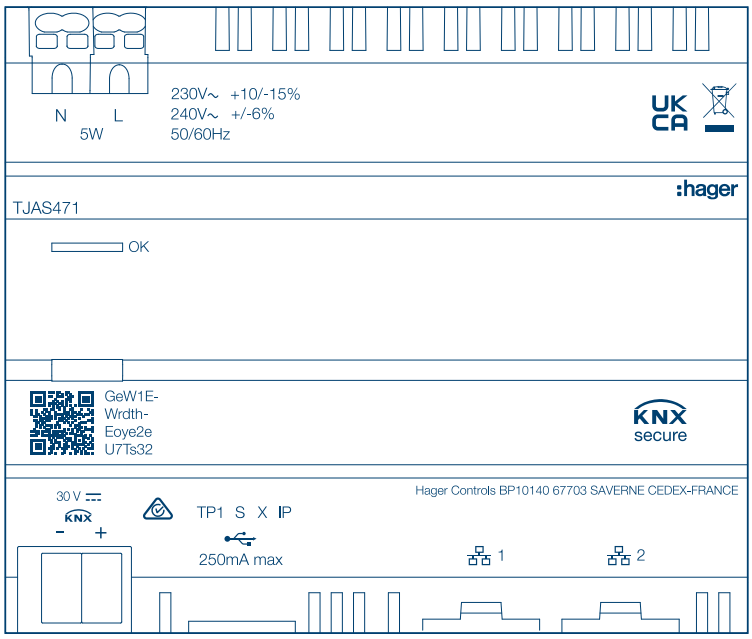
Operating and assembly instructions

KNX building management system

domovea



domovea basic
TJAS671
domovea plus
TJAS471

matter KNX KNX secure quickconnect CE UK CA

:hager

EN

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2 Introduction

These instructions describe the safe and correct installation and commissioning of domovea basic and domovea plus devices. These instructions are provided as information in addition to the product.

The illustrations and descriptions in this manual are for clarification purposes only and may differ from the actual state of the software due to regular improvements being made.

Symbols used

☑ Requirement. This requirement must have been met before continuing with the next assembly step.

● Single-step instruction or any sequence

1. Multi-step instruction Sequence must be maintained.

– List

▶ Reference to additional documents/information

	Scope of delivery		Installation by a qualified electrician		For further information on configuring the device, refer to the application manual
KNX	KNX certified	KNX secure	Supports KNX Data Secure	matter	Licence-free and open-source connection standard for home automation
quickconnect	Installation terminal with actuation opening	systemlink	Compatibility with KNX S-mode (ETS)	easylink	Compatibility with Hager easyTool
CE	Suitable for use throughout Europe and Switzerland		Suitable for use in Morocco		Suitable for use in Australia and New Zealand
			Disposal note	UK CA	Suitable for use in England, Wales and Scotland

Table 1: Symbols used

Symbol	Warning word	Consequence of non-observance
	Danger	Leads to serious injuries or death.
	Warning	Can lead to serious injuries or death.
	Caution	Can lead to minor injuries.
	Caution	Can lead to device damage.
	Note	Can lead to physical damage.

Symbol	Description
	Warning against electric shock.
	Warning against damage from mechanical stress.
	Warning against damage from electricity.



Electronic devices may only be assembled, installed and configured by a specialist with electrical training and certification in accordance with the relevant installation standards of the country. The accident prevention regulations valid in the appropriate countries must be complied with.

In addition, these instructions are intended for system administrators and electrically trained specialists.

3 Safety instructions

Electrical devices must only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, guidelines, regulations, directives, safety and accident prevention directives of the country.

Hazard due to electric shock. Disconnect before working on the device or load. Take into account all circuit breakers that supply dangerous voltages to the device or load.

Failure to comply with these installation instructions may result in damage to the device, fire or other hazards.

Knowledge of network technology is required for commissioning.

If the device is used to establish a connection to the Internet then corresponding safety measures must be implemented to protect the network against unauthorised access.

Danger due to electric shock on the SELV/PELV installation. Not suitable for switching SELV/PELV voltages.

The KNX Secure code is generated dynamically by the application and is not printed on the device. The KNX Secure code can be requested via the device settings using the Hager Pilot app.

4 Scope of delivery

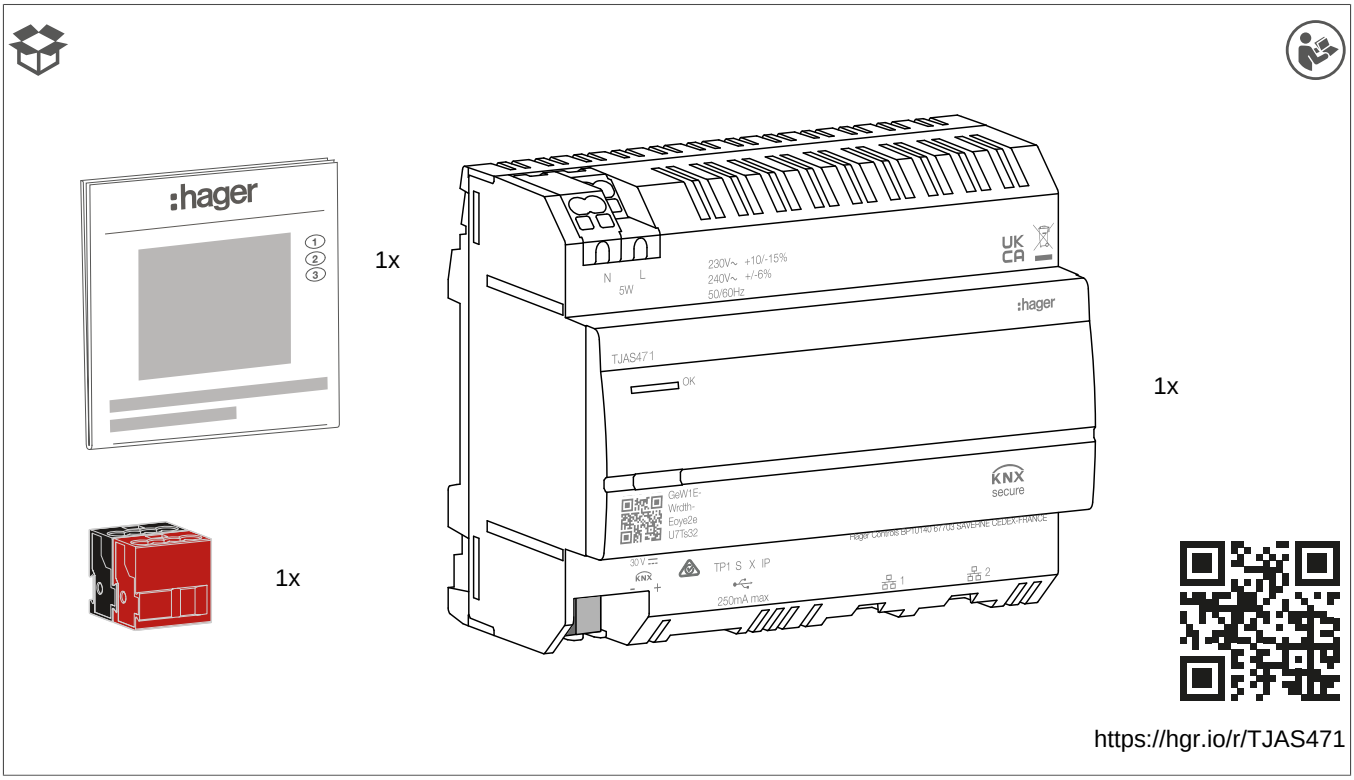


Fig. 1: TJAS471 scope of delivery

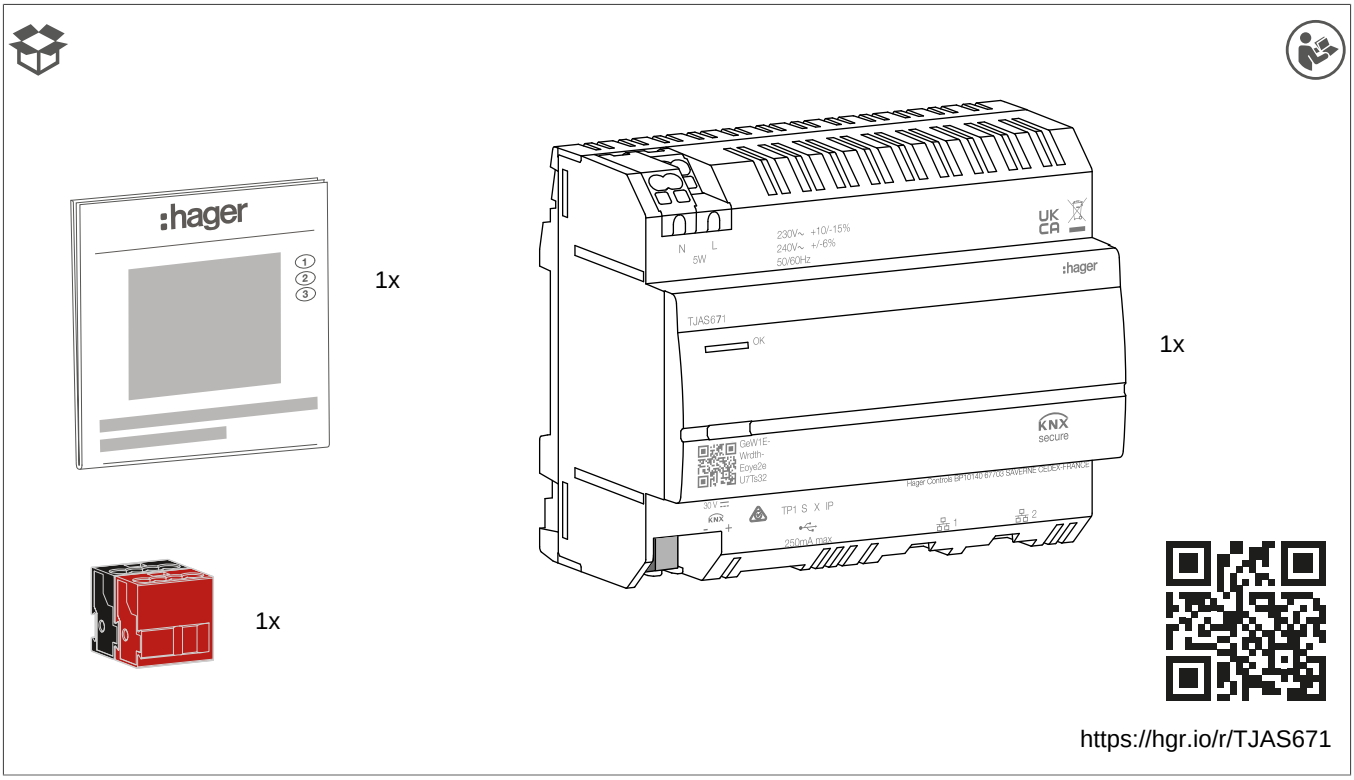


Fig. 2: TJAS671 scope of delivery

5 Design and layout of the device

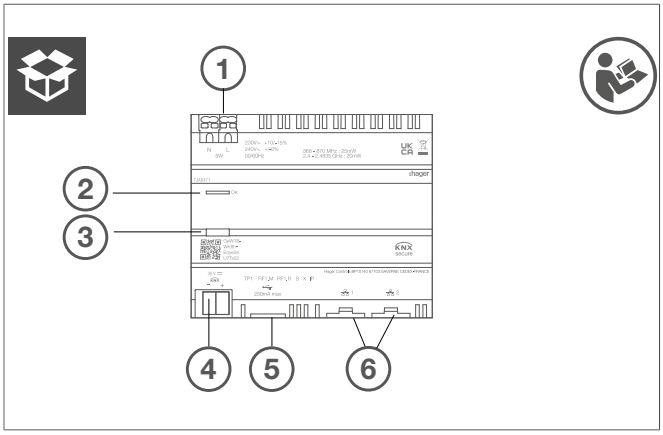


Fig. 3: Design and layout of the device - top view

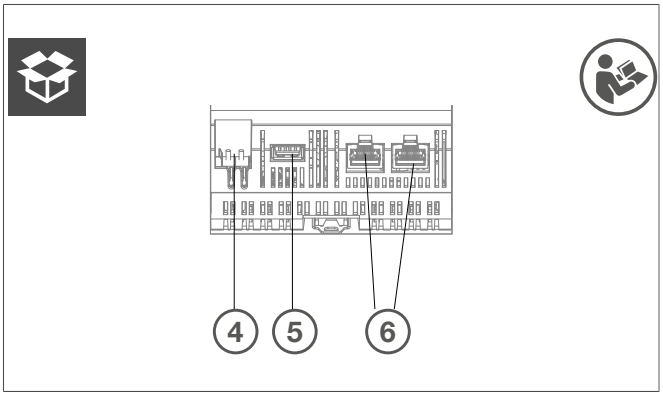


Fig. 4: Design and layout of the device - view from below on KNX, USB and Ethernet interfaces

1. Power supply connection (N, L)
2. RGB status LED
3. Illuminated programming button
4. KNX bus connection terminal
5. USB 2.0 slot
6. 2 x RJ45 slot (100Base-TX)

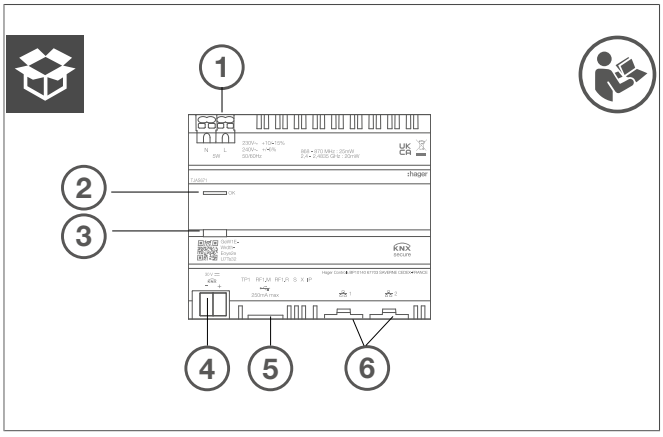


Fig. 5: Design and layout of the device - top view

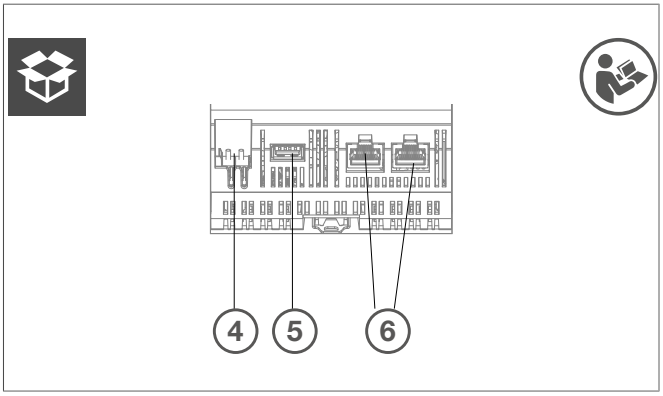


Fig. 6: Design and layout of the device - view from below on KNX, USB and Ethernet interfaces

1. Power supply connection (N, L)
2. RGB status LED
3. Illuminated programming button
4. KNX bus connection terminal
5. USB 2.0 slot
6. 2 x RJ45 slot (100Base-TX)

6 Function

6.1 Functional description

The device forms the interface between the IP network LAN (Local Area Network) and the KNX installation bus. Using the LAN connection and the domovea app, users can access the connected KNX/IoT devices via smartphone, tablet or PC/laptop. It is recommended to use a router with an Internet connection (remote maintenance, remote access and online updates). The device operates as a server and is used as a central unit for controling, messaging and monitring. Configuration and operation is carried out via the Hager Pilot app. The device has integrates easyTool and allows the complete configuration of a KNX installation with easy-compatible devices.

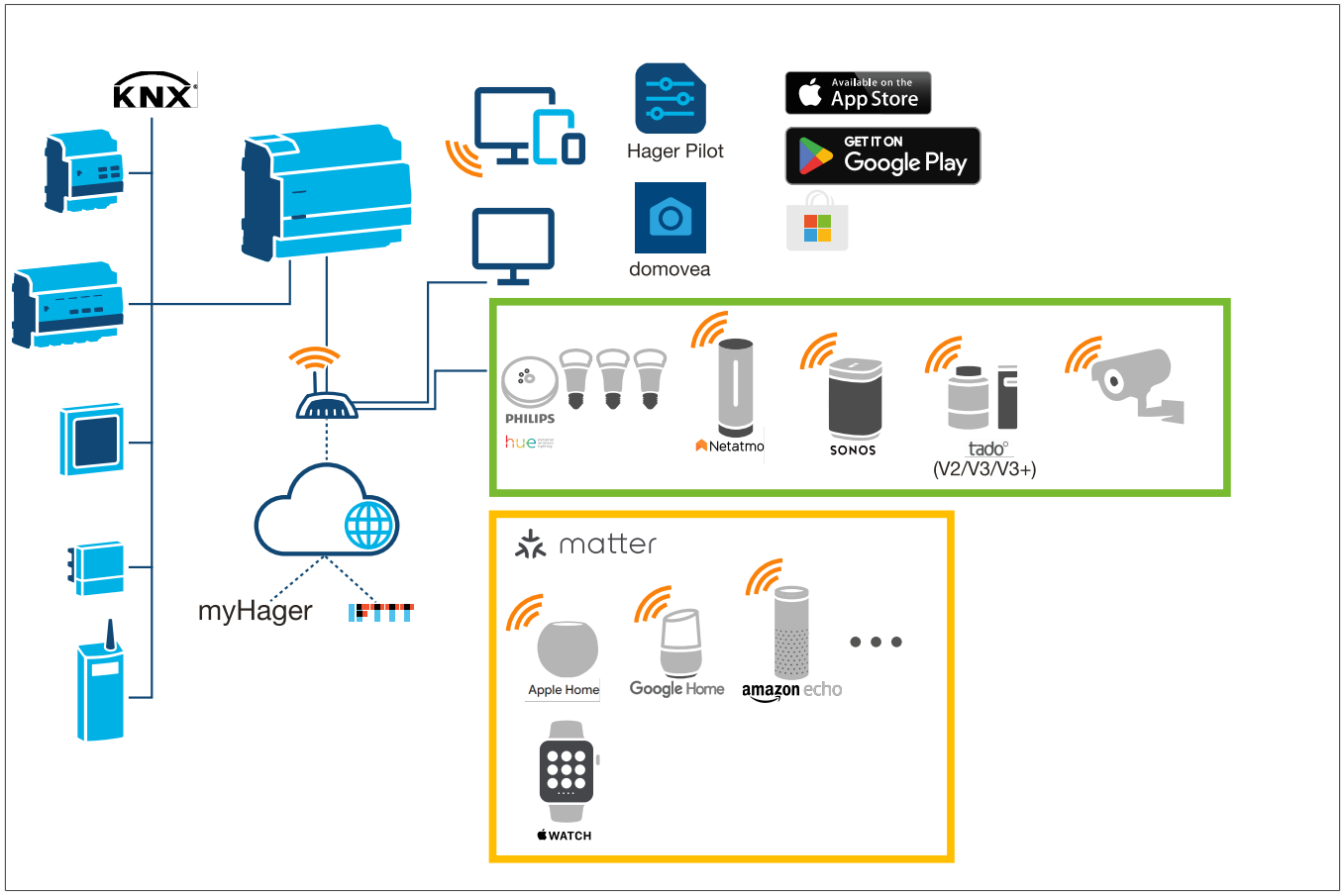


Fig. 7: System overview

The domovea device can control these types of devices.	The domovea device is controlled by these types of devices.

6.2 Correct use

- Interfaces between the KNX bus system and the IP environment
- Display and trigger of KNX- and IoT functions via app
- Visualisation of the KNX installation via the domovea app
- Configuration of Easy-compatible KNX devices via Hager Pilot and the integrated easyTool
- Configuration of the visualisation via Hager Pilot and the integrated domovea configurator
- Use as a KNXnet/IP secure interface for configuration via ETS
- Mounting on DIN rail according to IEC 60715

6.3 Product characteristics

- KNX easyTool integrated
- USB 2.0 slot
- 2 x RJ45 plug contacts
- Integrated Ethernet switch (two RJ45 connections) for easy connection of several IP devices, e.g. in the distribution box
- Visualisation of the KNX system
- Visualisation server for end devices (iOS and Android)
- Up to 500 KNX and IoT devices
- Supports up to 5 IP cameras for monitoring
- Supports services from Google, Alexa, Philips Hue, SONOS, Netatmo, tado (V2, V3 or V3+), IFTTT
- Max. 50 domograms (simple sequences via domovea app)
- User rights management
- Customised per user
- Remote access for installers and users
- KNXnet/IP tunnel interface: local access
- Matter bridge to export up to 128 KNX devices (only certain device types and functions are supported) to other Matter controllers (e.g. Apple HomePod).
- Recommendation: Use the Matter bridge integration to easily control your devices across several platforms. Use Alexa Skills or Google Actions to access special functions that are not yet available via the Matter bridge.

Additional domovea plus product features (TJAS471)

- Up to 50 IP cameras can be integrated
- Up to 100 sequences can be set (via Hager Pilot)
- KNXnet/IP tunnel interface: local access and remote access
- Up to 10 virtual thermostats

Information

For more information, please visit the product website under Handbook/Installation manual – https://hgr.io/r/TJAS471 .

7 Operation

7.1 RGB status LED

RGB status LED display

domovea has an RGB status LED display (Fig. 3/2) to signal errors that have occurred or to display ongoing operations in domovea (see Tab. 2).

RGB status LED display (Fig. 3/2)		Cause
Off		Module has no power supply
Flashing green		Device is booting
Permanent green light		Device ready for operation, network OK
Permanent blue light		Offline mode, bus and cloud connection disconnected
Permanent white light		Mode for PC direct connection, DHCP server activated
Flashing yellow		Ready for operation, with network problems
Flashing yellow (double pulses for 15 s)		Device identification when using the Matter bridge (see Handbook/Installation manual – https://hgr.io/r/TJAS471)
Flashing red		Malfunction: Boot/software error

Table 2: RGB status LED display

Operating concept

The programming button (Fig. 3/3) can be used

– to start/end and/or check the KNX programming mode (see Tab. 3)
– to select the operating mode or restart the device (see Tab. 4)

Pressing button (Fig. 3/3)		Cause
Short button press		Switching addressing mode on or off No function if there is no bus voltage

Table 3: to enter the programming mode/check the bus voltage

Long button press > 2 s (Fig. 3/3)	Status LED flashes quickly	Selecting operating mode
Pressing and holding he tbutton (> 2 s) opens the operating mode selection. There are a total of 4 options (3 operating modes and device restart). Briefly pressing the button switches to the next option. Pressing and holidng the button again executes the option that is currently displayed.		
Short button press		Change- to online mode
Short button press		Change to offline mode
Short button press		Change to PC mode
Short button press		Restart device
Long button press > 2 s	Running the currently selected operating mode	
If inactive > 30 s	Exciting the operating mode selection	

Table 4: Selecting operating mode

Online mode

This is the normal operating mode of the device when connected to an external router (ISP box). The interface can be configured as a DHCP client or with a fixed IP address.

- Using a DHCP client (default factory setting), the device waits for an IP address from a DHCP server connected to the network (the router). If no address is assigned after 40 seconds, the device automatically takes the following alternative address: 192.168.0.253 / 255.255.255.0.
- With a fixed IP address, the device immediately adopts the parameters of the server set in the Settings menu via the Hager Pilot app under the tab Configuration – Interface – IP address – Manual selection:
  – IP address of the interface
  – subnet mask
  – default gateway

With a fixed IP address, the module does not automatically adopt the alternative address in the event of IP address conflicts in the network (other equipment is already using the fixed IP address).

PC mode

To be used when a PC is connected directly to the device. This mode activates the DHCP server integrated in the module. The 2 ports are interchangeable and configured with the following parameters:

- IP address of the interface: 192.168.0.253
- subnet mask: 255.255.255.0
- default gateway: 192.168.0.1
- Range of IP addresses that can be assigned by the DHCP server of the TJAS471/TJAS671: 192.168.0.10 to 192.168.0.50

Offline mode

This mode is a fallback mode to configure the interface of the device in DHCP client mode. In this mode, the cloud connection and the KNX bus communication are deactivated. Special maintenance measures are enabled, such as resetting the administrator password.

- If no IP address is assigned by a DHCP server after waiting for 40 seconds, the device automatically adopts the alternative address 192.168.0.253 / 255.255.255.0.

7.2 Remote maintenance

domovea allows convenient remote access by the electrician in order to work in the project without having to be onsite with the customer. With remote access it is possible, for example:

- to check the condition of the installation
- to adjust the software configuration
- to change setting
- to download system logs
- to add or remove users

Remote installer access is disabled after project handover. However, users can re-enable installer access for maintenance work at any time.

7.3 Firmware update

The device provides a variety of functions. As technology, especially the technology of smartphones/tablets, is developing more and more quickly, it is necessary to carry out firmware updates. The update can either be carried out directly via the Internet or the software can be downloaded from the website and installed using a USB stick.

Recommendation:

Before using the device for the first time, we strongly recommend updating the firmware.

Update via the Internet

In order to have the latest firmware installed on the device, perform a device update before initial commissioning. To do this, connect the device to the Internet/network via one of the two RJ45 ports.

Further information on the firmware update can be found in the application description.

Update via USB stick

To perform a firmware update via a USB stick, the following conditions must be met:

– the USB stick must be empty
– the USB stick must have a storage capacity of max. 32 GB (recommended)
– the USB stick must be formatted in FAT32

Further information on the firmware update can be found in the application description.

☑ The latest software download is saved on the USB stick.

- Insert the USB stick into the port at the bottom of the device.
  The status LED flashes green while the update is loaded from the USB stick.
- Remove the USB stick when the status LED lights up continuously in orange.
  The device automatically restarts and the status LED flashes green until the restart is complete.

Update via Hager Pilot

Firmware update via Hager Pilot only possible from firmware version 8.0.x.

For more information about the Hager Pilot update, see Handbook/Installation manual – https://hgr.io/r/TJAS471.

Open the Hager Pilot app and check the firmware version under Settings:

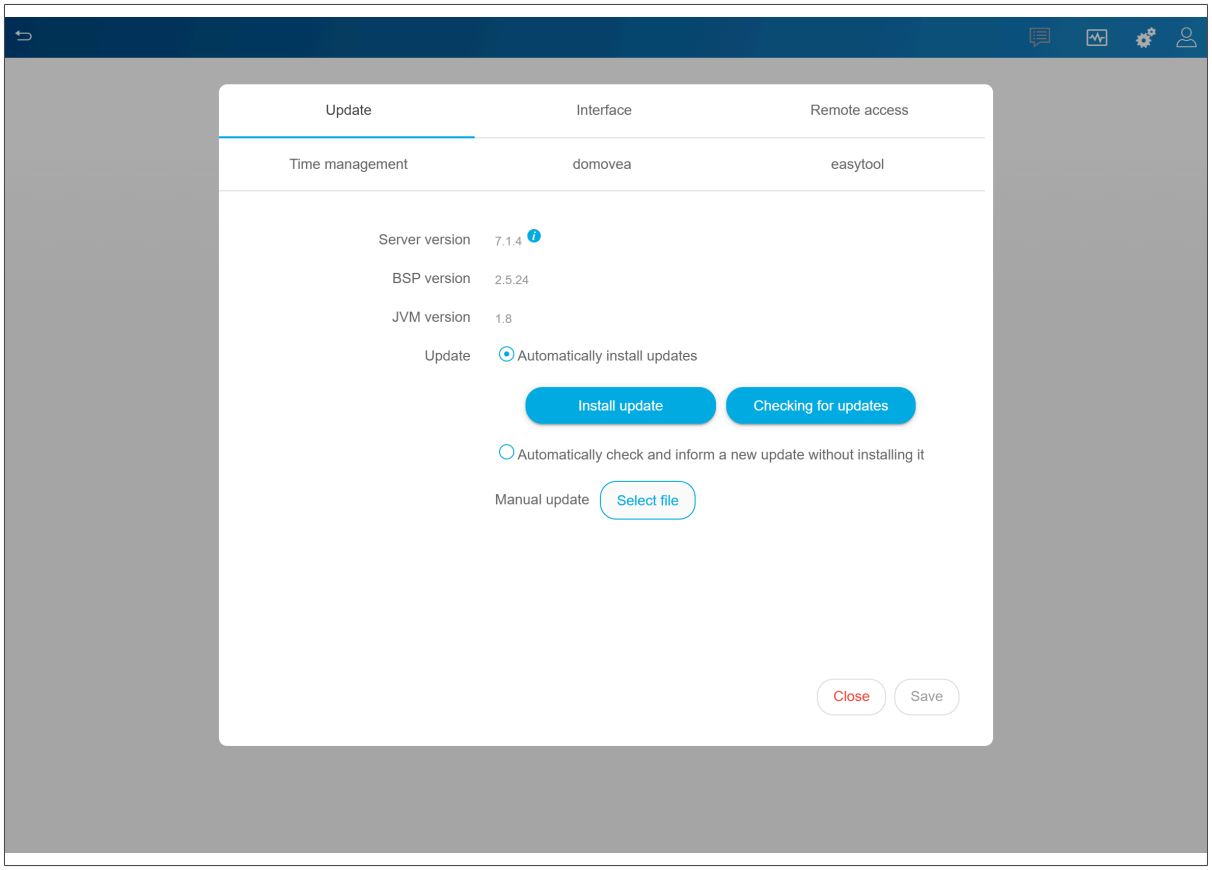


Fig. 8: Firmware version (similar to illustration)

8 Information for qualified electricians

8.1 Installation and electrical connection

Danger

Electric shock when live parts are touched!

An electric shock can lead to death!

- Disconnect all connection cables before working on the device and cover any live parts in the area!

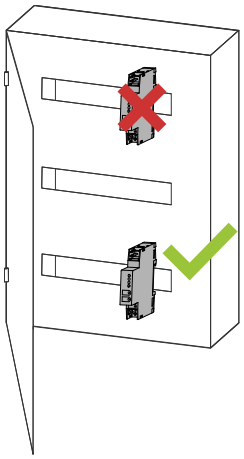
8.1.1 Installing the device

- Install the device on a TH 35 7.5–15 DIN rail in accordance with IEC 60715:2017 / EN 60715:2017.

Note!

Observe temperature range. Provide sufficient cooling.

It is recommended mount the device on the lowest DIN rail on the distribution panel to ensure sufficient space for wiring and connecting the RJ45 network cable.



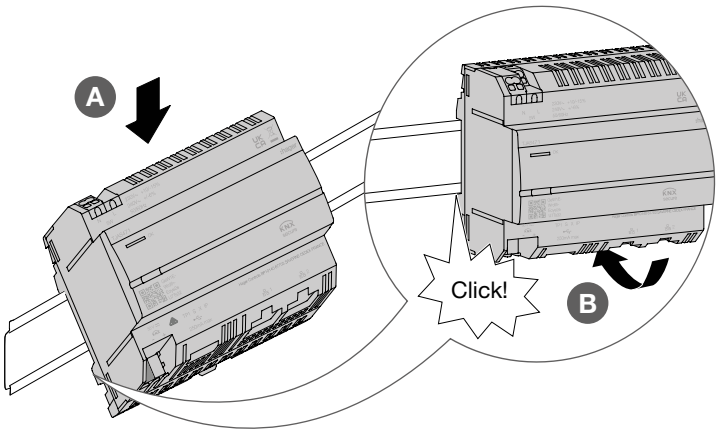


Fig. 9: Mounting the device on the DIN rail

8.1.2 Connecting the device

Danger

Electric shock when live parts are touched!

An electric shock can lead to death!

- Isolate all connection cables before working on the device and cover any live parts in the area!

☑ The device is installed on the DIN rail in accordance with ISO 60715.

- Connect the connection cables for the power supply.

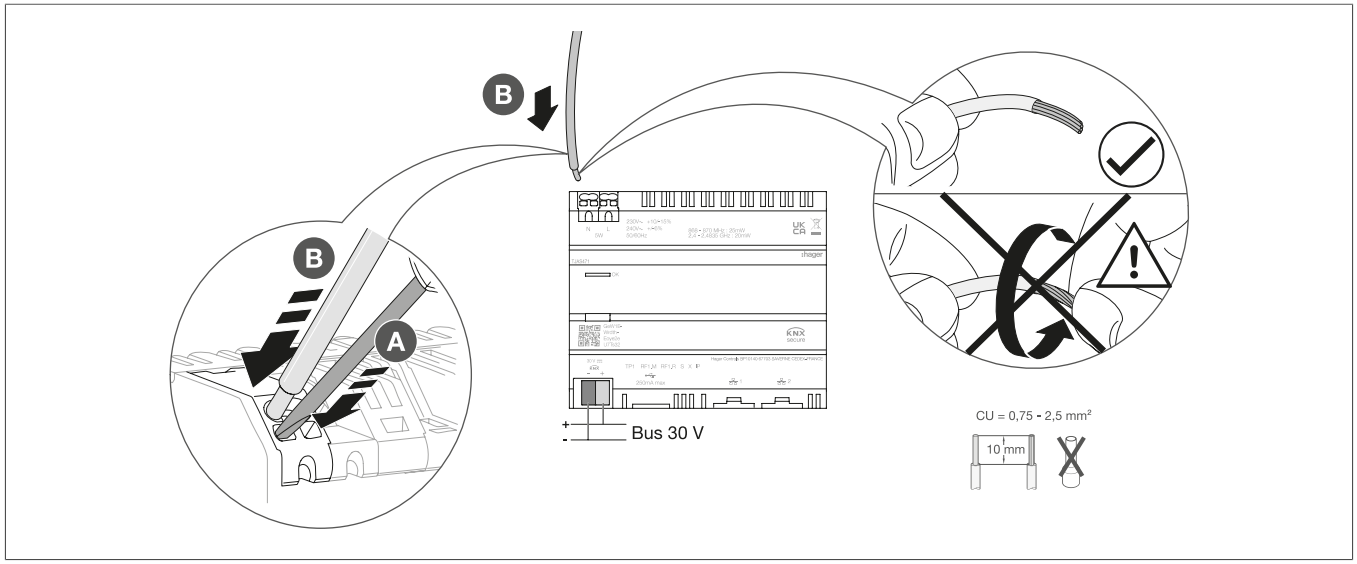


Fig. 10: Connecting the device

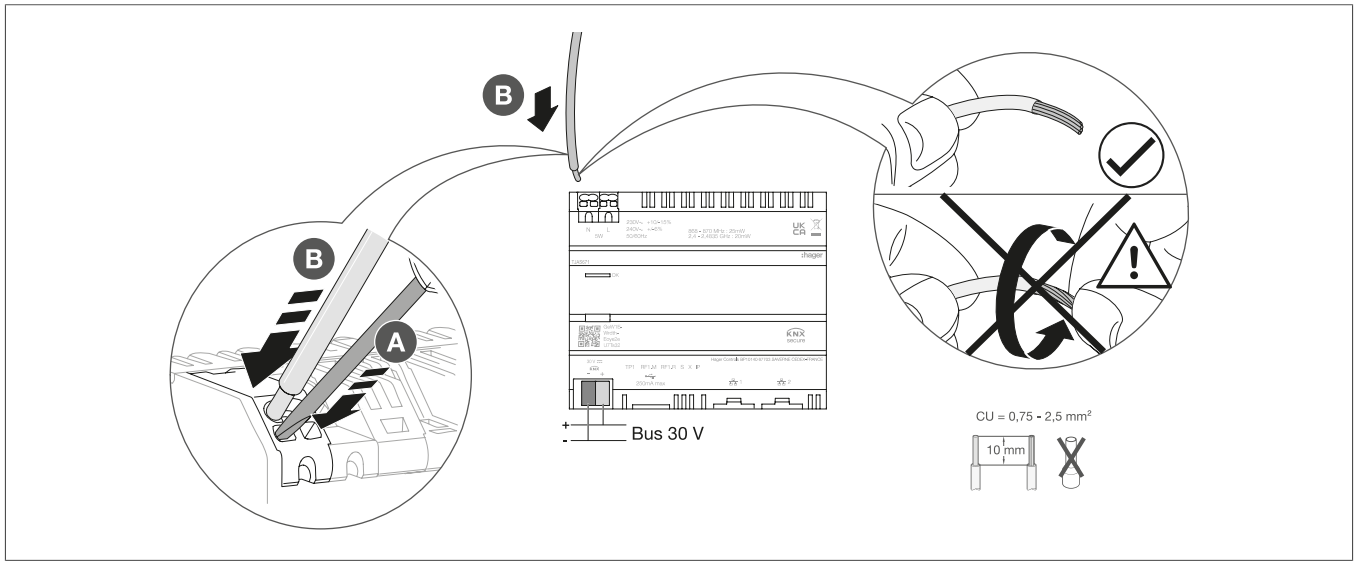


Fig. 11: Connecting the device

8.1.3 Connecting network cable

☑ The device is installed and the connection cable for the power supply is connected.

- Connect the network cable to port 1 or port 2 of the device.

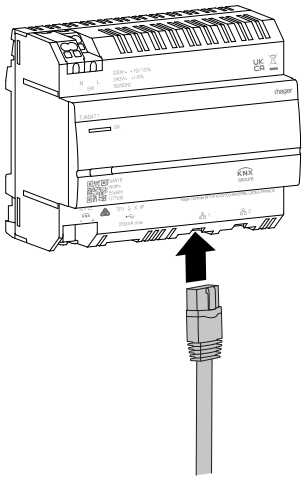


Fig. 12: Connecting the network cable

Another network cable can be connected to the other port to connect a second LAN device. The domovea device then works as a switch. The switch provides a bandwidth of 100 Mbit/s.

8.1.4 Connecting the bus cable

☑ The device is installed, the connection cables for the power supply and the network cable are connected.

● Connecting the KNX connection cable to the bus connection terminal.

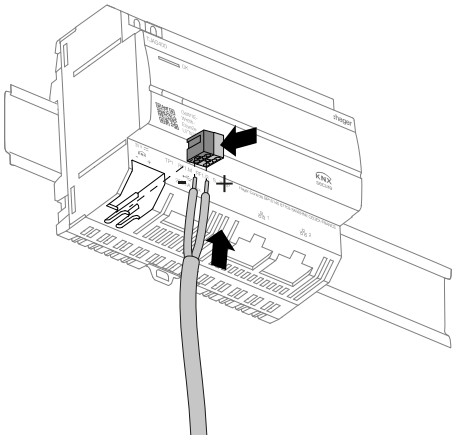


Fig. 13: Connecting the bus cable

8.2 Commissioning

The illustrations and descriptions in this chapter are for clarification purposes only and may differ from the actual state of the software due to regular improvements being made.

App installation

Attention

Failure to secure access accounts through adequate security measures jeopardises data security.

1. Allaccess accounts must be protected with secure passwords.
2. Passwords must be kept safe and protected against unauthorised access.

Failure to do so can result in data loss or theft, or even a third-party taking control of the system in the worst-case scenario.

It is recommended to install the **Hager Pilot app** (installer) and the **domovea app** (customer) on the respective end device (tablet/PC/laptop/smartphone) in advance.

GET IT ON Google Play Download on the App Store

The Hager Pilot app and the domovea app can be downloaded free of charge.

The Windows and macOS software can be downloaded free of charge.

Getting the system ready for operation

☑ Network connection to the LAN/WAN is established.
☑ Hager Pilot app is installed.

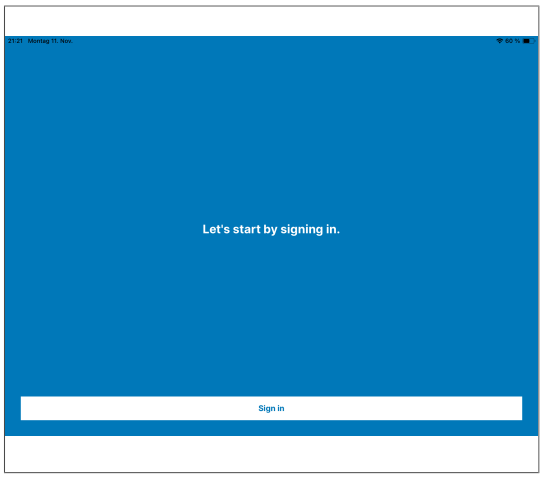
1. Switch on the bus voltage.

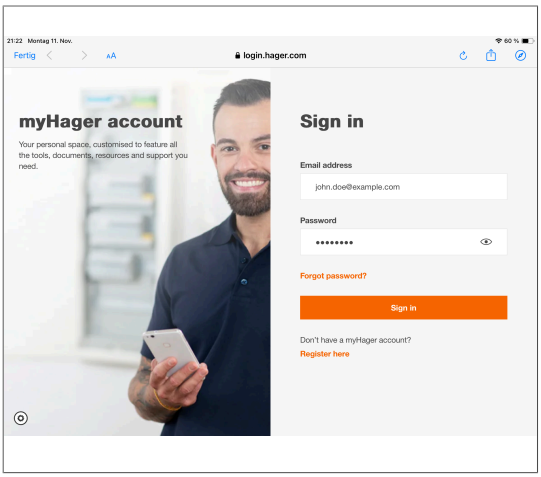
The device does not require an ETS application for commissioning. It is not necessary to programme the bus coupling unit.

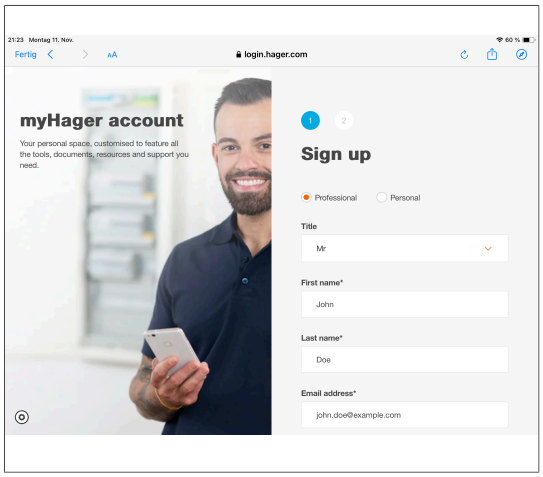
2. Switch on the power supply.

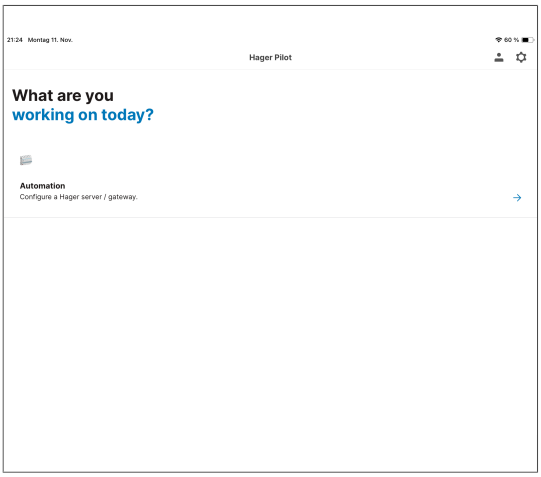
   The boot-up phase starts.

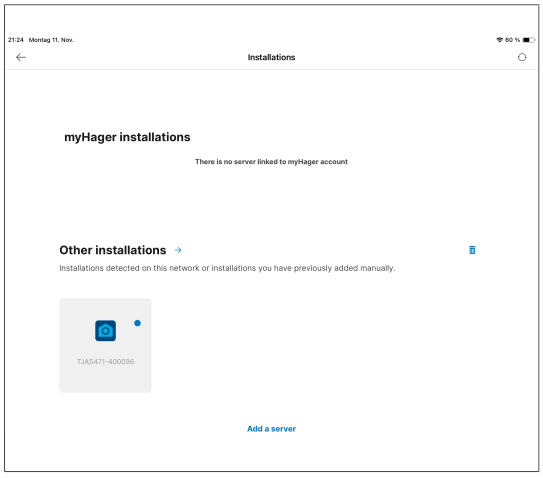
   The status LED flashes green for the duration of the boot-up phase and lights up green continuously once the boot-up phase is complete.
3. Open the Hager Pilot app and search for the device.
4. Select the device found (example: TJAS471-FE3A1B).
5. Enter the factory-set access data, user name and password:
   Username: **admin**
   Password: **1234**
6. The password must then be replaced with a secure password.
7. Make a note of the access data, user name and password and keep them in a safe place.

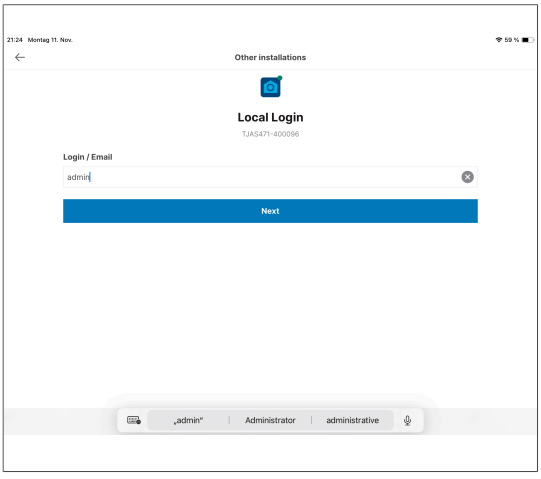

Let's start by signing in.
Sign in

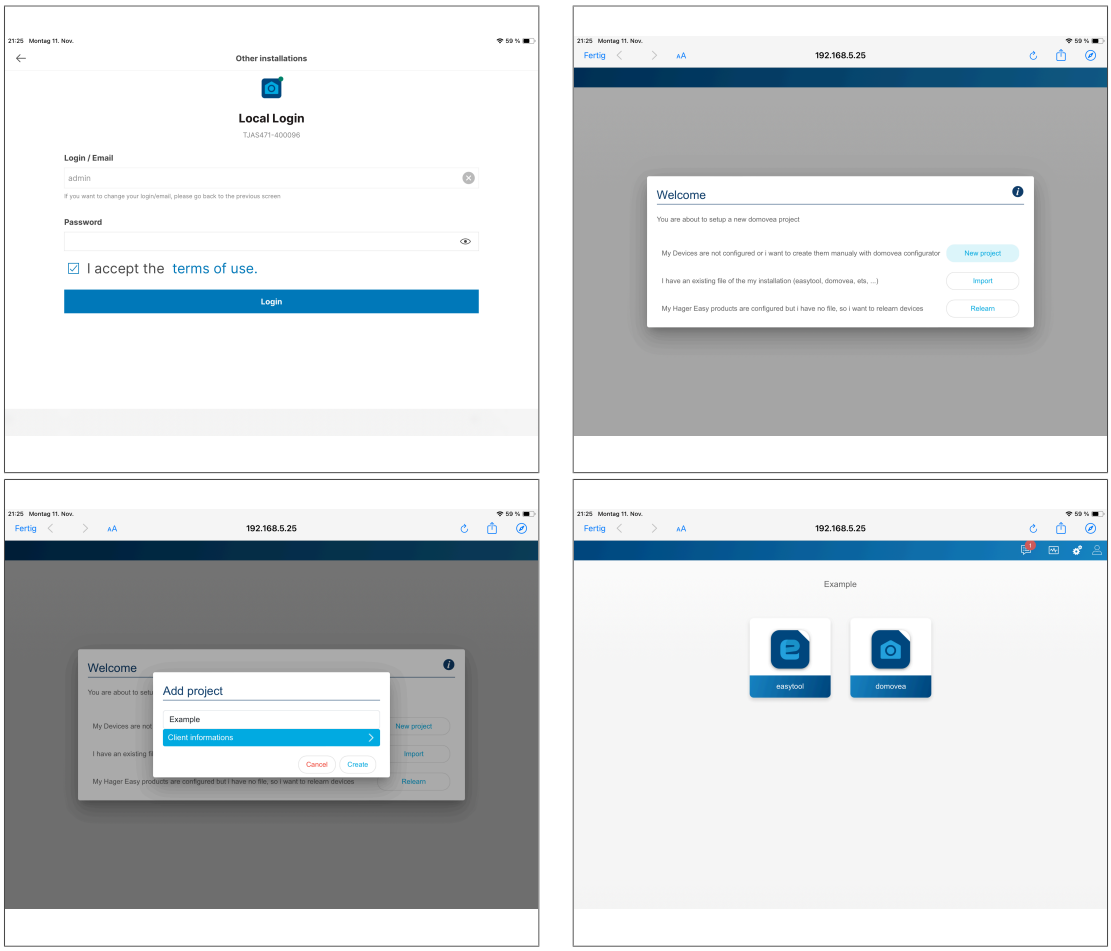

login.hager.com
myHager account
Your personal space, customised to feature all the tools, documents, resources and support you need.
Sign in
Email address
john.doe@example.com
Password
Forgot password?
Sign in
Don't have a myHager account?
Register here


login.hager.com
myHager account
Your personal space, customised to feature all the tools, documents, resources and support you need.
Sign up
Professional
Personal
Title
Mr
First name*
John
Last name*
Doe
Email address*
john.doe@example.com


Hager Pilot
What are you working on today?
Automation
Configure a Hager server / gateway.


Installations
myHager installations
There is no server linked to myHager account
Other installations
Installations detected on this network or installations you have previously added manually.
TJA5471-400096
Add a server


Other installations
Local Login
TJA5471-400096
Login / Email
admin
Next
„admin"
Administrator
administrative



If the device is not automatically found in the Hager Pilot app, the UID or QR code can be entered or scanned in the bottom left corner of the device.

8 Configure the device in the Hager Pilot app.

Detailed information on configuring the domovea/easyTool is available on our homepage at hager.com. Simply scan the QR code on the packaging or the operating instructions.

Project handover by the installer

To complete the project process, the project must be handed over to the customer.

The handover to the customer is mandatory.

The handover procedure enables an optimum transfer of the unrestricted access rights for the project from the electrician to the customer without exchanging access data and passwords. This avoids any kind of security risks/gaps. Only the e-mail address of the customer is required for the handover. This must be the same e-mail address the customer used to set up the domovea app.

Handover to customer

- Select **User** in the menu to start the handover process.

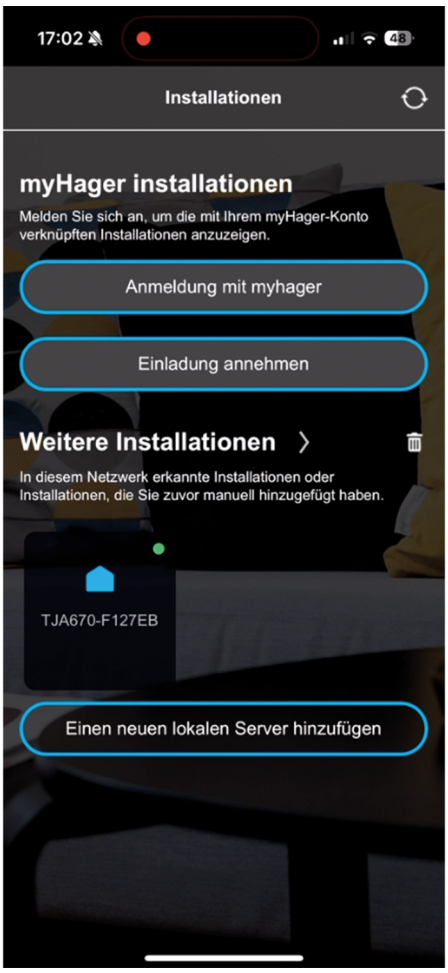
- Follow the instructions on the screen.

  The customer will receive an e-mail with an invitation code. As soon as the customer completes the takeover, the installer access is blocked. If required, installer access can be unblocked by the customer in the domovea app.

Project takeover by the customer

☑ Commissioning and handover by the installer has been carried out.
☑ The domovea app is installed on the customer's end device.
☑ The customer has received the invitation code via e-mail.

- Start the domovea app and click Accept Invitation.
- Follow the instructions on the screen and log in to the myHager account.
- After successful login, copy the activation code from the e-mail to the domovea app (Activate your account) and activate it.



Activation is complete and the domovea app can be used.

8.3 Dismounting

8.3.1 Disconnecting the connection cables

☑ All the cables delivering voltage to the device are switched off.

1. Disconnecting the connection cables on the device.

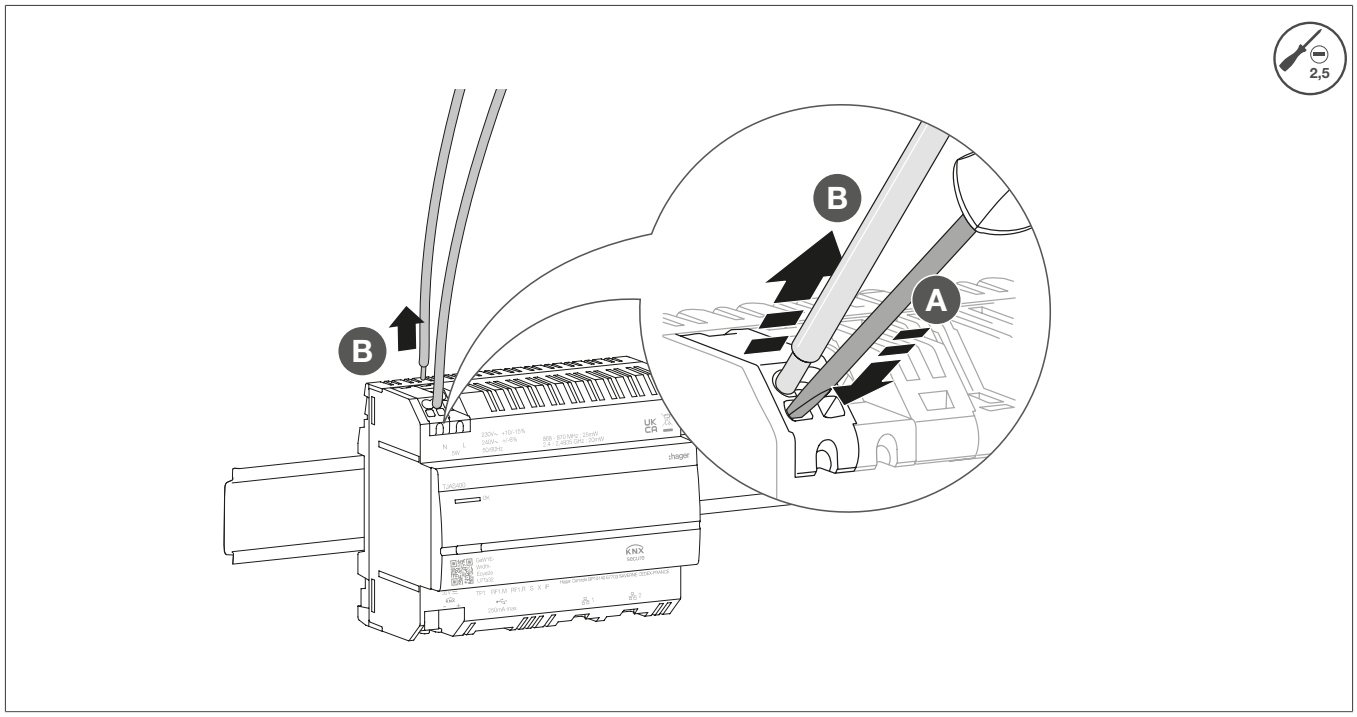


Fig. 14: Disconnecting the connection cables

8.3.2 Disconnecting the bus connection terminal

☑ The bus voltage is switched off.

1. Removing the bus connection terminal from the device.

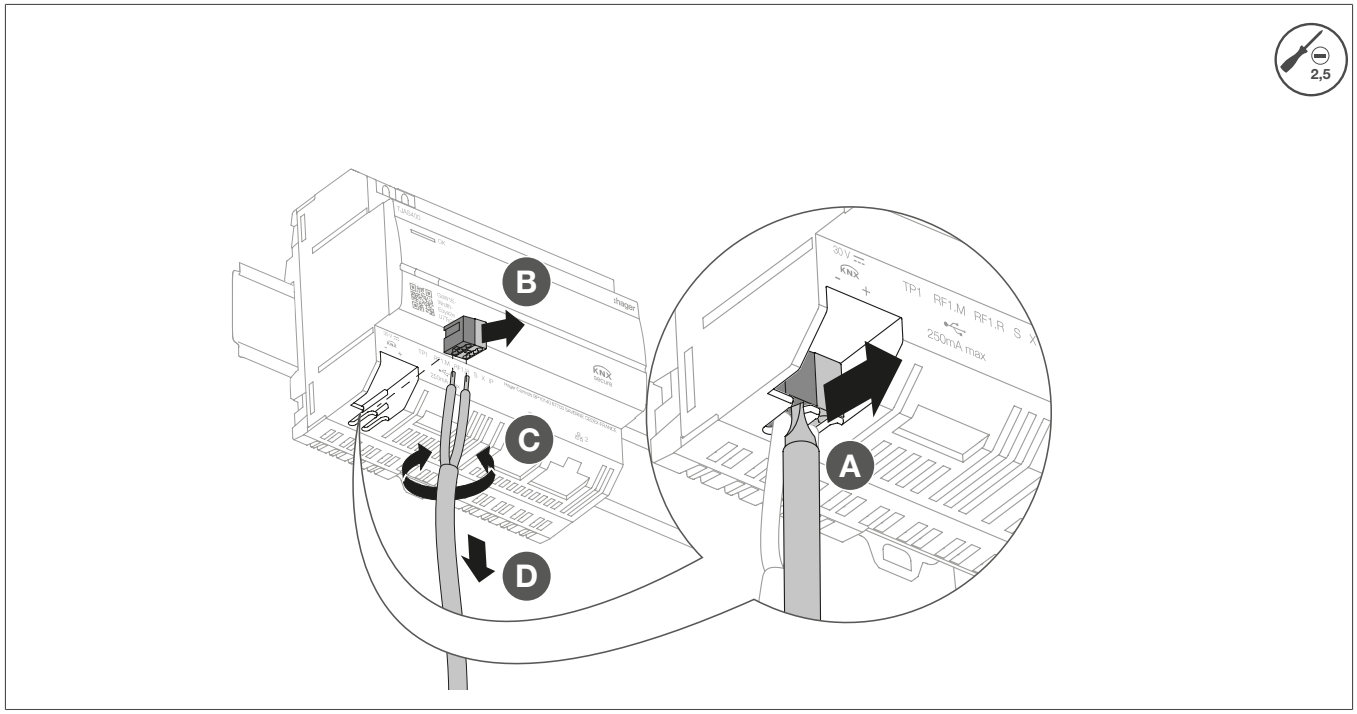


Fig. 15: Removing the bus connection terminal

8.3.3 Disconnecting the network cable

☑ The bus connection cable and the load cables have been disconnected.

- Disconnect all connected network cables from the device.

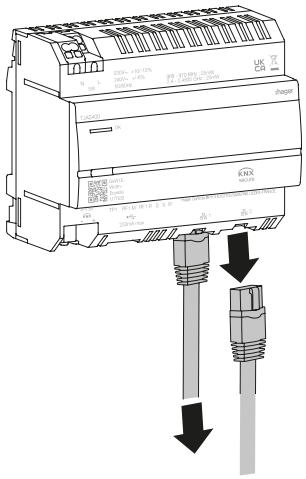


Fig. 16: Disconnecting the network cable

8.3.4 Dismantling the device

- ☑ The load cables have been disconnected.
- ☑ The bus connection cable has been disconnected.
- ☑ The network cables have been disconnected.

- Removing the device from the DIN rail.

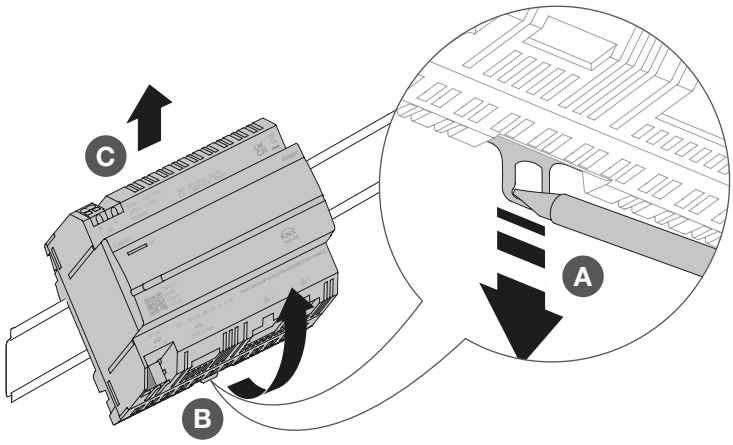


Fig. 17: Removing the device from the DIN rail

Dispose of the device in line with the corresponding guidelines of the respective country (see Disposal) or, if you have a warranty claim, contact the point of sale (see Warranty).

9 Appendix

9.1 Technical data

KNX	
Medium	TP1-256
Supply voltage	21 ... 32 V ⎓ SELV
Current consumption	3.3 mA
Power supply	
Supply voltage	230 V~ +10 %/-15% 240 V~ +/- 6%
Frequency	50/60 Hz
Power consumption depending on CPU load 230 V~	Type 2.5 ... 5 W
Surge voltage	4 kV
Overvoltage class	III
KNXnet/IP	Tunnelling, up to 3 device connections
Network interface	2 RJ45 port, 100Base-TX, switched
Compatibility with Matter	Matter bridge according to Matter standard 1.3
USB port	
Number of USB ports	1
Type	USB 2.0
Current consumption	Max. 250 mA
Protection switch	2 A
Environmental data	
Operating height	Max. 2000 m
Contamination level	2
Degree of protection	IP20
Impact resistance	IK04
Operating temperature	-5 °C ... 45 °C
Storage/transport temperature	-20 °C ... 75 °C
Dimensions (W x H x D)	106 x 90 x 67 mm
Dimensions	6 modules, 6 x 17.5 mm
Conductor cross-section	
Bus connection terminal	0.6 ... 0.8 mm
Conductor cross-section, rigid	0.75 ... 2.5 mm^2
Conductor cross-section flexible, without conductor sleeve	0.75 ... 2.5 mm^2

9.2 Page break

9.3 Troubleshooting

General network connectivity issues

The status LED of the device flashes yellow (long blink on / short blink off).

Neither of the two Ethernet ports is connected to a switch, hub or router.

Connect the device to the network properly over Ethernet. Also check the status of the Ethernet port on the switch/router as needed.

There is an IP address conflict.

If using a static IP address, make sure that no other device on the local network is using the same IP address. Alternatively, use DHCP.

The device is operating in PC mode and is connected to a local network at the same time.

The PC mode is designed for direct connection to a PC or laptop via an Ethernet cable. When connected to the local network, the PC mode is likely to cause problems.

- If the device is connected to a local network, use **Normal mode** (status LED lights up green) or **Offline mode** (status LED lights up white).

Local network access is not possible (domovea or Hager Pilot app).

The server is not connected to the network.

- Check whether the status LED of the server flashes yellow (long blink on, short blink off) (see **The status LED of the device flashes yellow (long blink on / short blink off).**).

The device and mobile device (domovea or Hager Pilot app) are not connected to the same local network.

- Ensure that the device and server are on the same local network.

Remote access is not possible.

Remote access is disabled on the device.

- Activate remote access via the local network using the Hager Pilot app (see Handbook – https://hgr.io/r/TJAS471)

The end customer has not activated remote access for the installer.

- Coordination with the end customer is necessary here. The end customer can activate or de-activate remote maintenance access for the installer via the domovea app as required.

The server is not connected to the Internet.

- To access the device from remote networks, ensure that the device has Internet access.
- The device's connection to the cloud can be checked from the local network using the Hager Pilot app. See the System status menu (see Handbook – https://hgr.io/r/TJAS471).
- If the domovea app is operated in the local network, it informs the user in case the device does not have an Internet connection (see handbook).

The server is in offline mode.

- Offline mode is intended for maintenance operation. Check whether the status LED of the server lights up blue. If this is the case, switch the device back to normal mode.

Server failure

The status LED flashes red (brief blink on, brief blink off).

The server cannot boot due to an internal error.

- Call the installer or customer service.

The server's system clock is wrong

The sequences are executed at unusual and undesirable times.

The system time on the server may be invalid.

- Start the domovea app or the Hager Pilot app to connect to the server. The apps check and synchronise the server clock with their own clock. In the event of a deviation, make an adjustment.
- Ensure that the server is connected to the Internet. The server can synchronise the system clock via the Internet.

Note

Further help is available at FAQ – www-FAQ-online.com – or at matter.com.

9.4 Page break

9.5 Accessories

Additional software	Hager Pilot app
	domovea app

9.6 Regulatory Compliance Australia

9.7 Disposal



Correct Disposal of this product (Waste Electrical & Electronic Equipment).

(Applicable in the European Union and other European countries with separate collection systems).

This marking shown on the product or its documentation indicates that it should not be disposed of with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this device from other types of waste. Recycle the device responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this device for environmentally safe disposal.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.

9.8 Warranty

We reserve the right to implement technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale.

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