SpeedTouch™

510/510i/530

Multi-User ADSL Gateways

Setup and User's Guide

500 SERIES

THOMSON MULTI MEDIA

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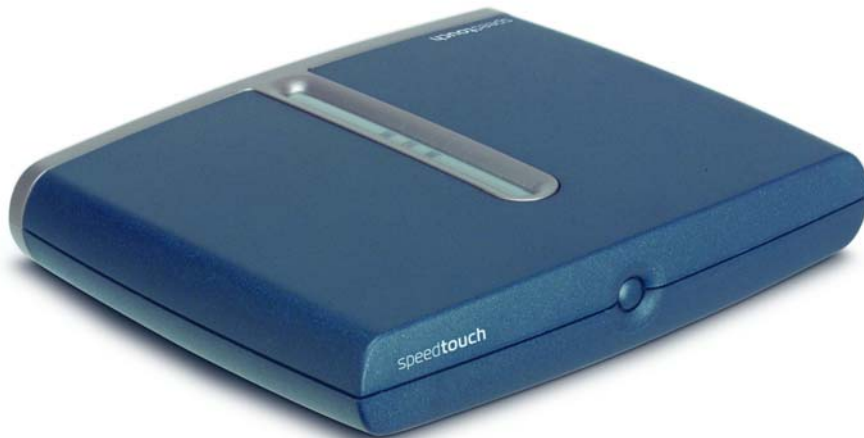
SpeedTouch™

510/510i/530

Setup and User's Guide

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Contents

1 SpeedTouch™ Installation

Introduction	Thank you for purchasing the SpeedTouch™510/530 Multi-User ADSL Gateway!

With the SpeedTouch™510 or SpeedTouch™530 Multi-User Asymmetric Digital Subscriber Line (DSL) Gateways, surfing the Internet will become a whole new experience. |
In this Setup and User's Guide	This User's Guide will assist you in getting acquainted with the SpeedTouch™510 and SpeedTouch™530 Multi-User ADSL gateways and in getting connected quickly to the Internet.
Terminology	Generally, the SpeedTouch™510, SpeedTouch™510i and SpeedTouch™530 will be referred to as SpeedTouch™in this Setup and User's Guide unless specifically indicated.
Safety instructions	Prior to connecting the SpeedTouch™, read the SpeedTouch™ Quick Installation Guide and Safety Instructions.
Documentation and software updates	Due to the continuous evolution of DSL technology, existing products are regularly upgraded.

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

- http://www.speedtouch.com

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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.

The SpeedTouch™510 and SpeedTouch™530

Your SpeedTouch™ is presented in a slim line box:

Power on, power off

The power on/off button is located on the SpeedTouch™ front panel:

To turn on the SpeedTouch™: press the button once shortly.

To turn off the SpeedTouch™: press the button until all LEDs turn off.

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

LED logo	Description
	Power/System LED
	DSL/WAN LED
	LAN LED
	USB LED

The USB LED is available on the SpeedTouch™530 only.

LED functionality during normal operation   The functionality of the LEDs during normal SpeedTouch™ operation is described in the table below:

Indicator			Description
Name	Color	Status	
Power/System	Off		Power off
	Green	Solid	Power on, normal operation.
DSL/WAN	Off		No DSL line.
	Amber	Flashing	DSL line synchronization pending.
		Solid	DSL line synchronized.
	Green/Amber	Toggling	DSL line synchronized and end-to-end connection pending.
	Green	Solid	DSL line synchronized and end-to-end connection active.
LAN	Off		No Ethernet link.
	Green	Solid	Ethernet link.
USB	Off		No USB link.
	Green	Solid	USB link.

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Alert condition LED functionality

In addition to normal operation behavior, the Power/System LED may also indicate following startup or error conditions:

Indicator			Description
Name	Color	Status	
Power/System	Off		Power off.
	Amber	Flashing	Power on, BOOTP status.
		Solid	Power on, POST(*) pending.
	Red	Solid	Power on, POST(*) failed.
	Green	Flashing	Power on, Back-to-Defaults status.

(*) Power On Self Test (POST)

SpeedTouch™510 back panel layout

Depending on the variant you purchased, your SpeedTouch™510 is equipped with:

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

A	Power inlet
B	10/100Base-T Ethernet port
C	DSL line port

• A Four port 10/100Base-T Ethernet switch:
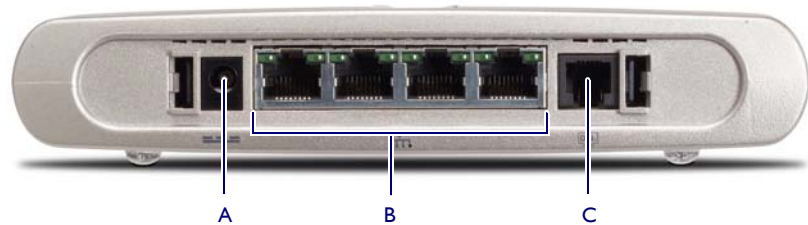
A	Power inlet
B	10/100Base-T Ethernet switch
C	DSL line port

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SpeedTouch™530 back panel layout

The SpeedTouch™530 features a single 10/100Base-T Ethernet port and a USB port:
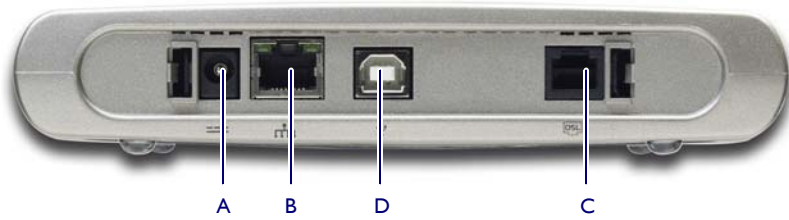
A	Power inlet	C	DSL line port
B	10/100Base-T Ethernet port	D	USB port

Ethernet port(s) LED functionality

Each Ethernet port on the rear panel has two LEDs:
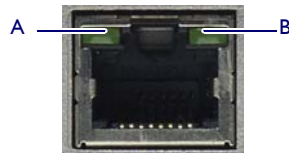
Indicator			Description
Name		LED Status	
A	10/100Base-T	Off	10Base-T Ethernet connection.
		Solid	100Base-T Ethernet connection.
B	Integrity (Activity)	Off	No connection on this port.
		Solid	Ethernet link up.
		Flashing	Data is flowing from/to this port.

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1.2   Setting up the SpeedTouch™

SpeedTouch™ variants   Two ADSL variants of the SpeedTouch™510 exist:

- The SpeedTouch™510:
  The ADSL/POTS variant connecting to an analog POTS(*) line

- The SpeedTouch™510i:
  The ADSL/ISDN variant connecting to a digital ISDN(**) line.

The SpeedTouch™530 is available as ADSL/POTS variant only.

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.

(*) Plain Old Telephone Service (POTS)

(**) Integrated Services Digital Network (ISDN)

ADSL service   The appropriate DSL service must be available at your premises:

- ADSL service must be enabled on your telephone line

- As both telephone and ADSL service are simultaneously available from the same copper pair, you will need a central splitter or distributed filters for de coupling 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. Other splitter/filters may only be installed by qualified service personnel.

Connect the DSL line   The DSL port on the SpeedTouch™ is marked ⬛DSL⬛ .

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

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

The power inlet on the SpeedTouch™ is marked ▬▬▬.

Plug the adapter's coaxial jack into the SpeedTouch™'s power inlet.

Turn on SpeedTouch™   To turn on the SpeedTouch™, press the front panel power button once shortly.

Local networking setup

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

- Ethernet connectivity
  Is available from both SpeedTouch™510 and SpeedTouch™530.
  See subsection "1.2.1. Local Ethernet Connection Setup" on page 10 for more information.

- USB connectivity
  Is available from the SpeedTouch™530 only. USB connectivity is supported for MS Windows 98/98SE/ME and MS Windows 2000/XP only. Before being able to connect to the SpeedTouch™530 through the USB connection you must first install USB drivers.
  See subsection "1.2.2. SpeedTouch™530 USB Connection Setup" on page 11 for more information.

In case of a SpeedTouch™530 you can use both local networking solutions simultaneously to form a single local network.

Internet connection setup

To continue with preparing the SpeedTouch™ for Internet connectivity, see section "1.3 SpeedTouch™ Configuration Setup" on page 13.

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1.2.1.   Local Ethernet Connection Setup

Local network

For Ethernet connectivity you will need at least:

- A computer that already has an Ethernet Network Interface Card (NIC) installed.

- If required, a hub or switch and the necessary connection cables.

Ethernet cables

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

You can use LAN cables other than the one provided in the box. The following table indicates the LAN cable type required:

SpeedTouch™	Other equipment	Type of LAN cable
MDI-X	MDI-X	Crossover
	MDI	Straight-through

The SpeedTouch™530 features an auto-sensing MDI/MDI-X Ethernet port, you can use any type of full wired LAN cable to connect your equipment.

Standard wiring procedure

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

In case of a single Ethernet port SpeedTouch™510 or SpeedTouch™530, you will need an external hub or switch to connect multiple computers.

In case of a SpeedTouch™510 switch, you can create a local Ethernet network of up to four devices, without needing extra networking devices.

Ethernet link check

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

See section "1.1 Getting Acquainted with the SpeedTouch™" on page 4 for more information.

1.2.2.   SpeedTouch™530 USB Connection Setup

Supported Operating Systems

Installing and using the SpeedTouch™530 USB connection is only supported for following MS Windows Operating Systems:

- Microsoft Windows 98/98SE or Microsoft Windows ME
- Microsoft Windows 2000 or Microsoft Windows XP

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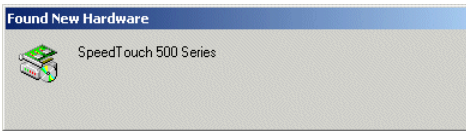
System requirements

- For MS Windows 98/98SE/ME:
  - Pentium processor 166 MHz, or higher (or compatible)
  - 32 Mega Byte (MB) of memory, or more.
- For MS Window 2000/XP:
  - Pentium II processor, or higher (or compatible)
  - 64 MB of memory, or more.
- 30 MB of free disk space
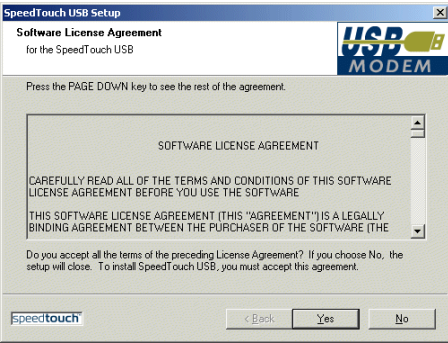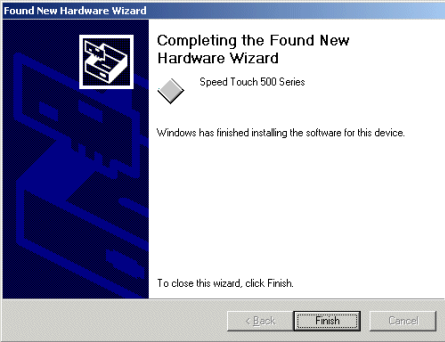
Installing the SpeedTouch™530 USB connection

The installation is Plug-and-Play, meaning that installation will require almost no effort.

Make sure both your PC and SpeedTouch™530 are turned on and operational.

Proceed as follows:

Step	Action
1	Insert the USB cable provided into the SpeedTouch™530 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.
3	Windows will automatically recognize the SpeedTouch™530:
4	The Windows 'Found new Hardware' wizard pops up. This wizard will guide you through the installation procedure of the SpeedTouch™USB drivers. Click Next to continue.
5	The following windows of the 'Found new hardware' wizard allow 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 SpeedTouch™530 on the CD-ROM. Click Next to continue.

Step	Action
7	The installation procedure continues with the installation of the Speed-Touch™530's USB drivers. The installation wizard will further refer to Speed-Touch™USB to indicate the SpeedTouch™530 USB connection.
8	The SpeedTouch™USB Software Licence Agreement window appears: You must accept before continuing. Therefor click Yes to accept.
9	In the following windows you can follow the installation procedure. Click Next whenever requested to continue the installation.
10	At the end of the procedure, the following window appears: Click Finish to complete the installation. As a result your SpeedTouch™530 USB connection is installed and ready for use. Optionally you can connect another computer, using its Ethernet port, before continuing with the SpeedTouch™ Configuration Setup described in section "1.3 SpeedTouch™ Configuration Setup" on page 13.

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1.3   SpeedTouch™ Configuration Setup

Internet connectivity	Regardless whether connectivity is made via the Ethernet port(s), or the USB port (or both), still some configuration may be required to prepare the SpeedTouch™ for Internet connectivity.
What you need from your ISP	You must have a user account with an Internet Service Provider (ISP) for Internet access: For this user account, it will provide you with:

- A user name (logon ID)

- A password.

Other information may be required, depending on the CD-ROM provided and/or the ISP's specific requirements.

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

If your computer runs:

- A Microsoft Windows OS
  A wizard 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 subsection "1.3.1. Configuration Setup for MS Windows Operating Systems" on page 14.

- Another OS, e.g. Mac OS, Unix, Linux, which connects to the SpeedTouch™ via Ethernet
  The SpeedTouch™ is configured semi-automatically by uploading the appropriate configuration file from the SpeedTouch™ Setup CD-ROM to your SpeedTouch™. If any additional configuration of your computer is required, this must be done manually.
  Proceed with subsection "1.3.2. Configuration Setup for other Operating Systems" on page 19.

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1.3.1.   Configuration Setup for MS Windows Operating Systems

Microsoft Windows

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

- Microsoft Windows 95 (Ethernet only)
- Microsoft Windows 98
- Microsoft Windows 98SE
- Microsoft Windows ME
- Microsoft Windows NT4.0 (Ethernet only)
- Microsoft Windows 2000
- Microsoft Windows XP.

You may need the Microsoft Windows installation CD-ROM during installation.
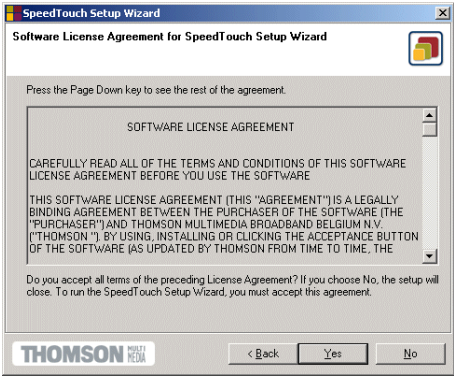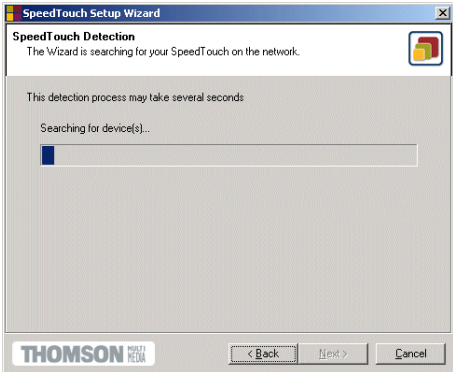
The SpeedTouch™ Setup wizard
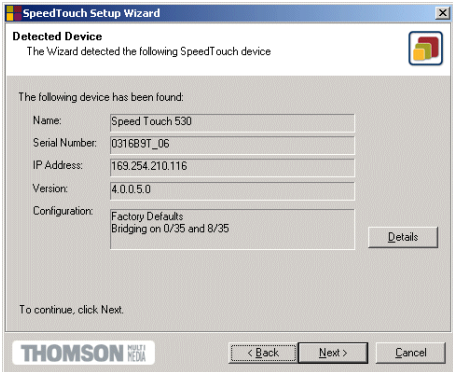
The SpeedTouch™ Setup wizard can be divided into two major parts:

- The detection procedure
- The configuration procedure.
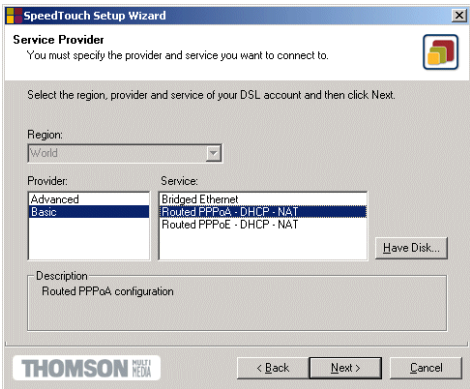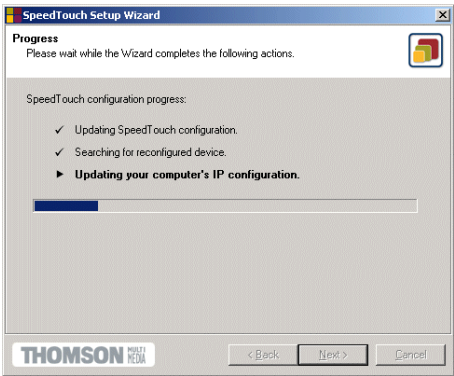
The detection procedure

Step	Action
1	Insert the SpeedTouch™ Setup CD-ROM in your PC's CD-ROM drive. The SpeedTouch™ Menu will start automatically. Note: If the SpeedTouch™ Menu 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 SpeedTouch™ Menu appears: To start the SpeedTouch™ Setup wizard, click SpeedTouch™ Setup.

Step	Action
3	The Welcome to the SpeedTouch™ Setup Wizard window appears: Click Next to proceed.
4	The SpeedTouch™ Software License Agreement window appears: You must accept before to continuing. Therefor click Yes to accept.
5	The Setup wizard will continue to search for the SpeedTouch™ on the network. The following window shows the detection progress:

Step	Action
6	The Setup wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window:
	In case more than one SpeedTouch™ device is found, a listing is provided from which you can select your SpeedTouch™ from.
	Note: If the Setup wizard does not find any SpeedTouch™ on the network an error window pops up. In this case check:
	• Whether your PC is correctly connected to the SpeedTouch™ (Ethernet or USB).
	• In case of Ethernet connectivity, that no dedicated firewall device or router is placed between your PC and the SpeedTouch™ and that no personal firewall software is running on your PC.
	• Whether the SpeedTouch™ is turned on and fully initialized.
	To repeat the search for the SpeedTouch™, click Back and proceed with step 5 of this procedure.
7	To continue with the configuration of your SpeedTouch™ and your PC, proceed with the configuration procedure described below.

The configuration procedure

Step	Action
1	Once the SpeedTouch™ Setup wizard has detected your SpeedTouch™ device you can proceed with the configuration procedure. If more than one SpeedTouch™ device is listed, select the appropriate one. Then, click Next to proceed. 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.
2	The following window invites you to select the appropriate connection profile for your Internet connectivity: Select the connection profile and click Next to continue. Note: If the Service Provider has included a separate disk with a dedicated connection profile, click Have Disk to navigate to the location of the appropriate connection profile file.
3	Subsequent screens will guide you through the configuration setup of both your SpeedTouch™ and/or your PC. Follow the instructions and enter the required information where needed. This information should be provided by your Service Provider.
4	In a final step all configurations will be applied to the SpeedTouch™ and your PC. You can follow the configuration progress in following window:

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Step	Action
5	The SpeedTouch™ Setup wizard will appear again to announce that the configuration has been successful. Click Finish to close the wizard.
6	In case you want to enable multiple PCs on your local network for accessing the Internet via the SpeedTouch™, no additional configuration of your PC's must be done in most cases as most configuration profiles will enable Speed-Touch™'s DHCP server - and the PC's Ethernet port are configured as DHCP client by default. To make sure that all PCs are configured as expected (DHCP or fixed IP addresses) you can re-run the SpeedTouch™ Setup wizard on every PC. For fixed IP configurations, or other advanced settings, please follow the instructions provided by your ISP or network administrator.

1.3.2. Configuration Setup for other Operating Systems

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

Note: The following procedure may equally be used on MS Windows OSs (both Ethernet and USB if supported).

TCP/IP
Ensure that your Operating System has a valid TCP/IP configuration.

Configure every computer with a static Net10 private IP address, e.g. 10.0.0.1. Ensure, however, that you do NOT use the 10.0.0.138 IP address as this is the default IP address of the SpeedTouch™.

To ensure that IP connectivity exists, you can ping the SpeedTouch™.

Procedure

Step	Action
1	To ensure that the SpeedTouch™ is in its factory default state, reset the defaults. See chapter "4 Troubleshooting" on page 41.
2	Open a web browser and browse to the SpeedTouch™'s default IP address 10.0.0.138. See chapter "2 SpeedTouch™ Web Interface" on page 23 for more information.
3	As a result the SpeedTouch™ System Info web page appears. Expand the Advanced Topics and click Setup open the SpeedTouch™ Setup web page.
4	In the Configuration table you can overview the current configuration settings active on the SpeedTouch™. Click Browse to locate the configuration file on the CD-ROM or disk. Note: If the path is known you can immediately enter it in the location input field.
5	Once the location of the appropriate configuration profile file is selected, click Upload. The file will be uploaded to the SpeedTouch™ and immediately activated.
6	After the configuration is applied on the SpeedTouch™ some additional configuration of your computer system may be necessary. Note: The required settings for your computer should be provided by your Service Provider, if applicable.
7	To check whether the activation of the uploaded configuration and the configuration of your computer system(s) - if required - was successful, you can browse to the SpeedTouch™ and check its current status.

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1.4   SpeedTouch™ Internet Connectivity

Surfing the Internet

Once the SpeedTouch™ and the computers have been configured as outlined in section "1.3 SpeedTouch™ Configuration Setup" on page 13, you can connect to the Internet.

Access methods

The SpeedTouch™ supports two access methods:

- Direct access
  Once the initial configuration has been performed, continuous and immediate access is available via the DSL line.

- Dial-in access
  Access must be explicitly established, e.g. by "dialing" into a Broadband Remote Access Server (BRAS), e.g. via the SpeedTouch™ Connect web page.

  Note: This service may require a third-party dial-in application. In this case the appropriate software must be supplied by your Service Provider.

The method used depends on the configuration profile/file you used to configure the SpeedTouch™ and the Service Provider's requirements.

Your Internet connection

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

Note: In some cases, e.g. in the case of Bridged Ethernet, the remote organization might ask for a user name and password on an Internet welcome page.

An example of how to establish a PPP dial-in connection via the SpeedTouch™ embedded dial-in client is provided on the next page.

SpeedTouch™ web pages

Your SpeedTouch™ offers a user-friendly web interface. Via the web pages you can establish dial-in connections, configure some advanced settings, e.g. SpeedTouch™'s DNS server or NAPT server and view statistics relating to the SpeedTouch™ itself and its ADSL connectivity.

See chapter "2 SpeedTouch™ Web Interface" on page 23 for more information.

SpeedTouch™ embedded dial-in application

You can establish dial-in connections, pre-configured by the SpeedTouch™ Setup wizard or by uploading the appropriate configuration file.
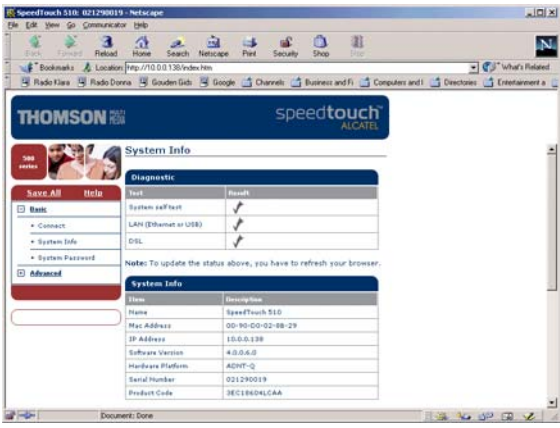
The SpeedTouch™ supports both two most popular connection methods: Routed PPP over ATM (PPPoA) and PPP over Ethernet (PPPoE).

The connection method to use depends on the preferences of your ISP, hence the configuration profile you must apply to the SpeedTouch™

Note: The following description provides only an example of how you can establish Internet connectivity by starting Routed PPP connections. The SpeedTouch™ supports various other methods for Internet access. The actual implementation depends on the preferences of your Service Provider.

Starting a PPP session

To open a Routed PPP connection ot the Internet:

Step	Action
1	Open a web browser on your PC/computer and browse to the SpeedTouch™ web pages:
2	If needed, expand the Basic Topics, and click Connect to open the Connections web page.
3	In the Connections table all configured Routed PPP entries are shown. In the Interface column select the entry you want to start a session with. As a result the entry will be highlighted.
4	If not provided yet, 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. While the SpeedTouch™ tries to start the session 'trying' appears in the State column of the entry. Once the session is started successfully the field displays 'up'. From then on you are online and you can start your application or browse the Internet.

Terminating an opened PPP session

To close an active Routed PPP connection:

Step	Action
1	Ensure that you have access to the SpeedTouch™ web pages.
2	Browse to the SpeedTouch™ Connections page and select the connection entry you want to terminate the session for.
3	Click Disconnect. The entry's session state will change to 'Down', i.e. it becomes idle.

2 SpeedTouch™ Web Interface

Introduction

The SpeedTouch™ comes with integrated local configuration capabilities.

The local configuration, via the SpeedTouch™ web interface, is based on the HTTP server/web browser concept.

It allows you to configure your SpeedTouch™ via a web browser using HTML pages from any local computer attached to the Ethernet interface(s) and/or from the PC connected via the USB interface (in case of a SpeedTouch™530).

Requirements

Before you access the SpeedTouch™ pages, make sure that your browser is configured to directly connect to the SpeedTouch™, I.e. that it is not using a Proxy server.

If required, you can disable the proxy server for the time you want to access the Speed-Touch™ web pages.

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

Use of the SpeedTouch™ web interface

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

Access to the web pages is only required for some advanced configurations and upgrading/updating or backing up the SpeedTouch™ configuration.

Access to the SpeedTouch™ web interface

To access the SpeedTouch™ web pages:

Step	Action
1	Start the web browser on your PC or computer.
2	Browse to the SpeedTouch™ at the SpeedTouch™'s IP address (in most cases 10.0.0.138).
3	If a system password has been set, an authentication window will be displayed. Enter user name and system password in the appropriate fields.

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Result   As a result the System Info page appears:
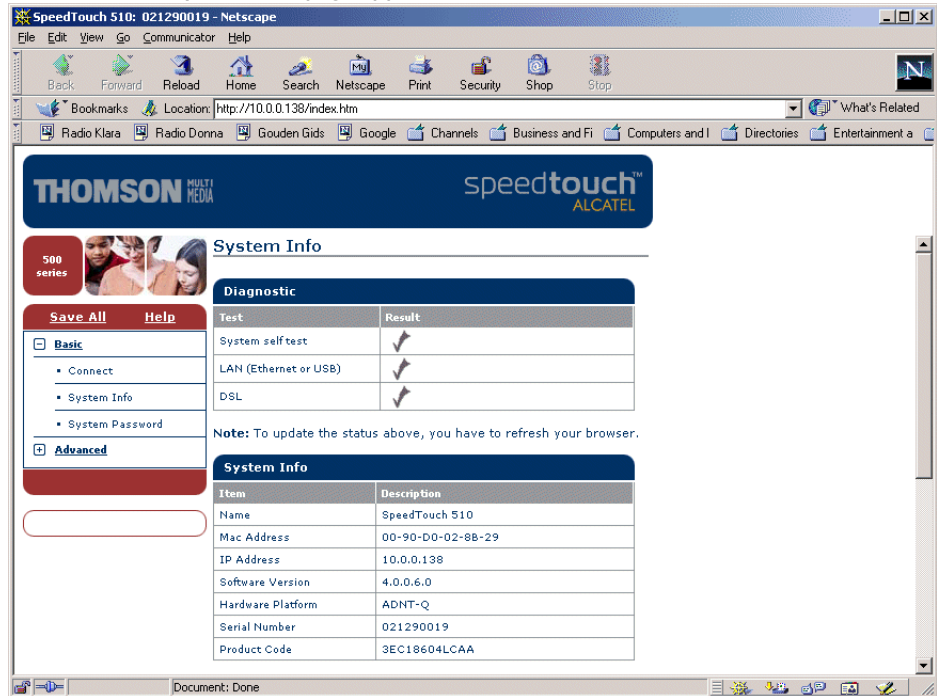
From now on, the SpeedTouch™ acts as a web server, sending HTML pages/forms at your request. You can fill out these pages/forms and submit them to the SpeedTouch™. The latter scans the pages and performs the appropriate configurations.

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

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

The following table lists all Basic topic links:

BASIC topic menu	
Click …	To …
" Connect"	Establish dial-in connections. View the SpeedTouch™ connection information.
" System Info"	View the current configuration profile. View the current ADSL line status.
" System Password"	Set a system password. View the SpeedTouch™ system information.

The following table lists all advanced topic links:

ADVANCED topic menu	
Click …	To …
" Setup"	Backup and/or upload configuration profiles/files. Restore the SpeedTouch™ default settings.
" Static Routing"	View/configure the SpeedTouch™ IP interfaces and IP router.
" DNS"	View/configure the SpeedTouch™ DNS server/client.
" DHCP"	View/configure the SpeedTouch™ DHCP server/client.
" NAT"	View/configure static NAPT entries. Define a default local server for inbound connectivity.

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.

Save all   It is advised to save the SpeedTouch™ configuration and to back it up whenever you made changes to its settings.

To save the configuration click the Save All link in the topics menu header.

For backing up the SpeedTouch™ configuration, see " Setup" on page 32.

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2.1 Basic Topics Menu Links

Connect   Click this link to display the Connections page.

This page allows you to:

- Establish dial-in connections, if applicable:

Connections				
Interface	**Destination**	**Mode**	**Link**	**State**
ppp	ppp	always-on	connected	up

Connection properties

Specify your username and password:

User:	Sascha@MyISP
Password:	********

☑ Save this password

Help	**Disconnect**

See section "1.4 SpeedTouch™ Internet Connectivity" on page 20 for more information on how to use the Dial-in Connections table.

- View detailed connection information by clicking the here link.

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

It allows you to:

- View some basic diagnostics of the SpeedTouch™:

Diagnostic	
Test	**Result**
System self test	✓
LAN (Ethernet or USB)	✓
DSL	✓

- View some important system information of the SpeedTouch™ device.

System Info	
Item	**Description**
Name	SpeedTouch 510
Mac Address	00-90-D0-02-8B-29
IP Address	10.0.0.138
Software Version	4.0.0.6.0
Hardware Platform	ADNT-Q
Serial Number	021290019
Product Code	3EC18604LCAA

- View the current physical status of the ADSL line:

DSL Line Status	
Item	**Description**
Line State	Enabled
Speed (Kbit/sec)	128 up / 1120 down
Duration	01:05:51
Send (kByte)	299
Read (kByte)	1738

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- View the configuration profile currently active on the SpeedTouch™':

Configuration	
Item	**Description**
Region	World
Provider	Advanced
Service Name	Routed PPP DHCP - NAT
Service Description	Routed PPP configuration

System Password

Click this link to display the System Password page.

This page allows you to:

- Configure a system password to restrict access to the SpeedTouch™:

System Password

Enter your password (max 16 chars):

Password:	★★★★★★★★★★★★★★★
Retype your password:	★★★★★★★★★★★★★★★

Help	Apply

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

Note: If no system password has been provided, a warning is displayed on the SpeedTouch™ web pages.

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2.2   Advanced Topics Menu Links

Static Routing   Click this link to display the IP Address and Routing Tables page.

This page allows you to:

- View or add/delete specific IP address entries for SpeedTouch™'s interfaces:

IP address table				
Intf	**Address/Netmask**	**Point-to-Point**	**Type**	**Translation**
▶ ppp	217.136.51.152/32	217.136.51.1	Auto	pat
▶ eth0	169.254.64.172/16	not applicable	Auto	none
▶ eth0	10.0.0.138/8	not applicable	User	none
▶ loop	127.0.0.1/8	not applicable	Auto	none
Click 'New' to create a new entry.				
Help		**New**		

You can add a static IP address for one of the SpeedTouch™'s interfaces by clicking New. Specify the IP address, (sub)netmask, whether NAPT should be applied to this address, and select the interface to which the IP address applies (use eth0 for the Ethernet interface). Click Apply to add the entry to the table. All essential IP routes using this IP address will be automatically added to the SpeedTouch™ IP routing table.

- View or add/delete static IP routes for SpeedTouch™'s IP router:

IP route table			
Destination	**Source**	**Gateway**	**Intf**
▶ 217.136.51.1/32	217.136.51.152/32	217.136.51.152	ppp
▶ 169.254.0.0/16	169.254.0.0/16	169.254.64.172	eth0
▶ 10.0.0.0/8	10.0.0.0/8	10.0.0.138	eth0
▶ default	10.0.0.0/8	217.136.51.152	ppp
▶ 217.136.51.1/32	any	217.136.51.152	ppp
▶ 217.136.51.152/32	any	217.136.51.152	ppp
▶ 169.254.64.172/32	any	169.254.64.172	eth0
▶ 10.0.0.138/32	any	10.0.0.138	eth0
▶ 127.0.0.1/32	any	127.0.0.1	loop
▶ 255.255.255.255/32	any	169.254.64.172*	eth0
▶ 169.254.0.0/16	any	169.254.64.172	eth0
▶ 10.0.0.0/8	any	10.0.0.138	eth0
▶ 224.0.0.0/4	any	169.254.64.172*	eth0
▶ default	any	169.254.64.172*	eth0
Click 'New' to create a new entry.			
Help		**New**	

Routing can be useful when subnetting your local network. You can add a static IP route by clicking New. Specify the destination IP address (use the prefix notation to apply a subnetmask), source IP address, and specify the gateway IP address or select the interface for this route. Click Apply to add the entry to the table.

Note: Do not forget to save your changes to persistent memory by clicking " Save all" .

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

This page allows you to:

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

DNS Server Configuration

Domain name:	lan
	☑ Activate server
Help	**Apply**

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

- View the current SpeedTouch™ DNS server hostname leases:

DNS Hostname Table

Nr	Hostname	Address
▶ 1	SpeedTouch	not specified
▶ 2	Sascha2	10.0.0.1
▶ 3	MyPrinter	10.0.0.10
▶ 4	HomeServer	10.0.0.254

Click 'New' to create a new entry.

Help	**New**

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.

Note: Do not forget to save your changes to persistent memory by clicking " Save all" .

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

This page allows you to:

- Enable/disable the SpeedTouch™ (Auto)DHCP server:

DHCP Server Configuration

Status	
DHCP server running	
Properties	
⊙ DHCP Server	
○ Auto DHCP	Client timeout (s)	20
○ No DHCP	

Help	**Apply**

The SpeedTouch™ features a DHCP server which allows the PCs/computers on your local network to automatically obtain an IP address (select DHCP server). If no DHCP is used on your local network, the SpeedTouch™ DHCP server can be disabled (select No DHCP). The SpeedTouch™ can also search your local network for another DHCP server (select AutoDHCP). If so, it slips into DHCP client mode, if not the SpeedTouch™ becomes DHCP server. Click Apply to apply your selection.

- Configure the SpeedTouch™ DHCP server lease pool properties:

The SpeedTouch™ DHCP server (if enabled) will use the address pools listed in this table to provide IP addresses to requesting DHCP clients. To configure a user-defined IP address pool (appropriate to your local network conditions), click New and provide the required information. Click Apply to add your entry to the table.

- View the current leases provided by the SpeedTouch™ DHCP server.

Via this table you can also manually add static DHCP leases for specific hosts, if applicable.

- View the current SpeedTouch™ DHCP client status:

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

Note: Do not forget to save your changes to persistent memory by clicking " Save all" .

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

This page allows you to:

- View or add/delete specific static NAPT entries:

You can add static NAPT entries by clicking New. Specify the outside address and inside address for the entry as well as the protocol and port to which the entry applies. If the NAPT entry is applied to a connection's dynamically assigned local peer IP address, you should specify 0.0.0.0 as the outside address. Click Apply to add the entry to the table.

- Define a default server:

By specifying a default server IP address, all incoming connections 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.

Note: Do not forget to save your changes to persistent memory by clicking " Save all" .

Setup   Click this link to display the Configuration Upgrade page.

This page allows you to:

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

Configuration	
Item	**Description**
Region	World
Provider	Advanced
Service Name	Routed PPP DHCP - NAT
Service Description	Routed PPP configuration
Last Configured	09 Jun 2002

Specify a configuration file to upload:

	Browse...

Help	Upload	Backup	Restore default

To backup the current configuration, click Backup and follow the instructions.
To restore the SpeedTouch™ defaults, click Restore default to load the default configuration.
To upload and apply a new or backup SpeedTouch™ configuration file, click Browse to go to the location where the SpeedTouch™ upgrade configuration file resides. Select the upgrade configuration file and click Upload to upload and apply the new configuration.

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

System Software	
Item	**Description**
Version	4.0.0.6.0
File	LLT6AA4.0060
Board type	ADNT-Q

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3 SpeedTouch™ System Software Upgrade

Introduction	Due to the continuous evolution of DSL technology, SpeedTouch™ products are regularly upgraded.
	This chapter describes how to upgrade the SpeedTouch™ system software.

System software updates	You can check for system software upgrades regularly at the SpeedTouch™ web site at:

- http://www.speedtouch.com

Firmware upgrades may also be available from your Service Provider. Please contact your Service Provider for more information.

Imperative requirement	The SpeedTouch™ system software upgrade procedures, described in this chapter are valid for both SpeedTouch™510 and SpeedTouch™530.

However, these procedures are only possible via the SpeedTouch™ Ethernet connection(s).

I.e. to upgrade a SpeedTouch™530, connected via the USB port, disconnect the USB port and make a connection from the PC to the SpeedTouch™530 Ethernet port as described in subsection "1.2.1. Local Ethernet Connection Setup" on page 10, prior to follow the procedures described below.

Upgrade mechanisms	Depending on your Operating System and specific requirements, following options are available to upgrade the SpeedTouch™ system software:

- In case you run an MS Windows Operating System or Mac OS10:
  For your convenience a SpeedTouch™ Upgrade wizard will guide you through the system software upgrade procedure.
  See section "3.1 The SpeedTouch™ Upgrade Wizard" on page 34 for more information.

- In case you run another Operating System, e.g. linux, or for extra information about advanced system software management:
  See "3.2 Manual System Software Management via BOOTP Server" on page 39 for more information.

3.1   The SpeedTouch™ Upgrade Wizard

Using the Upgrade Wizard

The procedure described in this section are valid only in case you run an MS Windows Operating System or Mac OS10.

Make sure that the SpeedTouch™ is connected to your PC/computer via its Ethernet port. In case of a SpeedTouch™530, please disconnect the USB interface, if used, to avoid communication errors during the system software upgrade.

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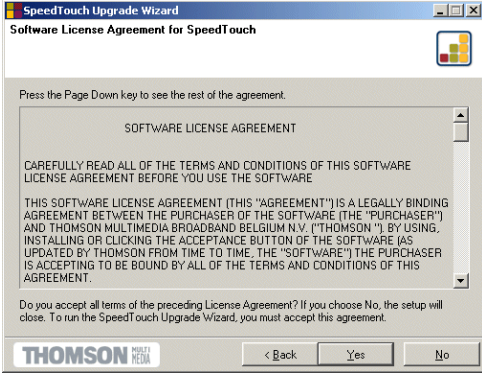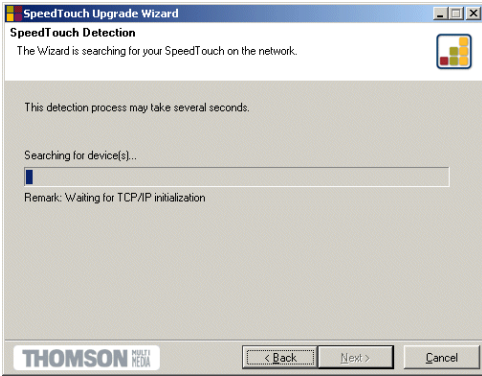
Before you start

Make sure that you have a valid SpeedTouch™ system software file available on a local disk or CD-ROM.
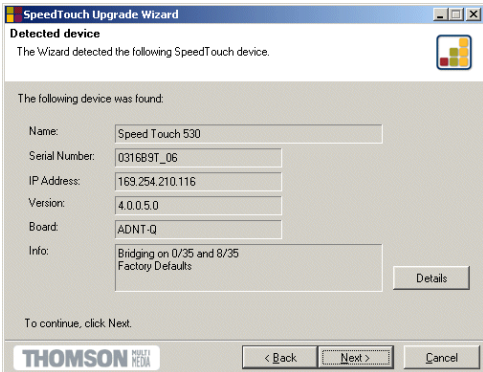
System software upgrade procedure
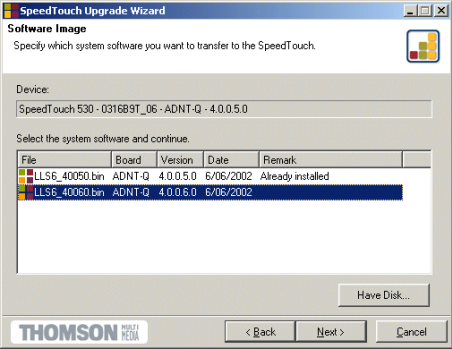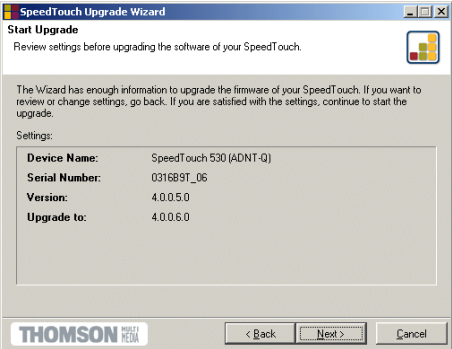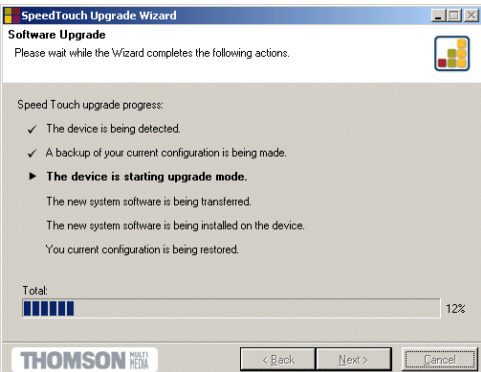
Following procedure describes how to use the SpeedTouch™ Upgrade wizard from a PC running an MS Windows OS. For computers running Mac OS10 the behavior of the wizard is identical.

Proceed as follows:

Step	Action
1	Insert the SpeedTouch™ Setup CD-ROM in your computer's CD-ROM drive. • MS Windows OSs The SpeedTouch™ Menu will start automatically: If the SpeedTouch™ Menu 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. To start the SpeedTouch™ Upgrade wizard, click SpeedTouch™ Upgrade. • Mac OS10 Open the CD-ROM and click UpgradeST.pkg to install the upgrade program. After installation, go to the location where you installed the Upgrade application and click UpgradeST.

Step	Action
2	The Welcome to the SpeedTouch™ Upgrade Wizard window appears: Click Next to proceed.
3	The SpeedTouch™ Software License Agreement window appears: You must accept before to continuing. Therefor click Yes to accept.
4	The Setup wizard will continue to search for the SpeedTouch™ on the network. The following window shows the detection progress:

Step	Action
5	The Setup wizard should find your SpeedTouch™ device on the local network. This is indicated by the following window: In case more than one SpeedTouch™ device is found, a listing is provided from which you can select your SpeedTouch™ from. Note: If the Setup wizard does not find any SpeedTouch™ on the network an error window pops up. In this case check: • That the computer is not connected to the SpeedTouch™ via its USB interface • Whether your computer is correctly connected to the SpeedTouch™ via its Ethernet port. • That no dedicated firewall device or router is placed between your PC and the SpeedTouch™ and that no personal firewall software is running on your PC. • Whether the SpeedTouch™ is turned on and fully initialized. To repeat the search for the SpeedTouch™, click Back and proceed with step "4 " of this procedure.
6	Once the SpeedTouch™ Setup wizard has detected your SpeedTouch™ device you can proceed with the upgrade procedure. If more than one SpeedTouch™ device is listed, select the appropriate one. Then, click Next to proceed.

Step	Action
7	The following window shows current the firmware version active on the SpeedTouch™ as well as one or more firmware versions available on the CD-ROM. Select the appropriate firmware version and click Next to continue. Note: If the Service Provider has included a separate disk with dedicated upgrade system software, click Have Disk to navigate to the location of the appropriate file. In case of a system software downgrade you must specifically acknowledge your desicion before being able to proceed.
8	The following window allows you to overview your selection: If you are satisfied, click Next to continue.
9	You can follow the configuration progress in following window:

Step	Action
10	After upgrading the SpeedTouch™, a final window appears to announce that the upgrade has been successful. Click Finish to close the wizard.

3.2   Manual System Software Management via BOOTP Server

SpeedTouch™ system software management

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

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

Important note

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

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

Before you start

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

Make sure that the SpeedTouch™ is connected to your computer via its Ethernet port. In case of a SpeedTouch™530, please disconnect the USB interface, if used, to avoid communication errors during the system software upgrade.

You will need the SpeedTouch™ Medium Access Control (MAC) address of your SpeedTouch™ device. To retrieve this address see " System Info" on page 26.

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

Procedure

To upgrade the SpeedTouch™ system software:

1   As 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 the system software for.

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   Press the SpeedTouch™ power button and hold it until the Power/System LED flashes amber (approximately six seconds). This indicates that the SpeedTouch™ entered BOOTP mode and is sending BOOTP requests.

5   The BOOTP server will reply to the BOOTP requests and will perform the required operations to send the system software to the SpeedTouch™.

6   After checking whether the received system software is valid for the device, the SpeedTouch™ will start in normal operational mode.

7   Optionally, you can upload the backup configuration as described in " Setup" on page 32.

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4   Troubleshooting

Introduction	This chapter provides information on how to identify and correct some common problems you may encounter when using and configuring the SpeedTouch™.
	If the following troubleshooting tips do not resolve the problem contact the company from which you purchased the SpeedTouch™ for assistance.

Configuration problems	If you encounter DSL connectivity problems due to misconfiguration you might consider a hardware reset to factory defaults as described in this chapter.
	However, please note that resetting the SpeedTouch™ to its factory settings will revoke all the changes you made to the configuration.

Startup problems and alert indications	Via the LEDs you can check the status of the SpeedTouch™. Following table may help you in case of problems starting up the SpeedTouch™:

Indicator			Description
Name	Color	Status	
Power/System	Off		Power off.
	Green	Solid	Power on, normal operation.
		Flashing	Power on, Back-to-Defaults status.
	Amber	Flashing	Power-on, BOOTP status.
		Solid	Power on, POST(*) pending.
	Red	Solid	Power on, POST(*) failed.
DSL/WAN	Off		No DSL line.
	Amber	Flashing	DSL line synchronization pending.
		Solid	DSL line synchronized.
	Amber Green	Toggling	DSL line synchronized and end-to-end connection pending.
	Green	Solid	DSL line synchronized and end-to-end connection active.
LAN	Off		No Ethernet link.
	Green	Solid	Ethernet link.
USB	Off		No USB link.
	Green	Solid	USB link.

(*) Power On Self Test (POST)

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Troubleshooting table

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

Problem	Solution
SpeedTouch™ does not work. (none of the LEDs light up)	Make sure that the SpeedTouch™ is plugged into an electrical outlet.
	Make sure that you are using the correct power supply for your SpeedTouch™ device.
LAN LED does not light up. Link integrity/Activity LED of particular Ethernet port does not light up.	Make sure that the cable(s) are securely connected to the 10/100Base-T port(s).
	Make sure that you are using the correct cable type for your Ethernet equipment.
100Base-T LED of particular Ethernet port does not light up.	Make sure the computer's Ethernet port supports 100Base-T Ethernet connectivity and/or is configured for auto-negotiation.
SpeedTouch™530 USB driver installation failed.	Verify that your computer is running one of the supported OSs and that it meets the according minimum requirements.
	Verify that no previous SpeedTouch™ USB driver is installed on your PC. Uninstall other SpeedTouch™ USB software and/or drivers.
Temporarily poor performance of SpeedTouch™530, connected via a USB hub.	Your USB port congests, meaning that too much traffic is passing through it. Avoid using multiple high speed USB devices, e.g. scanners, speaker, etc. during heavy duty, e.g. a data download.
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 ISP.
	Check whether a central splitter or dedicated filters are installed properly.
No Line synchronization achieved. Line Sync LED keeps flashing	Make sure that ADSL service is enabled on the wall outlet the SpeedTouch™ is connected to.
	Make sure that the correct SpeedTouch™ variant is used for your DSL service.
	In case of ADSL/POTS services at your premises, ONLY use a SpeedTouch™510 ADSL/POTS variant. In case of ADSL/ISDN services at your local premises, ONLY use a SpeedTouch™510i ADSL/ISDN variant.

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How to perform a hardware reset to factory defaults	Proceed as follows:

Step	Action
1	Make sure the SpeedTouch™ is powered off.
2	Press the power button once (shortly).
3	As soon as the Power/System LED is flashing green, press the power button once more (shortly).
4	The Power/System LED stops flashing to become solid green. After six seconds, it starts flashing green again. Press the power button once more (shortly).
5	All LEDs flash green once.
6	The SpeedTouch™ reboots and will come online with factory default settings. Resetting the system to its factory defaults also involves deleting the configuration profile settings. You may, therefore, need to reconfigure the system using the SpeedTouch™ Setup wizard or by uploading the relevant configuration file. See section "1.3 SpeedTouch™ Configuration Setup" on page 13 for more information.

Factory default service settings	When the SpeedTouch™ leaves the factory and after every hardware reset to defaults, the SpeedTouch™ features the following factory default settings:

- Default IP configuration:
    - IP address: 10.0.0.138
    - Auto IP address
- System password: not set
- DHCP server: disabled
- DNS server: disabled
- Master firewall: enabled
- Default Connection profile settings:
    - IEEE802.3D Transparent Bridging on VPI*VCI=8*35
    - IEEE802.3D Transparent Bridging on VPI*VCI=0*35