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Instructions for use

Biotherm eco

Item nr. 10893/10894



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1. Introduction

1.1 Display



- 0000** = Numeric display
- Hr** = Time in hours
- Min** = The time in minutes
- °C** = Temperature
- ☾** = Night programming active
- 🔔** = Temperature alarm
- ON OFF** = Activation or deactivation of functions
- 🌊** = HEAT mode
- *** = COOL mode
- CLOCK** = CLOCK (displayed, when starting the real time programming)
- HC** = HEAT/COOL (displayed, when choosing the temperature operation mode)
- tP** = Temperature (displayed, when starting the temperature programming)
- NIGHT** = Night (displayed, when starting the night off function programming)

1.2 Safety instructions

The HOBBY Biotherm eco is only designed for use in enclosed rooms. Should the product be damaged, please return to your dealer to let it be repaired. Continued operation of the device may cause fatal injury due to electric shock. Ensure that the HOBBY Biotherm eco can not come into contact with water. Technical products must only be operated as supplied. Electronic components must not be modified in any way, and cables must not be shortened. Covers or housings must not be opened. The product must not be used if damaged or must be shut down immediately by pulling the mains plug if damage is detected.

1.3 Assembly advice

Position the temperature sensor at a sufficient distance away from any sources of heat to avoid incorrect measurement and control values.

2. Basic Functions

2.1 Function monitoring of external devices

The housing is fitted with LED. In operating mode this indicates the active control of the external device.

2.2 Safety shutdown during programming

When entering into programming mode, the slot is deactivated for safety reasons.

2.3 Safeguard function

To protect electronic components, a delay of 60 seconds is set between 2 switching states before the slot becomes active again.

2.4 Return function

The HOBBY Biotherm eco basic automatically returns to operating mode when no button is pressed for a period of 90 seconds while in programming mode.

2.5 Malfunction displaying

If a sensor fault or short circuit is detected in the temperature sensor, this is indicated by **E01** on the display. For safety reasons, the heater is deactivated in such an even to prevent overheating the aquarium or terrarium. Despite this safety measure, it is still advisable to use only submersion tube heaters with integrated thermostat and safety cut-out function.

3. Programmable Functions

In programming mode, the functions can be configured in the following sequence.

3.1 Clock programming

The factory presets the time at **12:00**. The time setting is not cleared during a reset however.

3.2 Choice of HEAT / COOL mode

A convenient inversion function makes it possible to switch from HEAT to COOL. This permits connection to an external cooling device instead of a heater to counteract an increase in temperature.

3.3 Temperature Programming

The temperature is regulated with a precision of 0.1 °C. The temperature can be set within the range 10 °C – 60 °C.

3.4 Nocturnal temperature programming

It is possible to program two turn-on/turn-off times (allows day and night difference) to simulate the drop in temperature at night.

3.5 Temperature alarm setting

A visual alarm is displayed when the temperature exceeds or drops below the programmed desired value. An alarm window between +/- 0.1 °C and 10 °C can be set. The factory setting is the value 00 (no alarm).



Example: Temperature 25 °C, alarm window +/- 3 °C means that an alarm is triggered below 22 °C and above 28 °C.

4. Quick Start Guide to Programming

Single mode (manufacturer presetting): Optionally either temperature or current time are displayed continuously.

Toggle mode: Temperature and current time are displayed alternately in a 2 second rhythm.

Changing between toggle and single mode: Press the ▼ button.

Switching to programming mode: A) Pressing the **MENU** button enters the main programming menu.

Moving within the menu structure: B) It is possible to scroll through the menu items with the ▲ and ▼ buttons

Modifying programming: C) Pressing **MENU** enables the modification of programmed values, the changeable value flashes. D) Increase or decrease required values with the ▲ and ▼ buttons. E) Acknowledge by activating the **MENU** button.

Quitting the programming mode: F) Quitting the programming mode and accessing the operational mode is done automatically after 90 seconds of inactivity or by holding down the **MENU** button for 3 seconds. All changed values will be saved.

Cancelation of programming: By pressing the ▲ and ▼ button simultaneously it is possible to quit the programming mode at any time without saving.

Manual activation/deactivation: The slot can be turned on and off manually. To activate hold ▲, then press **MENU**. Press these buttons a second time to deactivate. If you press a third time, program mode is reactivated.



Please note: You will find a graphical quick start guide here: www.dohse-aquaristik.de/pdf/gebrauchs-anweisungen/10893-10894_Biotherm_eco_Kurzanleitung_GB_02.pdf



5. Programming Instructions

To start the programming mode press **MENU** button.

5.1 Clock programming



Entering the programming mode, **CL OC** flashes.

Press the **MENU** button, the hours digits **12** flashes.

Use the ▲ and ▼ buttons to set the hours between 0 and 23.

Press the button, the minutes digits **00** flashes.

Use the ▲ and ▼ buttons to set the minutes between 0 and 59.

Acknowledge with the **MENU** button.

When finished, **CL OC** will flash again. Scroll to the next main menu item with the ▼ button, then press the **MENU** button.



Please note: Once the clock has been set, you can use ▼ to directly access the other settings.



Attention: The HOBBY Biotherm eco does not automatically switch between summer time and winter time. This change must be entered manually.

5.2 Choice of HEAT / COOL mode



When flashing **HC** was acknowledged with **MENU**, **HEAT** is flashing. Confirm the heating operation mode with **MENU** or use **▲** or **▼** until **COOL** is displayed to select the cooling operation mode.

When finished, **HC** will flash again. Scroll to the next main menu item with the **▼** button.

5.3 Temperature programming



When flashing **tP °C** was acknowledged with **MENU**, **25.0** or your last set value flashes.

Use the **▲** and **▼** buttons to set the desired temperature value between 10 °C and 60 °C. Acknowledge with **MENU** button.

When finished, **tP °C** will flash again. Scroll to the next main menu item with the **▼** button, then press the **MENU** button.



Please note: When no night time is programmed the temperature is maintained over 24 hours.

5.4 Nocturnal temperature programming



When **019H** and **OFF** is flashing and you want to keep having the same temperature at day and night press ▼ button to go to the next setting.

When you wish to have a different night temperature, press **MENU**. **019H** is displayed and **OFF** flashes. Use the ▲ and ▼ buttons switch the night function from **OFF** to **ON**

If **ON** was set and acknowledged with **MENU**, the presetting value **21:** or your last programmed value flashes in the display (☾ is displayed on the left, **ON** at the right below site). Set the desired start of night time in hours with the ▲ or ▼ button, then acknowledge with **MENU**.

Presetting value **00** or your last programmed value flashes in the display. (☾ is displayed on the left, **ON** at the right below site) Set the desired start of night time in minutes with the ▲ or ▼ button, then acknowledge with **MENU**.

Presetting value **09** or your last programmed value flashes in the display (☾ is displayed on the left, **OFF** at the right below site). Set the desired end of night time in hours with the ▲ or ▼ button, then acknowledge with **MENU**.

Presetting value **00** or your last programmed value flashes in the display. (☾ is displayed on the left, **OFF** at the right below site). Set the desired end of night time in minutes with the ▲ or ▼ button, then acknowledge with **MENU**.

Presetting temperature **23.0** or your last programmed value flashes in the display (☾ is displayed on the left, °C at the top right site). Set the desired night temperature with the ▲ or ▼ button, then acknowledge with **MENU**.



Please note: When the night beginning time is reached the display shows the measured temperature and ☾ left below.

When finished, **HPH ON** will flash. Scroll to the next main menu item with the ▼ button, then press the **MENU** button.

i Please note: In the same manner you can change from **ON** to **OFF** as well.

5.5 Temperature alarm setting



When flashing **tP** and **HP** was acknowledged with **MENU**, **HP** or your last set alarm temperature value flashes.

Use the ▲ and ▼ buttons to set the +/- alarm between 0.1 °C and 10 °C. Acknowledge with **MENU** button.

i Advice: **00** means that no alarm is set.

When finished, **tP** and **HP** will flash again. To finish programming, press and hold **MENU** for 3 seconds until the display returns to operating mode.

6. Reset

Should your HOBBY Biotherm eco not function correctly, please perform a reset:

1. Unplug from mains
2. Plug the mains plug back in while keeping the **MENU** button pressed
3. Release the **MENU** button

! Attention: All programmed settings, except those for the clock, are lost. The HOBBY Biotherm eco will regulate with factory's presets.

7. Factory Presetting

After the event of a power failure, the HOBBY Biotherm eco starts with the factory presetting again.

clock setting:	12:00
single/toggle mode:	single mode
temperature:	25 °C
night temperature:	OFF
temperature Alarm:	off

8. Source of Fault

In the case of a problem, first reset to the factory settings. If this does not solve the problem, please search for the fault in the following table:

Error	Possible cause	Solution
E01 is displayed	sensor fault or short circuit in the temperature sensor	repair required

In the event of a warranty or repair issue, please return to where purchased.

9. Technical Specifications

Operating voltage:	230 V, 50 Hz
Load capacity:	Max. 2,000 W (ohmic load)
Temperature display range:	-9.9 °C – 99.9 °C
Temperature control range:	10 °C – 60 °C
Temperature alarm range:	+/- 0.1 °C – 10 °C (00 means 'no alarm')
Temperature display accuracy:	0.1 °C

Temperature control accuracy:	+/- 0.1 °C
Sensor tolerance:	+/- 0.5 °C
Sensor cable length:	3 m

10. EC Declaration of Conformity

The manufacturer declares that the devices comply with the requirements of the relevant EMC and LVD standards and are therefore in conformity with EC directives 2004/108/EC and 2006/95/EC.



Aqua Cooler V2 (V4)

Cools aquaria of up to 120l (300l) down by up to 4 °C. Ventilators can be separately tilted by up to 55°. Suitable for marine water. Inclusive of a low voltage safety transformer.

Item nr. 10902 (10903)



Aqua Cooler Adapter

Accessory for HOBBY Aqua Cooler. For glass panels and aquarium covers up to 22 mm in width. Made of marine water resistant V4A steel.

Item nr. 10904



Thermica Premium

Heating Mat for Terraria. For ideal ground warmth for snakes, lizards and tortoises. With integrated safety cut-off function. With protective earthing and safety plug. Splash water protected (IPX4), not for use under water.

15 x 25 cm / 20 x 35 cm / 30 x 50 cm
Item nr. 37120/37121/37122



Elstein Radiator

Ceramic infrared dark radiator for keeping reptiles and insects. Exceptionally long life of more than 8,000 operating hours. Permanently high radiation efficiency. Insensitive to water splashes.

60 W / 100 W / 150 W / 250 W
Item nr. 37080/37085/37090/37095



Terra-Thermo

Waterproof heating cable for terraria with double silicone sheath. Ideal terrarium bed heat, e.g. for reptiles and amphibians. Usable as daytime heating for ground living and nocturnal heating for tree living species. VDE and CE tested. With 150 cm nonheatable cable. Including suction cups.

15 W / 25 W / 50 W / 80 W

Item nr. 10925 / 10930 / 10935 / 10940





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