

Instruction Manual

E318/ E418/ E518
E323/ E423/ E523



icanCLAVE

Thank you for choosing our steam sterilizers.
Prior to operating this instrument, please read the operations manual carefully and follow all installation instructions.



Caution:

Be sure connect the exhaust tube and discharge container before starting the sterilizer cycle.

Instruction Manual

STE-18-E

STE-23-E

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Subject to technical changes

Usage Indications

This sterilizer is class N steam sterilizer application to solid material.

This sterilizer can be used for dental clinic, laboratory, surgical room, emergency room, ophthalmology, gynecology ,cosmetic hospital and so on.

Technical Specifications

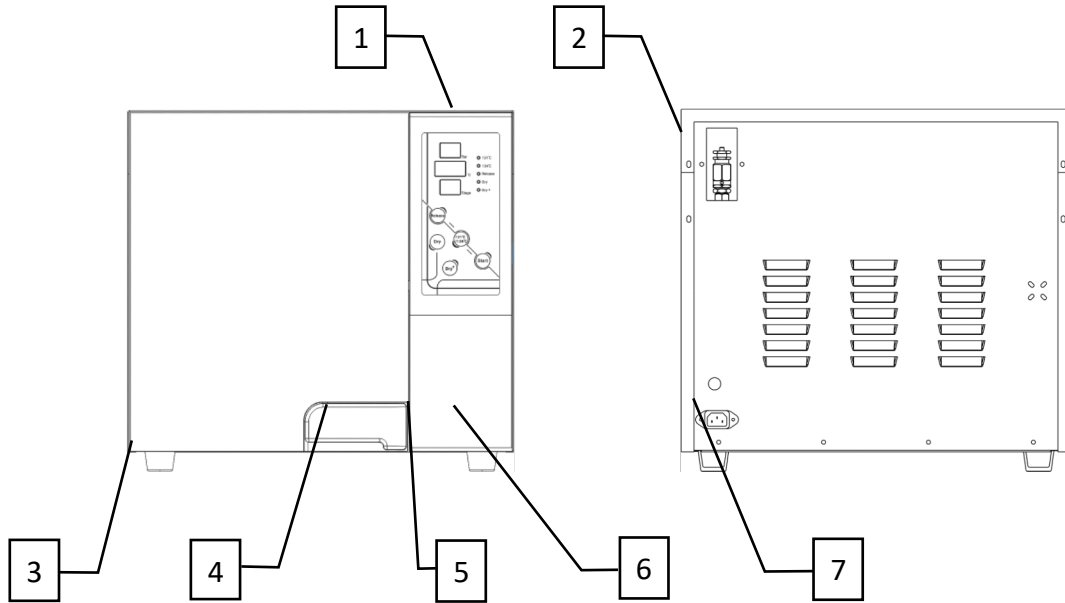
| Order Code | | E318/E323 | E418/E423 | E518/E523 |
|--------------------------------|--------|---|------------------------------------|------------------------------------|
| Model Number | | STE-18-E/ STE-23-E | | |
| Electrical supply | | 220-240 V/50Hz, 110-120 V/Hz | | |
| Chamber (mm, diameter/depth) | | Ø250×350 (18L) / Ø250×450 (23L) | | |
| Power (VA) | | 1500 VAC | | |
| Sterilization temperature (°C) | | 121 °C / 134°C | | |
| Overall dimensions (mm) | | 483 x450x515 (18L) / 483 x450x615 (23L) | | |
| Net weight (kg) | | 32 / 36 | 33 /37 | 33.5 / 37.5 |
| Sterilization time | 121 °C | Default 30min (30~60min adjustable) | | |
| | 134 °C | Default 10min (10~20 min adjustable) | | |
| Working temperature (°C) | | 5~40°C | | |
| Working relative Humidity | | Max. 80%, non condensing | | |
| Atmospheric pressure (kPa) | | 76 ~ 106 | | |
| Dry Time (by heating) | | NO Function | Default 60min (1~60min adjustable) | Default 60min (1~60min adjustable) |
| Dry + Time (by compressor) | | NO Function | NO Function | Default 60min (1~60min adjustable) |

Packing content

| | |
|------------------------|---|
| Sterilizer | 1 |
| Rack | 1 |
| Trays holder | 1 |
| * Trays | 2 |
| Exhaust tube | 1 |
| Door adjustment wrench | 1 |

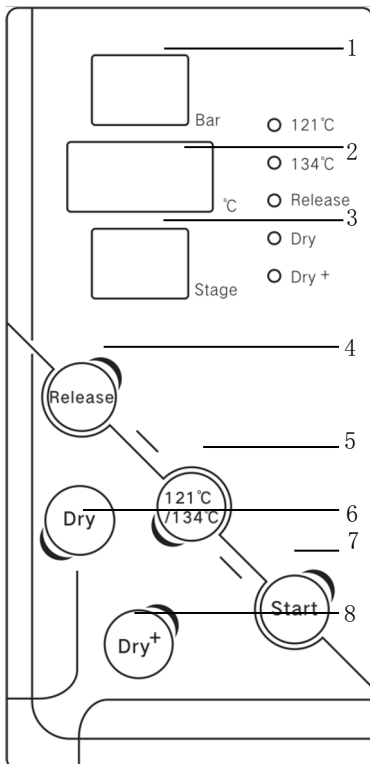
*Option max 4 trays.

Sterilizer Views



- | | | |
|------------------|-------------------|----------------------|
| 1. Control Panel | 4. Door Handle | 7. Power Cord Socket |
| 2. Safety Valve | 5. Discharge Port | |
| 3. Feet | 6. Power Switch | |

Control Panel



1. Pressure displaying window
Display the pressure in the chamber.
2. Temperature displaying window
Display the temperature in the chamber.
3. Status displaying window
4. Water release button
Press the button to set the sterilization cycle with/without water automatic draining function. The indicator light will be on/off. Hold the button for 5 seconds to open the releasing valve, the indicator light will flash.
5. 121°C /134°C Sterilizing temperature selection button
The indicator light will be on when select 121°C cycle.
6. Dry function button (only for E4*,E5*)
Press the button to set the sterilization cycle with/without Dry function. The indicator light will be on/off. Hold the button for 2 seconds to run dry function, the indicator light will flash.
7. Start Button
Start the sterilizer cycle.
8. Dry+ function button (only for E5*)
Press the button to set the sterilization cycle with/without air compressor drying function. The indicator light will be on/off. Hold the button for 2 seconds to run air compressor drying function, the indicator light will flash.

Installation

- Position the device on a plane surface with minimum capacity 60 Kg.
- The sterilizer should be placed on a level worktable.
- Improper water level in the chamber could cause a sterilizer malfunction.
- Leave at least 10 cm between the device rear part and the wall. The clearance required to open the door is 40cm.
- Position the autoclave at such a height as to make it possible for the operator to check the whole sterilization chamber and carry out the normal cleaning operations.
- The room where the device is installed must have sufficient ventilation.
- Do not install the autoclave near washing basins, taps, etc. where it is likely to be splashed.
- Do not install the sterilizer nearby a heat source.
- Do not lean on the door when it is opened.
- Do not place trays, papers, fluid containers, etc. on the sterilizer.
- Check the label on back panel of sterilizer to verify voltage rating for the unit. Failure to connect the autoclave to an appropriate power supply could result in damage to the unit, and electrical shock to personnel.
- Plug power cord into a properly polarized and grounded receptacle rated. A dedicated circuit only used for the sterilizer is recommended.

Setup

- Open the door and remove all the inner contents for unpacking.
- Connect the power cord to an outlet of the appropriate voltage. (See installation).
- Connect the draining tube to the discharge port and the end of the draining tube is fixed into the discharge container and always up the max water level of the container (preferably a metal container; if it is a plastic container, make sure that the container is filled with a part of cold water to prevent high temperature deformation).
- To power on, press the main switch, the machine turns on the LED.

Note: If the door is open, the display will show “do”; When the door is closed, the display will show “Ld”.

Preparation of sterilization materials

For the most effective sterilization and to preserve the sample, please follow below:

- Clean instruments immediately after use.
- Treat the instruments by ultrasonic cleaner.
- Residual chemicals left over after cleaning and disinfecting process may damage and corrode parts of the autoclave, always rinse off the instruments using distilled water.
- Follow instrument manufacturer’s guidelines and recommendations for handling and cleaning instruments prior to sterilization.
- Check the manufacturer’ s instructions as to the proper procedure for sterilizing of each item.
- Arrange the samples of different materials on different trays or with at least 3cm of space between them.
- Clean and dry instruments thoroughly before placing them into tray.

Fill water

Fill with the chamber by distilled water (or deionized water).

Caution: Water must cover the heater inside the chamber.

Select the sterilization program

Press the 121°C /134°C button to select the sterilization program.

The indicator light will be on if program selected.

| Program | Type | Max. Load (kg) | Max. Load per tray(kg) |
|---------|----------------|----------------|------------------------|
| 121 °C | solid material | 2.4 | 1.2 |
| 134 °C | solid material | 2.4 | 1.2 |

Set the sterilization cycle with/without automatic water draining

The sterilization with automatic water draining is by default setting. If you want to set the sterilization cycle without the water draining, you can press the “release” button to off the indicator light.

Dry set (Only E4* and E5*)

If you want to set the cycle with drying after sterilization, you can press the “Dry” button and the indicator light will be on.

Note: When the “dry” be set, the “release” will set automatically.

Dry+ set (Only E5*)

If you want to set the cycle with drying by air compressor after sterilization, you can press the “Dry +” button and the indicator light will be on.

Note: When the “Dry+” be set, the “release” and “Dry” will set automatically.

Materials loading

After selecting program, the materials to be sterilized can be placed on the tray placed inside the chamber using the tray handle.

Close door

After the instruments are loaded, you may close the chamber door. The display will show the current internal temperature.

Caution: You must turn the door handle to the maximum position, to make sure the door be completely closed.

Start the sterilization program.

After the “Start” button is pressed, the sterilizers will begin the cycle automatically.

Note:

Please make sure there has enough water inside the chamber before starting the cycle.

The draining tube must be always connected to the discharge port and the end of the draining tube must be fixed into the discharge container.

Heating up phase

Status window display “HE”.

Sterilization phase

Status window display countdown.

Exhaust phase

Status window display “PL”.

“Release” indicator flash in the period of water draining. (only if set the sterilization cycle with automatic draining).

Drying Phase (Only E4* and E5*)

Status window display “dr”.

“Dry” indicator flash in the period of drying.

Note: It is better open the door to a small gap to make better drying. And the sterilizer will intermittently sound “beep” to remind the user to open the door during the drying.

Drying+ Phase (Only E5*).

Status window display “dr”.

Both “Dry” and “Dry+” indicator flash in the period of drying.

Note: “Dry+” always work together with “Dry”.

End of cycle

After the sterilization is complete, you will hear a beep and the screen will show “Ed”.

Caution:

Please take the trays out with instruments only by the tray holder.

Note:

After each cycle, please check the water level of the chamber.

Manual Water Drainage

Hold the “release” button until the indicator light flash, to open the releasing valve to drain the water by manually.

Note: It must be done when the door is open.

Running “Dry” by manual (only E4* and E5*)

If you want to run dry function, please hold “Dry” button for 2 seconds, and the indicator will flash.

Press “Dry” button to stop drying.

Note: It is better to open the door to a small gap to make better drying.

Running “Dry +” by manual (only E5*)

If you want to run air compressor drying function, please hold “Dry+” button for 2 seconds, and the indicator will flash.

Press “Dry+” button to stop drying.

121°C sterilization time adjusting

Factory Default: 30min; Adjustable range: 30~60min

Hold “121°C” button while switch on the power, set the time by press 121°C(+) /134°C(-) button, Status window display the time , press “Start” button to save and exit.

134°C sterilization time adjusting

Factory Default: 10min; Adjustable range: 10~20min

Hold “134°C” button while switch on the power, set the time by press 121°C(+) /134°C(-) button, Status window display the time , press “Start” button to save and exit.

“Dry” time setting

Factory Default: 60min; Adjustable range: 1~60min

Hold “Dry” button while switch on the power, set the time by press 121°C(+) /134°C(-) button, Status window display the time , press “Start” button to save and exit.

“Dry+” time setting

Factory Default: 60min; Adjustable range: 1~60min

Hold “Dry+” button while switch on the power, set the time by press 121°C(+) /134°C(-) button, Status window display the time , press “Start” button to save and exit.

Error codes

| Code | Description | Proposed solution |
|------|--------------------|--|
| E1 | Heater overheating | Check the water level in the chamber. Check the Thermostat. |

| | | |
|----|---|---|
| E2 | Chamber overheating | Check temperature sensor inside the chamber. |
| E3 | Chamber wall overheating | Check temperature sensor for the chamber wall. |
| E4 | Heating overtime | Somewhere is leaking. Check the door seal. Heater malfunction. |
| E6 | During operation, the door has been opened or the door micro switch is damaged. | Confirm that the door handle has been closed to the maximum position. Check or replace the door micro switch |

Maintenance

| Frequency | Maintenance Operation |
|------------|--|
| Monthly | Clean the door seal. |
| Weekly | Clean the chamber, the trays and the rack. |
| Every Year | Replace the door seal. |

Clean Chamber, Trays, Door Seal, chamber filter and Tray Rack.

Remove the trays and tray rack from the chamber. Clean trays, rack and inside of chamber with mild soap.

Rinse the trays, rack and inside of chamber with a smooth cloth and distilled water.

Examine gaskets for possible damage.

Clean gasket and mating surfaces with a damp cloth.

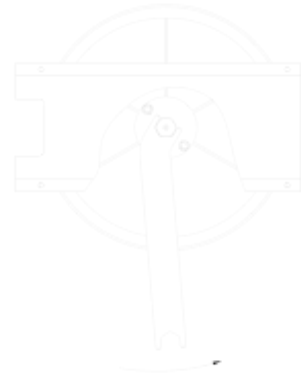
Note: Do not use bleaching agents or any abrasive materials / substances in chamber. Failure to comply may result in damage to the chamber and/or other components.

Caution: To prevent burns, allow unit to cool before cleaning gaskets and mating surfaces.

Door adjustment

Under normal circumstances the chamber door does not require adjustments. However, if the seal fails (resulting in steam leaking from the front of the chamber), you may use the spanner tool to tighten the door seal.

Open the door and Insert the spanner tool in the gap beneath the plastic cover; use the spanner to grip the adjusting nut.
Turn the nut counter clockwise. This will tighten the sealing plate.



Turn the nut until the sealing plate is tight. If the door knob is too tight, you may also turn the nut clockwise to loosen it.

Replacement of the door seal

Open the chamber door. Remove the door seal ring carefully by hand. Clean the door seal ring carefully with a smooth cloth with distilled water. Moisten the new seal with medical disinfectant or isopropyl alcohol. Insert the new seal and press in sequence as follows:

Caution: Please ensure the chamber and the door have cooled prior to replacing the seal ring.

