

Instructions for use of Control unit IRVAR® 20

Electric immersion heater IRVAR® for Towel Radiators

Dear customer, your new Towel Radiator is fitted with an electric immersion heater IRVAR for heating. The corresponding control unit IRVAR 20 gives you the choice of setting the desired surface temperature of the Towel Radiator or adjusting the room temperature. With 4 keys, the different types of operations can be selected. The rotating knob permits the setting of the desired temperature. An individually controllable weekly program with the free choice of two temperatures (as for example day/night) enable an automatic operation. With the help

of the built in timing device, the Towel Radiator can be heated for a limited time (as for example drying of towels with automatic switching off).

The control unit must be installed permanently in the same room as the Towel Radiator, if possible with optical contact to the immersion heater. The room temperature will be measured and controlled also from this spot.

We wish you lots of fun with your new Towel Radiator.

Commissioning, selecting the language

1. Remove the protective strip (insulation) from the batteries.
2. Select the **language** with the rotating knob.
3. Press the key **EXIT** briefly.

Manual operation

1. Press the key **ON** briefly.
2. Adjust the **temperature** setting with the help of the rotating knob (Towel Radiator Steps 1 to 8 or alternatively the room temperature: 4° to 30°C). The temperature settings can be adjusted freely during the whole switched on period.
3. The Towel Radiator can be switched off any time with the key **OFF** (the last temperature setting is saved).

Timer (automatic switching off, as for example drying of towels)

1. Press the key **TIMER** briefly.
2. Adjust the **temperature** setting with the help of the rotating knob (steps 1 to 8). The remaining time will be indicated numerically as well as graphically. At the end of the time setting of the timer, it will be automatically switched off (**OFF**) or will revert to the previous type of operation **AUTO**. The last temperature setting will be saved.
3. You can override the timer setting and switch off manually any time with the key **OFF**.

Changing the Timer setting

1. Press the key **TIMER** for about 2 seconds.
2. Adjust the **time setting of the timer** with the help of the rotating knob (in steps of 15 minutes up to a maximum of 9h45 hours).
3. Press the key **EXIT** briefly. The new timer setting will be saved.

Changing the language

1. Press the key **ON** for about 2 seconds.
2. Select the **language** with the rotating knob.
3. Press the key **EXIT** briefly.

Setting the day of the week and the time

1. Press the key **ON** for about 2 seconds.
2. Press the key **-->** briefly.
3. Set the **day of the week** with the help of the rotating knob.
4. Press the key **-->** briefly.
5. Set the **hours** with the help of the rotating knob.
6. Press the key **-->** briefly.
7. Set the **minutes** with the help of the rotating knob.
8. Press the key **EXIT** briefly (starts accurate to a second as the key is pressed).

Selecting Summer or Winter time

1. Press the key **ON** for about 2 seconds.
2. Press the key **-->** 2 x briefly.
3. Set the **hours** with the help of the rotating knob (in spring add one hour, in autumn deduct one hour).
4. Press the key **EXIT** briefly. Minutes and seconds are not changed.

Indication of temperature: select °C or °F

1. Press the key **ON** for about 2 seconds.
2. Press the key **←--** 2 x briefly.
3. Set **°C** (Celsius) or **°F** (Fahrenheit) with the help of the rotating knob.
4. Press the key **EXIT** briefly.

Select control of Towel Radiator or the room temperature

1. Press the key **ON** for about 2 seconds.
2. Press the key **←--** briefly.
3. Set **Towel Radiator** (Symbol ) or **room temperature** (Symbol ) with the help of the rotating knob.
4. Press the key **EXIT** briefly.

Setting the weekly programme

(after setting the day of the week and the clock)

1. Press the key **AUTO** for about 2 seconds.
 2. Set the **temperature T1** (the lower temperature as for example during the night) with the help of the rotating knob. If T1 is equal to or greater than T2, the symbol Δ will be displayed.
 3. Press the key **T2** briefly.
 4. Set the **temperature T2** (the higher temperature as for example during the day) with the help of the rotating knob.
 5. Press the key **EXIT** briefly.
 6. With the help of the rotating knob and the **Cursor** mark the time to be programmed (day of the week and the half-hour span as for example SA 0600-0630).
 7. With the keys **OFF**, **T1** or **T2** programme this half-hour span.
 8. With the help of the rotating knob and the **Cursor** mark the next time to be programmed (as for example SA 0630-0700) and programme it with the keys **OFF**, **T1** or **T2**.
- Tip:** If the keys **OFF**, **T1** or **T2** are kept pressed and at the same time the rotating knob is turned, a whole **time-span** can be programmed or deleted.

9. Press the key **EXIT** briefly.

Activating and deactivating the weekly programme

1. Press the key **AUTO** briefly. The weekly programme is now activated. The pre-selected temperature can be changed any time with the help of the rotating knob. This temporary modification will be indicated by + or - (higher or lower than the pre-programmed temperature) and will be valid only up to the next pre-programmed change of temperature (**OFF**, T1, T2).
2. Press the key **OFF**. The weekly programme is now de-activated.

Checking the settings of the weekly programme

1. Press the key **AUTO** for about 2 seconds.
2. Check the temperature by pressing the keys **T1** and **T2**.
3. Press the key **EXIT** briefly.
4. With the help of the rotating knob and the **Cursor** scan through all the days of the week and check the programmed data (day, time, **OFF**, T1, T2).
5. Press the key **EXIT** briefly.

Modify or delete the weekly programme

1. Press the key **AUTO** for about 2 seconds.
 2. If necessary, change the temperatures T1 or T2 with the help of the rotating knob.
 3. Press the key **EXIT** briefly.
 4. With the help of the rotating knob and the **Cursor** go through the settings to be modified (day and time) and over-write with the keys **OFF**, **T1** or **T2**.
- Tip:** If the keys **OFF**, **T1** or **T2** are kept pressed and at the same time the rotating knob is turned, a whole **time-span** can be programmed or deleted.
5. Press the key **EXIT** briefly.

Replace the batteries

1. Press the key **OFF** briefly.
2. Carefully remove the used batteries from the battery-holder at the rear of the control unit and replace with the new batteries (pay attention to the polarities!).
3. Dispose the used batteries in an environment-friendly way.

Reset

Through the small opening **RESET** at the rear of the control unit and with the help of a fine tool (pencil, paper clips etc.) the unit can be set back to the original factory settings. All the programmes and settings will be cancelled.



Displays

Control unit IRVAR 20:

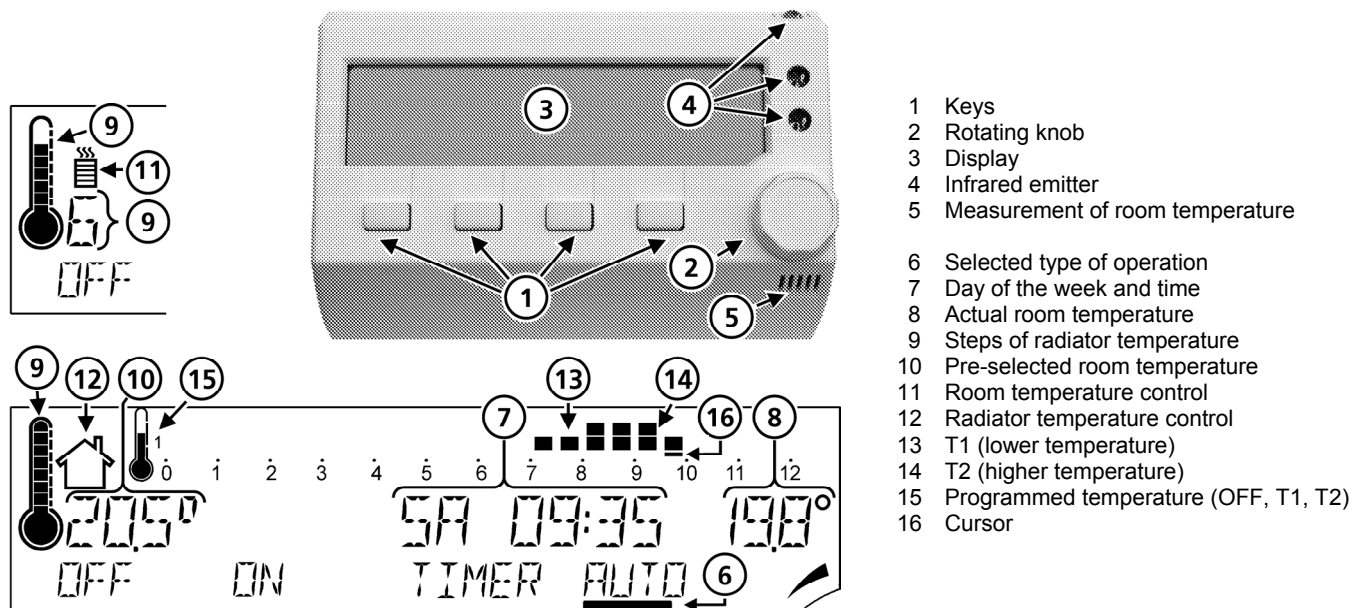
The display shows, numerically and graphically, the information like type of operation, the actual room temperature (right), day of the week and the actual time, the adjusted temperature (left), timer and weekly programme and other information.

Flashing display (day of the week, hours, minutes, temperature, etc.), be it text or symbol, can be modified or selected with the help of the rotating knob.

The selected type of operation OFF, ON, TIMER or AUTO are underlined.

After the adjustment of the settings, as the key EXIT is pressed the unit reverts back to its previous type of operation.

A brief display of the symbol «» indicates the transmission of the Infra-red (IR) control signals.



Immersion heater IRVAR:

One red lamp (LED) indicates that the heating and controlling is in operation.

Continuous flashing (2x per second) indicates a malfunction (as for example too little or no liquid in the Towel Radiator). At the same time, the heating is discontinued till the cause of the malfunction is rectified and the immersion heater is temporarily disconnected from the supply for a short period.

Technical specification

Control unit IRVAR 20:

Setting range of the temperature of the Towel Radiator

Setting range of room temperature

Precision of the measurement of the room temperature

Precision of the digital clock

Weekly program

Shortest switching interval

Count-down timer (automatic switching off)

Batteries

Life of the batteries

Steps 1 ... 8 (approx. +35 ... +70 °C or +95 ... +158 °F)

+4 ... +30 °C or +39 ... +86 °F

±0.5 °C or ±1 °F

±5 minutes per year

672 memories

30 minute

0:15 ... 09:45 hours

4 x 1.5 Volt (AA, LR6)

3 ... 5 years (depending on the use and capacity)

Immersion heater IRVAR:

Supply voltage

Nominal rating

Degree of protection

230 V, 50/60 Hz

300 ... 1200 W

IP 65

Important notes:

- Electrical installation must be carried out in accordance with the local safety regulations. Access to the plug must be assured at all times.
- Towel Radiators with built-in immersion heaters to be used in central heating systems must always be filled completely with water and vented. The expansion of water volume to the expansion tank must always be assured (do not block the return connection).
- For Towel Radiators designed for only electrical operation, the defined liquid volume may not be changed.
- Periodically, an automatic test (duration about 2 minutes) of the functions is carried out as the immersion heater is switched on. During this period all commands are ignored.
- Continuous flashing (2x per second) indicates a malfunction (as for example too little or no liquid in the Towel Radiator). At the same time, the heating is discontinued till the cause of the malfunction is rectified and the immersion heater is temporarily disconnected from the supply for a short period.
- Should a malfunction occur, the following actions are suggested: Interrupt the supply voltage temporarily (pull out the plug or switch off the automatic fuse, etc.). Replace the batteries of the control unit.
- The control unit should only be cleaned with a soft, damp cloth.