

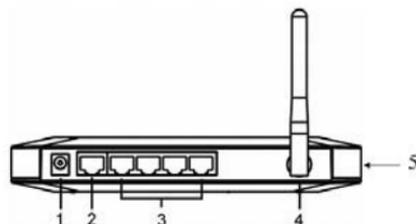


LW055 Sweex Wireless Broadband Router 54 Mbps

Front view

	Status	Meaning
LAN1x t/m 4x	Off	No device is connected to this port
	On	A computer or other network device is connected to this port
	Blinking	Data traffic is exchanged between the router and the connected device
WAN	Off	The router is not or not correctly connected to the internet modem
	On	The router is connected to the internet modem

Rear view



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

Connecting the Sweex Wireless Broadband Router 54 Mbps

1. 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.
2. Switch on the computer and connect it to the rear of the modem using a network cable (RJ-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 modem.

*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" → "Control Panel"
Then go to "Network and Internet Connections".
Open "Network Connections".

Or, if the Windows classic style is used:
"Start" → "Settings" → "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" → "Control Panel". Then go to "Network and Internet Connections". Open "Network Connections".

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

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





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

1. 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. That 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 modem 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" → "Control Panel".

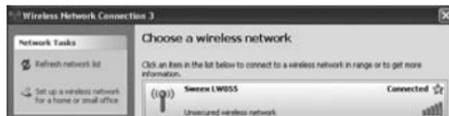
Then go to "Network and Internet Connections".

Open "Network Connections".

Or, if the Windows classic style is used:

"Start" → "Settings" → "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 LW055" 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 LW055" 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: 192.168.55.1

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.: 192.168.55.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.

The screenshot shows the 'AP-Router' status page. On the left is a navigation menu with buttons for Status, WAN Setup, LAN Setup, Wireless, Routing, NAT, Firewall, DNS, and Misc. The main content area is divided into three sections:

- WAN Status:**
 - Connection Type: DHCP
 - Physical Address: 08-10-17-09-47-20
 - DHCP Lease timer: 3600 Sec. Lease timer: 2420
 - WAN IP Address: 192.168.255.3
 - Subnet Mask: 255.255.255.0
 - Default Gateway: 192.168.255.1
 - Primary DNS IP: 192.168.255.1
 - Secondary DNS IP: 0.0.0.0
- LAN Status:**
 - Physical Address: 08-10-17-09-47-2c
 - LAN IP Address: 192.168.55.1
 - Subnet Mask: 255.255.255.0
 - DHCP Server: ON
- Wireless Status:**
 - Wireless: Enabled
 - Connection: Associated Wireless Station: 1
 - MAC: 08-10-17-09-47-2c
 - Radio Band: 802.11bg
 - SSID: SweexL1955
 - Channel: 6
 - Mode: AP
 - Security: WPA Personal

At the bottom, there is a 'SYSTEM INFO' section with 'Edition Info: APR4844-v1.1 14EN, 2006.07.03 16:30'. A 'Disconnect' button is located at the bottom right of the WAN status section.

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 modem without the router does not have an Internet connection, setting the router would be pointless. After all, the modem 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 "WAN Setup".

The screenshot shows the 'WAN Setup' configuration page for an AP-Router. On the left is a navigation menu with buttons for Status, WAN Setup, LAN Setup, Wireless, Routing, NAT, Firewall, DNS, and BSC. The 'WAN Setup' button is highlighted. The main content area is titled 'WAN Setup' and contains three radio button options: 'Dynamic IP User (Cable Modem)' (selected), 'PPPoE User (ADSL)', and 'Static IP User'. Below this is the 'DHCP Client Setup' section with the following fields: 'MAC' (08-10-17-09-f7-2d) with a 'Clone MAC' button, 'Default MAC' (08-10-17-09-f7-2d) with a 'Default MAC' button, 'MTU' (1514), 'Primary DNS' (empty), and 'Secondary DNS' (empty). An 'Apply' button is at the bottom right.

2. Under "WAN Setup" select "Dynamic IP User". This setting is for providers who use a DHCP connection.
3. Click "Apply" to save the settings.
4. Wait 15 seconds and click "Save" in the top right corner. Confirm the message by clicking "OK".

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 Status" section will display your "WAN IP address". This must not be 0.0.0.0. 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 192.168.55.1 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 "WAN Setup".

WAN Setup

Dynamic IP User (Cable Modem)

PPPoE User (ADSL)

Static IP User

PPTP

DHCP Client Setup

Host Name:

MAC:

Default MAC:

MTU:

Primary DNS:

Secondary DNS:

2. Under "WAN Setup" select "Dynamic IP User". This setting is for providers who use a DHCP connection.
3. Under "Hostname" enter the hostname you received from your provider.
4. In order to enter the MAC address of your computer into the router, click "Clone MAC".
5. Click "Apply" to save the settings.
6. Wait 15 seconds and click "Save" in the top right corner. Confirm the message by clicking "OK".

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.

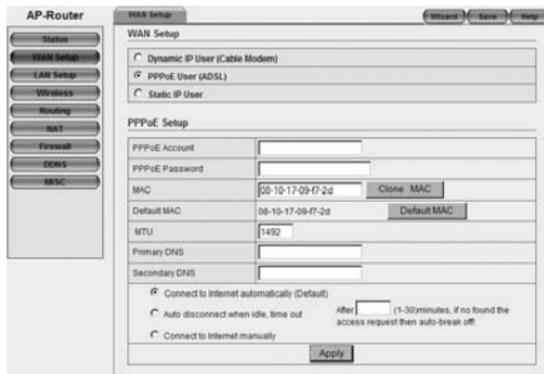
You have now completed the configuration and are ready to surf the Internet.

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" part of the router.
6. Connect the router via 192.168.55.1 and check your Internet connection in the status screen.

Setting 3 PPPoE

1. Left in the column, click "WAN Setup".



2. Under "WAN Setup" select "PPPoE User (ADSL)". This setting is for providers who use a PPPoE connection.
3. Under "PPPoE Account" enter the user name you received from your provider.
4. Under "PPPoE Password", enter the corresponding password.
5. Click "Apply" to save the settings.
6. Wait 15 seconds and click "Save" in the top right corner. Confirm the message by clicking "OK".

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 192.168.55.1 and check your Internet connection in the status screen.

Setting 4 PPTP

1. Left in the column, click "WAN Setup".

The screenshot shows the WAN Setup configuration interface. It is divided into three main sections:

- WAN Setup:** Contains radio buttons for 'Dynamic IP User (Cable Modem)', 'PPPoE User (ADSL)', 'Static IP User', and 'PPTP'. The 'PPTP' option is selected.
- PPTP:** Contains input fields for 'User Name', 'Password', and 'Server IP Address' (pre-filled with '10.0.0.138').
- Choose one WAN connection type DHCP or Static IP:** Contains radio buttons for 'DHCP' and 'Static IP'. The 'Static IP' option is selected. Below this are fields for 'WAN IP Address' (10.0.0.150), 'Subnet Mask' (255.255.255.0), 'Gateway' (0.0.0.0), 'Primary DNS', 'Secondary DNS', and 'MTU' (1440). An 'Apply' button is located at the bottom of this section.

2. Under "WAN Setup" select "PPTP User". This setting is for providers who use a PPTP connection.
3. Under "PPTP Account" enter the user name you received from your provider.
4. Under "PPTP Password", enter the corresponding password.
5. Click "Apply" to save the settings.
6. Wait 15 seconds and click "Save" in the top right corner. Confirm the message by clicking "OK".
7. Click "Connect" to create 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 modem and the router via the "WAN" port of the router.
6. Connect the router via 192.168.55.1 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".

The screenshot shows the WAN Setup configuration page for an AP-Router. On the left is a navigation menu with buttons for Status, WAN Setup, LAN Setup, Wireless, Routing, NAT, Firewall, DNS, and Misc. The main content area is titled 'WAN Setup' and has three tabs: 'Dynamic', 'Static', and 'Apply'. Under 'WAN Setup', three radio buttons are present: 'Dynamic IP User (Cable Modem)', 'PPPoE User (ADSL)', and 'Static IP User', with the latter selected. Below this is the 'Static IP Setup' section with the following fields:

- WAN IP Address: [Empty text box]
- Subnet Mask: [Empty text box]
- Default Gateway: [Empty text box]
- Primary DNS: [Empty text box]
- Secondary DNS: [Empty text box]
- MAC: 08-10-17-09-f7-2d (with a 'Clone MAC' button)
- Default MAC: 08-10-17-09-f7-2d (with a 'Default MAC' button)
- MTU: 1514

An 'Apply' button is located at the bottom of the form.

2. Under "WAN Setup" select "Static IP User". This setting is for providers who use a fixed Static IP address.
3. Under "WAN IP Address", enter the IP address you received from your provider.
4. Also enter your "Subnet Mask", "Gateway", "Primary DNS" and possibly your "Secondary DNS" values.
5. Click "Apply" to save the settings.
6. Wait 15 seconds and click "Save" in the top right corner. Confirm the message by clicking "OK".

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 192.168.55.1 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 Broadband Router through a cable. This is because you will lose the wireless connection with the Sweex Broadband Router while storing these settings.

Left in the column, click "Wireless".

The default SSID is "Sweex LW055". We recommend not changing this so you can always recognise the router. Here you can also find other options such as "Channel" and "Radio Mode". We again recommend maintaining the default values. You can enable or disable the wireless part under "Disabled Wireless". This feature is enabled by default.

Securing the wireless part

Complete the following steps for setting WEP security:

1. Click the tab "Security".
2. Under "Authentication Type" select "WEP".
3. Under "Key Length" select "64bit".
4. Under "Key 1", 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 "Apply" to save the settings.
6. Wait 15 seconds and click "Save" in the top right corner. A small window appears. Confirm by clicking "OK". The router is now secured. Reconnect your wireless computer. Note! You need the same "Key" in order to connect.

Complete the following steps for setting WPA security:

1. Click the tab "Security"
2. Under "Authentication Type" select "WPA Personal", "WPA2 Personal" or the combination "WPA&WPA2 Personal"

AP-Router Security Configuration

Authentication Type: WPA&WPA2 Personal

Pre-Shared Key

WPA TKIP AES

WPA2 AES

KEY Mode: Please input 8-63 characters

WPA Pass Phrase: mysewex2006

WPA2 Pass Phrase: mysewex2006

Key Time (sec): 3600

Apply

3. Under "WPA Pass Phrase", enter your network key. You can create your own and it may contain 8 to 63 numbers and letters.
4. Click "Apply" to save the settings.
5. Wait 15 seconds and click "Save" in the top right corner. A small window appears. Confirm by clicking "OK".

The router is now secured. Reconnect your wireless computer. Note! You need the same "WPA(2) Pass Phrase" in order to connect.

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.

The port settings can be changed by clicking "NAT" left in the column.

AP-Router Port Trigger

DMZ Host Setup

DMZ 192.168.55.0 Apply

FTP Private Port

Port Number 1025 Apply

Virtual Server Setup

Rule Name: []

Internal Server IP Address: 192.168.55. []

Protocol: TCP

External Port: []

Internal Port: []

Add

ID	Rule Name	Internal IP	Protocol	External Port	Internal Port	Delete
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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.

Tick “DMZ” and enter in the “IP address” of the computer you want to place in the DMZ. Click “Apply” to save the settings. Wait 15 seconds and click “Save” in the top right corner. A small window appears. Confirm by clicking “OK”.

Virtual Server Set-up

1. Under “Rule Name”, enter a random name.
2. Under “Internal Server IP Address”, enter the IP address of the computer for which you want to open these ports.
3. Under “External Port”, enter the port you want to open. Enter the same under “Internal Port”.
4. Click “Add” to save the rule.
5. Wait 15 seconds and click “Save” in the top right corner. A small window appears. Confirm by clicking “OK”.

Repeat the same process to add more rules.

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 Forwarding or DMZ feature. Complete the steps in chapter “Configuring the computer to connect to the router”. Instead of selecting “Obtain an IP address automatically” select “Use the following IP address”.

The IP address in our example is as follows (192.168.55.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 (192.168.55.150). A subsequent computer would then be assigned (192.168.55.151) etc.

For “Subnetmask” you enter: 255.255.255.0

Both under “Default gateway” and under “Preferred DNS-server” you enter the IP address you use to log into the router. In our example: 192.168.55.1

Under “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, such as the IP address of the router, can be changed by clicking “LAN Setup” left in the column. We recommend maintaining the default settings.

Changing the password

The standard login of the Sweex Broadband Router can be changed by clicking “Misc” left in the column and entering your new password under “Login ID and Password Setup” twice. The default username is “Sweex”. You cannot change that.

Click "Apply" - after 15 seconds click "Save" to save the settings.

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 "Misc" and then "Firmware Upgrade".

Firmware Upgrade	
Current Version:	APR-814H-V1.1.14EN, 2006.07.03.16:30
New Firmware File:	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Apply"/>

Here the firmware of the router can be upgraded. New firmware can be downloaded from the Sweex website under "Service and 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 most cases the name of this file will start with "Sweex_Firmware_LW055...".

In order to start the firmware upgrade, click "Apply". Do not interrupt this procedure. This may harm the router. Wait for the upgrade to be completed 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 Broadband 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 (192.168.55.1).

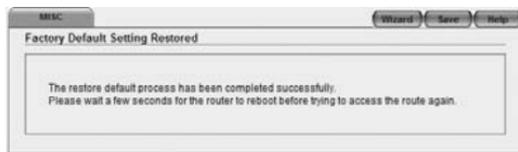
Method 1:

Follow this procedure whilst the router is switched on. The reset button is located on the side of the router. Use a pointy device to press the button. Press and hold the button for 10 seconds. The router will restart.

Method 2:

Left in the column, click "Misc" and then "Restore Defaults / Restart System". Click "Restore Default". A message appears; click "OK" to continue.

The following screen appears.



After one minute, the router can be accessed via the default IP address (192.168.55.1).

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 question.

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