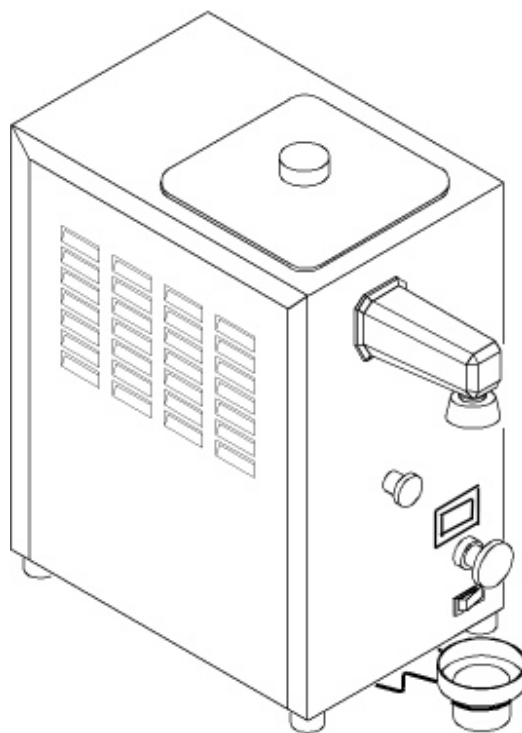




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KW 50

OPERATION MANUAL

Foreword

Thank you for selecting Carpigiani to meet your operation and growing demands. Your Carpigiani machine has been manufactured utilizing the most advanced technology and modern equipment available in the industry. We at Carpigiani, take great pride and care in the manufacturing of each and every machine, using only the finest components available, to provide you with many years of trouble free operation.

PLEASE READ IT CAREFULLY this Operation Manual and keep it in an available place for future reference and most of all, follow the instructions carefully.

On the following pages, you will find important information and procedures, which describe the proper installation, sanitizing, operation, and maintenance of your Carpigiani machine. We feel certain that your compliance with these instructions will assure excellent performance, trouble-free operation and profitable business for years to come.

All technical data, pictures and drawings contained in this operation manual are not binding on the manufacturer, nor can the manufacturer be held liable for any modification to the machine in part or completely.

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IMPORTANT

Failure to closely follow operational and maintenance procedures may result in damage to the unit and / or void your warranty. Carpigiani will not be responsible for any machine not properly operated or maintained.

Part I – Installation

Before starting this procedure, ensure that the shipping carton does not show any evidence of damage due to dropping or mishandling. This may indicate that the machine was damaged during transit or delivery.

IMPORTANT

Should the outside of the shipping carton give any indication of possible damage, state this on the bill of lading prior to signing. Contact the freight carrier and request an inspection of damage. If this procedure is not adhered to, you will forfeit your rights to file a damage claim and be responsible for subsequent repair costs.

A) Uncrating the machine

- 1) The outer shipping carton is secured to the shipping pallet with strapping. When cutting this strapping, do so with caution as it may spring out quickly. After cutting the strapping, lift the shipping carton straight up and off of the machine.
- 2) Remove the protective foam boards and plastic wrapping from the outside of the machine.
- 3) Unwind the power supply cord and inspect for any damage that may have occurred during transportation. If the cord is damaged or cut in any way, contact an Authorized Service Agent before connecting to a power source.

B) Positioning the machine

After removing the machine from the shipping pallet, it is now ready to be located in its final location. Prior to choosing a location keep in mind that the machine should be accessible for periodic maintenance and have adequate space for necessary airflow. Please allow 6 inches of clearance on left, right and rear sides of the machine.

The machine must also be level to ensure proper drainage from the mix tank.

THE MACHINE IS INTENDED FOR INDOOR USE**C) Electrical Requirements****WARNING**

This machine must be properly grounded. Failure to provide adequate grounding can result in severe electrical shock and / or fatal bodily injury.

This machine is provided with a power cord connected to the unit. You should have already inspected the cord for any damages that may have occurred during shipping. If there is no damage to the cord, you may plug it into the electrical receptacle.

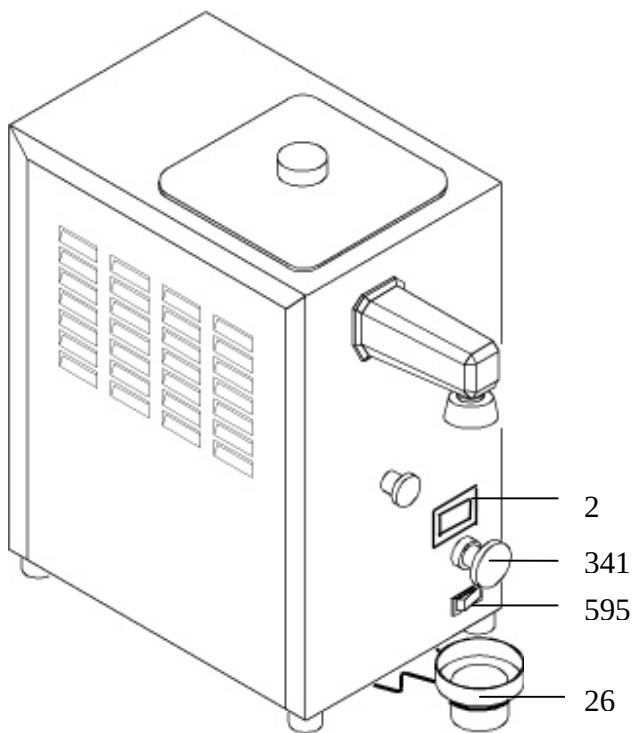
For this machine, you will need to provide a dedicated electrical circuit with a rating of 115vac / 60hz / 1phase – 10amperes. This receptacle should be no farther than 6 feet from the machine and at no times should an extension cord be used. This electrical circuit must comply with your local and / or state regulations.

Part II – Explanation of the Controls

A) Machine configuration

The machine consists of motor drive for pump and of motocompressor for the cooling unit (with air condensation). The cream is whipped after pouring liquid cream into the tank and starting the distribution. Thanks to the pump, the cream can be dispensed either in portions or continuously for max 90 seconds and then waiting 15 minutes.

B) Controls available to the operator



On/off switch (595)

It starts and stops the machine operation. When the switch is at lefthand, the machine is in STOP; when at righthand, (light on) the machine is ready for whipped cream distribution.

WARNING

Owing to the characteristics of the freezing compressor, when the machine stops out of any reason, WAIT FOR 5 MINUTES BEFORE STARTING IT AGAIN.

If what above stated is not observed, compressor protection will enable the machine starting **after 20 minutes since the cut out occurred.**

Distribution button (341)

When pressing this button you enable distribution of the whipped cream according to desired quantities.

Thermometer (2)

It indicates the temperature of liquid cream in the tank.

For a proper machine operation, the machine temperature must be within a range of 32,9°F to 42,8°F.

Drip cup (26)

The drip cup has the function to collect possible leaks from the lid during distribution. It is a hygienic protection also for the nozzle on front lid during idleness. Such a protection becomes active by inserting it with a pressure into the break sprinkle cup.

C) Mix Injection Pump

Your Carpigiani whipped topping dispenser is equipped with a mix injection pump. This mix injection pump injects air into the liquid mix prior to dispensing. This pump has two internal gears that are driven by a pump drive shaft. This drive shaft couples with the pump motor through a pulley and a belt.

The mix injection pump runs whenever the pump drive motor is turning. To regulate the amount of mix being dispensed, pivot the pump suction tube either to the right (less mix/more air) or to the left (more mix/ less air). (Refer to figure 3)

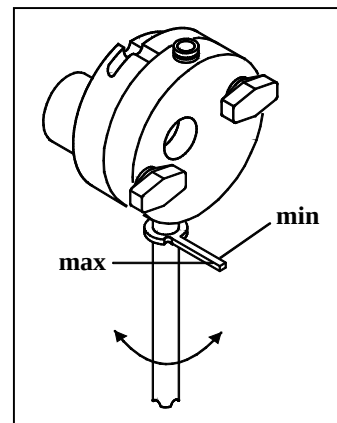


Figure 3

The air intake is through the front two holes of the pump cover. Since the two air inlet holes are fixed, the air intake is constant. To adjust your overrun (yield) you must regulate the amount of mix being pumped. The mix pump suction tube will change the orifice size

on the tube to allow either more or less mix to be pumped.

You will also have to adjust your pump suction tube orifice setting depending on your product viscosity and texture desired.

The “Normal” operating position for the suction tube on this machine is either one position to the left, center, or one position to the right of center.

D)Texturizer and Dispensing Head

The texturizer and dispensing head are also important parts used to dispense whipped product from this machine.

The texturizer is used to whip the product that is pressurized by the mix injection pump. The texturizer consists of a stainless steel rod enclosed inside a clear plastic tube. The texturizer and tube are connected to the pump cover on one end and the dispensing head on the other end. The pressurized liquid is pumped through the channeled texturizer, which whips the product. The whipped product is then transferred to the dispensing head and dispensed.

The dispensing head is made of high impact thermo-plastic. This dispensing head is secured to the machine by two pins attached to the refrigerated front extension. To remove the dispensing head, simply rotate the head counter clockwise $\frac{1}{2}$ a turn while pulling straight out. Attached to the head is a pattern nozzle and splashguard. These parts are secured to the dispensing head with rubber o-rings.

Part III – Initial Cleaning Procedure

IMPORTANT

This is a new machine and although clean, it must be completely disassembled, washed and sanitized before adding fresh product.

Please proceed as follows:

Remove the mix tank cover and spare parts items packed inside the mix tank. The spare parts kit will include: spatula, cleaning brushes, sanitary lubricant, o-ring removal tool, sanitizer packets, spare o-rings and seals, and operation manual. Place these items in a convenient place for future reference.

Helpful Suggestion: Before proceeding with the disassembly of the machine, we recommend the use of a clean plastic pan or pail to place the removed parts into. This will minimize the possibility of misplacing or damaging these components.

You can now start to disassemble the machine’s parts for cleaning. First remove the dispensing head assembly by rotating counter clockwise and pulling straight off the refrigerated extension.

Remove the texturizer and outer tube by sliding straight out of the front of the refrigerated nozzle.

Remove the mix pump assembly by rotating clockwise until the hook stud on the rear of the pump disengages from the pump hub. After disengaging, slide the pump away from the rear of the machine and out of the mix storage tank.

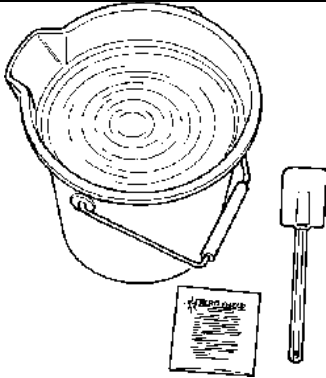
Remove both the mix tank drain plugs from both the mix tank and front panel.

The machine is now completely disassembled and the removed parts must now be washed, rinsed, and sanitized. Using the o-ring removal tool provided in the spare parts tool kit, remove all of the o-rings from their assigned locations on the machines components.

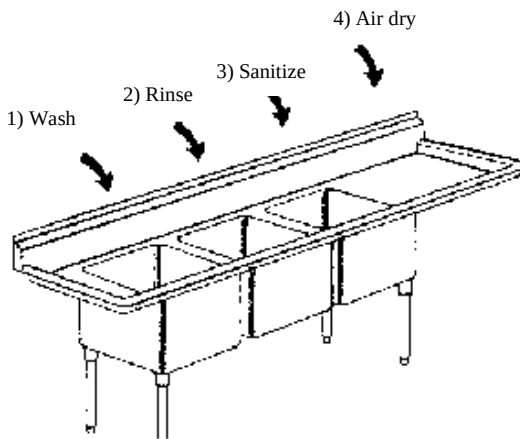
Wash the removed machine parts in luke warm (80-90 F) water and mild non-foaming detergent. Scrub each of the parts with the cleaning brushes provided in the machines spare parts kit.

IMPORTANT

DO NOT use hot water on any of the plastic parts as this may result in damaging these parts.



Using your three-tank sink, wash, rinse and sanitize all of the disassembled machine parts. Mix the sanitizer to a solution of 100ppm concentration with warm water. Allow the parts to soak in the sanitizing solution for 3-5 minutes before removing. Allow the parts to air-dry on the clean, sanitized counter at the end of the sink. DO NOT towel or sponge dry these parts.



Part IV - Assembling the Machine

Once all of the parts have been washed, rinsed and sanitized, the machine is ready to be assembled.

A) Assembling the Mix Injection Pump

To re-assemble the mix injection pump you must first locate the parts needed to complete this assembly. (Refer to figure 4)

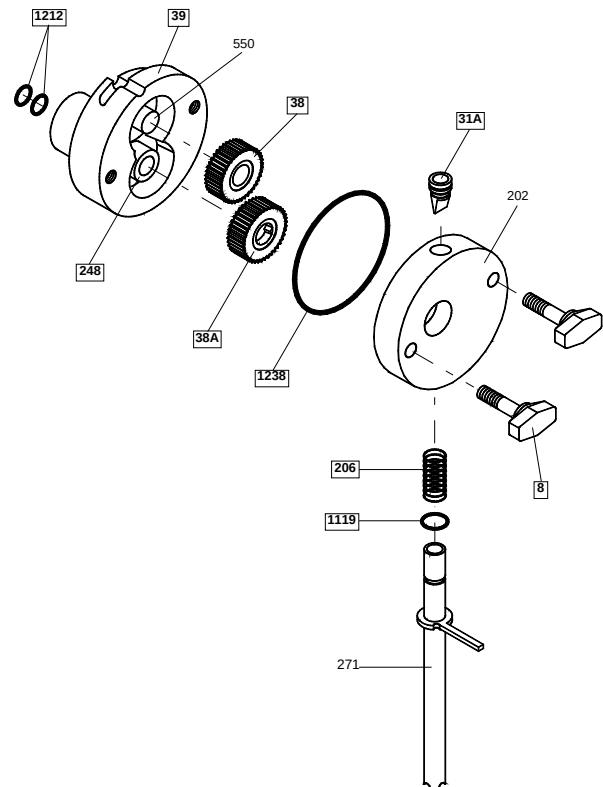


Figure 4

After locating the parts, install the rubber o-rings. **Lightly** coat these with the sanitary lubricant provided with your dispensers tool kit.

Next apply a light coat of lubricant to each side and center of the mix injection pump gears.

DO NOT lubricate the gear teeth as this adds no protective lubrication to the pump. Install the lubricated gears into the mix pump body.

Lightly lubricate the mix pump shaft seal on both the inner and outer surfaces. Install this seal into the rear of the mix pump body.

Install the pump drive shaft into the rear of the mix pump body ensuring that it is engaged into the pump drive gear.

Carefully install the pump body into the mix storage tank. Rotate the pump onto the pump locking hub ensuring that pump hook stud engages onto the hub locking pin. Rotate the drive gear until the shaft engages into the rear drive coupling. The gear will be completely enclosed into the pump body if installed properly. If the gear continues to protrude from the pump body, continue to rotate while pressing into the pump body until successful.

Next, install the mix suction tube and spring into the pump cover well. Rotate the suction tube until it is locked into place with the lever pointing away from the rear of the pump.

Install the large o-ring into the mix pump body and lightly lubricate. Next, install the pump cover assembly onto the installed mix pump body. Secure the mix pump cover to the mix pump body with the two metal retaining knobs.

NOTE: Hand tighten these knobs only. DO NOT use any tools to tighten or pump component damage may occur.

B) Assembling the Texturizer and Dispensing Head

With the mix pump assembly installed, you are now ready to assemble and install the texturizer and dispensing head. First locate the parts needed to assemble the texturizer. (Refer to figure 5)

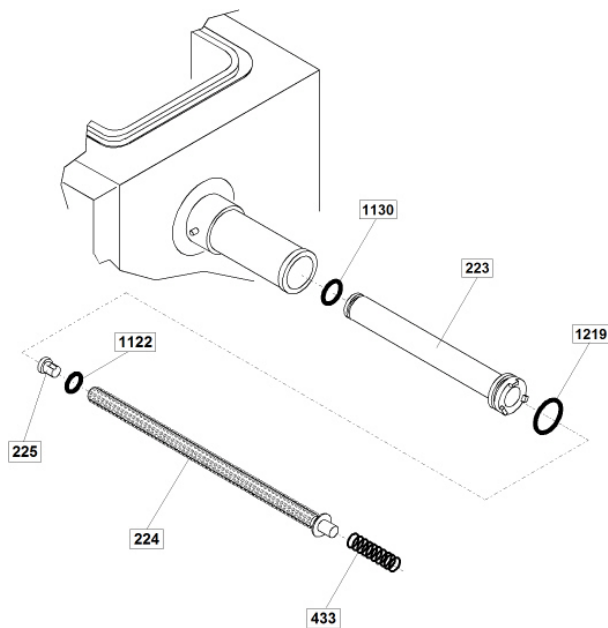


Figure 5

Lightly lubricate the o-rings and texturizer seal and assemble onto the texturizer and tube. Slide the metal texturizer into the outer plastic texturizer tube, seal end first. The texturizer and seal should slide easily into the outer tube.

Slide the texturizer tube assembly into the refrigerated front extension of the machine. The front of the plastic texturizer tube must completely engage into the mix injection pump cover. Slide the texturizer spring onto the metal texturizer, which protrudes, from the front refrigerated nozzle.

The texturizer tube is now completely assembled and installed into the machine. You are now ready to assemble and install the dispensing head.

First locate the parts needed to assemble the dispensing head. (Refer to Figure 6)

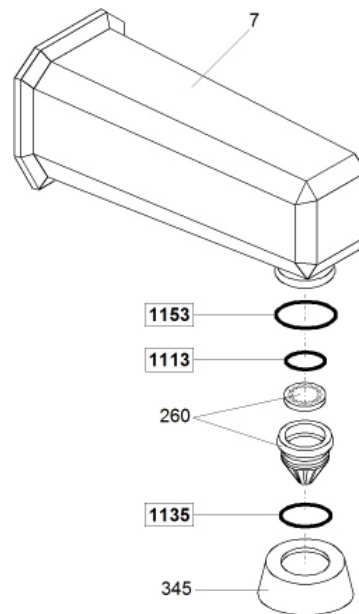


Figure 6

Lightly lubricate and install the o-rings onto the correct parts. Install the diffuser plug into the center hole of the dispensing head. Next install the pattern nozzle over this plug and fasten onto the dispensing head. Install the splashguard onto the outside of the pattern nozzle.

You are now ready to install the head assembly onto the machine. To do this, slide the dispensing head onto the front refrigerated nozzle with the pattern nozzle pointing up. Slide the dispensing head assembly onto the nozzle until the stopping point is reached. Turn the head assembly clockwise until it locks into position and the nozzle is pointed straight down.

The dispensing head assembly is now installed. You can now install the front drip cup assembly.

C) Assembling the Front Drip Cup Bracket

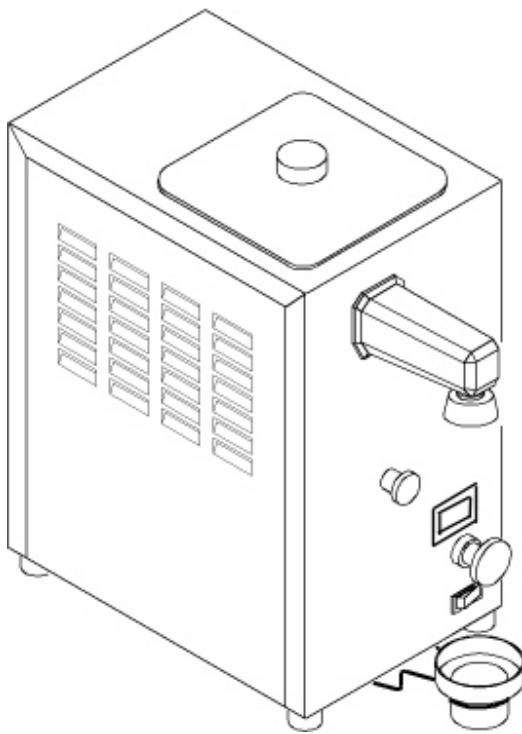


Figure 7

Place the drip cup into the drip cup holder.

Install the inside drain plug (hook) into the mix storage tank drain hole.

The machine is now completely assembled and ready to be sanitized and started.

Part V – Sanitizing the machine

The machine is now assembled but must be sanitized prior to filling with fresh mix.

Mix one gallon of sanitizing solution in a clean pail with warm water (80-90 degrees F). Using the Stera-Sheen (Green label) or equivalent sanitizer, follow the manufacturer's directions on the packet to ensure a 100ppm-solution concentration is achieved.

Pour the sanitizing solution into the mix storage tank. Using the largest cleaning provided with the tool kit, brush clean all of the surfaces of the mix storage tank.

Press the "Power ON" button.

Place a container or pail under the dispensing head. Now press the product dispense button. This will run sanitizing solution through the texturizer tube assembly and dispensing head, sanitizing all product contact surfaces. Dispense approximately 6-8 ounces of sanitizing solution, then release the dispense button.

Press the "Power OFF" button, turning the machine to the off mode.

Allow the remaining sanitizing solution to remain in the machine for 2 – 3 minutes.

To drain the remaining sanitizing solution from the machine, place a pail under the front drain plug next to the front panel. Remove the front drain plug, then slowly remove the hook drain plug from inside the mix tank. The sanitizing solution will now drain from the machine. Using the sanitized spatula provided in the spare parts kit, direct the remaining sanitizing solution to the drain hole in the mix tank.

After all of the sanitizing solution has drained from the machine, reinstall the hook drain plug and front drain plug unto the machine.

You are now ready to fill the machine with fresh, liquid mix.

Part VI – Starting the machine

Only after the machine and all of its components have been cleaned and sanitized should you start the machine and serve product.

To start the machine, press the “Power ON” button. Pour your liquid mix into the mix storage tank. You must not over fill the mix tank with mix. The maximum quantity of mix should NEVER exceed 2 quarts.

IMPORTANT

NEVER use mix that is semi frozen or not completely dissolved (if from powder) since this can cause damage to the mix injection pump and its components.

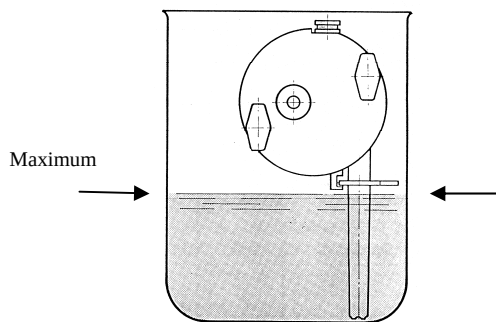


Figure 8

Place a cup under the dispensing nozzle and press the dispense button for 10 seconds. Whipped product should dispense at this time and any remaining sanitizer will be chased out of the machine, discard this product.

Part VII – Operating the Machine

After completing the Priming procedure, you may now start dispensing whipped product.

To dispense product, press the “Dispense” button .

This machine has an “Overrun” adjustment, which allows the operator to adjust the product to achieve the desired consistency. This adjustment lever is located on the mix injection pump suction tube. This adjustment will regulate the amount of liquid mix being pumped through the mix pump. The air being pumped is constant, and is injected through the front two holes on the mix pump cover.

To dispense a light fluffy product (less mix), set the lever to the right of center. If a heavier, creamy product (more mix) is desired, set the suction tube to the center or left of center positions. (Refer to Figure 9)

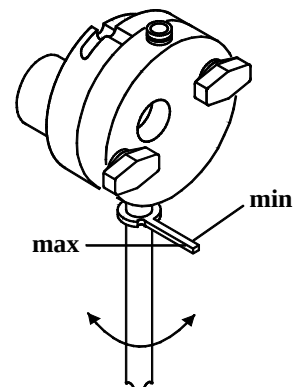


Figure 9

N.B.: The machine must be used dispensing product for 90 seconds and then waiting 15 minutes before dispense again product. This is necessary to guarantee product and parts proper temperature.

Part VIII – Periodic Cleaning Procedures

Cleaning and sanitizing schedules for your machine are determined by your local Health Department and / or Department of Agriculture and must be followed accordingly. Check with your local organization prior to determining your cleaning schedule.

After determining your schedule, proceed as follows:

Press the “OFF button” .

To drain the remaining liquid mix from the machine, place a pail under the front drain plug next to the front panel. Remove the front drain plug, then slowly remove the hook drain plug from inside the mix tank. The liquid mix will now drain from the machine. Using the spatula provided in the spare parts kit, direct the remaining liquid mix to the drain hole in the mix tank. Replace the hook drain plug into the mix tank drain hole.

Fill the mix tank with 6 quarts of luke warm (80-90F) water and a non-foaming dish washing detergent solution. Press the “Power ON” button. Press the “Dispense” button, and dispense approximately 12 ounces liquid.

Press the “Power OFF” button.

To drain the remaining soap solution from the machine, place a pail under the front drain tube next to the front panel. Slowly remove the hook drain plug from inside the mix tank. The soap solution will now drain from the machine. Using the spatula, direct the remaining soap solution to the drain hole in the mix tank.

With the machine completely drained, you must now disassemble, clean, sanitize and reassemble your machine. Proceed and follow the instructions as described in Part III of this manual, Initial Cleaning Procedure.

IX – Technical Information

Model KW 50 – 115Vac/60Hz/Air

A) Refrigeration

Compressor MFG. – Danfoss
Horsepower – 0.24
Locked Rotor Amps – 6 amps
Low Side Pressure – 14 psig
High Side Pressure – 140 psig
Condenser Cooling – Air
Refrigerant Type – R134a
Refrigerant Amount – 3.2 ounces
Metering type – Capillary tube

Condenser Fan Motor
Horsepower – 0.01
Full Load Amps – 0.21
RPM – 2900

B) Pump Drive Motor

Motor MFG. – Groshopp
Horsepower – 0.5
Full Load Amps – 5.6
Overload Type – Manual
Reset Location – Rear of motor casing

Part X – Maintenance and Troubleshooting

Your Carpigiani machine has been designed, engineered and manufactured to achieve high performance and long durability. The life expectancy of any machine depends not only on the quality of engineering, and components used, but also on the basic maintenance procedures.

It is important for you to become familiar with a few of the basic operating procedures.

- Only remove o-rings with the o-ring extractor provided in the machine spare parts kit.
- Clean and sanitize the machine in accordance with the instructions in this operation manual.
- Lubricate all o-rings and seals as instructed.
- The wearing or the improper cleaning of the Mix Pump Shaft seals will result in product leakage into the rear of the machine. Check frequently and replace seals when necessary.
- Replace any o-ring that is leaking or damaged.
- When all of the spare parts supplied in the spare parts kit are used, re-order immediately. Do not wait until the part is urgently needed or causes the machine to be inoperative without it.
- During the washing, cleaning and sanitizing procedures, operate the machine in the “power ON” mode as little as possible. This will minimize component wear on the dispenser.
- When removing and installing the machine parts, handle these with care. DO NOT drop or bang together as this will damage the parts and affect the machine performance.
- NEVER use HOT WATER when washing, cleaning, or sanitizing your machine or its parts. ALWAYS use luke warm water (80-90°F).

IMPORTANT

Your machine is Air Cooled, and its efficiency depends on a clean air-cooled condenser. The fins of the condenser must be straight and cleaned a minimum of every one or two months. Prior to cleaning the air condenser, place the machine in the OFF mode and disconnect power to the machine

The following is a recommended wearable parts replacement schedule. This is for normal operation of the machine and will vary based on the volume and type of product served as well as operational and cleaning procedures.

Replacement Schedule

O-rings and Seals – Every 6 months or as needed
Mix Pump Gears – Every 3 years or as needed
Pump Drive Bearings – As needed
Plastic Parts – As needed when leaking, scratched, or broken
Rebuild Mix Pumps – Every 5 years or as needed
Electrical Components – When malfunctioning

IMPORTANT

Prior to opening any of the machine outer panels, place both sides in the STOP/OFF mode and disconnect the machines power supply. Failure to do so can result in serious injury and or death

Trouble-shooting Guide

Problem Encountered	Possible Cause	Suggested Remedy
1) With power ON, no product dispenses from machine	A) Pump knobs loose. B) Testurizer clogged. C) Pump Gears Worn.	A) Tighten knobs. B) Disassemble and brush clean, sanitize and reassemble C) Replace pump gears
2) Product dispenses poorly whipped and/or wet looking	A) Liquid mix has separated. B) Suction hole size too large C) Pump and/or texturizer clogged. D) Texturizer tube worn.	A) Drain machine, clean, sanitize ad restart with fresh mix B) Adjust suction tube to a smaller size hole (Set to right) C) Drain machine, clean, sanitize and restart with fresh mix D) Replace plastic texturizer tube
3) Product dispenses slowly or intermittently	A) No liquid mix in tank B) Suction tube hole too small C) O-rings/seals worn or damaged.	A) Refill mix tank with liquid mix. B) Adjust suction tube lever to larger hole size. C) Replace and lubricate ALL o-rings and seals.
4) Does not dispense product when Dispense Button pressed and motor runs	A) Pump beating locked up B) Pump drive belt worn or broken	A) Call a Carpigiani Authorized Service Company B) Call a Carpigiani Authorized Service Company
5) Mix does not stay cool, but machine is dispensing and running	A) Refrigeration Problem	A) Call a Carpigiani Authorized Service Company
6) Dispense button does not active pump drive motor	A) Switch or motor problem	A) Call a Carpigiani Authorized Service Company
7) No switch functions working	A) No power coming to the machine B) Switch problem	A) Check power supply B) Call a Carpigiani Authorized Service Company