



Model 1116/1117
OPERATORS MANUAL
Manual No. 513513

This manual provides basic information about the machine. Instructions and suggestions are given covering its operation and care.

The illustrations and specifications are not binding in detail. We reserve the right to make changes to the machine without notice, and without incurring any obligation to modify or provide new parts for machines built prior to date of change.

DO NOT ATTEMPT to operate the machine until instructions and safety precautions in this manual are read completely and are thoroughly understood. If problems develop or questions arise in connection with installation, operation, or servicing of the machine, contact Stoelting.



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A Few Words About Safety

Safety Information

Read and understand the entire manual before operating or maintaining Stoelting equipment.

This manual provides the operator with information for the safe operation and maintenance of Stoelting equipment. As with any machine, there are hazards associated with their operation. For this reason safety is emphasized throughout the manual. To highlight specific safety information, the following safety definitions are provided to assist the reader.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

If you need to replace a part, use genuine Stoelting parts with the correct part number or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.



Safety Alert Symbol:

This symbol Indicates danger, warning or caution. Attention is required in order to avoid serious personal injury. The message that follows the symbol contains important information about safety.

Signal Word:

Signal words are distinctive words used throughout this manual that alert the reader to the existence and relative degree of a hazard.



The signal word “WARNING” indicates a potentially hazardous situation, which, if not avoided, may result in death or serious injury and equipment/property damage.



The signal word “CAUTION” indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and equipment/property damage.

CAUTION

The signal word “CAUTION” not preceded by the safety alert symbol indicates a potentially hazardous situation, which, if not avoided, may result in equipment/property damage.

NOTE (or NOTICE)

The signal word “NOTICE” indicates information or procedures that relate directly or indirectly to the safety of personnel or equipment/property.

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SECTION 1 INTRODUCTION

1.1 DESCRIPTION

The Stoelting® 1116/1117 counter freezers are gravity fed. The freezers are equipped with fully automatic controls to provide a uniform product. The freezers are designed to operate with neutral base and concentrated flavors.

This manual is designed to assist qualified service personnel and operators in the installation, operation and maintenance of the Stoelting Models 1116/1117 line of freezers.

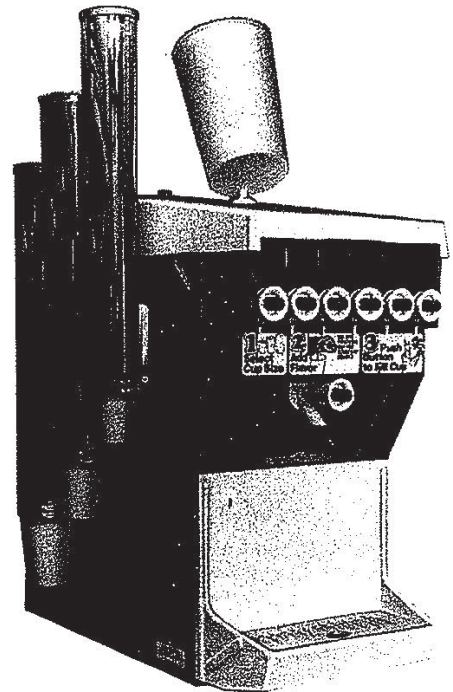
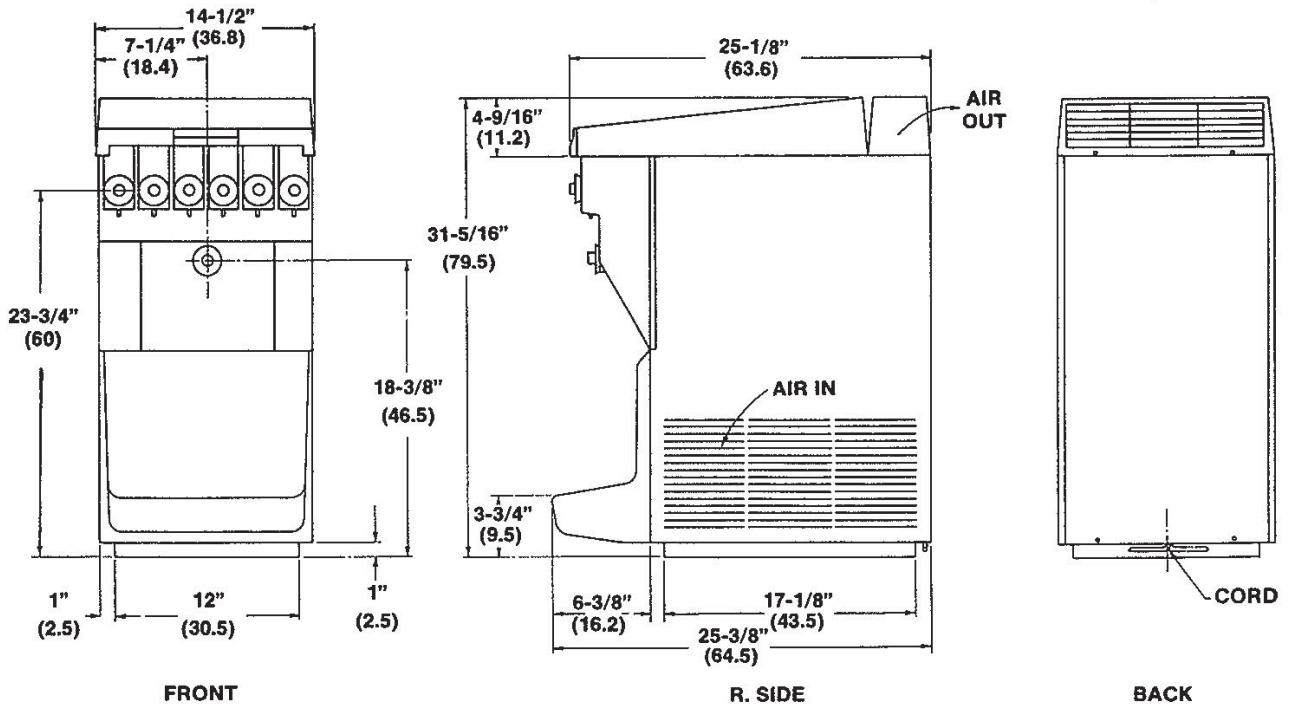


Figure 1. Models 1116/1117 Freezer

1.2 SPECIFICATIONS



Figures in parenthesis are centimeters.

Figure 2. Specifications

**MODELS 1116/1117
COUNTER MODEL FREEZERS**

DIMENSIONS

Freezer: 14-1/4" (36.2 cm) wide x 25-1/4" (64.1 cm) deep x 31" (78.7 cm) high
Crated: 16-3/4" (42.5 cm) wide x 27-3/4" (70.5 cm) deep x 34-1/2" (86.4 cm) high

WEIGHT

Freezer: 115 lbs. (52.2 kg) Crated: 133 lbs. (60.3 kg)

ELECTRICAL

1 phase, 115 VAC**

1/12 HP Drive Motor; 620 BTUH* Compressor (frozen product output)

Approximate 7 total running amps in cold mode.

Approximate 6-1/2 total running amps in hot mode. (1116 only)

750 watt heating element. (1116 only)

Use Maximum Fuse or HACR Circuit Breaker Size 15 Amp.

**A transformer is required if voltage is over 126.5 volts or under 103 volts.

*Under normal operating conditions.

COOLING

Air cooled requires minimum 6" (15.2 cm) air clearance on louvered side and 10" (25.4 cm) air clearance above unit. No clearance needed on non-louvered side and rear. (See Fig. 4, page 7.)

CAPACITY

2-1/4 Gallons (8.5 liters) below divider plate.

2-1/8 Gallons (8.0 liters) above divider plate (1"[2.54 cm] from top).

SECTION 2 INSTALLATION INSTRUCTIONS

2.1 SAFETY PRECAUTIONS

Do not attempt to operate the freezer until the safety precautions and operating instructions in this manual are read completely and are thoroughly understood.

Take notice of all warning labels on the freezer (Fig. 3). The labels have been put there to help maintain a safe working environment. The labels have been designed to withstand washing and cleaning. All labels must remain legible for the life of the freezer.

Labels should be checked periodically to be sure they can be recognized as warning labels.

If danger, warning or caution labels are needed, indicate the part number, type of label, location of label, and quantity required along with your address and mail to

STOELTING, INC.
ATTENTION: Customer Service
P.O. Box 127
Kiel, Wisconsin 53042-0127

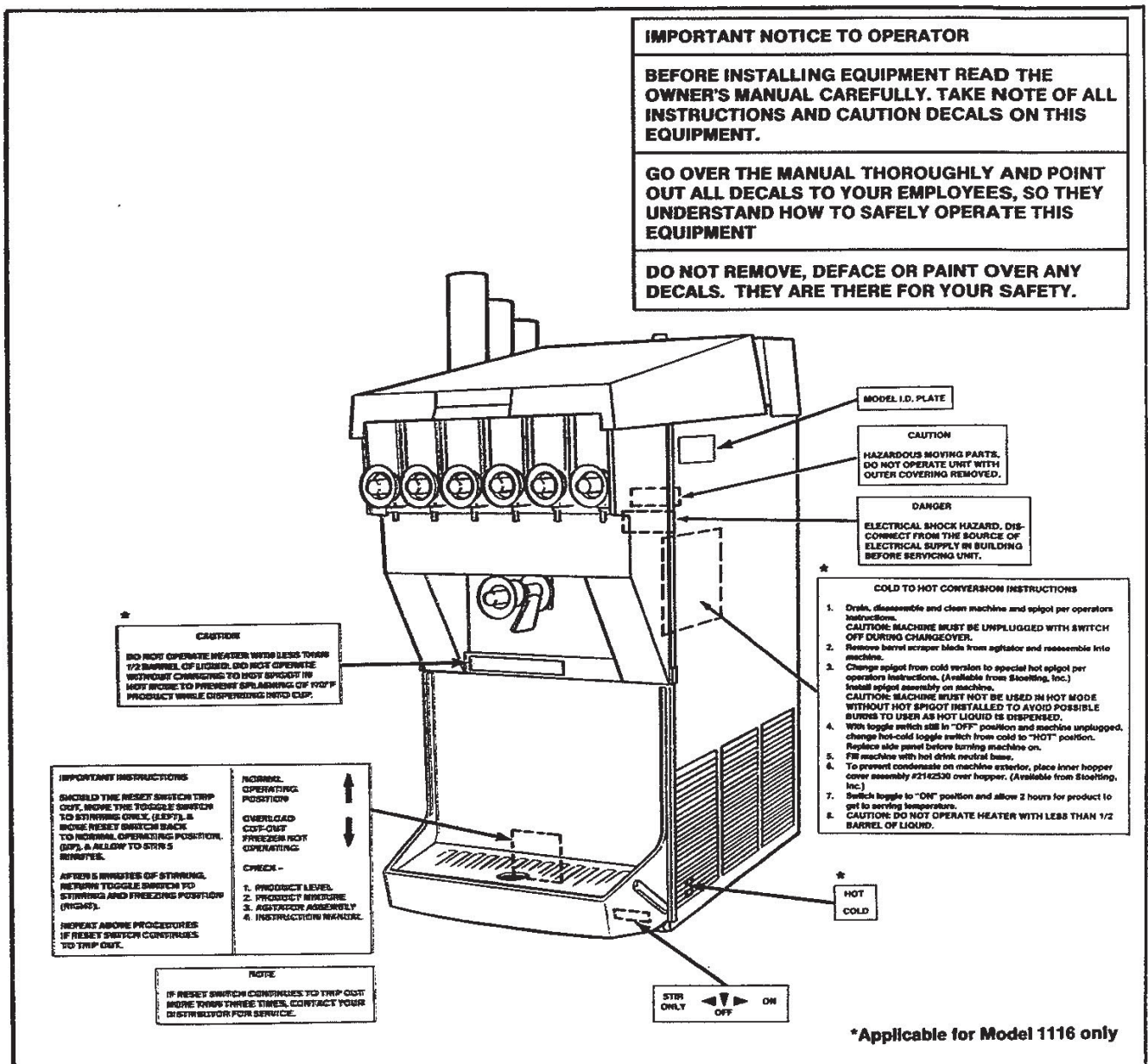


Figure 3. Warning Label Locations

2.2 SHIPMENT AND TRANSIT

The freezer has been assembled, operated and inspected at the factory. Upon arrival at the final destination, the complete freezer must be checked for any damage which may have occurred during transit.

With the method of packaging used, the freezer should arrive in excellent condition. THE CARRIER IS RESPONSIBLE FOR ALL DAMAGE IN TRANSIT, WHETHER VISIBLE OR CONCEALED. **Do not** pay the freight bill until the freezer has been checked for damage. Have the carrier note any visible damage on the freight bill. If concealed damage and/or shortage is found later, advise the carrier within 10 days and request inspection. The customer must place claim for damages and/or shortages in shipment with the carrier. **Stoelting, Inc. cannot make any claims against the carrier.**

2.3 FREEZER INSTALLATION

Installation of the freezer involves moving the freezer close to its permanent location, removing all crating, setting in place, assembling parts, and cleaning.

- A. Uncrate the freezer.
- B. The freezer must be placed on a solid level surface to insure proper operation.
- C. The freezer is equipped with an air cooled condenser and requires correct ventilation. The louvered side of the freezer is the air intake and **must** have 6" (15.2 cm) clearance. Air discharges out the top at the rear of the unit. **Do not** obstruct the discharge. Allow a 10" (25.4 cm) clearance above the unit (Fig. 4).



CAUTION

FAILURE TO PROVIDE ADEQUATE VENTILATION WILL VOID WARRANTY!

- D. Place the ON-OFF-STIR ONLY toggle switch in the OFF position. This switch is located on the lower right front of the freezer, behind the drip tray and insert.
- E. The HOT-COLD toggle switch on the Model 1116 **MUST** be in the COLD position. To check, remove the two phillips head screws from the bottom of the right side panel. Slide the side panel down and out. The toggle switch is located at the right front of the freezer. Replace panel before operating freezer.

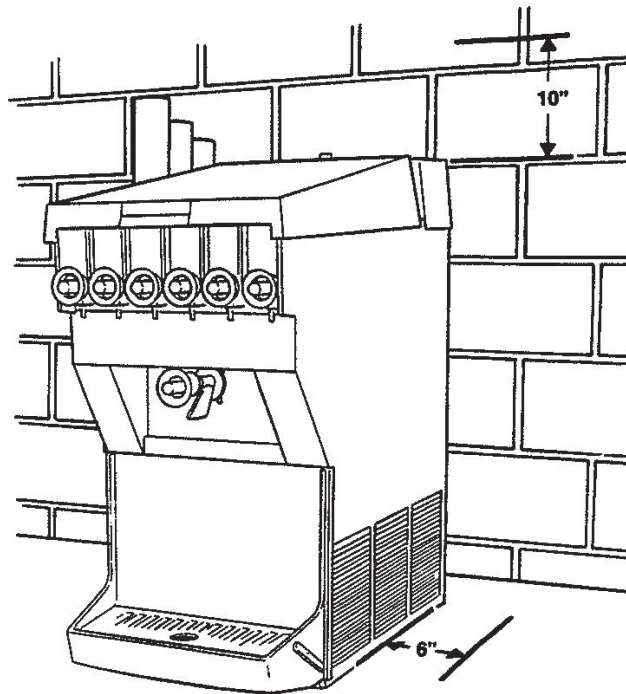


Figure 4. Space and Ventilation Requirements

- F. Connect the power cord. The plug is designed for 115 volt/15 amp duty. The unit must be connected to a properly grounded receptacle. The electrical cord furnished as part of the freezer has a three prong grounding type plug (Fig. 5). The use of an extension cord is not recommended. If one must be used, use one with a size 12 gauge or heavier with a ground wire. **Do not** use an adaptor to get around grounding requirement.



WARNING

ELECTRICAL TECHNICIANS MUST BE CONTINUOUSLY ALERT TO THE PRACTICE OF ALL NECESSARY SAFETY RULES AND PRECAUTIONS WHEN SERVICING THIS EQUIPMENT AS VOLTAGES ARE PRESENT WHICH CAN CAUSE SERIOUS OR FATAL INJURY.

ELECTRICAL WIRING MATERIALS, ARRANGEMENT AND GROUNDING MUST CONFORM WITH NATIONAL AND OTHER APPLICABLE ELECTRICAL CODES.



CAUTION

DO NOT ALTER OR DEFORM PLUG IN ANY WAY!

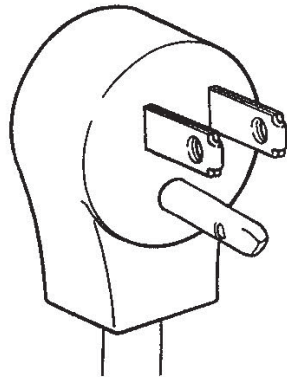


Figure 5. Electrical Plug

- G. Install the drip tray, insert and other miscellaneous parts on the freezer (Fig. 6).

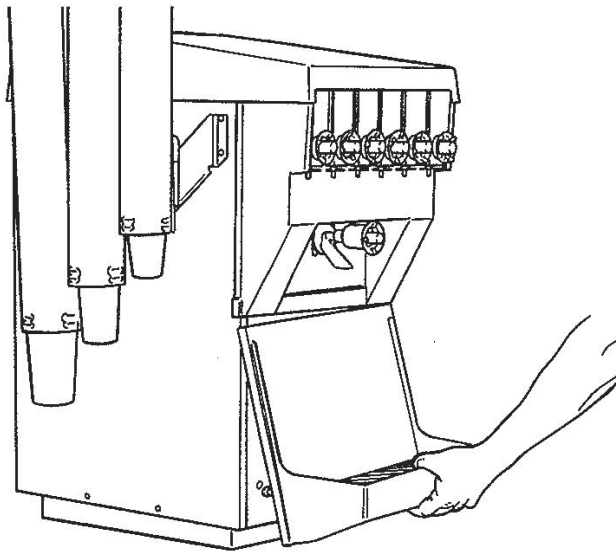


Figure 6. Installing Drip Tray and Insert

2.4 ADJUSTING CUP DISPENSERS

To adjust the cup dispensers, install the size cup desired into the dispenser and turn the wing nuts on the dispenser mounting bracket until enough tension is applied to the rim of the cup to keep it from dropping out (Fig. 7). **Do not** over-tighten the wing nuts.

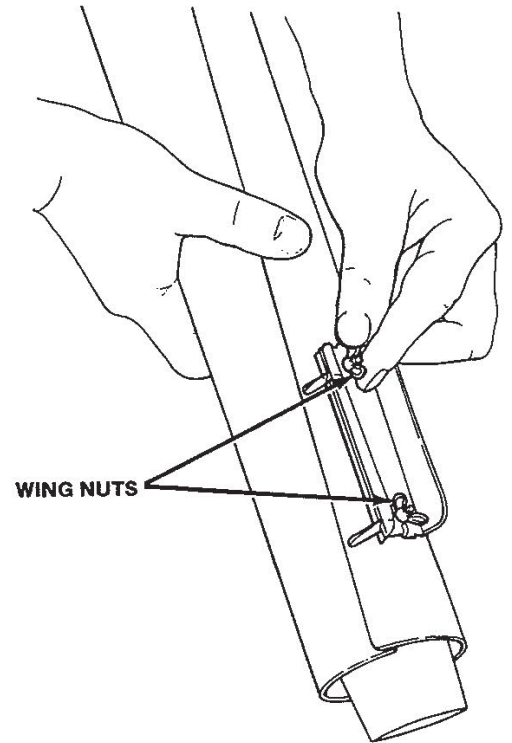


Figure 7. Adjusting Cup Dispensers

SECTION 3 INITIAL SET-UP AND OPERATION

3.1 OPERATOR'S SAFETY PRECAUTIONS

SAFE OPERATION IS NO ACCIDENT; Observe these rules:

- A. **Know the freezer.** Read and understand the Operating Instructions.
- B. **Notice all warning labels on the freezer.**
- C. **Wear proper clothing.** Avoid loose fitting garments, and remove watches, rings or jewelry which could cause a serious accident.
- D. **Maintain a clean work area.** Avoid accidents by cleaning up the area and keeping it clean.
- E. **Stay alert at all times.** Know which switch, push button or control you are about to use and what effect it is going to have.
- F. **Disconnect electrical cord for maintenance.** Never attempt to repair or perform maintenance on the freezer until the main electrical power has been disconnected.

- G. **Do not operate under unsafe operating conditions.** Never operate the freezer if unusual or excessive noise or vibration occurs.

3.2 OPERATING CONTROLS AND INDICATORS

Before operating the freezer it is required that the operator know the function of each operating control and indicator. Refer to Figure 8 for the locations of the operating controls and indicators.

⚠ WARNING

THE ON-OFF-STIR ONLY SWITCH MUST BE PLACED IN THE OFF POSITION WHEN DISASSEMBLING FOR CLEANING OR SERVICING. THE FREEZER MUST BE DISCONNECTED FROM ELECTRICAL SUPPLY BEFORE REMOVING ANY ACCESS PANELS.

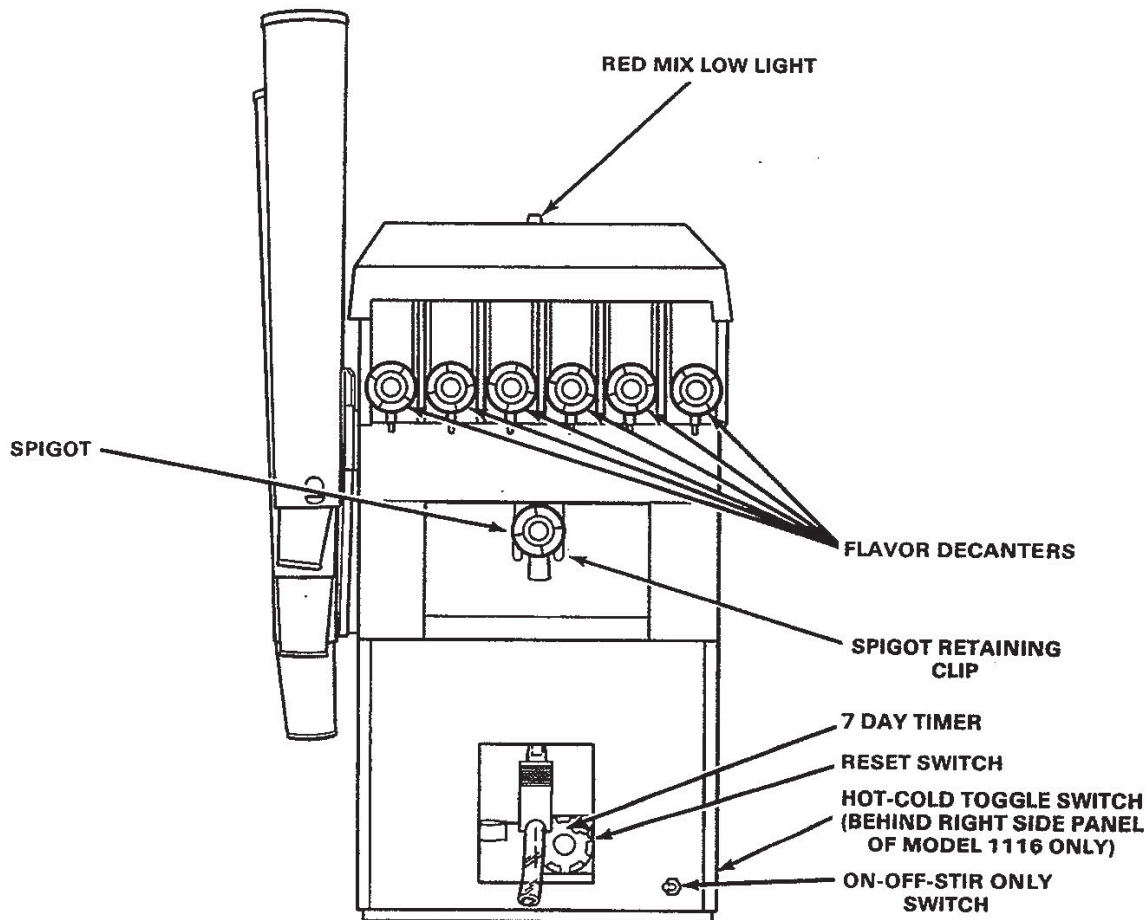


Figure 8. Operating Controls and Indicators (Drip Tray and Insert Removed)

A. ON-OFF-STIR ONLY SWITCH

The ON-OFF-STIR ONLY switch is a three position toggle switch used to control the operation of the refrigeration system and agitator. When the switch is placed in the STIR ONLY position, the refrigeration system will be off and the agitator will rotate for cleaning.

When the switch is placed in the OFF position, the refrigeration system and agitator will not operate.

When the switch is placed in the ON position, the refrigeration system and agitator will operate automatically. The switch should be placed in the ON position for normal operation.

B. SPIGOT ASSEMBLY

Dispensing of frozen mix is done by the SPIGOT ASSEMBLY. By pushing the spigot plunger button in, mix in the form of ice crystals is dispensed through the port on the bottom of the SPIGOT ASSEMBLY. To stop dispensing, release the spigot plunger button.

C. RED MIX LOW LIGHT

The RED MIX LOW LIGHT is designed to alert the operator to a low mix condition. The light will illuminate after approximately one gallon (3.785 liters) of mix has been dispensed. Once the MIX LOW LIGHT is illuminated, refill the upper product cylinder immediately.



CAUTION

FAILURE TO REFILL THE PRODUCT CYLINDER IMMEDIATELY MAY RESULT IN OPERATIONAL PROBLEMS.

D. FLAVOR DECANTERS

The six FLAVOR DECANTERS are made of a clear, durable plastic which allows the operator to visually inspect each decanter to determine whether or not there is a need to add flavoring to a particular decanter. Fill to 1" (2.5 cm) from the top.

The FLAVOR DECANTERS are operated by a spring loaded, push-button pump on the front of the decanters. By pushing in and releasing the push-button, 1/4 ounce (7.39 ml) of flavor is siphoned from the bottom of the decanter and dispensed.

E. RESET SWITCH

The RESET SWITCH is a two position breaker switch. This switch is used to protect the freezer from mechanical damage. The switch must be in the NORMAL OPERATING POSITION (up) before the freezer will operate.

Any time a condition occurs which causes the agitator drive motor to draw excessive current, the RESET SWITCH will automatically switch to the OVERLOAD CUT-OUT FREEZER NOT OPERATING (down) position. This will shut down the freezing and agitating actions of the freezer to protect the agitator drive motor from burning out.

Should the RESET SWITCH ever trip out, move the ON-OFF-STIR ONLY toggle switch to the STIR ONLY position. Then move the RESET SWITCH back to NORMAL OPERATING POSITION (up) and allow the freezer to stir, without refrigeration, for five minutes. After five minutes of stirring, return the ON-OFF-STIR ONLY switch to the ON position.

F. SEVEN DAY TIMER

To program the timer rotate program disc in the direction of the arrows to align the correct day/time with the time of day mark. Then pull out for off time or push in for on time.

Each actuator is equivalent to 2 hours On time. The visible orange area(s) indicate the unit on period(s).

3.3 DRAINING THE FREEZER FOR DISASSEMBLY AND CLEANING

After installation and initial set-up, the freezer exterior must be cleaned and the freezer parts must be disassembled, cleaned and sanitized. Cleaning and sanitizing MUST be done before the initial freeze down and operation.

Subsequent cleaning and sanitizing, after the freezer has been operated and product has been dispensed, will require the freezer to be completely drained of all unused mix.

Perform the following steps to drain the freezer of any unused mix:

- A. Set the ON-OFF-STIR ONLY switch to the STIR ONLY position well in advance of cleaning and sanitizing to assure complete defrosting and draining of the product cylinder.
- B. While the freezer is in the STIR ONLY mode, remove the unused flavoring from the flavor decanters. All unused flavoring should be poured into the containers from which they came.
- C. Remove the drip tray and insert by gently pushing up to disengage from the support pins and pulling out and down (Fig. 9).
- D. With a bucket placed below the drain hose, open the drain hose by releasing the tubing clamp (Fig. 10).
- E. When liquid product is completely drained, tighten the tubing clamp by squeezing together and empty the bucket into the sink.

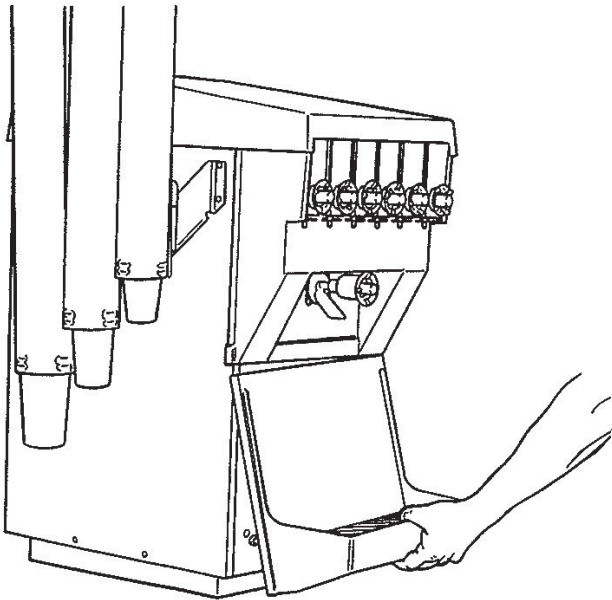


Figure 9. Removing Drip Tray and Insert

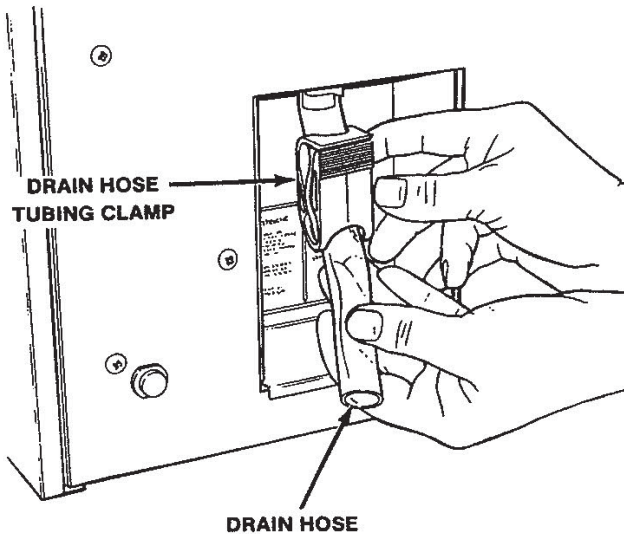


Figure 10. Draining Product

- F. Remove the two top hopper covers (outer and inner) from the freezer and pour approximately four gallons (15 liters) of hot water into the product cylinder to melt the remaining product.
- G. After the ice in the product cylinder has melted, repeat steps D and E to remove all liquid in the product cylinder.

The freezer is now ready to be disassembled and cleaned.

3.4 DISASSEMBLY AND CLEANING OF FREEZER PARTS



CAUTION
PLACE THE ON-OFF-STIR ONLY SWITCH IN THE OFF POSITION AND DISCONNECT THE FREEZER FROM ELECTRICAL SUPPLY SOURCE BEFORE SERVICING OR CLEANING.

Inspection for worn or broken parts should be made during every disassembly of the freezer for cleaning or other purposes. All worn or broken parts should be replaced to ensure safety to both the operator and the customer and to maintain good freezer performance as well as a quality product. Plastic scraper blade and drain hose must be replaced at least once a year.

NOTE

Frequency of cleaning **MUST** comply with local health regulations.

The exterior of the freezer must be kept clean at all times to preserve the lustre of the stainless steel. A mild alkaline cleanser is recommended. Use a soft cloth or sponge to apply the cleanser. Refer to Figure 11 for a checklist of all external parts to be kept clean.

NOTE

Do not use acid cleaners, strong caustic compounds or abrasive materials to clean any plastic or stainless steel parts of the freezer exterior.

- A. Remove the three cup dispensers from the left side of the freezer by pulling straight up. Clean the cup dispensers and dispenser lids with a mild alkaline cleanser and soft cloth or sponge.
- B. Remove the drip tray and insert by gently pushing up to disengage from the support pins and pulling out and down. Clean the drip tray and insert in the same manner as the cup dispensers.
- C. Remove the six flavor decanters from the decanter rack by lifting straight up.

Perform the following steps to clean each flavor decanter:

NOTE

See Figure 12 for an exploded view of the flavor decanters.

- 1. Fill the decanter with water and flush out all parts by operating the push-button pump. Drain all water from the decanter.
- 2. Repeat step 1 using warm soapy water, making sure all traces of flavoring are gone.

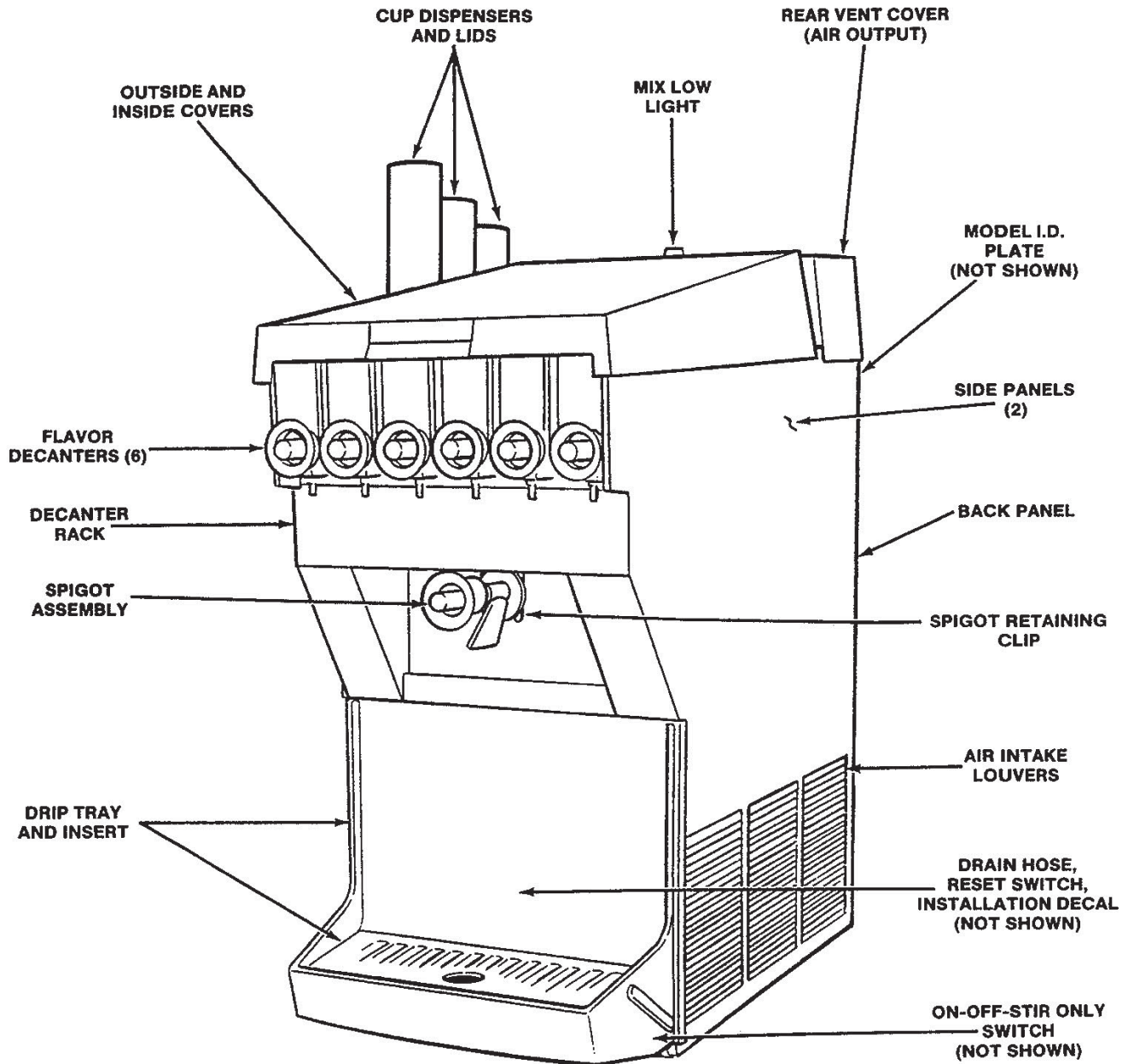


Figure 11. Cleaning Checklist

3. Remove the decanter cover by pulling up, sliding back and again pulling up to disengage from the locking pins.
4. Unscrew the pump button nut from the front of the decanter. Keep the decanter tipped slightly back so the pump button and spring do not fall out.
5. Remove the pump button and spring from the decanter. Wipe excess lubricant from the pump button with a dry cloth or paper towel.
6. To remove quad ring from the pump button, push the quad ring up to form a loop and roll out of the quad ring groove.

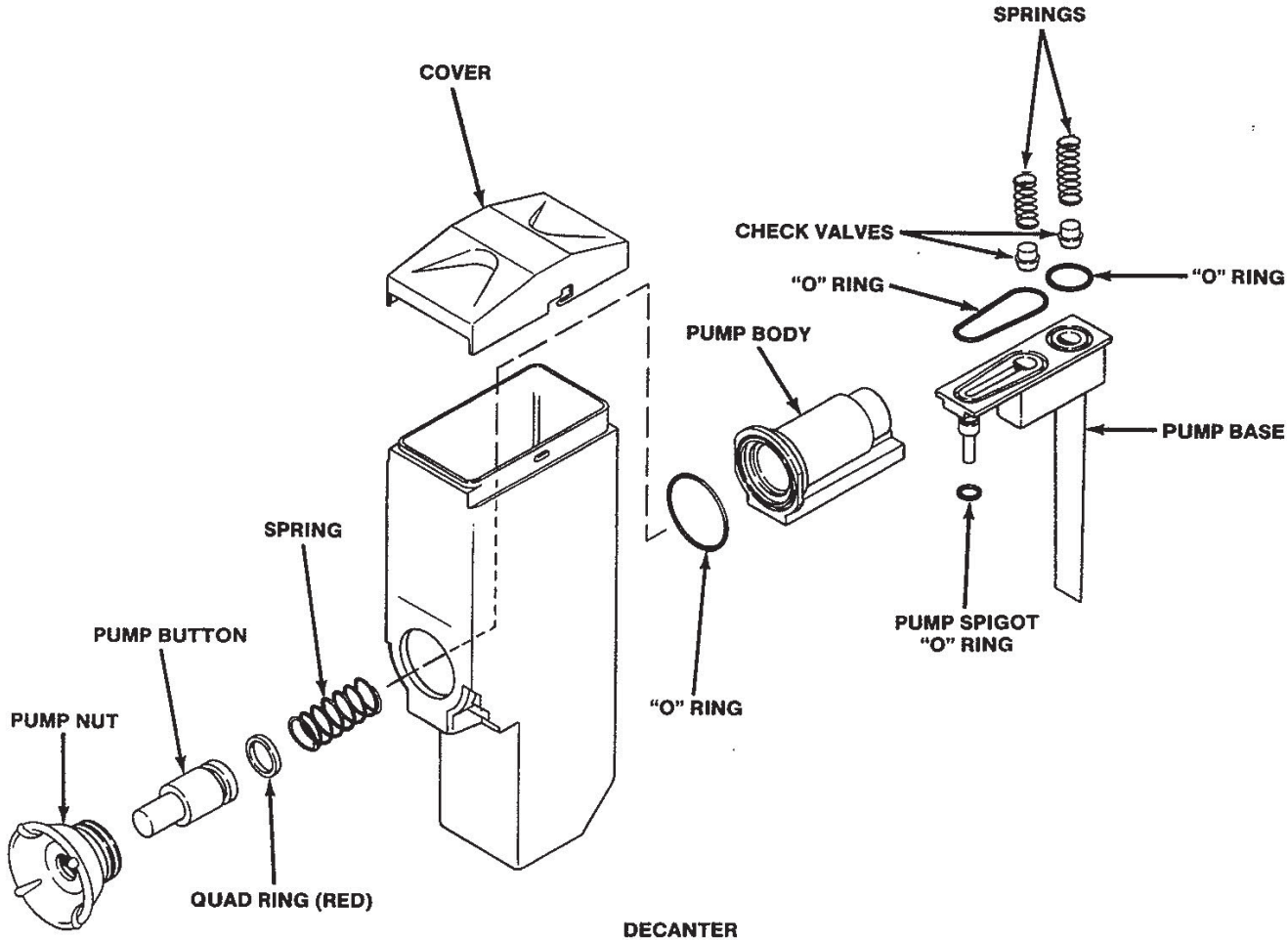


Figure 12. Exploded View of Flavor Decanter

⚠ WARNING

DO NOT USE ANY TYPE OF SHARP OBJECT TO REMOVE THE QUAD RING.

7. With one hand on top of the decanter, turn the decanter upside down to allow the internal pump assembly to drop down. If sticking occurs, gently apply pressure to the pump spout with the other hand.
 8. Wipe excess lubricant from the front of the pump body with a dry cloth or paper towel. Remove the "O" Ring from the front of the pump body.
 9. Carefully remove the pump body from the pump base by sliding the pump body forward. Avoid using too much force to prevent damage to the pump body and base. Care should be taken to ensure that the two springs and check valves do not fall out and become lost.
 10. Remove the two springs and check valves from the pump base. Lift out the two "O" Rings (oblong and round).
 11. Remove the "O" Ring from the pump spigot by rolling down.
 12. Place all parts in a pan or container and take them to the wash sink, filled with warm soapy water, for cleaning.
- D. Remove the spigot assembly by reaching inside the decanter rack and lifting out the spigot retaining clip. Pull the spigot assembly straight out of the product outlet (Fig. 13).

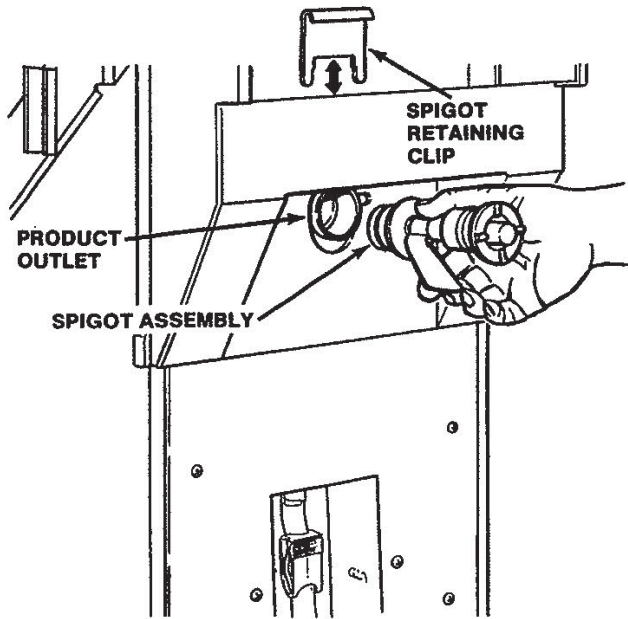


Figure 13. Removing Spigot Assembly

Perform the following steps to disassemble and clean the spigot assembly:

1. Unscrew the spigot pump button nut from the front of the spigot.
2. With a clean dry towel, wipe excess lubricant from the spigot assembly and "O" Ring. Firmly grasp the spigot assembly with both hands and squeeze the "O" Ring upward (Fig. 14). When a loop is formed, roll the "O" Ring out of the groove toward the end of the spigot assembly.

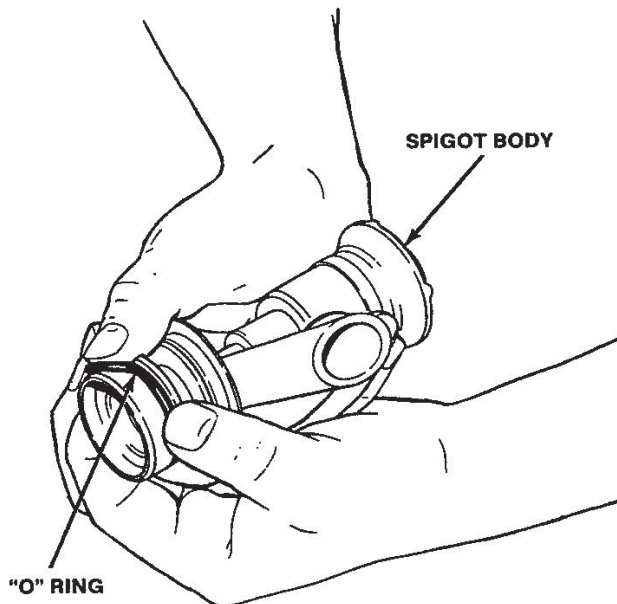


Figure 14. Removing Spigot "O" Ring from Spigot Body

3. Grasp the spigot in one hand and pull the spigot plunger clip out of the slot in the spigot plunger button (Fig. 15). Remove the clip, plunger button and spring from the spigot assembly.

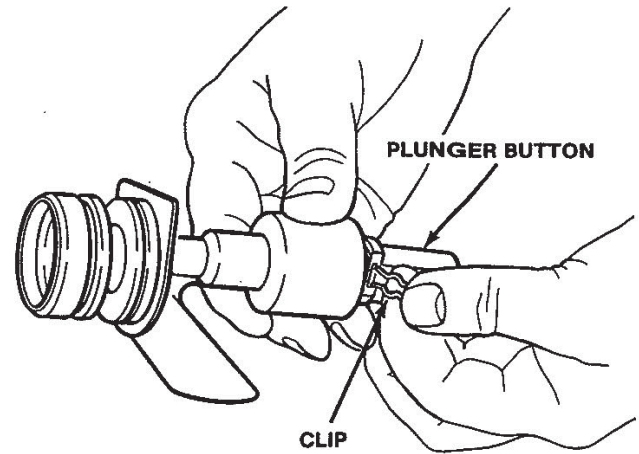


Figure 15. Removing Spigot Plunger Clip

4. Pull the spigot plunger out of the spigot body. Remove the two "O" Rings from the spigot plunger (Fig. 16) in the same manner as removing the "O" Ring from the spigot assembly (step 1).

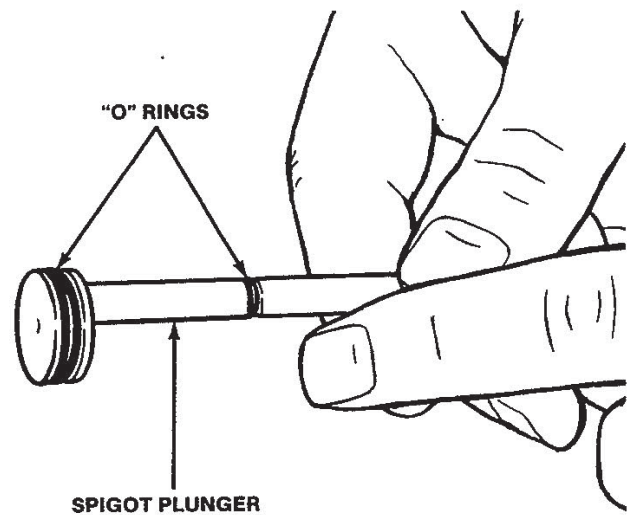


Figure 16. Spigot Plunger and "O" Rings



CAUTION
DO NOT USE ANY TYPE OF SHARP OBJECT TO REMOVE ANY "O" RINGS.

See Figure 17 for an exploded view of the spigot assembly.

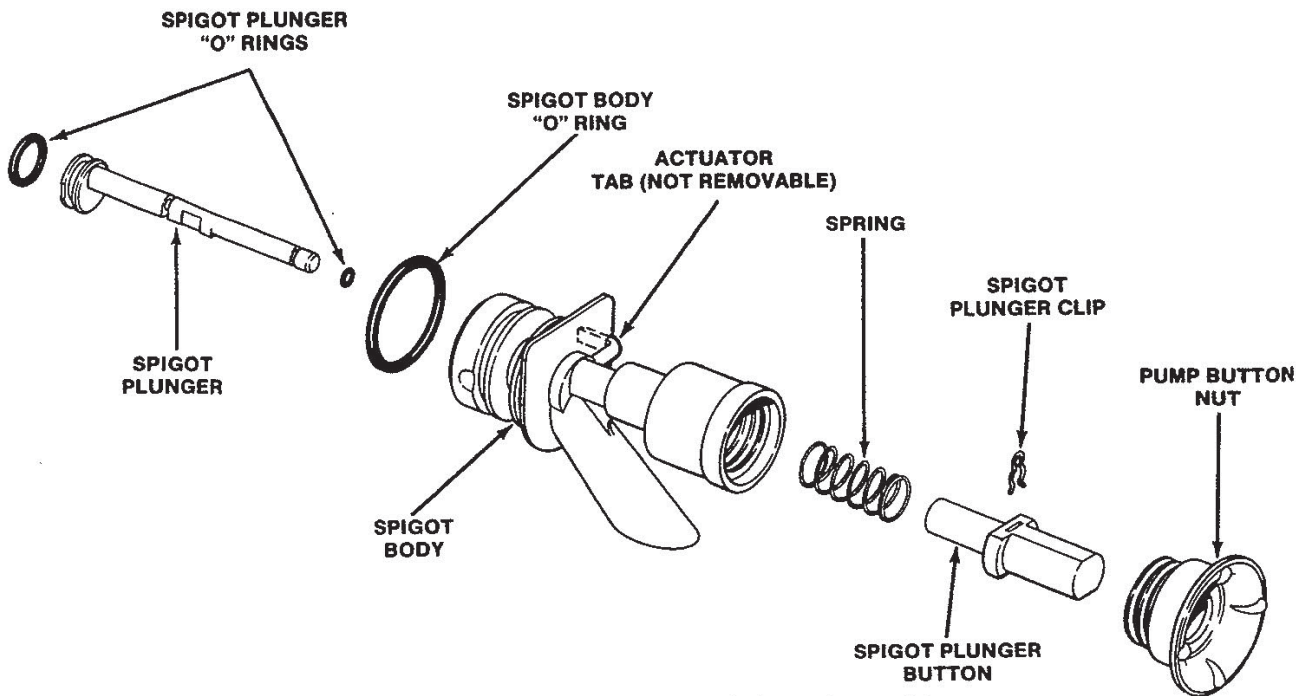


Figure 17. Exploded View of Spigot Assembly

5. Place all loose parts in a pan or container and take them to the wash sink, filled with warm soapy water, for cleaning.

⚠ CAUTION

DO NOT DAMAGE PARTS BY DROPPING OR ROUGH HANDLING.

6. Wash the product outlet with warm soapy water using the brush provided.

- E. Remove the decanter rack by firmly grasping the outer edges of the rack and lifting up to disengage the rack from the support pins (Fig. 18). Then pull the rack out towards you. Clean the decanter rack with a mild alkaline cleanser and soft cloth or sponge. Rinse clean with clear water.

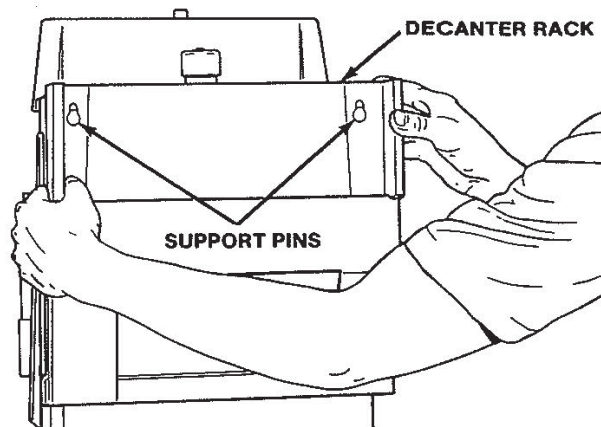


Figure 18. Removing Decanter Rack

- F. For removal and disassembly of the divider plate and agitator assembly refer to the following steps:

⚠ WARNING

PLACE THE ON-OFF-STIR ONLY SWITCH IN THE OFF POSITION AND DISCONNECT THE FREEZER FROM ELECTRICAL SUPPLY SOURCE.

1. First remove the small "O" Ring from the drive-shaft, then remove the drive cap and large "O" Ring from the agitator tube (Fig. 19).

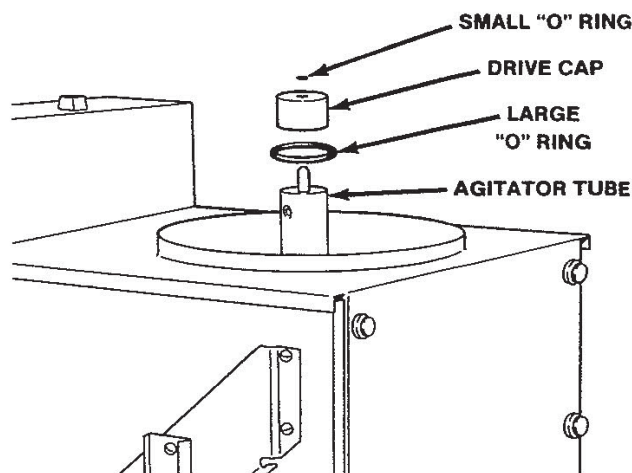


Figure 19. Removing Drive Cap and "O" Ring

2. Remove the sealer ring by squeezing the looped section and lifting out of the product cylinder (Fig. 20).

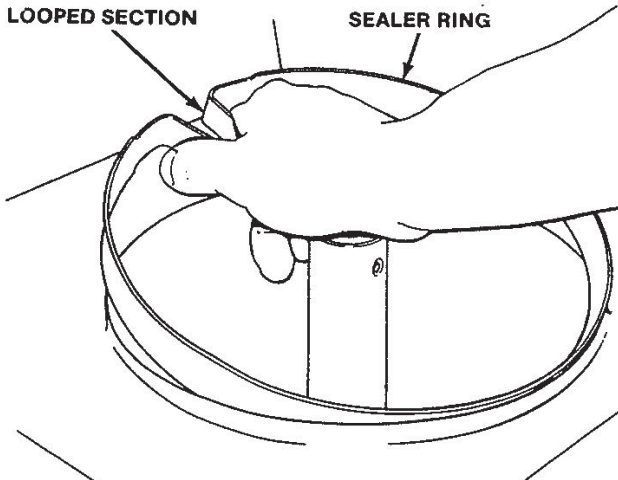


Figure 20. Removing Sealer Ring

3. To remove the divider plate and agitator assembly the divider plate must first be rotated counter-clockwise to unlock. Then grasp the agitator tube and lift out.

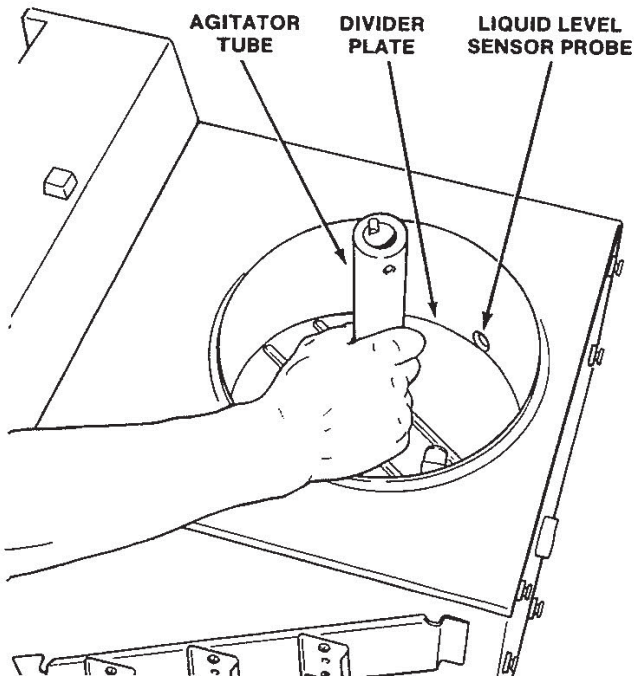


Figure 21. Removing Divider Plate and Agitator Assembly

4. Once the divider plate and agitator assembly is lifted off the vertical product cylinder center post and out of the product cylinder, remove the plastic agitator bushing from the bottom of the product cylinder center post by lifting up and out of the product cylinder (Fig. 22).

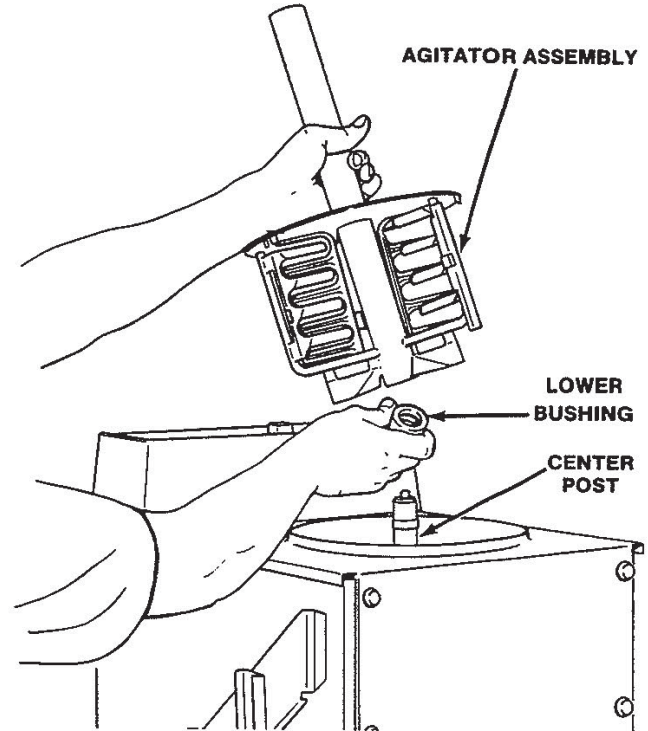


Figure 22. Removing Agitator Assembly and Lower Bushing

5. Remove the drive shaft by pulling straight up and out of the vertical center post (Fig. 23).

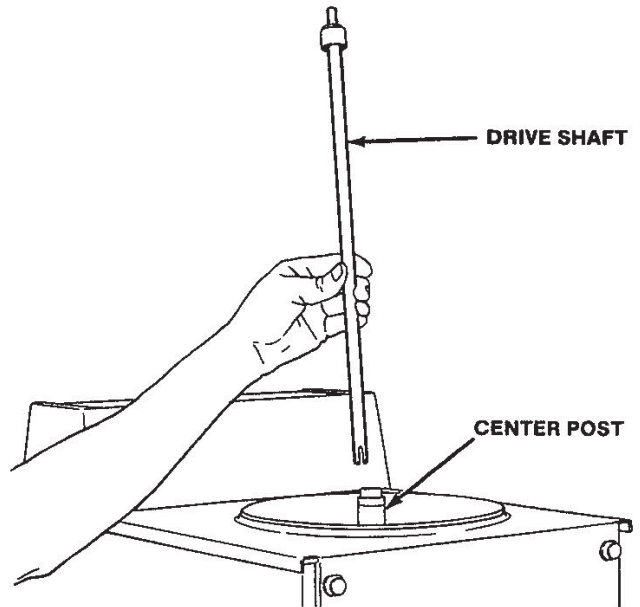


Figure 23. Removing Drive Shaft

- Remove the divider plate from the agitator tube by lifting straight up.
- Remove the plastic scraper blade from the agitator by turning the blade counterclockwise (Fig. 24) to the point where the slot is aligned with the finger supports and sliding up and off. Then remove the retaining spring.

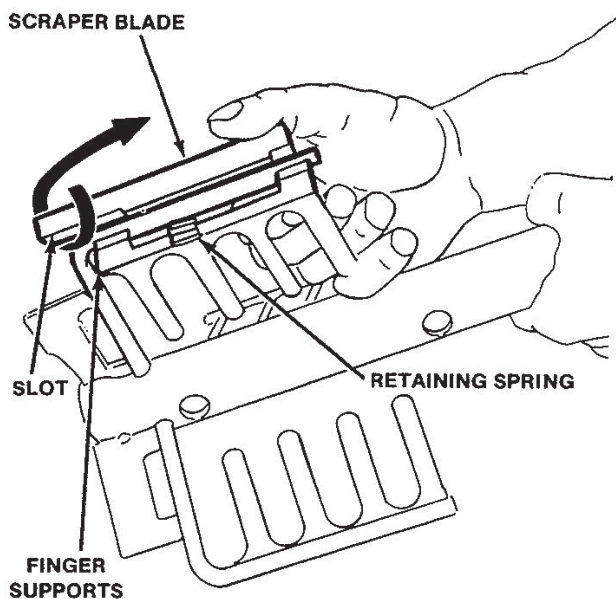


Figure 24. Removing Scraper Blade

- Unscrew the divider plate from the agitator fingers and remove (Fig. 25).

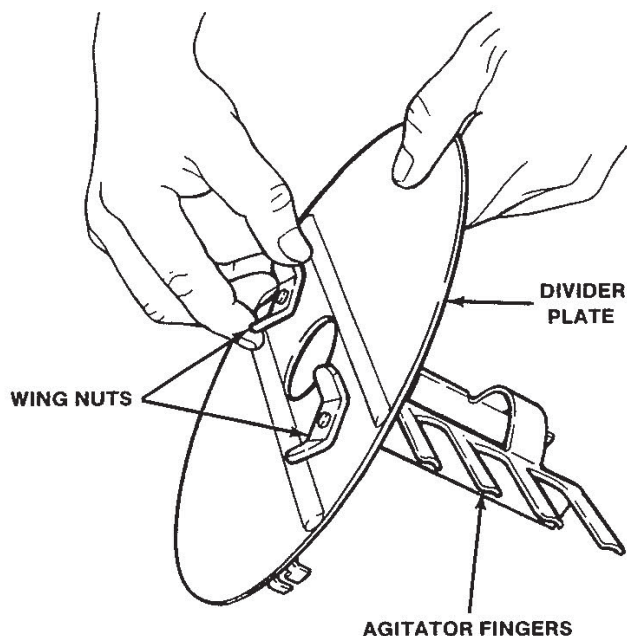


Figure 25. Removing Divider Plate from Agitator Fingers

Refer to Figure 26 for an exploded view of the divider plate and agitator assembly.

- Place all loose parts in a pan or container and take them to the wash sink, filled with warm soapy water, for cleaning.



CAUTION
DO NOT DAMAGE PARTS BY DROPPING OR ROUGH HANDLING.

NOTE

Do not attempt to wash the inside of the vertical product cylinder center post.

- Wash the inside of the product cylinder with warm soapy water using the brush provided.

3.5 SANITIZING THE FREEZER AND FREEZER PARTS

After the freezer parts have been soaked and washed in warm soapy water they should be rinsed thoroughly in clean water.

All parts must be sanitized before assembling with a USDA certified food grade sanitizing solution (50 parts per million of free available chlorine or equivalent is acceptable).

- Mix a sanitizing solution of 50 parts per million to sanitize all loose parts before assembling.
- Place all loose parts in this solution, then remove and let air dry.
- Using this sanitizing solution and the brushes provided, sanitize the product cylinder and product outlet by dipping the brush in the sanitizing solution and scrubbing these areas.
- After assembling the freezer (Section 3.6) mix approximately 3 gallons (11.3 liters) of sanitizing solution and pour into the product cylinder. Brush the walls of the cylinder above the divider plate, with brushes provided to sanitize this reservoir area.
- Set the ON-OFF-STIR ONLY switch in the STIR ONLY position and allow to stir for five minutes. Drain the solution in the same manner as draining the product.
- Pour approximately one pint (1/2 liter) of mixed neutral base into the product cylinder. Wait one minute, then drain the neutral base and remaining sanitizing solution through the drain tube.

Sanitizing must be done after the freezer is clean and just before the product cylinder is filled with mixed neutral base. **Sanitizing the night before is not effective.** However, you should always clean the freezer and parts after use.

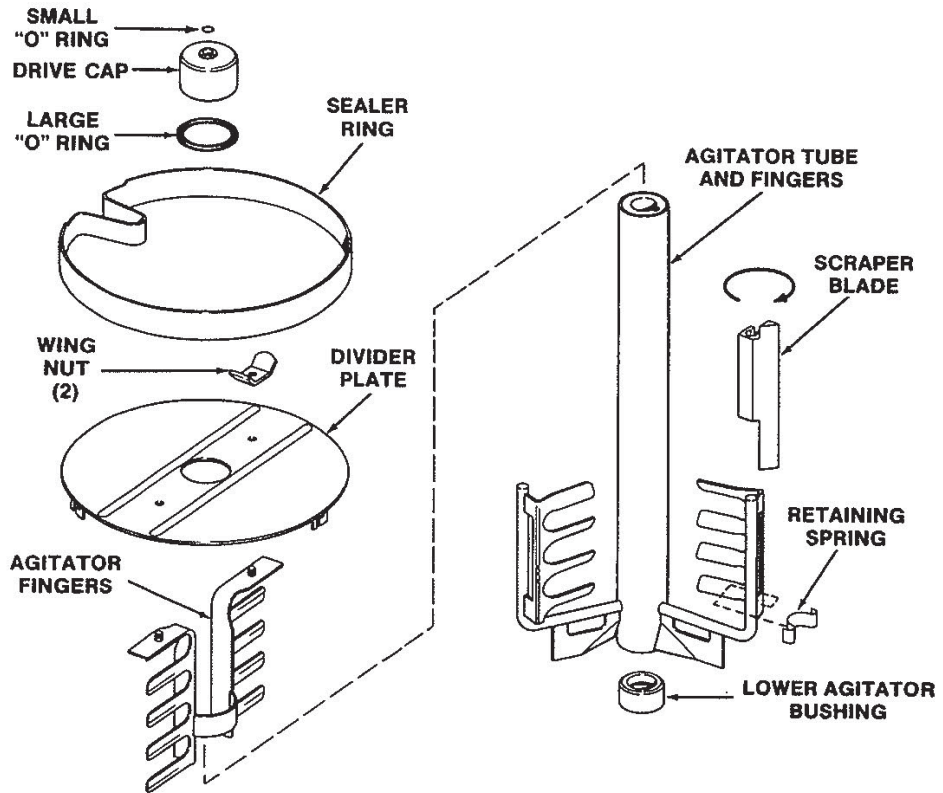


Figure 26. Exploded View of Divider Plate and Agitator Assembly

⚠ WARNING

THE UNITED STATES DEPARTMENT OF AGRICULTURE AND THE FOOD AND DRUG ADMINISTRATION REQUIRE THAT ALL CLEANING AND SANITIZING SOLUTIONS USED WITH FOOD PROCESSING EQUIPMENT BE CERTIFIED FOR THIS USE.

When sanitizing the freezer, refer to local sanitary regulations for applicable codes and recommended sanitizing products and procedures. The frequency of sanitizing must comply with local health regulations. Mix sanitizer according to manufacturer's instructions to provide a 100 parts per million strength solution. Mix sanitizer in quantities of no less than 2 gallons (7.5 liters) of 120° F water. Allow sanitizer to contact the surfaces to be sanitized for 5 minutes. Any sanitizer must be used only in accordance with the manufacturer's instructions.

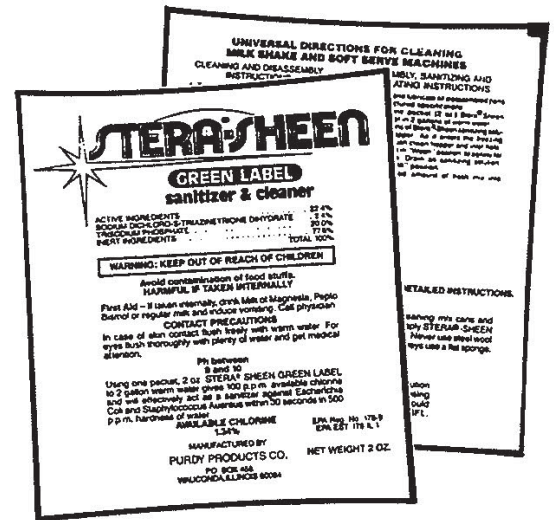
⚠ CAUTION

PROLONGED CONTACT OF SANITIZING SOLUTION WITH FREEZER MAY CAUSE CORROSION OF STAINLESS STEEL PARTS.

NOTE

Stoelting, Inc. has found that STERASHEEN GREEN LABEL SANITIZER AND CLEANER does an effective job of properly sanitizing and cleaning a soft serve freezer. We therefore include a sample with each

new freezer. For further information read the directions on the packet. Other products may be as effective.



3.6 ASSEMBLY OF FREEZER

To assemble the freezer and freezer parts, refer to the following steps:

NOTE

Petro-Gel sanitary lubricant or equivalent must be used when lubrication of parts is specified.

NOTE

The United States Department of Agriculture and the Food and Drug Administration require that lubricants used on food processing equipment be certified for this use. Use lubricants only in accordance with manufacturers instructions.

A. Assemble the divider plate and agitator assembly as follows:

1. Before installing the drive shaft, lubricate the bottom with Petro-Gel or any other type of sanitary lubricant. Enough lubricant must be applied to create approximately a 1/8 inch bulge at the bottom of the drive shaft (Fig. 27). This will provide enough lubricant to allow the top center post bushing and top of the drive shaft to be lubricated as the drive shaft is pushed down the vertical center post.

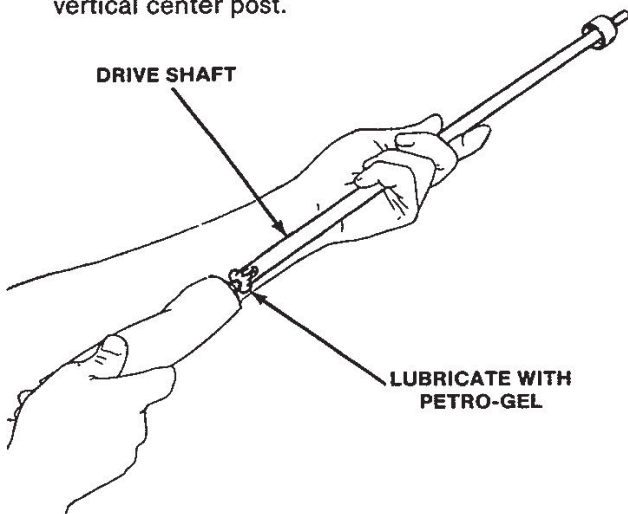


Figure 27. Lubricating Drive Shaft

2. Install the drive shaft into the center post by rotating and pressing down lightly on the shaft until the shaft drops down and engages with the gearbox shaft.
3. Replace the plastic lower bushing to the bottom of the vertical center post.
4. Assemble the divider plate to the agitator fingers by screwing on the two large wing nuts.
5. Install the retaining spring onto the agitator finger support. Align the scraper blade slot with the finger support and slide into position. Turn the blade clockwise and lock into position with the retaining spring.
6. Slide the divider plate down from the top of the agitator tube, until it is seated properly, allowing the agitator fingers clearance for rotation.

7. Assemble the divider plate and agitator assembly onto the vertical center post, making sure the indicator arrow on the divider plate is in position to line up with the product outlet. Grasp the agitator tube and slide the assembly down the vertical center post. Turn divider plate clockwise to lock.

NOTE

Divider plate must be fully locked on all three pins. To check, grasp the two wing nuts and pull up. When locked, the divider plate WILL NOT lift up.

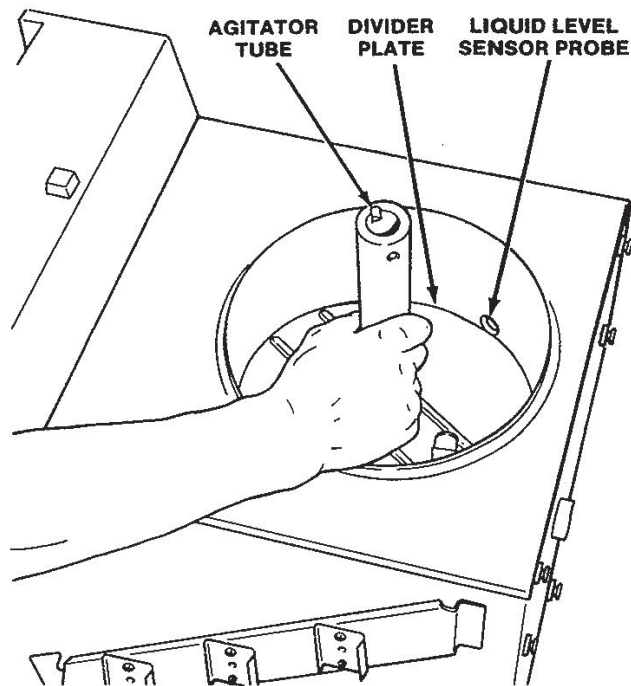


Figure 28. Installing Divider Plate and Agitator Assembly

8. Install the sealer ring by squeezing the looped section and sliding down into the product cylinder.

NOTE

For proper operation of the freezer, the looped section of the sealer ring MUST be positioned to the back of the product cylinder (Fig. 29).

9. Roll the agitator tube "O" Ring completely down the agitator tube until it seals tightly to the divider plate.
10. Rotate the agitator tube clockwise until the guide hole at the top of the agitator tube forms a complete circle with the hole at the top of the vertical center post (Fig. 30).

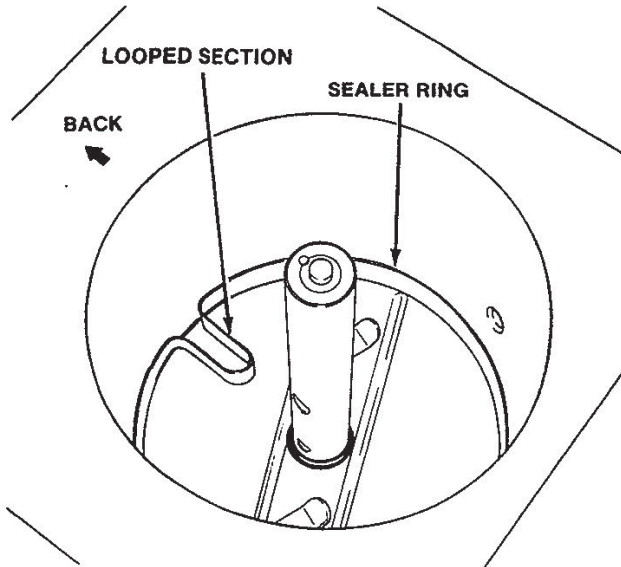


Figure 29. Proper Installation of Sealer Ring

11. Assemble the drive cap onto the agitator tube, aligning the guide pin in the drive cap with the guide hole in the vertical center post and pressing down.
 12. It is important to roll the small "O" Ring into the groove provided on the drive shaft to prevent the drive cap from lifting.
- B. Replace the decanter rack by positioning the rack in front of the freezer and lining up the support pins with the holes in the decanter rack. Push the decanter rack in and down to engage in the support pins.

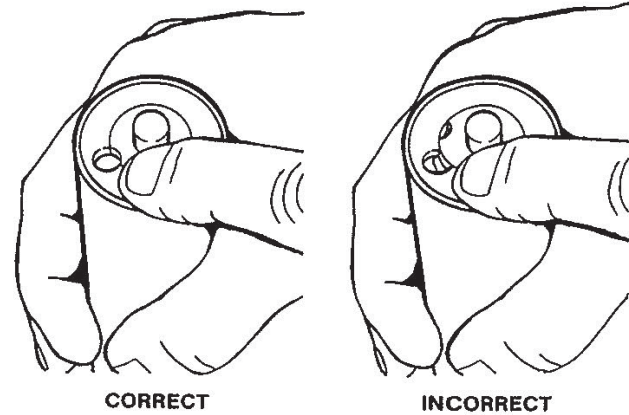


Figure 30. Correct and Incorrect Alignment of Vertical Center Post Guide Hole

- C. Assemble the spigot assembly as follows: See Figure 31 for an exploded view of the spigot assembly.
1. Assemble all "O" Rings onto the spigot plunger **without lubricant**. Then apply a thin film of sanitary lubricant to the exposed surfaces of the "O" Rings.
 2. Insert the spring and plunger into the spigot body. Apply a thin film of sanitary lubricant to the plunger button and insert into the spigot body.
 3. Insert the plunger clip into the spigot plunger button and snap into place.

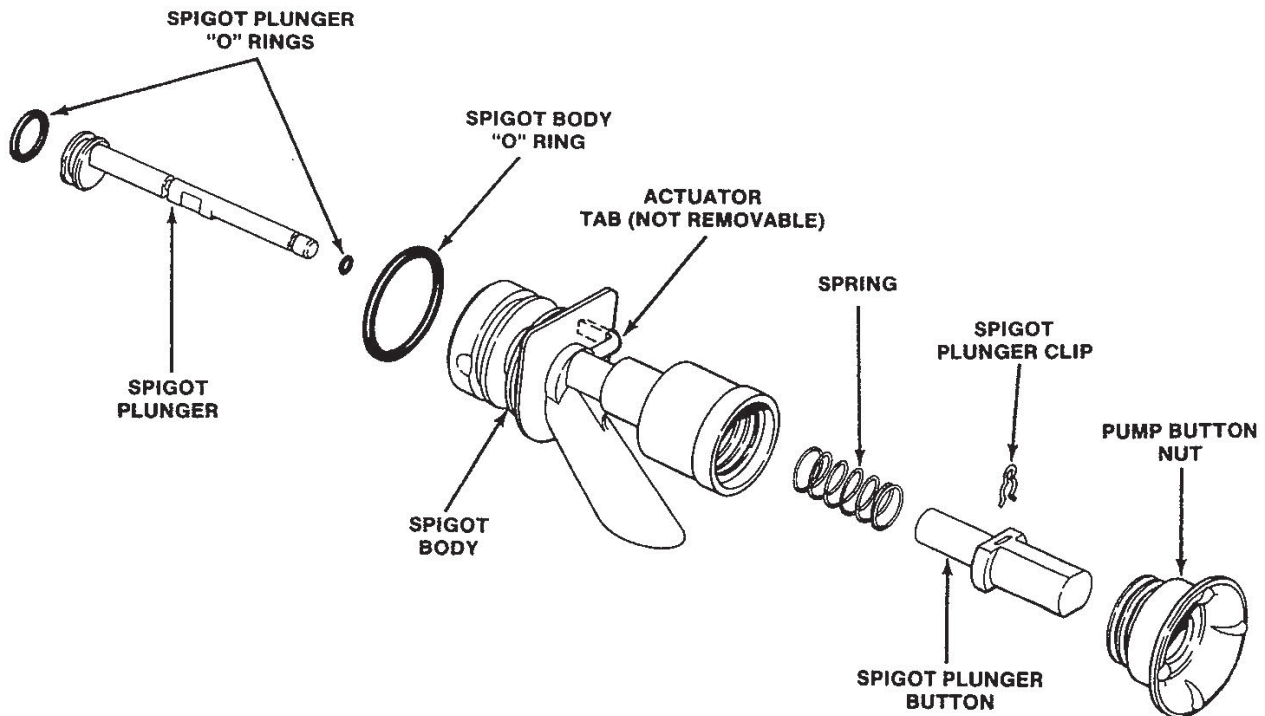


Figure 31. Exploded View of Spigot Assembly

4. Assemble the large "O" Ring onto the spigot body **without lubricant**. Then apply a thin film of sanitary lubricant to the exposed surfaces of the "O" Ring.
5. Screw the plunger button nut onto the spigot assembly and insert the spigot assembly into the product outlet so the actuator tab comes in contact with the safety switch.
6. Slide the spigot retaining clip into position from inside the decanter rack.

NOTE

Install the spigot and spigot retaining clip in such a way as to engage completely in the hole and activate the safety switch.

D. Assemble the flavor decanters as follows:

See Figure 32 for an exploded view of the flavor decanters.

1. Assemble the "O" Ring onto the flavor decanter pump spigot **without lubricant** by rolling the "O" Ring into the "O" Ring groove. Then apply a thin film of sanitary lubricant to the exposed surfaces of the "O" Ring.

2. Install the oblong and round "O" Rings into the grooves on the top of the pump base, THEN apply a thin film of sanitary lubricant to the exposed surfaces of the "O" Rings.
3. Install the two round check valves and two springs into the pump base. While pushing the springs down, slide the pump body onto the pump base.
4. Assemble the "O" Ring into the front of the pump body **without lubricant**. Then apply a thin film of sanitary lubricant to the exposed surfaces of the "O" Ring.
5. Install the pump assembly into the decanter so the pump spigot fits through the small hole in the front of the decanter and the hole in the pump body lines up with the large hole in the front of the decanter.
6. Assemble the quad ring onto the pump button **without lubricant**. Then apply a thin film of sanitary lubricant to the exposed surfaces of the quad ring.

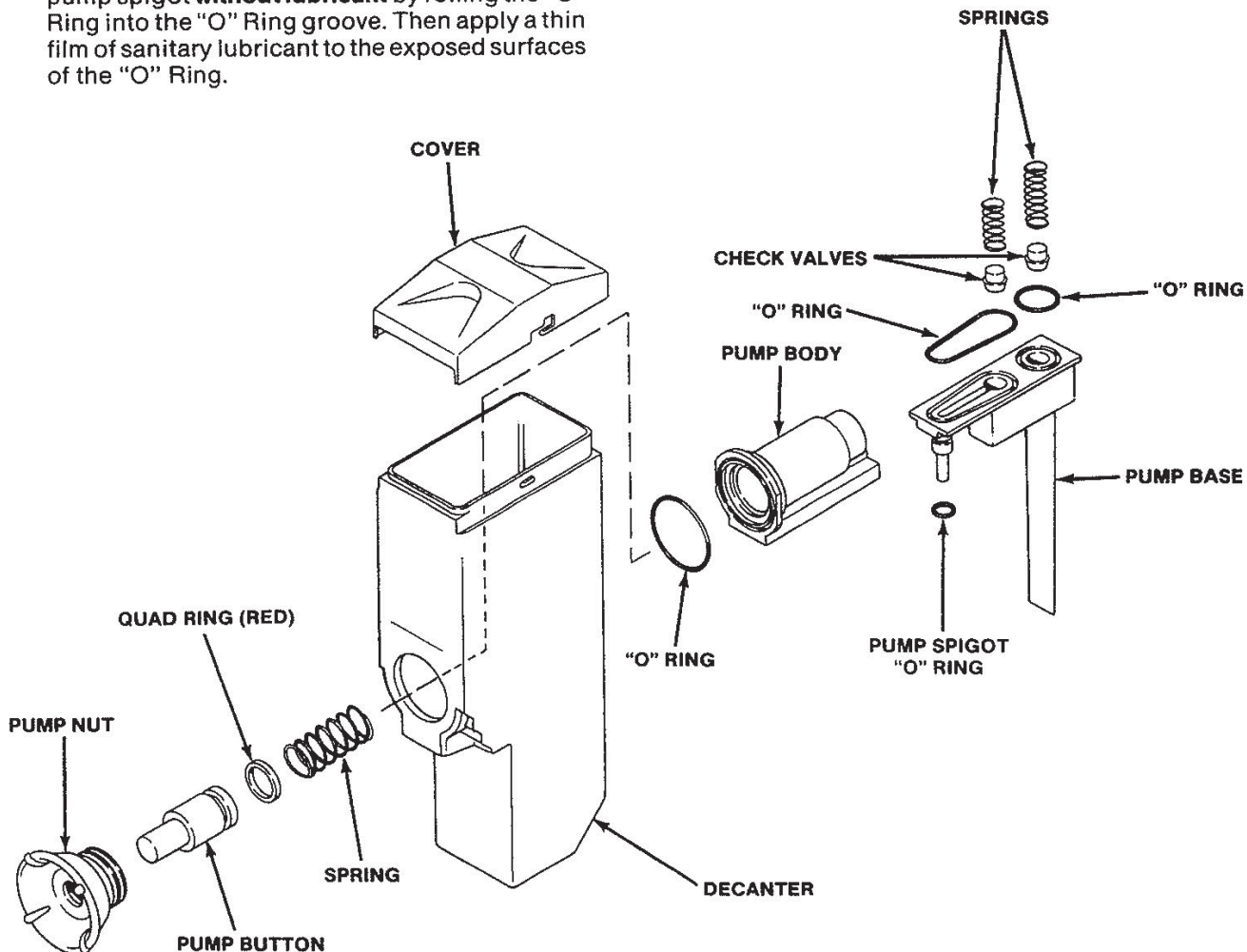


Figure 32. Exploded View of Flavor Decanters

7. Install the large spring and pump button into the front of the decanter. Screw the pump button nut into the front of the decanter. **Do not** over-tighten the pump button.
8. Replace the decanter cover by positioning the slots on the cover in line with the locking pins on the decanter. Push the cover down, slide forward and push down again to engage the locking pins.

NOTE

The decanter cover will only fit one way.

9. Replace the flavor decanter in the decanter rack.
- E. Install drip tray and insert.
- F. Replace the cup dispensers on the side of the freezer by positioning the bracket on the dispenser above the bracket on the side of the freezer and sliding down.

3.7 MIX INFORMATION

It is essential to follow the mixing instructions on the neutral base container carefully. The concentration of ingredients in the product which determines the "Brix" (sugar level) is very important to the operation of the freezer and the quality of the drink. When the proper amount of neutral base is mixed with the proper amount of water, the mixture should have a "Brix" reading between 11 and 13.



CAUTION

DO NOT POUR THE INDIVIDUAL INGREDIENTS (WATER OR NEUTRAL BASE) DIRECTLY INTO THE FREEZER AND DEPEND ON THE AGITATOR TO DO THE MIXING. THIS DOES NOT PROVIDE FOR ADEQUATE MIXING AND MAY CAUSE DAMAGE TO THE FREEZER.

Refer to the following steps for mixing neutral base:

- A. Mix one part neutral base with five parts water (22 ounces [.65 liters] neutral base with 106 ounces [3.13 liters] water) to make one gallon (3.8 liters) of mix ready to pour into the freezer.
- B. The product cylinder has a 4-3/8 gallon (16.5 liter) capacity when filled approximately one inch (2.54 cm) from the top of the cylinder. When filling the cylinder, it is necessary to remove all trapped air from below the divider plate.

Fill the product cylinder with mix to within one inch (2.54 cm) from the top. Place a container under the serving spigot and dispense small

amounts of liquid by pushing in and releasing the spigot button in a series of short bursts. Each time the spigot is closed, bubbles will rise to the top of the liquid in the product cylinder.

When no more bubbles rise to the top, the air trapped under the divider plate has been removed.

Pour the contents of the container back into the product cylinder.

3.8 FREEZE DOWN AND OPERATION

- A. With mixed neutral base in the product cylinder, start the freezing process by setting the ON-OFF-STIR ONLY switch in the ON position.
- B. Although servable product can be obtained after the freezer has been run for two to three hours, the best quality ice crystals will develop after the freezer has been running for several more hours.

NOTE

The lengthy freeze down period occurs only on the initial freeze down or after times when the freezer is completely disassembled for cleaning and sanitizing.

3.9 DISPENSING PRODUCT

To dispense the product correctly, refer to the following steps:

- A. Select the desired cup size.
- B. Dispense flavor concentrate into the cup first, by pushing the push button pump on the desired flavor decanter. Use one squirt of flavor for small cups, two squirts for medium cups and three squirts for large cups.
- C. Place cup under and against the spigot.
- D. Push the spigot button in.
- E. Fill the cup. The gravity flow from the spigot will automatically mix the flavor concentrate with the neutral base mixture as it is dispensed.
- F. When the cup is full, release the spigot button.

NOTE

A visual inspection of the ice crystals will indicate whether or not the freezer has had enough time to sufficiently freeze the neutral base mix. If ice crystals are not present, allow the freezer more time to freeze the product.

3.10 OPERATION IN HOT MODE (Model 1116 only)

The 1116 freezer has the ability to dispense hot drinks as well as cold drinks. The following parts must be obtained from your distributor before switching from the cold mode to the hot mode of operation: special hot spigot, inner cover and hot drink mobile sign. To switch from the cold (freezing) mode of operation to the hot mode, perform the following procedures:

1. Any frozen mix remaining in the product cylinder must be drained. Refer to Section 3.3 for draining procedures.
2. After the product cylinder is completely drained the freezer must be disassembled, cleaned and sanitized as outlined in Sections 3.4 and 3.5.

⚠ WARNING

DISCONNECT FREEZER FROM ELECTRICAL SUPPLY SOURCE BEFORE SERVICING.

3. After the freezer is sanitized, assemble the freezer as outlined in Section 3.6 with the following exceptions:
 - A. When assembling the divider plate and agitator assembly, DO NOT install the retaining spring and scraper blade (Fig. 26).
 - B. Install special hot spigot available from Stoelting, Inc.

⚠ WARNING

THIS SPECIAL HOT SPIGOT MUST BE INSTALLED FOR DISPENSING HOT DRINKS. FAILURE TO INSTALL THIS SPIGOT COULD RESULT IN BURNS TO THE OPERATOR.

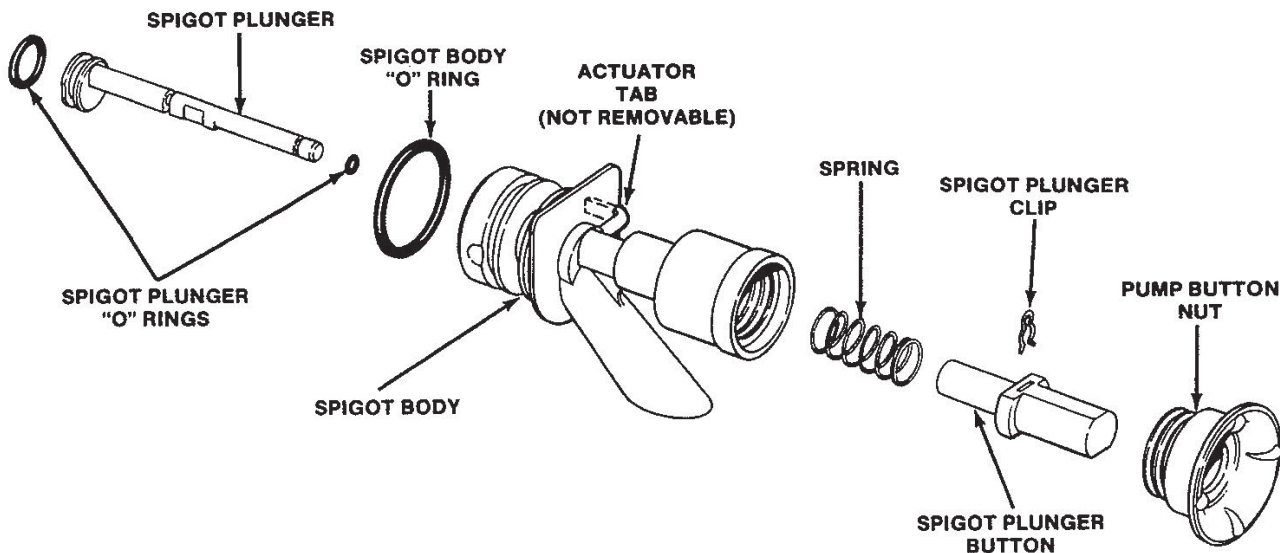


Figure 33. Exploded View of Hot Spigot Assembly

NOTE

This special hot spigot will be shipped as an accessory if you choose to utilize the hot mode.

- C. Place inner hopper cover onto product cylinder. This cover will be provided as an accessory if you choose to operate in the hot mode.
4. With the freezer still unplugged and the ON-OFF-STIR ONLY switch in the OFF position, remove the two Phillips head screws from the bottom of the right side panel and slide the side panel down and out.
5. Place the HOT-COLD toggle switch, located in the front right corner of the freezer, in the HOT (up) position.
6. Replace the right side panel, drip tray and insert.
7. Fill the product cylinder with approximately four gallons (15 liters) of mixed hot drink neutral base. Mix neutral base in accordance with mixing instructions on container.
8. Replace the inner and outer product cylinder covers.
9. Plug the freezer in and place the ON-OFF-STIR ONLY switch in the ON position.
10. Allow up to two hours for the product to reach the desired serving temperature.

⚠ CAUTION

NEVER ALLOW THE PRODUCT CYLINDER MIX LEVEL TO FALL BELOW THE LEVEL OF THE SPIGOT ASSEMBLY.

11. Dispense hot product in the same manner as dispensing cold product.

3.11 ROUTINE CLEANING

To remove spilled or dried mix from the freezer exterior, simply wash in the direction of the finish with warm soapy water or a mild alkaline cleanser and a soft cloth or sponge. **Do not** use abrasive materials as they will mar the finish of the freezer.

Refer to Figure 34 for a cleaning checklist of the freezer.

3.12 PREVENTIVE MAINTENANCE

It is recommended that a maintenance schedule be followed to keep the freezer clean and operating properly.



CAUTION
NEVER ATTEMPT TO REPAIR OR PERFORM MAINTENANCE ON THE FREEZER UNTIL THE MAIN ELECTRICAL POWER HAS BEEN DISCONNECTED.

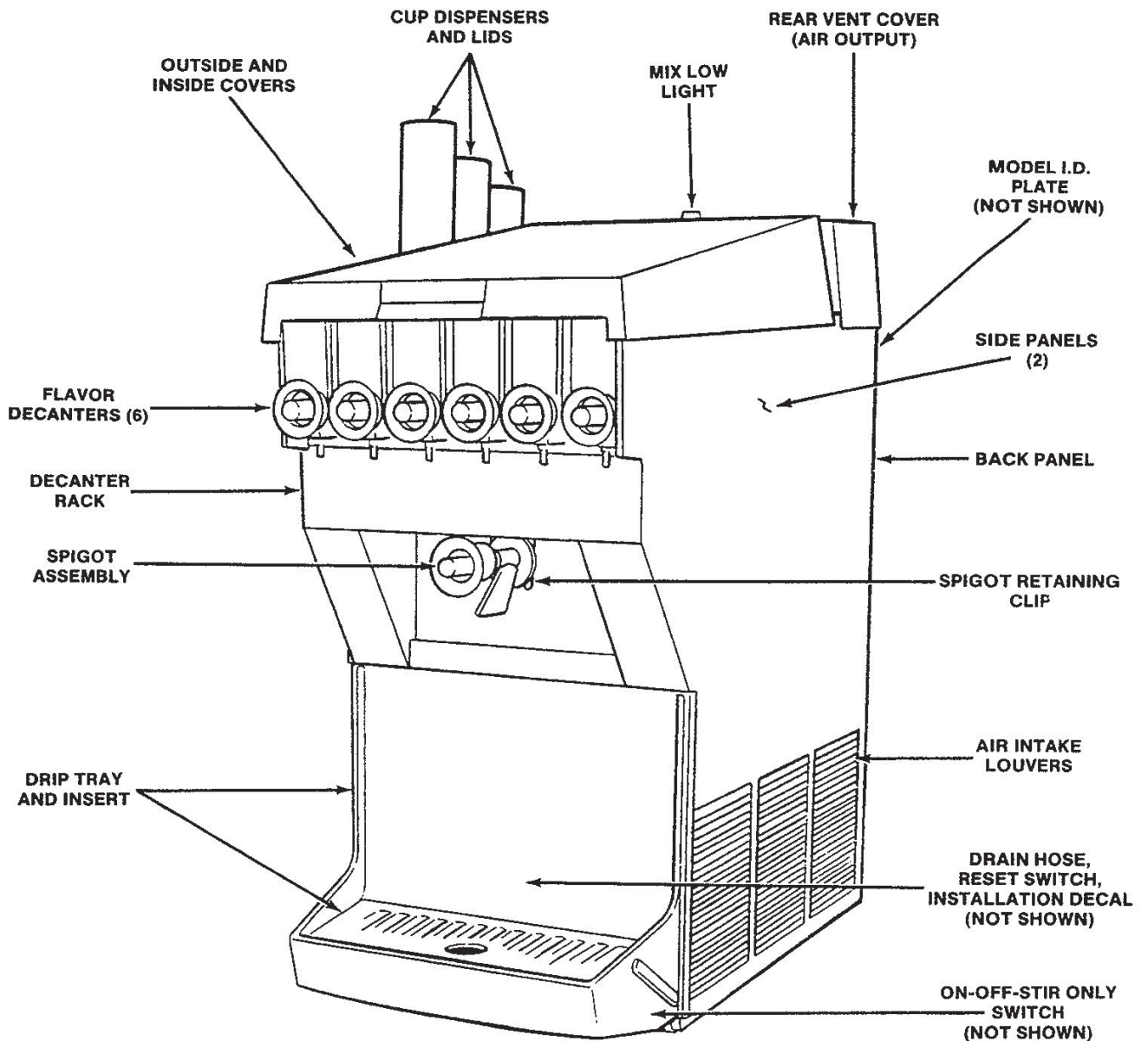


Figure 34. Cleaning Checklist

A. DAILY

1. The exterior should be kept clean at all times to preserve the lustre of the stainless steel. A mild alkaline cleanser is recommended. Use a soft cloth or sponge to apply the cleanser.



CAUTION
DO NOT USE ACID CLEANERS, STRONG CAUSTIC COMPOUNDS OR ABRASIVE MATERIALS TO CLEAN ANY PART OF THE FREEZER EXTERIOR OR PLASTIC PARTS.

2. Clean drip tray by lifting out, rinsing and replacing.

B. WEEKLY

1. Remove the drip tray and insert. Clean behind the drip tray with a soap solution.
2. Check all "O" Rings for excessive wear and replace if necessary.

C. MONTHLY



CAUTION
THE FREEZER HAS AN AIR COOLED CONDENSER AND MUST HAVE PROPER AIR CIRCULATION. DO NOT PLACE THE LOUVERED SIDE OF THE FREEZER ANY CLOSER THAN SIX INCHES (15.2 cm) FROM THE WALL. FAILURE TO CLEAN THE CONDENSER FILTER ON A REGULAR BASIS MAY RESULT IN SERIOUS FREEZER DAMAGE AND COULD VOID THE WARRANTY.

Remove the two phillips head screws from the bottom of the louvered side panel and pull the side panel down and out.

Remove the condenser filter from the lower inside of the side panel. Shake the excess dirt from the filter then wash the filter in warm soapy water. Rinse in clean water and squeeze dry, taking care not to damage the filter in any way.

Replace the condenser filter and side panel.

D. YEARLY

1. Replace the plastic scraper blade and drain hose.

3.13 EXTENDED STORAGE

Refer to the following steps for storage of the freezer over any long period of shutdown time:

- A. Set the ON-OFF-STIR ONLY switch in the OFF position.
- B. Disconnect (unplug) the freezer from electrical supply source.
- C. With a warm detergent solution, thoroughly clean all parts that come in contact with neutral base mix or flavors. Rinse in clear water and dry all parts. **Do not** sanitize.

NOTE

Do not let cleaning solution or product stand in the product cylinder during the shutdown period.

- D. Remove, disassemble and clean the spigot assembly. Place these parts along with the scraper blade in a plastic bag with a moist paper towel to prevent them from becoming brittle.

SECTION 4 WARNING DECALS

4.1 HOW TO ORDER WARNING DECALS

To assure receipt of the proper warning decals, supply your dealer or distributor with the following information:

- A. Model number of equipment.
- B. Serial number of model, stamped on nameplate.
- C. Part number, decal description and quantity needed. Common warning decal names and numbers are listed below.

Part Number	Decal Description
324105	Decal - Electrical Shock Hazard
324107	Decal - Caution - Hazardous Moving Parts
324301	Decal - Important Instructions
324317	Decal - Caution
324318	Decal - Cold to Hot Conversion Instructions (Model 1116 only)
324330	Decal - Hot-Cold (Model 1116 only)

Refer to Figure 3 for location of decals.

STOELTING, INC. LIMITED WARRANTY

1. EQUIPMENT & PARTS MANUFACTURED BY STOELTING, INC.:

Stoelting, Inc., (the "Company") warrants to the first user (the "Buyer") that the equipment's components manufactured by it will be free from defects in material and workmanship under normal use and proper maintenance for a period of twelve (12) months. Stoelting, Inc. further warrants to the original Buyer that all freezer cylinders, hoppers and compressors on original equipment will be free from defects in materials and workmanship under normal use and proper maintenance for five (5) years. The Warranty Registration must be properly mailed to the Company as required by the Duties of the Buyer set forth below this Warranty.

2. COMPANY OBLIGATION:

The Company's obligation under its Warranty is strictly and exclusively limited to the repair or replacement at the Company's plant in Kiel, Wisconsin, of such components of its manufacture as are found by the Company to be defective in materials or workmanship on the condition that the Buyer gives prompt written notice to the Company of any claimed breach of warranty within the afore-described twelve (12) month period, and delivers to the company the claimed defective component within such time period. All costs of packing and shipping claimed defective components, replacement or repaired components shall be paid by the Buyer.

3. NO OTHER WARRANTIES:

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ABOVE AS THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE. THE COMPANY'S WARRANTY STATED HEREIN CANNOT BE MODIFIED BY ANY AGENT OR EMPLOYEE OF THE COMPANY, DISTRIBUTOR, DEALER OR OTHER PARTY, EXCEPT BY A WRITING EXECUTED BY A DULY AUTHORIZED OFFICER OF THE COMPANY.

4. PARTS, COMPONENTS & MATERIALS MANUFACTURED BY OTHERS:

Parts, components, and materials manufactured by others are warranted only to the extent of the Warranty given us by the manufacturer of such parts, components and materials. Said manufacturer's sole judgement shall determine the extent of allowance for, or replacement of, any such parts claimed defective. Stoelting, Inc. does not warrant the corrosive resistance of stainless steel nor other metal parts for any purpose whatsoever.

5. LIMITED LIABILITY FOR CLAIMS:

IN NO EVENT SHALL STOELTING, INC. BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES RESULT FROM A DEFECT IN MATERIALS AND WORKMANSHIP OR OTHERWISE. STOELTING, INC.'S SOLE LIABILITY ON ANY CLAIM OF ANY KIND WHETHER IN CONTRACT, TORT OR OTHERWISE, FOR ANY LOSS OR DAMAGE ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM THE DESIGN, MANUFACTURE, SALE, DELIVERY OR USE OF THE EQUIPMENT SOLD HEREUNDER, INCLUDING ANY CLAIMS FOR PERSONAL INJURIES, SHALL IN NO CASE EXCEED THE COST OF REPLACEMENT, REPAIR OR REFUND CREDIT AS PROVIDED HERE.

DUTIES OF BUYER

1. RETURN OF WARRANTY REGISTRATION:

The Warranty Registration furnished the Buyer at the time of sale of the equipment must be properly filled out and mailed to the Company within thirty (30) days of the installation date of the equipment.

2. USE AND CARE OF EQUIPMENT:

Buyer shall use the equipment in accordance with the operator's manual, provided by the Company and no liability under this Warranty or otherwise shall attach by reason of a defect caused by negligence, abnormal use, misuse or abuse of said equipment, or for any accident that may occur to said equipment or any part thereof, after said equipment has left the factory of the Company, nor for any defect which may arise by placing any part in said equipment which has not been manufactured or approved by the Company.

3. DEFINITIONS:

The term "first user" or "buyer" as used herein, shall be deemed to mean that person, firm, association, or corporation for whom the equipment referred to herein is originally purchased.