# SAGEM F@st™ 800

# (RFC 1483)

## User Guide

**288021413-03**

November 2002 Issue

SAGEM

***SAGEM SA*** closely follows all technological changes and is continually striving to improve its products for the benefit of its customers. It therefore reserves the right to change its documentation accordingly without notice.

All the trade marks mentioned in this guide are registered by their respective owners:

- **SAGEM F@st™** is a registered trade mark of ***SAGEM SA***.
- **Windows™** and **Internet Explorer™** are registered trade marks of Microsoft Corporation,
- **Apple®** and **Mac®OS** are registered trade marks of Apple Computer Incorporation,

# Contents

# 1. Introduction

| | | |
|---|---|---|
| This chapter: | ➢ gives an overview of the SAGEM F@st™ 800 modem | § 1.1 |
| | ➢ sets out the system requirements | § 1.2 |

# Notice

Warning icon, used in this guide

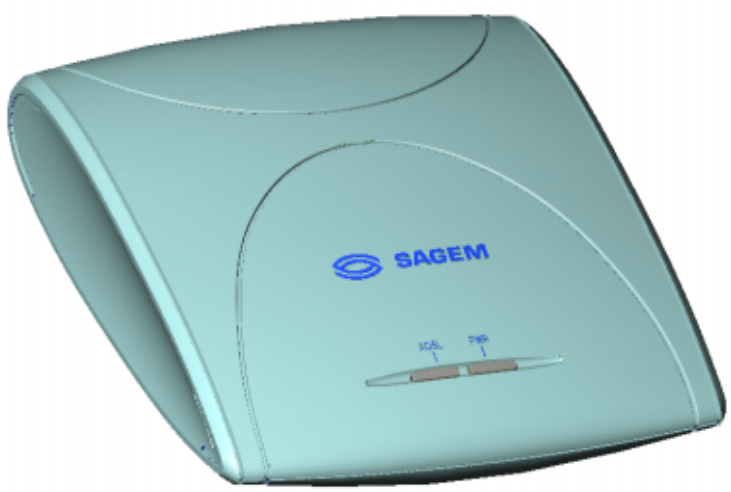
Information icon, used in this guide

**Safety instructions**

**Before making any connections**, refer to the safety instructions in **Appendix A** of this User Guide.

## 1.1 Overview




The SAGEM F@st™ 800 is an ADSL modem used to browse the Internet with ease at speeds of up to 8 Mbit/s. The modem's purpose is to transmit data between a terminal (PC or Mac) connected by a USB interface and an Internet Access Provider (IAP), via an ADSL link.

The SAGEM F@st™ 800 supports the following encapsulations:

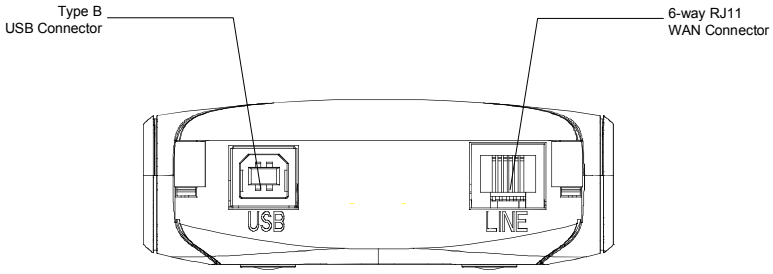
- RFC 1483 bridged in VCMUX mode,
- RFC 1483 bridged in LLC mode,
- RFC 1483 routed in VCMUX mode,
- RFC 1483 routed in LLC mode.

The modem has the advantage of being powered via the USB interface and therefore does not needs a main power unit or a power cable.

The SAGEM F@st™ 800 has the following two interfaces:

- USB interface
- Remote network interface (ADSL)

Both interface ports are at the rear of the modem casing:




There are two LEDs on the casing, the lefthand one labeled "**ADSL**" and the righthand one "**PWR**" (see Appendix A - Troubleshooting, for interpreting the LEDs).

**Contents of package**

The package in which the SAGEM F@st™ 800 is supplied contains

- One SAGEM F@st™ 800 modem
- One Type A / Type B USB cable
- One RJ11/RJ11 line cable
- One CD-ROM
- Two or three microfilters (optional).

**Note:** This is not an exhaustive list. The package may also contain safety instructions and other documents.

The CD-ROM contains:

- the Windows® and Macintosh drivers for the SAGEM F@st™ 800 modem.
- the SAGEM F@st™ 800 modem User Guide in pdf format.
- the Acrobat® Reader™ software for reading pdf files.

**Incomplete or damaged contents**

If the package you receive is incomplete or contains damaged items, contact the Internet Access Provider (IAP) supplying your SAGEM F@st™ 800 modem

## 1.2 System requirements

The SAGEM F@st™ 800 modem requires:

**Telephone line**

- Telephone line supporting ADSL transmission.
- Splitters compliant with ADSL standards (for use with a telephone or fax type analog terminal).
- Subscription to an Internet Access Provider (for connection to the Internet).

**Computer with USB port**

The minimum configuration of your computer must be:

| | |
|---|---|
| For Windows XP | Pentium II, 400 MHz, 128 Mb RAM |
| For Windows 2000 | Pentium II, 266 MHz, 64 Mb RAM |
| For Windows ME | Pentium II, 233 MHz, 64 Mb RAM |
| For Windows 98FE | Pentium II, 166 MHz, 32 Mb RAM |
| For Windows 98SE | Pentium II, 166 MHz, 32 Mb RAM |
| For MacOS 8.6 - 9.x | Power PC G3, 233 MHz, 64 Mb RAM |
| For MacOS X | Power PC G3, 233 MHz, 128 Mb RAM |

**Free space on your computer**

30 Mb

**A WEB browser**

**Internet Access Provider**

To access the Internet, the Internet Access Provider (IAP) must supply you:

- one user name
- one password

# 2. Connecting the SAGEM F@st™ 800

| | | |
|---|---|---|
| This chapter: | ➢ describes how to connect the modem | § 2.1 |
| | ➢ describes how to connect analog terminals | § 2.1.1 |

## 2.1 Connecting the modem

**CAUTION**

Do not connect your modem to your computer with the USB cable before you have installed the drivers from the CD-ROM.

Only use the "ADSL" line cable supplied with the SAGEM F@st™ 800 for the connection to the remote network.

The 3 m line cable is terminated at both ends with RJ11 connectors.

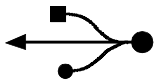
The connections must be made in the following order:

**1** Connect one end of the line cable to the telephone socket

**2** Connect the other end of the line cable to the **LINE** connector on the modem

If using an input splitter or microfilters, their outputs must also be fitted with RJ11 connectors. If not, contact your Operator for an adapter or a specific cable.

**3** Connect the "flat" connector at one end of the USB cable to one of the type A **USB** ports on the computer (or on the HUB if appropriate), marked with the following symbol:



**4** Connect the "square" connector at the other end of the USB cable to the **USB** connector on the rear panel of the modem, when prompted by the driver installation software.

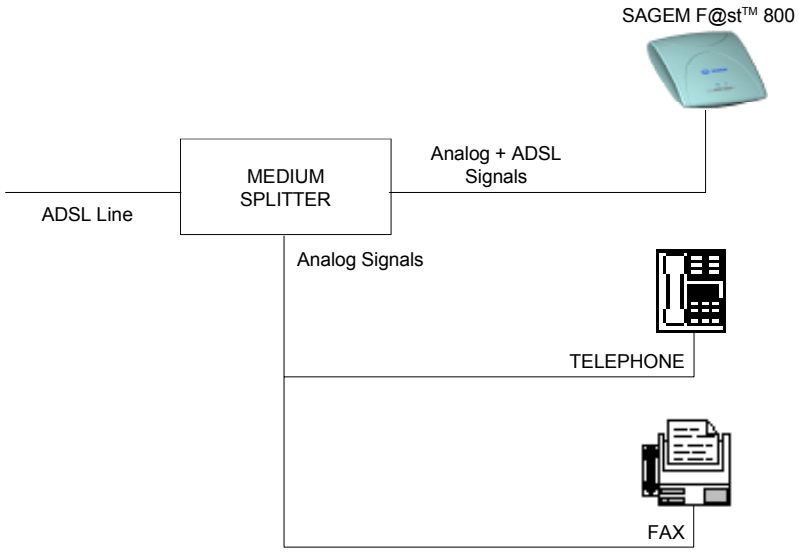
## 2.1.1 Connecting analog terminals

Splitters are required when using the SAGEM F@st™ 800 and analog terminals on the same telephone line.

There are two types of configuration that use different splitters.

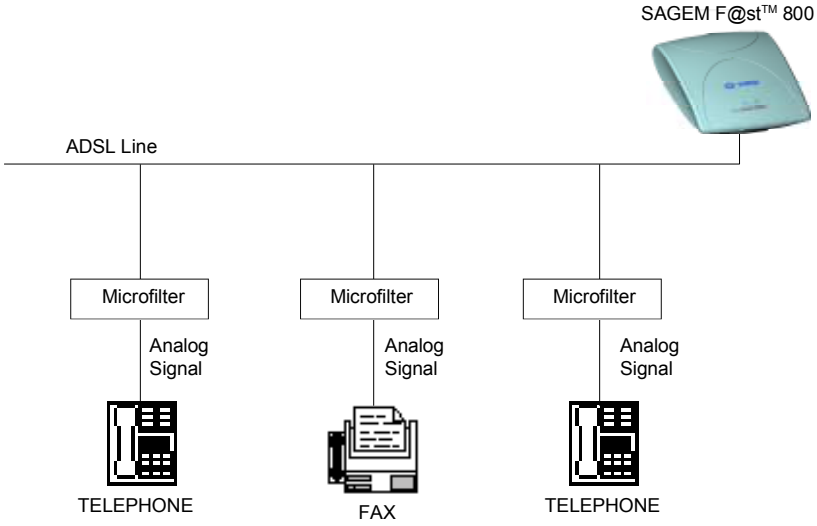
In most cases, your Operator will provide you with the information you need to choose between the two options.

### Configuration with input splitter




Your Operator will tell you how many analog terminals can be connected.

### Configuration with distributed splitters (microfilters)




The configuration with microfilters requires one microfilter for each analog terminal.

Your Operator will tell you how many analog terminals can be connected.

# 3. Installation in Microsoft Windows®

| | | |
|---|---|---|
| This chapter: | ➢ describes how to install the SAGEM F@st™ 800 | § 3.1 |
| | ➢ describes how to Connect/Disconnect to/from the Internet | § 3.2 |
| | ➢ describes the status information for the SAGEM F@st™ 800 | § 3.3 |
| | ➢ describes how to uninstall the SAGEM F@st™ 800 | § 3.4 |

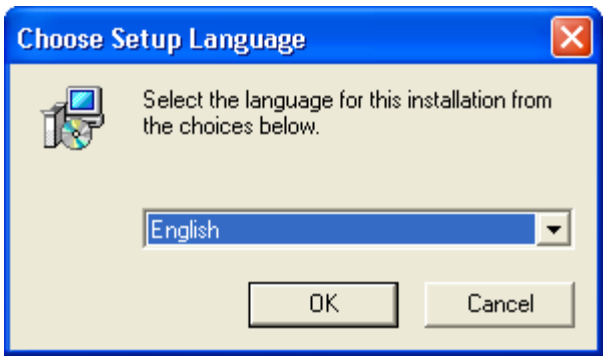
The procedures for **installing**, **checking** installation and **uninstalling** described below have been carried out arbitrarily using **Windows® XP**. There may be slight differences when installing in other Windows® operating systems (98FE, 98SE, ME and 2000).

## 3.1 Installing the SAGEM F@st™ 800

**1** Insert the CD-ROM in the appropriate drive on your computer; the screen opposite appears.
Click "**Install the modem**".

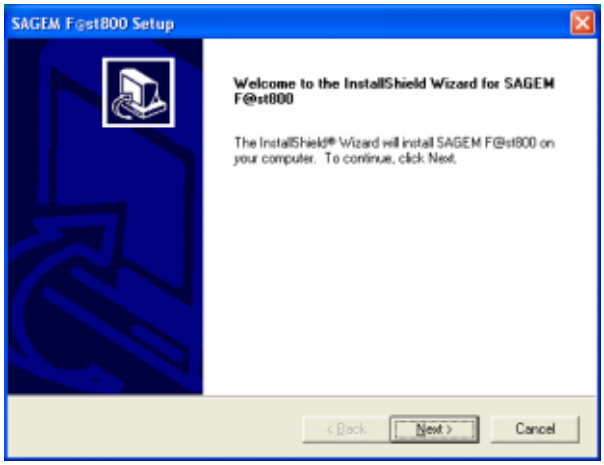

**Note:** If this screen does not appear, from the **Start** menu, select **Run**, and then enter: "<CD-ROM drive letter> :**autorun.exe** (for example e:\autorun.exe)
then click **OK**.

**2** The following screen appears.
From the proposed list, select your preferred language and then click **OK**

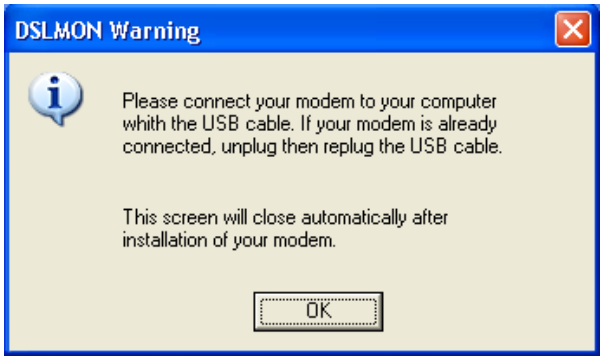


**3** The following screen appears.
Click **Next** to continue



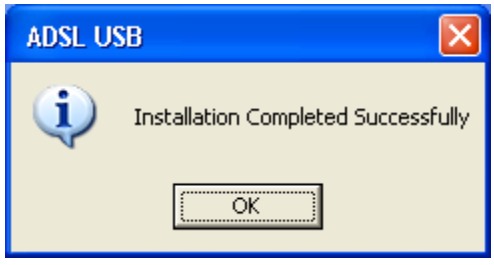

**4** After the files have been copied to the hard disk in your computer, the following screen appears.
**Connect the USB cable** to the SAGEM F@st™ 800 modem via the **USB** connector on the rear panel.




**5** Windows® then proceeds to install the various software components. Please wait until an end-of-installation message appears or until Windows® prompts you to restart your computer.

**Note:** After connecting the modem, **in Windows® 98 FE or SE,** the operating system may ask for the Windows® installation CD-ROM. If so, insert this CD-ROM to continue installation.

**6** When **installation** is **finished**, the following screen appears; click **OK**




**Note:** Depending on the configuration of the PC and of the installed operating system, Windows® may also prompt you to restart your computer. This restart operation is necessary for your modem to operate correctly.

**7** You can now **check the installation** of your modem by following the instructions in section **3.3.1.**

**Uninstallation**

The **Uninstallation** procedure is described in section **3.4**.

## 3.2 Connecting / Disconnecting to / from the Internet

### 3.2.1 Connecting to the Internet

To connect to the Internet, you must configure your computer.

The Internet connection procedure differs according to the way your modem operates (routed RFC 1483 or bridged RFC 1483). This information will be given to you by your Internet Service Provider (ISP).

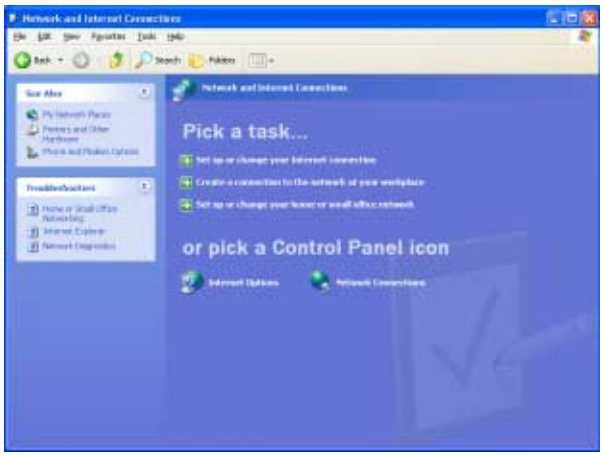
> Your computer's configuration may differ slightly according to the operating system installed (Windows® XP, Windows® 2000, Windows® ME, Windows® 98FE or Windows® 98SE). These differences mainly concern the wording of the menus and commands and the way the windows appear.

In **Windows® XP**, for example, proceed as follows:

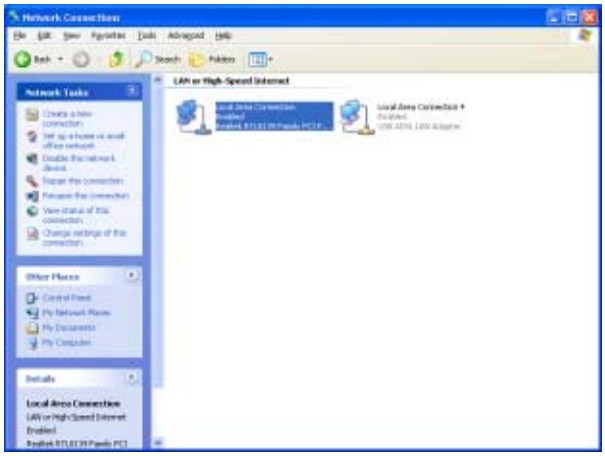
#### 3.2.1.1 In routed RFC 1483 mode (LLC or VCMUX)

> The procedure described below is for configuring the IP and DNS parameters and making the Internet connection permanent. This procedure will be required just once.
>
> For subsequent connections, you will simply need to open your browser and connect to the Internet.

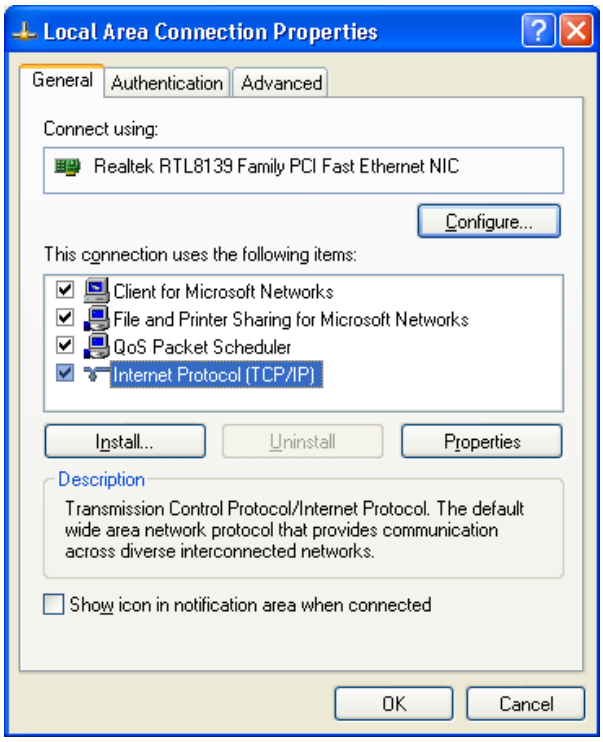
**1** Select **Start**, **Control panel**, **Network and Internet Connections**, and the following screen appears.
Click **Network connections**.



**2** The connection screen appears. Right click on the **Local Area Connection x** icon (representing the **USB ADSL LAN Adapter** network device) and select **Properties**.

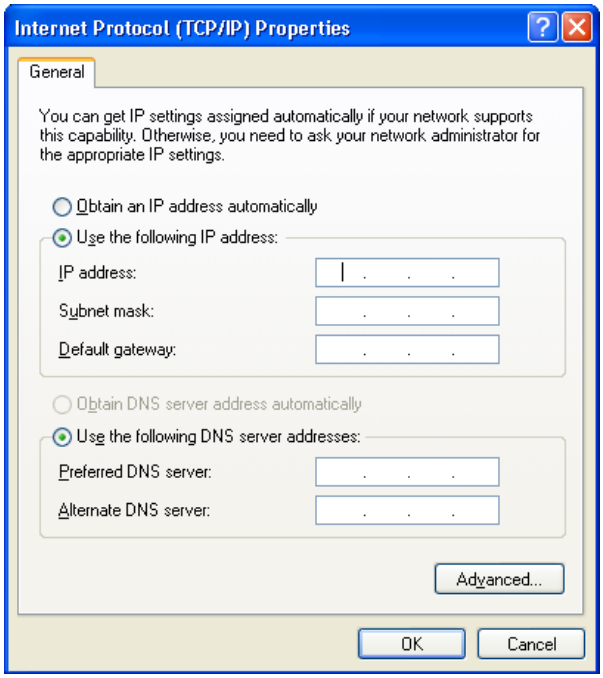


**3** The following screen appears. Select **Internet Protocol (TCP/IP)** then click **Properties**.



**4** The following screen appears.
Select the **Use the following IP address: box.**
Select the **Use the following DNS server addresses: box.**




This window is for **configuring the IP and DNS parameters of your computer, as supplied by** your operator or your **Internet Service Provider (ISP)**. These parameters are as follows:

- Your computer's IP address,
- Subnetwork mask,
- The default gateway's IP address,
- The preferred DNS server's address,
- The alternate DNS server's address (optional).

**5** When the parameters have been entered, click **OK**.
You can now open your browser and access the Internet.

### 3.2.1.2 In bridged RFC 1483 mode (LLC or VCMUX)

**If your modem is operating in bridged RFC 1483 mode** (LLC or VCMUX), you **must use a PPPoE connection program** (not supplied with the product) to connect to the Internet.

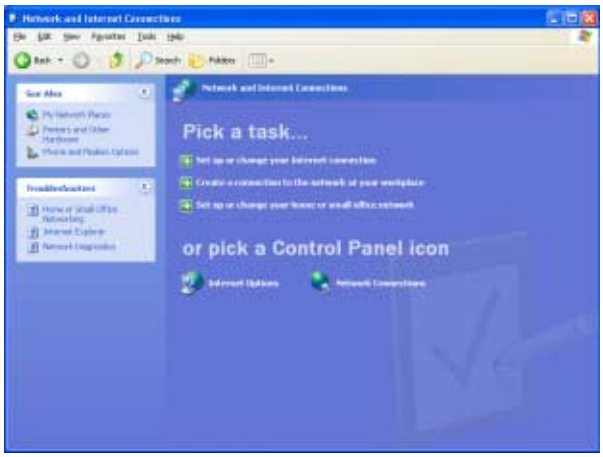
Only Windows® XP includes a native PPPoE communication stack. For the other versions of Windows®, you should contact your Internet Service Provider (ISP) or install on your computer one of the solutions available on the market (Enternet 300 or RasPPPoE, for example).

The Windows® XP **PPPoE layer** is used to connect to the Internet.

The procedure is in two stages:

- Configuring Internet access (steps **1** to **9**),
- Connection proper (steps **10** and **12**).

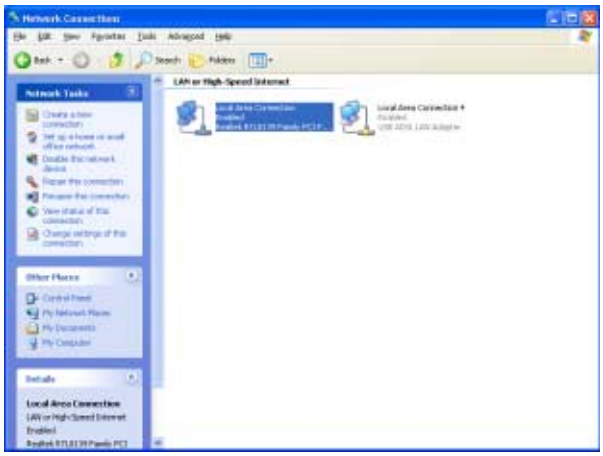
**1** Select **Start**, **Control panel**, **Network and Internet Connections**, and the following screen appears.
Click **Network connections**.




**2** The connection screen appears.

Click "**Create a new connection**" in the "**Networks Tasks**" area,

or select **File** / **New connection** in the menu bar.



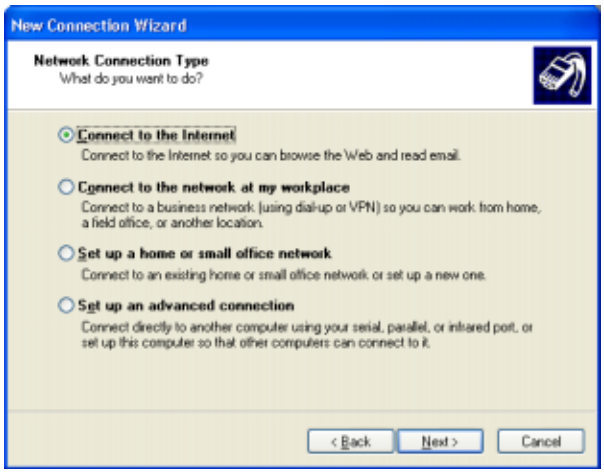
 

**3** The welcome screen appears.

Click **Next**.

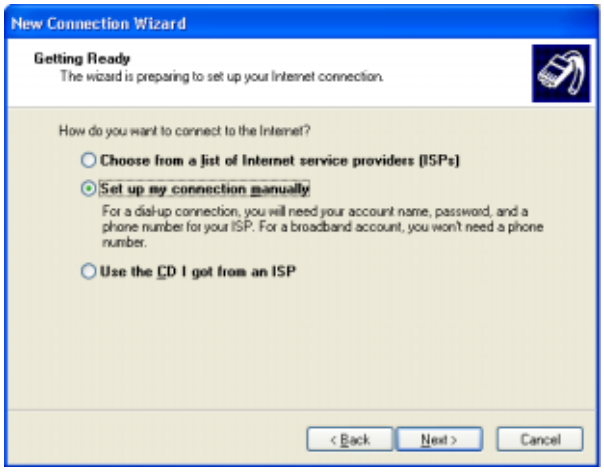

**4** The following screen appears.
Select "**Connect to the Internet**".

Then click **Next**.



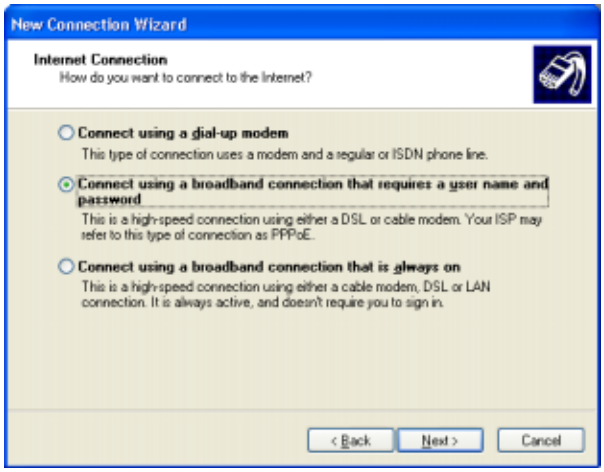

**5** The following screen appears.
Select "**Set up my connection manually**".

Then click **Next**.



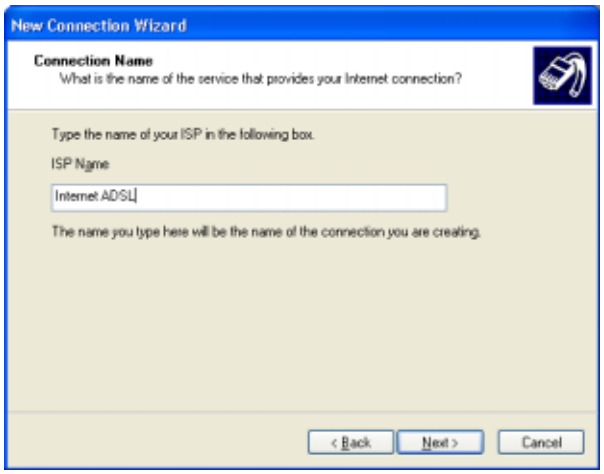
**6** The following screen appears.
Select "**Connect using a bradband connection that requires a user name and password**".

Then click **Next**.




**7** The following screen appears.
Enter a connection name (**Internet ADSL** for example).

Then click **Next**.




**8** The following screen appears.
Enter your "**User name**".
Enter your "**Password**" and confirm.

**Note:** This data will be given to you by your Internet Service Provider (ISP).

Then click **Next**.

**9** The following screen appears.
Check the box if you want to create an **Internet ADSL** shortcut on your desktop.

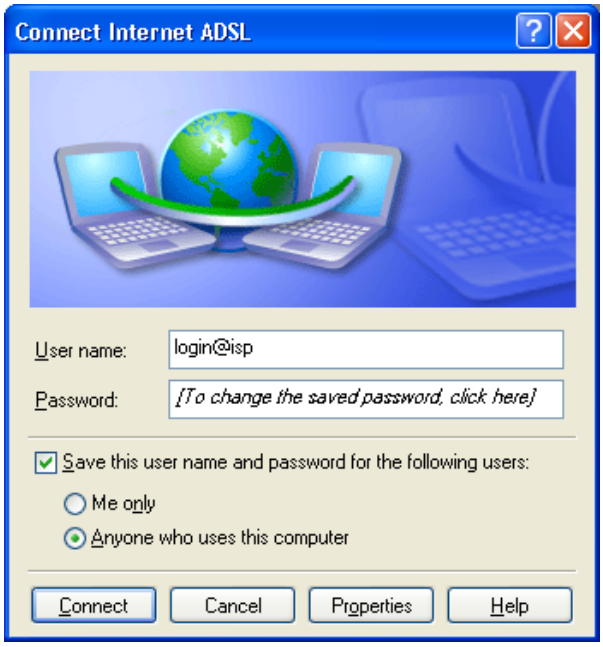
Then click **Finish**.


When connecting for the first time, you must follow the procedure described above. For subsequent connections, you will simply need to follow steps **10** to **12** below to set up your Internet connection.

**10** The following screen appears.

Then click Connect .




**11**

If you checked the appropriate box, the 

icon will have been created on the desktop.

**12** Open your browser and access the Internet.

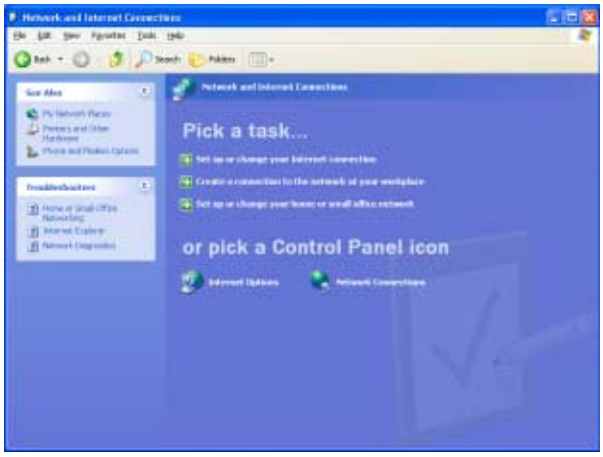
## 3.2.2 Disconnecting from the Internet

In **Windows® XP**, for example, proceed as follows:

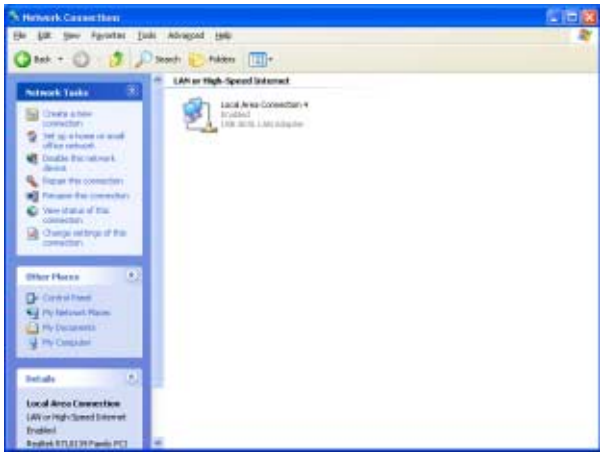
### 3.2.2.1 In routed RFC 1483 mode (LLC or VCMUX)

In routed RFC 1483 mode, your Internet connection is permanent. You do not need to disconnect. You can, however, disconnect by proceeding as follows:

**1** Select **Start**, **Control panel**, **Network and Internet Connections** and the following screen appears.
Click **Network Connections**.

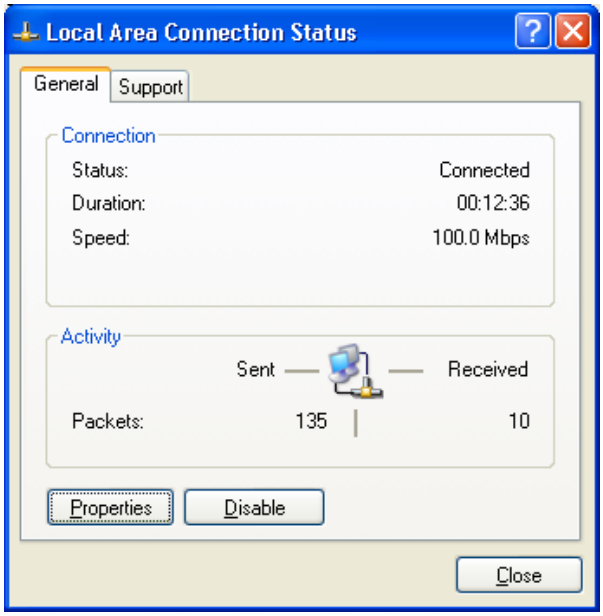



**2** The connection screen appears.
Right click on the **Local Area Connection x** icon (representing the **USB ADSL LAN Adapter** network device) and select **Disable**.



Or select **Statut**; the following screen appears.

Click the Disable button.



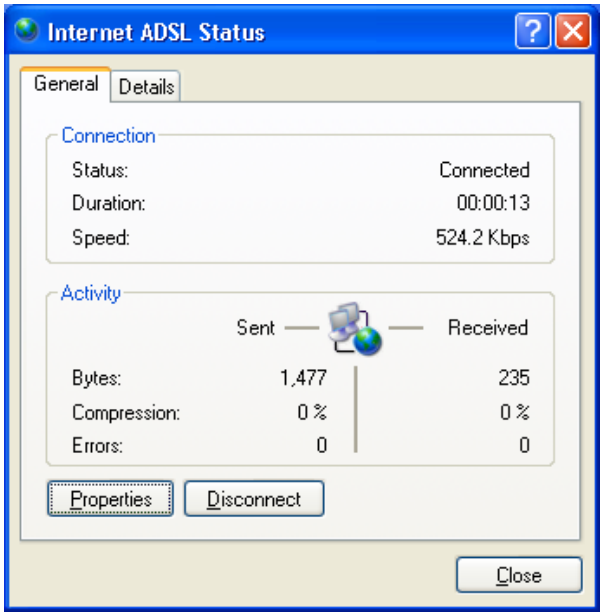

### 3.2.2.2 In bridged RFC mode (LLC or VCMUX)

Select **Start**, **Connections** / **Internet ADSL**

or double click the Internet ADSL icon if you created it on the desktop.

The following screen appears.

Click the Disconnect button.



## 3.3 Status information for the SAGEM F@st™ 800 modem

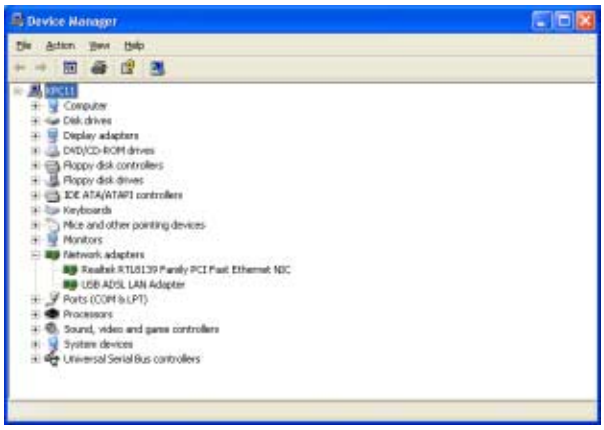
### 3.3.1 Checking installation of the SAGEM F@st™ 800

**1** From the **Start** menu, select **Control Panel**, and then double-click System; the **System Properties** window appears.

**2** Select the **Hardware** tab, and then click the **Device Manager...** button in the **Device Manager** area..

**3** The **Device Manager** screen appears.
Click the **PLUS (+)** symbol beside the "Network adapters" folder to reveal the list of installed network adapters.

**4** Check that the **USB ADSL LAN Adapter** is present.



## 3.3.2 "Diagnostics" tools

This application lets you monitor the status of the ADSL line.

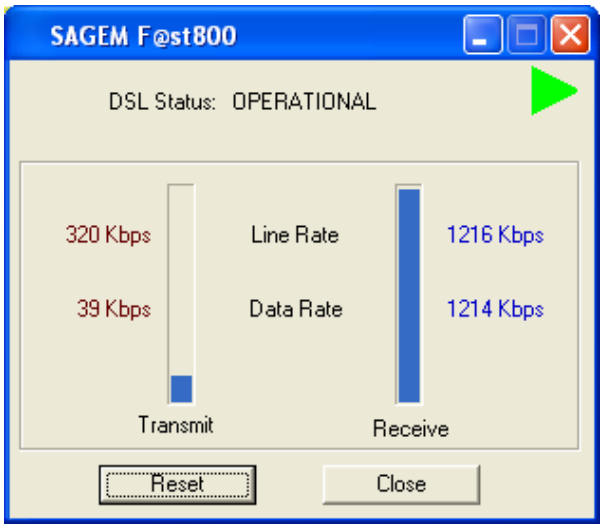
1 **After** having installed the modem and **connected** it **to the PC** using its USB cable, the diagnostics icon shown opposite (framed) appears toward the right end of the task bar at the bottom of your desktop.
Double-click the **Diagnostics** icon.


**Note:** If the **Diagnostics** icon does not appear in the task bar, from the **Start** menu select: **Programs** / **SAGEM F@st™ 800** / **Diagnostics**.

This tool is run automatically when Windows® is started.

The **color** of the icon indicates the current **status** of the modem (see section 3.3.3)

2 The following **SAGEM F@st800** diagnostics screen appears.



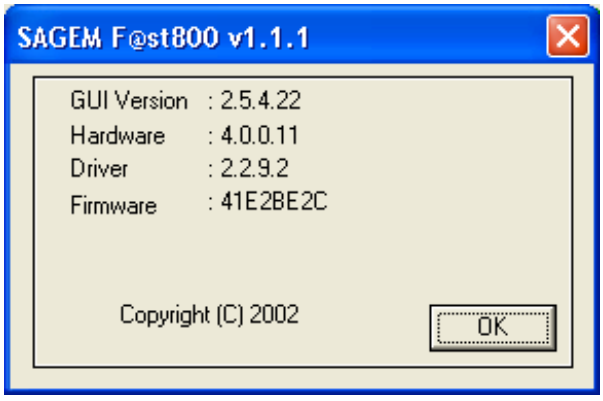

 

The meanings of the various fields are explained in the table below.

| Field | Description | |
|---|---|---|
| **DSL status** | | |
| | **Not detected** | The computer has not detected the presence of the modem on one of its dedicated USB ports |
| | **Non synchronized** | ADSL link not synchronized. A connection to the Internet cannot be set up |
| | **Synchronizing** | The computer has detected the presence of the modem on one of its dedicated USB ports and ADSL synchronization is in progress |
| | **Operational** | ADSL link synchronized. A connection to the Internet can be set up |
| **Line Rate**<br>**Transmit**<br>**Data Rate** | Upstream or outgoing rate (data sent to the Internet) negotiated by the ADSL link (in kbit/s)<br><br>User's instantaneous transmit rate (in kbit/s) | |
| **Line Rate**<br>**Receive**<br>**Data Rate** | Downstream or incoming rate (data received from the Internet) negotiated by the ADSL link (in kbit/s)<br><br>User's instantaneous receive rate (in kbit/s) | |

## Version information

Using the right mouse button, click the diagnostics icon or the title bar of the diagnostics screen, and then select "About...". The information screen opposite appears.




| | |
|---|---|
| **SAGEM F@st800 vx.y.z** | Product version (v1.1.1 for example) |

| Field | Description |
|---|---|
| **GUI Version** | Displays the diagnostics application version |
| **Hardware** | Displays the chipset version |
| **Driver** | Displays the modem driver version |
| **Firmware** | Displays the version of the code in the modem |

### 3.3.3 "Diagnostics" icon

This icon appears automatically when Windows® is started, toward the right in the task bar at the bottom of your desktop


The table below summarizes the modem status information as indicated by the different diagnostic icons:

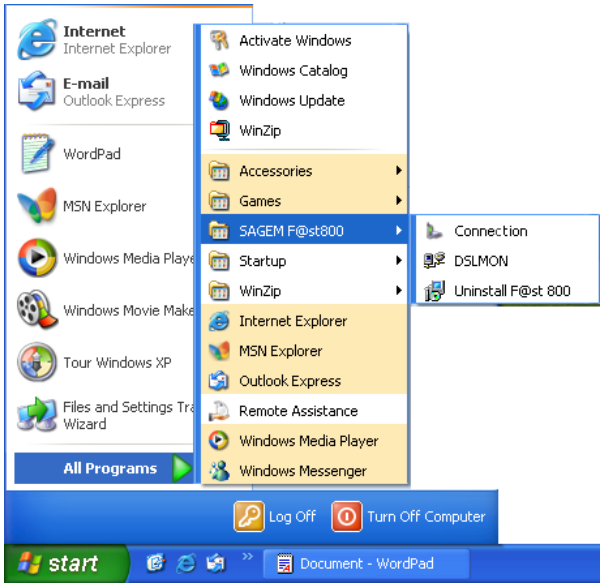
| Icon | Meaning (Modem status) |
|---|---|
|  | **Not detected** |
|  | **Not synchronized** |
|  | **Synchronizing** |
|  | **Operational** |

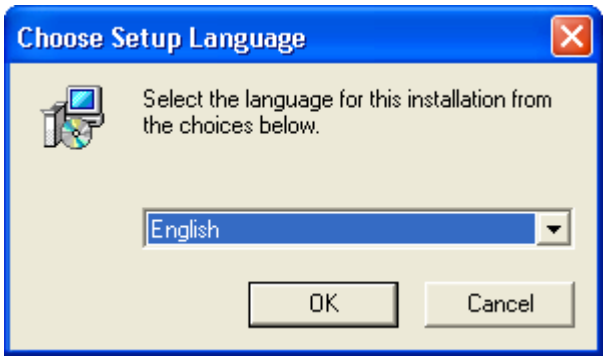
## 3.4 Uninstalling the SAGEM F@st™ 800

**1** Using the left mouse button, click the **Start** menu in the task bar.

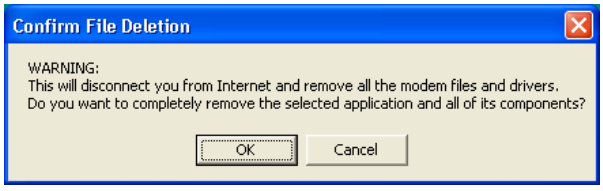
Select **All programs** (**Programs** in Windows® **98FE**, **98SE**, **ME** and **2000**), **SAGEM F@st800,** then **Uninstall F@st800**



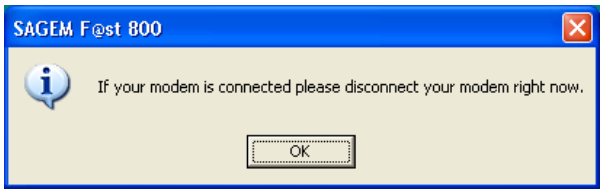

**2** The following screen appears. From the proposed list, select your preferred language and then click **OK**




**3** The following screen appears. Click **OK**




**4** The following screen appears. Disconnect your modem if necessary and then click **OK**. **Uninstallation** is **finished**.



# 4. Installation in Mac OS 8.6 or Mac OS 9.x

| | | |
|---|---|---|
| This chapter: | ➢ describes how to install the SAGEM F@st™ 800 | § 4.1 |
| | ➢ describes how to Connect to the Internet | § 4.2 |
| | ➢ describes the status information for the SAGEM F@st™ 800 | § 4.3 |
| | ➢ describes how to uninstall the SAGEM F@st™ 800 | § 4.4 |

**Note:** The SAGEM F@st™ 800 can be installed in the following operation systems:

- **MacOS 8.6**,
- **MacOS 9.x**,
- **MacOS X (10.1 and 10.2)**.

This chapter covers installation in the **MacOS 8.6** or **MacOS 9.x** operation systems only.

The procedures for **installing**, **Connecting** / **Disconnecting**, **checking** installation and **uninstalling** described below have been carried out arbitrarily in **MacOS 9.2**.

## 4.1 Installing the SAGEM F@st™ 800

**1** Insert the CD-ROM in the appropriate drive on your computer; an icon appears in the desktop.

Double-click this icon to show the content of the CD-ROM.

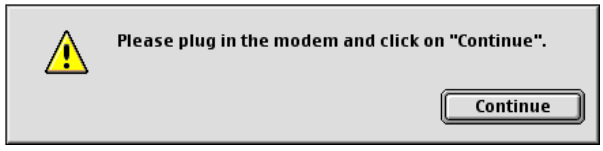
**2** Double-click in the **Mac OS 8.6 - 9.x** directory, and then double-click the file **install** to run the installing program.

**3** The following installation screen appears.

Click Install


**4** The icon opposite appears.
**Connect the USB cable** to the SAGEM F@st™ 800 modem via the **USB** connector on the rear panel.

Click Continue



**5** The **installation** is **finished**. The screen proposing that your computer is restarted appears.

Click 

.

**6** A triangular icon indicating the modem status is created in the control strip.

**7** At the end of the installation process, the diagnostics tool icon is created on the desktop


**8** You can now **check the installation** of your modem by following the instructions in section **4.3.1.**

**Uninstallation**

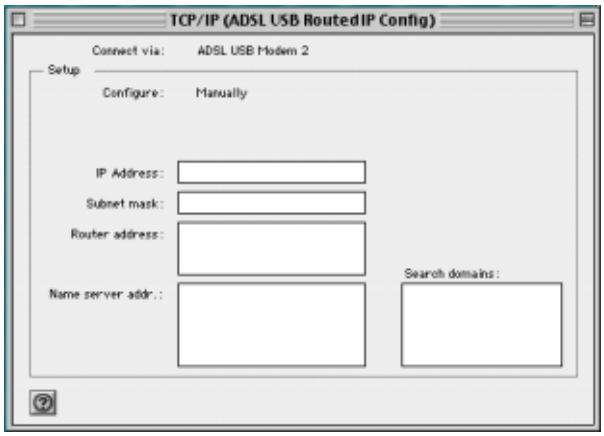
The **Uninstallation** procedure is described in section **4.4**.

## 4.2 Connecting to the Internet

The Internet connection procedure differs according to the way your modem operates (routed RFC 1483 or bridged RFC 1483). You can check this via the "Configuration" tab of the diagnostics application (see section 4.3.2.3).

### 4.2.1 In routed RFC 1483 mode (LLC or VCMUX)

**1** In the menu bar, select **Apple** / **Control Panels** / **TCP/IP**; the following screen appears.




**Note:** The "Connect via:" and "Configure:" fields should respectively contain **ADSL USB Modem xxx** and **Manually**.

If not, to modify these fields that are greyed out (not modifiable), proceed as follows:

- In the menu bar, select **Apple** / **Control Panels** / **Modem**; a window appears and the menu bar is modified.
- In the new menu bar, select **File** / **Configuration** and a window appears.
- In the drop-down list, select "**By default**" then click the "**Select**" button.

This window is for **configuring the IP and DNS parameters of your computer supplied by** your **Internet Service Provider (ISP)**. These parameters are as follows:

- Your computer's IP address,
- The subnetwork mask,
- The router's IP address (default gateway),
- The preferred DNS server's address,
- The alternate DNS server's address (optional).

**2** When entered, a window appears prompting you to save your input. Click **Save** to register these parameters and save them on your computer.

**3** You can now open your browser and access the Internet.

### 4.2.2 In bridged RFC 1483 mode (LLC or VCMUX)

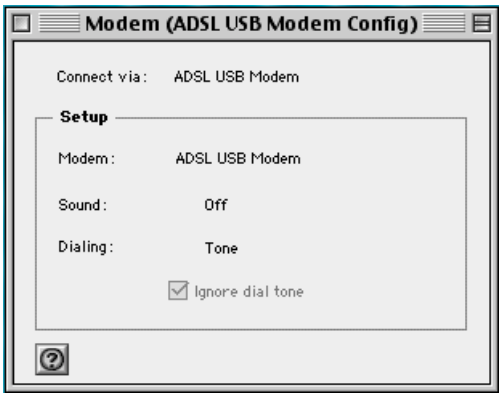
To connect to the Internet, you must first install a PPPoE connection program.

This software is not supplied with the product; please **contact** your **Internet Service Provider (ISP)**.

## 4.3 Status information for the SAGEM F@st™ 800 modem

### 4.3.1 Checking installation of the SAGEM F@st™ 800

**1** In the menu bar, select **Apple** / **Control Panels** / **Modem**, and the following screen appears.




The "Connection via" field should contain:
**ADSL USB Modem**
In the Setup area, the "Modem" field should contain the name of your modem:
**ADSL USB Modem**

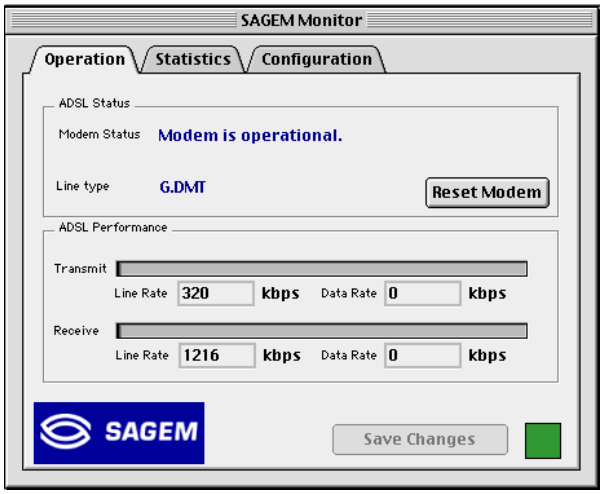
## 4.3.2 "Diagnostics" tools

This application lets you monitor the status of the ADSL line and configure the SAGEM F@st™ 800 modem. This application is present on all Operation Systems listed at § 1.2 - System requirements.

**1** **After** having installed the modem and **connected** it **to the Macintosh** using its USB cable, the diagnostics icon appears on your desktop.


Double-click the diagnostics tool icon,
or
Click the triangular icon in the control strip.

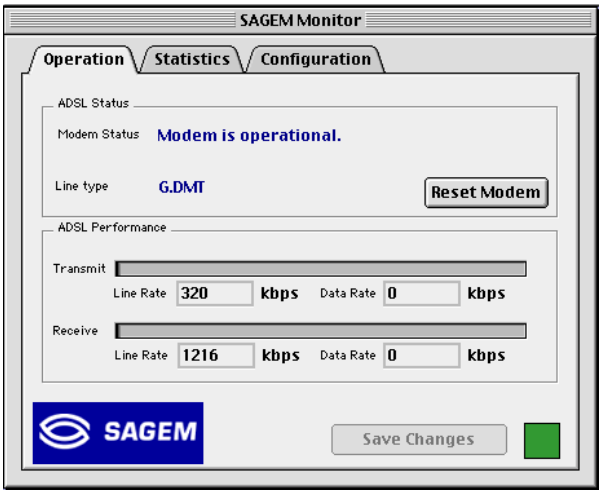
**2** The diagnostics screen appears.
This screen has three tabs:
Operation
Statistics
Configuration.




In each of the tabbed screens, the bottom right corner has a square icon, the background color of which indicates the **status** of the modem (see section **Erreur! Source du renvoi introuvable.**).

In each of the tabbed screens, toward the bottom center, there is a Save Changes button. When you make the change, this button becomes "active". Click this button to register the changes; a window prompting you to restart appears. Click OK, then restart your computer.

### 4.3.2.1 "Operation" screen




#### "ADSL status" area

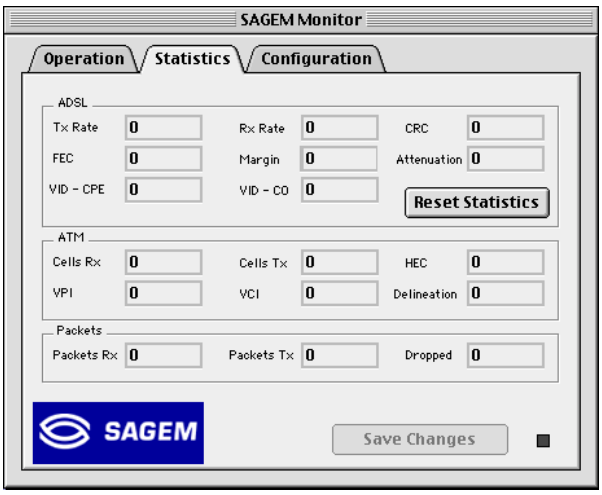
| Field | Description | |
|---|---|---|
| **Modem status** | | |
| | **Modem is unplugged from USB** | The computer has not detected the presence of the modem on one of its dedicated USB ports |
| | **The modem is waiting for the driver to respond** | ADSL link not synchronized. A connection to the Internet cannot be set up |
| | **ADSL synchronization in progress** | The computer has detected the presence of the modem on one of its dedicated USB ports and ADSL synchronization is in progress |
| | **The modem is operational** | ADSL link synchronized. A connection to the Internet can be set up |
| **Line type** | G.DMT<br>G.LITE<br>ANSI T1.413 | |
| Reset Modem | Click this button to reset the modem. | |

## "ADSL performance" area

| Field | Description |
|---|---|
| **Line Rate**<br>**Transmit**<br>**Data Rate** | Upstream or outgoing rate (data sent to the Internet) negotiated by the ADSL link (in kbit/s)<br><br>User's instantaneous transmit rate (in kbit/s) |
| **Line Rate**<br>**Receive**<br>**Data Rate** | Downstream or incoming rate (data coming from the Internet) negotiated by the ADSL link (in kbit/s)<br><br>User's instantaneous receive rate (in kbit/s) |

### 4.3.2.2 "Statistics" screen




#### "ADSL" area

| Field | Description |
|---|---|
| **Tx Rate** | Indicates the upstream or outgoing rate (data sent to the Internet) negotiated by the ADSL link (in kbit/s) |
| **FEC** | Indicates the number of FEC errors since the connection was set up |
| **VID - CPE** | Indicates the VID (identifier) of the ADSL equipment at the network operator end (ATU-C) |
| **Rx Rate** | Indicates the downstream or incoming rate (data coming from the Internet) negotiated by the ADSL link (in kbit/s) |
| **Margin** | Indicates the current margin (in dB) |
| **VID - CO** | Indicates the VID of the ADSL equipment at the subscriber end (ATU-R) |
| **CRC** | Indicates the number of CRC errors since the start of transmission |
| **Attenuation** | Indicates the current attenuation (in dB) |
| Reset Statistics | This button updates all these counter statistics |

#### "ATM" area

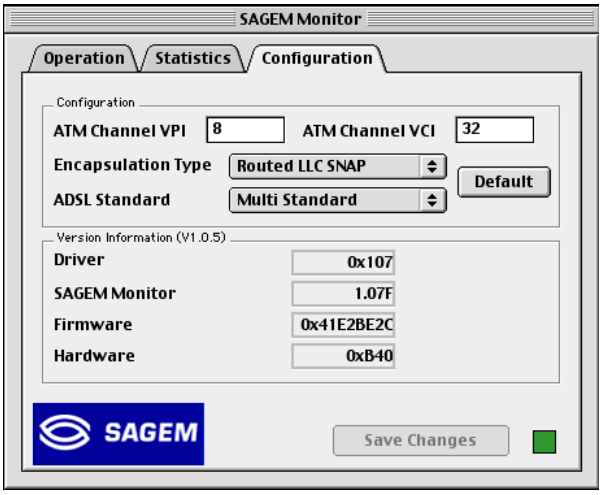
| Field | Description |
|---|---|
| **Cells Rx** | Indicates the number of cells received since the connection was set up |
| **VPI** | Indicates the VPI used in the ATM cell header |
| **Cells Tx** | Indicates the number of cells transmitted since the connection was set up |
| **VCI** | Indicates the VCI used in the ATM cell header |
| **HEC** | Indicates the number of HEC errors since the connection was set up |
| **Delineation** | Indicates the ATM Delineation status (good or bad) |

### "Packets" area

| Field | Description |
|---|---|
| **Packets Rx** | Indicates the number of AAL5 packets received since the connection was set up |
| **Packets Tx** | Indicates the number of AAL5 packets transmitted since the connection was set up |
| **Lost** | Indicates the number of AAL5 lost since the connection was set up |

## 4.3.2.3 "Configuration" screen




### "Configuration" area

| Field | Description |
|---|---|
| **ATM Channel VTI** | Displays the value **8 by default**. This field can be used to enter a VPI value between 0 and 255 |
| **ATM Channel VCI** | Displays the value **35 by default**. This field can be used to enter a VCI value between 0 and 65535 |
| **Encapsulation Type** | **PPPoA LLC** |
| | **PPPoA VCMUX** **(Default value)** |
| | **PPPoE LLC** |
| | **PPPoE VCMUX** |
| **ADSL Standard** | **ANSI TI.413** |
| | **G.DMT** |
| | **G.LITE** |
| | **Multi Standard** **(Default value)** |

### "Version information" area

| | |
|---|---|
| **Version Information (Vx.y.z)** | Product version (V1.0.7, for example) |

| Field | Description |
|---|---|
| **Driver** | Displays the modem driver version |
| **SAGEM Monitor** | Displays the diagnostics application version |
| **Firmware** | Displays the version of the code in the modem |
| **Hardware** | Displays the chipset version |

## 4.3.3 Icon indicating the modem status

This icon is present on all Operation Systems listed at § 1.2 - System requirements.

The table below summarizes the modem status information as indicated by the background color of the icon.

| Icon on "SAGEM Monitor" screen | Icon in the control strip | Meaning (Modem status) |
|---|---|---|
|  |  | **Modem is unplugged from USB** |
|  |  | **The modem is waiting for the driver to respond** |
|  |  | **ADSL synchronization in progress** |
|  |  | **The modem is operational** |

## 4.4 Uninstalling the SAGEM F@st™ 800

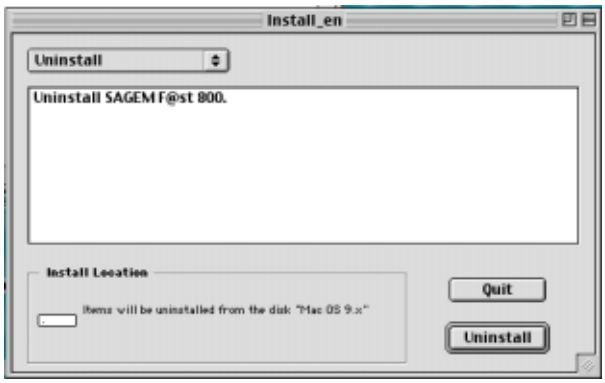
**1** Insert the CD-ROM in the appropriate drive on your computer ; an icon appears in the desktop.

Double-click this icon to show the content of the CD-ROM.

**2** Double-click in the **Mac OS 8.6 - 9.x** directory, and then double-click the file **install** to run the Install / Uninstall program.

**3** The following screen appears.

**At top left**, select **Uninstall** from the list Uninstall,
and then **at bottom right** click Uninstall .

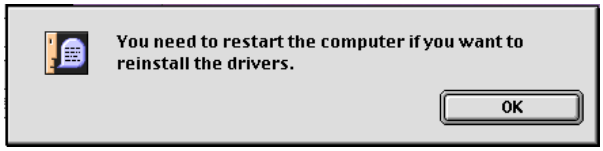



**4** The following screen appears.

Click Continue .


**5** When the software has been uninstalled, you are prompted to restart your computer.

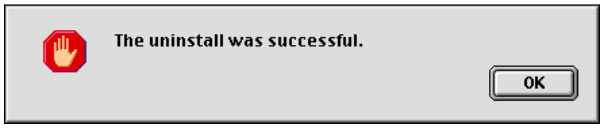
Click OK.




**6** Uninstallation was successful.

Click OK .

You can now restart your computer.



# 5. Installation in Mac OS X

| | | |
|---|---|---|
| This chapter: | ➢ describes how to install the SAGEM F@st™ 800 | § 5.1 |
| | ➢ describes how to connect to the Internet | § 5.2 |
| | ➢ describes how to disconnect from the Internet | § 5.3 |
| | ➢ describes the "Diagnostics" tools | § 5.4 |
| | ➢ describes how to uninstall the SAGEM F@st™ 800 | § 5.5 |

**Note:** The SAGEM F@st™ 800 can be installed in the following operating systems:

- **MacOS 8.6**,
- **MacOS 9.x**,
- **MacOS X (10.1 and 10.2)**.

This chapter covers installation in the **MacOS X** (**10.1** or **10.2**) operating system only.

The procedures for **installing**, **Connecting/Disconnecting**, **checking** installation and **uninstalling** described below have been carried out arbitrarily in **MacOS 10.2**. The minor differences between this and **MacOS 10.1** will be pointed out in comments.

## 5.1 Installing the SAGEM F@st™ 800

**1** Insert the CD-ROM in the appropriate drive on your computer; an icon appears in the desktop.

Double-click this icon to show the content of the CD-ROM.

**2** Double-click in the **Mac OS X** directory, and then double-click the **install** file to run the installation program.

**3** The installation screen opposite appears.
Enter your name and "User" password or a phrase and click OK .


**Note:** You must have "**Administrator**" rights to install the modem.

**4** The screen opposite appears.

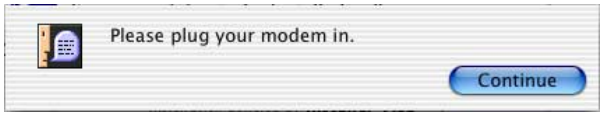
Click Install to continue installation

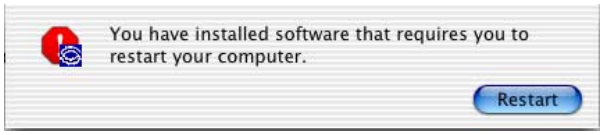
**5** The installation software then displays a message indicating that a restart of your computer is necessary to install the modem.

Click Continue to start installation.


**6** When the files have been copied to the hard disk, the screen opposite appears.
**Connect the USB cable** to the SAGEM F@st™ 800 modem using the rear connector marked **USB**, and then click Continue.




**7** The **installation** is **finished**. The screen prompting you to restart your computer appears.
Click Restart.




**8** At the end of the installation process, the diagnostics tool icon is created on the desktop


### Uninstallation

The **Uninstallation** procedure is described in section **5.5**.

## 5.2 Connecting to the Internet

To connect to the Internet, you must configure your computer.

The Internet connection procedure differs according to the way your modem operates (routed RFC 1483 or bridged RFC 1483). This information will be given to you by your Internet Service Provider (ISP).

### 5.2.1 In routed RFC 1483 mode (LLC or VCMUX)

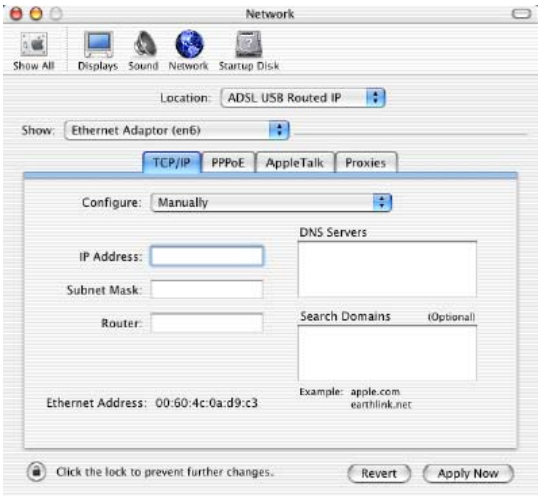
The procedure described below is for configuring the IP and DNS parameters and for making the Internet connection permanent. This procedure is required only once.

For subsequent connections, you will simply open your browser and connect to the Internet.

**1** Click the (Apple) menu in the menu bar, select "**System Preferences**", and click the "**Network**" icon.
The screen opposite appears.
The **Location :** field should contain **ADSL USB Routed IP**

The **Show :** field should contain "**Ethernet Adaptator (en x)**", in which "x" is a number assigned by the operating system.

Select the **TCP/IP** tab.
In the corresponding panel, the **Configure :** field should contain **Manually**




This tab is for **configuring the IP and DNS parameters of your computer, as supplied by** your **Internet Service Provider (ISP)**. These parameters are as follows:

- Your computer's IP address,
- The subnetwork mask,
- The router's IP address (default gateway),
- The preferred DNS server's address,
- The alternate DNS server's address (optional).

**2** When these parameters have been entered, a window appears prompting you to save your input. Click Apply Now to register these parameters and save them on your computer.

**3** You can now open your browser and access the Internet.

## 5.2.2 In bridged RFC 1483 mode (LLC or VCMUX)

The **PPPoE** mode is **native** to **Mac OS X**.

To connect to the Internet, you must **configure** the **PPPoE** tab.

This procedure is in two phases:

- Configuring access to the Internet (steps **1** to **6**),
- Connecting to the Internet proper (steps **7** and **8**).

**1** Click the (Apple) menu in the menu bar, select "**System Preferences**", and click the "**Network**" icon.
The screen opposite appears.

The **Location:** field must dispay **ADSL USB Bridged Ehernet**


**2** Select the **PPPoE** tab; the appropriate panel appears.

**3** In the **Name** field, enter your "User name"

**4** Enter your "Password"

**Note:** Your "Account name" and "Password" are delivered to you by your Internet Service Provider (ISP).

**5** If you wish,

Check the "Save password" box for subsequent users,

Check the "show PPPoE status in menu bar" box (advisable).

**6** Click Apply Now for your entries to take effect.

When connecting for the first time, you must follow the procedure above. For subsequent connections, simply set up the Internet connection by following steps **7** and **8** below.

**7** On the desktop, double-click the icon representing your Mac OS X hard disk. Open the **Applications** folder, and double-click the Internet Connect icon:


The screen opposite appears.


Check that the information in the "Configuration", "Name" and "Password" fields is correct.

Click Connect to set up the connection.

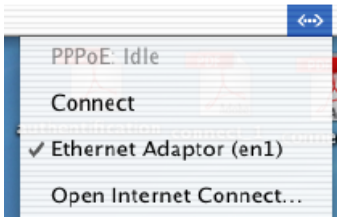
**Note:** If the connection is not set up, an incorrect name or password may be the cause. In this case, click Edit... to correct the error.

**8** Open your browser and access the Internet.

If you have checked the "Show PPPoE status in menu bar" box (see step 5), you can also do the following:

Click the connection icon in the menu bar.

Select **Connect**.



## 5.3 Disconnecting from the Internet

### 5.3.1 In routed RFC 1483 mode (LLC or VCMUX)

The connection is permanent, so there is no need for you to disconnect.

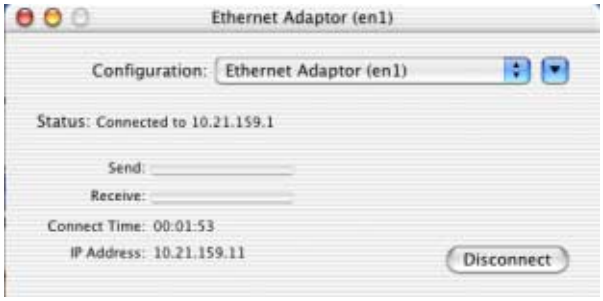
## 5.3.2 In bridged RFC 1483 mode (LLC or VCMUX)

**1** On the desktop, double-click the icon representing your Mac OS X hard disk. Open the **Applications** folder and then double-click the Internet Connect icon:



The screen opposite appears.

Click the Disconnect button to disconnect the modem

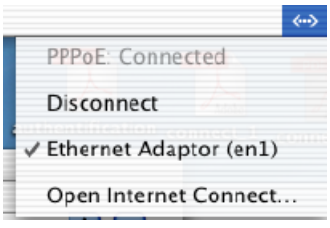



**Note:** To show that the procedure has been successful, this screen should show the "**Idle**" status and the **Connect** button.

If you have checked the "Show PPPoE status in menu bar" box (see step 5), you can also do the following:

Click the connect icon in the menu bar.

Select **Disconnect**



## 5.4 "Diagnostics" tools

This application lets you monitor the status of the ADSL line and configure the SAGEM F@st™ 800. This application is present on all the operating systems listed in section 1.2 - System requirements.

The "**ADSL Monitor**" diagnostic tool was added to the "Application" directory on your hard disk when the modem drivers were installed. You can access it directly by double-clicking the "ADSL Monitor" shortcut created on your desktop.


The functionalities of this tool are the same as described in **section 4.3.2** for MacOS 8.6 and MacOS 9.x.

## 5.5 Uninstalling the SAGEM F@st™ 800

**1** Insert the CD-ROM in the appropriate drive on your computer; an icon appears in the desktop.

Double-click this icon to show the content of the CD-ROM.

**2** Double-click in the **Mac OS X** directory, and then double-click the **install** file to run the Install / Uninstall program.

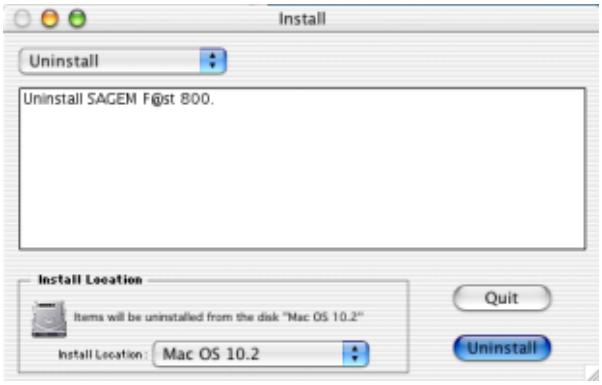
**3** The Authenticate screen opposite appears.

Enter your name and "User" password or a phrase and then click OK.


**Note:** You must have "**Administrator**" rights to uninstall the modem.

**4** The screen opposite appears.

**At top left**, select Uninstall from the list Uninstall.
Then **at bottom right**, click Uninstall.

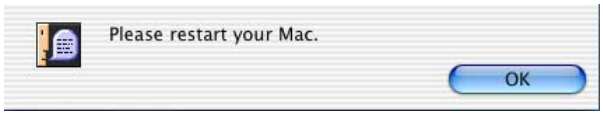



**5** This screen tells you that any applications you are running will be automatically closed on uninstalling.

Click Continue.

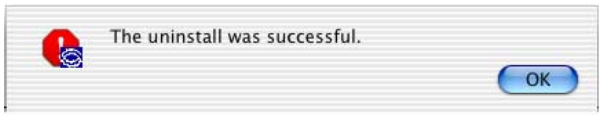

 

**6** When the software has been uninstalled, you are prompted to restart your computer.




Click OK.

**7** Uninstallation is complete.
Click OK




You can now restart your computer.

# A. Appendix A - SAGEM F@st™ 800 troubleshooting

This appendix is intended to help the user resolve the various fault conditions that may be encountered when installing or using the SAGEM F@st 800. The LEDs on the front of the modem are provided for this purpose.

# A.1 Front panel LEDs

The front panel of the SAGEM F@st 800 modem has two supervision LEDs:

| **Marking** | **ADSL** | **PWR** |
|---|---|---|
| **Assignment** | Presence of WAN access | Presence of power + USB |
| **Color** | Green | Green |
| **Continuously on** | ADSL connection set up | SAGEM F@st 800 powered up |
| **Off** | ADSL connection not set up | SAGEM F@st 800 not powered up or not detected on the USB bus of your computer (see section A.1.2) |
| **Flashing** | ADSL connection being set up (see section A.1.1) | – |

## A.1.1 "ADSL" LED blinking

This indicates that the SAGEM F@st™ 800 is attempting to connect to the remote connection DSLAM. The indicator remains in this state while the modem is not connected to an active ADSL line.

ADSL connection takes less than a minute after connection to the ADSL line.

➢ If, after the connection time, the LED is still flashing:
- Check that the SAGEM F@st™ 800 is connected correctly to the ADSL line (either directly or via a splitter or microfilter).
- Check that the miniature RJ11 connector pins are not dirty or damaged.
- Check with your Internet Access Provider (IAP) that ADSL mode is definitely activated on the telephone line that you want to use.
- Disconnect and then reconnect the USB cable.
- Restart your computer (PC or Mac).
- Check with your Internet Access Provider (IAP) that the ADSL link provided on this line is compliant with one of the three transmission standards supported by the SAGEM F@st™ 800:

  - ANSI T1.413 Issue 2,

  - G.992.1 (G.dmt),

  - G.992.2 (G.lite).

## A.1.2 "ADSL" and "PWR" LEDs off

- Check that the USB cable is connected correctly to your computer (or to a HUB).
- Check that the drivers are correctly installed (refer to the modem status in Windows® (see section 3.3) or in Mac (see section 4.3)).

**Note:** If your computer is connected to a HUB, disconnect all connected devices to isolate your modem.

If no further clue emerges enabling you to solve the problem:

- Reinstall the modem in Windows® (see section 3.1) or in Mac (see section 4.1).

## A.1.3 "ADSL" LED off and "PWR" LED on

- Check that the line cable is connected correctly to your modem and to the telephone line.
- Check with your Internet Access Provider (IAP) that the ADSL service is definitely enabled on your telephone line.

## A.1.4 "ADSL" LED on steady and "PWR" LED on

The modem is synchronized but the PPP link with your Internet Access Provider (IAP) is not set up. Check:

- that the PPP "user name" and "password" are those given to you by your Internet Access Provider (IAP).
- that the VPI/VCI parameters and encapsulation mode are similar to those of your Internet Access Provider (IAP) (see Appendix D - default configuration). If not, contact your Internet Access Provider (IAP).

# B. Appendix B

# Safety instructions

## B.1 Safety instructions

**READ THE FOLLOWING INSTRUCTIONS CAREFULLY**

**Environment**

- The SAGEM F@st™ 800 must be installed and used inside a building (for desktop use).
- The ambient temperature must not exceed 45°C.
- The SAGEM F@st™ 800 must not be exposed to strong sunlight or to a strong heat source.
- The SAGEM F@st™ 800 must not be placed in an environment subject to significant steam condensation.
- The SAGEM F@st™ 800 must not be exposed to water splashes.
- The SAGEM F@st™ 800 must not be covered.

**Maintenance**

- Do not open the casing. This action is reserved only for qualified personnel and only when approved by your operator.
- Cleaning: Do not use liquid or aerosol-based cleaning agents.

**Power source**

The modem is powered via the USB port on your PC. Check that the USB cable supplied with the hardware is not damaged (cable and plugs).

**Safety levels**

| | |
|---|---|
| USB port | SELV[1] |
| LINE port | TNV-3[2] |

CE

Products bearing this symbol are compliant with EMC regulations and with the Low Voltage Directive published by the Commission of the European Communities (CEC).

**CE declaration of conformity**

***SAGEM SA*** declares that the *SAGEM F@st™ 800* product is compliant with the requirements of European directives 1995/5/CE and with the main requirements of directives 89/336/CEE dated 03/05/1989 and 73/23/CEE dated 19/02/1973.

The CE declaration of conformity for the *SAGEM F@st™ 800* is made in the context of the R&TTE directive.

[1] **S**afety **E**xtra **L**ow **V**oltage circuit
[2] **T**elecommunication **N**etwork **V**oltage level **3** circuit

# C. Appendix C

# Technical Specifications

# C.1 Equipment specifications

## Mechanical

| | | |
|---|---|---|
| Dimensions | Width | 85 mm |
| | Depth | 105 mm |
| | Thickness | 32 mm |
| Weight | 90 g | |

## USB interface

| | |
|---|---|
| Bit rate | < 12 Mbit/s |
| Standard | USB 1.1 |
| Data | Asynchronous |
| Transmission mode | Bidirectional |
| Power consumption | < 2.5 W |
| Connector | USB - Type B socket |

## ADSL interface

| | |
|---|---|
| Transmission code | DMT |
| Standards supported | T1.413 Issue 2 |
| | G.992.1 (G.DMT) |
| | G.992.2 (G.Lite) |
| | G.Handshake (Multimode) |
| Maximum upstream rate | 896 kbit/s |
| Maximum downstream rate | 8160 kbit/s |
| Latency | Simple latency (fast or Interleaved) |

## Environmental specifications

Storage

| | |
|---|---|
| Standard | ETS 300 019-1-1, class T1.2 |
| Temperature | -25°C to +55°C |
| Relative humidity | 10 to 100% |

Transport

| | |
|---|---|
| Standard | ETS 300 019-1-2, class T2.3 |
| Temperature | -40°C to +70°C |
| Relative humidity | 10 to 100% |

Operation

| | |
|---|---|
| Standard | ETS 300 019-1-3, class T3.2 |
| Temperature | -5°C to +45°C |
| Relative humidity | 5 to 85% |
| Pressure | 84 hPa to 106 hPa (880 to 1060 mbar) |
| Solar radiation | 700 W/m² |

## Mechanical environment

| | |
|---|---|
| Standard | ETS 300 019-1 |
| Storage | Class T1.2 |
| Transport | Class T2.3 |
| Operation | Class T3.2 |

## Physical/chemical environment

| | |
|---|---|
| Standard | ETS 300 019-1 |
| Storage | Class T1.2 |
| Transport | Class T2.3 |
| Operation | Class T3.2 |

## C.2 Software specifications

### ATM

| | |
|---|---|
| Signaling | PVC |
| Adaptation layer | AAL5 |
| Number of VCs | 1 |
| OAM management | OAM F4 and F5 |
| Quality of service | UBR |

### Encapsulation protocols

| | |
|---|---|
| RFC 1483 Routed | VCMUX or LLC |
| RFC 1483 Bridged | VCMUX or LLC |

## C.3 PC and Mac compatibility

### PC

Windows® 98 FE

Windows® 98 SE

Windows® 2000

Windows® Millénium

Windows® XP

### Mac

OS 8.6

OS 9.04, OS 9.1, OS 9.2

OS X (10.1 & 10.2)

# D. Appendix D

# Glossary

# Glossary

| | |
|---|---|
| **AAL5** | ATM Adaptation Layer type 5 |
| **ADSL** | Asymmetric Digital Subscriber Line. Telephone line with asymmetric rates (upstream rate: 32 to 896 kbit/s; downstream rate: 32 to 8160 kbit/s) |
| **ARP** | Address Resolution Protocol. Protocol used to determine an IP address from a Ethernet address |
| **ATM** | Asynchronous Transfer Mode |
| **ATU-C** | ADSL Termination Unit Central office end. This refers to ADSL equipment at the switching center end (of the network operator) |
| **ATU-R** | ADSL Termination Unit Remote terminal end. This refers to ADSL equipment (modem + splitter) installed at the subscriber's premises |
| **CO** | Central Office |
| **CPE** | Customer Premises Equipment (Terminal) |
| **CRC** | Cyclic Redundancy Check: Error detection method |
| **DMT** | Discrete Multi Tone: Transmission method using 256 carriers |
| **DSLAM** | Digital Subscriber Line Access Multiplexer |
| **FEC** | Forward Error Correction |
| **HEC** | ATM cell Header Error Control |
| **ID** | IDentifier |
| **LAN** | Local Area Network |
| **LLC** | Logical Link Control (Encapsulation without header) |
| **MAC** | Medium Address Control |
| **OAM** | Operation, Administration and Maintenance |
| **PPP** | Point to Point Protocol |
| **PPPoA** | PPP over ATM |
| **PPPoE** | PPP over Ethernet |
| **RARP** | Reverse Address Resolution Protocol. Protocol used to determine the physical address of a machine from its IP address |
| **RFC** | Request For Comments |
| **RJ11** | Standard 6-way miniature connector |
| **RJ45** | Standard 8-way miniature connector |
| **UBR** | Unspecified Bit Rate. Widely used service class |
| **USB** | Universal Serial Bus. This Bus supports a nominal bit rate of up to 12 Mbit/s |
| **VC** | Virtual Channel |

| | |
|---|---|
| **VCI** | Virtual Channel Identifier |
| **VCMUX** | Encapsulation (without header) |
| **VID** | Vendor ID |
| **VP** | Virtual Path |
| **VPI** | Virtual Path Identifier |
| **WAN** | Wide Area Network |

**SAGEM SA Networks and Telecommunications Division**

Le Ponant de Paris - 27, rue Leblanc - 75512 PARIS CEDEX 15 - FRANCE
Tel. : +33 1 40 70 63 63 - Fax : +33 1 40 70 66 44
http : /www.sagem.com