



FRITZ!WLAN Repeater 1750E

Configuration
and Operation



Table of Contents

- Symbols and Highlighting 4
- 1 FRITZ!WLAN Repeater 1750E 5
 - 1.1 Features 5
 - 1.2 Package Contents 6
 - 1.3 Button and LEDs 7
- 2 Before You Connect the FRITZ!WLAN Repeater 9
 - 2.1 Requirements for Operation 9
 - 2.2 Security and Handling 10
- 3 Connecting with the Web Router Wirelessly 12
 - 3.1 Establishing a Wireless LAN Connection Using WPS 12
 - 3.2 Establishing a Wireless LAN Connection Using the Online Wizard 14
 - 3.3 Establishing a Wireless Connection Manually 16
- 4 Extending the Range of the Wireless Radio Network .. 18
 - 4.1 Prerequisite: Connection with a Wireless LAN Access Point 18
 - 4.2 Choosing the Best Location for the FRITZ!WLAN Repeater 18
 - 4.3 Integrating Wireless Devices into the Wireless Network 19
- 5 Integrating in the Wireless LAN via LAN Port 20
- 6 The FRITZ!WLAN Repeater User Interface 21
 - 6.1 Opening the User Interface 21
 - 6.2 Protecting the User Interface with a Password 21
 - 6.3 Performing a FRITZ!IOS Update 22
- 7 Connecting to the Web Router via LAN Cable 23
 - 7.1 When Connecting via LAN Is Advisable 23
 - 7.2 Connecting via LAN Cable or Power Lines 23
 - 7.3 Connecting a Web Router 23
 - 7.4 Connecting Wireless Devices with the FRITZ!WLAN Repeater 24



8	Help in Case of Errors	25
8.1	LEDs Not On	25
8.2	The User Interface Is Not Displayed	25
8.3	No Connection with the Wireless Access Point	26
8.4	No Wireless LAN Connection with a Computer	28
8.5	Throughput too Slow for Wireless AC or Wireless N	30
8.6	Cannot Access Devices in the Network	30
9	Technical Specifications	33
9.1	Physical Specifications	33
9.2	User Interface and Display	33
10	Customer Service Guide	34
10.1	Documentation on the FRITZ!WLAN Repeater	34
10.2	Information in the Internet	34
10.3	Assistance from the Support Team	35
10.4	Manufacturer's Warranty	36
	Legal Notice	37
	Legal Notice	37
	Declaration of CE Conformity	38
	Disposal Information	38
	Index	39

Symbols and Highlighting

Symbols and emphasized text are used to designate certain information in this manual.

Symbols



This symbol designates hints and tips that are useful in operating your product.



This symbol indicates important instructions that must be observed to avoid malfunctions.

Highlighting

Highlighting	Function	Examples
Quotation marks	Buttons Menus	“Help” “System / “Info” Display”
Blue and underlined text	Address to be entered in the web browser	http://fritz.repeater
Blue text	Links and references within this manual	For instructions on connecting the FRITZ!WLAN Repeater with your wireless access point, see page 12 .

1 FRITZ!WLAN Repeater 1750E

This chapter presents an overview of the FRITZ!WLAN Repeater 1750E.

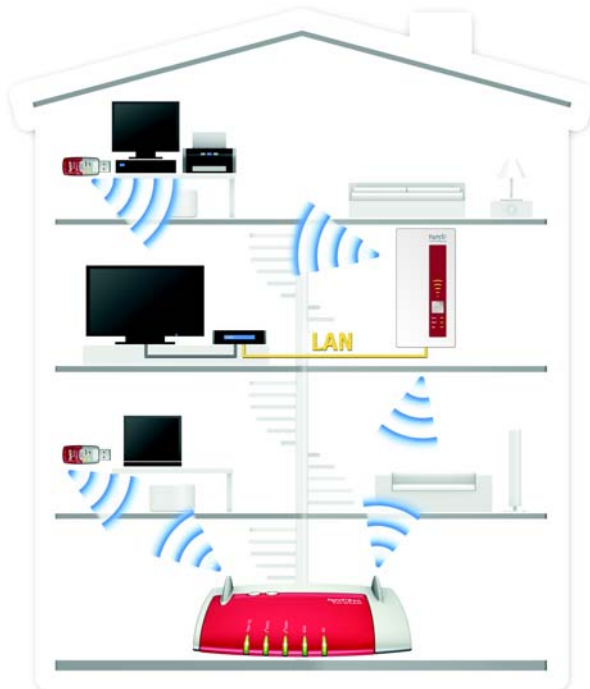
1.1 Features

Extending the Wireless Radio Network

The FRITZ!WLAN Repeater increases the range of your wireless network simply and securely.

PCs, notebooks, tablets and other wireless devices that are not located too far from the wireless access point can be registered with the FRITZ!WLAN Repeater.

The wireless network devices receive access to the radio network and to the wireless access point's Internet connection.



FRITZ!WLAN Repeater 1750E in a radio network

Integrating the Network Device in the Wireless Radio Network via LAN Cable

At the LAN port of the FRITZ!WLAN Repeater you can connect a network device without wireless LAN support, like a Blu-ray player, satellite/TV receiver, or network storage.

The connected device is integrated into the wireless radio network and has access to the Internet.

Integrating the Internet Router in the Wireless Radio Network via LAN Cable

You can also connect an Internet router to the FRITZ!WLAN Repeater's LAN port.

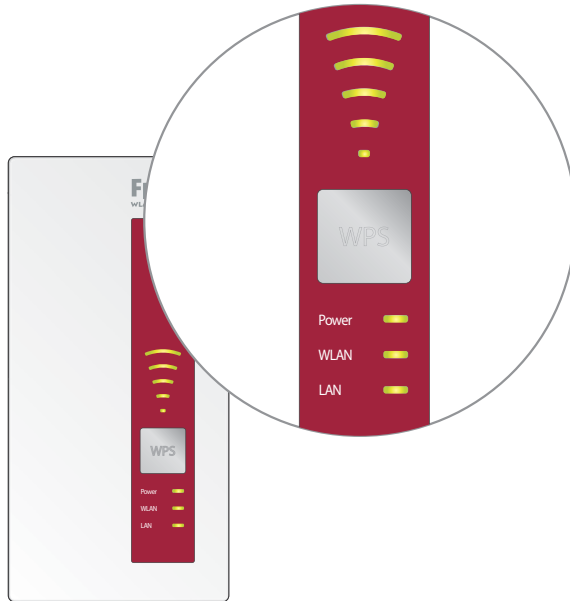
The wireless network devices receive access to the Internet router's Internet connection via the FRITZ!WLAN Repeater.

1.2 Package Contents

- FRITZ!WLAN Repeater 1750E
- 1 LAN cable (network cable)
- 1 printed quick guide

1.3 Button and LEDs

The FRITZ!WLAN Repeater has a button and various LEDs on the front panel.




LEDs and button

Button

The following functions are operated using the button:

Function	Press for at least ...
Switching wireless LAN on and off	1 second
Starting a WPS Quick Connection	6 seconds
Restoring the repeater to factory settings	15 seconds

LEDs

LED	Condition	Meaning
Signal strength 	flashing	<ul style="list-style-type: none"> Searching for wireless access point No connection with the wireless access point
	on	<p>The more LEDs are lit up, the stronger the connection with the wireless access point</p> <p>In the “LAN Bridge” mode: signal strength of the connection with the first registered wireless LAN device</p>
Power	flashing	<ul style="list-style-type: none"> FRITZ!WLAN Repeater starts Updating the firmware of the FRITZ!WLAN Repeater
	on	FRITZ!WLAN Repeater is ready for operation
WLAN	flashing	<ul style="list-style-type: none"> FRITZ!WLAN Repeater adopts wireless LAN settings Switching wireless radio network on or off Performing WPS
	flashing rapidly	WPS aborted. More than two WLAN devices are performing WPS at the same time. Restart WPS.
	on	Wireless LAN is enabled
LAN	on	A network connection has been established to a connected network device
All	flashing	Loading factory settings

2 Before You Connect the FRITZ!WLAN Repeater

Read this chapter before connecting the FRITZ!WLAN Repeater to the power supply and the wireless access point.

2.1 Requirements for Operation

In order to operate the FRITZ!WLAN Repeater 1750E, you must have the following:

- The wireless access point must support the IEEE 802.11ac, 802.11n, 802.11g, 802.11b or 802.11a standard
- The wireless access point must support automatic IP address assignment (DHCP)
- The wireless access point must support forwarding of IP-based protocols/Address Resolution Protocol
- For wireless LAN configuration: The SSID (radio network name) of the wireless access point must be set to “visible”. For a FRITZ!Box this is the case upon delivery.
- For wireless LAN configuration: The MAC address filter of the wireless access point must be disabled. For a FRITZ!Box this is the case upon delivery. If the MAC address filter of the wireless access point is enabled, the MAC address of the FRITZ!WLAN Repeater must be entered as an exception.
- For wireless LAN configuration with WPS: a WPS-compliant wireless access point with up-to-date firmware
- For the wireless LAN configuration: Wireless LAN client that supports the WPA or WPA2 encryption standard

2.2 Security and Handling

When working with the FRITZ!WLAN Repeater, be sure to observe the following security instructions in order to protect yourself and the FRITZ!WLAN Repeater from harm.

- The FRITZ!WLAN Repeater has no On/Off switch. This means it must be possible to disconnect the FRITZ!WLAN Repeater from the power supply at any time.
 - Insert the FRITZ!WLAN Repeater into an electrical outlet that is easy to reach.
- Moisture and liquids that find their way into the FRITZ!WLAN Repeater can cause electric shocks or short circuits.
 - Only use the FRITZ!WLAN Repeater indoors.
 - Never let liquids get inside the FRITZ!WLAN Repeater.
- The device contains hazardous components and should only be opened by authorized repair technicians.
 - Do not open the FRITZ!WLAN Repeater housing.
 - If the FRITZ!WLAN Repeater needs to be repaired, please take it to a specialized vendor.
- During electrical storms, lightning and electrical surges present a danger to connected electrical devices.
 - Do **not** install the FRITZ!WLAN Repeater during an electrical storm.
 - During a storm, disconnect the FRITZ!WLAN Repeater from the power supply.
- Heat accumulation can lead to overheating of the FRITZ!WLAN Repeater and subsequently damage the FRITZ!WLAN Repeater.
 - Provide for sufficient air circulation around the FRITZ!WLAN Repeater.
 - Make sure that the ventilation slits on the FRITZ!WLAN Repeater housing are always unobstructed.
 - Do not cover the FRITZ!WLAN Repeater.

- Insert the FRITZ!WLAN Repeater in an outlet that is protected from direct sunlight.
- Electronic devices like baby monitors, mobile telephones, microwave devices, DECT base stations, cordless telephones, devices with large metal housings like washing machines or radiators, as well as other wireless LAN devices can cause interference in your wireless network.
 - When installing your FRITZ!WLAN Repeater be sure to maintain enough distance from potential interference sources.
- Dust, moisture and vapors as well as caustic cleaners or solvents can damage the FRITZ!WLAN Repeater.
 - Protect the FRITZ!WLAN Repeater from dust, moisture and steam.
 - Remove the FRITZ!WLAN Repeater from the mains before cleaning.
 - Clean the FRITZ!WLAN Repeater with a slightly moist, lint-free cloth.

3 Connecting with the Web Router Wirelessly

You can connect the FRITZ!WLAN Repeater with a FRITZ!Box or other wireless access point (web router) over a wireless radio network.

You can establish the wireless connection using WPS or the configuration wizard.

3.1 Establishing a Wireless LAN Connection Using WPS

Using WPS (Wi-Fi Protected Setup), you can establish a secure wireless LAN connection at the push of a button.

Requirements

- The wireless access point must support WPS and WPS must be enabled.
- The “WLAN Bridge” operating mode must be set in the FRITZ!WLAN Repeater (preconfigured upon delivery of the FRITZ!WLAN Repeater).
- The SSID (radio network name) of the wireless access point must be set to “visible” (announced).
- If the MAC address filter of the wireless access point is enabled, the MAC address of the FRITZ!WLAN Repeater must be entered as an exception.



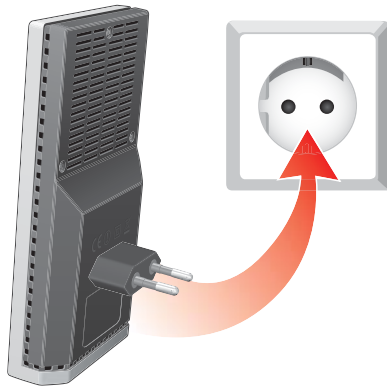
In the presettings of the latest FRITZ!Box models WPS is enabled, the SSID is visible and the MAC address filter is disabled.

Connecting FRITZ!WLAN Repeater via WPS with FRITZ!Box

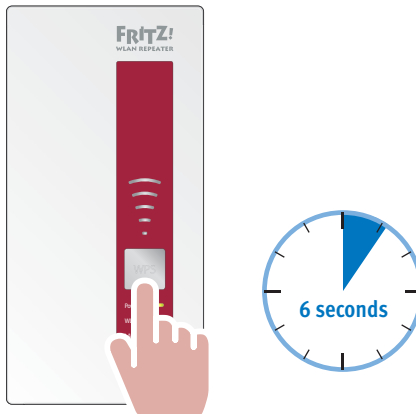
This section describes how to connect the FRITZ!WLAN Repeater with a FRITZ!Box using WPS.

You can also connect the FRITZ!WLAN Repeater with any other wireless access point that supports WPS as described below. In this case, see the documentation of your wireless access point.

1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.

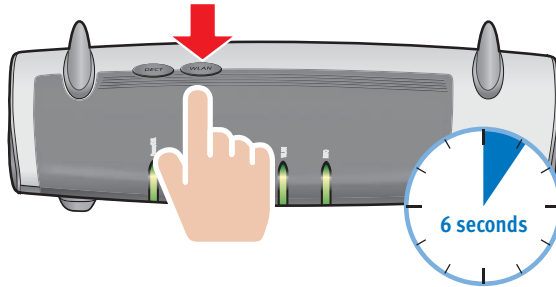


2. Press the “WPS” button on the FRITZ!WLAN Repeater. Hold the button down until the “WLAN” LED flashes.



3. For this step you have two minutes: Press the “WLAN/WPS” or “WPS” button on the FRITZ!Box. If there is no “WPS” button, press the “WLAN” button.

Hold the button on the FRITZ!Box down until the “WLAN” LED flashes.



As soon as the LEDs on the repeater displaying the signal strength remain lit, the connection has been established.



The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and network key of the FRITZ!Box are adopted automatically upon connection with the FRITZ!Box.

To find out how to extend the range of your wireless radio network with the FRITZ!WLAN Repeater, continue reading from [page 18](#).

3.2 Establishing a Wireless LAN Connection Using the Online Wizard

The online wizard is a program you can download and start on your computer.

Requirements

- Computer with Internet access and Windows 8.1, Windows 8, Windows 7 or Windows Vista
- The “WLAN Bridge” operating mode must be set in the FRITZ!WLAN Repeater (preconfigured upon delivery of the FRITZ!WLAN Repeater).
- The SSID (radio network name) of the wireless access point must be set to “visible” (announced).

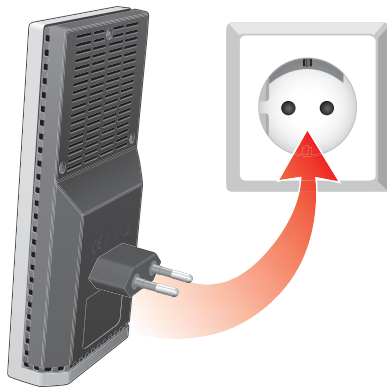
- If the MAC address filter of the wireless access point is enabled, the MAC address of the FRITZ!WLAN Repeater must be entered as an exception.



In the presettings of the latest FRITZ!Box models the SSID is visible and the MAC address filter is disabled.

Establishing a Wireless LAN Connection

1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.



2. Start a web browser on the computer.
3. Enter the address en.avm.de/products/fritzwlan.
4. Save the FRITZ!WLAN Repeater 1750E online wizard on your computer.
5. Start the online wizard and follow the instructions.

A secure wireless LAN connection is being established between the FRITZ!WLAN Repeater and the wireless access point.

6. Select the best location for expanding the wireless radio network.

Insert the FRITZ!WLAN Repeater into an electrical outlet at that location.

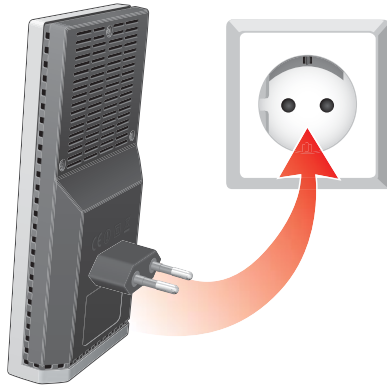
The connection with the wireless access point is re-established automatically.

3.3 Establishing a Wireless Connection Manually

Using this method, you can connect the FRITZ!WLAN Repeater with your wireless access point even if the wireless access point doesn't support WPS and you cannot use the online wizard.

Connecting FRITZ!WLAN Repeater with a Computer

1. Connect the FRITZ!WLAN Repeater to an electrical outlet in the vicinity of the FRITZ!Box.



2. Use the computer's wireless LAN software to establish a wireless connection between the computer and FRITZ!WLAN Repeater. Select WPA or WPA2 as encryption method and enter the key 00000000 (8 zeros, the value preset in the FRITZ!WLAN Repeater).

or

Connect your computer to the LAN port of the FRITZ!WLAN Repeater using the LAN cable included with delivery. The computer must have the setting "Obtain an IP address automatically" enabled (see also [Obtaining an IP Address Automatically](#) on page 31).

Starting the Configuration Wizard

1. Start a web browser on the computer that is connected with your FRITZ!WLAN Repeater.
2. Enter <http://fritz.repeater> in the address line of the browser.
3. The FRITZ!WLAN Repeater Configuration Wizard is started. Click “Next” and follow the instructions.

A secure wireless LAN connection is being established between the FRITZ!WLAN Repeater and the FRITZ!Box.



The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and network key of the FRITZ!Box are adopted automatically upon connection with the FRITZ!Box.

To find out how to extend the range of your wireless radio network with the FRITZ!WLAN Repeater, continue reading from [page 18](#).

4 Extending the Range of the Wireless Radio Network

This chapter describes how to extend the range of your wireless radio network using the FRITZ!WLAN Repeater.

4.1 Prerequisite: Connection with a Wireless LAN Access Point

The FRITZ!WLAN Repeater must be connected with your wireless access point.



For instructions on connecting the FRITZ!WLAN Repeater with your wireless access point, see [page 12](#).

4.2 Choosing the Best Location for the FRITZ!WLAN Repeater

Choose an appropriate location and plug the FRITZ!WLAN Repeater into an electrical outlet there.

The wireless LAN connection to your wireless access point is re-established automatically after connecting the repeater to the outlet. The settings of the FRITZ!WLAN Repeater remain intact if you disconnect the device from the power mains.

How to Find the Ideal Location

- Place the FRITZ!WLAN Repeater halfway between your wireless access point and the wireless devices the repeater is supposed to integrate into your wireless network.

If there is no electrical outlet at this location, test different other locations.

- The LEDs show you the strength of the radio signal received by the FRITZ!WLAN Repeater from the wireless access point. The better the radio signal received, the better the radio signal passed on by the FRITZ!WLAN Repeater.
- Make sure to keep sufficient distance from potential sources of interference like microwave devices, electric devices with large metal housings, radiators and walls.

4.3 Integrating Wireless Devices into the Wireless Network

Wireless LAN Settings of the FRITZ!WLAN Repeater

The FRITZ!WLAN Repeater is preconfigured so that the radio network name (SSID) and network key of the wireless access point are adopted automatically upon connection with the wireless access point.

This means your FRITZ!WLAN Repeater can be reached in the wireless LAN radio network with the same radio network name (SSID) as your wireless access point (for instance, FRITZ!Box).

Establishing a Wireless LAN Connection

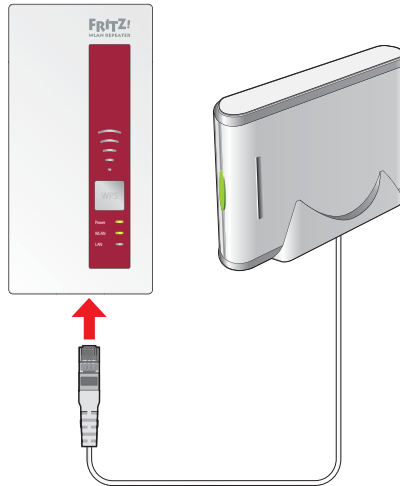
1. Open the wireless LAN software of your computer or of another wireless device.
2. Search for wireless devices in your vicinity.
3. Select the SSID (radio network name) of your wireless access point from the list of wireless devices found.

If the wireless device is located within the range of the wireless access point and within the range of the FRITZ!WLAN Repeater, the SSID of the wireless access point will appear twice in the search results of some wireless devices. Select either of the SSIDs. Your computer will automatically connect with the wireless device that has the stronger signal.

4. Establish the wireless LAN connection.

As soon as the wireless LAN connection has been established, the wireless device receives access via the FRITZ!WLAN Repeater to the radio network and to the Internet connection of the wireless access point.

5 Integrating in the Wireless LAN via LAN Port



Connecting a device to the LAN port

The FRITZ!WLAN Repeater 1750E has a LAN port for a network device, for instance a Blu-ray player, television, satellite/TV receiver, printer, or network storage device.

The connected device is then integrated into your wireless network and can use the Internet connection of the wireless access point.

A LAN cable for connecting a network device is included with delivery of the FRITZ!WLAN Repeater.

Example

You can connect a network storage device to the FRITZ!WLAN Repeater's LAN port. All computers connected wirelessly with the FRITZ!WLAN Repeater or the wireless access point then can download files from the network storage or save files to the network storage.

6 The FRITZ!WLAN Repeater User Interface

The FRITZ!WLAN Repeater has a user interface you can open in a web browser on your computer.

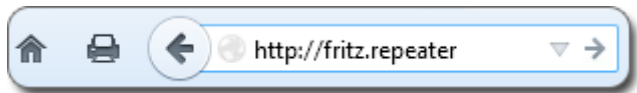
In the user interface, you can edit the FRITZ!WLAN Repeater's settings, enable or disable features and perform firmware updates.

Detailed descriptions of and instructions for settings and features of the FRITZ!WLAN Repeater are presented in the user interface's Online Help.

6.1 Opening the User Interface

The user interface can be opened on every computer connected with the FRITZ!WLAN Repeater or the wireless access point.

1. Start a web browser on your computer.
2. Enter <http://fritz.repeater> in the address field of the browser.



The user interface appears.

If the user interface does not appear, read [The User Interface Is Not Displayed](#) on [page 25](#).

6.2 Protecting the User Interface with a Password

To protect the settings of your FRITZ!WLAN Repeater from unauthorized access, you can set up a password for the user interface.



We strongly recommend setting up and using password protection.


Configuring Password Protection

1. Open the user interface of the FRITZ!WLAN Repeater; see [page 25](#).
2. Go to the “System / Password” menu.

3. Enter a password and click “Apply”.

Password protection is enabled.

Logging Off the User Interface

When password protection is enabled, you can log off the user interface at any time. To do so, click  **Log off** .

6.3 Performing a FRITZ!OS Update

AVM provides free FRITZ!OS updates. FRITZ!OS is the device software (firmware) of the FRITZ!WLAN Repeater.

1. Open the FRITZ!WLAN Repeater user interface (see [page 25](#)).
2. Click “Wizards” and start the “Update FRITZ!OS” wizard.

The wizard checks whether a new FRITZ!OS update is available for your FRITZ!WLAN Repeater.

3. To transfer a new FRITZ!OS to the FRITZ!WLAN Repeater, click “Start Update”.

The FRITZ!OS update begins and the “Power” LED on the FRITZ!WLAN Repeater starts flashing.



Interrupting the FRITZ!OS update can damage the FRITZ!WLAN Repeater. Do not interrupt the power supply to the FRITZ!WLAN Repeater during the update!

The FRITZ!OS update is complete when the “Power” LED stops flashing.

7 Connecting to the Web Router via LAN Cable

You can use a LAN cable to connect the FRITZ!WLAN Repeater to your wireless access point or to a web router without wireless LAN functionality.

Use this connection option in the following cases:

- The web router does not support wireless LAN.
- The wireless access point (web router) and the FRITZ!WLAN Repeater are too far away from each other for a wireless LAN connection.
- Structural conditions, for instance concrete ceilings, prevent establishing a wireless LAN connection.

7.1 When Connecting via LAN Is Advisable

Connecting via LAN is advisable when you cannot or do not want to establish a wireless LAN connection between the web router (for instance FRITZ!Box) and the FRITZ!WLAN Repeater. This may be, for instance, because:

- The web router does not support wireless LAN.
- The web router is too far away from the FRITZ!WLAN Repeater.
- Structural conditions (for instance concrete ceilings) prevent establishing a wireless LAN connection.

7.2 Connecting via LAN Cable or Power Lines

If you do not want to lay any long LAN cables, you can extend your LAN cable via the home's own internal wiring using FRITZ!Powerline.

For more information on FRITZ!Powerline, go to en.avm.de.

7.3 Connecting a Web Router

1. Connect the FRITZ!WLAN Repeater to a computer using the LAN cable included with delivery.
2. Open the FRITZ!WLAN Repeater user interface (see [page 21](#)).

3. Select “System / Operating Mode”.
4. Click the “Change Operating Mode” button.
5. Select the “LAN bridge” operating mode.
6. Click “Next” and follow the instructions.
7. Connect the web router to the FRITZ!WLAN Repeater with a LAN cable.

7.4 Connecting Wireless Devices with the FRITZ!WLAN Repeater

When the “LAN Bridge” operating mode is enabled in the FRITZ!WLAN Repeater you can establish wireless LAN connections to computers and other wireless devices in two ways:

- using the wireless LAN software of the computer or the wireless device
- using WPS
 - Start WPS by pressing the button on the FRITZ!WLAN Repeater; see [Button and LEDs](#) on [page 7](#).
 - The wireless device must support WPS and WPS must be enabled in the wireless device.
 - The SSID (radio network name) of the wireless access point must be visible.
 - If a MAC filter is enabled in the wireless device, enter the MAC address of the FRITZ!WLAN Repeater in the filter as an exception or disable the filter for connections established via WPS.



In the “WLAN Bridge” operating mode only the wireless access point can be connected with the FRITZ!WLAN Repeater via WPS.

8 Help in Case of Errors

8.1 LEDs Not On

The LEDs on the FRITZ!WLAN Repeater do not light up.

Cause

The FRITZ!WLAN Repeater has no electricity.

Help

- Make sure that the FRITZ!WLAN Repeater is connected to electrical power.
- Make sure that the electrical outlet is active.

Cause

The LEDs have been disabled.

Help

Open the user interface (see [page 21](#)). In the “System / Display” menu, enable the “Always show status information” option and click “Apply”.

8.2 The User Interface Is Not Displayed

The user interface of the FRITZ!WLAN Repeater is not displayed in the web browser.

Cause

The address “fritz.repeater” cannot be reached.

Help

Open the network overview of your wireless access point. Make note of the IP address of your FRITZ!WLAN Repeater. Enter this address in the address field of your browser.

If the connection to the wireless access point is interrupted, connect your computer to the FRITZ!WLAN Repeater using the LAN cable included with delivery. Then enter the IP address <http://192.168.178.2> in the address line of your browser.

8.3 No Connection with the Wireless Access Point

Cannot establish a wireless LAN connection between the FRITZ!WLAN Repeater and your wireless access point.

Cause

The FRITZ!WLAN Repeater is located outside the wireless range of your base station.

Help

Reduce the distance between the two devices. Connect the FRITZ!WLAN Repeater to an outlet in another location.

Cause

The wireless LAN function of your wireless access point is disabled.

Help

Enable the wireless LAN function.

Cause

You are attempting to register the FRITZ!WLAN Repeater at your wireless access point using WDS (Wireless Distribution System).

Help

The FRITZ!WLAN Repeater does not support WDS. For instructions on connecting the FRITZ!WLAN Repeater with your wireless access point, see [page 12](#).

Cause

Another wireless radio network in the vicinity is causing interference.

Help

Test a different radio channel. If possible, set automatic radio channel selection in the wireless access point.

Cannot establish a WLAN connection between the FRITZ!WLAN Repeater and the wireless LAN access point via WPS.

Cause

The connection via WPS failed.

Help

Start the connection procedure again (see [Establishing a Wireless LAN Connection Using WPS](#) from [page 12](#)).

Cause

The “LAN Bridge” operating mode is set in the FRITZ!WLAN Repeater. In this mode the wireless LAN access point can only be connected using a LAN cable. In this operating mode you can use WPS only to connect wireless devices like notebooks and smartphones with the FRITZ!WLAN Repeater.

Help

Switch the operating mode to “WLAN bridge” in the “System / Operating Mode” menu in the user interface.

Cause

WPS is disabled on the wireless access point.

Help

Install the latest firmware for your wireless access point and then enable the WPS function in the access point.

Cause

The encryption of your wireless access point is set to “WEP” or “non-encrypted”. WPS can only be used with WPA/WPA2 encryption.

Help

Configure encryption with WPA/WPA2 in the user interface of your wireless access point.

Cause

The radio network name (SSID) at your wireless access point is set to “not visible”.

Help

Set the SSID to “visible”.

The SSID must be visible to establish a connection using WPS. Once the connection has been established you can re-set the SSID of the wireless access point back to “not visible”.

Cause

The MAC address filter of the wireless access point is enabled and the FRITZ!WLAN Repeater is not entered as an exception in the MAC address list of the wireless access point.

Help

Enter the MAC address of the FRITZ!WLAN Repeater as an exception in the MAC address filter of the wireless access point.

8.4 No Wireless LAN Connection with a Computer

No wireless LAN connection can be established between the FRITZ!WLAN Repeater and a computer.

Cause

The computer’s wireless LAN adapter is not ready for operation.

Help

On some notebooks the wireless LAN adapter must be activated by flipping a switch on the notebook. Make sure that the wireless LAN adapter is switched on.

Cause

The computer is located beyond the wireless LAN range of the FRITZ!WLAN Repeater.

Help

Reduce the distance between your computer and the FRITZ!WLAN Repeater.

Cause

The FRITZ!WLAN Repeater is not yet connected with the wireless access point.

Help

Follow the instructions in the section [Connecting with the Web Router Wirelessly](#) from [page 12](#).

Cause

The encryption method set in the FRITZ!WLAN Repeater is different from the one in your computer's wireless LAN software.

Help

Set the same encryption method in your computer's wireless LAN software as in the FRITZ!WLAN Repeater. To find out which encryption method is set in the FRITZ!WLAN Repeater, check the user interface (see [page 21](#)).

For connections to the wireless access point the FRITZ!WLAN Repeater applies the encryption method and network key of the access point. If the connection was established using WPS, the access point has WPA/WPA2 encryption configured.

Cause

Another wireless radio network in the vicinity of the FRITZ!WLAN Repeater and the wireless access point is causing interference.

Help

Test a different radio channel. If possible, set automatic radio channel selection in the wireless access point. Your FRITZ!WLAN Repeater then will use the same channel automatically.

8.5 Throughput too Slow for Wireless AC or Wireless N

A wireless device (for instance, a computer) connected with the FRITZ!WLAN Repeater should use the 802.11ac (Wireless AC) or 802.11n (Wireless N) standard for high data transmission speeds. The throughput achieved by this device, however, is too low for Wireless AC or Wireless N.

Cause

In the FRITZ!WLAN Repeater or in the wireless access point an encryption method other than WPA2 has been configured.

Help

The high transmission speeds of Wireless AC and Wireless N can be used only with the encryption method WPA2. Enable WPA2 in the wireless access point and in the FRITZ!WLAN Repeater.

You can also use Wireless AC and Wireless N in non-encrypted (open) wireless networks. However, an open wireless radio network is a security risk. Therefore we strongly recommend encrypting all wireless networks!

8.6 Cannot Access Devices in the Network

No other devices in the network can be accessed.

Cause

A firewall is running on the devices.

Help

Configure the firewall to allow access to the network.

Cause

The devices are not configured to receive their IP addresses automatically.

Help

Set up the devices as directed in the section [Obtaining an IP Address Automatically](#) from [page 31](#).

Cause

The devices are not bound to TCP/IP.

Help

Check the network connection of the network adapter in the device in question. See the documentation of your operating system for more information.

Obtaining an IP Address Automatically

This section describes how to set automatic IP address assignment in the computers in the network.

Obtaining an IP Address Automatically in Windows

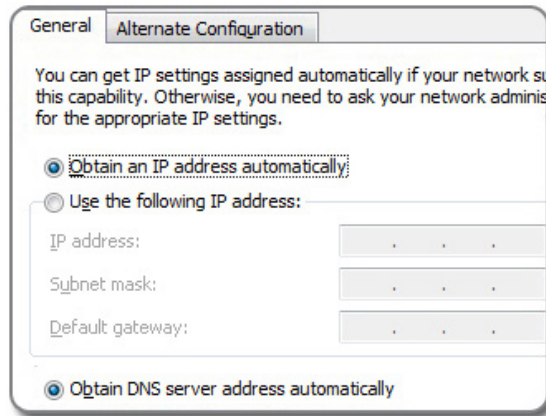
1. In Windows 7 and Vista click “Start”.
In Windows 8 and 8.1, press the Windows key and the Q key at the same time.
In Windows 7 and Vista, the Start menu with the “Search” field appears. In Windows 8 and 8.1 the “Search” menu for apps appears.
2. Enter “ncpa.cpl” in the search field and press Enter.



Entering “ncpa.cpl” in Windows 8

3. Click the network connection of the computer with the right mouse button and select “Properties”.

4. Under “This connection uses the following items”, select “Internet Protocol Version 4 (TCP/IPv4)”.
5. Click the “Properties” button.
6. On the “General” tab, enable the options “Obtain an IP address automatically” and “Obtain DNS server address automatically”.



7. Click “OK” to save the settings.
8. Enable the options “Obtain an IP address automatically” and “Obtain DNS server address automatically” for the Internet protocol version 6 (TCP/IPv6) as well.

The computer receives an IP address from the wireless access point.

Obtaining an IP Address Automatically in Mac OS X

1. Select the “System Preferences” in the Apple menu.
2. In the “System Preferences” window, click the “Network” icon.
3. In the “Network” window, select the “Ethernet” entry from the list.
4. Click the “Advanced...” button. The “TCP/IP” settings page opens. Select the “Using DHCP” option from the “Configure IPv4:” drop-down list.
5. Click “OK”.

9 Technical Specifications

9.1 Physical Specifications

- Dimensions (W x H x D): approx. 76.5 x 155 x 62.6 mm
- Supply voltage: 230 V / 50 Hz
- Total power consumption: approx. 5.5 Watt
- Weight: approx. 151 g
- 3 dual-band antennas
- LAN port over RJ45 socket (gigabit Ethernet, 10/100/1000 Base-T)
- Wireless LAN: IEEE 802.11 ac/n/g/b/a
- Wireless LAN: WPA, WPA2 (802.11i)
- WLAN: 2.4 GHz max. 100 mW/5 GHz max. 200 mW
- Wireless transmission rate (gross) up to 1300 (5 GHz) / 450 (2.4 GHz) Mbit/s
The user data rate that can actually be achieved is somewhat below this value.
- Operating temperature: 0 °C to +40 °C

9.2 User Interface and Display

- Configuration and status messages in a web browser on a connected computer
- “WPS” button to control wireless LAN and WPS and to restore settings
- LED display for information on the connection, activity and status

10 Customer Service Guide

Here you will find the important information you need, in the form of frequently asked questions (FAQs), manuals, updates and support.

10.1 Documentation on the FRITZ!WLAN Repeater

Help in the User Interface

In the user interface (see [page 21](#)), click the Help button to view information on the settings and features of the FRITZ!WLAN Repeater.

Latest Manual

The latest manual is available in PDF format on our website at en.avm.de/service/manuals.

10.2 Information in the Internet

On its website AVM presents comprehensive information on your AVM products as well as new product announcements and new product versions.

[AVM Knowledge Base](#)

In our AVM Knowledge Base you can find precise solutions to your problems. The AVM Knowledge Base is located in the area Service of the “AVM” website:

en.avm.de/service

10.3 Assistance from the Support Team

If you have problems with the FRITZ!WLAN Repeater, proceed as follows:

1. If you have any problems, for instance in establishing connections, read the section [Help in Case of Errors](#) from [page 25](#).
2. Search for a solution in the AVM Knowledge Database. en.avm.de/service

This site contains answers to questions frequently posed to our Support team.

Support by E-mail

You can send us an English-language e-mail request at any time using the “Service” area of our website. You can reach the service area at en.avm.de/service/support-request/your-support-request.

1. Select the product group and your product for which you need support.
You will receive a selection of FAQs.
2. If you need more help, click the “Submit support request” link to open the e-mail support form.
3. Fill out the form and send it to AVM by clicking the “Submit support request” button.

Our Support team will respond by e-mail as quickly as possible.

10.4 Manufacturer's Warranty

We offer a manufacturer's warranty of 5 years on the hardware of this original product. The warranty period begins with the purchase date from the first end user. Compliance with the warranty period can be proven by submission of the original invoice or comparable documents. This warranty does not restrict your warranty rights based on the contract of sale or other statutory rights.

Within the warranty period, we will remove defects to the product which are demonstrably due to faults in materials or manufacturing. Our warranty does not cover defects which occur due to incorrect installation, improper use, non-observance of instructions in the user manual, normal wear and tear or defects in the environment of the system (third-party hardware or software). We may, at our discretion, repair or replace the defective product. Claims other than the right to the removal of defects which is mentioned in these terms of warranty are not constituted.

We guarantee that the software conforms with general specifications, not, however, that the software meets your individual requirements. Delivery costs will not be reimbursed. Products which have been replaced revert to our ownership. Claims recognized under warranty entail neither an extension or recommencement of the warranty period. If we reject a warranty claim, this claim lapses no later than six months after being rejected by us.

This warranty shall be governed by German substantive law, to the exclusion of the United Nations Convention on Contracts for the International Sale of Goods (CISG).

**© AVM GmbH 2014–2016. All rights reserved.
Documentation release 06/2016**

AVM Computersysteme
Vertriebs GmbH
Alt-Moabit 95
D 10559 Berlin

AVM in the Internet: en.avm.de

Legal Notice

Legal Notice

This documentation and the software it describes are protected by copyright. AVM grants the non-exclusive right to use the software, which is supplied exclusively in object code format. The licensee may create only one copy of the software, which may be used exclusively for backup use.

AVM reserves all rights that are not expressly granted to the licensee. Without previous approval in writing, and except for in cases permitted by law, it is particularly prohibited to

- copy, propagate or in any other manner make this documentation or this software publicly accessible, or
- process, disassemble, reverse engineer, translate, decompile or in any other manner open the software and subsequently copy, propagate or make the software publicly accessible in any other manner.

The licensing conditions are presented in the FRITZ!WLAN Repeater 1750E user interface under the “Legal Notice” heading.

This documentation and software have been produced with all due care and checked for correctness in accordance with the best available technology. AVM GmbH disclaims all liability and warranties, whether express or implied, relating to the AVM product’s quality, performance or suitability for any given purpose which deviates from the performance specifications contained in the product description. The licensee bears all risk in regard to hazards and impairments of quality which may arise in connection with the use of this product.

AVM will not be liable for damages arising directly or indirectly from the use of the manual or the software, nor for incidental or consequential damages, except in case of intent or gross negligence. AVM expressly disclaims all liability for the loss of or damage to hardware or software or data as a result of direct or indirect errors or destruction and for any costs (including connection charges) related to the documentation and the software and due to incorrect installations not performed by AVM itself.

The information in this documentation and the software are subject to change without notice for the purpose of technical improvement.

We offer a manufacturer’s warranty for this original product. The warranty conditions are presented from [page 36](#) of this manual.

© AVM GmbH 2014–2016. All rights reserved. Documentation release 06/2016

AVM Audiovisuelles Marketing
und Computersysteme GmbH
Alt-Moabit 95
D 10559 Berlin
Germany

AVM Computersysteme
Vertriebs GmbH
Alt-Moabit 95
D 10559 Berlin
Germany

AVM in the Internet:
en.avm.de

Unless otherwise indicated, all trademarks mentioned are legally protected trademarks owned by AVM. This includes product names and logos in particular. Microsoft, Windows and the Windows logo are trademarks owned by Microsoft Corporation in the USA and/or other countries. All other products and company names are trademarks of their respective owners.

Declaration of CE Conformity

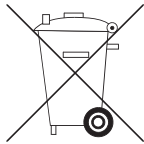
AVM declares herewith that the device is compliant with the basic requirements and the relevant rules in directives 2014/53/EU, 2009/125/EC and 2011/65/EU.

The declaration of CE conformity is available at <http://en.avm.de/ce>.

Disposal Information

In accordance with European regulations, the FRITZ!WLAN Repeater 1750E, as well as all devices and electronic components contained in the package, may **not** be disposed with household waste.

After use, please dispose of FRITZ!WLAN Repeater 1750E and all electronic components and devices included with delivery at a collection point in your local community for the disposal of electric and electronic appliances.



Symbol for the separate collection of electric and electronic devices

Index

A

- access point
 - establishing a wireless LAN connection 12
- ambient conditions 33

B

- button 7

C

- CE conformity declaration 38
- choosing location 18
- configuration wizard 17
- connecting
 - LAN 20
 - to LAN port 20
 - to power mains 18
 - to web router (LAN) 23
 - to wireless access point 12
 - wireless device 19
 - wireless LAN 12
- connecting FRITZ!Box 12
- connection
 - LAN 23
 - wireless LAN 19
- copyright 37
- customer service 34

D

- declaration of CE conformity 38
- disposal 38
- documentation 34

F

- factory settings 7
- firmware update 22
- FRITZ!OS update 22

H

- handling 10
- hazards 10
- help
 - in case of errors 25
 - in the user interface 34
 - knowledge base 34
 - latest manual 34
 - support team 35

I

- imprint 37
- information in the Internet
 - knowledge base 34
- IP address
 - obtaining automatically 31

L

- LAN bridge 23
- LAN port 20
- LED display 7
- LEDs 7
- legal notice 37

M

- manually
 - establishing wireless LAN connection 16
- manufacturer's warranty 36
- mounting 10

N

- name of the radio network
 - see SSID
- network key 19
- notice
 - legal 37

O

online wizard	14
operating	
user interface	21
operation	
security information	10
operation requirements	9

P

package contents	6
password protection	21
power consumption	33

R

radio signal	
see LEDs	
recycling	38
requirements for operation	9

S

security instructions	10
setting up	18
sources of interference	10, 18
SSID	19
support	
by e-mail	35
information in the Internet	34
symbols in the manual	4

T

technical specifications	33
troubleshooting	25

U

user interface	
opening	21
protecting with a password	21

W

warranty	36
web router	
connecting via LAN	23
connecting via wireless LAN	12
wireless access point	
establishing a connection	12
wireless LAN	
button	7
establishing connection	12
establishing connections	19
extending range	18
network key	19
switching on/off	7
WPS	12
wireless LAN repeater	
connecting wireless devices	19
WPS	
establishing connection	12
WPS connection	
button	7
with FRITZ!Box	13