Rotary Evaporator Bath RE300DB RE300OB

Instructions for use
RE300DB

Fig 2

Control panel

Power switch

Bath

Bath cover

Main unit case

Reset button for over temperature protector

Fused IEC Connector
Before use

Thank you for purchasing this Stuart product. To get the best performance from the equipment, and for your own safety, please read these instructions carefully before use.

If the equipment is not used in the manner described in this manual the protection provided by the equipment may be impaired.

This equipment is designed to operate under the following conditions:

❖ For indoor use only
❖ Use in a well ventilated area
❖ Ambient temperature range +5°C to +35°C
❖ Altitude to 2000m
❖ Relative humidity not exceeding 85%
❖ Mains supply fluctuation not exceeding 10%
❖ Overvoltage category II IEC60364-4-443
❖ Pollution degree 2 IEC664

Electrical installation

⚠️ Before connection please read and understand this manual and ensure that the line supply is suitable. This water bath requires a supply rated at 230V, 50 or 60Hz, single phase, ~.
Power consumption is:
RE300DB - 1.1kVA
RE300OB - 1.4kVA

ᶱ THIS INSTRUMENT MUST BE EARTHED

The unit is supplied with two mains leads fitted with IEC plugs for connection to the instrument. One has a U.K. 3 pin plug and the other has a 2 pin “Shuko” plug for connection to the mains. Choose the lead appropriate for your electrical installation and discard the other.

Should neither lead be suitable, take the lead with the U.K. plug and replace the plug with a suitable alternative. This involves cutting off the moulded plug, preparing the cable and connecting to the rewirable plug in accordance with its instructions.

IT IS IMPORTANT THAT THIS OPERATION SHOULD ONLY BE UNDERTAKEN BY A QUALIFIED ELECTRICIAN

The wires in the mains cable are coloured as follows:

BROWN - LIVE
BLUE - NEUTRAL
GREEN/YELLOW - EARTH

The unit is fitted with an IEC socket at the rear of the instrument for connection of the mains lead. The appropriate mains lead should be connected BEFORE connection to the mains supply.

Should the mains lead need replacement a cable of 1mm² of harmonised code H05W-F connected to an IEC 320 plug should be used.

N.B. The UK mains lead is protected by a 10A fuse mounted in the plug top.

IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN
Safety advice before use

❖ Before use please read and understand this manual and familiarise yourself with the layout of the controls – see figure 1.

❖ If the mains supply is interrupted the unit will restart with its current settings on the restoration of the electricity supply.

❖ Switch off when not in use.

❖ Position the instrument on a firm level surface away from any heat sensitive or flammable material.

❖ Do not use the instrument with flammable liquids or in a hazardous atmosphere.

❖ Never move or carry the instrument until it has been switched off and allowed to cool.

❖ In either bath, never mix oil and water.

❖ Always ensure that a suitable heating medium is used in the RE3000OB.

RE300DB

Fill the PTFE coated bowl to the required level with cold water. To avoid scale build up and the necessity for cleaning it is recommended that the bowl be filled with distilled or deionised water.

The maximum capacity of the bath is 3 litres and it should not be filled to within less than 2cm from the top of the bowl.

During use water will be lost from the bath by evaporation. For maximum efficiency water should be added periodically and the level maintained.

Do not fill the RE300DB bath with any liquid other than water.

RE300OB

The RE300OB is intended for use with either oil or water. **NOTE: Oil and water should never be mixed in the bath.** Fill the PTFE coated bowl to the required level with either oil or water, the maximum capacity of the bath is 6.2L the fill level is 2cm from the top of the bowl.

If being used with water, during use water will be lost from the bath by evaporation. For maximum efficiency water should be added periodically and the level maintained.

The RE300OB is equipped with a height adjustable foot. This can be turned clockwise to decrease the height and anti-clockwise to increase it. Turn the adjuster by hand whilst clamping the locking nut by hand or use a 22mm wrench, see Fig 3.

![Fig 3.](image-url)
The bath may contain water or oil (RE300OB only) at very high temperatures. No attempt to move the bath should be made when it is hot.

**Operation**

Fig 4.

![Diagram of digital water bath](image)

Heat light

Set key  Down key  Up key

Turn on the power switch, the current bath temperature will be displayed. For first use the set temperature is 0°C, after initial use the set temperature will be the last used temperature. If the set temperature is higher than the current temperature the bath will automatically start to heat. To set the bath temperature press the set key once, this enables temperature input mode, during this mode the display blinks. Using the up and down keys set the desired bath temperature. Press set to return to measuring mode or after 5 seconds without a key press the display will go back to measurement mode, press set to reenter input mode.

The bath is thermostatically controlled and will maintain the set temperature.

During heating the heat light will illuminate, when the bath reaches the set temperature the heat light will turn off.

**Cleaning**

Where used with water periodically de-scale the bath using a domestic kettle descaler suitable for metal kettles. Follow the instructions for use supplied with the cleaner.

The water bath should be thoroughly rinsed before returning to use. Alternatively use a mild detergent to clean the bath. Take care not to damage the PTFE coating during cleaning.

**WARNING:** Observe any cautionary note on the cleaner regarding protective clothing and effluent control.

The exterior of the unit should be cleaned using damp cloth and a mild detergent solution.

**Servicing**

Servicing or repair must be undertaken by suitably qualified personnel.

Only spare parts supplied by Stuart or its agent should be used. Fitting of non-approved parts may affect the performance of the safety features of the instrument.

If in doubt, contact the Technical Service Department of Bibby Scientific Ltd.
Stone, Staffordshire ST15 0SA
United Kingdom
Tel: +44 (0)1785 812121
Fax: +44 (0)1785 810471
e-mail info@bibby-scientific.com
www.bibby-scientific.com
**Warranty**

Bibby Scientific Ltd warrants this instrument to be free from defects in material and workmanship, when used under normal laboratory conditions, for a period of three (3) years. In the event of a justified claim, Bibby Scientific Ltd will replace any defective component or replace the unit free of charge.

This warranty does NOT apply if damage is caused by fire, accident, misuse, neglect, incorrect adjustment or repair, damage caused by installation, adaptation, modification, fitting of non-approved parts or repair by unauthorized personnel.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display does not work even if the power is switched on</td>
<td>No mains power</td>
<td>Check mains power supply</td>
</tr>
<tr>
<td></td>
<td>Fuse has blown</td>
<td>Replace the fuse, if fuse blows again immediately stop operation and consult a local service representative.</td>
</tr>
<tr>
<td></td>
<td>Bath overheat protection has tripped either because bath was heated without oil/water or external temperature exceeds 35°C</td>
<td>Turn off the power switch and allow the unit to cool. Press the reset switch on the back of the unit, see Fig 1 &amp; 2. Turn the power back on. If overheat trips again consult a local service representative.</td>
</tr>
<tr>
<td>Temperature does not rise (Heat light does not illuminate)</td>
<td>Temperature has not been set</td>
<td>Change the set temperature</td>
</tr>
<tr>
<td></td>
<td>Set temperature is below current bath temperature</td>
<td></td>
</tr>
<tr>
<td>Temperature does not rise (Heat light illuminates)</td>
<td>Heater is disconnected, or the terminal of the heater is off</td>
<td>Stop operation and consult a local service representative</td>
</tr>
<tr>
<td></td>
<td>Temperature controller is impaired</td>
<td></td>
</tr>
<tr>
<td>Upper temperature limit alarm works. Display shows &quot;FF&quot;</td>
<td>Heater can not be turned off because of malfunction of over heat protection and measured value exceeds maximum temperature.</td>
<td>Stop operation and consult a local service representative</td>
</tr>
<tr>
<td>Lower temperature limit alarm works. Display shows &quot;--&quot;</td>
<td>Ambient temperature is lower than 0°C</td>
<td>Adjust the ambient temperature to between 5°C and 35°C.</td>
</tr>
<tr>
<td></td>
<td>Measured temperature is lower than 0°C</td>
<td></td>
</tr>
<tr>
<td>Display flashes &quot;FF&quot;</td>
<td>Temperature sensor shorted</td>
<td>Stop operation and consult a local service representative</td>
</tr>
<tr>
<td>Display flashes &quot;--&quot;</td>
<td>Temperature sensor id disconnected or the terminal of the sensor is off</td>
<td></td>
</tr>
<tr>
<td>During controlled heating the heat lamp turns off for prolonged periods of time</td>
<td>Temperature detection range is too wide.</td>
<td>Press and hold the up and down keys simultaneously until the display shows &quot;dF&quot;. Press the up and down keys to set the detection range to 0.5. Press the set key to return to normal operation.</td>
</tr>
</tbody>
</table>
Declaration of Conformity

Digital Water bath, Model RE300DB

These products comply with the requirements of the EU Directives listed below:

2006/95/EC         Low voltage Directive (LVD)

Compliance with the requirements of these Directives is claimed by meeting the following standards:

EN 61326-1:2006 (Electrical Equipment for Measurement, Control and Laboratory use).
EN 61010-1: 2001 (Safety Requirements Electrical Equipment for Measurement, Control and Laboratory use)
EN 61010-2-010: 2003 (Particular Requirements for Laboratory Equipment for Heating of Materials).

Compliance Certificates and Equipment Specification.

The full product specifications, listed in report numbers:
RETS(E)2291/A/1
RETS(L)2291/A/2

The above certificates and reports, from an independent test house, are available upon request.

CE mark affixed '09.

Signed: [Signature] (Mr C. Warren)

Date: [June 2009]

Authority: Technical Manager
Bibby Scientific Ltd
Declaration of Conformity

Digital Oil bath, Model RE300OB

These products comply with the requirements of the EU Directives listed below:

2006/95/EC    Low voltage Directive (LVD)

Compliance with the requirements of these Directives is claimed by meeting the following standards:

EN 61326-1:2006 (Electrical Equipment for Measurement, Control and Laboratory use).
EN 61010-1: 2001
(Safety Requirements Electrical Equipment for Measurement, Control and Laboratory use)
EN 61010-2-010: 2003 (Particular Requirements for Laboratory Equipment for Heating of Materials).

Compliance Certificates and Equipment Specification.

The full product specifications, listed in report numbers:
EMC report 9634/TR1
LVD report 2645/TR1

The above certificates and reports, from an independent test house, are available upon request.

CE mark affixed '09

Signed: ___________________________ (Mr C. Warren)

Date: JUNE 2009

Authority: Technical Manager
            Bibby Scientific Ltd
INSPECTION REPORT

MODEL  RE300DB  RE300OB

ELECTRICAL SAFETY

1. Earth continuity  ✓
2. Insulation  ✓
3. Flash test  ✓

FUNCTIONAL

1. Indicators  ✓
2. Temperature control  ✓
3. Visual acceptance  ✓

QUALITY CONTROL INSPECTOR