



# **“Sturdy” Autoclave Sterilizer Prime 3S Instruction Manual**

Please read manual carefully before using and keep it well.























422-02086 v.01 31 March 2023



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
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## 1 Important notes and safety instructions

-  **WARNING:** To ensure proper installation and safe operation, the engineer or engineers authorized dealer of the company for installation, maintenance or fault repair matters, do not self-repair.
-  **WARNING:** Do not place anything on the sterilizer.
-  **WARNING:** Do not used and placed the anesthetic, volatile substances and flammable items in the vicinity or put that in the sterilizer's chamber to avoid the risk of explosion.
-  **WARNING:** To use the Company recognized's accessories. To avoid damage occurred to device or user during operation.
-  **WARNING:** Do not place a sealed items in the chamber, to avoid risk of explosion.
-  **WARNING:** Failure to follow the User manual and Maintenance Instructions will adversely affect performance and lifespan of the sterilizer, and may invalidate the warranty.
-  **WARNING:** Always allow a minimum of 10 minutes between each sterilization program.
-  **WARNING:** This product is limited to use distilled water, if the issues caused by using non-recommended water will not be covered in warranty.
-  **WARNING:** Always check the pressure gauge before opening the door. DO NOT attempt to open the door if the pressure is not at zero (0).
-  **WARNING:** Steam and hot water may be present when opening the door after a sterilization program.
-  **CAUTION:** To use an independent power socket for power supply, and do not share the same socket with other electrical appliances to avoid danger.
-  **CAUTION:** Do not place any objects on the power plug or power cord.
-  **CAUTION:** Sterilizer must be placed in a horizontal and flat table.
-  **CAUTION:** It will require at least two (2) or more people to carry the sterilizer to avoid dropping it off by mistake.
-  **CAUTION:** After the sterilization program, keep the door open to keep dring the chamber.
-  **CAUTION:** Unplug the power cord and drain off water from the tank if the sterilizer will not be used regularly.
-  **CAUTION:** Use sterilization indicator to check that the sterilization has been successful.
-  **CAUTION:** When the sterilization program is complete, the panel shall show "CYCLE PASS" and a beep sounds. If any error message show up or can not to confirm the sterilization program is completed, that re-run sterilization program.
-  **CAUTION:** Use the dedicated storage device (SD card), to avoid sterilization data loss.
-  **CAUTION:** Make sure the door gasket is installed correctly to avoid steam leak.

**NOTE:** When interrupt the program the panel shall return to the homepage or an error code, that is the protective designed of the device.

## 2 Symbols explanation

| Symbols   | Explanation  |
|---|--|
|    | Caution, consult instruction manual for use  |
|    | Protective earth (ground)  |
|    | Alternating Current  |
|    | Attention! Hot surface   |
|    | Disposal of Electrical & Electronic Equipment (WEEE):<br>This product should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. For more detailed information about the recycling of this product, please contact your local city office, household waste disposal service or the retail store where you purchased this product. (European community only) |
|    | Authorized representative in the European community  |
|    | Manufacturer   |
|   | Date of manufacture<br>It is a 6-digit number. The first 4 digits represent the year, followed by 2 digits of the month.   |
|  | Consult instruction manual for use   |
|  | ON, connection to the mains  |
|  | OFF, disconnection from the mains  |
| POWER   | Power switch   |
| NOTE  | Indicates information that user should pay special attention to.   |
| CAUTION   | Indicates correct operating or maintenance procedures in order to prevent damage or destruction of the equipment or other property.  |
| WARNING   | Indicates correct operating or maintenance procedures in order to prevent damage or destruction of the equipment or other property.  |

### 3 Installation

#### 3.1 General

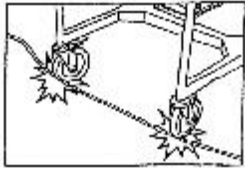
This sterilizer conforms to international criteria of electromagnetic compatibility. However, there may have interference depending on the installed environment, follow the steps below to eliminate interference:

- A. Call engineer of Sturdy or an authorized distributor.
- B. Relocate or change the orientation of the sterilizer.
- C. Keep a larger distance between the sterilizer and adjacent device.
- D. Plug the power plug in another branch circuit.
- E. Make sure the ambient conditions of the environment in which the sterilizer is installed are as suggested. (Refer to Specifications)

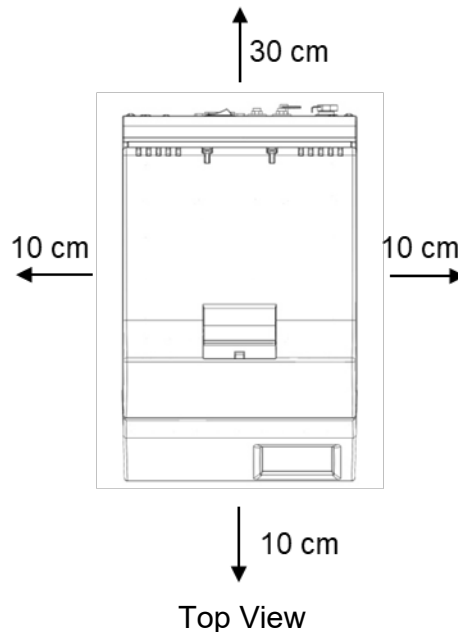
#### 3.2 Environment

The sterilizer must be placed on a flat surface.

- A. Check that the table supporting the sterilizer is a rigid and flat surface, and can bear the weight.
- B. Make sure that the installation environment has a socket that is grounded and can provide a capacity of 110VAC, 50/60Hz, and use a separate (dedicated) socket.
- C. Do not place any objects on the power plug or power cord.



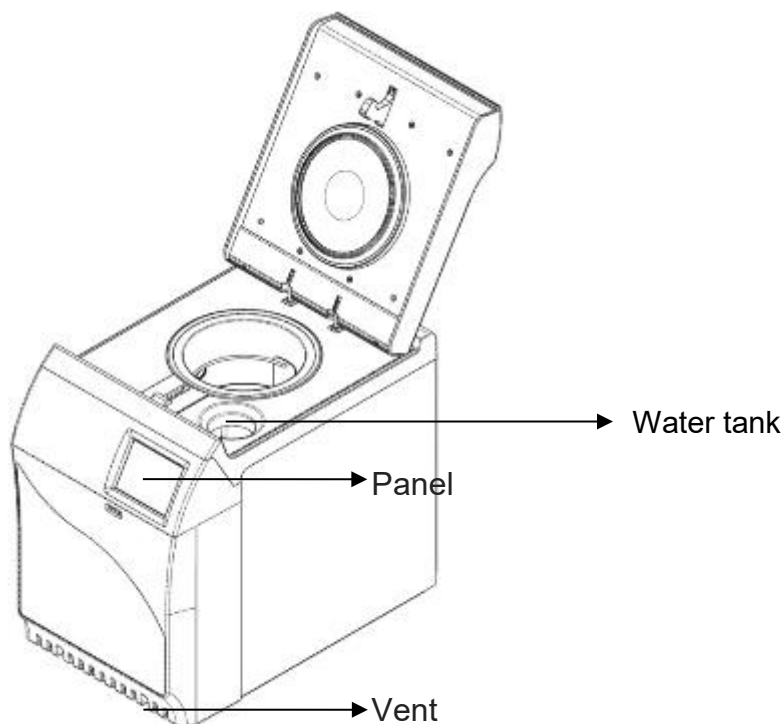
- D. Steam would vent while the sterilizer is operating. Therefore, do not place anything on top of the sterilizer.
- E. Ensuring at least 10 cm clearance between the wall or other items, as shown below:



### 3.3 Before operating instructions

A. Slowly filling the distilled water (about 1000 ml) to water tank until the beeps sounds.

**NOTE:** Do not shielded the vents of device.



B. Before power on the device, connect the wastewater drain hole and heat-resistant container with the pipe.

## 4 Product introduction

### 4.1 Intended use

The product is a table-top steam sterilizer which meets the requirements of EN 13060 S-type. It is used primarily for the sterilization of solid loads, unwrapped and wrapped pouch.

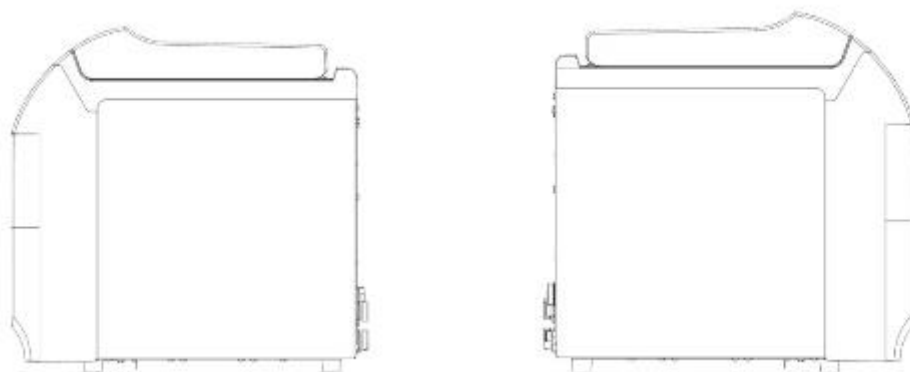
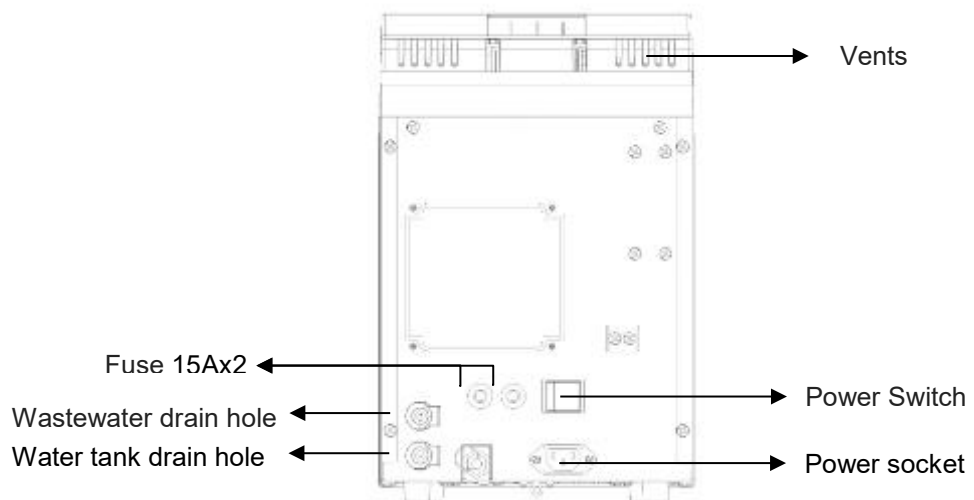
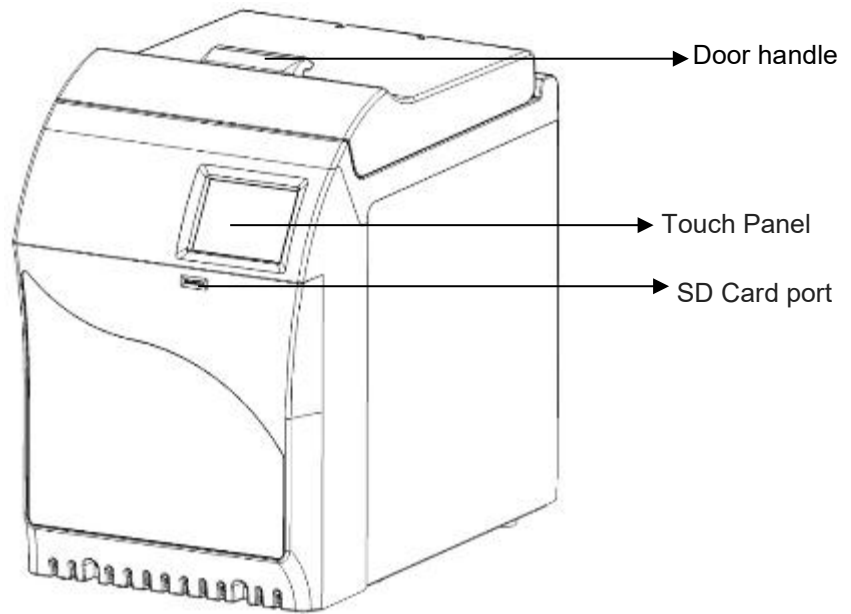
### 4.2 Product description

This product is a high-pressure steam sterilizer desktop series, with stainless steel container cabinet. The sterilizer control devices are placed in the sterilizer front touch panel, there is a sterilization operation data and an emergency stop ICON, another sterilization data, including sterilization time message display, drying time display, pressure display, temperature display, and the message is displayed sterilization.

### 4.3 Standards to be applied

- EN 13060:2014+A1:2018; Small steam sterilizers
- EN 62304:2006+A1:2015; Medical device software. Software life-cycle processes
- IEC 61010-1:2010+A1:2016/ COR1:2019; Safety requirements for electrical equipment for measurement, control and laboratory use. General requirements
- IEC 61010-2-040:2020; Safety requirements for electrical equipment for measurement, control and laboratory use
- IEC 61326-1:2020; Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements
- 2014/68/EU; 2014/68/EU, Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 on the harmonization of the laws of the Member States relating to the making available on the market of pressure equipment Text with EEA relevance
- IEC 62366-1:2015/AMD1:2020; Medical devices. Application of usability engineering to

### 4.4 External View





#### 4.5 Fill water and steam

- A. Check water tank status by panel.
- B. Close the door, select the sterilization program, click the Start button to start the sterilization program.
- C. When the program started, device shall be pre-vacuum and inject the steam into the chamber after the steam generator's steam attained set temperature.
- D. When the pressure and temperature of chamber attain the set parameter, the program status into sterilization

#### 4.6 Safety protection

##### 4.6.1 Overpressure Protection

- A. Pressure switch

When the pressure is over the set value, the pressure switch would be activated to relieve the pressure of the chamber.

- B. Safety valve

When the device is anormal, as the changer pressure over 2.5 kg/cm<sup>2</sup>, the safety valve will be activated to relieve the pressure of the chamber.

##### 4.6.2 Overheating Protection

If the device overheats then the protection would be activated. The device stops heating, and the buzzer sounds, and display shows the error message.








##### 4.6.3 Door locking system

When the program runs, the chamber's door would be locked.

When the chamber's door is closed, the door sensor will confirm the locker pin on the correct position, and then the program starts.

### 5 Panel instructions

#### 5.1 Icon

| Icon  | Description                                   |
|---|---|
|  | Door locked                                   |
|  | Door open                                     |
|  | The real-time temperature and pressure.       |
|  | Return to the previous page.                  |
|  | Previous page or Return to the previous page. |
|  | Next page.                                    |
|  | Previous page.                                |

|   |            |
|---|------------|
|  | Next page. |
|---|------------|

## 5.2 System setting

### 5.2.1 Date and time

- A. Click the Option button on the menu page.
- B. Select the Parameter setting button, go to the setting page.
- C. Click the Time setting, start to set. Select the text field and key in the numbers by number keyboard.

### 5.2.2 Operator name

- A. Click the Option button on the menu page.
- B. Select the Parameter setting button, go to the setting page.
- C. Click the Operator, start to set. Select the text field and key in the operator's name and clinic's name by keyboard.

### 5.2.3 Parameter of program

- A. Click the Option button on the menu page.
- B. Select the Parameter setting button, go to the setting page.
- C. Click the Pre-set mode change. Select the program to change the parameter.
- D. Select the text field and key in the program's parameter by keyboard.

## 5.3 Maintenance remind




- A. Click the Option button on the menu page.
- B. Select the Maintain record button and click the User only. (The Maker only is provided to service technicians.)
- C. After maintenance, the user can click the reset button to reset the cycles. The Cycle data would provide the user used times of the programs. The Manufacture data provides the user with versions of the autoclave information.

## 5.4 Historical records

- A. Click the Option button on the menu page.
- B. Select the Historical data button, go to the record page. And the users can use the previous/ next button to view data.

## 6 Program information

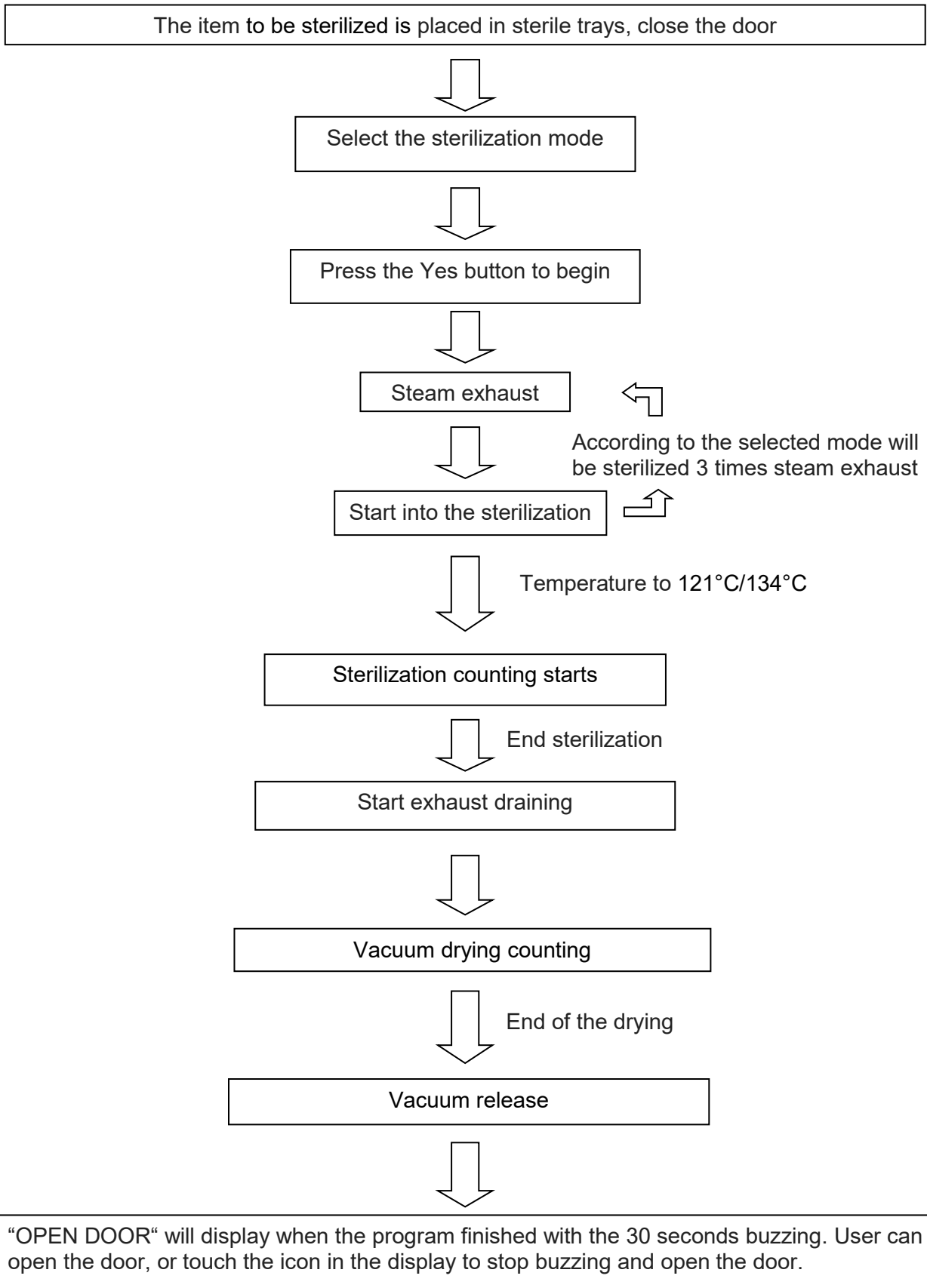
### 6.1 Program parameters and description

| Icon   | Program name  | Suggest sterilizing time (min) | Suggest drying time (min) | Description  |
|--|---------------|--------------------------------|---------------------------|--|
|   | 121°C Regular | 20                             | 14                        | Limited to the instruments with temperature-resistant over 124°C.                                |
|   | 134°C Flash   | 4                              | 1                         | Limited to the instruments with temperature-resistant over 137°C.                                |
|  | 134°C Dental  | 4                              | 8                         | Dental equipment dedicated.<br>Limited to the instruments with temperature-resistant over 137°C. |

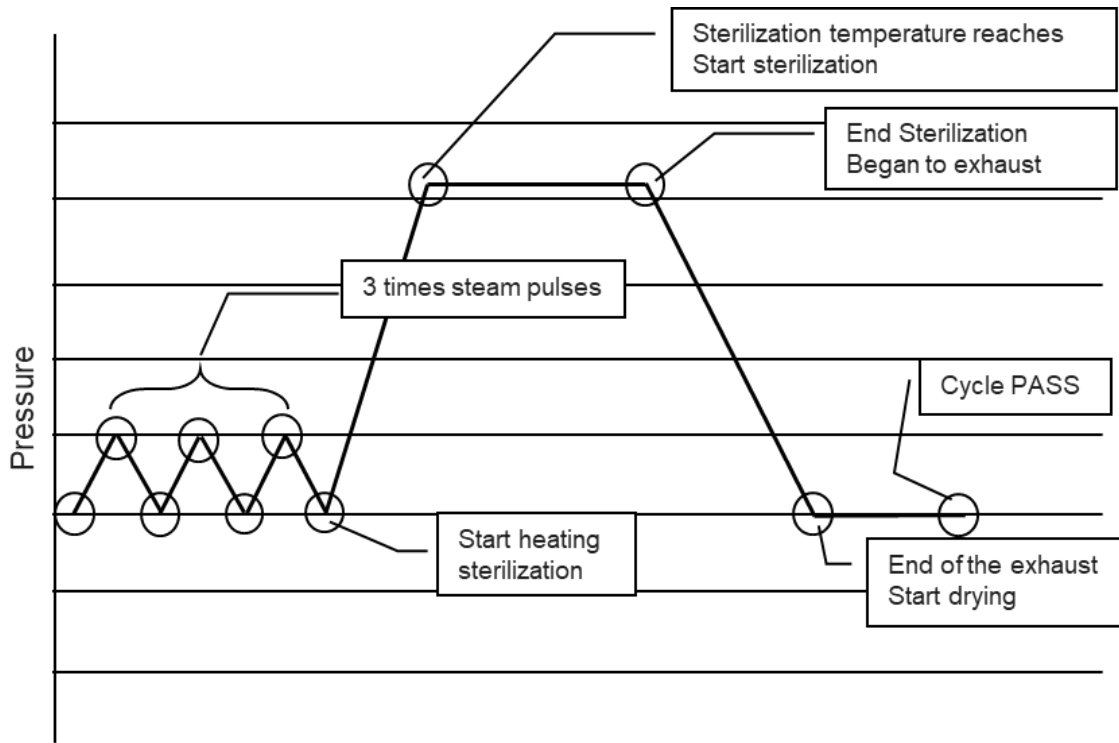
### 6.2 Maximum total cycle time for test loads

| Program name      | Test load        |                    | Total cycle time (hh:mm:ss) |
|-------------------|------------------|--------------------|-----------------------------|
|                   | Type             | Weight (in 1 tray) |                             |
| 121°C Regular     | Solid, wrapped   | 360 g              | 00:43:04                    |
| 134°C Dental Mode | Solid, wrapped   | 360 g              | 00:23:03                    |
| 134°C Flash       | Solid, unwrapped | 1400 g             | 00:14:07                    |

### 6.3 Flow chart of sterilization program

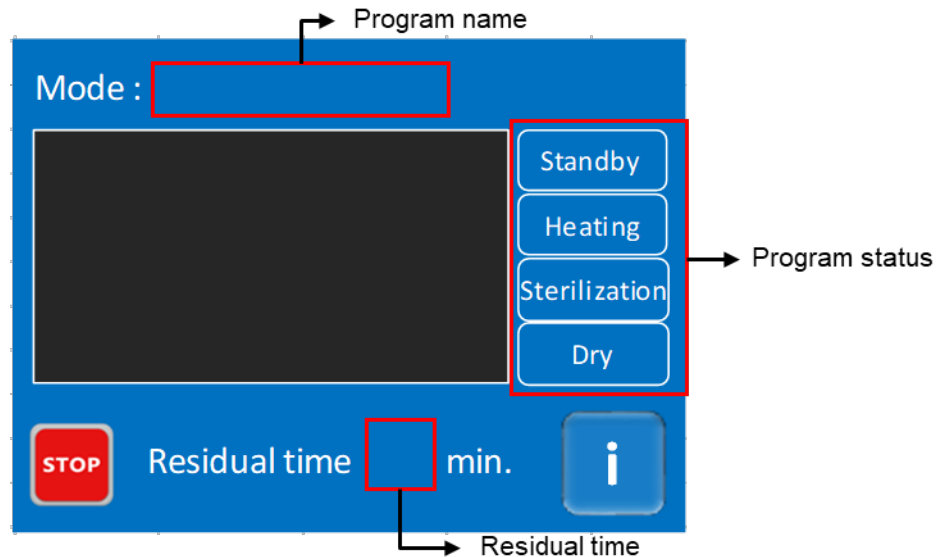


## 6.4 Sterilization program process schematic

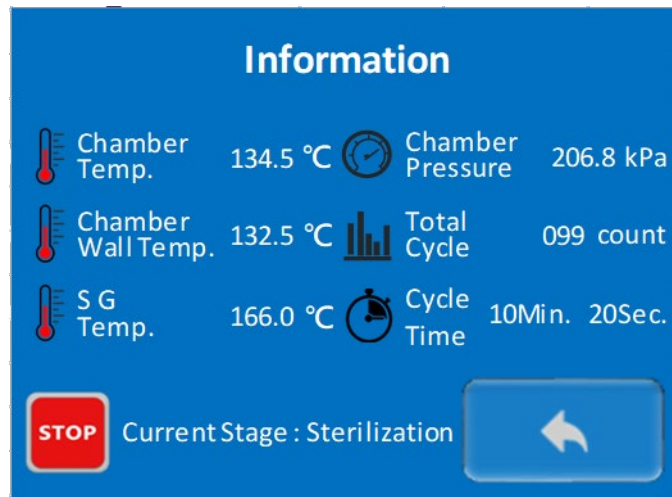


## 6.5 Programs operating

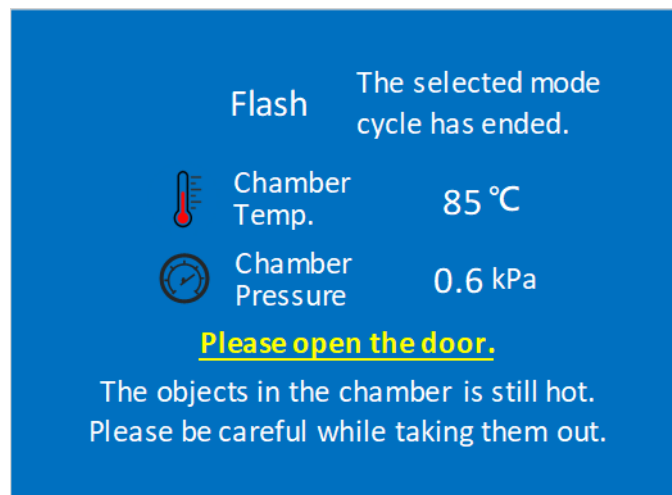
- Select the program button on the menu page.
- Confirm the program is selected and the user. If the user is not the same as the user, select the change operator button and click the user's name.
- The panel of the program execute as below.
  - The display for program status.



- The sterilization information of temperature and pressure.



- D. After the sterilization cycle finishes, the sterilizer would decrease the pressure of the chamber. The user can open the chamber's door until the panel show "Please open the door.". (The finished program panel as below)



## 7 The indicator of the sterilization program

Use sterilization indicator to check that the sterilization has been successful.

### 7.1 Biological indicator

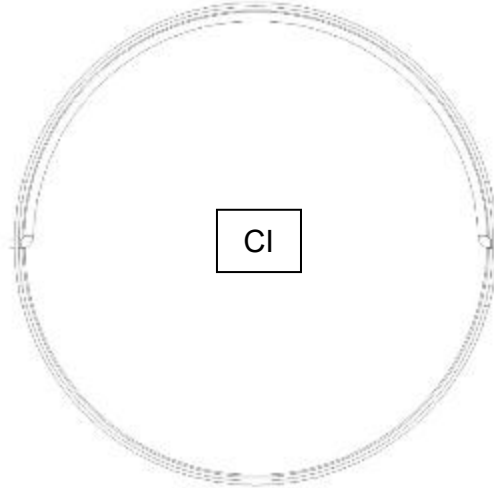
Sterilization indicators, such as spore strips and indicator tape, enable routine monitoring, qualification, and load monitoring of the steam sterilization process. They indicate whether the conditions during a steam autoclave cycle were adequate to achieve a defined level of microbial inactivation.

### 7.2 Chemical indicator

Chemical indicators are designed to respond to one or more of the physical conditions within the sterilizing chamber. Use them to routinely monitor the process parameters of your sterilization process to ensure that they meet your quality assurance goals.

## 8 Placement for items to be sterilized

- A. Place implements on the basket evenly. Do not pile up nor overlap each implement.
- B. To sterilize absorbent cotton or woolen, please wrap it with sterilizing pouch to avoid piping clog.
- C. To ensure been finished the sterilization process, shall be marked items.
- D. Use sterilization indicator to check that the sterilization has been successful. (The placement of indicator as shown below)



**NOTE:** The penetration rate of about sterilization tray 95% ◦

**NOTE:** Sterilization tray pulled from shelves over 2/3 may drop out.

## 9 Recorder

### 9.1 Data storage devices

- A. Dedicated data storage devices such as SD cards, please do not use these SD cards in other devices for data saving action.
- B. Please backup the data to SD card quarterly, and delete data files which stored in the device when the device file storage capacity reach the limits to avoid excessive loss of information.
- C. Turn off the system power before replacing an SD card.
- D. It is recommended to use the SD Card (SanDisk SDHC Class 4 ~ 32GB or SanDisk SDCZ52-016GB)

### 9.2 Presentation of print out data

Paper printouts have been proven to be eligible for a period of one year if properly preserved.

|                                     |   |
|-------------------------------------|---|
| Prime 3S SV.P03S.01.02 -----        | Model type                                  |
| Data:2014/01/22 Time:13:01:53 ----- | Sterilization start date and time           |
| SN:031312270 -----                  | Serial number                               |
| Cycle Count: 00005 -----            | Cumulative number of sterilization          |
| Clinic: USER1 -----                 | Clinic name                                 |
| Operator: POISON -----              | Operator name                               |
| Cycle Name: 121'C & Dry -----       | Select Sterilization Program Name           |
| Sterilize Temp : 121.0°C -----      | Sterilization temperature                   |
| Time Ster.20 min,Dry 15 min -----   | Sterilization time, drying time             |
| Time Process °C Kpa -----           | Unit Information                            |
| -----                               |   |
| 00:02:19 Release 119.0 097.2 -----  | Start steam pulses stage                    |
| 00:02:40 Release 103.0 006.2        |   |
| 00:04:55 Release 119.0 099.2        |   |
| 00:05:16 Release 103.3 006.2        |   |
| 00:07:21 Release 119.0 101.3        |   |
| 00:07:41 Heating 103.2 006.2 -----  | Start Pre-heating, at the end of the vacuum |
| 00:12:10 Ster. 121.5 108.9 -----    | Temperature reaches, start sterilization    |
| 00:32:21 Ster. 122.1 115.8 -----    | End sterilization                           |
| Temperature Max. 123.1 -----        | Maximum temperature during sterilization    |
| Temperature Min. 121.5 -----        | Minimum temperature during sterilization    |
| Pressure Max. 122.7 -----           | Maximum pressure during sterilization       |
| Pressure Min. 108.9 -----           | Minimum pressure during sterilization       |
| 00:32:41 Exhaust 103.7 006.2 -----  | End exhaust                                 |
| 00:46:51 Dry 055.2 -079.2 -----     | End dry                                     |
| -----                               |   |
| CYCLE Time : 00:46:56 -----         | Total time sterilization                    |
| CYCLE PASS -----                    | Sterilization results                       |
| Data:2014/01/22 Time:13:57:00-----  | Sterilization end date and time             |
| -----                               |   |
| Sign:-----                          | Confirmation signature                      |



## 10 Water quality

Suggested limits limitation of contaminants in water for steam sterilization.

Contaminants of condensate and feed water

|  | Feed water                         | Condensate                         |
|--|------------------------------------|------------------------------------|
| Evaporate residue  | ≤10mg/l                            | ≤1.0mg/kg                          |
| Siliceous oxide, Sio <sub>2</sub>  | ≤1mg/l                             | ≤0.1mg/kg                          |
| Iron   | ≤0.2mg/l                           | ≤0.1mg/kg                          |
| Cadmium  | ≤0.005mg/l                         | ≤0.005mg/kg                        |
| Lead   | ≤0.05mg/l                          | ≤0.05mg/kg                         |
| Rest of heavy metals, excluding iron, cadmium, lead  | ≤0.1mg/l                           | ≤0.1mg/kg                          |
| Chloride   | ≤2mg/l                             | ≤0.1mg/kg                          |
| Phosphate  | ≤0.5mg/l                           | ≤0.1mg/kg                          |
| Conductivity(at 20°C)  | ≤15µs/l                            | ≤3µs/l                             |
| pH value   | 5 to 7.5                           | 5 to 7                             |
| Appearance   | Colorless, clean, without sediment | Colorless, clean, without sediment |
| Hardness   | ≤0.02mmol/l                        | ≤0.02mg/kg                         |
| <p><b>NOTE:</b> The use of water for steam generation with contaminants at levels exceeding those given in this Table can greatly shorten the working life of a sterilizer and can invalidate the manufacturer's warranty of guarantee.</p> <p><b>NOTE:</b> The condensate is produced from steam that has been taken from the empty sterilizer chamber.</p> |                                    |                                    |

Compliance should be tested in accordance with acknowledged analytical methods

## 11 Maintenance



**WARNING:** The sterilizer belongs to high temperature and pressure, to ensure the safety to follow the manual and maintenance instructions. If not follow lead to affect the sterilization performance that shall not in the warranty.



**WARNING:** Before conducting maintenance, please turn off the sterilizer and disconnect from the power supply. Check the sterilizer has cooled down to room temperature.



**CAUTION:** Unplug the power cord and drain off water from the tank if the sterilizer will not be used regularly.

**NOTE:** If no using the sterilizer for a long time (over three month), before operating shall call Sturdy's authorized service technicians to check and maintain the device.

### 11.1 Daily maintenance

- A. Use a soft lint-free cloth with water, to wipe the inner chamber, the chamber doors, and door gaskets. Keep clean to avoid dirt precipitation led to cannot drain water or steam and door leak situation.
- B. Do not use volatile liquids to clean the door gasket.
- C. Check the water tank's level before using, fill the distilled water when the low water notification alert.
- D. Check the vents which shall not be obstructed by objects.
- E. Check the wiring. If damaged, call the Sturdy's authorized service technicians.

### 11.2 Weekly maintenance

- A. Replace water in the water tank weekly. Drain the water in the water tank by using the silicone tube, and refill the clean distilled water.
- B. Clean the filter in the chamber.
- C. Clean the box, tray frame and trays with detergent, or a non-corrosive stainless steel cleaner and water, using a cloth or sponge.

### 11.3 Monthly maintenance

The door shaft add oil monthly to enhance the smoothness of the door rotation.

### 11.4 Quarterly maintenance

- A. Clean the water tank regularly. Drain the water from the water tank. The detergent is mixed with the distilled water and filled into the water tank. After 10 minutes, drain the mixed liquid and use mass distilled water to clean the water tank.
- B. Check the valve to ensure the proper functionality of the product.



**CAUTION:** This maintenance works is recommended by the Company's engineers recommended or authorized reseller of engineers.

## 11.5 Routine maintenance checklist

| Maintenance Content |  | Daily | Weekly | Per month | Quarterly |
|---------------------|--|-------|--------|-----------|-----------|
| General             | Check the power plug and cord are normal     | ✓     |        |           |           |
|                     | Check the vents obstructed by objects        | ✓     |        |           |           |
|                     | Check the water tank is adequate             | ✓     |        |           |           |
|                     | Check the water of the water tank            | ✓     |        |           |           |
|                     | Clean the sterilizer outer case              | ✓     |        |           |           |
|                     | Wipe the exterior sterilizer                 | ✓     |        |           |           |
|                     | Wipe / Check door gaskets                    | ✓     |        |           |           |
|                     | Wipe / clean around the bottom of the vessel | ✓     |        |           |           |
|                     | Replace the water of the water tank          |       | ✓      |           |           |
|                     | Clean the water filter                       |       | ✓      |           |           |
|                     | Clean the sterilization basket               |       | ✓      |           |           |
| Advanced            | Door shaft oil                               |       |        | ✓         |           |
|                     | Check / replace the air filter               |       |        | ✓         |           |
|                     | Clean water tank                             |       |        |           | ✓         |
|                     | Safety valve maintenance                     |       |        |           | ✓         |



**CAUTION:** The safety valve maintenance should pay attention to the risk of high temperature, high pressure steam.

## 11.6 Annual maintenance checklist

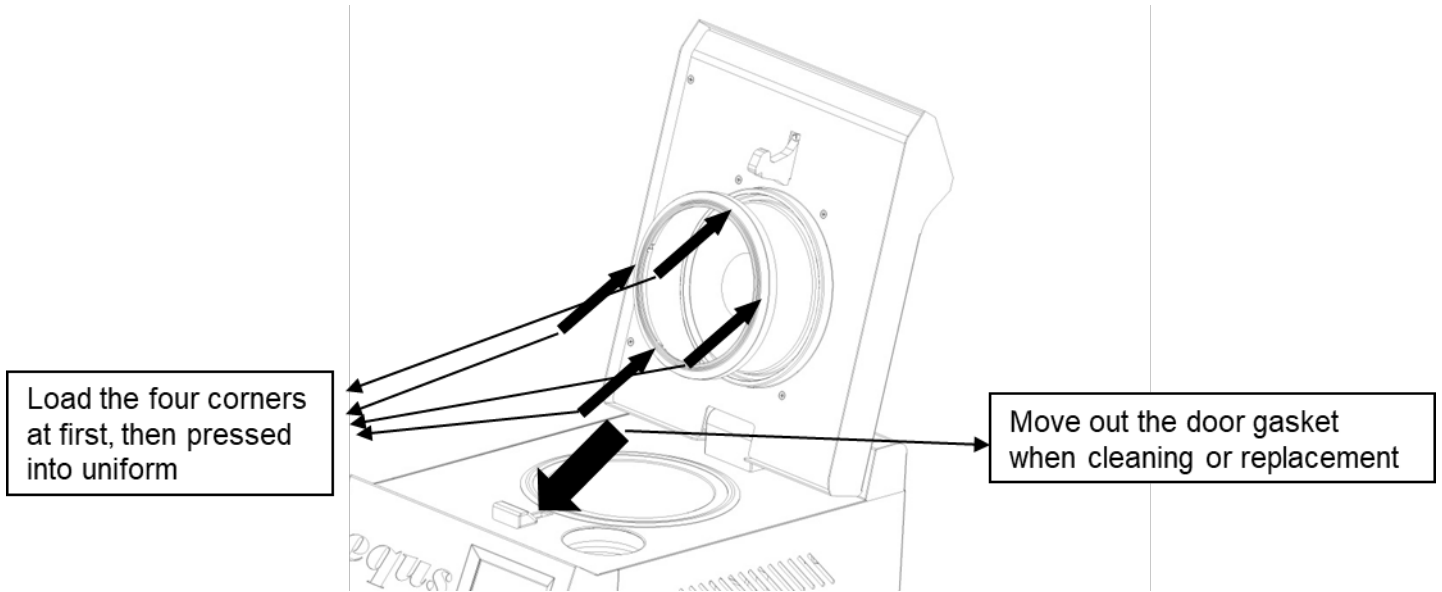
**NOTE:** Check the parts in annual maintenance and replace the consumable parts to ensure the life of the device.

**NOTE:** This maintenance work by the Company's engineers recommended or authorized reseller of engineers.

| Maintenance Content |   | Yearly |
|---------------------|---|--------|
| Professionals       | Check / replace drainage network                | ✓      |
|                     | Check / replace door gasket                     | ✓      |
|                     | Check / replace the air filter                  | ✓      |
|                     | Check the pipes and pipe joints                 | ✓      |
|                     | Check all parts screws                          | ✓      |
|                     | Check the connection line                       | ✓      |
|                     | Verify autoclave sterilization validation       | ✓      |
|                     | Make sure that all the LEDs show normal         | ✓      |
|                     | Confirm that all valves operating properly      | ✓      |
|                     | Verify that all sensors operating properly      | ✓      |
|                     | Confirm door and door safety bolt work normally | ✓      |
|                     | Check / replace pressure safety valve           | ✓      |
|                     | Check the pressure switch and gauge             | ✓      |

## 11.7 Parts maintenance

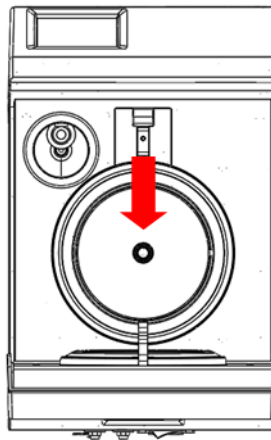
### 11.7.1 Door gasket



**NOTE:** When finished the changed, must test the vacuum performance to ensure the door gasket installed state.

### 11.7.2 Water filter

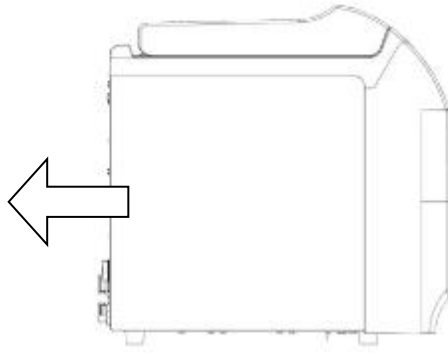
- A. Make sure the sterilizer is cool down and powered off.
- B. Open the chamber door, and the water filter is on the bottom of the chamber. (As below arrow)



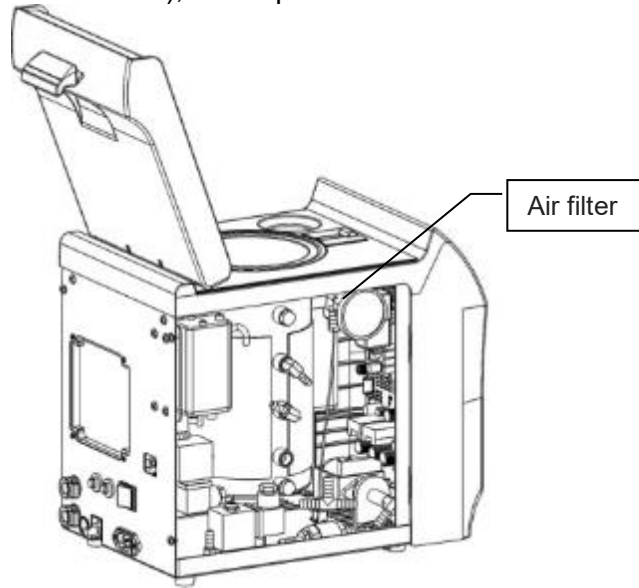
- C. Remove the water filter and use a brush to clean it. If the water filter has any damaged that replace a new one.

### 11.7.3 Air filter

- A. Make sure the sterilizer is cool down and powered off.
- B. Remove the outer case of the sterilizer. (As below)



C. Remove the air filter (as below arrow), and replace a new one.



## 12 Troubleshooting

- Do not attempt to use the sterilizer until finished repairs.
- Do not attempt to disassemble sterilizer, replace malfunctioning or damaged components, or perform adjustments unless you are one of Sturdy's authorized service technicians.
- Do not substitute parts of another manufacturer when replacing inoperative or damaged components. Use only sturdy replacement parts.
- Press the unlock button for 3 seconds to close the error message.

### 12.1 Failure status

| Status                                | Possible Cause   | Resolution  |
|---------------------------------------|--|---|
| No power                              | (1) Power cord is not connect or no power supply.<br>Power socket without power cord or no power supplied.<br>(2) Fuse switch tripped. | (1) Please re-plug the power cord to the power socket, or check power supply socket. No power check with your professional electrician.<br>(2) Check the switch without fuse, if no fuse switch tripped, press reset button on the breaker. |
| Steam leak                            | (1) Door gasket is not completely closed<br>(2) Washer aging   | (1) Clean the door gasket.<br>(2) Make sure door gasket is correct devices.<br>(3) Door gasket is consumables, replace the door gasket.<br>(4) Or steam leak, please notify the Company maintenance personnel.                              |
| Door open or Low water warning lights | (1) Door does not close.<br>(2) Low water in the water tank  | (1) Please confirm before sterilization procedures after the door closed.<br>(2) Please check the tank of water, distilled water was added to the water tank.   |
| BI does not change color              | (1) Over load of the item to be sterilized.  | (1) Please confirm sterilants can not exceed the recommended carrying capacity, and can not be over-stacking.   |
| No drying action                      | (1) Power outage.<br>(2) Not set the drying time drying off.   | (1) Check the power supply, if good, then the drying time may be too short, adjust the drying time.<br>(2) Please confirm the selection of drying time function.  |
| Poor drying effect                    | (1) The drying time is too short.<br>(2) No action vacuum pump.  | (1) Please increase the drying time of the program.<br>(2) Vacuum pump is not working, resulting in a humid inside.   |

## 12.2 Error code

| Error code | Message Display                          | Troubleshooting  |
|------------|--|--|
| 11         | Steam Generator Error.                   | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate.   |
| 12         | Door Sensor Error.                       | After cooling, follow below procedures.<br>Check door lock status.<br>Clean the chamber, door packing and door cover.<br>Check the equipment installed environment if appropriate.   |
| 13         | Internal testing                         | NA   |
| 14         | Internal testing                         | NA   |
| 15         | Heating Process Error.                   | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate.   |
| 16         | Steam Supply Error.                      | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate.   |
| 17         | Internal testing                         | NA   |
| 18         | Sterilization Process Error.             | After cooling, follow below procedures.<br>Clean water filter and temperature sensor located in chamber.<br>Check sterilized objects not touch the temperature sensor.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate. |
| 19         | Steam Exhaust Error After Sterilization. | After cooling, follow below procedures.<br>Check sterilized objects within allowed capacity.<br>Clean water filter located in chamber.<br>Check the equipment installed environment if appropriate.  |
| 20         | Internal testing                         | NA   |
| 21         | Internal testing                         | NA   |
| 22         | Process Stopped Manually.                | Process was interrupted manually.<br>Process was not end and will be re-started.<br>Dry sterilized objects off.  |
| 23         | S.G Temp. Sensor Error.                  | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate.   |
| 24         | Chamber Temp. Sensor Error.              | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check sterilized objects not touch the temperature sensor.<br>Check the equipment installed environment if appropriate.               |
| 25         | Pressure Sensor Error.                   | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check the equipment installed environment if appropriate.   |
| 26         | Power Error.                             | Process was interrupted by power error.<br>Process was not end and will be re-started.   |
| 27         | Low Temp. of Steam Generator.            | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.  |
| 28         | High Temp. of Chamber Wall.              | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.  |
| 29         | High Temp. of Chamber.                   | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.  |

| Error code | Message Display           | Troubleshooting  |
|------------|---------------------------|--|
| 30         | High Pressure of Chamber. | After cooling, follow below procedures.<br>Clean the chamber, door packing and door cover.<br>Check sterilized objects within allowed capacity.<br>Check sterilized objects not touch the temperature sensor.<br>Check the equipment installed environment if appropriate. |
| 31         | Door lock no action       | Pressure over the pot 28 kPa, door lock no action.<br>Please confirm whether the position of the door is shifted.<br>Complete the above, the error still can not be ruled out, please contact with the dealer.   |
| 32         | Door is not closed        | Please confirm that the cover is closed<br>The error still can not be ruled out, please contact the dealer.  |
| 33         | Internal testing          | NA   |
| 34         | Internal testing          | NA   |
| 35         | Internal testing          | NA   |



### 13 Specifications

| Model No.   | Prime 3S   |
|---|--|
| Basic UDI-DI  | 471988391Z12011305LD   |
| UDI-DI  | (01)04719883910363   |
| External Dimensions (mm) (W) x (H) x (D)            | 237(W) x 375(H) x 380(D)   |
| Chamber Size (mm)                                   | Ø 123 x 254  |
| Chamber Capacity (L ± 3%)                           | 3  |
| Supply Voltage                                      | AC 110V; 50/60Hz   |
| Heater  | 750W   |
| Total Power   | 1050W  |
| Materials   | SUS 304  |
| Design Temperature                                  | 139°C  |
| Design Pressure                                     | 2.5 bar  |
| Sterilization working Temperature                   | 121°C / 134°C  |
| Sterilization working Pressure                      | 1.03 bar / 2.03 bar  |
| Net Weight (kg)                                     | 17 kg  |
| Minimum water charge in the water tank              | 432 ml   |
| Max. Water Consumption (ml / cycle)                 | 330 ml   |
| Max. Steam generator Water Consumption (ml / cycle) | NA   |
| Safety Valve  | 2.5 bar  |
| Pressure Display                                    | Digital  |
| Control   | Microprocessor   |
| Operation Display                                   | 3.5" full color touch screen   |
| Sterilization programs                              | 121°C Regular<br>134°C Flash<br>134°C Dental   |
| Test program  | NA   |
| Others Function                                     | Open the door and door notification<br>Low water notification in water tank<br>Abnormal display<br>Sterilization temperature/Pressure Sensor   |
| Login   | ID x 5   |
| Lifespan  | 5 years  |
| Data Recorder                                       | SD memory (up to 32GB)<br>Built-in memory can store the last 10 cycle data   |
| Printer   | NA   |
| Safety protection                                   | Overpressure Protection<br>Overheating Protection<br>Door locking system   |
| Standard accessory                                  | Sterilization network disk set x 1 set<br>Starter Kit x 1 set<br>Micro SD Card 32GB x 1 pc   |
| Optional accessory                                  | NA   |
| Working Environment                                 | <ul style="list-style-type: none"> <li>● Indoor use</li> <li>● Under 1,000 m (altitude)</li> <li>● Temperature 4 °C to 40 °C</li> <li>● Relative Humidity 80 %RH@31 °C to Relative Humidity 50 %RH@40 °C</li> <li>● Voltage fluctuation ±10 %</li> <li>● Transient overvoltages category II</li> </ul> |
| Storage Conditions                                  | -10 °C to 50 °C, 10 %RH to 70 %RH  |
| Transportation Conditions                           | -10 °C to 70 °C, 10 %RH to 90 %RH  |

14 Warranty

**WARRANTY**

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"**STURDY**" product has one (1) year warranty from the date of purchase that covers any defects in materials and quality under regular use.

This warranty does not apply to any product damaged by accident, misuse, abuse, neglect, improper line voltage, drop, fire, flood or alteration/ repair by non-qualified service personnel.

The liability of Sturdy Industrial Co., Ltd. is limited to repair of replacement and under no circumstances shall "**STURDY**" be liable for any collateral consequential damages or loss. This guarantee excludes explicitly the expendables and consumable.

All warranty claims must be directed to the distributors or agents that Sturdy Industrial Co.,Ltd. authorized. Whom is responsible for the sales of this equipment. The customers are responsible for shipping expense.

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User's Name: \_\_\_\_\_

Address: \_\_\_\_\_

Country: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_


Date of Purchase: \_\_\_\_\_ Model No.: \_\_\_\_\_

Series No.: \_\_\_\_\_

Distributor: \_\_\_\_\_

Manufacturer: Sturdy Industrial Co.,Ltd. (13485 Certificated Firm)



|   |  |     |  |
|---|--|-----|--|
| <b>Name</b>   | Sturdy Autoclave Sterilizer  |     |  |
| <b>Model</b>  | Prime 3S   |     |  |
| <b>Manufacturer</b><br>                | Sturdy Industrial Co. Ltd.   |     |  |
| <b>Address</b>  | 168, Sec. 1, Zhongxing Rd., Wugu District,<br>New Taipei City, 24872, Taiwan |     |  |
| <b>EC Representative</b><br><table border="1" data-bbox="240 1749 336 1783"> <tr> <td>EC</td> <td>REP</td> </tr> </table> | EC   | REP | APEX MEDICAL S.L.<br>Elcano 9, 6 <sup>a</sup> planta 48008 Bilbao. Vizcaya SPAIN |
| EC  | REP  |     |  |

422-02086-01