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## **AVM FRITZ!Powerline 540E / 510E Kit**

# **AVM FRITZ!Powerline 540E / 510E Kit Instruction Manual**

Model: FRITZ!Powerline 540E / 510E Kit | Brand: AVM

## **1. INTRODUCTION**

The AVM FRITZ!Powerline 540E / 510E Kit is designed to extend your home network using your existing electrical wiring. This kit allows you to create a fast and secure network connection in any room with a power outlet, providing both Powerline and Wi-Fi capabilities. The FRITZ!Powerline 540E adapter includes Wi-Fi functionality, while the 510E adapter provides a wired Powerline connection. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your FRITZ!Powerline kit.



*Image: Front view of the FRITZ!Powerline 540E adapter, showing LED indicators and LAN ports.*

## 2. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x FRITZ!Powerline 540E adapter (with Wi-Fi)
- 1 x FRITZ!Powerline 510E adapter (without Wi-Fi)
- 2 x Network cables (1.80 meters each)
- 1 x Quick installation guide



Image: The retail box for the FRITZ!Powerline 540E WLAN Set, illustrating the included adapters and their benefits.

## 3. SAFETY INFORMATION

Please read the following safety instructions carefully before using the device:

- Do not open the device casing.
  - Do not expose the device to moisture, dust, or direct sunlight.
  - Ensure adequate ventilation; do not cover the device.
  - Only use the device indoors.
  - Do not plug the device into extension cords or power strips, as this may reduce performance. Plug directly into a wall outlet.
  - Keep the device away from heat sources.
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## 4. SETUP

Follow these steps to set up your FRITZ!Powerline kit:

### 4.1 Initial Connection

1. **Connect the FRITZ!Powerline 510E:** Plug the FRITZ!Powerline 510E adapter into a wall outlet near your router. Connect it to your router's LAN port using one of the provided network cables.
2. **Connect the FRITZ!Powerline 540E:** Plug the FRITZ!Powerline 540E adapter into a wall outlet in the room where you need network access or Wi-Fi coverage.
3. **Wait for Initialization:** The Powerline and WLAN/WPS LEDs on both adapters will flash during initialization. Wait until the Powerline LED on both adapters lights up continuously, indicating a successful Powerline connection.

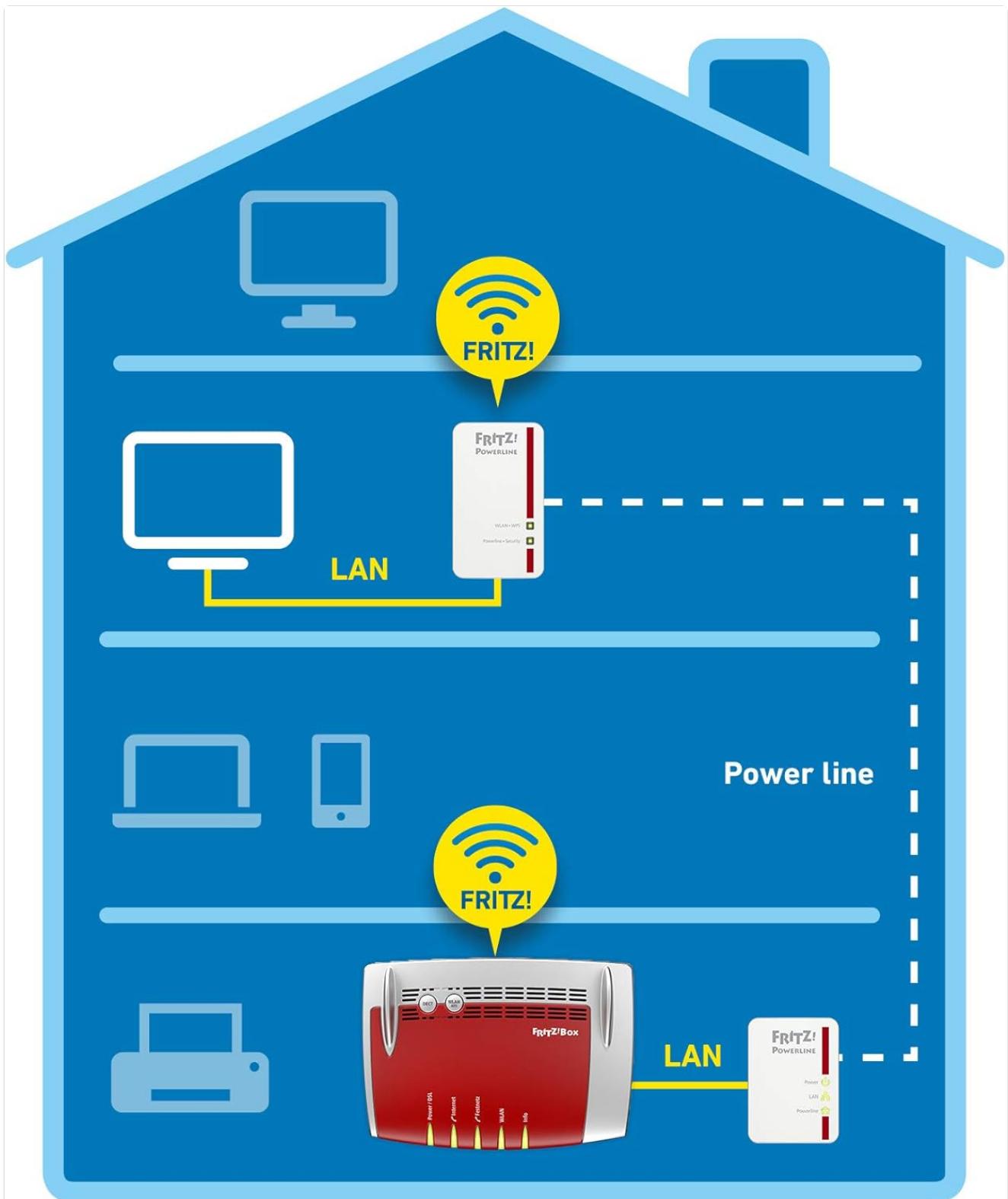


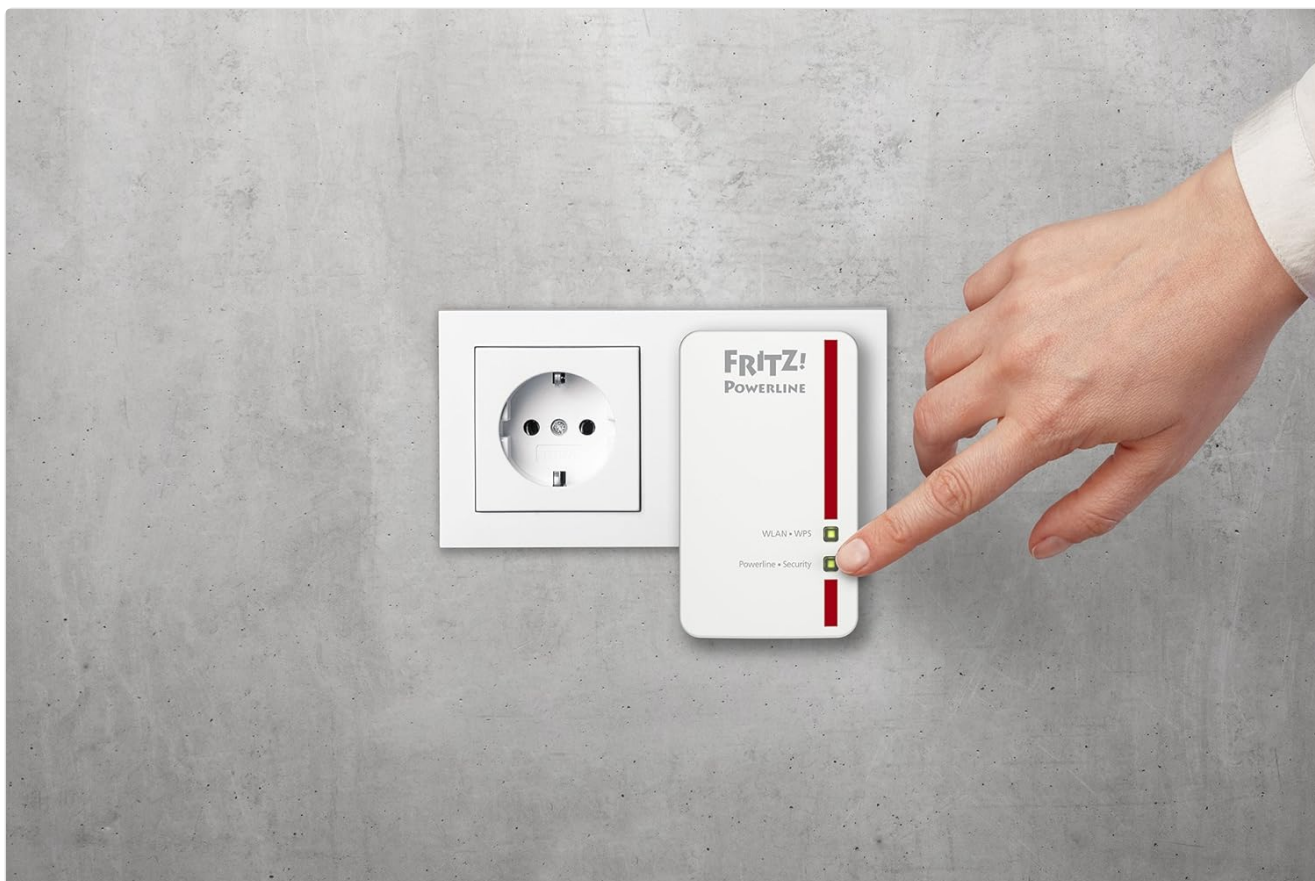
Image: Network diagram showing how FRITZ!Powerline adapters extend a home network via electrical wiring.

## 4.2 Establishing a Secure Connection (Pairing)

If the Powerline LED does not light up continuously, or if you are adding new Powerline adapters, you may need to pair them:

1. Within 2 minutes of plugging in the second adapter, press and hold the **Connect** (or **WPS**) button on the first FRITZ!Powerline adapter for approximately 1 second.
2. Then, within 2 minutes, press and hold the **Connect** (or **WPS**) button on the second FRITZ!Powerline adapter for approximately 1 second.
3. The Powerline LEDs on both adapters will flash and then light up continuously once the secure connection is

established.



*Image: A user pressing the WPS button on a FRITZ!Powerline adapter for pairing.*

### 4.3 Connecting Devices

- **Wired Devices:** Use the remaining network cable to connect devices like PCs, Smart TVs, gaming consoles, or printers to the LAN ports on the FRITZ!Powerline 540E adapter.
- **Wireless Devices:** The FRITZ!Powerline 540E creates a Wi-Fi network. Connect your smartphones, tablets, and laptops to this Wi-Fi network using the network name (SSID) and password found on the label of the 540E adapter or in the FRITZ!Box user interface if Mesh Wi-Fi is enabled.

## 5. OPERATING

The FRITZ!Powerline 540E / 510E Kit operates automatically once set up. Here are key operational aspects:

- **Powerline Network:** Data is transmitted over your home's electrical wiring at speeds up to 500 Mbit/s, providing a stable and secure connection for wired devices.
- **Wi-Fi Network (FRITZ!Powerline 540E):** The 540E adapter broadcasts a Wi-Fi N network with speeds up to 300 Mbit/s, extending your wireless coverage.
- **Mesh Wi-Fi:** If used with a FRITZ!Box, the FRITZ!Powerline 540E can integrate into a Mesh Wi-Fi system, ensuring seamless roaming and optimal Wi-Fi performance throughout your home.
- **User Interface:** You can manage and monitor your FRITZ!Powerline adapters via the FRITZ!Box user interface or the dedicated FRITZ!Powerline software on your computer, tablet, or smartphone. This allows for comfortable control of network settings and Wi-Fi parameters.

## 6. MAINTENANCE

To ensure optimal performance and longevity of your FRITZ!Powerline kit:

- **Cleaning:** Clean the devices with a soft, dry cloth. Do not use liquid or abrasive cleaners.
  - **Firmware Updates:** AVM regularly provides free firmware updates to improve performance, add new features, and enhance security. It is recommended to keep your FRITZ!Powerline adapters updated. Updates can typically be performed via the FRITZ!Box user interface or the FRITZ!Powerline software.
  - **Placement:** Avoid plugging the adapters into power strips or extension cords, as this can degrade performance. Plug them directly into wall outlets.
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## 7. TROUBLESHOOTING

If you encounter issues with your FRITZ!Powerline kit, try the following steps:

- **No Powerline Connection (Powerline LED off/flashing):**
  - Ensure both adapters are plugged directly into wall outlets, not power strips.
  - Verify that the electrical outlets are on the same electrical circuit.
  - Try re-pairing the adapters as described in Section 4.2.
  - Restart both FRITZ!Powerline adapters by unplugging them for 10 seconds and plugging them back in.
- **Slow Connection Speed:**
  - Ensure adapters are not near electrical interference sources (e.g., motors, dimmers).
  - Check the quality of your electrical wiring. Older or complex wiring can affect performance.
  - Update the firmware of your FRITZ!Powerline adapters.
- **Wi-Fi Issues (FRITZ!Powerline 540E):**
  - Ensure the WLAN/WPS LED on the 540E is lit.
  - Verify Wi-Fi settings (SSID, password) are correct on your devices.
  - If using Mesh Wi-Fi, check the FRITZ!Box interface for any issues.
- **No Internet Access:**
  - Confirm your main router has an active internet connection.
  - Check the network cable connection between the 510E and your router.

For further assistance, refer to the AVM support website or contact customer service.

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## 8. SPECIFICATIONS

<b>Brand</b>	AVM
<b>Model Number</b>	20002684
<b>Color</b>	White
<b>Compatible Devices</b>	Desktop computer, laptop, Smart TV, tablet
<b>Powerline Data Transfer Rate</b>	Up to 500 Mbit/s
<b>Wi-Fi Data Transfer Rate (540E)</b>	Up to 300 Mbit/s (Wi-Fi N)
<b>Data Link Protocols</b>	Fast Ethernet, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
<b>Interface</b>	Ethernet
<b>Dimensions (each adapter)</b>	5.9L x 4.1W x 13.2H cm
<b>Weight (each adapter)</b>	186 Grams
<b>Security</b>	AES 128-bit encryption

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## 9. WARRANTY

The AVM FRITZ!Powerline 540E / 510E Kit comes with a manufacturer's warranty of **2 years**. Please retain your proof of purchase for warranty claims. For detailed warranty terms and conditions, refer to the documentation included with your product or visit the official AVM website.

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## 10. SUPPORT

For technical support, product information, or further assistance, please contact AVM customer service:

- **Online Support:** Visit the official AVM website for FAQs, knowledge base articles, and firmware downloads.
- **Telephone Support:** Contact AVM's dedicated support team for direct assistance. Refer to the AVM website for regional contact numbers and operating hours.

AVM is committed to providing high-quality support and continuous product improvements through software updates.