

Speed Touch 510

Setup and User's Guide



Status Released

Change Note BD F aa 39812

Short Title CD-UG AST510

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1 Alcatel Speed Touch 510 Installation

Introduction Thank you for purchasing the **Alcatel Speed Touch™510** ADSL router ! With the **Alcatel Speed Touch™510** residential Asymmetric Digital Subscriber Line (ADSL) router, surfing the Internet will become a whole new experience.

In this User's Guide This User's Guide will assist you in getting acquainted with the **Alcatel Speed Touch™510** ADSL router and to quickly connect you to the Internet.

Terminology For readability, both **Alcatel Speed Touch™510** and **Alcatel Speed Touch™510i** will be referred to as **AST510** in this User's Guide.

Safety instructions Prior to connecting the **AST510**, read the **Safety Instructions** in appendix B.

Documentation and software updates Due to the continuous evolution of Alcatel ADSL technology, existing products are regularly upgraded. For more information on the newest technological breakdowns, software upgrades, and documents, please consult the Alcatel web site at:

<http://www.alcatel.com>
<http://www.alcateldsl.com>

1.1 Get Acquainted with the Alcatel Speed Touch 510

Delivery check

Check your **AST510** package for the following items:

- ▶ The **Alcatel Speed Touch™510**
- ▶ 1 Power supply adapter with connecting cable
- ▶ Cat.5 straight-through Ethernet cable (RJ45/RJ45)
- ▶ DSL cable (RJ11/RJ11, RJ14/RJ14)
- ▶ The **AST510** Setup CD-rom (with included User's Guide).

Damaged or missing items

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

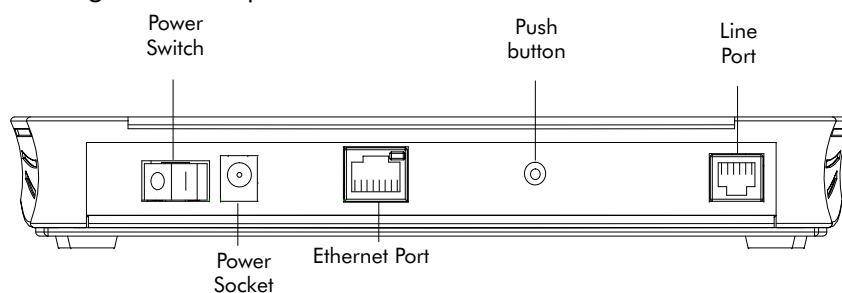
Other materials

Your **AST510** shipping carton may also include release notes, safety and conformity declarations and other materials.

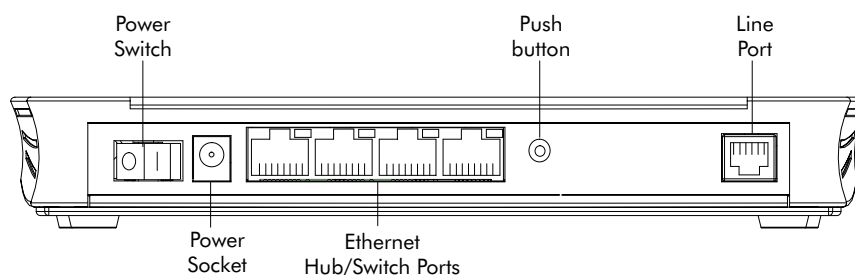
AST510 models

Depending on the variant you purchased, the following **AST510** models are possible:

- ▶ The single Ethernet port model:



- ▶ The Ethernet hub/switch model:



Front panel LEDs

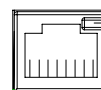
The **AST510** is equipped with 5 LEDs on its front panel, indicating the state of the device:

Indicator			Description
Name	Color	State	
LAN	Green	Flashing	Data is flowing from/to the port(s).
		Off	No activity on Ethernet port(s).
Line TX	Green	Flashing	ATM cells are being sent over the DSL line.
		Off	No transmission activity.
Line RX	Green	Flashing	ATM cells are being received via the DSL line.
		Off	No reception activity.
Line Sync	Green	Flashing	Initialization of the DSL line.
		On	DSL line synchronization achieved.
PWR/Alarm	Green	On	Power on, normal operation.
	Amber	On	Power on, start-up failed.
	Red	Flashing	Power on, POST(*) pending.
		On	Power on, POST(*) failed.

(*) Power On Self Test (POST)

Ethernet port(s) LED

Each Ethernet port on the rear panel has a LED:



Link Integrity/Activity LED

Indicator			Description
Name	Color	State	
Integrity (Activity)	Green	Off	No connection on this port.
		On	Ethernet link up.
		Flashing (*)	Data is flowing from/to this port.

(*) Applicable to hub/switch models only.

Note: Some **AST510** models may be equipped with 10/100Base-T Ethernet port(s). In this case a second LED will be provided per Ethernet port to indicate the 100Base-T state.

1.2 Alcatel Speed Touch 510 Wiring

Two AST510 router variants

Two ADSL variants of **Alcatel's Speed Touch™510** routers exist:

- ▶ The **Alcatel Speed Touch™510** :
The ADSL/POTS variant connecting to an analog POTS(*) line
- ▶ The **Alcatel Speed Touch™510i** :
The ADSL/ISDN variant connecting to a digital ISDN(**) line.

(*) Plain Old Telephone Service (POTS)

(**) Integrated Services Digital Network (ISDN)

Use only the AST510 variant which is appropriate for the DSL service delivered to your local premises.

Check at your Service Provider whether your **AST510** suits the ADSL service requirements.

ADSL service

The appropriate DSL service must be available at your local 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 need a central splitter or distributed filters for decoupling ADSL and telephone signals.

Always contact your Service Provider for splitter/filter installation !

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.

Local network

For Ethernet connectivity you need at least:

- ▶ A PC with a readily installed Ethernet Network Interface Card (NIC)
- ▶ If needed, a hub or switch and the necessary connection cables.

Ethernet Cables

In the **AST510** package, a full wired straight-through RJ45/RJ45 Ethernet cable, further referred to as LAN cable is included.

You can use LAN cables other than the one provided in the box.

Determine the LAN cable type from the following table:

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

Standard wiring procedure

Proceed as follows:

1. Use the included LAN cable to wire your PC's Ethernet port to (one of) **AST510's** Ethernet interface(s).
2. For local networking, repeat step 1. for each PC. Use a hub/switch if needed.

Note: You may use the (switchable) "uplink" or "cascade" MDI port which is sometimes present on Ethernet hubs or switches. However, make sure to use the correct cable type.

3. Use the included DSL cable to wire the **AST510's** Line port to your telephone wall outlet.
4. Plug the adapter's coaxial jack into the **AST510's** receptacle marked 'DC'.

Note: Always check first whether the included mains adapter suits the local power specifications. Contact your Service Provider in case of any doubt.



WARNING

AST510 hub model vs switch model – Cascading hubs

You may cascade up to four **repeating** hubs in your LAN. In case more hubs need to be cascaded, you must use a switch, e.g. the **AST510** switch model.



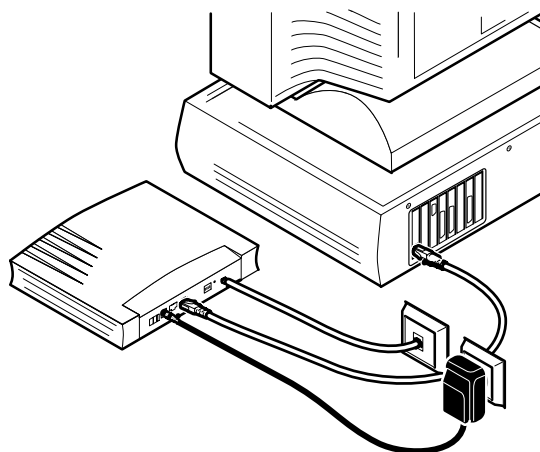
CAUTION

10Base-T Half Duplex Interfacing

Make sure in case you use 10Base-T Ethernet port(s) on your PC(s) that these are configured for either Auto Negotiation or Half Duplex. Never configure the 10Base-T Ports for Full-Duplex !

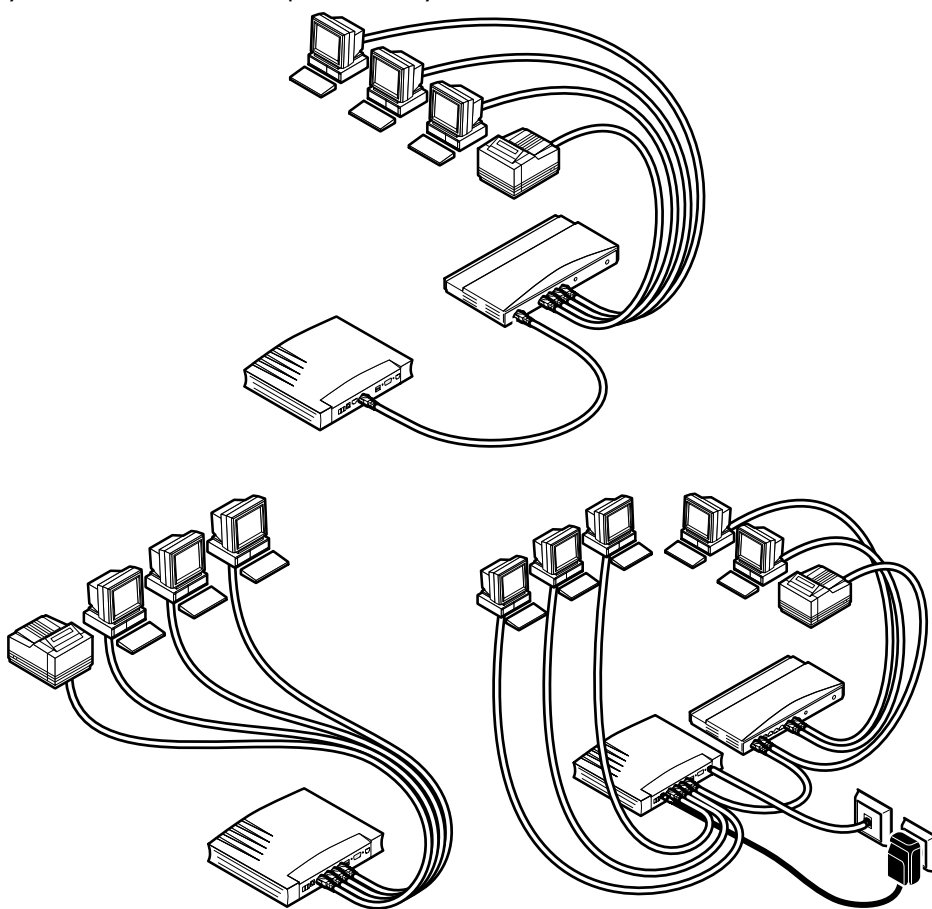
Single PC wiring

Once all connections are made the result should look similar as below.



LAN wiring

Using the **AST510**'s hub/switch (if equipped) and/or an external hub you can connect multiple PCs to your **AST510**:

**Turn on your AST510**

Once all previous steps are completed, you can turn the **AST510** on (I) or off (O) with the power switch.

POST phases

As soon your **AST510** is turned on, you can check the "PWR/Alarm" LED to see how the Power On Self Test (POST) progresses.

Phase	"PWR/Alarm" LED Indication	Description
1	Flashing red	POST pending
2	Solid amber	Start-up failed
	Solid red	POST failed
	Solid green	Normal operation

1.3 Alcatel Speed Touch 510 Configuration Setup

Internet connectivity

As soon as the **AST510** is wired and powered as described in section 1.2 you are able to prepare the **AST510** for Internet connectivity.

What you need from your SP

You must have a user account at an *Internet Service Provider* (ISP) for Internet access: For this user account, it will provide you:

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

Other information might be required depending on the provided CD-rom and/or specific requirements of the ISP.

Configuration of the AST510

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

In case your PC runs:

- ▶ A Microsoft Windows OS
From the included **AST510** Setup CD-Rom a wizard will automatically guide you through the configuration of both the **AST510** and your PC for setting up the appropriate configuration. Proceed with subsection 1.3.1.
- ▶ Another OS, e.g. Mac OS, Unix, Linux, etc.
The configuration of the **AST510** is semi-automatically done via uploading the appropriate configuration file from the included **AST510** Setup CD-Rom to your **AST510**.
If needed, additional configuration of your PC must be done manually.
Proceed with subsection 1.3.2.

1.3.1 Configuration Setup for MS Windows OSs

Microsoft Windows

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

- ▶ Microsoft Windows 95
- ▶ Microsoft Windows 98 or 98SE
- ▶ Microsoft Windows ME
- ▶ Microsoft Windows NT4.0
- ▶ Microsoft Windows 2000
- ▶ Microsoft Windows XP.

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

TCP/IP

Make sure that TCP/IP (*) is readily installed on your PC(s).

(*) Transmission Control Protocol (TCP) / Internet Protocol (IP)

The AST510 Setup Wizard

The **AST510** Setup wizard can be divided in two major parts:

- ▶ The detection procedure
- ▶ The configuration procedure.

The detection procedure

1. Insert the **AST510** Setup CD-rom in your PC's CD-rom drive. The **AST510** Welcome wizard will start automatically.

Note: In case the **AST510** Welcome wizard does not start automatically, open a 'Run' window via *Start → Run* from the Start menu and enter following path: *D: \SetupST.exe*, where *D* stands for the drive letter of your CD-rom drive.

2. The **AST510** Welcome wizard pops up:



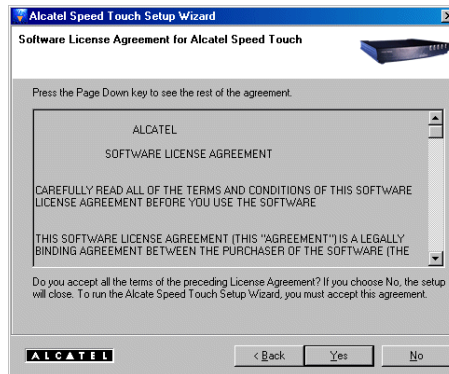
To start the **AST510** Setup wizard, click *SPEED TOUCH Setup*.

3. The *Welcome to the Alcatel Speed Touch™ Setup Wizard* window pops up:



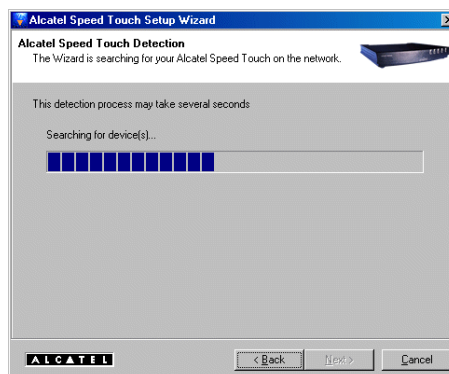
Click to proceed.

4. The *Software License Agreement for Alcatel Speed Touch* window pops up:

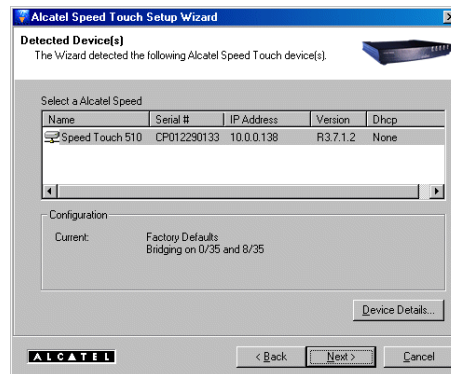


Click to accept the terms of the agreement and to continue with the Setup wizard.

5. The Setup wizard will continue with searching the **AST510** on the network. The following window shows the detection progress:

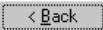


6. The setup wizard should find your **AST510** device on the local network. This is indicated by following window:



Note: In case the Setup wizard does not find any **AST510** on the network an error window pops up. In this case check:

- Whether your PC is correctly wired to the **AST510**
- That no dedicated firewall device or a router is placed between your PC and the **AST510** and that no personal firewall software is running on your PC
- Whether the **AST510** is powered on and fully initialized
- That you have the Internet Protocol (TCP/IP) installed on your PC, and that your PC is configured with a valid IP address(*).

To retry the detection of the **AST510**, click  and proceed with step 5. of this procedure.

(*) In case of MS Windows 95 or Windows NT4.0 it is advised to configure the PC with a static IP address, e.g. 10.0.0.101, which is unique (in case of a local network). Make sure however not to use the 10.0.0.138 IP address as it is the **AST510**'s default IP address. For the MS Windows 98, 98SE, ME, 2000 and XP OSs it is advised to configure the PC as DHCP client. Refer to the MS Windows User's Guide for more information.

7. To continue with the configuration of your **AST510** and your PC, proceed with the configuration procedure described below

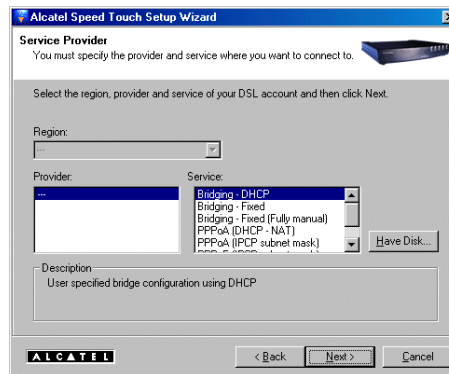
The configuration procedure

1. As soon the **AST510** Setup wizard detected your **AST510** device you are able to select it.

Click  to proceed.

Note: In case the **AST510** has been configured before, the possibility exists that it is protected by a System password. Before you are able to overview the device details or to continue with the configuration this password has to be supplied.

2. The following window invites you to select the appropriate connection profile for your Internet connectivity:



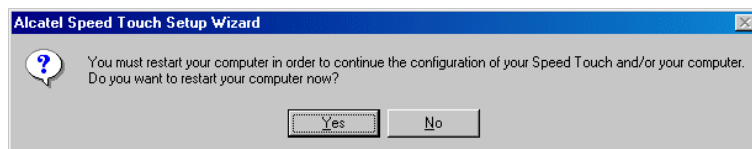
Select the connection profile and click **Next >** to continue.

Note: In case the Service Provider 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 **AST510** and/or your PC. Follow the instructions and enter the required information where needed. This information should be provided by your Service Provider.

Click **Next >** each time to continue.

4. After configuring the **AST510** it will restart. In some cases your PC must be restarted as well for the changes to take effect:



5. After restarting the PC the **AST510** Setup wizard will pop up again to announce the successful configuration.

Click **Finish** to close the wizard.

6. In case multiple PCs on your local network need to be configured to enable access to the **AST510** you can either:
- Re-run the **AST510** Setup wizard on every PC
- Or, if applicable:
- Enable the automatic IP address configuration (DHCP client) on every PC.

1.3.2 Configuration Setup for other OSs

Supported OSs

As the **AST510** is OS independent, this configuration setup can be used by any computer system

Note: In fact the following procedure may equally be used on MS Windows OSs for configuring the **AST510**.

TCP/IP

Make sure that TCP/IP is installed on your computer(s).

Configure every PC with a static Net10 private IP address, e.g. 10.0.0.1. Make sure though NOT to use the 10.0.0.138 IP address as this is the default IP address of the **AST510**.

To make sure that IP connectivity exists, you can *ping* the **AST510**.

Procedure

1. To make sure that the **AST510** is in its factory default state, perform a reset to defaults. See appendix A.
 2. Open a web browser and browse to the **AST510**'s default IP address 10.0.0.138. See chapter 2 for more information.
 3. Click [Upgrade](#) to open the *Upgrade* web page.
 4. Click [Browse](#) next to the *Configuration file path* input field to locate the configuration file on the CD-rom or disk.
Note: If the path is known you can immediately enter it in the *Configuration file path* input field.
 5. Click [Upload](#) to start the upload.
 6. Click [Restart](#) to restart the **AST510** and activate the uploaded configuration.
 7. After restarting the **AST510** some additional configuration of your computer system might be needed.
Note: The required settings for your computer should be provided by your Service Provider, if applicable.
 8. To check whether the activation of the uploaded configuration was successful, you can browse to the **AST510** and overview the current configuration.
-

1.4 Alcatel Speed Touch 510 Internet Connectivity

Surfing the Internet

As soon as the **AST510** and the PC(s) are configured according the previous section, you are able to establish connectivity to the Internet.

Access methods

The **AST510** supports two access methods:

- ▶ Direct access

Once initial configuration is 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 Remote Access Server (RAS), e.g. via the **AST510** embedded PPP dial-in connections page.

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

The method to use depends on the configuration profile/file you used to configure the **AST510** and the Service Provider’s requirements.

Your Internet connection

Regardless 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) Internet.

Note: In some cases, e.g. in case of Transparent Bridging, 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 **AST510** embedded dial-in client is provided on the next page.

AST510 web pages

Your **AST510** offers a user-friendly web interface. Via the web pages you are able to establish dial-in connections, configure some advanced settings, e.g. **AST510**’s DNS server or NAPT server and overview some statistics of your **AST510** itself and its ADSL connectivity.

See chapter 2 for more information

AST510's embedded Dial-in application

Via the **AST510** user-friendly web interface you are able to establish dial-in connections, pre-configured by the **AST510** Setup wizard configuration profile or via upload of the appropriate configuration file.


Note: The following provides only an example on how you can establish your Internet connection. The actual implementation depends on the preferences of your Service Provider.

To open a dial-in connection:

1. Open a web browser on your PC/computer and browse to the **AST510** web pages:




By default the **AST510** offers you the *Status* page.

2. Click [Connect](#) to open the *Connections* page which enables you to establish dial-in connections.
3. Click  next to the connection entry you want to establish a connection with. As a result it will be highlighted.
4. Enter your user name and password in the appropriate fields. If you want the **AST510** to remember your credentials, check 'Save password' (✓).
5. If applicable, enter the appropriate Service name.
6. Click [Connect](#).

While the **AST510** tries to open the session '**trying**' will appear in the 'State' field. Once the session is active the field displays '**up**'. You can start your application or browse the Internet.

To close an active dial-in connection:

1. Make sure you have access to the **AST510** 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 the session state of the entry will change to **down**, i.e. it becomes idle.

2 Alcatel Speed Touch Web Interface

Introduction The **AST510** comes with integrated local configuration capabilities. The local configuration via the **AST510** web interface, is based on the HTTP server/Web browser concept. It allows configuration of your **AST510** via a Web browser through HTML pages from any local PC attached to the Ethernet interface(s).

Preconditions Prior to access the **AST510** pages make sure that either:

- ▶ Your Web browser is not using a Proxy server
- ▶ The **AST510** IP address is not submitted to a Proxy server.

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

Use of the AST510 web interface In most cases the **AST510** 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 some advanced configurations and/or upgrading the **AST510** software and upgrading or backing up the **AST510** configuration access to the web pages is required.

- Procedure**
1. Start the web browser on your PC or computer.
 2. Contact the **AST510** by entering its IP address (in most cases 10.0.0.138) in the URL field
 3. If a system password was set an authentication window will pop up. Enter user name and System password in the appropriate fields.

Result As a result the *Configuration & Line Status* page pops up:



From now on the **AST510** acts as a Web server sending HTML pages/forms at your request. You can fill out these pages/forms and submit them to the **AST510**. The latter scans the pages and makes configurations accordingly.

Topic links

On each of the **AST510** web pages a set of *Topic* links can be found in the left side frame.

Each of these links leads you to a configuration aspect of the **AST510**.

The following table lists all *Topic* links:

Click ...	To ...
Status	Overview the current configuration profile. Overview the current ADSL line status.
Connect	Establish dial-in connections. Overview the AST510 connection information.
System	Set a System password Overview the AST510 system information
Upgrade	Upgrade the AST510 software. Backup and/or upload configuration profiles/files. Restore the AST510 default settings. Restart the AST510 .
Routing	Overview/configure the AST510 IP interfaces and IP router.
NAPT	Overview/configure static NAPT entries. Define a Default local server for inbound connectivity.
DNS	Overview/configure the AST510 DNS server/client.
DHCP	Overview/configure the AST510 DHCP server/client.
Save all	Save all changes made to persistent memory.
Help	Pop up the AST510 help pages.

The following topics will describe the use of the web pages related to each of these buttons. For more information on each topic you can always click the context related [Help](#) links which are placed on the web pages.

[Status](#)

Clicking this link pops up the *Configuration & Line Status* page. This page is also the **AST510** “home” page.

It allows to:

- Overview which configuration profile/file is currently loaded, including information for which Region and ISP this configuration applies:

Configuration	
Item	Description
Region	World
Provider	Generic ISP
Service Name	Routed PPPoE - NAPT - DHCP - DNS
Service Description	User specified Routed PPPoE Service
Specify a configuration file to upload:	
<input type="text"/>	<input type="button" value="Browse..."/>
Help Upload Backup Restore default Restart	

- Overview the current physical status of the ADSL line:

DSL Line Status	
Item	Description
Line State	Enabled
Speed (KBytes/sec)	115 up / 1014 down
Duration	01:22:27
Send (KBytes)	0
Read (KBytes)	71276

[Connect](#)

Clicking this button pops up the *Connections* page.

This page allows to:

- Establish dial-in connections, if applicable:

Dial-in Connections								
Interface	Destination	Mode	Link	State				
◀ My_Connection	My_Connection	always-on	connected	up				
Connection properties								
Specify your username and password:								
User:	<input type="text" value="John.Doe@MY_ISP"/>							
Password:	<input type="password" value="*****"/>							
Service:	<input type="text" value="ANY"/>							
<input checked="" type="checkbox"/> Save this password								
Help Connect Disconnect								

See section 1.4 for more information on how to use the *Dial-in Connections* table.

- Overview some detailed connections information via clicking the [here](#) link.

[System](#)

Clicking this button pops up the *System Setup* page.

This page allows to:

- To configure a System password to restrict access to the **AST510**:

System Password	
Enter your password (max 15 chars):	
Password:	*****
Retype your password:	*****
Help	Apply

Alcatel highly advises you to configure a System password. To protect the **AST510** you should change the System password on a regular basis. However, never use an obvious password as your name, birth date, 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: As long as no System password is supplied, a warning is displayed on the **AST510** web pages.

- Overview **AST510** device related system information:

System Info	
Item	Description
Mac Address	00-90-D0-01-B4-EB
IP Address	not specified
Firmware Version	R3.7.1.5
Hardware Platform	ADNT-N
Serial Number	CP012290133
Product Code	3EC18203CCAB

[Upgrade](#)

Clicking this button pops up the *Software- and Configuration Upgrade* page.

This page allows to:

- Upgrade the **AST510** system software:

Software Upgrade		
Software	Build	Size (Bytes)
Active	LEFTAA3.715	1251514
Passive	LEFTAA3.714	1231090
Specify a new version to upload:		
<input type="text"/>		Browse...
Help	Upload	Remove passive Switch over

Therefore:

1. Make sure no passive software resides on the **AST510**. If needed click [Remove passive](#) to remove a passive software version.

2. Browse to the location where the **AST510** upgrade system software resides via .

Note: Upgrade software may be made available from your Service Provider. Contact your Service Provider for more information.

3. Click [Upload](#).

As a result the **AST510** upgrade system software name will appear in the 'Passive software version' field.

Note: Uploading software may take up to four minutes to complete.

4. Click [Switch over](#).

As a result the **AST510** will switch the two system software versions, will reboot and come online with the upgrade system software. Saved configurations remain unchanged.

- Backup the current **AST510** configuration, restore the **AST510** factory defaults, or upload a new configuration file:

Configuration	
Item	Description
Region	World
Provider	Generic ISP
Service Name	PPPoE (NAT)
Service Description	User specified PPPoE
Specify a configuration file to upload:	
<input type="text"/>	<input type="button" value="Browse..."/>
Help Upload Backup Restore default Restart	

To backup the current configuration, click [Backup](#) and follow the instructions.

To restore the **AST510** defaults, click [Restore defaults](#) to load the default configuration and [Restart](#) to reboot the **AST510** and allow the changes to take effect.

To upload a new configuration:

1. Browse to the location where the **AST510** upgrade configuration file resides via the button.
2. Click [Upload](#).
3. Click [Restart](#) to reboot the **AST510** and allow the changes to take effect.

Routing











Clicking this button pops up the *IP Address- and Routing Tables* page. This page allows to:

- Overview or add/delete specific IP address entries for **AST510**'s interfaces:

IP address table				
Intf	Address	Netmask	Type	Translation
pppoe	217.136.52.66	255.255.255.0	Auto	pat
eth0	10.0.0.138	255.0.0.0	Extra	none
loop	127.0.0.1	255.0.0.0	Auto	none
Click 'New' to create a new entry.				
Help		New		

You can add a static IP address for one of **AST510**'s interfaces by clicking [New](#). Specify the IP address, (sub)netmask, whether NAPT should be applied on this address or not, and select the interface for which the IP address applies (use *eth0* for the Ethernet interface). Click [Apply](#) to add the entry to the table. All essential IP routes according to this IP address will be automatically added to the **AST510** IP routing table.

- Overview or add/delete static IP routes for **AST510**'s IP router:

IP route table				
Destination	Source	Gateway	Intf	
 239.255.255.250/32	10.0.0.138/32	10.0.0.138*	eth0	
 10.0.0.0/8	10.0.0.0/8	10.0.0.138	eth0	
 default	10.0.0.0/8	217.136.52.66	pppoe	
 217.136.52.66/32	any	217.136.52.66	pppoe	
 255.255.255.255/32	any	10.0.0.138	eth0	
 10.0.0.138/32	any	10.0.0.138	eth0	
 127.0.0.1/32	any	127.0.0.1	loop	
 10.0.0.0/8	any	10.0.0.138	eth0	
 224.0.0.0/4	any	10.0.0.138*	eth0	
 default	any	10.0.0.138*	eth0	
Click 'New' to create a new entry.				
Help		New		

Routing can be useful in the case of 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](#).

[NAPT](#)

Clicking this button pops up the *Network Address and Port Translation (NAPT)* page.

This page allows to:

- Overview or add/delete specific static NAPT entries:

NAPT Settings					
Nr	Type	Inside address	Outside address	Protocol	State
1	Template	10.0.0.130:1021	not specified:21	top	NONE
Click 'New' to create a new entry.					
Help			New		

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 on which the entry applies. In case the NAPT entry should be applied on a dynamically assigned local peer IP address of a connection, you should specify 0.0.0.0 as outside address. Click [Apply](#) to add the entry to the table.

- Define a default server:

Default Server	
Specify the server address:	
IP address:	<input type="text" value="10.0.0.50"/>
Help	Apply

By specifying a default server IP address all incoming connections will be forwarded to the device with this IP address. In most cases this setting should be adequate for most server applications and will make the need for specific static NAPT entries redundant.

Note: Do not forget to save your changes to persistent memory by clicking [Save all](#).

DHCP

Clicking this button pops up the *Dynamic Host Configuration Protocol (DHCP)* page.

This page allows to:

- ▶ Enable/disable the **AST510** (Auto)DHCP server:

DHCP Server Configuration

Status

DHCP server running

Properties

☒ DHCP Server

☐ Auto DHCP

Client timeout (s)

☐ No DHCP

Help

Apply

The **AST510** features a DHCP server which allows the PCs/computers on your local network to automatically obtain an IP address (select [DHCP server](#)). In case no DHCP is used on your local network, the **AST510** DHCP server can be disabled (select [No DHCP](#)). The **AST510** is furthermore able to probe your local network for another DHCP server (select [AutoDHCP](#)) . If so, it slips into DHCP client mode, if not the **AST510** becomes DHCP server. Click [Apply](#) to apply your selection.

- ▶ Configure the **AST510** DHCP server lease pool properties:

DHCP Server Address Pools

Pool	Start Address	End Address	State	PPP
LAN_private	10.0.0.1	10.255.255.254	static	-

Click 'New' to create a new entry.

Help

New

The **AST510** 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 all needed information. Click [Apply](#) to add your entry to the table.

- ▶ Overview the current leases the **AST510** DHCP server supplied to leases:

DHCP Server Leases

Lease	Client ID	Address	Pool	TTL	State
1	01:52:41:53:20:40:b4:93:97:85:3e:c1:01:02:00:00:00	10.0.0.1	LAN_private	01:29:18	used

Click 'New' to create a new entry.

Help

New

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

- Overview the current **AST510** DHCP client status :

DHCP Client Configuration			
Intf	Address	State	Timeout
There are no DHCP client entries defined!			
Click 'New' to create a new entry.			
Help		New	

Via this table you can also manually add static **AST510** DHCP client entries for specific interfaces, if applicable.

Note: Do not forget to save your changes to persistent memory by clicking [Save all](#).

[DNS](#)

Clicking this button pops up the *Dynamic Name System (DNS)* page. This page allows to:

- Overview and/or supply the **AST510** DNS domain name and to enable/disable the **AST510** DNS server:

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

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

- Overview the current **AST510** DNS server hostname leases:

DNS Hostname Table		
Nr	Hostname	Address
1	SpeedTouch	not specified
2	BT09JF	10.0.0.1
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](#).

AppendixA Troubleshooting and Specifications

Introduction This appendix provides information on how to identify and correct some common problems you may encounter when using and configuring the **AST510**.

If the following troubleshooting tips have not resolved the problem contact the company from which you purchased the **AST510** for assistance.

Configuration problems In case you encounter DSL connectivity problems due to misconfiguration you might consider a hardware reset to factory defaults as described in this appendix.
However, be aware that a reset to factory defaults destroys all configurational changes you made to the **AST510** internal settings.

Trouble solving table

Problem	Solution
AST510 does not work. (none off the LEDs lights up)	Make sure the AST510 is plugged into an electrical outlet.
	Make sure the power switch on the AST510 modem is turned on.
No Ethernet connectivity. LAN LED does not light up. Ethernet port(s) link integrity LED does not light up.	Make sure the cable(s) are securely connected to the Ethernet port(s).
	Make sure you are using the correct cable type for your Ethernet equipment.
Poor AST510 performance.	Make sure the AST510 is installed and configured as instructed in this User's Guide and/or as instructed by the SP.
	Check whether a central splitter or dedicated filters are installed properly.
No Line synchronization achieved. Line Sync LED keeps flashing	Make sure ADSL service is enabled on the wall outlet your AST510 is connecting to.
	Make sure the correct AST510 variant is used for your DSL service.

How to perform a hardware reset to factory defaults

Proceed as follows:

1. Make sure your **AST510** is powered on.
2. Use a pencil to press the push button at the back of the **AST510** until the all front LEDs start flashing.
3. Release the button. You will notice that the **AST510** reboots. The **AST510** will come online with factory default settings.
4. As a reset to factory default settings also includes a deletion of the configuration profile settings. Therefore, a reconfiguration via the **AST510** Setup wizard or via uploading the appropriate configuration file might be needed. See section 1.3 for more information.

Factory default settings

When the **AST510** leaves the factory and after every hardware reset to defaults the **AST510** features following factory default settings:

- ▶ Default IP configuration:
 - **AST510** IP address: 10.0.0.138
 - **AST510** System password: not set
 - **AST510** DHCP server: disabled
 - **AST510** DNS server: disabled
 - **AST510** 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

ADSL specifications

- ▶ **ADSL data rates**
 - Downstream user (payload) data rates:
Up to 8Mbit/s, depending on provisioning
 - Upstream user (payload) data rates:
Up to 1Mbit/s, depending on provisioning
- ▶ **ADSL/POTS standards compliancy**
 - ITU(*) G.DMT (Full rate ITU G.992.1 Annex A)
 - ITU G.LITE (Lite rate ITU G.992.2)
 - Full rate ANSI T1.413 Issue 2
 - ITU Automode
- ▶ **ADSL/ISDN standards compliancy**
 - ETSI TS 101 388
 - ITU G.DMT (Full rate ITU G.992.1 Annex B)
 - ITU G.Handshake (Automode ITU G.994.1)

AppendixB Safety and Agency Regulatory Notices

Read all instructions Follow all warnings and instructions marked on the product.

Directive Unless expressly and unambiguously approved by Alcatel, you may not:

- ▶ disassemble, de-compile, reverse engineer, trace or otherwise analyse the equipment, its content, operation, or functionality, or otherwise attempt to derive source code (or the underlying ideas, algorithms, structure or organization) from the equipment or from any other information provided by Alcatel, except to the extent that this restriction is expressly prohibited by local law;
- ▶ copy, rent, loan, re-sell, sublicense, or otherwise transfer or distribute the equipment to others;
- ▶ modify, adapt or create a derivative work of the equipment;
- ▶ remove from any copies of the equipment any product identification, copyright or other notices;
- ▶ disseminate performance information or analysis (including, without limitation, benchmarks) from any source relating to the equipment.

Such acts not expressly approved by Alcatel will result in the loss of product warranty and will invalidate the user's authority to operate this equipment.

Trademarks The following trademarks are used in this document:

- ▶ Speed Touch™ and the Alcatel logo are trademarks of the Alcatel Company
- ▶ Microsoft, Windows, MS-DOS and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation
- ▶ Apple and MacOS are registered trademarks of Apple Computer, Inc.
- ▶ Adobe, the Adobe logo and Acrobat Reader are trademarks of Adobe Systems, Inc.
- ▶ Netscape and Netscape Navigator are registered trademarks of Netscape Communications Corporation.

Other products may be trademarks or registered trademarks of their respective manufacturers.



WARNING: indicates that failure to follow the directions could cause bodily harm or loss of life.

CAUTION: indicates that failure to follow the directions could result in damage to equipment or loss of information.

B.1 Safety Instructions

Climatic conditions

The **Speed Touch™** equipment is intended for:

- ▶ In-house stationary desktop use; the maximum ambient temperature may not exceed 40°C (104°F).
- ▶ It must not be mounted in a location exposed to direct or excessive solar and/or heat radiation.
- ▶ It must not be exposed to heat trap conditions and must not be subjected to water or condensation.
- ▶ It must be installed in a Pollution Degree 2 environment.

Cleaning

Unplug this product from the wall socket and PC before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Water and moisture

Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool.

Power supply adapter

The **Speed Touch™** product comes with a portable power supply adapter.

Due to the special characteristics of the output of the class II AC adaptor, only use the models or equivalent listed in the power adapter table in this User's Guide.

Power sources

The powering of this product must adhere to the power specifications indicated on the marking labels. If you are unsure of the type of power supply to your home, consult your product dealer or local power company.


The mains socket outlet must be close to the equipment and easily accessible.

The **Speed Touch™** product equipment is not intended to be connected to an IT-type power system.

Power cord protection

Do not allow anything to rest on the power cord. Do not locate this product where the cord will be subject to persons walking on it.

Pay particular attention to the cord's plug, the product's DC entry point; do not use the product when these points of the cord are damaged.

Overloading	Do not overload wall (mains) outlets and extension cords as this increases the risk of fire or electric shock.
Servicing	<p>To reduce the risk of electric shock, do not disassemble this product. None of its internal parts are user-replaceable; therefore, there is no reason to access the interior. Opening or removing covers may expose you to dangerous voltages. Incorrect reassembly could cause electric shock if the appliance is subsequently used.</p> <p>If service or repair work is required, take it to a qualified service dealer.</p>
Damage requiring service	<p>Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:</p> <ul style="list-style-type: none">▶ When the power supply cord or plug is damaged or frayed.▶ If liquid has been spilled into the product.▶ If the product has been exposed to rain or water.▶ If the product does not operate normally.▶ If the product has been dropped or damaged in any way.▶ If the product exhibits a distinct change in performance.
Modem/Telephone use	<p>Avoid using a modem/telephone (other than a cordless type) during an electric storm. There is a slight risk of electric shock caused by lightning. Do not use the telephone to report a gas leak in the vicinity of the leak. If telephone service is required on the same line, a central splitter or distributed filter(s) must be installed for optimal ADSL performance. Depending on your ADSL configuration and type of splitter/filters, installation must be carried out by qualified service personnel. Consult your telephone service company or ADSL service provider for instructions.</p>
Modifications	Changes or modifications not expressly approved by Alcatel could invalidate the users authority to operate this equipment.
	Products with the CE marking comply with both EMC and Low Voltage Directives issued by the Commission of the European Community.
EC Declaration of Conformity	Hereby, Alcatel, declares that this Alcatel Speed Touch™ product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

B.2 Safety and Compliancy Statements

Radio Frequency Interference Statement

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against such interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment ON and OFF, the user is encouraged to try correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna
- ▶ Increase the separation between the equipment and receiver
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- ▶ Consult the dealer or an experienced radio/television technician for help.

This equipment complies with Part 68 of the FCC Rules. On the back of this equipment is a label that contains, among other information, the FCC certification number (FCC ID) and Ringer Equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant.

The Ringer Equivalence Number (REN) is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. Typically, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line (as determined by the total RENs) contact the local telephone company.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes to its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice so you can make the necessary modifications to maintain uninterrupted service.

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved. Connection to party lines is subject to state tariffs (contact the state public utility commission, public service commission or corporation commission for information).

No repairs can be performed by the customer, if you experience trouble with this equipment for repair or warranty information, please contact: (919) 850-1231 for locations in North America.

Notification of Canadian RF Interference Statements

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communication.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.