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SpeedTouch™580

Wireless Multi-User ADSL Gateway

Setup and User's Guide

Release R1.0 (R4.2.7)

UPnP™   Wi-Fi CERTIFIED   bg

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SpeedTouch™

580

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1   SpeedTouch™ Installation

Introduction

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

With the SpeedTouch™580 Wireless Multi-User ADSL Gateway two cutting-edge technologies are combined: ADSL and Wireless LAN (WLAN).

With this answer to the increasing popularity of both technologies, users can build a home or small office (Wireless) LAN without any need for network wiring and surf the Internet at high speed; all combined in one device.

Contents

This Setup and User's Guide will assist you in getting acquainted with the Speed-Touch™580 Wireless Multi-User ADSL Gateway and in getting connected quickly to the Internet.

Terminology

Generally, the SpeedTouch™580(i) will be referred to as SpeedTouch™ in this Setup and User's Guide unless specifically indicated.

Safety instructions

Before connecting the SpeedTouch™, please 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 "7.4 UPnP™ on Windows XP Systems" on page 96.

Documentation and software updates

The SpeedTouch™ products continue to evolve as extra and new functionalities are made available.

For more information on the latest technological innovations, software upgrades, and documents, please visit the SpeedTouch™ web site at:

<div align="center">www.speedtouch.com</div>

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1.1   Getting Acquainted with the SpeedTouch™

Introducing the SpeedTouch™

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

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

Front panel layout

The SpeedTouch™ is presented in a desktop housing:

Front panel LEDs

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

Indicator			Description
Name	Color	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

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Indicator			Description
Name	Color	State	
WLAN	Green	Flashing	Wireless activity, security level 2
		On	No Wireless activity
	Amber	Flashing	Wireless activity, security level 1
		On	No Wireless activity
	Red	Flashing	Wireless activity, security level 0
		On	No Wireless activity
	Off		No Wireless connection
DSL	Green	Flashing	Pending DSL line synchronization
		On	DSL line synchronized
	Off		No DSL line
Internet	Green	Flashing	Internet activity
		On	Internet Connection
	Off		No Internet Connection

Back panel layout   The following connectors are available on the SpeedTouch™580: a four port 10/
100Base-T Half-/Full-duplex auto-sensing MDI/MDI-X Ethernet switch, a USB port and
a DSL line port.
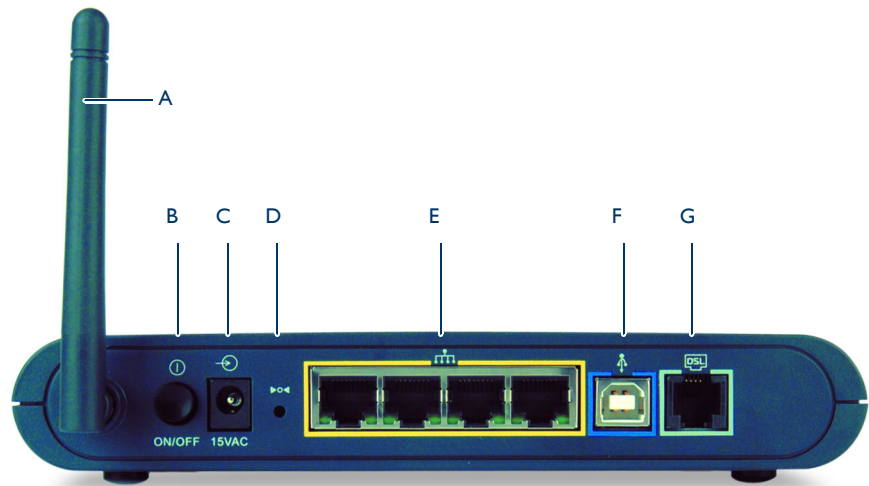
A	Antenna	E	10/100Base T Ethernet switch (marked yellow)
B	Power button (On/Off)	F	USB port (marked blue)
C	Power inlet (15VAC)	G	DSL line port (marked grey)
D	Recessed Reset button		

Ethernet port LEDs

Each of the yellow marked Ethernet ports on the rear panel has one LED (B) to indicate the connection integrity (activity). Depending on the SpeedTouch™ product you are using, a second LED (A) may be provided to indicate the 10/100Base-T selection:
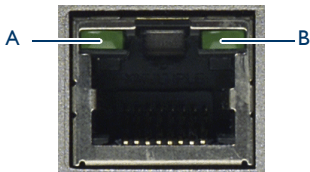
Indicator			Description
Name		LED Status	
A (Optional)	10/100Base-T	Off	10Base-T Ethernet connection.
		On	100Base-T Ethernet connection.
B	Integrity (Activity)	Off	No connection on this port.
		On	Ethernet link up.
		Flashing	Data is flowing from/to this port.

1.2   Setting Up the SpeedTouch™

Wall mounting assembly

The SpeedTouch™580 can be mounted on a wall using the two mounting brackets at the bottom or can setup in an upright position using a stand or the standard desktop 'mount'. For more information please see "7.1 SpeedTouch™ Wall Mount" on page 84.

SpeedTouch™ variants

Two ADSL variants of the SpeedTouch™ exist:

- The ADSL/POTS variant (SpeedTouch™580) connecting to an analog Plain Old Telephone Service (POTS) line.

- The ADSL/ISDN variant (SpeedTouch™580i) 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 Speed-Touch™ is adapted to ADSL service requirements.

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ADSL service

The appropriate DSL service must be available at your premises:

- ADSL service must be enabled on your telephone line.

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

Always contact your Service Provider when installing splitters/filters!

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

Connect the DSL line

The 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 "15VAC".

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

Turn on the SpeedTouch™

Once all previous steps are completed, you can turn the SpeedTouch™ on with the power button located on the SpeedTouch™580 rear panel.

- Push in the button to switch on the SpeedTouch™580.

- Push to release the button to switch off the SpeedTouch™580.

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 "7.5 Troubleshooting" on page 98.

Connecting your computer(s)

The SpeedTouch™ offers you various possibilities to connect your computer(s) to the device. Proceed with "2 SpeedTouch™ Local Networking Setup" on page 11 to set up your local network.

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2   SpeedTouch™ Local Networking Setup

Introduction

The SpeedTouch™ offers three local networking solutions:

*   Wired Ethernet

*   Wireless Ethernet

*   USB (1.1)

By introducing the SpeedTouch™ into your local network, local hosts using one of the solutions above are able to share a local network (i.e. one computer over USB, multiple computers over wired Ethernet and multiple wireless clients over wireless networking).

Wired Ethernet

The SpeedTouch™ managed four-port 10/100Base-T Half-/Full-duplex auto-sensing MDI/MDI-X Ethernet switch allows you to create a local Ethernet network of up to four devices, without needing extra networking devices or to expand an existing 10 or 100Base-T Ethernet network.

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

Proceed with "2.1 Ethernet Connection Setup" on page 12.

USB

If your computer is not equipped with an Ethernet port, you may want to connect the computer to the SpeedTouch™ using the USB port on the back panel of the Speed-Touch™.

USB connectivity is supported by Microsoft for following Operating Systems:

*   Microsoft Windows OSs

    *   MS Windows 98SE

    *   MS Windows Millennium

    *   MS Windows 2000

    *   MS Windows XP

You must install the USB drivers, if you want to connect your pc to the Speed-Touch™580 over USB. Proceed with "2.2 USB Connection Setup for Microsoft Windows" on page 13.

Wireless Ethernet

The SpeedTouch™ Wi-Fi™ certified IEEE 802.11g compliant wireless access point allows multiple computers to connect wirelessly to your local network over the Speed-Touch™ Wireless LAN environment. The SpeedTouch™580 is backward compatible with IEEE802.11b. This means that IEEE802.11b and IEEE802.11g devices can coexist in the same wireless network.

To be able to connect the computers, make sure that a Wireless client adapter (WLAN client) is installed on each computer you want to connect via the WLAN.

Proceed with "2.3 Wireless Connection Setup" on page 16.

2.1   Ethernet Connection Setup

Local network

The SpeedTouch™ Ethernet ports on the back panel allow you to connect the Speed-Touch™ to an existing 10 or 100Base-T Ethernet network or one (or more) computer(s) with installed Ethernet card.

Using the SpeedTouch™ Ethernet switch, you can create a local Ethernet network of up to four devices, without needing extra networking devices.

Note   In the SpeedTouch™ package, a yellow full-wired straight-through RJ45/RJ45 Ethernet cable is included to connect a single computer to your Speed-Touch™.

Standard wiring procedure

Use the Ethernet cable provided to wire your computer's Ethernet port to one of the SpeedTouch™'s Ethernet ports.

If you intend to extend an existing local network, you can use the yellow Ethernet cable included to wire any Ethernet port of an external Ethernet hub or switch to one of the SpeedTouch™'s Ethernet ports.

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

Ethernet link check

The SpeedTouch™ LED indicators allow you to check your Ethernet.

See "1.1 Getting Acquainted with the SpeedTouch™" on page 6 for more information.

Internet connection setup

To continue with preparing the SpeedTouch™ for internet connectivity, see "3 SpeedTouch™ Configuration Setup" on page 23.

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2.2 USB Connection Setup for Microsoft Windows

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.

Note 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™ USB driver installation that may reside on your PC before you install the USB drivers from the SpeedTouch™ Setup CD-ROM delivered with your SpeedTouch™580(i) product.

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

Note 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.

  Note 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.

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:
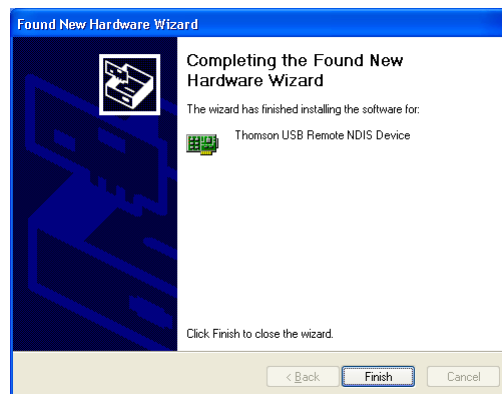
Click Finish to complete the installation.

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

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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:
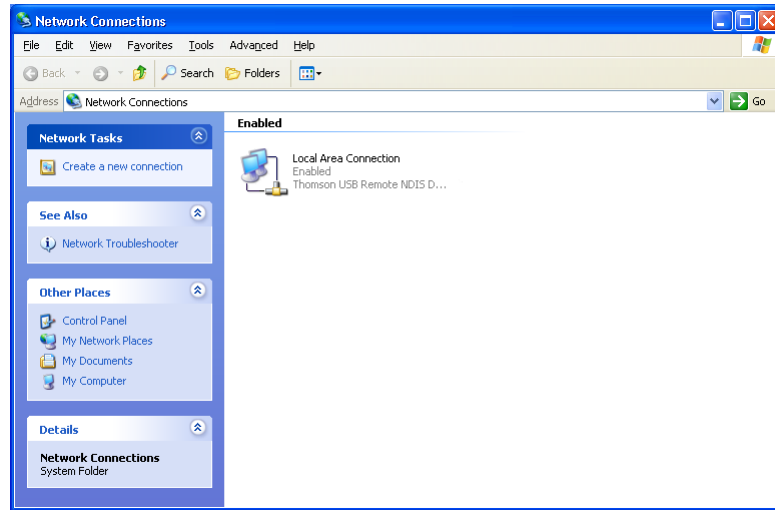
Connecting to the Internet

To continue with preparing the SpeedTouch™ for internet connectivity, see "3 SpeedTouch™ Configuration Setup" on page 23.

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2.3   Wireless Connection Setup

Introduction   The SpeedTouch™580 features a Wireless LAN Access Point (AP) which behaves as a networking hub allowing to wirelessly interconnect several devices to the local (W)LAN and provide - via the SpeedTouch™ DSL router - access to the public network, e.g. the Internet.

IEEE802.11g Wireless technology enables these devices to communicate with each other in a locally mobile fashion, without the need for a wired environment. The Speed-Touch™580 is backward compatible with IEEE802.11b. This means that IEEE802.11b and IEEE802.11g devices can coexist in the same wireless network.

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

The IEEE802.11g standard for WLANs allows several WLAN networks using different radio channels to be co-located. The SpeedTouch™ supports multiple radio channels and is able to select the best radio channel at each start-up.

Note   The different channels are overlapping. To avoid interference with another WLAN make sure that the separation (in terms of frequency, i.e. channel number) is as high as possible. It's recommended to keep at least 3 channels between 2 different WLAN's. E.g. if there is an access point at channel 5 and an access point at channel 11, then the SpeedTouch™580 will select channel 1.

The SpeedTouch™580 supports all channels allowed for wireless networking according to your region's regulations.

However, depending on local regulations, the number of channels actually allowed to be used may be additionally restricted. As shown in table below:

Regulatory Domain	Allowed Radio Channels
China	1 to 13
Europe	1 to 13
Israel	5 to 7
Japan	1 to 14
Jordan	10 to 13
Thailand	1 to 14
USA	1 to 11

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Antennas

The SpeedTouch™580 features two antennas: one internal and one external. For transmission of data, the external antenna is always used; whereas for reception of data, the SpeedTouch™580 automatically selects the antenna which receives the optimal signal.

The external antenna can be directed to allow for the optimization of the wireless link. The antenna characteristics are such that wireless links perpendicular to the antenna are favoured. I.e. when the antenna is erect, wireless links in the horizontal plane are favoured. Please note that the antenna characteristics are influenced by the environment, i.e. by reflections of the radio signal against walls or ceilings. It is advised to use the received signal strength as indicated by the wireless client manager to optimize the antenna position for the link to a given client.

Wireless security

Since the SpeedTouch™ wireless environment is a radio environment, precautions must be taken to ensure that your wireless network is safe from malicious intruders. In addition to providing the possibility of giving a personalized Network Name (SSID) to the wireless network, the SpeedTouch™ features a physical registration mechanism, a managed Access Control List (ACL) and the possibility to select different levels of security:

- Level 0 (The default): No security i.e. the data will not be encrypted, no authentication process will be used.

- Level 1: Backwards compatible security with any Wi-Fi certified client (WEP), i.e. encrypting the traffic between the SpeedTouch™ and the clients by sharing a predefined 64-bit or a 128-bit Network key.

  Note The default 64 bits hexadecimal WEP key is for your convenience printed on the identification label located at the bottom of the Speed-Touch™580 and is unique for each device.

- Level 2: WPA-PSK is the highest form of security available but make sure that your wireless client and client manager are compatible with it.

  Note The default WPA-Personal passphrase is for your convenience printed on the identification label located at the bottom of the Speed-Touch™580 and is unique for each device.

Level 1

This level uses Wired Equivalent Protocol (WEP) to provide wireless security that is compatible with any Wi-Fi certified client.

WEP relies on a secret key that is shared between the wireless client (e.g. a laptop with a wireless client and the SpeedTouch™580). The fixed secret key is used to encrypt data before they are transmitted. I.e. during transmission between client and access point ("in the air") the information in the packets is encrypted.

Level 2

This level uses Wi-Fi Protected Access (WPA) to provide state of the art security. This also means that only recent wireless clients will have implemented WPA, and that older wireless clients (without WPA) will not interoperate with the SpeedTouch™580 at this security level.

The WPA standard specifies two modes of operation:

- WPA Personal also know as WPA-PSK (Pre-Shared Key), for residential use.

- WPA Enterprise for business use. In this mode, authentication is done by a dedicated authentication server, which is normally not available for residential use. Therefore, the SpeedTouch™580 does not feature WPA Enterprise.

WPA Personal features 3 basic improvements over WEP (security level 1).

1 Mutual authentication of access point and client via a 4-way handshake. In this handshake, both client and access point check whether they share the same Pre-Shared Key (without sending the PSK "in the clear").

2 Stronger encryption, using the Temporal Key Integrity Protocol (TKIP). In stead of using a fixed WEP key, TKIP uses in pairs temporary session keys which are derived from the PSK during the 4-way handshake.

3 Message Integrity Check (MIC), a strong mathematical function in which the recipient and transmitter each compute and compare the MIC. Non-matching MICs reveal that a third party has been tampering the data to try and hack the system.

Wireless client requirements

Only wireless client adapters compliant to IEEE802.11g and/or IEEE802.11b, will be able to communicate with the SpeedTouch™ and other members of the SpeedTouch™ (W)LAN environment. However, be aware that only IEEE802.11g compliant wireless clients are able to gain full profit of the 54 Mbps (Max) bandwidth delivered by the SpeedTouch™580.

It is highly recommended that wireless client adapters are Wi-Fi™ certified to ensure smooth interoperability with the SpeedTouch™580's WLAN.

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2.3.1 First-time Wireless Client Association

Initial SpeedTouch™ wireless configuration

When the SpeedTouch™ leaves the factory and after every Reset-to-Defaults (See "7.3 SpeedTouch™ Default Configuration" on page 95 for more information), the SpeedTouch™ wireless access point configuration is returned to its initial default settings.

These default settings are:

- No security options are enabled. (Security level 0 is enabled for an easy first use).

- The SpeedTouch™ is broadcasting its Network name (SSID).
  This default Network Name (SSID) is printed on the identification label located on the bottom of your SpeedTouch™ and is unique for each device.
  It consists of the concatenation of the word "SpeedTouch" and 6 hexadecimal characters, without any spaces.

- The radio channel number is set to "automatically scan for the best radio channel".

- Registration is not activated.

- The Access Control List is open and empty. No wireless client will be denied access to the SpeedTouch™580 on base of it's physical hardware address.

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

Preparing the first-time wireless client

Make sure that:

- The SpeedTouch™ is powered on and ready for service.

- The SpeedTouch™ is in its default configuration.
  If needed, reset the SpeedTouch™ to its default configuration
  (See "7.3 SpeedTouch™ Default Configuration" on page 95 for more information).

- The wireless client is installed on your computer.

- The wireless client adapter's IP configuration is set to dynamically obtain its IP configuration (DHCP).

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

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

First-time wireless client configuration

For a successful association the wireless client must be correctly configured for the default Network Name. As the SpeedTouch™ broadcasts its Network name to the wireless clients, you can select the SpeedTouch™ wireless network (e.g. SpeedTouch012345) from a list of available networks. Depending on your wireless client a wireless icon may become green or a message similar to the following may pop up: "Successfully joined Wireless network SpeedTouch012345".

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

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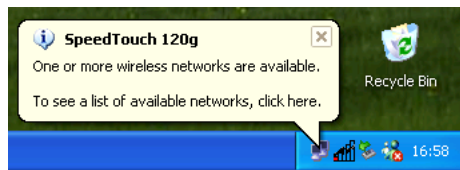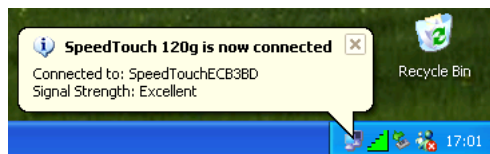

When you click the network icon, the following window appears:
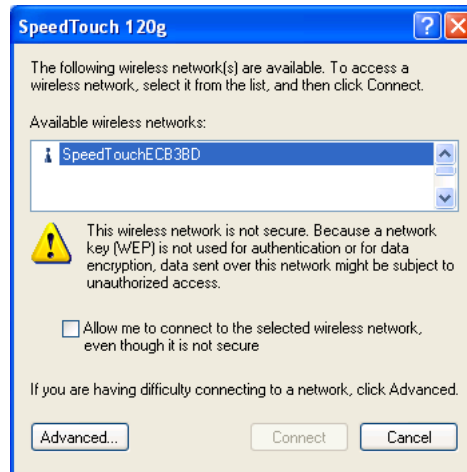
Select **Allow me to connect to the selected wireless network, even though it is not secure** to unlock the connect button and click **Connect** to trigger the actual association.

A successful association will be notified as shown below:

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

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2.3.2 Connecting Wireless Clients

Before you connect other wireless clients

In case the SpeedTouch™ has not been configured before (the SpeedTouch™ is still in its default configuration), it is recommended to proceed first with the configuration setup procedures as described in "3 SpeedTouch™ Configuration Setup" on page 23.

For enhanced security, after going through the SpeedTouch™ configuration setup procedures, you are able to "personalize" the SpeedTouch™ wireless access point settings by configuring another Network name, and/or optionally another security policy.

For more information on the configuration of the SpeedTouch™ Wireless configuration, see " Wireless" on page 55.

Preconditions

Make sure that:

- The SpeedTouch™ is powered on and ready for service.
- The SpeedTouch™ has been configured by the SpeedTouch™ Easy Setup Wizard.
- Optionally, the SpeedTouch™ wireless settings have been personalized.

Further make sure that:

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

Depending on the personalized wireless settings:

- In case WEP encryption is enabled on the SpeedTouch™, you must configure the wireless client to use the same encryption level and WEP key.
- In case WPA-PSK is enabled on the SpeedTouch™, you must configure the wireless client to use the same encryption method and WPA-PSK passphrase.
- In case SSID broadcasting is disabled, you must configure the wireless client for the SpeedTouch™ Network name.
- Depending on the Registration control and Access Control List (ACL) configuration:

  - In case **New stations are allowed (automatically)** is enabled, then registration is disabled and the new stations can access the SpeedTouch™ WLAN but are not automatically added to the ACL. You can manually add them to the Access Control List as described in " Wireless" on page 55.

  - In case **No new stations allowed** is enabled, only allowed stations in the ACL have access. New stations are not allowed. You must manually add the wireless client to the Access Control List as described in " Wireless" on page 55.

  - In case **New stations are allowed (via registration)** is enabled, only allowed stations in the ACL have access. New stations need to be registered. Follow the procedure below to register associated stations to the SpeedTouch™ ACL.

Registering wireless clients

In case **New stations are allowed (via registration)** is enabled, you can register new wireless network clients as follows:

1 Push the front panel button on the SpeedTouch™ for 2 seconds or click **Register** on the SpeedTouch™ Wireless web page (see " Wireless" on page 55 for more information).
Clicking the **Register** button triggers the SpeedTouch™ to unlock the ACL for a time frame of one minute, after which the ACL is locked again. All the new wireless clients successfully attempting to connect to the SpeedTouch™ (having the correct wireless settings (Network Name and, if required, Network key)) will be added to the table as allowed station. The SpeedTouch™ automatically saves your current configuration at the end of the registration phase.

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

2 Successfully registered stations are associated to the SpeedTouch™580 WLAN. Depending on your WLAN client adapter a wireless icon may become green or a message similar to the following may appear: "Successfully joined Wireless network SpeedTouch012345".

3 After one minute the ACL is locked.

4 You can control if there are successfully registered wireless clients on the Speed-Touch™580 ACL.

> **Note** The registration procedure can be repeated as many as necessary.

3 SpeedTouch™ Configuration Setup

Internet connectivity

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

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

You can configure the SpeedTouch™:

* Over the traditional wired Ethernet network

* Over the USB network

* Over the SpeedTouch™ wireless Ethernet network
  If you want to configure the SpeedTouch™ over the wireless interface, make sure that your computer's WLAN client is correctly associated with the SpeedTouch™ wireless network according to "2.3.1 First-time Wireless Client Association" on page 19 before proceeding.

What you need from your ISP

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.

SpeedTouch™ configuration options

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

If your computer system runs:

* A Microsoft Windows Operating System:
  The SpeedTouch™ Setup wizard, included on the SpeedTouch™ Setup CD-ROM, will automatically guide you through the configuration of both the SpeedTouch™ and your PC for setting up the appropriate configuration.
  Proceed with "3.1 Microsoft Windows SpeedTouch™ Configuration Setup" on page 24.

* Another Operating System (e.g. Apple Mac OS, UNIX, Linux, etc.):
  The SpeedTouch™ Embedded Easy Setup wizard, accessible from the Speed-Touch™ web pages, will automatically guide you through the configuration of the SpeedTouch™.
  Proceed with "3.2 Operating System Independent SpeedTouch™ Configuration Setup" on page 31.

3.1 Microsoft Windows SpeedTouch™ Configuration Setup

Supported MS Windows OSs

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

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

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

The SpeedTouch™ Setup wizard

The SpeedTouch™ Setup wizard procedure consists of three parts:

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

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Detection of the SpeedTouch™	Proceed as follows:

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

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

2   The **Choose Language** window prompts you to select a language:
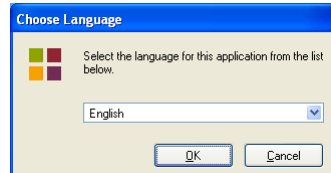
Select the language of your choice and click **OK**.

> **Note**   The selected language will also be used as default language in the SpeedTouch™ web pages. See " Language" on page 75 for more information on how to change the web page language.

3   The **SpeedTouch™ CD Browser** menu appears:
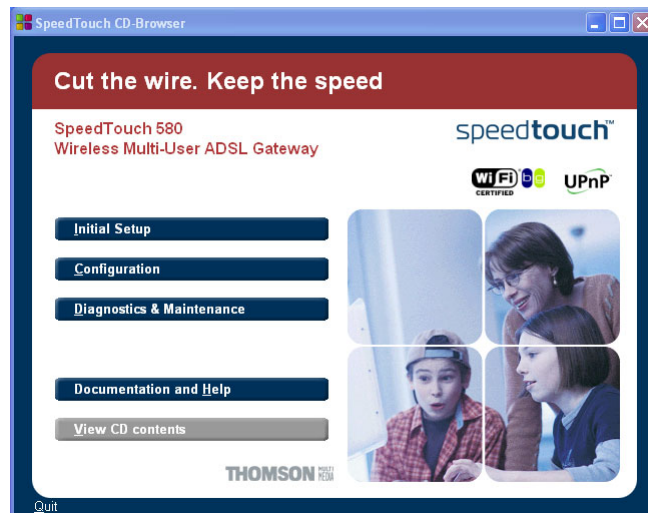
Click **Initial Setup**.

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4   The **Initial Setup** window appears:
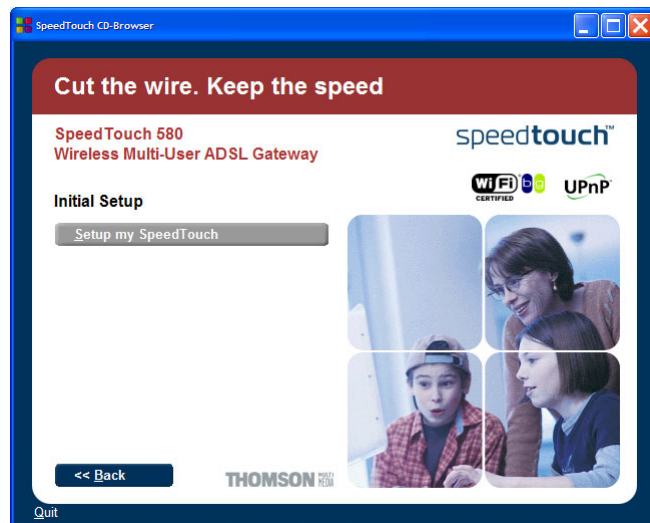
Click **Setup my SpeedTouch™** to start the SpeedTouch™ Setup wizard.

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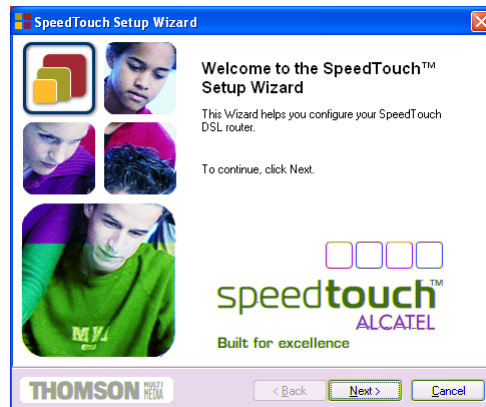
Click **Next**.

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

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

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

7   The SpeedTouch™ Setup Wizard will search for the SpeedTouch™ on the network. The following window shows the detection progress:
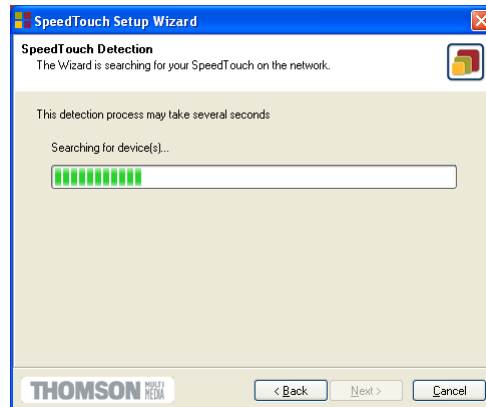
8   The SpeedTouch™ Setup Wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window:
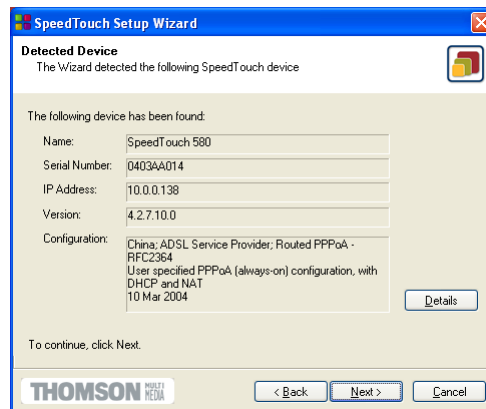
If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™580) and click **Next**.

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

- The SpeedTouch™ is turned on and fully initialized.

- Your PC has a valid IP address (i.e. any IP address but 0.0.0.0).

- No dedicated firewall device or router is placed between your PC and the SpeedTouch™.

- No personal firewall software is running on your PC.

Note   It is possible that your PC isn't correctly connected to the SpeedTouch™580. In this case check that:

- The WLAN client is correctly associated with the SpeedTouch™580 WLAN as described in "2.3.1 First-time Wireless Client Association" on page 19.

- Your USB drivers are correctly installed if you are connected through USB.

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

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

<table>
<tr><td>

Configuration of the SpeedTouch™ (and PC)

</td><td>

Proceed as follows:

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

Note If the SpeedTouch™ has been configured before:

- It may be protected by a system password. You must provide this password before you can view the device details or continue with the configuration.

- You will be asked to choose between reconfiguring your Speed-Touch™ or changing your Local Area Network configuration. Select the **Reconfigure the SpeedTouch™** option and click **Next**.

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

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

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

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

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

</td></tr>
</table>
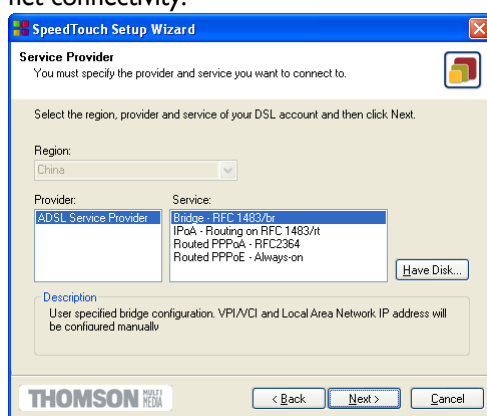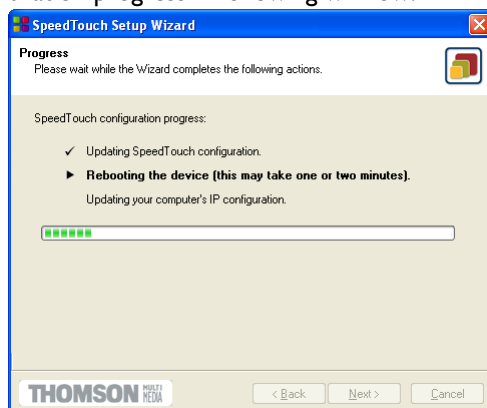
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5 As soon as the SpeedTouch™ Setup wizard completed the update of the Speed-Touch™ configuration and reconfigured your PC, following window will appear:

Click **Finish** to close the wizard.

Note Due to the reconfiguration the SpeedTouch™'s IP configuration or wireless access point settings may have been changed. If this is the case, the last window of Easy Setup will not be shown because of loss of connectivity. If so, refer to the Service Provider's instructions for more information. If the connection is lost, the following window appears.
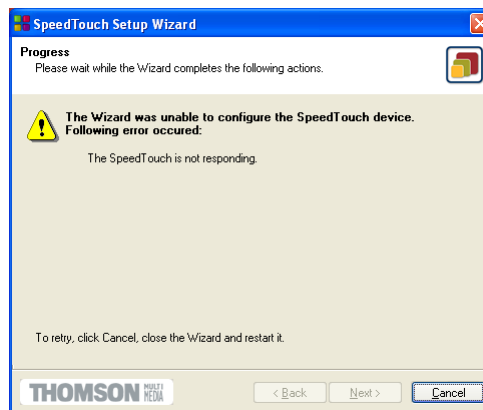
Note In some cases, the SpeedTouch™ Setup Wizard may ask you to restart your computer. First close all your programs and then click **Yes. If you want to reboot later click NO**:
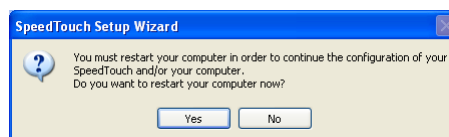
Additional configuration

Some additional configuration may be needed:

- **MS Windows IP configuration**
  Most Service profiles will enable the SpeedTouch™ DHCP server. Since by default a PC's Ethernet interface is configured for obtaining its IP configuration dynamically (DHCP client), in most cases, no additional configuration is required.

  To make sure that all PCs are configured as expected (DHCP or fixed IP addresses):

  1   Run the SpeedTouch™ Setup Wizard on every PC that must connect to the WLAN.

  2   Select **Change the LAN configuration**.

  3   Follow the instructions.

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

- **USB Configuration**
  If you are going to use the USB port as if it was an extra wired ethernet port, you will need to install the USB Remote NDIS drivers. See " Installing the Speed-Touch™ USB connection" on page 13 for more information.

- **Wireless Settings**
  When running the SpeedTouch™ Setup wizard, the SpeedTouch™ wireless access point settings will be set to their default values. You might need to re-associate your WLAN clients, using the factory defaults WLAN settings as specified in "2.3.1 First-time Wireless Client Association" on page 19.
  For additional security of your wireless network it is recommend to "personalize" your SpeedTouch™ wireless access point settings. See "2.3 Wireless Connection Setup" on page 16 for more information.

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 9.

- The SpeedTouch™ device is in its default configuration state.
  See "7.3 SpeedTouch™ Default Configuration" on page 95 for resetting your device.

- If you want to configure the SpeedTouch™ over the wireless network, the computer's WLAN client is installed and correctly associated with the Speed-Touch™ wireless network according to "2.3.1 First-time Wireless Client Association" on page 19.

- The computer's Operating System supports TCP/IP and it's Ethernet interface is configured for obtaining its IP configuration dynamically.

  Note In case of problems with DHCP you can also configure the computer's Ethernet 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)

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Configuration of the SpeedTouch™

Proceed as follows:

1 Open a web browser and browse to the SpeedTouch™ web pages at http://10.0.0.138. See "5 SpeedTouch™ Web Interface" on page 49 for more information.

> **Note** If you can not access the SpeedTouch™ web pages, it is probably not in its default state. It is recommended to reset the device. See "7.3 SpeedTouch™ Default Configuration" on page 95 for more information.

2 The embedded Easy Setup wizard will appear automatically:
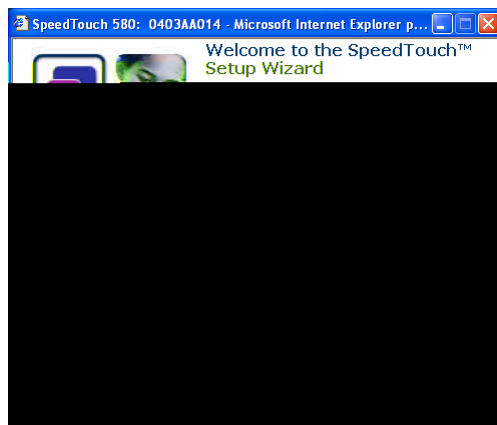
Click *Next*.

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

3 The following window invites you to select the appropriate Service for your internet connectivity:
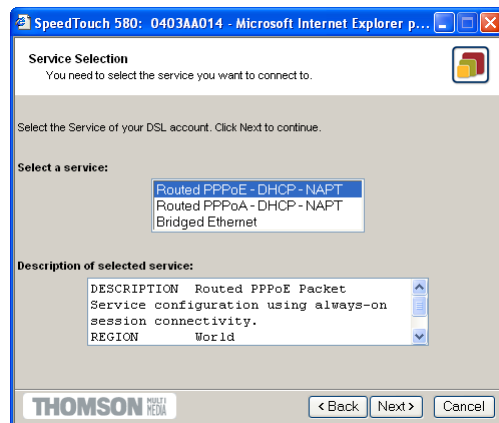
In the Service list, select the Service as specified by your Service Provider and click **Next** to continue.

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

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

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5 Easy Setup will update the SpeedTouch™ configuration according to the Service profile. You can follow the configuration progress in following window:
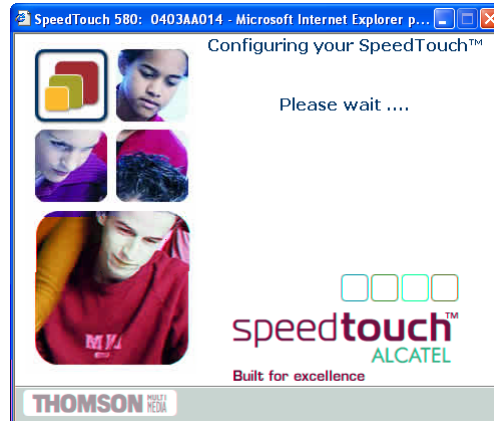
6 As soon as Easy Setup completed the update of the SpeedTouch™ configuration, following window will appear:

Click **Finish** to close the wizard.

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

Additional configuration Some additional configuration may be needed:

- Computer IP configuration
  Most Service profiles will enable the SpeedTouch™ DHCP server. Therefore, make sure that the computer's Ethernet interface is configured for obtaining its IP configuration dynamically (DHCP client).

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

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4   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 "3 SpeedTouch™ Configuration Setup" on page 23, 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.

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

More information on these "stateless" connection protocols can be found in the application note "SpeedTouch™ Connection and Packet Services", available at www.speedtouch.com.

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 "4.1 Internet Connections via SpeedTouch™'s Embedded PPP Dial-in Client" on page 36 for more information.

* A broadband dial-in application on your computer.
  See "4.2 Connect to the Internet via a Host PPPoE Dial-in Client" on page 41 for more information.

More information on the popular PPP connection protocols can be found in the application note "SpeedTouch™ Connection and Packet Services", available at www.speedtouch.com.

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4.1 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 "4.1.1 Using the MS Windows XP Internet Gateway Device Control Agent" on page 37 to proceed.

- another Operating System
you can use the SpeedTouch™ web pages.
See "4.1.2 Using the SpeedTouch™ Web Pages" on page 39 to proceed.

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4.1.1 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 "7.4 UPnP™ on Windows XP Systems" on page 96).

- Internet Gateway Device Discovery and Control Client (subcomponent of Windows XP's Networking Services) must be enabled on your Windows XP system (see "7.4 UPnP™ on Windows XP Systems" on page 96).

- Make sure UPnP™ is enabled on the SpeedTouch™ (see "Configure UPnP™:" on page 69).

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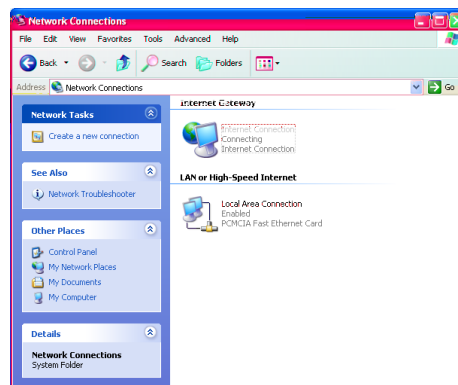
Next to your Network connection(s), you can find an **Internet Gateway** icon, representing the SpeedTouch™ Internet Gateway Device Internet connection ability.

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:
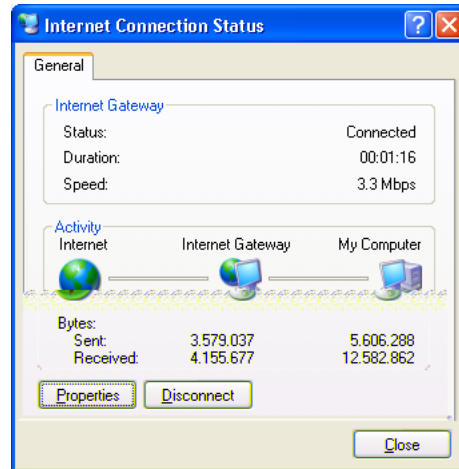
More detailed monitoring is provided via:

- The SpeedTouch™ System Information page
  See " System Information" on page 53.

- The SpeedTouch™ Diagnostics page
  See " Diagnostics" on page 65.

Terminating an Internet session

Proceed as follows:

1 Click **(Settings >) Control Panel** on the **Start** menu.

2 The **Control Panel** window appears.
Go to **(Network and Internet Connections >) Network Connections**.

3 The **Network Connections** window appears.

4 Right-click the **Internet Connection** icon and select **Disconnect to close the session.**

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

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

4.1.2   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 "5 SpeedTouch™ Web Interface" on page 49 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 53.

- The SpeedTouch™ Diagnostics page
  See " Diagnostics" on page 65.

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.

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

Introduction

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

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

BroadBand dial-in clients

To connect to the Internet you can use:

- An MS Windows XP broadband dial-in client.
  See "4.2.1 Using an MS Windows XP BroadBand Connection" on page 42 for more information.

- A Mac OS X broadband dial-in client.
  See "4.2.2 Using the Mac OS X PPPoE Dial-in Client" on page 46 for more information.

- or -

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

    Note   Upon availability of OS-specific PPPoE dial-in client applications, the latter method is Operating System independent.
    For PPPoE session connectivity from a Mac OS 8.6/9.x, a MS Windows 95/98(SE)/ME/2000 or a Linux system, a host PPPoE dial-in application is mandatory.

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4.2.1   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**:
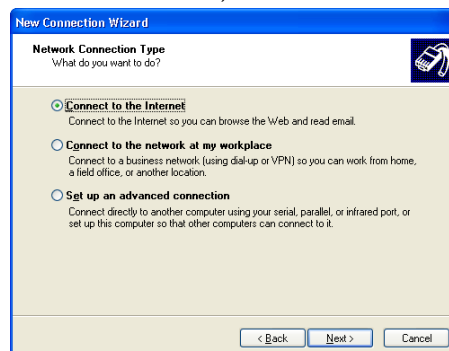
Click **Next** to continue.

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

Click **Next** to continue.

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E-DOC-CTC-20040123-0001 v3.0
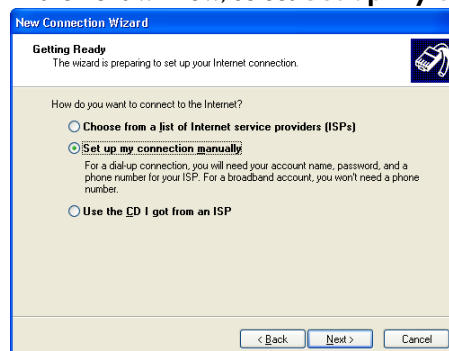
6 In the next window, select **Connect using a broadband connection that requires a user name and password**:
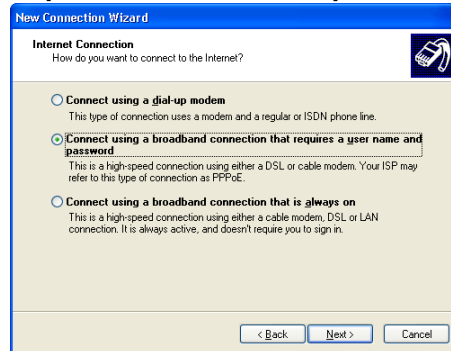
Click **Next** to continue.

7 In the next window, give a name to the connection you are creating, e.g. MyISP:
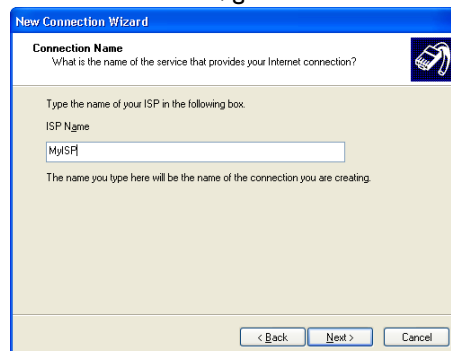
8 In the next window, select whether the connection is available to any user or only to yourself:
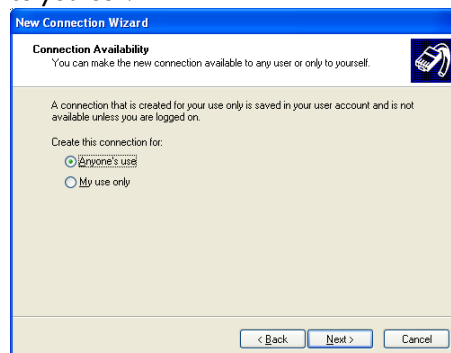
Note If you want to share this connection with other users you must select **Anyone's use**.

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

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

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

Starting a broadband
Internet session

Proceed as follows:

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

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

2 The **Connect MyISP** window appears:

3 If needed, enter user name and password for your user account at the Service Provider.

4 Click **Connect**.

5 As soon as the connection is established, the **Connection** message box and **Dia-lup** window are minimized into a **DUN** icon in the system tray:
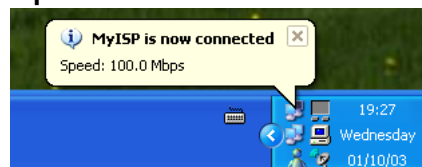
You can open your web browser and surf the Internet.

Terminating a broadband Internet session

Proceed as follows:

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

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

2 The **MyISP Status** window appears:
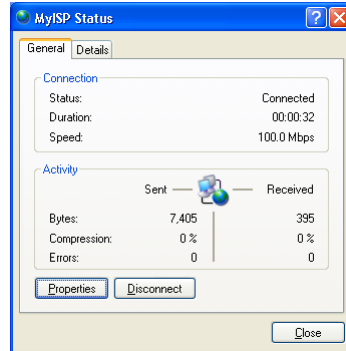
3 Click **Disconnect**.

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

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4.2.2 Using the Mac OS X PPPoE Dial-in Client

Proceed as follows:

1 On the **Apple** menu, click **System Preferences**.

2 The **System Preferences** window appears. Click the **Network** icon.

3 The **Network** window appears. Make sure **Built-in Ethernet** is selected in the **Show** list and click the **PPPoE** tab:
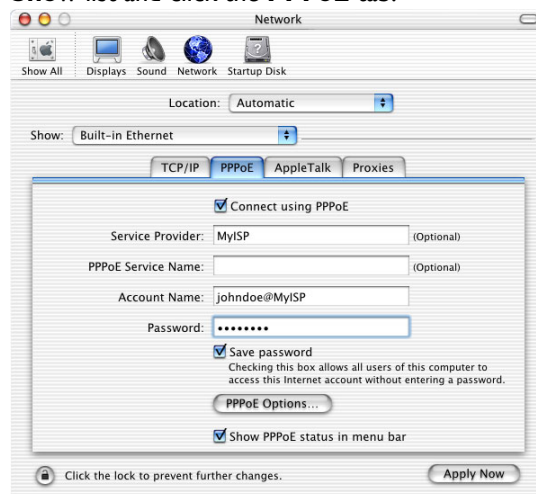
4 Enter the **Account Name** and **Password** provided by your **Service Provider**.

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

5 Click **Apply Now.**

| Starting a broadband Internet session | Proceed as follows: |

Starting a broadband Internet session

Proceed as follows:

1   Click the **Internet Connect** dockling.

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

2   The following window appears:
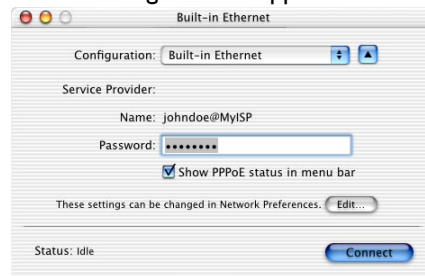
Make sure **Built-in Ethernet** is selected in the **Configuration** list.

3   If needed, enter user name and password for your user account at the Service Provider.

4   Click **Connect**.

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

Terminating a broadband Internet session

Proceed as follows:

1   Click the **Internet Connect** dockling.

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

2   The following window appears:

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

3   Click **Disconnect**.

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

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5   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.

   Note   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.

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Access to the SpeedTouch™ web interface via UPnP™

If your computer is UPnP™ enabled you can access the pages as follows:

1 Click **(Settings >) Control Panel** on the **Start** menu to open the **Control Panel**.

2 Go to **Network and Internet Connections > My Network Places**.

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

3 The following window appears:
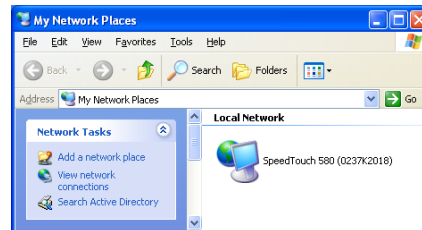
Double-click the **SpeedTouch™** icon.

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

The SpeedTouch™ Start Page

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

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

Topic menu and links

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

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

The following table lists all Basic topic links:

BASIC topic menu	
Click …	To …
System Information	View the current configuration profile. View the current ADSL line status.
Connections	Establish dial-in connections.
Wireless	View/configure SpeedTouch™ Wireless LAN settings.
System Log	View the activity on the SpeedTouch™ since power on.

The following table lists all advanced topic links:

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

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Save all

The **Save All** link on the menu allows you to save the SpeedTouch™ settings.

It is advised to back-up your saved configuration on a regular basis. This can be done via the System link in the **Advanced** menu.

Help

The **Help** link in the topics menu header allows you to browse the SpeedTouch™ online Help.

For more information on a specific topic you can click the context-related Help links located at the Topic's web pages.

5.1   Basic Task Links

System Information

The **System Information** page is the SpeedTouch™ home page. It consists of four sections:

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

Diagnostics	Service Info	Configuration	System
Test		**Result**	
System Self Test		✔	
LAN		✔	
DSL		✔	

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

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

The DSL Statistics allow you to view:

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

- Select **Configuration** to view the configuration profile currently active on the SpeedTouch™:

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

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

Diagnostics	Service Info	Configuration	System
Item		**Description**	
Product Name		SpeedTouch 580	
Physical Address		00-90-D0-4E-F6-C1	
Software Release		4.2.7.5.0	
Board Name		BANT-D	
Serial Number		0403AA006	
Product Code		DSLBB683LE	

The **System** table lists:

- The SpeedTouch™ **Product Name**.

- The unique Medium Access Control (MAC) address of your SpeedTouch™. This MAC address can be used to identify your SpeedTouch™.

- The SpeedTouch™ **Software Release**.

- The SpeedTouch™ **Board Name**.

- The SpeedTouch™ **Serial Number**.

- The SpeedTouch™ **Product Code**.

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

Connections   The **Connections** page allows you to establish dial-in connections, if applicable:

Connections					
Interface		**Destination**	**Mode**	**Link**	**State**
■ PPPoA_1		PVC_1	always-on	connected	up
Connection properties					
Specify your username and password:					
User:	johndoe@MyISP				
Password:	●●●●●●●				
☑ Save this password					
Disconnect				**Help**	

See "4.1.2 Using the SpeedTouch™ Web Pages" on page 39 for more information on how to use the Dial-in Connections table.

For more information on the configuration and use of PPP connections, see the application notes "The SpeedTouch™ Routed PPPoA Packet Service" and "The SpeedTouch™ Routed PPPoE Packet Service". Available at www.speedtouch.com.

Wireless

The SpeedTouch™ **Wireless** page offers three tabs to configure the SpeedTouch™580 wireless module:

- **Access point settings**
  To configure the basic settings of the SpeedTouch™580 wireless access point.

- **Security**
  To overview and control the security settings and wireless client access to the SpeedTouch™580's wireless network segment.

- **Associated stations**
  To overview the SpeedTouch™580 wireless associated stations.

Access point settings

Select **Access Point Settings** to view the **Access Point Settings** page:

By default the SpeedTouch™ broadcasts its **Network Name (SSID)** to the WLAN clients. WLAN clients using this broadcast **SSID** or using an empty SSID can join the SpeedTouch™ WLAN.

- To enhance the security of your connection, it is possible to select "only stations with the correct Network name (SSID) can connect".

  Note When you enable this option, the **SSID** will not be broadcast. Depending on your wireless client, the SpeedTouch™ wireless network will no longer be visible in the list of available networks. Moreover, stations trying to associate with an empty SSID will not be able to connect. Click **Save all** to save your changes to persistent memory.

- It is possible to personalise the Network Name (SSID). Proceed as follows:

  1 Enter the SSID of your choice in the **Network name (SSID)** field.

  Note The SSID must consist of maximum 32 alphanumeric characters.

  2 Click **Apply** to apply the SSID.

  3 Reconfigure your wireless client(s) to use the changed settings.

  4 Click **Save all** to save your changes to persistent memory.

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- **Rate** shows the current modulation rate in which the SpeedTouch™580 is currently operating.

  Note Take into consideration that if the distance between the Speed-Touch™580 and the client increases the throughput for this client decreases. In general walls, closets and big metal objects will have a negative influence on throughput performance.

- By default the **interoperability mode** allows both IEEE 802.11g compliant wireless clients as well as IEEE 802.11b clients to connect to your SpeedTouch™580.

  To change:

  1 Select the desired option ("**802.11g and b**" or "**802.11g only**")

  2 Click **Apply** to apply your changes.

  3 Click **Save all** to save your changes.

- By default The SpeedTouch™580 chooses its radio **channel** automatically at start-up of the access point on basis of the least interference with other access points.

  Click **Update** to let the SpeedTouch™580 re-evaluate the aerial environment conditions to base a new channel selection on. A channel change will be applied immediately.

  Note Associated wireless clients always follow the access point's radio channel selection. They will change their radio channel into that of the updated radio channel selection. In worst-case there will be a short loss of connection but that will be automatically restored.

  To configure a fixed radio channel:

  1 Select the desired radio channel.

  Note Channel selection is automatically restricted in line with region limitations. See **" Wireless basics" on page 16** for more information**.**

  2 Click **Apply** to apply the radio channel.

  Note The button **Update** disappears and will come back if you select **Auto**.

- Select **Framebursting** to enhance the performance of wireless networks by improving the efficiency between the client and the wireless access point if you have mainly downstream traffic i.e. from the SpeedTouch™580.
  If selected, it becomes active after you click **Apply**.
  If cleared, it becomes inactive after you click **Apply**.

- To disable the SpeedTouch™580 wireless access point:

  Proceed as follows:

  1   Deselect **wireless interface enabled**.

  > **Note**   All your wireless clients will be disconnected!

  2   Click **Apply** to apply your changes. The following screen appears:
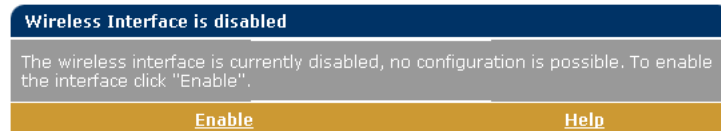
  3   Click **Save all** to save your changes.

  > **Note**   You can also disable your wireless interface by pressing the front panel button for 10 seconds until the WLAN LED goes off. If these settings need to be saved on persistent memory, browse to the web pages and click **Save all** to save your changes.

- To enable the SpeedTouch™580 wireless access point:

  1   Click **Enable** to enable the wireless interface.

  > **Note**   The **Access Point Settings** table is shown

  2   Click **Save all** to save your changes.

  > **Note**   You can also enable your wireless interface by pressing the front panel button for 10 seconds until the WLAN LED goes on. If these settings need to be saved on persistent memory, browse to the web pages and click **Save all** to save your changes.

Security   Select **Security** to:

- Choose and configure a security level:

By default all security is disabled. Select the desired **security configuration** (WEP or WPA-PSK) to enhance your security level:

To enable level 1 - WEP

1   Select the entry **Security Level 1 WEP** which allows you to proceed with the following window:

2   Select how you intend to enter the WEP key.

3   Enter the WEP key of your choice. In case of:

- 64-bit, Alphanumeric
  The WEP key must consist of 5 alphanumeric characters.

- 64-bit, Hexadecimal
  The WEP key must consist of 10 hexadecimal digits

- 128-bit, Alphanumeric
  The WEP key must consist of 13 alphanumeric characters.

- 128-bit, Hexadecimal
  The WEP key must consist of 26 hexadecimal digits

    Note   Hexadecimal values range from 0 to 9 and from A to F. Alphanumeric values range from 0 to 9 and from A to Z.

4   Click **Apply** to apply the WEP encryption settings.

    Note   The colour of the WLAN LED will change to amber.

5   Reconfigure your wireless client(s) to use the changed settings.

6   Click **Save all** to save your changes to persistent memory.

To enable level 2 - WPA-PSK

1 Select the entry **Security level 2 - WPA-PSK** which allows you to pro-
ceed with the following window:

2 Define your **passphrase.**

Note The **passphrase** must consist of 8 to 64 ASCII characters.

3 Select an encryption method.

Note TKIP is the encryption as specified in the WPA standard. It is
designed to be implemented by a firmware upgrade on legacy
hardware. AES encryption offers stronger security, but is not
part of the WPA -although it will become part of the future
standard -WPA2.

4 Optionally, change the rekeying interval.

Note The security keys used by each associated station are periodically
changed for greater security. The interval between key refresh
can be set to an integer number of seconds. If set to 0, the keys
are not refreshed.

5 Click **Apply** to apply the WPA-PSK settings.

Note The colour of the WLAN LED will change to green.

6 Reconfigure your wireless client(s) to use the changed settings.

7 Click **Save all** to save your changes to persistent memory.

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To disable any security (No security)

1 Select the entry **Security level 0** which allows you to proceed with the following window:

2 Click **Apply** to apply your changes.

Note The colour of the WLAN LED will change to red.

3 Reconfigure your wireless client(s) to use the changed settings.

4 Click **Save all** to save your changes to persistent memory.

Note The WEP and/or WPA-PSK settings will be preserved in case you want to switch on security again later.

Select **Security** to:

- View the current **Access Control List (ACL) and ACL Access Mode**. Via this table you can manually add or delete wireless clients and configure how wireless clients are allowed to connect to the SpeedTouch™580 WLAN.

The following table is shown:

Following ACL Access modes exists.

- New stations are allowed (automatically).

- No new stations are allowed.

- New stations are allowed (via registration).

To change the ACL Access mode, select the desired ACL Access mode from the dropdownlist and click **apply**.

By default new clients with the correct wireless settings (Network Name and, if required, Network key) are automatically allowed to associate to the Speed-Touch™580. However, the associated stations are NOT automatically added to the ACL. If needed you can manually add them.

If registration is enabled the following window is shown:

clicking the **Register** button triggers the SpeedTouch™ to unlock the ACL for a time frame of one minute, after which the ACL is locked again. All the new wireless clients successfully attempting to connect to the SpeedTouch™ (having the correct wireless settings (Network Name and, if required, Network key)) will be added to the table as allowed station.

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

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To manually add a new station which can be done at any time. Proceed as follows:

1   Click **New**.

2   The following table is shown:

3   Add an intuitive name for the wireless client.

4   Add the wireless client's physical hardware address (MAC address).

5   Whether the wireless client is allowed (select '**yes**') or not (select '**no**') to exchange data between the wireless clients and the SpeedTouch™580.

Note   You can also add currently associated stations semi-automatically via the **Associated Stations** table. See Associated stations for more information.

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Associated stations

Select **Associated Stations** to view all wireless stations that are currently associated to the SpeedTouch™580 access point:

Access Point Settings	Access Control	Associated Stations
Currently associated:	1 stations	
Station Name	**MAC Address**	**Authentication**
Not Registered (ACL)	00:10:C6:24:3D:F3	Not required, open system

To add an associated station to the ACL:

1   Select the entry you want to explicitly add to the ACL. Associated stations that are not present in the ACL yet are identified by the name: Not Registered (ACL).

2   To change the access rights for this station, click **Access Control**.

3   Change the name of the station (optionally but recommended).

4   Change its permission. Select **Yes** to allow it to exchange data with other stations or select **No** to explicitly deny the station to associate with the Speed-Touch™580.

5   Click **Apply** to immediately apply your changes.

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System Log   Click this link to view the **System Log** page.

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

Logged Messages	
System Up Time	00:13:12 (since power on)
View Mode	All logged messages

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

System log messages are used to provide a historical overview of events, errors, and messages generated during SpeedTouch™580 operation. The System Log web page allows you to overview all syslog messages the SpeedTouch™580 generated since its last reboot. By default the table is automatically refreshed every 30 seconds and shows all system log messages.

- Select **View All** to view all system log messages the SpeedTouch™580 has gener- ated.

- Select **View Important Only** to view messages the SpeedTouch™580 gener- ated to notify a important system events:

  - Warnings

  - Error conditions

  - Critical conditions

  - Alerts, requiring immediate actions to solve

  - Emergency conditions, notifying the SpeedTouch™580 being unusable for normal service.

- Select **View Critical Only** to view all critical messages, the SpeedTouch™580 generated to notify an event that may have caused severe changes to the Speed- Touch™580's operational state:

  - Critical conditions

  - Alerts, requiring immediate actions to solve

  - Emergency conditions, notifying the SpeedTouch™580 being unusable for normal service.

If you click Stop AutoRefresh, the automatic refresh of the table is stopped. An extra menu allows you to configure the refresh rate in seconds (30 seconds by default). Click AutoRefresh to apply your changes and to start automatic update of the table (using the new refresh rate).

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5.2   Advanced Topics Menu Links

Diagnostics   The **Diagnostics** page consists of three expandable sections:

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

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

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

Click ⊠ to perform an IP connectivity test.

Easy Setup

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

See "3.2 Operating System Independent SpeedTouch™ Configuration Setup" on page 31 for more information.

IP Addresses

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

IP address table			
Intf	**Address/Netmask**	**Type**	**Translation**
▶ eth0	169.254.149.35/16	Auto	none
▶ eth0	10.0.0.138/24	User	none
▶ eth0	192.193.195.233/24	Extra	none
▶ loop	127.0.0.1/8	Auto	none
Click 'New' to create a new entry.			
New		Help	

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

IP Routing

The **IP Routing** page allows you to view or add/delete static IP routes for Speed-Touch™'s IP router:

IP route table				
Destination	**Label**	**Gateway**	**Intf**	**Metric**
▶ 169.254.141.11/32	-	169.254.141.11	eth0	0
▶ 255.255.255.255/32	-	10.0.0.138	eth0	0
▶ 10.0.0.138/32	-	10.0.0.138	eth0	0
▶ 127.0.0.1/32	-	127.0.0.1	loop	0
▶ 10.0.0.0/24	-	10.0.0.138	eth0	0
▶ 169.254.0.0/16	-	169.254.141.11	eth0	0
▶ 224.0.0.0/4	-	10.0.0.138*	eth0	0
Click 'New' to create a new entry.				
New		Help		

Routing can be useful when subnetting your local network.

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NAPT The **Network Address and Port Translation (NAPT)** 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.

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

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

Instead of manually configuring the required NAPT entries, the NAPT Manager allows you to configure the SpeedTouch™ NAPT entries semi-automatically, simply by selecting the application, requiring these NAPT entries. For more information, see "6 SpeedTouch™ NAPT Manager" on page 77.

- View or add/delete **Multi-NAT entries**:

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

To add Multi-NAT entries proceed as follows:

1 Click **New**.

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

3 Click **Apply**.

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- Define a **Default Server**:

NAPT Entries	Multi-NAT Entries	Default Server	UPnP

Specify the NAPT default server address:

IP address: | 10.0.0.154

| Apply | Help |

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

- Configure **UPnP™**:

NAPT Entries	Multi-NAT Entries	Default Server	UPnP

UPnP configuration

⦿ Full   ◯ Secure   ◯ Off

| Apply | Help |

The three UPnP™ configurations are:

- **Full** (default)
  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   The **Dynamic Host Configuration Protocol (DHCP)** page allows you to:

- Click The **DHCP Server** tab to access the DHCP server pages.

    - Select **Server Config** to enable/disable the SpeedTouch™ (Auto)DHCP server:

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

- Scanning for other DHCP server
  In case the DHCP server and its Auto DHCP feature are enabled, during local network probing on the SpeedTouch™ Ethernet interface eth0.

- DHCP server stopped
  In case the DHCP server and its Auto DHCP feature are enabled, and a concurrent DHCP server was found during probing, thus causing its own DHCP server to be stopped and a DHCP client on the Speed-Touch™ Ethernet interface eth0 be created and activated.

- DHCP server started
  In case the DHCP server and its Auto DHCP feature are enabled, and no concurrent DHCP server was found during network probing, thus starting its own DHCP server on the SpeedTouch™ Ethernet interface eth0.

- DHCP server running
  In case the SpeedTouch™ DHCP server is enabled by default (without DHCP client)

- DHCP client
  In case the SpeedTouch™ server is disabled by default, and a DHCP client is running on the SpeedTouch™ Ethernet interface eth0.

- No DHCP
  In case the SpeedTouch™ server is disabled by default and the Speed-Touch™ Ethernet interface eth0 IP address is statically assigned.

Under Properties, you are able to select:

- **DHCP server**

  Enables the SpeedTouch™ DHCP server. If it was not running, it will be enabled immediately.

- **Auto DHCP**

  The SpeedTouch™ will not start its DHCP server immediately, but will first probe the network for a possible concurrent DHCP server for some period of time (set by Client timeout in seconds). In case another DHCP server is found, the SpeedTouch™ DHCP server is not started, and a DHCP client will be created on its Ethernet interface instead. If no concurrent DHCP server is found, the SpeedTouch™ DHCP server is started.

- **No DHCP**

  Disable the SpeedTouch™ DHCP server. If it was running, it will be stopped immediately.

- Select **Server Leases** to view the current leases provided by the SpeedTouch™ DHCP server.

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

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

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

DHCP Server		DHCP Relay		DHCP Client	
Server Config		**Server Leases**		**Address Pools**	
Name	Start Address	End Address	Intf	State	PPP
☐ LAN_private	10.0.0.1	10.0.0.254	eth0	static	-

DHCP pool properties:

Name:	LAN_private	Interface:	eth0 ▾
Start address:	10.0.0.1	End address:	10.0.0.254
Subnet mask:	255.255.255.0	Lease time:	7200
Gateway:	10.0.0.138	Server:	10.0.0.138
Primary DNS:	10.0.0.138	Secondary DNS:	10.0.0.138
New	Apply	Delete	Help

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

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

  - Select **Relay Config** to view the current SpeedTouch™ DHCP relay status:

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

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

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

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

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

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

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

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DNS   The **Dynamic Name System (DNS)** 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:

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

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

This page allows you to:

- Upgrade the SpeedTouch™ system software:

See "7.2 SpeedTouch™ System Software Upgrade" on page 85 for more information on how to upgrade the SpeedTouch™ System Software.

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

Configuration	
Item	**Description**
Region	World
Provider	Any
Service Name	Routed PPPoA - DHCP - NAPT
Service Description	Routed PPPoA Packet Service configuration using always-on session connectivity.
Last Configured	Configuration modified manually

Specify a configuration file to upload:

[   ] [Browse...]

| Upload | Backup | Restore default | Help |

- To backup the current configuration click **Backup** and follow the instructions.

- To restore the SpeedTouch™ defaults:

  1   Click **Restore default** to load the default configuration.

  2   The SpeedTouch™ prompts you to confirm the reset to defaults. Click **Yes** to load the default configuration.

  3   The SpeedTouch™ is now in its default configuration.

  Note   For your convenience the configuration of the SpeedTouch™580 wireless access point is temporarily preserved to assure wireless connectivity after restoring the defaults. To reset the wireless configuration as well, restart the SpeedTouch™580 immediately after restoring the default configuration as described above.

- To upload and apply a SpeedTouch™ backup configuration file:

  1   Click **Browse** to locate the backup file on your local disk you intend to restore. Select the file and click **OK**.

  2   Click **Upload** to upload and apply the backup configuration.

  3   Once uploaded, the SpeedTouch™ asks you to confirm that you want the SpeedTouch™ to effectively apply the uploaded configuration. Click **Accept** to save the new configuration.

System Password   The **System Password** page allows you to configure a system password to restrict access to the SpeedTouch™:

System Password	
Enter your password (max 16 chars):	
User id:	johndoe
Password:	•••••••
Retype your password:	•••••••
Apply	Help

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

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

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

Templates

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

This page allows you to:

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

Template Overview	
Filename	**Service**
▶ pppoe.tpl	Routed PPPoE - DHCP - NAPT
▶ pppoa.tpl	Routed PPPoA - DHCP - NAPT
▶ br.tpl	Bridged Ethernet
Select a template to view details	
Help	

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

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

Template Upload
Specify a template file to upload:
[   ] [Browse...]
Upload

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

Language

The **Language** page allows you to select the SpeedTouch™ web page language.
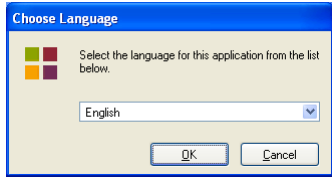
Language Selection
Language   [English ▼]
Apply

By default, the only available language is English.

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

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

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6 SpeedTouch™ NAPT Manager

Introduction

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

Supported Operating Systems

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

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

Using SpeedTouch™ NAPT Manager

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

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

Detection of the SpeedTouch™

Proceed as follows:

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

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

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

Select your language and click **OK.**

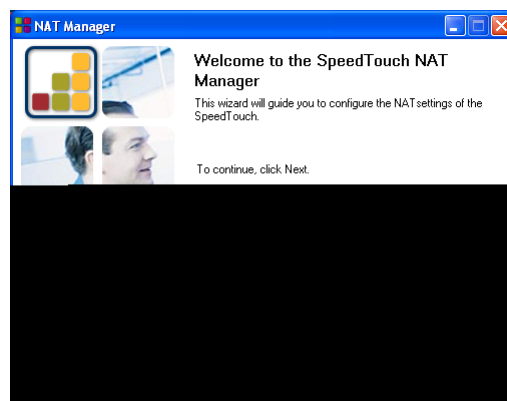**3** The **SpeedTouch™ CD Browser** menu appears:
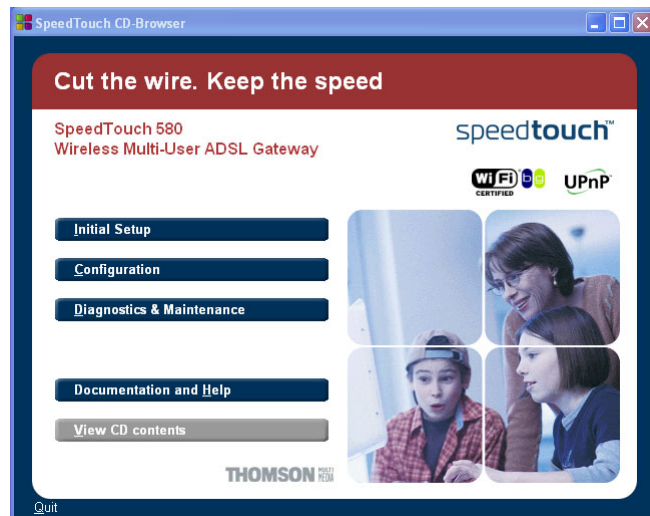
Click **Configuration**.
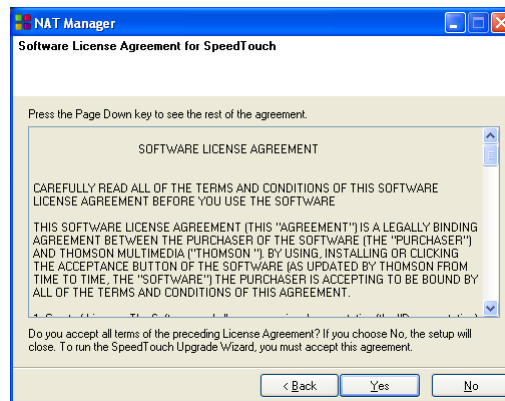
4 The following window appears:
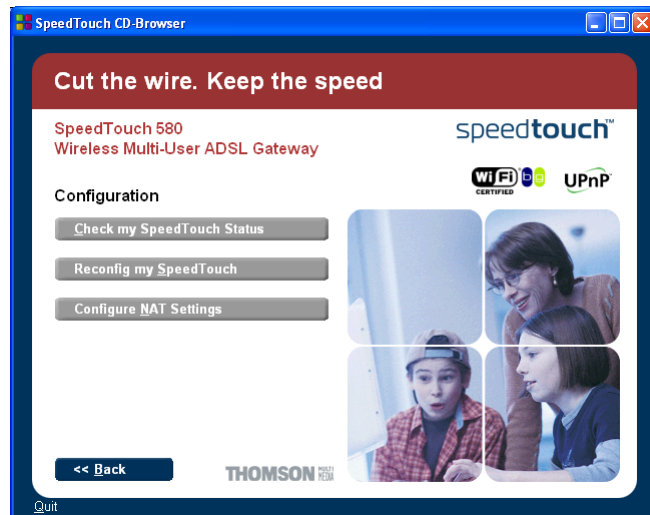
Click **Configure NAPT Settings**.

5 The **NAPT Manager** window appears:

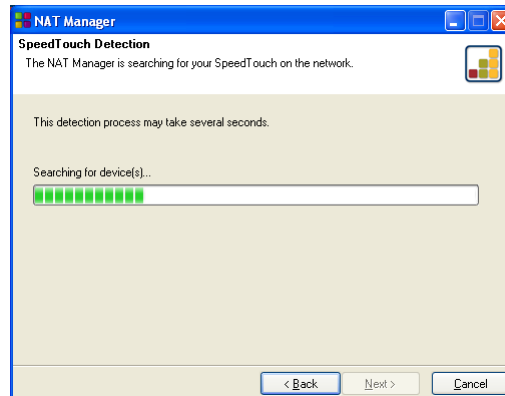Click **Next**.

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

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

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

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

8   The NAPT manager should find your SpeedTouch™ device on the local network. This is indicated by the following window:
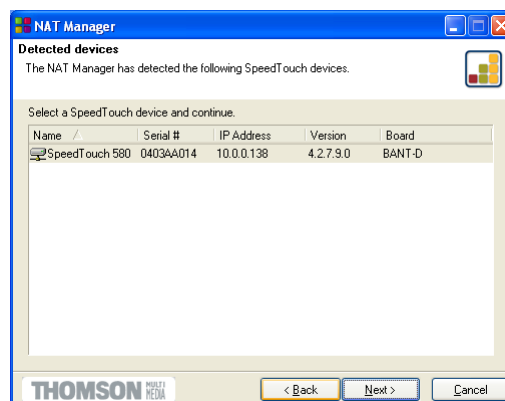
If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™580) and click **Next**.

Note   If the SpeedTouch™ Setup Wizard does not find any SpeedTouch™ on the network an error window appears. In this case see page 27 for more information.

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

Configuration of the
SpeedTouch™

Proceed as follows:

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

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

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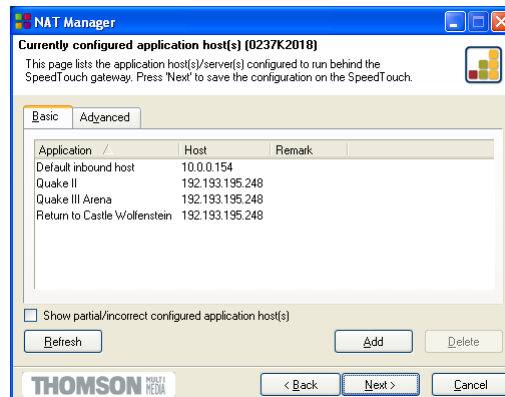

Click **Add** to enter a new application host.

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

- Enter a port mapping for a specific application:
  Click the **Basic** tab. Select an application in the **Application** list and enter the **Host IP Address** in the appropriate fields.
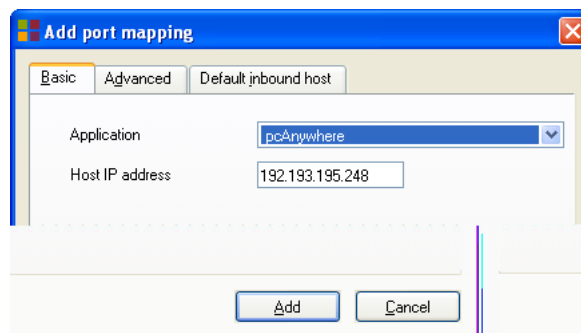

By default, the IP address of the PC from which you are running the NAPT Manager will be taken as host IP address. To add a NAPT entry for another PC, you must change the proposed IP address.

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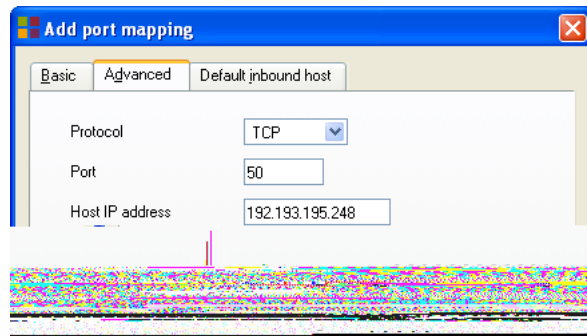

  By default, the IP address of the PC from which you are running the NAPT Manager will be taken as host IP address. To add a NAPT entry for another PC, you must change the proposed IP address.

- Specify a default server IP address:
  Click the **Default inbound host** tab. Enter the new IP address in the **Host IP address** field.
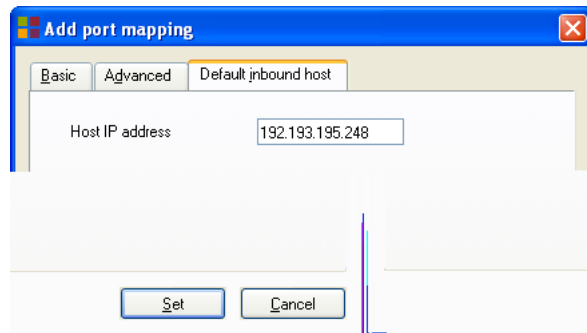
  Click **Set** to add your entry to the list.

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

5   The NAPT Manager will update the SpeedTouch™ NAPT configuration. You can follow the progress in following window:
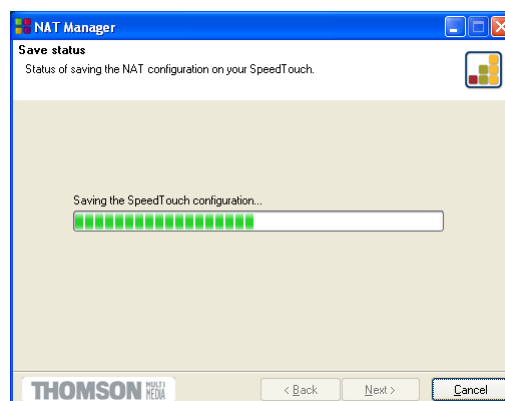
6 As soon as the NAPT Manager completed the update of the SpeedTouch™ NAPT configuration, following window will appear:

Click **Finish** to close the NAPT Manager.

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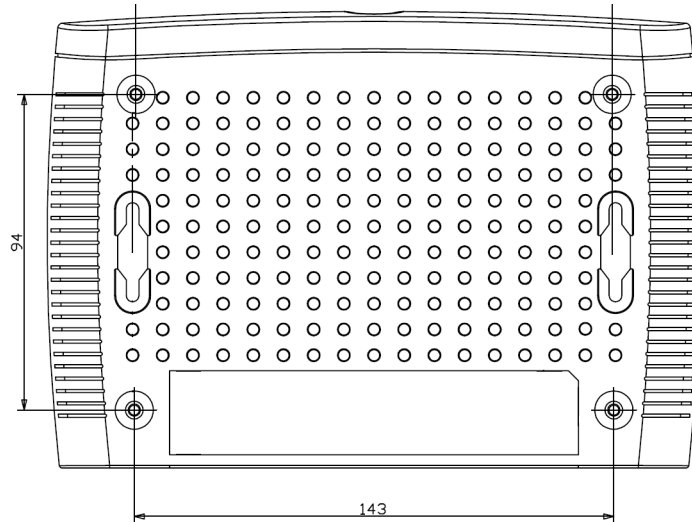
7   Support

7.1 SpeedTouch™ Wall Mount

Wall mount   The SpeedTouch™580 can be wall-mounted by using two screws and the molded mounting brackets on the bottom of the SpeedTouch™580. You must provide the screws.

To mount the SpeedTouch™580 on a wall or other vertical surface:

1   Drill 2 holes in the wall or other vertical surface where you want to place the SpeedTouch™580. Keep a space of 143 millimeters between the 2 holes.

2   Install the two screws. The screws should protrude 5 millimeters from the surface of the wall.

3   Hang your SpeedTouch™580 on the wall using the mounting brackets.

> **Note**   If you install the SpeedTouch™580 onto drywall, use hollow wall-anchors to secure the screws. If the screws are not properly anchored, the strain of the cables connected to the SpeedTouch™580 rear panel connectors could pull the SpeedTouch™580 from the wall.

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7.2 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 "7.2.1 Upgrade via the SpeedTouch™ Upgrade Wizard" on page 86 for more information.
- The SpeedTouch™ BootP client (all Operating Systems).
  See "7.2.2 Manual System Software Management via BOOTP Server" on page 93 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.

  Note It is not possible to upgrade your modem over a wireless connection.

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7.2.1 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

    Note   It is not possible to upgrade your modem over a wireless connection.

- The new system software file is of the type bant-d_XX427x.bin, e.g. bant-d_AA427A.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	86
On Mac OS X	88

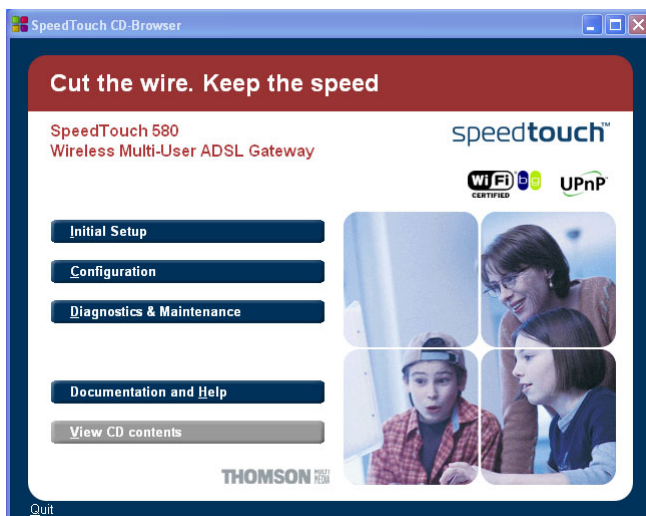**On MS Windows Operating Systems**

Proceed as follows:

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

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

2   The Choose Language window prompts you to select a language. Select the language of your choice and click **OK**.
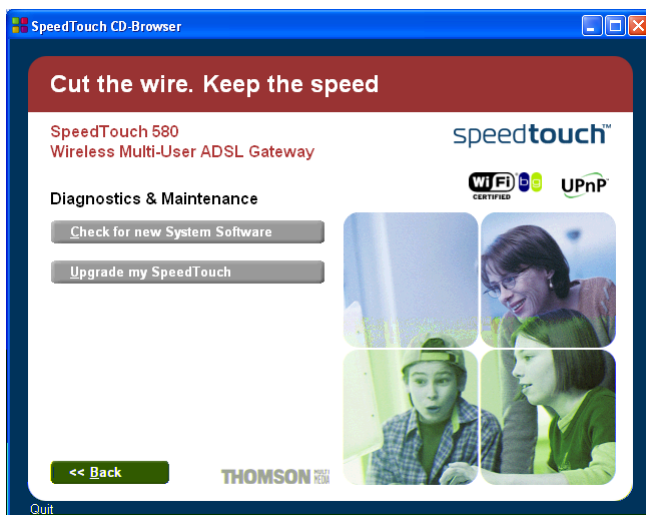
Note   The selected language will also be used as default language in the SpeedTouch™ web pages. See for more information on how to change the web page language.

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

Click **Diagnostics & Maintenance**.

4 The following window appears:

Click **Upgrade My SpeedTouch™**.

See " Upgrade procedure" on page 89 to continue.

On Mac OS X   Proceed as follows:

1   Insert the SpeedTouch™ Setup CD-ROM in your PC's CD-ROM drive.

2   Open the CD-ROM and browse to the **osx** folder.

3   In the **osx** folder double-click **upgradeST.pkg** to install the SpeedTouch™ Upgrade application.

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

> **Note**   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**.

> **Note**   The selected language will also be used as default language in the SpeedTouch™ web pages. See " Language" on page 75 for more information on how to change the web page language.

See " Upgrade procedure" on page 89 to continue.
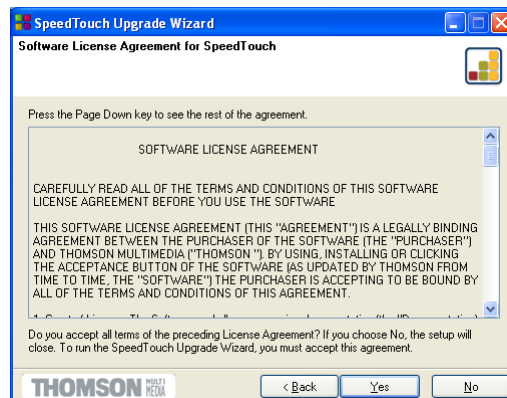
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Upgrade procedure

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.

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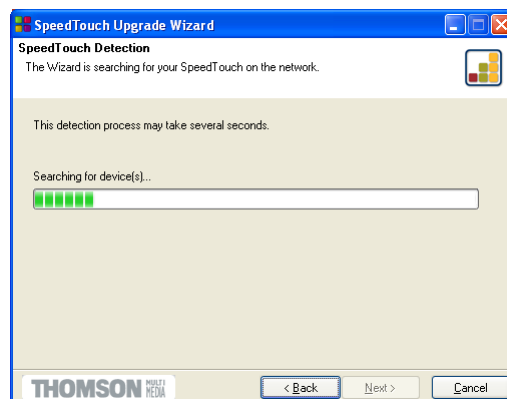
4 The SpeedTouch™ Setup Wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window:
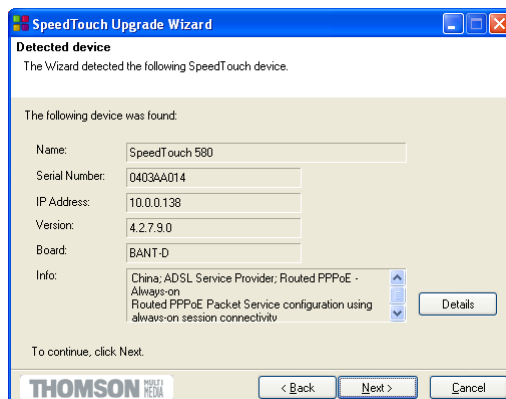

If more than one device is found, a list of available devices will be provided. If this is the case, select your SpeedTouch™ device (SpeedTouch™580) and click **Next**.

Note If the wizard does not find any SpeedTouch™ on the network an error window appears. In this case check page 27 for more information.

Note It is not possible to upgrade your modem over a wireless connection.

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-ROM:
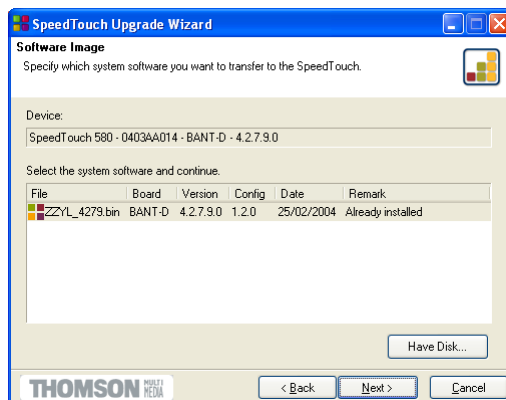

Select the appropriate system software version and click **Next** to continue.

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

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

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8   The following window allows you to overview your selection:
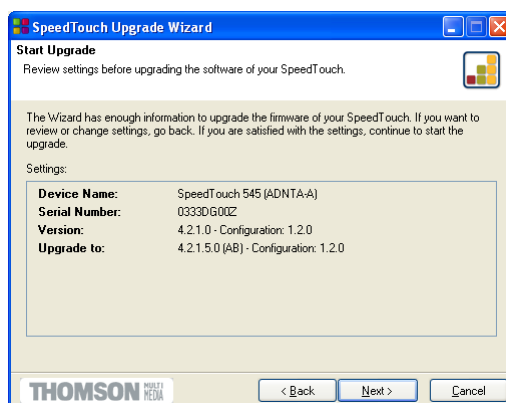
Click **Next** to continue.

9   You can follow the upgrade progress in following window:
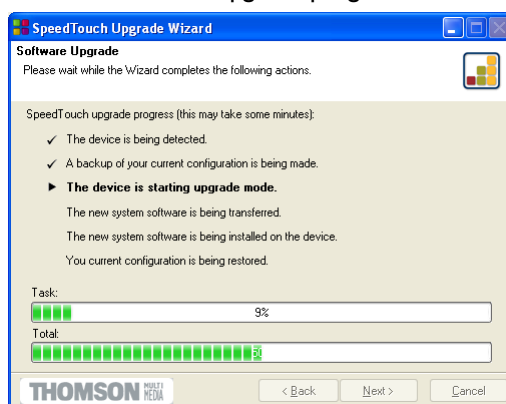
10   After upgrading the SpeedTouch™, a final window appears to announce that the upgrade has been successful
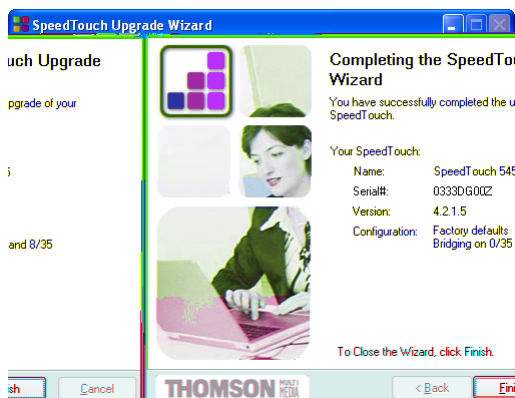
Click **Finish** to close the wizard.

System software downgrade

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

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

7.2.2   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 Speed-Touch™ 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.

Note   It is not possible to upgrade your modem if you are wirelessly connected.

You will need the SpeedTouch™ Medium Access Control (MAC) address of your SpeedTouch™ device. To retrieve this address see .

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 (A) on the SpeedTouch™ rear panel:
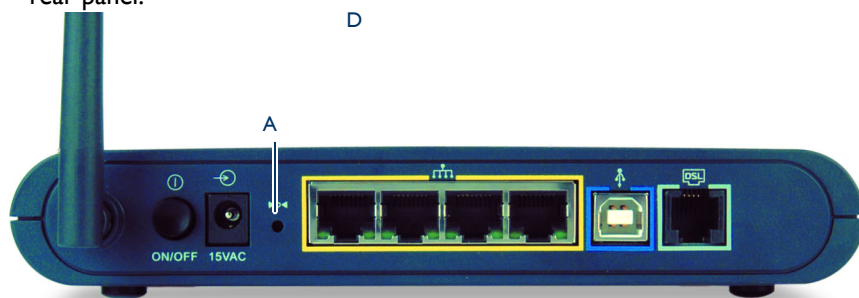

5 Push in the power button to switch on the SpeedTouch™.

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 73.

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7.3 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™.
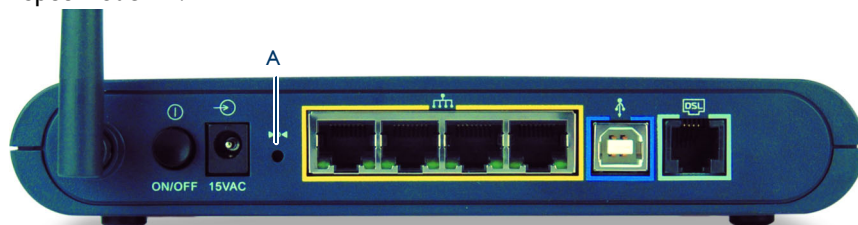
3 Release the button.

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

WLAN clients

You will need to re-associate and register your WLAN clients, using the factory defaults WLAN settings. See "2.3.1 First-time Wireless Client Association" on page 19.

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7.4 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:
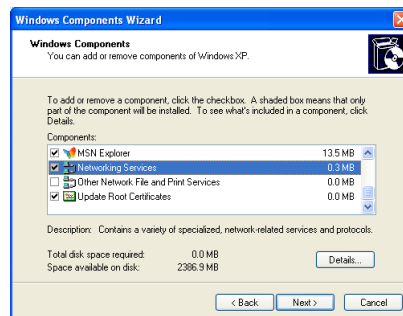
Select **Networking Services** in the **Components** list and click **Details**.

5   The **Networking Services** window appears:
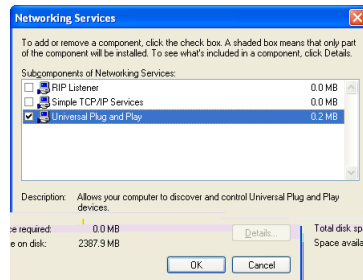
Select **Universal Plug and Play** and click **OK**.

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 succesfull. Click **Finish** to quit.

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

www.speedtouch.com

Adding Internet
Gateway Device
Discovery and Control

Your MS Windows XP system is able to discover and control Internet Gateway Devices (IGD), like the SpeedTouch™580 on your local network. Therefore it is recommended to add the IGD Discovery and Control client to your system.
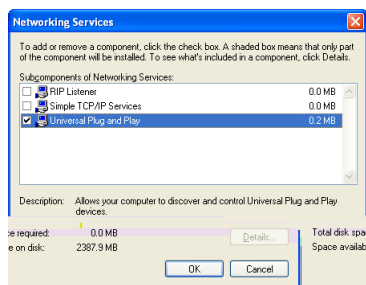
Proceed as follows:

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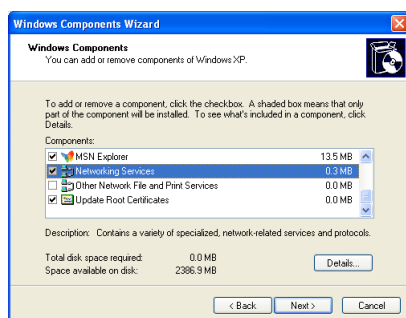
Select *Networking Services* in the **Components** list and click **Details**.

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 succesfull. Click **Finish** to quit.

7.5   Troubleshooting

Configuration problems

In case your SpeedTouch™ is unreachable due to misconfiguration, you might consider a hardware reset to factory defaults as described in "7.3 SpeedTouch™ Default Configuration" on page 95.

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 Speed-Touch™ is turned on.
Wireless client can not connect to the SpeedTouch™ wireless network.	In case registration is enabled, you must press the 'Registration' button to register the wireless client.
	Make sure that the SpeedTouch™ Association Control List is not locked, i.e. allows new wireless client registrations.
	Make sure that the wireless client adapter and SpeedTouch™ share the same IP subnet.
No wireless connectivity.	Make sure both wireless client adapter and SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.
	Make sure that the WLAN client is configured for the correct wireless settings (SSID, security settings).
Poor wireless connectivity or reach.	Choose automatic channel selection or be careful to select a radio channel that doesn't interfere with other radio channels.
	Check the location of the SpeedTouch™ in the building. See Access point settings for more information.
	Make sure both WLAN client adapter and SpeedTouch™ are allowed to connect through wireless channels as defined for local regulatory domain.

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Problem	Solution
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.
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 Speed-Touch™ 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 Speed-Touch™ ADSL/POTS variant. 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.

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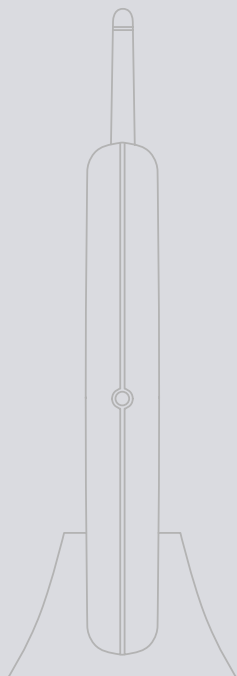
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Need more help?

Additional help is available online at www.speedtouch.com.

A ◆ THOMSON BRAND