

# Under Counter Steamer

Model UCS-2000

Prototype Manual

Manufacturing Number:  
PDR-00044

## Table of Contents

<b>Overview</b> .....	2
Before Use .....	2
In Case of Damage .....	2
Website .....	2
<b>Service/Technical Assistance</b> .....	2
In Case of Damage .....	2
Equipment Information to Save.....	2
Authorized Service Agency .....	2
<b>Safety Information</b> .....	3
Installation .....	3
Operation .....	3
Maintenance.....	3
Service .....	3
BackFlow Protection .....	3
<b>Specifications</b> .....	4
<b>Installation</b> .....	5
Unpacking .....	5
Equipment Setup.....	5
<b>Operating Instructions</b> .....	6
Viewing Current Settings .....	6
Menu Options.....	6
<b>Maintenance</b> .....	7
Daily Cleaning .....	7
Monthly Cleaning .....	8
Checking & Cleaning Water Strainer .....	8
<b>Troubleshooting</b> .....	9
Error Codes.....	9
Hi Limit Control.....	9
<b>Wiring Diagram</b> .....	10
<b>Limited Warranty</b> .....	11

## Overview

This unit is intended to be used for commercial applications, for example: in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., But not for continuous mass production of food.

### Before Use

This manual contains safety, installation, and operating procedures for the unit. Read and understand it completely before installing or operating the unit. Keep this document for reference. If the unit changes ownership, this manual must accompany it.

### In Case of Damage

If the unit arrives damaged, file a claim with the carrier immediately. Save all packing materials when filing a claim. Freight damage claims are the responsibility of the purchaser and are not covered under warranty.

### Website

[www.antunes.com](http://www.antunes.com)

## Service/Technical Assistance

### In Case of Damage

If any parts are missing or damaged, problems with the installation or operation of this product contact Antunes Customer Service immediately at +1-877-392-7856 (toll free).

Fill in the information in the next section and have it ready when calling for assistance. The serial number is on the specification sticker located on the system.

### Equipment Information to Save

Purchased from:

---

Date of purchase:

---

Model number:

---

Serial number:

---

Manufacturing number:

---

### Authorized Service Agency

Name:

---

Phone No:

---


Address:

---

# Safety Information

## Installation

- Read and understand all instructions before installing or using the unit.
- Install this unit to comply with the basic plumbing code of the Building Officials and Code Administrators, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).
- Install and locate the equipment only for its intended use as described in this manual.

 <b>WARNING</b>
<p><b>ELECTRICAL SHOCK HAZARD.</b>  <b>Failure to follow the instructions in this manual could result in serious injury or death.</b></p> <p>Do not modify the power supply cord plug. If it does not fit the outlet, have a proper outlet installed by a qualified electrician.</p> <p>Electrical ground is required on this appliance.</p> <p>Check with a qualified electrician if you are unsure if the appliance is properly grounded.</p> <p>Do NOT use an extension cord with this product.</p> <p>The unit should be grounded according to local electrical codes to prevent the possibility of electrical shock. It requires a grounded receptacle with separate electrical lines, protected by fuses or circuit breaker of the proper rating.</p> <p>NEVER unplug the power cord while the unit is running. Use the proper shutdown procedure before unplugging the power cord.</p>

## BackFlow Protection

1001062	NORMAL OPERATING WATER PRESSURE	25 - 30 PSI 1.73 - 2.07 BAR
	THE EQUIPMENT IS TO BE INSTALLED TO COMPLY WITH THE BASIC PLUMBING CODE OF THE BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL, INC. (BOCA) AND THE FOOD SERVICE SANITATION MANUAL OF THE FOOD AND DRUG ADMINISTRATION (FDA).	

The Under Counter Steamer UCS must be installed with adequate backflow protection to comply with applicable federal, state, and local codes.

# Operation

- The unit is furnished with a properly grounded cord connector. Do not attempt to defeat the grounded connector.
- Do not operate the unit if it has been damaged or dropped, if it has a damaged cord or plug, or if it is not working properly.
- Do not block or cover any openings on the equipment.
- Do not immerse the cord, unit, or plug in water.
- Keep the cord away from heated surfaces.
- Do not allow the cord to hang over the edge of a table or counter.
- This appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction.
- Children being supervised are not to play with the appliance.

## Maintenance

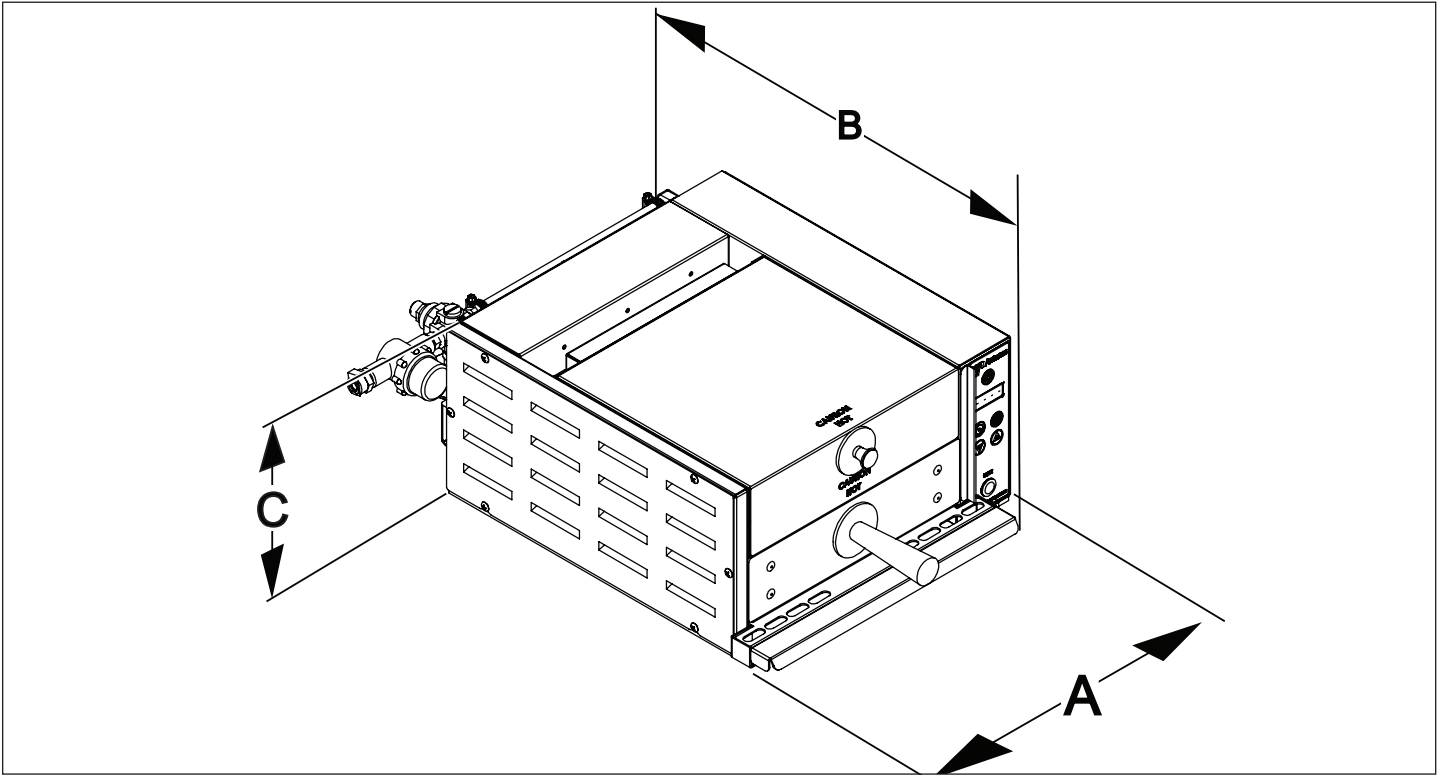
- Do not use abrasive materials; they can damage the unit's stainless steel finish.
- Do not use corrosive chemicals in this equipment.
- Chlorides or phosphates in cleaning agents (e.g., bleach, sanitizers, degreasers, and detergents) can permanently damage stainless steel equipment. The damage is usually in the form of discoloration, dulling of the metal surface finish, pits, voids, holes, or cracks. This damage is permanent and is not covered by warranty.
- Always use a soft, damp cloth for cleaning. Rinse with clear water and wipe dry. When required, always rub in the direction of metal polish lines.
- Routine cleaning should be performed daily with soap and water.
- Rub off finger marks and smears using soap and water.
- Do not clean unit or components in a dishwasher unless specifically specified in the cleaning instructions.
- Do not clean the unit with a water jet or steam cleaner.

# Service

- Inspection, testing, and repair of electrical equipment must be performed only by qualified service personnel.
- To avoid possible personal injury and/or damage to the unit, all inspections, tests, and repair of electrical equipment should be performed by qualified personnel ONLY. Contact Antunes Technical Service for adjustment or repair.
- Turn the power off, unplug the power cord, and allow unit to cool to room temperature before performing any service or maintenance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid an electrical hazard.
- Cleaning and user maintenance shall not be made by children without supervision.

# Specifications

## Dimensions



## Electrical Ratings

Model & Mfg. No.	Volts	Watts	Amp	Hertz
PDR00044	230	3100	16	50-60

Model & Mfg. No.	Width (A)	Depth (B)	Height (C)
PDR00044	14.82" (376.4 mm)	16.56" (420.7 mm)	7.35" (186.6 mm)

## Water Quality

Water hardness should not exceed 60 ppm. Water with greater than 60 ppm of hardness needs to be softened. If the store has a Point of Entry (POE) softener, softened water should also be sent to the steamer. If no POE softener exists, recommended treatment equipment is a Point of Use (POU) reverse osmosis system for the steamer. Using water >60 ppm of hardness without water treatment will result in the need for more frequent maintenance of the steamer's generator.

## Electrical Cord & Plug Configurations

Model & Mfg. No.	Description	Configuration
PDR00044	250VAC., 30A IEC 309 Pin & Sleeve	
	Twist Lock 20 Amp	
	IEC-309 32 Amp	
	Pin & Sleeve, Marechal, 32 Amp Plug	

## Water Pressure Requirements

Minimum	137.8 kPa
Maximum	158.58 kPa

## Weight

Empty Unit	25 kg
Maximum Food Load	1 kg
Maximum Unit Weight	26 kg

# Installation

## Unpacking

1. Open the shipping carton. Remove all packing materials and protective coverings from the unit and parts.

**NOTE:** If any parts are missing or damaged, contact Antunes Customer Service IMMEDIATELY at +1-877-392-7856 (toll free).

2. Place the unit where it will be used.
3. Wipe all surfaces of the unit with a clean sanitized towel.

**NOTE:** Do NOT use a dripping wet cloth. Wring out before use.

4. Clean the spatula, tray insert, drip tray, and spatula liner in hot, soapy water. Rinse in clear water and allow to air dry.
5. Install components in unit.
6. Connect Inlet Hose Assembly.

## Equipment Setup

When placing the unit into service, pay attention to the following guidelines:

- Install the steamer on an individual branch circuit only.
- Make sure power is off and the unit is at room temperature.
- Do NOT block or cover any openings on the unit.
- Do NOT immerse cord or plug in water.
- Keep cord away from heated surfaces.
- Do NOT allow cord to hang over edge of table or counter.
- Place unit on a sturdy, level table or work surface.
- Do NOT use an extension cord with the unit.
- Ensure that the line voltage corresponds to the voltage on the unit specification label.

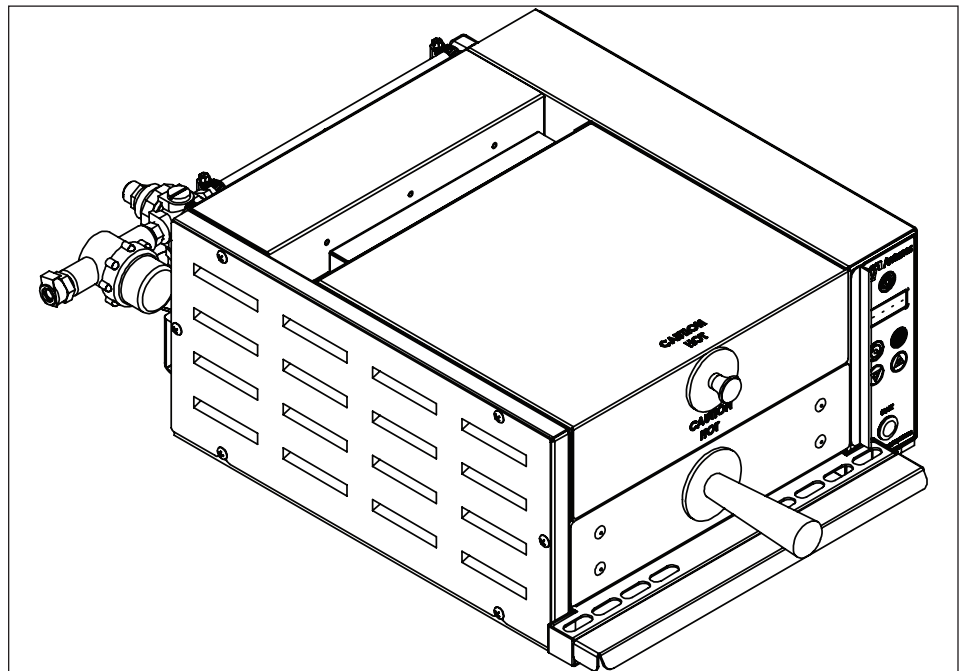


Figure 1. Under Counter Steamer

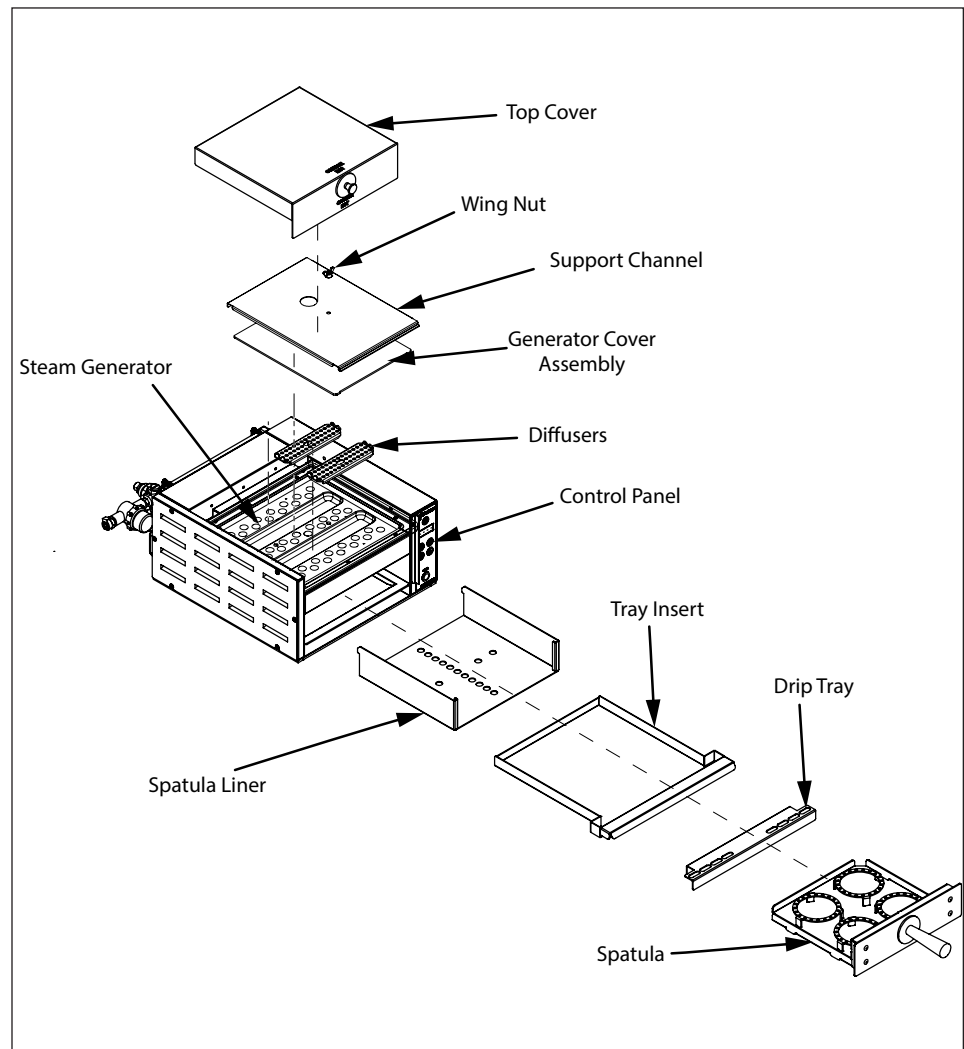


Figure 2. Components

## Operating Instructions

1. Plug the power cord into the appropriate outlet. Press the Power button to turn the unit on.
2. After displaying the startup information, the steamer will indicate to **WAIT** for the unit to warm up.

**NOTE:** Warmup times may vary, however the unit will reach temperature within a 20 minute warm up period.

3. When the unit reaches proper heat, it displays the last used menu item.
4. Load the food product into the spatula and insert it into the unit.
5. Use the Select button to scroll through menu items.

**NOTE:** By default, ALL presets are set to:

Menu	Cycle	Shot Rate	Shot Length
1	12s	3.6s	430ms
2	6s	0.9s	300ms
3	10s	1.5s	400ms
4	8s	0.9s	300ms

Time is represented in Seconds(s) and Milliseconds(ms)

6. Press the Start button to begin the cooking cycle. The display shows the time remaining in the cooking cycle and beeps when cooking is complete.

**NOTE:** To cancel a cooking cycle, press the Settings button.

7. Remove the spatula from the unit and continue with food preparation as required.
8. When cooking is complete the unit returns to the **USE** screen.

**NOTE:** Do not remove the spatula during a cooking cycle.

**NOTE:** Depending on the cooking cycle, the unit may need to warm up after cooking. You cannot start a cooking cycle during warm up. It is normal to see the warm up screen after particularly long cook cycles.

**WARNING** Keep face away from cover and opening when removing product from unit. Steam can escape and cause personal injury.

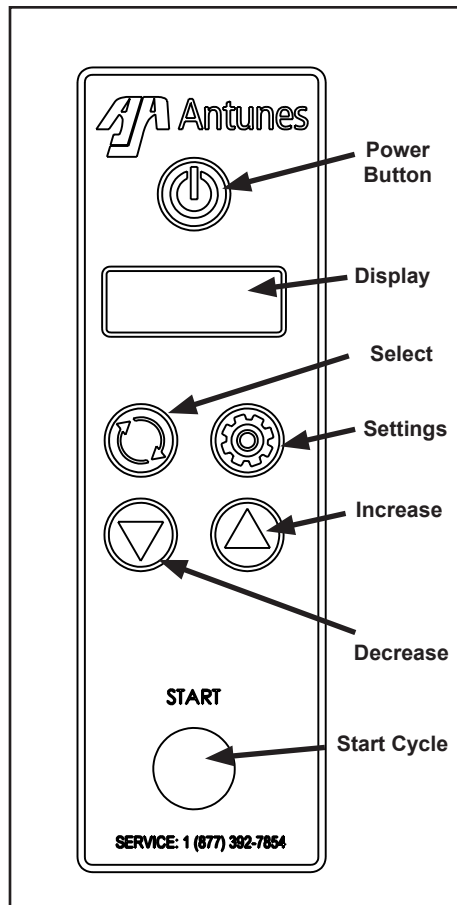


Figure 3. Control Panel

## Viewing Current Settings

Using the up and down arrows when on the "USE" screen will display current Temperature for the unit.

## Menu Options

The menu allows you to:

- Adjust timers
- Adjust the alarm repeat
- Adjust the temperature unit
- Adjust the beeper volume
- View the error log
- View the current run time
- Perform a factory Reset

**NOTE:** Timers can be edited at any time as long as a cooking cycle is not active.

To edit a timer settings:

1. Press and hold the settings button until the steamer beeps. (About 5 seconds).
2. Press **Prod** to enter the Edit Timer Menu.
3. Scroll to the desired item using the UP Arrow Button. Press the Start button to select the item.
4. The first option available to edit is 1 :CT. This is the Cycle Time. Press Start to select the setting.
5. Use the arrow buttons to increase or decrease the timer length. The time shown is displayed in Minutes and Seconds.
6. Press the Start button to save the changes or exit back to the Timer Menu.
7. Press the UP arrow, go to the second available option to adjust: 2 :SR. This is the Shot Rate. Press Start to adjust the setting.
8. Use the arrow buttons to increase or decrease the Shot Rate. The time shown is displayed in seconds (#.#)
9. Press the Start button to save the changes or exit back to the Timer Menu.
10. Press the UP arrow, go to the third available option to adjust: 3 :SL. This is the Shot Length. Press Start to adjust the setting.
11. Use the arrow buttons to increase or decrease the Shot Length. The time is displayed in milliseconds.
12. Press the UP arrow, go to the third available option to adjust: 4 :EN. This is Enable/Disable setting. Press Start to adjust the setting.
13. Use the arrow buttons to select Enable (I) or Disable (O). This toggles the item on and off in normal operation.

14. Press the Start button to save the changes or exit back to the Timer Menu.
15. Press the Settings button to return to Menu Options.
16. Press Up/Down Arrow buttons to move to the next option.
17. **2 :AR** is the Alarm Repeat option. Press the Start begin editing.
18. Use the Up and Down arrow buttons to change the beeper repeat. This will change how many times the beeper beeps after a cycle is complete. By default, the beeper repeat is set to 2. Press the Start button to save the change.
19. Press the UP arrow to move to the next option.
20. **3 : °F** is the Temperature Units option. Press the Start begin editing.
21. Use the Up and Down arrow buttons to select Fahrenheit and Celsius temperature units. Press the Start button to save the change.
22. Press the UP arrow to move to the next option.
23. **4 :Vo** is the Beeper Volume option. Press the Start begin editing.
24. Use the Up and Down arrow buttons to change the beeper setting. Three options are available: soft, loud & off. Press the Start button to save the change.
25. Press the UP arrow to move to the next option.
26. **5 :Er** is the Error Log. Press the Start view. Press the Start to exit back to the menu.
27. Press the UP arrow to move to the next option.
28. **6 :RT** is the total Run Time. Press the Start view. This option cannot be changed. Press the Start to exit back to the menu.
29. Press the UP arrow to move to the next option.
30. **7 :Fr** is the Factory Reset option. Press the Start.
31. The screen will display "Fr ?" Press the Start to perform a Factory Reset or the Menu button to exit back to the menu.

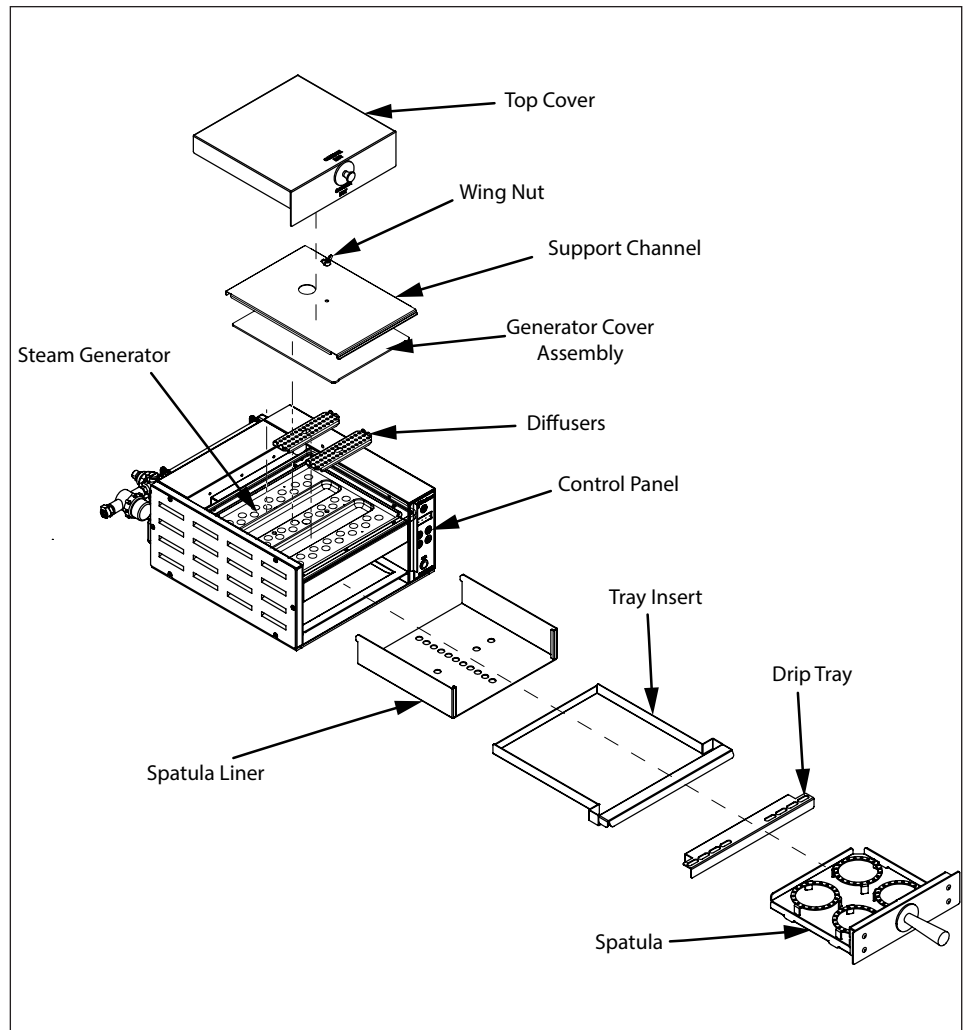


Figure 4. Components

## Maintenance

**NOTE:** Frequency of cleaning is determined by water conditions, usage and water filter systems. Recommended water hardness, should not exceed 60 ppm (parts per million)

4. Wipe the exterior of the unit and the inner part of the spatula with a clean, sanitized towel. Clean up any spills completely. Allow to air dry.
5. Reassemble the unit.

## Daily Cleaning

1. Press the Power button to turn the unit off. The screen will alternate displaying OFF and HOT while the unit cools down.

**NOTE:** You do not need to wait until the cool down mode completes. However, the unit will be hot so wear heat resistant gloves during cleaning.

2. Put on heat resistant gloves and remove the items in Figure 4.
3. Wash, rinse, and sanitize the items removed at the sink. Allow to air dry.

## Monthly Cleaning

This unit utilizes an open steam generator. When introduced, water immediately vaporizes creating a burst of steam, leaving behind any minerals that had previously been dissolved. Though a small amount of minerals are necessary for proper operation, excessive amounts will cause poor steaming and may damage the generator.

1. Press the Power button to turn the unit off. The unit enters a cool-down mode and will shut down automatically.

**NOTE:** You do not need to wait until the cool down mode completes. However, the unit will be hot so wear heat resistant gloves during cleaning.

2. Put on heat resistant gloves and remove the items in Figure 4.
3. Wash, rinse, and sanitize the items removed at the sink. Allow to air dry.
4. Wipe the exterior of the unit and the inner part of the basket cavity with a clean, sanitized towel. Clean up any spills completely. Allow to air dry.
5. Remove wing nut and generator cover assembly, generator gasket, and diffusers (Figure 5).
6. Examine all steam generator orifices (holes). If mineral deposits have formed, place a flat blade screwdriver into openings. Use a twisting motion to scrape openings clean.

**NOTE:** Mineral deposits come off in “flakes” or in layers if the build-up is excessive.

7. Use an abrasive cleaning brush and small scraper to remove deposits from the generator surface.

8. Pour delimer solution (not supplied) onto the generator surface and allow to soak for one hour.

**NOTE:** Be sure to Follow the usage instructions on the delimer packet.

9. Remove the delimer solution from the generator and rinse with clear water to remove traces of delimer.

**NOTE:** To ensure proper steaming characteristics some mineral deposits must be present on generator casting. If during cleaning, the generator does become free of mineral deposits, add ordinary tap water (non reverse osmosis or ionic filter system) to casting and allow to boil off.

**NOTE:** Seasoning mixture consists of 75 ml. (2-1/4 oz.) baking soda, and 1 gallon water. Pour 1/4” deep of seasoning mixture into a cold generator. Turn the unit on. After mixture is converted to steam, the remaining loose powder is removed and generator cleaned.

10. Wipe the exterior of the unit and the inner part of the basket cavity with a clean, sanitized towel. Allow to air dry.
11. Re-install the diffusers, generator cover, generator cover bracket and secure with the wing nut.
12. Re-install all items removed in Step 2.

## Checking and Cleaning Water Strainer

To ensure proper and consistent steaming results, inspect the water flow regulator and strainer cup regularly. If the water pressure on the gauge has dropped, visually check the clear plastic strainer cup and clean out the accumulated debris as follows:

13. Shut off the water supply valve to the unit. Unscrew the clear plastic strainer cup and carefully remove the mesh strainer screen.
14. At the sink, gently flush all of the accumulated debris from the strainer cup and mesh strainer screen. Be especially careful not to damage the mesh strainer screen.
15. Carefully place the mesh strainer screen into its seat at the bottom of the clear plastic cup and confirm that the O-ring is properly seated in its place before screwing the strainer cup and top back together.
16. Purge the air out of the strainer tubing by disconnecting the male quick disconnect fitting from the equipment and, over a bucket, pushing its valve core in until there is a good water flow.

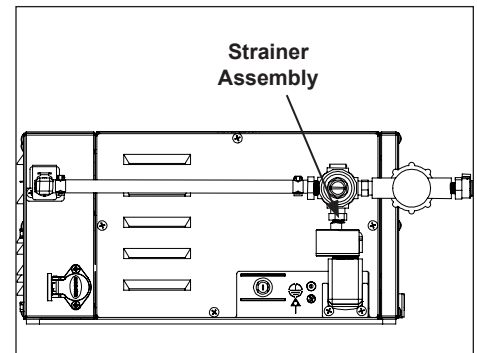


Figure 6. Back of Unit

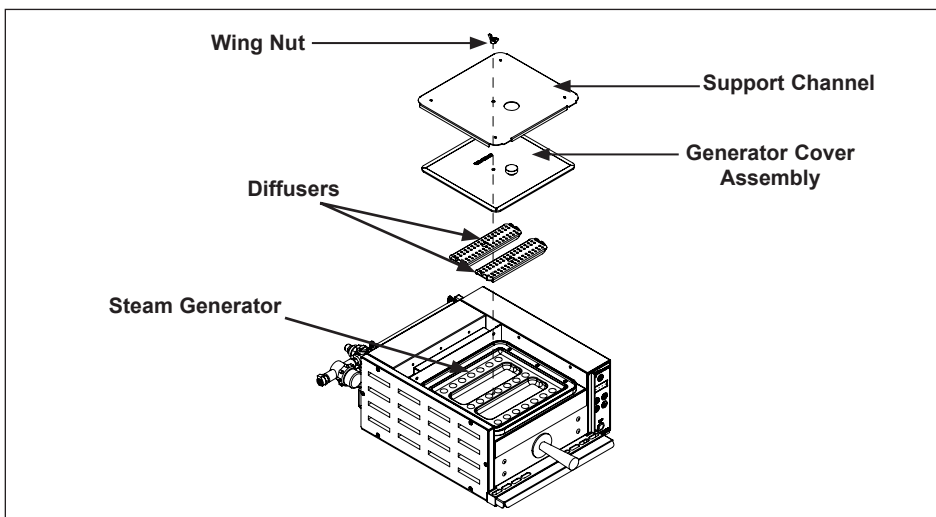


Figure 5. Steam Generator



# Troubleshooting

## Error Codes

This section describes the error codes that may appear on the display.

**NOTE:** For the errors below, attempt to turn the unit off and turn it back on again to see if the problem is fixed. If the problem persists, contact Antunes Technical Service at +1-877-392-7854 (toll free) for assistance.

Error Code	Error Description	Action
E002	No Zero Cross - Internal Board Error	Reset the unit. If the problem persists call technical service.
E006	Memory Error - memory Chip error	Reset the unit. If the problem persists call technical service.
E101	Hi Limit Tripped	Reset the hi-limit (Refer to Figure 6)
E105	Over Temp	Reset the unit. If the problem persists call technical service.
E111	Under Temp	Possible low power. Try an alternate outlet. If the problem persists call technical service.
E117	Open Probe -Thermocouple error	Reset the unit. If the problem persists call technical service.
E123	Internal Temp - Control Board too hot	Reset the unit. If the problem persists call technical service.
E129	SSR Failure	Reset the unit. If the problem persists call technical service.
E135	Warmup Timeout - Unit did not reach "USE" within 20 minutes	Reset the unit. If the problem persists call technical service.

## Hi Limit Control

If the Hi Limit trips, the display will show:

- E101

A tripped Hi Limit shuts off power to the unit. To reset a tripped Hi Limit switch:

1. Allow the unit to cool for 10 - 15 minutes
2. Remove the black protective cap from the Hi Limit Switch. Press and release the button.
3. Reinstall the protective cap.
4. Turn the unit back on.

**NOTE:** If the Hi Limit Control requires continuous resetting, contact Antunes Technical Service at +1-877-392-7854 (toll free).

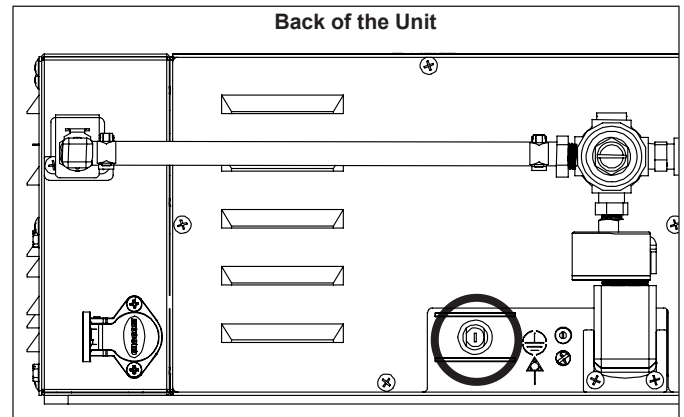


Figure 7. Hi Limit Control



## Limited Warranty

Equipment manufactured by Antunes has been constructed of the finest materials available and manufactured to high quality standards. These units are warranted to be free from electrical and mechanical defects for a period of one (1) year from date of purchase under normal use and service, and when installed in accordance with manufacturer's recommendations. To insure continued operation of the units, follow the maintenance procedures outlined in the Owner's Manual. During the first 12 months, electromechanical parts, non-overtime labor, and travel expenses up to 2 hours (100 miles/160 km), round trip from the nearest Authorized Service Center are covered.

1. This warranty does not cover cost of installation, defects caused by improper storage or handling prior to placing of the Equipment. This warranty does not cover overtime charges or work done by unauthorized service agencies or personnel. This warranty does not cover normal maintenance, calibration, or regular adjustments as specified in operating and maintenance instructions of this manual, and/or labor involved in moving adjacent objects to gain access to the equipment. This warranty does not cover consumable/wear items. This warranty does not cover damage to the Load Cell or Load Cell Assembly due to abuse, misuse, dropping of unit/shock loads or exceeding maximum weight capacity (4 lbs). This warranty does not cover water contamination problems such as foreign material in water lines or inside solenoid valves. It does not cover water pressure problems or failures resulting from improper/incorrect voltage supply. This warranty does not cover Travel Time & Mileage in excess of 2 hours (100 miles/160 km) round trip from the nearest authorized service agency.
2. Antunes reserves the right to make changes in design or add any improvements on any product. The right is always reserved to modify equipment because of factors beyond our control and government regulations. Changes to update equipment do not constitute a warranty charge.
3. If shipment is damaged in transit, the purchaser should make a claim directly upon the carrier. Careful inspection should be made of the shipment as soon as it arrives and visible damage should be noted upon the carrier's receipt. Damage should be reported to the carrier. This damage is not covered under this warranty.
4. Warranty charges do not include freight or foreign, excise, municipal or other sales or use taxes. All such freight and taxes are the responsibility of the purchaser.
5. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL ANTUNES BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.

The warranty does not extend to:

- Damages caused in shipment
- Installation of electrical service
- Installation, calibration, or adjustment
- Normal maintenance outlined in this manual
- Consumable parts such as egg rings, gaskets, rubber feet, labels, O-rings, light bulbs, etc.
- Malfunction resulting from improper service or maintenance
- Damage caused by improper installation, improper use, abuse, or careless handling
- Damage from moisture coming in contact with electrical components
- Damage from tampering with, removal of, or changing preset controls or safety devices
- Damage caused by parts or components not provided by Antunes



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