

Application Manual
IRCA Waterbed Heating Element
with EElectronic Thermostat

IMPORTANT

Read the instructions carefully before you install and use the heating element.

General Information

Heating time: The heating time for water from 8 degrees to 28 degrees is 1-3 days, depending on the volume of water and the power of the heating element.

Cooling time: Cooling takes a longer time than warming. The cooling time from 30°C to 28°C may be several days.

Cleaning: Clean the heating element with a damp cloth.

Safety information: The heating element has a safety thermostat, with a manual rearmament. If the heating element's temperature exceeds the maximum safe rating, the system shuts down before damage can occur. To rearm the system just withdraw the plug from the mains power.

Compatibility: Plugging the heating element with the thermostat Th-Mat, follow the associations of the codes in the successive table: use waterbed element WB2010 only with Th- Mat WB2010, use waterbed element WB2002 only with Th- Mat WB2002. The codes are written on the labels of two components.

Waterbed Element Th- Mat

WB2010 WB2010

WB2002 Wb2002

SAFETY INFORMATION

- The cable between the heater pad and the control box can not be repaired or replaced. If it is damaged the appliance should be discarded.
- Do not use waterbed element with thermostat which hasn't the correct code: please refer to the table 2.

Guarantee

Manufacturer's two-year guarantee: A IRCA heating element which fails due to faulty manufacture will be replaced by manufacturer, providing the element is returned to supplier within two years of the date of purchase. Please note the

date of purchase and heating element type in bottom.

The heating element is intended only for use to heat water beds.

The waterbed element is not intended for medical and hospital use.

The heating element must not be switched on when the mattress is not filled with water, or during emptying or filling.

The heating element is intended only for conventional water beds with minimum dimensions 75 x 200 cm and minimum depth of water of 17cm.

These mattresses must be placed on a hard base, flat continuous and without sharp edges.

The element should be connected only to 220-230 V AC.

The heating element must not be installed on a surface that is electrically conductive.

The heating element is supplied with a thermostat box which is mounted on the bed frame or wall.

No sharp objects such as needles and pins have to be inserted in the appliance.

The heating element may be used only in conjunction with IRCA AB thermostat.

1. Knob regulating temperature
2. Button unlocking knob
3. Indicator led
4. Heating element plug
5. Protection window

Figure 1: Electronic Thermostat Th- Mat

Checking the heating element

The function of the heating element is checked as follows:

1. Plug the element connector (fig.2) into the thermostat box (being careful to the codes associations written in the table.2) and the point the mains plug into mains power point.

1. Electronic Thermostat
2. Heating element plug

Figure 2: How to Plug and Unplug Heating Element

2. Set the thermostat control (fig.1.1) at maximum temperature.
3. The indicator led (fig.1.3) should now light and the heating element becomes warm to touch after a short time.
4. Withdraw the plug from the mains power point after checking the element.

IMPORTANT:

The heating element must not be switched on when the bed is not filled with water, or during emptying or filling. Ensure that bed clothes do not come into contact with the heater pad as this will lead to overheating.

Instructions for water beds not already assembled

An opening must be made in the base of the bed (fig.4.6) for entry of the cable or corner of the bottom panel must be cut out. The heating element is placed under the water mattress and the safety liner avoiding all creases (fig.4).

Installation in single bed with hard base

1. Take care that the cable is not trapped between the frame and the bottom panel. Lay the heating element with the printed side upwards (fig.4.7), directly on the bottom panel, making sure that it is not creased.

IMPORTANT

If possible, avoid laying the element over joints. If this cannot be avoided tape over the joint with wide fabric tape before laying down the heating element. Make sure that the whole of the element is covered by the safety liner and the water mattress. Both the safety liner and the mattress must be free from creases over heating element (fig.4). Put the cloth (fig.4.7) between the mattress and the heating element: the heating element must not be in contact with the mattress.

2. Plug in heating element connector (fig.2) to the thermostat box, being careful to the codes associations written in the table 2.
3. Attach the metal stirrup (fig.3.2) to the side of the bed frame or to the wall, with the two screws (fig.3.3) (not include). Embed the thermostat Th-Mat (fig.3.1) with

the stirrup, with a movement from up to down (fig.3).

Use self-tapping screw:

- bed frame: type DIN 7971 2.9 x 6.5 mm
- wall: type DIN 7971 2.9 x 12 mm

1. Th-Mat
2. Stirrup
3. Screws

Figure 3: How to attach the Thermostat

4. When the bed has been fully assembled and the mattress filled with water, plug in the thermostat to the power point and set to the required temperature.

5. To fix desired temperature, turn the control knob (fig.1.1), after unlocking it by pushing the button (fig.1.2), which is a mechanical block against the spin, (children protection). The correct temperature setting will vary from person to person but a temperature of about 28 degrees C is suitable for most people. During the warming-up period, the indicator led (fig.1.3) on the thermostat remains lit. When the required temperature has been reached, the led lights only during periods when the heating element is in operation.

1. Mattress
2. Cloth
3. Heating Element
4. Bed
5. Th-Mat
6. Exit slot
7. Element`s Label

Figure 4: Installation

Installation in double bed with hard base

Proceed as for single bed but observe the following notes.

IMPORTANT

In double beds with two mattresses, two elements must be used. They must not be placed under division between the mattresses.

Installation in waterbeds with "soft sides"

make sure that no part of heating element comes under or in contact with the insulation around the edges. The whole of the element must lie under the water mattress and safety liner. The element must lie flat (fig.4). Note also the instruction above on double beds with mattresses.

Technical Characteristics Of Electronic Thermostat

Power Supply 230V \pm 10% AC 50

Hz

Heating Element Power 300W

Output Driver Solid State Relay

Electronic Box IP2X

Protection Class

Heating Element IPX7 (except the plug)

Protection Class

Operating Temperature 0÷50°C

Storage Temperature 0÷50°C

Operating Humidity 20÷95°C without condenses

Regulation PWM Proportional

Temperature Setting Analogic

Blocking System Mechanical

Setting Temperature

Range 26÷32°C

Max Amplitude 0.20 °C

Regulation Basetime 30 sec

Temperature Probe NTC