devolo MAGIC

Manual

devolo Magic 2 LAN triple

devolo Magic 2 LAN triple

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devolo AG

Charlottenburger Allee 67

52068 Aachen

Germany

www.devolo.com

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Contents

1 Preface 6
1.1 About this manual 6
1.2 Description of the icons 6
1.3 Intended use 7
1.3.1 Product 7
1.4 Safety notes 8
1.5 Regulatory notice and statement 11
1.5.1 FCC Caution 11
1.5.2 FCC radiation exposure statement 11
1.5.3 Canada certification 12
1.5.4 IC Canada radiation exposure statement 12
1.5.5 Product safety 12
1.5.6 EMC safety 12
1.6 devolo on the Internet 12

2 Introduction 13
2.1 devolo Magic 13
2.2 Short overview of the devolo Magic adapter 13
2.2.1 PLC button 14
2.2.2 Reading the PLC indicator light 15
2.2.3 Network ports 18
2.2.4 Integrated electrical outlet 18
2.2.5 Reset/Restart 19

3 Initial use 20
3.1 Package contents 20
3.2 System requirements 20
3.3 Connecting the devolo Magic adapters 21
3.3.1 Starter Kit—Automatic setup for a new devolo Magic PLC network 21
3.3.2 Single—Expanding an existing PLC network by adding another devolo Magic 2 LAN triple 22

3.3.3 Changing the network password . . . 23
3.4 Installation of devolo software . . . 23
3.5 Removing the devolo Magic adapter from a PLC network . . . 24

4 Network configuration . . . 25
4.1 Calling up the built-in web interface . . . 25
4.2 General information about the menu . . . 25
4.2.1 Overview . . . 28
4.2.2 Powerline . . . 29
4.2.3 LAN . . . 31
4.2.4 System . . . 32

5 Appendix . . . 37
5.1 Technical specifications . . . 37
5.2 Connection tips . . . 37
5.3 Disposal of old devices . . . 38
5.4 Warranty conditions . . . 38

1 Preface

Thank you very much for purchasing our product!

1.1 About this manual

Carefully read all instructions 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 LAN triple 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.
	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).
	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.

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.

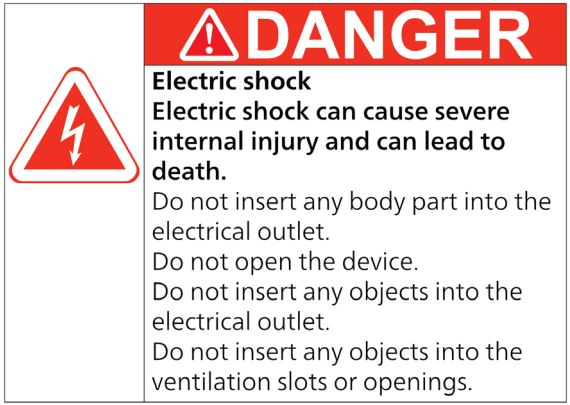
Accessories

Use only the accessories provided:

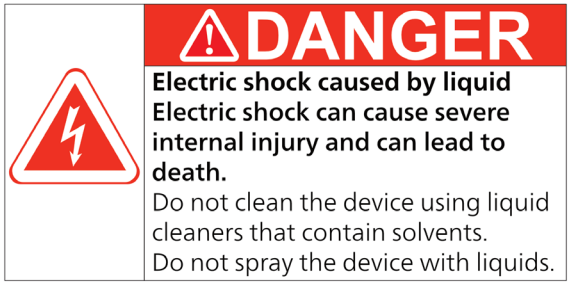
- Ethernet cable: Cat-5e UTP, not for in-wall use

1.4 Safety notes

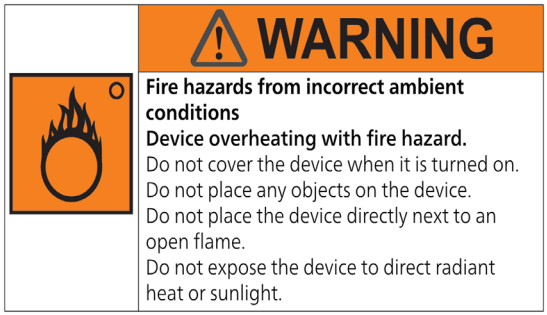
It is essential to have read and understood all safety and operating instructions before the devolo device is used for the first time; keep them safe for future reference.



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



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



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

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

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, 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.

i *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 feet**
- **Security** – with **128-bit AES** Powerline encryption
- **Energy-efficiency** – the integrated PowerSave mode cuts energy consumption automatically **during low data traffic**.
- The **three gigabit network ports** on the devolo Magic 2 LAN triple 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 LAN triple features

- An integrated electrical outlet,
- One PLC/reset button
- Three Gigabit network ports
- One indicator light

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

Fig. 1: devolo Magic 2 LAN triple

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 **2.2.5 Reset/Restart**), **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.

You can find detailed information about installing devolo Magic adapters in Chapter **3.3.1 Starter Kit—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 LAN triple 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.

You can find detailed information about installing devolo Magic adapters in Chapter **3.3.2 Single—Expanding an existing PLC network by adding another devolo Magic 2 LAN triple**.

2.2.2 Reading the PLC indicator light

The integrated PLC indicator light (**LED**) shows the status of the devolo Magic 2 LAN triple 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**: Resetting the devolo Magic adapter was successful. The PLC/reset 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 adapters**.	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.

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 adapters**.

2.2.3 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).

2.2.4 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.

2.2.5 Reset/Restart

Restart

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

Reset—Factory default settings

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

Be aware that this loses all changes to all settings!

2. 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.

3 Initial use

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

3.1 Package contents

Please ensure that the delivery is complete before beginning with the installation of your devolo Magic 2 LAN triple:

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

or

- **Single adapter**:
  - 1 devolo Magic 2 LAN triple
  - 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.

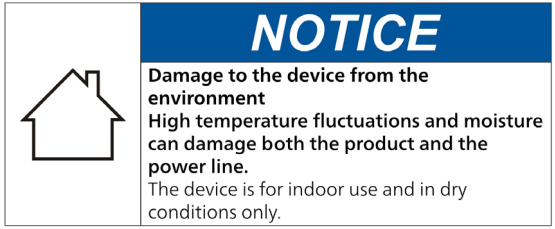
3.2 System requirements

- 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.

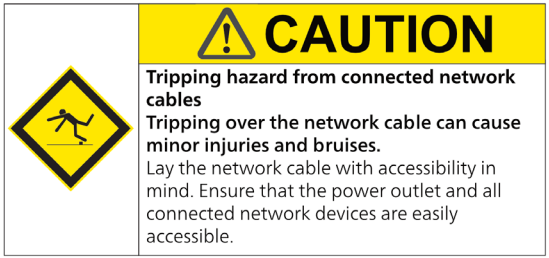
3.3 Connecting the devolo Magic adapters



In the following sections we describe how to connect the devolo Magic adapters 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 Starter Kit—Automatic setup for a new devolo Magic PLC network



1. 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).
2. Connect the devolo Magic 2 LAN triple e. g. to your computer's network port (or to another device's network port) using the network cable included (Cat-5e UTP, not for in-wall use).
3. Plug both devolo Magic adapters into available electrical 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.

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

3.3.2 Single—Expanding an existing PLC network by adding another devolo Magic 2 LAN triple

Before you can use the devolo Magic 2 LAN triple 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.

⚠ 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.

1. Connect the devolo Magic 2 LAN triple e. g. to your computer's network port (or to another device's network port) using the network cable included (Cat-5e UTP, not for in-wall use).
2. Plug the devolo Magic 2 LAN triple into an available electrical 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**).
3. Within 3 minutes, press the PLC button on a devolo Magic adapter in your existing devolo Magic network for approximately 1 sec.

i *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.

i *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 **4.2.2 Powerline**)

or

- Using **devolo Cockpit** or the **devolo Home Network App**. For more information about installation, refer to the next chapter.

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.

1. Download the devolo Home Network App to your smartphone or tablet computer from your device's corresponding app store.
2. 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 PLC/ 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 Single—Expanding an existing PLC network by adding another devolo Magic 2 LAN triple**.

4 Network configuration

The devolo Magic 2 LAN triple 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 LAN triple 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 LAN triple.

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 LAN triple. Then the program determines the current IP address and starts the configuration in the web browser.

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

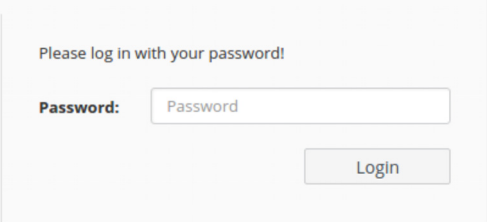
4.2 General information about the menu

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**.



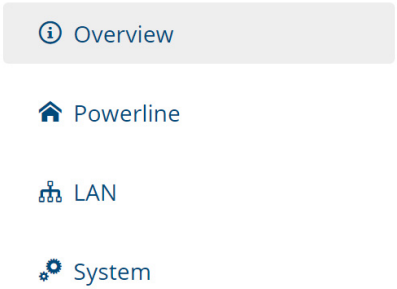
Logging out

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.

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.

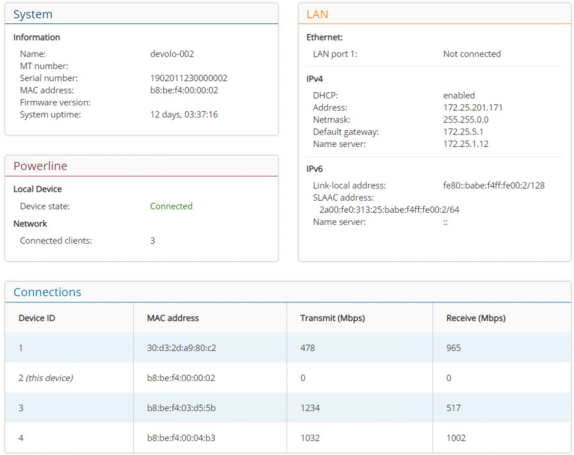
Click the **X** icon or use the **Menu path** above the buttons to exit the respective web interface area.

Click the **Recycle bin** icon to delete an entry.

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

4.2.1 Overview

The **Overview** area shows the status of the devolo Magic 2 LAN triple and the connected LAN and PLC devices.



System

Name: Device name

MT number: Device type number

Serial number: Device serial number

MAC address: MAC address of the device

Firmware version: Firmware version of the device

System uptime: Operating time since the last restart

Powerline

Local device: Device state: status information "connected" or "not connected"

Network: Connected clients: number of devices connected to the Powerline network

LAN—Ethernet

LAN port(s): network port(s); if a connection has been detected, the speed (10/100/1000 Mbps); otherwise, the status "unconnected" is specified.

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

LAN—IPv6

Link-local address: Link-local address in use

SLAAC address: SLAAC address in use

Name server: DNSv6 server in use

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

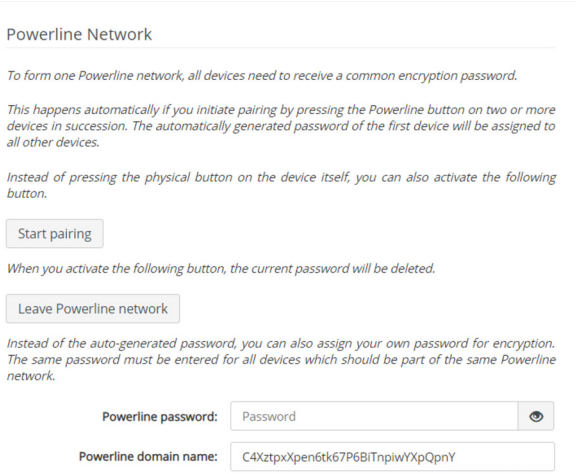
MAC address: MAC address of each devolo Magic adapter

Send (Mbps): Rate for sending data

Receive (Mbps): Rate for receiving data

4.2.2 Powerline

Make all changes to your PLC network in the **Powerline** area.



To use a new devolo Magic 2 LAN triple 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 adapters**)
- Using the web interface, in the **PLC** menu; as described below:

Pairing—Using on-screen button

1. Click **Start pairing** to start the pairing operation. This may take some time.
2. 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 **Powerline 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.

Powerline domain name

The Powerline domain name determines the name of your PLC network.

Unpairing—Removing an adapter from a network

1. To remove a devolo Magic adapter from your devolo Magic network, click **Leave Powerline network**.
2. 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:

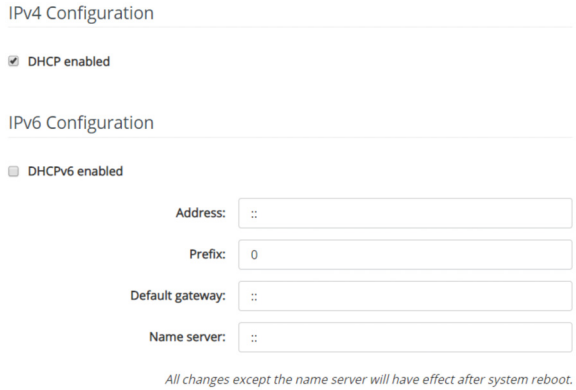
- Full power
- VDSL 17a (default)
- VDSL 35b

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.

4.2.3 LAN

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



You can access the web interface for the devolo Magic 2 LAN triple using its current IP address. This may be an IPv4 and/or IPv6 address, which is either entered manually as a static address or automatically retrieved from a DHCP server.

IPv4 Configuration

In the factory default settings, only the **DHCP enabled** option for **IPv4** is enabled. This means that the IPv4 address is retrieved axiomatically from a DHCP server. The currently assigned network data is visible (greyed out).

If a DHCP server is already present on the network for giving out IP addresses (e.g. your Internet router), you should enable the **DHCP enabled** option so that the devolo Magic 2 LAN triple automatically receives an address from it.

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

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

Then, restart the devolo Magic adapter (see Chapter **Reboot**) to ensure that your changes take effect.

IPv6 Configuration

If you want automatic IP address assignment and there is already a DHCP server present on the network for giving out IP addresses (e.g. your Internet

router), enable the **DHCPv6 enabled** option to ensure that the devolo Magic 2 LAN triple automatically receives an address from this device.

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

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

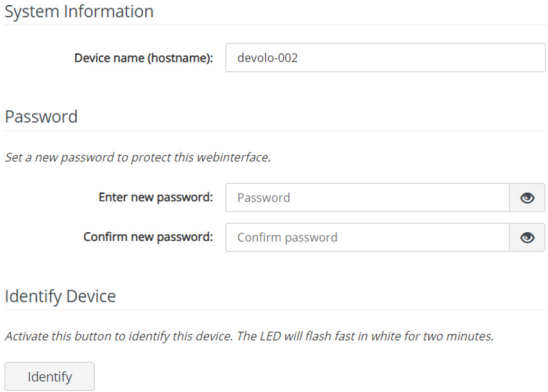
Then, restart the devolo Magic adapter (see Chapter **Reboot**) to ensure that your changes take effect.

4.2.4 System

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

System information

System information lets you enter an user-defined name in the **Device name (hostname)** field. This information is particularly helpful if multiple devolo Magic adapters are to be used and identified in the network.



Password

A login password can be set for accessing the web interface.

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

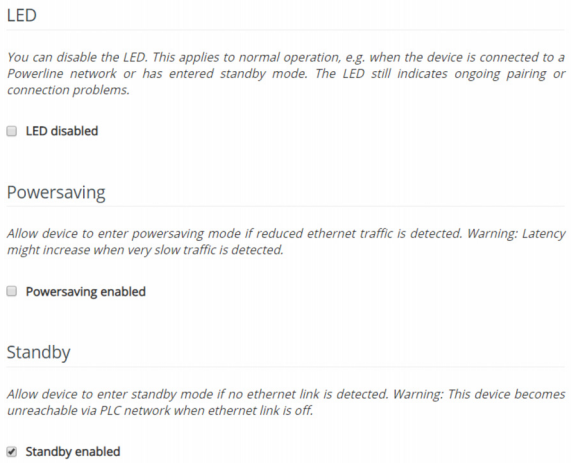
To do so, enter the desired new password twice. The web interface is now protected against unauthorized access with your custom password!

Identify Device

The devolo Magic adapter can be located using the **Identify device** function. Click **Identify** to make the white LED for the corresponding adapter flash for 2 minutes to make it easier to identify by sight.

LED

Enable the **LED disabled** option if the LED on the devolo Magic adapter is intended to be switched off for normal operation. An error status is indicated by corresponding flashing behaviour regardless of this setting.



Powersaving

If powersaving mode is enabled, the devolo Magic 2 LAN triple switches to powersaving mode automatically whenever it detects reduced data transmission over Ethernet.

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

Powersaving mode is disabled in the devolo Magic 2 LAN triple factory default settings.

Standby

If **Standby** mode is enabled, the devolo Magic 2 LAN triple 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 LAN triple 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.

Standby mode is enabled in the devolo Magic 2 LAN triple factory default settings.

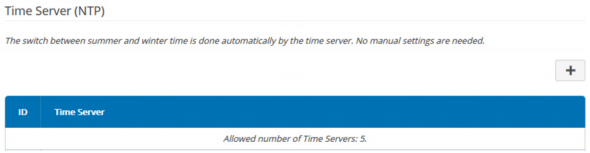
For information about the LED behavior of the devolo Magic adapter in standby mode, refer to Chapter **2.2.2 Reading the PLC indicator light**.

Time server

Under **Time server**, you can select your current time zone. The **Time server (NTP)** option lets you specify a time server.

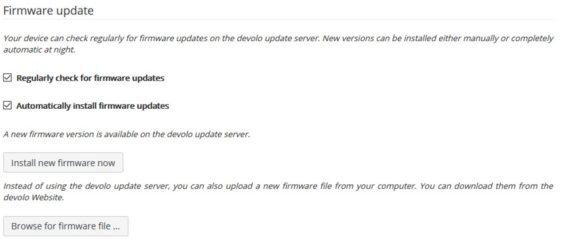
A time server is a server on the Internet whose task consists of providing the exact time. Most time servers are coupled with a radio clock.

The devolo Magic 2 LAN triple automatically switches between standard and daylight saving time.



Firmware update

The firmware of the devolo Magic 2 LAN triple 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.



The currently installed firmware of the devolo Magic 2 LAN triple is displayed on the overview page (see Chapter **4.2.1 Overview**).

The firmware update can be initiated automatically or manually.

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 LAN triple 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 LAN triple automatically updates its firmware. This option is enabled by default.

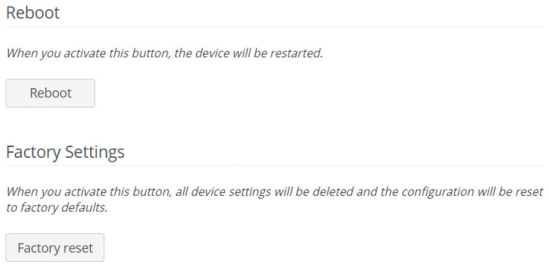
Browse for updated firmware

1. If you have downloaded an updated firmware file for the devolo Magic 2 LAN triple to your computer, click **Browse for firmware file…** and select the downloaded file.
2. Confirm the update procedure with **Upload**. After a successful update, the devolo Magic 2 LAN triple restarts automatically.

Make sure the update procedure is not interrupted.

Reboot

To restart the devolo Magic 2 LAN triple, click the **Reboot** button in the **System** area.



Factory settings

The devolo Magic 2 LAN triple can be reset to its original factory default settings.

1. To remove a devolo Magic adapter from your devolo Magic network and successfully restore its entire configuration to the factory default settings, click **Factory reset**.

2. Wait until the LED flashes white and then disconnect the devolo Magic adapter from the mains supply.

Doing so causes you to lose your custom PLC settings. The last-assigned passwords for the devolo Magic 2 LAN triple are also reset.

5 Appendix

5.1 Technical specifications

Security	128 Bit AES
Device port	3x RJ45 (Gigabit Ethernet port)
Power consumption	Maximum: 6.1 W Typical: 5.2 W Stand-by: 0.8 W
Power supply	internal 110-250 V AC 50 Hz /60Hz
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)	143 x 72 x 41 (H x W x D/mm) 5.63 x 2.83 x 1.61) (H x W x D/inch)
Ambient conditions	10-90% Humidity, non-condensing
Certifications	FCC, IC

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 LAN triple 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.

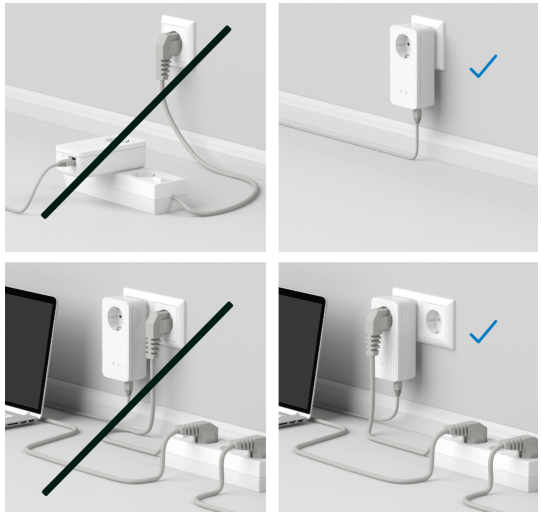


Fig. 2: connection tips

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.

Index

A
Adapter equipment 14
C
Changing/assigning the network password 14, 23
D
devolo app 23
devolo Cockpit 23
devolo software 23
DHCP server 31
E
Electronic waste 38
Expanding an existing devolo Magic network 14
F
Factory default settings 19, 24
Factory reset 19, 35
FCC 11
I
IC 12
Integrated power outlet 18
Intended use 7
IP address 31
IPv4 31
L
LAN (network connection) 18
LED status display 14
Login password 25
M
Maximum installation height 8
N
Network connection 18
P
Package contents 20
Pairing (establishing a PLC connection) 14
PLC 13
PLC status display 15
PLC/reset button 14, 19
Powerline 13
R
Reboot 35
Regulatory notice 11
Reset a devolo Magic adapter 15, 19
Restart 19
S
Safety notes 8, 11
T
Technical specifications 37
Temperature range during operation 8

Time server 34
W
Warranty conditions 38