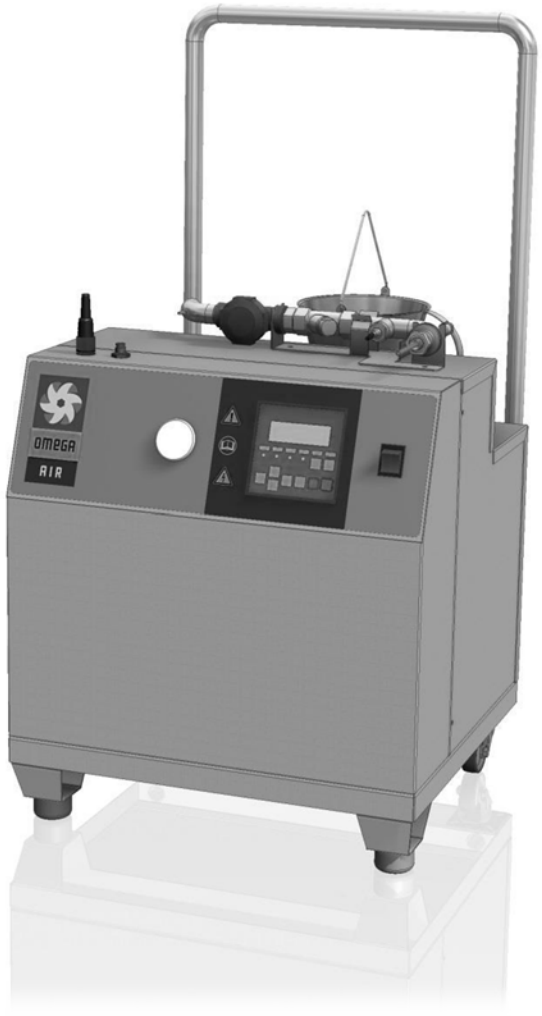
# Installation and operating manual

Mobile Steam Sterilizer – MSS




Please read the following instructions carefully before using the product. Trouble free and safe operating of the product can only be guaranteed if recommendations and conditions stated in this manual are respected.

## Warranty Statement

For: Mobile Steam Sterilizer – MSS

Warranty period: 13 MONTHS

We declare:

- During the warranty period, our product will function properly if operated in accordance with provided instructions.
- We will provide maintenance repairs and all necessary replacement parts for our product during the entire service life of the product.
- During the warranty period, we will correct any defects and deficiencies.
- This warranty is effective from the date of purchase of the product, which must be substantiated by a confirmed warranty certificate.
- This warranty does not apply to any glass or rubber parts.
- This warranty shall not apply in the following cases:
    - Unprofessional use of the product and improper storing.
    - Non-compliance with instructions for use of the device.
    - Improper maintenance.
    - If the device is not maintained in accordance with instructions under “MAINTENANCE” section.
    - If the defect was caused by a third party.
    - If the defect was caused by other natural disasters (lightning).
    - Unauthorized repair or modification of the product.
    - Installation of non-genuine replacement parts and alteration of the product.
    - Damages during transportation.
    - Non-performance of periodical maintenance procedures in accordance with instructions under “MAINTENANCE” section.
    - In the event of outstanding debts to the manufacturer.

| Date of installation: | Stamp: | Signature: |
|---|---|---|
| | | |

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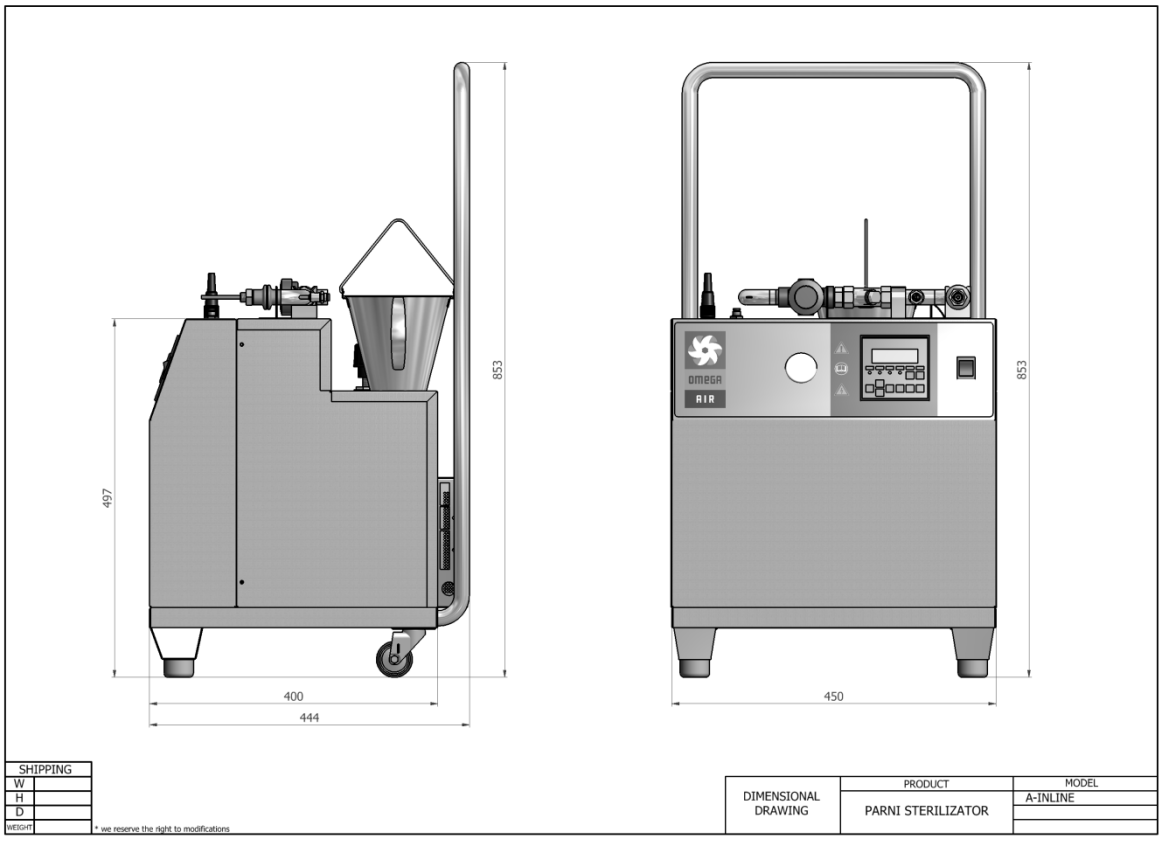
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# 1. Description of the Device

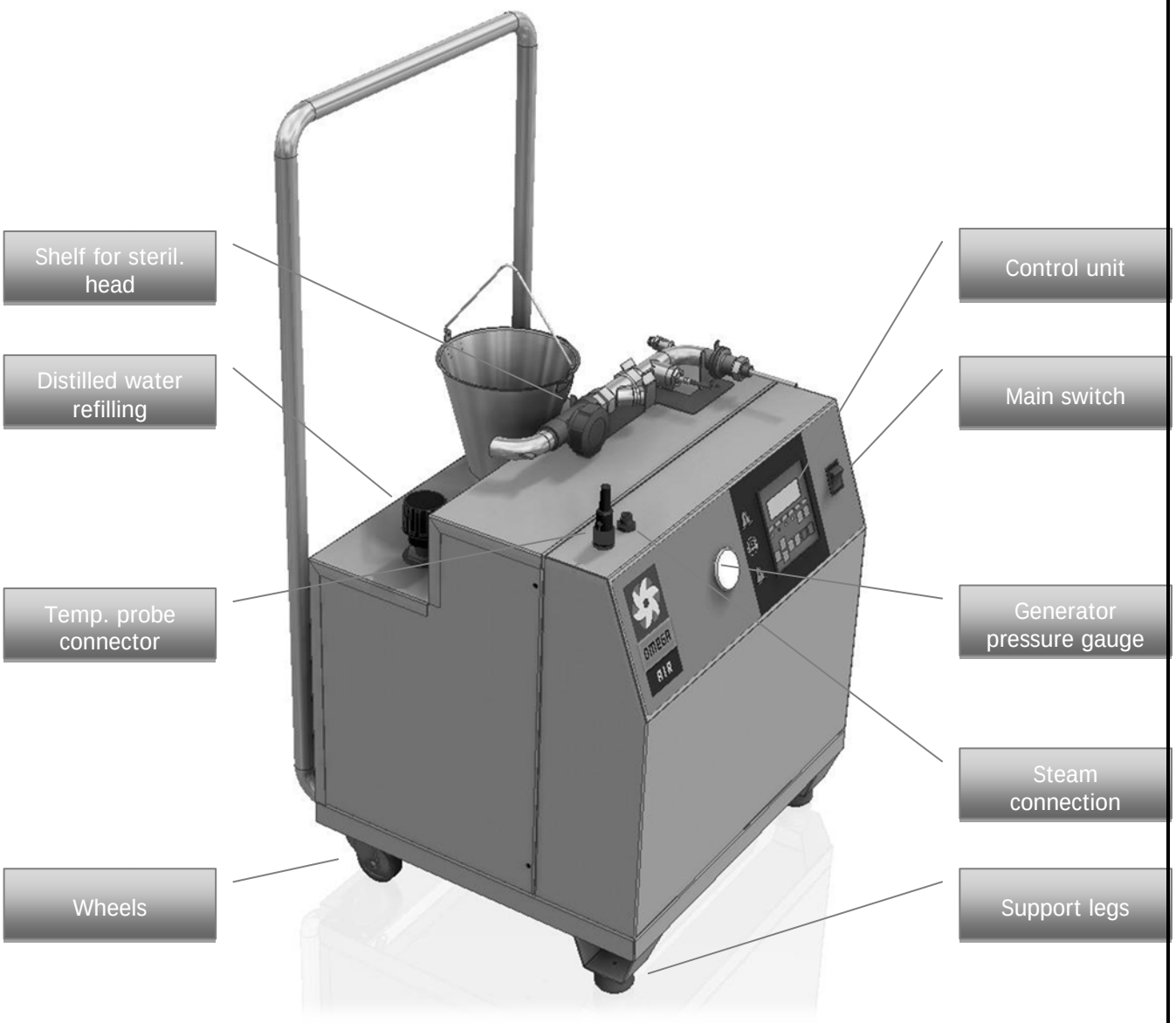
Mobile Steam Sterilizer - MSS is a mobile device designed to sterilize filters suitable for sterilization, which are already installed in pipeline systems.
The MSS consists of the steam generator, vacuum pump and its own microprocessor control unit. The external housing is made from stainless sheet metal (AISI 304).

**TECHNICAL SPECIFICATIONS:**

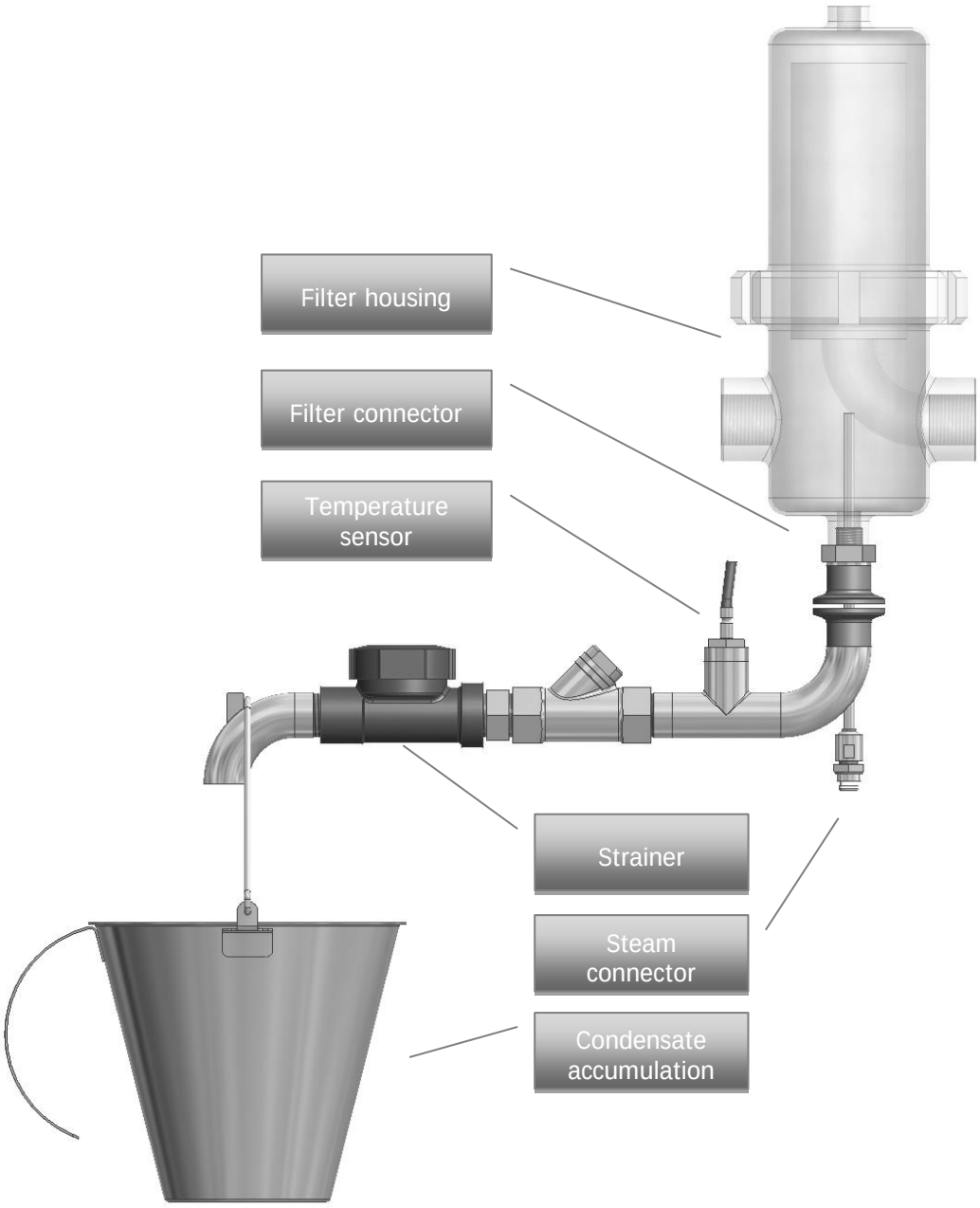
| | |
|---|---|
| Product name: | Mobile Steam Sterilizer - MSS |
| External dimensions: | 450x855x445 mm (WxHxD) |
| Power supply: | 230V- 50/60Hz – 1.7 W |
| Sterilization temperature: | adjustable from 100 -140°C |
| Sterilization time: | adjustable up to 90 min |
| Material dying time: | adjustable up to 90 min |
| Sound level: | does not exceed 70 dB |



**Description of the device:**



**Description of the sterilization head:**



## 2. Warnings

| | |
|---|---|
|  | **BEFORE OPERATING THE DEVICE READ THE INSTRUCTIONS FOR USE!** |
|  | **RISK OF FAILURE**<br>**Do not change the tilt angle of the machine during operation!** |
|  | **RISK OF DAMAGE TO MATERIALS**<br>**Use appropriate program for performing sterilization!** |
|  | **RISK OF FAILURE**<br>**The device can only be serviced by authorized personnel!** |
|  | **RISK OF FAILURE**<br>**Only use distilled water!** |
|  | **RISK OF BURNS**<br>**All connections must be tightened before starting the process!** |
|  | **RISK OF SCALDING**<br>**Never open the steam generator until the pressure inside the generator drops to 0 bar!** |

## 3. Designated Purpose and Safety Elements

The device is designed for steam sterilization of filters and must not be used for any other purpose. It is forbidden to heat or sterilize any materials that could cause a potentially explosive atmosphere.

Operating programs must never be activated until all joints are suitably tightened (the sterilization head connected to the filter) or if there is no water in the tank.
Do not place containers with liquids on top of the device.

Only use distilled or demineralised water for refilling the water tank.

The device must only be used in environments where there is no risk of potentially explosive atmosphere.
The device must only be used by personnel familiar with its designated use and safe operation.

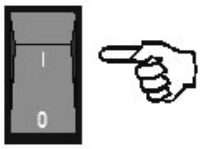
The pressure vessel is also fitted with a safety valve which prevents excessive pressure build-up in the event of failure of other elements.

The device must only be used by personnel who are able to guarantee professional handling of such devices based on their training or knowledge and practical experience. The user is responsible for proper operation of the sterilizer. Take special care to avoid scalding.

In the event of malfunction of the device, immediately press the “START/STOP” button and turn off the main switch.

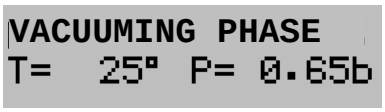
## 4. Instructions for Use

1. Insert the plug into a 230 V mains socket.
2. Pour distilled water into the steam generator (cover on top of the sterilizer).
   Before opening the generator cover, check that the pressure inside the generator is 0 bar. Make sure the cover is properly closed.
3. Connect the sterilization head to the filter housing.
4. Turn on the main switch (front, right).




5. Press the **“START/STOP”** button




**WARNING:**

The control unit starts the program that has been previously selected in the MENU.

7. From this moment on, the operation of the sterilizer is fully automatic.
8. Pres the **“START/STOP”** button to activate the program or interrupt the operation of the sterilizer at any stage of the program.




| | |
|---|---|
|  | **WARNING**<br>If you intend to sterilize several filters in a row, make sure that sufficient amount of water is always available in the steam generator. |
|  | **RISK OF SCALDING**<br>Never open the steam generator until the pressure inside the generator drops to 0 bar (pressure gauge next to control unit). |

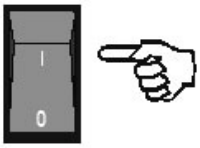
# 5. Description of Settings

The device ha s 10 programs. Each program can be set as desired. The following program parameters can be set:

- Number of fractions
- Pause after each fraction
- Sterilization temperature
- Sterilization time
- Drying time

**Program settings:**

Turn on the main switch




Message on the display:

```
T=63.3°C    7:14
P= 1.018bar
```

Meaning:

| | |
|---|---|
| T_63,3°C | - temperature in the sterilization head |
| P= 1.018b | - current pressure |
| 7:14 | - time |

Press the MENU button to enter the settings

Message on the display:

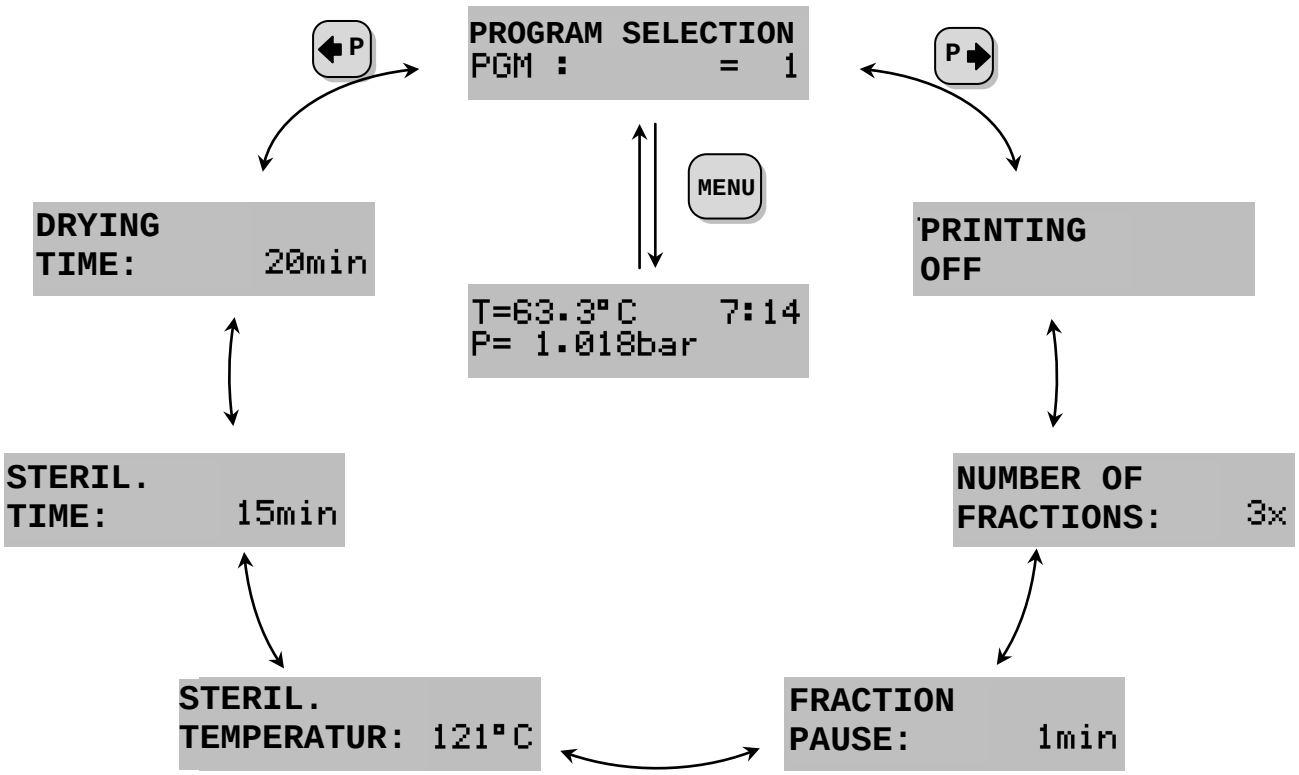
```
PROGRAM SELECTION
PGM :       =  1
```

Meaning:
1 - program number

The control unit enables ten programs entries. Different operational parameters cn be set for each program.

Use buttons ▲ ▼ to switch between programs from 1 to 10.

**PROGRAM SETTING:**




Press the "MENU" button to enter the settings where you can select and set the programs. Use the buttons to scroll through the settings.
The settings can be changed with buttons .

To exit the settings, press the "MENU" button and then "START" to activate the manual program.

1. **Printing:**
   The printing interval can be adjusted from 1 to 200 minutes and it can be set to off.

   **PRINTING**
   **OFF**

   Use buttons to change the values, then press the button to move to the next setting.

2. **Number of fractions:**
   Set the number of fractions.

   **NUMBER OF**
   **FRACTIONS: 3x**

   Use buttons to change the values, then press the button to move to the next setting.

3. **Fraction pause:**
   Set the pause time between fractions.

   **FRACTION**
   **PAUSE: 1min**

   Use buttons to change the values, then press the button to move to the next setting.

4. **Sterilization temperature:**
The sterilization temperature can be set to between 100°C and 135°C.




The current sterilization temperature setting is 121°C.
Use buttons ▲ ▼ to change the sterilization temperature, then press the P button to move to the next setting.

5. **Sterilization time:**
The sterilization time can be set to between 1 minute and 10 minutes. Use buttons ▲ ▼ to change the sterilization time, then press the P button to move to the next setting.




The current sterilization time setting is 15 minutes.
Use buttons ▲ ▼ to change the sterilization temperature, then press the P button to move to the next setting.

6. **Drying time:**
Set the filter drying time.




The current drying time setting is 20 minutes.
Use buttons ▲ ▼ to change the values, then press the P button to move to the next setting.

**WARNING:**

**Press the »MENU« button to save changes and exit the settings!**

**SETTING THE TIME AND DATE:**

To enter the date and time settings, turn on the device while holding down the button P.

On the display:




Use the P ◄P buttons to move the cursor. The value above the cursor can be changed with ▲ ▼ buttons.

**WARNING:**

**Press the "MENU" button to save changes and exit the settings!**

**SETTING SPECIAL PARAMETERS:**

**WARNING:**

**The correction settings may only be changed by qualified and authorized personnel on the basis of reliable measurements!!!**

**OPOZORILO:**

To access the correction settings enter the passcode " *0207* " .

To enter the correction settings, turn on the main switch while holding the button or hold down the button during operation for approx. 10 seconds.

On the display:

```
ENTER PASSCODE:
KODO :   0207
```

Select 0207 with buttons and confirm with .

On the display:

```
CORR.Tc=   25.0°C
 20°C =    20.0°C
```

```
CORR.Tc=   25.0°C
105°C =   105.0°C
```

```
CORR.Tc=   25.0°C
121°C =   121.0°C
```

```
CORR.Tc=   25.0°C
134°C =   134.0°C
```

With:

Corr. T - temperature correction setting (at temperature points 20, 105, 121, 134°C)
T = 25.0°C - current temperature
20.0 °C - temperature correction at 20°C

To change the temperature correction value press . Press the button to move to other correction points (105°C, 121°C and 134°C)

Press

```
START TIME COUNTDOWN
AT:+- 1.0°C
```

Set the tolerance temperature range at which the sterilization time countdown begins.

E.g.:
The temperature setting is 121°C and the countdown start is +/- 1°C. The step time will countdown when the temperature value is between 120.0°C and 122.0°C

Press




Do not change the number because it serves as an indicator and is not relevant for the user.

Press 







Set the printer communication.

Press 




Set the desired display contrast.

Press 




Set the interface language.

Press 
The following parameters are intended for service technicians.










Press 
PID parameters:









**WARNING!!**

**The correction values of measuring probes and PID parameters may only be changed by qualified and authorized personnel on the basis of reliable measurements.**

**WARNING !!**

**The programmed values of special parameters must never be changed without the manufacturer's approval.**

## 6. Required Space

The user must provide a 230V/50 Hz electrical power supply connection for 1.7 kW.

Make sure the room is adequately ventilated (depending on use – consult the manufacturer).

Environmental operating conditions:

- Temperature: +5°C to 40°C
- Relative humidity: from 15 % to 75 %

## 7. Decommissioning and Disposal

Devices which are taken out of operation and cannot be repaired must be disposed of in accordance with the Decree on the Management of Waste Electrical and Electronic Equipment (Official Gazette of RS, no. 107/2006).
The final user must consider the following:

- the device does not belong in mixed municipal waste and must be collected separately
- the device can be reused, pre-treated, updated and returned to service
- dangerous substances contained in waste devices may cause adverse effects on human health and environment
- all waste devices can be returned to the supplier

- each device bears the following label: the device must never be disposed of with mixed municipal waste



# 8. Maintenance and Servicing

Maintenance during and after its expiry the warranty period shall be performed by the manufacturer of the device. Maintenance interventions after the expiration of the warranty period can also be carried out by maintenance staff of the user.
The spare parts for the device are held in stock by the manufacturer of the device.
Any alteration or modification of the device without the manufacturer's approval is forbidden.

Any modification or alteration of the sterilizer is forbidden. For any replacement of components only use genuine replacement parts.

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