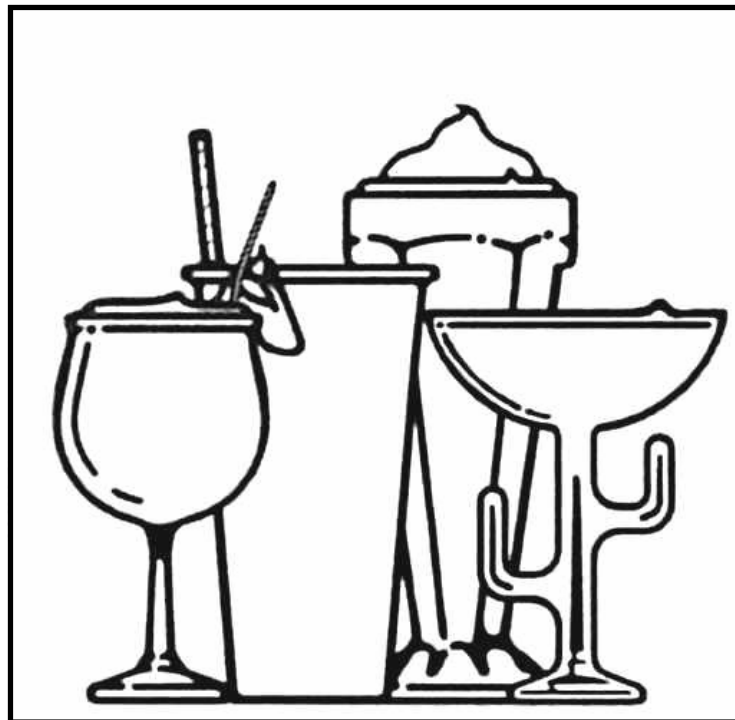


SaniServ®

 An AFFINIS GROUP Company

“Reliability from the team that Serves the Best”



DuraFreeze 100 Frozen Beverage Dispenser

Operation Manual

Distributor Name: _____

Address: _____

Phone: _____

Date of Installation: _____

Model Number: DuraFreeze 100 (7030010)

Serial Number: _____

Installer/Service Technician: _____

SERVICE

Always contact your SaniServ dealer or distributor for service questions or service agency referral. If your SaniServ dealer or distributor cannot satisfy your service requirements, he is authorized to contact the factory for resolution.

Note: It is the Owner's responsibility to maintain the Service Record located on the inside rear cover of this manual. An accurate record of service performed can greatly expedite troubleshooting of problems and significantly reduce repair costs.

PARTS

Always order parts from your SaniServ dealer or distributor. When ordering replacement parts, specify the part numbers, give the description of the part, the model number and the serial number of the machine.

WARRANTY

Manufacturer's Limited Warranty

SaniServ warrants to the original purchaser that its equipment, as originally supplied, is free from defects in materials and workmanship, and will perform adequately under normal use and service. **SaniServ** will replace or repair any part or parts found to be defective in material or workmanship for a period of 90 days (1 year for compressor) from the date of original installation, subject to the following limitations;

1. All warranty work must be performed by a SaniServ Authorized Service Representative or at SaniServ's manufacturing facility.
2. This warranty applies only to the original purchaser at the original installation location, and is only good if the purchaser has returned the fully completed the product registration form to SaniServ within ten (10) days of the date of purchase by the original purchaser/user, but not to exceed eighteen (18) months from date of shipment from factory.
3. Warranty labor coverage at SaniServ's standard rates during normal weekday business hours is provided to repair or replace any component found defective under the terms of the SaniServ warranty for a period of 30 days from the date of the original installation.
4. This Limited Warranty does NOT cover the following:
 - Charges for transportation / shipping charges
 - Rubber and non-metallic synthetic parts including gaskets, o-rings, or hoses.
 - Repairs required because of failure to regularly clean and maintain the equipment in accordance with instructions in the Operator's manual.
 - Repairs required because the equipment (i) has been altered or repaired other than by a **SaniServ** Authorized Representative, (ii) has been damaged due to accident, misuse, or negligence, (iii) has not been used in accordance with the procedures and instructions contained in the Operator's Manual, or (iv) has been damaged during transit or delivery.

THE FOREGOING LIMITED WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE ORIGINAL PURCHASER'S ONLY REMEDY IS THE REPAIR OR REPLACEMENT OF THE DEFECTIVE EQUIPMENT OR PARTS PROVIDED ABOVE. IN NO EVENT SHALL SANISERV BE LIABLE FOR ANY AMOUNT EXCEEDING THE PURCHASE PRICE. UNDER NO CIRCUMSTANCES SHALL SANISERV BE LIABLE FOR LOSS OF PROFITS, LOSS OF BUSINESS, DAMAGE TO PROPERTY, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SaniServ
P.O. Box 1089
Mooresville, IN 46158-5089
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IMPORTANT

This machine was designed to produce frozen slush beverages only.

Do NOT attempt to operate this machine with soft-serve or shake type product mix.

Damage to the machine may occur and warranty will be void.

SPECIFICATIONS

Width Inches (mm)	14.0 (356)
Height Inches (mm)	25.4 (645)
Depth Inches (mm)	20.9 (531)
Machine Weight lb (kg)	145 (66)
Crated Weight lb (kg)	172 (78)
115 Volt 60 Cycle Single Phase	
Circuit Amps - Minimum	11
Circuit Amps - Maximum	11

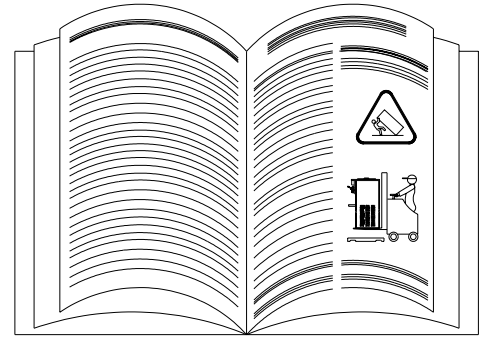
Introduction

This manual provides a general system description of the SaniServ Frozen Beverage Dispensers. It has been prepared to assist in the training of personnel on the proper installation, operation, and maintenance of the machines.

Read and fully understand the instructions in this manual before attempting to install, operate, or perform routine maintenance on the machines.

The following sections of the manual must be performed in sequence:

1. Installation
2. Installer's Preoperational Check
3. Disassembly & Cleaning
4. Assembly & Lubrication
5. Sanitizing & Operation
6. Consistency Adjustment



Installation

1. Install legs using the instructions on the shipping carton.
2. Place the machine in the desired location and level the unit by turning the bottom part of each leg clockwise or counterclockwise (Fig. 1). The machine **MUST** be level to operate properly.



WARNING

THESE UNITS MUST NOT BE OPERATED WITHOUT LEGS .

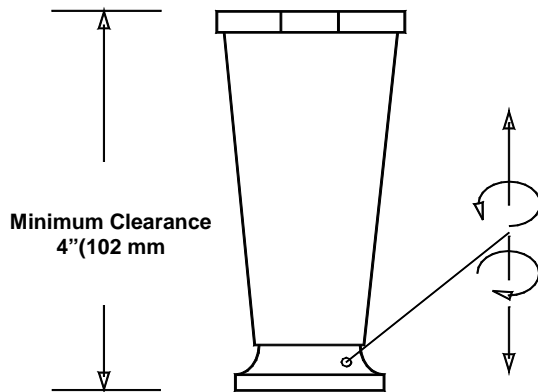


Fig. 1

3. A minimum 6" (152 mm) clearance must be maintained at the rear and sides of the machine for adequate ventilation.

IMPORTANT

ALWAYS CHECK ELECTRICAL SPECIFICATIONS ON THE DATA PLATE OF THE MACHINE. THE DATA PLATE SPECIFICATIONS WILL ALWAYS SUPERSEDE THE INFORMATION IN THIS MANUAL.

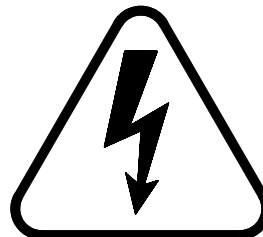
4. Electrical and refrigeration specifications are located on the data plate on the rear panel of the individual machines. Consult local authorities for information regarding plumbing and electrical codes in your area

Note: All SaniServ machines should have their own dedicated circuits to prevent low voltage conditions caused by other operating equipment.



WARNING

FAILURE TO PROVIDE FOR PROPER EARTH GROUND ACCORDING TO LOCAL ELECTRICAL CODES COULD RESULT IN SERIOUS ELECTRICAL SHOCK OR DEATH. DO NOT USE EXTENSION CORDS. INSTALL THE PROPER SIZE WIRE FOR THE REQUIRED MACHINE AMPS. BE CERTAIN TO OBSERVE LOCAL CODES IN SELECTING WIRE OR CORD SIZE AND TYPE.



DO NOT TURN MACHINE ON UNTIL THE INSTALLER'S PRE-OPERATIONAL CHECK SECTION IS COMPLETE.

Pre-operational Check

THE FOLLOWING ITEMS MUST BE PERFORMED BEFORE ATTEMPTING TO OPERATE THE EQUIPMENT:

1. Make certain that proper electrical connections have been made. Plug power cord into power outlet.
2. Set the “**MIX**” switch (Fig. 2) to the “**ON**” position *momentarily* to verify the direction of rotation of the dasher. The dasher should rotate counterclockwise viewed from the front of the machine.
3. Turn “**MIX**” switch to the “**OFF**” position.



CAUTION

UNDER NO CIRCUMSTANCES SHOULD THE UNIT BE OPERATED FOR MORE THAN THREE MINUTES WITH AN EMPTY FREEZING CYLINDER . DOING SO WILL RESULT IN DAMAGE TO THE MACHINE.



Fig. 2
Control Switches

Disassembly and Cleaning

CONSULT YOUR LOCAL HEALTH AGENCY FOR LOCAL CLEANING AND SANITIZING REQUIREMENTS.

This unit does not come pre-sanitized from the factory. Before serving product, the dispenser must be disassembled, cleaned, lubricated, and sanitized. Please be aware that these instructions are general guidelines. Cleaning and sanitizing procedures must conform to local Health Authority requirements. SaniServ recommends daily cleaning and sanitizing of the equipment.

Emptying Machine

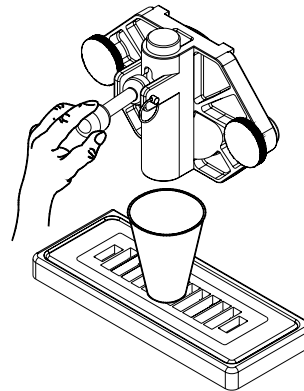
Prior to the disassembly and cleaning of parts, the machine must be emptied of product using the following procedures. *If this is first time operation, disregard these steps.*

1. Set the "FREEZE" switch to the "OFF" position and the "MIX" switch (Fig. 3) to the "ON" position and dispense all product from the freezing cylinder by pulling downward on the spigot handle (Fig. 4) to empty the machine.
2. Set the "MIX" control switch to the "OFF" position. Close the spigot handle before proceeding to cleaning.

Fig. 3
Control Switches



Fig. 4
Dispensing Product



CAUTION

DO NOT INSERT ANY OBJECTS OR TOOLS (FIG. 5) INTO THE MIX INLET HOLE OR FRONT PLATE DISPENSING HOLE WHILE THE MACHINE IS RUNNING. DAMAGE TO THE MACHINE OR PERSONAL INJURY MAY RESULT

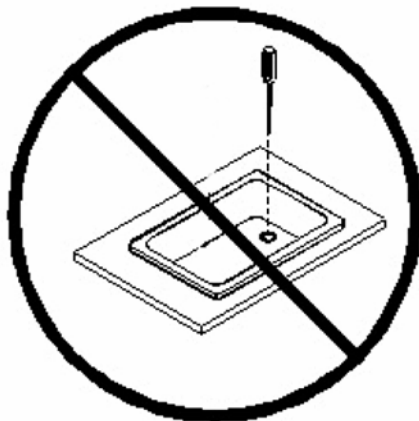


Fig. 5
Do Not Insert Objects or Tools

Disassembly and Cleaning Procedure

1. Fill the machine with cold water and set the "FREEZE" switch to the "OFF" position and the "MIX" switch (Fig. 6) to the "ON" position. **DO NOT** use hot water which could damage the machine. Let the machine agitate 1 to 2 minutes, then drain the water by pulling downward on the spigot handle (Fig. 7). Repeat the above procedure as necessary to make certain all product is removed from the machine. After the machine is empty, set the "MIX" switch to the "OFF" position.

2. Prepare a suitable detergent and water solution at a temperature of approximately 125°F. (52°C.) to 130°F. (55°C.). For best cleaning results select a concentrated anti-bacterial dishwashing detergent containing biodegradable anionic and nonionic surfactants. **Avoid detergents containing phosphates. DO NOT** use an abrasive detergent on any part of the dispenser.



CAUTION

**DO NOT USE HOT WATER.
DOING SO MAY DAMAGE THE MACHINE.**

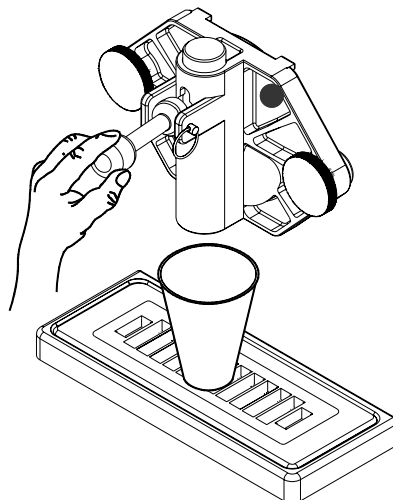
3. Make certain that both control switches are in the "OFF" position. Fill the mix pan with the cleaning solution. Clean the mix pan thoroughly with a brush as the solution drains into the freezing cylinder. Clean the mix inlet tube with the brush provided.

4. Set the "MIX" switch to the "ON" position and agitate for approximately 1 to 2 minutes and then drain the water by pulling down on the spigot handle (Fig. 7). After the unit is empty, set the "MIX" switch to the "OFF" position.



**Fig. 6
Control Switches**

**Fig. 7
Dispensing Product**



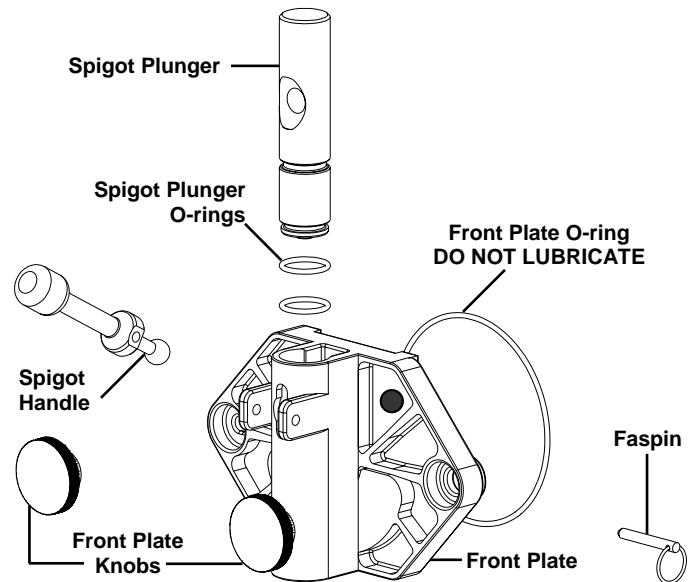
CAUTION

DO NOT USE ANY TOOLS OR SHARP OBJECTS TO REMOVE ANY O-RINGS FROM THIS MACHINE. SHARP OBJECTS WILL DAMAGE THE O-RINGS.

5. Remove the front plate by turning the black plastic knobs in a counterclockwise direction (Fig. 8). Disassemble the front plate in the following manner:

- Remove the faspin and spigot handle.
- Remove the front plate o-ring.
- With the spigot handle removed, push the spigot plunger out the top of the front plate and remove all lubricant from the spigot plunger.
- Remove the o-rings from the spigot plunger by grasping the part with one hand and with a dry cloth in the other hand, squeeze the o-ring upward. When a loop is formed, grasp the o-ring with the other hand and roll it out of its groove and off the spigot plunger (Fig. 9).
- Do not disassemble the pressure relief valve.

**Fig. 8
Front Plate Assembly**



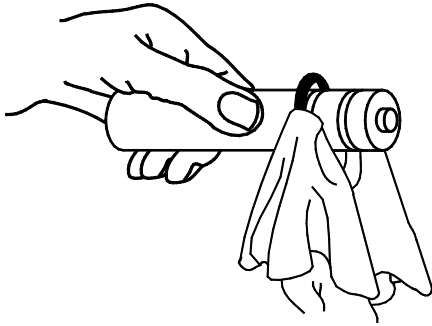


Fig. 9
O-Ring Removal

9. Remove the dasher assembly (Fig. 10) being careful not to damage the scraper blade, then disassemble in the following manner:
 - a. Remove and take apart the rear seal assembly.
 - b. Remove the scraper blade from the dasher by first rotating blade upward and then unsnapping one end from the support rod.
 - c. Remove front hub.
10. Remove the mix pan lid, drip tray and drip tray insert (Fig. 11).

Fig. 10
Dasher Assembly

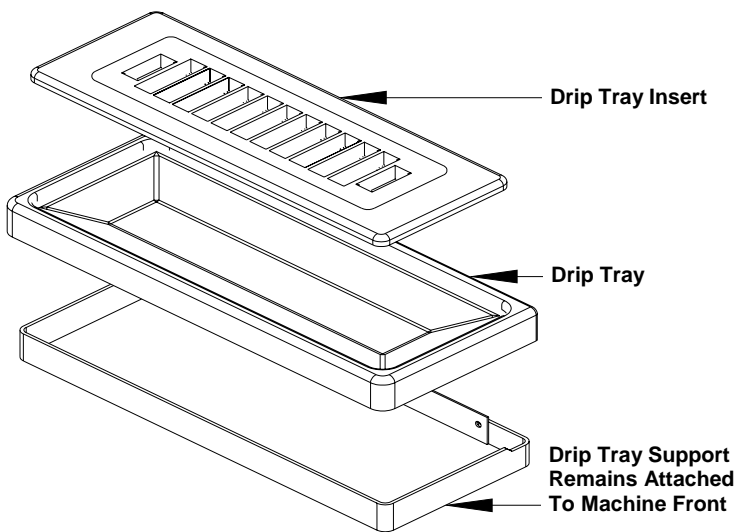
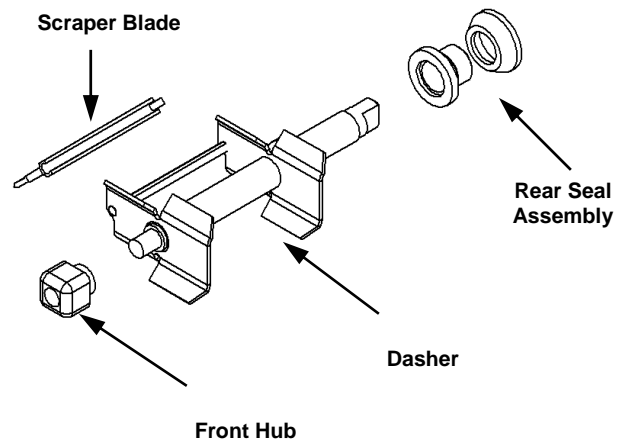


Fig. 11
Drip Tray Assembly

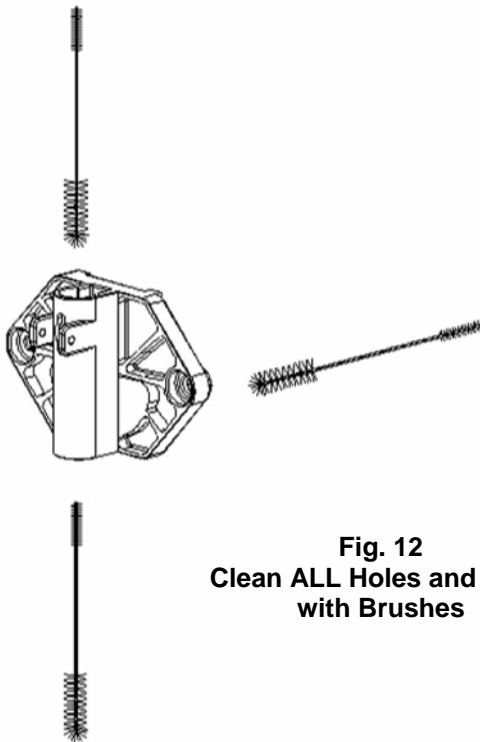
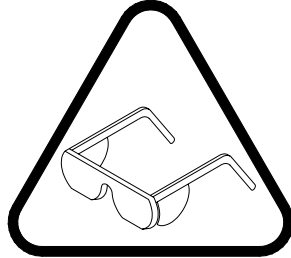
11. For best cleaning results select a concentrated anti-bacterial dishwashing detergent containing biodegradable anionic and nonionic surfactants.

NOTE: Avoid detergents containing phosphates.



**WEAR SAFETY GLASSES!
DO NOT SPLASH
DETERGENT SOLUTION
IN EYES**

Be certain to follow the manufacturer's mixing instructions when adding the dishwashing detergent concentrate to water.

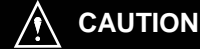


**Fig. 12
Clean ALL Holes and Ports
with Brushes**

12. Place all parts in a three partition sink filled with the following solutions:

- In one partition, detergent solution diluted to the manufacturer's suggested concentration for use.
- In a second partition, clear rinse water.
- In a third partition, sanitizing rinse solution which will produce a 200 parts per million (PPM) Chlorine residual or whatever Chlorine residual is required by your Local Health Authority.

13. Use the brushes to clean all holes and ports in the parts (Fig. 12).



DO NOT use an abrasive detergent

14. After thoroughly washing the parts in the detergent solution, rinse them in the clear rinse water. Place the parts in the sanitizing solution for at least five minutes or whatever your Local Health Authority requires, and then air dry the parts before for assembly and lubrication.



**DO NOT ALLOW THE PARTS TO SOAK IN
SANITIZER FOR SEVERAL HOURS.
DO NOT WIPE THE PARTS DRY - AIR DRY ONLY.**

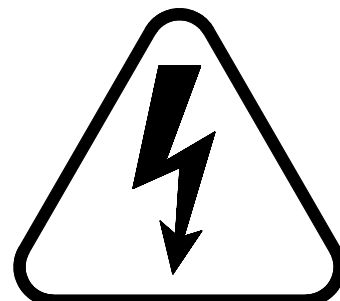
15. The remainder of the machine including the mix pan and freezing cylinder must be cleaned in place using a mild detergent solution followed by a clear rinse. Clean the exterior with a damp cloth.



DO NOT use an abrasive cleaner on the exterior of the machine or on any of the panels (guards).



**WHEN CLEANING THE MACHINE, DO NOT ALLOW
EXCESSIVE AMOUNTS OF WATER AROUND ANY
ELECTRICALLY OPERATED COMPONENTS OF THE
MACHINE. ELECTRICAL SHOCK OR DAMAGE TO
THE MACHINE MAY RESULT.**

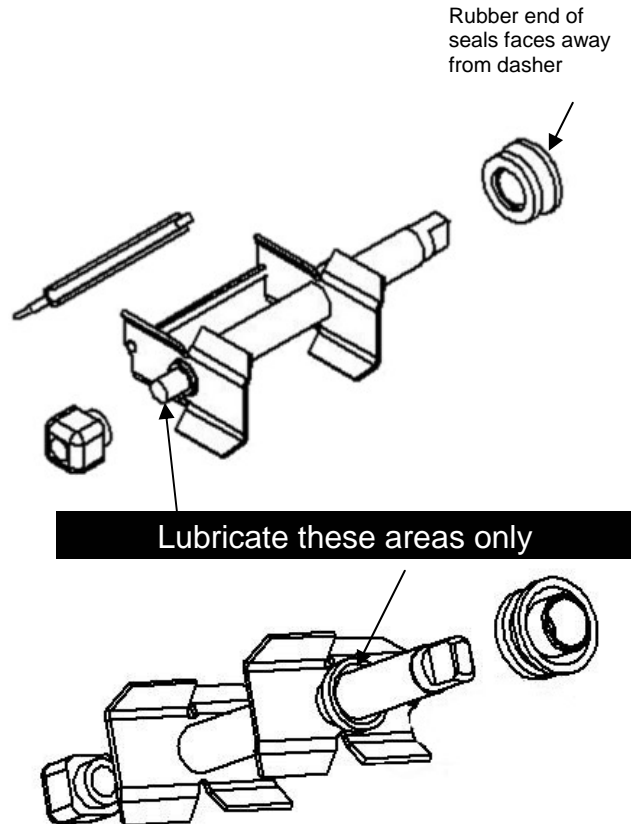


Assembly and Lubrication

Use a food grade lubricant* ONLY. Sanigel (SaniServ part number 1150) is recommended and is available from the factory or your local authorized SaniServ dealer or distributor. **Lubrication must be performed daily.**

* The SaniServ recommended product is a colorless to white, odorless, tasteless food contact lubricant accepted by the United States Food and Drug Administration (FDA) with a USDA rating of H1 and certified for food contact by NSF International. Its useful temperature range is -15°F - 210°F (-26°C - 99°C) with a melt point of 93°C using ASTM D566 and a Saybolt viscosity of 55 at 210°F (99°C) when measured using ASTM D445. The four ball wear scar diameter is 0.49 mm.

1. Lubricate and assemble the dasher assembly in the following manner:
 - a. Apply a generous amount of lubricant to the shoulder of the dasher and the area of the shaft where the white plastic portion of the assembled rear seal contacts the shaft (Fig. 13). This is easily performed by running a 1/4" (6 mm) bead of lubricant around the shoulder of the dasher.
 - b. Apply lubricant to the front of the dasher shaft which is inserted into the white "dasher support hub".
 - c. Assemble and install the rear seal with the rubber portion toward the rear of the freezing cylinder as indicated in Fig. 13.



 **CAUTION**

DO NOT LUBRICATE THE RUBBER PORTION OF THE REAR SEAL. LUBRICATION ON THE REAR SEAL WILL DAMAGE THE MACHINE.

Dasher Lubrication
Fig. 13

- f. Install the scraper blade onto the dasher assembly by holding the blade perpendicular to the tabs (Fig. 14) and then snapping them over the flat area of the support rod. Then rotate the blade downward in a counterclockwise direction as viewed from the front of the dasher (Fig. 15). **BE CERTAIN THAT THE SCRAPER BLADE REST UPON THE DASHER TABS.**

Note: Reverse the blade at each cleaning to maintain sharpness. In addition, the blade is equipped with a wear mark (Fig. 16). When the blade is worn to this wear mark, it must be replaced.

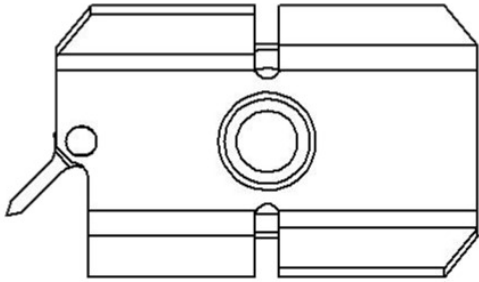


Fig. 14
Scraper Blade Installation

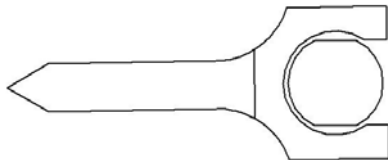


Fig. 15
Scraper Blade Installation

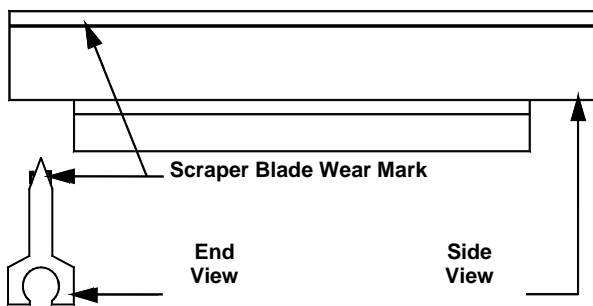


Fig. 16
Scraper Blade Wear Mark

- g. Insert the dasher assembly into the freezing cylinder as far as possible (Fig. 17) being careful not to damage the scraper blades. Damage will occur to the scraper blades and the dispenser will not operate properly if the scraper blade is installed facing in a clockwise direction.
- h. While maintaining force against the dasher, rotate it slowly until the tongue of the dasher engages the groove in the drive system at the rear of the cylinder. The outer most portion of the dasher should be recessed approximately 1/4" (6 mm) to 3/8" (10 mm) inside the freezing cylinder. No part of the dasher should extend outside the cylinder. The scraper blade should be visible, extending approximately 1/8" (3 mm) beyond the dasher .

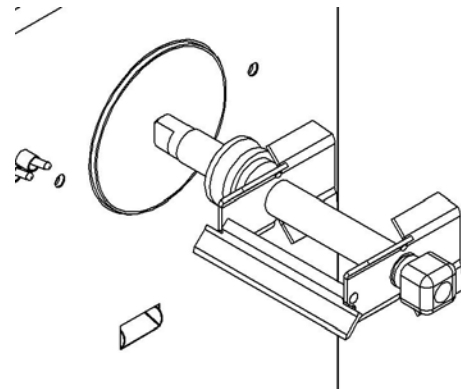


Fig. 17
Dasher Installation

2. Lubricate and assemble the front plate assembly in the following manner:

- a. Install the two o-rings on the spigot plunger by rolling them onto the plunger. Seat the o-rings in the grooves. Be certain that they are not twisted. Smooth the lubricant into the grooves and over the sides of the plunger assembly (Fig. 18).
- b. Slide the lubricated spigot plunger into the front plate (Fig. 19) making certain that the spigot handle slot is aligned to the front.
- c. Insert the spigot handle and secure with the faspin.
- d. Install the front plate o-ring.

DO NOT LUBRICATE THE FRONT PLATE O-RING

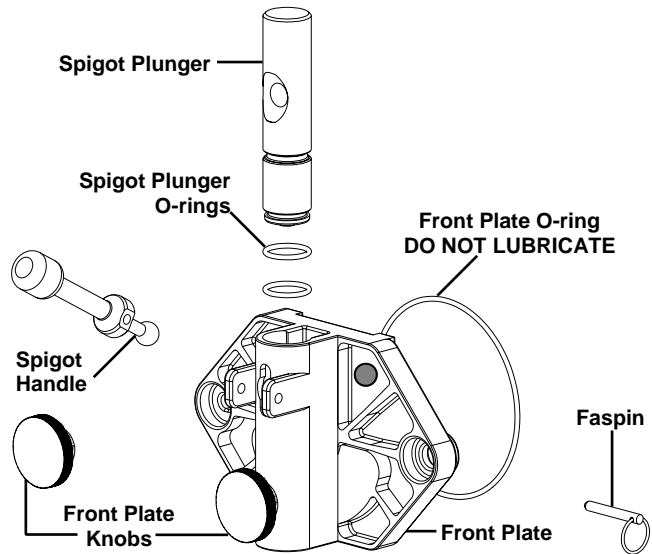


Fig. 19
Front Plate Assembly

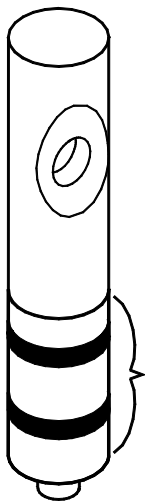


Fig. 18
Spigot Plunger Lubrication

Lubricate this area

- e. Secure the front plate assembly with the two plastic knobs. Simultaneously, turn the knobs in a clockwise direction. Tighten the knobs evenly. **DO NOT** tighten one knob all the way down and then the other. Doing so may result in front plate breakage. Only moderate force is required. **DO NOT** over tighten. Close the spigot plunger.
3. Install the drip tray and drip tray insert (Fig. 20).
 4. Proceed to the “**Sanitizing**” section of this manual.

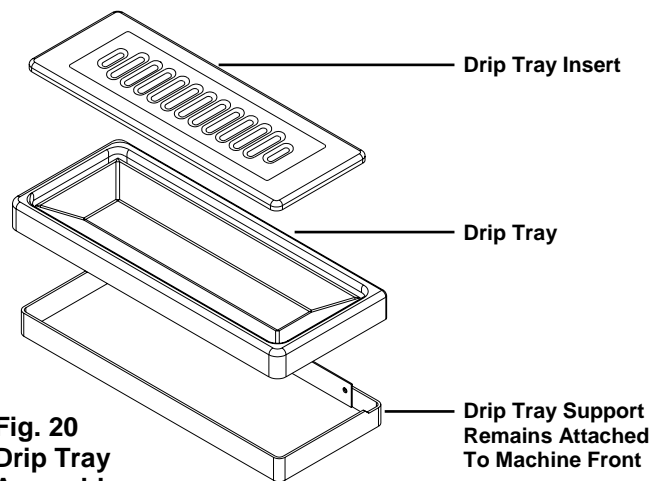


Fig. 20
Drip Tray Assembly

Sanitizing

Prior to operation, the machine must be sanitized. The unit must have already been cleaned and lubricated.

Note: Sanitize immediately before use, not several hours before or the previous evening.

1. First, wash hands with a suitable antibacterial hand soap. For best results select a concentrated anti-bacterial hand soap containing biodegradable anionic and nonionic surfactants.

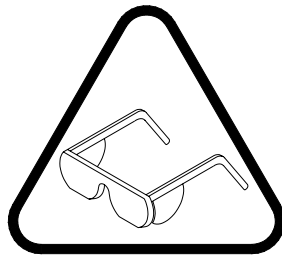
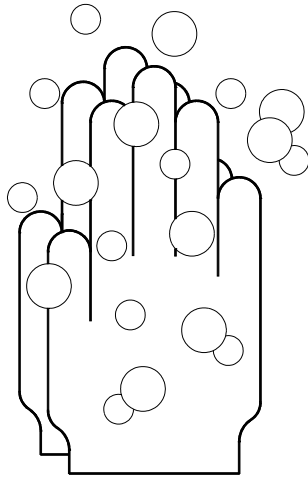
2. Prepare approximately 2 to 3 gallons (8 to 12 liters) of sanitizing solution equivalent to 200 ppm chlorine residual or the residual required by your local health agency.

3. Carefully pour the solution into the mix pan.

4. Using a sanitary brush, wipe the solution onto the sides of the mix pan and the underside of the mix pan lid.

5. Set the "MIX" switch (Fig. 21) to the "ON" position and let the unit agitate for approximately three to five minutes.

NOTE: DO NOT turn on the "FREEZE" switch. Doing so would freeze the sanitizing solution and may result in damage to the machine.



WARNING

DO NOT INSERT ANY TOOLS OR OBJECTS INTO THE MIX INLET HOLE OR THE DISPENSING HOLE IN THE FRONT PLATE. DAMAGE TO THE MACHINE OR PERSONAL INJURY MAY RESULT (FIG. 22)

6. Set the "MIX" switch to the "OFF" position and drain the solution from the machine. Proceed directly to the "Operation" section of this manual.

WARNING

DO NOT RINSE OUT THE MACHINE.

DO NOT ALLOW SANITIZING SOLUTION TO REMAIN IN THE MACHINE FOR SEVERAL HOURS. DOING SO COULD DAMAGE THE MACHINE.



Fig. 21
Control Switches

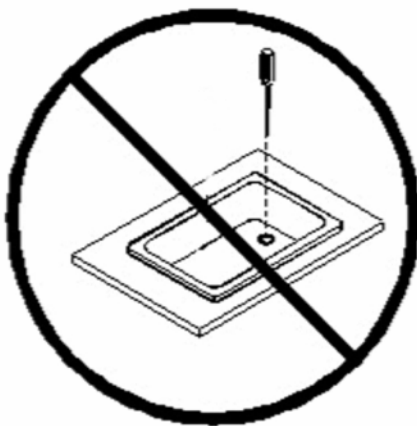


Fig. 22
Do Not Insert Objects or Tools

Operation (Filling and Starting)

Always start with a cleaned and sanitized dispenser as per previous instructions. Use only fresh mix when filling the units. Following these instructions is critical to the maximum operating efficiency of the machine.

1. Set both switches to the "OFF" position..
2. Using approximately 20 oz. of product mix, chase the sanitizing solution from the mix pan by pouring behind any remaining solution which will then drain through the machine. Doing so will make certain that sanitizing solution will not remain in the machine to freeze or be served to the customer. Open the spigot plunger (Fig. 23) and then dispense enough of the liquid to purge the system of sanitizing solution.

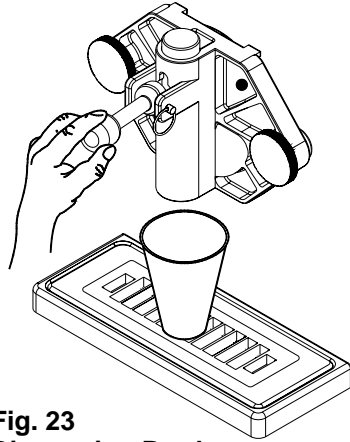


Fig. 23
Dispensing Product

3. Fill the mix pan with chilled, properly mixed product. You will see bubbling from the inlet hole. As the product begins to fill the freezing cylinder, depress and hold the pressure relief valve (Fig. 24) until the freezing cylinder is filled. Once product seeps out from the pressure relief valve, release the button.

Keep the mix level in the mix pan at least one inch (25 mm) deep at all times to avoid starving the freezing cylinder.

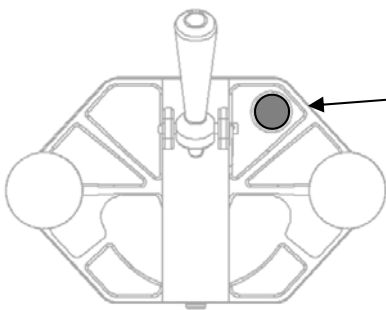


Fig. 24
Pressure Relief Valve

- 4 Set both the "MIX" and the "FREEZE" switches to the "ON" position to start the machine.
5. Allow the compressor to cycle 3 or 4 times and dispense a sample of the product after each cycle to check for consistency.

NOTE: If the dispensed product does not freeze to a hard enough consistency, the problem may not be in the machine. To verify, use a thermometer to measure the dispensed product temperature. The problem is **NOT** in the machine if the temperature of non-alcoholic product is between 26°F. and 28°F. (-3.3°C. and -2.2° C.). Product with alcohol is usually 19°F. to 22°F. (-7.2 °C. to -5.6°C.). Make certain the product mix was prepared to the manufacturer's recommendation

Brix reading is taken by placing a small sample of normally diluted concentrate on the viewer of a refractometer. If a refractometer is not available, contact the mix supplier. If the Brix reading is above 15.0 or the alcohol content is too high, the freezing point of the solution may be too low to form slush.

Do not use a mix with a Brix reading of less than 12.5. Doing so may result in serious damage to the machine.

DO NOT ATTEMPT TO MAKE FROZEN BEVERAGE USING ARTIFICIALLY SWEETENED PRODUCT.

If the machine is still not dispensing the product at the desired consistency after four full cycles, refer to the Consistency Control Section of this manual. Initial pull-down time is 20-30 minutes, but it may vary due to product and ambient conditions.

6. Replace the mix pan lid and always operate the machine with the lid on the mix pan reservoir.

Control Switch Functions

See Figure 21

"MIX": The dasher motor operates continuously.

"FREEZE": Upon machine start up ("MIX" switch ON" , the compressor will run until proper product consistency is reached, then the compressor will shut off.

Helpful Hints

Closed Hours/Shut-Down: If the machine is turned off during closed hours, to resume operation:

1. Set the "MIX" switch to the "ON" position.
2. Dispense two quarts (2 liters) of product into a sanitized pitcher and pour it back into the mix pan. Doing so serves as a mixing process to eliminate any overnight separation.

NOTE: NEVER POUR FROZEN PRODUCT INTO THE MIX PAN. LET IT MELT FIRST.

3. Set the "FREEZE" switch to the "ON" position and resume operation.

Mixing: Make certain that the product is prepared per label instructions. The machine is designed to operate with frozen product base having a brix range of 12.5 to 14.0. To ensure consistency and quality, use a mixing container large enough to hold 5 gallons (20 liters) with 1 gallon (4 liter) markings to allow accurate mixing of the frozen beverage base. Stir well before adding to the mix solution to the mix pan. Refrigerate the base after diluting. Keep the empty gallon bottles with their lids or caps installed and refill them with diluted base for easy access during busy operating periods.

Filling: Always fill the machine at the start of each day. Fresh prechilled mix will produce the best results.

Mix Pan Lid: Be sure to leave the lid in place on top of the machine to prevent any foreign materials from contaminating the mix.

Drip Tray: This should be removed daily and cleaned to remove residue (Fig. 26).

Front Plate: This component (Fig. 25) is the plastic device from which the product is dispensed. It is designed and made for strength and durability. However, through improper use, it can be damaged. Use the following information for proper care.

1. Do not lubricate the large o-ring on the rear of the front plate. If lubricated, it will not seal properly and product will leak from the front plate.
2. Do not over tighten the knobs.
3. Always tighten the front plate knobs evenly. Do not attempt to turn one knob all the way down and then the other. Doing so will bind the front plate and result in breakage.
4. Do not attempt to wash the front plate or any other machine components in a dishwasher.

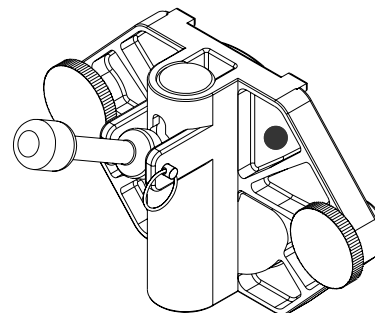
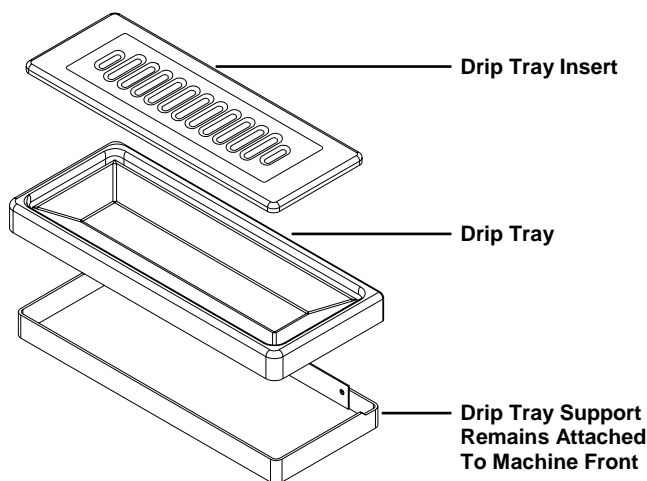


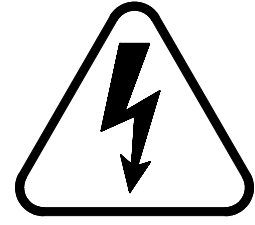
Fig. 25
Front Plate Assembly

Fig. 26
Drip Tray
Assembly





Consistency Adjustment



WARNING: Adjustments to mechanical consistency control systems should be made **ONLY** by trained service personnel. Power must be removed from the machine before panels (guards) or protective covers are removed. Once the panels (guards) are removed, an adjustment is made, protective panels (guards) are replaced, power is restored to the machine, and the consistency setting is tested. This process is repeated as necessary until the desired product consistency is obtained.

The mechanical control system is a very simple method of controlling the consistency of the finished product. The machine operates without a temperature control. Refrigeration is controlled by measuring the torque on the dasher motor and the consistency of the product. The tension of a spring against the torque idler determines how long the unit will run by activating a limit switch which turns the compressor on and off. The longer the compressor runs, the harder the product. The less it runs, the softer the product. Run time and belt tension directly relate to product temperature.



Initial adjustments have been performed at the factory.

If product does not freeze to a hard enough consistency, the problem may not be in the machine. To verify, use a thermometer to measure the product temperature. The problem is **NOT** in the machine if the temperature of non-alcoholic product is between 26°F. and 28°F. (-3.3°C. and -2.2°C.). Product with alcohol is usually 19°F. to 22°F. (-7.2°C. to -5.6°C.). Make certain the product mix was prepared to the manufacturer's recommendation.

To satisfy individual product preferences, the following adjustments may be required:

1. Locate the consistency adjustment access on the right side panel as viewed from the front of the machine.
2. Using a 12" straight flat blade screwdriver, turn the mechanical consistency (torque adjustment) screw (Fig. 27) clockwise to make the product harder or counterclockwise to make the product softer.

IMPORTANT

Do not adjust more than one turn each time.

3. Start the machine. Wait 10 - 15 minutes or until the compressor cycles off, then check the consistency of the product.
4. Repeat steps 1, 2 and 3 until the desired product consistency is obtained.

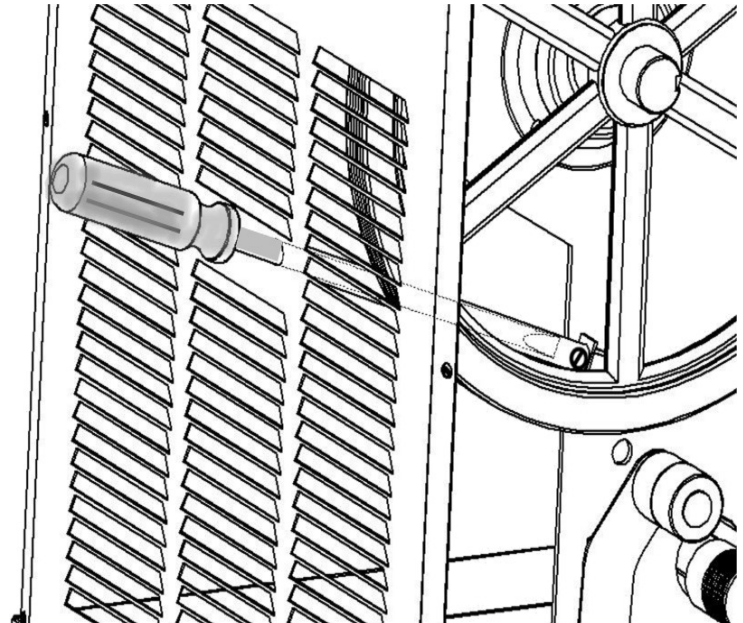


Fig. 27
Consistency
Control

Routine Maintenance (Owner-Operator)

WARNING

DISCONNECT THE MACHINE FROM ITS POWER SOURCE BEFORE PERFORMING ANY ROUTINE MAINTENANCE. PERSONAL INJURY OR DAMAGE TO THE MACHINE COULD RESULT IF THIS PRACTICE IS NOT OBSERVED.

Daily: Inspect the machine for signs of product leaks past seals and gaskets. If proper assembly does not stop leaks around gaskets or seals, check for improper lubrication and worn or damaged parts. Replace parts as needed.

Periodically: Inspect the scraper blades (Fig. 28) to see that they are straight and sharp. If worn, damaged or warped, the blades will not scrape the cylinder wall correctly and the freezing capacity will be reduced. Clean the drip chute assembly with warm water and detergent solution.

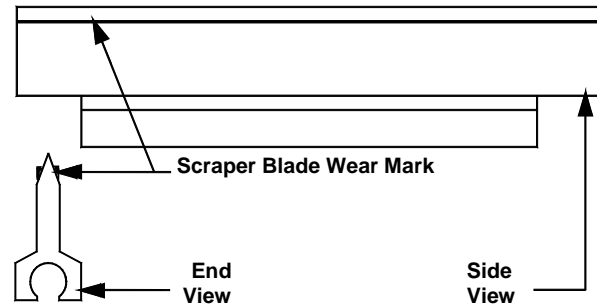


Fig. 28
Scraper Blade Wear Mark



Routine Maintenance (Trained Service Technician)



WARNING

**CONDENSER FINS ARE VERY SHARP
USE EXTREME CAUTION WHEN CLEANING**

Quarterly: Thoroughly clean the condenser fins on all air-cooled machines. Remove all lint and dust with a vacuum cleaner or compressed air (Fig. 29) to clean fins. A dirty condenser greatly reduces refrigeration capacity and efficiency. When using compressed air, place a damp cloth on the opposite side of the condenser to catch the flying dirt or lint.

Annually: Check the belts for signs of wear or cracking. Remove panels and clean all parts inside of the machine including the base, side panels, fan blades, condensers, etc.

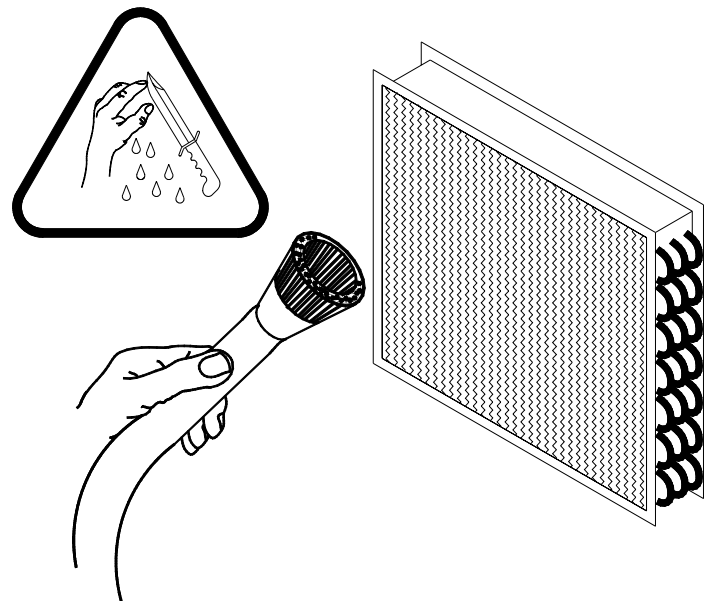


Fig. 29
Clean Sharp Condenser Fins

Please make these simple checks prior to contacting your service provider. Because adjustments to the machine are not covered under the terms of warranty, these tips can save you time and money. If you feel you are not comfortable performing trouble-shooting suggestions, please contact your local certified service provider.

Machine will not start	<ul style="list-style-type: none"> ✓ Make sure electrical cord is correctly seated in the electrical receptacle. ✓ Check circuit breaker in electrical panel.
Product is Soft	<ul style="list-style-type: none"> ✓ Do not make a consistency adjustment at this point. Always check product temperature first. Should be between 25-28 degrees non-alcoholic frozen beverage and 18-22 degrees alcoholic frozen beverage. If temperature is lower than listed, product has too much sugar, alcohol or combination. Correct ingredients and start with freshly mixed product. ✓ Check for properly mixed product. Replace as necessary ✓ If using Re-run product, remove product and add fresh mix. ✓ Check for dull scraper blades. Blades should be sharp. Replace every 6 months. ✓ Check Condenser for dirt or obstructions. See Quarterly Maintenance ✓ Confirm that the condenser fan is running. ✓ Confirm 6" of airflow on all both sides and back of machine. ✓ High ambient temperature. Recommended machine ambient temperature not to exceed 82 degrees.
Product is too Thick	<ul style="list-style-type: none"> ✓ Check for properly mixed product. ✓ Confirm freezing cylinder is not starved of product. See glossary (Starved Cylinder) ✓ Check product temperature. Should be between 25-28 degrees shake, 25-28 degrees non-alcoholic frozen beverage and 18-22 degrees alcoholic frozen beverage. ✓ Check for missing scraper blade. Check dasher assemblies.
Front Plate Leaking	<ul style="list-style-type: none"> ✓ Confirm front plate o-ring is not ripped or torn. Replace if necessary. Replace seals and o-rings every six months. ✓ Do not lubricate front plate o-ring. ✓ Confirm spigot plunger o-rings are not ripped or torn. Replace if necessary. Replace every six months. ✓ Confirm spigot plunger o-rings are lubricated daily. ✓ Tighten front plate knobs evenly. ✓ Confirm dasher hub is not worn or grooved.
Product leaking from the drip chute and or drip tube.	<ul style="list-style-type: none"> ✓ Rear Seal is worn. Replace. Note: Replace seals, o-rings and gaskets every six months. ✓ Do Not Lubricate the rubber portion of the rear seal ✓ The shaft of the dasher where the rear seal is installed must be lubricated daily. ✓ Front plate knobs loose.
Squeaking , chirping noises and or vibration heard.	<ul style="list-style-type: none"> ✓ Use properly mixed product. Replace as necessary. ✓ Confirm freezing cylinder is not starved of product. See glossary (Starved Cylinder) ✓ Check lubrication ✓ Confirm all panel screws are installed and tightened ✓ Adjust width of drip tray bracket. ✓ Check for dull scraper blade. Blade should be sharp. Replace every 6 months.
Who to contact for service and parts	<ul style="list-style-type: none"> ✓ If you do not have a local service and parts provider, contact your SaniServ Dealer/Distributor. Visit www.saniserv.com to locate a Distributor (Sales Section) or a Service Agent (Technical Support Section).

Trouble Shooting Glossary

Ambient Temperature. The temperature of the air in the immediate vicinity of the operating machine. High ambient temperature can reduce the capacity with an air-cooled condenser.

Capacity. The total capacity of frozen product that a freezer can produce in a given period usually stated in gallons per hour (G.P.H.).

Condenser. The part of the refrigeration mechanism that receives hot, high-pressure refrigeration gas from the compressor and cools gaseous refrigerant until it returns to a liquid state.

Consistency. The viscosity or thickness of the product in the freezing cylinder.

Consistency Control. A control that senses the thickness or viscosity of the product in the freezing cylinder.

Dasher. The part of the freezer that scrapes frozen product off the inside of the freezing cylinder and blends the product. In a gravity freezer, this assembly also moves the product forward to be dispensed.

Dasher Hub Support. Plastic cube that serves as a bearing surface for the dasher inside front plate.

Front Plate. Seals the front of the freezing cylinder and provides a means for dispensing the product. On gravity fed freezers, the front plate indirectly holds the dasher in place via the Dasher Hub Support. It also provides compression for the rear seal.

Freezing Cylinder. The part of the refrigeration mechanism in which the refrigerant vaporizes and absorbs heat. This is the part of the freezer where the liquid product is frozen.

Mix-pan. Is the top container that product is poured into. It is used as storage until product is needed for the freezing cylinder

Mixing Product / Product Temperatures. If you are using a product that has to be mixed with water or other ingredients, it is imperative the product is mixed consistently everyday. If not, the machine will not run consistent and could possibly damage components. This is very important with frozen (slush) beverages. Always mix to the product manufacturer's recommendations. The machine is designed to operate with a frozen product that falls within these temperatures non-alcoholic frozen beverage 25-28^o and alcoholic frozen beverage 18-22^o).

Pressure Relief Valve. Spring-loaded button located on the front plate when depressed will allow air to escape from the cylinder.

Rear Seal. This part is stationary during operation and must not move. When installed and lubed properly, seals mix in cylinder. When installed and lubed improperly, it causes main shafted bearing failure.

Scraper Blades. The component that scrapes the frozen product from the freezing cylinder surface. Blades must be sharp, as dull blades will leave product on the freezing cylinder, insulating the mix from the refrigerant.

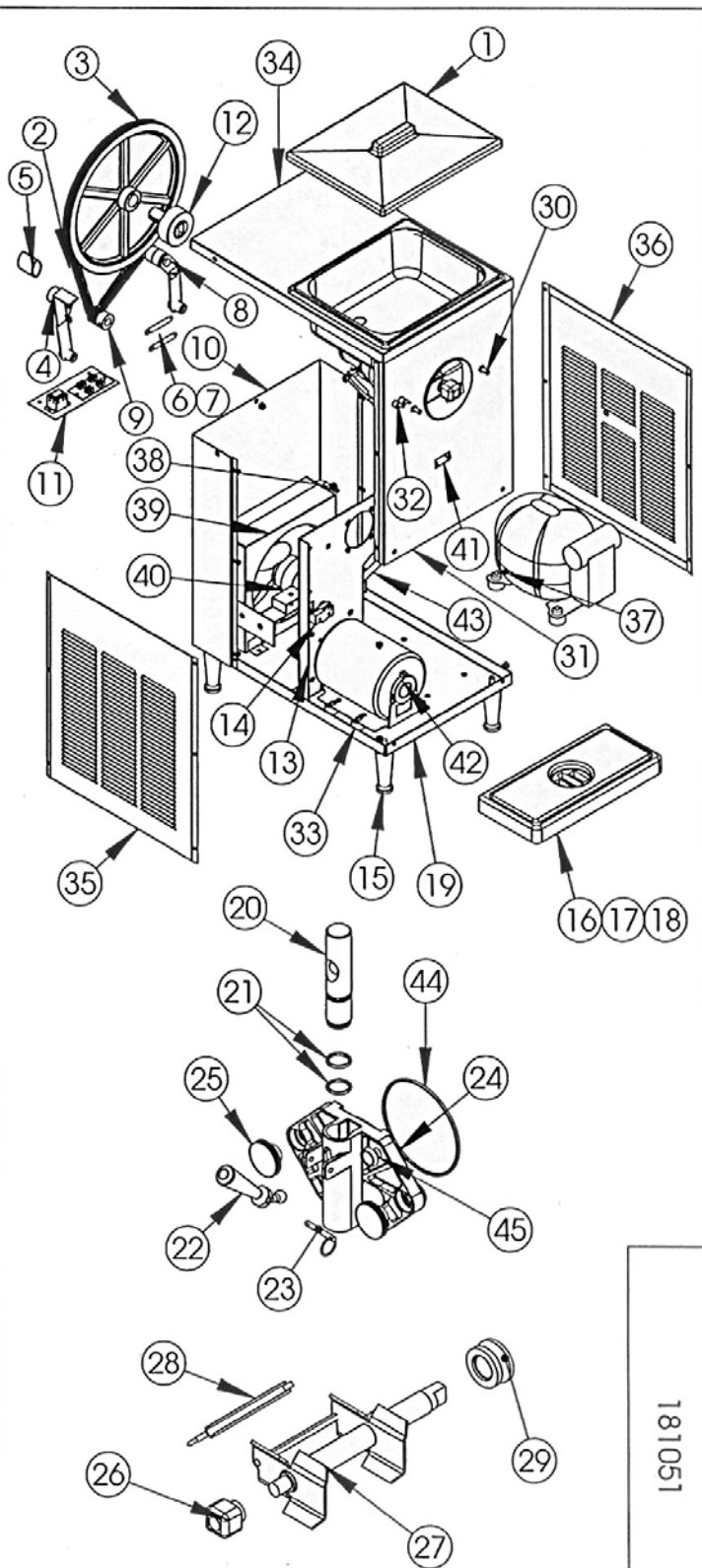
Spigot Plunger. The mechanism on the front plate through which the product is dispensed.

Starved Cylinder. A starved cylinder is often mistaken for a freeze up or product too thick. A starved cylinder (starving) is created when a larger percentage of frozen product is dispensed from the freezing cylinder than the percentage of liquid product entering the freezing cylinder from the mix-pan. There are several causes of starving.

1. Overdrawing: Dispensing more product from the machine than it's designed to do. This would occur if a machine were undersized for its application.
2. Pouring frozen or semi frozen product into the mix-pan reservoir. This will form a blockage and not allow liquid product to flow into the cylinder.
3. Mix-pan too cold, allowing product to freeze in mix-pan and restricting product flow.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	108302	LID, MIX PAN	1
2	58888	BELT	1
3	10212	DRIVEN PULLEY	1
4	104973	TORQUE IDLER	1
5	104648	CUSHION	1
6	64040-02	IDLER SPRING	1
7	64040-02	TORQUE SPRING	1
8	103249	BELT IDLER	1
9	10208	DRIVE PULLEY	1
10	110026	BACK PANEL	1
11	K00183	RELAY	1
	61073	TERMINAL BOARD	1
12	2858	BEARING & SHAFT	1
13	110011	SUPPORT, EVAP.	1
14	70008	TORQUE SWITCH	1
15	64135	LEGS	4
16	108975	DRIP TRAY SUPPORT	1
17	108867	DRIP TRAY	1
18	108868	DRIP TRAY INSERT	1
19	110019	BASE FRAME	1
20	105503	SPIGOT PLUNGER	1
21	58923	PLUNGER O-RING	2
22	K00130	SPIGOT HANDLE	1
23	64255	FASPIN	1
24	105610	FRONT PLATE	1
25	64065	FRONT PLATE KNOB	2
26	110023	DASHER BUSHING	1
27	110012	DASHER ASSY	1
28	110022	SCRAPER BLADE	1
29	108541	REAR SEAL	1
30	7107	FRONT PLATE STUD	2
31	110025	FRONT PANEL	1
	9718	FRONT GRAPHIC	1
32	70426	TOGGLE SWITCH	2
33	110020	MOTOR RISER	4
34	110009	TOP COVER ASSY	1
35	108526	SIDE PANEL, LEFT	1
36	110031	SIDE PANEL, RIGHT	1
37	75847	COMPRESSOR	1
38	75445	CONDENSER	1
39	110016	CONDENSER SHROUD ASSY.	1
40		FAN ASSY	1
	75446	FAN BLADE	1
	75023	FAN MOTOR	1
	106472	UPPER FAN SUPPORT	1
	110018	LOWER FAN SUPPORT	1
41	105406	DRIP CHUTE	1
	105369	DRIP CHUTE HANGER	1
42	75846	DASHER MOTOR	1
43	110034	TORQUE ADJUSTMENT GUIDE TUBE	1
44	58911	O-RING, FRONT PLATE	1
45		VENT VALVE ASSY.	1
	58952	O-RING, VENT PLUNGER	1
	60335	SCREW, VALVE	1
	64420	KNOB	1
	64508	SPRING, VENT PLUNGER	1

REFRIGERATION PARTS:
 CAP TUBE (1) 110021
 HIGH PRESSURE SWITCH (1) 71090
 DRIER (1) K00157



181051

SaniServ	Model DF-100	BOM 7030010	
	Description 115/1 PH/ 60HZ	File 181051A.SLDDRW	
Exploded View	Wiring Box 15853	ECN 1523	Date 8-03-05
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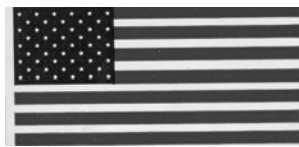
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