

# InfiniSteam

IS-1000

## Owner's Manual

Manufacturing Number:  
9100960

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## 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.
- The unit **MUST** be installed by personnel qualified to work with electricity and plumbing.
- 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.

## WARNING

**ELECTRICAL SHOCK HAZARD.**  
Failure to follow the instructions in this manual could result in serious injury or death.

Do not modify the power supply cord plug. If it does not fit the outlet, have a proper outlet installed by a qualified electrician.

Electrical ground is required on this appliance.

Check with a qualified electrician if you are unsure if the appliance is properly grounded.

Do **NOT** use an extension cord with this product.

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.

**NEVER** unplug the power cord while the unit is running. Use the proper shutdown procedure before unplugging the power cord.

## 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.
- Keep the area around the unit free and clear of all combustible materials. Failure to do so may result in fire or property damage.
- Opening steamer drawers during operation releases steam. Compartment and contents may be hot.

## 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.
- When using the citric acid cleaning solution as prescribed in this manual, follow the recommended manufacturer's safety precautions. Use gloves and eye protection when required.

## Service

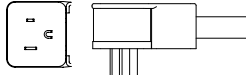
- Inspection, testing, and repair of electrical equipment must be performed only by qualified service personnel.
- To avoid possible personal injury and/or damage to the unit, all inspections, tests, and repair of electrical equipment should be performed by qualified personnel **ONLY**. Contact Antunes 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

## Electrical Ratings

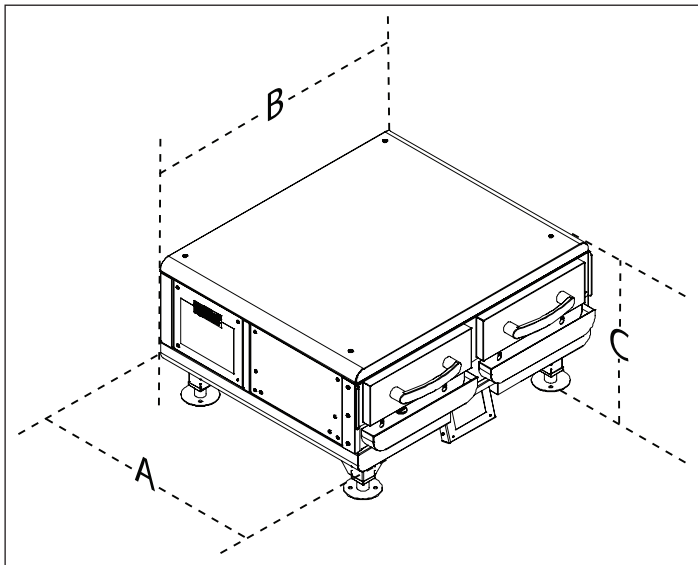
Model & Mfg. No.	Volts	Watts	Amp	Hertz
IS-1000 9100960	208	8000	38.5	50/60

## Electrical Cord & Plugs

Model & Mfg. No.	Description	Configuration
IS-1000 9100960	NEMA 6-50 250 VAC, 50 AMP	

## Dimensions

Model & Mfg. No.	A	B	C
IS-1000 9100960	33.22 (797.6)	29.84 (757.9)	15.23 (386.7)



## Water Requirements

Minimum Water Pressure	40 psig dynamic
Maximum Water Pressure	80 psig
Maximum Water Usage during normal operation	3.5 gallons per hour
Maximum water usage during clean cycle operation (Initial Fill 1.6 gallons; flushing 4.8 gallons)	6.4 gallons
Water Inlet Connection	1/4" NPTF or Quick Disconnect Fitting

Water Requirements Water Quality (Treated Water)	
Hardness (Calcium & Magnesium)	1 GPG Maximum
Total Alkalinity	600 PPM Maximum
Total Silica	150 PPM Maximum
Iron Content	0.1 PPM Maximum
pH	6.5-10.5
Total Dissolved Solids	2,500 PPM Maximum
Oxygen Content	0 PPM
Carbon Dioxide	0 PPM

## ⚠ IMPORTANT

Failure to follow these water quality conditions will void the warranty and may cause the steamer to operate erratically or fail prematurely and require a service call. To better understand if the water to be used for the boiler meets these requirements, a water quality sample kit (part number 7002105) can be ordered from Antunes for testing.

## Unpacking

### **WARNING**

This steamer must be installed by personnel who are qualified to work with electricity and plumbing. Improper installation can cause injury to personnel and/or to the equipment. The steamer must be installed in accordance with all applicable codes.

### **CAUTION**

The Steamer has an approximate shipping weight of 260 pounds. For safe handling OBTAIN EXTRA PERSONNEL to properly and safely install the steamer.

### **CAUTION**

The installation surface MUST be flat, and the cart, table, or service rack MUST have a rated service weight capacity of 360 pounds per steamer.

1. Remove steamer and all accessories from the packaging.
2. Remove all packing materials and protective coverings from the steamer.
3. Record the model number, serial number, and installation date of your steamer and keep this information for future reference. Space for this is provided at on page 2.

**NOTE:** If any parts are missing or damaged, contact Antunes IMMEDIATELY at 1-800-253-2991 (toll free in the U.S. and Canada) or at 630-784-1000.

4. Wash all removable components in soap and water. Wipe down all exterior surfaces of the steamer with a hot damp cloth.

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

5. Install components onto steamer as shown in Figure 11.

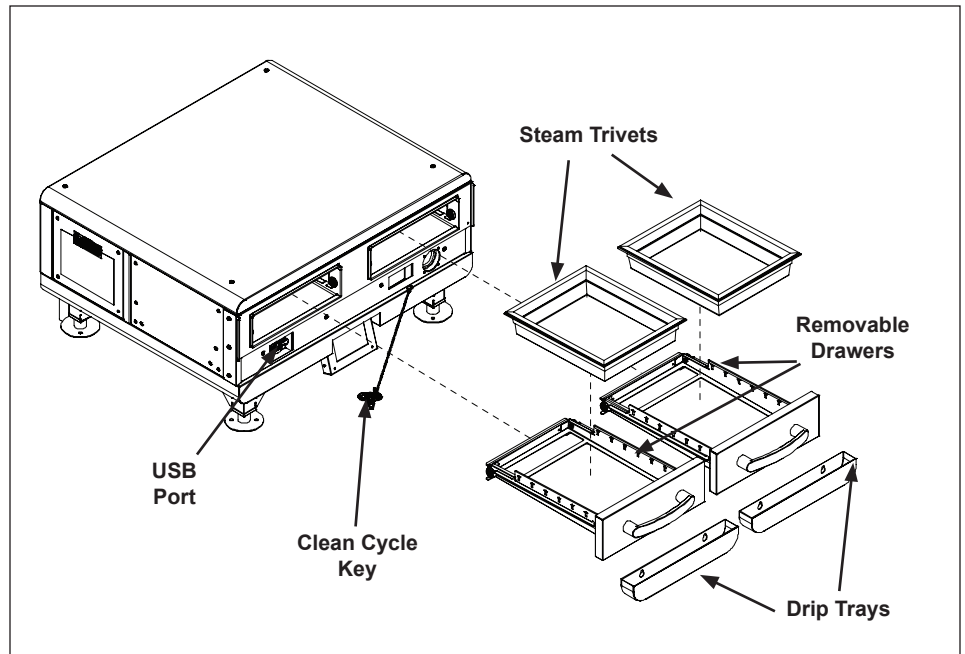
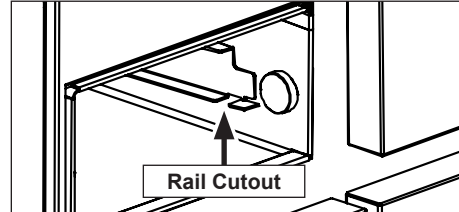


Figure 1. Steamer Components

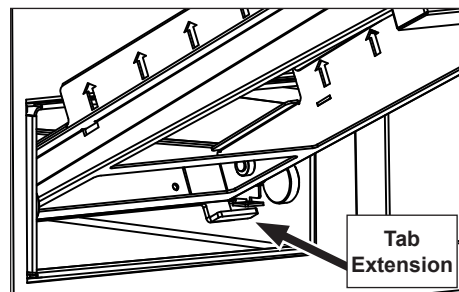
### Drawer Installation

Inside of the drawer cavity is a roller and a rail cutout on either side. The cutout is located right behind the roller. On the bottom rear edge of each drawer is a tab extension. The tab helps to keep the drawer inside the cavity. See below.



To Install:

1. Hold the drawer at about a 30 degree angle. Insert the drawer tabs through the cutouts in the drawer rails so the tabs are under the rails.



2. Rotate the drawer down and insert pan.
3. Drawer should now easily close and seal.

**NOTE:** Remove pans before removing drawers.

### System Water Drainage

A 9 ft. roll of high temperature 3.4" I.D. Flexible hose is provided and connections must be made in the field. Kinking of the hose, will impede the performance and functionality of the Steam and Hold.

1. Measure distance from steamer drain to floor drain making sure to leave room for a two (2) inch gap between the hoses and floor drain.
2. Cut the supplied drain tubing for drain connection.

**NOTE:** A 2 inch air gap from the drain hose to the floor drain must be maintained in order to provide adequate/proper drainage capabilities. Failure to comply with a 2" air gap minimum will result in a warranty failure and nuisance performance issues.



Figure 2. Kinked Hose

## Installation

The steamer should be installed in a well-ventilated room. The steamer must be securely fastened to a table or moveable cart that is capable of handling the weight of one or multiple steamers. Each InfiniSteam weighs approximately 120 pounds and the total weight capacity requirements of the cart or table must be considered prior to installation. 3X safety factor recommended. I.e. 1 InfiniSteam (120 lbs) x 3 S.F. = 360 lbs minimum weight load capacity per work surface.

**NOTE:** Installer **MUST** verify the weight restrictions of the table, cart, or service rack prior to installation of the steamer. All warranties will be VOID if work surface is unable to handle the specified weight load.

The steamer must be installed on a level surface. The InfiniSteam has built-in water level controls requiring the surface to be parallel to the horizon. The InfiniSteam is equipped with four adjustable feet.

Install steamer with at least 6 inches of clearance from the back wall. Side clearances of at least 6 inches are recommended. Antunes recommends enough clearance for easy cleaning, service and maintenance: specific customer installations will dictate the final configuration.

## Water Supply Quality

The quality of the water supply to the boiler (Treated Water Inlet) is important for proper operation. Low mineral content (low TDS) water will keep the boiler cleaner and reduce the need for frequent clean cycles.

It is recommended that the following water quality conditions be met.

<b>Hardness (Calcium &amp; Magnesium)</b>	< 3 grains per gallon (51ppm)
<b>Conductivity</b>	6-100 µS/cm (TDS 4-65 ppm)

An ion-exchange water softener or Reverse Osmosis (RO) system are recommended to best attain these water conditions. Consult Antunes Customer Service for more information on and Antunes product that is designed for the InfiniSteam.

**NOTE:** Failure to follow these water quality conditions may cause the steamer to operate erratically or fail prematurely and require a service call that will not be covered by the warranty.

## Water Supply Plumbing:

The InfiniSteam is equipped with a standard 1/4 NPT female water connection. Also included with the steamer is a quick disconnect fitting which can be readily adapted and/or permanently secured to a flexible water feed line that delivers water pressure at a minimum of 40 psig dynamic (when the steamer is drawing water) and a maximum of 80 psig. If the dynamic water pressure is less than 40 psig, then a booster pump may need to be added to the steamer feed water line. If the water pressure is in excess of 80 psig, use the included pressure regulator to reduce the pressure. CA minimum flow rate of 1 gpm is required.

**NOTE:** Minimum dynamic supply water pressure from either an RO System Supply Source or a softened water supply line feed, to be 40 psig minimum dynamic and a maximum of 80 psig. Contact Antunes Tech Service on measuring the proper supply water pressure. Failure to provide a minimum of 40 psig dynamic water pressure may prevent the boiler from filling and cause Fill Time out Errors.

## Wiring

The InfiniSteam is equipped with a 50 Amp U.L. Certified Plug. Follow all NEC (National Electrical Code) and local electric codes when installing a matching wall receptacle.

### **WARNING**

An electrical ground is required to the wall receptacle. Failure to provide a proper ground can result in death or serious injury. All applicable electrical codes MUST be followed in accordance with ANSI/NFPA 70 or latest edition. In Canada, provide electrical service in accordance with Canadian electrical code, CSA C22.1 and local codes.

### **IMPORTANT**

Failure to follow these water quality conditions will void the warranty and may cause the steamer to operate erratically or fail prematurely and require a service call. To better understand if the water to be used for the boiler meets these requirements, a water quality sample kit (part number 7002105) can be ordered from Antunes for testing.

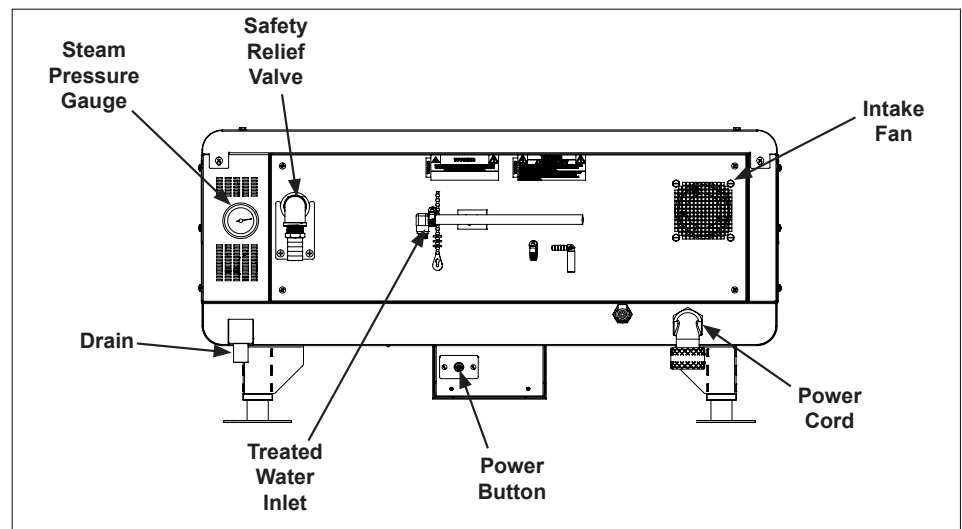


Figure 3. Steamer Connections and Items (Rear of Steamer)

## Leveling the Steamer

**NOTE:** Installer **MUST** verify the weight restrictions of the table, cart, or service rack prior to installation of the steamer. All warranties will be **VOID** if work surface is unable to handle the specified weight load.

1. Using two people to safely lift the steamer, place the InfiniSteam on a work surface that is capable of withstanding the necessary weight. 150 pounds for a single steamer or 360 pounds for a double stacked steamer.
2. Check the clearances table on the previous page for walls and other equipment to ensure that all codes and recommendations are followed.
3. Using a level, rotate the adjustable feet until the steamer is level. The steamer should be level by depth and horizontally. (See figures below).
4. If double stacking steamers, follow the next section of instructions. If not double stacking, move on to the Water Drainage instructions on the next page.

**NOTE:** If steamer is not level, adjust the mounting feet until level is achieved.

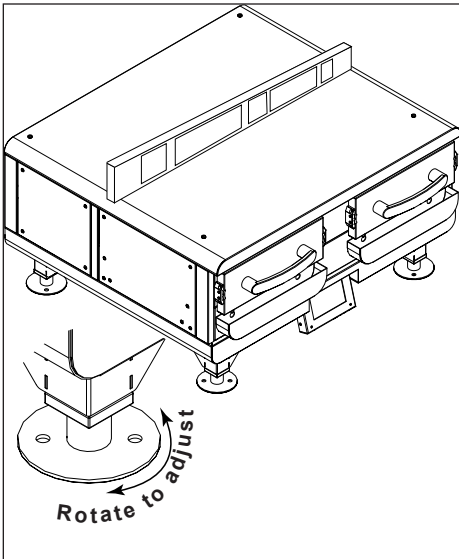


Figure 4. Level Steamer

## Double Stacking Steamers

### (Optional)

**NOTE:** The InfiniSteam is designed for a maximum height of two (2) steamers. Stacking more than two steamers can cause injury and/or damage to steamers and will void all warranties.

1. Ensure bottom steamer is completely level before continuing.
2. Locate and remove the four (4) screws on the top cover of the bottom steamer. Set aside for later use. (Figure 6)
3. Remove all accessories from the second steamer that will be placed on top. Place accessories aside to keep them from moving during installation.
4. Using two people, lift the second steamer and place it carefully on top of the bottom steamer.
5. Rotate the feet on the steamer to adjust height and level the top steamer.
6. Align the screw holes for two (2) feet and holes in the top of the base steamer. Using a screwdriver put the original screws from the first steamer back in place.

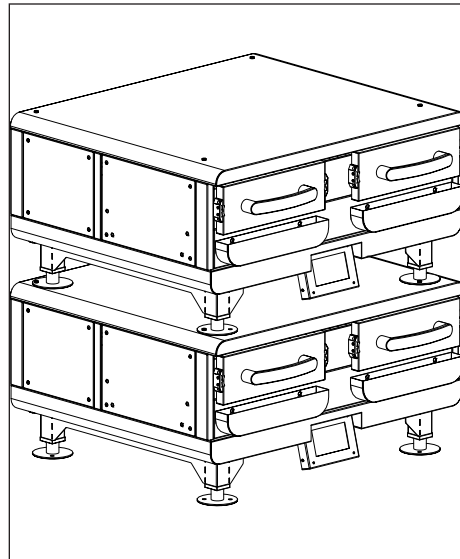


Figure 5. Double Stacked Steamers

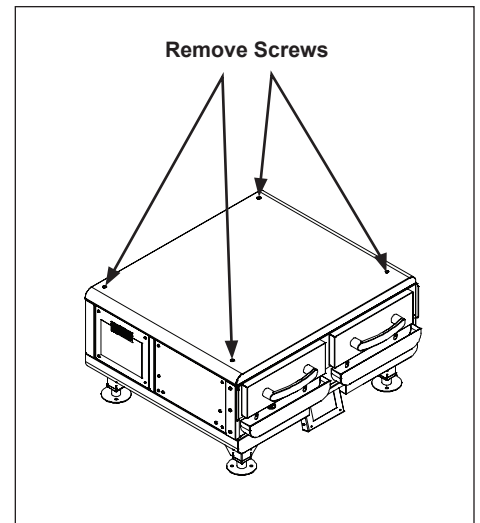


Figure 6. Remove Top Cover Screws of Bottom Unit

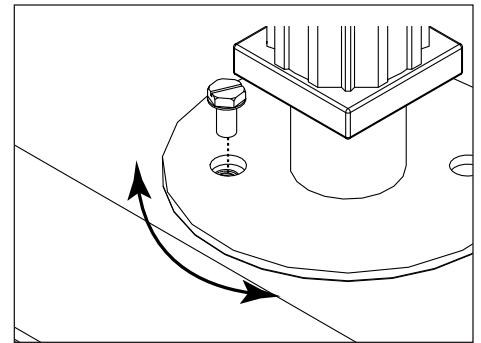


Figure 7. Align the Foot Holes

# Operations

## Initial Startup

1. Connect the cold water line to the water inlet according to Figure 3 on page 6.
2. Plug the power cord into the appropriate outlet. Turn on water.
3. The steamer performs a system test and displays information on the display.
4. The steamer then shows the splash screen. Press the Power Button behind the Display to turn the steamer on.

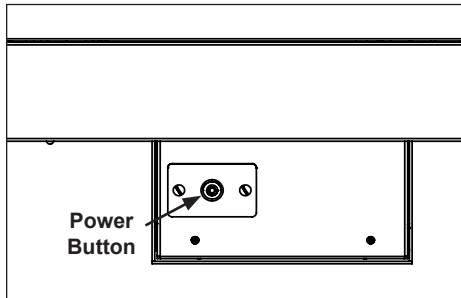


Figure 8. Power Button (Rear of Steamer)

5. The steamer displays the initial fill screen and fills the internal tank. When complete the steamer displays the Initial Warm-up Screen appears. This screen shows the time remaining for the warm up operation.
6. When initial Warm-up completes, the steamer displays the operation screen.

## Icon Descriptions

This section describes the icons that appear on the display.

	Increase Icon. Used to increase a value. Increments vary across items.
	Decrease Icon. Used to decrease a value. Increments vary across items.
	Save Icon. Used to save data to the control board memory.
	Cancel Icon. Used to cancel the current activity.
	System Settings Icon. Used to access and change system settings.

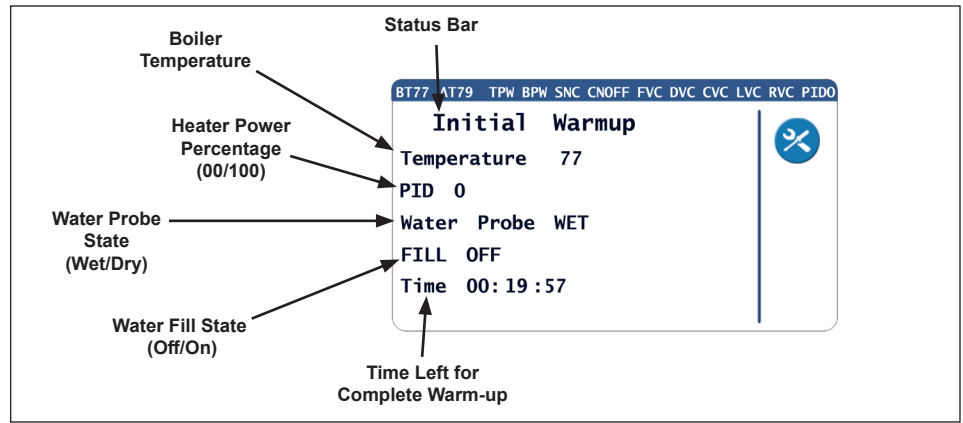


Figure 9. Screen Information

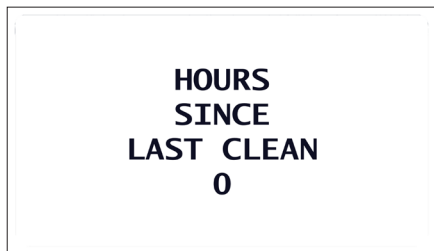
Symbol	Meaning	Possible Values
BT	Boiler Temperature	Degrees °F
AT	Control Board Temperature	Degrees °F
TP	Top Probe	W = Wet, D = Dry
BP	Bottom Probe	W = Wet, D = Dry
SN	Snap Switch	H = Hot, C = Cold
CN	Contacting	O = Open, C = Closed
FV	Fill Valve	O = Open, C = Closed
DV	Drain Valve	O = Open, C = Closed
CV	Clean Valve	O = Open, C = Closed
RV	Right Cavity Steam Valve	O = Open, C = Closed
LV	Left Cavity Steam Valve	O = Open, C = Closed
LV	Left Cavity Steam Valve	O = Open, C = Closed
PID	Heater Control Valve	0-100

## System Power-up

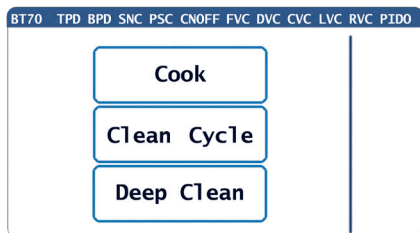
1. Upon application of power, the system will display the following splash screen.



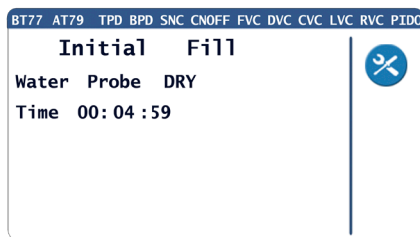
2. After the steamer is powered-up, it begins operation with this screen. This displays how many hours have accrued since the last clean cycle was completed. To see more about using the clean cycle, see page 17.



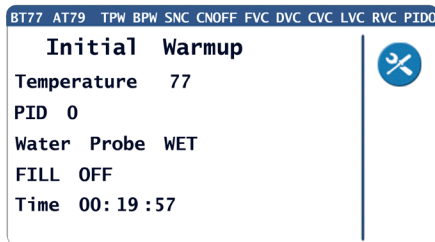
3. After a few seconds the screen will change to this display:



4. When **Cook** is selected, the following screen is displayed.



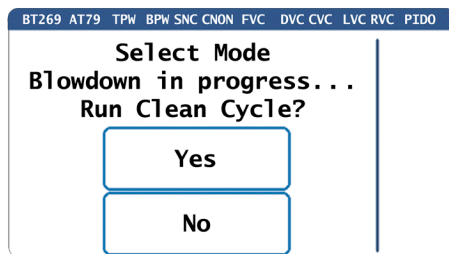
5. Once the boiler is filled with water, the heating process begins.



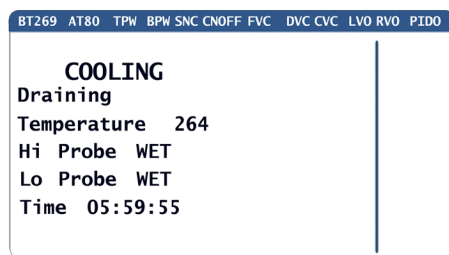
6. Once the boiler reaches its operating temperature, the steamer is ready for operation

## System Power-down

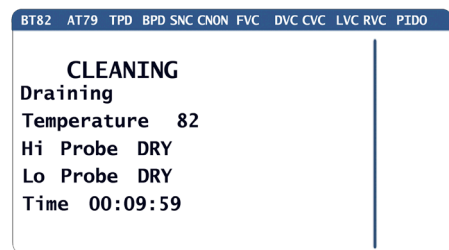
1. To turn the system off, press the Power button behind the display screen. The following screen is displayed.



2. If No is selected, the following screen is displayed. If the steamer must be cleaned see the Maintenance section of this manual for Clean Cycle instructions on page 18.



3. After the boiler has cooled down, the following screen is displayed.

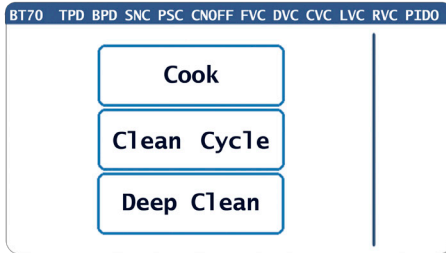


4. Once the boiler is drained, the system displays a splash screen indicating it has completed the selected operation.

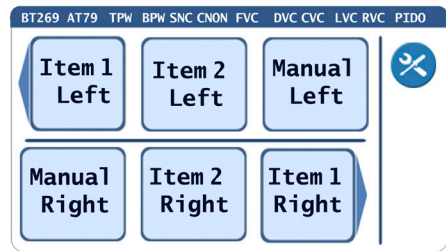


## Programmed Steaming

1. Turn the steamer on by pressing the power switch located behind the display screen.
2. The steamer will either display the Initial Warm-up screen or the Fill screen if the steamer requires more water.
3. When the Initial Warm-up is complete, the operations screen appears on the display.



4. Open the appropriate front drawer and load the product to be steamed onto the steam trivet. Close the drawer securely.
5. On the display, press the appropriate steaming icon for the drawer being used. The icons on the top are for the left drawer. The icons on the bottom are for the right drawer.



**NOTE:** Both drawers can be used at the same time.

Every steam cycle has three parts:

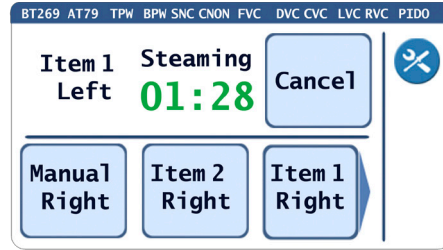
- Steaming
- Resting
- Done

During a timed steam cycle, pressing cancel automatically switches to rest mode.

6. When the Steam portion of the cycle finishes, the steamer moves automatically to Resting mode and begins to count down.
7. When Resting mode completes, the steamer moves automatically to Done mode. The steamer beeps. Press Cancel to turn off the buzzer.
8. Open the drawers, remove food item(s) and serve.

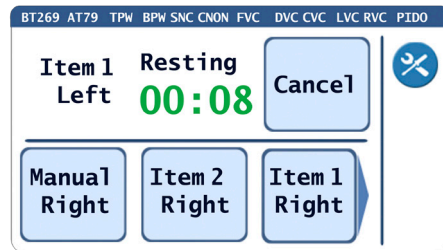
## Programmed Steaming Example:

### Item 1L Steaming



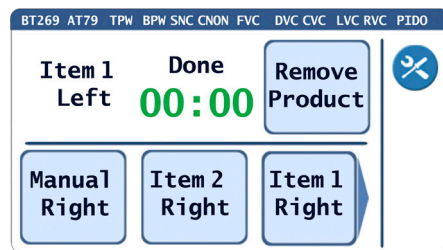
Time counts down from preset time. Pressing Cancel during steaming puts the cavity in Resting Mode.

### Item 1L Steaming



Once steaming time reaches 00:00 Resting Cycle begins counting down. Pressing cancel during Resting Cycle puts the cavity in Done Mode.

### Item 1L Done



After resting time completes, buzzer sounds to indicate the Cooking Cycle is finished. Press Cancel to stop buzzer. Steamer is ready for next cycle.

## Manual Steaming

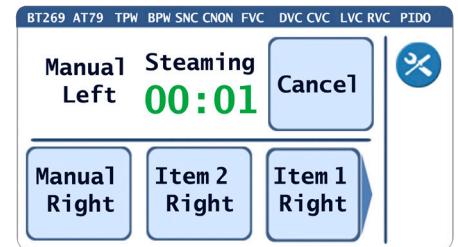
1. Open the appropriate front drawer and load the product to be steamed onto the steam trivet. Close the drawer securely.
2. On the display, press the appropriate steaming icon for the drawer being used. There is only one Manual Icon per drawer.



3. The Manual buttons start a steam cycle that counts up until the Cancel box is pressed.
4. After pressing Cancel, the steamer begins the Resting Cycle. The timer will continue to count up until cancel is pressed again.
5. The beeper sounds after the Resting Cycle is cancelled to indicate the steam cycle is complete.
6. Press Cancel to stop the buzzer.
7. Open the drawer(s), remove food item(s) and serve.

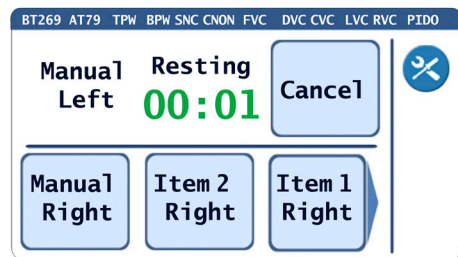
## Manual Steaming Example:

### Manual Left Steaming



Time counts up from preset time. Pressing Cancel during steaming puts the cavity in Resting Mode.

### Manual Left Resting




Once cancel is pressed, resting cycle begins counting up until cancel is pressed again. Resting puts the cavity in Done Mode.

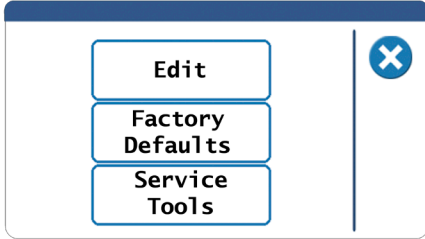
### Manual Left Done



The buzzer sounds to indicate cooking cycle is finished. Press cancel to stop buzzer. Steamer is ready for the next cycle.

# Steamer Settings

To access the Steamer Settings, press the **Tools** icon  on the display. This opens the **Tools** screen, shown below.




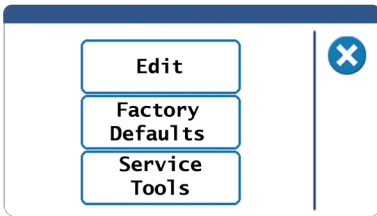
The **Tools** Screen shows three buttons, described below:

Button	Description
Edit	Press to access the Edit Screen for access to editing recipes, steamer settings, and PID information.
Factory Defaults	Press to access the Factory Defaults screen to reset recipes, steamer settings, and PID to the default factory settings.
Service Tools	Future feature.

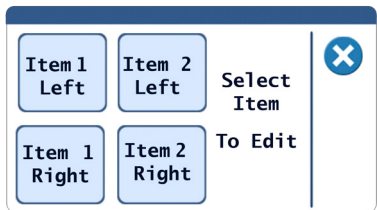
## Editing Recipes

To edit Recipes:

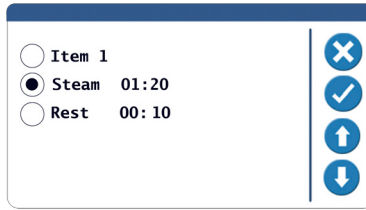
1. Press the **Tools** Icon  to open the Tools Screen.
2. Press the **Edit** button on the **Tools** Screen.
3. Press the **Edit Recipes** button (see below).



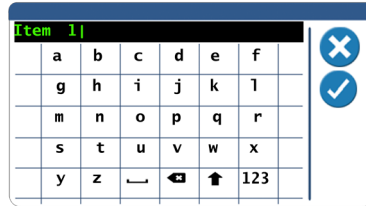
4. This opens the following screen. Click the icon of the recipe you want to edit. For example, the **Item 1L** button is pressed.





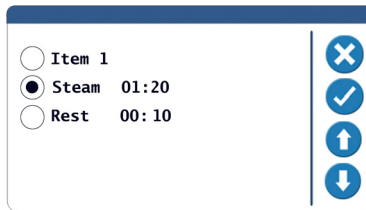
5. The following screen appears:









6. Press button next to the recipe name, the system displays a keyboard screen (below).




7. Use the keyboard to edit the name of the recipe. Press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes. The system returns to the screen below.

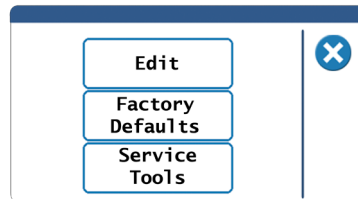


8. Press the button next to Steam. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired.
9. Press the button next to Rest. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired.
10. When you finish making edits, press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes.

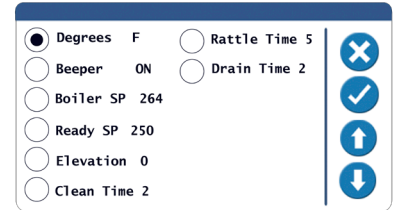
## Editing Settings





To edit settings:

1. Press the **Tools** Icon  to open the **Tools** Screen.
2. Press the **Edit** button on the **Tools** Screen.
3. Press the **Edit Settings** button.



4. This opens the following screen:




5. Press the button next to the first setting you want to change. Use the **Up** and **Down** arrow icons on the display ( or ) to change the value as desired. Continue selecting the buttons next to the values you wish to change. When you are finished changing settings, press the **Save** icon  to save the changes. Press the **Cancel** icon  to exit and discard any changes.

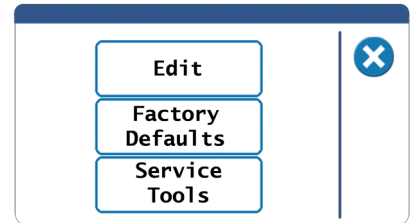
## Editing PID Values

Do NOT change PID settings.

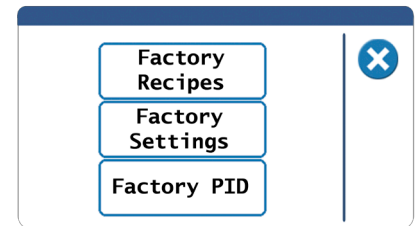
## Resetting to Factory Defaults

To reset settings to the factory defaults:

1. Press the Steamer Settings, press the **Tools** icon  on the display. This opens the **Tools** screen, shown below:




2. Press the **Factory Settings** button. The following screen appears:



3. Three options can be reset to factory defaults. Once selected, the system resets the defaults and shows the following screen:



4. Press  to return to the previous screen where you can reset other categories.

# Maintenance

## Daily

The InfiniSteam requires a minimal amount of maintenance. Daily maintenance helps keep the steamer running smoothly and free of any excess buildup that comes from daily use and wear. These steps should be completed at the end of every day to ensure that the steamer maintains optimum efficiency. Open the drawers and remove the steam pans and steam trivets (Figure 10).

1. Remove the drip trays (Figure 10).
2. Wash, rinse, and sanitize the steam pans, steam trivets, and drip trays at the sink. Allow to air dry.
3. Remove both cavity drain screens and rise clean of any debris (Figure 11).
4. Clean the steam drawers and the inner cavity with a clean towel dampened with sanitizer. Allow to air dry.

**NOTE:** Do not use a dripping wet towel. Wring the towel out before wiping the steamer.

5. Reinstall all parts (Figure 10).

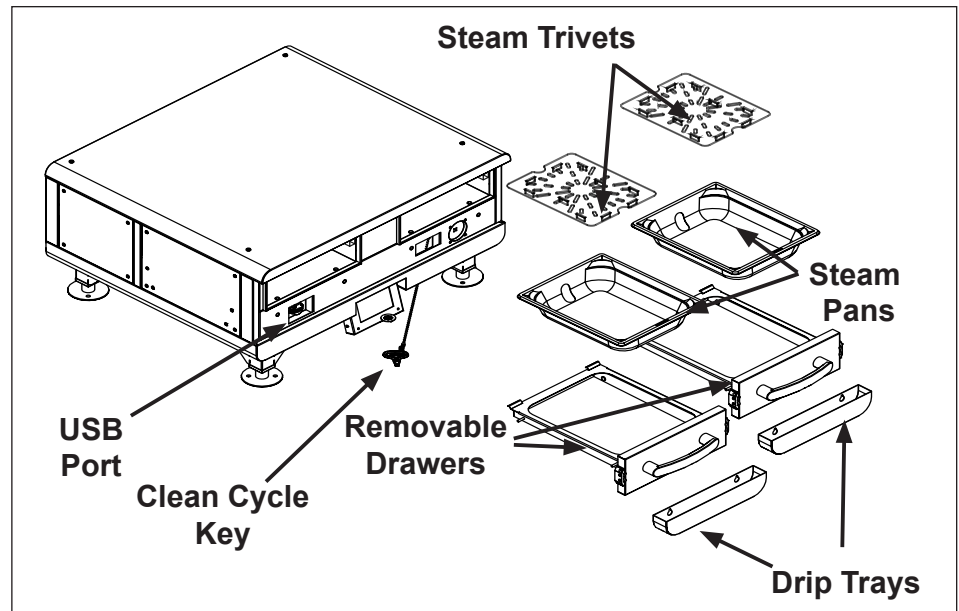


Figure 10. Steamer Components

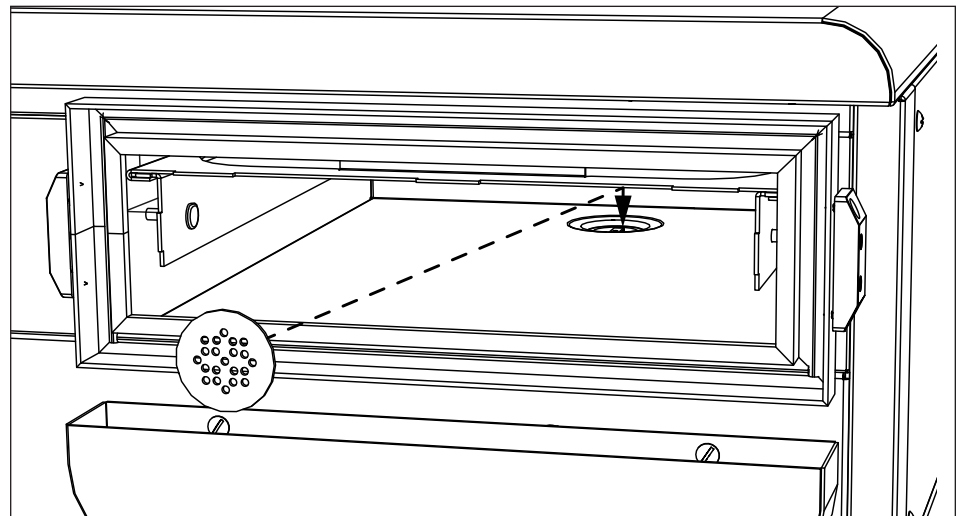


Figure 11. Cavity Drain Screen Removal

## Weekly Cleaning

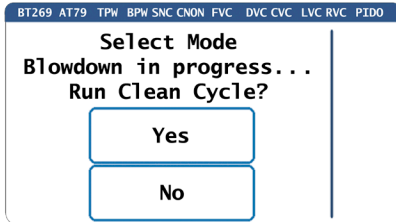
The Clean Cycle should be performed weekly at the end of the day.

**NOTE:** Failure to properly clean and de-scale boiler will cause significant changes in operation of steamer. Antunes is not responsible for any damage or complications due to negligent maintenance of steamer.

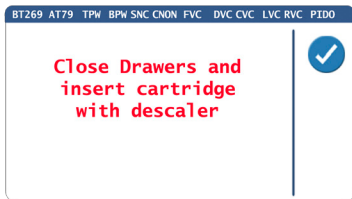
### WARNING

Failure to properly follow the cleaning instructions for the unit will result in excess buildup of scale and lime as seen in the examples. Excess buildup of scale and lime may cause damage to the unit and will void the warranty. Using hard water in excess of 1 gpg may result in lime scale buildup that may damage the boiler. Pretreat hard water with a water softener or an RO system. To determine the hardness of the boiler feed water, a 7002105 Water Sample Kit can be ordered from Antunes.

1. When the steamer is turned off, the following screen is displayed.

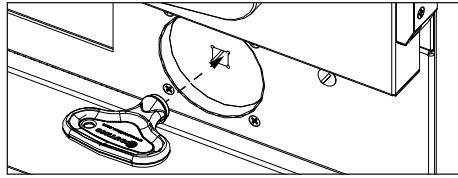


2. Select **Yes**. The operator is prompted to remove the cleaning cartridge and add cleaning granules.

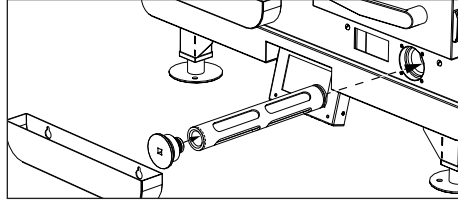


**NOTE:** The steamer is expecting the cleaning cartridge to be removed after this menu. Failure to follow the sequence will prevent the cleaning cycle from being initiated.

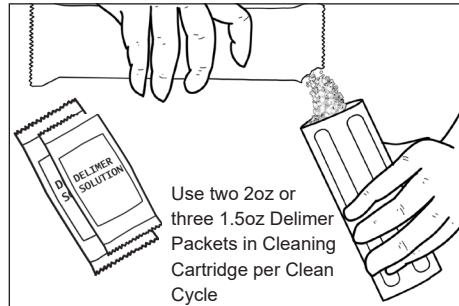
3. Remove the right Drip Tray.
4. Remove the Clean Cycle Key and insert it into the Cleaning Cartridge. Rotate cartridge counter-clockwise and remove from steamer.



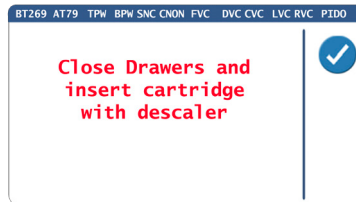
5. Remove top of Cleaning Cartridge by pulling it off the plastic housing.



6. Pour at least 4oz of cleaning solution into the plastic housing.



7. Reattach top of Cleaning Cartridge.
8. Place Cleaning Cartridge back into steamer.
9. Rotate the supplied key clockwise to tighten cartridge. Steamer is now ready to perform Clean Cycle.
10. Press the check mark symbol to begin the Clean Cycle.



11. When the Cleaning Cycle is complete, the following screen appears.



12. Press the check mark symbol again to be returned to the Splash screen.



## Scaled Boiler Examples



## Clean Boiler Examples



## Recovery

### Deep Clean Cycle

The Deep Clean Cycle should only be performed when advised by Antunes Technical Support. The Deep Clean will take a minimum of six (6) hours to complete and should be performed at the end of the night.

**NOTE:** The Deep Clean Cycle takes several hours to complete. Allow the cycle to FULLY COMPLETE in order to remove all cleaning material from the inside the steamer. Failure to do so may cause damage to the unit, or bodily harm from remaining cleaning agent in the system.

**NOTE:** Failure to properly clean and de-scale boiler will cause significant changes in operation of steamer. Antunes is not responsible for any damage or complications due to negligent maintenance of steamer.

### **⚠ WARNING**

Failure to properly follow the cleaning instructions for the unit will result in excess buildup of scale and lime as seen in the examples below. Excess buildup of scale and lime may cause damage to the unit and will void the warranty. Using hard water in excess of 1 gpg may result in lime scale buildup that may damage the boiler. Pretreat hard water with a water softener or an RO system. To determine the hardness of the boiler feed water, a 7002105 Water Sample Kit can be ordered from Antunes.

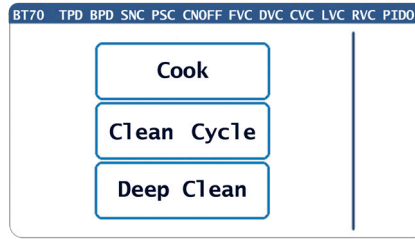
1. Start with the steamer turned off. Press the Power Button on the back of the screen. Upon application of power, the system will display the following splash screen.



2. After the steamer is powered-up, it begins operation with this screen. This displays how many hours have accrued since the last clean cycle was completed.



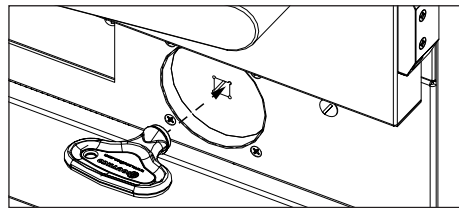
3. After a few seconds the screen will change to this display:



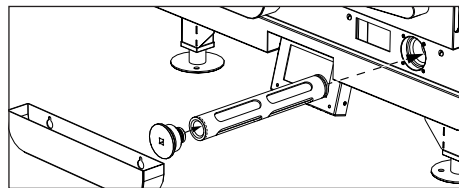
4. Press Deep Clean button to begin the Deep Clean Cycle.

**NOTE:** The cartridge must be filled with the specified amount of descaler.

5. Remove the right Drip Tray.
6. Remove the Clean Cycle Key and insert it into the Cleaning Cartridge. Rotate cartridge counter-clockwise and remove from steamer.

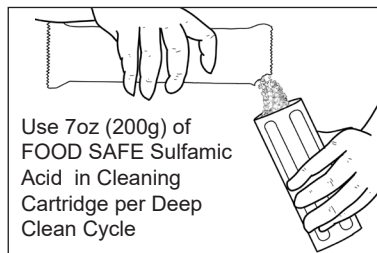


7. Remove top of Cleaning Cartridge by pulling it off the plastic housing.



8. Pour 7oz (200g) of FOOD SAFE Sulfamic Acid into the plastic housing.

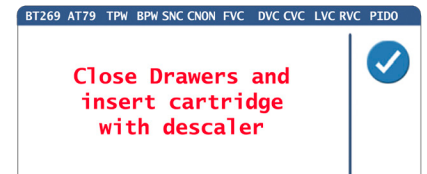
**NOTE:** The Sulfamic Acid used for the Deep Clean cycle is NOT the same chemical used for the normal clean cycle. Use ONLY FOOD SAFE Sulfamic Acid for the Deep Clean Cycle. Failure to do so may cause illness or serious bodily harm.



9. Reattach top of Cleaning Cartridge.
10. Place Cleaning Cartridge back into steamer.

11. Rotate the supplied key clockwise to tighten cartridge. Steamer is now ready to perform a Deep Clean Cycle.

12. Press the check mark symbol to begin the Deep Clean Cycle.



13. The Deep Clean Cycle goes through the following stages:

- Step 1. System drains the boiler.
- Step 2. System Clean
  - System fills water intermittently: 5 seconds ON/20 seconds OFF
  - System Soak - 5 hour soak time
- Step 3. Four Rinse Cycles:
  - System fills water continuously
  - System soaks for 1 minute
  - System drains and refills
- Step 4. Final drain and fill

14. When the Cleaning Cycle is complete, the following screen appears.



15. Press the check mark symbol again to be returned to the Splash screen.



## Troubleshooting

Your Antunes Steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks or activities to make in the event of a problem:

Problem	Possible Cause	Who Services Steamer	Corrective Action
Excessive steam escaping from the cavity	Cavity Drain Screen is Plugged	User	Remove both drawers of steamer and clean Drain Screens.
	Drain Hose is kinked or 2" air gap is blocked	User	Make sure the drain hose are not kinked and a 2" air gap is maintained to the floor drain.
Excessive water is pouring out of the cavity	Cavity Drain Screen is Plugged	User	Remove both drawers of steamer and clean Drain Screens.
	Drain Hose is kinked or 2" air gap is blocked	User	Make sure the drain hose are not kinked and a 2" air gap is maintained to the floor drain.
	Water fill Solenoids are clogged	Auth Service Rep Only	Check water fill solenoids for debris.
	Steam Solenoid Valves are clogged.	Auth Service Rep Only	Check Steam Solenoids Valves for debris and continuity (N.C.) for normal operation.
Steamer Does Not Heat	Steamer is unplugged or circuit breaker is tripped	User	Make sure steamer is plugged in and circuit breaker has not tripped.
	Cavity Drawer(s) are not engaged.	User	Make sure both cavity drawers are pushed in all the way.
	Loose component connections	Auth Service Rep Only	Check operation of Pressure Switch, Control Board, Contactor, and Cartridge Heaters for continuity and/or loose connections.
Steamer fails to reach proper temperature	GUI Settings have changed	User	Adjust GUI Control Settings and set Boiler Temperature (BT) to 268 deg °F. See settings/ operation section in this manual on page 17.
	Voltage issue on electrical components	Auth Service Rep Only	Check for voltage or open circuit on control board, contactor, heaters, pressure switch, or GUI control Panel.
Steamer is continually draining and doesn't build pressure or temperature	System buildup or blockage.	User	Turn steamer off and run a clean cycle. Allow steamer to complete the entire clean cycle – See preventative maintenance section of this manual on page 18.
	Drain Valve malfunction/failure.	Auth Service Rep Only	Clean the drain valve seat or replace drain valve with the steamer powered down. Once powered up, run a clean cycle to ensure trouble free operation.
Steam is escaping from the rear panel of the steamer	Boiler Temperature is set too high.	User	Adjust GUI Control Settings and set Boiler Temperature (BT) to 265 deg F. Determine is steam is still escaping. If still escaping contact a service rep for safety valve replacement.
	Safety Valve Error/ Failure	Auth Service Rep Only	Adjust GUI Control Settings and set Boiler Temperature (BT) to 265 deg F. Determine is steam is still escaping. If steam still escapes, replace safety valve.
Water is escaping from rear of steamer during initial operation	Water Inlet Hose has connection problem	User	Check inlet water feed hose to steamer. Reconnect if needed and/or replace.
	Vent Overflow	Auth Service Rep Only	Determine if water is coming from vent overflow or water feed connection. If from vent overflow port of rear panel contact an Authorized Service Rep
System Error Displayed on GUI	System Error - Refer to Error Messages on Next Page	User	Turn steamer OFF and then back ON. If error persists, contact Authorized Service Rep

# Replacement Parts

## Parts List

(See Exploded Views for more information)

### NOTE

Use only genuine Antunes replacement parts in this unit. Use of parts other than those supplied by the manufacturer will void the warranty.

Item No.	Part #	Description	Qty
1	0014120	Filtered Water Inlet Assembly	1
2	0014673	Drawer Cavity Assembly	1
3	0014674	Drawer Assembly	2
4	0014676	Boiler Assembly	1
5	0014693	Clean Cycle assembly	1
6	0200117	O-Ring 5/16" I.D.	3
7	0200377	O-Ring, 5/32 ID - 70 DUR	2
8	0200378	Gasket, Rectangular	2
9	0200426	O-Ring, Viton	1
10	0209305	Gasket, Clean Cycle	1
11	0209317	Drawer Insulation	4
12	0209318	Cavity Gasket	2
13	0400265	Bushing, Open/Closed-3/8"	1
14	0400518	Cord Grip, 90 Degree Elbow .88-.97 OD Cord	1
15	0400551	Cover, Controls	1
16	0400620	Drawer Insulation	2
17	0400621	Drawer Insulation	2
18	0400634	Insulation Top	2
19	0400635	Insulation Bottom	2
20	2110223	Clean Cycle Key	1
21	0013845	208V, 50AMP Plug	1
22	0502199	Spacer	4
23	0504894	Drain Weldment End Cap	1
24	0504902	Bracket, Solenoid Mounting	1
25	0504905	Rear Panel w/ Vent Opening	1
26	0504926	Solenoid Mounting Bracket	2
27	0504928	Drain Valve Plate	1
28	0507883	Stanchion	1
29	0507888	Side Panel	1
30	0507889	Left Rail	1
31	0507890	Right Rail	1
32	0507894	Back Rail	1
33	0507895	Middle Stanchion	2
34	0507900	Side Panel	1
35	0507902	Boiler Cover Panel	2
36	0507910	Drain Cover	2
37	0508066	Boiler Support Bracket	2

Item No.	Part #	Description	Qty
38	0508067	Feed Diverter Bracket	1
39	0508143	Mounting Plate	2
40	0508228	Clean Cycle Support Bracket	1
41	0508229	Clean Cycle Plunger Actuator	1
42	0508230	Clean Cycle Bracket Bushing	1
43	0508231	Clean Cycle Front Frame	1
44	0508232	Clean Cycle Threaded Outer Cap	1
45	0508233	Clean Cycle Tube Housing	1
46	0508236	Internal Clean Cycle Tube - Delimer Cartridge	1
47	0508237	Clean Cycle Internal Cartridge Cap Adapter	1
48	0508238	Delimiting Cartridge Screen	1
49	0508239	Clean Cycle Cartridge Adapter (Closed End)	1
50	0508664	Handle Base	1
51	0508771	Leg Bracket	2
52	0508772	Leg Support Bracket	4
53	0508797	Rear Stanchion w/ Gauge Cutout	1
54	0508798	USB Box Bracket	1
55	0508829	GUI Interface Rear Mounting Bracket	1
56	0508830	GUI Interface Front Mounting Bracket	1
57	0511279	Sensor Mounting Bracket	2
58	0511659	Drain Cover Retainer	2
59	0511867	IS-1000 Cavity	2
60	0511868	Cavity End Cap	2
61	0511870	Rail RH	2
62	0511871	Rail LH	2
63	0511872	Tray Frame	2
64	0511873	Rail LH	2
65	0511874	Rail RH	2
66	0511881	Stop Bracket	2
67	0511887	Seal Plate	2
68	0511888	Electronic Components Bracket	1
69	0511889	SSR Bracket	1
70	0511890	Middle Support Divider	1
71	0511891	Base	1
72	0511893	Front Plate	2
73	0511894	Front Face Bracket	2
74	0511896	Front Panel	1
75	0511939	Top Cover	1
76	0511940	Solenoid Mounting Bracket	1
77	0511958	Cavity Flange	2
78	0512018	Front Panel Face	1
79	0512023	Front Face Mounting Panel	1
80	0512034	Front Corner Post	2
81	0512038	Key Box Bracket	1

Item No.	Part #	Description	Qty
82	0512041	Brace Divider	1
83	0512199	Drip Tray	2
84	0512200	Drip Tray Plate	2
85	0513573	End Cap, 1.25"SQ	1
86	0600170	Compression Spring - Conical	1
87	0701170	Wiring Harness	1
88	1001213	Shock Hazard Label	2
89	0013782	Leg Assembly w/ Adjustable Feet	2
90	1001679	Treated Water Label	1
91	1001680	Boiler Warning Label	1
92	1002745	On-Off Switch Label	1
93	1002746	GUI Interface Protector Label	1
94	1002970	Wiring Diagram Label	1
95	5040301	Foil Backed Insulation	1
96	2000339	Drain Tube, 3/4" OD	2
97	2000652	SQ Manifold Tube	1
98	2000654	Drain Tube, 3/4" OD	5
99	2000673	Pipe Nipple, 1/2 NPT 12" L	1
100	2010281	Tube, 1/4" X 1.25LG Boiler	2
101	2010290	Boiler Fill Tube .25" O.D. X 5.5"	2
102	2010291	Tube, 1/4OD X 2" LG PFA	2
103	2010292	Tube, 1/4OD X 17" LG PFA	1
104	2010294	Tube, 5/16"OD X 1-3/4"LG PFA	1
105	2010300	Tube 1/4OD X 5"LG	1
106	2010304	Solenoid Fill Tubing 1/4OD X 2.5	1
107	2010305	Clean Cycle Fill Tubing	1
108	2010306	Clean Cycle Out Tubing	1
109	2030140	Tube - 1/4" I.D. PVC BRD	1
110	2040163	Fitting, 1/4 Tube X #10-32 Straight SST	2
111	2060136	Check Valve 1/4 NPTM	3
112	2060141	Brass Elbow, 90 DEG 1/2 NPT	2
113	2060143	Brass Tee, 1/2 NPT F x M x F	1
114	2060151	Panel Mount Bulkhead Coupling 1/4 NPTF	1
115	2060158	Brass Elbow, 90 Degree 1/4 NPT	1
116	2060162	Barb Hose Fitting 1/2 NPTM x 3/4 ID Barb	2
117	2060163	Brass Hex Reducing Bushing 1/2 NPT X 1/4 NPT	1
118	2060168	Brass Union Straight 1/2 NPT	1
119	2060169	Brass Nipple, 1/2 NPT x 1-1/8" LG	2
120	2060172	Machined Brass Tee, 1/8 NPT	1
121	2060177	Machined Brass Elbow, 90 Degree 1/4 NPT	2
122	2060179	Pressure Gauge, 1/8 NPTM Mount	1
123	2060215	Elbow 1/2NPTM X 1/2NPTF	2

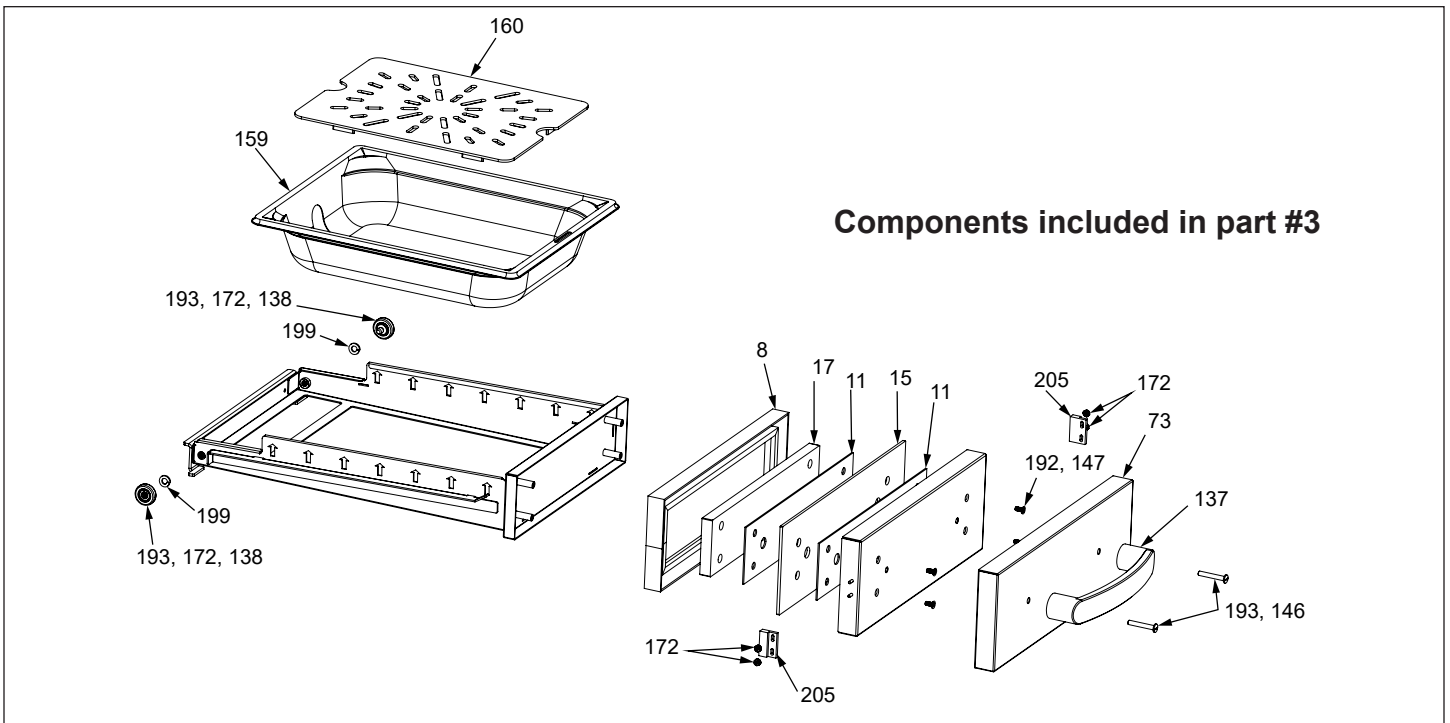
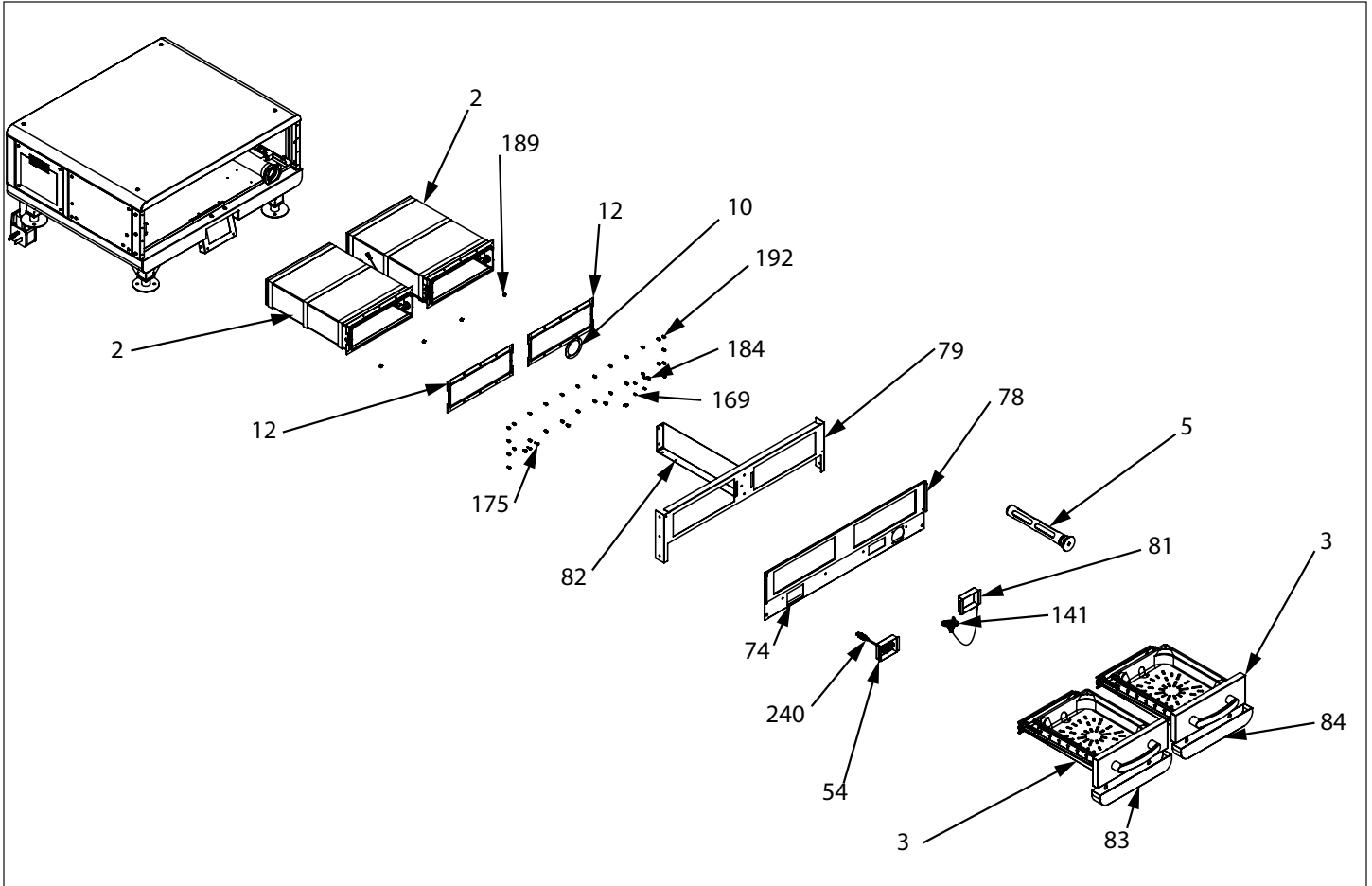
Item No.	Part #	Description	Qty
124	2070142	1/4 Tube X 1/4NPT Female	4
125	2070143	Elbow, 1/4NPT X 1/4 Hose SST	1
126	2070147	1/4 Tube X 1/8NPT Straight SST	1
127	2070175	Tee, 5/16 Tube X 1/4NPTM	1
128	2070177	Tee, 5/16 Tube SST	1
129	2070178	Tube Reducer 5/16" X 1/4"	3
130	2080105	Quick Disconnect Elbow - 1/4"	1
131	2080118	Quick Disconnect-1/4" NPT	1
132	2080149	Push to Connect Tee Fitting	1
133	2080170	Elbow Adapter 3/8 STEM X 1/4 Barb	1
134	2090316	Drain Tube 7.91" LG	1
135	2090317	Drain Tube 22.91" LG	1
136	2090318	Drain Tube 5.3" LG	1
137	2100368	ABS Handle	2
138	2100438	Roller Bearing	8
139	2110104	Worm Drive Clamp (S/S)	2
140	2110221	Worm Drive Hose Clamp	6
141	2110224	Key Ring	1
142	2110225	Clean Cycle Chain	1
143	2120284	Spacer, .099 I.D. x .188 O.D. x .688 LG S.S	4
144	2140101	Adhesive / Sealant - RTV	2
145	7761693	Quick Disconnect Terminal 1/4"	8
146	7761695	Quick Disconnect Terminal 3/16"	7
147	2140118	Permabond Adhesive	2
148	4070291	ASSY- PCB, Control Board	1
149	4070307	PCB - Switch Board	1
150	4070351	PCB - Display Board	1
151	2140153	High Vacuum Grease Lubricant	1
152	2140205	Polyester Tape, 3/4 Wide	7
153	2160108	Formed and Welded Shell, 6" O.D.	1
154	2160109	6 Inch Formed Head	2
155	2160110	Heater Coupling	4
156	2160219	Clean Cycle Feed, Pipe Fitting 1/4 NPT	1
157	2160220	Welded Drain Pipe Fitting 1/4 NPT	1
158	2170158	Pressure Relief Valve	1
159	2180498	Pan	2
160	2180509	Pan Trivet	2
161	3010153	Weld Nut # 10-32 S/S (Round)	18
162	3010192	Weld Stud SS # 4-40 X .375L	4
163	3020136	#2-56 SS Hex Nut	4
164	3020137	Screw, #2-56 x 7/8" LG 18-8 S.S. Pan Head Phillips	4
165	3020138	Pop Rivet 1/8 DIA Blind 18-8 S.S. Domed Head	28

Item No.	Part #	Description	Qty
166	3040126	Screw, #4-40 x 1/2" LG S.S. Slotted Truss Head	2
167	3040132	4-40 Flat Head Socket x .312 LG	4
168	3040140	Hex Nut #4-40 18-8 S.S.	2
169	3040141	Flat Head Screw #4-40 x 1/4 18-8 S.S. 82	10
170	3040173	Screw, 4-40 X 1/4LG SST	4
171	3040174	PEM Stud 4-40 X .312LG SST	8
172	3040175	Nut, 4-40 KEPS 18-8 SST	10
173	3040178	Standoff 4-40 X .75LG SST	4
174	3060101	Hex Nut, #6-32 ST.STL	10
175	3060105	Machine Screw. #6-32 X 1/2"	2
176	3060142	Self Clinch Stud, #6-32x 7/8"	4
177	3060154	Screw #6-32 X .375"LG	6
178	3060156	6-32 x .38 LG Round Head Phillips S.S.	25
179	3060160	Pem Stud #6-32 x 5/16" LG	4
180	3060163	Hex Nut #6-32	4
181	3060191	Screw #6-32x7/8 LG Truss Head Phillips 18-8 S.S.	21
182	3080101	8-32 Hex Nut S.S.	1
183	3080104	8-32 x 3/8 LG S.S. Truss Head	1
184	3080157	Screw, #8-32 X 3/8" LG	14
185	3080183	Hex Head Screw 'SEMS' #8-32 X 3/8"	1
186	3080203	Screw #8-32 x 3/8 w/ Interior Tooth Washer	4
187	3080227	Machine Screw #8-32 X 3/8 Hex Head SST	8
188	3080332	Pem Stud # 8-32 X 3/8	3
189	3080337	Clinch Style Nut, Round Head Captive #8-32	4
190	3080350	Pan Head Screw, #8-32 x 3/8 w/ Interior Tooth Washer	14
191	3080401	Standoff, #8-32 X 7/8LG .28OD SST	8
192	3080402	Screw, #8-32 X .38L FH W/ Ring	36
193	3100136	Machine Screw #10-32 X 1 1/4"	4
194	3100157	Flat Washer #10	7
195	3100178	Hex Screw Bolt #10-32 X 3/8"	18
196	3100184	Self-Clinching Stud #10-32 X 1/2"	12
197	3100308	Pem Nut #10-32 SS	2
198	3100315	Nut, 10-32 KEPS 18-8 SST	11
199	3250154	Washer, Ø1/4" Helical Spring Lock	8
200	3250302	1/4-20 Pem Nut SST	8
201	7002575	Fan Kit	1
202	4010202	Transformer, 115-230V/24V	1
203	4010254	Micro-Switch	1
204	4010260	Reed Switch	2

Item No.	Part #	Description	Qty
205	4010261	Reed Switch Actuator	4
206	4010266	Fixed Pressure Switch 26 PSI	1
207	2170229	Solenoid Valve .088 Orifice	2
208	4040269	Steam Solenoid Valve .12 Orifice	2
209	4050236	Contactora 2 Pole Normally Open	1
210	4051010	SSR, Random Phase	2
211	4051055	3.5" Water Level Probe	2
212	4051067	Power Supply 24 VDC	1
213	4060107	Cable Tie, 1/8"W X 5"	1
214	4060118	Wire Tie	1
215	4060487	USB Panel Mount	2
216	4070481	ASY PCB, Ball Valve	1
217	0701168	IS-1000 Drain Valve Control Wiring Harness	1

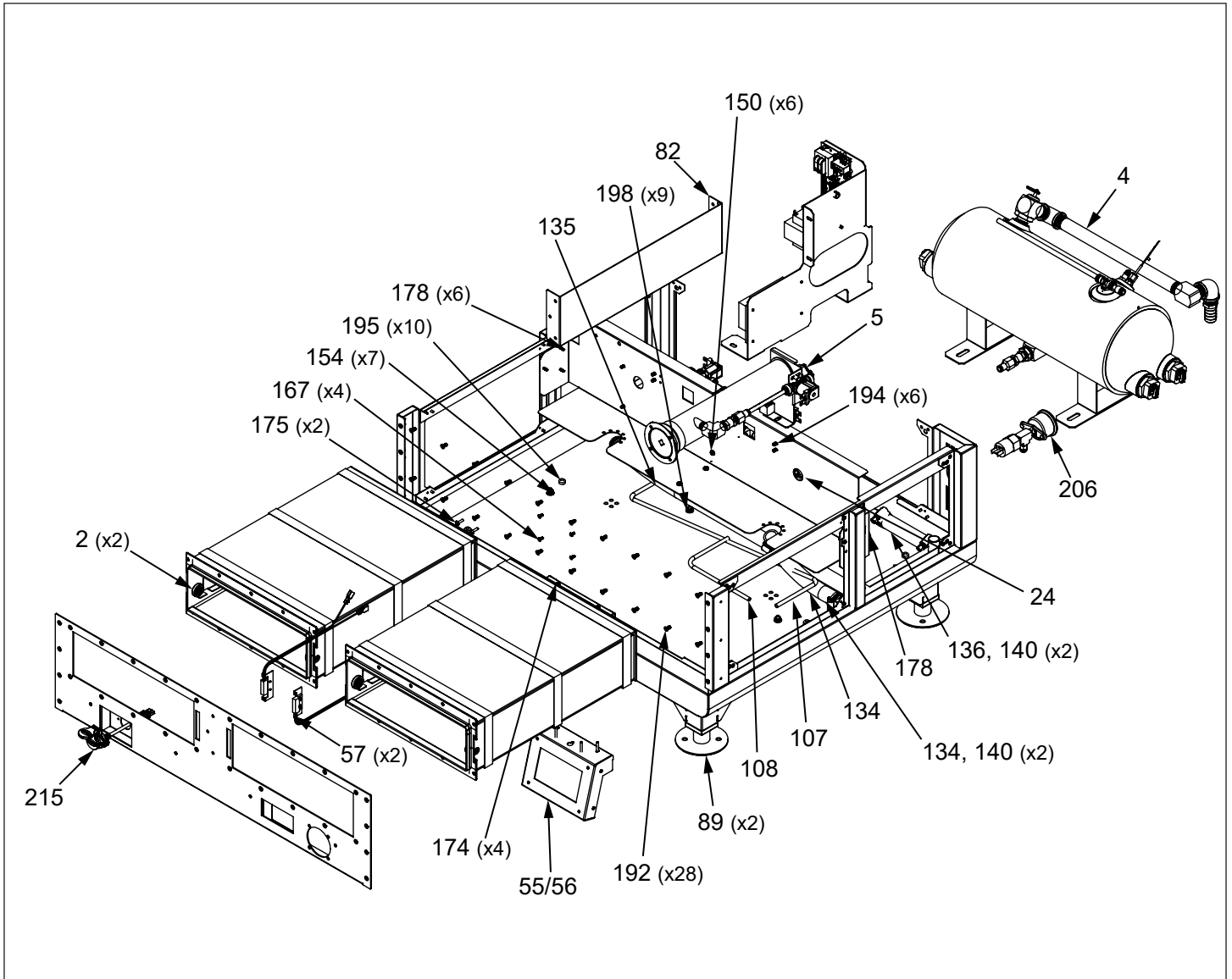
# Replacement Parts

## Exploded Diagram 1



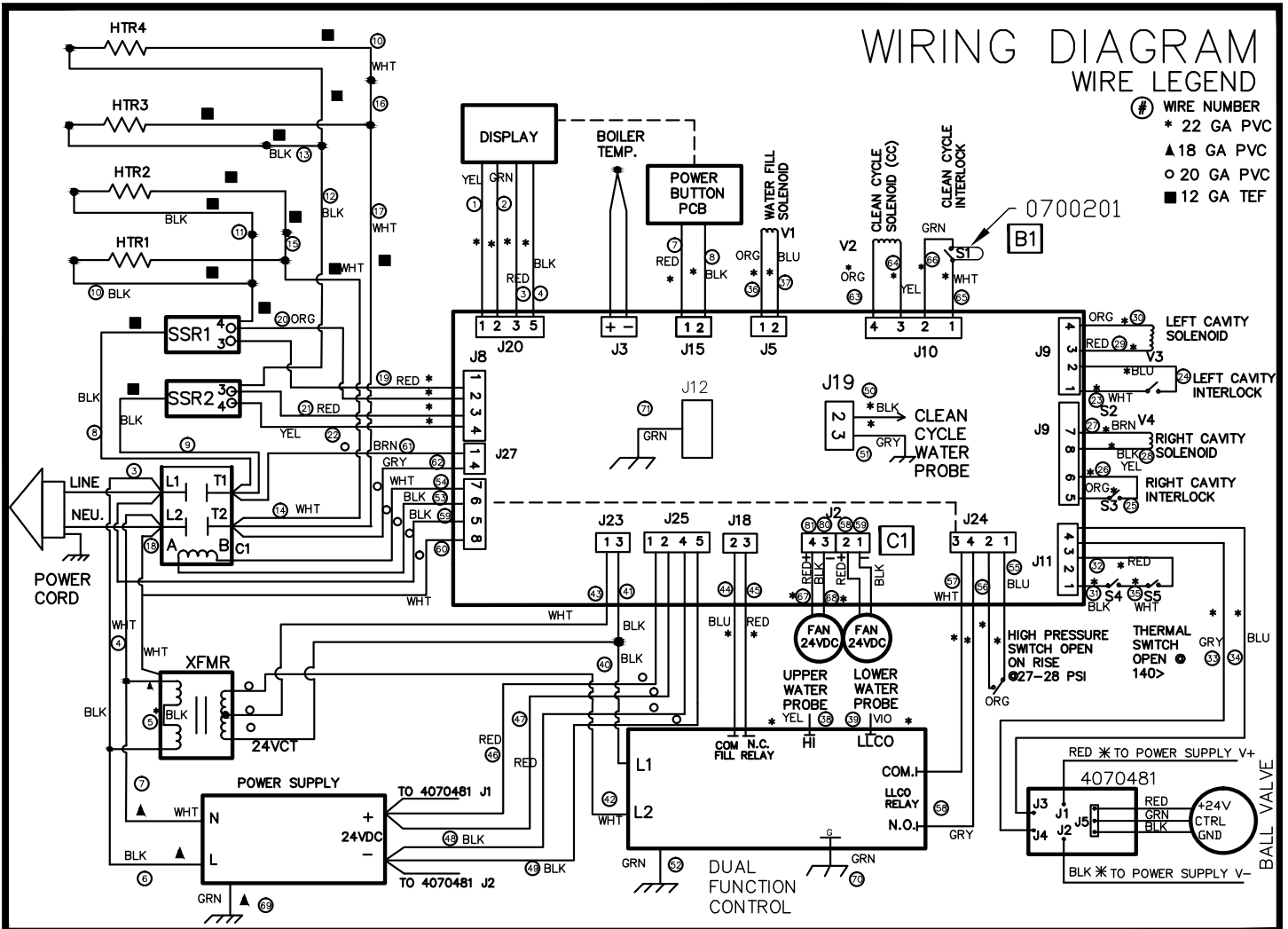
# Replacement Parts

## Exploded Diagram 2





# Wiring Diagram





## 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 and operated in accordance with manufacturer's recommendations. To ensure 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.

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 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.

This warranty does not cover water quality related issues related to limescale, corrosion and/or improper cleaning, descaling and/or maintenance related issues.

This warranty does not cover water pressure problems or failures resulting from improper/incorrect voltage supply.

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.

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.

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.

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:

- Damage to Power Cord and/or plug
- Damage to Receptacles and or external water lines
- Normal maintenance outlined in the Owner's Manual
- Consumable parts such as gaskets, feet, labels, O-rings, etc.
- Malfunction resulting from improper service or maintenance
- Damage caused by improper use, abuse, careless handling, and/or improper Boiler maintenance as outlined in the Owner's Manual.
  - Clean Cycle must be performed every 24 hours or less with a minimum of 4 ounces of Delimer Crystals.
- Damage caused by improper maintenance of filtration as outlined below:
  - VZN Filtration System
    - Scheduled Replacement of filters (Ultra-Filter Chlorine or Chloramine Filter)
    - System properly flushing according to water quality
    - Inlet water pressure needs to be within 60 psig to 100 psig
  - Antunes Water Softener
    - Brine Tank must be always maintained with at least 20 pounds of Water Softener Salt.
    - Softener must be plugged in and running proper regeneration cycle
- 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
- Failure to meet water quality requirements

### Water Requirements:

○ Hardness (Calcium & Magnesium)	1 GPG Maximum
○ Total Alkalinity	600 PPM Maximum
○ Total Silica	150 PPM Maximum
○ Iron Content	0.1 PPM Maximum
○ pH	6.5 - 10.5
○ Conductivity/Total Dissolved Solids	(TDS)6-100 µS/cm (TDS 4-65 PPM)
○ Oxygen Content	0 PPM
○ Carbon Dioxide	0 PPM
○ Minimum Water Pressure (Dynamic)	40 psig
○ Maximum Water Pressure	60 psig



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