

SAGEM F@st™ 1201/1241



Reference Manual

288 110 393-01

Edition of October 2006



Sagem Communication assiduously monitors technical developments and is constantly seeking to improve its products in order to let its clients take full advantage of them. It therefore reserves the right to modify its documentation accordingly without notice.

All brands mentioned in this guide are registered by their respective owners:

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- **SAGEM F@st™** is a registered brand of **Sagem Communication**.
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The purpose of the present reference manual is to give users the functions for operating and managing the equipment. The only access level required (**Administrator**) is protected by a password and allows one to access these functions in read and write mode for all the user and network parameters (Standard values: Login: admin, password: admin).



Configuration of the router by HTTP is described in detail (cf. section 5).

For better legibility of the reference manual, the term "router" will be used throughout the document to designate SAGEM F@st™ 1201 and SAGEM F@st™ 1241 equipment. When description is addressed to a type of quite precise equipment, the name of this equipment will be mentioned.

By defect all the functions described on the SAGEM F@st™ 1201 are also available on the SAGEM F@st™ 1241.

Convention of symbols used in this manual



Warns you not to do an action, or commit a serious omission.



Gives you important information which you must take into account

How should the document be used?

The present reference manual is organised into sections and annexes. These sections and annexes cover the following subjects.

Section 1	Presentation of SAGEM F@st™ 1201 equipment
Section 2	Presentation of SAGEM F@st™ 1201 equipment
Section 3	Presentation of SAGEM F@st™ 1201 equipment
Section 4	Configuration of network parameters
Section 5	Configuration of the residential platform by HTTP
Section 6	Description of Internet access service
Section 7	Updating the application
Annex A	Troubleshooting
Annex B	CE compliance declaration
Annex C	Environment
Annex D	Technical Characteristics
Annex E	Default configuration
Annex F	Glossary
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1. Introduction

This section covers	➤ presentation of the SAGEM F@st™ 1201/1241 equipment	§ 1.1
	➤ composition of the packaging	§ 1.2
	➤ required hardware and software	§ 1.3

1.1 Presentation

The present reference manual is dedicated to the SAGEM F@st™ 1201 and SAGEM F@st™ 1241 product ranges. These products are routers which give users, via an ADSL/ADSL2/ ADSL2+ network, broadband Internet access from their computer or their games console by various Ethernet (10 or 100 BASE-T) or USB interfaces.



SAGEM F@st™ 1201 and SAGEM F@st™ 1241 products adapt the ADSL function respectively for POTS (UIT G.992.1/3/5 - Annex A) and for ISDN (UIT G.992.1/3/5 - Annex B).

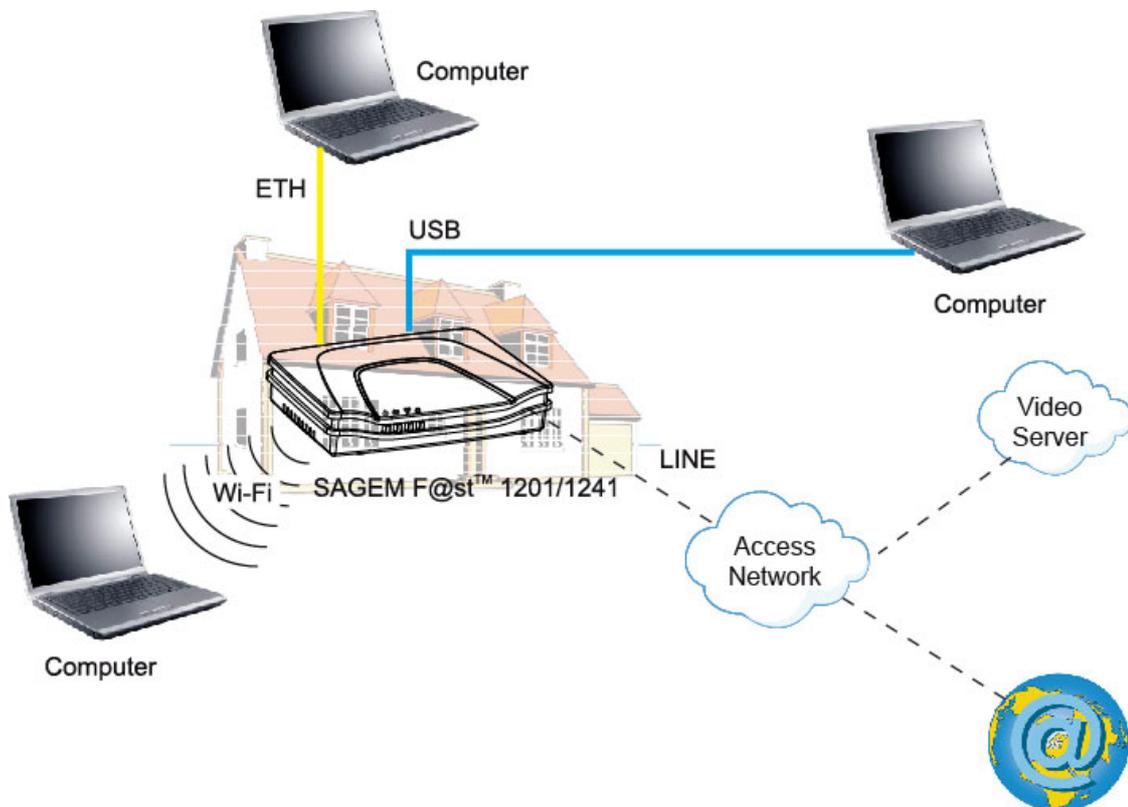


Figure 1.1 - Supervising your router

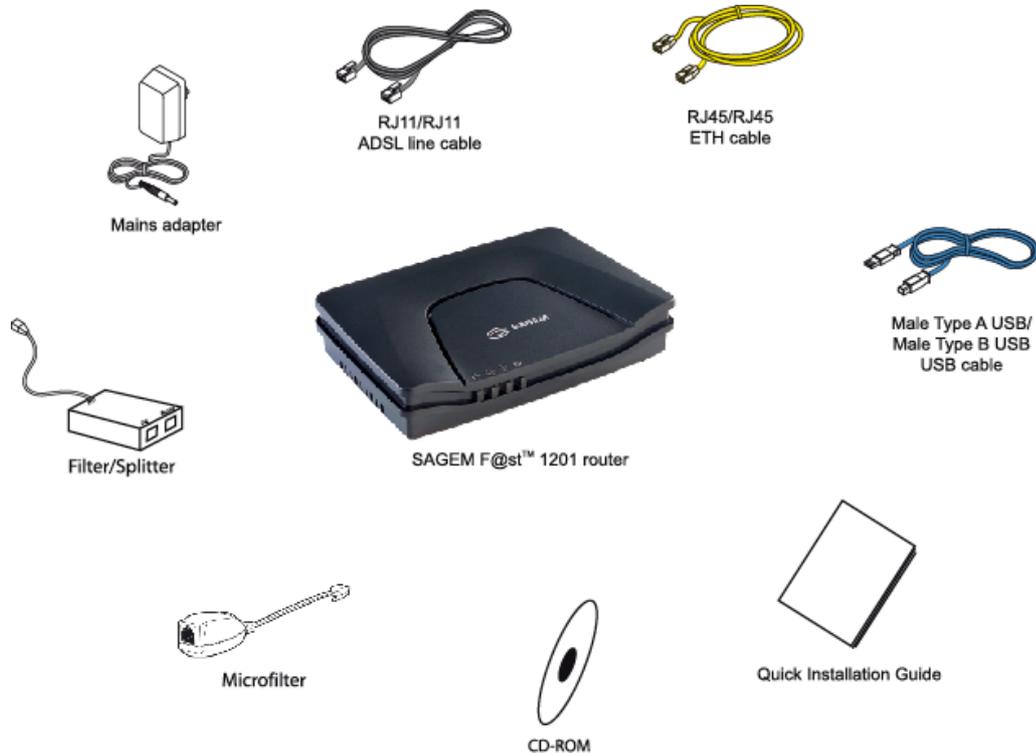
Its principal characteristics and functions are as follows:

- High-performance secure Bridge/Router with ADSL/ADSL2/ADSL2+ interface,
- User access:
 - 1 10/100BT Ethernet port,
 - 1 USB1.1 Slave port,
- DHCP Client/Server/Relay,
- DNS Server/Relay,
- FTP Client/Server,
- TFTP Client/Server,
- HTTP Client/Server,
- NAT/PAT router - FTP Compatibility, IRC, Net2Phone, Netbios, DNS, Netmeeting, SIP, VPN passthrough (IPSec, IKE, PPTP, L2TP), CUSeeMe, RealAudio, Microsoft IM and others,
- Firewall,
- Spanning tree,
- HTTP server for easy configuration,
- Manual update of the application version locally.

1.2 Composition of router pack

The router is supplied in a pack with the following contents:

- 1 SAGEM F@st™ 1201 or SAGEM F@st™ 1241,
- 1 mains adapter unit,
- 1 grey ADSL RJ11/RJ11 FDT line cord (length = 3 m),
- 1 yellow Ethernet RJ45/RJ45 linking cord (length = 1.75 m),
- 1 blue USB Type A male/Type B male cable (length = 1.5 m),
- 1 Quick Installation Guide,
- 1 Installation CD-ROM,
- microfilter(s) (option),
- 1 filter/splitter (option).



The CD ROM contains:

- the application for installing the USB interface.
- the present Reference Manual (SAGEM F@st™ 1201/1241) in PDF format file.
- the CE declaration of the chosen router.



Incomplete or damaged supply. If on its receipt the equipment is damaged or incomplete, contact the Supplier of your router.

1.3 Minimum prerequisite

Using a router requires at minimum:

- a computer equipped:
 - a type A USB interfaceor
 - an Ethernet interface (10BASE-T or 10/100BASE-T),
- a WEB browser (Internet Explorer version 5 or higher recommended).

The minimum configuration of your computer must be:

- for Windows: Pentium II, 400 MHz, RAM: 128 MB,
- for MacOS: Power PC G3, 233 MHz, RAM: 128 MB,
- a monitor of minimum resolution: 1024 x 768.



Before installing the router, we advise you to uninstall any modem or other router (for example, an ADSL router).

2. Description and connection of router

This section covers	➤ the description of your router	§ 2.1
	➤ connecting the ports of your router	§ 2.2
	➤ connecting to a power socket	§ 2.2.1
	➤ connecting the line cable	§ 2.2.2
	➤ connecting your computer	§ 2.2.3
	➤ installation instructions	§ 2.3

2.1 Description

Figure 2.1 gives an overview of a router SAGEM F@st™ 1201 or SAGEM F@st™ 1241.



Figure 2.1 - Overview of case

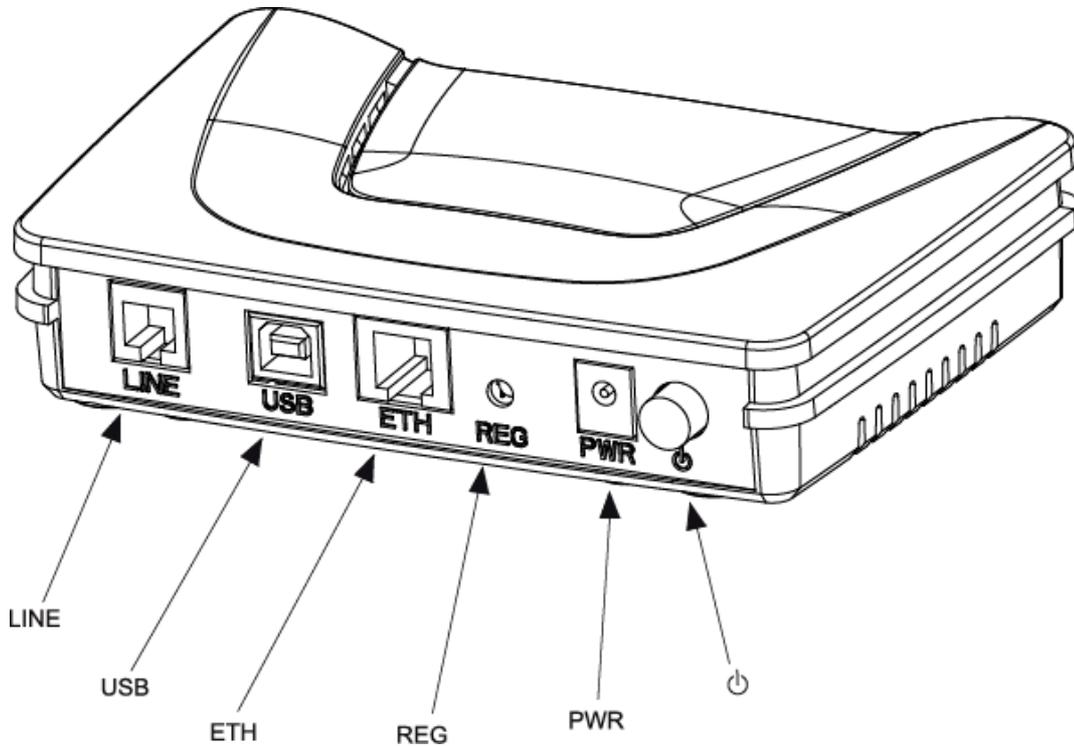
This case consists principally of a lid and a base in which a printed circuit equipped with electronic components is located.

The front face has four display LEDs (cf. § 2.1.2).

The base has the LEDs ideograms, SAGEM's mark and logo or the operator's marking as well.

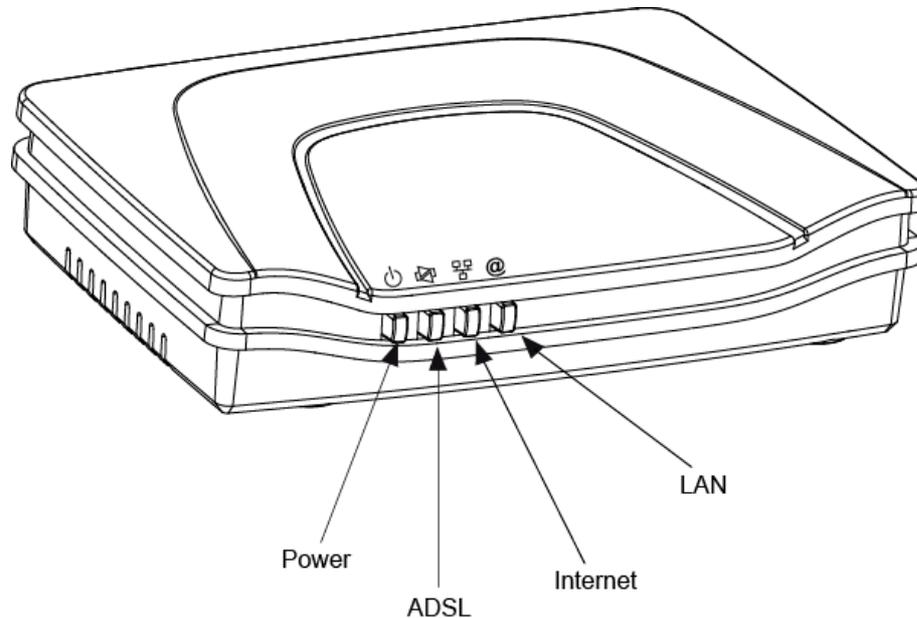
Below the base a label is glued on which the product's identification code, the series number and a barcode are shown.

2.1.1 "Connectors" side view



Marking	Meaning
LINE	RJ11 connector - 6 pts. This grey connector is used for the connection to an ADSL line (WAN interface).
USB	Type B USB female connector. This blue connector is used for connection to a computer (USB interface).
ETH	RJ45 connector - 8 pts (10/100BASE-T Ethernet Interface). This yellow connector is used for connection to a computer (10/100BASE-T ETH interface).
REG	This button allows the router to be reset to the factory configuration (see § A.7). Note: It is set back relative to the other elements to prevent an accidental loss of configuration.
	On/Off switch.
PWR	Miniature jack fixed connector. This connector enables the router to be supplied with direct current from a mains adapter unit.

2.1.2 "LEDs" view



The different LEDs of the figure below are described in the following table:

Marking	Abbreviation	Meaning
	PWR	Alarm LED (bicolour LED Green/Red): <ul style="list-style-type: none"> • lits green if power is present, • lits red in the case of failure detected at the time of starting. • goes out if there is no power
	ADSL	Green ADSL LED: <ul style="list-style-type: none"> • blinks slowly when the ADSL is not detected, • blinks quickly when the ADSL line is being synchronised, • stays lit when the ADSL line is detected.
	LAN	Green local network (LAN) LED: This LED indicates data traffic between the router and the different USB and Ethernet (ETH) interfaces. <ul style="list-style-type: none"> • This LED is off if no interface (Ethernet or USB) is detected. • This LED blinks when traffic is detected on one of the interfaces. • This LED is lit when an Ethernet or USB interface is detected and if no traffic is detected.
	Internet	Internet connection LED (bicolour LED Green/Red): <ul style="list-style-type: none"> • remains lit when the "PPP" connection is established or when the router is in "Bridge" mode, • lits green when the "PPP" connection is established, • lits red when the "PPP" connection is not established, • blinks when traffic is detected on the WAN interface.

2.2 Connecting the ports of your router

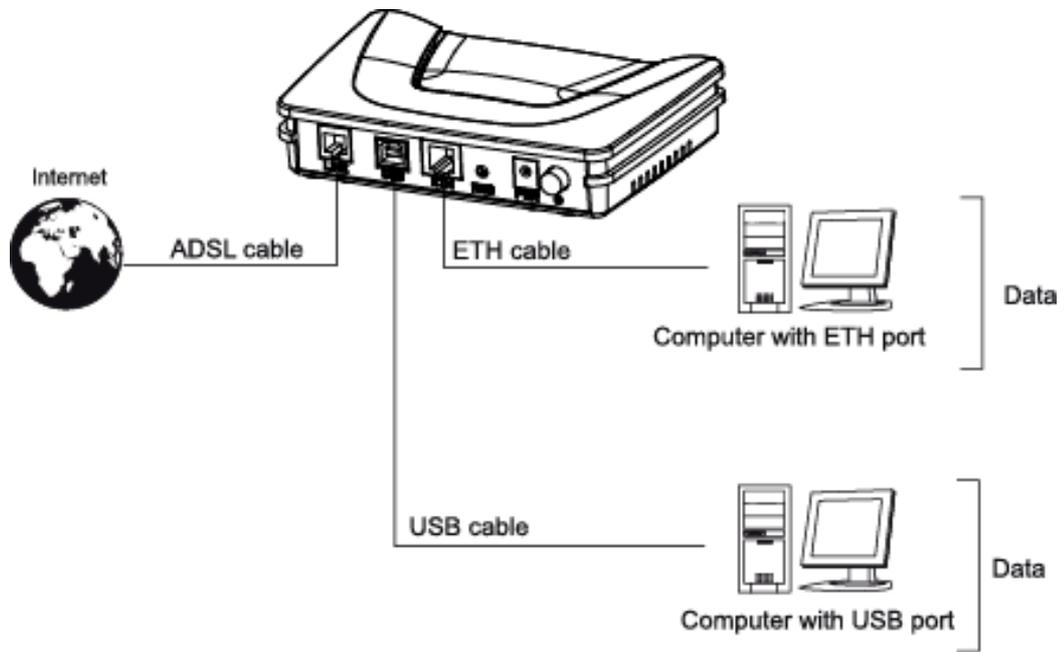
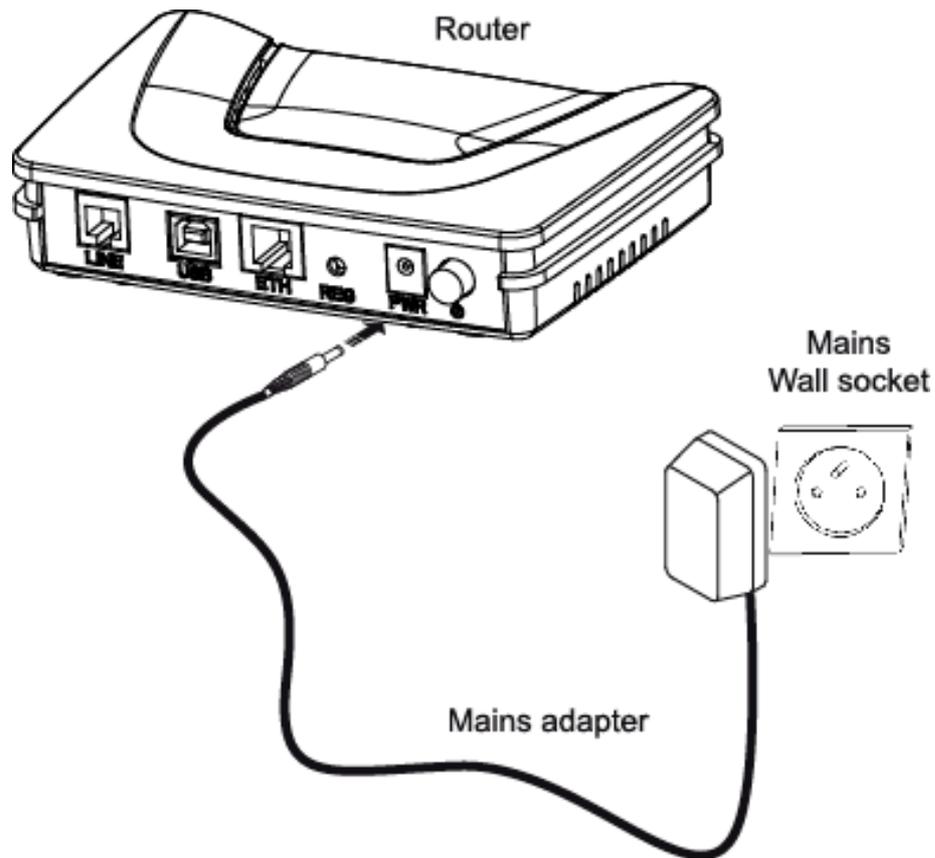


Figure 2.2 - Interconnection of ports of SAGEM F@st™ 1201/1241

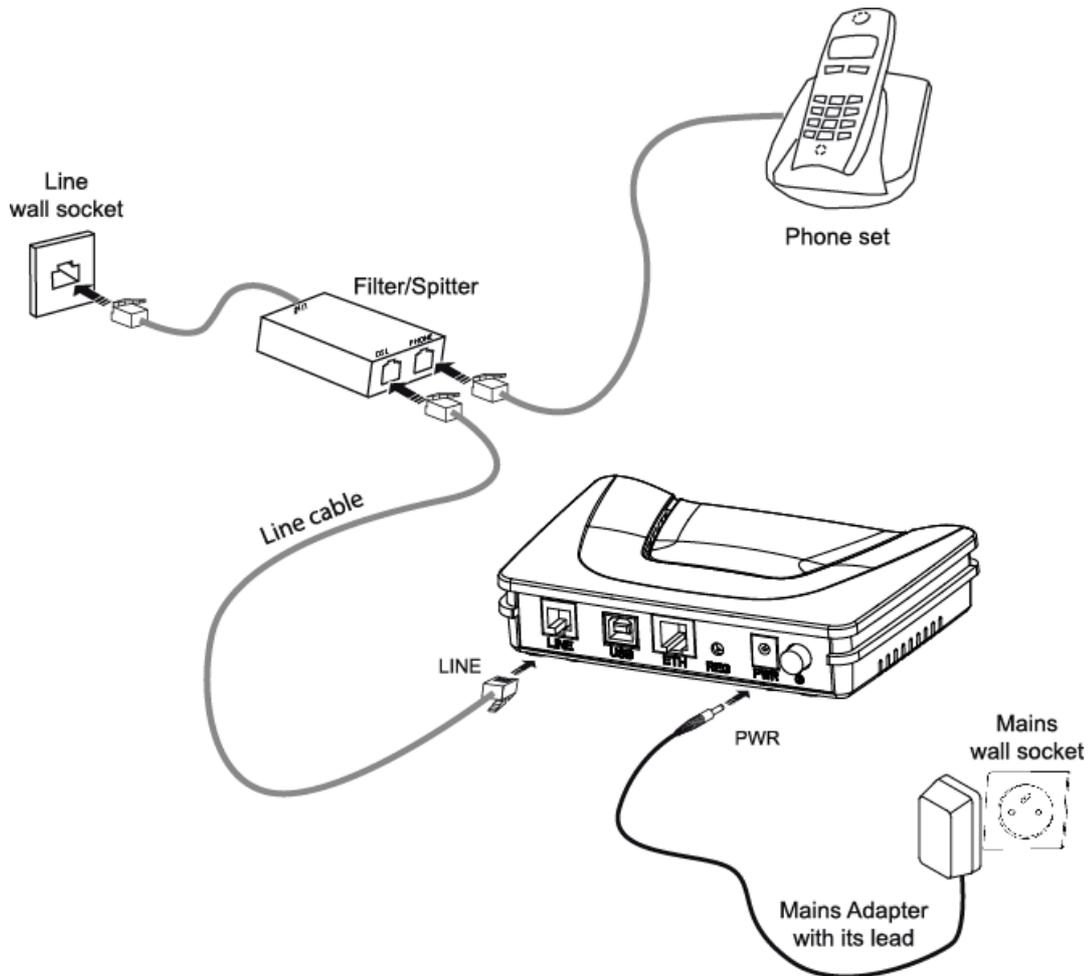
2.2.1 Connecting to a power socket

- First connect the end of the mains cord, supplied with the equipment, to the **PWR** base of your router.
- Connect the mains adapter to a nearby mains wall socket.
- Set the "On/Off" switch to On.



2.2.2 Connection of the ADSL cable to the router

- Connect an end of the supplied grey RJ11/RJ11 cable to the grey fixed connector marked **LINE** of your router.
- Connect the other end of this cable to the connector marked **ADSL** on the micro-filter connected to the RJ11 telephone wall socket of your home.



2.2.3 Connecting to your computer

Two connections may have to be made:

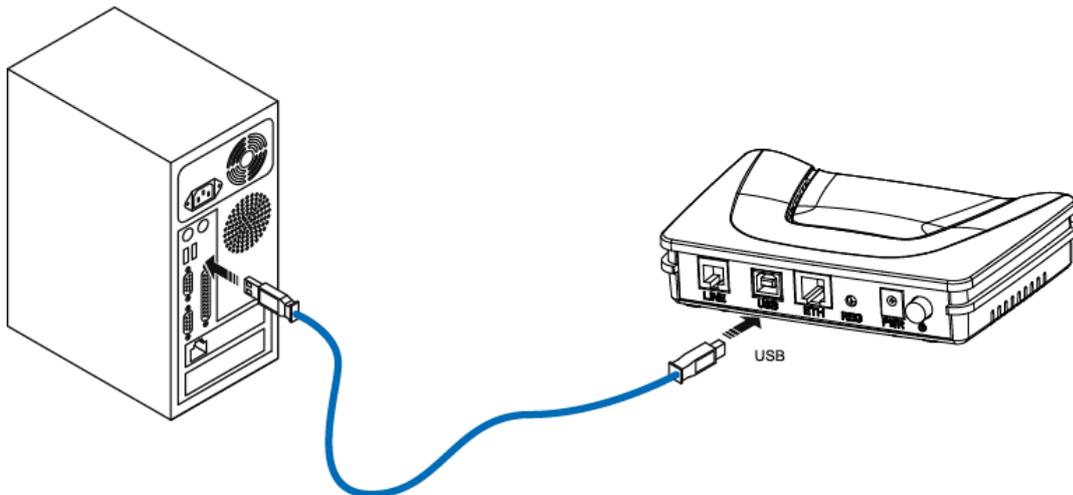
- Connection of the USB interface of your router to your computer.
- Connection of the Ethernet interface of your router to your computer.

2.2.3.1 Connection of the USB interface of your router to your computer



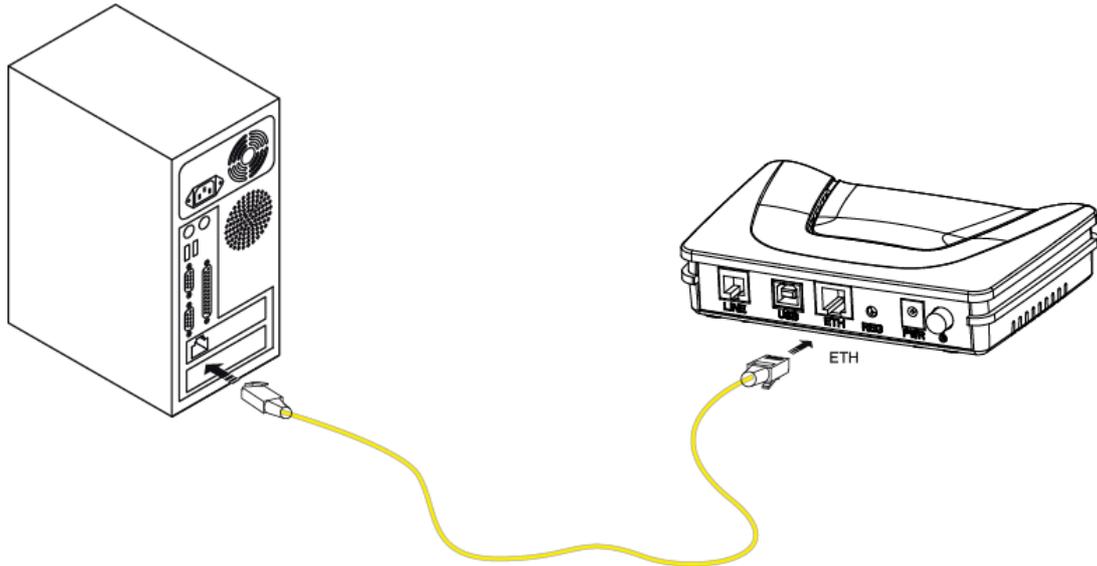
This connection is made **in all cases after installing the drivers** of the USB interface (see section 3).

- Connect the end of the blue **USB** cable fitted with a type B connector (square fixed connector) to the blue fixed connector marked USB of your router,
- Connect the other end of the cable fitted with a type A connector (rectangular fixed connector) to your computer.



2.2.3.2 Connecting the Ethernet interface of your router to your computer

- Connect the end of the yellow Ethernet cable (RJ45/RJ45) supplied in the pack to the yellow Ethernet fixed connector marked **ETH** of your router,
- Connect the other end of the cable to your computer.



2.3 Installation instructions

Environment

- The router must be installed and used inside a building.
- The ambient temperature must not exceed 45°C.
- The router must not be exposed to direct strong sunlight nor to an intense heat source.
- The router must not be placed in an environment subject to vapour condensation.
- The router must not be exposed to water projections.
- The router unit must not be covered.

Power source

- Use a network socket with easy access, which is close to the equipment. The power cord is 2 m in length.
- Arrange the power cord so as to prevent any accidental power cutoff of the router.
- The router is designed to be connected to a TT or TN type power network.
- The router is not designed to be connected to an electrical installation with an IT type diagram (neutral connected to earth through an impedance).
- Protection against short circuits and inter-phase leakages, neutral and earth must be made by the building's electrical installation. The power circuit of this equipment must be fitted with a 16 A protection against power surges, and with a differential protection.

Maintenance

- It is prohibited to open the case. Only qualified personnel approved by your supplier may do so.
- Do not use liquid or spray cleaning agents.

3. Installing and configuring the router

This section covers	➤ installing your router with the network card of your computer (Ethernet).	§ 3.1
	➤ installing your router in the USB port of your computer.	§ 3.2
	➤ installing an additional computer.	§ 3.3

3 - Installing and configuring the router

Your router can be installed and configured with the following interfaces:

- Ethernet (ETH)(cf. § 3.1),
- USB (cf. § 3.2).



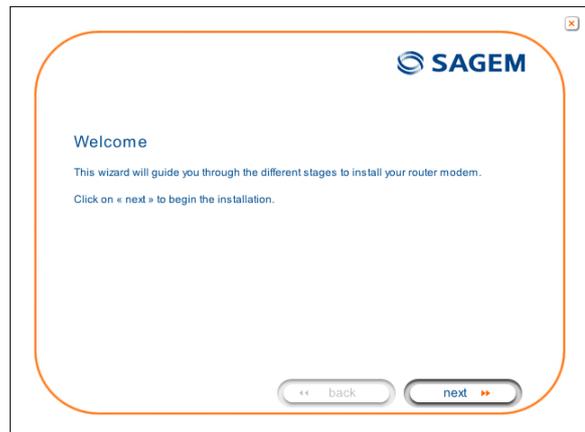
Before installing your router, we recommend you uninstall every ADSL router.



The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

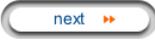
- 1 Insert the CD-ROM in the appropriate driver of your computer; the screen opposite is displayed.

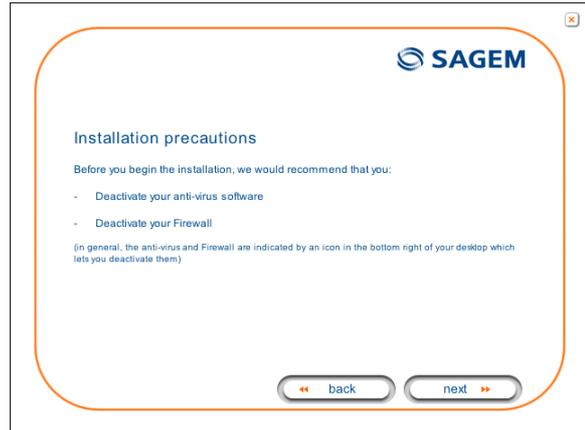
Click button  to start the installation.



Observation: If this screen does not appear: Select, in the menu **Start**, the command **Execute**, then enter:
<letter of CD-ROM drive> :\autorun.exe (for example, e:\autorun.exe)
then click **OK**.

- 2 The screen opposite appears.
Carry out the operations described on the screen.

Click button  to continue the installation.

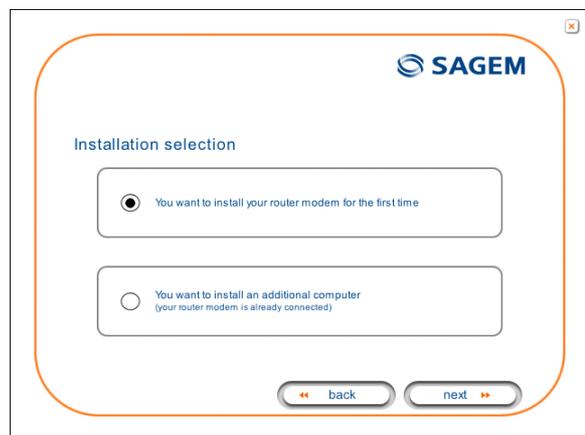


- 3 A screen enabling the type of installation to be chosen (first installation or installation of an additional computer) appears.

For a first installation, we recommend that you check the button



then click on  to continue the installation.



- 4 The screen opposite appears.

This screen enables you to choose to which interface (Ethernet or USB) you wish to connect your router to your computer.

Select the interface required and then click button  to continue the installation.



The installation of your router using different interfaces is described in detail below in the order displayed on the previous screen (choice of connection mode).

3.1 Installing and configuring your Router with the network card of your computer (Ethernet)

The Ethernet fixed connector marked **ETH** of your router is designed for connecting your computers or wired Ethernet network equipment. It supports 10 Mbit/s and 100 Mbit/s transmission rates in Half or Full Duplex mode on a category 5 double twisted pair cable.

This port is a RJ45 connector with wiring of the self-detecting MDI or MDI-x type.

With this port, you can connect using a straight or crossed Ethernet cord:

- either directly to a computer equipped with a 10/100BASE-T Ethernet network,
- or to an Ethernet local network connected to a network concentrator (HUB or Switch).



The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

- 1 You have selected the **Ethernet** interface; the screen opposite appears.

Make the electrical connection as described on the screen.

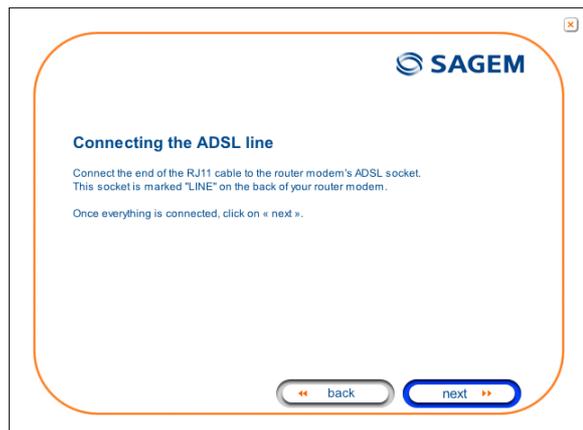
Click button  to continue the installation.



- 2 The screen opposite appears.

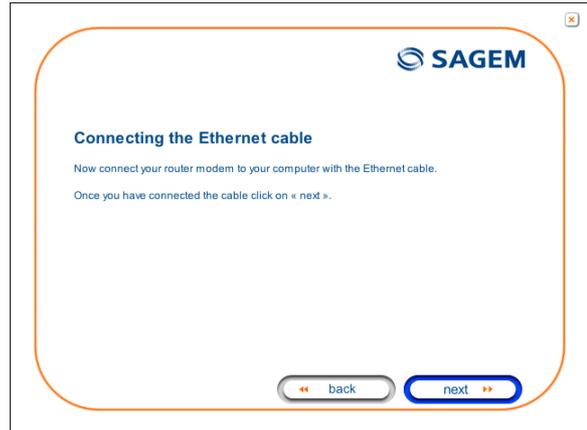
Make the connection of the ADSL line as described on the screen.

Click button  to continue the installation.



- 3 Connect the Ethernet cable as described on the screen.

Click button  to continue the installation.



- 4 The screen opposite appears and asks you to wait.



- 5 The screen opposite appears.
Please wait during the diagnostics of the connection to the Router via an Ethernet cable.



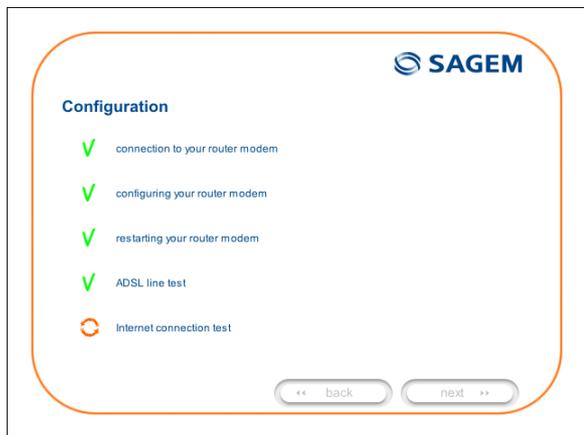
3 - Installing and configuring the router

- 6 The screen opposite appears.
Enter the **connection identifier**
followed by the **connection password**.
The latter are available from your
subscription confirmation letter.

Click button  to continue
the installation.



- 7 The screen opposite appears and asks
you to wait during the successive
diagnostics.
The rotating orange arrows are
replaced by a green check mark after
each successful test.



- 8 The screen opposite appears.
The installation has been correctly
accomplished; your router is
operational.

Click button  to close
the window.



- 9 The "SAGEM" welcome screen appears.
You can now use your Internet access.



3.2 Installing and configuring your Router in the USB port of your computer

The **USB** port of your router is of the USB 1.1 type allowing a maximum transmission rate of 12 Mbit/s.

With this port, you can connect directly to a computer located at a type A USB input, using a USB cord (supplied with the equipment).



The USB interface must **in all cases** be **installed before** the **USB connector is connected**.



The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

- 1 You have selected the **USB** interface; the screen opposite appears.

Make the electrical connection as described on the screen.

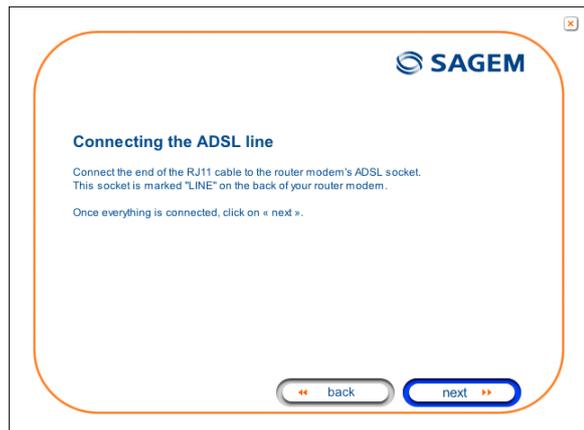
Click button  to continue the installation.



- 2 The screen opposite appears.

Make the connection of the ADSL line as described on the screen.

Click button  to continue the installation.



- 3 The screen opposite appears and asks you to wait.



- 4 Connect the USB cable as described on the screen.



- 5 The screen opposite appears.
Please wait during the diagnostics of the connection to the Router via a USB cable.



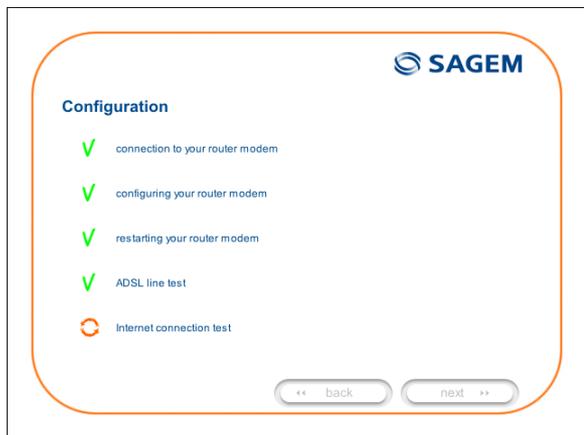
3 - Installing and configuring the router

- 6 The screen opposite appears.
Enter the **connection identifier**
followed by the **connection password**.
The latter are available from your
subscription confirmation letter.

Click button  to continue
the installation.



- 7 The screen opposite appears and asks
you to wait during the successive
diagnostics.
The rotating orange arrows are
replaced by a green check mark after
each successful test.



- 8 The screen opposite appears.
The installation has been correctly
accomplished; your router is
operational.

Click button  to close
the window.



- 9 The "SAGEM" welcome screen appears.
You can now use your Internet access.

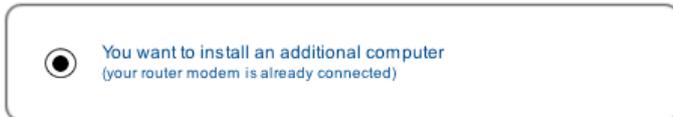


If you wish to install your router with another interface, you must imperatively uninstall your router.
To do this:

Select **Start/All programs/SAGEM F@st™ 1201/Uninstall**

3.3 Installing and configuring an additional computer

You have chosen to install an additional computer by clicking button



; you have then clicked button



to continue the installation.

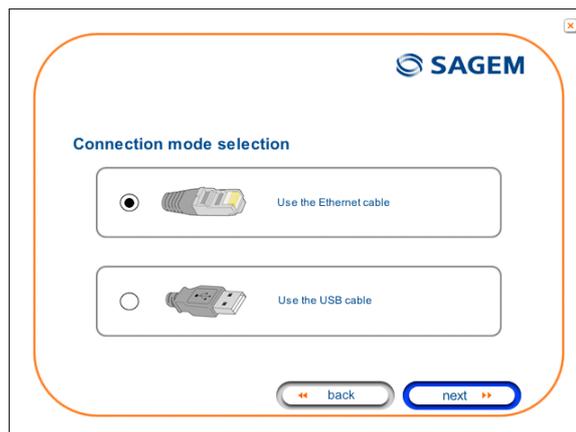
1 The screen opposite appears.

This screen enables you to choose to which interface (Ethernet or USB) you wish to connect your router to your computer.

Click "Use the Ethernet cable" (cf. § 3.1),

Click "Use the Ethernet cable" (cf. § 3.2),

and then click button  to continue the installation.



The stages concerning:

- The electrical connection and connection to the ADSL line of the router,
- Together with configuration of the router (connection identifier, connection password, etc.).

are no longer to be accomplished when installing an additional computer, whatever the interface (Ethernet or USB).

4. Configuration of network parameters

This section covers	➤ configuring as a DHCP client	Page 4-3
	➤ reading data of the DHCP server	Page 4-4
	➤ reading data of the DHCP client	Page 4-6

4 - Configuration of network parameters

The aim of this section is:

- 1) to configure your computer so that it is able to communicate with your router.
- 2) and to display the "Networks" parameters of your router.

Your router implements the DHCP (**D**ynamic **H**ost **C**onfiguration **P**rotocol) server, relay and client functions in accordance with RFC 2131 and RFC 3132, whereas the computer connected directly to the router or via a local network by its LAN interface implements only the DHCP client function.

On receipt of a DHCP query from your computer (see ) , whether or not it is connected to your router, the latter responds by indicating:

- an address from the range defined in the configuration,
- the sub-network mask,
- the default gateway (address of your router),
- the address of the gateway as DNS server. The "DNS Relay" function is activated automatically.



The configured range of IP addresses must be the same in the sub-network as in the LAN interface.



It is imperative that your computer is configured as a DHCP client or that it has a fixed IP address in the configuration range defined by the DHCP server.

Configuration as a DHCP client is the more commonly used solution.

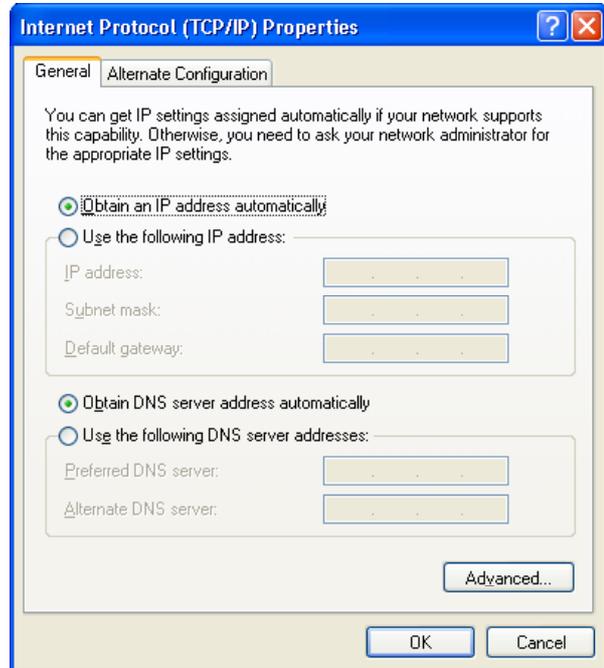
1) Configuring as a DHCP client

In Windows XP

- Click on **Start/Control Panel/Network Connections**.
- Right-click on the network which you are using, and then select **Properties**.
- Click on protocol TCP/IP of the network card, and then click on **Properties**.

The screen opposite appears.

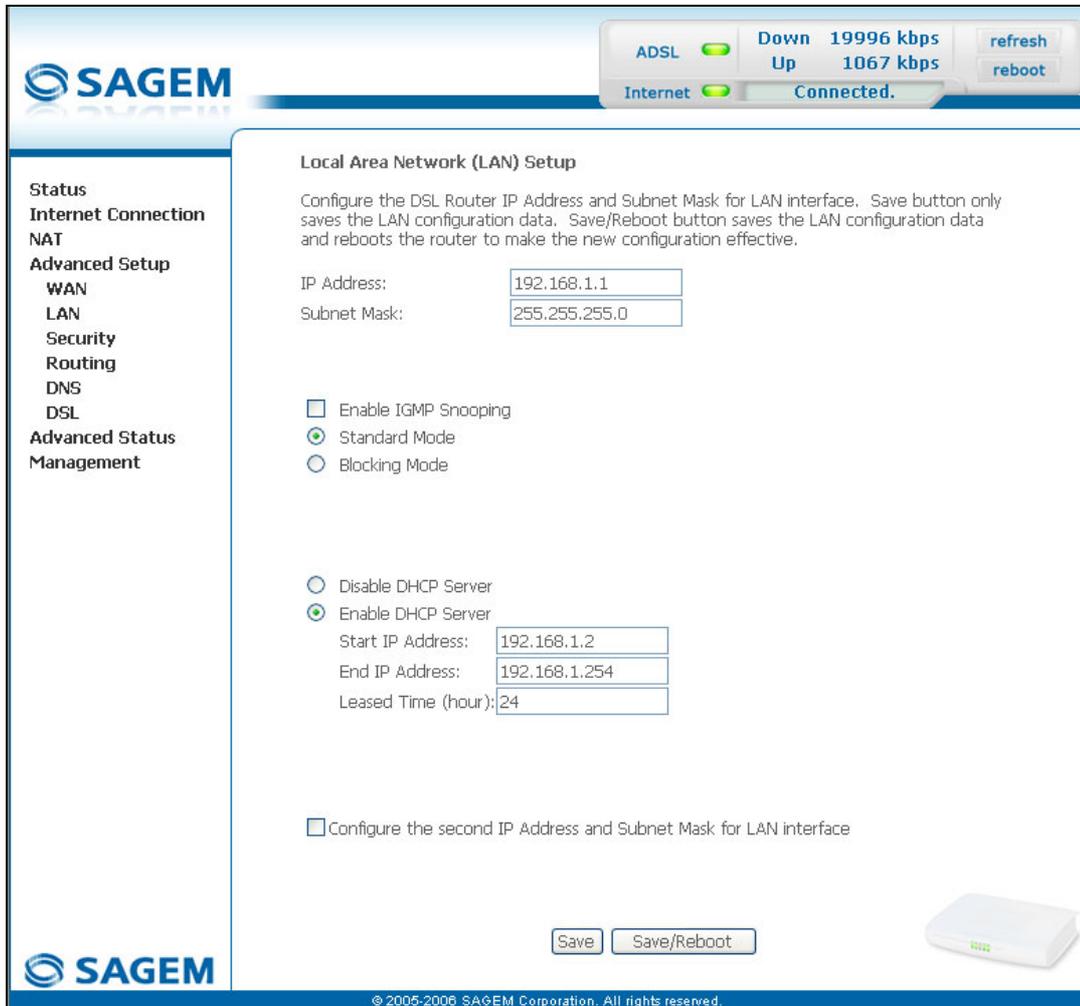
- Select the general tab, then the command "**Obtain an IP address automatically**" and the command "**Obtain the addresses of the DNS servers automatically**".
- Click button **OK** to confirm your choice.



2) Data of the DHCP server

To obtain this data:

- Open your browser and then enter **http://myrouter** or **http://192.168.1.1** (default IP address of the router) to access the welcome screen,
- Click the "LAN" menu of the heading **Advanced Setup**; the following screen appears:



SAGEM

ADSL  Down 19996 kbps
Up 1067 kbps refresh
Internet  Connected. reboot

Local Area Network (LAN) Setup

Configure the DSL Router IP Address and Subnet Mask for LAN interface. Save button only saves the LAN configuration data. Save/Reboot button saves the LAN configuration data and reboots the router to make the new configuration effective.

IP Address:

Subnet Mask:

Enable IGMP Snooping

Standard Mode

Blocking Mode

Disable DHCP Server

Enable DHCP Server

Start IP Address:

End IP Address:

Leased Time (hour):

Configure the second IP Address and Subnet Mask for LAN interface

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4 - Configuration of network parameters

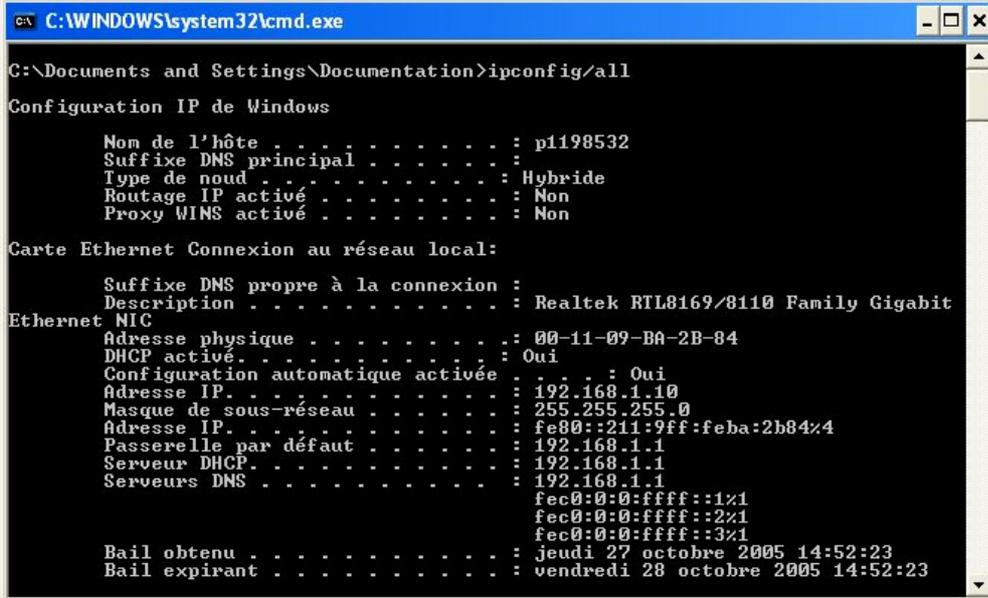
Field	Meaning	Display
IP Address	Displays the sub-network address	192.168.1.1
Subnet Mask	Displays the sub-network mask of the IP network.	255.255.255.0
Start IP Address	Displays the first address attributed by the DHCP server. Note : This IP address must belong to the same sub-network as that of the local network.	192.168.1.2
End IP Address	Displays the last address attributed by the DHCP server. Note : This IP address must belong to the same sub-network as that of the local network.	192.168.1.254
Leased Time (hour)	Displays the period for obtaining (in hours) an IP address for a terminal.	24

3) Data of the DHCP client

To obtain this data:

In Windows XP, 2000 and Me

- Click button **Start**, select **Execute**, enter **cmd** and then click **OK**; the command prompt screen appears. Enter **ipconfig /all** (or **ipconfig/all**) then confirm by pressing **Enter**.



```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\Documentation>ipconfig/all

Configuration IP de Windows

    Nom de l'hôte . . . . . : p1198532
    Suffixe DNS principal . . . . . :
    Type de noud . . . . . : Hybride
    Routage IP activé . . . . . : Non
    Proxy WINS activé . . . . . : Non

Carte Ethernet Connexion au réseau local:
    Suffixe DNS propre à la connexion :
    Description . . . . . : Realtek RTL8169/8110 Family Gigabit
Ethernet NIC
    Adresse physique . . . . . : 00-11-09-BA-2B-84
    DHCP activé . . . . . : Oui
    Configuration automatique activée . . . . . : Oui
    Adresse IP . . . . . : 192.168.1.10
    Masque de sous-réseau . . . . . : 255.255.255.0
    Adresse IP . . . . . : fe80::211:9ff:feba:2b84%4
    Passerelle par défaut . . . . . : 192.168.1.1
    Serveur DHCP . . . . . : 192.168.1.1
    Serveurs DNS . . . . . : 192.168.1.1
                             fec0:0:0:fff::1%1
                             fec0:0:0:fff::2%1
                             fec0:0:0:fff::3%1
    Bail obtenu . . . . . : jeudi 27 octobre 2005 14:52:23
    Bail expirant . . . . . : vendredi 28 octobre 2005 14:52:23
```

5. Information / Configuration

This section covers	➤ Accessing the welcome screen	§ 5.1
	➤ Recommendations for using the configuration screens	§ 5.2
	➤ The ADSL connection status	§.5.3
	➤ Indications displayed on the display frame located in the HTTP configurer window	§ 5.4
	➤ The " Status " section	§ 5.5
	➤ The " Internet Connection " section	§ 5.6
	➤ The " NAT " section	§ 5.7
	➤ The " Advanced Setup " section	§ 5.8
	➤ The " Advanced Status " section	§ 5.9
	➤ The " Management " section	§ 5.10

5.1 Accessing the welcome screen



To access this screen, you must have configured your computer's network function Ethernet or USB interfaces using the installation CD-ROM provided with your router (cf. chapter 3).

If you are using your computer's Ethernet card to configure your router, connect it to the Ethernet port whose yellow socket is marked **ETH**.

Your router is then configured using a simple Web browser (e.g. Internet Explorer).



The router's DHCP server function is activated by default with an address range defined as indicated in §.5.8.2.

To access the configurator, proceed as follows:

- 1 In the **Start** menu, select **All Programs / SAGEM F@st 1201**, then left click on  **Configuration**.
- 2 The following screen asks you to connect.
Enter **admin** by default in the "Username" field.
Enter **admin** by default in the "Password" field.
Then click on **OK** to confirm.

Note: The equipment's IP address (192.168.1.1) appears in the bar at the top of the screen.



- 3 Your computer's Web browser opens and displays the router's welcome screen. The equipment's name is displayed in title.

Equipment configuration sections appear in the left hand area in the welcome screen.

The screenshot shows the Sagem DSL Router web interface. The browser window title is "DSL Router - Microsoft Internet Explorer" and the address bar contains "http://192.168.1.1/main.html". The interface includes the SAGEM logo, a status bar with "ADSL" and "Internet" indicators, and a central display for "F@ST™ 1201S" showing software version 3.651a and connection details. A table lists various network parameters.

Line Rate - Upstream (Kbps):	1067
Line Rate - Downstream (Kbps):	19996
LAN IP Address:	192.168.1.1
WAN IP Address:	10.14.200.23
Default Gateway:	10.14.200.1
Primary DNS Server:	192.168.0.222
Secondary DNS Server:	193.252.19.3

This screen displays:

- ☞ in the centre, an area which shows the current ADSL connection status (cf. § 5.3).
- ☞ in the top right, a display box which lets you know the status of the ADSL line, lets you refresh the window displayed and restart your router at any time (cf. § 5.4).
- ☞ to the left, a list of 6 sections (cf. § 5.5 to 5.10) made up of menus and sub-menus. These let you view and configure your router's parameters.



You can modify the password to access your router's configurator to optimise the safety of your network.

5.2 Recommendations

The meaning of the main buttons most commonly present in all the configuration windows is provided in the table below.

	Click on this button to add a new window to fill in the fields used to add an object.
	Click on this button to return to the previous screen.
	Click on this button to close the active window and return to the main screen.
	Click on this button to display a new window to modify the fields that can be accessed for a previously selected object.
	Click on this button to display the next screen.
	Click on this button to remove a selected object from a list. Note: You must check the "Remove" box to delete this object.
	Click on this button to save the entry in the router's non-volatile (flash) memory. Note: This value will only be taken into account when you restart your router.
	Click on this button to save the entry in the router's non-volatile (flash) memory. Note: This value will be taken into account immediately without you having to restart your router.
	Click on this button to save the entry in the router's non-volatile (flash) memory then restart your computer.

Basic principles

- 1) To make this guide easier to read and understand, it does not state that each time you enter information into a screen you must click on **Save** or **Save/Apply** or **Save/Reboot** (except, of course, if this is necessary).
- 2) When you select a section, the screen for the first menu in the section is displayed. In the same way, when you select a menu, the screen for the first sub-menu is displayed.
- 3) All the fields in the different screens are explained in a table.

5.3 ADSL connection status

Refer to § 5.5.1 - Status/Summary.

5.4 Display frame



This supervision box is displayed permanently at the top right of each HTTP configurer window.

The different objects it contains are explained below.

LEDs

	Green	Synchronised ADSL line		
	Yellow	ADSL line synchronising		
	Red	ADSL line not connected		
	Green	Connected	Public address (WAN) distributed to the router.	
	Yellow	Waiting for ISP	ADSL line synchronising or public address (WAN) not distributed to the router	
	Off	ADSL Down	Public address (WAN) not distributed to the router, or ADSL line not synchronised.	
		Not configured	No VC (Virtual Channel) configured	
		Router Rebooting	Router restarted	
	Red	Access denied	Wrong Login and/or Password	

Transmission rates

	Displays the nominal down line transmission rate
	Displays the nominal up line transmission rate

Buttons

	Allows data displayed on the screen to be refreshed
	Allows your router to be started

5.5 Status

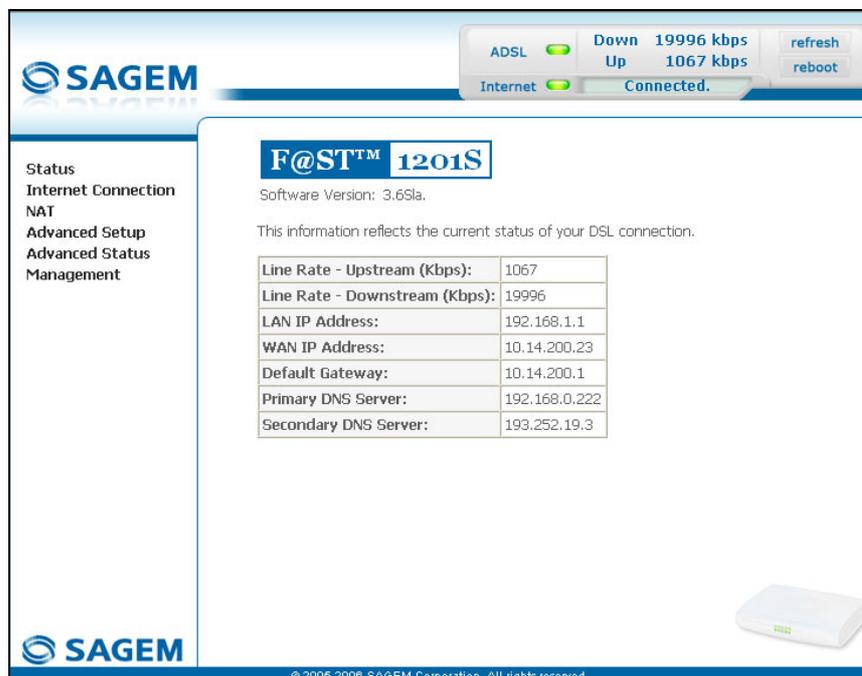
Clicking on this heading displays the following menus:

- Summary (cf. 5.5.1),
- Diagnostics (cf. 5.5.2).

5.5.1 Summary

Object: This menu lets you display the current status of your Internet connection.

- Select the **Summary** menu in the **Status** section; the following screen opens:



This screen also appears in the welcome screen (see § 5.1).

The following table provides the meaning of the different fields which are displayed.

Field	Meaning
Software Version	Software version currently installed.
Line Rate - Upstream (kbps)	Nominal up line rate
Line Rate - Downstream (kbps)	Nominal down line rate
LAN IP Address	Local network IP address (LAN)
WAN IP Address	Remote network IP address (WAN)
Default Gateway	Default gateway address
Primary DNS Server	Primary DNS server address
Secondary DNS Server	Secondary DNS server address

5.5.2 Diagnostics

Object: This menu is used to display all the tests performed on the connections made from your router to your Internet Service Provider (ISP). These tests concern:

- the connection to your local network (LAN),
- the connection to your "DSL Service Provider",
- Connection to your "Internet Service Provider".



A hypertext link (help) enables the user to access context-related help. This help gives an explanation concerning the state of the connection (**PASS** in green, **DOWN** in orange and **FAIL** in red) and supplies the appropriate troubleshooting procedures.

The ADSL line translates the three statuses detailed in the table below.

State	Colour	Meaning
PASS	Green	Indicates that the test was completed successfully.
DOWN	Orange	Indicates that an interface (ETH or USB) has not been detected.
FAIL	Red	Indicates that the test has failed, or that it is impossible to start a command.



If a test displays a "FAIL" state, click on "Help" and then the button "Rerun Diagnostic Tests" at the bottom of the "Help" page, to check that the test has been conclusive. If the test still displays "FAIL", you must follow the troubleshooting procedure displayed on this page.

- Select the **Diagnostics** menu in the **Status** section; the following screen opens:

The screenshot shows the SAGEM web interface. At the top right, there are status indicators for ADSL (Down 19996 kbps, Up 1067 kbps) and Internet (Connected). A sidebar on the left contains a menu with options: Status, Summary, Diagnostics, Internet Connection, NAT, Advanced Setup, Advanced Status, and Management. The main content area is titled 'pppoe_8_35_1 Diagnostics' and contains a paragraph explaining the modem's testing capabilities. Below this are three sections of diagnostic tests, each with a table of results and 'Help' links. At the bottom, there are two buttons: 'Rerun Diagnostic Tests' and 'Test With OAM F4'. A small image of a SAGEM modem is visible in the bottom right corner of the interface.

ADSL Down 19996 kbps
Up 1067 kbps refresh
reboot

Internet Connected.

SAGEM

Status
Summary
Diagnostics
Internet Connection
NAT
Advanced Setup
Advanced Status
Management

pppoe_8_35_1 Diagnostics

Your modem is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Rerun Diagnostic Tests" at the bottom of this page to make sure the fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.

Test the connection to your local network

Test your ENET(1-4) Connection:	PASS	Help
Test your USB Connection:	DOWN	Help

Test the connection to your DSL service provider

Test ADSL Synchronization:	PASS	Help
Test ATM OAM F5 segment ping:	FAIL	Help
Test ATM OAM F5 end-to-end ping:	PASS	Help

Test the connection to your Internet service provider

Test PPP server connection:	PASS	Help
Test authentication with ISP:	PASS	Help
Test the assigned IP address:	PASS	Help
Ping default gateway:	PASS	Help
Ping primary Domain Name Server:	PASS	Help

Rerun Diagnostic Tests Test With OAM F4

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5.6 Internet Connection

Object: This menu lets you enter your connection ID and your connection password.

- Select the **Internet Connection** heading to display the following connection configuration screen:

Field	Action	Default:
PPP Username	Enter your connection ID. This information is provided to you by your Internet Service Provider (ISP) .	Empty
PPP Password	Enter your connection password. This information is provided to you by your Internet Service Provider (ISP) .	Empty



If the message **"There is no ppp connection"** appears, this means that the remote network (WAN) parameters have not been filled in (cf. § - 5.8.1 - Advanced Setup / WAN).

5.7 NAT

Object: NAT is a configurable IP address translation function which will be applied to the interfaces of your router which you will have activated for this function. Several translation function configurations, the NAT actions, can be configured and may be activated as indicated in the 5.7.1 - **Add** paragraph.

This section contains the following two menus:

- Port forwarding (cf. § 5.7.1),
- DMZ Host (cf. § 5.7.2),

5.7.1 Port forwarding

Object: This menu is used to route directly to the External Ports the incoming data from a Service server (such as, for example, FTP Server, SNMP, TFTP etc.) of the remote network (WAN) to computers on the local network (LAN) via the Internal Ports.

- Select the **Port forwarding** menu in the **NAT** section to display the following screen:

NAT -- Virtual Servers Setup

Virtual Server allows you to direct incoming traffic from WAN side (identified by Protocol and External port) to the Internal server with private IP address on the LAN side. The Internal port is required only if the external port needs to be converted to a different port number used by the server on the LAN side. A maximum 32 entries can be configured.

Server Name	External Port Start	External Port End	Protocol	Internal Port Start	Internal Port End	Server IP Address	Remove
-------------	---------------------	-------------------	----------	---------------------	-------------------	-------------------	--------



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Field	Meaning
Server Name	
Select a Service	Service available over Internet (such as, for example FTP Server, SNMP, TFTP etc.).
Custom Server	Name you want to allocate to a local server.
External Port Start	Internal start port (WAN side).
External Port End	Internal end port (WAN side).
Protocol	Transport protocol (TCP, UDP or TCP/UDP).
Internal Port Start	Internal start port (LAN side).
Internal Port End	This internal end port (LAN side) is associated with the external end port (WAN) side. Note: This cannot be modified.
Server IP Address	Computer address delivered by your router's DHCP server.

Add

- Click on the **Add** button; the following screen appears:

NAT -- Virtual Servers

Select the service name, and enter the server IP address and click "Save/Apply" to forward IP packets for this service to the specified server. **NOTE: The "Internal Port End" cannot be changed. It is the same as "External Port End" normally and will be the same as the "Internal Port Start" or "External Port End" if either one is modified.**
 Remaining number of entries that can be configured:32

Server Name:
 Select a Service: ▼
 Custom Server:

Server IP Address:

External Port Start	External Port End	Protocol	Internal Port Start	Internal Port End
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	TCP ▼	<input type="text"/>	<input type="text"/>



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Proceed as follows:

- Check the **"Select a Service"** box, then select the service of your choice from the scroll down list, for example "SNMP".

The **"External Port Start"**, **"External Port End"**, **"Internal Port Start"**, **"Internal Port End"** and **Protocol** fields (transport protocol associated with this service) are automatically filled in the table.

Note: You may complete the table by adding other ports associated with a protocol.

or

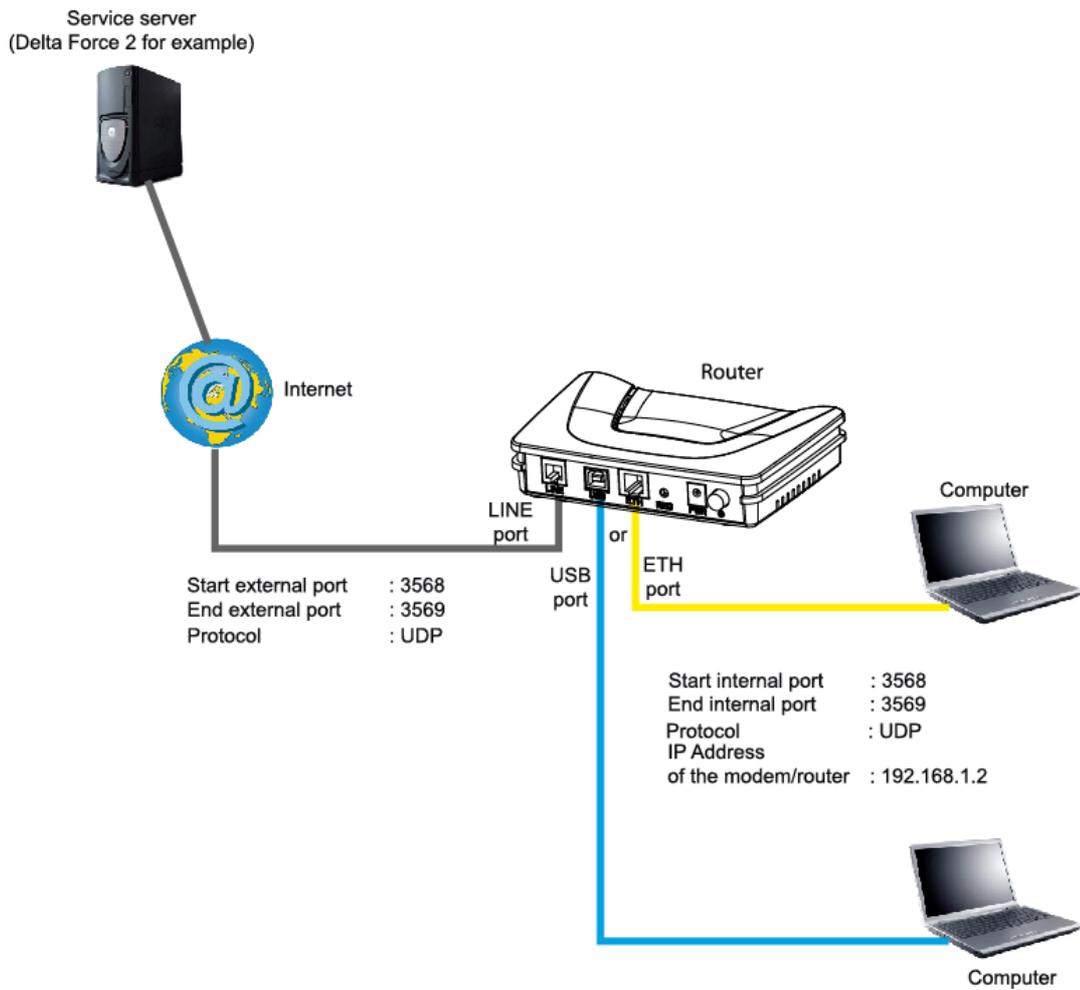
- Check the **"Custom Server"** box, enter the name of the server you want to connect to, then:
 - Complete the ID Host of your computer's IP address (this is attributed by your router's DHCP server).
 - Fill in the **"External Port Start"**, **"External Port End"**, **"Internal Port Start"**, **"Internal Port End"** and **"Protocol"** fields.

A few rules for entering values:

- **When you want to select a single port, the start port ("External Port Start" or "Internal Port Start") and the end port ("External Port End" or "Internal Port End") must be identical.**
- **When you want to select a range of ports, the start port number must be lower than the end port number.**
- **You must always start entering with the "External Port Start" and "External Port End" ports,**
- **When you allocate a number to an "External Port Start", the same number is automatically allocated to the "Internal Port Start" and identically for "External Port End",**

5 - Information / Configuration

The following diagram contains an example:



The "Delta Force 2" service is available on your computer via the external ports 3568 and 3569 (WAN side) and via the internal ports 3568 and 3569 (LAN side).

5.7.2 DMZ Host

Object: This "DMZ" (DeMilitarized Zone) lets you access the server you selected directly via the Internet without going through the "Firewall".



Caution, this process presents an intrusion risk. It is therefore vital that you take precautions so that no connections may be initiated to the private network.

- Select the **DMZ Host** menu in the **NAT** section to display the following screen:

Field	Action	Default
DMZ Host IP Address	<p>Enter the IP address of a server to activate the "DMZ" and therefore access it directly from the Internet.</p> <p>To deactivate the "DMZ" zone, erase the address entered in the field.</p> <p>Note: Click on the Save/Apply button to take account of the address or its erasure.</p>	Empty



The "DMZ" zone is deactivated by default.

5.8 Advanced Setup

Object: This menu is used to configure the specific parameters for your router.



This menu must only be used by experienced users.

This section contains the following six menus:

- WAN (cf. § 5.8.1),
- LAN (cf. § 5.8.2),
- Security (cf. § 5.8.3),
- Routing (cf. § 5.8.4),
- DNS (cf. § 5.8.5),
- DSL (cf. § 5.8.6).

5.8.1 WAN

Object: This menu is associated with the remote network. It is used to display the list of all the configured PVCs, to add PVCs or remove them.

- Select the **WAN** menu in the **Advanced Setup** section to display the following screen:

The screenshot displays the 'Wide Area Network (WAN) Setup' page. At the top right, there are status indicators for ADSL (green light) and Internet (green light), along with speed information: Down 19996 kbps, Up 1067 kbps, and a 'Connected.' status. There are also 'refresh' and 'reboot' buttons. The main content area contains a table with the following data:

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	State	Remove	Edit
8/35	1	UBR	pppoe_8_35_1	ppp_8_35_1	PPPoE	Disabled	Enabled	<input type="checkbox"/>	<input type="button" value="Edit"/>

Below the table are three buttons: 'Add', 'Remove', and 'Save/Reboot'. The left sidebar shows a navigation menu with 'WAN' selected. The SAGEM logo is visible in the bottom left corner, and a small image of the router is in the bottom right corner. The footer contains the copyright notice: © 2005-2008 SAGEM Corporation. All rights reserved.

Field	Meaning
VPI/VCI	PVC identifier to configure.
Con. ID	Connection Identification. This is used to identify the different PPP connections which belong to the same PVC. To do so, you need only increment the "VC number" in the "Service" field when adding a new "PVC".
Category	ATM type of service
Service	Name of the ATM service. This name is made up as follows: VPI_VCI_Protocol_index For example: pppoe_0_35_1.
Interface	Name, allocated automatically, associated with the service name (for example, ATM interface "ppp_0_35_1" associated with the ATM service pppoe_0_35_1).
Protocol	Data flow encapsulation mode.
Igmp	Status (Enabled or Disabled) of the IGMP function. (see Note).
State	Status (Enabled or Disabled) of the WAN interface.

Note: This function enables the distribution of Multicast datagrams over the local network (LAN) and interaction between the router and the local network hosts.

Add

- Click on the **Add** button to display the following screen:

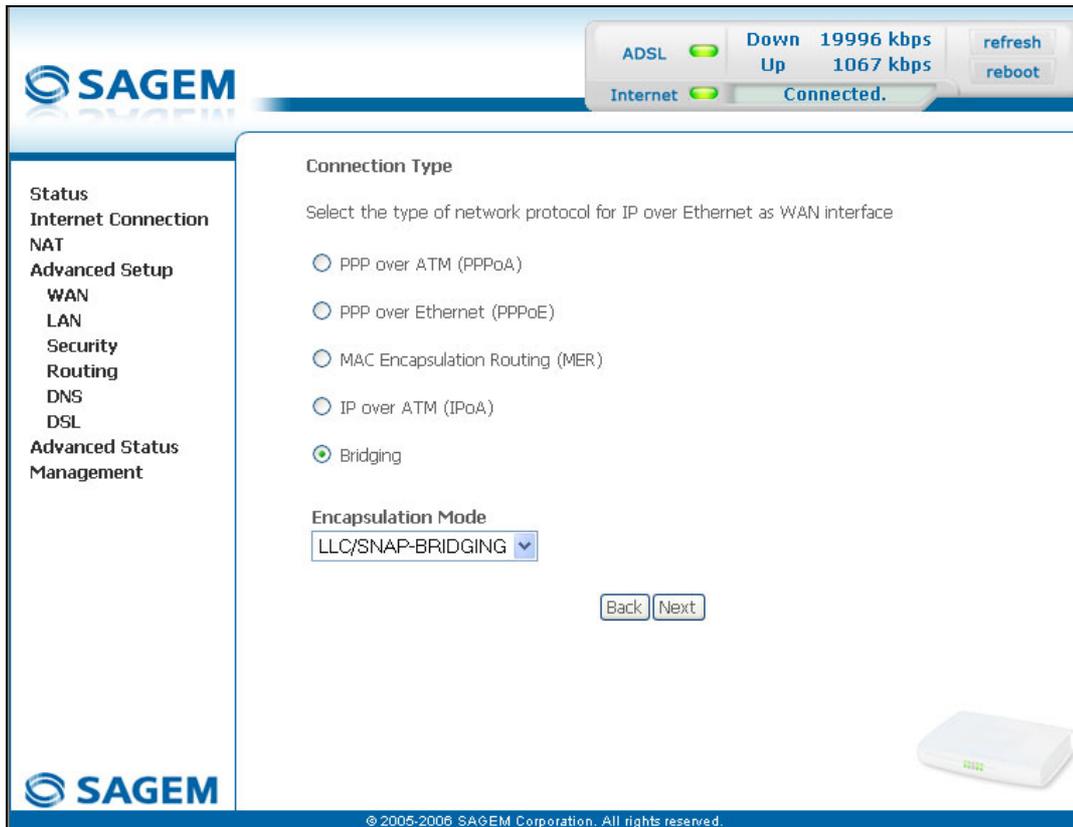
The screenshot shows the SAGEM router configuration interface. At the top, there is a status bar with the SAGEM logo, ADSL status (green), Internet status (green), and connection speed (Down 19996 kbps, Up 1067 kbps). There are buttons for 'refresh' and 'reboot'. The main content area is titled 'ATM PVC Configuration' and includes a description: 'This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.' Below this, there are input fields for VPI (range [0-255], value 0) and VCI (range [32-65535], value 35). A dropdown menu for 'Service Category' is set to 'UBR Without PCR'. At the bottom, there are 'Back' and 'Next' buttons. The footer contains the SAGEM logo and copyright information: '© 2005-2006 SAGEM Corporation. All rights reserved.'

ATM PVC Configuration

Field	Action	Default
VPI	Enter a VPI value ¹ between 0 and 255.	0
VCI	Enter a VPI value ¹ between 32 and 65535.	35
Service Category	Select the type of service adapter to the traffic from the scroll down list: UBR without PCR : Unspecified Bit Rate UBR with PCR : Unspecified Bit Rate CBR : Constant Bit Rate Non Realtime VBR : Variable Bit Rate Realtime VBR : Variable Bit Rate	UBR without PCR

¹ This value is delivered to you by your **Internet Service Provider (ISP)**.

- Click on the **Next** button to continue configuring the remote network (WAN) and display the following screen:



Depending on the type of network protocol selected, the encapsulation modes suggested in the scroll down list in the appropriate field are different.

Therefore, and to provide more clarity, a summary table will be presented below for each type of protocol.

PPP over ATM (PPPoA)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. <ul style="list-style-type: none"> VC/MUX, LLC/ENCAPSULATION. 	VC/MUX

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PPP over Ethernet (PPPoE)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. <ul style="list-style-type: none">• LLC/SNAP-BRIDGING,• VC/MUX.	LLC/SNAP-BRIDGING

MAC Encapsulation Routing (MER)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. <ul style="list-style-type: none">• LLC/SNAP-BRIDGING,• VC/MUX.	LLC/SNAP-BRIDGING

IP over ATM (IPoA)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. <ul style="list-style-type: none">• LLC/SNAP-ROUTING,• VC/MUX.	LLC/SNAP-ROUTING

Bridging

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. <ul style="list-style-type: none">• LLC/SNAP-BRIDGING,• VC/MUX.	LLC/SNAP-BRIDGING

- Click on the **Next** button to continue configuring the remote network (WAN).



Depending on the type of network protocol (PPPoA, PPPoE, MER, IPoA or Bridging) selected earlier, the content of the following WAN interface configuration screens differs.

Therefore, and for more clarity, each type of protocol will be dealt with separately (screens + associated summary tables) below.

PPP over ATM (PPPoA)

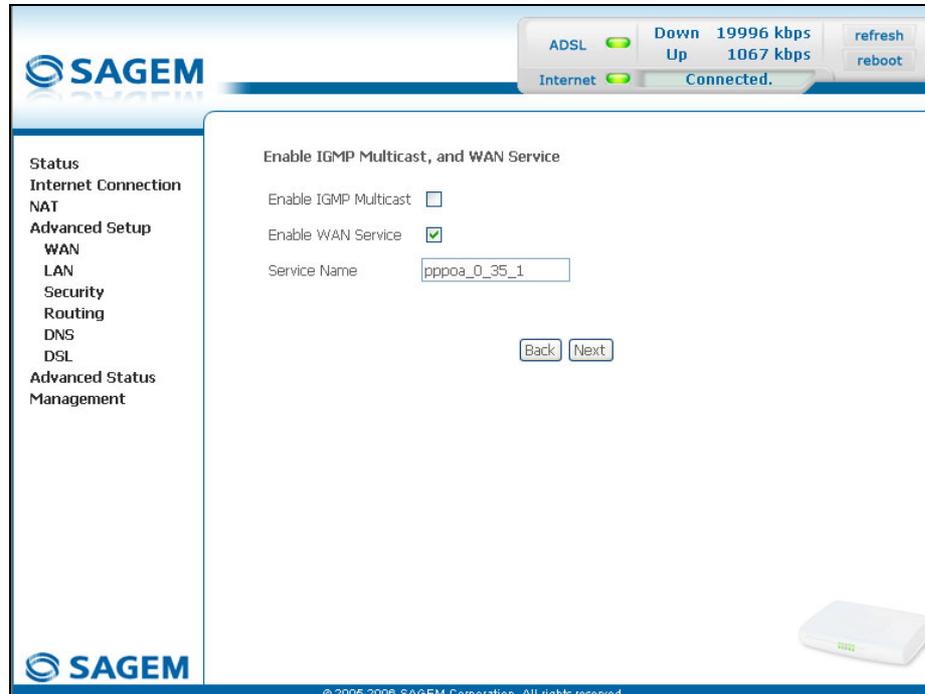
Field	Action	Default
PPP Username	Enter your connection ID. This information is provided to you by your Internet S ervice P rovider (ISP).	Empty
PPP Password	Enter your connection password. This information is provided to you by your Internet S ervice P rovider (ISP).	Empty
Authentification Method	Select the authentication method of your choice from the scroll down list: <ul style="list-style-type: none"> AUTO, PAP, CHAP, MSCHAP. 	AUTO
Dial on demand (with idle timeout timer)	Check the box to connect to Internet only for "Traffic" on the ADSL line.	Box Not checked

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Field	Action	Default
Inactivity Timeout (minutes) [1-4320]: ²	Enter a value expressed in minutes between 1 and 4320 (i.e. 72 hours).	0
PPP IP extension	Check the box to allocate your computer the public address obtained from the DHCP server of your Internet Service Provider (ISP). Therefore, your router will act as a bridge between the server and your computer.	Box Not checked
Use Static IP Address	Check the box to use the static IP address.	Box Not checked
IP Address: ³	Enter the static IP address	0.0.0.0
Configure PPP MTU	Enter an MTU (Maximum Transfer Unit) value between 38 and 1492 (see Note).	1492
Enable PPP Debug mode	Check the box to use the PPP Debug mode. In the event of connection failure, this option will enable you to trace a possible problem in the SYSLOG file.	Box Not checked

Note: The MTU specifies the maximum size of the data used for packets expressed as a number of bytes.

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoA mode.



² This field only appears when the "Dial on demand (with idle timeout timer)" field is activated (box checked).

³ This field only appears when the "Use Static IP Address" field is activated (box checked).

Field	Action	Default
Enable IGMP Multicast	Check the box to activate the IGMP function.	Box Not checked
Enable WAN	Check the box to activate the remote network service (WAN).	Box checked
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: pppoa_0_35_1. Note: You may enter another service name.	pppoa_0_35_1

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoA mode.

The screenshot shows the SAGEM router's configuration page. At the top right, there are status indicators for ADSL (green light) and Internet (green light), along with download and upload speeds (19996 kbps down, 1067 kbps up) and a 'Connected' status. A 'refresh reboot' button is also present. On the left, a navigation menu includes: Status, Internet Connection, NAT, Advanced Setup (WAN, LAN, Security, Routing, DNS, DSL), and Advanced Status Management. The main content area is titled 'WAN Setup - Summary' and contains a table with the following settings:

VPI / VCI:	0 / 35
Connection Type:	PPPoA
Service Name:	pppoa_0_35_1
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Enabled
Firewall:	Enabled
IGMP Multicast:	Disabled

Below the table, there is a note: 'Click "Save" to save these settings. Click "Back" to make any modifications. NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.' At the bottom of the page, there are 'Back' and 'Save' buttons, and a small image of the SAGEM router. The footer contains the SAGEM logo and the copyright notice: '© 2005-2006 SAGEM Corporation. All rights reserved.'

Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "PPPoA" connection
Connection Type	Displays the "PPPoA" protocol
Service Name	Displays the name of the service: pppoa_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: Automatically Assigned
Service State	Displays the status of the service: Enabled
NAT	Displays the status of the NAT: Enabled
Firewall	Displays the status of the firewall: Enabled
IGMP Multicast	Displays the status of the IGMP function: Disabled

- click on the  button to save the WAN interface configuration.

PPP over Ethernet (PPPoE)

The screenshot shows the SAGEM web interface for configuring PPPoE. At the top right, there's a status bar showing 'ADSL' and 'Internet' with green indicators, and connection speeds: 'Down 19996 kbps' and 'Up 1067 kbps'. A 'refresh' and 'reboot' button is also present. The left sidebar contains a navigation menu with options: Status, Internet Connection, NAT, Advanced Setup, WAN, LAN, Security, Routing, DNS, DSL, and Advanced Status Management. The main content area is titled 'PPP Username and Password' and includes the following fields and options:

- PPP Username: login
- PPP Password: masked with dots
- Authentication Method: AUTO (dropdown menu)
- Dial on demand (with idle timeout timer)
- PPP IP extension
- Use Static IP Address
- Configure PPP MTU: 1492
- Enable PPP Debug Mode

At the bottom of the main content area, there are 'Back' and 'Next' buttons. The SAGEM logo is visible in the bottom left corner, and a small image of a router is in the bottom right corner. The footer of the page reads '© 2005-2006 SAGEM Corporation. All rights reserved.'

Field	Action	Default
PPP Username	Enter your connection ID. This information is provided to you by your Internet Service Provider (ISP).	Empty
PPP Password	Enter your connection password. This information is provided to you by your Internet Service Provider (ISP).	Empty
PPPoE Service Name	Enter the name of the PPPoE service. This information is provided to you by your Internet Service Provider (ISP).	Empty
Authentication Method	Select the authentication method of your choice from the scroll down list: <ul style="list-style-type: none"> • AUTO, • PAP, • CHAP, • MSCHAP. 	AUTO
Dial on demand (with idle timeout timer)	Check the box to only connect to the Internet on "Traffic".	-
Inactivity Timeout (minutes) [1-4320]:²	Enter the inactivity time. This value expressed in minutes is between 1 and 4320 (i.e. 72 hours). If there is no traffic for a certain period of time, the PPPoE session is interrupted.	0

5 - Information / Configuration

Field	Action	Default
PPP IP extension	Check the box to allocate your computer the public address obtained from the DHCP server of your Internet Service Provider (ISP). Therefore, your router will act as a bridge between the server and your computer.	–
Use Static IP Address	Check the box to use the static IP address.	–
IP Address:³	Enter the static IP address.	0.0.0.0
Configure PPP MTU	Enter an MTU (Maximum Transfer Unit) value. This value, expressed in bytes, is between 38 and 1492 (see Note).	1492
Enable PPP Debug mode	Check the box to use the PPP Debug mode. In the event of connection failure, this option will enable you to trace a possible problem in the SYSLOG file.	Box Not checked

Note: The MTU specifies the maximum size of the data used (IP packets) expressed as a number of bytes.

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoE mode.

The screenshot displays the SAGEM router's configuration web interface. At the top, the SAGEM logo is on the left, and connection status is shown on the right: ADSL (green light), Internet (green light), and Connected. Speeds are listed as Down 19996 kbps and Up 1067 kbps. A 'refresh' and 'reboot' button are also present.

The main configuration area is titled 'Enable IGMP Multicast, and WAN Service'. It contains the following options:

- Enable IGMP Multicast:
- Enable WAN Service:
- Service Name:

At the bottom of the configuration area are 'Back' and 'Next' buttons. A small image of the router is shown in the bottom right corner. The footer contains the SAGEM logo and the copyright notice: © 2006-2008 SAGEM Corporation. All rights reserved.

Field	Action	Default
Enable IGMP Multicast	Check the box to activate the IGMP function.	Box Not checked
Enable WAN Service	Check the box to activate the WAN service.	Box checked
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: pppoe_0_35_1. Note: You may enter another service name.	pppoe_0_35_1

Click on the **Next** button to continue configuring the remote network (WAN) in PPPoE mode.

SAGEM

ADSL Down 19996 kbps
Up 1067 kbps refresh
reboot

Internet Connected.

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 35
Connection Type:	PPPoE
Service Name:	pppoa_0_35_1
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Enabled
Firewall:	Enabled
IGMP Multicast:	Disabled

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

Back Save

SAGEM

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5 - Information / Configuration

Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "PPPoE" connection
Connection Type	Displays the "PPPoE" protocol
Service Name	Displays the name of the service: pppoe_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: Automatically Assigned
Service State	Displays the status of the service: Enabled
NAT	Displays the status of the NAT: Enabled
Firewall	Displays the status of the firewall: Enabled
IGMP Multicast	Displays the status of the IGMP function: Disabled

MAC Encapsulation Routing (MER)

SAGEM

ADSL Down 19996 kbps Up 1067 kbps refresh reboot
Internet Connected.

WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.
Notice: DHCP can be enabled for PVC in MER mode or IP over Ethernet as WAN interface if "Obtain an IP address automatically" is chosen. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from DHCP or other WAN connection.
If you configure static default gateway over this PVC in MER mode, you must enter the IP address of the remote gateway in the "Use IP address". The "Use WAN interface" is optional.

Obtain an IP address automatically
 Use the following IP address:

WAN IP Address:
WAN Subnet Mask:

Obtain default gateway automatically
 Use the following default gateway:

Use IP Address:
 Use WAN Interface:

Obtain DNS server addresses automatically
 Use the following DNS server addresses:

Primary DNS server:
Secondary DNS server:

SAGEM

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Field	Action	Default
Obtain an IP address automatically	Check the box to obtain an IP address automatically by your router's DHCP server. Note: This box is not checked if a VCC has been created.	Box checked
Use the following IP address:	If you check this box, you must enter a static IP address and the dedicated subnet mask.	–
WAN IP Address⁴	Enter the static IP address.	0.0.0.0
WAN Subnet Mask:⁴	Enter a subnet mask.	0.0.0.0
Obtain default gateway automatically	Check the box to obtain the gateway IP address automatically by your router's DHCP server.	Box checked
Use the following default gateway:	If you check this box, you must enter the default gateway address.	–
Use IP Address⁵	Enter the default gateway address.	–
Use WAN Interface:⁵	Select the WAN interface of your choice from the scroll down list (optional)	–

⁴ This field only appears when the "Use the following IP address:" field is activated (box checked).

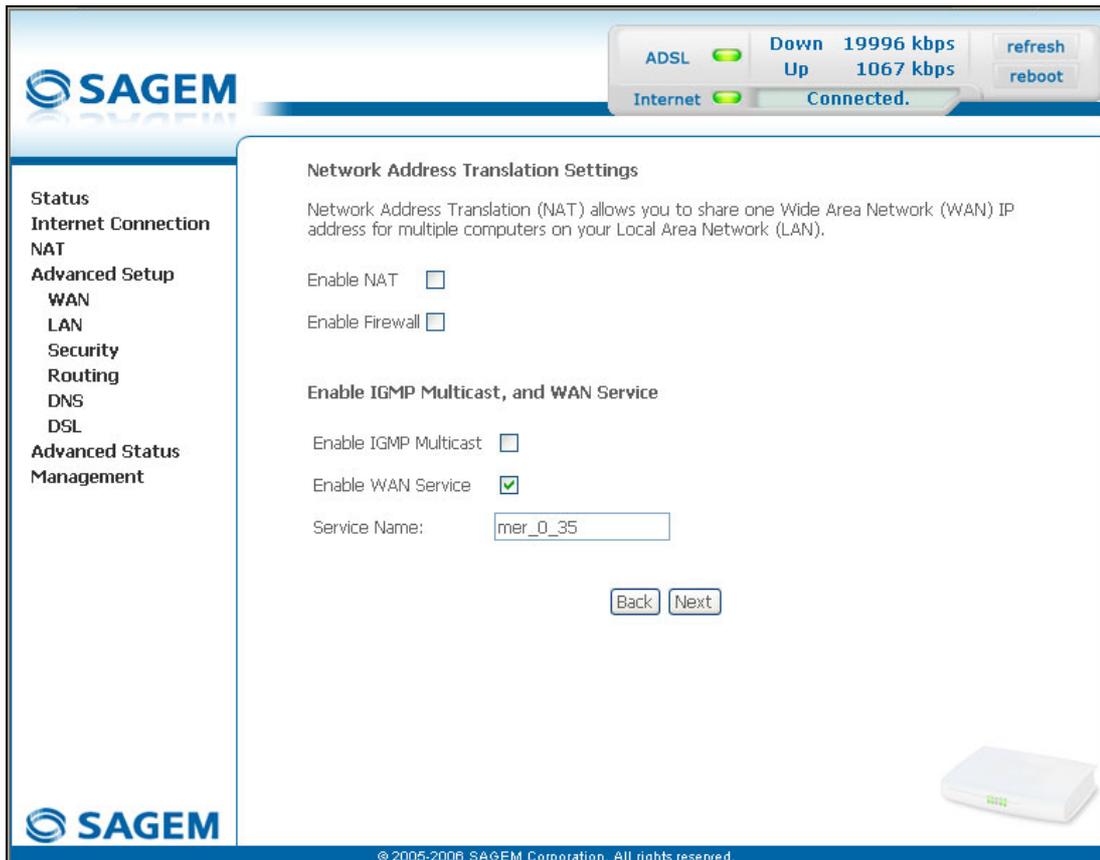
⁵ This field only appears when the "Use the following default gateway:" field is activated (box checked).

5 - Information / Configuration

Field	Action	Default
Obtain DNS server addresses automatically	Check the box to obtain DNS server Addresses automatically.	Box checked
Use the following DNS server addresses:	If you check this box, you must enter DNS server addresses.	–
Primary DNS server⁶	Enter a primary server DNS Address.	–
Secondary DNS server⁶	Enter a secondary server DNS Address.	–

⁶ This field only appears when the "Use the following DNS server addresses:" field is activated (box checked).

- Click on the **Next** button to continue configuring the remote network (WAN) in MER mode.



Field	Action	Default
Enable NAT	Check the box to activate the NAT function.	Box not checked
Enable Firewall	Check the box to activate the firewall service.	Box not checked
Enable IGMP Multicast	Check the box to activate the IGMP function.	Box not checked
Enable WAN Service	Check the box to activate the WAN service.	Box checked
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: mer_0_35_1. Note: You may enter another service name.	mer_0_35_1

5 - Information / Configuration

- Click on the **Next** button to continue configuring the remote network (WAN) in MER mode.

SAGEM

ADSL Down 19996 kbps
Up 1067 kbps refresh
Internet Connected. reboot

Status
Internet Connection
NAT
Advanced Setup
WAN
LAN
Security
Routing
DNS
DSL
Advanced Status Management

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 35
Connection Type:	MER
Service Name:	mer_0_35
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Disabled

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

Back Save

SAGEM

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Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "MER" connection
Connection Type	Displays the "MER" protocol
Service Name	Displays the name of the service: mer_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: Automatically Assigned
Service State	Displays the status of the service: Enabled
NAT	Displays the status of the NAT: Disabled
Firewall	Displays the status of the firewall: Disabled
IGMP Multicast	Displays the status of the IGMP function: Disabled

IP over ATM (IPoA)

SAGEM

ADSL Down 19996 kbps
Up 1067 kbps
refresh
reboot

Internet Connected.

Status
Internet Connection
NAT
Advanced Setup
WAN
LAN
Security
Routing
DNS
DSL
Advanced Status Management

WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.

Notice: DHCP is not supported in IPoA mode. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from other WAN connection.

WAN IP Address:

WAN Subnet Mask:

Use the following default gateway:

Use IP Address:

Use WAN Interface: mer_0_35/ipa_0_35

Use the following DNS server addresses:

Primary DNS server:

Secondary DNS server:

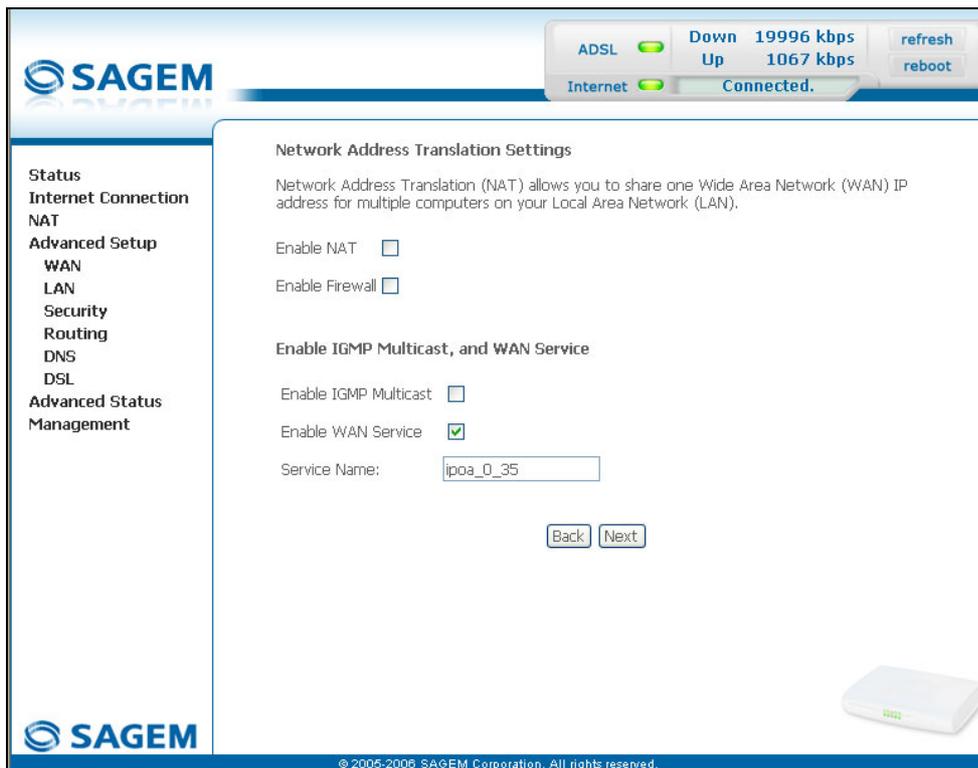
Back Next

SAGEM

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Field	Action	Default
WAN IP Address ⁴	Enter the static IP address.	0.0.0.0
WAN Subnet Mask ⁴	Enter a subnet mask.	0.0.0.0
Use the following default gateway:	If you check this box, you must enter a default gateway address.	–
Use IP Address ⁵	Enter the default gateway address.	–
Use WAN Interface ⁵	Select the WAN interface of your choice from the scroll down list (optional)	–
Obtain DNS server addresses automatically	Check the box to obtain DNS server addresses automatically.	Box checked
Use the following DNS server addresses:	If you check this box, you must enter DNS server addresses.	–
Primary DNS server ⁶	Enter a primary server DNS Address.	–
Secondary DNS server ⁶	Enter a secondary server DNS Address.	–

- Click on the **Next** button to continue configuring the remote network (WAN) in IPoA mode.



Field	Action	Default
Enable NAT	Check the box to activate the NAT function.	Box not checked
Enable Firewall	Check the box to activate the firewall service.	Box not checked
Enable IGMP Multicast	Check the box to activate the IGMP function.	Box not checked
Enable WAN Service	Check the box to activate the WAN service.	Box checked
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: ipoa_0_35_1. Note: You may enter another service name.	ipoa_0_35_1

- Click on the **Next** button to continue configuring the remote network (WAN) in IPoA mode.

SAGEM

ADSL Down 19996 kbps
Up 1067 kbps refresh
Internet Connected. reboot

Status
Internet Connection
NAT
Advanced Setup
WAN
LAN
Security
Routing
DNS
DSL
Advanced Status Management

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 35
Connection Type:	IPoA
Service Name:	ipoa_0_35
Service Category:	UBR
IP Address:	10.14.200.3
Service State:	Enabled
NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Disabled

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

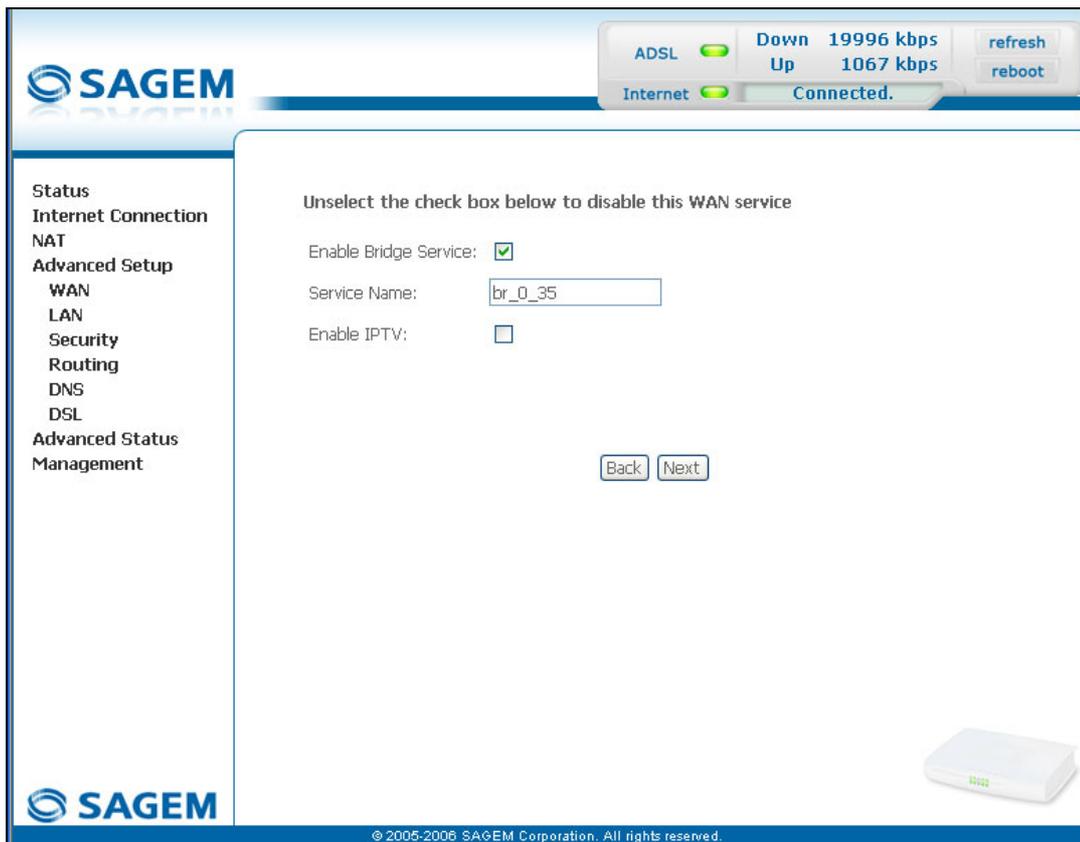
Back Save

SAGEM

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Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "IPoA" connection
Connection Type	Displays the "IPoA" protocol
Service Name	Displays the name of the service: ipoa_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Displays the IP address entered: 192.168.1.10
Service State	Displays the status of the service: Enabled
NAT	Displays the status of the NAT: Disabled
Firewall	Displays the status of the firewall: Disabled
IGMP Multicast	Displays the status of the IGMP function: Disabled

Bridging



Field	Action	Default
Enable Bridge service	Check the box to activate the "Bridge" service.	Box checked
Service Name	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index. For example: br_8_35_1. Note: You may enter another service name.	–
Enable IPTV	Check the box to be able to enter another IP address of the external network of the "Set Top Box" connected virtually to this "PVC".	Box not checked
IPTV Name	This field only appears if the Enable IPTV box in the previous field is checked. Enter the IP address of the external network of the "Set Top Box" connected virtually to this "PVC".	–

SAGEM

ADSL Down 19996 kbps
Up 1067 kbps refresh
Internet Connected. reboot

Status
Internet Connection
NAT
Advanced Setup
WAN
LAN
Security
Routing
DNS
DSL
Advanced Status
Management

WAN Setup - Summary
Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 35
Connection Type:	Bridge
Service Name:	br_0_35
Service Category:	UBR
IP Address:	Not Applicable
Service State:	Enabled
NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Not Applicable

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

Back Save

SAGEM

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Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "Bridge" connection
Connection Type	Displays the "Bridge" protocol
Service Name	Displays the name of the service: br_0_35_1
Service Category	Displays the type of service adapted to the traffic required
IP Address	In the "Bridge" connection, this field is: Not Applicable
Service State	Displays the status of the service: Enabled
NAT	Displays the status of the NAT: Disabled
Firewall	Displays the status of the firewall: Disabled
IGMP Multicast	In the "Bridge" connection, this field is: Not Applicable

- click on the  button to save the WAN interface configuration.

5.8.2 LAN

Object: This is used to configure the IP parameters for the local network (LAN).

- Select the **LAN** menu in the **Advanced Setup** section to display the following screen:

The screenshot displays the 'Local Area Network (LAN) Setup' page. At the top right, there are status indicators for ADSL (Down 19996 kbps) and Internet (Up 1067 kbps, Connected). A sidebar on the left lists navigation options: Status, Internet Connection, NAT, Advanced Setup (WAN, LAN, Security, Routing, DNS, DSL), and Advanced Status Management. The main content area includes a description of the LAN setup, input fields for IP Address and Subnet Mask, and radio button options for IGMP Snooping and DHCP Server. At the bottom, there are 'Save' and 'Save/Reboot' buttons and a small image of the router.

Field	Action	Default
IP Address	Enter the address of your local network	192.168.1.1
Subnet Mask	Enter your network's subnet mask.	255.255.255.0
Enable IGMP Snooping	Check this box to activate the IGMP (Internet Group Management Protocol) protocol. This lets you manage the declarations of belonging to one or more groups with Multicast routers.	Box not checked

Field	Action	Default
Standard Mode	Check the box if you wish the IGMP snooping runs in normal mode (transparency with IGMP frames).	Box checked
Blocking Mode	Check the box if you wish the IGMP snooping runs in blocking mode (interception and removal of IGMP frames).	Box not checked
Disable DHCP	Check the box to not activate your router's DHCP server. Note: You must configure your computer with the parameters appropriate to your local network (IP address, subnet mask and default gateway) as well as enter the primary and secondary DNS server addresses.	Box not checked
Enable DHCP	Check the box to activate your router's DHCP server. Note: You must configure your computer as DHCP client and DNS client (or enter the primary and secondary DNS server addresses).	Box checked
Start IP Address	Enter the first address attributed by your router's DHCP server.	192.168.1.2
End IP Address⁷	Enter the last address attributed by your router's DHCP server.	192.168.1.254
Lease Time (hour)⁷	Enter an unavailability time for each address attributed expressed in hours.	24
Configure the second IP Address and Subnet Mask for LAN interface	Check the box to configure the IP parameters (IP address, subnet mask) of a second address for the local network (LAN).	Box not checked
IP Address⁸	Enter a second address for your local network (LAN).	–
Subnet Mask⁸	Enter a subnet mask for the second address for your local network (LAN).	–

⁷ This field only appears when the "Enable DHCP" field is activated (box checked).

⁸ This field only appears when the "Configure the second IP Address and Subnet Mask for LAN interface" field is activated (box checked).

5.8.3 Security

This menu contains 2 sub-menus:

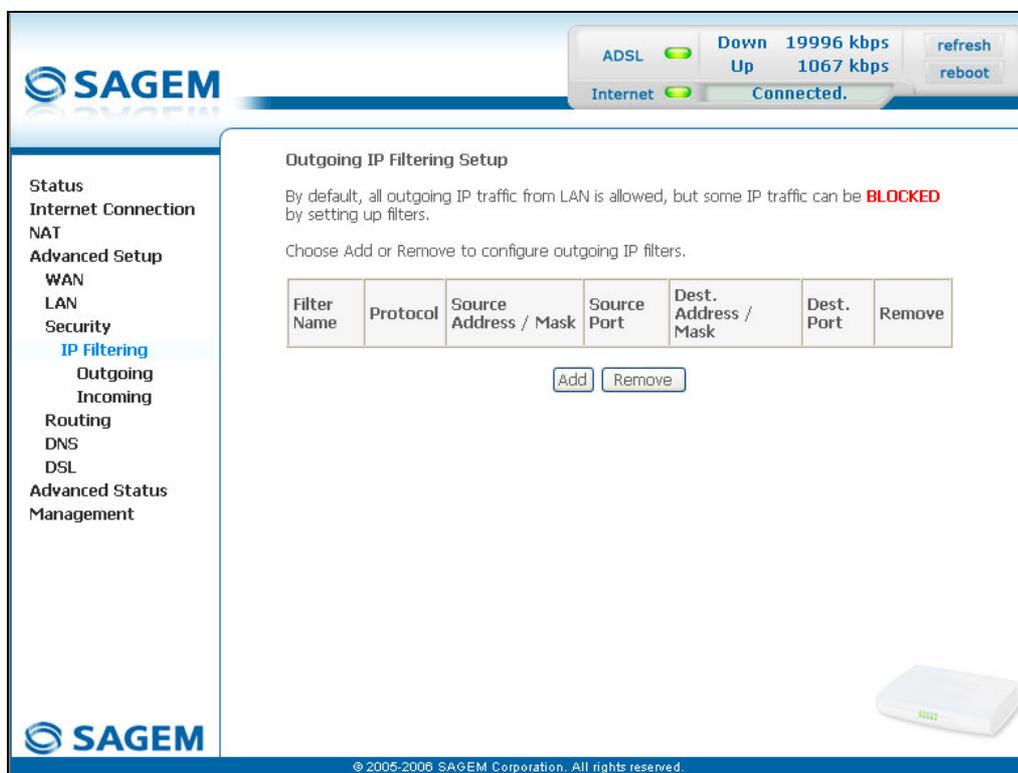
- Outgoing (cf. § 5.8.3.1),
- Incoming (cf. § 5.8.3.2).

5.8.3.1 Outgoing

Object: This menu is used to create outgoing IP filters to refuse data from the LAN to the WAN and list the existing outgoing IP filters.

By default, all the outgoing data is accepted.

- Select the **Outgoing** sub-menu in the **Security** menu in the **Advanced Setup** section to display the following screen:



Field	Meaning
Filter Name	Name of the filter.
Protocol	Transport protocol.
Source Address / Mask	Source IP address / Subnet mask.
Source Port	Source port
Dest. Address / Mask	Destination IP address / Subnet mask.
Dest. Port	Destination port.

Add

- Click on the **Add** button to display the following screen:

The screenshot shows the SAGEM web interface. At the top right, there are status indicators: ADSL (green), Down 19996 kbps, Up 1067 kbps, and Internet (green) Connected. Below these are 'refresh' and 'reboot' buttons. The left sidebar contains a navigation menu with categories: Status, Internet Connection, NAT, Advanced Setup (WAN, LAN), Security (IP Filtering, Outgoing, Incoming), Routing (DNS, DSL), and Advanced Status Management. The main content area is titled 'Add IP Filter -- Outgoing' and contains a text box for 'Filter Name', a dropdown menu for 'Protocol', and input fields for 'Source IP address', 'Source Subnet Mask', 'Source Port (port or port:port)', 'Destination IP address', 'Destination Subnet Mask', and 'Destination Port (port or port:port)'. A 'Save/Apply' button is located at the bottom of the form. A small image of a SAGEM router is visible in the bottom right corner of the interface.

Field	Action
Filter Name	Enter a representative name for the filter.
Protocol	Select the dedicated protocol from the scroll down list (TCP/UDP, TCP, UDP, ICMP).
Source IP Address	Enter the Source IP address (LAN).
Source Subnet Mask	Subnet mask.
Source Port (port or port:port)	Enter a "Source" port (LAN) or range of ports. Note: For one port, for example, enter 80. For a range of ports, enter 80:90.
Dest. IP Address	Enter the Destination IP address (WAN).
Dest. Subnet Mask	Subnet mask.
Dest. Port (port or port:port)	Enter a "destination" port (WAN) or range of ports. Note: For one port, for example, enter 80. For a range of ports, enter 80:90.

5.8.3.2 Incoming

Object: This menu is used to create incoming IP filters to refuse data from the WAN to the LAN and list the existing incoming IP filters.

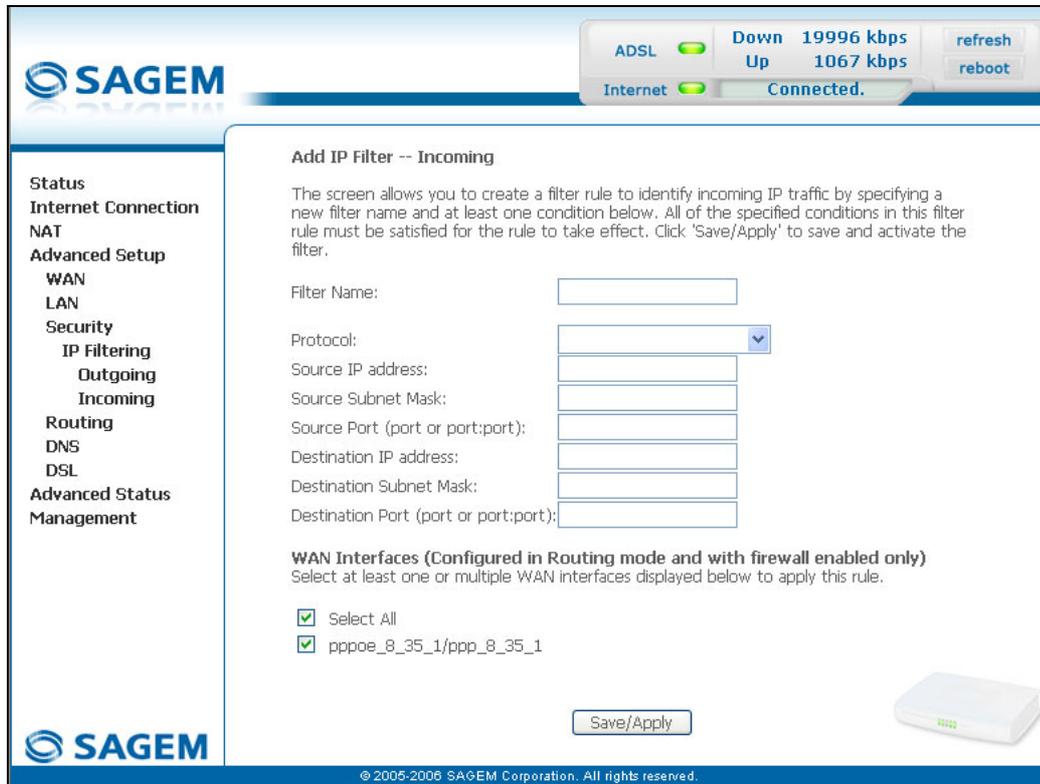
By default, all the incoming data is refused when the Firewall is activated.

- Select the **Incoming** sub-menu in the **Security** menu in the **Advanced Setup** section to display the following screen:

The screenshot shows the SAGEM web interface. At the top right, there is a status bar with 'ADSL' and 'Internet' indicators, both showing green lights. Next to them, it displays 'Down 19996 kbps' and 'Up 1067 kbps' for ADSL, and 'Connected.' for Internet. There are 'refresh' and 'reboot' buttons. The left-hand navigation menu includes: Status, Internet Connection, NAT, Advanced Setup (with sub-items WAN, LAN, Security, IP Filtering, Outgoing, and Incoming), Routing, DNS, DSL, Advanced Status, and Management. The 'Incoming' sub-menu is highlighted. The main content area is titled 'Incoming IP Filtering Setup' and contains the following text: 'By default, all incoming IP traffic from the WAN is blocked when the firewall is enabled. However, some IP traffic can be **ACCEPTED** by setting up filters. Choose Add or Remove to configure incoming IP filters.' Below this text is a table with the following columns: Filter Name, VPI/VCI, Protocol, Source Address / Mask, Source Port, Dest. Address / Mask, Dest. Port, and Remove. Under the table are 'Add' and 'Remove' buttons. At the bottom right of the page, there is a small image of a white SAGEM router. The footer contains the SAGEM logo and the copyright notice: '© 2005-2006 SAGEM Corporation. All rights reserved.'

Add

- Click on the **Add** button to display the following screen:



Field	Action
Filter Name	Enter a representative name for the filter.
Protocol	Select the dedicated protocol from the scroll down list (TCP/UDP, TCP, UDP, ICMP).
Source IP Address	Enter the Source IP address (WAN).
Source Subnet Mask	Subnet mask.
Source Port (port or port:port)	Enter a "Source" port (WAN) or range of ports. Note: For one port, for example, enter 80. For a range of ports, enter 80:90.
Dest. IP Address	Enter the destination IP address (LAN).
Dest. Subnet Mask	Subnet mask.
Dest. Port (port or port:port)	Enter a "destination" port (LAN) or range of ports. Note: For one port, for example, enter 80. For a range of ports, enter 80:90.

WAN interfaces

Field	Action	Default
Select all	Check the box to select all WAN interfaces. Note: Checking out the box, you do not select any interface and you also check out the pppoe_8_35_1/ ppp_8_35_1 box.	Box checked
pppoe_8_35_1/ ppp_8_35_1	Check the box to select the displayed interface.	Box checked

5.8.4 Routing

This menu contains two sub-menus:

- Default Gateway (cf. § 5.8.4.1),
- Static Route (cf. § 5.8.4.2).

5.8.4.1 Default Gateway

Object: This menu is used either to allocate dynamically a default gateway address to the router from a PVC or to enter an address or choose an interface.

- Select the **Default Gateway** sub-menu in the **Routing** menu in the **Advanced Setup** section to display the following screen:

The screenshot shows the SAGEM router's web interface. At the top right, there are status indicators for ADSL (Down 19996 kbps, Up 1067 kbps) and Internet (Connected). The left sidebar lists navigation options: Status, Internet Connection, NAT, Advanced Setup (WAN, LAN, Security, Routing, Default Gateway, Static Route), DNS, DSL, Advanced Status, and Management. The main content area is titled 'Routing -- Default Gateway' and contains the following text: 'If Enable Automatic Assigned Default Gateway checkbox is selected, this router will accept the first received default gateway assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s). If the checkbox is not selected, enter the static default gateway AND/OR a WAN interface. Click 'Save/Apply' button to save it.' Below this is a note: 'NOTE: If changing the Automatic Assigned Default Gateway from unselected to selected, You must reboot the router to get the automatic assigned default gateway.' The configuration options are: 'Enable Automatic Assigned Default Gateway' (unchecked), 'Use Default Gateway IP Address' (checked, value: 10.14.200.1), and 'Use Interface' (unchecked, dropdown menu: pppoe_8_35_1/ppp_8_35_1). A 'Save/Apply' button is at the bottom. A small image of the router is in the bottom right corner.

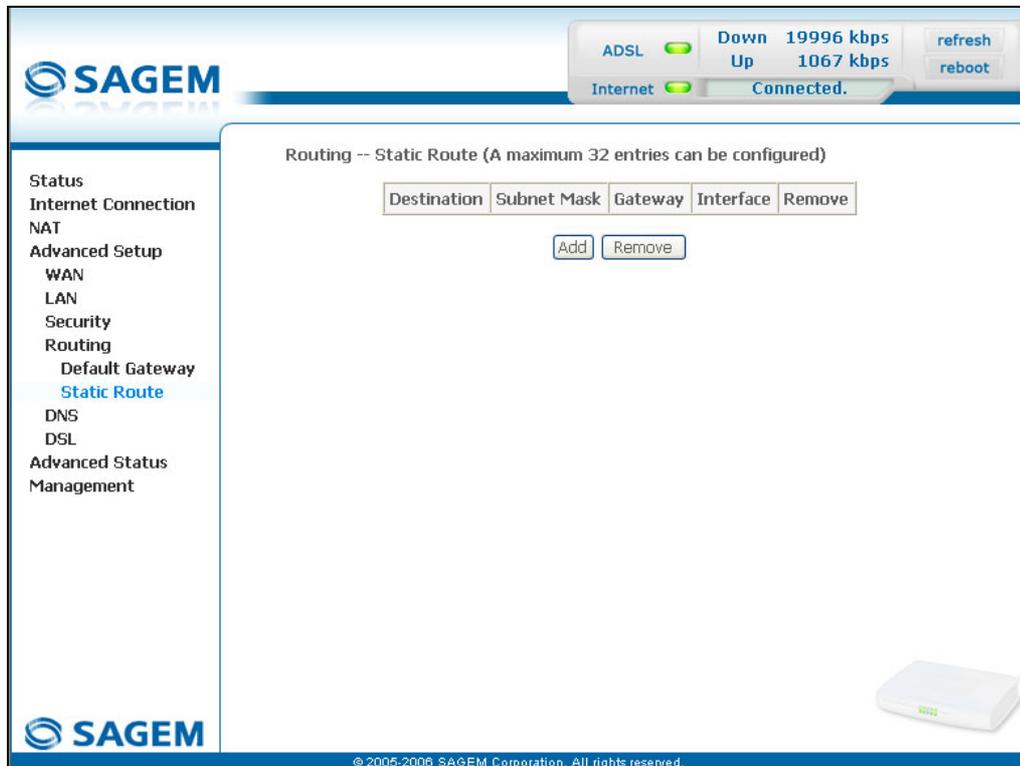
Field	Action	Default
EnableAutomatic Assigned Default Gateway	Check the box to allocate automatically a default gateway for your router.	Box checked
Use Default Gateway IP Address⁹	Check the box to use a default address.	Box checked empty
Use Interface⁹	Check the box then select the interface you want to use from the scroll down list (pppoe_8_35_1 for example).	Box not checked Interface used

⁹ this field only appears when the "Enable Automatic Assigned Default Gateway" field is deactivated (box not checked).

5.8.4.2 Static Route

Object: This menu is used to add a static route.

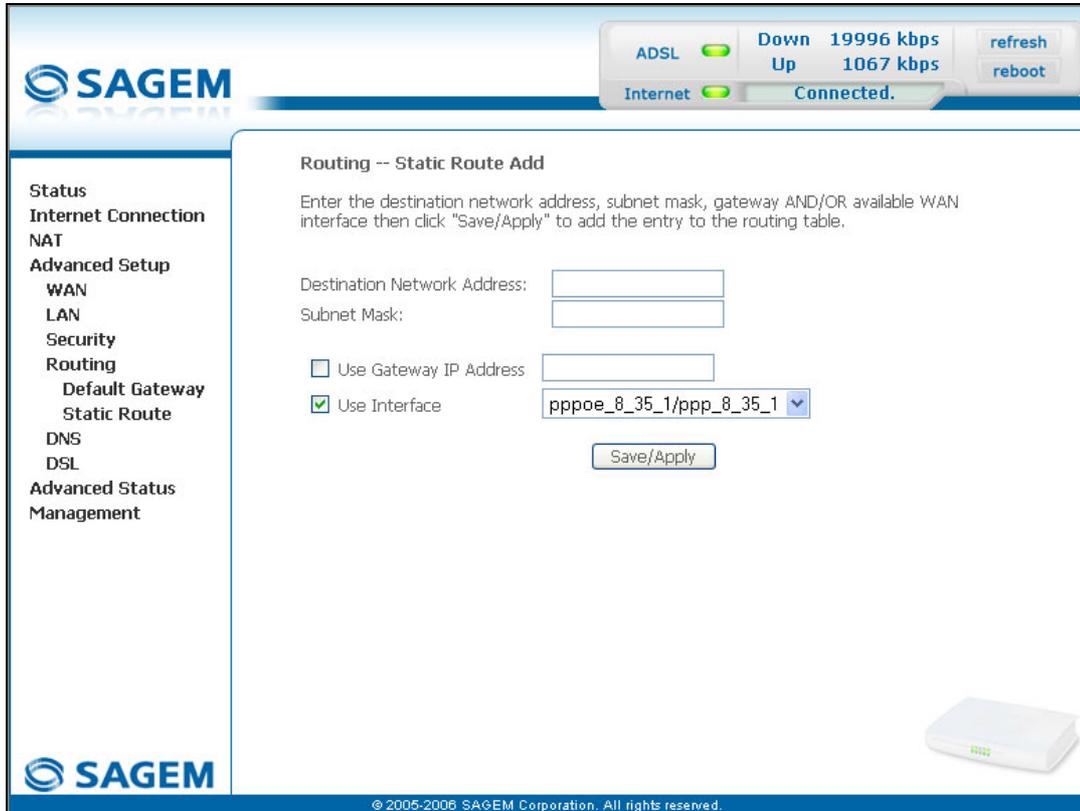
- Select the **Static Route** sub-menu in the **Routing** menu in the **Advanced Setup** section to display the following screen:



Field	Meaning
Destination	Remote network IP address
Subnet Mask	Remote subnet mask
Gateway	Default gateway of the remote network
Interface	Remote network interface

Add

- Click on the **Add** button to display the following screen:

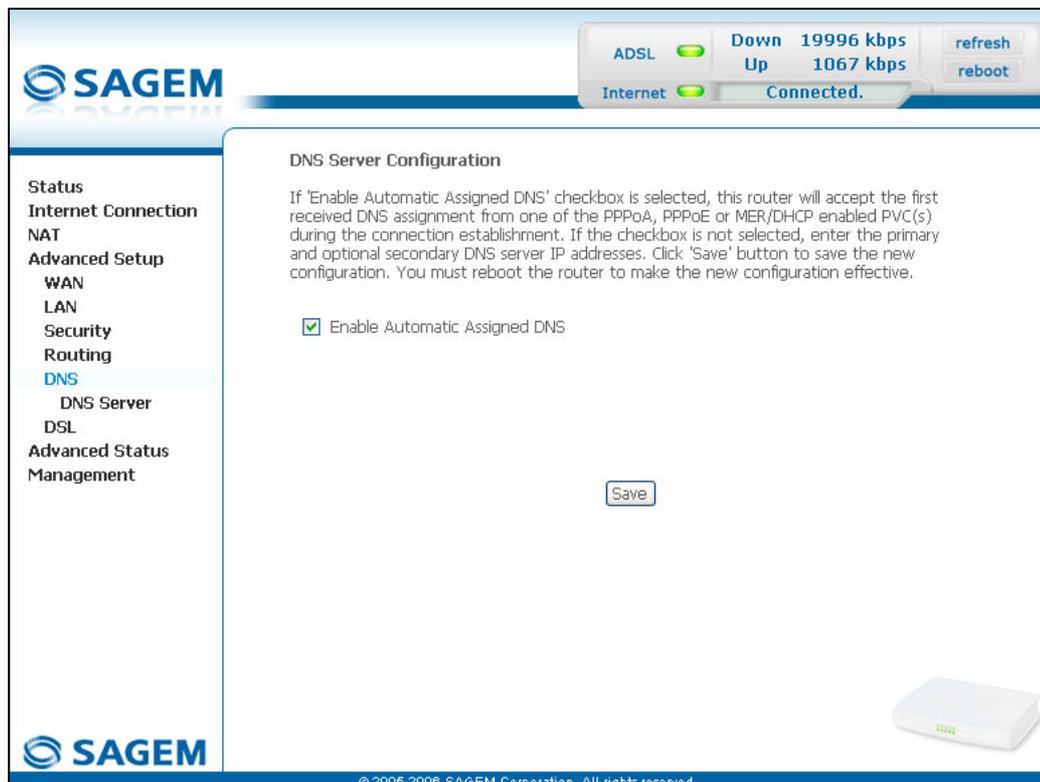


Field	Action	Default
Destination Network Address	Enter the IP address of the remote network.	Empty
Subnet Mask	Enter the remote subnet mask.	Empty
Use Gateway IP Address	Check the appropriate box then enter the IP address of the gateway.	Box not checked Empty
Use Interface	Select the interface you want to use from the scroll down list (pppoe_8_35_1 for example).	Box checked Interface used

5.8.5 DNS

Object: This menu enables the automatic resolution of domain names by polling remote servers.

- Select the **DNS** menu in the **Advanced Setup** section to display the following screen:



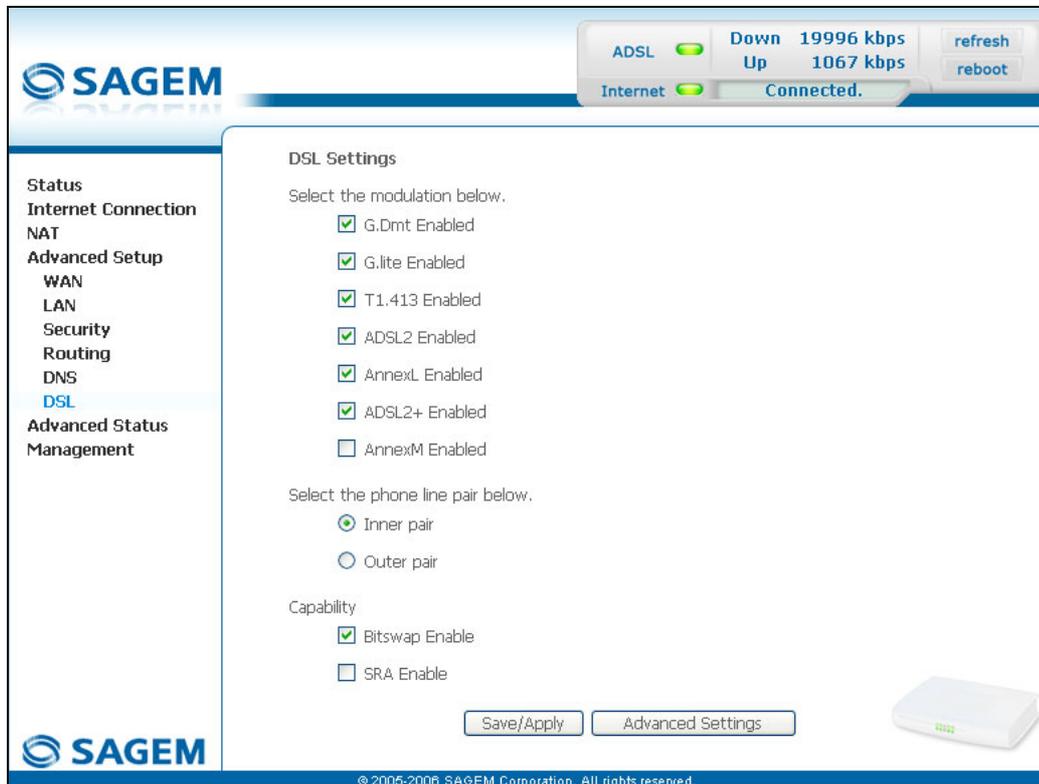
Field	Action	Default
Enable Automatic Assigned DNS	Check the appropriate box to allocate a domain name address.	Box checked
Primary DNS server ¹⁰	Enter a primary DNS server address.	—
Secondary DNS server ¹⁰	Enter a secondary DNS server address.	—

¹⁰ This field only appears when the "Enable Automatic Assigned DNS" field is deactivated (box not checked).

5.8.6 DSL

Object: The purpose of this menu is to parameter your ADSL line.

- Select the **DSL** menu in the **Advanced Setup** section to display the following screen:



SAGEM

ADSL ● Down 19996 kbps
Up 1067 kbps refresh
Internet ● Connected. reboot

DSL Settings

Select the modulation below.

G.Dmt Enabled
 G.lite Enabled
 T1.413 Enabled
 ADSL2 Enabled
 AnnexL Enabled
 ADSL2+ Enabled
 AnnexM Enabled

Select the phone line pair below.

Inner pair
 Outer pair

Capability

Bitswap Enable
 SRA Enable

Save/Apply Advanced Settings

SAGEM

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Modulation

Field	Default
G.Dmt Enabled	Box checked
G.lite Enabled	Box checked
T1.413 Enabled	Box checked
ADSL2 Enabled	Box checked
AnnexL Enabled	Box checked
ADSL2+ Enabled	Box checked
AnnexM Enabled	Box not checked

Check the boxes according to the characteristics of your line.

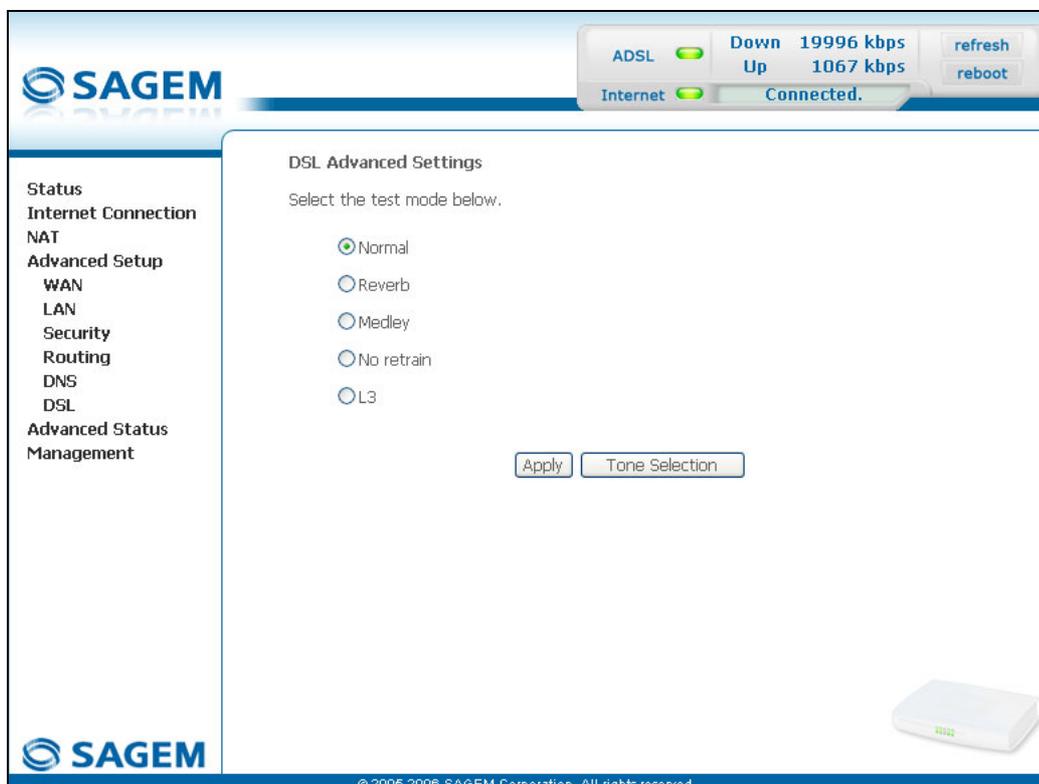
Phone line pair

Field	Default
Inner pair	Selected box
Outer pair	Box not selected

Capability

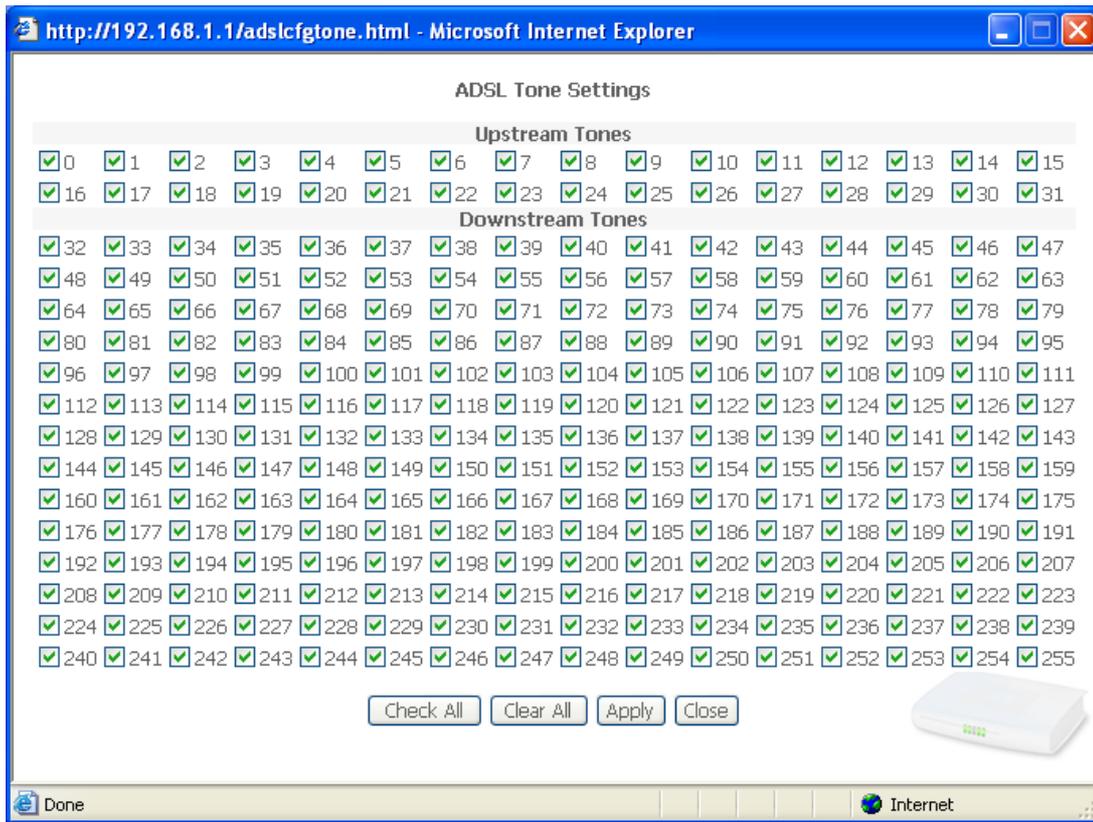
Field	Default
Bitswap Enable	Box checked
SRA Enable	Box not checked

- Click on the **Advanced Settings** button to display the following screen:



Field	Default
Normal	Selected box
Reverb	Box not selected
Medley	Box not selected
No retrain	Box not selected
L3	Box not selected

- Click on the **Tone Selection** button to display the following screen:



Note: There are 32 ascending tones and 224 descending tones.

- Click on the **Check All** button to select all the tones or the **Clear All** button to select none of them.



All the tones are selected by default.

To select a tone, simply check the associated box.

To not select a tone, simply leave its associated box empty.

5.9 Advanced Status

Object: This heading is used to display the status of your router.

This section contains the following cinq menus:

- WAN (cf. § 5.9.1),
- Statistics (cf. § 5.9.2),
- Route (cf. § 5.9.3),
- ARP (cf. § 5.9.4),
- DHCP (cf. § 5.9.5).

5.9.1 WAN

Object: This menu is used to display all the parameters which concern the remote network.

- Select the **WAN** menu in the **Advanced Status** section to display the following screen:

The screenshot displays the WAN status page of a SAGEM router. The page features a navigation menu on the left with options: Status, Internet Connection, NAT, Advanced Setup, Advanced Status, **WAN** (highlighted), Statistics, Route, ARP, DHCP, and Management. The main content area shows 'WAN Info' with a table of connection details. In the top right corner, there are status indicators for ADSL (Down 19996 kbps, Up 1067 kbps) and Internet (Connected), along with 'refresh' and 'reboot' buttons. A small image of the router is visible in the bottom right corner of the page.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	State	Status	IP Address
8/35	1	UBR	pppoe_8_35_1	ppp_8_35_1	PPPoE	Disabled	Enabled	Up	10.14.200.23

5.9.2 Statistics

Object: This menu is used to display all the router's statistics.

This menu contains the following four sub menus:

- LAN (cf. § 5.9.2.1),
- WAN (cf. § 5.9.2.2),
- ATM (cf. § 5.9.2.3),
- ADSL (cf. § 5.9.2.4).

5.9.2.1 LAN

Object: This menu is used to display all the parameters which concern the local network (LAN).

- Select the **LAN** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:

Statistics -- LAN

Interface	Received				Transmitted			
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
Ethernet	2411347	18849	0	0	7980037	18943	0	0
USB	0	0	0	0	0	0	0	0

Reset Statistics

5.9.2.2 WAN

Object: This menu is used to display all the parameters which concern the remote network (WAN).

- Select the **WAN** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:

ADSL Down 19996 kbps
Up 1079 kbps refresh
Internet Connected. reboot

Status
Internet Connection
NAT
Advanced Setup
Advanced Status
WAN
Statistics
LAN
WAN
ATM
ADSL
Route
ARP
DHCP
Management

Statistics -- WAN

Service	VPI/VCI	Protocol	Interface	Received				Transmitted			
				Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
pppoe_8_35_1	8/35	PPPoE	ppp_8_35_1	214	5	0	0	182	5	0	0

Reset Statistics

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5.9.2.3 ATM

Object: This menu is used to display all the ATM statistics of the line.

- Select the **ATM** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:

SAGEM

ADSL Down 19996 kbps
Up 1079 kbps refresh
Internet Connected. reboot

ATM Interface Statistics

In Octets	Out Octets	In Errors	In Unknown	In Hec Errors	In Invalid Vpi Vci Errors	In Port Not Enable Errors	In PTI Errors	In Idle Cells	In Circuit Type Errors	In OAM RM CRC Errors	In GFC Errors
58307	173179	0	24	0	12	0	0	0	0	0	12

AAL5 Interface Statistics

In Octets	Out Octets	In Ucast Pkts	Out Ucast Pkts	In Errors	Out Errors	In Discards	Out Discards
58115	172795	620	1148	0	0	0	0

AAL5 VCC Statistics

VPI/VCI	CRC Errors	SAR Timeouts	Oversized SDUs	Short Packet Errors	Length Errors
8/35	0	0	0	0	0

Reset Close

SAGEM

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5.9.2.4 ADSL

Object: This menu is used to display all the ADSL statistics of the line.

- Select the **ADSL** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:

SAGEM ADSL Up 19996 kbps Down 1079 kbps Connected. refresh reboot

Internet Connected.

Statistics -- ADSL

Mode:	ADSL2+	
Line Coding:	Trellis On	
Status:	No Defect	
Link Power State:	LO	
	Downstream	Upstream
SNR Margin (dB):	15.8	5.9
Attenuation (dB):	1.5	0.0
Output Power (dBm):	0.0	12.8
Attainable Rate (Kbps):	28204	1192
Rate (Kbps):	19996	1079
MSGc (number of bytes in overhead channel message):	78	19
B (number of bytes in Mux Data Frame):	238	48
M (number of Mux Data Frames in FEC Data Frame):	1	4
T (Mux Data Frames over sync bytes):	2	2
R (number of check bytes in FEC Data Frame):	16	6
S (ratio of FEC over PMD Data Frame length):	0.3817	5.7509
L (number of bits in PMD Data Frame):	5345	281
D (interleaver depth):	64	8
Delay (msec):	6	11
Super Frames:	21648	21646
Super Frame Errors:	0	0
RS Words:	3637022	367982
RS Correctable Errors:	0	0
RS Uncorrectable Errors:	0	N/A
HEC Errors:	0	0
DCD Errors:	0	0
LCD Errors:	0	0
Total Cells:	16337160	881169
Data Cells:	149	104
Bit Errors:	0	0
Total ES:	1	0
Total SES:	1	0
Total UAS:	49	41

ADSL BER Test Reset Statistics

SAGEM

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5.9.3 Route

Object: This menu is used to display all the information concerning your router's routing.

- Select the **Route** menu in the **Advanced Status** section to display the following screen:

The screenshot shows the SAGEM router's web interface. At the top right, there are status indicators for ADSL (Down 19996 kbps, Up 1079 kbps) and Internet (Connected). A 'refresh' and 'reboot' button is also present. The main content area is titled 'Device Info -- Route' and includes a legend for flags: U - up, ! - reject, G - gateway, H - host, R - reinstate, D - dynamic (redirect), M - modified (redirect). Below the legend is a table with the following data:

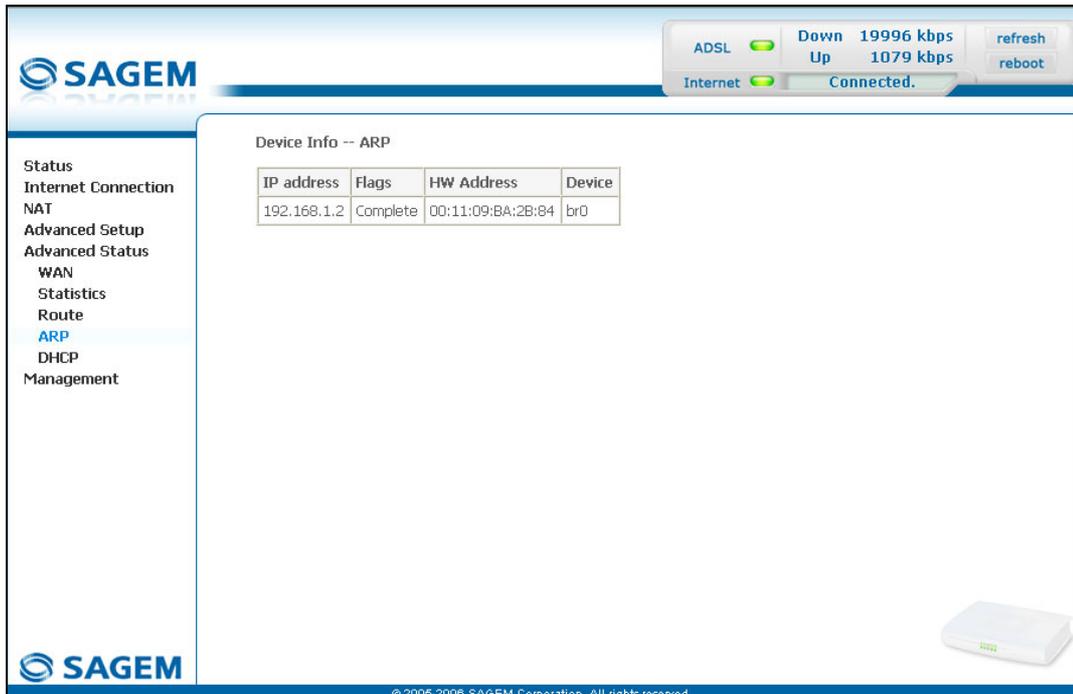
Destination	Gateway	Subnet Mask	Flag	Metric	Service	Interface
10.14.200.1	0.0.0.0	255.255.255.255	UH	0	pppoe_8_35_1	ppp_8_35_1
192.168.1.0	0.0.0.0	255.255.255.0	U	0		br0
0.0.0.0	10.14.200.1	0.0.0.0	UG	0	pppoe_8_35_1	ppp_8_35_1

At the bottom right of the interface, there is a small image of the SAGEM router hardware. The footer contains the SAGEM logo and the copyright notice: © 2005-2006 SAGEM Corporation. All rights reserved.

5.9.4 ARP

Object: This menu is used to display all the information concerning address resolution (ARP: Address Resolution Protocol). This lets you find out the physical address of a computer's network card, corresponding to an IP address.

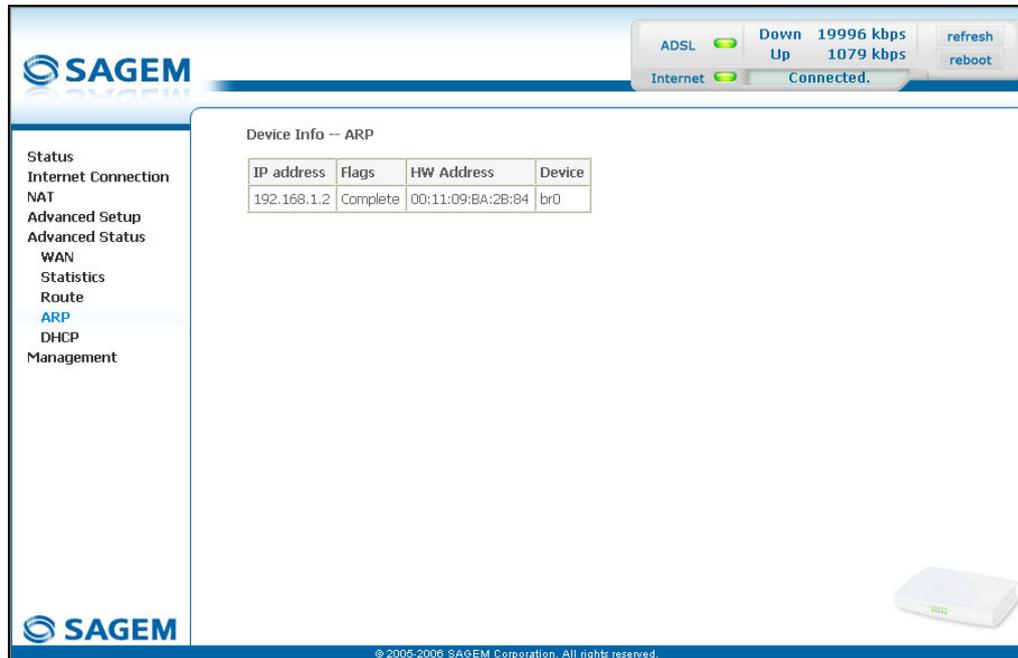
- Select the **ARP** menu in the **Advanced Status** section to display the following screen:



5.9.5 DHCP

Object: This menu is used to display all the computers which obtained an IP address from the router's DHCP server.

- Select the **DHCP** menu in the **Advanced Status** section to display the following screen:



The screenshot shows the SAGEM router's web interface. At the top right, there are status indicators for ADSL (Down) and Internet (Connected), along with speed information (Down: 19996 kbps, Up: 1079 kbps) and buttons for 'refresh' and 'reboot'. On the left, a navigation menu lists various settings, with 'ARP' highlighted under the 'Advanced Status' section. The main content area is titled 'Device Info -- ARP' and contains a table with the following data:

IP address	Flags	HW Address	Device
192.168.1.2	Complete	00:11:09:BA:2B:84	br0

At the bottom right of the interface, there is a small image of the SAGEM router. The footer contains the SAGEM logo and the copyright notice: © 2005-2006 SAGEM Corporation. All rights reserved.

5.10 Management

Object: This menu lets you manage your router.

This section contains the following five menus:

- Settings (cf. § 5.10.1),
- System Log (cf. § 5.10.2),
- Access Control (cf. § 5.10.3),
- Update Software (cf. § 5.10.4),
- Save/Reboot (cf. § 5.10.5).

5.10.1 Settings

This menu contains the following three sub menus:

- Backup (cf. § 5.10.1.1),
- Update (cf. § 5.10.1.2),
- Restore Default (cf. § 5.10.1.3).

5.10.1.1 Backup

Object: This menu is used to backup the current configuration to a file with a .conf extension.



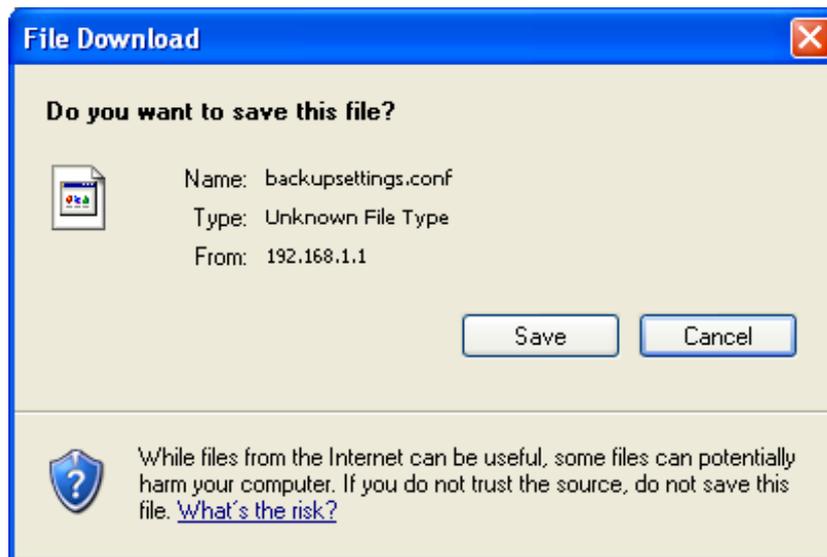
It is recommended to save the current configuration on your computer to a file

- Select the **Backup** sub menu in the **Settings** menu of the **Management** section to display the following screen:

The screenshot displays the SAGEM router's web management interface. At the top right, there is a status bar showing 'ADSL' and 'Internet' both as 'Connected' with green status indicators. It also displays 'Down 19996 kbps' and 'Up 1056 kbps' with 'refresh' and 'reboot' buttons. The left sidebar contains a menu with items: Status, Internet Connection, NAT, Advanced Setup, Advanced Status, Management, Settings (highlighted), Backup, Update, Restore Default, System Log, Access Control, Update Software, and Save/Reboot. The main content area is titled 'Settings - Backup' and contains the text: 'Backup DSL router configurations. You may save your router configurations to a file on your PC.' Below this text is a button labeled 'Backup Settings'. In the bottom right corner of the main area, there is a small image of the white SAGEM router. The footer of the page shows the SAGEM logo and the copyright notice: '© 2005-2006 SAGEM Corporation. All rights reserved.'

5 - Information / Configuration

- Click on the **Backup Settings** button; the following screen appears:



- Click on the **Save** button to save the current configuration file, for example, on your computer.
- Select the directory where you want to save the "backupsettings.conf" configuration file.

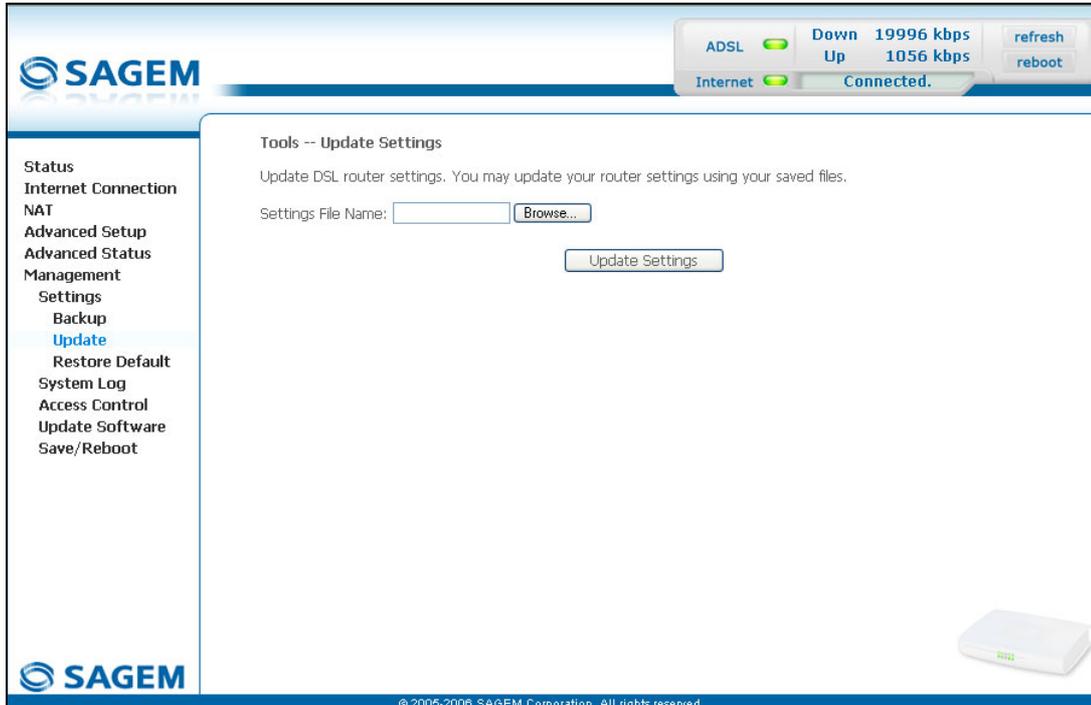


The process takes a few seconds.

5.10.1.2 Update

Object: This menu enables the router to recover a configuration which has already been saved to a file with a .conf extension.

- Select the **Update** sub menu in the **Settings** menu of the **Management** section to display the following screen:



Proceed as follows for your router configurer to display a configuration which has already been saved:

- Enter the path then the name of the configuration file,
or
- Click on the **Browse** button and select the path then the configuration file,
- Select the configuration file then click on the **Update Settings** button to recover a configuration which has already been saved.



The process takes around 2 minutes.

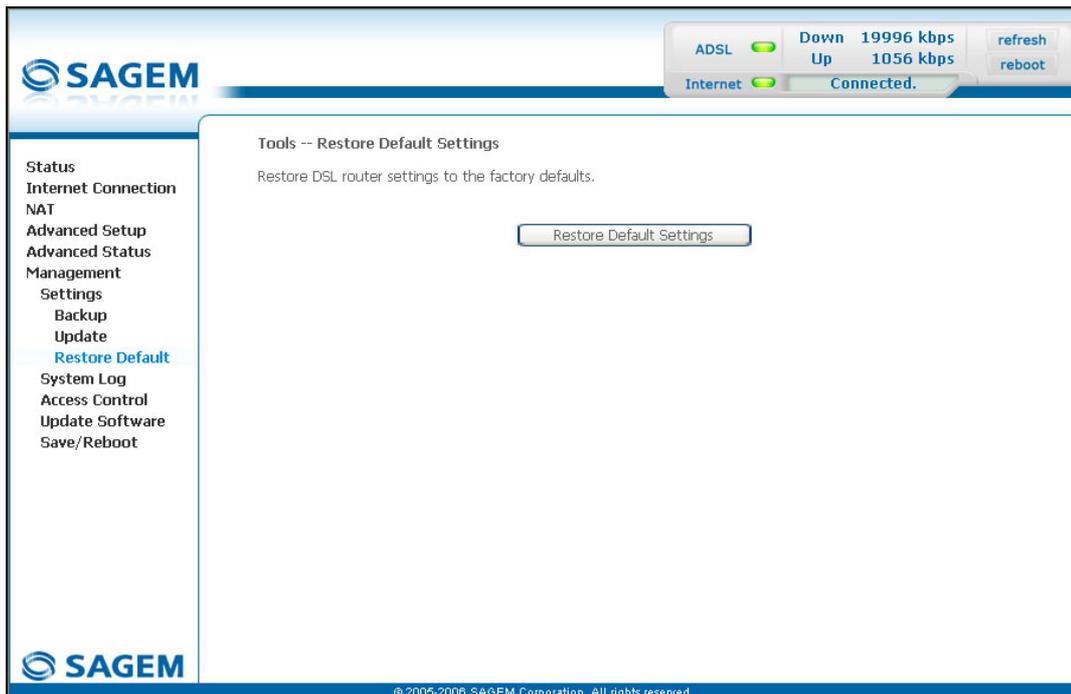
5.10.1.3 Restore Default

Object: This menu is used to return to factory configuration.

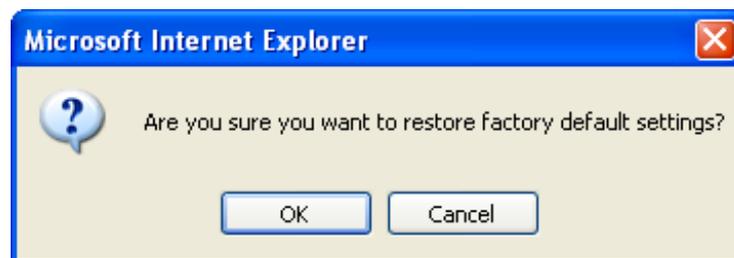


The existing configuration is completely overwritten.

- Select the **Restore Default** sub menu in the **Settings** menu of the **Management** section to display the following screen:



- Select the configuration file then click on the **Restore Default Settings** button and the following screen appears:



- Click on the **OK** button if you really want to return to the factory configuration.

A few moments after, the screen of the "Internet Connection" menu appears. To refer to paragraph 5.6.

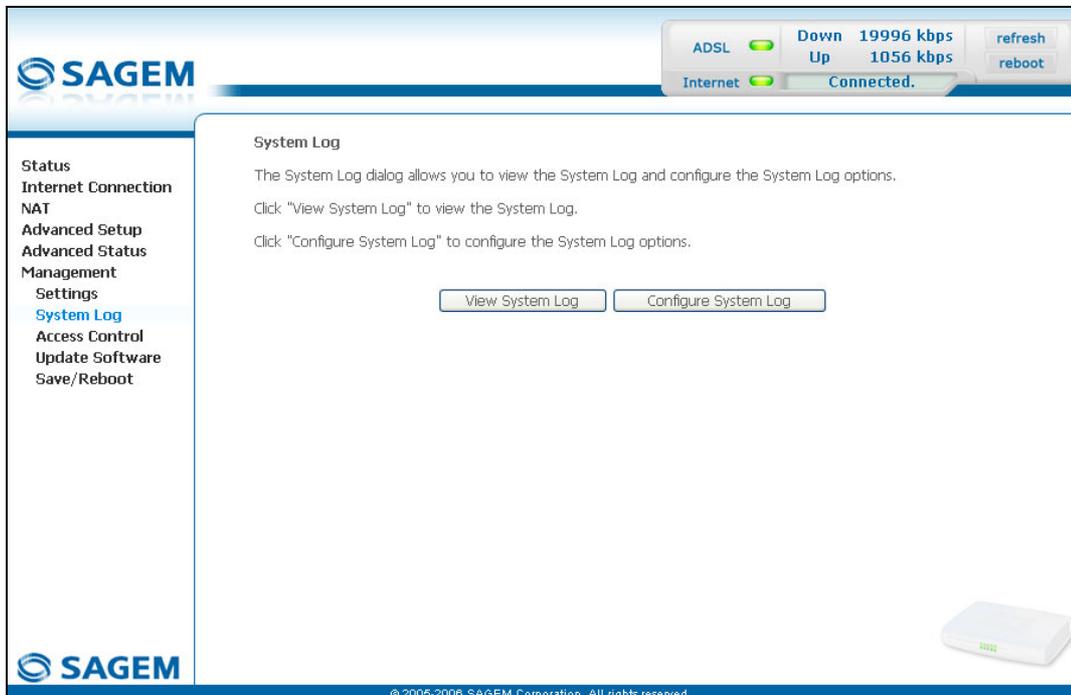


The process takes around 2 minutes.

5.10.2 System Log

Object: This menu is used to view and/or configure the events which occur on your router.

- Select the **System Log** menu in the **Management** section to display the following screen:



View System Log

- Click on the **View System Log** button to display the events with the severity you configured (see table in the next paragraph - "**Configure System Log**").

Date/Time	Facility	Severity	Message
1st day 00:00:18	syslog	emerg	F@ST started: BusyBox v1.00 (2006.08.29-08:40+0000)
1st day 00:00:18	user	crit	kernel: eth0 Link UP.
1st day 00:00:18	user	crit	kernel: ADSL G.994 training
1st day 00:00:18	user	crit	kernel: ADSL G.992 started
1st day 00:00:19	user	crit	kernel: ADSL G.992 channel analysis
1st day 00:00:23	user	crit	kernel: ADSL G.992 message exchange
1st day 00:00:24	user	crit	kernel: ADSL link up, interleaved, us=1056, ds=19996
1st day 00:00:26	daemon	crit	pppd[256]: PPP server detected.
1st day 00:00:26	daemon	crit	pppd[256]: PPP session established.
1st day 00:00:29	daemon	crit	pppd[256]: PPP LCP UP.
1st day 00:00:41	daemon	crit	pppd[256]: Received valid IP address from server. Connection UP.
1st day 00:00:46	user	err	syslog: HttpRedirect : Open /var/run/dnsmasq.pid failed !
1st day 00:00:46	user	err	syslog: HttpRedirect : run HttpRedirect failed !

Refresh Save Close

- Click on the **Save** button to save all the events allocated to the severity you configured.

Configure System Log

- Click on the **Configure System Log** button to configure the events which occur on your router.

The screenshot displays the SAGEM router's web management interface. At the top, the SAGEM logo is on the left, and network status indicators are on the right, showing ADSL and Internet connections with speed and status (Down/Up, Connected). A sidebar on the left lists navigation options: Status, Internet Connection, NAT, Advanced Setup, Advanced Status Management, Settings, System Log, Access Control, Update Software, and Save/Reboot. The main content area is titled 'System Log -- Configuration'. It contains a paragraph explaining that when log mode is enabled, events above the selected level will be logged and displayed. Below this, it instructs the user to select values and click 'Save/Apply'. The configuration options are: 'Log' with radio buttons for 'Disable' and 'Enable' (selected); 'Log Level' with a dropdown menu set to 'Debugging'; 'Display Level' with a dropdown menu set to 'Error'; and 'Mode' with a dropdown menu set to 'Local'. A 'Save/Apply' button is located at the bottom of the configuration area. A small image of the router is in the bottom right corner of the page.

5 - Information / Configuration

Field	Action	Default
Log	Select Enable to activate the saving of all the events to a log and display on screen or Disable to deactivate.	Enable
Log Level	<p>Select the appropriate severity from the scroll down list. All the events with this severity, or a higher severity, will be saved to your router's volatile "flash" memory.</p> <p>The severities are classified in decreasing order of importance.</p> <ul style="list-style-type: none"> • Emergency, • Alert, • Critical, • Error, • Notice, • Informational, • Debugging. 	Debugging
Display Level	<p>Select the appropriate severity from the scroll down list. All the events with this severity, or a higher severity, can be viewed by pressing the "View System Log" button.</p> <p>The severities are classified in decreasing order of importance.</p> <ul style="list-style-type: none"> • Emergency, • Alert, • Critical, • Error, • Notice, • Informational, • Debugging. 	Error

Field	Action	Default
Mode	Select the destination ID from the scroll down list: <ul style="list-style-type: none"> • Local: All the events are returned to your router via a "Buffer" memory. • Remote: All the events are returned to the "Syslog" server. • Both : Both modes. 	Local
Server IP Address ¹¹	Enter the IP address of the "Syslog" address on which all the events will be saved.	0.0.0.0
Server UDP Port ¹¹	Enter the number of the port associated with the "Syslog" server.	514

¹¹ This field only appears when the mode selected is "Remote or "Both".

5.10.3 Access Control

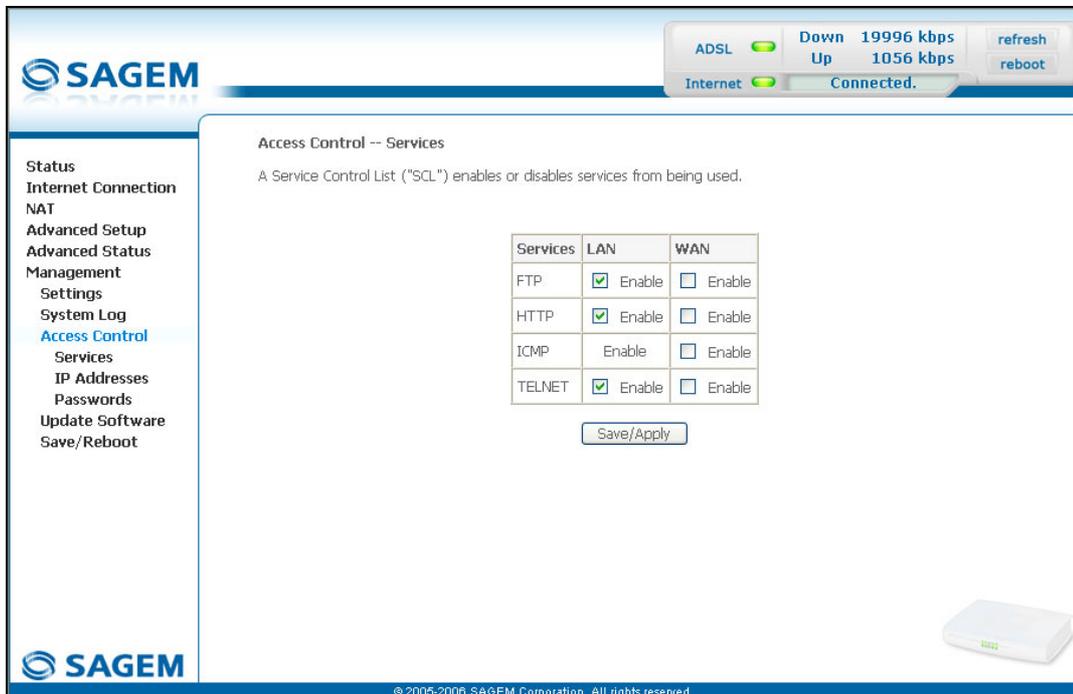
This menu contains the following three sub menus:

- Services (cf. § 5.10.3.1),
- IP Address (cf. § 5.10.3.2),
- Passwords (cf. § 5.10.3.3).

5.10.3.1 Services

Object: this sub menu is used to activate or deactivate Services such as FTP, FTPP etc.

- Select the **Services** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



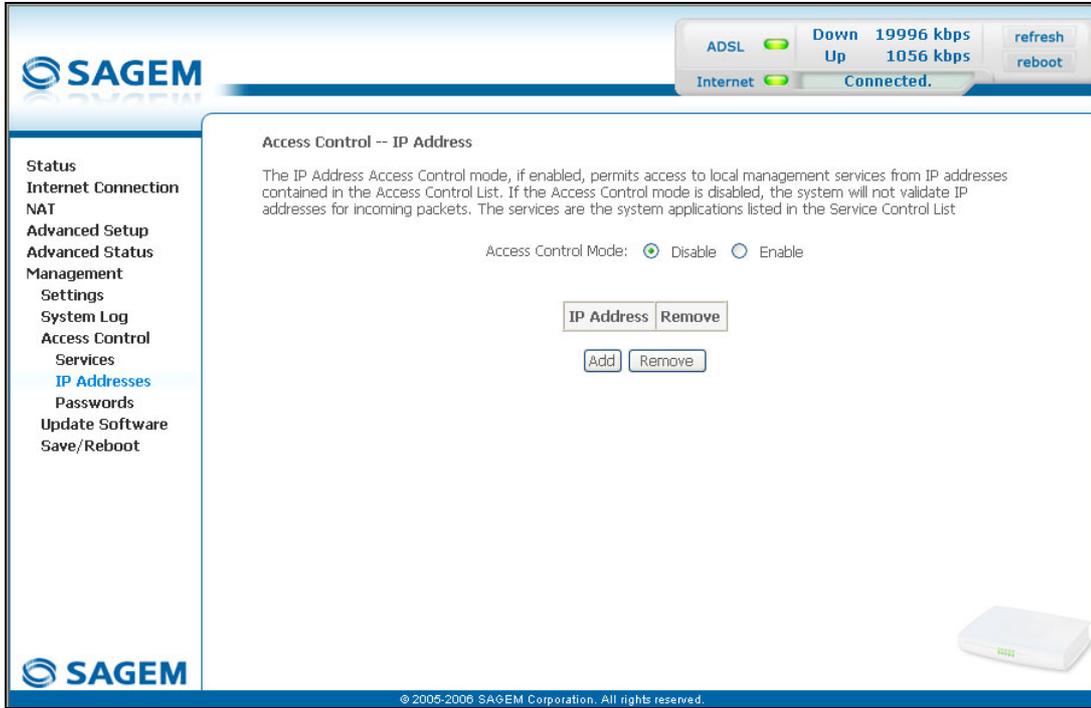
The table displayed in the screen above indicates that the services listed such as FTP, HTTP, ICMP, SSH and TELNET are all activated ("Enable" box checked) on the local network (LAN) and deactivated ("Enable" box not checked) on the remote network (WAN).

Check the **Enable** box to activate the selected service on the local network (LAN) or on the remote network (WAN).

Note: The ICMP service is always activated on the local network (LAN) and may be activated or deactivated on the remote network (WAN).

5.10.3.2 IP Address

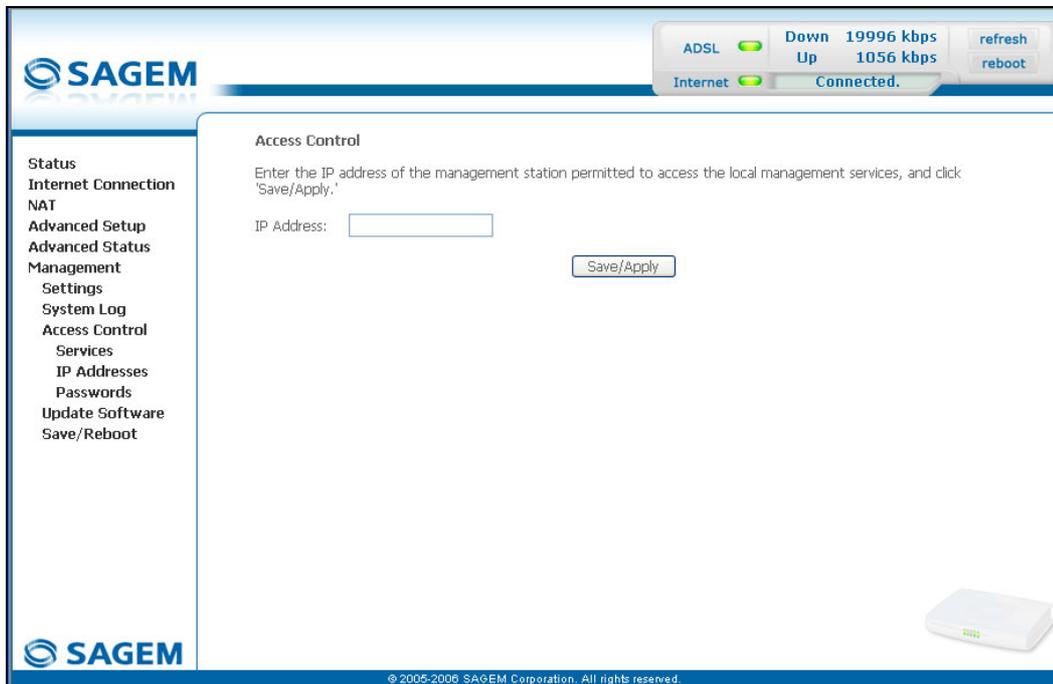
- Select the **IP Address** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



Field	Action	Default
Access Control Mode	Select Enable to activate the access control mode or Disable to not activate it.	Box not checked

Add

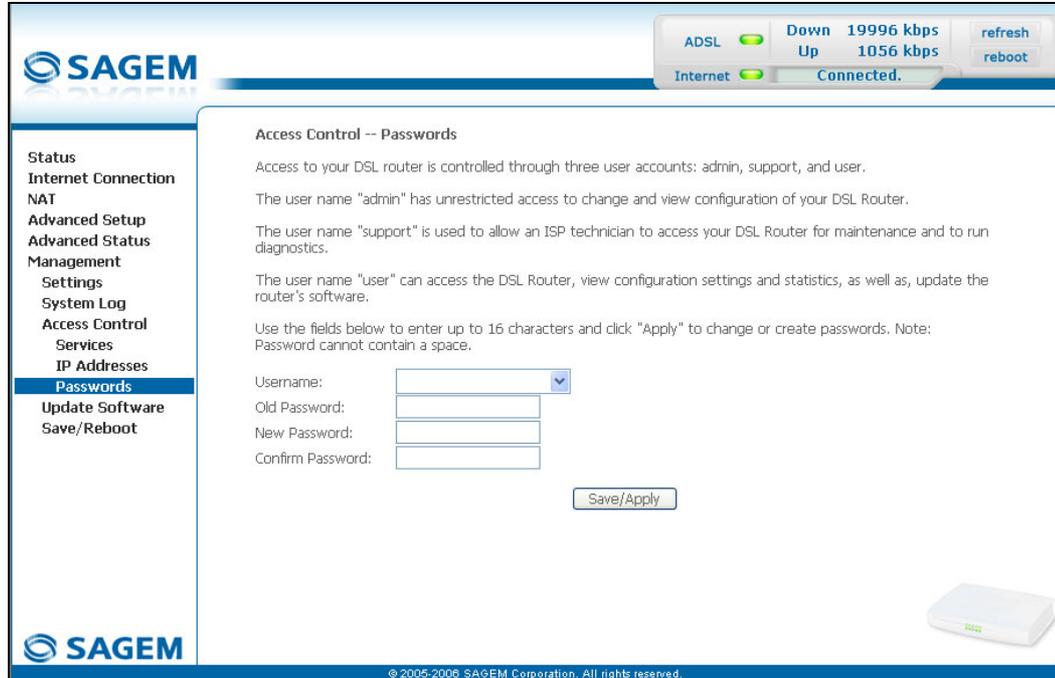
Click on the **Add** button to add an IP address.



Note: From this address you may access the local management services when the access control is active.

5.10.3.3 Passwords

- Select the **Passwords** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



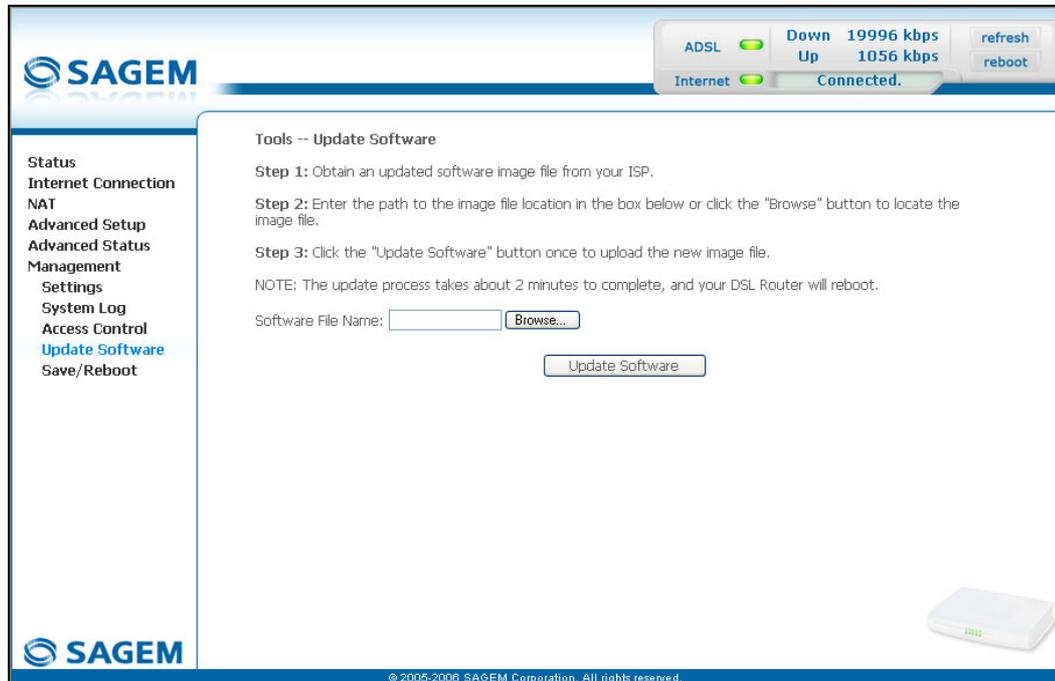
Field	Action
User Name	Select a user name from the scroll down list: <ul style="list-style-type: none"> Admin, Support, User. Note: This list has been established in increasing order of restriction.
Old Password	Enter your old password
New Password	Enter your new password
Confirm Password	Confirm your new password

Note: The password is a string of a maximum of 16 alphanumerical characters.

5.10.4 Update Software

Object: This menu lets you update the latest version of the router software.

- Select the **Update Software** menu in the **Management** section to display the following screen:



Proceed as follows to update your router's software version:

- Enter the path then the name of the software version file,
or
- Click on the **Browse** button and select the path then the software version file,
- Click on the **Update Software** button to update the software version.



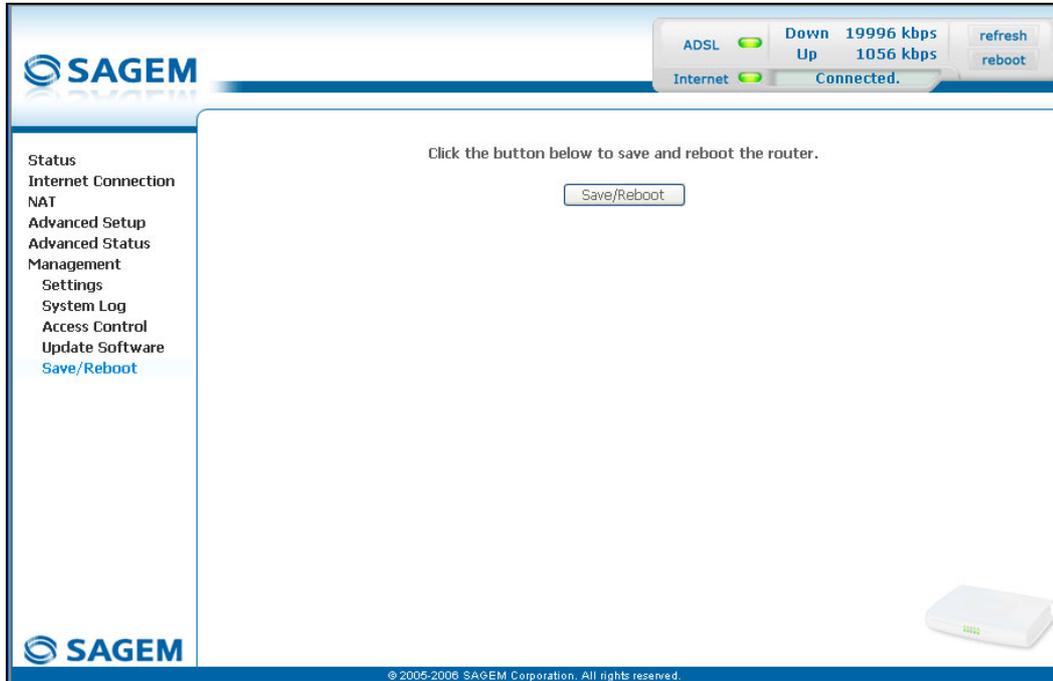
The process takes around 2 minutes.

The application of a new software version for the router does not modify the current configuration at all.

5.10.5 Save/Reboot

Object: This menu lets you save all the modifications made to the current configuration and restart the router with its new parameters.

- Select the **Save/Reboot** menu in the **Management** section to display the following screen:



Click on the **Save/Reboot** button to restart the router.



The process takes around 1 minute.

A countdown is displayed to tell the user how long is left to wait.

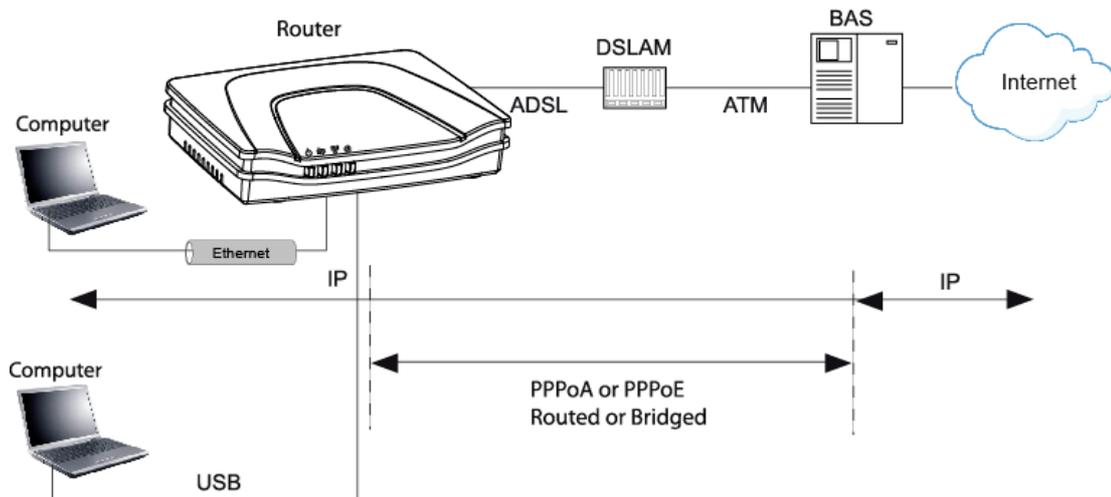
6. Internet access service

This section covers	➤ the introduction	§ 6.1
	➤ connecting to Internet access	§ 6.2

6.1 Introduction

The router has been designed to enable you to access the Internet as simply as possible. Most of the router's parameters are already set:

- It is configured by default as a DHCP server.
- It relays to the Internet DNS queries from the local network.



Using your installation CD-ROM you can quickly obtain Internet access.

The configuration parameters of your router are entered during installation (connection identifier, connection password). These parameters can also be entered or modified in the menu **Internet connection** of the HTTP configurator (PPP Username, PPP Password).

However, your computers (PC, Mac) must still be configured. To surf the Internet, your PC (or any other type of terminal) must also belong to the network. To do so it requires an address by which it can be identified. All these necessary parameters can be supplied automatically by the router if your **computers** are in **DHCP client** mode (default mode for PCs running Windows). Depending on the OS installed on your PC, it may be necessary to restart your PC (or other terminal) after configuring and restarting the router.

Observation: If the terminals are not DHCP clients, your local network then uses a static addressing plan. Check that:

- the router belongs to this addressing plan,
- the default gateway of the equipment in the local network matches the address of your router,
- the DNS addresses are correctly configured in each terminal. The router enables DNS queries to be relayed.

6.2 Connection for Internet access

When installation is complete the "SAGEM" welcome page appears.

You can now surf the Internet.

7. Updating the application

This section covers	➤ updating the application version.	P 7-2
---------------------	-------------------------------------	-------

7 - Updating the application

The router's application version is updated manually by the HTTP configurator (download of a file without extension). Refer to § 5.10.4 of section 5 (Management/Update Software).



To check that the new version has been correctly downloaded, click the command **Status/Summary** at the top left of the welcome screen of the HTTP configurator.

A. Annex A - Troubleshooting

This section covers	➤ checking the attribution of an IP address	§ A.1
	➤ Front Face LEDs	§ A.2
	➤ Supervision of your router	§ A.3
	➤ the "Diagnostics" tool	§ A.4
	➤ interpreting the lights.	§ A.5
	➤ reinitialising your router	§ A.6
	➤ resetting with the factory configuration.	§ A.7
	➤ no-connection mode.	§ A.8

A.1 Checking the attribution of an IP address

A.1.1 In Windows

In Windows 98 and Me

- Click button **Start**, select **Execute**, enter **winipcfg** and then click **OK**; the dedicated application appears.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).

In Windows XP, 2000

- Click button **Start**, select **Execute**, enter **cmd** and then click **OK**; the command prompt screen appears. Enter **ipconfig** and then confirm by pressing **Enter**.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).



If no address is displayed on the screen, enter **ipconfig /release** followed by **ipconfig /renew**.

A.1.2 On a Mac (for example MacOS X)

- Click **Apple**, in the menu bar.
- Select **System Preferences**, and then click the **Network** icon.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).



If no address is displayed on screen, click button **Apply** for the computer to send a DHCP query to the router.



All the troubleshooting procedures described below are undertaken in **Windows® XP**. These procedures in other Windows operating systems® (98, ME and 2000) can be slightly different.

To help locate the fault, the user has the following sources:

- States of Front Face LEDs,
- Data accessible by the configurator by "DSL Router" onboard HTTP of your router:
 - supervision of the router,
 - "Diagnostics" tool.

A.2 Front Face LEDs

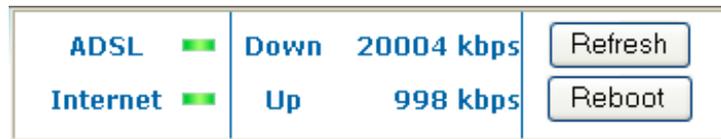


When the router is switched on, the "@" LED (Internet) lights in green and gets off then the "⏻" LED (PWR) lights in green.

Status	Colour	⏻	⏻	⏻	@
On steady	Green	Power present	Synchronised ADSL line	USB or ETH line active	Public Address available
	Red	Failure detected at the tim of starting	x	x	Unconnected line or Public Address unavailable
Blinking	Green	x	x	At LAN traffic rate	At WAN traffic rate
Blinking quickly	Green	X	ADSL synchronisation training	x	x
Blinking slowly	Green	x	Line not connected		
Off	—	Power not present	x	USB or ETH line inactive	Power not present or "Bridge" mode

A.3 Supervising your router

The supervision box is permanently displayed in a frame at the top right of each window of the configurator.



LEDs

ADSL 	<p>Green : Synchronised ADSL line.</p> <p>Red : ADSL line not connected.</p>
Internet 	<p>Green : Public IP address (WAN) distributed to the router.</p> <p>Yellow : Synchronised ADSL line.</p> <p>Red : Public IP address (WAN) not distributed to the router, or ADSL line not connected.</p>

Transmission rate

Down	Displays the nominal down line transmission rate
Up	Displays the nominal up line transmission rate

Buttons

Refresh	Allows data displayed on the screen to be refreshed.
Reboot	Allows your router to be started.

A.4 "Diagnostics" tool

To access this tool:

- open your browser and then, in the address bar, enter:
 - the following URL : <http://myrouter>,
 - or the following address : <http://192.168.1.1>.

a "Login" window appears; enter the login and password. Default:

- **admin** in the "User name" field,
- **admin** in the "Password" field.

You have access to the HTTP configurator of your router.

- select the heading "Diagnostics" in the suitable list to the left of each window; the following screen appears:

pppoa_8_36_1 Diagnostics

Your modem is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Rerun Diagnostic Tests" at the bottom of this page to make sure the fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.

Test the connection to your local network

Test your Ethernet Connection:	PASS	Help
Test your USB Connection:	DOWN	Help

Test the connection to your DSL service provider

Test ADSL Synchronization:	PASS	Help
Test ATM OAM F5 segment ping:	FAIL	Help
Test ATM OAM F5 end-to-end ping:	PASS	Help

Test the connection to your Internet service provider

Test PPP server session:	PASS	Help
Test authentication with ISP:	PASS	Help
Test the assigned IP address:	PASS	Help
Ping default gateway:	PASS	Help
Ping primary Domain Name Server:	FAIL	Help

Rerun Diagnostic Tests Test With OAM F4

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The results of the tests made by the "DSL router" configurator on your modem/router are displayed in the "Diagnostics" window. These tests concern the connections to the LAN, to your DSL Service Provider and to your Internet Service Provider (ISP).



A hypertext link (help) enables the user to access context-related help. This help gives an explanation concerning the state of the connection (**PASS** in green, **DOWN** in orange and **FAIL** in red) and supplies the appropriate troubleshooting procedures.

State of connection

State	Colour	Meaning
PASS	Green	Indicates that the test has completed successfully.
DOWN	Orange	Indicates that an interface (ETH, USB or Wi-Fi) has not been detected.
FAIL	Red	Indicates that the test has failed, or that it is impossible to start a command. Note: Depending on the nature of the test, it is possible that operation of the router or access to the Internet may not be prejudiced. For example if you do a "Ping" either to an ATM OAM F5 segment or to a DNS primary address.



If a test displays a "FAIL" state, click on "Help" and then the button "Rerun Diagnostic Tests" at the bottom of the "Help" page, to check that the test has been conclusive. If the test still displays "FAIL", you must follow the troubleshooting procedure displayed on this page.

IMPORTANT

If you experience difficulties connecting to the Internet, we recommend that you restart your router (cf.A.6) or possibly re-establish the factory configuration (cf. § A.7).

A.5 Interpreting the LEDs

A.5.1 The "ADSL" LED blinks slowly

- Check the connection of your ADSL filters. Each telephone socket of your installation which is used must be equipped with an ADSL filter.
- Check that the RJ11 type line cord delivered with your router is connected to one of your sockets. It is recommended that no telephone extension is used.
- Finally, check with your ISP on the availability of the ADSL service on your telephone line.

A.5.2 All LEDs are off

- Check that the type of power available in your premises is compatible with the mains voltage required for powering your router.
- Check that the delivered power cord is properly connected at one end to the mains power network.
- Check that the power connector is inserted correctly in the corresponding connector (power) of the router.

A.6 Reinitialising your router

To Reinitialise your router, click button "Reboot" at the top right of the welcome page of your HTTP configurator. When you click this button all the LEDs get off ; the "@" LED (Internet) lights in green and gets off then the "🔌" LED (PWR) lights in green and the initialisation process starts. It lasts for around a minute.

Note : The green "📶" (LINE) and "🌐" (LAN) LEDs light if they are connected.
The "@" LED (Internet) lights in green if "PPP" link is established.

A.7 Re-establishing the factory configuration

To undertake the procedure, there are two possibilities:

1) *Using the HTTP configurator*

- In the welcome screen of your HTTP configurator, select the heading **Management** followed by the sub-menu **Restore Default** in the **Settings menu** (cf. 5.10.1.3).

2) *Using the "REG" button*

- press the **REG** pushbutton for at least 15 seconds; all the LEDs get off; the "@" LED (Internet) lights in green and gets off then the "🔌" LED (PWR) lights in green and the process for returning to the factory configuration starts.



This operation deletes the entire personalised configuration of your router: Password, Configuration, etc. It lasts for around 2 minutes.

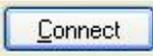


After a return to factory configuration, it is **necessary to install your router again** using the installation CD-ROM, or to enter again the ADSL connection data supplied by your Internet **S**ervice **P**rovider (ISP) (cf. Internet Connection section - § 5.6).

A.8 Offline mode

To start configuring the router in HTTP mode, the browser opens, the default IP address of the router's LAN interface appears in the browser's Address field **but the home screen does not appear**.

The screen opposite appears.

Click  .



The screen opposite appears.

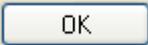
Click  .



Annex A - Troubleshooting

The screen opposite appears.

Select the Connections tabs and then the "Never dial a connection"¹.

Click  to confirm your choice.



In the menu bar, select the "File" menu then deselect the "Work Offline" command.

Click **OK** in the browser's "Address" field to display the home screen.

¹ When the router is installed, this box is checked.

B. Annex B - Warnings for safety

This section covers	➤ Warnings for safety	§ B.1
	➤ the CE conformity declaration	§ B.2

B.1 Warnings for safety

The router is in compliance with standard EN 60950 Ed December 2001.
The safety levels in the sense of this standard are as follows:

B.1.1 Safety levels in relation to the case

Connectors	Position	Safety level
LINE	ADSL port	TNV3 ¹
USB	USB interface port	SELV ²
ETH	Ethernet port	SELV ²
PWR	Primary power port	HPV ³

¹Level 3 Telecommunication Network Voltage

²Safety Extra Low Voltage Circuit

³Hazardous Primary Voltage circuit

B.2 CE compliance declaration



Products bearing this symbol are in compliance with EMC regulations and the Low Voltage Directive published by the European Community Commission (CCE)

Sagem communication declares that the SAGEM F@st™ 1201 and SAGEM F@st™ 1241 products are in compliance with the requirements of European directives 1995/5/CE and with the essential requirements of directives 89/336/CEE of 03/05/1989 and 73/23/CEE of 19/02/1973, and that they efficiently use the spectrum attributed to terrestrial or space radio communications.

The CE conformity declaration of each product (SAGEM F@st™ 1201 or SAGEM F@st™ 1241) is made in the context of the R&TTE directive.

This conformity is presumed through the complete compliance with European harmonised standards.

Sagem communication declines all liability if the regulations in force in the place of installation are not followed.

The CE conformity declaration of each product (SAGEM F@st™ 1201 or SAGEM F@st™ 1241) is present in the form of a file with pdf extension in the CD-ROM delivered with the product.

C. Annex C - Environment

This section covers	➤ directive E 2002/96/CE	§ C.1
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C.1 Directive E 2002/96/CE

ENVIRONMENT

Preservation of the environment as part of a sustainable development logic is an essential concern of **Sagem Communication**.

Sagem Communication's aim is to operate systems safeguarding the environment and consequently it has decided to integrate environmental performance considerations in the life cycle of its products, from manufacturing to commissioning, use and disposal.



THE PRODUCT

The crossed-out waste bin marked on the product or its accessories means that the product belongs to the family of electrical and electronic equipment.

In this respect, the European regulations require you to dispose of it selectively:

- At sales points on purchasing similar equipment,
- At the collection points made available to you locally (drop-off center, selective collection, etc.).

In this way, you can participate in the re-use and upgrading of **Electrical Electronic Equipment Waste**, which can have an effect on the environment and health.

D. Annex D - Technical Characteristics

This section covers	➤ mechanics and displays	§ D.1
	➤ the characteristics of the different interfaces	§ D.2
	➤ environmental characteristics	§ D.3
	➤ the application and the protocols	§ D.4

D.1 Mechanics; Display

Mechanical characteristics	
Dimensions (mm)	• Width : 140 mm
	• Depth : 95 mm
	• Thickness : 32 mm
Weight of router	: 200 gr

Display		
Marking	Abbreviation	Meaning
	PWR	• Green/Red Power LED
	ADSL	• Green ADSL LED
	LAN	• Green local network (LAN) LED
	Internet	• Green/Red Internet LED

D.2 Characteristics of the different interfaces

Ethernet LAN interface	
Transmission rate	<ul style="list-style-type: none"> • 10 Mbit/s or 100 Mbit/s, self-configurable • Half/Full Duplex
Standard	<ul style="list-style-type: none"> • 802.3 mm
Connection technology	<ul style="list-style-type: none"> • RJ45 • Type MDI or MDI-x self-detecting port • Crossed or straight cord

ADSL/ADSL2/ADSL2+ interface	
Transmission code	<ul style="list-style-type: none"> • DMT
Standards supported	<ul style="list-style-type: none"> • High-performance secure Bridge/Router with ADSL/ADSL2/ADSL2+ interface, • G.994.1 (G.Handshake)
Maximum upward transmission rate	<ul style="list-style-type: none"> • 1.3 Mbit/s
Maximum downward transmission rate	<ul style="list-style-type: none"> • 24.5 Mbit/s
Latency	<ul style="list-style-type: none"> • Simple (Fast or Interlaced)

Annex D - Technical Characteristics

USB Interface	
Transmission rate	<ul style="list-style-type: none">• 1.5 Mbit/s to 12 Mbit/s
Standard	<ul style="list-style-type: none">• USB 1.1
Data	<ul style="list-style-type: none">• Asynchronous
Transmission mode	<ul style="list-style-type: none">• bidirectional
Consumption	<ul style="list-style-type: none">• none (only a voltage detection for the high-impedance port of a computer)
Connection technology	<ul style="list-style-type: none">• USB - Type B

Input/Output supply	
Type	<ul style="list-style-type: none">• Plug-in external adapter unit
Class	<ul style="list-style-type: none">• II
Input	<ul style="list-style-type: none">• 198 to 253 VAC, 50/60 Hz, 0.4 A
Output	<ul style="list-style-type: none">• +7.5 VDC/700 mA
Mains connection technology	<ul style="list-style-type: none">• Europlug type C socket

D.3 Environmental characteristics

Climatic and mechanical environment	
Storage	<ul style="list-style-type: none">• ETS 300 019-1-1 Category T1.2
Transport	<ul style="list-style-type: none">• ETS 300 019-1-2 Category T2.3
Operation	<ul style="list-style-type: none">• ETS 300 019-1-3 Category T3.2 Temperature: +5°C/+45°C

Electrical robustness	
Standard	<ul style="list-style-type: none">• UIT-T K21 Ed 2000 : basic level

Electromagnetic compatibility	
Susceptibility/Emission	<ul style="list-style-type: none">• EN 301 489-1 Ed . 2002
	<ul style="list-style-type: none">• EN 301 489-17 Ed . 2002

Radio part for ISM band at 2.4 GHz	
Emission 802.11g/b	<ul style="list-style-type: none">• ETR 300 328-2 Ed . July 2000

D.4 Application and protocols

IP characteristics	
TCP-IP, UDP, ICMP, ARP	
DHCP Client/Server/Relay	
DNS Server/Relay	
FTP Client/Server	
TFTP Client/Server	
HTTP Client/Server	
Routing (LAN and WAN)	<ul style="list-style-type: none"> • Static
NAT/PAT	<ul style="list-style-type: none"> • 8 maps maximum

Encapsulation protocols	
PPP over ATM (PPPoA)	<ul style="list-style-type: none"> • RFC 2384
PPP over Ethernet (PPPoE)	<ul style="list-style-type: none"> • RFC 2516
Routed or Bridged	<ul style="list-style-type: none"> • RFC 2684

Configuration	
HTTP	<ul style="list-style-type: none"> • LAN or WAN port (with specific option)
Management	<ul style="list-style-type: none"> • From ETH, USB and WAN (with specific option)
Downloading of version	<ul style="list-style-type: none"> • Client by http mode

E. Annex E - Default configuration

This section covers	➤ the default username and password	§ E.1
	➤ the default configuration for the local network (LAN)	§ E.2
	➤ the default configuration for the remote network (WAN)	§ E.3



This section indicates the values of the default parameters of your router when it leaves the factory.

These default parameters can be modified by a particular preconfiguration of your router.

E.1 Default username and password

The default access level is **Administrator**. Its associated "username" and "password" are:

Username	admin
Password	admin

E.2 Default configuration for the local network(LAN)

The following table gives the values of the principal LAN parameters of your router (**ETH, USB**):

LAN characteristics	Value	State
ETH IP address	192.168.1.1	Internet and HTTP configurator access or to a TV decoder
USB IP address		Internet and HTTP configurator access
BROADCAST, ARP, MULTICAST		Activated
Router		The LAN traffic is routed to your ISP
NAT/PAT		Activated

E.3 Default configuration for the remote network (WAN)

Designation	Value
VPI	8
VCI	35
Linking protocol	PPPoA
	DNS relay
	DHCP server
ADSL/ADSL2/ADSL2+	Multimode

F. Annex F - Glossary

Glossary

ACL	Access Configuration List
ADSL	Asynchronous Digital Subscriber Line
ARP	Address Resolution Protocol
CC	Continuity Check
CCK	Complimentary Code Keying
CHAP	Challenge Handshake Authentication Protocol
CLI	Command Line Interface
CTS	Clear To Send
DBPSK	Demodulator Baseband Phase Shift Keying
DECT	Digital Enhanced Cordless Telephone
DHCP	Dynamic Host Configuration Protocol
DMT	Discrete MultiTone
DNS	Domain Name Server
DQPSK	Differential Quadrature Phase Shift Keying
DSSS	Direct Sequence Spread Spectrum
DTIM	Delivery Traffic Indication Message
DTMF	Dual Tone Multi-Frequency
ESSID	Extended Service Set Identifier
FAI	Fournisseur d'Accès à Internet
FHSS	Frequency Hopping Spread Spectrum
FTP	File Transfert Protocol
HTML	Hyper Text Markup Language
HTTP	Hyper Text Transfer Protocol
ICMP	Internet Control Message Protocol
IEEE	Institute of Electrical and Electronics Engineers
IEEE 802.11b/g	Specifications which use the MAC protocol suitable for the wireless local network (WLAN) in the 2.4 GHz band
IGMP	Internet Group Membership Protocol
IP	Internet Protocol
IPQoS	Qualité IP
ISP	Internet Service Provider
LAN	Local Area Network
LCP	Link Control Protocol
LLC	Logical Link Control (encapsulation avec en-tête)
MAC	Medium Access Control
MDI	Media Dependent Interface
MER	MAC Encapsulation Routing
MTU	Maximum Transfer Unit

NAPT	N etwork A ddress P ort T ranslation
NAT	N etwork A ddress T ranslation
OAM	O peration, A dministration and M aintenance
PA	P oint d' A ccès
PAP	P assword A uthentication P rotocol
PCI	P eripheral C omponent I nterconnect
PCM	P ulse C ode M odulation
PCMA	P ulse C ode M odulation L oi A
PCMCIA	P ersonal C omputer M emory C ard I nternational A ssociation
PCMU	P ulse C ode M odulation L oi mu
PID	P rotocol I Dentifier
PING	P acket I nter N et G roper
PLC	P aquet L oss C oncealment
POP	P oint de P résence
POTS	P lain O ld T elephone S ervice
PSTN	P ublic S witching T elephonic N etwork
PPP	P oint to P oint P rotocol
PPPoA	PPP over ATM
PPPoE	PPP over E thernet
PVC	P ermanent V irtual C ircuit
QoS	Q uality of S ervice
RADIUS	R emote A uthentication D ial-In U ser S ervice
RFC	R equest F or C omments
RGW	R esidential G ate W ay (Passerelle Résidentielle)
RNIS	R éseau N umérique I ntégration de S ervices
RIP	R outing I nformation P rotocol
RTCP	R eal T ime C ontrol P rotocol
RTP	R eal-time T ransport P rotocol
SCR	S ustained C ell R ate
SMTp	S imple M ail T ransfer P rotocol
SNDCP	S ub N etwork D ependent C onvergence P rotocol
SNAP	S ub N etwork A ttachment P oint
SNMP	S imple N etwork M anagement P rotocol
SSID	S ervice S et I Dentifier
STB	S et T op B ox
TCP	T ransmission C ontrol P rotocol
TELNET	T ELEcommunication N ETwork
TFTP	T rivial F ile T ransfer P rotocol
UBR	U nspecified B it R ate
UDP	U ser D atagram P rotocol
URL	U niformed R esource L ocator
USB	U niversal S erial B us
UTP	U nshielded T wisted P air
VAD	V oice A ctivity D etection

Annex F - Glossary

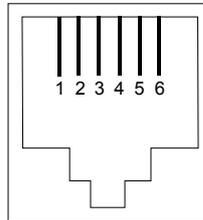
VBR-nrt	V ariable B it R ate - non real time
VBR-rt	V ariable B it R ate - real time
VC	V irtual C hannel
VCC	V irtual C hannel C onnection
VCI	V irtual C hannel I dentifier
VC MUX	VC Multiple X ing (encapsulation sans en-tête)
VP	V irtual P ath
VPI	V irtual P ath I dentifier
VPN	V irtual P rivate N etwork
WAN	W ide A rea N etwork
WEB	Meshed network of information servers
WFQ	W eighted F air Q ueuing
WLAN	W ireless L ocal A rea N etwork

G. Annex G - Connector Technology

This section covers	➤ pinouts of the " LINE " connector	§ G.1
	➤ pinouts of the " PWR " connector	§ G.2
	➤ pinouts of the " ETH " connector	§ G.3
	➤ pinouts of the " USB " Connector	§ G.4

G.1 Pinouts of the "LINE" connector

The equipment is connected to ADSL using a RJ11 fixed connector (6 contacts).



Contact N°	Signal	Meaning
3	LINE-A	Line A signal
4	LINE-B	Line B signal
1	NC	Not connected
2	NC	Not connected
5	NC	Not connected
6	NC	Not connected

G.2 Pinouts of the "PWR" connector

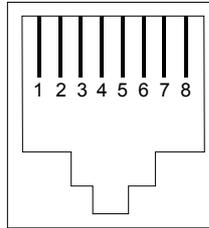
The mains unit is connected to the equipment using the miniature fixed connector of the case.



Pin	Signal	Meaning
Internal	+7.5 V	DC "+" connection
External	Earth	DC "-" connection

G.3 Pinouts of the "ETH" connector

The Ethernet interface is connected to the equipment using a RJ45 fixed connector (8 contacts).



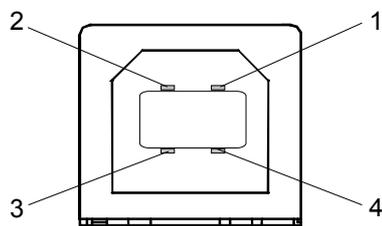
Contact N°	Signal	Meaning
1	TXD+	(+) Emission to terminal
2	TXD-	(-) Emission to terminal
3	RXD+	(+) Reception of terminal
4	NC	Not connected
5	NC	Not connected
6	RXD-	(-) Reception of terminal
7	NC	Not connected
8	NC	Not connected



The Ethernet port is self-detecting. You can use either straight or crossed cables. An emission or reception signal is detected automatically.

G.4 Pinouts of the "USB" connector

The "USB" interface is connected to the equipment using a type B female USB fixed connector.



Contact N°	Signal	Meaning
1	Vcc	PC power (+)
2	- Data	Subscriber line signal
3	+ Data	Subscriber line signal
4	Ground	Earth



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