devolo

MAGIC

Manual
devolo Magic 2 WiFi next

devolo Magic 2 WiFi next

Contents

1 Preface

Thank you very much for purchasing our product!

1.1 About this manual

Read all instructions carefully before setting up the device and store the manual and/or installation guide for later reference.

After a brief introduction to the devolo Magic 2 WiFi next adapter in **Chapter 2**, **Chapter 3** tells you how to start using the adapter in your network. **Chapter 4** describes in detail the setting options of the built-in devolo Magic configuration interface.

Information on technical specifications, connection tips, environmental compatibility of the device, and our warranty terms can be found in **Chapter 5** at the end of the manual.

1.2 Description of the icons

This section contains a brief description of the icons used in this manual and/or on the rating plate, the device connector, as well as the icons used on the package:

Symbol	Description
	Very important safety symbol that warns you of imminent electrical voltage which if not observed can result in serious injury or death.
	Very important safety symbol that warns you of an imminently fire hazard caused by overheating through incorrect ambient conditions which if not observed can result in serious injury or death.
	Very important safety symbol that warns you of an imminently hazardous situation which if not observed can result in serious injury or death.
	An important safety symbol that warns you of a potentially dangerous situation involving a tripping hazard which if not observed can result in injuries.
	An important safety symbol that warns you of a potentially dangerous situation involving a burn hazard which if not observed can result in injuries.

Symbol	Description
	The device is restricted to indoor use only.
	The device is a Class I product. All electrically conductive (metal) housing parts which in case of a fault condition during operation or maintenance can be under voltage, must be continuously connected to the ground wire.
FC	The manufacturer/distributing company uses the FCC marking to declare that the product complies with Part 15 of the FCC Rules.
IC	The manufacturer/distributing company uses the IC Canada Compliance marking to declare that the product complies with the IC Canada licence-exempt RSS standard(s).
i	Additional information, background material and configuration tips for your device.
✔	Indicates a completed course of action.

1.3 Intended use

Use devolo products, devolo software and the provided accessories as described to prevent damage and injury.

1.3.1 Product

This product is an electronic, technical device for home networking. The device enables the transmission of the existing Internet signal through household electrical wiring and Wi-Fi. Depending on the product, the device is equipped with a **PLC** (**P**ower**L**ine **C**ommunication) and/or a Wi-Fi module. The device does not replace an existing router.

To transmit the Internet signal over the household electrical wiring and/or Wi-Fi, the device must be plugged into an electrical outlet and must be connected to the router with the Ethernet cable provided or by Wi-Fi.

The device is only compatible with other devices from the devolo Magic series. Compatibility with technically similar devices from other manufacturers is not guaranteed.

Proper use also implies compliance with all product specifications:

Ambient conditions

The device may only be installed and used in dry indoor locations. The device may not be used outdoors because high temperature fluctuations and moisture can damage both the product and the power line.

Temperature range during operation:

- **32°F to 104°F**

Temperature range during storage:

- **-13°F to 158°F**

Maximum installation height:

The device may not be installed at a height above **6.5 ft (two meters)** unless an additional fastening mechanism is available.

The products are intended for operation in the USA and Canada.

Software

devolo devices can be used only with the free, downloadable programs approved and available on devolo AG's website (www.devolo.com) and in app stores (iOS and Google Play). Any modifications to the product-specific firmware or software could damage the products and, in a worst-case scenario, render them unusable and negatively affect conformity.

Always use the most up-to-date software version to make sure you have the latest security functions and device updates. The installed devolo software notifies you automatically if a new software version is available.

Accessories

Use only the accessories provided:

- Ethernet cable: Cat-5e UTP, not for in-wall use

1.4 Safety notes

It is essential to have read and understood all safety and operating instructions before the devolo device is used for the first time; keep them safe for future reference.

⚠ DANGER

Electric shock
Electric shock can cause severe internal injury and can lead to death.
Do not insert any body part into the electrical outlet.
Do not open the device.
Do not insert any objects into the electrical outlet.
Do not insert any objects into the ventilation slots or openings.

⚠ DANGER

Electric shock
Electric shock can cause severe internal injury and can lead to death.
The device must be plugged into a power outlet that is grounded.

devolo devices may be operated only on a power supply as described on the rating plate.

⚠ DANGER

Electric shock caused by liquid
Electric shock can cause severe internal injury and can lead to death.
Do not clean the device using liquid cleaners that contain solvents.
Do not spray the device with liquids.

To disconnect devolo devices from the power supply, unplug the device from the electrical outlet.

⚠ WARNING

Fire hazards from incorrect ambient conditions
Device overheating with fire hazard.
Do not cover the device when it is turned on.
Do not place any objects on the device.
Do not place the device directly next to an open flame.
Do not expose the device to direct radiant heat or sunlight.

devolo devices should only be installed in locations that guarantee adequate ventilation. Slots and openings on the housing are used for ventilation.

⚠ CAUTION

Tripping hazard from connected network cables
Tripping over the network cable can cause minor injuries and bruises.
Lay the network cable with accessibility in mind. Ensure that the power outlet and all connected network devices are easily accessible.

⚠ CAUTION

Heat during operation
The surface of the device may become very hot and cause minor injuries and burns if touched.
Certain housing components may become very hot in certain situations. Install the device so that it will not be touched and ensure that it is ideally positioned.

NOTICE

Damage to the device from the environment
High temperature fluctuations and moisture can damage both the product and the power line.
The device is for indoor use and in dry conditions only.

NOTICE

Damage to device from forcible removal or dropping
Device can become inoperable.
Do not use if housing is damaged.
Do not use if power plug is damaged.
Do not use if Ethernet port is damaged.
Do not use if button is damaged.

Users do not need to carry out any maintenance on devolo devices. In the event of damage, disconnect the devolo device from the power supply by pulling it or its plug out of the electrical outlet. Then contact only qualified specialist personnel (after-sales service).

NOTICE

Damage to housing from cleaning products
Cleaning products containing solvents can damage the housing.
Clean only with a dry cloth or use cleaning products without solvents.

1.5 Regulatory notice and statement

FC IC The following information is intended for devices used in the United States and Canada:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

● Reorient or relocate the receiving antenna.
● Increase the separation between the equipment and receiver.
● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
● Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

● (1) this device may not cause harmful interference, and
● (2) this device must accept any interference received, including interference that may cause undesired operation.

1.5.1 FCC Caution
● This device does not contain any user-serviceable components.
● Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
● Do not open or modify the device.

1.5.2 FCC radiation exposure statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environ-

ment. This equipment should be installed and operated with a minimum distance of 8 inches (20 cm) between the device and your body.

1.5.3 Canada certification

This device complies with the IC Canada licence-exempt RSS standards. Operation is subject to the following two conditions:

● (1) this device may not cause harmful interference, and

● (2) this device must accept any interference received, including interference that may cause undesired operation.

● The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

1.5.4 IC Canada radiation exposure statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 8 inches (20 cm) between the device and your body.

1.5.5 Product safety

The product has been certified and bears the Mark, as applicable, of the Product Safety authorities as indicated below:

Country	Authority/Mark	Laboratory
USA	NRTL	SGS
Canada	SCC	SGS

1.5.6 EMC safety

The product has been certified and bears the Mark, as applicable, of the EMC authorities as indicated below:

Country	Authority/Mark	Laboratory
USA	FCC	Sporton
Canada	IC	Sporton

1.6 devolo on the Internet

For detailed information on our products, please visit www.devolo.com.

There you will find product descriptions and documentation, and also updates of devolo software and your device's firmware.

If you have any further ideas or suggestions related to our products, please don't hesitate to contact us at support@devolo.com!

2 Introduction

2.1 devolo Magic

devolo Magic embodies the new generation of the tried-and-true Powerline technology (PLC) based on the cutting-edge G.hn architecture. G.hn was developed by the International Telecommunication Union (ITU) with ongoing development provided primarily by the HomeGrid Forum industry association. devolo Magic products are certified according to HomeGrid standards and are compatible with other HomeGrid-certified products.

Like the HomePlug AV technology used in reputable devolo dLAN devices, devolo Magic uses the household electrical wiring to transmit data.

To set up a devolo Magic network, you need at least two devolo Magic devices. For technical reasons, devices from the devolo Magic series are not compatible with dLAN devices.

2.2 Short overview of the devolo Magic adapter

Powerline

● Over distances up to 1600 ft
● **Security**—with **128-bit AES** Powerline encryption

Mesh Wi-Fi

● Four antennas cover the 2.4 and 5 GHz Wi-Fi frequencies at the same time and use the full range of the entire 5 GHz frequency band (**D**ynamic **F**requency **S**election, **DFS**).
● **Multi-user MIMO technology**—
The devolo Magic 2 WiFi next streams to your smartphone, tablet and other devices simultaneously
● **Air-time fairness**—Faster Wi-Fi devices take priority in the network
● **Band steering**—Optimum frequency band usage (2.4 and 5 GHz frequency bands)
● **Roaming**—Connect to the strongest Wi-Fi access point available
● **Security**—With **WPA2/WPA3 for wireless ac** ("IEEE 802.11a/b/g/n/ac" Wi-Fi standards)
● **Convenient additional functions** such as parental controls, guest Wi-Fi, scheduling and

Config Sync are integrated in the devolo Magic 2 WiFi next.

● The integrated PowerSave mode reduces energy consumption automatically **when data traffic is low**.

● The **2 gigabit network ports** on the devolo Magic 2 WiFi next let you connect stationary network devices—such as game consoles, a TV or a media receiver—to your Internet access point over the Powerline network (e.g. Internet router).

● Its **integrated electrical outlet** can be used like a standard wall outlet to supply electricity to an another network device or a power strip.

The devolo Magic 2 WiFi next features

● An integrated electrical outlet,

● A PLC button with LED status display,

● A Wi-Fi button with LED status display,

● Four internal Wi-Fi antennas,

● Two gigabit network ports

● A reset button (next to the network ports).

> *The LED status displays can be disabled. You can find more information about this in Chapter* **4 Network configuration**.

Fig. 1: devolo Magic 2 WiFi next

2.2.1 PLC button

Starting up a new devolo Magic PLC network

devolo Magic adapters that are in the factory default condition, i.e. have been recently purchased or successfully reset (see Chapter **3.5 Removing the devolo Magic adapter from a PLC network**), **automatically** start to attempt to pair (establish a PLC connection) with another devolo Magic adapter when reconnected to the mains supply.

After plugging the devolo Magic adapters into available power sockets, a new devolo Magic network is established automatically within 3 minutes.

> **i** *You can find detailed information about installing devolo Magic adapters in Chapter* **3.3.1 Automatic setup for a new devolo Magic PLC network**.

Expanding an existing devolo Magic PLC network by adding another devolo Magic adapter

In order to use a new devolo Magic 2 WiFi next in your devolo Magic network, first you have to connect it to your existing devolo Magic adapters devices as a network. This is accomplished by using a shared PLC password.

> **i** *You can find detailed information about installing devolo Magic adapters in Chapter* **3.3.2 Expanding an existing PLC network by adding another devolo Magic 2 WiFi next**.

2.2.2 Reading the PLC indicator light

The integrated PLC indicator light (**LED**) shows the status of the devolo Magic 2 WiFi next with solid or flashing light:

	LED	Behavior	Meaning	LED status display (web interface*)
1	Red LED	Lights up for up to **2 sec.**	Start-up process	Cannot be disabled
2	Red LED	Flashing at intervals of **0.5 sec.** (**on/off**)	**Status 1**: Reseting the devolo Magic adapter was successful. The PLC button has been pressed and held for 10 seconds. **Status 2**: The devolo Magic adapter has been returned to its factory default settings. Since the last reset, no pairing with another devolo Magic adapter has taken place. Connect the adapter with another devolo Magic adapter to create a full-fledged PLC network as described in Chapter **3.3 Connecting the devolo Magic 2 WiFi next**.	Cannot be disabled

	LED	Behavior	Meaning	LED status display (web interface*)
3	Red LED	Solid on	**Status 1**: The other network nodes are in standby mode, so they cannot currently be accessed over the electrical wiring. The PLC LEDs on the other devolo Magic adapters flash white only for a short time. **Status 2**: The connection to the other network nodes has been interrupted. There may be electromagnetic or radio frequency interference on the power line. In this case, put the devolo Magic adapters closer to each other or try to shut off the source of interference.	Can be disabled
4	Red and white LED	Flashing at intervals of **0.1 sec**. **red**/**2 sec**. **white**	Data transmission rate not in optimum range **	Can be disabled

	LED	Behavior	Meaning	LED status display (web interface*)
5	White LED	**Status 1**: Flashing at intervals of **0.5 sec**. (**on/off**) **Status 2**: Flashing at intervals of **1 sec**. (**on/off**)	**Status 1**: This devolo Magic adapter is in pairing mode and the system is searching for new devolo Magic adapters. **Status 2**: Someone has triggered the "Identify device" function on the web interface or in the devolo Home Network App. This function identifies the devolo Magic adapter being searched for.	Cannot be disabled
6	White LED	Solid on	The devolo Magic connection does not have any issues and the devolo Magic adapter is ready to operate.	Can be disabled
7	White LED	Flashing at intervals of **0.1 sec**. **on** / **5 sec**. **off**	The devolo Magic adapter is in standby mode.***	Can be disabled
8	Red and white LED	Flashing at intervals of **0.5 sec. red**/ **0.5 sec. white**	The devolo Magic adapter is carrying out a firmware upgrade.	Cannot be disabled

* Information about the web interface can be found in Chapter **4 Network configuration**.

** Information about improving the transmission rate can be found in Chapter **5.2 Connection tips**.

***A devolo Magic adapter switches to standby mode after approximately 10 minutes if no active network device (e.g. computer) is connected to the network interface and Wi-Fi is switched off. In this mode, the devolo Magic adapter cannot be accessed over the electrical wiring. As soon as the network device (e.g. computer) connected to the network interface is switched on again, your devolo Magic adapter can also be accessed again over the electrical wiring.

> i *Check whether the adapter is connected to the power supply correctly and whether the pairing operation has been carried out successfully. For more information about this, refer to* **3.3 Connecting the devolo Magic 2 WiFi next**.

2.2.3 Wi-Fi button

This button controls the following functions:

Wi-Fi on/off

In the **factory default settings**, **Wi-Fi** is **enabled** and Wi-Fi encryption is set to **WPA2**. The default key for the initial installation of the devolo Magic 2 WiFi next is the device's Wi-Fi key. You will find this unique key on the label on the back of the housing.

Fig. 2: type plate

Before initiating networking, write down the Wi-Fi key for the devolo Magic 2 WiFi next. You can find the device's unique key on the label on the back of the housing.

In order to connect the devolo Magic 2 WiFi next to your laptop, tablet or smartphone later via Wi-Fi, enter the noted Wi-Fi key as the network security key.

● In order to **switch Wi-Fi off**, press and hold the Wi-Fi button **longer than 3 seconds**.

● In order to **switch Wi-Fi** back **on**, **briefly tap** the Wi-Fi button.

Connecting Wi-Fi devices via WPS

● If the device settings are still their **factory defaults**, **tap the Wi-Fi button** to activate **WPS**.

● If the **Wi-Fi** connection was **switched off** and **you would like to activate WPS**, press the **Wi-Fi button twice**; once to switch Wi-Fi on, and again to activate WPS.

● If the **Wi-Fi** connection is **switched on** and **you want to copy** these settings to another

devolo Magic adapter, go to Chapter **4.7.5 Config Sync**.

*WPS is one of the encryption standards developed by the WiFi Alliance. The objective of WPS is to make it easier to add devices to an existing network. For more detailed information, refer to Chapter **4.4.7 Wi-Fi Protected Setup (WPS)**.*

2.2.4 Reading the Wi-Fi indicator light

The integrated Wi-Fi indicator light (**LED**) shows the status of the devolo Magic 2 WiFi next with solid or flashing light

	Wi-Fi LED	Behavior	Meaning	LED status display (web interface*)
1	White LED	Flashing at intervals of **0,1 sec. on** / **5 sec. off**	The devolo Magic adapter is in WPS mode to connect Wi-Fi-en-abled devices via WPS.	Cannot be disabled
2	White LED	Solid on	Wi-Fi is switched on and active.	Can be disabled
3	White LED	Off	**Status 1**: The Wi-Fi LED is switched off while the devolo Magic adapter remains in operation. **Status 2**: The Wi-Fi function is disabled.	Can be disabled

* Information about the web interface can be found in Chapter **4 Network configuration**.

2.2.5 Reset button

The **reset** button (next to the network ports) has two different functions:

Restart

The device restarts if you press the **reset** button for less than 10 seconds.

Reset—Factory default settings

❶ To remove a devolo Magic adapter from your devolo Magic network and successfully restore its entire configuration to factory defaults, press and hold the **reset** button longer than 10 seconds.

Be aware that this loses all changes to all settings!

❷ Wait until the LED flashes white and then disconnect the devolo Magic adapter from the power supply.

✔ The devolo Magic adapter has been successfully removed from your existing devolo Magic network.

2.2.6 Network ports

You can use the network ports on the devolo Magic adapter to connect it to stationary devices such as computers, game consoles etc. using network cables (Cat-5e UTP, not for in-wall use).

2.2.7 Wi-Fi antennas

The internal Wi-Fi antennas are for connecting to other network devices wirelessly.

2.2.8 Integrated electrical outlet

Use the integrated electrical outlet on the devolo Magic adapter for connecting other general electric consumers to the household power supply. In particular, however, electronic devices with power supply adapters can negatively affect PLC performance.

The integrated power supply filter in the devolo Magic adapter filters out this sort of external interference and reduces the impact on PLC performance.

3 Initial use

This chapter tells you how to set up your devolo Magic 2 WiFi next. It also describes the devolo software that comes with it.

For more information, please visit our website www.devolo.com.

3.1 Package contents

Please verify that the delivery is complete before you begin to install your devolo Magic 2 WiFi next:

● **Starter Kit**:
  ○ 1 devolo Magic 2 WiFi next
  ○ 1 devolo devolo Magic 2 LAN 1-1
  ○ 1 network cable
     (Cat-5e UTP, not for in-wall use)
  ○ Printed installation guide
  ○ Printed safety flyer

or

● **Single adapter**:
  ○ 1 devolo Magic 2 WiFi next
  ○ Printed installation guide
  ○ Printed safety flyer

or

● **Whole Home WiFi Kit**:
  ○ 2 devolo Magic 2 WiFi next
  ○ 1 devolo Magic 2 LAN 1-1
  ○ 1 network cable (Cat-5e UTP, not for in-wall use)
  ○ Printed installation guide
  ○ Printed safety flyer

devolo AG reserves the right to change the package contents without prior notice.

3.2 System requirements

● Operating systems supported by devolo Cockpit:
  ○ Windows 7 (32-bit/64-bit) and later,
  ○ Ubuntu 13.10 (32-bit/64-bit) and later,
  ○ Mac (OS X 10.9) and later
● Network connection

Please note that your computer or other device must have a network card or network adapter with a network interface.

To set up a devolo Magic network, you need at least two devolo Magic adapters.

3.3 Connecting the devolo Magic 2 WiFi next

NOTICE

Damage to the device from the environment

High temperature fluctuations and moisture can damage both the product and the power line.

The device is for indoor use and in dry conditions only.

In the following sections we describe how to connect the devolo Magic 2 WiFi next and integrate it into a network. We clarify the exact procedures based on various possible network configurations.

For the permitted voltage range for operating the device and the power consumption, refer to the type plate on the back of the device. For more technical information about our products, refer to the product area at www.devolo.com.

3.3.1 Automatic setup for a new devolo Magic PLC network

⚠ CAUTION

Tripping hazard from connected network cables

Tripping over the network cable can cause minor injuries and bruises.

Lay the network cable with accessibility in mind. Ensure that the power outlet and all connected network devices are easily accessible.

❶ Connect the devolo Magic 2 LAN 1-1 to your Internet access device's network port (e.g. your Internet router) using the network cable included (Cat-5e UTP, not for in-wall use).

❷ Plug both devolo Magic adapters into available power outlets within 3 minutes. When the LEDs on both adapters flash white at regular intervals of 0.5 sec., they are ready to operate and automatically start the process of establishing an encrypted connection to each other (see Chapter **2.2.2 Reading the PLC indicator light**).

When the LEDs on both devolo Magic adapters light up solid white, your devolo Magic network has been set up according to your individual specifications and is protected from unauthorized access.

Using a Starter Kit, you have now successfully completed the installation.

If using a Whole Home WiFi Kit, please follow the installation instructions in chapter **3.3.2 Expanding an existing PLC network by adding another devolo Magic 2 WiFi next** *to connect the second devolo Magic 2 WiFi next.*

3.3.2 Expanding an existing PLC network by adding another devolo Magic 2 WiFi next

Before you can use the devolo Magic 2 WiFi next in your devolo Magic network, you have to connect it to the network with your existing devolo Magic adapters. This is accomplished using a shared password.

❶ Plug the devolo Magic 2 WiFi next into an available power outlet. When the LED flashes white at regular intervals of 0.5 seconds, the adapter is ready to operate but not yet integrated into a devolo Magic network (see Chapter **2.2.2 Reading the PLC indicator light**).

❷ Within 3 minutes, press the PLC button on a devolo Magic adapter in your existing devolo Magic network for approximately 1 sec.

The new devolo Magic adapter pairs automatically, so no button needs to be pressed. The LED on this adapter now also flashes white.

When the LEDs light up solid white on both devolo Magic adapters, the new adapter has been successfully integrated into your existing devolo Magic network.

With each pairing operation, only one additional adapter can be added at a time.

3.3.3 Changing the network password

A network password can also be changed in the following ways:

● Using the **web interface** of the devolo Magic adapter (see Chapter **4.5 Powerline**)

or

● Using **devolo Cockpit** or the **devolo Home Network App**. For more information about installation, refer to Chapter **3.4 Installation of devolo software**

3.3.4 Establishing a Wi-Fi connection with the devolo Magic 2 WiFi next

Establish a Wi-Fi connection with your laptop, tablet or smartphone by entering the previously noted Wi-Fi key as the network security key.

Integrate the Wi-Fi adapter into an existing Wi-Fi network

To ensure that the devolo Magic 2 WiFi next has the same Wi-Fi configuration as your Wi-Fi router, you can transfer the Wi-Fi access data using the **WiFi Clone** function. This can be enabled in different ways:

Activating WiFi Clone:

● Activating WiFi Clone by pressing a button: Briefly press the **PLC button** on your devolo Magic 2 WiFi next. After the button is pressed, the LED flashes white. Press the WPS button on your router within **2 minutes**. Please consult your router's instruction manual to find out how long to press the button for.

or

● Activating WiFi Clone from the web interface. More information about this function can be found in Chapter **WiFi Clone**.

3.4 Installation of devolo software

Installing devolo Cockpit software

devolo Cockpit finds the accessible devolo Magic adapters in your devolo Magic network, displays information about these devices and encrypts your devolo Magic network individually. You can use the software to navigate to the integrated web interface.

Operating systems supported by devolo Cockpit (Version 5.0 or later):

● Windows 7 (32-bit/64-bit) and later,
● Ubuntu 13.10 (32-bit/64-bit) and later,
● Mac (OS X 10.9) and later

> *You can find the software and more information about devolo Cockpit online at* www.devolo.com/cockpit.

Downloading the devolo Home Network App

The devolo Home Network App is devolo's **free app** for checking and configuring Wi-Fi, Magic and

LAN connections for the devolo Magic adapter (using a smartphone or tablet). The smartphone or tablet connects to the devolo Magic adapter at home over Wi-Fi.

❶ Download the devolo Home Network App to your smartphone or tablet computer from your device's corresponding app store.

❷ The devolo Home Network App will be placed in your smartphone's or tablet's app list as usual. Tapping on the devolo Home Network App icon brings you to the start menu.

> *You can find more information about the devolo Home Network App online at* www.devolo.com/devolo-app.

3.5 Removing the devolo Magic adapter from a PLC network

To remove a devolo Magic adapter from your network and successfully restore its entire configuration to the factory default settings, **press the reset button longer than 10 seconds**.

Wait until the LED flashes white and then disconnect the adapter from the power supply.

Be aware that this loses all changes to all settings!

To integrate it into another network, proceed as described in Chapter **3.3.2 Expanding an existing PLC network by adding another devolo Magic 2 WiFi next**.

4 Network configuration

The devolo Magic 2 WiFi next has a built-in web interface that can be called up using a standard web browser. All settings for operating the device can be modified here.

4.1 Calling up the built-in web interface

You can access the built-in online web interface for the devolo Magic 2 WiFi next in different ways:

● Using the **devolo Home Network App** on your smartphone or tablet, you can access the device's web interface by tapping on the corresponding adapter symbol for the devolo Magic 2 WiFi next.

or

● Using the **Cockpit software**, you can get to the device's web interface by clicking on the corresponding tab for the devolo Magic 2 WiFi next. Then the program determines the current IP address and starts the configuration in the web browser.

By default, the web interface opens immediately. If an access password has been set using the **System** → **Management** *option, however, you have to enter the password first. Read more about this in* **4.7 System**.

You can find more information about the devolo Home Network App and Cockpit software in Chapter **3.4 Installation of devolo software**.
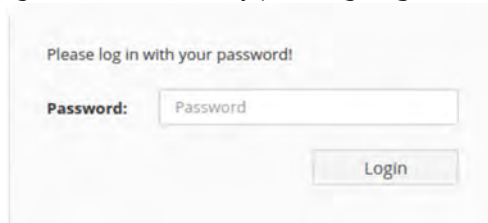
4.2 General information about the menu

All menu functions are described in the corresponding interface as well as in the associated chapter in the manual. The description in the manual follows the same order as the structure of the menu. The figures for the device interface serve as examples.

Logging in

The web interface is not password protected. Assigning a login password is mandatory when logging in for the first time to prevent unauthorized access by third parties.

Enter your existing password each time you login again and confirm by pressing **Log in**.

Logging out

Log out of the web interface by clicking **Log out**.

Language selection

Select your preferred language in the language selection list.

The main areas of the web interface and their sub-categories are listed on the left edge. Click the entry for an area to move directly into it.
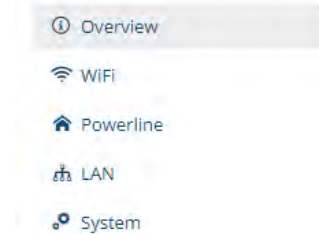
Making changes

Once you make a change, two icons appear on the menu page:

● **Disk** icon: Save your settings.
● **X** icon: Cancel the operation. Your settings are not saved.

Required fields

Fields with a red border are mandatory fields. This means these fields must be filled out to continue with the configuration.

Help text blank fields

Fields that have not been filled out yet contain grayed out help text, which indicates the required content for the field. This help text disappears as soon as content is entered.

Default settings

Some fields contain default settings, which ensure the greatest amount of compatibility and ease of use. Default settings are identified with an ***** in drop-down menus.

Default settings can of course be replaced with custom values.

Recommended settings

Some fields include recommended settings.

Recommended settings can of course be replaced with custom settings.

Tables

You can make changes within a table by clicking the corresponding table row in **Schedule control** and **Parental control**. In edit mode, the corresponding table rows have a blue background. In edit mode, the corresponding table rows have a blue background.

Invalid entries

Entry errors are either highlighted by a red border or error messages appear.

Buttons

Click the **Disk** icon to save the settings for the respective web interface area.

Click the **X** icon or use the **Menu path** above the buttons to exit the respective web interface area.
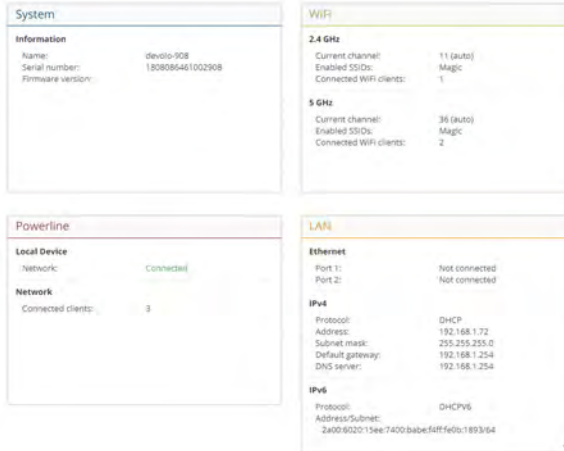
Click the **Recycle bin** icon to delete an entry.

Click the **Arrow** icon to refresh a list.

4.3 Overview

The **Overview** area shows the status of the devolo Magic 2 WiFi next and the connected LAN, PLC and Wi-Fi devices.

4.3.1 System

Name: Device name

Serial number: Device serial number

Firmware version: Firmware version of the device

4.3.2 Wi-Fi

2.4 GHz

Current channel: used frequency channel in the 2.4-GHz frequency range

Enabled SSID: name of the enabled Wi-Fi network

Connected Wi-Fi clients: number of devices connected to the network.

5 GHz

Current channel: used frequency channel in the 5-GHz frequency range

Enabled SSIDs: Name of the enabled Wi-Fi networks

Connected Wi-Fi clients: number of devices connected to the network.

4.3.3 Powerline

Local device

Network: status information "connected" or "not connected"

Network

Connected clients: number of devices connected to the Powerline network

4.3.4 LAN

IPv4

Protocol: Display indicating whether DHCP is switched on or switched off

Address: IPv4 address in use

Subnet mask: IPv4 network mask in use

Default gateway: IPv4 gateway in use

Name server: DNSv4 server in use

IPv6

Protocol: Display indicating whether DHCPv6 is switched on or switched off

Address/subnet: Address/subnet mask in use

4.4 Wi-Fi

Make all changes to your wireless network in the **Wi-Fi** area.

4.4.1 Status

You can see the current status of your Wi-Fi net-work configuration here, including the connected Wi-Fi stations, the MAC address, the selected frequency band, the SSID, the transfer rates and the connection duration.

4.4.2 Wi-Fi networks

You can make all necessary changes to your Wi-Fi network here.

Wi-Fi network mode

The devolo Magic 2 WiFi next supports parallel or independent operation of the Wi-Fi frequency bands.

The **Wi-Fi network mode** field lets you define your preferred setting by clicking the respective field:

● **2.4 GHz + 5 GHz** – Both frequency bands are used
● **2.4 GHz** – Only the 2.4 GHz frequency band is used
● **5 GHz** – Only the 5 GHz frequency band is used
● **Off** – If desired, you can completely switch off the Wi-Fi function of your devolo Magic 2 WiFi next here.

Be aware that after saving this setting, any existing wireless connection to the devolo Magic 2 WiFi next will be disconnected. In this case, configure the device over Ethernet.

Network name

The **network name (SSID)** determines the name of your wireless network. You can see this name when logging onto Wi-Fi, allowing you to identify the correct Wi-Fi network.

Channels

There are 11 channels available in the **2.4 GHz** frequency band. The recommended channels are 1, 6 and 11. This makes sure that the frequency bands of the channels do not overlap and avoids connection problems.

There are 19 channels available in the **5 GHz** frequency band.

The channel selection default setting is **Automatic**.

With this setting, the devolo Magic 2 WiFi next regularly and automatically executes the channel selection. In other words, if the last connected station logs out, a search for a suitable channel is carried out immediately. If no stations are connected, the device automatically selects a channel every 15 minutes.

It is worth noting that connected devices also have to support the increased frequency band of 5 GHz. From channel 52 on you go into the radar range. When accessing the device for the first time, a radar detection phase (DFS) starts automatically, during which time the devolo Magic 2 WiFi next cannot be accessed via Wi-Fi. This can take up to 10 minutes.

In the **Channel** field, you can manually select a 2.4 GHz and a 5 GHz channel. If you are not sure which wireless channels are used by nearby devices, select the **Automatic** option.

Hide SSID:

The **SSID** specifies the name of your wireless network. You can see this name when logging onto

the Wi-Fi, allowing you to identify the correct sub-net.

If the **Hide SSID** option is disabled, your network name is visible. If this option is enabled, potential network users must know the exact SSID and enter it manually to be able to set up a connection.

> *Some Wi-Fi stations have difficulty connect-ing to hidden wireless networks. If the con-necting to a hidden SSID does not work, first try to set up the connection with a visible SSID and then try to hide it after you suc-ceed.*

Security

The **WPA/WPA2/WPA3 Personal (Wi-Fi Protected Access)** security standard is available for securing data transmission on your wireless network. This method allows for individualized keys consisting of **letters and numbers and the depicted special characters with a length of up to 63 characters**. You can simply enter them into the **Key** field using the keyboard.

4.4.3 Guest network

If you have friends or acquaintances visiting and you want to provide them with Internet access but without revealing the password for your Wi-Fi, you can set up a separate guest account in addition to the main Internet connection. The guest account can have its own network name, time limit and Wi-Fi password. This way your visitors can browse the Internet without having access to your local net-work.

To set up a guest account, check the **Enable** option.

The guest account has an **Automatic shutoff** fea-ture. This feature automatically disables the guest network once the selected time period ends.

You can use the **Enable** option to activate the shut-off feature.

*You can also enable or disable the guest account in the **devolo Home Network App** using the **Guest account** button.*

Frequency band

In the **Frequency band** field, select the frequency band to use.

Network name

Define the name of the guest network in the **Network name** field.

Key

You should also encrypt the guest account to prevent anyone in signal range from intruding into your network and, for example, sharing your Internet connection. The **WPA/WPA2/WPA3 (Wi-Fi Protected Access)** security standard is available for this.

This method allows for individualized keys consisting of **letters and numbers with a length of up to 63 characters**. You can simply enter them using the keyboard.

To do so, enter a corresponding number of characters into the **Key** field.

QR code

Using the QR code, you can quickly set up the connection to the guest network for mobile devices. Scan the QR code with a mobile device to automatically transfer the credentials for the guest network to it. The QR code is visible only if the guest network has been enabled.

4.4.4 Mesh

Mesh

All devolo Magic Wi-Fi adapters offer mesh Wi-Fi, which includes the following Wi-Fi functions:

● **Multi-user MIMO technology**
Very likely, you use multiple end devices on your Wi-Fi network, such as a smartphone, tablet, smart TV or game console. This can be a challenge for your Wi-Fi network—it has to regulate the distribution of data streams from the Wi-Fi access point (e.g. router, devolo device) to the end devices. Multi-user MIMO technology makes it possible for your devolo device to supply your smartphone, tablet and other devices with data streams simultaneously.
Thanks to Multi-user MIMO technology, you can finally enjoy using the Internet without

long lag times during online gaming, sporadic drop-outs while streaming in HD or slow downloads.

● **Fast roaming** (IEEE 802.11r) streamlines the registration process for Wi-Fi end devices, such as smartphones and tablets, when switching to another Wi-Fi hotspot.

> *The feature* **Fast roaming** *is not compatible with all Wi-Fi clients. If there are connection problems with one of your devices, please deactivate this option.*
>
> *In the factory default settings of the devolo Magic 2 WiFi next, Fast roaming is turned off.*

● In addition, the **air-time fairness** feature processes the requests of high-speed Wi-Fi clients at higher priority. This prevents older devices, which may require more time for a download, from causing Wi-Fi bottlenecks.

● The **access-point steering** feature (**AP steering**) function enhances your Wi-Fi access point by adding intelligent network optimization. This function actively helps your end devices connect to the best network access point. If the Wi-Fi access point identifies another Wi-Fi access point within your own network that has a stronger signal and better reception, it automatically redirects the end device to that point.

> *In particular, older smartphones, tablets and similar will remain connected to their Wi-Fi access point (e.g. router, devolo device) until the signal gets interrupted. Only then will they switch to a new Wi-Fi access point with better reception.*

● Integrated **band steering** regulates that all Wi-Fi stations automatically switch to the optimum frequency band (2.4 and 5 GHz frequency band) in order to use the strongest available Wi-Fi connection.

To turn the mesh functions on, check the **Enable** option.

The mesh function of the devolo Magic 2 WiFi next is enabled by default.

WiFi Clone

WiFi Clone makes it possible to simply copy the Wi-Fi configuration data from an existing Wi-Fi access point (e.g. your Wi-Fi router) to all Wi-Fi access points (single SSID). Start the procedure with the **Start Configuration** option and then press the WPS button of the device which has the Wi-Fi access data (SSID and Wi-Fi password) you want transfered.

4.4.5 Schedule control

The **Schedule control** area lets you define when your Wi-Fi is switched on and off.

Enabling Wi-Fi schedule control

To use schedule control, check the **Enable** option.

Configuration

You can define multiple time periods each day when your wireless network is to be enabled. Then the schedule control automatically switches the wireless network on and off.

Automatic disconnection

If you enable the **Automatic disconnection** option, the wireless network is not switched off until the last station has logged off.

> *Manually switching the device on and off (using a button) always has priority over automatic schedule control. The configured schedule control then takes effect automatically during the next defined time period.*

4.4.6 Parental control

You can regulate Wi-Fi access times for specific devices using this function. For instance, to prevent your children from using the Internet excessively, you can define how long each day they may access Wi-Fi. Synchronization with an (Internet) time server is necessary to be able to use parental control. In this case, the time server (**System → Management → Time Server (NTP)**) for the devolo Magic 2 WiFi next has to be enabled and an active Internet connection is required.

> *The time server pool.ntp.org is enabled by default. You can find more information in Chapter **4.7.2 Management**.*

If you would like to set up a **Time quota** (usage time in hours) or a **Time period** (active from/to),

check the **Enable** option. Now enter the MAC addresses of the devices you want to set up parental control for.

Under **Type**, define either a **Time quota** (time limit) or a **Time period** for when you want the MAC addresses entered to receive Internet access. Under **Select interval**, select the desired time frame.

Setting the time quota

Under **Time quota**, the time limit can be selected.

Confirm your settings by clicking the **Disk** icon.

Setting the time period

Under **Time period**, the desired time period can be selected. After entering the interval, enter the desired start and end times in hours and minutes.

Confirm your settings by clicking the **Disk** icon.

If you want to delete a time quota (time limit) or a time period from the list, click the **Recycle bin** icon.

4.4.7 Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) is one of the international encryption standards developed by the Wi-Fi Alliance for easily and quickly setting up a secure wireless network. The encryption keys of the respective Wi-Fi devices are transmitted automatically and continuously to the other Wi-Fi device(s) in the wireless network.

Enabling WPS encryption

To use WPS encryption, check the **Enable** option.

The devolo Magic 2 WiFi next offers two different methods for transmitting the encryption keys:

WPS using WPS pushbutton

❶ Start the encryption process on the devolo Magic 2 WiFi next

○ By pressing the **Wi-Fi button** on the **front of the device** or

○ By pressing the corresponding **Start** button on the user interface under **Wi-Fi → WPS Pushbutton**.

❷ Then either press the WPS key of the Wi-Fi device you are adding or enable the WPS mechanism in the Wi-Fi settings of the Wi-Fi device. Now the devices exchange their encryption keys and establish a secure Wi-Fi connec-

tion. The Wi-Fi LED on the front panel indicates the synchronization process by flashing.

WPS via PIN

To interconnect Wi-Fi devices on your wireless network securely using a PIN variant, go to the web interface and, under **Wi-Fi → WPS → WPS PIN**, enter the WPS PIN generated by your Android smartphone or tablet and start the encryption process by pressing the corresponding **Start** button.

Use of the **WPS** method implies the use of the **WPA/WPA2** encryption standard. Therefore, be aware of the following automatic settings:

● If under **Wi-Fi → Wi-Fi networks**, the **No encryption** option is selected in advance, **WPA2** is set automatically. The newly generated password is displayed under **Wi-Fi → Wi-Fi networks** in the **Key** field.

● If under **Wi-Fi → Wi-Fi networks**, the **WPA/WPA2** option is selected in advance, this setting **remains** with the previously assigned password.

4.4.8 Neighborhood networks

The **Neighborhood networks** area displays visible wireless networks in your vicinity.

Network name	Channel	Signal quality (%)
devolo-183	100	94
DVT-3490-5	124	94
devolo-183	11	94
NETGEAR70_jonas_r	6	94
Loft TV.b	6	94
DVT-3490-2	1	94
devilo24	1	94
devolo-159	1	94
ASUS_7437b8fde68	9	94
NETGEAR-2	2	94

4.5 Powerline

Make all changes to your PLC network in the **Powerline** area.
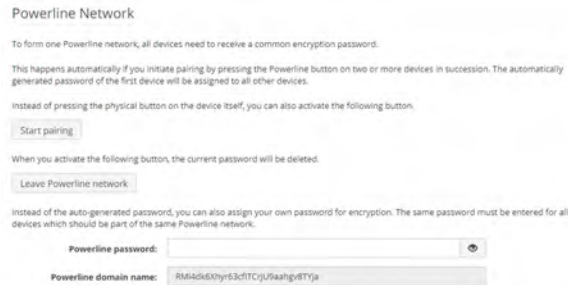
To use a new devolo Magic 2 WiFi next in your devolo Magic network, you first have to connect it to the network with your existing devolo Magic adapters. This is accomplished using a shared password. This can be assigned in different ways:

● Using **devolo Cockpit** or the **devolo Home Network App** (see Chapter **3.4 Installation of devolo software**),

● Simply using the **PLC button** (see Chapter **3.3 Connecting the devolo Magic 2 WiFi next**)

● Using the web interface, in the **PLC** menu; as described below:

Pairing – Using on-screen button

❶ Click **Start pairing** to start the pairing operation. This may take some time.

❷ As soon as the new devolo Magic adapter is integrated into your existing network, it appears in a list of available and established connections.

Pairing – Using a custom password

You can also assign your network a custom PLC password. Enter this password for each devolo Magic adapter in the **Network password** field and confirm your settings by clicking the **Disk** icon.

Note that the custom password is not assigned to the whole PLC network automatically. Instead, you must assign it to each of your devolo Magic adapters individually.

Unpairing – Removing an adapter from a network

❶ To remove a devolo Magic adapter from your devolo Magic network, click **Leave Powerline network**.

❷ Wait until the LED flashes red and then disconnect the devolo Magic adapter from the power supply.

Compatibility mode

Using as VDSL connection may negatively impact the performance of the broadband connection. Select from among the following settings in order to mitigate any potential negative effects.

Operating mode:

● MIMO
● SISO

Signal transmission profiles:

● Full power
● VDSL 17a (default)
● VDSL 35b

> *Get in touch with your Internet provider to find out which signal transmission profile is best for your Internet connection.*

The MIMO operating mode and the VDSL 17a signal transmission profile are configured by default.

Connections

The table lists all available and connected devolo Magic adapters for your network and provides the following details:

Device ID: Device ID* (number) of each devolo Magic adapter on the devolo Magic network

* indicates the local devolo Magic adapter

MAC address: MAC address of each devolo Magic adapter

Send (Mbps): Rate for sending data

Receive (Mbps): Rate for receiving data

4.6 LAN

Changes to the network settings are made in the **LAN** area.

Ethernet

Port 1:	Not connected
Port 2:	Not connected
Ethernet	30:D3:2D:AF:8B:B9

IPv4

Protocol:	DHCP
Address:	172.25.201.89
Subnet mask:	255.255.0.0
DNS server:	172.25.1.12

IPv6

Protocol:	DHCPV6
Address:	2a00:fe0:313:25:32d3:2dff:feaf:8bb9
Subnet mask:	64

4.6.1 Status

You can see the current LAN status of the devolo Magic adapters here. The **Ethernet** area shows the network devices connected to the two network ports **Port 1 and Port 2** (e.g. PC, NAS, etc.).

IPv4/IPv6

Based on how the devolo Magic 2 WiFi next is connected to the Internet (IPv4 or IPv6), various current network information is displayed, such as **Address**, **Subnet mask**, **Standard gateway** and **DNS server**.

4.6.2 IPv4/IPv6 configuration

In the factory default settings, only the **Retrieve network settings from a DHCP server** option for **IPv4** is enabled. This means that the IPv4 address is assigned automatically by a DHCP server. The currently assigned network data are visible (but grayed out).

If a DHCP server is already present in the network for assigning IP addresses (e.g. your Internet router), you should leave the **Retrieve network settings from a DHCP server** option enabled so that the devolo Magic 2 WiFi next automatically receives an address from it.

If you want to assign a static IP address, make entries accordingly for the **Address**, **Subnet mask**, **Default gateway** and **DNS server** fields.

Confirm your settings by clicking the **Disk** icon.

Then restart the devolo Magic adapter (see Chapter **4.7.3 Configuration**) so that your changes take effect.

IPv6 configuration

If you want automatic IP address assignment and there is already a DHCP server present in the network for assigning IP addresses (e.g. your Internet router), enable the **Retrieve network settings from a DHCP server** option to ensure that the devolo Magic 2 WiFi next   automatically   receives an address from it.

If you want to assign a static IP address, make entries accordingly for the **Address**, **Subnet mask**, **Default gateway** and **DNS server** fields.

Confirm your settings by clicking the **Disk** icon.

4.7 System

In the **System** area, you can configure the settings for security and other devolo Magic adapter device functions.

4.7.1 Status

Here you can view the most important information about the devolo Magic adapter, including the current date and time, time zone, MAC address of the adapter, status of the Wi-Fi and Powerline LEDs and the two operating buttons.

4.7.2 Management

System information lets you enter user-defined names in the **Device name (hostname)** and **Device location** fields. Both pieces of information are particularly helpful if multiple devolo Magic adapters are to be used and identified in the network.

Under **Change access password**, a login password can be set for accessing the web interface.

By default, the built-in web interface of the devolo Magic 2 WiFi next is not protected by a password. We recommend assigning a password when the installation of the devolo Magic 2 WiFi next is complete to protect it against tampering by third parties.

To do so, enter the desired new password twice. The web interface is now protected against unauthorized access with your custom password!

In **Power Management**, you can enable Power-save mode and Standby mode on the devolo Magic 2 WiFi next.

If **Powersave** mode is enabled, the devolo Magic 2 WiFi next switches to PowerSave mode automatically whenever it detects reduced data transmission over Ethernet.

The latency (time for transmitting a data packet) may be negatively affected.

If **Standby** mode is enabled, the devolo Magic 2 WiFi next automatically switches to Standby mode if no Ethernet connection has been enabled, i.e. if no network device (e.g. computer) is switched on and connected to the network interface and if Wi-Fi is disabled.

In this mode, the devolo Magic 2 WiFi next is not accessible over the Powerline network. As soon as the network device (e.g. computer) connected to the network interface is switched on again, your adapter can also be accessed again over the electrical wiring.

Powersave mode is disabled in the devolo Magic 2 WiFi next factory default settings.

Standby mode is enabled in the devolo Magic 2 WiFi next factory default settings.

The **LED settings** let you disable the LED status displays on the **Wi-Fi** and **Powerline** LEDs.

Regardless of this setting, an error status will be indicated by a flashing LED.

*For information about the LED behavior of the devolo Magic adapter in standby mode, refer to Chapter **2.2.2 Reading the PLC indicator light**.*

You can completely disable the **operating buttons** on the devolo Magic adapter to prevent unwanted changes. Simply disable the **Enable PLC button** or **Enable Wi-Fi button** option.

The operating buttons are enabled in the devolo Magic 2 WiFi next factory default settings.

Under **Time zone**, you can select your current time zone. The **Time server (NTP)** option lets you specify a time server. A time server is a server on the Internet whose task consists of providing the exact time. Most time servers are coupled with a radio clock. Select your time zone and time server; the devolo Magic 2 WiFi next automatically switches between standard and daylight saving time.

4.7.3 Configuration

Saving the device configuration

To save the enabled configuration to your computer as a file, select the corresponding button in the **System → Configuration → Save Configuration**

to File area. The system starts downloading the current device configuration.

Restoring the device configuration

An existing configuration file can be sent to the devolo Magic 2 WiFi next in the **System → Configuration** area and enabled there. Select a suitable file via the **Select file …** button and start the operation by clicking the **Restore** button.

Factory Settings

The devolo Magic 2 WiFi next can be reset to its original factory default settings in the **System → Configuration** area using the **Factory Reset** option.

Doing so causes you to lose your custom Wi-Fi and PLC settings. The last-assigned passwords for the devolo Magic 2 WiFi next are also reset.

For backup purposes, all active configuration settings can be transmitted to your computer, stored there as a file and reloaded into the devolo Magic 2 WiFi next. This function can be useful for creating a variety of configurations that will let you quickly and easily set up the device for use in different network environments.

Reboot the device

To reboot the devolo Magic 2 WiFi next, select the **Reboot** button in the **System → Configuration** area.

4.7.4 Firmware

The firmware of the devolo Magic 2 WiFi next includes the software for operating the device. As necessary, for example to modify existing functions, devolo provides new versions on the Internet as a downloadable file.

Current firmware

The currently installed firmware of the devolo Magic 2 WiFi next is displayed here.

Searching for and updating firmware automatically

The adapter can also look for new firmware upgrades automatically. To do this, enable the **Regularly check for firmware updates** option.

> *The devolo Magic 2 WiFi next lets you know when a new firmware version becomes available. This option is enabled by default.*

The **Automatically install firmware updates** option allows the adapter to automatically install the new firmware it has found.

> *The devolo Magic 2 WiFi next automatically updates its firmware. This option is enabled by default.*

Download updated firmware

❶ If you have downloaded an updated firmware file for the devolo Magic 2 WiFi next to your computer, navigate to the **System → Firmware → Update firmware** area. Click **Browse …** and select the downloaded file.

❷ Confirm the update procedure with **Update firmware**. After a successful update, the devolo Magic 2 WiFi next restarts automatically.

Makes sure the update procedure is not interrupted.

4.7.5 Config Sync

Config Sync allows settings to be configured uniformly for all devolo Magic devices on the network. This includes the following settings:

● Wi-Fi network

● Guest network

● Mesh Wi-Fi

● Schedule control and time server settings.

To switch Config Sync on, check the **Enable** option.

> *Please note that the Wi-Fi is always switched on or off for the entire network. Because of this, first stop Config Sync on a device that you want to configure or switch separately.*

5 Appendix

5.1 Technical specifications

Security	128 bit AES
Device port	2x RJ45 (Gigabit Ethernet port)
Power consumption	Maximum: 11.7 W Typical: 8.4 W Stand-by: 1.1 W
Power supply	internal 110-250 V AC 50 Hz/ 60 Hz
Temperature (storage/operating)	-25°C to 70 °C / 0°C to 40°C -13°F to 158°F / 32°F to 104°F
Dimensions (without plug)	● 152x76x40 (H x W x D/mm) ● 5.98 x 2.99 x 1.57 (H x W x D/inch)
Ambient conditions	10-90% humidity, non-condensing
Certifications	FCC, IC

NOTICE Damage to the device from the environment High temperature fluctuations and moisture can damage both the product and the power line. The device is for indoor use and in dry conditions only.

IEEE standards	
2.4 GHz frequency range	**5 GHz frequency range**
802.11k/v (Mesh) 802.11r (Fast Roaming)	
802.11 b 802.11 g 802.11 n	802.11 a/h 802.11 n 802.11 ac

Frequency range		
	2.4 GHz	**5 GHz**
IC (Canada)	2400-2483.5 MHz	5150-5250* MHz 5250-5350 MHz 5470-5725** MHz 5725-5850 MHz

FCC (USA)	2400-2483.5 MHz	5150-5250 MHz 5250-5350 MHz 5470-5725** MHz 5725-5850 MHz

*The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

**Without TDWR 5600-5650 MHz

Max. transmitting power		
	2.4 GHz	**5 GHz**
FCC (USA) / IC (Canada)	1000mW/ 30dBm	1000mW/ 30dBm

Channel bandwidth		
	2.4 GHz	**5 GHz**
FCC (USA) / IC (Canada)	20 MHz, 40 MHz	20 MHz, 40 MHz, 80 MHz

2.4 GHz frequency range in USA and Canada		
Channel	**Center frequency**	**Bandwidth**
1	2412 MHz	20 MHz
2	2417 MHz	20 MHz
3	2422 MHz	20/40 MHz
4	2427 MHz	20/40 MHz
5	2432 MHz	20/40 MHz
6	2437 MHz	20/40 MHz
7	2442 MHz	20/40 MHz
8	2447 MHz	20/40 MHz
9	2452 MHz	20/40 MHz
10	2457 MHz	20 MHz
11	2462 MHz	20 MHz

5 GHz frequency range in USA and Canada					
USA			Canada		
Channel	Center frequency	Bandwidth	Channel	Center frequency	Bandwidth
36	5180 MHz	20 MHz	36	5180 MHz	20 MHz
38	5190 MHz	40 MHz	38	5190 MHz	40 MHz
40	5200 MHz	20 MHz	40	5200 MHz	20 MHz
42	5210 MHz	80 MHz	42	5210 MHz	80 MHz
44	5220 MHz	20 MHz	44	5220 MHz	20 MHz
46	5230 MHz	40 MHz	46	5230 MHz	40 MHz
48	5240 MHz	20 MHz	48	5240 MHz	20 MHz
52	5260 MHz	20 MHz	52	5260 MHz	20 MHz
54	5270 MHz	40 MHz	54	5270 MHz	40 MHz
56	5280 MHz	20 MHz	56	5280 MHz	20 MHz
58	5290 MHz	80 MHz	58	5290 MHz	80 MHz
60	5300 MHz	20 MHz	60	5300 MHz	20 MHz
62	5310 MHz	40 MHz	62	5310 MHz	40 MHz
64	5320 MHz	20 MHz	64	5320 MHz	20 MHz
100	5500 MHz	20 MHz	100	5500 MHz	20 MHz
102	5510 MHz	40 MHz	102	5510 MHz	40 MHz
104	5520 MHz	20 MHz	104	5520 MHz	20 MHz
106	5530 MHz	80 MHz	106	5530 MHz	80 MHz
108	5540 MHz	20 MHz	108	5540 MHz	20 MHz
110	5550 MHz	40 MHz	110	5550 MHz	40 MHz
112	5560 MHz	20 MHz	112	5560 MHz	20 MHz

5 GHz frequency range in USA and Canada					
USA			Canada		
116	5580 MHz	20 MHz	116	5580 MHz	20 MHz
118	5590 MHz	40 MHz	118	x	x
120	5600 MHz	20 MHz	120	x	x
122	5610 MHz	80 MHz	122	x	x
124	5620 MHz	20 MHz	124	x	x
126	5630 MHz	40 MHz	126	x	x
128	5640 MHz	20 MHz	128	x	x
132	5660 MHz	20 MHz	132	5660 MHz	20 MHz
134	5670 MHz	40 MHz	134	5670 MHz	40 MHz
136	5680 MHz	20 MHz	136	5680 MHz	20 MHz
138	5690 MHz	80 MHz	138	5690 MHz	80 MHz
140	5700 MHz	20 MHz	140	5700 MHz	20 MHz
142	5710 MHz	40 MHz	142	5710 MHz	40 MHz
144	5720 MHz	20 MHz	144	5720 MHz	20 MHz
149	5745 MHz	20 MHz	149	5745 MHz	20 MHz
151	5755 MHz	40 MHz	151	5755 MHz	40 MHz
153	5765 MHz	20 MHz	153	5765 MHz	20 MHz
155	5775 MHz	80 MHz	155	5775 MHz	80 MHz
157	5785 MHz	20 MHz	157	5785 MHz	20 MHz
159	5795 MHz	40 MHz	159	5795 MHz	40 MHz
161	5805 MHz	20 MHz	161	5805 MHz	20 MHz
165	5825 MHz	20 MHz	165	5825 MHz	20 MHz

5.2 Connection tips

To improve the transmission capacity of the network, we recommend that you comply with the following "connection rules":

● Plug the devolo Magic 2 WiFi next directly into a wall outlet. Avoid using power strips. This may impair the transmission of the PLC signals.

● If there are several outlets in the wall directly next to each other, they behave like a power strip. Individual outlets are optimal.
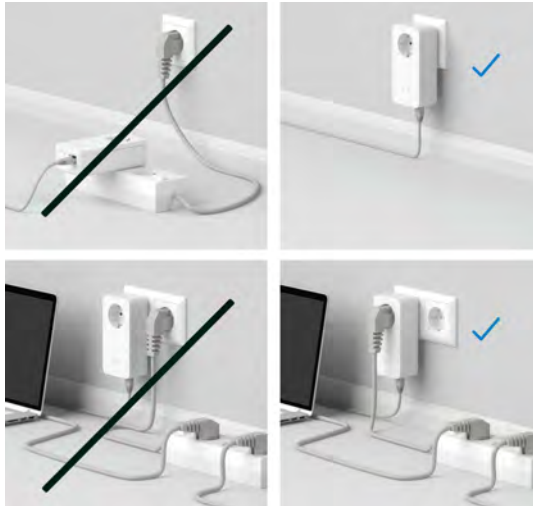

Fig. 3: connection tips

5.3 Disposal of old devices

Electronic waste or e-waste refers to electronic products that have reached the end of their operable lives. The United States is beginning to address its waste problems with regulations at a state and federal level.

E-waste legislation in Canada has been set mainly at provincial level.

When you decide to dispose of such a product, please do so in accordance with your local environmental laws and guidelines.

For detailed information about your local environmental laws and guidelines, please contact your local authority.

5.4 Warranty conditions

If your devolo device is found to be defective during initial installation or within the warranty period, please contact the store where you purchased the product. The store will take care of the repair or warranty claim for you. The complete warranty conditions can be found at www.devolo.com/support/warranty.

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S

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