

Advanced Configuration Guide

Vodafone Mobile Broadband Hotspot Vodafone MiFi 2352



Table of Contents

1. Getting Started 5 1.1 Vodafone Mobile Broadband Hotspot Overview 6 1.2 Power sources for the Vodafone Mobile Broadband Hotspot 7 1.3 Install SIM Card and Battery 8 1.4 Battery Tips 8 1.5 LED States 10 1.6 Initial Connection and Setup Overview 1.7 WLAN Mode Setup 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Insert the microSDHC card 26 Share your files 26
1.1 Vodafone Mobile Broadband Hotspot Overview. 6 1.2 Power sources for the Vodafone Mobile Broadband Hotspot. 7 1.3 Install SIM Card and Battery. 8 1.4 Battery Tips. 8 1.5 LED States 10 1.6 Initial Connection and Setup — Overview. 11 1.7 WLAN Mode Setup. 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.2 Power sources for the Vodafone Mobile Broadband Hotspot 7 1.3 Install SIM Card and Battery 8 1.4 Battery Tips 8 1.5 LED States 10 1.6 Initial Connection and Setup — Overview 11 1.7 WLAN Mode Setup 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.3 Install SIM Card and Battery
1.4 Battery Tips 8 1.5 LED States 10 1.6 Initial Connection and Setup — Overview 11 1.7 WLAN Mode Setup. 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing. 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.5 LED States 10 1.6 Initial Connection and Setup — Overview 11 1.7 WLAN Mode Setup. 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing. 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.6 Initial Connection and Setup — Overview 11 1.7 WLAN Mode Setup. 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing. 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing. 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.7 WLAN Mode Setup. 12 Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Set Up a WLAN Connection 12 Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Connect to the Vodafone Mobile Broadband Hotspot: 12 Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Change the Administrative Password 14 Establish a Secure Profile 16 1.8 USB Mode Setup 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Establish a Secure Profile 16 1.8 USB Mode Setup 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
1.8 USB Mode Setup. 19 System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
System Requirements 19 Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Windows Installation and Connection 19 Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
Mac Installation and Connection 21 2. Using the Vodafone Mobile Broadband Hotspot and File Sharing 22 2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
2. Using the Vodafone Mobile Broadband Hotspot and File Sharing. 22 2.1 Connect in WLAN Mode. 23 2.2 Setting Up a Temporary Hotspot. 24 2.3 Using microSDHC Cards and File Sharing. 26 Insert the microSDHC card 26 Access your files. 26 Share your files with other users 28
2.1 Connect in WLAN Mode 23 2.2 Setting Up a Temporary Hotspot 24 2.3 Using microSDHC Cards and File Sharing 26 Insert the microSDHC card 26 Access your files 26 Share your files with other users 28
2.2 Setting Up a Temporary Hotspot
2.3 Using microSDHC Cards and File Sharing
Insert the microSDHC card
Access your files
Share your files with other users
2.4 Connect in USB Modem Mode
Windows:
Mac:
Mac Vodafone Mobile Broadband software - Main View
3 Vodafone Mobile Broadband Hotspot's Browser Interface 32
3 1 Interface Basics
Open the Browser Interface 34
The Menu Bar
Vodafone Mobile Broadband Hotspot Settings Page 36
3 2 WI AN Settings
Opening the WLAN menu
WLAN Menu
Status (WLAN Menu)
Profiles (WLAN Menu)
3.3 Setting Up a Temporary Hotspot
MAC Address Filtering (WLAN Menu)
Settings (WLAN Menu)
3.4 Internet Settings
Opening the menu
Internet Menu49

Status (Internet Menu) Profiles (Internet Menu) SIM PIN Management (Internet Menu) Diagnostics (Internet Menu) Settings (Internet Menu)	49 52 54 55 57
3.5 Router Menu	58 58
Port Filtering (Router Menu)	
Port Forwarding (Router Menu)	61
TCP/IP (Router Menu)	62
Settings (Router Menu)	63
3.6 System Menu	64
Opening the menu	64
Status (System Menu)	64
Backup (System Menu)	67
File Sharing (System Menu)	68
Power Management (System Menu)	69
Password (System Menu) Settings (System Menu)	70 70
4. Troubleshooting	72
4.1 Overview	73
4.2 Common Problems and Solutions	74
4.3 Using the Master Reset Button	78
5. Glossary	79

Welcome

This Advanced Configuration Guide outlines the steps necessary to install and configure your Vodafone Mobile Broadband Hotspot and how to use the browser interface.

This guide is separated into 5 chapters:

- Getting Started
- Using the Vodafone Mobile Broadband Hotspot and File Sharing
- The Vodafone Mobile Broadband Hotspot Browser Interface
- Troubleshooting
- Glossary

Please save this Advanced Configuration Guide to your computer's hard drive for future reference.

Patents and licenses

Licensed by QUALCOMM Incorporated under one or more of the following Patents: 4,901,307 5,490,165 5,056,109 5,504,773 5,101,501 5,506,865 5,109,390 5,511,073 5,228,054 5,535,239 5,267,261 5,544,196 5,267,262 5,568,483 5,337,338 5,600,754 5,414,796 5,657,420 5,416,797 5,659,569 5,710,784 5,778,338

© Vodafone Group 2009, VODAFONE, the Vodafone logos and Vodafone Mobile Connect are trade marks of the Vodafone Group. MiFi and the Novatel Wireless logo are trademarks of Novatel Wireless, Inc. Microsoft and Windows are either registered trade marks or trade marks of Microsoft Corporation in the United States and/or other countries. Other product and company names mentioned herein may be the trade marks of their respective owners.

1. Getting Started

- Vodafone Mobile Broadband Hotspot Overview
- Install SIM Card and Battery
- LED States
- Initial Connection and Setup Overview
- WLAN Mode and Security Setup
- USB Mode Setup

1.1 Vodafone Mobile Broadband Hotspot Overview

The Vodafone Mobile Broadband Hotspot (model Vodafone MiFi 2352) allows you more freedom than ever before. No wires, no cables, just access to your data when you need it. Plus the hotspot can simultaneously support up to five WLAN enabled devices, depending on your setup.

You can securely connect virtually any WLAN enabled device to the Vodafone Mobile Broadband Hotspot for a total mobile Internet experience. Surf the Web, download files and music, share photos, manage e-mail, and more.

In addition you can use the Vodafone Mobile Broadband Hotspot in USB modem mode (single user mode with no WLAN access) by plugging it into a USB port on your computer.



- MicroUSB Port The wall charger, optional car charger, and USB cable connect here.
- MicroSDHC Slot Removable memory storage slot. Supports microSDHC cards up to 16 GB.
- WLAN LED Indicates WLAN status.
- LED Power Button Powers on and off the device. The LED provides connection and battery status.
- Battery / SIM compartment The battery and SIM card are placed here.
- Master Reset Button Resets device to factory default settings.
- SIM Card Slot The SIM card is inserted here.

1.2 Power sources for the Vodafone Mobile Broadband Hotspot

Your device will work from its battery or when plugged into a power source.

- Battery The battery will last for up to four hours. Charge the battery by plugging in the AC adapter or optional car charger with the device switched off (i.e. the WLAN LED is not illuminated). While the battery is charging the Power/Connection LED will flash amber. When the battery is fully charged, it will be solid amber. The battery may get hot while charging and in use – this is normal.
- Wall power or car charger Use the device by plugging it into either a wall socket or a vehicle using the optional car charger accessory. The Vodafone Mobile Broadband Hotspot battery will charge while it is plugged in.
- USB power from a computer Use the device as a USB modem while plugged into the USB port of a computer using the supplied USB cable. The battery will charge while it is plugged in. Charging the battery through the USB port is slower than charging it with AC or vehicle power.

Note: You cannot use the Vodafone Mobile Broadband Hotspot wirelessly while it is plugged into a USB port.

Note: Usage recommendations. Keep the device in a well ventilated area and avoid situating it in direct sunlight. Do not charge the unit while it is in use – switch it off (i.e. the WLAN LED is not illuminated) while charging

1.3 Install SIM Card and Battery

Before connecting the Vodafone Mobile Broadband Hotspot to your computer for the first time you must insert the SIM card supplied by your service provider and insert and charge the battery.

IMPORTANT: The battery must be fully charged before using the Vodafone Mobile Broadband Hotspot the first time. After the initial use and set up, you may use the device with battery, wall, vehicle, or USB power.

1 Slide open the door at the bottom of the device by pushing the 2 tags on the left and right of the bottom cover. The cover should slide open easily. Never use any sort of sharp instrument when opening the back of the device as this could damage the battery.

2 Insert the SIM card into the SIM slot as shown.



3 Insert the battery, lining up the contact points as shown and replace the door on the device.



Ocnnect the wall charger to the Vodafone Mobile Broadband Hotspot.

Charge for a minimum of 4 hours before use with the device switched off (i.e. the WLAN LED is not illuminated). The power button LED will flash amber while the device is charging and glow solid amber once charging is complete.

1.4 Battery Tips

WARNING ! Use only batteries and chargers with your device that have been approved by Vodafone or by Novatel Wireless. The failure to use approved batteries and chargers may increase the risk that your device will overheat, catch fire, or explode, resulting in serious bodily injury or property damage.

It normally takes at least 4 hours to fully charge the battery.

- When using battery power, the device lasts up to four hours (when connected to a single device only).
- The battery will discharge more rapidly as additional devices access the Vodafone Mobile Broadband Hotspot.
- The battery may get hot while in use and when charging. This is normal and is within Health and Safety limits.
- Battery life depends on the network, signal strength, temperature, features, and accessories you use.
- Your device will also work with certain other approved chargers, including car chargers.
- If you connect your device to your computer using a USB data cable, the battery will charge. However, the device will not function as a wireless access point while connected to your computer.
- New batteries or batteries stored for a long time may take more time to charge.
- When charging your battery, keep it near room temperature.
- Some batteries perform best after several full charge and discharge cycles.
- When storing your battery, keep it uncharged in a cool, dark, dry place.
- Never expose batteries to temperatures below –10°C (14°F) or above 45°C (113°F). Never leave the device in an unattended vehicle due to uncontrollable temperatures that may be outside the desired temperature for this device.
- It is normal for batteries to gradually wear down and require longer charging times. If you notice a change in your battery life, it is probably time to purchase a new battery.
- Never use a sharp instrument to open the back cover of the device or to remove the battery from the device, or else you may damage the battery it should slide out easily.

IMPORTANT: Whenever you work with either the battery or the SIM card, ensure that the Vodafone Mobile Broadband Hotspot is not connected to any device or power source with a USB cable or power cord.

1.5 LED States

The Power Button LED and the WLAN LED provide valuable status information about the Vodafone Mobile Broadband Hotspot.

Power/Connection LED



1.6 Initial Connection and Setup — Overview

The Vodafone Mobile Broadband Hotspot comes pre-configured with the Access Point Number (APN) and other Vodafone network settings to allow you to use this device on the Vodafone network without complex configuration or set-up.

You have two connection options when using the Vodafone Mobile Broadband Hotspot.

WLAN Mode

In WLAN mode you use the Vodafone Mobile Broadband Hotspot as an access point or hotspot. You can connect any 802.11 b/g wireless device to the Vodafone Mobile Broadband Hotspot. You can establish a secure profile so that others cannot use your Vodafone Mobile Broadband Hotspot unless you allow them. You can also establish temporary settings to allow up to five devices to connect with the Vodafone Mobile Broadband Hotspot without you having to give them your security settings.

USB Modem Mode

In USB Modem mode, you connect the Vodafone Mobile Broadband Hotspot directly to a computer and use it as a modem. In this mode, WLAN is disabled. To use the Vodafone Mobile Broadband Hotspot as a USB modem, you must install the Vodafone Mobile Connect software and drivers – this happens automatically when you first plug the device into your PC using a USB cable.

This section contains the following information:

- WLAN Mode Setup
- USB Mode Setup

1.7 WLAN Mode Setup

For advanced configuration of the device for WLAN mode, you need to do both of the following tasks:

- Set Up a WLAN Connection
- Set Up Wireless Security

Set Up a WLAN Connection

Setting up the WLAN connection requires two steps:

- Connect to the Vodafone Mobile Broadband Hotspot
- Update the configuration of the Vodafone Mobile Broadband Hotspot with your own personal passwords or updated security settings.

Note:

➤ The battery should be fully charged before using the Vodafone Mobile Broadband Hotspot the first time.

➤ To connect in WLAN Mode, the Vodafone Mobile Broadband Hotspot must be powered with a charged battery or with a wall or vehicle charger. When the Vodafone Mobile Broadband Hotspot is connected to your computer with the USB cable, WLAN is disabled.

Connect to the Vodafone Mobile Broadband Hotspot:

1 Press the power button.

- The Vodafone Mobile Broadband Hotspot comes on and the power LED and the WLAN LED light up.
- A flashing green, blue or cyan power LED and a solid WLAN LED indicate the device is in service and ready to connect.

2 Use your normal WLAN manager on your computer to locate the Vodafone Mobile Broadband Hotspot wireless network.

Note: The steps to connect to a WLAN network vary depending on your operating system and whether you use the native application or third-party software. Generally you click an icon (often in the System Tray for Windows or choose **System Preferences** > **Network** on a Mac) where you can select "View Available Wireless Networks." If you are unfamiliar with wireless networking on your computer, consult the computer help system.

3 If multiple wireless networks are found, highlight the one named

VodafoneMobileHotspot_xxxx .

Olick Connect.

The Vodafone Mobile Broadband Hotspot comes pre-configured with the information required to connect to the Vodafone mobile network. It will not normally require any additional configuration to the basic settings unless you are using the device behind a corporate firewall, and this may require the appropriate proxy server settings to be modified (see following sections for how to do this).

WARNING ! It is highly recommended that you set up security for your Vodafone Mobile Broadband Hotspot at this time. The device has WEP security enabled, but you may want to change the WEP network key and your device logon password with personalised settings.

Note: if you are connected to the device over WLAN and find the hotspot redirects to the WEB UI (i.e. configuration page) instead of the page you expected when using browser, this will be due to the fact that the device cannot connect the user to a mobile broadband network.

If you have trouble connecting to the device ensure your WEP security key has been entered correctly. Note: The WEP key is case sensitive - please ensure you input it with the correct upper and lower case characters. An additional common cause of PC connection problems could be that your computers WLAN adapter has become confused by working with multiple WLAN devices. The normal way to fix this on a PC is to right click on the Wireless Network Connection icon in the Windows toolbar, then select on **Repair**.

Please check the LED state and also the connected state in the web UI to confirm the device is showing "Connected", and if not refer to the Troubleshooting section later in this guide.

Set Up Wireless Security

Using security with your wireless network is very important. We recommend that you set up security immediately by following these procedures:

- Change the Administrative Password
- Establish a Secure Profile

Change the Administrative Password

1 Enter **http://VodafoneMobileBroadband.Hotspot** or **http://192.168.1.1** into the address window of your web browser, and press the **Enter** or **Return** key.



Select the "VodafoneMobileHotspot" WLAN SSID on each device to connect to your Vodafone Mobile Broadband Hotspot.



2 Enter the default password "admin" into the Login window in the upper right corner of the screen and click **Login**.

vodafone					Help Logo
Status WLAN Intern	net Router System	•••• Voda	fone UK_GPRS	Connected	
Status					
Internet Connect	ion				
Received Transmitted Connected Time Disconnect		15.99 KB 2.89 KB 00:00:13	IP Address Subnet Mask		10.46.209.3 №55.255.255.255
WLAN					
Profile Network name (SS Security Connected Devices	ID) ∨odafoneMobileHo V	Secure otspot_6992 VEP 128-bit 1 / 5	IP Address Subnet Mask		192.168.1.1 255.255.255.0

3 From the menu bar, select **System > Password**.

vod		9						Help Logout
Status	WLAN	Internet	Router	System	•••• Vodafo	ne UK GPRS	Connected	
Pas	SSWOF	d stration P	assword					
Cu Ne Ve	urrent Pas ew Passw erify New I	sword ord (4 ~ 64 Password	4 characte	ers)			(4 ~ 64 chara	icters)
								Apply Cancel

4 Type "admin" into the Current Password field.

5 Select a new administrative password and enter it into both New Password fields.

6 Click **Apply**.

This will be the new administrative password that you use when you login to the browser interface.

Note: Be sure to record the new password. You will have to reset the device using the Master Reset button if you lose the administrative password.

Establish a Secure Profile

You can use WEP (64- or 128-bit), WPA-PSK, WPA2-PSK, or WPA/WPA mixed mode security.

IMPORTANT: Your Vodafone Mobile Broadband Hotspot comes with a preset WEP key that is unique to the device and is listed on the sticker inside the battery door. If you want to change this to something more memorable, you can change it by following the steps below. Vodafone recommend changing the WEP key to a secure key which can be easily remembered. Note: The WEP key is case sensitive - please ensure you input it with the correct upper and lower case characters.

• Enter http://VodafoneMobileBroadband.Hotspot or http://192.168.1.1 into the address window of your web browser, and press the Enter or Return key.



Select the "VodafoneMobileHotspot" WLAN SSID on each device to connect to your Vodafone Mobile Broadband Hotspot.



2 Enter your new administrative password into the Login window in the upper right corner of the screen and click **Login**.

vodafone						Help Lo	gout
Status WLAN Internet	Router System	and N	/odafone UK (GPRS	Connected	(
Status							
Internet Connection							
Received Transmitted Connected Time Disconnect		15.99 K 2.89 K 00:00:1	(B IP Addı (B Subnet 13	ress Mask		10.46.209.3 ∳55.255.255.255	
WLAN							
Profile Network name (SSID) Security Connected Devices	VodafoneMobileHot WI	Secu spot_699 EP 128-t 1 /	re IP Addi 92 Subnet bit 5	ress : Mask		192.168.1.1 255.255.255.0	

October 2009

3 From the menu bar, select **WLAN > Profiles**. The default profile in the Profile dropdown menu will be **Secure.** Click the **Edit WLAN Profile** button.



4 Choose the security you want from the drop-down menu.

5 Enter the Network Key you want to use in the box.

- **6** Click **Apply**.
- Click **Apply** again to begin using the Secure profile.

IMPORTANT: Your wireless connection will be **disabled** at this point. You must reconnect with the new network key you just established.

1.8 USB Mode Setup

To use the Vodafone Mobile Broadband Hotspot in USB mode, you must install the software and drivers that are contained in the Vodafone Mobile Broadband Hotspot device. This software will install automatically when you connect your device to a computer using a USB cable – just follow the on-screen instructions.

This section contains the following information:

- System Requirements
- Windows Installation and Connection
- Mac Installation and Connection

System Requirements

To use this device as a tethered USB modem with the Vodafone Mobile Broadband software, you need:

- A computer running Microsoft[®] Windows Vista[™] (SP1 recommended), Windows[®] XP SP2 (SP3 recommended) or an Apple Mac running Mac OS[®] X 10.4.11 or above (10.5.6 or above recommended)
- At least 100 MB free disk space and 256 MB RAM
- USB 2.0 port

Windows Installation and Connection

In USB modem mode, the Vodafone Mobile Broadband Hotspot is connected to the PC with the USB cable, and the device acts as a modem. This is a single-user mode, and you cannot use WLAN connections.

For more information, go to www.support.vodafone.com and review the Vodafone Mobile Connect PC software section.

Use the microUSB cable to attach the Vodafone Mobile Broadband Hotspot to a USB
2.0 port on your computer with the supplied USB cable. The Vodafone Mobile Broadband
Hotspot will turn on automatically.

Note: Only the LED on the power button will light. WLAN is disabled in USB Modem mode.

Your computer operating system automatically recognises the Vodafone Mobile Broadband Hotspot as a USB device.

3 The Vodafone Mobile Connect installation program resident on the hotspot starts automatically. After a successful installation, the Vodafone Mobile Connect will start and will prompt you to connect to the mobile network.

Note: The first time you plug your device into a PC the software Installation should start automatically, and proceed to set up your device as a modem. If for some reason the setup

does not start, right click on the VMC Lite 9.x.x.x drive in 'My Computer' (Start Menu, Computer for Vista machines), select Explore and double-click the file called setup_vmc_lite.exe. Follow the onscreen instructions.

The latest version of the Vodafone Mobile Connect software is available to be downloaded from <u>www.support.vodafone.com</u>, and additional support and Frequently Asked Questions are also available on the web site.

🧕 Vodafone Mobile Co	nnect Lite	
File View Settings	Tools Help	
Mobile Connect 🛞	Mobile Connections	
Main View	Vodafone UK GPRS	
Manage Connections		
军 View Usage		
Manage Devices		
Best Connected 🛞		
🍇 Off		
Rrompt		
🍇 Automatic		
Settings		
Other Programs 🛞		
Vodafone SMS		
C VPN		
vodafone		

Click Connect. You will now be connected to the network, and the Connect button will change to Disconnect, ready for when you have finished using the device as a modem. You can now use your web browser as normal.

Mac Installation and Connection

You can switch your Vodafone Mobile Broadband Hotspot to Modem mode and connect it to your Mac with the microUSB cable, to use the device as a modem. This is a single-user mode, and cannot be used to connect to an AirPort (WLAN) network.

• Attach the Vodafone Mobile Broadband Hotspot to a USB 2.0 port on your Mac with the supplied microUSB cable. The Vodafone Mobile Broadband Hotspot will turn on automatically.

Note: Only the LED on the Power button will light up. WLAN is disabled in USB Modem mode.

- 2 Your Mac will recognise the Vodafone Mobile Broadband Hotspot as a USB device.
- **3** A Vodafone Mobile Broadband disk will appear on your desktop.
- Oouble-click the Vodafone Mobile Broadband installer.
- **5** Follow the on-screen instructions.
- 6 You may need to re-start your Mac to complete the installation.

Once the software has been installed, and your Mac re-started if necessary, you can click the Vodafone Mobile Broadband application icon in your Dock. The software will start and:

- Identify your device
- Create the correct mobile connection settings
- Select a mobile network.

Once the software is ready to connect, the **Connect** button will be enabled.

Note: The Vodafone Mobile Broadband disk will not appear any more once the software has been installed. You can set the software to start automatically when you plug in your device in **Preferences** > **Start&Quit**.

For more information, visit the Vodafone Mobile Connect or Vodafone Mobile Broadband Mac software section at www.support.vodafone.com.

2. Using the Vodafone Mobile Broadband Hotspot and File Sharing

- Using the Vodafone Mobile Broadband Hotspot Wirelessly
- Setting up a Temporary Wireless Hotspot
- Using microSDHC Cards with the Vodafone Mobile Broadband Hotspot - File Sharing
- Using the Vodafone Mobile Broadband Hotspot as a USB Modem



This chapter covers using the Vodafone Mobile Broadband Hotspot wirelessly (including use as a temporary hotspot), using the File Sharing capabilities allowed by the microSDHC card capabilities, and using the Vodafone Mobile Broadband Hotspot as a USB modem.

2.1 Connect in WLAN Mode

WLAN mode is where you use your Vodafone Mobile Broadband Hotspot as a wireless hotspot or access point. It can be powered by battery, wall plug, or vehicle charger when used in this mode. Do not plug the USB cable into a computer if you want to use WLAN mode.

1 Press the power button.

- The Vodafone Mobile Broadband Hotspot comes on and the power LED and the WLAN LED light up.
- A flashing green, blue or cyan power LED and a solid WLAN LED indicate the device is in service and ready to connect.

2 Use your normal WLAN manager on your computer to locate the Vodafone Mobile Broadband Hotspot wireless network.

Note: The steps to connect to a WLAN network vary depending on your operating system and whether you use the native application or third-party software. Generally you click an icon (often in the System Tray for Windows or choose **System Preferences** > **Network** on a Mac) where you can select "View Available Wireless Networks." If you are unfamiliar with wireless networking on your computer, consult the computer help system.

3 If multiple wireless networks are found, highlight the one with the name

VodafoneMobileHotspot_xxxx. (Note: The xxxx is a number derived from your device serial number / SIM)

4 Click Connect.

2.2 Setting Up a Temporary Hotspot

The Vodafone Mobile Broadband Hotspot allows you to set up a temporary network name and network key so you can allow people to connect to it without having to share your permanent device security information. Up to 5 devices can be connected at any one time.

To set up a temporary hotspot:

- **1** Login to the Vodafone Mobile Broadband Hotspot.
- Choose WLAN > Profiles from the menu bar.

The WLAN Profiles – Set Profile page will open.

vodafone					Help Logout
Status WLAN Internet	Router	System	•••• Vodafone UK GPRS	Connected	(III)
WLAN Profiles					
Set Profile					
Profile			Secure	*	Edit WLAN Profile
Network name (SSID)			VodafoneMobileHotspot_6992	\searrow	
802.11 Mode			802.11g + 802.11b		
Channel			6		
Security			WEP 128-bit		
Authentication			Open Access		
Encryption			104/128 Bit (26 Hex Digits)		
Network Key			Display Key		
					Apply Cancel

6 Choose **Temporary Hotspot** from the drop-down Profile list and click **Edit Profile**.

s WLAN Internet Rou	nter System III Vodafone UK GPRS	Connected	
LAN Profiles			
dit WLAN Profile			
Profile	Temporary Hotspot	Ret	urn to Profile List
letwork name (SSID)	VodafoneMobileHotspot_31BA	N	
02.11 Mode	802.11g + 802.11b	1	
Channel	Auto	~	
Security	WEP 128-bit	\sim	
Authentication	Open Access		
Encryption	104/128 Bit (26 Hex Digits)		
letwork Key	AF3DFBZV4RNN8		
,	13 ASCII characters, or 26 HEX characters	ters	

Olick the Generate new values link. The Network Name and Network Key will change to a new temporary network name (SSID) and network key.

Note: the temporary hotspot network name and network key .In the example shown above, they are "VodafoneMobileHotspot_31BA" and "AF3DFBZV4RNN8".

You can click the **Generate new values** link again to have a different network name and network key generated.

6 Click **Apply, then** click the **Return to Profiles List** link.

6 Click Apply on the WLAN Profiles – Set Profile page to confirm these values.

IMPORTANT: Your wireless connection will be **disabled** at this point. You must reconnect with the new settings you just established.

Share the temporary network name and network key that were generated with your workgroup so they can connect to the device.

Note: Do not forget to change your profile back to Secure when you are through working with your workgroup.

2.3 Using microSDHC Cards and File Sharing

The Vodafone Mobile Broadband Hotspot comes with a microSDHC card slot that allows you to carry files with you without needing an additional flash drive.

You can use microSDHC cards with up to 16GB capacity, and can upload files to the card and also download, open, share and delete them.

Insert the microSDHC card

Insert the microSDHC card into the slot of the Vodafone Mobile Broadband Hotspot.

Note: Be careful not to touch the contacts. Do not force the card into the slot. Check the orientation if you have difficulties.

Access your files

1 Enter http://VodafoneMobileBroadband.Hotspot or http://192.168.1.1 into the address window of your web browser, and press the Enter or Return key.



Vodafone Mobile Broadband Hotspot

Your Vodafone Mobile Broadband Hotspot allows you to share your Mobile Broadband internet connection with up to five WLANenabled devices, including printers, cameras, personal internet gaming devices and amongst mobile workgroups.

Select the "VodafoneMobileHotspot" WLAN SSID on each device to connect to your Vodafone Mobile Broadband Hotspot.



2 Select MicroSD Files from the menu bar.

The directory list will open in a separate window.

From here you can add or delete files, and see how much space is available on the card.

Share your files with other users

If you establish file sharing on your Vodafone Mobile Broadband Hotspot, others connected to your WLAN can access the files on your microSDHC card. You can determine whether they can both read and write to the card or just read the files on the card.

To establish file sharing:

1 Login to the Vodafone Mobile Broadband Hotspot.

2 Choose System > File Sharing from the menu bar.

The File Sharing page will open.

6			\searrow			Help Logout
vodafone						
Status WLAN Int	ernet Router	System	•••• Vodafone UK	GPRS	Disconnected	
File Sharing	J					
File Sharing						
Enable micro	roSD File Shari	ng				
Files to share	Specified 7	Гор-le∨el F	older 💌			
Access Type	Read/Write	9	*			
						Apply Cancel

- **3** Select the **Enable MicroSD File Sharing** checkbox to allow file sharing.
- From the "Files to share" list, choose whether to share the Entire SD Card or a Specified Top-level Folder.
- **5** If you choose the Specified Top-level Folder option, enter the folder path.
- 6 From the Access Type list, choose whether others should have Read only or Read and Write access to the files.
- **O** Click **Apply**.

2.4 Connect in USB Modem Mode

In USB Modem mode, you connect your Vodafone Mobile Broadband Hotspot to your computer with the USB cable. The USB cable will power the Vodafone Mobile Broadband Hotspot while it is plugged in. This is a single user mode, and you cannot use WLAN connections.

Windows:

1 Make sure the Vodafone Mobile Connect software is running.

The first time you plug the Vodafone Mobile Broadband Hotspot into a PC using a USB cable, the device will automatically install the Vodafone Mobile Connect software. The system tray icon will appear in the system tray.



Note: If the system tray icon is not present, double-click the Vodafone Mobile Connect desktop shortcut to launch the software.

2 Right-click the system tray icon and select **Connect**.



– Or –

2 To see network and connection status also, right-click the system tray icon and select
Open Vodafone Mobile Connect.

🖲 Vadzlenc Mebile Cen	nost Lite	
Me Very Settings	Taala Help	
Mobile Connect	Nobile Connections	
🚯 Nain View	Vedafone UK GPR5	-all Corpect
Corrections	a contraction of the second se	
🖕 Weve Urage		
Ranage Devices		

3 Click Connect.

When you have successfully connected to the network, the aerial diagram will be animated showing the signal being broadcast.

Mac:

1 Click the Vodafone Mobile Broadband application icon in your Mac OS X Dock. The software will start and:

- Identify your device
- Create the correct mobile connection settings
- Select a mobile network.

2 Once the software is ready to connect, the **Connect** button will be enabled.

3 Click **Connect**.

When a mobile connection is open, the mobile network symbol will be animated.

Mac Vodafone Mobile Broadband software - Main View

This view displays the status of your mobile connection, as well as any LAN** or AirPort** connection that may be available. You can open and close a mobile or AirPort connection, and check the status of your LAN connection as well.

Mobile Connection Module - Top Line

- Mobile network name
- Connection type (eg. HSPA+)
- Signal strength 5 bars: excellent No bars: no signal
- Status symbol
- Green: connection open
- Clear: connection closed.

Mobile Connection Module - Middle Line

- Duration of the connection
- Speed at which data is being sent ('upload')
- Suitcase symbol when roaming
- HomeZone symbol. If you have a HomeZone tariff** which enables you to make connections at a lower cost when you are in a defined location, eg. at home, a HomeZone symbol may be shown to indicate this
- Connect button, if not connected
- Disconnect button, if connected.

** Not supported by all operators.

Mobile Connection Module - Bottom Line

- Volume of data transferred over the current connection
- Speed at which data is being received ('download').

LAN Connection Module

- Local Area Network speed, as reported by Mac OS X
- 3 bars: 1000 Megabit per second
- 2 bars: 100 Megabit per second
- 1 bar: 10 Megabit per second
- Status symbol
- Green: Connection open
- Clear: Connection closed.

AirPort Connection Module - Top Line

- AirPort network name (SSID)
- Signal strength 5 bars: excellent No bars: no signal
- Status symbol
- Green: Connection open
- Clear: Connection closed.

AirPort Connection Module - Middle Line

- Duration of the connection
- Speed at which data is being sent ('upload')
- Connect button, if not connected
- Disconnect button, if connected.

AirPort Connection Module - Bottom Line

- Volume of data transferred over the current connection
- Speed at which data is being received ('download')
- Star symbol if current AirPort is a Preferred network.

3. Vodafone Mobile Broadband Hotspot's Browser Interface

- Interface Basics
- WLAN Settings
- Internet Settings
- Router Settings
- System Settings including File Sharing



Your Vodafone Mobile Broadband Hotspot comes with a browser interface that allows you to configure the device.

Using your Web browser, you can directly access the Vodafone Mobile Broadband Hotspot.

The browser interface gives you access to the many advanced features of the device.

Note: You will only need to use many of these features if your specific circumstances require them – after setting the security and admin passwords then web access should not normally require any additional changes unless you need to adapt to the specific requirements of a corporate or similar IT network.

Some of the things you can do are as follows:

- View the status of aspects of your network.
- Set up wireless security, including Mac Address Filtering, Port Filtering and Port Forwarding.
- Set up a Temporary Hotspot to allow a maximum of five people to connect to your device without giving them your Network Name and Network Key.

3.1 Interface Basics

Open the Browser Interface

1 Enter http://VodafoneMobileBroadband.Hotspot or http://192.168.1.1 into the

address window of your web browser, and press the Enter or Return key.



2 Enter your administrative password into the Login window in the upper right corner of the screen and click **Login**.

The Vodafone Mobile Broadband Hotspot Settings page will open.

vodafone					Help Logout
Status WLAN Internet	Router System	••••• Voda	fone UK GPRS	Connected	m
Status					
Internet Connection					
Received Transmitted		15.99 KB 2.89 KB	IP Address Subnet Mask		10.46.209.3 10.55 255 255 255
Connected Time		00:00:13			
Disconnect					
WLAN					
Profile		Secure	IP Address		192.168.1.1
Network name (SSID)	VodafoneMobileHot	spot_6992	Subnet Mask		255.255.255.0
Security	W	EP 128-bit			
Connected Devices		1/5			

3 Select the menu item for the task you want to do.

The Menu Bar

Across the top of all the screens in the browser interface is a menu bar. In addition to the menu items, the bar provides status information about the Internet connection (network signal strength, the network you are connected to, the type of connection, whether you are currently connected), and the battery level of the device (the 4 bars below shows a fully charged battery).

Status	WLAN	Internet	Router	System	Vodafone UK GPRS Connected	
				-		

Vodafone Mobile Broadband Hotspot Settings Page

The Vodafone Mobile Broadband Hotspot Settings page is divided into two sections.

Internet Connection

Internet Connection			
Received	75.69 KB	IP Address	10.47.230.77
Transmitted	23.39 KB	Subnet Mask	255.255.255.255
Connected Time	00:10:39		
Disconnect			

The Internet Connection section of the Vodafone Mobile Broadband Hotspot Settings page gives you the following status information:

- The number of bytes received and transmitted
- The duration of the current connection
- The IP address and mask of the device

WLAN

WLAN			
Profile Network name (SSID)	Secure VadafanaMabilaHatanat 6992	IP Address Subpot Mask	192.168.1.1 255.255.255.0
Security	WEP 128-bit	Subilet Mask	200.200.200.0
Connected Devices	1/5		

The WLAN section of the Vodafone Mobile Broadband Hotspot Settings page gives you the following status information:

- Profile currently in use
- Network Name (also known as SSID)
- Security method in use
- Number of users (clients) currently connected to the device
- IP address and mask of the wireless browser interface

To change WLAN settings, use the WLAN menu.
3.2 WLAN Settings

The WLAN menu allows you to work with profiles, set up a temporary hotspot, set MAC Address Filters, view the WLAN log, and view status information for the WLAN network.

Opening the WLAN menu

1 Open the browser interface.

2 Click WLAN on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

WLAN	Internet	Router	Sys				
Status							
Profiles							
MAC Address Filtering							
Setting	5						

WLAN Menu

Select one of the following:

- Status to view profile information, see who is connected to the device, and view the WLAN Log. You can also retrieve your Network Key from this screen.
- Profiles to view or change settings for your Secure profile or to set up a Temporary Hotspot.
- MAC Address Filtering to allow only certain devices to connect to the Vodafone Mobile Broadband Hotspot device.
- Settings to enable or disable broadcasting the network name or enable or disable the WLAN log

Status (WLAN Menu)

The WLAN Status screen provides you with information about your wireless network.

Opening the screen

1 Open the browser interface.

Click WLAN > Status on the menu bar at the top of the Vodafone Mobile Broadband Hotspot Settings page.



The WLAN Status Screen Sections

The WLAN Status screen is divided into three sections.

WLAN Network

WLAN			
Profile Network name (SSID) Security Connected Devices	Secure VodafoneMobileHotspot_6992 WEP 128-bit 1 / 5	IP Address Subnet Mask	192.168.1.1 255.255.255.0

The WLAN Network section of the WLAN Status screen gives you the following information:

- Profile that is currently in use.
- Name of the network that you are connected to.
- Number of clients that are connected to the device
- Maximum number of clients that are allowed to connect to the device. You can change this maximum number using this drop-down menu.

38

- Channel that is being used.
- The current wireless mode.
- The security type and encryption for the current profile.

WLAN Clients

С	Currently Attached Devices										
ſ	IP Address	IP Type	Hostname	MAC Address	Date/Time						
ľ	192.168.1.2	DHCP	UPSTAIRSPC	00:0F:B5:90:4D:9E	01/06/2009 19:45:20						
ľ											

The WLAN Clients section of the Status page shows the clients that are currently connected to the device. This is another way you can learn the MAC address of a particular device.

WLAN Log

Click the WLAN Log button to open a window showing a log of WLAN events.

Note: The WLAN Log must be enabled on the WLAN Settings screen.

Profiles (WLAN Menu)

The WLAN Profile screen allows you to configure your Secure Profile or set up a Temporary Hotspot.

Opening the screen

1 Open the browser interface.

Click WLAN > Profiles on the menu bar at the top of the Vodafone Mobile Broadband Hotspot Settings page.

The Profiles Screen

o vodafone						Help Logout
Status WLAN	Internet	Router	System	•••• Vodafone UK GPRS	Connected	
WLAN Pro	files					
Set Profile						
Profile				Secure	~	Edit WLAN Profile
Network nam	e (SSID)			VodafoneMobileHotspot_6992	\searrow	
802.11 Mode				802.11g + 802.11b		
Channel				6		
Security				WEP 128-bit		
Authenticatio	n			Open Access		
Encryption				104/128 Bit (26 Hex Digits)		
Network Key				Display Key		
						Apply Cancel

The WLAN Profile screen provides the following information:

- Profile The profile currently being used.
- Network Name (SSID) Name of the network you are connected to. You can change the name to something more descriptive if you want; for example, if there are several Vodafone Mobile Broadband Hotspots in your area you might put your name in it as: My Second Hotspot.
- 802.11 Mode The type of wireless networking you are currently using. The available modes are:
 - o 802.11g+802.11b
 - o 802.11g

Vodafone MiFi 2352 Version 1.3

o 802.11b

- Channel The radio channel that the device is using. This should be usually set to Auto and left unchanged. Available channels are Auto and 1 to 11.
- Security The type of security the profile is using. This applies to the Secure and the Temporary Hotspot profiles.
- Authentication Will be Open for all profiles.
- Network Key Passcode or password used to access the network. The required format varies by type of security.

Choosing a Profile

The browser interface allows you to select or modify a profile to use while browsing. The Vodafone Mobile Broadband Hotspot has three profiles — the default secure WEP profile, the Temporary Hotspot profile and an Open profile.



- Secure profile— The profile you will use most of the time. You can modify this profile with the security measures you need.
- Temporary Hotspot This profile allows you set up a temporary hotspot for your workgroup (maximum of 5) to all go online using your device.
- Open Profile Un-restricted access. This means that anyone could access your Vodafone Wireless Broadband Hotspot.
- Use the drop-down menu to select the profile.

Setting Security

You can use WEP (64- or 128-bit), WPA, or WPA2 security.

Note: Some WLAN clients become confused if the security is changed and the network name is not. If you change security settings and do not get asked for the new network key when you try to reconnect, delete the existing "old" network name from your "Preferred Networks" list. Then you can reconnect.

IMPORTANT: Remember your new network key.

• Open the screen.

2 Select a profile and click Edit WLAN Profile.

3 Choose the Security you want from the drop-down menu.

The Encryption type will display and the number and type of characters required for the Network Key will display under the Network Key box.

4 Enter the Network Key you want to use in the box.

6 Click **Apply** then click the **Return to Profiles List** link.

6 Click **Apply** again.

3.3 Setting Up a Temporary Hotspot

The Vodafone Mobile Broadband Hotspot allows you to set up a temporary network name and network key so you can allow people to connect to it without having to share your permanent security information. Up to 5 devices can be connected at any one time.

To set up a temporary hotspot:

- 1 Login to the Vodafone Mobile Broadband Hotspot.
- Ochoose WLAN > Profiles from the menu bar.

The WLAN Profiles - Set Profile page will open.

vodafone			Help Logout
Status WLAN Internet Router Sy	/stem	Connected	
WLAN Profiles			
Set Profile			
Profile	Secure	*	Edit WLAN Profile
Network name (SSID)	VodafoneMobileHotspot_6992	\searrow	
802.11 Mode	802.11g + 802.11b		
Channel	6		
Security	WEP 128-bit		
Authentication	Open Access		
Encryption	104/128 Bit (26 Hex Digits)		
Network Key	Display Key		
			Apply Cancel

6 Choose **Temporary Hotspot** from the drop-down Profile list and click **Edit Profile**.

s WLAN Internet Rou	ter System III Vodafone UK GPRS	Connected	
LAN Profiles			
dit WLAN Profile			
Profile	Temporary Hotspot	R	eturn to Profile List
Network name (SSID)	VodafoneMobileHotspot_ 31BA		N
302.11 Mode	802.11g + 802.11b	\sim	43
Channel	Auto	\sim	
Security	WEP 128-bit	\sim	
Authentication	Open Access		
Encryption	104/128 Bit (26 Hex Digits)		
Network Key	AF3DFBZV4RNN8		
istinoin ritoy	13 ASCII characters or 26 HEX charact	ters	

Olick the Generate new values link.

The Network Name and Network Key will change to a new temporary network name (SSID) and network key.

Note: the temporary hotspot network name and network key .In the example shown above, they are "VodafoneMobileHotspot_31BA" and "AF3DFBZV4RNN8". You can click the **Generate new values** link again to create a different network name and key.

6 Click **Apply**, then click the **Return to Profiles List** link.

6 Click **Apply** on the WLAN Profiles – Set Profile page to confirm these values.

IMPORTANT: Your wireless connection will be **disabled** at this point. You must reconnect with the new settings you just established.

Share the temporary network name and network key that were generated with your workgroup so they can connect to the device.

Note: Do not forget to change your profile back to **Secure** when you have finished working with your temporary workgroup.

MAC Address Filtering (WLAN Menu)

The MAC Address Filter allows you to restrict access to your device by MAC address. The MAC address is specific to a particular piece of hardware such as a network adapter. By using the MAC Address Filtering you only allow certain devices access to your Vodafone Mobile Broadband Hotspot device.

Opening the screen

1 Open the browser interface.

Click WLAN > MAC Address Filtering on the menu bar at the top of the Vodafone Mobile Broadband Hotspot Settings page.

Status	WLAN	Internet	Router	System	••••• Vodafone UK GPRS	Connected	
WL	AN MA	AC Add	Iress F	ilterin	g		
En	able MA	C Address	Filter				
	Enable	MAC Addr	ess Filter				
	If enable	ed, only Tru	usted Dev	ices can c	onnect to this Access Point.		
-		· · · · · · · · · · ·					
	usted Dev	vices List					
					Delete		
Ac	ld Truste	d Devices	MAC Ad	dress		\searrow	
	vample: 0	0 10 02 4			Add		
(E	xampie: 0	0-19-02-41	D-00-UE)				

The MAC Address Filtering Screen

The MAC Address Filtering screen allows you to enable MAC Address Filtering and add and delete MAC addresses from the Trusted Client List.

IMPORTANT: Do not enable MAC Address Filtering unless you have added your own MAC address to the Trusted Client List, otherwise you will be unable to access the device.

Finding the MAC Address

The MAC Address is also known as a hardware or physical address for a device, usually a network adapter.

It consists of 6 pairs of numbers and letters; for example: 00-21-9B-1C-64-34.

If the device is currently connected to the Vodafone Mobile Broadband Hotspot device, you can find its MAC address on the WLAN Clients section of the WLAN Status screen.

- On a Windows computer, you can find the MAC address by running ipconfig /all from the cmd window. The MAC address is referred to as the Physical Address.
- On a Mac, open System Preferences > Network. Select Airport in the Show: drop down list. The MAC address is the Airport ID that displays below.

IMPORTANT: Make sure you get the MAC address for the wireless network adapter and not the Ethernet if the computer has both.

Use MAC Address Filtering

Open the screen.

2 Type the MAC address for your computer into the Add Trusted Client MAC Address box and click **Add Client**.

3 If desired, type the MAC address for other computers into the Add Trusted Client MAC Address box and click **Add Client**.

Olick the Enable MAC Address Filtering checkbox and click **Apply**.

Settings (WLAN Menu)

The Settings screen allows you to configure your device or turn on the WLAN log for diagnostics purposes.

Opening the screen

1 Click **WLAN > Settings** on the menu bar at the top of the Vodafone Mobile Broadband Hotspot Settings page.



The WLAN Settings Screen

The WLAN Settings screen contains two items:

Broadcast Network Name (SSID)

Broadcast Network Name (also known as SSID broadcast) causes the device to send the Network Name (SSID) out where it can be picked up by nearby computers. This is what you see when you "View Available Wireless Networks."

Disabling SSID broadcast provides additional security but you will have to re-enable it if you lose your automatic connection.

Click the checkbox to enable or disable Broadcast Network Name and click Apply.

WLAN log enable

This checkbox turns on or off the WLAN Log that can be accessed from the WLAN Status screen.

Click the checkbox to enable or disable the WLAN Log and click Apply.

3.4 Internet Settings

The Internet menu provides status information for your connection to the Internet, allows you to configure your Vodafone Mobile Broadband Hotspot, and view information about your Vodafone Mobile Broadband Hotspot.

The section contains the following information:

- Opening the menu
- Internet Menu
- Internet Profiles
- Internet Diagnostics
- Internet Settings
- Internet Status

Opening the menu

1 Open the browser interface.

2 Click **Internet** on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Internet Menu

- Select one of the following:
 - Status to view information about your Internet connection and to view traffic counters.
 - Internet Profiles to configure your device for your service provider.
 - SIM PIN Management Enter SIM PIN number if required by your local network.
 - Diagnostics to view the status of your connection to the Vodafone network, view information about your Vodafone Mobile Broadband Hotspot 2200 device, and view an event log about your connections to the Vodafone network.
 - Internet Settings to allow the Vodafone Mobile Broadband Hotspot to automatically connect and to enable an event log.

Status (Internet Menu)

The Internet Status screen provides you with information about your Internet connection.

Opening the screen

1 Open the browser interface.

Olick Internet > Status on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Internet Connection			
Connection Status	Connected	Received	85.97 KE
Network	Vodafone UK	Transmitted	13.18 KE
Technology	GPRS	Connected Time	00:00:41
Roaming	Home Network		
Profile	Vodafone UK		Disconnect
Router TCP/IP Settings			
IP Address			10.46.63.63
Subnet Mask			255.255.255.255
Gateway			10.46.63.63
DNS			10.206.65.68

	Lifetime	Resettable
Start Date	06/08/2009 05:34:57pm	
Total connection time	00:00:41	
Data Received	85.97 KB	
Data Transmitted	5.15 MB	
Total Data	5.24 MB	
		Restart Counter

The Internet Status Screen Sections

The Internet Status screen is divided into three sections.

Internet Connection

The Internet Connection section of the Internet Status screen gives you the following status information:

- The number of bytes received and transmitted
- The duration of the current connection
- Status of the connection

- Network connected to
- Technology of connection
- Whether or not you are roaming

Click the **Disconnect** (or **Connect**) button to disconnect or connect to the Internet.

TCP/IP

The TCP/IP allows you to view the local IP address, Mask, Gateway, and DNS server for the Vodafone Mobile Broadband Hotspot.

Traffic Counters

The Traffic Counters section of the Internet Status screen gives you the following status information:

- Date the data collection began
- Total duration of connection
- Megabytes received and transmitted, plus the total

This information is presented both as a lifetime count for the device and as a re-settable counter.

Click the Reset Counter button to start a new count.

Profiles (Internet Menu)

The Internet Profiles screen allows you to configure your device to work with different networks. By default the settings are for the Vodafone network.

Opening the screen

1 Open the browser interface.

Olick Internet > Profiles on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

vod	afone	•								Help	Logout
Status	WLAN	Internet	Router	System	att	Vodafone UK	GPRS	Conne	ected		
Inte	ernet F	Profiles	5								
Se	et Interne	t Profile	5								
Pr	ofile			P	rofile 1			~	Edit Int	ternet Profile	
AF	N			13				10			
Us	sername										
Au	uthenticat	on Type		No	one						
DN	VS			Au	uto						
									Арр	oly Cance	əl

The Internet Profiles Screen

The Internet Profiles screen allows you to select, edit, and create Internet Profiles.

To select a different profile:

Use the drop-down menu to select another profile name and click Apply.

To edit an existing profile or to create a new profile:

1 Select an existing profile and click **Edit Profile**.

Note: If you want to create a new profile, you can select any profile in the drop down list for step 1.

us WLAN Internet	Router System	n Vodafone UK GPRS	Connected	
ternet Profiles				
Edit Internet Profile				
Profile Name	Profile 1		Return to ProfilmList	
APN			U	
Username				
Password				
Authentication Type	None	~		
Static DNS				
DNS 1		(IP address)		
DNS 2		(IP address)		

2 If you want to create a new profile, simply change the name on this screen.

③ Enter the information for the network. Your provider may or may not require all of these fields.

- APN (Access Point Name)
- Username
- Password
- Authentication Type
- Connection Type

4 Leave Static DNS unchecked, unless your service provider has given you primary and secondary DNS address.

6 Click **Apply**.

Olick Return to Profile List.

8 Click Apply.

SIM PIN Management (Internet Menu)

Opening the screen

1 Open the browser interface.

Click Internet > Status on the menu bar at the top of the Vodafone Mobile Broadband
 Hotspot settings page.

vod	Help Log vodafone								
Status	WLAN	Internet	Router	System	III Vodafone UK G	PRS	Connected		
SIM		lanag	ement						
SI	M PIN Ma	inagemei	nt						
The	e current	PIN must	be provide	d in order	to modify the SIM.				
Cu	rrent PIN					Ν			
0	Unlock	SIM				43			
۲	Set new	PIN							
	Verify N	lew PIN		1					
				249	A 2-		Аррі	y Cancel	

If you need to unlock the SIM you must enter your PIN. You can also set a new SIM PIN if necessary.

Diagnostics (Internet Menu)

The Internet Diagnostics screen provides status information about your Internet connection and the Vodafone Mobile Broadband Hotspot device.

Opening the screen

1 Open the browser interface.

Olick Internet > Internet Diagnostics on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



The Internet Diagnostics Screen Sections

The Internet Diagnostics screen is divided into two sections.

Mobile Broadband Modem

The 3G Modem section of the Internet Diagnostics screen gives you the following information about the Vodafone Mobile Broadband Hotspot device:

- Manufacturer manufacturer of this device
- Model model name or number of the device
- Modem Firmware Version current version of the internal software (firmware)

Vodafone MiFi 2352 Version 1.3

• IMEI — the device unique identifier

Internet Diagnostics

The Internet Diagnostics section gives you information about the status of the Vodafone Mobile Broadband Hotspot and connection events and times with the network.

The Internet Event Log lists connection events and times with the network.

Click **Modem Status** to check the Internet connection.

Click Event Log to view the Internet Event log.

Settings (Internet Menu)

The Internet settings screen allows you to set the Vodafone Mobile Broadband Hotspot device to auto-connect and to enable the Internet Event log.

Opening the screen

1 Open the browser interface.

Click Internet > Internet Settings on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



The Internet Settings Screen

The Internet Settings screen contains two items:

Auto-connect enable

Auto-connect allows the device to automatically connect to the Vodafone network whenever it is turned on.

Click the checkbox to enable or disable Auto-connect and click Apply.

Event log enable

This checkbox turns on or off the Internet Event Log that can be accessed from the Internet Diagnostics screen.

Click the checkbox to enable or disable the Event Log and click Apply.

3.5 Router Menu

The Router Menu gives you access to options that allow you to configure traffic through your Vodafone Mobile Broadband Hotspot device.

Opening the menu

1 Open the browser interface.

2 Click **Router** on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Select one of the following:

- Port Filtering to create a list of applications that are allowed to access the Internet.
- Port Forwarding to create a list of applications that are allowed to access your computer from the Internet. You might use this if you have an FTP server on your system or play certain online games.
- TCP/IP to see the Vodafone Mobile Broadband Hotspot IP and MAC address.
- Settings to enable DHCP and VPN pass through.

Port Filtering (Router Menu)

Port Filtering allows you to enhance the security of your system by only allowing certain applications to reach the Internet.

Opening the screen

1 Open the browser interface.

Click Router > Port Filtering on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

odafone			Help Logout
atus WLAN Internet Router Syster	n	Connected	
Port Filtering			
Enable Port Filtering	ÿ		
Enable Port Filtering	Applications can account the Inter	aat	
I enabled, only franc from Allowed	Applications can access the inten		
Allowed Applications			
🗖 DNS (Domain Name Server)			
HTTPS			
FTP			
🔲 E-mail (POP3)			
E-mail (IMAP)			
VPN			
Telnet			

The Port Filtering screen

The Port Filtering screen allows you to enable Port Filtering, select common applications to allow access to the Internet, and set up custom applications for access to the Internet.

Port Filtering for Standard Applications

- **1** Open the screen.
- 2 Click the Enable Port Filtering checkbox.

3 Click the check boxes for the applications you want to allow access to the Internet.

4 Click Apply.

Note: The device uses standard ports for these applications. If you have applications that do not use the standard ports or that are not listed under Allowed Applications, use Custom Applications.

Port Filtering for Custom Applications

In order to set up port filtering for a custom application, you will need to know the port numbers (up to five ports or port ranges) and the protocol (TCP, UDP, or both) used by outgoing traffic.

2

- Open the screen.
- 2 Click the Enable Port Filtering checkbox.
- **3** Click **Custom Applications**.

Custom Applications

1. 🗹 My Gaming Application #3	Ports for Application 1
2.	TCP/UDP < << Hide
3.	
4.	
5.	
5.	

4 Enter a name for the application and click the **Ports** link.

6 Enter the port or port range. You can enter up to five ports or port ranges.

- Single port enter the port number in both fields.
- Port range enter the beginning port in the left field and the ending port in the right field.

6 For each port row, select the protocol (TCP, UDP, or both) used by that port or port range.

7 Click	Hide.
---------	-------

8 Click Apply.

Port Forwarding (Router Menu)

Incoming traffic from the Internet is normally prevented by the firewall from reaching devices on your local wireless network. Use port forwarding to allow Internet users to reach any server you are running on your computer, such as an FTP server. Also some online games require incoming access to work properly.

IMPORTANT: You will need to set up static IP addresses on your WLAN for each device that has an application you want to forward to.

Opening the screen

1 Open the browser interface.

Click Router > Port Forwarding on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

vodafone		Help Logout
Status WLAN Internet Router System	Vodafone UK GPRS Connected	
Port Forwarding		
Port Forwarding Applications		
Application	IP Address of WLAN Device	
DNS (Domain Name Server)		
E FTP Server		
HTTP (Web) Server		
NNTP Server		
POP3 Server		
SMTP Server		
SNMP Server		
Telnet Server		
TFTP Server		



The Port Forwarding Screen

The Port Forwarding screen allows you to enter the local static IP address for each application that you want to receive traffic from the Internet.

1 Click the checkbox for the application you want to enable.

2 Enter the local static IP address of the device hosting the application in the IP Address on WLAN field.

3 Click **Apply** when you are done.

IMPORTANT: Port forwarding creates a security risk and should be disabled when not required.

TCP/IP (Router Menu)

The TCP/IP screen allows you to view the local (WLAN) IP address and the MAC address for the Vodafone Mobile Broadband Hotspot device.

Opening the screen

1 Open the browser interface.

Click Router > TCP/IP on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



The TCP/IP Screen

The TCP/IP screen gives you the following status information about your device:

- Local IP Address
- Subnet Mask
- MAC Address of the Vodafone Mobile Broadband Hotspot device

Vodafone MiFi 2352 Version 1.3

DHCP Address Range used by the Vodafone Mobile Broadband Hotspot DHCP server

Settings (Router Menu)

The Router Settings screen allows you to enable DHCP and allow VPN passthrough.

Opening the screen

1 Open the browser interface.

Click Router > Router Settings on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

vodafone				Help Logout
Status WLAN Internet Route	er System	111 Vodafone UK GPRS	Connected	
Router Settings				
Router				
 DHCP Server enable VPN Passthrough enable 	•			
			Аррі	y Cancel

The Router Settings screen has these options:

DHCP Server

DHCP Server allows the device to automatically assign a local IP address to a new device joining your network (such as a wireless printer or additional laptop). Without DHCP Server enabled, you will have to assign static IP addresses to all devices on your network.

Click the checkbox to enable or disable the DHCP server and click Apply.

VPN Passthrough

VPN Passthrough is required if you are going to connect to a VPN (such as to your office).

Click the checkbox to enable or disable VPN Passthrough and click Apply.

3.6 System Menu

The System Menu gives you access to many settings that affect your entire system.

Opening the menu

1 Open the browser interface.

2 Click **System** on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Select one of the following:

- Status to view information about your device and a system log
- Backup to back up or restore a file containing your device settings.
- File Sharing to set up file sharing from microSDHC cards
- Power Management to set power saving modes.
- Password to set the administrative password
- Settings to set language and date and time formats

Status (System Menu)

The System Status page provides you with information about your MiFi system.

Opening the page

1 Open the browser interface.

Olick System > Status on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Help | Logout

System Log

Status W	LAN Internet	Router	System	Vodafone UK GPRS Connected	
----------	--------------	--------	--------	----------------------------	--

System Status

System Information	
Manufacturer	Novatel Wireless
Model	Vodafone MiFi2352
Serial No.	SM140309400018
Access Point Firmware Version	11.47.17
Router Firmware Version	012
Modem Firmware Version	5.14.00.0-00 [2009-06-04 18:50:04]
Web UI version	√20.10-vf
UA Version:	Mozilla/5.0 (Windows; U; Windows NT 5.1; en-GB; rv:1.9.0.10) Gecko/2009042316 Firefox/3.0.10

System Log

The System Log must be enabled. This setting is on the System Settings screen.

Restart/Reboot Reset to Factory Defaults

System Status Page

This page contains four sections.

System Information

The System Information section provides information about the Vodafone Mobile Broadband Hotspot. This information includes the following:

- Manufacturer Novatel Wireless •
- Model Number •
- Serial Number ٠
- Firmware (embedded software) version numbers for the Vodafone Mobile • Broadband Hotspot components
- Access Point ٠

- Router
- Modem

System Log

If required for troubleshooting, you can enable the System Log on the System Settings page.

Click View System Log to see the log information in the System Log display area.

<u>Restart</u>

You can restart your WLAN from this page.

Click Restart to reset your WLAN (as if you turned the power off then on again).

IMPORTANT: Your Internet and WLAN connections will be lost and you will have to reconnect.

Reset to Factory Defaults

Click Reset to Factory Defaults to set all settings back to factory values.

IMPORTANT: Your Internet and WLAN connections will be lost and you will have to reconnect. In addition, you will have to reconfigure any profiles you have created.

Backup (System Menu)

The Backup screen allows you to make a backup copy or restore a backup copy of your configuration settings.

Opening the screen

1 Open the browser interface.

Click System > Backup on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



The Backup/Restore Screen

The Backup/Restore screen allows you to download a backup file of the configuration settings for your Vodafone Mobile Broadband Hotspot.

To save the Configuration File

1 Click the **Backup** button.

2 Click **Save** to place the file "config.xml.savefile" on your computer. You may rename the file.

To restore the Configuration File

Vodafone	MiFi 2352
Version 1.	3

1 Click the Browse button and locate the file on your hard drive.

2 Click **Restore** to restore the settings.

IMPORTANT: When you upload a configuration file, you change all the settings to match the file. If your WLAN settings change, you will lose the connection and will need to reconnect using the new settings.

File Sharing (System Menu)

The File Sharing screen allows you to provide access to files on your microSDHC card to others on your Vodafone Mobile Broadband Hotspot network.

Opening the screen

1 Open the browser interface.

Click System > File Sharing on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

odaf	one				\mathcal{A}					Help Log
atus W	VLAN	Internet	Router	System	mil	Vodafone	UK GPRS	Disc	onnected	
File S	hari	ng								
File S	haring	UK.								
File S	iharing nable r nicroS	nicroSD F D Files	File Sharir	ng						
File S	iharing nable r nicroS to shar	nicroSD F D Files e Sj	File Sharir pecified T	ng Fop-le∨el	Folder	~				

The File Sharing Screen

Your Vodafone Mobile Broadband Hotspot can allow others on your network to access files on your microSDHC cards.

1 Click the **Enable MicroSD File Sharing** checkbox to allow file sharing.

2 From the drop-down menu, choose the files you want to share.

3 From the Access Type drop-down menu, select the type of access to give others.

4 Click **Apply**.

Power Management (System Menu)

The Vodafone Mobile Broadband Hotspot can switch to a low power mode when it is idle. The Power Management screen allows you to set the timing for when the Vodafone Mobile Broadband Hotspot switches to low power mode. You can set separate timings for AC power and battery power. When the device is on battery power, you can also set it to shut down after a period of time.

Opening the screen

1 Open the browser interface.

Click System > Power Management on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.

odafone					Help Logou
tus WLAN Intern	et Router	System	11 Vodafone UK GPRS	Connected	
ower Manag	ement				
Battery Power					

The Power Management Screen

Use the Power Management screen to set how long the device is idle before it switches to low power mode.

• From the drop-down menu under AC Power, select when you want the device to switch to Low Power Mode when it is plugged in and idle. The options range from Never to 60 minutes.

Prom the Low Power Mode Idle Timeout drop-down menu under Battery Power, select when you want the device to switch to Low Power Mode when on battery power and idle. The options range from Never to 60 minutes.

S From the Shutdown Idle Timeout drop-down menu under Battery Power, select when you want the device to turn off when on battery power and idle. The options range from Never to 60 minutes.

4 Click **Apply**.

Password (System Menu)

The Password screen allows you to change the administrative password that gives access to the browser interface.

Opening the screen

1 Open the browser interface.

Click System > Password on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



Create a New Administrative Password

1 Type your current password in the Current Password box.

2 Enter the new password (must have 4 to 64 characters) in the New Password box and again in the Verify New Password box.

3 Click **Apply**.

Settings (System Menu)

The System Settings screen allows you to change the administrative password that gives access to the browser interface.

Opening the screen

1 Open the browser interface.

Click System > Settings on the menu bar at the top of the Vodafone Mobile Broadband Hotspot settings page.



The System Settings Screen

The System Settings screen allows you to set the language, date and time format, and enable the System Log.

1 Select the Language you want to use from the drop-down menu.

2 Select the Date/Time format you want to use from the drop-down menu.

You can choose between 12 and 24 hour time display and US (mm/dd/yyyy) and European (dd/mm/yyyy) date formats.

3 If desired, click the checkbox to turn on the System log.

4 Click Apply.

4. Troubleshooting

- Overview
- Common Problems and Solutions
- Using the Master Reset Button


4.1 Overview

The following tips will help solve many common problems encountered while using the Vodafone Mobile Broadband Hotspot.

- Make sure you are using the Vodafone Mobile Broadband Hotspot in the correct geographic region.
- Ensure that the Vodafone network coverage extends to your current location.
- If you are using the Vodafone Mobile Broadband Hotspot in USB Mode, simply un-plugging and re-plugging in the USB cable can resolve many issues.

When properly installed, the Vodafone Mobile Broadband Hotspot is a highly reliable product. Most problems are caused by one of these issues:

- System resources required by the Vodafone Mobile Broadband Hotspot are being used by other devices.
- Network coverage is unavailable due to coverage area, a network problem or an account problem.

The following two items are referenced frequently in the solutions that follow. Please make note of their differences.

> Open the Vodafone Mobile Broadband Hotspot Home page.

- 1. Type http://VodafoneMobileBroadband.Hotspot or http://192.168.1.1 in your browser address bar and press Enter/Return.
- 2. The "Vodafone Mobile Broadband Hotspot Home Page" opens and gives basic status and access to the microSD card.

> Login to the Vodafone Mobile Broadband Hotspot.

- 1. Type http://VodafoneMobileBroadband.Hotspot or http://192.168.1.1in your browser address bar and press Enter/Return.
- 2. Type the administrative password into the login window and click Login.
- 3. The "Home" page opens and gives you access to the menus.

4.2 Common Problems and Solutions

All of the steps mentioned here are given in more detailed form elsewhere in the user guide.

No service is available. - OR - I get a "Limited or No Connectivity" message.

- > You are outside of the coverage area of the Vodafone network.
- > Re-orient the Vodafone Mobile Broadband Hotspot.
- If you are inside a building or near a structure that may be blocking the signal, change the position or location of the device. For example, try moving the Vodafone Mobile Broadband Hotspot close to a window.
- Check the status of the Power/Connection LED if you are connected it should be a solid colour as shown in the LED States page.
- Login to the Vodafone Mobile Broadband Hotspot and check the connected status on the Status page.
- Check the SIM status with your Vodafone customer care team there may be a problem with your account.

The device has no power.

The LED indicator is off and does not come on when the Power button is pressed.

- > Ensure the battery is properly seated in the device.
- Ensure the battery is fully charged. Plug in the AC mains charger for at least 4 hours.

I forgot my password.

You can reset the device to factory defaults using the master reset button which can be found on the bottom of the device.

I cannot connect to the Vodafone Mobile Broadband Hotspot.

- Make sure the WLAN LED is on (it will be solid cyan for a UMTS connection). If the LEDs are not on, check your battery.
- 2 Make sure your PC wireless radio / AirPort is turned on.(Check your computer help if you need assistance.)
- Open your wireless network connection list.
 - Windows: Right-click icon and select View Available Networks.

- *Mac*: Pull down list from AirPort icon.
- Select the VodafoneMobileHotspot_xxxx network name (in Windows, click Connect).

When the Vodafone Mobile Broadband Hotspot is connected to the network, the WLAN LED begins to blink.

My network does not appear in the wireless network list.

- Verify that the Vodafone Mobile Broadband Hotspot LEDs are on and are not showing an error condition.
- Check that there are not already 5 simultaneously connected devices on the device by logging to the Vodafone Mobile Broadband Hotspot to see the number of devices on the Status page.
- > Refresh your network list on your computer.
 - *Windows*: Click **Refresh Network List** on the left side of the Wireless Network Connection screen. If that does not work you can try the following:
 - 1. Open Network Connections.
 - 2. Right-click Wireless Network Connection and select Properties.
 - 3. Click the Wireless Networks tab.
 - 4. Delete any unused wireless connections from the Preferred Networks list and click **OK**.
 - 5. Restart your computer.
 - *Mac*: Try rebooting your computer.

The LED stays solid red or "SIM not found" displays on the Vodafone Mobile Connect software (USB mode)

The SIM card may be missing or inserted incorrectly. Pull out the battery and reseat the SIM card. Be careful not to touch the contact points when handling the SIM card.

The LED is flashing red.

The SIM card is locked. Enter your PIN code when prompted in the Web UI. If you enter the wrong PIN code 3 times, you will be prompted to enter your PUK code. If you enter the wrong PUK code 10 times, your SIM card will be locked forever. Please contact your Vodafone customer care team before this happens and ask them for your PIN/PUK codes.

I see the network name but cannot connect to the Vodafone Mobile Broadband Hotspot.

Check the user name, password, and access point name (APN) in your connection profile. If any of these are wrong, you will not be able to connect to the network.

I get a message that Vodafone Mobile Connect software cannot be installed when I try to use my Vodafone Mobile Broadband Hotspot in USB mode.

You might not have administrative privileges. Contact your system administrator or log on to your computer as an administrator and try plugging it in again.

Can I use the microSDHC card when the Vodafone Mobile Broadband Hotspot is connected in WLAN mode?

> Yes. Open the Vodafone Mobile Broadband Hotspot Home page

http://VodafoneMobileBroadband.Hotspot. Click the microSD Files tab.

How do I disconnect from the network?

- WLAN Mode: Login to the Vodafone Mobile Broadband Hotspot and click
 Disconnect.
 - 1. Open the Vodafone Mobile Broadband Hotspot Home page http://VodafoneMobileBroadband.Hotspot.
 - 2. Then type your administrative password into the login window and click **Login**.
 - 3. Click the **Disconnect** button.
- > USB Mode (Windows):

Right-click the system tray icon and select **Disconnect**.

How can I find out how many users are connected to the Vodafone Mobile Broadband Hotspot?

Open the Vodafone Mobile Broadband Hotspot Home page http://VodafoneMobileBroadband.Hotspot. The number of clients (users) currently connected to the Vodafone Mobile Broadband Hotspot is in the WLAN section at the bottom of the screen.

How can I set a new PIN for my SIM card?

Set a new PIN using the Vodafone Mobile Broadband Hotspot browser interface.
 Go to Internet > SIM PIN Management.

Where can I find information about Internet connectivity and my WLAN setup?

Open the Vodafone Mobile Broadband Hotspot Home page http://VodafoneMobileBroadband.Hotspot.

Can I use my Vodafone Mobile Broadband Hotspot as a tethered modem with my computer?

 Yes. Simply plug it in with the microUSB cable and the Vodafone Mobile Connect software and drivers will install automatically.

How do I check the model number and firmware versions of my Vodafone Mobile Broadband Hotspot?

> Login to the Vodafone Mobile Broadband Hotspot, and choose **System > Status**.

How can I find out the network technology and provider currently in use?

Open the Vodafone Mobile Broadband Hotspot Home page http://VodafoneMobileBroadband.Hotspot.The network information is displayed in the menu bar.

How can I check the battery level of the Vodafone Mobile Broadband Hotspot?

Open the Vodafone Mobile Broadband Hotspot Home page http://VodafoneMobileBroadband.Hotspot. The battery status icon is displayed in the menu bar. For more detailed information, login and choose Internet > Status.

Can I backup my configuration settings?

 Yes. Login to the Vodafone Mobile Broadband Hotspot and choose System > Backup. Click Backup.

Can I find my IMEI number?

- Yes. Login to the Vodafone Mobile Broadband Hotspot and choose Internet > Diagnostics.
- Attach the Vodafone Mobile Broadband Hotspot to your PC using the mini USB cable, and from the Vodafone Mobile Connect software application . Choose Help
 - > Diagnostics.

How do I check the available space on the microSDHC card?

Open the Vodafone Mobile Broadband Hotspot Home page
 http://VodafoneMobileBroadband.Hotspot. Click microSD Files.

How do I turn off the Vodafone Mobile Broadband Hotspot?

> Press and hold the Power button for 5 seconds until the LEDs turn off.

What is the default administrative/login password?

> "admin"

How do I access information on the WLAN network and WLAN clients?

Login to the Vodafone Mobile Broadband Hotspot and choose
 WLAN>Status.

4.3 Using the Master Reset Button

The Vodafone Mobile Broadband Hotspot comes with a master reset button that allows you to return it to its factory default state.

The master reset button is recessed in a hole on the back of the device. You will need a paperclip or similar object to push the button.





Insert a paperclip into the hole and hold the button down for 5 seconds until the LED goes off – this will power cycle the device. Holding the button down for 10 seconds will return the device to its factory default settings.

Your list of wireless networks will now show the original default network when you first configured your device.



Onnect to the Vodafone Mobile Broadband Hotspot again.

5. Glossary



Vodafone MiFi 2352 Version 1.3 October 2009

- 802.11 (b, g, n) A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.
- Access Point A device that allows wireless communication devices to connect to a wireless network using a standard such as WLAN.
- DHCP Dynamic Host Configuration Protocol. A network application protocol used to obtain configuration information for an Internet Protocol network.
- DHCP Server A server that uses DHCP to obtain configuration information for operation in an Internet Protocol network.
- DNS Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.
- ESN Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.
- **Firmware** A program that internally controls an electronic device.
- FTP File Transfer Protocol. A network protocol for exchanging files over a TCP network.
- Gateway A network point that acts as an entrance to another network that uses a different protocol.
- Host Name The unique name by which a network-attached device is known on a network.
- Hotspot A WLAN access point or area for connecting to the Internet.
- HTTP Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- IMAP Internet Message Access Protocol. An Internet standard protocol for email retrieval.
- IP Type The type of service provided over a network.

- IP address Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- LAN Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another.
- MAC Address A number that uniquely identifies a given network adapter on a LAN.
 MAC addresses are 12-digit hexadecimal numbers.
- MSID Mobile Station ID. A number provisioned by a service provider to a mobile phone that identifies that phone to the network.
- **MSL** Master Subsidy Lock. A numeric code for accessing certain phone settings.
- NAI Network Access Identifier. A standard way of identifying users who request access to a network.
- Network Mask A number that allows IP networks to be subdivided for security and performance.
- NNTP Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet (newsgroup) articles.
- POP Post Office Protocol. An Internet protocol for retrieving email from a remote server over a TCP/IP connection.
- Port A virtual data connection used by programs to exchange data.
- Port Forwarding A process that allows remote devices to connect to a specific computer within a private LAN.
- Port Number A number assigned to a user session and server application in an IP network.
- Protocol A standard that enables connection, communication, and data transfer between computing endpoints.
- PPTP Point-to-point Tunneling Protocol. A method for implementing virtual private networks that does not provide confidentiality or encryption.

- PRL Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming.
- RFB Remote Frame Buffer. A protocol for remote access to graphical user interfaces.
- Router A device that connects two networks.
- RTP Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.
- SMTP Simple Mail Transfer Protocol. An Internet standard for email transmission across IP networks.
- **SSID** Service Set Identifier. The name assigned to a WLAN network.
- TCP Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.
- TCP/IP Transmission Control Protocol/Internet Protocol. A communications protocol developed under contract from the U.S. Department of Defense to internetwork dissimilar systems.
- Telnet Telecommunication Network. A network protocol used on the Internet or on local area networks.
- TFTP Trivial File Transfer Protocol. A file transfer protocol with a subset of FTP functionality.
- UDP User Datagram Protocol. A simple transport protocol used to transfer information on the Internet.
- VNC Virtual Network Computing. A graphical desktop sharing system that uses the RFB protocol to remotely control another computer.
- VPN Virtual Private Network. A secure private network that runs over the public Internet.
- VPN Passthrough A feature that allows a client to establish a tunnel only with a specific VPN server.

- WAN Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).
- WEP Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- WLAN Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE (Institute of Electrical and Electronics Engineers).
- WLAN Client A wireless device that connects to the Internet via WLAN.
- WLAN WLAN LAN. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices.
- WPA/WPA2 WLAN Protected Access. A security protocol for wireless 802.11 networks from the WLAN Alliance.
- WWAN Wireless Wide Area Network. Wireless connectivity to the Internet achieved using cellular tower technology. This service is provided through cellular providers. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the regional boundaries of the cellular service.