hama®

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»WLAN Modem Router ADSL2+, 54 Mbps«

Internetverteiler mit integriertem Modem
Internet distributor with integrated modem

00062726

Contents:

Package contents:
- 1x Hama Wireless LAN ADSL2+ Modem Router, 54 Mbps
- 1x 12 V power supply unit
- 1x Printed operating instructions
- 1x configuration cable

Remark concerning the positioning:
The connection quality depends strongly on the place or surroundings where you put up the WLAN device. Please ensure that the device or its antennae are neither covered nor built in. We advise you against putting it up near metallic objects or other electric or radiant devices. In case of reception fluctuations or connection interruptions we recommend you to move interference sources such as DECT telephones, mobile phones, Bluetooth devices or other WLAN networks out of the way. If this is not possible, it may also be helpful to change the cable.

System requirements:
- Operating system with TCP/IP protocol installed
- Java-capable web browser such as Mozilla Firefox, Microsoft Internet Explorer or Opera.

Safety instructions:
Do not use the device in moist or extremely dusty areas, on radiators or in the vicinity of heat sources. This device is not designed for use outdoors. Protect the device from pressure and impact. The device may not be opened or moved during operation. Do not use the device without an antenna attached

Caution   Use the router with the enclosed power supply unit only. Using other power supply units can cause irreparable damage to the product.

Note: !!   The "Connect On-Demand" setting is recommended if you have a pay-as-you-go tariff (if you pay according to volume or time). This means that the Internet connection is disconnected automatically after the period set in the "Idle time" option. Connection costs may be high if you are permanently connected to the internet. Please also note that closing the browser does not automatically disconnect you from the Internet. A number of programs send queries to the Internet or receive data without this being clearly indicated. For the router, these queries are just as valid as opening a browser, for example. If you want to ensure that there is no active connection to the Internet, you should switch off the device.

Requirements for installing the HAMA WLAN ADSL2+ Modem Router, 54 Mbps:

Ensure that you have the following before installing the Hama WLAN ADSL2+ Modem Router:

1. ADSL or ADSL2+-enabled connection
2. Installed DSL splitter provided by your DSL connection service provider
3. User information from your Internet provider
4. DSL connecting cable (between the splitter and modem)
5. CAT5 STP network cable with a RJ-45 connection

1   Connecting the WLAN ADSL2+ Modem Router:
1. Connect the computers and other network devices such as hubs/switches to sockets 1-4. Use a crossover or CAT5 patch cable (max. 100 m). The integrated switch automatically detects the connection speed of 10 or 100 Mbps, half/full duplex transfer mode and the type of cable used.
2. Connect the DSL splitter to the "ADSL" connection on the rear of the WLAN ADSL2+ modem router using the DSL connecting cable.
3. Plug the provided power supply unit into an empty socket and connect it to the router.
   Caution: Unsuitable power supply units can cause damage.

Checking installation:

There are different LEDs for indicating the status on the top of the device:

LED	Condition	Status
POWER	Illuminated	Power supply unit is connected and supplying power
	Off	No power unit connected, device not being supplied with power
WLAN device	Flashing	Wireless LAN is activated / data is being sent
	Off	Wireless LAN is deactivated
SYNC	Illuminated	Modem has successfully synchronised with the switching centre
	Flashing	Modem is attempting to synchronise with the switching centre
LAN 1-4	Illuminated	The corresponding LAN port has established a correct network connection
	Flashing	Data transfer via respective LAN port
	Off	No connection

2.   Configuring the Operating System and Computer

The **TCP/IP** protocol must be installed on all PCs that will be using the Internet. By default, the **IP address 192.168.2.1** and an activated DHCP server are configured for the router. This means that the connected PCs are automatically allocated suitable addresses and other settings. We recommend that you keep these settings.

Proceed as follows to check the settings on your PC:

On your Windows Desktop click
Start -> Settings -> Control Panel -> Network Connections

or, with Windows Vista,
Start (Windows logo) -> Control Panel -> Network and Internet -> Network Connections

Select the connection type (network adapter) between your PC and the router, e.g. "LAN connection". When you right-click the corresponding connection, a menu is displayed; select **Properties.**

Select the **Internet Protocol (TCP/IP)** entry in the list and then click **Properties**.
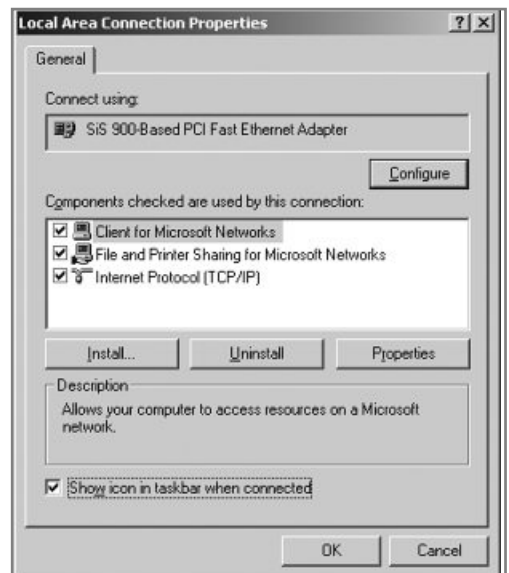
Ensure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** check boxes are selected. Confirm by clicking **OK**, and again in the subsequent window.

Your PC is now configured so that it now assigns the IP address
automatically from the router. You can then configure the router using the web browser.

The browser must be Java-capable and the Java function
must be activated (Internet Explorer 6.0 or above, or Mozilla Firefox, for example).
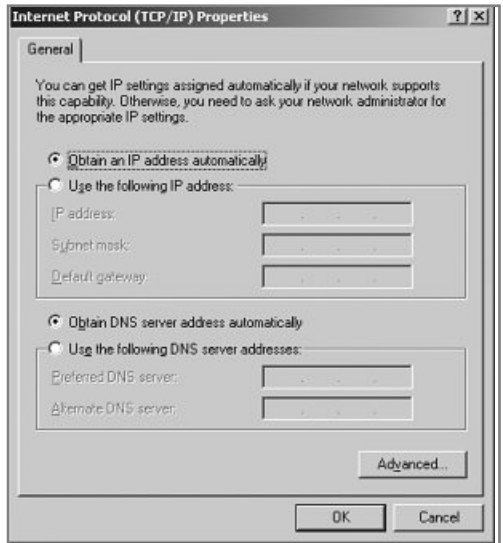
3.   Configuring the WLAN ADSL2+ Modem Router

To start the configuration process, open your browser and enter **http://192.168.2.1** as the address. The login window appears. Initially the user name is set to **admin** and the password is **1234**. After entering these, click **OK** to log on to the router.

You can configure the router manually or using the **integrated Wizard (Quick Start)**. After configuration using the **Wizard (Quick Start)**, the device is set so that the connected computers can access the internet.

Note: For security reasons, you must change the password. The standard settings are identical for many devices and can allow others to access the router configuration. See chapter 3.1.1 for more information.

3.1   Configuring the internet connection using the Quick Start Option
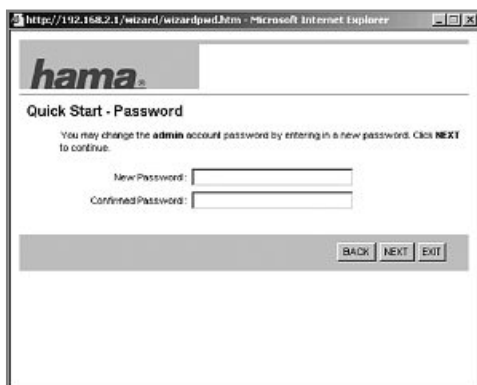
After you have logged in, start the Wizard by clicking on the navigation menu called **Quick Start**, then **Run WIZARD** and **NEXT**.

3.1.1 Setting a new router password:

Enter a new password for the router on this page.

Enter your new password in the **New Password**: field. Confirm by accurately entering your new password again in the **Confirmed Password**: field. Then click **NEXT**.
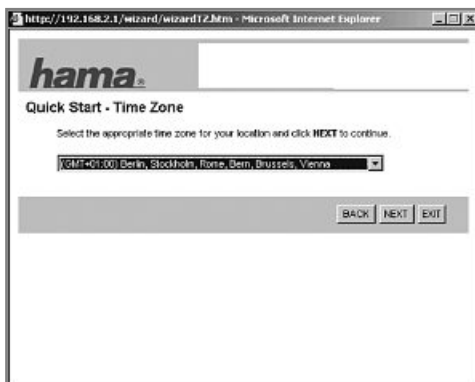
Note: You must keep your password in a safe place and avoid using words that others may guess easily.
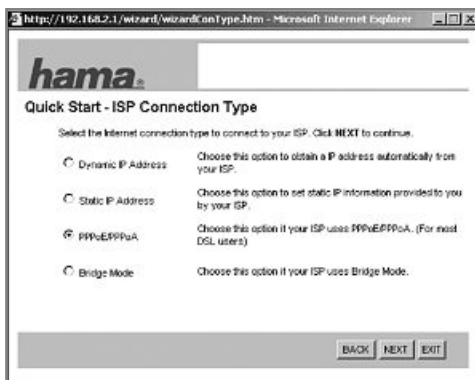

3.1.2 Setting the time zone

Choose your time zone in the menu, e.g. "**(GMT +01:00) Berlin, Stockholm, Rome, Bern, Brussels, Vienna**" for Germany. Click => **NEXT** to continue.

3.1.3 Selecting a broadband connection (ISP Connection Type)

In the following step, you are asked to specify the WAN connection type. Due to the widespread use of DSL via PPPoE, the remainder of the description will refer to this type of connection. For the PPPoE connection type,

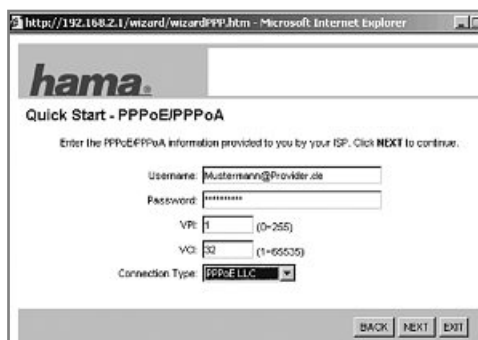select **PPPoE/PPPoA**. Then click **NEXT**.

3.1.4 PPPoE user data

You must enter the access data for your provider in the next window. Refer to the documents from your Internet provider for this information.

Username:
Refer to the documents from your Internet provider for this name, which is specific to the provider.

In addition to the access data, enter the following:

Password:
Refer to the documents from your Internet provider for the provider-specific password.

VPI and VCI:
Consult your internet provider for these values. When this manual was printed, the following values were applicable for DSL connections with Deutsche Telekom and similar companies:
VPI: 1
VCI: 32.
As indicated, the values can vary according to the country or provider.

Connection type (Broadband connection type):
For the **PPPoE** connection type, select the **PPPoE LLC** option.
Then click **NEXT**. In the next window you will be notified that the configuration has been successful. Save your entries by clicking **NEXT**.

Configuring your internet connection using the Wizard (Quick Start) is then complete.
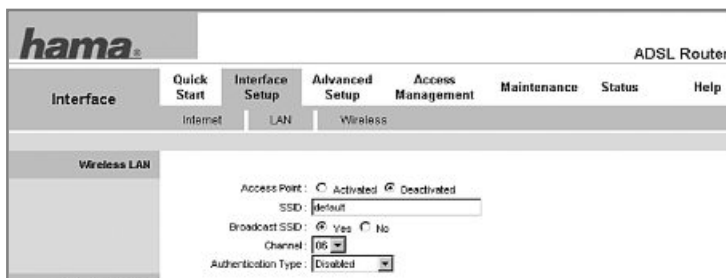
Click **CLOSE** to save your settings.

You must then restart the router for the settings to take effect. To do so, call the **Maintenance** menu, select the **SysRestart** sub-item and then choose **System Restart with: Current Settings**. Then click **RESTART**.

4.   Configuring the Wireless LAN

Wireless LAN is deactivated by default for security reasons. If you want to activate the function, go to the **Interface Setup** menu and select the **Wireless** sub-item. Note that activating **Wireless LAN** without setting an encryption poses a serious security risk.

Access Point:
Switches Wireless LAN on or off. To switch on Wireless LAN, select **Activated**; to switch it off, select **Deactivated**.

SSID:
You can enter a clearly identifiable name for your Wireless LAN in this field. The name can have a maximum of 30 characters. Special characters are not supported.

Broadcast SSID (Display WLAN network name):
Here, you can stipulate whether or not your Wireless LAN name should be visible to everyone in the network. The default setting is **Yes**.

Channel:
Select the channel you wish to use for your wireless LAN network. In Germany you can choose from channels 1 to 13. **Note:** You may not be able to select every channel, depending on your location.

Authentication Type (Setting encryption type):
This field is extremely important for the security of your Wireless LAN network. Select the **encryption type** and **strength**. The Hama WLAN ADSL2+ Modem Router supports the following encryption standards:

WEP (64 and 128 Bit)
WPA-PSK (TKIP)
WPA2-PSK (AES)

4.1   WEP encryption:

Wired Equivalent Privacy (WEP) is a standard encryption algorithm for WLAN. It controls access to the network and guarantees the integrity of the data. This method is considered unsafe and outdated due to a number of weaknesses.

First select whether you want to use **64 bit or 128 bit encryption**. The latter offers greater security. Next, enter ox and your **Security key** (you can use characters ranging from 0-9 and a-f). The length of the key is limited to 10 letters/numbers for the 64 bit encryption, and 26 letters/numbers for the 128 bit encryption.

You can preset up to four keys in the **Key #1 to #4** fields. Select **Key #1**, for example, and enter your key of choice with the required length.

Examples:
64 bit Hex (10 characters) = 0x231074a6ef
128 bit Hex (26 characters) = 0x231074a6b9773ce43f91a5bef3

Click **SAVE** at the bottom of the window to save your settings.

4.2 WPA and WPA2 encryption:

Wi-Fi Protected Access (**WPA**) is an encryption method for WLAN. WPA contains the WEP architecture, but offers additional protection using dynamic codes that are based on the Temporal Key Integrity Protocol (**TKIP**). WPA also offers pre-shared keys (PSK) for user authentication. WPA2 is a development of WPA and uses a different encryption algorithm, the Advanced Encryption Standard (**AES**).

Choose between **WPA-PSK** and **WPA2-PSK** in the **Authentication Type** field.

Next, enter the "**Pre-Shared Key**" (PSK). The key must be between 8 and 63 random characters; letters (A-Z), numbers and punctuation marks are permitted. Any client wanting to access the access point must know this character string.

Click **SAVE** at the bottom of the window to save your settings.

4.3 Advanced settings:

Only the **802.11b/g** field is relevant here. You can set your Wireless LAN access point so that this is only communicated to other clients that are based on the **802.11b**

Advanced Setting		
	Beacon Interval : 100	(range: 20~1000)
	RTS/CTS Threshold : 2347	(range: 1500~2347)
	Fragmentation Threshold : 2346	(range: 256~2346, even numbers only)
	DTIM : 3	(range: 1~255)
	802.11 b/g : 802.11b+g ▼	

(11 Mbps) or **802.11g (54 Mbps)** standard. The Hama WLAN ADSL2+ Modem Router 54 Mbps supports the following standards:

802.11b = only WLAN devices based on 11 Mbps are supported.
802.11g = only WLAN devices based on 54 Mbps standard are supported.
802.11b+g = WLAN devices based on 54 and 11 Mbps standards are supported at the same time.

Click **SAVE** at the bottom of the window to save your settings.

4.4 Wireless MAC Address Filtering:

With this function, you can stipulate which notebooks and PCs with Wireless LAN are allowed/denied access to your network/Internet by entering their MAC addresses.

First, this function needs to be activated. Do so by selecting **Activated** in the **Active**: field. Then choose either **Allow**

Wireless MAC Address Filter	
Active :	○ Activated ⊙ Deactivated
Action :	Allow Association ▼ the follow Wireless LAN station(s) association.
Mac Address #1 :	00.00.00.00.00.00
Mac Address #2 :	00.00.00.00.00.00
Mac Address #3 :	00.00.00.00.00.00
Mac Address #4 :	00.00.00.00.00.00
Mac Address #5 :	00.00.00.00.00.00
Mac Address #6 :	00.00.00.00.00.00
Mac Address #7 :	00.00.00.00.00.00
Mac Address #8 :	00.00.00.00.00.00
	SAVE CANCEL

Association or **Deny Association** in the **Action** field, for the respective computer.

Allow Association: Only the MAC addresses that you have entered are given access.
Deny Association: None of the MAC addresses that you have entered are given access.

Enter the MAC address of your first chosen computer in the **MAC Address #1** field:

Example: The MAC address of your computer is 00:12:34:56:0A:0A, so you enter this address into the **Mac Address #1** field, exactly as it is written on your computer.

To find out the MAC address of your computer, refer to the operating instructions for your operating system, or ask your system administrator. For additional computers, proceed as outlined above.

Click **SAVE** at the bottom of the window to save your settings.

5. Interface Setup

In this screen, you can change the **standard LAN** settings of the router.
In the **Main Menu**, select the **Interface Setup** menu item, followed by the **LAN** sub-item.

5.1 Router local IP:

The IP Address of the router is set to 192.168.2.1 by default. If you want to use a different address for the router, you can make the necessary changes here. The corresponding **IP Subnet Mask** is entered in the field directly below this. All other fields are only relevant for specialised application areas, which cannot be explained in depth here. We recommend that you keep the default settings.

Click **SAVE** at the bottom of the window to save your settings.

Warning: The new LAN configuration takes effect after restarting. You must therefore use the new IP address to open the web interface in the browser.

5.2 DHCP Server:

The integrated DHCP server allows IP addresses to be assigned to connected clients automatically. Select **Disabled** if you assign the IP addresses manually in your network, and therefore do not need a DHCP server. Select **Enabled** if you want to use the DHCP server. The Lease Time setting specifies how long the assigned IP address is to apply for the client. The IP address range from which the DHCP server can assign IP addresses to clients is restricted by the Start-IP Address and the End-IP Address.

Click **SAVE** at the bottom of the window to save your settings.

6. Internet Settings

In this screen, you can change the **parameters for the integrated ADSL2+ modem** in the router. In the **Main Menu**, select the **Interface Setup** menu item, and then the **Internet** sub-item. The most important settings in this area are explained below:

6.1 ATM VC: (DSL modem setting)

Asynchronous Transfer Mode (ATM) is a method of transferring data whereby the data traffic is transferred in small packets, and the transfer is coded and asynchronous. You must enter the following values, which differ according to the DSL connection.

Virtual Circuit: PVCO is selected by default.
Status: Activated must be selected.
VPI: 1
VCI: 32

Note: The values 1 and 32 are only valid for the Deutsche Telekom DSL connection. If your connection is through a different company or you are not resident in Germany, ask your DSL connection provider for these values.

Click **SAVE** at the bottom of the window to save your settings.

6.2 Encapsulation: (DSL protocol)

The purpose of encapsulation is to encapsulate other protocols and to transport these in the form of IP tunnels.

Click **SAVE** at the bottom of the window to save your settings.

6.3 PPPoE/PPPoA: (Broadband connection protocol)

PPP over Ethernet (PPPoE) is the use of the Point-to-Point Protocol (PPP) with an Ethernet connection.

Username: Enter the user name that you received from your Internet provider in this field.

Password: Enter the user password that you received from your Internet provider in this field.

Encapsulation: The Hama WLAN ADSL2+ Modem Router supports the following **encapsulation protocols**: PPPoE LLC, PPPoE VC-Mux, PPPoA LLC and PPPoA VC-Mux. If you are not sure which protocol you need for your Internet connection, consult your DSL provider.

Bridge Interface: Deactivated
This function should only be activated if you want to use the WLAN ADSL2+ Modem Router as a modem only, and you want to switch off the router function.

Click **SAVE** at the bottom of the window to save your settings.

6.4 Connection setting (DSL connection setting)

In the following settings (Connection), you can choose between **Always On** and **Connect On-Demand**.

Always On:
The Internet is permanently connected. Connection costs may be high if you are permanently connected to the internet and have a pay-as-you-go tariff.

Connect On-Demand:
The "Connect On-Demand" setting is recommended if you have a pay-as-you-go tariff (if you pay according to volume or time). This means that the internet connection is disconnected automatically after the period set in the "Close if idle for XY minutes" field.
Important:
Please also note that closing the browser does not automatically disconnect you from the internet. A number of programs send queries to the

Connection Setting

Connection: ○ Always On (Recommended)
○ Connect On-Demand (Close if idle for 0
TCP MSS Option: TCP MSS(0:default) 0   bytes

internet or receive data without it being clearly visible to the user. For the router, these queries are just as valid as opening a browser, for example. If you want to ensure that there is no active connection to the internet, you should switch off the device.

Click **SAVE** at the bottom of the window to save your settings.

6.5 IP address (IP address setting for the router)

An IP address (Internet Protocol address) is a number that facilitates the addressing of computers and other devices in an IP network.

If you need to use a specific IP address from your Internet provider, carry out the following settings:

Get IP Address: **Static** means that you must use an IP address that has been determined by your Internet provider. **Dynamic** is set as default for most German DSL providers, and is therefore set as default here, too.

Static IP address: If required, enter the specified **IP address**.

IP Subnet Mask: If required, enter the specified **Subnet IP address**.

Gateway: If required, enter the specified **standard Gateway IP address**.

NAT: This field should always be **enabled**.

TCP MTU Option: **MTU** stands for Maximal Transfer Unit and specifies the maximum packet size to be transferred. If you are unsure about this setting, we recommend that you keep the default value. You can set values between 0 and 1492.

All other settings are too specialised and are therefore not covered in this manual.

Click **SAVE** at the bottom of the window to save your settings.

7. Advanced Setup: (Advanced Router Setting)

In this overview, you can customise the router to suit your individual requirements. In the **Main Menu**, select the **Advanced Setup** menu item.

7.1 Firewall

A **Firewall** is a network
of safety components in
computer technology that
permits or denies network
traffic using a predefined

firewall security policy. The aim of a firewall is to control the transfer between a local network (LAN) (high trust)
and the Internet (low trust).

Firewall: **Enabled** means that the integrated firewall is switched on.
                  Disabled means that the integrated firewall is switched off.

SPI: **Enabled** means that the integrated packet filter is switched on.
                  Disabled means that the integrated packet filter is switched off.

You can find more information about SPI in the glossary.

Click **SAVE** at the bottom of the window to save your settings

7.2 NAT:

In computer networking, **Network Address Translation (NAT)** is the collective term for the process of changing the
automated address information of data packets. The most common application areas are in routers and firewalls.

NAT Status: **Activated** means that NAT is switched on. This setting is imperative for router operation
                  of any kind.
                  To activate NAT, read section 6.5.

7.2.1 DMZ:

A Demilitarized Zone (DMZ) denotes
a computer network, where
access to its connected servers is
controlled via security checks.
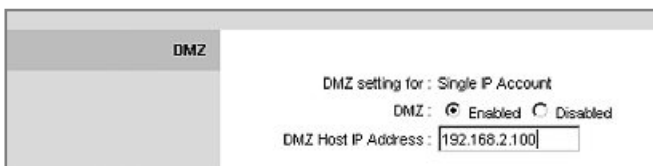
The systems set up within the DMZ are protected against other networks (Internet, LAN, for example) using
firewalls. This separation allows access to services that are publicly accessible whilst protecting the internal
network (LAN) against unauthorised access.

DMZ: **Enabled** means that DMZ the is switched on.
                  Disabled means that the DMZ is switched off.

DMZ Host IP Address: Enter the IP Address for the computer running a
                                  server or program that requires the DMZ.

Click **SAVE** at the bottom of the window to save your settings.

7.2.2 Virtual server (Port forwarding)

You will need port forwarding if you wish to set up a game server for online gaming or for P2P networks.

Rule Index: You can choose from 1 to 16; up to 16 different port forwardings are possible.

Start Port Number: Enter the first port of the range that is to be forwarded, for example Port 21

End Port Number: In this field, enter the last port of the range that is to be forwarded, for example Port 21

Note: You can enter several consecutive ports at once by simply entering, for example, 3000 as the **Start Port**, and 3500 as the **End Port.**

Local IP address: In this field enter the IP address of the computer on which the program requiring port forwarding is installed.

Click **SAVE** at the bottom of the window to save your settings.

8. Access Management

In this overview, you can adjust the access settings comprehensively to suit your individual requirements. In the **Main Menu**, select the **Access Management menu item**.

8.1 ACL: (Access control for certain services)

In the **Main Menu**, select the **Access Management menu item**, and then the **ACL** sub-item.

The Access Control List (ACL) allows you to specify exactly which computers are allowed to access which service.

ACL:	**Activated** means that the ACL is switched on. **Deactivated** means that the ACL is switched off.
ACL Rule Index:	You can choose from 1 to 16, which means that you can configure up to 16 different ACLs.
Active:	**Yes** means that Rule 1, for example, is switched on. **No** means that Rule 1, for example, is switched off. You can also switch individual rules on or off if required.
Secure IP Address:	In this field, enter the computer's IP address if you want the rule to be valid for this computer exclusively. If you want the rule to be valid for all computers connected to the router, enter 0.0.0.0.
Application:	Enter the protocol/application to which the rule should apply. You can choose from the following options: Web, FTP, Telnet, SNMP, Ping or ALL.
Interface:	Select the exchange point for which the rule is valid. You can choose from the following options: WAN, LAN and Both.

Click **SAVE** at the bottom of the window to save your settings.

8.2 IP filter (access control using IP address)

In the **Main Menu**, select the **Access Management menu item**, and then the **IP Filter** sub-item.

A packet filter is an application for filtering the incoming and outgoing data traffic in a computer network. This is generally used to protect the network from attackers, however the filter also protects against unwanted outgoing packets. This means, for example, that you can prevent your own computer from spreading unwanted and undetected viruses on the Internet.

IP Filter Set Index: You can save up to 12 settings.

Interface: Use the same setting as entered in the **Virtual Circuit field** on the **Interface Setup** as entered on the Interface Setup/ LAN/Virtual Circuit page.

Direction: **Incoming:** Incoming packets are filtered **Outgoing:** Outgoing packets are filtered **Both:** Incoming and Outgoing packets are filtered (checked) using the preset rule.

IP Rule Index: You can set 1 to 6 rules

Active: Yes means that the rule is switched on. **No** means that the rule is switched off. You can also switch individual rules on or off if required.

Source IP Add: IP address of the source computer. If you enter 0.0.0.0 this setting is ignored.

Subnet Mask: Subnet mask of the source computer.

Port: Enter the number of the port to which the rule is to apply. If you enter 0, this setting is ignored.

Destination IP Add: IP address of the "destination" computer. If you enter 0.0.0.0 this setting is ignored.

Subnet Mask: Subnet mask of the "destination" computer.

Port: Enter the number of the port to which the rule is to apply. If you enter 0, this setting is ignored.

Protocol: Enter the IP protocol in this field; choose between TCP, UDP or ICMP.

Click **SAVE** at the bottom of the window to save your settings.


8.3 SNMP:

In the **Main Menu**, select the **Access Management menu item**, and then the **SNMP** sub-item.

The Simple Network Management Protocol is a network protocol that was developed for monitoring and controlling network elements

(routers, servers, switches, printers, computers etc.) from a central station.

Get Community: Enter the user name or public (visible to all).

**Set Community:** Enter the user name or public (visible to all).

Click **SAVE** at the bottom of the window to save your settings.
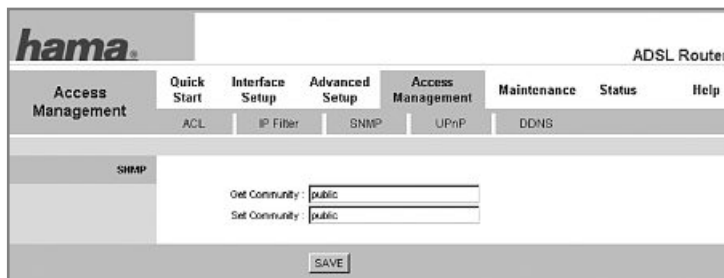
8.4 UPnP (Universal Plug and Play setting):

In the **Main Menu**, select the **Access Management menu item**, and then the **UPnP** sub-item.

Universal Plug and Play (UPnP) allows you to control devices made by any manufacturer (media centres, routers, printers), using an IP-based network, with or without

central control. It is based on a series of standardised network protocols and data formats.
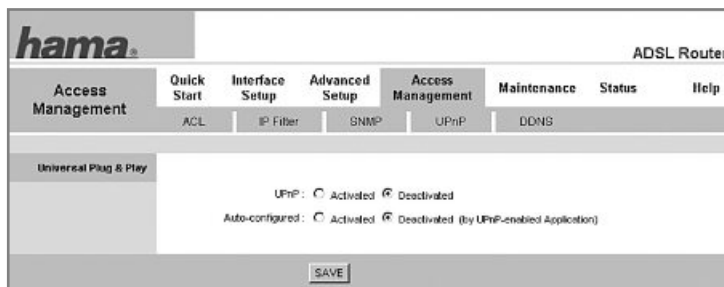
UPnP: **Activated** means that UPnP is switched on.
                       Deactivated means that UPnP is switched off.

Auto-configured: **Activated** means that automatic UPnP is switched on.
                       Deactivated means that automatic UPnP is switched off.

Click **SAVE** at the bottom of the window to save your settings.

8.5   DDNS: (Dynamic Domain Name System)

In the **Main Menu**, select the **Access Management menu item,** and then the **DDNS** sub-item.

The DynDNS or dynamic Domain Name System section is an internet service that allows you to establish a fixed hostname as a pseudonym for a dynamically changing IP Address. This ensures that you can always access a computer at the same domain name.

Dynamic DNS: **Activated** means that the dynamic DNS is switched on.
                   Deactivated means that the dynamic DNS is switched off.

My Host Name: Host name that you have received from DynDNS.org, for example. Please enter the entire name, including @DynDns.org

E-Mail Address: Enter the e-mail address that you specified during DynDNS registration.

Username: Enter the username that you specified during DynDNS registration.

Password: Enter the password that you specified during DynDNS registration.

Click **SAVE** at the bottom of the window to save your settings.

9.   Maintenance: (Router Management)

In this overview, you can adjust the access settings comprehensively to suit your individual requirements.

9.1 Administration:

In the **Main Menu**, select the **Maintenance menu item**. Select the **Administration** sub-item.

On this page, you can change the password for your administrator of the Hama WLAN ADSL2+ Modem Router.

To change your password, enter your new password in the **New Password** field and then accurately enter it again in the **Confirmed Password** field.

Click **SAVE** at the bottom of the window to save your settings.

9.1.1 Resetting the password
Note: If you accidentally forget your password, you can reset the Hama WLAN ASDL2+ Modem Router back to the default setting and use the default password, **1234**. To reset the router, use a pen or similarly shaped item to press down on the black pressure point on the back of the router for approx. 5 seconds. The router will then default to the original factory settings.

9.2 Time Zone: (Setting the time zone)

In the **Main Menu**, select the **Maintenance menu item**, and then the **Time Zone** sub-item.

This is where you can set the time zone, time and the date.

NTP Server automatically: The router adjusts the time and date to the server specified in the
**NTP Server Address** field.

PC's clock: The router adjusts the time and date to your computer.

Manually: You set the time and date manually.

Time Zone: Select the time zone of your location.

Daylight Saving: Enable or disable daylight savings time.

NTP Server Address: Usually a public server that automatically adjusts the time and date.

Click **SAVE** at the bottom of the window to save your settings.

9.3 Firmware: (Updating firmware)

In the **Main Menu**, select the **Maintenance menu item**, and then the **Firmware** sub-item.

This is where you can import a new firmware update if there is one available. Check our homepage **www.hama.com** or Hama Product Consulting to learn about firmware updates.
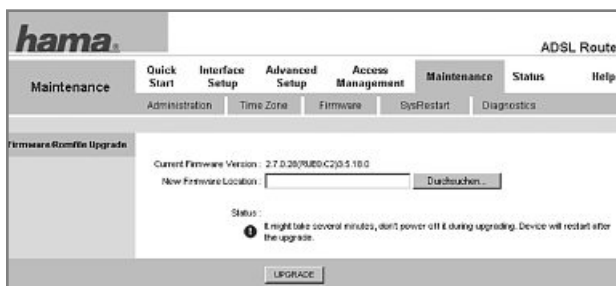
Once you have downloaded the new firmware, unpack it and save it to your desktop. Then click **Browse**, select the unpacked file, and click **UPGRADE**. The firmware then is copied to the router and performs a restart:

Note: Only upgrade firmware if you are experiencing problems with the router. Otherwise, we strongly recommend against performing an update. The update deletes any changes that you have made previously and so you will need to carry out these settings again once the upgrade is complete. Please note that only firmware updates authorised and released by Hama may be loaded onto the router; otherwise any warranty claims against Hama GmbH & Co. KG are void.

9.4 SysRestart: (Restarting/resetting the router)

In the **Main Menu**, select the **Maintenance menu item**, and then the **SysRestart** sub-item.

Here, you can restart the router with the current settings or reset it to the factory default settings.
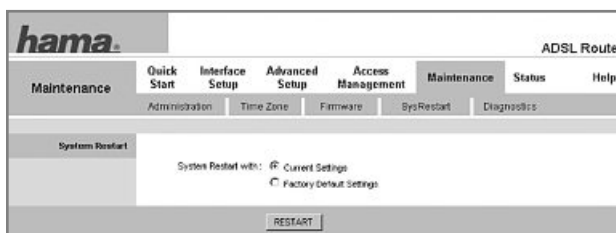
If you want to **restart the router with the current settings**, select **Current Settings** and click **RESTART**.

If you want to **reset the factory default settings**, select **Factory Default Settings** and click **RESTART**.

9.5   Diagnostics: (Router diagnostics)

In the **Main Menu**, select the **Maintenance menu item**, and then the **Diagnostics** sub-item.

You can run a diagnostics test for the WLAN ADSL2+ Modem Router here.
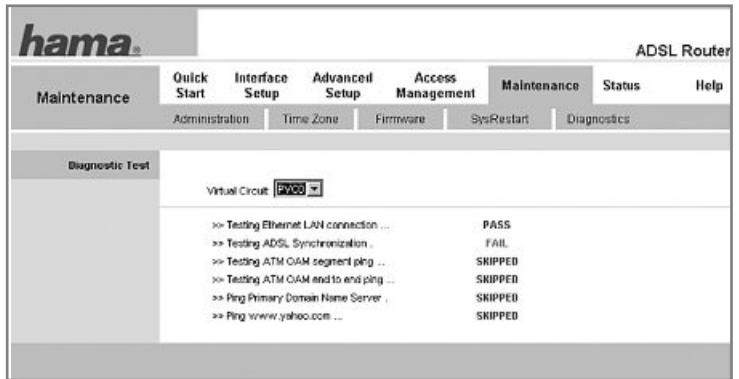
Virtual Circuit: If you are retaining the default settings, you must select **PVCO** in this field.

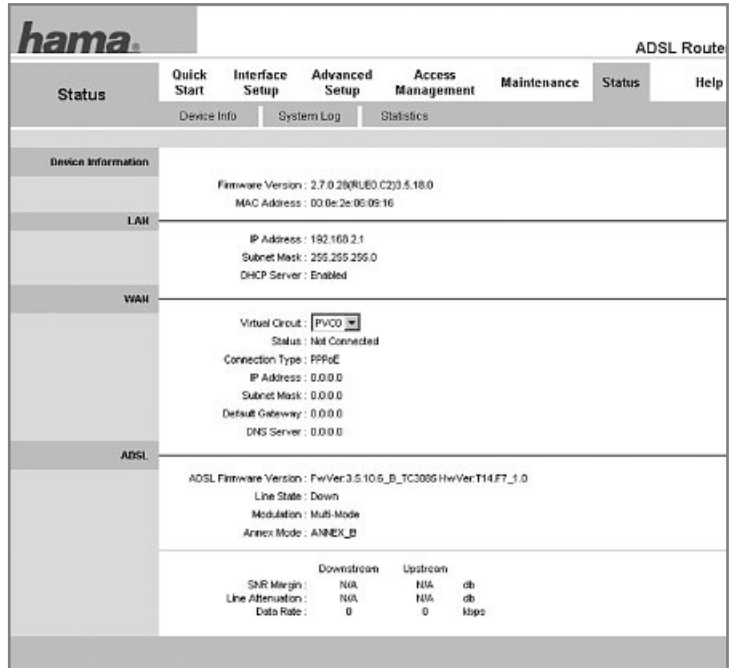|	
PASS	= Passed the test
FAIL	= Error or incorrect configuration
SKIPPED	= Test was skipped

10.   Status:

This overview provides detailed information about your current router settings. In the **Main Menu**, select the **Status menu item**.

10.1 Device info:

This window provides an overview of the current operating status of your ADSL2+ Modem Router.

If you contact or call Hama Product Consulting, please have a printout or screen shot of the status overview to hand.

10.2 System Log:

In the **Main Menu**, select the **Status menu item**, and then the **System Log** sub-item.

You can check the detailed error messages for the router in this view. If you contact or call Hama Product Consulting, please have a printout of the system log to hand.

CLEAR LOG: Delete system log.

SAVE LOG: Save the system log in a file.

11. Help:

In the **Main Menu**, select the **Help menu item**.

This view provides an overview of the router in addition to detailed explanations of the different functions. This is not yet available in English.

12. Glossary (Explanation of terminology):

Client: The term Client is often used colloquially to mean computers in a computer network on which preferred client applications are performed.

MAC address: The MAC address (Media Access Control, Ethernet ID or, with Apple, Airport ID and Ethernet ID) is the hardware address of every individual network adapter, and is used as a unique identifier for devices in a network. The MAC address is often found on the network card, integrated into the serial number. You can also locate the address using software; various commands are required depending on the operating system.

SPI: **Stateful Packet Inspection** (SPI) refers to a dynamic packet filter whereby every data packet is assigned a specific active session. The data packets are inspected and the connection state is included in the decision. During the process of this connection in the firewall, the data packets are inspected and entered into tables. A data packet comparison and the table determine whether the data packet is passed through. Data packets that cannot be assigned certain criteria are not allowed through. In security-relevant applications, firewalls that use the SPI procedure are therefore superior to the standard packet filter firewalls.

Web: The World Wide Web (shortened to Web or www) is a system of hypertext documents that is retrievable over the Internet. The user needs a Web browser to retrieve the data from the Web server or to display the information on a screen, for example. In the document, the user can navigate the hyperlinks (which refer to other documents) regardless of the Web server on which the hyperlinks are saved.

FTP: **The File Transfer Protocol** is a network protocol for transferring files over TCP/IP networks. It is used for transferring files from a server to a client (download), from a client to a server (upload) or client-controlled between two servers. FTP is also used for creating and reading files, as well as for renaming and deleting files.

Telnet: Telnet (**Tel**ecommunication **Net**work) is the name of a widely-used network protocol on the Internet. It is usually used to allow users access to Internet processors by means of the command line.

SNMP: The **Simple Network Management Protocol** is a network protocol that was developed for monitoring and controlling network elements (routers, servers, switches, printers, computers etc.) from a central station.

Ping: **Ping** is a program used to test whether a particular host or computer is reachable in a network and for determining its response rate.

WAN: A **Wide Area Network** is a computer network that, in contrast to a LAN, covers a very large geographical area.

LAN: A **Local Area Network** is a network in which computers or clients are connected using network cables or wireless LAN.

TCP: **Transmission Control Protocol (TCP)** is a protocol that determines the way in which data should be exchanged between computers. All modern computer operating systems have TCP and employ it for exchanging data with other computers. It is a component of the Internet protocol suite, the core basis of the Internet.

UDP: **The User Datagram Protocol (UDP)** is a minimal, connectionless network protocol that belongs to the transport layer of the Internet protocol suite. The task of the UDP is to ensure that data transferred over the internet arrives at the correct application.

ICMP: As with TCP and UDP, the Internet Control Message Protocol (**ICMP**) uses the Internet Protocol (IP) and is a core protocol in the Internet protocol suite. Its purpose in networks is to send error and information messages.

13.   Support and Contact Information:

If the product is defective:
Please contact your dealer or Hama Product Consulting if you have any product claims.

Internet / World Wide Web:
Product support, updates or product information can be found at www.hama.com

Support hotline – Hama product consultation:
Tel. +49 (0) 9091 502 115
Fax +49 (0) 9091 502 272
E-mail: produktberatung@hama.de

Note
This product may only be used in Austria, Switzerland, France, England, Belgium, Spain, Holland, Hungary, Poland, Sweden, Luxemburg, Ireland, Greece, The Czech Republic, Slovakia and Finland.

See www.hama.com for the declarations of conformity with R&TTE Directive 99/5/EC.

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