

Medical Autoclave



I N S T R U C T I O N M A N U A L

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Medical Autoclave

Steam sterilization or autoclaving is the preferred method for eliminating the risk of cross infection through contaminated instruments/implements. Three things are needed for sterilization – temperature, pressure, and time.

Weighing only 9.9 pounds, the Medical Autoclave is light, compact, and portable. Fully automatic and top loading, it is easy-to-use. A simple, one-step operation starts the cycle. It has a large capacity chamber measuring 8” in diameter and 9” deep.

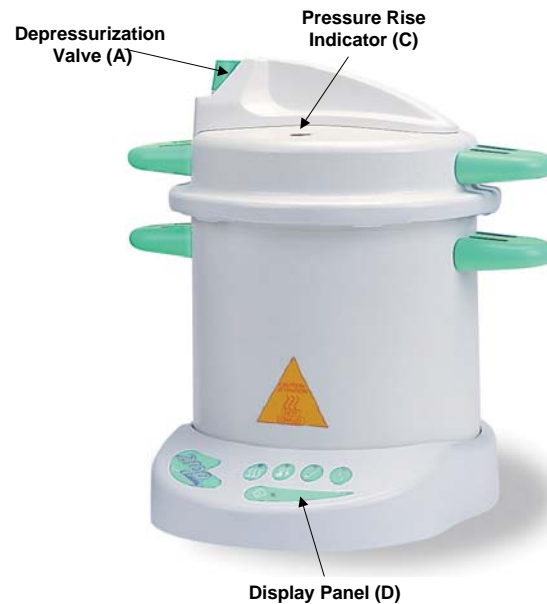
The Medical Autoclave operates at a temperature of 250°F (121°C) and a pressure of 15 psi. The total cycle time is 26 minutes while sterilization occurs in 16 minutes.

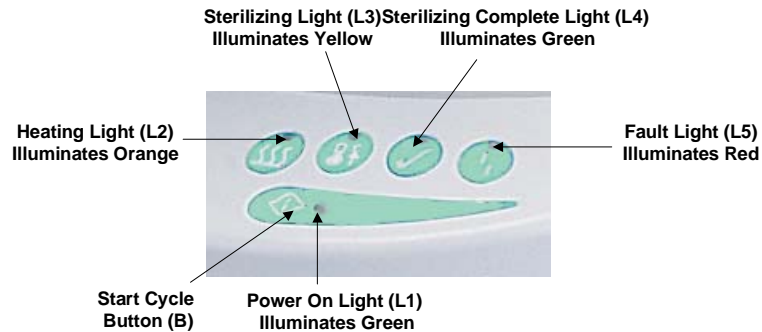
Large sequence indicators show “Power Unit”, “Cycle in Progress”, “Sterilization in Progress”, “Cycle Is Successful” and “Cycle Has Failed”.

An interlock system prevents removal of the lid while the vessel remains under pressure. A two-stage “over pressure” protection system incorporates a calibrated Pressure Release Valve and a Gasket Offset Device. As a further protection, electronic detectors turn off the power if there is insufficient water in the tank.

UL and CSA approved.

Parts/Accessories





Operations/Precautions

FOR PROFESSIONAL USE ONLY

To reduce the risk of electric shock:

- ❑ Plug the Medical Autoclave into a GFIC outlet.
- ❑ Always unplug the Medical Autoclave when not in use.
- ❑ Do not place (or drop) into water or any other liquid.
- ❑ Do not reach for a unit that has fallen into water. Unplug immediately.

To reduce the risk of burns, electric shock, fire, or injury:

- ❑ Do not touch the body or lid of the autoclave when the autoclave is operating because they become hot.
- ❑ Do not allow children to operate the Medical Autoclave.
- ❑ The Medical Autoclave should be used only for its intended purpose as described in this manual.
- ❑ Do not operate the Medical Autoclave if:
 - It has a damaged cord or plug.
 - If it is not working properly.
 - If it has been dropped or damaged.
 - If it has been dropped into water.

- ❑ If damaged, return the Medical Autoclave to the Authorized Service Center for examination and repair.
- ❑ Keep the cord of the Medical Autoclave away from heated surfaces.
- ❑ Do not use the Medical Autoclave outdoors.
- ❑ Connect the Medical Autoclave to a properly grounded outlet (GFCI outlet).

Instructions for Use

Prior to Use

1. Prior to sterilization, wash all instruments with warm soapy water and/or a sanitizing solution.

How to operate

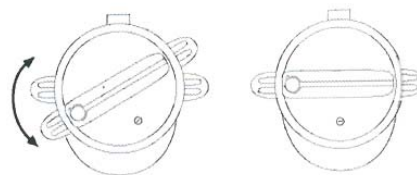
1. Fill the Medical Autoclave to the water level line found on the inside of the chamber with distilled or de-ionized water (approximately .75 quart). **Do not use tap water or overfill.**
2. Insert the metal “V” support in the bottom of the unit to ensure the instruments and Chemical Indicator Strip (C7733) are not in the water.
3. Place washed instruments in Sterilization Pouches (C413T) and place the pouches in the basket along with a chemical indicator strip. The Sterilization Pouches can be penetrated by steam, but it is a “one way street”, nothing comes out of the Sterilization Pouches into the autoclave.

Multiple instruments may be placed in one Sterilization Pouches if desired.

The basket is perforated to permit rapid and complete steam penetration. The Indicator Strip should be placed as near to the center of the basket as possible – in the middle of the instruments.

The Medical Autoclave can reach a maximum chamber temperature of 124 °C (255 °F). Consult the manufacturer of implements about their suitability for autoclaving and the maximum temperature which the implements can withstand.

4. **Closing** – Always place the lid on the autoclave with the Depressurization Valve open. Align the lid and body and turn the lid in a clockwise direction to ensure that the lid is completely closed.



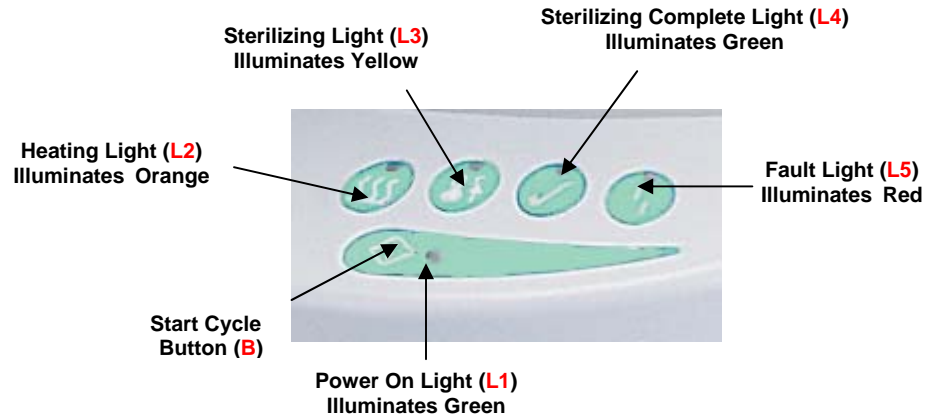
Close the Depressurization Valve so it is aligned with the “O” on the lid. **NEVER** leave it in the position shown in the left hand diagram a.

5. Attach the electrical cord to the rear of the Medical Autoclave and plug it in to a GFCI outlet.
6. **Start the sterilizing cycle** by pressing the Start Cycle button (B). The Start Cycle light (L1) will turn Green and the Heating Cycle Light (L2) will turn Orange.

As the temperature rises, air will be displaced by steam through the Air Bleed Device located in the lid until it closes with an audible “click” sealing the Autoclave.

The Pressure Indicator (C) will rise indicating the Autoclave is pressurized.

Do not press the Start button again after the cycle has started. This will reset the cycle timer to zero.



Sterilizing Temperature is reached when:

- L1 illuminates Green.
- L2 flashes Orange
- L3 illuminates Yellow

7. The **Sterilizing Cycle** is complete when:

- The Buzzer sounds.
- L1 illuminates Green.
- L4 illuminates Green.

Note: L4 remains Green until a new cycle is started or the unit is disconnected from the main power source.

8. **Depressurizing** – Once the Sterilizing Cycle has been completed, the Autoclave needs to be depressurized and allowed to cool down before the lid and sterilized instruments can be removed. The time it takes to reach this point can be shortened by manually depressurizing the lid.
9. **Manual Depressurization** – Open the Depressurization Valve (A) by turning it slowly in a counterclockwise direction. The Pressure Indicator (C) will drop once the steam has been released.

Warning: *There will be a visual and audible release of steam from the rear of the top molding.*

10. **Unlocking** – Once the pressure has been released, the lid may be unlocked. Ensure that the Depressurization Valve (A) is open. Remove the lid by turning it in a counter clockwise direction.
11. **Unloading** – Lift off the lid using the side handles. Gently place it upside down on a solid work surface and leave it to cool. Ensure that the Depressurization Valve (A) is in the closed position to avoid damaging it.

The unit has completed a success sterilization cycle if the “spot” on the Chemical Indicator Strip has completely changed color from yellow to purple. If the “spot” has not completely changed color, replace it with a new Chemical Indicator Strip and start a new cycle. If the “spot” fails to change color for a second time, **do not use** the unit until it has been checked by a qualified technician.

The container with the sterilized instruments can now be lifted out of the unit.

Do not use the instruments if a complete sterilization cycle has not been achieved.

12. To avoid damage, replace the lid as described in Step 4.
13. Unplug the Medical Autoclave when not in use.

Safety Features

There are a number of safety features incorporated in the Autoclave to ensure that it remains safe at all times.

- A spring called the Gasket Offset Device (GOD Spring) is located in the rear of the lid beneath the cover. It is designed to prevent pressure build up if the lid has been incorrectly fitted. **Do not tamper with this safety device.**
- If the temperature falls below the minimum required sterilizing temperature for any reason, the Sterilizing Light (L3) will switch off. The cycle timer will restart from zero after the correct temperature has been restored.
- If there is an electrical or electronic failure that results in the buildup of pressure in excess of normal operating pressure, one or all of the following safety features will be activated:
 - The Depressurization Valve (A) will loudly and rapidly “vent” steam.
 - The Gasket will “extrude” through the slot in the rear of the lid, resulting in the rapid release of excess pressure and steam.
 - A non-resettable thermal fuse located in the base of the unit will “melt” at a predetermined temperature, shutting off the power.

Should any of the devices listed above activate, please observe the following steps:

- Do not touch the Autoclave.
- Switch off the flow of power to the wall socket and unplug the autoclave.
- Allow temperature and pressure to drop before touching the unit or removing your implements.
- Do not attempt to restart the Autoclave.
- Call the Authorized Technical Service Center.

Important Dos and Don'ts

DO ENSURE THAT:

- You read the instructions and follow the operating sequence.
- The work surface on which you place the autoclave is flat, solid, and level.
- The instruments are designed to withstand the sterilizing temperatures and are thoroughly cleaned and rinsed before sterilizing.
- The water level is maintained regularly with clean, distilled, or deionized water.
- The unit is in a draft-free location and is positioned at least 10 inches from the wall.
- You only use a Green Sealing Gasket and that it is changed at the end of its life, if it is visibly damaged, or if shrinkage has occurred. (See Fault #5 under Troubleshooting)
- The lid is securely closed when the unit is not in use to avoid the risk of accidental damage.

DO NOT:

- ❑ Touch the unit while it is in operation. It gets **HOT**.
- ❑ Attempt to open the lid during operation.
- ❑ Add any chemicals to the water.
- ❑ Attempt to sterilize volatile substances, toxic materials, or inappropriate loads.
- ❑ Place the Autoclave on heat-sensitive surfaces such as polished wood or glass.
- ❑ Open the Depressurization Valve (A) during the sterilization cycle.
- ❑ Leave the Depressurization Valve (A) in the “open” position when placing the lid upside down on a work surface.
- ❑ Immerse the unit or electrical cord in water when cleaning.
- ❑ Use abrasive materials or lubricants when cleaning.
- ❑ Drop or abuse the unit.
- ❑ Use in areas of risk associated with flammable materials or gasses.
- ❑ Attempt to change fuses without unplugging the Autoclave. Only a qualified person should change the fuse.
- ❑ Reach over the unit when removing the cover – this could result in burns from rising heat and steam.
- ❑ Press the start button once the cycle has been started. This will reset the cycle timer to zero.

Cleaning and Maintenance

1. Unplug the Autoclave before starting the cleaning process.
2. Cleaning the Green Sealing Gasket:
 - Remove the Green Sealing Gasket from the inside of the lid. Wash it with warm, soapy water.
 - Rinse thoroughly, shake dry, do not wipe.
 - Replace the gasket in the lid by tucking it evenly under all lugs, starting at the Gasket Offset Device. It may appear slightly wrinkled until used.
 - Replace the gasket when it begins to show signs of leakage.
3. Cleaning the Autoclave:
 - If a new gasket leaks, or a persistent leak develops, gently clean the sealing surface of both the lid and body of the unit with a plastic scrubbing pad making sure you do not remove any metal. Rinse both surfaces, but do not dry.
 - Clean both the interior and exterior with warm, soapy water. Make sure that all electrical parts remain dry.
 - Monitor the first cycle of the day to make sure that the Air Bleed Device, which is located inside the lid, audibly “clicks” shut.
 - If the lid becomes stiff, lubricate the underside of the body lugs with petroleum jelly. **Do not** lubricate the gasket.

Trouble Shooting

If the Medical Autoclave is not working:

Fault 1 – No Power to Unit

Light (L1) Fails to Illuminate

- Make sure Medical Autoclave is set in the “On” position.
- Check the main power plug to ensure that it is plugged in to a working electrical outlet.
- If there is still no power, call the Authorized Technical Service Center.

Fault 2 – Low Water or Boil Dry

Light (L5) flashes Red

- Allow Autoclave to cool before refilling to correct level.
- Unplug the Autoclave, then plug it in again after filling with water and repeat cycle.
- If the fault repeats with sufficient water, call the Authorized Technical Service Center.

Fault 3 – Sterilization failed

Light (L4) fails to illuminate Green and there is no audible buzzer

- Unplug the Autoclave, then plug it in again and repeat the cycle.
- If the fault repeats, call the Authorized Technical Service Center.

Fault 4 – Incomplete Sterilization Cycle

TST strip fails to change/completely change color.

- Check expiration date of Chemical Indicator Strip.
- Unplug the Autoclave, then plug it in again and repeat the cycle.
- If the fault repeats, call the Authorized Technical Service Center.

Fault 5 – Steam or water leaks from under the lid

Worn or dirty gasket

- Wash gasket and sealing surfaces on the body as described under Cleaning and Maintenance.
- If the fault persists, replace with a new gasket.

Incorrectly closed lid

- Ensure that the Autoclave is fully depressurized by opening Depressurization Valve (A).
- Remove lid and refit carefully.
- Unplug the Autoclave, then plug it in again and repeat the cycle.

Fault 6 – Excessive steam or water leaking from Depressurization Valve (A)

- Depressurization Valve (A) is in “Open” position.
- Close Depressurization Valve.

Specifications

Height	13.19" (335 mm)
Width	13.39" (340 mm)
Net Weight	9.92 lb. (4.5 kgs)
Capacity	9.5 quarts (9 liters)
Internal Dimensions	8.27"/9.06" (210mm/230mm)
Maximum Instrument Length	8.98" (228 mm)
Maximum Load Weight	6.62 lb. (3.0 kgs)
Sterilizing Temperature	249.8° F (121° C)
Minimum Sterilizing Time	16 minutes
Normal Cycle Time	26 minutes
Operating Pressure	1.05 bar
Voltage	120 volts
Wattage	1200 watts
Frequency	50-60 Hz

Warranty Statement

The manufacturer (the “warrantor”) warrants to the original purchaser that this equipment will be free from defects under normal and proper operation for a period of one (1) year from the date of purchase. This warranty covers all parts and labor for that one (1) year period. This warranty shall not apply to any equipment that has been subjected to abuse, misuse, and alteration of any type or to any defect or damage caused by repair, replacement, substitution or use with parts other than parts approved by the manufacturer.

The manufacturer shall not be liable for the loss of use of this equipment, loss of time or business, inconvenience or any other indirect, consequential, special or incidental damages due to defects covered by this warranty or any implied warranty.

To implement this warranty, contact the dealer from whom you purchased the equipment. If necessary, you will be asked to return all, or the appropriate part, of the equipment. If warranted, the repairs will be performed at no charge and the equipment returned to you. Unit owner must prepay all shipping costs when returning items for warranty service.

This limited warranty is the only written or express warranty given by the manufacturer. This warranty gives you specific legal rights but you may also have other rights, which may vary from state to state or province to province.

Authorized Technical Service Center:

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