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## NEA WIRING CENTRE

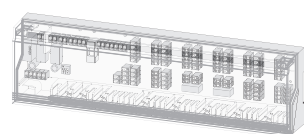
NEA HT 230V /24 V

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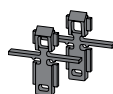
# INSTALLATION INSTRUCTION

## Supplied in the packaging

1x



2x



## Introduction

Before working with the NEA wiring centre, this instruction is to be read completely and thoroughly. This instruction must be kept and handed over to future users. You can view and download these instructions and more at [www.rehau.uk/neafamily](http://www.rehau.uk/neafamily).

## Safety

### Intended use

Depends on the power supply of the wiring centre, the REHAU NEA wiring centre serves

- for the installation of a single-room control up to 6 zones for heating applications.
- for the installation of up to 6 NEA room controllers 230 V or 24 V (do not mix 230 V and 24 V).
- for the installation of up to 15 REHAU (UNI) actuators 230 V or up to 15 REHAU (UNI) actuators 24 V (do not mix 230 V and 24 V).
- for the connection of an external timer.
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The REHAU wiring centre only serves for fixed installations.

### Safety instructions

All safety notes in this instruction must be observed in order to avoid accidents with personal damage or property damage.



Serious danger is present due to applied voltage at the wiring centre!

- Only an authorised person may open the device.
- Always disconnect from the mains and make safe before opening.
- Disconnect external voltages and confirm isolation.
- Only use the product if it is supplied as new.
- Do not operate the device without device cover in place.
- Caution when using this device persons should be knowledgeable, supervised or instructed concerning the safe use of the device and understands the resulting risks. This also applies when used or operated by children from the age of eight (8) years or persons with reduced physical, sensory or mental abilities or lack of experience.
- Ensure that no children play with the product.
- In case of emergency, disconnect the complete room temperature control system.

## Requirements with regard to personnel

The electrical installations must be performed according to the current national regulations as well as according to the regulations of your local energy supplier. It is recommended that persons carrying out work on this device is suitably qualified to do so. For example:

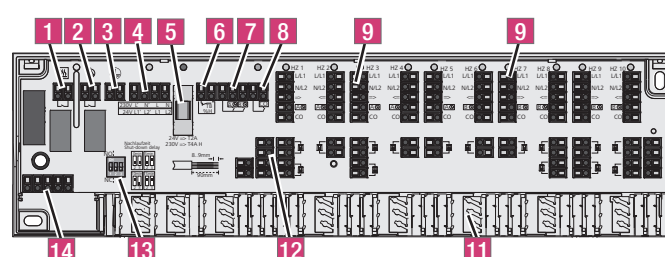
- Heating and ventilation
- Approved Electrical Installer
- Electronics Engineer

as in accordance to the profession designations officially announced in the UK, as well as according to comparable professions within the European Community Law.

## Device overview

### Connections and indications

The following instructions show the full equipment. Depending on the wiring centre type several positions may be omitted.



1. Boiler connection
2. Pump connection
3. Protective conductor connection
4. Voltage supply
5. Fuse
6. Temperature limiter or dew point sensor
7. Reduction channel, external timer
8. Heating/cooling change-over
9. Thermostat connection
10. LEDs
11. Strain relief
12. Connection of actuators
13. DIP switch
14. Contacts for casing cover with integrated system clock

## Technical data

Operating voltage	Wiring centre NEA HT 24V	24 V $\pm 20$ %, 50 Hz
	Wiring centre NEA HT 230V	230 V $\pm 10$ %, 50 Hz
Power consumption	24 V	30 VA
	230 V	50 VA
Fuses	24 V	T2A
	230 V	T4AH
Number of heating zones	6	
Max. number of thermostats	6	
Actuators	6 heating zones	max. 15 (230V) max. 15 (24 V)
Nominal load of all actuators	max. load 24 W	
Pump/boiler control	Yes	

Switching power	2 A	200 VA inductive
Turn on delay	2 mins	
Follow-up time fixed/ adjustable	2 mins/ 5-15 mins	
Valve protection function*	14 days for 10 minutes	
Pump protection function*	14 days for 1 minute	
Control direction	NC or NO supplied NC values selectable	
Ambient temperature	0 to +50 °C	
Storage temperature	-20 to +70 °C	
Ambient humidity	80 % non-condensing	
Protection class	24 V	III
	230 V	II
Type of protection	IP 20	
Dimensions (H x L x D)	90 x 326.5 x 50 mm	
Weight	427.6 g ±35 g	

\* when used with NEA H and NEA HT room controllers (value is adjustable)

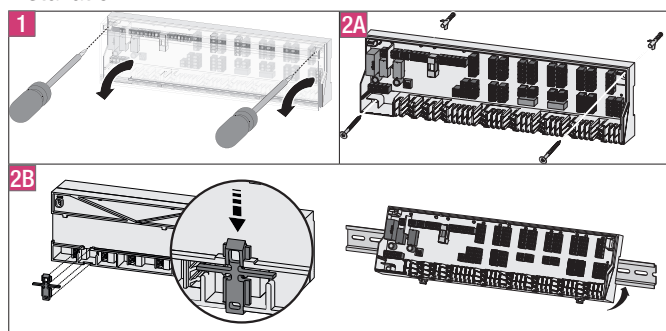
### Compliance

This product is CE marked and thus is in compliance with the requirements from the guidelines:

- 2004/108/EG with amendments "Council Directive on the approximation of the laws of the Member States relating to Electromagnetic Compatibility"
- 2006/95/EG with amendments "Council for Coordination of the Regulations of EU Member Countries regarding the electrical equipment for use within certain voltage limits"
- 2011/65/EU "Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment"

Increased protection requirements may exist for the overall installation, the compliance of which is the responsibility of the installer.

### Installation



1. Remove the cover.
2. Installing the wiring centre. In case of wall mounting, fix the base to the wall with 2 screws Ø 4 mm and corresponding wall plugs according to the quality of the wall. In case of installation on a mounting rail, use a rail TS 35/7.5.
3. Terminate electrical connections.
4. Reinstall the cover.
5. Test the installation before applying

### Jump switches

- Three switches
- Switch 1 alters the actuator control direction operation from normally open (NO) to Normally Closed (NC)
- Switch 2 and 3 increases the operation time to 5, 10 and 15 minutes.

### Boiler and pump timing

Comes with a standard delay of 2 minutes for both pump and boiler (on and off) i.e. jumper switches 2 and 3.

Time	Jumper 2	Jumper 3
0 minutes	OFF	OFF
5 minutes	OFF	ON
10 minutes	ON	OFF
15 minutes	ON	ON

### Electrical connection

For the connection of the mains voltage supply, the cable sections must be a minimum of 0.75 mm<sup>2</sup> for 24 V or 1.5 mm<sup>2</sup> for 230 V. The voltage supply of the 24 V version must come from a safety transformer according to EN 61558-2-6 or, for North America, from a Class II Transformer according to UL. Depending on the voltage version of the wiring centre it is possible to tap L1 or L or L2 respect. N as well as the protective earth via the wiring centre. If no temperature limiter is connected, the connection TB/%H must be bridged. Once a temperature limiter or a dew-point sensor is connected, the bridge must be removed.

The temperature limiters are normally closed contacts.

The wiring of the controller depends on the wiring centre used. For wiring purposes, please observe the instructions of the thermostat or of the respective component.

### Symbols

	Controller NEA
	Actuator
	Pump
	Voltage source
	Temperature limiter
	System clock
	Heating/cooling change-over
	Cooling
	Heating

Wiring diagram included at the end of the document.

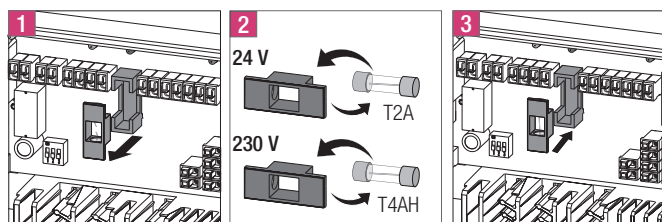
### Maintenance

#### Fuse change

WARNING! ELECTRICAL VOLTAGE! DANGER TO LIFE

Before opening the controller disconnect the wiring centre from mains and ensure it is isolated and locked to stop it from being switched on again.

Disconnect external voltages and secure against unintended activation.



### Cleaning

Only use a dry and solvent-free, soft cloth for cleaning.

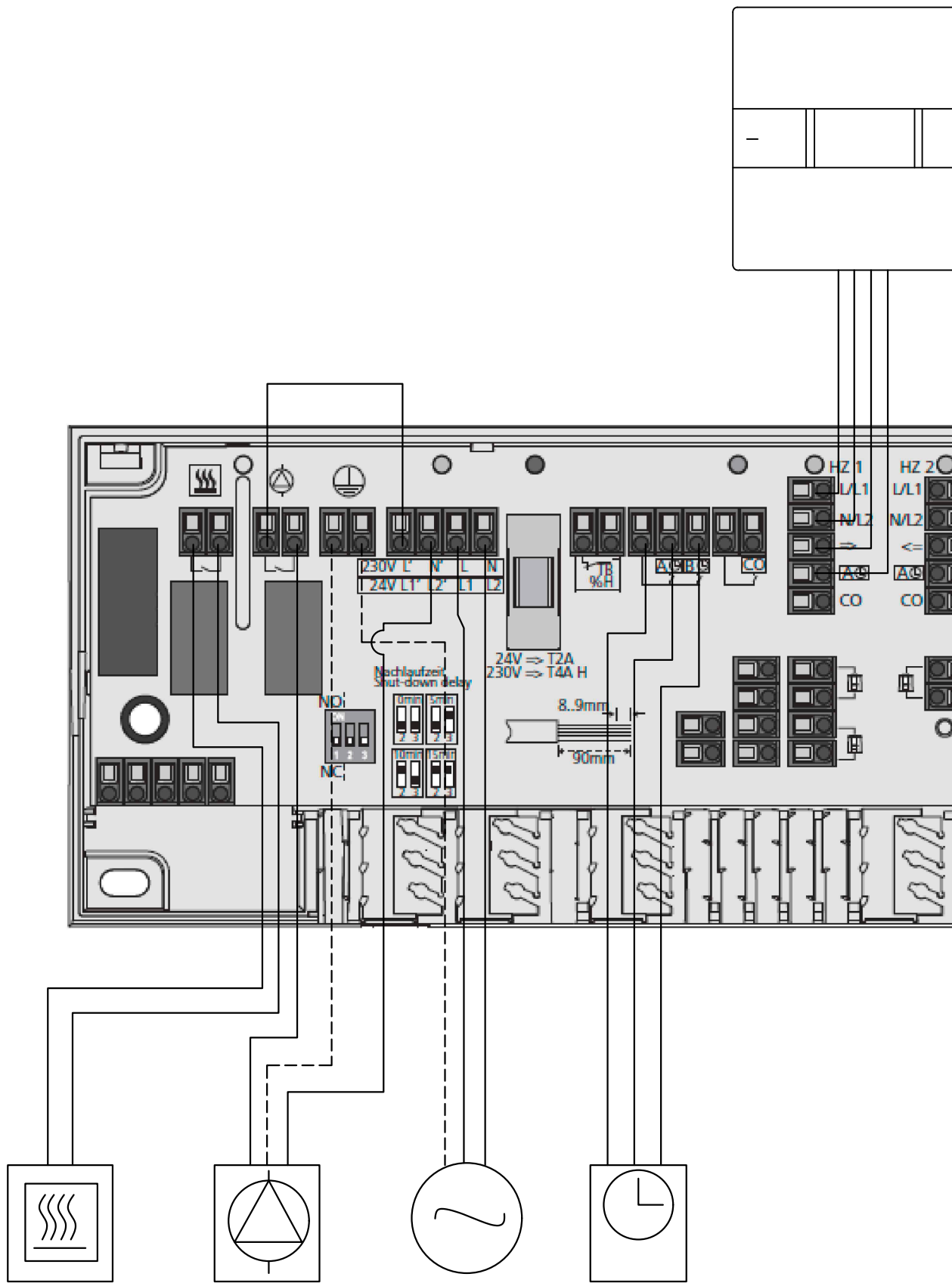
### Dismantling

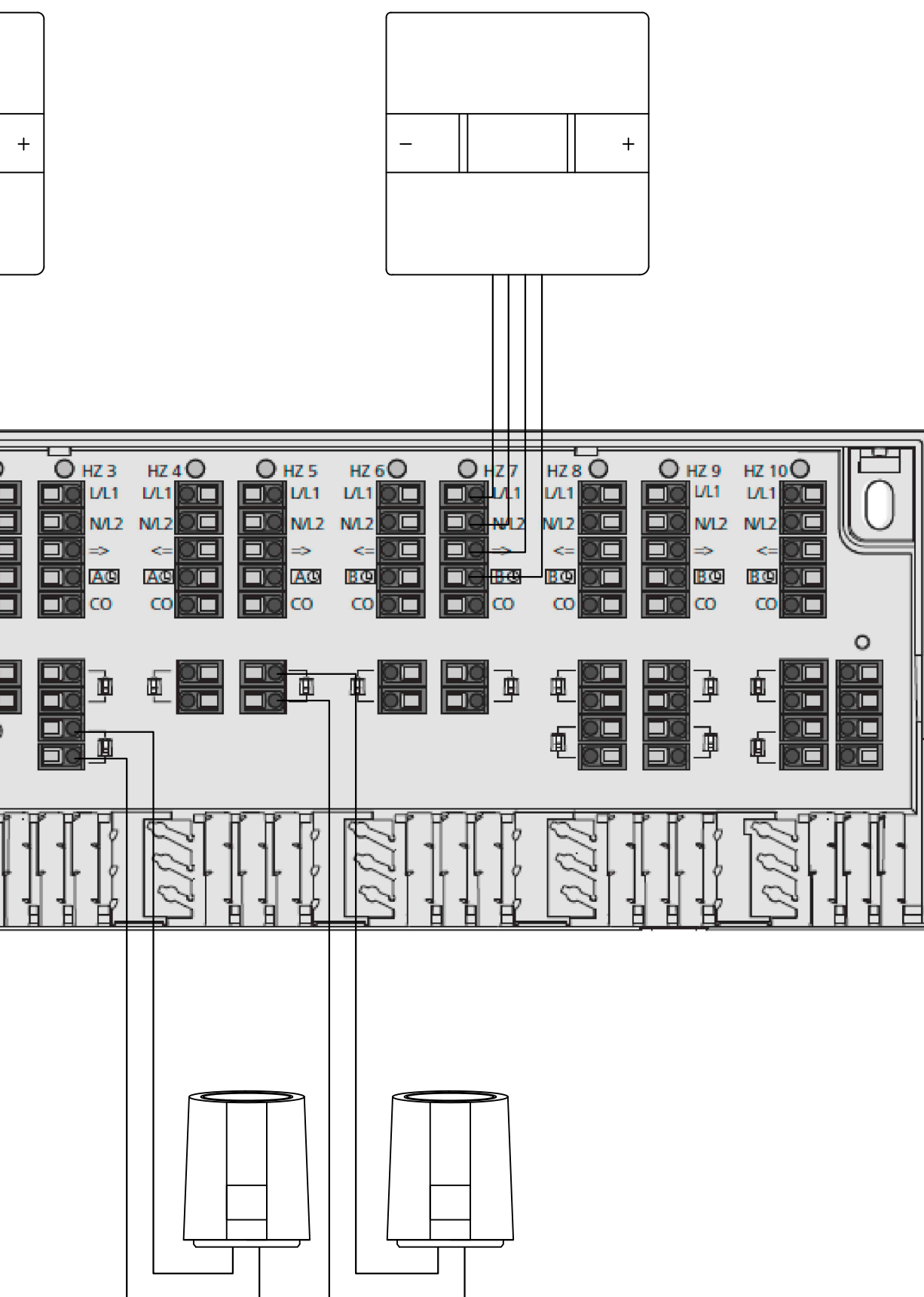


**WARNING! Electrical voltage! Danger to life!**

- Before opening the controller disconnect the wiring centre from mains and ensure it is isolated and locked to stop it from being switched on again.
- Disconnect external voltages and secure against unintended activation.
- Isolate the complete installation.
- Remove the wiring to all externally connected components.
- Disassemble the wiring centre and if necessary dispose it properly.







## Follow REHAU Underfloor:



Our verbal and written application engineering advice is based upon experience and the best of our knowledge. However it is to be regarded as non-binding information. Working conditions and use under conditions for which the product was not intended and over which we have no influence exclude any claim resulting from our information. We recommend that a suitable check is made as to whether the REHAU product is suitable for the envisaged purpose. Application, use and processing of the products is carried out beyond the scope of our control and are therefore carried out exclusively at your own responsibility. If liability should still apply, then this is restricted, in the case of all damage, the value of the goods supplied by us and used by you.

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### UK HEAD OFFICE

Rehau Ltd, UK Head Office, Hill Court, Walford, Ross-on-Wye, Herefordshire HR9 5QN Phone: 01989 762 600 Fax: 01989 762 601

### UK & IRELAND SALES OFFICE

**London**, REHAU Ltd, The Building Centre, 25 Store Street, London WC1E 7BT Phone: 0207 580 6155 Fax: 0207 307 8595 **Slough**, Units 5 J & K, Langley Business Centre, Station Road, Langley, Slough SL3 8DS Phone: 01753 588500 Fax: 01753 588501 **Manchester**, Brinell Drive, Irlam, Manchester M44 5BL Phone: 0161 777 7400 Fax: 0161 777 7401 **Glasgow**, Phoenix House, Phoenix Crescent, Strathclyde Business Park, Bellshill, North Lanarkshire ML4 3NJ Phone: 01698 503700 Fax: 01698 503701 **Dublin**, 9 St. Johns Court, Business Park, Swords Road, Santry, Dublin 9 Phone: 00353 (0)1 8165020 Fax: 00353 (0)1 8165021