Maktek

HÜBER

Electric Radiator User Guide
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General Information

Maktek HÜBER oil filled electric radiators are manufactured to all the relevant European specifications at our partners modern factory facility in Turkey.

They heat up quickly to bring effective and efficient heating to your living areas.

HÜBER radiators should be installed alongside our Salus (PR-4) programmable room thermostat, to be fully compliant with ECO Design directives 2018.

By using your HÜBER radiator in conjunction with our PR-4, you will have full time and temperature control.

Installation is straightforward and can be carried out by any competent person. We do however strongly recommend that any wiring is carried out by a fully qualified tradesman for complete peace of mind.

HÜBER radiators are not for use in wet areas. They can be used in unclassified bathroom zones but please check with a professional tradesman to be sure of compliance.

Safety

- Please read this user guide carefully and keep it safe for future reference
- Do not use near to a source of water or spill any fluids inside the Radiator
- Ensure the Radiator has been installed in accordance with these instructions and relevant Building regulations
- The electric thermostat wheel should be at the top and the power cable towards the bottom of the radiator when installed.
- Do no plug the radiator into a socket extension.
- Do not open or attempt to modify the radiator.
- The Radiator will be hot when in use
- Monitor Children and the elderly when the radiator is turned on
- Do not store flammable products near the Radiator
- The Radiator must only be mounted horizontally
- Isolate the radiator from the power supply when not in use for long periods
- For domestic or office use only
- Do not use the radiator outside.
- Clean with a damp cloth. Never use harsh cleaners or chemicals.

Remember: The HUBER is an electrical heating appliance. Be sensible and careful when using or in the near vicinity of the radiator when in use. Problems resulting from ignorance or carelessness are solely your responsibility.
Warning:
Do not turn the radiator on when laying flat. This will damage the element and invalidate the Guarantee

Important:
This is a Class 1 fully earthed product and must be connected to a suitably grounded supply

Minimum Clearances: 150mm from the floor to the bottom. 50mm from each side. Avoid placing furniture directly against the appliance

The radiator is not suitable for bathroom zones 1 or 2

This Radiator is only suitable for 230/240v 50hz supply.

Do not cover the Radiator
Wall Bracket Installation

SECURE THE WALL BRACKETS, TOP AND BOTTOM, WITH THE SCREWS AND PLUGS SUPPLIED.

ALTERNATIVELY USE SUITABLE WALL FIXINGS FOR HOLLOW OR LIGHTWEIGHT WALLS.
Once the brackets are securely fastened to the wall, the radiator can be put into place.

Remove the small retaining screw from the top of each wall bracket allowing the spring clip to move up and down.

The Radiator is heavy. Always exercise caution and lift the heater correctly, to avoid damage to you or the radiator.

Carefully lift the bottom of the radiator onto the bottom of the bracket. Make sure the radiator sits in the space between the front and rear of the support.

Now offer the top of the radiator to the top of the bracket. Carefully lift the top spring clips on each bracket. The radiator will sit inside the clips. The top spring will hold the top of the radiator.

Replace the small retaining screw into the top of the spring clip to ensure it can not be removed accidently.
First Start

To turn the radiator on, push the switch to the “I” icon.
To turn the radiator off push the switch to the “O” icon.
When the Radiator is heating, the Red light on the switch will be illuminated.

The numbers on the thermostat wheel are a guide to the following surface temperatures.

<table>
<thead>
<tr>
<th>Level</th>
<th>Oil Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15 °C</td>
</tr>
<tr>
<td>2</td>
<td>30 °C</td>
</tr>
<tr>
<td>3</td>
<td>45 °C</td>
</tr>
<tr>
<td>4</td>
<td>65 °C</td>
</tr>
<tr>
<td>5</td>
<td>80 °C</td>
</tr>
</tbody>
</table>

The electronic thermostat control will cycle the radiator on/off at the set temperature. Lowering the oil temperature will reduced the radiator’s surface temperature.

The PR-4 programmer will control the room’s air temperature. (see page * for details)
Useful Information

Radiator not getting warm

**POWER SUPPLY:**

Make sure the power supply to the Radiator and Pr-4 reviver unit is good.
If there is no power to the radiator, manually override the receiver unit. (See page *)

**THERMOSTAT WHEEL:**

Make sure the thermostat wheel is set to position “5”

**WARNING LAMPS:**

Check that the Failure Warning Lamps are not illuminated.
If they are please contact your supplier.

**SAFETY THERMOSTATS:**

There are two over heat limiters inside the radiator. To ensure the internal fluid does not exceed 100°C. If the over heat limit is exceeded the radiator will switch off and these warning lamps will illuminate.
Over heating can occur if the air flow through the radiator is obstructed.

Before contacting your supplier, isolate the heater from the power supply and allow 60 minutes for the radiator to cool down. Remove any obstruction clothing etc and start the radiator again.
Further info

To be compliant with Erp2018/Lot20 this radiator must be used in conjunction with our Pr-4 programmer.

The programmer allows the user to program a 24 hour 7 day heating schedule.

Ideally the radiator should be positioned under a window and away from curtains.

The room’s insulation is essential to ensure the radiator works efficiently. If the insulation is poor, the heat loss will be high. Resulting in the Radiator heating for longer periods; costing more money to run. Keep doors and windows closed where possible.

One method of programming, used commonly in Scandinavia, is to set 2 set temperatures, a comfort and (21°C) reduced (16°C) mode. This keeps a warmth in fabric of the building, meaning less power is required to bring the room back to the comfort temperature.

We estimate a 1°C reduction in the room temperature set at 21°C will show an energy saving of 6%.

If you have a double panel Radiator(1000w & 1400w), you have the option to run each element independently.

<table>
<thead>
<tr>
<th>TECHNICAL SPECTS</th>
<th>TEST VALUES</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity (40 °C, cSt)</td>
<td>32-35</td>
<td>ASTM D 445</td>
</tr>
<tr>
<td>Density (15°C, gr/cm³, typical)</td>
<td>0,875</td>
<td>ASTM D 1298</td>
</tr>
<tr>
<td>Fire point (°C)</td>
<td>Min 220</td>
<td>ASTM D 92</td>
</tr>
<tr>
<td>Yield point (°C)</td>
<td>Max -10</td>
<td>ASTM D 97</td>
</tr>
<tr>
<td>T.A.N (mg KOH/g)</td>
<td>Max - 0,1</td>
<td>ASTM D 974</td>
</tr>
</tbody>
</table>

The oil used in the radiator is resistant to oxidation even at high temperatures. It is non corrosive and non-toxic. It does not need renewing.
Pr-4 Wiring Instruction

The wiring diagram below explains how to wire the Pr-4 receiver unit. The image above shows the rear if the pr-4 receiver unit. The cable on the left if the load to the heater. The cable on the right is the 240v supply.

Terminal

1. Live to heater
2. Link wire to 3 (not supplied)
3. Live supply and link wire from 2
4. Both neutral load and supply cables

The PR-4 uses a common neutral and a switching live through the 16 amp terminals.
Connect the earth cables into the terminal block and sit into the recess. (as shown to the left)