MANUAL
CASSETTE HONEY EXTRACTORS
MINIMA SERIES
720 – 1000 mm CONTROLLER HE – 01U

LYSON

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The following manual encompasses the devices bearing the following codes:

HONEY EXTRACTORS WITH 4,6,8 CASSETTES AND 12V POWER SUPPLY

W2013MKN, W2014MKN, W2015MKN

LIST OF CONTENTS

1. General safety principles for using the honey extractors

Prior to device usage initiation, refer to the following manual and act according the guidelines contained therein. The manufacturer shall not be held accountable for any damages caused by improper usage of the device or its improper handling

1.1. Operating principles

1. The honey extractor is intended to centrifuge honey from the frames.
2. The honey extractor must be washed thoroughly prior to usage with water containing slight amount of agents admissible to be used in cleaning the devices coming into contact with food or by means of a pressure washer, remember to protect the electronic components and the bearings against damping.!!!!

The honey extractors with 12V power supply must not be connected to the mains from a rectifier as the risk of controller damage may occur.

The said damage is not included into the guarantee terms and conditions.

A feeder manufactured by 'Łysoń' company shall remain the proper source of power"

1.2. Electric safety

1. If non-detachable power supply cable gets damaged and must be replaced, it must be performed at a guarantor's or by a specialised repair centre or by a qualified person in order to avoid any threat. Do not operate the honey extractor when the power supply cable is damaged .
2. Prior to plugging in the device to the mains, check whether controller is switched off. 0/1 switch on the controlling panel should be in "0" position.
3. Check the honey extractor and the power source for nominal voltage compliance (battery or feeder manufactured by "Łysoń" company)
4. Be careful while connecting the device to the mains. Hands must be dry! The floor on which the extractor has been placed must be dry!
5. While extracting, the lid of the honey extractor must be closed ! it is strictly forbidden to open the lid during extraction.
6. The honey extractor must not be dislocated during extraction.
7. The engine and controller must be protected against humidity (also during storage)
8. It is forbidden to pull the supply cable. The supply cable must be kept away from heat sources, sharp edges and it god technical state must be taken care of.

1.3. Usage safety

1. The following equipment is not intended to be used by persons with limited physical, sensory or mental capabilities (including children) or persons inexperienced or unfamiliar with that type of equipment unless the usage occurs under supervision or in line with the equipment operating manual provided by safety supervising persons. One must make sure that children do not play with the honey extractor.
2. In case of any damage to the honey extractor, in order to avoid the danger, the repairs may be performed solely by a specialist servicing centre or a qualified person.
3. It is forbidden to perform any maintenance works or repairs when the device is in operation.
4. The device can be reactivated once the danger Has been eliminated.
5. The device cannot be activated and stored with the ambient temperature below 0º C.
   Honey extractor cannot be activated when the ambient temperature drops below 5º C. When the honey extractor has been moved from a room with a lower temperature to a room with a higher temperature, prior to its activation one must wait until the device has achieved the ambient temperature.

It is forbidden to repair the device under operation

It is forbidden to remove the shields under operation

2. Honey extractor manual

2.1 general principles to prepare the honey extractor for operation

1. Place the honey extractor in the place specified for the purpose.
2. Fix the honey extractor to the ground in order to avoid its displacement during operation.

2.2 Operating principles

1. Honey extractor is intended to centrifuge the honey from the frames.
2. Prior to extraction, the device must be washed thoroughly in line with the guidelines contained in the chapter **Honey extractor maintenance.**

3. While washing, special precautions must be taken to prevent the motor and controller from damping (they may be covered with water-proof material)
4. Rinse and dry the honey extractor thoroughly after washing.
5. The arrangement of frames:
   - The honey extractor must be properly selected for the frame type.
   - In case of cassette honey extractor, special attention must be paid to a proper arrangement of the frames . They must be placed inside the cassette. (photo 1)

Photo 1. Proper arrangement of frames inside the cassette honey extractor

NOTE!

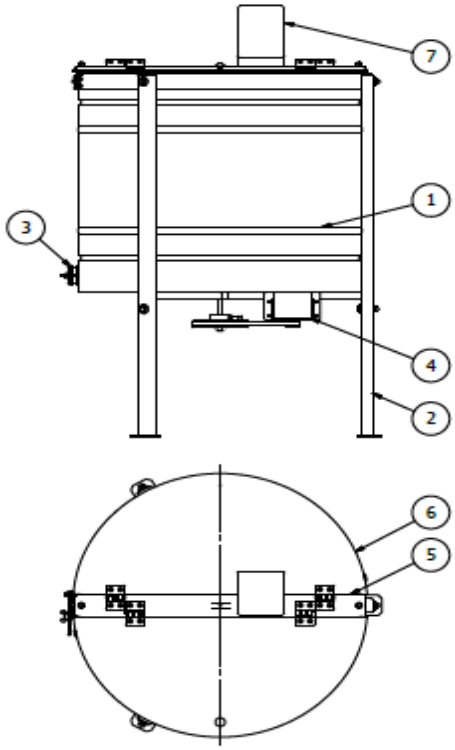
Erroneous frame arrangements may cause the damages excluded from the guarantee terms!

6. Prior to the honey extractor activation, one must:
   - Make sure that the frames have been placed properly inside the extractor basket, in order to eliminate the risk of damages.
   - Subsequently, connect the honey extractor to a feeder, battery (12V) and go on to activate the device in line with the manual
7. The first phase of extraction shall be performed slowly in order to prevent the honeycombs from breaking out. Special attention must be paid to the so called “young frames”
8. Spinning basket shall not be blocked by the honey accumulating inside the drum. If that is the case, the extractor must be stopped to prevent its damaging. Once the honey has drained to the containers, spinning can be restarted.
9. Containers intended for the honey are to be placed under the drain valves.
10. During spinning the drain valves must be opened in order to let the honey drain freely.

Place of work

It should be well-lit and kept in order and cleanliness.

3. Diagram for the honey extractor



Legend:

1. Honey extractor drum
2. Honey extractor leg
3. Drain valve
4. Honey extractor motor
5. Fixing beam
6. Honey extractor lid
7. Honey extractor controller

4. Characteristics for honey extractors

A controller inside a plastic casing is mounted on the beam. Honey extractors are dispatched with dismantled controllers, which are placed inside the drum in order to prevent damages during transportation.

4.2 4-cassette honey extractor with 12V power supply

Such honey extractors are intended for stationary apiaries as well as for portable ones. Power supply from the

batteries (12V) allows to centrifuge the honey without the access to 230V mains.
The device is equipped with manual and automatic operating mode.

4.2.1 Technical parameters

- The drum made of acid-resistant stainless steel plate 0H18N9, properly reinforced and stiffened.
- Honey extractors are equipped with the bottom made of steel plate thickness 0.6 mm. One plastic discharge valve 6/4”
- The basket made of acid-resistant stainless steel rods ø3 and ø5
- Cassettes are connected by special guides, which eliminates the jamming, as well as the springs which allow for the basket return to its original position.
- the lid is made of plexiglass
- the 280W/24V motor in honey extractors with diameters of 800 mm
- the 350W/24V motor in honey extractors with diameters of 1000 mm
- honey extractor are equipped with a bottom drive with a belt transmission

4.3. 6 or 8-cassette honey extractors with 12V power supply

The honey extractors are intended for stationary and mobile apiaries. 12V battery power supply allows to centrifuge the honey without any access to the 230V mains.

The honey extractors have a manual and an automatic operating mode.

4.3.1. Technical parameters

- The drum has been made of acid-resistant stainless steel plate 0H18N9, thickness 0.6 mm, , properly reinforced and stiffened.
- The drum and the bottom made of 0.6 mm steel plate, plastic valve 2 x 2”
- The basket made of acid-resistant, stainless steel rods ø 3, ø 5 mm
- The cassettes are connected by special guides, which eliminates the jamming, as well as by springs which allow for the basket to return to its original position.
- The lid made of plexiglass
- The 350W/24V motor in honey extractors with diameters of 1000 mm

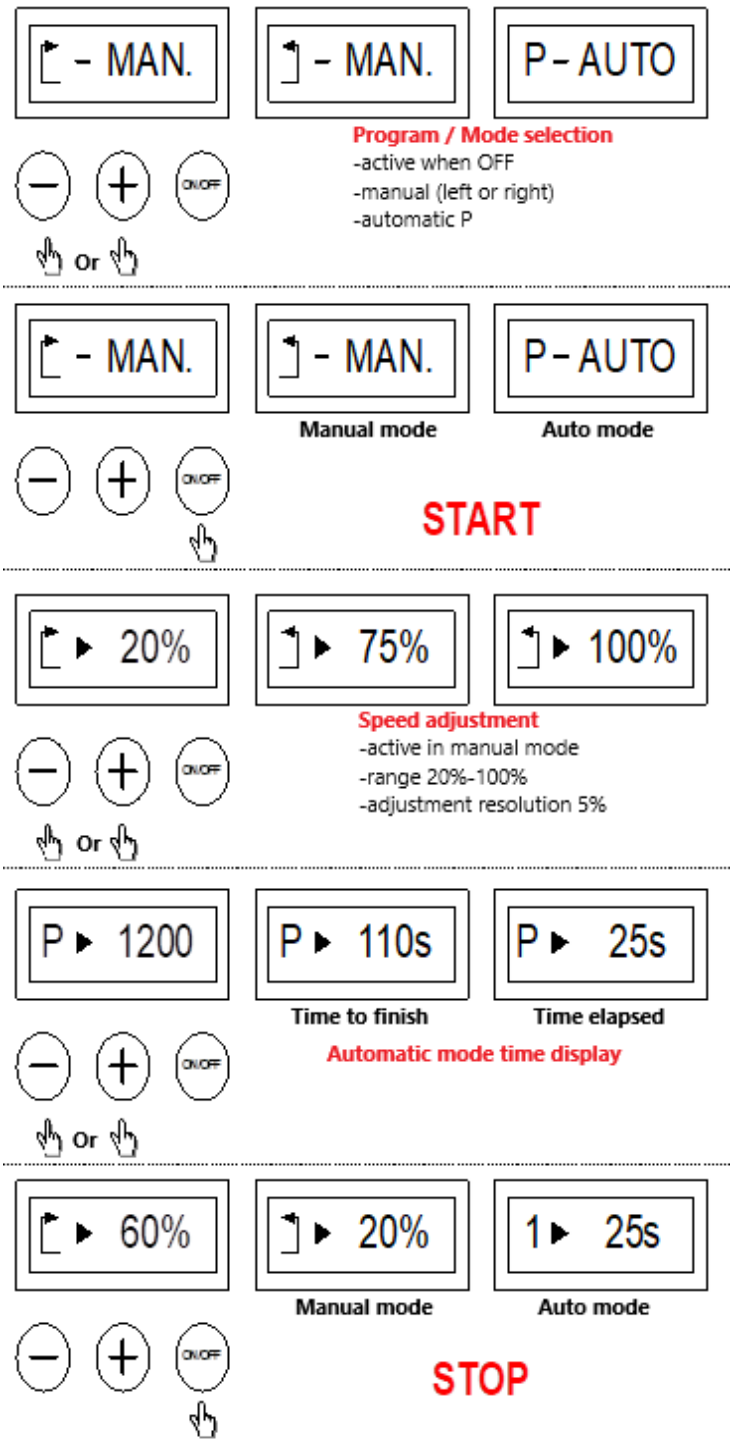
4.4. Controllers HE-01U honey extractors with 12V power supply

Functions and programmin

Automatic stop

The HE-01u controller is equipped with an automatic stop function – which stops the rotation of the extractor’s basket. The automatic stopping function saves electricity and protects the battery from being discharged. This automatic stop function operates on the basis of a clock – counting the time that has elapsed since the extraction started or the last time the plus or minus button were pressed.

The function activates when the motor is on and more than 20 minutes have elapsed since the motor was switched on or the last time the plus or minus button were pressed.



Programming

The HE-01u controller allows to set your own "P-AUTO" extractions cycle. The cycle consists of four identical steps in terms of duration. Steps 1 and 2 and steps 3 and 4 have the same basket rotation speed.

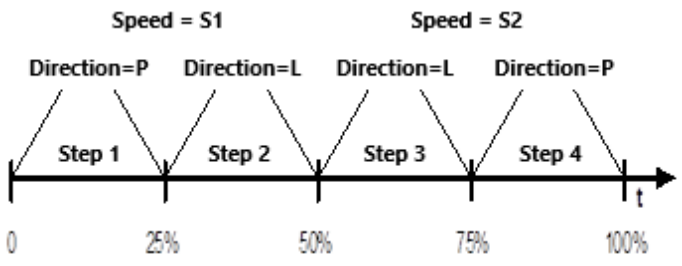


Fig 1. HE-01u controller cycle diagram

You can program your own cycles from the programming menu. In order to define your own cycle, enter the programming mode.

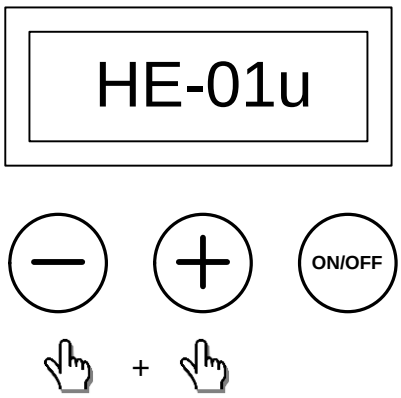


Fig 2. Entering the programming mode.

The way to enter the programming mode is illustrated in the picture above. When starting the controller, i.e. displaying the manufacturerôs logo and the deviceôs symbol, press and hold the plus and minus buttons simultaneously.

There are two ways to force the start sequence of the controller ï by connecting the power supply to the controller or by lifting and closing the extractorôs cover.

Release the plus and minus buttons when the **"Prog"** symbol appears. The programming of the cycle is carried out as shown on the illustrations 3-5. Confirm the parameter value setting by short pressing the ON/OFF button.

The "OK" message indicates the end of programming ï followed by the controller reboot.

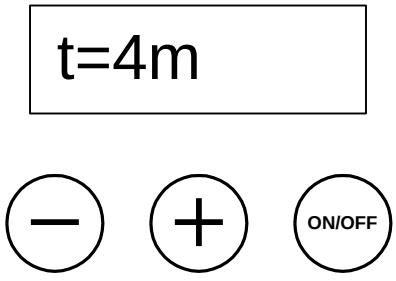


Fig 3. Programming – setting the total cycle time (3 – 15 minutes). The duration of each of the four steps is the total duration of the cycle divided by four – for the setting of 4 minutes each step lasts 1 minute.

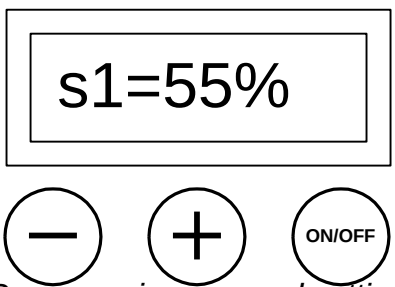


Fig 4. Programming – speed setting for steps 1 and 2 (range 25% - 100%).

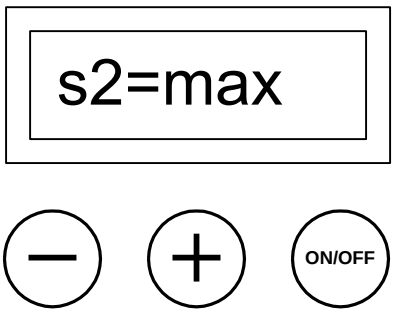


Fig 5. Programming – speed setting for steps 3 and 4 (range 25% - 100%). The 100% setting is shown as "max".

Settings me

The controller's settings menu allows to adjust the drive system operating parameters to the load.

Parameter b1 (range 10s – 90s, default 50s)
The first braking time of the cycle, the time needed to decelerate from the speed S1 (lower speed defined for steps 1 and 2).

Parameter b2 (range 10s – 90s, default 50s)

The second braking time of the cycle, the time needed to decelerate from the speed S2 (higher speed defined for steps 3 and 4) and to stop the basket when step 4 is completed.

Parameter bm (range 1-10, default 8)

Braking time scaling, adjustment of the time needed while emergency stopping the basket in automatic or manual mode.

Parameter ms (range 15 – 25, default 25)

Maximum motor rpm speed limit (basket spinning speed reduction).

Parameter d (range 10 – 50, default 25)

Motor dynamics adjustment (acceleration rate).

Parameter mc (range 100 – 240, default 200)

Starting current adjustment, the higher the value, the higher the starting current of the motor.

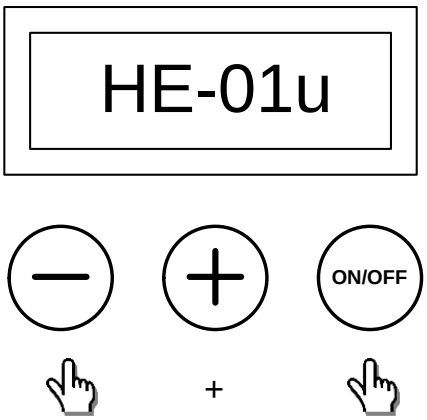


Fig 6. Entering settings mode.

Error codes

THE NUMBER 1 ON A SPECIFIC ITEM INDICATES AN ERROR	
E:1000	Internal controller fault
E:0100	"Minus" button pressed / locked
E:0010	"Plus" button pressed / locked
E:0001	"ON/OFF" button pressed / locked

Technical specifications

TECHNICAL PARAMETERS OF THE CONTROLLER	
Manual speed control mode	yes, in both directions
Automatic extracting mode	yes, user programmed time and spinning speed
Power supply voltage:	12V DC ±10%
Max. continuous output capacity:	12V / 10A
Max. peak load capacity of the output:	12V / 20A
Automatic motor shutdown	Yes, approx. 20 minutes
Incorrect polarity protection	Yes
Emergency braking system	yes, electronic
Ambient working temperature:	0°C…40°C
Storage temperature:	0°C…50°C

5. Storing the honey extractors

Once the honey harvesting has terminated the device is to be washed thoroughly.

Prior to the honey extractor start-up. in case when it has been transferred from a room with a lower ambient temperature to a room with a higher one . one must wait until the device has reached the ambient temperature.
The device is to be stored in dry rooms with the temperature above 0º C.
Before every season. an additional technical inspection must be performed and n case when any defects have been detected . a service centre must be contacted

6. Honey extractor maintenance and cleaning

IMPORTANT!
Prior to the maintenance. disconnect the honey extractor from the source of power supply (battery or feeder made by „Łysoń" company).

After honey harvesting time honey extractor shall be washed thoroughly with hot water containing slight quantities of agents accepted to be used in devices intended to come into contact with food or by means of a pressure washer. Be careful during the washing and prevent dumping the honey extractor engine or controller (they may be covered with water-resistant materials) While washing. the bearings placed under the drum cannot be flooded. Therefore. the orifice through which the basket axis goes must be covered inside the drum. After washing. the honey extractor must be rinsed with pure water and dried.

6.2. Dismantling the basket in 4 and 6-cassette honey extractors with 12V power supply

- **Loosen and remove a V-belt**
- **Loosen the bolt on the pulley**
- **Unscrew and remove the upper beam with the lids**
- **Remove the basket**

7. Recycling

Worn-out product must be removed as waste only within selective waste collection organised by the Network of Communal Electric and Electronic Waste Collecting Points. A customer is entitled to return the used equipment to the electrical equipment distributor network. at least free of charge and directly. if the device to be returned is of proper type and serves the same purpose as the newly purchased device

8. Guarantee

Product purchased from "Łysoń' company are encompassed by the manufacturer's guarantee.

The guarantee duration equals 5 years .

The guarantee period does not include the controlling elements and electric drive and fittings. Such ones are encompassed by a two-year guarantee.

A receipt or a VAT invoice is issued for each product purchased.