

## Welcome

**Kadzama Company thanks you for purchasing our cocoa butter incubator. This operating manual is an integral part of this equipment and its main purpose is to ensure its safe use for the entire service life from unpacking to disposal.**

**Kadzama strongly recommends that everyone who is allowed to interact with this equipment carefully studies this document. We also ask you to note that each user must have constant access to these instructions. If your manual has been damaged during usage, rendering it unusable, or if it has been lost, please request a copy via official email at [support@kadzama.com](mailto:support@kadzama.com) or download it from [kadzama.com](http://kadzama.com).**

**Kadzama is the developer of this equipment and therefore may make changes to the design of the incubator and the user manual if necessary, which may result in some discrepancies between the equipment itself and the images shown in this manual.**

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## 1. Main information

### 1.1 General information

For simplicity and ease of use, all information in this manual is divided into topics and located in the section to which it relates. However, if you have difficulty understanding or interpreting the statements in this manual, please contact Kadzama's technical support service for clarification.

Everyone who will be allowed to interact with this machine must read and understand the information contained in this manual.

### 1.2 Symbols used



Attention. These messages are designed to draw attention, especially in processes that require it. Failure to comply with this requirement may endanger the life and health of the user and cause damage to individual parts of the equipment or the equipment as a whole.



Warning. These messages are used to draw attention to processes in which incorrect use may result in damage to the equipment or its individual parts.



Environment. These messages are intended to draw the user's attention to processes, actions or consequences that may harm the environment.



Notes. These messages contain explanations, notes and recommendations that will be useful to the user during operation and are of a recommendatory nature.

### 1.3 Content and purpose

- The purpose of this manual is to provide all users interacting with this equipment with the necessary and sufficient information for its correct use, maintenance and safe application for themselves and those around them.
- This manual complies with the EU and international requirements and standards and contains all the necessary instructions to ensure the highest level of use of the relevant equipment.
- The following requirements must be observed:
- Every operator, technician or other person authorised to interact with this equipment is required to carefully study these instructions.
- The person responsible for occupational safety in the workplace must ensure that all personnel authorized to interact with this equipment have read these instructions and understand the basic principles of operation of this equipment.
- All rules and recommendations contained in these instructions must be observed throughout the entire period of operation of the equipment, from transport to disposal.

### 1.4 Protection of the manual

This manual is an integral part of the equipment and therefore all safety requirements contained in this manual apply to it.

The following rules must be observed with regard to the manual itself:

- Store in a place protected from open flames and moisture.
- Store in a place accessible to personnel authorised to interact with the equipment.
- Do not use this manual with dirty hands.
- Do not make any changes to the text or images in this manual.
- Do not tear or crumple the pages of this manual.

### 1.5 Appearance and details



1 — Body

2 — Temperature controller

3 — Removable container

4 — Lid

#### 1.6 Identification plate



Line 1 - Product name

Line 2 - Model and serial number

Line 3 - Voltage and power

Line 4 - Manufacturer information

Line 5 - Place of manufacture information

Line 6 - Safety and compliance markings, year of manufacture

### 1.7 Intended Use

The incubator for cocoa butter crystals designed for heating, tempering and obtaining a paste-like consistency of cocoa butter («silk»).

### 1.8 Operating environment

The incubator is designed for operation at temperatures of 15-25°C and relative humidity no greater than 80%. The equipment must be protected from harmful weather and atmospheric conditions (such as rain, frost, hail, etc.).



*Any worker permitted to work on this equipment must ensure that there is no open flame or explosives in the immediate vicinity of the equipment.*

### 1.9 Technical specifications

#### Mini cocoa butter incubator

Dimensional size	220 x 125 x 135 mm
Weight	2,2 kg
Loading capacity	0.25 kg
Supply	220-240 V~50 Hz
Power supply system	Single-phase
Power	0,1 kW
Material	Stainless Steel AISI 304
Heating range	20 - 50 °C
Package overall size	275 x 190 x 155 mm
Package weight	2,5 kg

#### Cocoa butter incubator

Dimensional size	270 x 215 x 260 mm
Weight	4,7 kg
Loading capacity	2 kg
Supply	220-240 V~50 Hz
Power supply system	Single-phase

Power	0,1 kW
Material	Stainless Steel AISI 304
Heating range	20 - 50 °C
Package overall size	290 x 230 x 300 mm
Package weight	5,3 kg

### 1.10 Storage

Store the incubator on a flat surface with ample space. During storage turn off the equipment using the on/off button and unplug the main power cable.

### 1.11 Disposal



All components of this equipment must be disposed of in accordance with the applicable laws of the country in which it is disposed of. All electronic and electrical materials must be separated, and all rubber and plastic components must be disposed separately.

### 1.12 Warranty

#### **Based on EU Directive 1999/44/EC**

Kadzama provides a 12-month warranty for this equipment model. This warranty covers failure of the electrical or mechanical components included in it, when used properly and in accordance with all instructions contained in this manual, the warranty is void if this equipment is repaired by unqualified personnel or if the identification plate containing the manufacturer's information and serial number is removed. Equipment repair works must be performed only by authorized persons approved by the manufacturer.

External mechanical damage, as well as unauthorized modifications and changes to the equipment, may affect the safety and operation of the equipment completely, and the equipment warranty will be voided.

During the warranty period the manufacturer undertakes to repair the equipment in the event of a breakdown or replace defective parts. In cases where repairs must be performed at the service center, the manufacturer covers the cost of transporting the equipment during the warranty period. Cleaning of equipment or its parts is not covered by the warranty.

### 1.13 Personnel qualifications

#### *Mechanical Maintenance*



Only qualified and trained personnel may operate the equipment. Any maintenance must also be performed only by qualified personnel.

*Every person authorized to operate or perform maintenance must read and understand the information contained in this manual.*

### *Electrical service*

An electrical maintenance specialist must have a general knowledge of electrical circuits, as well as knowledge of the specific circuits and components used in the equipment.

Furthermore, such a specialist must be certified to operate the equipment.

The technician must disable the equipment's safety device before servicing. Any person authorized to work on this equipment may begin work only after all electrical controllers and components are in their designated locations and in working order.



*Any action not described in this manual may only be performed by a specialist authorized by the manufacturer.*

## **2. Safety Measures**

- The incubator for cocoa butter crystals must be connected to the power supply and operated only by trained personnel.
- It is not allowed to operate the incubator for cocoa butter crystals in the absence of electrical grounding («E» wire).
- The incubator for cocoa butter crystals should be used only for its intended purpose.
- Use and store the incubator for cocoa butter crystals in a place out of reach of children.
- Do not leave the incubator for cocoa butter crystals switched on without supervision for a long time.
- Do not operate the incubator for cocoa butter crystals with wet hands. Hands must dry and clean.
- Do not allow liquids inside the incubator for cocoa butter crystals.
- Do not use the incubator for cocoa butter crystals at ambient temperatures below 15°C and above 25°C, and relative humidity above 80%.
- When transporting the incubator for cocoa butter crystals at sub zero temperatures, prior to first use it should be kept at room temperature for at least 1 hour.
- Any maintenance should be carried out when the incubator for cocoa butter crystals is disconnected from the power supply!

## **3. Delivery and Transport**

### 3.1 Packaging

The incubator is shipped assembled in a cardboard box. The image below shows the packaged version of the equipment.



### 3.2 Transportation

The incubator must be transported safely. Whilst transporting with other equipment, ensure that it will not damage the incubator during transit.

### 3.3 Unpacking

Using a utility knife, cut the tape securing the top of the cardboard box, then open the box and remove the incubator.

Save the original packaging! If the equipment needs to be returned to the manufacturer for special service or repair, the packaging will be required.

## **4. Installation part**

### 4.1 Installation

The incubator should be positioned away from other equipment. If any damage is detected, notify the manufacturer immediately.

### 4.2 Required Working Area

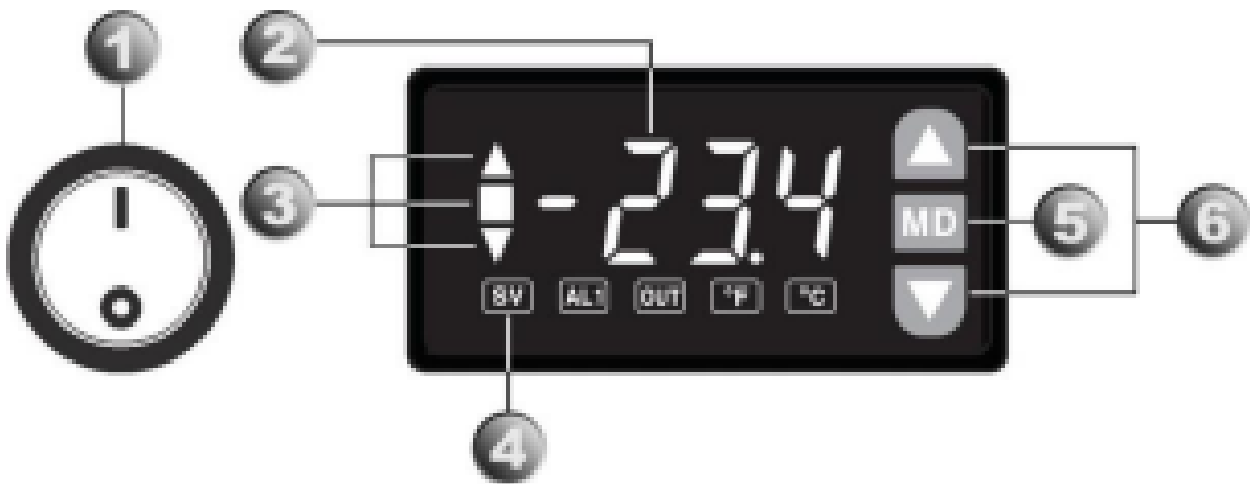
To prepare the required work area and installation space, the equipment dimensions are provided to scale in Section 1.9.

### 4.3 Operational preparation

After installing the equipment and connecting it to the electrical network, make sure there are no objects inside, and clean any elements contaminated during the installation process.

## 5. Operating section

### 5.1 Control Element Identifiers



1 — ON / OFF button

2 — Temperature display

3 — Temperature deviation indicator (▲ | ■ | ▼)

4 — Set temperature indicator (SV)

5 — Mode button (MD) is used to enter / exit the adjustable parameters mode and to save the set values

6 — Configuration buttons (▲ | ▼) is used to change the settings

To change set temperature: press any button once, use ▲ | ▼ (6) to set the temperature you want and press the MD (5) once to confirm. Wait for the cocoa butter crystals to form inside the container. If the mass is too hard, add 0.5°C to the set temperature, if it is too

liquid, decrease 0.5°C with following monitoring (since the setting of parameters depends on the environment).

## 5.2 Usage

5.2.1 Install the container into the body.

5.2.2 Put cocoa butter into the container in liquid or solid condition.

5.2.3 Close the container with the lid.

5.2.4 Switch on the incubator for cocoa butter crystals with the ON / OFF button.

5.2.5 Using the temperature controller, set the default temperature value if necessary (all the KADZAMA incubators are already set to the optimal temperature by default).

## 6. Maintenance and repair

### 6.1 General information



*Cocoa butter should never come into contact with water or other liquids when used in equipment. Otherwise, bacteria and mold may develop. If bacteria are detected in a product produced on this equipment, production should be stopped immediately and the manufacturer should be contacted for disinfection.*

Non-standard maintenance should only be performed by manufacturer-approved technicians.

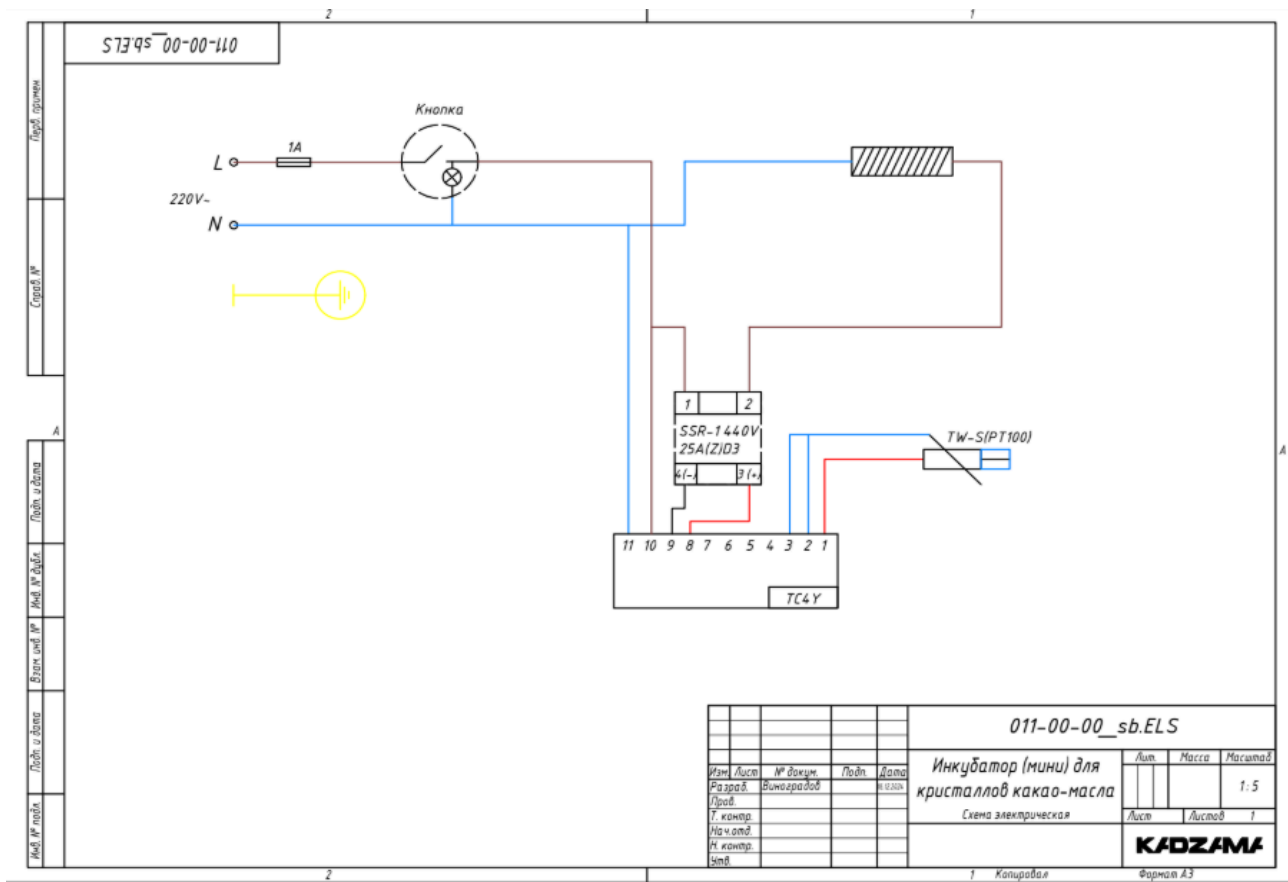
### 6.2 General safety precautions

Before commencing any maintenance work, the incubator must be disconnected from the electrical supply and all necessary safety precautions must be taken.

At the beginning and the end of each maintenance, dust and other trash should be removed with a vacuum cleaner. Suitable solvents can be used if necessary.

After each maintenance, the machine must be checked by a safety expert to ensure that it is operating properly.

## 6.3 Electrical diagram



## 6.4 Checklist of malfunctions

If the incubator does not start, follow these steps:









- Check the power cable; it must be undamaged and properly connected to the incubator;
- The socket where the incubator is connected has a voltage that corresponds to the power supply parameters specified in the technical specifications of the device being connected (your building may be completely de-energized, or the circuit breaker responsible for this socket may be turned off in the distribution board of the premises);
- The plug is connected to the socket correctly and completely;
- Turn on the incubator and ensure the indicator on the controller lights up. The controller will display the current temperature, which will eventually begin to move toward the set temperature, which can be adjusted using the up and down buttons.
- When turning on, check all the internal walls with your hand; they should begin to heat up. To check for uniform heating, you can apply a piece of masking tape to each wall and use a pyrometer to record the temperature readings, after turning on the incubator and allowing it to reach the set temperature (please note that the pyrometer cannot correctly take readings from reflective, metal surfaces);
- If after the set temperature the container still continues to heat up or there are other deviations, it is recommended to perform an initial adjustment of the controller; If all of the above conditions are met and the equipment still cannot be restored to working order, please

inform your KADZAMA representative of all the steps you have taken for further assistance.

### 6.5 Initial parameter setup

Use the MODE (MD) button to select a code, use the "up" button to change the value, and pressing the MODE (MD) button again will save the value.

Below is a list of parameters and values required for correct operation (table).

CODE	MEANING	DESCRIPTION
 In-t	 dPt.L	Temperature sensor
 Unit	 °C	Unit of temperature measurement
 L-Su	 20	Lower temperature level
 H-Su	 50	Upper temperature level

		<p>Operating mode (heating/cooling)</p>
<p>o-Ft</p>	<p>HEAt</p>	
		<p>Type of regulation</p>
<p>C-nd</p>	<p>Pid</p>	
		<p>Selecting a Solid State Relay Control</p>
<p>oUt</p>	<p>SSr</p>	
		<p>Solid state relay output working method</p>
<p>SSr.n</p>	<p>PHAS</p>	
		<p>Control cycle duration</p>
<p>t</p>	<p>20</p>	





After entering all parameters, press and hold the MODE (MD) button again for 2-3 seconds to exit setup mode. The controller will display the temperature again.

### 6.6 Locking/Exiting Lock.

Turn on the incubator, press and hold the MODE (MD) button until the PAR2 parameter appears on the screen, then release it.

Controls:

Use the MODE (MD) button to select the code, use the "up" button to change the value, and press the MODE (MD) button again to save the value. Find the "LoC" parameter using the "up" button and select "Loc2" (to exit, select the "OFF" parameter). Press the MODE (MD) button.

CODE	MEANING	DESCRIPTION
 <p>LoC</p>	 <p>LoC2</p>	Enabling the lock function
 <p>LoC</p>	 <p>oFF</p>	

If all of the above conditions are met and the equipment still cannot be restored to working order, please inform your KADZAMA representative of all the steps you have taken for further assistance.



### 6.7 Exiting test mode



If you see "TEST" on the screen while working with the tank, this means the controller is currently in test mode.

Press the MODE (MD) button to select the "KEY" parameter, then press the up arrow and the MODE (MD) button simultaneously.

Press the up arrow until "END" appears on the display.

CODE	MEANING	DESCRIPTION
 KEY	 End	End of testing mode

Turn off the incubator, the controller should exit test mode.