

INSTRUCTIONS MANUAL

Bucket wax separator with heated bottom



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The manual covers following devices (codes):

W4850_O

Table of contents

1. General safety instructions
 - 1.1. Intended use
 - 1.2. Electrical safety
 - 1.3. Operation safety
2. Product description
3. Instructions for use
 - 3.1. General instructions – preparation for use
 - 3.2. Operation instructions
 - 3.3. Temperature controller operation
 - 3.4. Technical specifications
4. Storage
5. Maintenance and cleaning
6. Waste disposal and environmental protection
7. Warranty

1. General safety instructions

Before first use read the manual carefully and follow the instructions contained therein. The manufacturer is not liable for damage caused by equipment used inappropriately or by incorrect handling.

1.1. Intended use

1. The device is designed to separate wax from honey.
2. Before first use, wash thoroughly with hot water and a small amount of detergent approved for washing equipment intended for food contact.



1.2. Electrical safety

1. The electrical supply system must be fitted with a residual-current circuit breaker with rated tripping current not higher than 30mA. Performance of the circuit breaker should be checked periodically.
2. 3. Periodically check the condition of the power cord. Replace the power cord if damaged. Replacing the power cord can only be performed by the manufacturer or by qualified personnel.
Do not use the device if the power cord is damaged!
3. Make sure that the main switch is in „0“ position before plugging the unit in.
4. Make sure that the nominal voltage of the device and power source are compatible.
5. Carefully connect the plug into the mains socket. Make sure your hands and the floor surface in the room are dry!
6. The cover must be closed during operation! Do not open the cover during separation process.
7. Do not move the device during operation.
8. Do not pull the power cord.
Keep the power cord away from heat sources and sharp edges to ensure its good condition.



1.3. Operation safety

1. The device is not intended for use by persons (including children) with limited physical, sensory or mental abilities, or by inexperienced users, unless under supervision or with instructions given by an accountable party.
This device is not a toy, and shouldn't be used as one. Children should not to play with it.
2. In the event of damage to the device, to avoid any health and safety risks, repairs should be carried out only by qualified personnel.
3. Never carry out any maintenance or repairs during operation or if the device is plugged in!
4. All covers must be firmly attached to the device during operation.
5. Do not use or store the device at the ambient temperature below freezing. If the device has been moved from a cold room to a room with a higher temperature, before switching on wait until it reaches room temperature.



Never carry out any repairs during operation



Do not remove covers during operation



NOTE!!!

**Do not use products containing
ALCOHOL
(causes cracks and microcracks in the acrylic glass)**

2. Product description

The bucket separator is a device intended for cleaning honey from residues of wax after the uncapping process. Honey extracted in the honey extractor is fed to the separator via a drain valve through a hopper "1" installed on the drum, picture 1, or, after its removal, via a hose connecting the honey extractor with the separator. The honey collected at the bottom of the device with the use of a feeder installed on the shaft of the basket transports the honey to buckets where the dirt collects on the surface, while clean honey flows to the upper chute from which it flows down through a pipe "2" outside the separator to, for example, a settling tank.

Below is the diagram of the process of honey flow through the device.

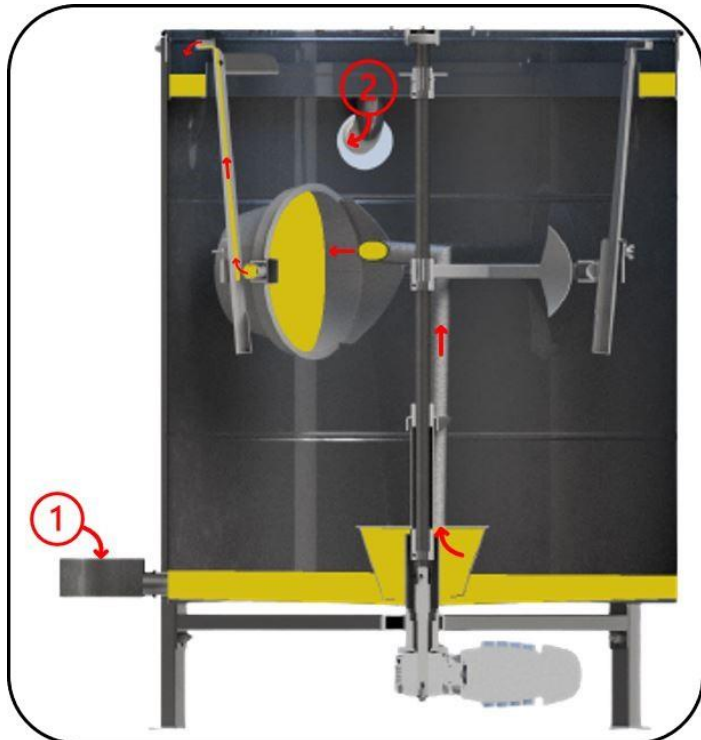


Fig. 1_Honey flow diagram

2.1. Design



Fig. 2



Fig. 3



Fig. 4 honey inlet



Fig. 5 drain valve



Fig. 6 _inside view

Elements:

1. Magnetic cover lock
2. controller
3. 230VAC power cord
4. motor's power supply cable
5. heated bottom temperature controller
6. rotation speed knob
7. emergency swtch
8. START-controller's start switch
9. STOP-ontrroller's stop switch
10. main switch

3. Instructions for use



IMPORTANT!!!

Before starting the seperator, check if the buckets are correctly seated in the basket, set potentiometer "6 " fig.3 to MINIMUM!!!

3.1. Preparation for use

1. Set the device up in a designated, clean, dry and well lit room
2. Keep a free space around the device for better handling.
3. To prevent it from moving during operation, fasten the device to the ground (recommended).
4. The device has to be cleaned before the first use and after finishing work according to the instructions in the "Cleaning and Maintenance" section.

3.2. Operation instructions

Before start::

- check that the filling funnel "1 " Fig.1 is positioned directly under the extractor's valve,
- check that the buckets are firmly seated in the basket brackets
- set potentiometer knob "6 " Fig.3 to MINIMUM

- place a settling tank, or a barrel, under the drain valve
- Insert the power plug "3" Fig. 2 into the power socket
- switch on controller "2" with the main switch "10" remote control "3" from position "0" to "1"
- after the controller has been started up, it is still inactive (the potentiometer does not react to value changes) until the START button "8 "is pressed Fig.3
- leaving the potentiometer on MINIMUM (the basket does not rotate), we start extracting the frames and at the moment when the honey starts flowing from the extractor to the separator, we start it by turning the potentiometer until the basket reaches the appropriate rotations (buckets in the basket should deflect horizontally)
- during extracting the frames and continuous operation of the separator, pay attention to the separator and the barrel placed under the drain valve in order to avoid overflow
- depending on the amount of wax remnants in the honey, check the contamination level in the buckets by periodically stopping it by setting the potentiometer to MINIMUM and pressing the STOP button "9 " Fig. 3
- if necessary, remove and clean the buckets of wax, put them back in the basket, close the separator cover, press START and turn the potentiometer until the basket rotates properly
- after finishing extraction of the frames and finishing the work of the separator set the potentiometer to MINIMUM, press the STOP button and turn off the controller with the main switch "10 "Fig.3
- remove the buckets from the basket and wash them
- drain the remaining honey from the bottom of the separator with a spigot to which the honey filling funnel is attached with a clamp
- wash the separator with warm water with food contact approved agents and wipe the device dry with a soft cloth
- when washing, remember to keep the controller, solenoid covered from water



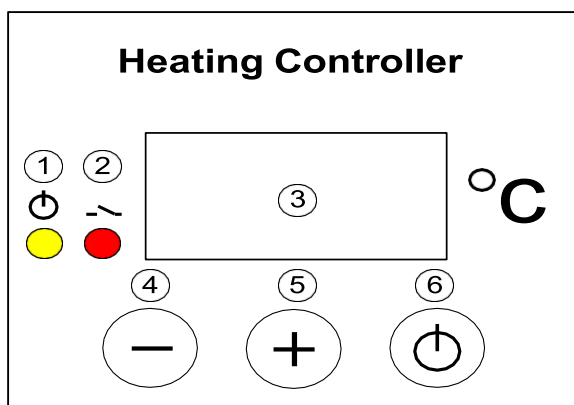
NOTE!!!

During the operation of the separator, pay attention to the amount of wax residues collecting in buckets.

3.3. Temperature controller operation

MHC-01





1. Set up the controller to suit your specific requirements
2. Longer pressing and holding the button and then releasing the button will activate the working time setting mode signalled by the displayed message (Pro.). In this mode, using the "+" and "-" buttons, the user can define the time after which the controller will automatically turn off, i.e. enter the OFF state. To exit this mode and confirm the settings, press the "ON/OFF" button once briefly.

Buttons and functions

1 – state indicator

If the indicator light is on – the temperature regulator is active. If the indicator light is off – the temperature regulator is inactive (the controller works as a thermometer). If the indicator blinking – the temperature regulator is on and the pre-heating process is in progress

2 – heating relay status If the indicator light is on – the relay is engaged (heating on), if the indicator is not lit – the relay is disengaged (heating off)

3 – display

Operation mode – default mode, automatically selected when the controller is powered on. The display indicates the measured temperature. The indications are given in °C.

Setting mode – selected by pressing the + or – button. The display indicates the set temperature. The value is displayed in °C. The value displayed flashes and after a while returns to the measured temperature display mode.

Run time setting mode (Pro.) - activated by pressing the "ON/OFF" button. The display indicates the operating time, counting from the moment of switching on, after which the thermostat will automatically switch off. The indication is given in hours.

Display brightness setting mode (d.br.) - activated by holding down the "ON/OFF" button. The display, with all segments lit, shows the currently set brightness. Reaching the setting limit is signalled by flashing.

The following modes are available after entering the appropriate code.

Calibration mode (CAL.) code L-1 – activated by holding down the "ON/OFF" button. The display shows the calibrated temperature (temperature measured taking calibration into account). The indication is given in °C.

Pre-heating time setting mode (P.tl.) code L-2 – activated by holding down the "ON/OFF" button. The display indicates the operating time, counting from the moment of switching on, for which the controller performs the preheating, maintaining the preheating temperature programmed by the manufacturer. The message "OFF" indicates that the preheating function is deactivated. The indication is given in minutes. If preheating is activated, the controller will display "HC2" at start-up.

Preheat temperature setting mode (P.tE.) code L-3 – activated by holding down the "ON/OFF". The display shows the preheating set temperature value. P... indicated in °C.

Preset temperature limit setting mode (L.t.h.)code L-4 – activated by holding down the "ON/OFF" button. The display shows the maximum value of the preset temperature that can be set. The L... indication is given in °C.

4 – button "-" decrease value

Operating mode – Pressing the button will decrease the set temperature value. During pre-heating the possibility of changing the set temperature is blocked.

Run time setting mode – pressing the button will decrease the time after which the thermostat automatically switches off.

Display brightness setting mode – pressing the button will decrease the brightness of the display.

Calibration mode – pressing the button will decrease the value of the indicated temperature, and thus calibrating the measurement.

Pre-heating time setting mode – pressing the button will decrease the time after which the thermostat automatically switches from the preheating phase to the heating phase.

Preheat temperature setting mode – pressing the button will decrease the value of the desired temperature to be maintained during preheating.

Preset temperature limit setting mode – pressing the button will decrease the value of the maximum preset temperature value that can be set.

5 – button- "+" increase value

Operating mode – Pressing the button will increase the set temperature value. During pre-heating the possibility of changing the set temperature is blocked.

Run time setting mode – pressing the button will increase the time after which the thermostat will automatically switch off.

Display brightness setting mode – pressing the button will increase the brightness of the display.

Calibration mode – pressing the button will increase the value of the indicated temperature and thus calibrating the measurement.

Pre-heating time setting mode – pressing the button will increase the time after which the thermostat automatically switches from the preheating phase to the heating phase.

Preheat temperature setting mode – pressing the button will increase the preset temperature to be maintained during preheating.

Preset temperature limit setting mode – pressing the button will increase the value of the maximum preset temperature value that can be set

6 – „ON/OFF" button

Briefly pressing the button alternately turns the regulator on (ON) and off (OFF). In the OFF state, the regulator acts as a thermometer. In the ON state, the controller will turn the heater control output on and off to maintain the temperature set by the user.

Longer pressing and holding the button will activate the run time setting mode, indicated by the displayed message (Pro.). In this mode, using the "+" and "-" buttons, the user can define the time after which the controller will automatically switch off, i.e. go into the OFF state. Exiting this mode and confirming the settings is done by short pressing the "ON/OFF" button.

Longer pressing and holding the button starts the display brightness setting mode – indicated by the message (d.br.). In this mode, using the "+" and "-" buttons, the user can set the brightness of the display segments. Exiting this mode and confirming the settings is done by short pressing the "ON/OFF" button.

Longer pressing and holding the button activates the calibration mode which is indicated by a displayed message (CAL.). In this mode, using the "+" and "-" buttons, the user can adjust the temperature readings to the actual temperature value. Exiting this mode and confirming the calibration settings is done by short pressing the "ON/OFF" button.

Note – the controllers supplied are already calibrated. Longer pressing and holding the button will activate the mode of preheating time setting indicated by the displayed message (P.tl.). In this mode, using the "+" and "-" buttons, the user can define the time after which the controller will automatically switch from the preheating phase to the actual heating phase. Switching off the preheating is indicated with "OFF" message. To leave this mode and confirm the settings press the "ON/OFF" button.

Longer pressing and holding the button will start the mode of setting the preheating temperature indicated by the displayed message (P.tE.). In this mode, using the "+" and "-" buttons, the user can define the desired temperature to be maintained during pre-heating. To exit this mode and confirm the settings press the "ON/OFF" button.

Longer pressing and holding the button will activate the mode of setting the preset temperature limit, signalled by the displayed message (L.t.h.). In this mode, using the "+" and "-" buttons, the user can set the upper limit of the desired temperature setting. To exit this mode and confirm the settings press the "ON/OFF" button.

Note – all settings and operating status (on or off) of the controller are stored in the controller's memory.

Press and hold the "-" and "+" buttons while the controller is booting up (controller name, software version, settings displayed). After the display shows "- - -" buttons can be released and set the appropriate code. The code is approved with the "ON/OFF" button.

CODE	Access Level
Any	L-0
157	L-1
314	L-2
628	L-3

Time setting mode (code L-0)

Display brightness setting mode (code L-0)

Calibration mode (code L-1)

Pre-heating time setting mode (code L-2)

Pre-heating temperature setting mode (code L-3)

Error Codes

The MHC-01 controller features advanced error detection algorithms. The detection of any error triggers an emergency stop action and brings up the error report screen. The error report screen is displayed continuously. It is therefore necessary to turn off the power, remove the source of the error and turn the controller back on.

Code	Description
(E-0) CPU STATUS	Internal controller fault
(E-3) $T < T_{min}$	T1 measured temperature too low
(E-4) $T > T_{max}$	T1 measured temperature too high.
(E-5) button -	pressed/faulty „-“, button
(E-6) button +	pressed/faulty „+“, button
(E-7) button ON/OFF	pressed/faulty „ON/OFF“ button

3.4. Technical specifications

- Material: acid resistant stainless steel OH18N9 (1.4301)
- Drum diameter - Ø900 mm
- Cover material: PMMA , thickness 6mm
- Magnetic cover opening lock
- Supply voltage: 230VAC
- Drive power: 0.37kW
- Heating power: 980W
- Drive located under the drum
- Clutch for easy withdrawal of the working unit (basket)
- Maximum speed: 380 rpm
- Adjustable speed
- Supply spigot :
- TC spigot DN 40 (5/4") + tank
- Emptying spigot:
- TC stub DN 50 (6/4") + hose end fi 40 mm
- Overall dimensions:
L.1320, W 1000, H 1360 mm Own weight of the device - 90 kg

4. Storage

Clean and dry the unit thoroughly after use.

If the device has been moved from a cold room to a room with a higher temperature, before switching on wait until it reaches the ambient temperature and all condensation water evaporates.

Store the device in a dry and frost-free room.

Do not use the device when the ambient temperature is below 5°C. An additional technical check should be carried out before the start of the pollen harvesting season, and if any defects are found, please contact the manufacturer.

5. Cleaning and maintenance



Unplug the device before commencing any maintenance or cleaning procedures!

Clean and dry the unit thoroughly before first and after each use.

While cleaning ensure the safety of all electrical components like motors and controller panels (for the time of washing cover them with waterproof fabric or plastic film).

Rinse and dry the unit thoroughly after washing.

An additional technical check should be carried out before the start of the pollen harvesting season, and if any defects are found, please contact the manufacturer.

NOTE!!!

Wash the covers of the device with soapy water at 25°C.

NOTE!!!

Do not use products containing ALCOHOL

(causes cracks and microcracks in the acrylic glass)



Fig. 7

The device has the ability to quickly remove the basket by using a clutch on its axle. After unscrewing two M8 cap nuts on the top bar (marked with red circles), and one screw locking the rear cover (marked with a red circle), remove the basket from the drum.

Once removed, there is easier access to wash the unit after finishing work.

6. Waste disposal and environmental protection

The used product must be disposed in accordance with the local regulations. Return the device to a collection point from where it can be submitted for environmentally compatible recycling.

The consumer has the right to return used equipment directly to the manufacturer's distribution network, free of charge, while replacing it with a new unit as long as the used device is of the same kind and same application as the newly purchased device.

7. Warranty

The product purchased from the Lyson Company is covered by a manufacturer's warranty. The warranty period is 24 months from the date of purchase.

All purchased products come with receipts or VAT invoices.

Warranty details at:

www.lyson.com.pl