

FRITZ! Repeater 1200 AX

Manual

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General Information on the FRITZ!Repeater

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Safety Instructions

Overview

Before connecting the FRITZ!Repeater, observe the following security instructions in order to protect yourself, the surroundings, and the FRITZ!Repeater from harm.

Easy Accessibility

It must always be possible to disconnect the FRITZ!Repeater from electrical power.

- Plug the FRITZ!Repeater into an electrical outlet that is easy to reach.

Overheating

Heat accumulation can cause the FRITZ!Repeater to overheat. This can result in damage to the FRITZ!Repeater.

- Install the FRITZ!Repeater in a place that is protected from direct sunlight.
- Provide for sufficient air circulation around the FRITZ!Repeater.
- Make sure that the ventilation slits on the housing are always unobstructed.
- Do not cover the FRITZ!Repeater.
- Avoid operation in the direct vicinity of a radiator or heating unit.

Moisture, Liquids, and Vapors

Moisture, liquids, and vapors that find their way into the FRITZ!Repeater can cause electric shocks or short circuits.

- Only use the FRITZ!Repeater indoors.
- Never let liquids get inside the FRITZ!Repeater.
- Protect the FRITZ!Repeater from vapors and moisture.

Improper Cleaning

Improper cleaning with strong detergents, solvents or wet cloths can cause damage to the FRITZ!Repeater.

- Please refer to the information about cleaning your FRITZ!Repeater; see page 10.

Improper Opening and Repairs

Improper opening and improper repairs can present a hazard to FRITZ! Repeater users.

- Do not open the FRITZ!Repeater.

Power Surges Caused by Lightning

During electrical storms, electrical surges caused by lightning present a danger to connected electrical devices.

- Do not install the FRITZ!Repeater during an electrical storm.
- During a storm, disconnect the FRITZ!Repeater from the power supply.

Package Contents

Package Contents

Amt.	Supplied Part
1	FRITZ!Repeater 1200 AX
1	LAN cable
1	Quick guide

Instructions and Help

Instructions and Help

Use the comprehensive customer documentation to connect, configure and operate your FRITZ!Repeater 1200 AX.

Help	Contents	Location
Manual	Release: Current FRITZ!OS (this manual: FRITZ!OS7.27)	en.avm.de/service/manuals
	Connecting, configuration and operation	
	Range of functions of your FRITZ! device	
Quick guide	Connecting and configuration	Provided in print with your FRITZ!Repeater
Online help	Configuration and operation	http://fritz.repeater/?
Knowledge Base	Solutions for common problems during connection, configuration and operation	en.avm.de/service
Social media	The latest about the FRITZ!Repeater and its FRITZ!Repeater home network	Facebook
		Instagram
		Twitter
		YouTube

Symbols Used

Symbols Used

The following symbols are used in this manual:

	Meaning
	Important message that should be complied with in order to prevent material damage, errors or malfunctions
	Useful tip for configuring and operating the FRITZ!Repeater

Information on Cleaning

Rules

Keep the following rules in mind for cleaning your FRITZ!Repeater:

- Unplug the FRITZ!Repeater from the outlet before cleaning.
- Wipe the FRITZ!Repeater with a slightly moist, lint-free cloth or an antistatic cloth.
- Do not use any strong detergents or solvents for cleaning.
- Do not use any wet cloths for cleaning.

Functions and Structure

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Functions

Extending the Wi-Fi Network

The Wi-Fi network of an internet router (FRITZ!Box) often does not cover all rooms in an apartment or a house. The FRITZ!Repeater 1200 AX expands the Wi-Fi network of the router. With the FRITZ!Repeater, wireless devices like computers, tablets, and smartphones get a connection to the internet router even where its Wi-Fi network is weak or cannot be received at all. You can use the FRITZ!Repeater 1200 AX with any router you like.

Dual-Band Wi-Fi

You can use the FRITZ!Repeater 1200 AX concurrently in the 5-GHz and the 2.4-GHz frequency band.

Encryption

The FRITZ!Repeater supports connections with the WPA (Wi-Fi Protected Access) standard for encryption and authentication in Wi-Fi networks. In this standard, WPA3 mode offers the highest security. The FRITZ!Repeater supports WPA3 in combination with the common WPA2 mode, since there are still only a few wireless devices that support WPA3.

“WPA2 (CCMP)” mode is preconfigured in the FRITZ!Repeater.

Connecting Network Devices

Computers, smartphones, media receivers, and other network devices can be connected in the following ways:

- via Wi-Fi
- by LAN cable

  Connection with a LAN cable is possible only when the connection to the internet router (FRITZ!Box) is established via Wi-Fi.

Connecting the Router with LAN Cable

You can connect the FRITZ!Repeater 1200 AX to your internet router (FRITZ!Box) with a LAN cable. Use this kind of connection in the following cases:

- The internet router does not have Wi-Fi.
- The FRITZ!Repeater is to be deployed at a location where no stable Wi-Fi connection to the internet router is possible.
- A LAN connection to the FRITZ!Box can be established from the place where the FRITZ!Repeater is being used, for example using the existing cabling in your home.

Mesh Wi-Fi

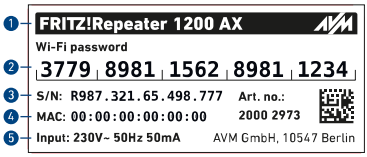
The FRITZ!Repeater supports Mesh in combination with a FRITZ!Box with FRITZ!OS 7.00 or higher. Mesh connects FRITZ! products that support Wi-Fi to form an especially powerful Wi-Fi network with a single name and password.

Device Data on the Type Label

Overview

Important device data on your FRITZ!Repeater device are presented on the type label on the back of the device.

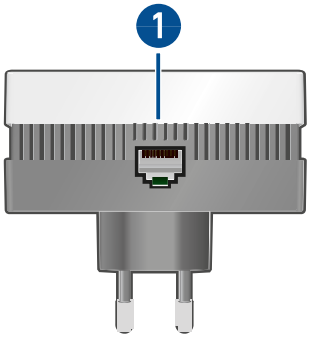
Device Data on the Type Label



No.	Meaning
1	Product name
2	Network key (Wi-Fi password)
3	Serial number
4	MAC address of the FRITZ!Repeater 1200 AX
5	Power adapter specification

Connection Socket

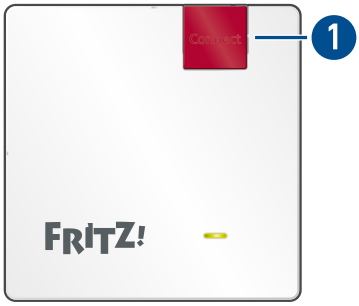
Socket Function



No.	Name	Function
1	LAN	Gigabit Ethernet port for: • Connecting PCs, notebooks, game consoles, smart TV and other network-compatible devices • Connection to router

Button

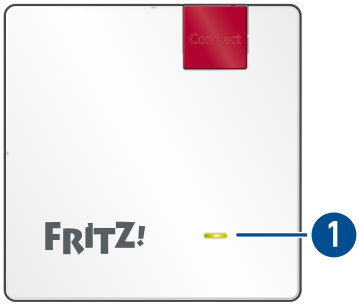
Button Functions



No.	Button	Press for	Function
1	Connect	1 second	• Establishes a Wi-Fi connection (starts WPS) • Enables Mesh
		6 seconds	Connects with another wireless access point
		at least 15 seconds	Load factory settings

LED

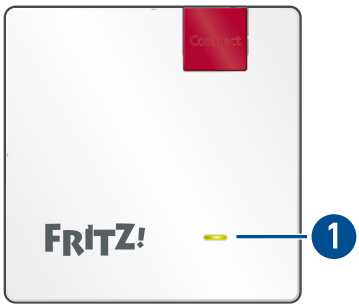
LED Conditions for Wi-Fi Connection to the Router (FRITZ!Box)



No.	LED	Condition	Meaning
1		green	FRITZ!Repeater ready for operation, good Wi-Fi connection to a router/repeater
		flashing green	slowly (every 2 seconds) • FRITZ!Repeater ready to configure a connection fast (twice per second) • Registering with router • Establishing the Wi-Fi connection at the push of a button (performing WPS) • FRITZ!OS update in progress • Loading factory settings
		orange	weak Wi-Fi connection to a router/repeater
		flashing orange	• no connection to router/repeater • “LAN bridge” connection type enabled, no cable connection to the router

No.	LED	Condition	Meaning
		off	• no electrical power • Wi-Fi switching schedule enabled

LED Conditions for LAN Cable Connection to the Router (FRITZ!Box)



No.	LED	Condition	Meaning
1		green	Connection to a router/repeater established
		flashing green	slowly (every 2 seconds) • FRITZ!Repeater ready to configure a connection fast (twice per second) • Wi-Fi registration mode (WPS) started • Integrating a FRITZ! product into the FRITZ!Box's Mesh • FRITZ!OS update in progress • Loading factory settings
		flashing orange	• no connection to router, router not connected • “LAN bridge” connection type enabled, no cable connection to the router

No.	LED	Condition	Meaning
		off	no electrical power

Requirements for Operation

Requirements

- Router with automatic IP address assignment (DHCP)
- For operation as a wireless repeater: FRITZ!Box or other wireless router compliant with IEEE 802.11ax, IEEE 802.11ac, or 802.11n
- For operation with a LAN cable: Router with free LAN socket
- For Mesh: FRITZ!Box with FRITZ!OS 7.00 or higher

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Connecting the FRITZ!Repeater to an Internet Router (FRITZ!Box)

Overview

The FRITZ!Repeater can be connected with an internet router (FRITZ!Box) in two ways: You can establish a Wi-Fi connection to the router or connect the FRITZ!Repeater with a LAN cable.

The connection to the router can be configured either directly on the FRITZ!Repeater or using a computer to open the configuration wizard in the FRITZ!Repeater user interface.

Rules for the Wi-Fi Connection

- You can establish a Wi-Fi connection between the FRITZ!Repeater and the internet router (FRITZ!Box) at the touch of a button (WPS). If you cannot connect at the push of a button, use the configuration wizard in the FRITZ!Repeater user interface.
- Upon connection, the FRITZ!Repeater adopts the following Wi-Fi settings from the router (FRITZ!Box): Wi-Fi network name (SSID), Wi-Fi network key (password), and Wi-Fi encryption.
- In the Mesh of a FRITZ!Box, the FRITZ!Repeater adopts the Wi-Fi network settings of the FRITZ!Box automatically upon connection, and every time they are changed in the FRITZ!Box.
- Without Mesh, the FRITZ!Repeater adopts the Wi-Fi setting just once upon connecting. If you change the Wi-Fi settings in the router, then you have to adopt the settings on the FRITZ!Repeater again; see page 48.

Rules for the LAN Connection

Connect the FRITZ!Repeater via LAN cable in the following cases:

- The FRITZ!Repeater is to be deployed at a location where no stable Wi-Fi connection to the internet router (FRITZ!Box) is possible.
- A LAN connection to the FRITZ!Box can be established from the place where the FRITZ!Repeater is being used, for example using the existing cabling in your home.

Requirements

- The FRITZ!Repeater is set to factory settings. If the FRITZ!Repeater has already been in use, restore its factory settings; see page 68.
- For Wi-Fi connections at the touch of a button: The internet router must support WPS and WPS must be enabled. In a FRITZ!Box WPS is enabled by default.
- To connect via LAN cable without the configuration wizard: the FRITZ!Repeater has at least FRITZ!OS 7.20 or higher. The FRITZ!OS version of your FRITZ!Repeater is found in the user interface of the FRITZ!Repeater; see page 46.

Instructions: Connecting the FRITZ!Repeater with the internet router (FRITZ!Box) via Wi-Fi at the touch of a button

1. Plug the FRITZ!Repeater into an outlet near the internet router (FRITZ!Box).
2. Wait until the LED starts flashing slowly.
3. Press the “Connect” button.

   The LED flashes faster.
4. Within 2 minutes: Start the connection with the touch of a button (WPS) on the router (FRITZ!Box). The procedure depends on the router you are using:

router	Start Connecting
FRITZ!Box with “Connect” or “Connect/WPS” or “WPS” button.	Press button briefly (1 second)
FRITZ!Box with “WLAN” or “WLAN/WPS button”	Press and hold the button down for at least 6 seconds.
Other router	See the documentation of the router for instructions

5. Wait until the LED on the FRITZ!Repeater lights up green.

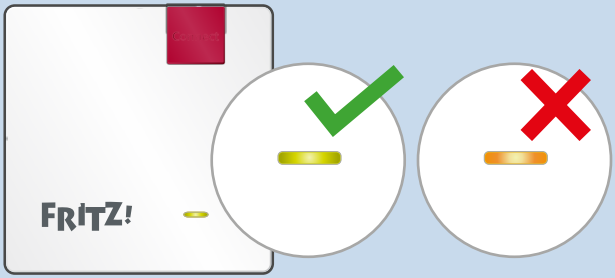
   The Wi-Fi connection to the router (FRITZ!Box) has been established.

If the LED starts flashing slowly again, the connection was not established. Press the buttons again to establish the connection.

6. Plug the FRITZ!Repeater into an electrical outlet where it is to expand the Wi-Fi network. The distance from the router (FRITZ!Box) should be about the same as the distance from the devices for which the Wi-Fi network is being expanded.
7. The FRITZ!Repeater starts and reestablishes the Wi-Fi connection (LED flashes green). Wait 1-2 minutes.
8. Check the LED:

   If the LED is lit up green, then the connection has been established and the FRITZ!Repeater is positioned well.

   If the LED is orange or flashing orange, then the Wi-Fi connection to the router (FRITZ!Box) is weak (orange) or could not be established (flashing orange). Test outlets at other locations; see page 29.



Instructions: Connecting the FRITZ!Repeater with the Internet Router (FRITZ!Box) via Wi-Fi using the Wizard

1. Plug the FRITZ!Repeater into an outlet near the internet router (FRITZ!Box).
2. Wait until the LED starts flashing slowly.
3. Connect the FRITZ!Repeater with a computer using a LAN cable, or establish a Wi-Fi connection between the computer and the FRITZ!Repeater.

The preset Wi-Fi network key of the FRITZ!Repeater is printed on the back of the device and on the back of the quick guide.

4. Enter the address http://fritz.repeater in a web browser on the computer.

   The user interface of the FRITZ!Repeater opens.

5. Set the language for the user interface of the FRITZ!Repeater.

6. Select the country in which the FRITZ!Repeater will be used. This will optimize the Wi-Fi settings for the Wi-Fi frequencies that can be used legally in your region.

   The FRITZ!Repeater restarts and the user interface is opened.

7. Assign a password for the user interface of the FRITZ!Repeater.

   We recommend leaving the AVM services for diagnostics and maintenance of the FRITZ!Repeater enabled. You can change this setting at any time.

8. Click on “OK”.

   The login page of the user interface opens.

9. Log in using the password you just assigned for the user interface of the FRITZ!Repeater.

   The configuration wizard opens.

10. Follow the steps in the configuration wizard through to the end, selecting “LAN bridge” as the type of connection.

    The Wi-Fi connection to the FRITZ!Box has been established when the LED lights steadily.

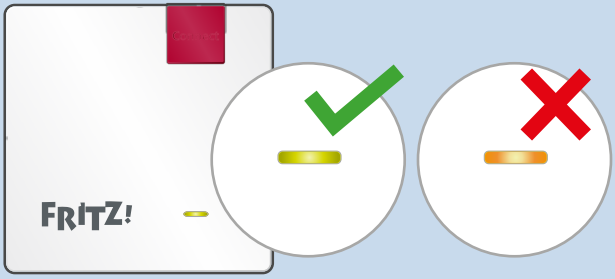
11. Plug the FRITZ!Repeater into an electrical outlet where it is to expand the Wi-Fi network. The distance from the router (FRITZ!Box) should be about the same as the distance from the devices for which the Wi-Fi network is being expanded.

12. The FRITZ!Repeater starts and reestablishes the Wi-Fi connection (LED flashes green). Wait 1-2 minutes.

13. Check the LED:

    If the LED is lit up green, then the connection has been established and the FRITZ!Repeater is positioned well.

If the LED is orange or flashing orange, then the Wi-Fi connection to the router (FRITZ!Box) is weak (orange) or could not be established (flashing orange). Test outlets at other locations; see page 29.



14. To connect to a FRITZ!Box with FRITZ!OS 7.00 or higher, enable Mesh as well; see page 34.

Instructions: Connecting the FRITZ!Repeater to the FRITZ!Box via LAN Cable

Connect the FRITZ!Repeater as described below if your internet router is a FRITZ!Box that has at least FRITZ!OS version 7.00 or higher and if the FRITZ!Repeater has at least FRITZ!OS 7.20 or higher.

If you want to connect the FRITZ!Repeater to a FRITZ!Box with an older version of FRITZ!OS (6.9 or lower), or if your FRITZ!Repeater does not have FRITZ!OS 7.20 installed yet, then see Instructions: Connecting the FRITZ!Repeater to the Internet Router (FRITZ!Box) via LAN Cable Using the Wizard, page 27.

The FRITZ!OS version of your FRITZ!Box and your FRITZ!Repeater is found in the user interface of the FRITZ!Box; see page 33.

1. Connect the FRITZ!Repeater with your FRITZ!Box using the LAN cable.
2. Plug the FRITZ!Repeater into an electrical outlet.

   The FRITZ!Repeater connects to the FRITZ!Box (LED flashes green). The connection is established as soon as the LED lights up green.

Until Mesh is enabled, the FRITZ!Repeater uses its standard Wi-Fi network name and the Wi-Fi network key printed on the back of the device and on the back page of the quick guide.

3. Enable Mesh; see page 34.
4. To optimize the Wi-Fi settings of the FRITZ!Repeater for the Wi-Fi frequencies permitted in its country of operation, set the FRITZ!Repeater to the country in which it will be used; see page 64.

Instructions: Connecting the FRITZ!Repeater to the Internet Router (FRITZ!Box) via LAN Cable Using the Wizard

1. Plug the FRITZ!Repeater into an electrical outlet.
2. Wait until the LED starts flashing slowly.
3. Connect the FRITZ!Repeater with a computer using a LAN cable, or establish a Wi-Fi connection between the computer and the FRITZ!Repeater.

   The preset Wi-Fi network key of the FRITZ!Repeater is printed on the back of the device and on the back of the quick guide.
4. Enter the address http://fritz.repeater in a web browser on the computer.

   The user interface of the FRITZ!Repeater opens.
5. Set the language for the user interface of the FRITZ!Repeater.
6. Select the country in which the FRITZ!Repeater will be used. This will optimize the Wi-Fi settings for the Wi-Fi frequencies that can be used legally in your region.

   The FRITZ!Repeater restarts and the user interface is opened.
7. Assign a password for the user interface of the FRITZ!Repeater.

   We recommend leaving the AVM services for diagnostics and maintenance of the FRITZ!Repeater enabled. You can change this setting at any time.
8. Click on “OK”.

   The login page of the user interface opens.

9. Log in using the password you just assigned for the user interface of the FRITZ!Repeater.

   The configuration wizard opens.

10. Enable the connection type “LAN bridge” and click on “Next”.
11. Specify whether the FRITZ!Repeater should obtain its IP address automatically.

    Enable “Configure the IP address manually” only if you have disabled the DHCP server in the FRITZ!Box.

12. Click on “Next”.
13. Configure the Wi-Fi network settings for the FRITZ!Repeater.

    So that wireless devices can switch automatically from the router to the FRITZ!Repeater (and back), set the same encryption and the same network key as in the router (FRITZ!Box).

14. Click on “Next”.
15. Plug the FRITZ!Repeater into an outlet where you would like to use it.
16. Connect the FRITZ!Repeater to the router (FRITZ!Box) using a LAN cable.
17. To connect to a FRITZ!Box with FRITZ!OS 7.00 or higher, enable Mesh as well; see page 34.

Finding the Ideal Location for the FRITZ!Repeater

Overview

The position for the FRITZ!Repeater that optimizes expansion of the Wi-Fi network can be found by applying the following rules. In combination with a FRITZ!Box you can also use the FRITZ!App WLAN to determine the ideal location.

Rules

- Space should be left between the FRITZ!Repeater and walls, radiators, large devices with metal housings, other wireless devices, and transmitting devices like baby monitors, microwaves and DECT base stations.
- The router's Wi-Fi should be available in high quality. The LED on the FRITZ!Repeater should light up green.
- The distance between the FRITZ!Repeater and the router should be about the same as the distance to the devices for which the Wi-Fi network is being expanded.
- The FRITZ!Repeater should not be located too close to the router. With no obstructions between the devices, the distance should not be much less than 3 meters.

FRITZ!App WLAN

FRITZ!App WLAN includes a feature to evaluate the position of the FRITZ!Repeater. This feature assists you in finding the best location for the FRITZ!Repeater.

FRITZ!App WLAN can be downloaded for free:

Google Play Store	App Store (iOS)

Instructions: Positioning FRITZ!Repeater with FRITZ!App WLAN

1. Start FRITZ!App WLAN.
2. Tap on the “My Repeaters” button under “My Wi-Fi”.
3. Tap on “Evaluate Repeater Position”.
   If the FRITZ!Repeater is not in an optimum position, you will receive tips for improving the range of the Wi-Fi network.

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Mesh of the FRITZ!Box

Overview

Mesh connects FRITZ! products that support Wi-Fi to form an especially powerful Wi-Fi network with a single name and password. The hub in the Mesh is always a FRITZ!Box configured as a Mesh Master. All other FRITZ! products in the Mesh are Mesh Repeaters.

The FRITZ!Repeater 1200 AX supports Mesh in combination with a FRITZ!Box with FRITZ!OS version 7.00 or higher; see page 33.

Features in the Mesh

- In the Mesh, the FRITZ!Repeater automatically adopts the following settings from the FRITZ!Box that is configured as the Mesh Master:
  - Wi-Fi network name (SSID), Wi-Fi network key (password) and Wi-Fi encryption
  - Username and password for the user interface
  - Wi-Fi guest access and Wi-Fi schedule
  - Settings for automatic updates and for push mails
- By means of Mesh steering (band steering/AP steering), wireless devices in the Mesh always connect with the home network via the best access point.
- Updates for the FRITZ!Repeater and other FRITZ! products in the Mesh can be performed centrally in the user interface of the FRITZ!Box (Mesh Master).
- You can connect multiple Mesh Repeaters with each other (in series) to extend the Wi-Fi range in a certain direction.

Determining the FRITZ!OS Version of the FRITZ!Box

Overview

FRITZ!OS is the operating system of the FRITZ!Box. By default, the FRITZ!Box is set so that the current version of FRITZ!OS is regularly installed as an automatic update. If your FRITZ!Box has its own setting, or if you have an older FRITZ!Box, it can happen that the FRITZ!OS installed is an older version.

Which version of FRITZ!OS is on your FRITZ!Box can be read in the user interface.

Instructions: Determining the FRITZ!OS Version on the FRITZ!Box

1. Open the FRITZ!Box user interface. In the browser, enter the address http://fritz.box.
2. Log in to the user interface with your FRITZ!Box password or with the login data of a configured FRITZ!Box user.

   The FRITZ!OS version of your FRITZ!Box is displayed in the header section of the “Overview” page along with the device information.
3. You can find the version number in the following information:

   - If the “Update available” link is displayed next to the version number, a newer FRITZ!OS version is available. Click on the link to update the FRITZ!OS of your FRITZ!Box.
   - If the FRITZ!OS of the FRITZ!Box has version 7.00 or higher, then you can also read the version of the FRITZ!OS on a connected FRITZ!Repeater in the “Home Network / Mesh” menu and update it if necessary.

Enabling Mesh for the FRITZ!Repeater

Overview

When the FRITZ!Repeater is connected with the FRITZ!Box, check whether Mesh is enabled for the FRITZ!Repeater. If Mesh is not enabled yet, enable Mesh now.

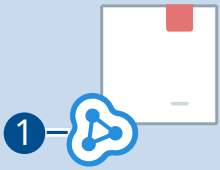
Requirements

- FRITZ!Box with FRITZ!OS 7.00 or higher.

  The FRITZ!OS version of your FRITZ!Box is found in the user interface of the FRITZ!Box; see page 33.

Instructions: Checking Whether Mesh is Enabled

1. Open the FRITZ!Box user interface. In the browser, enter the address http://fritz.box.
2. Select “Home Network / Mesh”.
3. Check whether the FRITZ!Repeater is displayed in the Mesh Overview with the “ Mesh enabled” (1) symbol.



4. If the symbol is missing, then enable Mesh.

Instructions: Enabling Mesh for FRITZ!Repeaters

1. Press briefly on the “Connect” button on the FRITZ!Repeater.

   The LED flashes.

2. Within 2 minutes: Press the button to establish a Wi-Fi connection (WPS) on the FRITZ!Box that is configured as Mesh Master. The procedure depends on the buttons on the FRITZ!Box:

FRITZ!Box with Button	Start Connecting
“Connect” or “Connect/WPS” or “WPS”	Press button briefly (1 second)
“WLAN” or “WLAN/WPS”	Press and hold the button down for at least 6 seconds.

Connecting the FRITZ!Repeater with Another Mesh Repeater (Cascading)

Overview

In the Mesh of a FRITZ!Box you can connect several FRITZ! devices in series as Mesh Repeaters in order to expand the Wi-Fi network in one direction. A Mesh Repeater can be a FRITZ!Repeater, or a FRITZ!Powerline device with Wi-Fi, or a FRITZ!Box configured as a Mesh Repeater. The hub in the Mesh is always a FRITZ!Box configured as a Mesh Master.

Rules

- Cascade more powerful Mesh Repeaters upstream from less powerful Mesh Repeaters.

Requirements

- There is already a Mesh Repeater connected with the Mesh Master (FRITZ!Box).
- For the existing Mesh Repeater, Mesh is enabled, see page 34, and automatic adoption of the Mesh settings is enabled (user interface: “Access to Home Network / Adopt settings enabled”).
- The FRITZ!Repeater you want to connect as an additional Mesh Repeater is set to its factory settings; see page 68.

Instructions: Connecting the FRITZ!Repeater with Another Mesh Repeater

1. Connect the FRITZ!Repeater to an electrical outlet in the vicinity of the other Mesh Repeater.
2. Wait until the LED starts flashing slowly.
3. Press the “Connect” button.

   The LED flashes faster.
4. On the other Mesh Repeater: Start the connection procedure:

Mesh Repeater	Start Connecting
FRITZ!Box with “Connect” or “Connect/WPS” or “WPS” button.	Press button briefly (1 second)
FRITZ!Box with “WLAN” or “WLAN/WPS button”	Press and hold the button down for at least 6 seconds.
FRITZ!Repeater (“Connect” button or “WPS” button)	Press button briefly (1 second)
FRITZ!Powerline (“Connect” button or “WLAN/WPS” button)	Press button briefly (1 second)

5. Wait until the LED on the FRITZ!Repeater lights up green.

   The Wi-Fi connection to the other Mesh Repeater has been established.

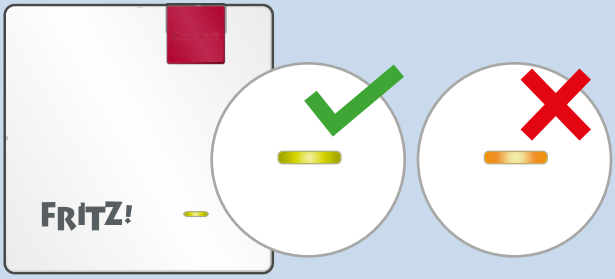
6. Plug the FRITZ!Repeater into an electrical outlet where it is to expand the Wi-Fi network.

7. The FRITZ!Repeater starts and restores the connection to the other Mesh Repeater (LED flashes green). Wait 1-2 minutes.

8. Check the LED:

   If the LED is lit up green, then the connection has been established and the FRITZ!Repeater is positioned well.

   If the LED is orange or flashing orange, then the Wi-Fi connection to the FRITZ!Box is weak (orange) or could not be established (flashing orange). Test outlets at other locations; see page 29.



9. Enable Mesh by pressing the button on the newly configured FRITZ!Repeater and on the FRITZ!Box configured as the Mesh Master; see page 34.

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Opening the User Interface

Overview

Your FRITZ!Repeater has a user interface you can open in a web browser on your computer, tablet or smartphone. In the user interface you can configure your FRITZ!Repeater, enable or disable functions and receive information on connections and interfaces.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts certain settings from the FRITZ!Box (Mesh Master); see page 32. These settings can only be changed in the user interface of the FRITZ!Box.

If you would like to configure unique settings for the FRITZ!Repeater in the Mesh, you can disable adoption of the settings; see page 49.

AVM Services for Diagnostics and Maintenance

The first time the user interface is opened, you will be asked whether you consent to the use of AVM services for diagnostics and maintenance. We recommend leaving the use of AVM services enabled. You can change this setting at any time. For more information on AVM services, see page 44.

Instructions: Opening the User Interface (One FRITZ!Repeater)

If you are using only one FRITZ!Repeater in the home network of your FRITZ!Box, open the user interface as follows:

1. Open a web browser on a computer, tablet or smartphone in the home network.
2. Enter the address http://fritz.repeater.



Instructions: Opening the User Interface (Multiple FRITZ!Repeaters)

If you are using more than one FRITZ!Repeater in the home network of your FRITZ!Box, open the user interface as follows:

1. Open a web browser on a computer, tablet or smartphone in the home network.
2. Enter the address http://fritz.box.

   The FRITZ!Box user interface opens.
3. Select “Home Network / Mesh Overview”.

   The Mesh Overview of the FRITZ!Box shows all of the devices connected with the FRITZ!Box along with their IP addresses.
4. Click on the name of a FRITZ!Repeater or enter its IP address in the web browser.

The user interface of the selected FRITZ!Repeater opens.

Instructions: Opening the User Interface (Other Router)

If your router is not a FRITZ!Box, open the user interface of the FRITZ!Repeater as follows:

1. Open the user interface of the router.
2. Determine the IP address of the FRITZ!Repeater 1200 AX.
3. Enter the IP address in a web browser on a computer, tablet or smartphone.

Instructions: Opening the User Interface (No Connection to the Home Network of the FRITZ!Box)

If the FRITZ!Repeater is not integrated in the home network of a FRITZ!Box and does not have a connection to the internet router, then open the user interface as follows:

1. Plug the FRITZ!Repeater into an electrical outlet.
2. Connect the FRITZ!Repeater with a computer using a LAN cable, or establish a Wi-Fi connection between the computer and the FRITZ!Repeater.

   The preset Wi-Fi network key of the FRITZ!Repeater is printed on the back of the device and on the back of the quick guide.
3. Open a web browser on the computer and enter the address http://fritz.repeater or 192.168.178.2.

Areas of the User Interface



No.	Function / Display
1	Menu
2	Device information and FRITZ!OS version
3	Online help
4	Type of connection (to the home network)
5	Configuration wizards
6	Connected devices and devices in the home network
7	Left • Contents: all pages in the user interface • Manual: FRITZ!Repeater 1200 AX (PDF) • en.avm.de: AVM website

Configuring AVM Services for Diagnostics and Maintenance

Overview

The AVM services for diagnostics and maintenance support the security and further development of your FRITZ!Repeater 1200 AX and keep the FRITZ!OS up to date.

AVM Services

AVM Service	Function
Search for updates	Your FRITZ!Repeater connects with the AVM update server regularly to search for and install FRITZ!OS updates.
Diagnostics data for error analysis	The FRITZ!Repeater transmits error reports and technical diagnostics data to AVM upon suspicion of misuse by third parties.
Diagnostics data for system maintenance	In order to make the FRITZ!OS more secure and develop it further, the FRITZ!Repeater transmits device-specific data like the FRITZ!Repeater model, FRITZ!OS version, basic settings and your network provider to AVM.

Data Privacy

The diagnostics data and the device-specific data transmitted by your FRITZ!Repeater to AVM do not contain any personalized data. The data transmitted serve the exclusive purpose of technical adaptations and optimizations of your FRITZ!Repeater. Also, AVM does not pass these data on to third parties. The exact wording of the data privacy statement is presented under “Legal Notice / Data Privacy Statement” in the online help.

Instructions: Configuring AVM Services

1. Open the user interface; see page 40.

2. Select “Contents / AVM Services”.
3. For instructions, open the online help .

Determining the FRITZ!OS Version of the FRITZ!Repeater

Overview

FRITZ!OS is the operating system of the FRITZ!Repeater. By default, your FRITZ!Repeater is set so that the current version of FRITZ!OS is regularly installed as an automatic update. If you reconnect the FRITZ!Repeater, or if your FRITZ!Repeater has its own setting, it can happen that the FRITZ!OS installed is an older version.

Which version of FRITZ!OS is on your FRITZ!Repeater can be read in the user interface.

Instructions: Determining the FRITZ!OS Version on the FRITZ!Repeater

1. Open the user interface of the FRITZ!Repeater; see page 40.
2. Log in to the user interface.

   The FRITZ!OS version of your FRITZ!Repeater is displayed in the header section of the “Overview” page along with the device information.
3. You can find the version number in the following information:

   - If the “Update available” link is displayed next to the version number, a newer FRITZ!OS version is available. Click on the link to update the FRITZ!OS of your FRITZ!Repeater.

User Interface: Access to Home Network Menu

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Adopting Wi-Fi Settings from the Router (FRITZ!Box)

Overview

You can adopt the Wi-Fi settings of the router at the touch of a button. You only need this feature if your router is not a FRITZ!Box, or if your FRITZ!Box does not support Mesh.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts the Wi-Fi network settings when it is connected, and every time they are changed in the FRITZ!Box; without Mesh, they are adopted only upon connection.

The Wi-Fi settings adopted are the Wi-Fi network name (SSID), Wi-Fi network key, and the Wi-Fi encryption.

Instructions: Adopting the Router's Wi-Fi Settings at the Touch of a Button

1. Press the “Connect” button on the FRITZ!Repeater briefly.

   The LED flashes.

2. Within 2 minutes: Start the adoption of Wi-Fi settings at the touch of a button (WPS) on the router (FRITZ!Box). The procedure depends on the router you are using:

router	Start Connecting
FRITZ!Box with “Connect” or “Connect/WPS” or “WPS” button.	Press button briefly (1 second)
FRITZ!Box with “WLAN” or “WLAN/WPS button”	Press and hold the button down for at least 6 seconds.
Other router	See the documentation of the router for instructions

Disabling Adoption of Settings from the Mesh

Overview

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts certain settings from the FRITZ!Box (Mesh Master) by default; see page 32.

You can disable the adoption of settings in the Mesh and configure customized settings for your FRITZ!Repeater. Doing so does not remove the FRITZ!Repeater from the Mesh.

Requirements

- The FRITZ!Repeater is in the Mesh of a FRITZ!Box

Rules

Disabling adoption of the settings results in the following restrictions:

- Changes to settings in the FRITZ!Box are no longer automatically adopted by the FRITZ!Repeater.
- Mesh steering is no longer available for the FRITZ!Repeater.

Instructions: Disabling Adoption of the Settings from the Mesh

1. Open the user interface; see page 40.
2. Select “Access to Home Network”.
3. Disable the option “Adopt settings enabled” in the “Adopt Settings from the Mesh” section.
4. Click on “Apply” and wait until you receive the message that the FRITZ!Repeater configuration has been concluded.

Changing the Type of Connection

Overview

The FRITZ!Repeater can be connected with an internet router (FRITZ!Box) in two ways: You can establish a Wi-Fi connection to the router or connect the FRITZ!Repeater with a LAN cable.

The following connection types must be configured for the FRITZ!Repeater:

- for connection via Wi-Fi: “Wireless bridge” (standard setting)
- for connection via LAN cable: “LAN bridge” “LAN bridge” is configured automatically for FRITZ!Repeaters with FRITZ!OS version 7.20 or higher whenever they connect to a FRITZ!Box with FRITZ!OS version 7.00 or higher.

You can check this setting manually on your FRITZ!Repeater and change it if needed.

Application Example

- The FRITZ!Repeater was already connected with the internet router (FRITZ!Box) via LAN cable and now is to be connected via Wi-Fi.
- When the FRITZ!Repeater was connected with the internet router (FRITZ!Box) via LAN cable, it was not automatically set to the connection type “LAN bridge”.

Instructions: Changing the Type of Connection

1. Open the user interface; see page 40.
2. Select “Access to Home Network”.

   The type of connection configured for your FRITZ!Repeater is displayed.
3. To change this setting, click on “Change the Type of Connection” and follow the instructions in the configuration wizard.

User Interface: Network

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Configuring the IP Address Manually

Overview

In the default setting, the FRITZ!Repeater automatically obtains an IP address from the internet router (FRITZ!Box). You can also define the IP address for the FRITZ!Repeater manually.

Application Example

- The FRITZ!Repeater is to be used in a home network where there is no DHCP server to assign IP addresses automatically.

Instructions: Configuring the IP Address Manually

1. Open the user interface; see page 40.
2. Select “Network / Network Settings”.
3. For instructions, open the online help.

User Interface: Wi-Fi Menu

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Changing the Name of the Wi-Fi Network (SSID)

Overview

You can change the Wi-Fi network name (SSID) of the FRITZ!Repeater.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts the Wi-Fi network name (SSID) from the FRITZ!Box (Mesh Master).

If you would like to configure a unique Wi-Fi network name (SSID) for the FRITZ!Repeater in the Mesh, you can disable adoption of the settings; see page 49.

Example

The FRITZ!Repeater has the same SSID as your internet router (FRITZ!Box). However, you would specifically like to select the Wi-Fi network of the FRITZ!Repeater on a wireless device.

Instructions: Changing the Wi-Fi Network Name (SSID)

1. Open the user interface; see page 40.
2. Select “Wi-Fi / Wi-Fi Network”.
3. For instructions, open the online help .

Configuring a Schedule for Wi-Fi

Overview

If there are regular times when you do not use Wi-Fi, you can set up a switching schedule to save power and reduce Wi-Fi radiation.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts the settings for the Wi-Fi schedule from the FRITZ!Box (Mesh Master).

If you would like to configure a customized Wi-Fi schedule for the FRITZ!Repeater, then you can disable adoption of the settings; see page 49.

Instructions: Configuring a Schedule

1. Open the user interface; see page 40.
2. Select “Wi-Fi / Schedule”.
3. For instructions, open the online help ?.

Changing Wi-Fi Encryption

Overview

You can change the Wi-Fi network key and the WPA mode (encryption standard) of the FRITZ!Repeater.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts the settings for Wi-Fi encryption from the FRITZ!Box (Mesh Master).

If you would like to configure customized Wi-Fi encryption settings for the FRITZ!Repeater, then you can disable adoption of the settings; see page 49.

Example 1

You would like to select the Wi-Fi network of the FRITZ!Repeater specifically on wireless devices. For this reason you assigned the Wi-Fi network a different name (SSID) than the Wi-Fi network of the FRITZ!Box. Now the Wi-Fi network of the FRITZ!Repeater should receive a different network key.

Example 2

You would like to use the latest WPA3 encryption standard with wireless devices.

Instructions: Defining the Network Key and WPA Mode

1. Open the user interface; see page 40.
2. Select “Wi-Fi / Security”.
3. Select a WPA mode; see page 57.
4. Enter a network key. A secure network key has at least 20 characters and contains numerals, upper and lower case letters, and other characters. A list of valid characters is presented in the Online Help.
5. Click on “Apply”.

WPA Mode

WPA Mode	Properties
WPA2+WPA3	Wireless devices that support WPA3 or WPA2 can establish a connection to the FRITZ!Repeater. The FRITZ!Repeater uses WPA3 if a wireless device supports WPA3.
WPA2 (preset)	Wireless devices that support WPA2 can establish a connection to the FRITZ!Repeater. All of the latest wireless devices support WPA2.

Configuring Wi-Fi Guest Access

Overview

If the FRITZ!Repeater is connected with a FRITZ!Box, you can set up a Wi-Fi guest access for your guests. With this your guests receive an internet connection of their own for their smartphones, tablets or laptops. Access to other devices in the home network (for instance, shared files, printers) is not possible from the guest network. No settings on the FRITZ!Box or FRITZ!Repeater can be changed via the guest access.

In the Mesh of a FRITZ!Box, the FRITZ!Repeater automatically adopts the settings for the Wi-Fi guest access from the FRITZ!Box (Mesh Master).

If you would like to configure customized Wi-Fi guest access settings for the FRITZ!Repeater, then you can disable adoption of the settings; see page 49.

Instructions: Configuring Wi-Fi Guest Access

1. Open the user interface; see page 40.
2. Select “Wi-Fi / Guest Access”.
3. For instructions, open the online help.

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Configuring a FRITZ!Repeater Password

Overview

A password protects your FRITZ!Repeater from unauthorized access even when there is no connection to the home network of the FRITZ!Box.

Rules for Passwords

- Select a password with at least twelve characters, which includes capitals and lower-case letters as well as numerals and special characters.

Characters allowed	Illegal characters
Letters from a to z in lower case and upper case	The letter ß
	Umlauts ä, ö, ü in upper and lower case
Numerals 0 to 9	
Spaces	
Special characters: _ - ! " # $ % & ' ( ) * + , . / : ; < = > ? @ [\ ] ^ ‘ { | } ~	Special characters: § ´

- Configure the “Forgot password” push service. The push service. sends you an email with an access link which you can use to assign a new password for your FRITZ!Repeater.

If you forget your FRITZ!Repeater password and did not configure the “Forgot password” push service, you will have to restore the factory settings to the FRITZ!Repeater.

Instructions: Configuring a FRITZ!Repeater Password

1. Open the user interface; see page 40.
2. Go to the “System / Password” menu.

3. For instructions, open the online help .

Switching LED On and Off

Overview

You can switch the LED on or off permanently.

Instructions: Switching LED On and Off

1. Open the user interface; see page 40.
2. Go to the “System / LEDs” menu.
3. Enable or disable the “Turn off the LED display” checkbox.
4. Click on “Apply”.

Setting the User Interface Language

Overview

You can change the language of the user interface. You can choose between Dutch, English, French, German, Italian, Polish, and Spanish.

Instructions: Setting the User Interface Language

1. Open the user interface; see page 40.
2. Select “System / Region and Language / Language”.
3. Select a language for the user interface from the “Language” drop-down list.
4. Click on “Apply”.

   The FRITZ!Repeater restarts automatically.

After the restart, the user interface of the FRITZ!Repeater appears in the selected language.

Adjusting the Wi-Fi Settings for Specific Countries

Overview

The FRITZ!Repeater is prepared for operation in different countries. To optimize the Wi-Fi settings of the FRITZ!Repeater for the Wi-Fi frequencies permitted in the country of operation, you can set the FRITZ!Repeater to the country in which it will be used.

Instructions: Setting the Country

1. Open the user interface; see page 40.
2. Select “System / Region and Language / Regional Options”.
3. Select the country in which you operate the FRITZ!Repeater.
4. Click on “Apply”.

   The FRITZ!Repeater restarts automatically.

After the restart, the Wi-Fi settings of the FRITZ!Repeater are optimized for the regional Wi-Fi frequencies.

Updating FRITZ!OS

Overview

FRITZ!OS is the operating system of the FRITZ!Repeater. AVM provides free updates for the FRITZ!OS of your FRITZ!Repeater. Updates contain further developments and often new features.

By default, your FRITZ!Repeater is set so that the current version of FRITZ!OS is regularly installed as an automatic update. If you reconnect the FRITZ!Repeater, or if your FRITZ!Repeater has its own setting, it can happen that the FRITZ!OS installed is an older version.

You can update the FRITZ!OS of your FRITZ!Repeater either with the update wizard in the user interface, or in the Mesh Overview of the FRITZ!Box, or using even without an internet connection an update file.

Always install the latest version of FRITZ!OS on all FRITZ! devices. This keeps your FRITZ! devices up to date and ensures optimum synchronization of all devices in your home network.

Requirements

- To update the FRITZ!OS in the Mesh Overview of the FRITZ!Box: FRITZ!Box with FRITZ!OS 7.00 or higher

Instructions: Updating FRITZ!OS via Update Wizard

1. Open the user interface; see page 40.
2. Select “System / Update / FRITZ!OS Version”.
3. For instructions, open the online help .

Instructions: Updating FRITZ!OS in the Mesh Overview of the FRITZ!Box

1. Open the FRITZ!Box user interface. In the browser, enter the address http://fritz.box.
2. Select “Home Network / Mesh”.

3. If a new update is available, the “Perform Update” button is shown next to the FRITZ!Repeater. Start the update and wait until “Update” was successful appears.

Instructions: Updating FRITZ!OS without an Internet Connection

1. On a computer with an internet connection, enter the following address in the browser: ftp.avm.de
2. Navigate through the following folders: “fritzwlan / your FRITZ! Repeater model / your country / fritz.os”.
3. Download the FRITZ!OS file with the file extension “.image” and save it to a location which you can access via the user interface of your FRITZ!Repeater, for instance, to a USB storage medium.
4. Open the user interface of the FRITZ!Repeater on a computer that's connected with the FRITZ!Repeater; see page 40
5. Select “System / Update / FRITZ!OS File”.
6. Click on the Browse button and select the downloaded file.
7. Click on “Start Update”.

Instructions: Configuring Automatic Updates in FRITZ!Box (Mesh)

If the FRITZ!Repeater is located in the Mesh of a FRITZ!Box, configure automatic updates in the FRITZ!Box:

1. Open the FRITZ!Box user interface. In the browser, enter the address http://fritz.box.
2. Select “System / Update / Auto Update”.
3. For instructions, open the online help.

Instructions: Configuring Automatic Updates in the FRITZ!Repeater

If the FRITZ!Repeater is not located in the Mesh, configure automatic updates in the FRITZ!Repeater:

1. Open the user interface; see page 40.
2. Select “System / Update / Auto Update”.

3. For instructions, open the online help .

Restoring Factory Settings to the FRITZ!Repeater

Overview

You can restore the factory settings to the FRITZ!Repeater.

Application Example

Reset the FRITZ!Repeater in the following cases, for instance:

- You forgot the password for the FRITZ!Repeater user interface.
- The FRITZ!Repeater is to be operated on a different FRITZ!Box or another router.
- The FRITZ!Repeater is to be passed on to other users.
- The FRITZ!Repeater is to be disposed of.

Consequences of Resetting

- All of the settings are reset to the preconfigured values. The installed version of FRITZ!OS remains intact.
- The repeater name is reset to fritz.repeater.
- The FRITZ!Repeater password is reset to the preconfigured password.

Instructions: Restoring Factory Settings to the FRITZ!Repeater at the Touch of a Button

1. Plug the FRITZ!Repeater into a power outlet and wait about 1 minute until the FRITZ!Repeater has started.
2. Press and hold the button on the FRITZ!Repeater for at least 15 seconds.
3. Wait about two minutes until the FRITZ!Repeater has been reset to its factory settings.

Instructions: Restoring Factory Settings to the FRITZ!Repeater via the User Interface

1. Open the user interface; see page 40.
2. Select “System / Restore / Factory Settings”.
3. Click on the “Load Factory Settings” button.
4. Wait about two minutes until the FRITZ!Repeater has been reset to its factory settings.

Malfunctions

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Troubleshooting Procedures

Overview

Use the following sources of help for various kinds of malfunctions:

Malfunction	Help
• No Wi-Fi connection to the FRITZ!Box can be established. • A Wi-Fi connection to another wireless router cannot be established.	Troubleshooting chart; see page 72
Problem with: • configuration • Wi-Fi • internet	Knowledge Base; see page 76
Troubleshooting chart and Knowledge Base do not offer a solution	Support, see page 77

Troubleshooting Chart

Problem	Poss. Cause	Solution
The LED is off	Wi-Fi switching schedule enabled (in “Wireless bridge” mode).	No error. Here you can edit the settings of the switching schedule: • In the user interface of the FRITZ!Box, under “Wi-Fi / Schedule”, if the FRITZ!Repeater is part of the Mesh of a FRITZ!Box. • In the user interface of the FRITZ!Repeater, under “Wi-Fi / Schedule”, if the FRITZ!Repeater is not in the Mesh.

Problem	Poss. Cause	Solution
No Wi-Fi connection to the FRITZ!Box can be established.	"LAN bridge" mode enabled (LED flashing orange, repeater was previously connected via LAN cable).	Restore the factory settings to the repeater; see page 68.
	Keylock of the FRITZ!Box enabled.	Disable the keylock in the user interface of the FRITZ!Box (http://fritz.box) under "System / Buttons and LEDs".
	The MAC address filter of the FRITZ!Box is enabled.	Enable the "Allow all new wireless devices" setting in the FRITZ!Box. This setting is located under "Wi-Fi / Security" or "Wi-Fi / Wi-Fi Network" in the user interface (http://fritz.box). The Advanced view must be enabled in the user interface.
	WPS is switched off in the FRITZ!Box.	Enable the setting "WPS enabled" in the FRITZ!Box. You can find the settings in the user interface (http://fritz.box) under "Wi-Fi / Security / WPS Quick Connection".
Wi-Fi connection to the FRITZ!Box cannot be established (dual band)	The 2.4-GHz band of the FRITZ!Box is switched off.	Enable the 2.4-GHz band in the FRITZ!Box user interface (http://fritz.box) under "Wi-Fi / Wi-Fi Network". The Advanced view must be enabled in the user interface.

Problem	Poss. Cause	Solution
The LED is flashing orange. No Wi-Fi connection to the FRITZ! Box can be established.	"LAN bridge" mode enabled (repeater was previously connected via LAN cable)	Restore the factory settings to the repeater; see page 68.
A Wi-Fi connection to another wireless router cannot be established.	WPS function is switched off in the wireless router.	Enable WPS in the wireless router. See the documentation of the router for instructions.
	The MAC address filter of the wireless router is enabled.	Disable the wireless router's MAC address filter. Instructions are provided by the manufacturer, for instance, in the device manual. After establishing the Wi-Fi connection you can disable the MAC address filter again.
	Unsuitable Wi-Fi encryption configured in the wireless router.	Enable the encryption method WPA3 or WPA2 (CCMP) in the wireless router. Instructions are provided by the manufacturer, for instance, in the device manual.
	"LAN bridge" mode enabled (LED flashing orange, repeater was previously connected via LAN cable).	Restore the factory settings to the repeater; see page 68.

Problem	Poss. Cause	Solution
Wi-Fi connection to the FRITZ!Box is interrupted for up to 10 minutes.	The 2.4-GHz band of the FRITZ!Box is switched off and The FRITZ!Box blocked the 5-GHz band for the legally prescribed DFS wait time (radar detection).	Enable the 2.4-GHz band in the FRITZ!Box user interface (http://fritz.box) under “Wi-Fi / Wi-Fi Network”. The Advanced view must be enabled in the user interface. Then the FRITZ!Repeater can switch to the 2.4-GHz band during the DFS wait time.

Knowledge Base

Overview

Help for resolving problems with the FRITZ!Repeater is provided in the AVM Knowledge Base. This resource presents answers to the questions asked most frequently of our Support team.

If the problem cannot be resolved using the Knowledge Base, then contact the Support team; see page 77.

AVM Knowledge Base

The AVM Knowledge Base is available online at:

en.avm.de/service

Support

Overview

The Support team assists you in resolving any problems with your FRITZ! products.

Preparations

Keep the following device information handy:

- Model
- Serial number
- FRITZ!OS Version
- FRITZ!Box model, or device data on the router from another manufacturer
- Country
- Internet service provider
- Information on the operating system, network (LAN or Wi-Fi)
- Any error messages displayed

Instructions: Support by Email

1. Enter in the web browser the address https://en.avm.de/service.
2. Select your FRITZ!Repeater model in the “Service” area.
3. Enter a keyword in the search field of the Knowledge Base or select an FAQ.
4. If you need more help, click on “Support request”.
5. Fill out the form and click on “Submit support request”.

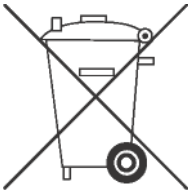
   Our Support team will respond by email as quickly as possible.

Disposal

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Disposal of Used Devices

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



After use, please dispose of the FRITZ!Repeater 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.

Technical Specifications

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Technical Specifications

Device Properties

Property	Value
Dimensions (W x H x D)	approx. 80 mm x 80 mm x 62.6 mm
Supply voltage	230 V / 50 Hz
Certification	Conforms to CE standards

Ambient Conditions

Property	Value
Operating temperature	0 °C – +40 °C
Relative humidity (operation)	10% – 90%

Active Power

Property	Value
Average active power	approx. 3.8 W

Wi-Fi Frequencies

Frequency	Frequency Range	Max. Transmitter Power
2.4 GHz	2400 - 2483 MHz	100 mW
5 GHz	5150 - 5350 MHz	200 mW
	5470 - 5725 MHz	1000 mW

In the 5-GHz band for Wi-Fi, the range from 5150 MHz to 5350 MHz is intended only for indoor use. This restriction or requirement is effective in the countries AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, UK.

Ports and Interfaces

Connect via	Interface
LAN	One LAN port over RJ45 socket (standard Ethernet, 10/100/1000 Base-T)
Wi-Fi – 2.4 GHz range	Wireless access point with support for Wi-Fi networks in the 2.4-GHz range Wi-Fi standards supported: • IEEE 802.11g – for 20 MHz channel bandwidth, transmission rates of up to 54 Mbit/s • IEEE 802.11n – for 40 MHz channel bandwidth, transmission rates of up to 400 Mbit/s • IEEE 802.11ax – for 40 MHz channel bandwidth, transmission rates of up to 600 Mbit/s
Wi-Fi – 5 GHz range	Wireless access point with support for Wi-Fi networks in the 5-GHz range Wi-Fi standards supported: • IEEE 802.11a – for 20 MHz channel bandwidth, transmission rates of up to 54 Mbit/s • IEEE 802.11n – for 40 MHz channel bandwidth, transmission rates of up to 400 Mbit/s • IEEE 802.11ac – for 80 MHz channel bandwidth, transmission rates of up to 2167 Mbit/s • IEEE 802.11ax – for 80 MHz channel bandwidth, transmission rates of up to 2400 Mbit/s

Legal

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Legal Notice

Manufacturer's Warranty

We offer a manufacturer's warranty 5 years on the hardware components. The warranty period begins with the date of purchase by 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).

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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 long version of the declaration of CE conformity is available at en.avm.de/ce.

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