

LW050/LW050UK Sweex Wireless Broadband Router 54 Mbps

Introduction

First of all, many thanks for purchasing this Sweex Wireless Broadband Router 54 Mbps. The Sweex Wireless Broadband Router 54 Mbps enables you to share a broadband Internet connection and to set up your own wireless network.

To ensure this product operates correctly, we advise you to carefully read this manual first. If despite this manual you still experience problems during installation or operation of this product, go to www.sweex.com and look under the heading service & support.

In order to fully enjoy the Sweex Wireless Broadband Router 54 Mbps, it is important to observe a number of things:

- Do not expose the Sweex Wireless Broadband Router 54 Mbps to extreme temperatures.
 Do not place the device in direct sunlight or in the direct vicinity of heating elements.
- Do not use the Sweex Wireless Broadband Router 54 Mbps in extremely dusty or moist surroundings.
- Protect the device against powerful shocks or jolts they may damage the internal electronics.
- Never attempt to open the device yourself it will cause the warranty to lapse.

Contents of the box

Prior to using the Sweex Wireless Broadband Router 54 Mbps, check if all required parts are present. The following parts must be present in the box:

- Wireless broadband router 54 Mbps
- Antenna
- Power supply adaptor
- RI-45 UTP Ethernet network cable
- CD-ROM with manual and Panda Anti-virus trial software

If one of the above parts is missing, please contact the shop or supplier.

Specifications

- Supports: IEEE 803.3 and IEEE 803.3u
- Supports: IEEE 802.11b, IEEE 802.11g
- Maximum wireless data transfer speed: 54Mbps
- Supports: DHCP (dynamic IP), PPTP, Static IP, PPPoE, L2TP
- 1 x WAN, 4 x LAN RJ-45 UTP ports
- Supports: WEP/WPA./WPA2/802.1X data encryption
- Built-in Firewall and Port Forwarding
- Removable reverse SMA Antenna 5 dBi
- 2 to 3 x Extended Range
- Supports: VPN pass through
- · Web-based configuration
- · Not operating system dependent

Front view



	Status Status	Meaning
Power	Off	The router is switched off
	Lit	The router is switched on
System	Lit	The router is starting up
	Blinking	The router is operating correctly
	Off	The router has a hardware error
Link/Act WAN and 1 to 4	Off	No device is connected to this port
	Lit	A computer or other network device is connected to this port
	Blinking	There is data traffic between the router and the connected device
WLAN	Off	The wireless part is switched off
	Blinking	The wireless part is active



Rear view



- Antenna with reverse SMA connector.
- · Reset button to return to the factory settings
- WAN port for connecting a modern by means of a RJ-45 UTP Ethernet network cable.
- LAN ports 1, 2, 3 and 4 for connecting computers by means of an RJ-45 UTP Ethernet network cable.
- Power connector for connecting the power adaptor.

Connecting the Sweex Wireless Broadband Router 54 Mbps

- Connect the power adaptor (included) to the rear of the router and the mains socket. The light next to "Power" is lit. In the event the LED is not
 lit, check the connections of the power adaptor to the router and the mains socket.
- Switch on the computer and connect it to the rear of the modern using a network cable (RI-45 UTP). You can select any of the ports 1, 2, 3 and 4.
 The corresponding light at the front will be lit. In the event the light fails to light up, check whether the network cable is properly connected to the computer and the router.
- 3. Switch on the modem* again. Note: Here we do not refer to the Sweex router. Connect the modem to the rear of the router using a network cable (RJ-45 UTP). Do this via the WAN port The WAN light at the front of the router will light up. In the event the light fails to light up, check whether the network cable is properly connected to the router and the modern.

*In order to use the Sweex Wireless Broadband Router 54 Mbps you need an active Internet connection, which is established through a modem. This modem is usually supplied by the provider.

Configuring the computer to connect to the router

Windows XP

In the bottom left of your screen, go to "Start" \rightarrow "Control Panel" Then go to "Network and Internet Connections". Open "Network Connections".

Or, if the Windows classic style is used: "Start" \rightarrow "Settings" \rightarrow "Network Connections".

Right-click "LAN Connection" or "Wireless Network Connection" and select "Properties". The following screen appears:



Under the tab "General" select TCP/IP and click "Properties".



Select the options "Obtain an IP address automatically" and "Obtain DNS server address automatically".

Confirm the settings by clicking "OK". The network settings for Windows XP have now been configured correctly. The correct settings for the Internet browser will be discussed later in this manual.



Windows 2000

In the bottom left of your screen, go to "Start" \rightarrow "Control Panel".

Then go to "Network and Internet Connections".

Open "Network Connections".

Or, if the Windows classic style is used:

"Start" \rightarrow "Settings" \rightarrow "Network Connections".

Right-click "LAN Connection" or "Wireless Network Connection" and select "Properties". The following screen appears:



Now select "Internet Protocol (TCP/IP)" and click "Properties".



Select the options "Obtain an IP address automatically" and "Obtain DNS server address automatically". Click "OK" twice.

The network settings for Windows 2000 have now been configured correctly. The correct settings for the Internet browser will be discussed later in this manual.

Windows 98SE

Go to "Start", "Settings", "Control Panel" and click "Network".



Select the line "TCP/IP \rightarrow " which corresponds to your (wireless) network card and click "Properties".



Under the tab "IP Address", select the option "Obtain an IP address automatically".



Under the tab "Gateway", the list of "Installed gateways" must be empty. If so required, select each gateway and click "Remove".





Under the tab "DNS Configuration", select the option "Disable DNS". Click "OK" twice.

The network settings for Windows 98SE have now been configured correctly. Now continue with the correct settings for the Internet browser below.

Internet browser settings for Windows 98SE, 2000 and XP

- In order to access the router, the browser settings must be correct. This is easy to check by starting up Internet Explorer and selecting "Tools" from the menu bar and then selecting the option "Internet Options".
- 2. In this window, go to "Connections" and select "Never dial a connection" or remove all connections listed in the field above.
- 3. At the bottom, click "LAN Settings", remove all ticks and click "OK".
- 4. Restart the browser to activate the settings.

Setting the wireless network

How does it work?

In order to create a wireless network, you need a wireless router, wireless modem or access point. The wireless router, modem or access point transmits the wireless network. The name of this network, also referred to as SSID, depends on your wireless router, modem or access point and often differs per model or brand. You can often determine the name yourself and thus recognise your own wireless network.

Protection

You could compare a wireless network to radio signals. However, the range of a wireless network at home is not as big. Your home wireless network often has a range of 20 to 30 metres. This means that neighbours and passers by too can make use of your network. As a result they can get away with surfing on your Internet connection, and they may gain access to your shared folders and files on your network. It is why it is recommended to secure your wireless network. This protection is set up on the device transmitting the network. In most cases that is the wireless router, modem or access point. By adding a WEP or WPA protection code, you secure the network. This code is also referred to as the network key. Enter this code on each computer that wants to connect to that secured network. You can only be part of that network if you enter this code. If you did not enter the network key into the router or modern yourself, ask the installer, manufacturer, supplier or provider for this code.

Connecting the computer to the wireless network

In the bottom left of your screen, go to "Start" \rightarrow "Control Panel".

Then go to "Network and Internet Connections".

Open "Network Connections".

Or, if the Windows classic style is used:

"Start" \rightarrow "Settings" \rightarrow "Network Connections".

Right-click "LAN Connection" or "Wireless Network Connection" and select "View Available Wireless Networks".



Always click "Refresh network list" top left in this window first, to obtain the most recent listing.

Select the name (also referred to as SSID) "Sweex LW050" by clicking it once. Now click "Connect".

If it has successfully connected to the wireless network, the notification "Connected" appears after a couple of seconds.

You now have an active wireless network.

If you receive a notification saying the wireless connection cannot be configured because it is managed by another programme, disable this software and start again.

We recommend securing the wireless part of the router. How to do this is described further down in this manual. Once secured, the network will show as "Sweex LW050" with a message below detailing "Security-enabled wireless network". When connecting to this secured network, you will be prompted for the "Network key". If the network key you have entered is incorrect, a notification saying "Limited or no network connection" appears after a couple of seconds. Your wireless connection is not satisfactory. Re-connect to the wireless network and check the network key.

If you change something in the wireless settings of the router causing you to lose the wireless connection, then complete these steps again.



Accessing the router (Login)

Open your web browser. In this example we use "Internet Explorer".



The default router IP address is: 192.168.50.1

An IP address is a unique number required by each network device, including a computer or router, in order to be active within that network. Without an IP address you are unable to make connections within a network. Type the router IP address in the browser address bar. You can now access the router.



The router login screen appears. Fill out the login name and the corresponding password. The standard login is sweex and the corresponding password is mysweex.

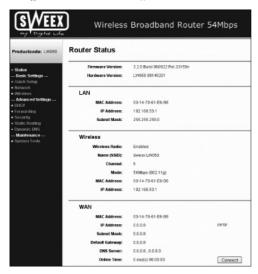
If this login screen fails to appear, recheck the settings of your Internet browser as described above. Also check the IP address of your computer. In this IP address, only the digits after the last dot may deviate from the IP address of the router (e.g.: 192.168.200.xxx).

Where to find the IP address of the computer?

Win2000/WinXP: Click "Start" - "Run" - Type cmd - press "Enter". In the black window, type ipconfig - press "Enter" and your IP address is displayed.

Win98/Me: Click "Start" - "Run" -Type winipcfg - press "Enter". In the window, select your network adaptor. (Usually NOT the ppp adaptor) and your IP address is displayed.

Once logged in, the status screen of the router appears.



This screen displays the current Internet connection and a variety of system information.

Setting the Internet Provider (ISP)

Prior to setting the provider, make sure that the Internet connection is active without the Sweex Breedband Router. If the modern without the router does not have an Internet connection, setting the router would be pointless. After all, the modern establishes the Internet connection and the Sweex Breedband Router forwards this existing Internet connection to one or more computers in your network.

A total of 6 different settings are possible. We have listed these together with instructions on how to enter these. In order to find out which settings correspond to your provider, you can consult the list with providers further down in this manual. The list consists of providers and corresponding subscriptions. The applicable settings are listed for each subscription form. In the event that your subscription is not listed, consult your Internet provider for the router settings which correspond to your subscription.

These settings need to be configured in your router only once. Regardless of the number of computers you connect to the router, the following settings only need to be done on one computer. That is because the settings are not stored on the computer, but on the router.



Setting 1 DHCP without hostname

1. Left in the column, click "Network". Now click "WAN".



- 2. Under "WAN Connection Type" select "Dynamic IP". This setting is for providers who use a DHCP connection.
- 3. Click "Save" to save the settings.

In order to check whether the Internet connection has been set up successfully, go to the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address. It can sometimes take up to 1 minute for this IP address to appear. You have now completed the configuration and are ready to suff the Internet.

If after 1 minute your IP address continues to show as 0.0.0.0, check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modem and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modern and the router via the "WAN" port of the router.
- 6. Connect the router via 192.168.50.1 and check your Internet connection in the status screen.

Setting 2 DHCP with hostname

Important: when configuring the router, always use the computer with which you were connected to the Internet prior to connecting the router.

1. Left in the column, click "Network". Now click "WAN".



- 2. Under "WAN Connection Type" select "Dynamic IP". This setting is for providers who use a DHCP connection.
- 3. Under "Hostname" enter the hostname you received from your provider.
- 4. Click "Save" to save the settings.
- 5. Left in the column, click "MAC Clone".



- 6. In order to enter the MAC address of your computer into the router, click "Clone MAC Address" and then "Save" to save the settings.
- 7. Click "OK" to confirm.

In order to check whether the Internet connection has been set up successfully, go to the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address. It can sometimes take up to 1 minute for this IP address to appear.

You have now completed the configuration and are ready to surf the Internet.



If after 1 minute your IP address continues to show as 0.0.0.0, check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modem and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modern and the router via the "WAN" port of the router.
- 6. Connect the router via 192.168.50.1 and check your Internet connection in the status screen.

Setting 3 PPPoE

1. Left in the column, click "Network", Now click "WAN",



- 2. Under "WAN Connection Type" select "PPPoE". This setting is for providers who use a PPPoE connection.
- 3. Under "User Name" enter the user name you received from your provider.
- 4. Under "Password", enter the corresponding passport.
- 5. Click "Save" to save the settings.

In order to check whether the Internet connection has been set up successfully, go to the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address. It can sometimes take up to 1 minute for this IP address to appear. You have now completed the configuration and are ready to surf the Internet.

If after 1 minute your IP address continues to show as 0.0.0.0, check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modem and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modem and the router via the "WAN" port of the router.
- 6. Connect the router via 192.168.50.1 and check your Internet connection in the status screen.

Setting 4 PPTP

1. Left in the column, click "Network". Now click "WAN".



- 2. Under "WAN Connection Type" select "PPTP". This setting is for providers who use a PPTP or KPN Mxstream connection.
- 3. Under "User Name" enter the user name you received from your provider.
- 4. Under "Password", enter the corresponding passport.
- 5. Click "Save" to save the settings.
- Click "Connect" to make the Internet connection. Next to this button, the message "Connected" will appear and your Internet IP address will be displayed under "Internet IP Address". It can sometimes take up to 1 minute for this to be shown. You have now completed the configuration and are ready to surf the Internet.

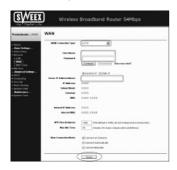
If after 1 minute the router continues to show as "Disconnected", check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modem and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modem and the router via the "WAN" port of the router.
- Connect the router via 192.168.50.1 and check your Internet connection in the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address.



Setting 5 L2TP

1. Left in the column, click "Network". Now click "WAN".



- 2. Under "WAN Connection Type" select "L2TP". This setting is for providers who use an L2TP connection.
- 3. Under "User Name" enter the user name you received from your provider.
- 4. Under "Password", enter the corresponding passport.
- 5. Click "Save" to save the settings.
- Click "Connect" to make the Internet connection. Next to this button the message "Connected" appears and your Internet IP address will be displayed under "Internet IP Address". It can sometimes take up to 1 minute for it to be shown. You have now completed the configuration and are ready to surf the Internet.

If after 1 minute the router continues to show as "Disconnected", check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modem and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modern and the router via the "WAN" port of the router.
- Connect the router via 192.168.50.1 and check your Internet connection in the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address.

Setting 6 Static IP

1. Left in the column, click "Network". Now click "WAN".



- 2. Under "WAN Connection Type" select "Static IP". This setting is for providers who use a fixed Static IP address.
- 3. Under "IP Address", enter the IP address you received from your provider.
- 4. Also enter your "Subnet Mask", "Gateway", "Primary DNS" and possibly your "Secundary DNS" values.
- 5. Click "Save" to save the settings.

In order to check whether the Internet connection has been set up successfully, go to the status screen by clicking "Status" left in the column. The "WAN" section will display your Internet IP address. It can sometimes take up to 1 minute for this IP address to appear. You have now completed the configuration and are ready to suff the Internet.

If after 1 minute your IP address continues to show as 0.0.0.0, check your settings again and complete the following steps:

- 1. Switch off the router and the modem.
- 2. Disconnect the network cable between the router and the modem at the "WAN" port.
- 3. Switch on the router and wait until it is fully started up.
- 4. Switch on the modern and wait until it is fully started up and until all the correct lights are lit.
- 5. Reconnect the network cable between the modem and the router via the "WAN" port of the router.
- 6. Connect the router via 192.168.50.1 and check your Internet connection in the status screen.



Wireless settings and security

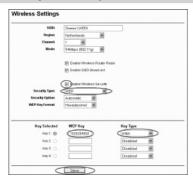
We always recommend entering these settings with a computer connected to the Sweex Breedband Router by means of a cable. This is because you will lose the wireless connection with the Sweex Breedband Router while storing these settings.

Left in the column, click "Wireless".



The default SSID is "Sweex LWO50". We recommend not changing this so you can always recognise the router. Here you can also find other options such as "Channel" and "Mode". We again recommend maintaining the default values. You can enable or disable the wireless part by means of "Enable Wireless Router Radio". This feature is enabled by default.

Securing the wireless part



Complete the following steps for setting WEP security:

- 1. Tick "Enable Wireless Security"
- 2. Under "Security Type" select "WEP".
- 3. Under "Key Type" select "64bit".
- Under "WEP Key", enter the network key. In our example we use network key "1020304050".
 When using 64-bit encryption you can create your own 10-digit code, 128 bits require 26 digits.
- 5. Click "Save" to save the settings.
- 6. A small window appears. Click "OK" to restart the router.

The router is now secured. Reconnect your wireless computer.

Complete the following steps for setting WPA security:

- 1. Tick "Enable Wireless Security"
- Under "Security Type" select "WPA-PSK/WPA2-PSK".



- 3. Under "PSK Passphrase", enter your network key. You can create your own and it may contain 8 to 63 numbers and letters.
- 4. Click "Save" to save the settings.
- 5. A small window appears. Click "OK" to restart the router.

The router is now secured. Reconnect your wireless computer.



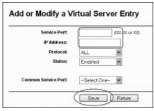
Opening ports in the router (Forwarding and DMZ)

The built-in firewall in this router cannot be disabled. However, ports can be opened for programmes and games which require this.

We recommend using a fixed IP address for computers for which ports are opened. This is to ensure that these computers always use the same IP address as registered in the router. The router may assign a different IP address to the computer so that the forwarding or DMZ command no longer applies to that computer.

By clicking "Forwarding" left in the column the port settings can be changed.





- 1. Under "Service Port", enter the port or the range of ports you want to open. For example: 3500-3600 opens all ports within that range.
- 2. Under "IP Address", enter the IP address of the computer for which you want to open these ports.
- 3. Tick "Enable" to activate this line.
- 4. Click "Save" to save the settings.

You can complete 16 lines. Click "Next" to show lines 9 - 16.

DMZ

In some instances, or when a game console is used, you may opt to place a computer or game console entirely outside the firewall. This can be done in the so-called "demilitarized zone" ("DMZ"). This option can be found in the main screen of the port settings ("Port Forwarding") under ("Advanced".) Note however, you no longer take advantage of the protection offered by the firewall of the router. All ports to the computer placed in the DMZ are open. Only a single computer can be placed in the DMZ.

Left in the column, click "Forwarding" and then "DMZ".



Set "Current DMZ Status" to "Enable" and under "DMZ Host IP Address", enter the IP address of the computer which you want to place in the DMZ. Click "Save" to save the settings.

How to assign a fixed IP address to a computer

This is only required for computers for which you want to open ports by means of the function Forwarding or DMZ. Complete the steps in chapter "Configuring the computer to connect to the router". Instead of selecting "Obtain an IP address automatically" (Obtain an IP address automatically) you select "Use the following IP address" (Use the following IP address).

The IP address in our example is as follows (192.168.50.xxx). The final number you enter must be unique to your network. We recommend using a number ranging from 150 to 200. Thus an IP address could be (192.168.50.150). A subsequent computer would then be assigned (192.168.50.151) etc.

For "Subnetmask" (Subnetmask) you enter: 255.255.255.0

Both under "Default gateway" (Default gateway) and under "Preferred DNS-server" (Preferred DNS-server) you enter the IP address with which you log into the router. In our example: 192.168.50.1

Under "Alternative DNS-server" (Alternative-DNS-server), you can leave the field blank. Click "OK" twice to save the settings and to close the window.



LAN settings

The network settings of the router can be changed as follows. Left in the column, click "Network".



Under "IP Address", the IP address of the router (192.168.50.1) is stated. Changing the number here, changes the IP address of the router. Note! When you assign the router a new IP address, the "Start IP" and "End IP" of the DHCP server must be changed to reflect that range.

Click "Save" to save the settings.

Changing the password

The standard login of the Sweex Breedband Router can be changed by clicking "System Tools" and then "Password", left in the column.



In order to change the user name and password settings, enter your current user name under "Old User Name" and your current password under "Old Password" Subsequently, enter your new user name under "New User Name", and your new password under "New Password". Confirm by once again entering your new password under "Confirm New Password".

Click "Save" to save the settings. A small login window appears. Log in twice, using your new user name and password.

Upgrading the firmware of the router (Firmware)

In order to provide the router with updates, the so-called 'firmware' needs updating. Left in the menu, click "System Tools" and then "Firmware".



Here the firmware of the router can be upgraded. New firmware can be downloaded from the Sweex website under "Service en support".

If the firmware file is zipped, make sure you select and extract the file first on a location in your computer where you can retrieve it easily.

Now click "Browse" and select the extracted firmware file. In many cases the name of this file will start with "Sweex_Firmware_LW050...". In order to start the firmware upgrade, click "Upgrade". Do not interrupt this procedure. This may harm the router. Wait for the upgrade to be completed which is confirmed by a message. The connection between the computer and the router will be briefly interrupted.

Resetting the router to its factory settings

The Sweex Breedband Router can be reset to its factory settings in two different ways.

Note! After the reset, all settings which apply to your connection and network need to be reconfigured. After the reset, the router will restart. During start-up, the factory settings are reloaded and the computer will lose connection with the router for around 30 seconds. After this, the router can be accessed via the default IP address (192.168.50.1).

Method 1: Switch off the router by disconnecting it from the mains. The reset button is located at the rear of the router. Use a small item to press the button. Press and hold the button while you switch on the router again. After switching on, press and hold the button another 10 seconds. The router will restart.

Method 2: Left in the column, click "System Tools" and then "Factory Defaults". Click "Restore" to start the reset. A message appears, click "OK" to continue.

Additional tips and further explanation to the remaining functions of the router can be found in the English manual on the CD-ROM.

Warranty

All products under the Sweex brand are warranted for a period of three years. We do not grant support or warranties for any software and/or (rechargeable) batteries included. Settlement of guarantee only takes place via the dealer where you have purchased the product in guestion.

The rightful owner has and retains title to all brand names and related rights mentioned in this manual.

