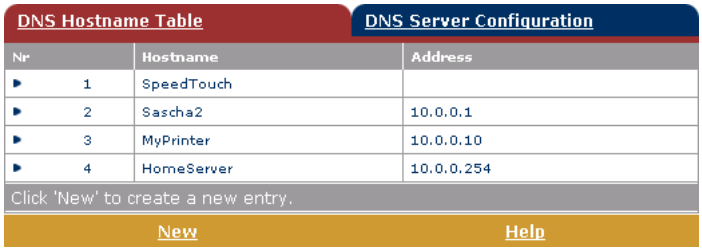

  You can also manually add static SpeedTouch™ DHCP client entries for specific interfaces, via this table or by using the IP address table.

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:




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:

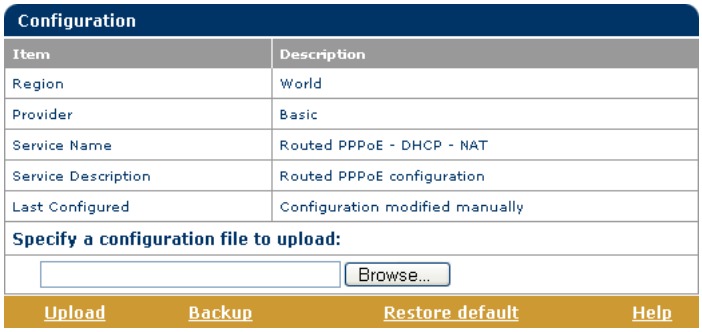

The use of DNS subdomains is supported, e.g. dsl.office.lan.

## System

Click this link to display the **Configuration** page.

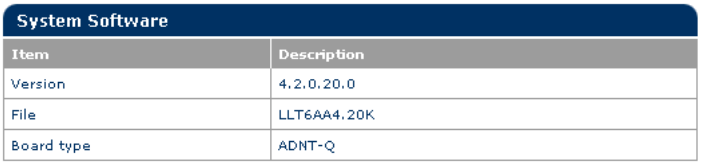
This page allows you to:

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




  To backup the current configuration, click **Backup** and follow the instructions. To restore the SpeedTouch™ defaults, click Restore default to load the default configuration.
  To upload and apply a SpeedTouch™ configuration file you've previously backed up, click **Browse** to go to the location where the SpeedTouch™ configuration file resides. Select the configuration file and click **Upload** to upload and apply the new configuration.

- View the current system software version, file name and the SpeedTouch™ board type:

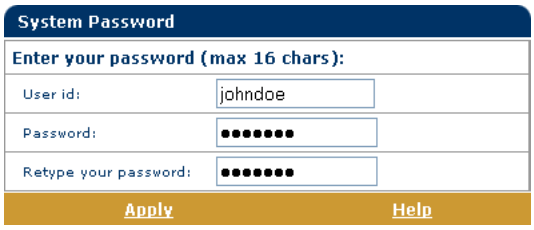



- Check for the latest SpeedTouch™ software upgrades.

## 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 SpeedTouch™:



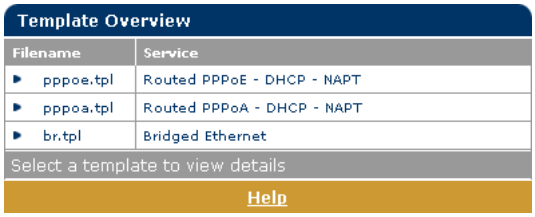

It is highly recommended that you configure a system password. To protect the SpeedTouch™ you should change the System password on a regular basis. However, never use an obvious password such as your name, date of birth, etc. Enter User id and System password of your choice and re-enter your password in the appropriate field. Click **Apply** to apply the System password and Save all to save your changes to persistent memory.

## Templates

Click this link to display the **Templates** page.

This page allows you to:

- View the templates available for the embedded Easy Setup wizard:




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

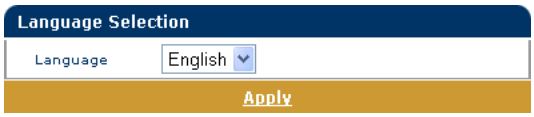

By uploading templates you can extend the number of services listed in the Easy Setup wizard.

Ask your Service Provider for more information about the use of templates.

## Language

Click this link to view the **Language** page.

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



# 4 SpeedTouch™ NAPT Manager

## Introduction

The SpeedTouch™ NAPT Manager allows you to add static NAT entries for specific applications.

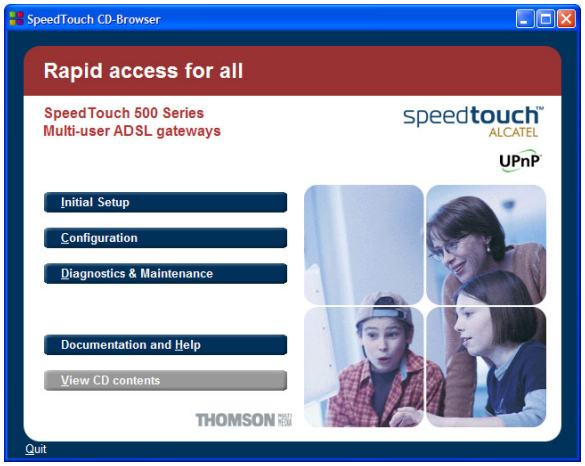
## Using SpeedTouch™ NAPT Manager

To add a static NAPT entry using SpeedTouch™ NAPT Manager:

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

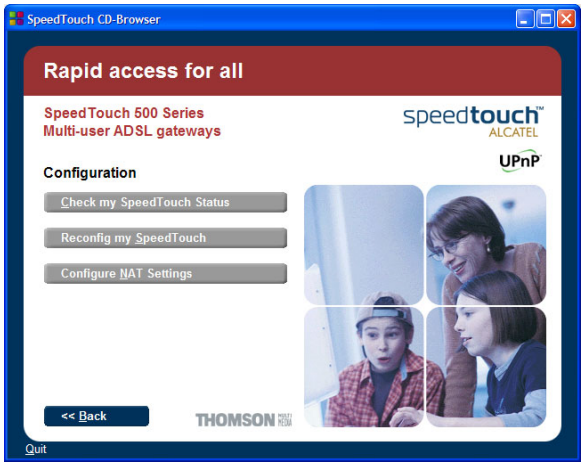
If the SpeedTouch™ CD Browser window does not appear automatically, click Run on the Start menu and enter the following path: **D:\Menu.exe** where D stands for the drive letter of your CD-ROM drive.

2 The SpeedTouch™ Menu appears:




Click **Configuration**.

3 The following window appears:

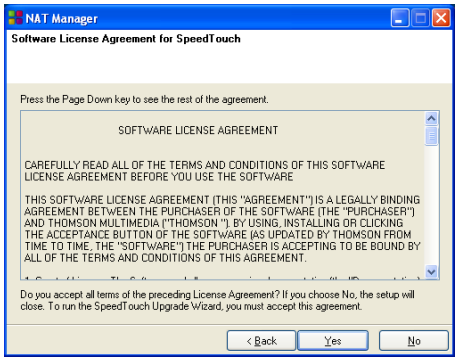



Click **Configure NAPT Settings**.

**4** The NAPT Manager window appears:


Click **Next**.

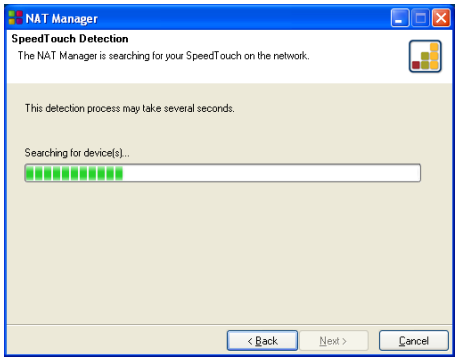
**5** The Software License Agreement appears:



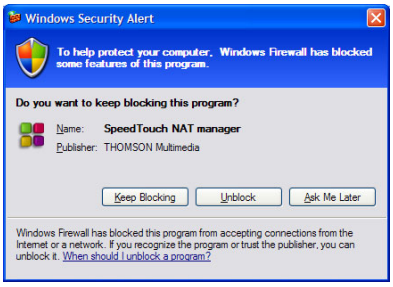

You must accept before continuing. Therefor click **Yes** to accept.

If you have already accepted this Software License Agreement in a previous session of NAPT Manager, this window will not be shown.

**6** NAPT Manager will start to search for the SpeedTouch™ on the network. The following window shows the detection progress:

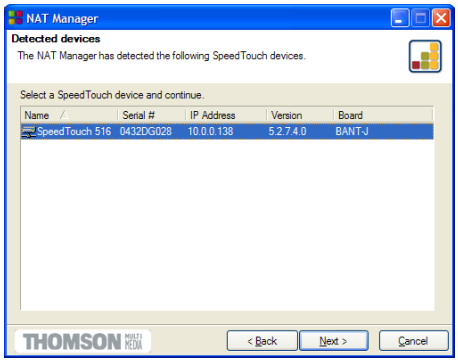


A **Windows Security Alert** window may prompt you that Windows has blocked some features of the SpeedTouch™ NAPT manager:




Click **Unblock** to allow the SpeedTouch™ NAPT Manager to access the local network.

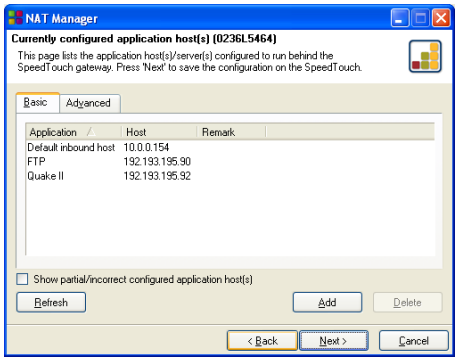
**7** NAPT manager lists the SpeedTouch™ devices found on the network:




Select the SpeedTouch™ of your choice and click **Next**.

If your SpeedTouch™ is protected by a system password, the NAPT manager will prompt you to enter your user name and password.

**8** The following page lists the current application hosts:



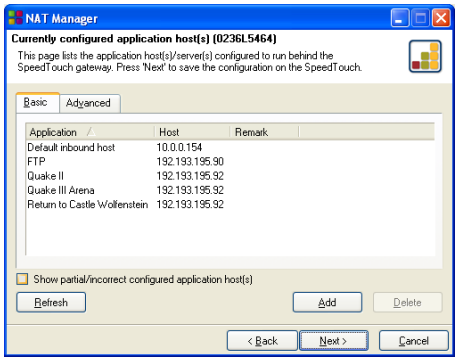

Click **Add** to enter a new application host.

**9** 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.
- 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.
- Specify a default server IP address, click the Default inbound host tab. Enter the new IP address in the Host IP address field.

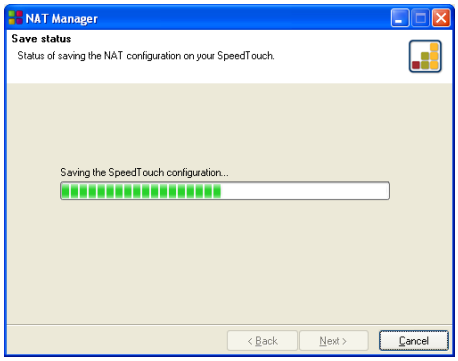
Click **Set** to add your entry to the list.

**10** NAPT Manager adds the NAPT entry to the list:




Click **Next** to save the new entries.

**11** NAPT Manager saves the new NAPT entries to persistent memory:




**12** At the end of the procedure the following window appears:


Click **Finish** to quit NAPT Manager.

# 5 Support

In this chapter

This chapter contains the following topics:

# 5.1 SpeedTouch™ System Software Upgrade

## Introduction

This chapter describes how to upgrade the SpeedTouch™ system software.

## System software updates (all OSs)

For checking the availability of new system software version packages:

- Click the link, available on the SpeedTouch™ CD Browser.
- Contact your network administrator or Service Provider
- Visit the SpeedTouch™ support pages at:
  - http://www.speedtouch.com

## System software packages and security

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™.

This way the SpeedTouch™ or its service can never be corrupted or lost.

## System software upgrades

Depending on the Operating System your computer is running, you can upgrade your SpeedTouch™ via:

- The SpeedTouch™ Upgrade Wizard (Microsoft Windows or Mac OS X).
  See "5.1.1 Upgrade via the SpeedTouch™ Upgrade Wizard" on page 65 for more information.
- The SpeedTouch™ BootP client (all Operating Systems).
  See "5.1.2 Manual System Software Management via BOOTP Server" on page 72 for more information.

## Preliminary steps

Before you start with upgrading the SpeedTouch™, always make sure:

- 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.

# 5.1.1 Upgrade via the SpeedTouch™ Upgrade Wizard

## Introduction

The procedures described in this section are valid only in case:

- You run a MS Windows Operating System or Mac OS X.
- Your SpeedTouch™ and computer are properly connected:
  - Through Ethernet or USB in case you run an MS Windows OS
  - Through Ethernet in case you run Mac OS X
- The new system software file is of the type bant-j_XX527x.bin, e.g. bant-j_AA527P.bin.

During the upgrade procedure in most cases configuration settings are backed up by the wizard and restored after uploading the system software.

## Starting the SpeedTouch™ Upgrade wizard

Depending on your Operating System, you must start the SpeedTouch™ Upgrade wizard as follows:

| Topic | Page |
|---|---|
| On MS Windows Operating Systems | 65 |
| On Mac OS X | 67 |

## On MS Windows Operating Systems

Proceed as follows:

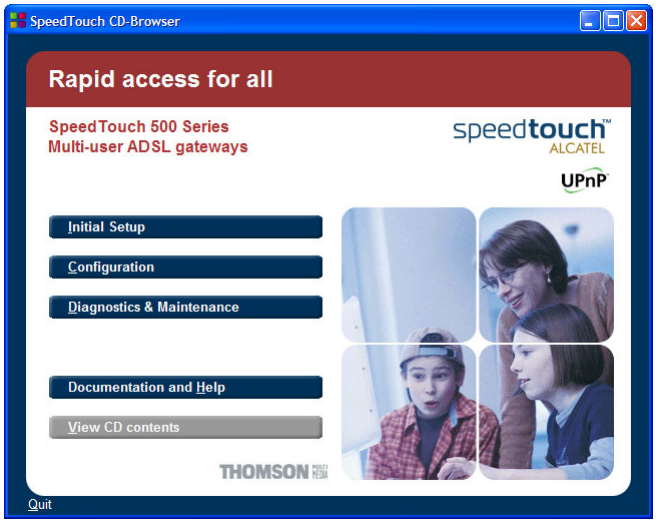
1. Insert the SpeedTouch™ Setup CD in your computer's CD-ROM drive. The SpeedTouch™ CD Browser will start automatically.

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

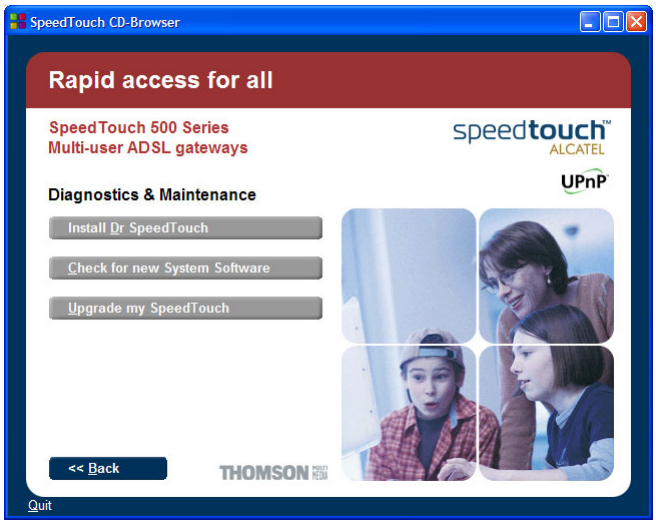
   The selected language will also be used as default language in the SpeedTouch™ web pages. See " Language" on page 58 for more information on how to change the web page language.

3 The **SpeedTouch™ CD Browser** menu appears:



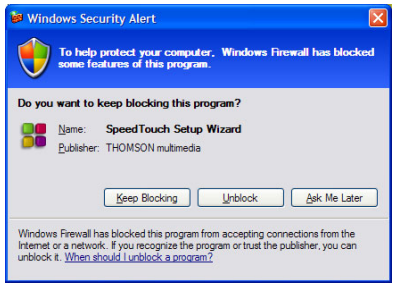

Click **Diagnostics & Maintenance**.

4 The following window appears:




Click **Upgrade My SpeedTouch™**.

A **Windows Security Alert** window may prompt you that Windows has blocked some features of the SpeedTouch™ Upgrade wizard:




Click **Unblock** to allow the SpeedTouch™ Upgrade wizard to access the local network.

See " Upgrade procedure" on page 68 to continue.

### On Mac OS X

Proceed as follows:

1. Insert the SpeedTouch™ Setup CD in your PC's CD-ROM drive.
2. Open the CD and browse to the **osx** folder.
3. In the **osx** folder double-click **upgradeST.pkg** to install the SpeedTouch™ Upgrade application.

   The installation wizard may prompt you for authentication. If this is the case, click to enter your credentials.

   If your computer runs Mac OS X v10.3, your computer may prompt you to run a program to determine if the installer package can be installed. If this the case, click **Continue**.
4. After installation go to the **Applications > SpeedTouch** folder on the system startup disk (usually the location where you installed the SpeedTouch™ Upgrade application) and double-click **upgradeST** to start the SpeedTouch™ Upgrade Wizard.
5. The Choose Language window prompts you to select a language. Select the language of your choice and click **OK**.

   The selected language will also be used as default language in the SpeedTouch™ web pages. See " Language" on page 58 for more information on how to change the web page language.

See " Upgrade procedure" on page 68 to continue.

## Upgrade procedure

**1** The **Welcome to the SpeedTouch™ Upgrade Wizard** window appears:

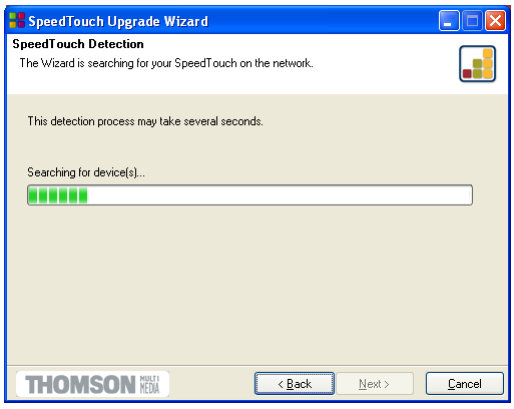

Click **Next**.

**2** The **SpeedTouch™ Software License Agreement** window appears:

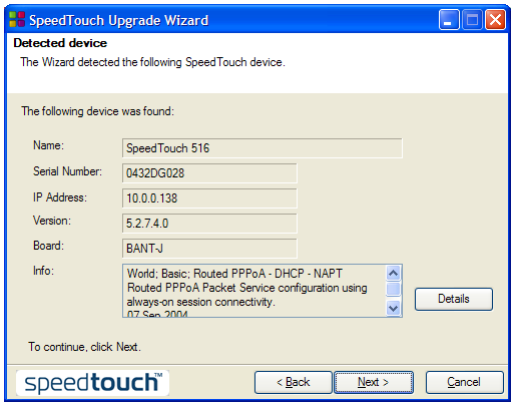

You must accept before continuing. Click **Yes** to accept.

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

**3** The SpeedTouch™ Setup Wizard will continue to search for the SpeedTouch™ on the network. The following window shows the detection progress:



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



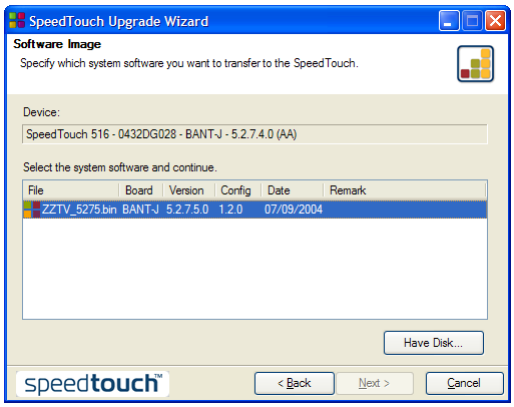

If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™516) and click **Next**.

If the wizard does not find any SpeedTouch™ on the network an error window appears. In this case check page 20 for more information.

5 To repeat the search for your SpeedTouch™, click **Back** and proceed with step 3 of this procedure.

6 Click **Next**.

7 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:

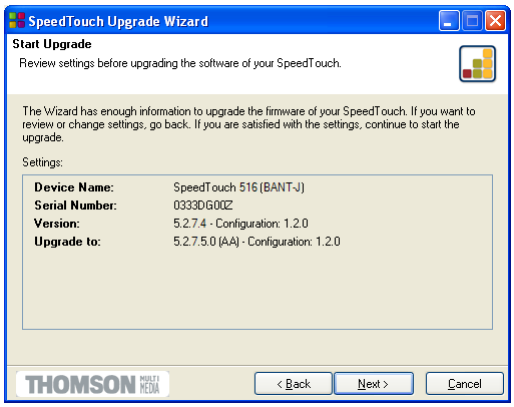



Select the appropriate system software version and click **Next** to continue.

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.

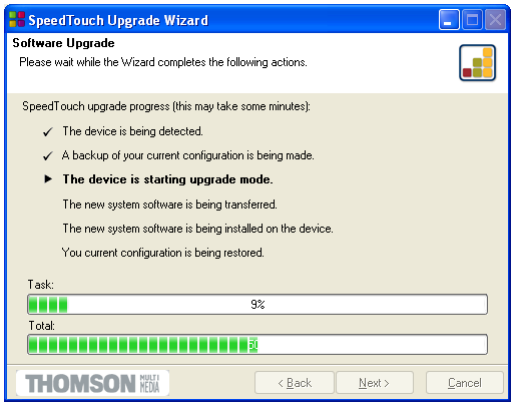
In case of a system software downgrade you must specifically acknowledge your decision before being able to proceed.

**8** The following window allows you to overview your selection:




Click **Next** to continue.

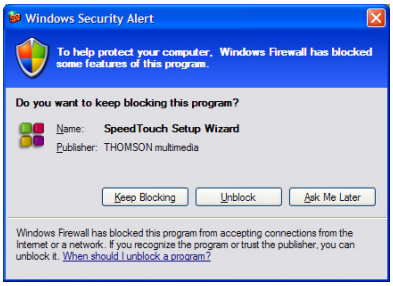
**9** You can follow the upgrade progress in following window:




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


Click **Finish** to close the wizard.

A **Windows Security Alert** window may prompt you that Windows has blocked some features of the SpeedTouch™ Upgrade wizard:




Click **Unblock** to allow the SpeedTouch™ Upgrade wizard to access the local network.

## 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.

## 5.1.2 Manual System Software Management via BOOTP Server

### SpeedTouch™ system software management

The SpeedTouch™ system software is based on BOOTP, a standard mechanism used for booting diskless stations.

The SpeedTouch™ is able to slip in BOOTP mode, allowing a BOOTP server to manage the SpeedTouch™ file system, and submit upgrade files to it.

### Important note

It is recommended only to use the procedure described below in case you are familiar with the use of a BOOTP server, and the mechanisms on which BOOTP is based.

Upgrading the system software via the procedure described below will reset the SpeedTouch™ to its factory default settings. Therefore, prior to performing an upgrade of the system software it is recommended to back up the SpeedTouch™ configuration.

### Before you start

You need a third party BOOTP server installed on the computer from which you want to perform the SpeedTouch™ system software upgrade.

Make sure that the SpeedTouch™ is connected to your computer via its Ethernet port. In case of a SpeedTouch™ with USB connectivity, please disconnect the USB interface, if used, to avoid communication errors during the system software upgrade.

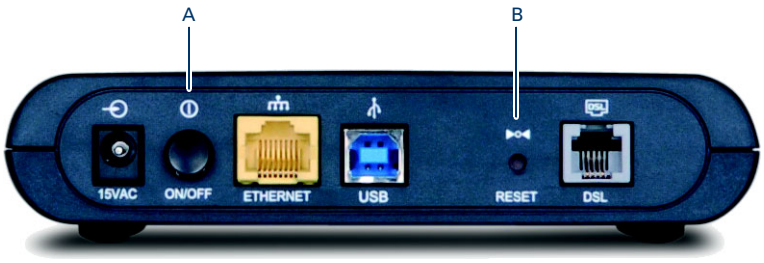
You will need the SpeedTouch™ Medium Access Control (MAC) address of your SpeedTouch™ device. To retrieve this address see “ System Information” on page 45.

Make sure a valid SpeedTouch™ system software image file is available on your local disk.

Procedure

To upgrade/restore the SpeedTouch™ system software:

1. In a preliminary step, make sure that your SpeedTouch™ is powered off and that a BOOTP server is readily installed on the computer from which you intend to perform the system software upgrade.
2. Configure the BOOTP server to use the SpeedTouch™ system software image file in its reply to BOOTP requests from the SpeedTouch™ you want to upgrade.
3. To identify the BOOTP requests from the SpeedTouch™, you will need to specify its MAC address and define an IP range for basic communication between the BOOTP server and the SpeedTouch™.
4. Use a pencil to press and hold the recessed reset button (B) on the SpeedTouch™ rear panel:



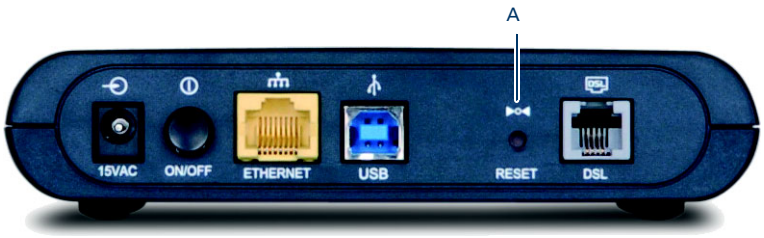

5. While holding the reset button (B), push in the power button (A) to switch on the SpeedTouch™. You will notice that the power LED is solid red.
6. Keep holding the reset button for at least twelve seconds until the power LED turns solid green.
7. Release the reset button as soon as the power LED turned solid green. This indicates that the SpeedTouch™ entered BOOTP mode and is sending BOOTP requests.
8. The BOOTP server will reply to the BOOTP requests and will perform the required operations to send the system software to the SpeedTouch™.
9. After checking whether the received system software is valid for the device, the SpeedTouch™ will start in normal operational mode to complete the upgrade.
10. Optionally, you can upload the backup configuration as described in “ System” on page 57.

# 5.2 SpeedTouch™ Default Configuration

## Reset to default configuration

Proceed as follows:

1. Make sure the SpeedTouch™ is powered on.
2. Use a pencil to press and hold for 7 seconds the recessed reset button (A) at the SpeedTouch™.




3. Release the button.

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

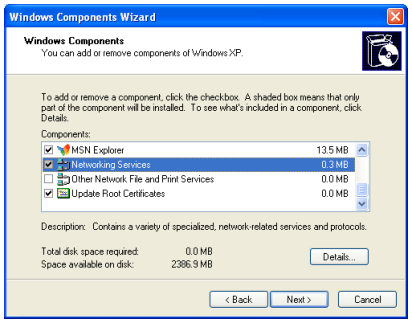
# 5.3 UPnP™ on Windows XP Systems

## Adding UPnP™

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

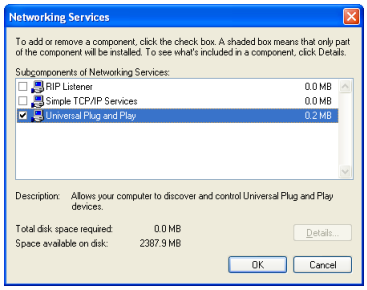
Proceed as follows:

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.

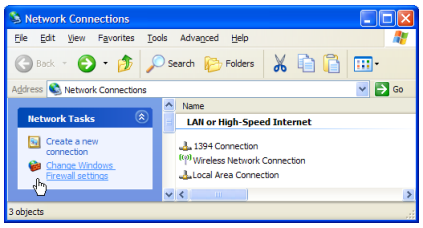
For more information on UPnP™ and SpeedTouch™ UPnP™ features go to the UPnP™ pages at the SpeedTouch™ web site:

www.speedtouch.com

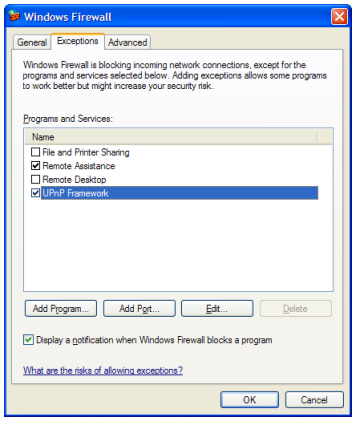
## Windows firewall configuration

If your computer runs Windows XP Service Pack 2 (SP2) and you are using the Windows Firewall, make sure the Windows Firewall allows incoming network connections for the UPnP service:

1. On the **Start** menu, point to **Connect To** and then click **Show all connections**.
2. Under **Network Tasks**, click **Change Windows Firewall settings**.




3. The **Windows Firewall** window appears.
4. Click the **Exceptions** tab.
5. Select the **UPnP Framework** check box:



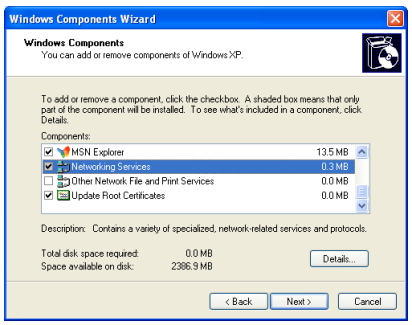

6. Click **OK**.

## 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™ on your local network. Therefore it is recommended to add the IGD Discovery and Control client to your system.

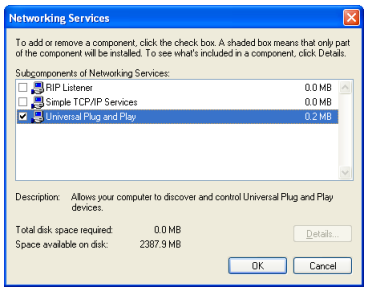
Proceed as follows:

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.

# 5.4 Troubleshooting

## Configuration problems

In case your SpeedTouch™ is unreachable due to misconfiguration, you might consider a hardware reset to factory defaults as described in "5.2 SpeedTouch™ Default Configuration" on page 74.

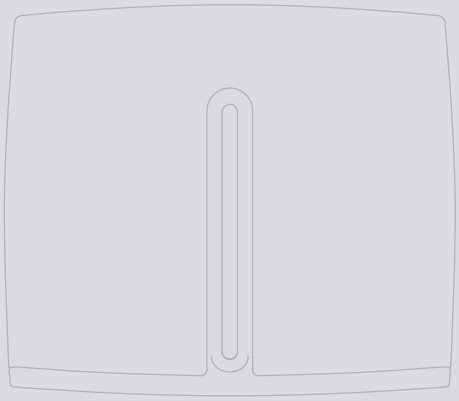
However, note that resetting the SpeedTouch™ to its factory settings will revoke all the changes you made to the configuration.

## 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 a 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. |
| 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. |
| | In case of ADSL/POTS (ADSL/PSTN) services at your premises, ONLY use a SpeedTouch™ ADSL/POTS variant.<br><br>In case of ADSL/ISDN services at your local premises, ONLY use a SpeedTouch™ ADSL/ISDN variant. |
| Bad regular telephone service | Check whether a central splitter or dedicated filters are installed properly. |



## Need more help?

Additional help is available online at www.speedtouch.com