

Product Name: ADR-UFH
Article No: 206825-001
Version: B



Safety Precaution

Important information, please note:

The above symbol indicates special safety precautions and warnings that must be heeded. If such information is not heeded, injury or considerable damage to property can occur.



Useful information



Installation/Commissioning/Maintenance

The installation, commissioning and maintenance of the components may only be performed by professionals with relevant qualifications. The local applicable standards, guidelines must be complied with here. This also applies for work with the switch cabinet.

Risk of death from electric shock

The control components are operated with electrical current. Improper installation or attempts to repair the equipment can lead to a risk of death from electric shock. In general, you should refrain from opening up the units and accessories. Only the manufacturer may repair the unit. Never touch the electrical components with wet hands or cleaning cloths!

Application

The components of the REHAU control system for heating may only be used to regulate, control and monitor hydronic sub-surface heating systems.

Proper use

Flawless and safe operation of the REHAU control system for heating requires appropriate transport, storage, assembly, installation and commissioning, as well as careful operation.

Electrical installation

Fuses, switches, wiring and earth connections are to be implemented in accordance with the local regulations on electrical installations.

Wiring

A strict separation between the AC 230 V area and the AC 24 V low-voltage area of the wiring is to be maintained to ensure protection against electrical shocks.

Storage and transport

The limit values listed on the data sheets always apply for storage and transport.



General information

Please take the time to carefully read through these instructions before carrying out assembly work.

Cleaning of housing

Material

Soft brush

Soft lint-free cloth

Detergent: isopropyl rubbing alcohol. Eg. 75% medical alcohol

Cleaning method

General cleaning: use soft brush to brush off the dust adhered on the housing

Deep cleaning: Gently wipe the housing with diluted detergent

Area with product logo shall not be cleaned by detergent.

REHAU Room Thermostat: ADR-UFH Installation and Operation Manual

Features:

- Controller is ready for **Hydronic Floor Heating**
- Control for single stage heating
- Suitable for 2-point actuators
- Controls up to 12 REHAU actuators
- Low energy consumption: < 1W per unit
- Relay switching for output up to 300W
- Large temperature range from 0°C to 70°C
- Cost saving option with Economy functionality and set point limitations
- External sensor or open contact for remote control, external heating to cooling changeover or auto-changeover on supply temperature with selectable activation limits and supervision of floor temperature
- Temperature display in Celsius or Fahrenheit
- Clock and time schedule functions
- Blue backlight LCD
- Password protected programmable User and Control parameters
 - Setpoint range limitation
 - Access control for setpoints and mode changes
 - Access control for time programs
 - Selectable behaviour after return from power failure

Selection of Actuators and Sensors

Binary auxiliary devices: e.g. On/Off valves or actuators. Do not directly connect devices that exceed 250 VAC, 1.5A.

Installation

1. Connect the wires and external floor sensor to the terminals on the power case according to the wiring diagram
2. Fasten the mounting plate to the flush mounting box using the rounded-head screws supplied in the packaging; Make sure that the mounting hook is facing to the ground.
3. Rest the front panel on the mounting plate. The two latches on the inner side of the front panel shall rest on the catches on the mounting plate.
4. Align the 8-bins to the connecting socket on power case
5. Finally, fit the bottom part of the front panel to the mounting hook until it is snapped into place.

Mounting Location

- On an easy accessible interior wall, approx. 1.5 m above the floor in an area of average temperature.
- Avoid direct sunlight or other heat sources, e.g. the area above radiators and heat emitting electrical equipment.
- Avoid locations behind doors, curtains, outside walls and below or above air discharge grills and diffusers.

Power Failure

Parameters and program settings are permanently retained during power loss.

Frost Protection

Frost protection mode will activate automatically when room temperature falls below 5°C. All heating outputs will be fully opened. Frost protection mode will be left once the temperature reaches 10°C. Frost protection symbol will remain until a key is pressed.

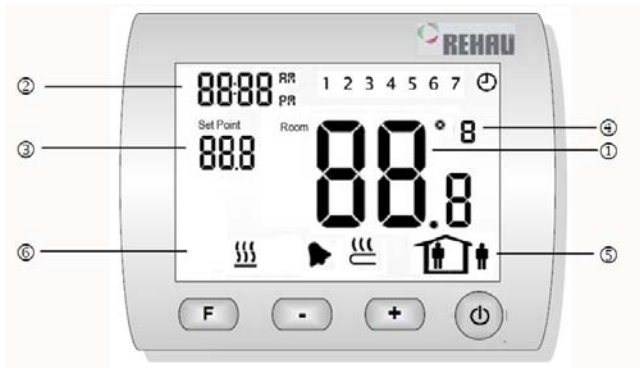
Operation Mode

- Comfort: The unit is in full operation mode. All the control functions are operating according to the setpoint temperature.
- Economy: The set point temperature is shifted down by 5°C as default.
- Party: Override the current mode with Comfort mode if time scheduling is activated. Party mode will end after 180mins or when the power button is pressed.
- Energy Hold Off (EHO): The unit is switched off. All outputs are off. Room temperature will still be monitored in order to activate the unit in case of frost. (If frost protection is enabled). Off, current time and room temperature are displayed.

Fault Signals

The ADR-UFH/C may display the following fault signals:

- Err1: Temperature sensor fault. The temperature sensor is damaged.
- FP: Frost protection is active.



Legend:

1. 3-digit display of current room temperature. Indicated with Room label
2. Time and week day, Clock sign indicates when time scheduling is activated
3. 4-digit display of room setpoint temperature
4. Scale of temperature: °C, °F
5. Operation modes: Economy mode , Comfort mode , Party mode
6. Symbols:

Heating active	Frost protection	Time schedule	Alarm

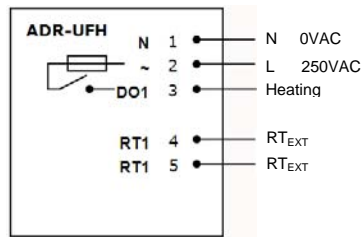
7. Keys for operating the controller

- (Power):
 - on/off the unit
 - switch operation modes (Economy/Comfort/Party)
 - to abort an input or to return to main screen
- + and -:
 - increase/reduce a value or to scroll up/down in a selection or menu
- F (Function):
 - to jump to menu selection
 - to confirm a value or to jump to the next input field

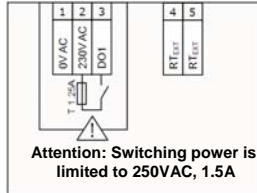
Unit Operation

- **Switch ON:** Press POWER key. The unit starts up in Comfort mode.
- **Change Operation mode:** Press POWER key to switch between COMFORT and ECONOMY modes.
- **Party mode:** It works only when Time Schedule is active. Press POWER key to activate, press again to return to time scheduled operation mode or automatically return after 180 minutes.
- **Switch OFF:** Press and hold POWER key for 2 seconds to switch off the unit.
- **Change set point temperature:** Press + or - buttons to change the temperature setpoint.
- **Advanced settings:** Press and hold FUNCTION key for 2 seconds to access Selection (SEL) menu, press + or - key to select for Time Schedule and Clock settings.
 - o **Clock Setup:** CL is shown.
 - a. Press FUNCTION key to access clock setup.
 - b. While minutes are blinking, press the + or - key to change.
 - c. Press again FUNCTION key to confirm and move to the hours setting.
 - d. After the hour is set, press FUNCTION key again to confirm and move to weekday setting. Press the + or - key to change from 1 (Monday) to 7 (Sunday).
 - e. Press FUNCTION key again to confirm and return to the Selection (SEL) menu.
 - o **Time Schedule:** Pr is shown.
 - a. Press FUNCTION key to turn ON or OFF the Time Schedule function.
 - b. To Continue, press + key to access Pr1 or - key to Pr8. Press + or - key to select the program number.
 - c. Press FUNCTION key again to select operation mode, press + or - key to change:
 - no = disable switching time
 - OFF = switch off the unit
 - ECO = Economy mode
 - ON = Comfort mode
 - d. Press FUNCTION key to confirm and move to switching time setting. Press + or - key to set the switching time from 00:00 to 23:45 in 15-minute steps;
 - e. Press FUNCTION key to confirm and move to day setting. Press + or - key to select either = d1-7, d1-5, d6-7, day1, day2, day3, day4, day5, day6, day7.
 - f. Press FUNCTION key again to confirm and return to the Selection (SEL) menu.

Wiring Diagram



Terminal Connection

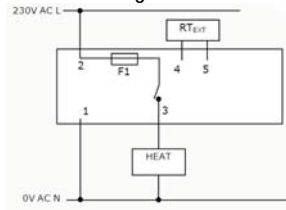


Legend

- 1: 0V AC Neutral Power Supply
- 2: 230VAC Power Supply
- 3: DO1 Heat Output
- 4/5: RT_{EXT} External temperature sensor for floor temperature limitation or control input

Attention: Switching power is limited to 250VAC, 1.5A

Connection Diagram



Technical Specification

Power Supply	Operating Voltage Power Consumption Electrical Connection Fuse Power Power backup for clock	190 – 250 V AC 50/60 Hz Max 1W, 1.5 VA Terminal Connectors T 1.5A, 250VAC (Warranty void if replaced) Min 48h if charged for 24h
Signal Inputs	Temperature Inputs Range Resolution Accuracy	floor supervision, changeover input -40°C...70°C 0.1°C 1°C
Signal Outputs	Digital Switching Outputs AC Switching power	DO1 1.5A, 250VAC
Environment	Operation - Climatic Conditions - Temperature - Humidity Transport & Storage - Climatic Conditions - Temperature - Humidity - Mechanical Conditions	To IEC 721-3-3 class 3 K5 0°C ...50°C <95% R.H. non-condensing To IEC 721-3-2 and IEC 721-3-1 class 1 K3 and class 3 K3 -20°C...70°C <95% R.H. non-condensing class 2M2
Standards	CE conform according to - Product standards - compliant with EMC regulatory arrangement - Automatic electrical controls for household and similar use - Special requirement on temperature dependent controls - Degree of Protection - Safety Class - RoHS	EMC 2004/108/EG; 2006/95/EG EN 61 000-6-1 / EN 61 000-6-3 Acma C-tick mark, supplier code N30004 EN 60 730 -1 EN 60 730 - 2 - 9 IP30 to EN 60 529 II (IEC 60536) 2002/95/EG
Housing	Materials - Front housing, Power Case - Mounting Plate - Colour	Fire proof ABS plastic (UL94 V0) Fire proof PC+ABS (UL94 V0) White, RAL 9003
General	Dimensions (W x H x D) - Front part - LCD - flush mounted part - Weight (including package)	114mm x 88mm x 15.5mm 84mm x 56mm 50mm x 60mm x 32mm 321g

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