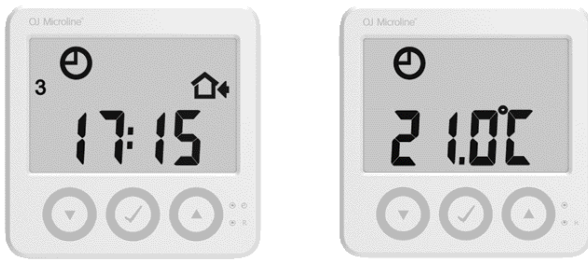


# INSTRUCTIONS

## Intelligent Room Controller/Sensor

67337 02/15 (HKT)



• English

### English

#### Product programme

REH CT3 Wired room controller with clock  
 REH DT3 Wired room sensor with temperature adjustment, mode switch (Auto, Day, Night, Frost Protection) and floor limit sensor

#### Mounting of room controller/sensor (figs 1 and 2)

The unit is used for comfort temperature control in rooms. The unit should be mounted on an internal wall approx. 1.4-1.7 metres above the floor in such a way as to allow free air circulation around it. Draughts and direct sunlight or other heat sources must be avoided.

Fig. 1 Removing the front cover

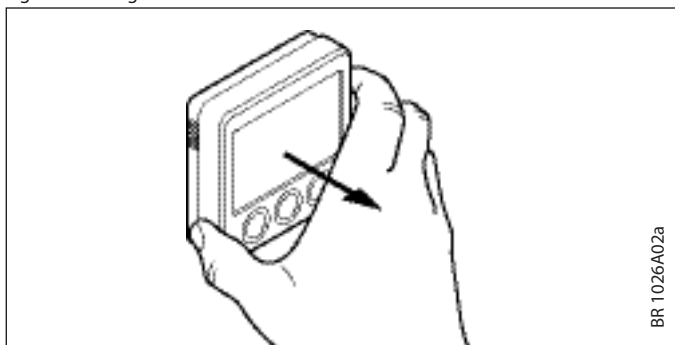
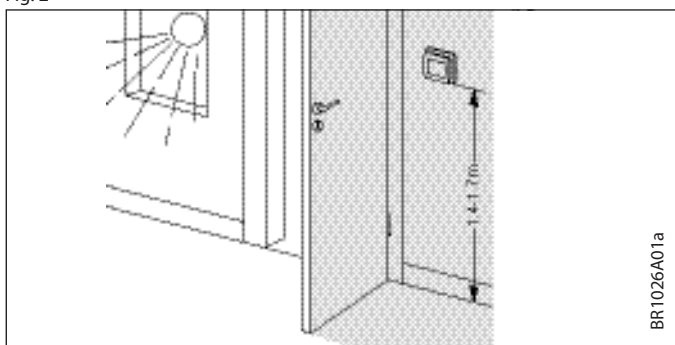


Fig. 2



#### REH CT3 / REH DT3: Wired room controllers/sensors – bus connection (figs 3 and 4).

Only REHAU units which are suitable for two-wire communication can be used. Standard installation cable of minimum  $2 \times 0.25 \text{ mm}^2$  can be used. Units can be connected in conventional star formation or in bus mode (daisy chain). The master has four sets of terminals marked SENSOR/CONTROLLER BUS that can be used for connecting the 2-core signal cable from the unit.

Any unit can be connected to any pair of terminals. The total length of the 2-wire system can be up to 300 m with a maximum length of 100 m between any two units. For further information see the table below. Remember to connect + to + and – to –.

Table: Length of cable

Standard cable	Max cable length from Master to Room Controller/Sensor with display	Max cable length from Master to Room Controller/Sensor without display
$\geq 0.25 \text{ mm}^2$	Up to 100 m *	Up to 300 m
$\geq 0.50 \text{ mm}^2$	Up to 200 m *	Up to 300 m
$\geq 0.75 \text{ mm}^2$	Up to 300 m *	Up to 300 m

\*) Up to 300m if operation without backlight is acceptable.

Fig. 3

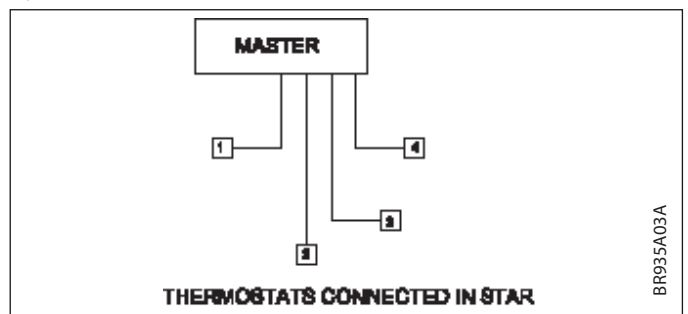
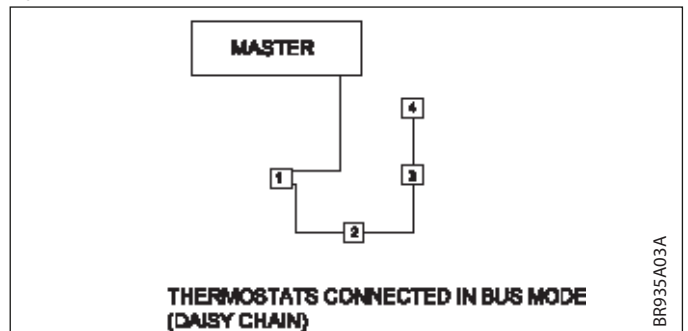


Fig. 4



Setting up which room controller/sensor is paired with which thermal actuator (fig. 5)

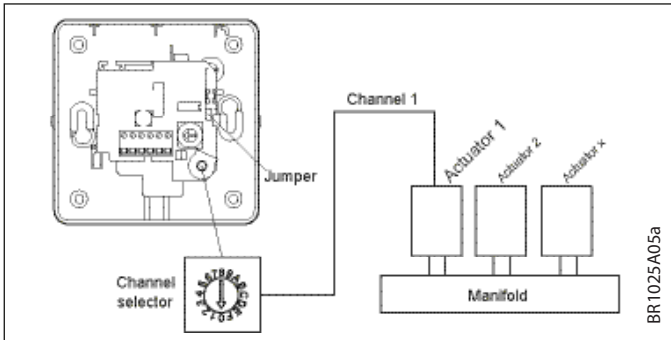
Each unit can be set to operate a specific output which in turn controls a thermal actuator on the manifold. A selector can be accessed under the front cover of the unit where the number of its output (i.e. its channel no.) can be set with a screwdriver.

Please note that channels 10 to 14 are marked as A through E on the selector.

A unit set to CH1 will activate the thermal actuator connected to output 1 on the master. The channel number can be set before power is connected to the system. The channel set on the unit can be subsequently changed if needed. If two room sensors are placed in the same room and set to the same channel, temperature will be controlled by the average of the temperature recorded by both units.

For information on setting up the system, please refer to the Quick Guide in the Installation Manual.

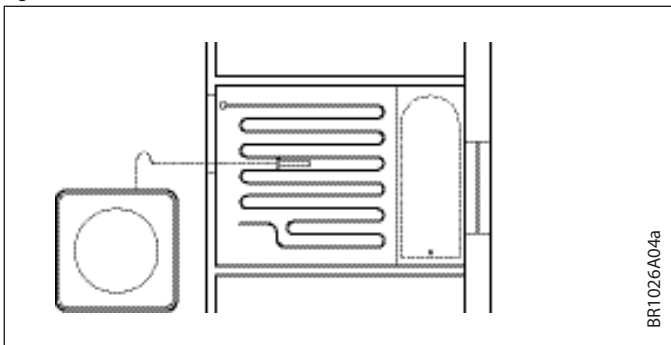
Fig. 5



Mounting of floor limit sensor (fig. 6)

Units with floor limit sensor have a mechanical jumper on the printed circuit board allowing limits to be set for MIN. or MAX. temperature regulation. If set for MAX., the limit setting will be 27°C. If set for MIN., the limit setting will be 17°C. These temperature are fixed when used with REH BA masters unless the unit has been allocated to a zone group controlled by a REH CT3 room controller. In this case, the limit settings can be increased or decreased via the room controller. The limits then set will apply to all relevant room sensors with floor limit sensor belonging to that group. If a REH FC-BMS master is used, the limit settings can be changed using the programming buttons on the master.

Fig. 6



Jumper connected: max. limitation

Jumper removed: min. limitation

Jumper location, see fig. 5.

Max. temperature limitation is used to prevent the floor from becoming too warm. This may be required if special floor surfaces (e.g. solid wood) are used. The sensor should be positioned where it can read the true temperature of the floor and should always be within the heated area. Min. temperature limitation is used to keep the floor surface warm, irrespective of room temperature. In tiled bathrooms or pool areas, for example, water will dry more quickly if the floor surface is kept warm. The sensor should be positioned where it can read the true temperature of the floor and should always be within the heated area.

To ease replacement, we recommend that all floor sensors are mounted in a tube positioned between two heating pipes. The inner end of the tube should be sealed, and the floor sensor cable led back to the bottom of the wall. If required, the sensor cable can be extended up to 30 m with standard installation cable.

See the Installation Manual for further instructions.

## Maintenance

The unit is maintenance free.

Keep the air vents (openings) on the unit clean and unobstructed at all times.

## Certifications

### CE marking

REHAU Ltd hereby declares that the product conforms with the following Directives of the European Parliament and of the Council:

- CE marking: 1993/68/EEC
- EMC - electromagnetic compatibility: 2004/108/EC
- R&TTE - Radio Equipment and Telecommunications Terminal Equipment and the mutual recognition of their conformity: 1999/5/EC
- RoHS - restriction on the use of certain hazardous substances: 2011/65/EU
- WEEE - waste electrical and electronic equipment: 2012/19/EU



### Applied standard(s)

EN 61000-6-2, EN 61000-6-3

### Additional for WLxR3-29

EN 300 220-1, EN 300 220-2, EN 301 489-3, EN 301 489-1, EN 50371

### Disposal and recycling

#### Recycling of packaging

Protect the environment by disposing of the packaging in accordance with local regulations for waste processing.

#### Disposal of the product



Equipment containing electrical components must not be disposed of together with domestic waste.

It must be collected separately along with other electrical and electronic waste according to local and currently valid legislation.

### Technical Specifications (REHxT3)

Purpose of control	Wired electronic room controller/sensor for controlling hydronic floor heating and cooling
Connection type	2-wire, 5 V, communication bus
Cable type	Standard installation cable $\geq 0.25 \text{ mm}^2$
Cable length	Up to 300 m with max. 100 m between two units
Control principle	PI (4°C P-Band) - PWM or ON-OFF
Ambient operating temperature	0/+40°C
Power drain	Without backlight <1 mA With backlight <30 mA
Temperature range	+5/+40°C
Functions (REH DT3)	Auto, comfort, setback, frost protection
Functions (REH CT3)	Timed or manual operation, zone control
Room sensor	Internal
Floor limit sensor	Can be connected, max 30 m cable
Mounting method	For mounting direct on wall or in wall socket
Enclosure rating	IP 21
Dimensions	H/86.0, W/86.0, D/25.5 mm

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