

ELECTRO FREEZE®

OPERATOR'S MANUAL

with Illustrated Parts List

**COCKTAIL AND
SLUSH FREEZER**
Models 876 and 876RH
with Electronic Control

184960 — 12/02

Operator's Manual
for the
Electro Freeze
Models 876 and 876RH
Slush / Cocktail Freezers

SAFETY FIRST!

Follow these four steps to safety

1. Recognize Safety Information Look for this safety alert symbol throughout this manual.




When you see this symbol on your freezer or in this manual, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

2. Understand Signal Words



The signal words — DANGER, WARNING and CAUTION — are used with the safety alert symbol (DANGER decals on the freezer may or may not have the safety alert symbol, but the message is the same). Decals with the words DANGER, WARNING or CAUTION appear on the freezer. DANGER identifies the most serious hazard. Decals with the words DANGER or WARNING are typically near specific hazards on the freezer. General precautions are listed on CAUTION safety decals.

In this manual, CAUTION messages with the safety alert symbol  call attention to safety messages.

SAFETY FIRST!

3. Follow Safety Instructions



Read and understand all safety messages in this manual. Read and understand the decal safety messages on your freezer. Take notice of the location of all decals on the freezer and keep the safety decals in good condition. Check them periodically and replace missing, damaged or illegible safety decals. The safety decals must remain in place and legible for the life of the freezer. If you need new decals, use the information and illustrations on pages iv and v of this manual to identify the decal and contact your Electro Freeze distributor or H.C. Duke & Son, Inc., Electro Freeze Service Department.

DO NOT attempt to operate the slush/cocktail freezer until you read and understand all safety messages and the operating instructions in this manual.

4. Operate Safely



DO NOT allow untrained personnel to maintain or service this machine. Failure to follow this instruction may result in severe personal injury. ***DO NOT*** operate the freezer unless all service panels and access doors are secured with screws. ***DO NOT*** attempt to maintain or repair the freezer until the main power supply has been disconnected. Contact your local Electro Freeze Distributor for authorized service.

Safety Decal Locations

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

Take notice of all warning, caution, instruction and information decals (or labels) on the freezer as shown in the figure on the following page. 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 it is necessary to replace *any* label, please contact your local authorized Electro Freeze Distributor or H. C. Duke & Son, Inc. When ready to order you will need to determine the (1) part number, (2) type of label, (3) location of label, and (4) quantity required, and include a return shipping address.

You may contact your local authorized Electro Freeze Distributor, as follows:

Name: _____

Address: _____

Phone: _____

or — for factory service assistance — contact H. C. Duke & Son, Inc., Electro Freeze Service Department by phone or FAX:



Phone: (309) 755-4553

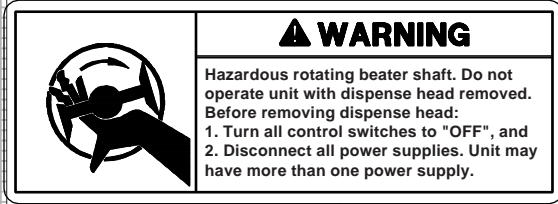
FAX: (309) 755-9858

(The decals on the next page are numbered 1 and 2. Those numbers correspond to the numbers in the table below. The table provides the part number, description, and quantity for each decal.)

No.	Part No.	Description (Qty)
1	P/N 165126	Decal — Panel Removal Warning (3)
2	P/N 165025	Decal — Beater Warning (1)

Safety Decal Locations

1 P/N 165025



2 P/N 165126

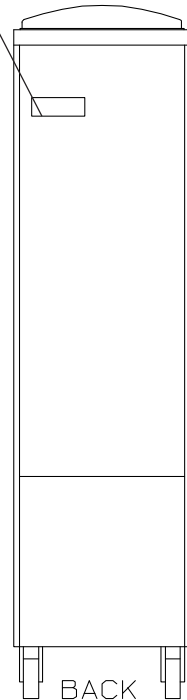
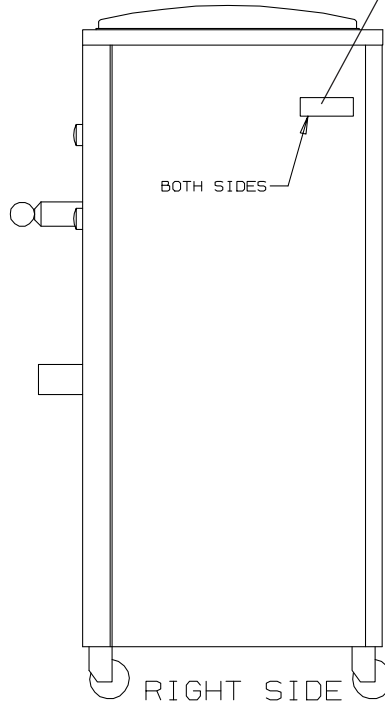
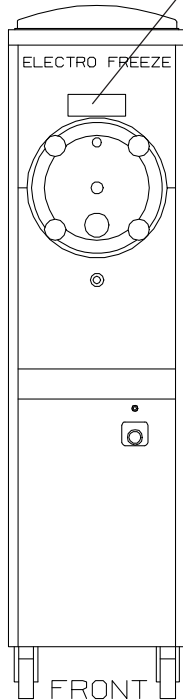
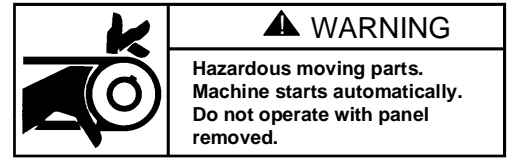


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PART II

MODEL 876 and 876RH

Replacement Parts with Illustrations *

* Refer to Part II Table of Contents for help with locating part numbers and illustrations.

1 Introduction

Models 876 and 876 are specifically designed to dispense a high quality, smooth-frozen, noncarbonated, water and sugar based drink that is served in a variety of flavors. The product can be a neutral base or a pre-mixed flavor.

This manual has been prepared to assist you in the proper operation and general maintenance of the Electro Freeze Model 876 and 876RH freezer.

NOTE: Model 876RH with refrigerated hopper, is required when drinks containing perishable products are to be dispensed.

The freezer will not compensate for, or correct, any assembly or priming errors made during the initial start-up. Therefore, it is important that you follow the assembly and priming procedures detailed in this manual.

Be sure all personnel responsible for equipment operation completely read and understand this manual before operating the freezer. When properly operated and maintained, this freezer will produce a consistent quality product.

If you require technical assistance, please contact your local authorized Electro Freeze Distributor, as follows:

Name: _____

Address: _____

Phone: _____

— or for factory service assistance —
contact H. C. Duke & Son, Inc., Electro Freeze Service Department by phone or FAX:



Phone: (309) 755-4553

FAX: (309) 755-9858

2 Note to Installer

This freezer must be installed and serviced by an *Electro Freeze* Distributor or authorized service technician in accordance with the installation instructions.

After installation the warranty registration card must be completed and returned to validate the warranty.

2.1 Uncrating and Inspection



CAUTION
 Be sure to properly support the machine when removing bolts and installing legs or casters.

age on the carrier's freight bill and notify the carrier's local agent immediately.

1. Remove the carton from the pallet, and move the machine as close as possible to the permanent location.

2. Remove the shipping bolts on the bottom of the freezer (figure 2-1) and install either the legs or casters (figure 2-2).

When the unit is received and while the carrier is still present, inspect the shipping carton for any damage that may have occurred in transit. If the SHOCKWATCH® label indicates red and/or the carton is broken, torn, or punctured note the dam-

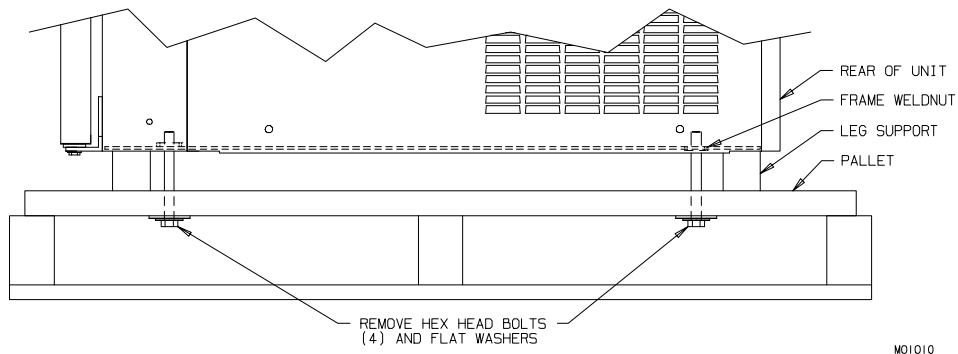


Figure 2-1 Bolted to pallet

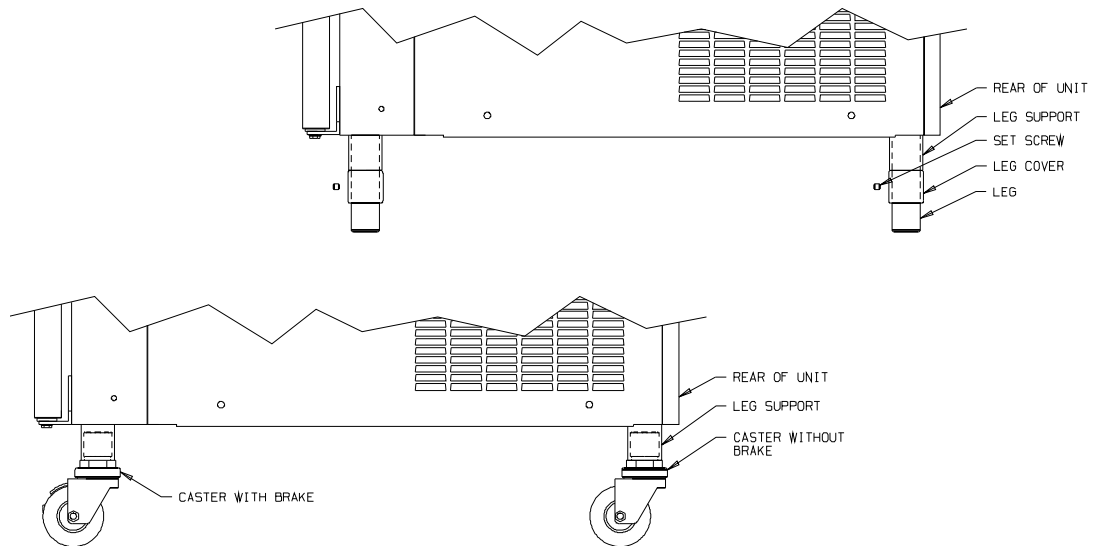


Figure 2-2 Install mounting legs

2.2 Installation



CAUTION
All materials and connections must conform to local requirements and be in compliance with the National Electrical Code (NEC).

1. Where codes permit, we recommend that the freezer be installed on casters and have flexible water and electrical connections for easier service and cleaning.

2. **Air cooled** models require a minimum 3-inch (7.6 cm) clearance on either of the side panels and 6-inch (15.2 cm) clearance on the rear panel for adequate ventilation. **Water cooled** models require a minimum of 3-inch (7.6 cm) clearance on all sides.

3. **Water cooled** models require a 3/8-inch MPT water inlet and water waste connection. The connections are found on the bottom, under the compressor mounting area. They are tagged "Water Inlet" and "Water Waste." A manual shut-off valve should be installed in the water inlet line at the time of installation.

4. Place the freezer in its final location and adjust the legs or casters so that it is level side-to-side and the front is approximately 1/4-inch lower than the rear to allow proper drainage of the freezing cylinder.

2.3 Electrical Requirements

All materials and connections must conform to local requirements and be in compliance with the National Electric Code (NEC).



CAUTION
To prevent accidental electrical shocks, a receptacle with a positive earth ground is required.

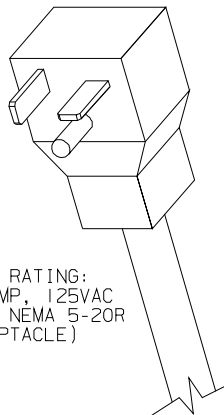


Figure 2-3 Plug

1. Always verify electrical specifications on the data plate (see figure 3-1) of each individual freezer. Data plate specifications will always supersede the information in this manual.

2. Refer to the data plate on the rear panel for connection of proper fuse or HACR circuit breaker.

3. Refer to the wiring diagram provided for proper power connections.

4. All 115 volt 20 amp freezers are supplied with a factory power cord (Figure 2-3) that requires a NEMA "5-20 R" type receptacle to accommodate the plug. All freezers should be connected to a circuit separate from any other electrical equipment.

5. Supply voltage must be within $\pm 10\%$ of the voltage indicated on the nameplate. Request your local power company to correct any voltage problem.

3 Specifications

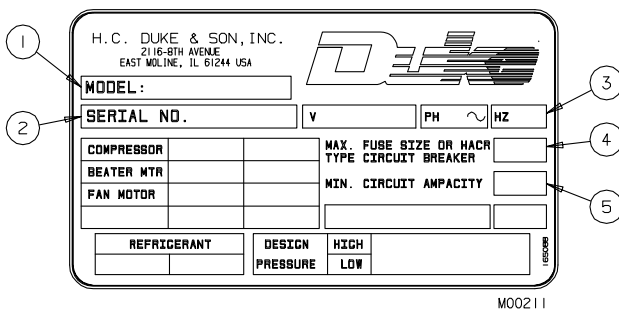
3.1 Particulars

Model 876 and 876RH

Width – in/cm	14.5/37
Height – in/cm	59.5/151
Depth – in/cm	25/64
Weight – lbs/kg	280/127
*Voltage	115-1-60
Min. Circuit Ampacity	20.0
Max. Circuit Breaker	20 Amp
Compressor	3/4 hp/5500 BTUH .56 kw (Motor) 1.6 kw (Cooling)
Beater Motor	1/4 hp/.19 kw
Refrigerant	404a
Charge	2.25 lb/1.02 kg
Cooling	Air or Water
Hopper	20 qts/18.9 L
Cylinder	14 qts/13.2 L

*Contact factory for other voltages.

3.2 Data Plate



The data plate provides important information that the operator should record and have available for parts ordering, warranty inquiries, and service requests.

Figure 3-1 Data Plate

3.3 Reference Information

Fill in the following information as soon as you receive your freezer. (The item numbers correspond to the callout numbers in figure 3-1.)

- ① Model Number: _____
- ② Serial Number: _____
- ③ Electrical Spec: Voltage _____
Phase _____ Hertz _____
- ④ Maximum Fuse Size: _____
- ⑤ Minimum Circuit Ampacity: _____

3.4 Installation Date

Fill in the date of installation, and the name, address, and phone number of the installer in the space provided below. This information will be needed when ordering parts or service for the freezer.

Date of Installation: _____

Installed by: _____

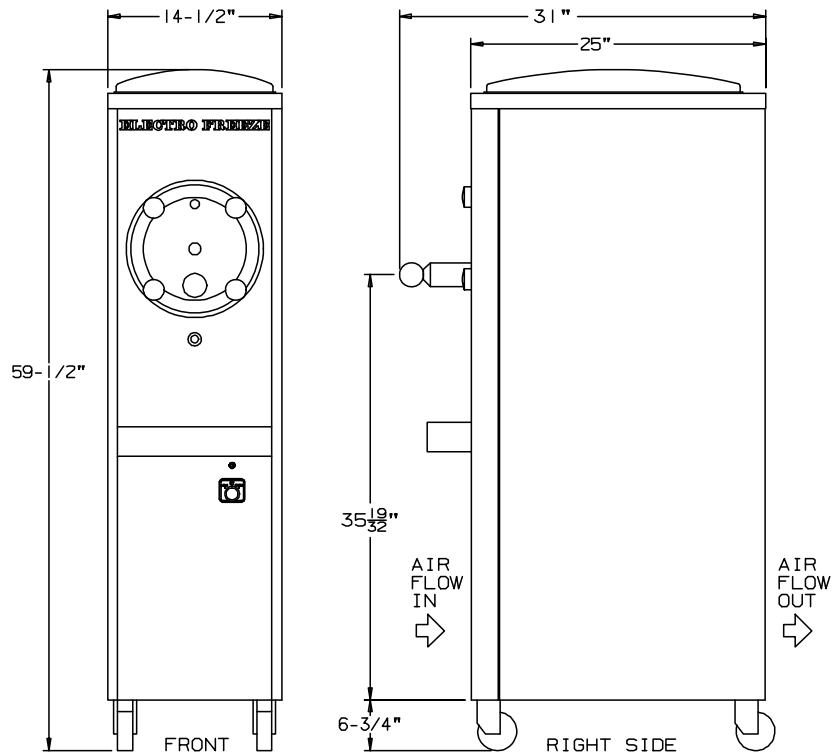
Address: _____

Phone: _____

3.5 Dimensions

Figure 3-2, below, provides the dimensions of the Electro Freeze 876 models.

Model 876 and 876RH



M00397

Figure 3-2 Electro Freeze Model 876

4 Part Names and Functions

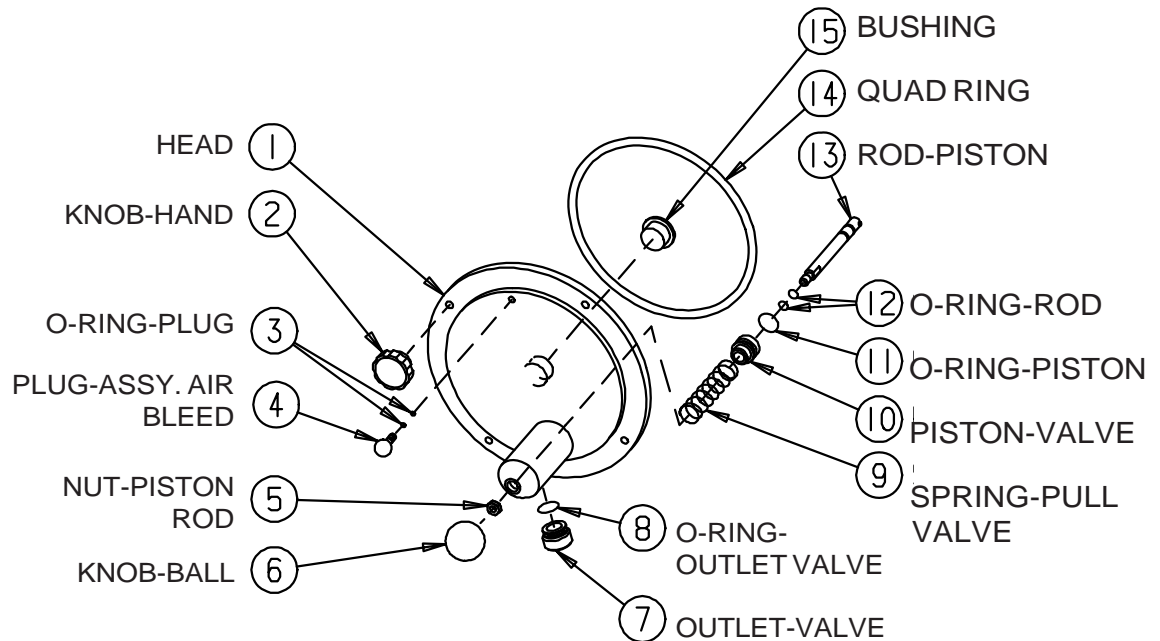


Figure 4-1 Head Assembly

- | | |
|--|---|
| <p>1 HEAD. Encloses the freezing cylinder and provides an opening for product to be dispensed.</p> <p>2 KNOB - HAND. Secures the head to the freezing cylinder.</p> <p>3 O-RING - PLUG. Seals the air bleed plug in the dispense head.</p> <p>4 PLUG - ASSY. AIR BLEED. Seals the air bleed opening in the head when closed. Allows air to be removed from the cylinder in the filling process.</p> <p>5 NUT - PISTON ROD. Keeps piston assembly from going into the cylinder if the ball knob is removed.</p> <p>6 KNOB - BALL. Used to open and close the piston to start and stop the flow of product from the freezer.</p> <p>7 OUTLET-VALVE. Shapes the frozen product as it is dispensed.</p> | <p>8 O-RING - OUTLET-VALVE. Seals the valve outlet in the head.</p> <p>9 SPRING - PULL VALVE. Enables the piston to self close after dispensing.</p> <p>10 PISTON - VALVE. Seals the product opening in the head when closed. Allows product to flow when open.</p> <p>11 O-RING - PISTON. Seals the piston in the head. <i>Must be lubricated</i> to seal and glide properly.</p> <p>12 O-RING - PISTON ROD. Holds the piston in place on the rod.</p> <p>13 ROD - PISTON. Attaches piston to the knob ball for dispensing.</p> <p>14 QUAD-RING - HEAD. Seals the head to the freezing cylinder. <i>Must be lubricated.</i></p> <p>15 BUSHING - HEAD. Supports and aligns the beater shaft in the head. <i>Must be lubricated.</i></p> |
|--|---|

4 Part Names and Functions

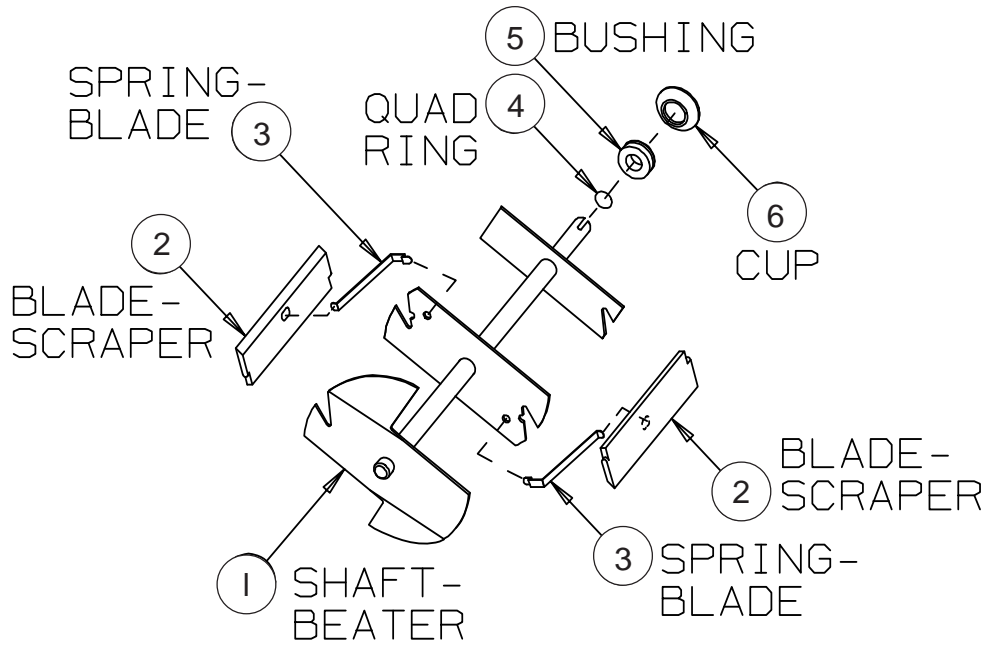


Figure 4-2 Beater Shaft

- | | |
|---|--|
| <p>1 SHAFT-BEATER Rotates in the freezing cylinder to keep product blended.</p> <p>2 BLADE-SCRAPER Scrapes the frozen product from the freezing cylinder wall.</p> <p>3 SPRING-BLADE SCRAPER Holds the blade against the cylinder wall.</p> | <p>4 QUAD-RING-BEATER Seals between the beater and the shaft seal bushing. <i>Must be lubricated.</i></p> <p>5 BUSHING-SHAFT SEAL Holds the cup seal to the beater shaft. <i>Must be lubricated.</i></p> <p>6 CUP-SHAFT SEAL Seals the opening between the freezing cylinder and the beater shaft.</p> |
|---|--|

5 Operator Controls and Indicators

The following paragraphs describe the operator controls and indicators. Refer to figure 5-1 for location of these controls and indicators on the freezer.

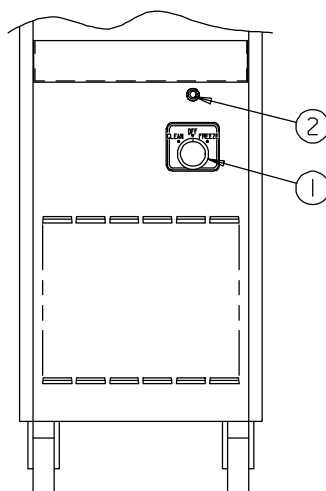


Figure 5-1 Model 876

5.1 Selector Switch ①

This three-position switch controls the functions of your freezer.

a. **“CLEAN”** — This position operates the beater only (no refrigeration). Always use this position in all cleaning and sanitizing operations.

b. **“OFF”** (center) — In this position the beater motor and refrigeration system will not operate.

Important:

Do not use the “FREEZE” position with water or sanitizer in the cylinder or hopper. Freezing water or sanitizer in the cylinder or hopper will damage the freezer.

c. **“FREEZE”** — This position activates both the beater motor and refrigeration unit. This is the normal operating position.

NOTE: In the “FREEZE” position the beater will run all the time. The compressor will cycle on and off.

5.2 Circuit Breaker– Reset ②

This control protects the beater motor against failure from an overload condition by automatically shutting down the freezer. To restart the freezer properly, turn the selector switch to “OFF”, wait 2-3 minutes, then depress the reset button and turn the selector switch back to the “FREEZE” or “CLEAN” position.

Important:

If the overload trips frequently, your freezer should be checked for proper product consistency and voltage. Contact your Electro Freeze Distributor.

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5 Operator Controls and Indicators- continued

5.3 Indicator Light – “ADD MIX” ③ (Optional)

Important:
If proper mix level is not maintained, a freeze-up may occur and damage the freezer.

When blinking, this light indicates the mix in the hopper is low and should be refilled as soon as possible. Always maintain *at least 2 inches (5.1 cm)* of mix in the hopper. For best operating results, *keep hopper full.*

6 Disassembly and Cleaning



CAUTION
To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.

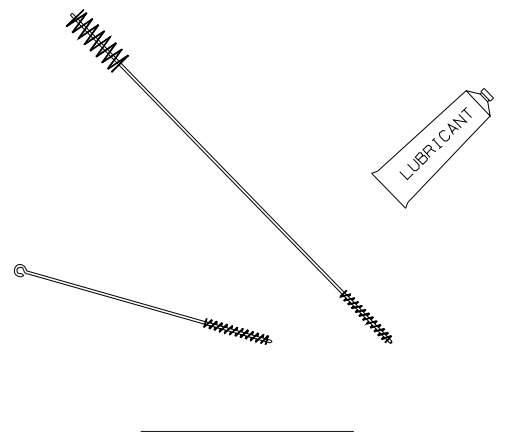
It is important that the freezer be disassembled, washed, lubricated and sanitized before operation.

The cleaning and sanitizing instructions explained in this manual are required to maintain a clean, sanitary freezer. The freezer should be disassembled, cleaned, reassembled, lubricated and sanitized to ensure the best possible product and freezer operation. Persons assembling, cleaning or sanitizing the freezer must first wash their hands thoroughly.

6.1 Cleaning Accessories

The following accessories are shipped with your freezer and are used when cleaning and sanitizing your freezer:

- a. BRUSH, Drain tube. 9/16-inch diameter with a 36-inch handle used for cleaning the drain tubes and mix inlet tube.
- b. BRUSH, General parts cleaning. 1-inch diameter with 12-inch handle used for cleaning the head.
- c. LUBRICANT. Approved lubricant for moving parts and O-rings. See Assembly, Section 8 for lubricating points.



6.2 Disassembly Instructions

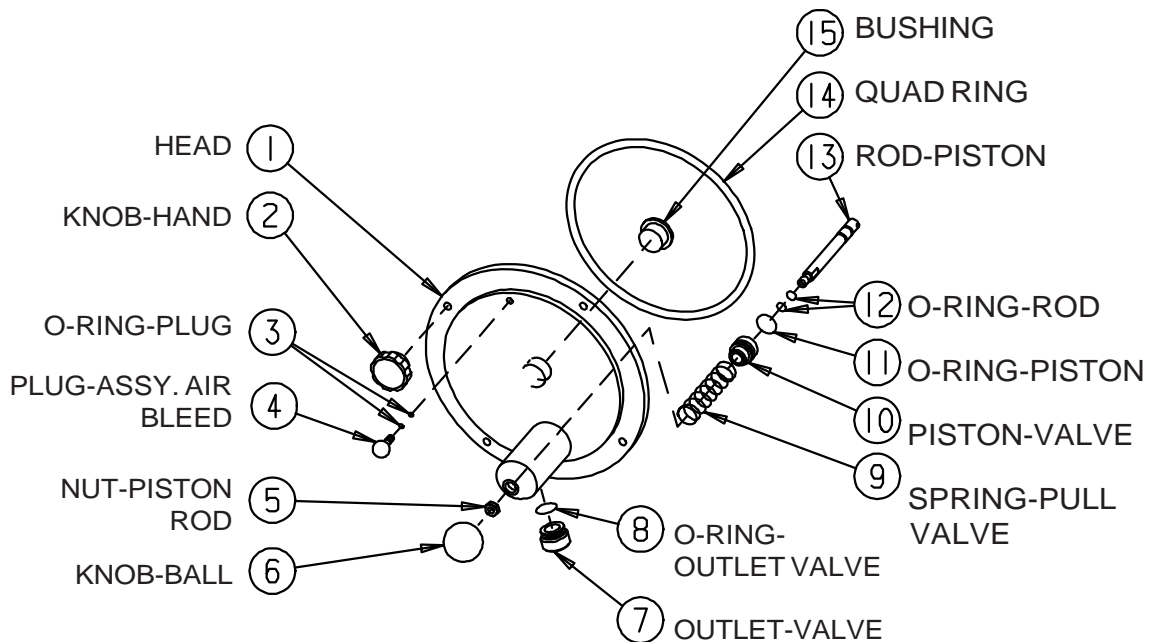


Figure 6-1

1. If there is product in the freezer, refer to Closing Procedures, Draining Product, Section 9.1.



CAUTION
To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.

2. Remove the four hand knobs (figure 6-1, item 2) and pull the dispensing head (1) straight out.

3. Remove the ball knob (6), nut (5), air bleed plug (4) and valve outlet (7) from the head (1).

4. Remove the piston assembly (10, 11, 12, 13) and spring (9) by pushing the piston rod (13) through the back of the head (1).



CAUTION
To prevent bacteria growth, remove all O-rings when cleaning. Failure to do so could create a health hazard.

5. Remove the O-rings (11, 12) from the piston assembly. Remove the O-ring (8) from the valve outlet (7). Remove two O-rings (3) from the air bleed plug (4).

6. Remove the head bushing (15) from the head (1) or end of the beater.

7. Remove the head quad ring (14) from the face of the freezer.

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6.2 Disassembly Instructions - continued

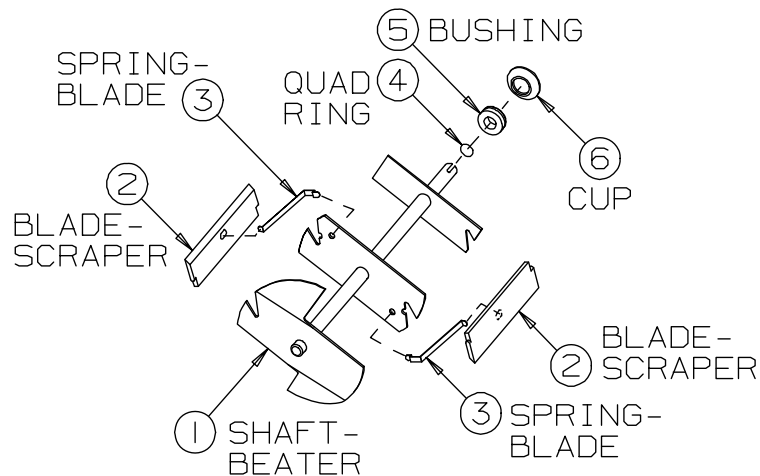


Figure 6-2

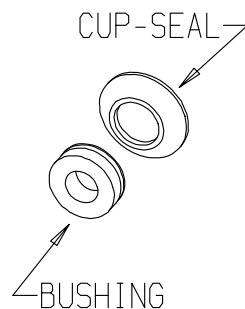


Figure 6-3

8. Remove the beater shaft (figure 6-2, item 1) from the cylinder.

9. Remove scraper blades (2), springs (3), shaft seal (5 and 6) and quad ring (4) from the beater shaft (1).

10. Remove the cup seal from the bushing on the shaft seal assembly as shown in figure 6-3.

11. Remove hopper cover, drip tray and insert.

6.3 Cleaning Instructions

NOTE: It is your responsibility to be aware of the requirements for meeting Federal, State and local laws concerning the frequency of cleaning and sanitizing your freezer.



CAUTION
Electric shock hazard. Do not splash water on switches or allow water to flow onto electrical components inside the machine.



CAUTION
To prevent bacteria growth, remove ALL O-rings when cleaning. Failure to do so could create a health hazard.

Important:
Do not use unapproved sanitizers or laundry bleach. These materials may contain high concentrations of chlorine and will chemically attack freezer components.

1. Prepare a three compartment sink for cleaning parts removed from the freezer, per applicable health codes. Also prepare a clean surface to air-dry all parts

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6.3 Cleaning Instructions – continued

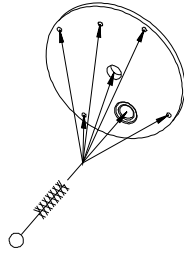


Figure 6-4 Clean head

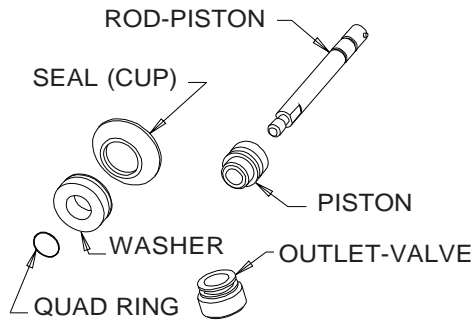


Figure 6-5 Clean plunger rod, shaft seal, bushing and nozzle

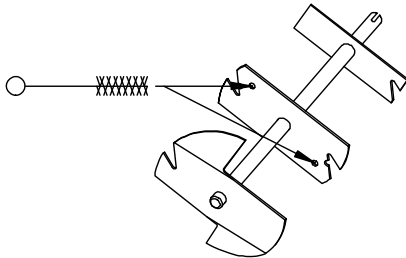


Figure 6-6 Clean beater shaft

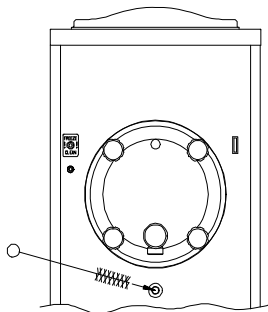


Figure 6-7 Clean drain tube

NOTE: The sanitizer should be mixed according to the manufacturer's instructions to yield 100 PPM available chlorine solution. (example: Stera-Sheen Green Label.) Use warm water (100° to 110°F or 38° to 43°C) to wash, rinse, and sanitize.

2. Wash all parts removed from the freezer thoroughly with dish detergent soap. Clean the following parts with the appropriate supplied brush:

a. The head plunger openings, bushing cavities, air relief hole, dispense nozzle mounting holes and mix ports, as shown in figure 6-4.

b. The shaft seal, bushing, nozzle, plunger O-ring grooves, and rod, as shown in figure 6-5.

c. The beater shaft inside spring mounting holes and the scraper blade mounting indentations, as shown in figure 6-6.

IMPORTANT:

Do not leave parts in sanitizer for more than 15 minutes.

3. After ALL parts are washed, rinse and place in the sanitizing solution. For proper sanitizing, the parts must remain fully immersed in the sanitizer for 5 minutes. Allow parts to air-dry after sanitizing.

4. Wipe down the freezer with the approved sanitizing solution and thoroughly brush out inside of the hopper, hopper cover, and mix feed port to the cylinder.

5. Brush the inside of the cylinder and make certain to clean the back wall.

6. Brush the inside of the drain tube, as shown in figure 6-7.

7 Assembly

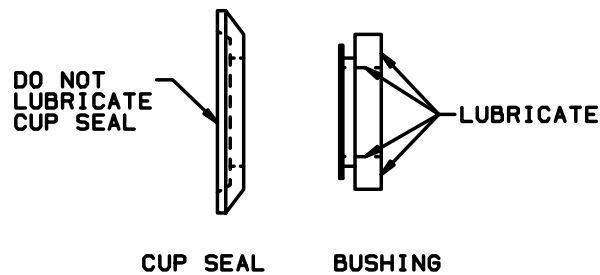


Figure 7-1 Lubricate Bushing

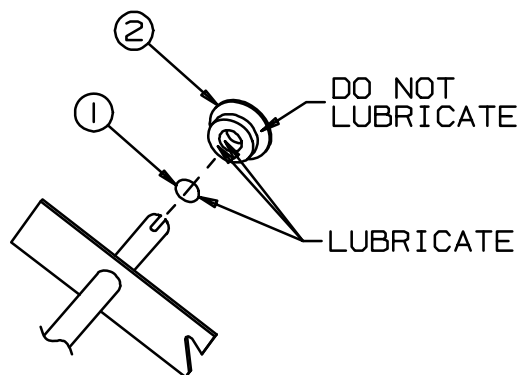


Figure 7-2 Lubricate quad ring

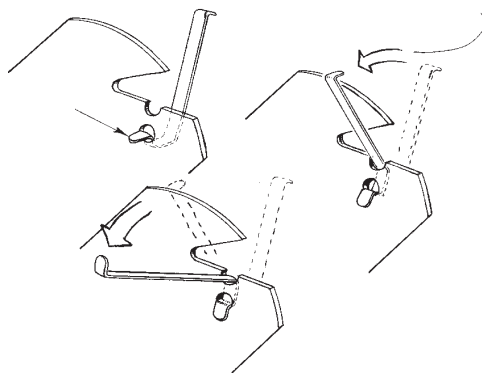


Figure 7-3 Attach springs to beater

Correct assembly of the freezer is essential to prevent leakage of the product and damage to the freezer. To assemble the freezer you will need an approved sanitary lubricant. Make sure all parts of the assemblies have been washed and sanitized before assembling. Persons assembling the freezer must first wash and sanitize their hands and forearms with an approved sanitizer.



CAUTION
To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.

1. Assemble the cup seal on the bushing to complete the beater shaft seal assembly (see figure 7-1). Apply a thin film of an approved sanitary lubricant to the internal surface and the face of the plastic bushing opposite the bell-shaped portion of the seal assembly. Do not allow any lubricant to come into contact with the bell-shaped rubber cup portion of the seal assembly.

2. Slide the quad ring (figure 7-2, item 1) over the rear of the beater shaft and apply a liberal amount of lubrication.

3. Install the shaft seal assembly (2) over the rear of the beater shaft, with the bell-shaped portion facing the rear and the bushing portion against the quad ring.

4. Attach the blade springs to the beater plates, as shown in figure 7-3.

5. Insert scraper blades into the proper beater plate slots so that the end of the spring rests in the groove on the bottom side of the blade.

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7 Assembly – continued

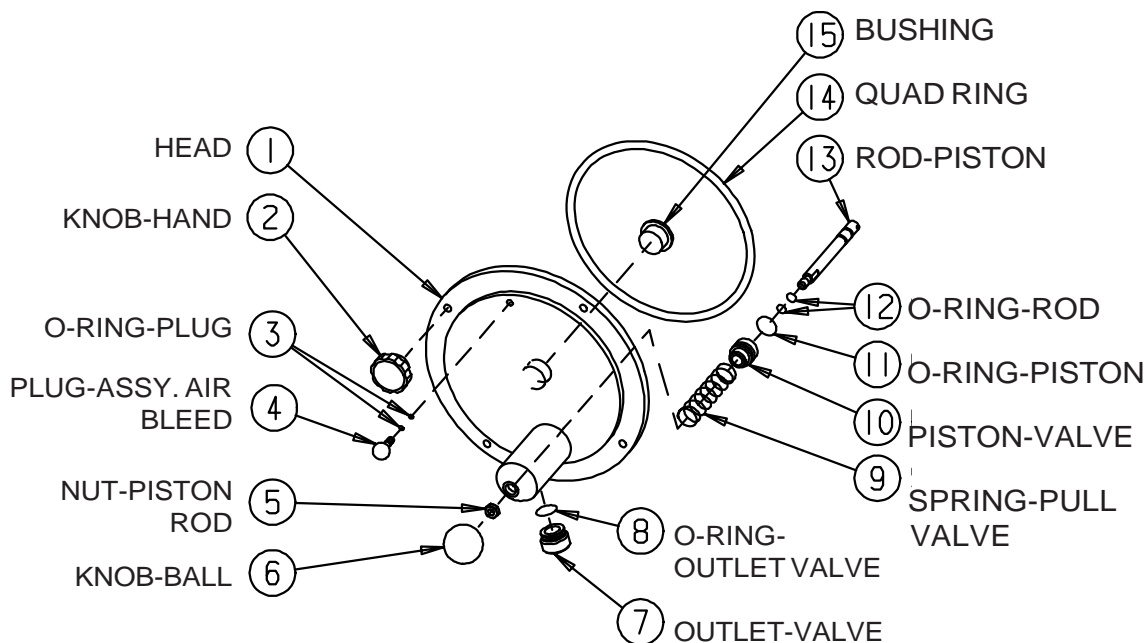


Figure 7-4 Head assembly

6. Insert the assembled beater into the cylinder by placing the rear blade on the bottom of the cylinder and depressing the front blade and spring. This will center the beater shaft and allow alignment with the drive shaft. Rotate the beater assembly while pushing, until the shank has fully engaged the drive shaft.

7. Slide the beater toward you about $\frac{1}{2}$ inch. (This is necessary to align and install the head properly.)

8. Assemble the piston assembly (figure 7-4, items 10, 11, 12, 13) by installing and lubricating the first rod O-ring (12) in the groove farthest from the threads on the piston rod (13). Then slide the piston (10) over the O-ring, large diameter end first. Now install the second (holding) rod O-ring (12) on the rod (13) in the groove closest to the threads. Install and lubricate the piston O-ring (11).

9. Insert the spring (9) into the back side of the head piston body.

10. Insert the piston assembly, threaded end first, through the center of the spring in the piston body until the piston is flush with the back of the head.

11. Thread the nut (5) on the piston pull-rod until it is off the threaded portion, then screw the ball knob down tight.

12. Install and then lubricate the valve outlet O-ring (8), then insert the valve outlet (7) into the piston body.

13. Install and then lubricate the two air bleed plug O-rings (3), then insert the plug (4) into the dispense head.

– continued

7 Assembly – continued

14. Insert the head bushing (15) into the head, then lubricate inside the bushing.

15. Lubricate the head quad ring(14). Then apply lubricant in four dots, equally distanced, in the face recess, and place the quad ring against the lubricant.

NOTE: If the head does not slide easily into place, recheck engagement of beater with the drive shaft and head bushing.

16. Line the head up so that end of beater is in line with the head bushing hole. Slide the head over the studs and press in place against the quad ring.

Important:
Do not overtighten the hand knobs. Excessive force will damage the head. Tighten the hand knobs finger-tight only.

17. Install the four hand knobs (2) on the studs until they contact the head. Draw knobs up equally and tighten *lightly*, with finger pressure only!

8 Start-up Instructions

8.1 Sanitizing

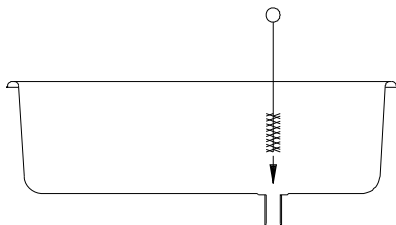


Figure 8-1 Clean mix feed port

The washing and sanitizing instructions explained in this manual are procedures to remove bacteria and maintain a clean, sanitary freezer. The slush/cocktail freezer *must* be disassembled and cleaned according to the instructions in this manual *before assembly and sanitizing (start-up)* to ensure the best possible cleanliness.



CAUTION

To prevent bacteria growth, use only approved sanitizers to sanitize the machine. Sanitizing must be done just prior to starting the machine. Failure to do so could create a health hazard.

Important:

Do not use unapproved sanitizers or laundry bleach. These materials may contain high concentrations of chlorine and will chemically attack freezer components.

NOTE: It is your responsibility to be aware of the requirements for meeting Federal, State and Local laws concerning the frequency of cleaning and sanitizing the freezer.

1. Wash and sanitize your hands and forearms.
2. Prepare 4 gallons (15.2 liters) of sanitizing solution (example: Stera-Sheen Green Label) in a container. Sanitizing solution must be mixed ac-

ording to manufacturer's instructions to yield 100 PPM strength chlorine solution. Use warm water (100° to 110°F or 38° to 43°C) to wash, rinse, and sanitize.

Important:

Never let the sanitizer remain in the freezer for more than 15 minutes.

Important:

Do not insert any tools or objects into the mix feed port or head dispensing hole while the freezer is running.

3. Pour sanitizing solution into the hopper pan. Using a clean brush, wash down the hopper walls, hopper cover and the mix feed port from the hopper to the cylinder, as shown in figure 8-1.

4. Remove air bleed plug and allow sanitizer to flow into cylinder. Replace the plug when sanitizer reaches bottom of air plug opening.

Important:

Do not use the "FREEZE" position with sanitizer in the cylinder. The freezer will be damaged.

5. When the cylinder has filled with sanitizing solution, reconnect the main power supply to the freezer. Turn the selector switch to the "CLEAN" position and allow the beater to run for 5 minutes.

6. At this time check for leaks around the head, piston, o-ring and drain tube.

Important:

DO NOT hang containers from the dispensing spout — doing so will damage the head.

7. Place an empty container under the dispensing head, and drain the solution by pulling the piston assembly to allow the cylinder and hopper to empty.

8. When the sanitizing solution has drained from the freezer, turn the selector switch to the "OFF" position.

8.2 Product Preparation

Important:

DO NOT use the freezer for purposes other than freezing a “slush” product or cocktail mix. DO NOT attempt to freeze plain water. This will result in damage to the freezer.

1. Use a container of sufficient capacity and with gallon measurement markings to accurately mix in quantities required by the product manufacturer's instructions.

2. Prepare at least 5 gallons (18.9L) of mix. Follow the directions exactly as shown on product label.

EXAMPLE: If using a powdered neutral base, add contents of package, 5 lbs. (2.3 kg) of sugar, and just

enough cold water to equal 5 gallons (18.9 L) of mix. *Never* add more water than instructions call for.

NOTE: The product should register between 12–14% Brix on a refractometer or a hydrometer. (See Section 11.3)

3. You may precool the slush mix and thereby gain added capacity in your freezer, if desired. Cool at 36°F (2°C) — **DO NOT FREEZE.**

4. Always thoroughly stir mix before filling machine. Ingredients can separate over time and change Brix reading.

8.3 Priming

Priming the freezer removes excess air from the freezing cylinder and sets the proper consistency for the first cylinder of product.

1. While holding the piston open, pour the mix directly into the hopper, allowing the mix to force out any remaining sanitizer (approximately 8 ounces or 250 ml).

2. When *pure* mix appears (all sanitizer has been expelled), close the piston.

Important:
Failure to completely remove sanitizer or water from the freezing cylinder before placing in “FREEZE” will damage the freezer.

3. Remove the air bleed plug and allow cylinder to fill with mix. Replace air plug when mix reaches bottom of air plug opening.

4. Finish filling the hopper with mix. The freezer will hold 8.5 gallons—3.5 gallons in the freezer cylinder and 5 gallons in the hopper. (32.3 Liters—13.2 L in cylinder and 18.9 L in reservoir.)

NOTE: Do not allow the level of mix in the hopper to fall below 2 inches.

5. Turn the selector switch to the “FREEZE” position.

6. Place the hopper cover over the hopper.

7. When the mix has been frozen to the proper consistency, the compressor will automatically shut off. It will restart whenever the product consistency changes. The beater will run continuously.

8. See Section 11, Slush Product Information, for determining consistency and making adjustments.

9. If your slush mix is above 70°F (21°C), it will take approximately 30 minutes to freeze down to the proper consistency.

9 Closing Procedures

NOTE: It is your responsibility to be aware of, and conform to, the requirements for meeting federal, state, and local laws concerning the frequency of cleaning and sanitizing the freezer.

1. If the mix is nonperishable (sugar base), place the selector switch in the "OFF" position at the end of the day.
2. To restart the freezer on the following day, place the selector switch in the "FREEZE" position. The mix in the cylinder will remain partially frozen overnight and this will reduce the freezing time to 5 – 10 minutes.

3. If the mix is perishable (fruit base), leave the selector switch in the "FREEZE" position or drain the product from the freezer into a sanitized container. Cover and place container in refrigerated storage.

4. Clean and sanitize freezer. See Section 6, 7, and 8.

NOTE: Follow state and local health codes concerning reuse of product.

9.1 Draining Product from Freezer

To remove semi-frozen product from the cylinder, perform the following steps:

1. Place the selector switch in the "CLEAN" position.
2. Place a clean, sanitized container under the dispensing valve outlet.

NOTE: Follow state and local health codes concerning reuse of product.

3. Dispense the semi-frozen product until it stops. Cover the product container and place it in the cooler. Place the selector switch in the "OFF" position.
4. Remove the air bleed plug and pour 2 gallons (7.6 L) of cold water into the hopper. Reinstall the air bleed plug.
5. Place the selector switch in the "CLEAN" position. Very slowly dispense the cold water. Follow with warm water until the freezer is rinsed. Turn the selector switch to the "OFF" position.

Important:
DONOT use hot water. Damage to the freezer could occur.

7. Prepare a total of 4 gallons (15.2 liters) of sanitizing solution in a container. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100ppm available chlorine solution (example: Stera-Sheen Green Label).

8. Remove the air bleed plug and pour sanitizing solution into the hopper. When sanitizer solution appears at the air bleed opening, replace the plug.

9. When the cylinder has filled with sanitizing solution, clean the hopper walls, then turn the selector switch to the "CLEAN" position and allow the beater to run for 5 minutes.

10. Place an empty container under the dispensing head, and slowly open the plunger to drain the sanitizer out of the cylinder and hopper. Turn the selector switch to "OFF".

11. Refer to Section 6, Disassembly and Cleaning.

10 Slush Product Information

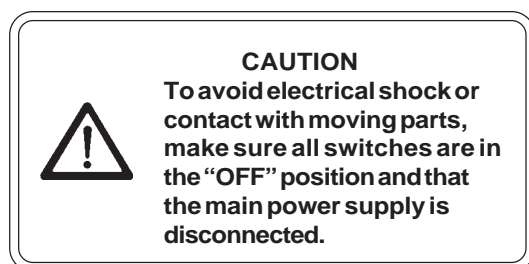
10.1 Determining Product Consistency

1. For slush mix, use a clear, straight-sided glass of any size and draw off a full glass of frozen product (slush flavor bottles work well).
2. Allow the glass to stand for 2 minutes at room temperature away from any heat source.
3. The product is of proper consistency when the upper $\frac{3}{4}$ is "slushy snow" and the lower $\frac{1}{4}$ is liquid at end of 2 minutes.

10.2 Adjusting Product Consistency

Product consistency has been preset at the factory. Further adjustment may be necessary to obtain your desired consistency. To adjust product consistency, proceed with the following steps:

1. Allow the freezer to operate until the compressor shuts off. Dispense sufficient product to check consistency. (Refer to Section 10.1, Determining Product Consistency.)
2. Disconnect power.
6. Replace the plug and reconnect power.
7. Turn selector switch to "FREEZE" and allow the compressor to cycle on.
8. Immediately after the compressor cycles off recheck product consistency. Repeat steps 2-7 and recheck until proper consistency is obtained.
9. Reinstall cap plug.



3. Find the small cap plug on the left side panel as you face the freezer.
4. Remove the plug.
5. Inside you will see a shaft. Use a small screwdriver to turn the shaft to adjust the product consistency. See figure 10-1. If the product is **too thin**, turn the knob **clockwise**. If the product is **too thick**, turn the knob **counterclockwise**.

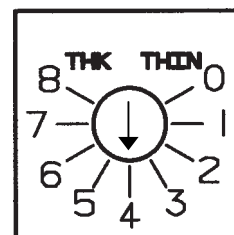


Figure 10-1 Consistency Dial

For further information contact your local Electro Freeze Distributor or the Service Department of H. C. Duke & Son, Inc. (309) 755-4553.

10.3 Refractometer/Brix Reading

A refractometer measures soluble sugar content of mix, expressed in percentage weight. This is normally referred to as a "Brix Reading." The typical refractometer uses a scale from 0% to 32%.

Adjust the refractometer according to the manufacturer's instructions.

NOTE: A refractometer is a delicate instrument and must be handled with care. Never immerse the entire refractometer in a cold drink. Cooling the refractometer will cause it to give inaccurate readings. A refractometer cannot be used to read dietetic syrups.

1. Open the hinged side of the refractometer and place a few drops of mix on the slide.

Close the slide and look through the eye piece, holding the refractometer toward the light. A line will appear across a graduated scale which indicates the Brix level.

Acceptable Brix level is 12-14 on a refractometer.

NOTE: Never go below 12 on the Brix Reading.

Some experimentation may be necessary before correct Brix and serving temperature will be found. Generally, the higher the Brix reading the lower the serving temperature. Conversely, the lower the Brix reading, the higher the required serving temperature. If the complaint concerns product appearance, (ie. too runny or too stiff) always first take a Brix reading of the mix because variation in sugar content will have a direct bearing on actual freezing point.

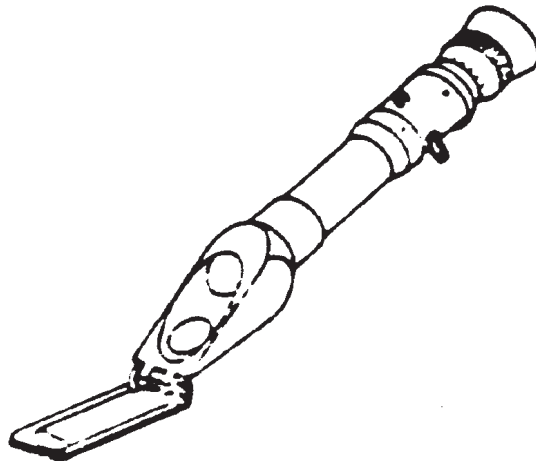



Figure 10-2 Refractometer

11 Routine Maintenance

Electro Freeze recommends the following schedule to help maintain your equipment in *like-new* operating condition, as well as to help protect your investment. Take the time to learn and perform these routine procedures and receive in return many years of valuable service from your freezer. Protect your investment!

This safety symbol  identifies procedures that could cause personal injury. If you are uncertain about a procedure and its safety, or have any questions on the safety precautions, contact your local Electro Freeze Distributor or H. C. Duke & Son, Inc., Electro Freeze Service Department for factory service assistance at (309) 755-4553.



Daily

1. Wipe all exterior surfaces of the freezer to remove any splattered mix.
2. If a fruit base or other perishable product is being dispensed, daily cleaning will be required to maintain a bacteria free product or leave the selector switch in the "FREEZE" position day and night.

NOTE: It is your responsibility to be aware of and conform to the requirements for meeting Federal, State and Local Laws concerning the cleaning intervals and cleaning and sanitizing procedures of the freezer.

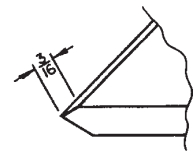
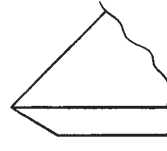
Weekly

1. Disassemble and thoroughly clean, rinse, sanitize, air dry, reassemble and sanitize all parts from this freezer that come into contact with mix.



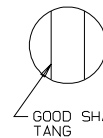
CAUTION
To prevent bacteria growth, remove all O-rings when cleaning. Failure to do so could create a health hazard.

2. Clean the cylinder and drain tube with the appropriate brushes.
3. Upon cleaning, inspect and lubricate all seals and O-rings as described that come into contact with mix. Replace as needed.
4. Carefully inspect all parts for wear, including seals, O-rings, and blades. Replace as required.



Replace blades if worn $\frac{3}{16}$ " or more.

5. Check the beater shaft tang and drive quill for wear.



GOOD SHAFT TANG



WORN SHAFT TANG

A worn drive quill will have a nonparallel shape on the drive opening.

11 Routine Maintenance

Monthly



CAUTION
To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.

1. Have air-cooled condenser fins cleaned by qualified service technician to remove all forms of dirt, lint, and dust.

Annually

Contact your Electro Freeze Distributor to perform the following services:

1. Inspect and clean the beater drive motor.
2. Replace drive belt.
3. Clean the inside of the freezer including base, side panels, condenser, etc.
4. Check water-cooled condenser and flush clean if necessary (water cooled only).
5. Check the refrigeration system and make any necessary adjustments.

USE ONLY ORIGINAL OR AUTHORIZED REPLACEMENT PARTS WITH THIS FREEZER

(See Illustrated Replacement Parts Manual)

If you have any questions on items that are not included in this schedule or problems where service assistance is needed, please call your local Electro Freeze Distributor or H. C. Duke & Son, Inc. Electro Freeze Service Department for factory service assistance at **(309) 755-4553**.

Winter Storage

To protect the unit during seasonal shut-down, it is important to store the freezer properly. Use the following procedures:

1. Disconnect all power to the freezer.
2. Disassemble and wash all parts that come into contact with the mix using a warm, mild detergent solution. Rinse in clear water and dry all parts thoroughly.
3. Store the loose parts (i.e., the parts in the head assembly and beater assembly) in a safe, dry place.
4. Do not lay heavy objects on the plastic or rubber parts.
5. Cover the freezer and all loose parts to protect them from dust or other elements that could contaminate them while in storage. Place the freezer in a dry location.
6. Have condenser fins on air-cooled freezers cleaned.

Important:

Failure to purge the freezer of water may result in severe damage to the cooling system. Call your Electro Freeze Service Representative for more information.

7. If your freezer is water-cooled, disconnect the water supply, manually open water valve. Use compressed air to blow out all remaining water in the condenser.



12 Troubleshooting Tables



THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT PERSONAL SAFETY MESSAGES IN THIS MANUAL, WHEN YOU SEE THIS SYMBOL BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY. DO NOT ATTEMPT TO CONTINUE UNTIL THE SAFETY PRECAUTIONS ARE THOROUGHLY UNDERSTOOD.



CAUTION

All maintenance adjustments must be done by an Electro Freeze Distributor or authorized service technician.



CAUTION



To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.

Important:






Some refrigerants are hazardous to the earth's atmosphere. To protect our environment, use a refrigerant recovery/recycling unit whenever removing refrigerant from the system.





12 Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
Unit does not operate.	1. Unit unplugged.	1. Plug in unit.
	2. Fuse or breaker blown at main disconnect.	2. Have a qualified service technician check that your freezer is connected to a separate circuit, independent from any other electrical equipment. Have fuse or breaker size checked. Voltage must be within 10% of nameplate rating. If not, call power company.
	3. Beater motor out on overload. 	3. Allow motor to cool off, reset circuit breaker, and check product consistency. See paragraph 10.2, Adjusting Product Consistency.
	4. Out on high pressure.	4. Contact your Electro Freeze Distributor for service.
	5. Component failure.	5. Contact your Electro Freeze Distributor for service.
Product will not freeze.	1. Improper mixing of product. Brix too high. 	1. Follow mixing instructions on product label. See paragraph 10.2, Adjusting Product Consistency.
	2. Component failure.	2. Contact your Electro Freeze Distributor for service.




12 Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
Product too thin.	1. Improper mixing of product. Brix too high.	1. Follow mixing instructions on product label. See paragraph 10.1, Determining Product Consistency.
	2. Adjustment screw not properly set. 	2. Adjust screw to proper consistency of product. See paragraph 10.2, Adjusting Product Consistency.
	3. Component failure.	3. Contact your Electro Freeze Distributor for service.
Product too thick.	1. Improper mixing of product. Brix too low.	1. Follow mixing instructions on product label. See paragraph 10.1, Determining Product Consistency.
	2. Adjustment screw not properly set. 	2. Adjust screw to proper consistency of product. See paragraph 10.2, Adjusting Product Consistency.
	3. Component failure.	3. Contact your Electro Freeze Distributor for service.
Leakage of product from drain tube.	1. Cup seal leaking or improperly installed. 	1. Replace cup seal or install properly.
	2. Beater shaft assembly damaged.	2. Contact your Electro Freeze Distributor for service.
Product leaking around head.	1. Head quad ring defective. 	1. Replace quad ring.
	2. Hand knobs not drawn up properly.	2. Tighten hand knobs (hand-tight only.)
	3. Damaged or worn o-ring on the plunger assembly. 	3. Replace and lubricate o-rings on plunger assembly.
	4. Damaged head assembly.	4. Contact your Electro Freeze Distributor for service.




12 Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
Freezer vibrates.	1. Insufficient supply of mix.	1. Fill hopper at least 1/3 full.
	2. Improper mixing of product. Brix too low.	2. Follow mixing instructions on manufacturer's label.
	3. Worn blades. 	3. Replace blades.
	4. Freezer not level.	4. Level freezer.
	5. Low on refrigerant.	5. Contact your Electro Freeze Distributor for service.
Poor or slow product recovery.	1. Dirty or blocked condenser, restricted air flow — high room temperature. 	1. Clean condenser (recommend this be performed by your Electro Freeze Distributor) — lower room temperature.
	2. Dispensing too much product, too fast.	2. Check freezer capacity rating.
	3. Product too warm going in hopper.	3. Precool product. (DO NOT FREEZE)
	4. Component failure.	4. Contact your Electro Freeze Distributor for service.
Starting capacitors burn out.	1. Voltage too low.	1. Contact your Electro Freeze Distributor for service.
	2. Improper capacitor.	2. Contact your Electro Freeze Distributor for service to replace capacitor with one that is properly rated (as listed in manual).

12 Troubleshooting Tables

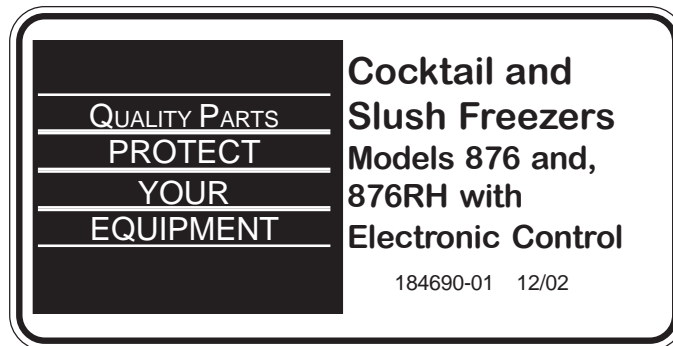
PROBLEM	PROBABLE CAUSE	REMEDY
Unit operates long or continuously.	1. Shortage of refrigerant.	1. Contact your Electro Freeze Distributor for service.
	2. Dirty condenser. 	2. Clean condenser (recommend this be performed by an authorized service technician).
	3. Compressor failing.	3. Contact your Electro Freeze Distributor for service to check compressor.
	4. Using too much alcohol.	4. Check formula and adjust. (No more than 8% alcohol)
	5. Setting too cold. 	5. Adjust shaft to proper consistency of product. See paragraph 10.2, Adjusting Product Consistency.
Contactor chatters or coil burned out.	1. Low line voltage.	1. Contact your Electro Freeze Distributor to check voltage.
Head pressure too low.	1. Shortage of refrigerant.	1. Contact your Electro Freeze Distributor for service.
Head pressure too high.	1. Refrigerant overcharge.	1. Contact your Electro Freeze Distributor for service.
	2. Air in system.	2. Contact your Electro Freeze Distributor for service.
	3. Dirty condenser (air cooled). 	3. Clean condenser (recommend this be performed by your Electro Freeze Distributor).
	4. Unit location too warm.	4. Relocate unit away from restriction. Ensure nothing is placed against back of unit.
	5. Restricted condenser (water cooled).	5. Contact your Electro Freeze Distributor for service.
	6. Defective water valve. (water cooled).	6. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
Compressor starts, but remains in start windings (single phase only).	1. Low line voltage.	1. Call power company or your Electro Freeze Distributor.
	2. Improperly wired.	2. Contact your Electro Freeze Distributor for service.
	3. Current relay defective.	3. Contact your Electro Freeze Distributor for service.
	4. Starting capacitor weak.	4. Contact your Electro Freeze Distributor for service.
	5. High discharge pressure. 	5. Check air condenser and clean if necessary (recommend this be performed by your Electro Freeze Distributor).
Noisy compressor.	1. Tubing rattle. 	1. Contact your Electro Freeze Distributor for service.
	2. Motor off internal springs. Springs broken or weak.	2. Contact your Electro Freeze Distributor for service.
Compressor will not start — hums intermittently (cycling on overload).	1. Improperly wired.	1. Contact your Electro Freeze Distributor for service.
	2. Low line voltage.	2. Contact your Electro Freeze Distributor for service.
	3. Open starting capacitor or current relay.	3. Contact your Electro Freeze Distributor for service.
	4. High discharge pressure. 	4. Check air condenser and clean, if necessary — recommend this be performed your Electro Freeze Distributor.
	5. Setting too warm.	5. Adjust shaft to proper consistence of product see paragraph 10.2, Adjusting Product Consistency.

ELECTRO FREEZE®

REPLACEMENT PARTS MANUAL with ILLUSTRATIONS



**KEEP YOUR FREEZER IN EXCELLENT CONDITION. ALWAYS CONTACT
YOUR ELECTRO FREEZE DISTRIBUTOR FOR REPLACEMENT PARTS.**

Replacement Parts Orders

You must have the serial number of your freezer when ordering parts — parts may differ with a particular serial number of the same model.

Parts are listed using terminology that best fits the function of the part. The illustrations in this section will help you to find the correct part number and description. The alphabetized parts list can be used to verify part numbers pertaining to the serial number of your unit.

Place your parts order through your local authorized Electro Freeze Distributor.

Name: _____
 Address: _____
 Phone: _____

If you require any further assistance, contact H. C. Duke & Son, Inc. *Electro Freeze*, as follows:



Phone: (309) 755-4553
 FAX: (309) 755-9858

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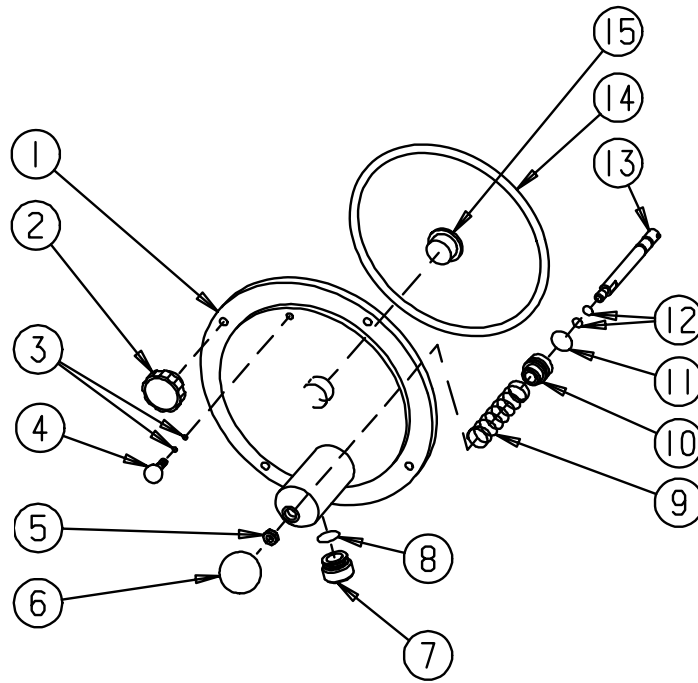


Figure 1 Head Assembly

Item	Part No.	Description
*	114700	Head-Assy. Complete
1	114989	Head-Only
2	162633	Knob-Fluted Torque Blk 5/16-18 (Hand)
2A	130194	Stud-Freezer Head
3	160561	O-Ring (Plug)
4	115416	Plug-Assy. Air Bleed
5	139274	Nut-Piston Rod
6	162629	Knob-Ball 3/8-16 Thd Black
7	136249-01	Outlet-Valve
8	160582	O-Ring (Outlet-Valve)
9	162319	Spring-Pull Valve
10	136253	Piston-Valve
11	160582	O-Ring (Piston)
12	160610	O-Ring (Rod)
13	113999	Rod-Assy. Piston
14	160606	Quad Ring
15	138336	Bushing-Plastic Door

* Includes parts listed above except items 2, 2A and 14.

Use only original or authorized replacement parts with this freezer.

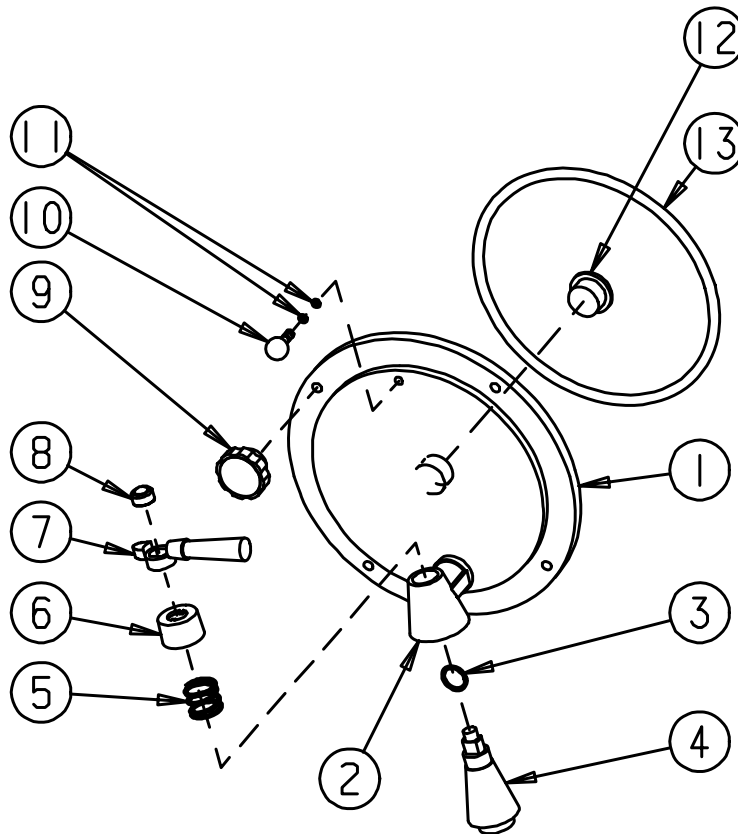


Figure 2 Head Assembly (Optional)

Item	Part No.	Description
*	114729	Head-Assy. Complete
1	114990	Head & Spigot Assembly (Only)
2**	162714	Body-Spigot
3**	160624	O-Ring (Spigot)
4**	162715	Plug-Spigot
5**	162713	Spring-Spigot
6**	162712	Cap-Plastic Spring
7**	162711	Handle-Spigot
8**	162710	Nut-Plastic
9	162633	Knob-Fluted Torque Blk 5/16-18 (Hand)
9A	130194	Stud-Freezer Head
10	115416	Plug-Assy. Air Bleed
11	160561	O-Ring (Plug)
12	138336	Bushing-Plastic Door
13	160606	Quad Ring

* Includes items 1, 10, 11, and 12

**Can be ordered together as:

162709 Spigot-Slush (Includes Items 2-8)

Use only original or authorized replacement parts with this freezer.

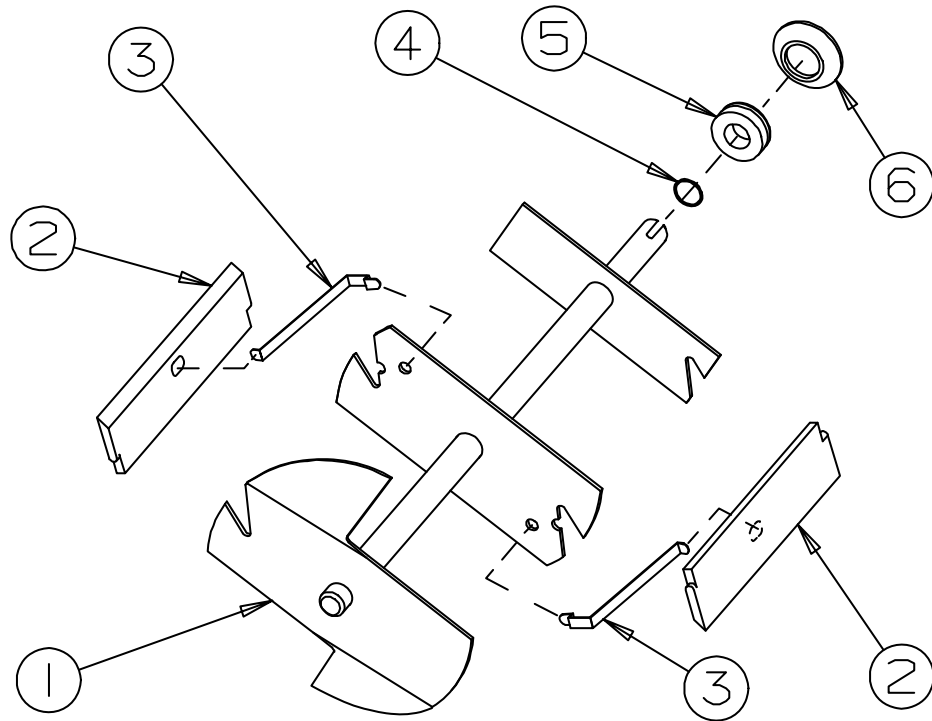
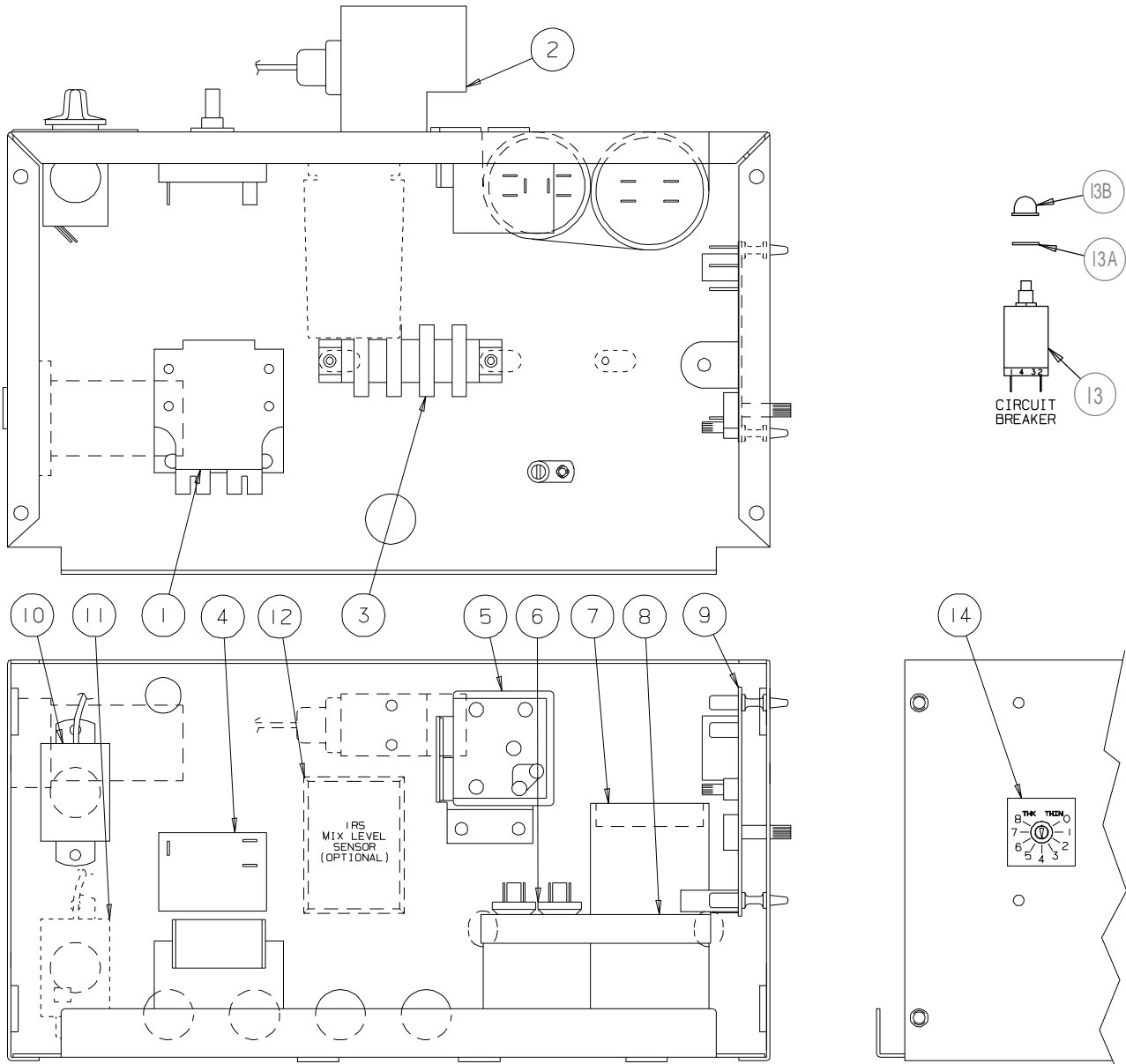


Figure 3 Beater Shaft Assembly

Item	Part No.	Description
1	113072	Beater-Slush
2	138256	Blade-Scraper
3	134649	Spring-Blade
4	160605	Quad Ring
5*	138215	Washer-Shaft Seal
6*	160557	Seal-Beater Shaft
*Can be ordered together as:		
	116143	Seal-Assy. Shaft (Includes Items 5 & 6)

Figure 4 Electrical Box (Sheet 1 of 2)



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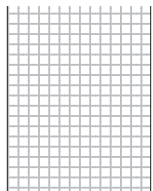


Figure 4 Electrical Box (Sheet 2 of 2)

Item	Part No.	Description
1	150339	Contactor-2 Pole 110v
2	155425	Cut Out-High Pressure
3	150795	Strip-Terminal
4	115816	Switch Kit (w/o Optional Night Switch)
4A	150462	Knob-Rotary Switch (Not shown)
4B	165022	Nameplate-CLEAN/OFF/FREEZE (Not shown)
4C	150786	Bushing-Snap (Not shown)
4D	134653	Extension-Switch (Shaft)(Not shown)
4E	150460	Coupler-Switch to Shaft Extension (Not shown)
5	151427-01	Relay-Start/Run (Compressor)
6	151421	Capacitor-Run
7	151426-01	Capacitor-Start
8	160743	Clamp-Hose 3-1/16 to 4
9	150508	Board-PC Power Monitor
10	161202	Thermostat-5° Fixed Dif. (Hopper) (876RH)
11	161202	Thermostat-5° Fixed Dif. (Cylinder) (Units with optional Night Switch)
12	150124	Control-Liquid Level (Units with optional Mix Indicator Light)
12A	150120	Clip-Retainer (Set of 2)(Not shown)
13	150452	Breaker-Circuit 4.5 Amp
13A	160160	Washer
13B	150440	Seal-Reset Button
14	167008	Decal-Slush Adjustment

Not Shown:

150461	Switch-Toggle (Day/Night) (876RH w/Night Switch)
150384	Relay-DPDT 120v (876RH)

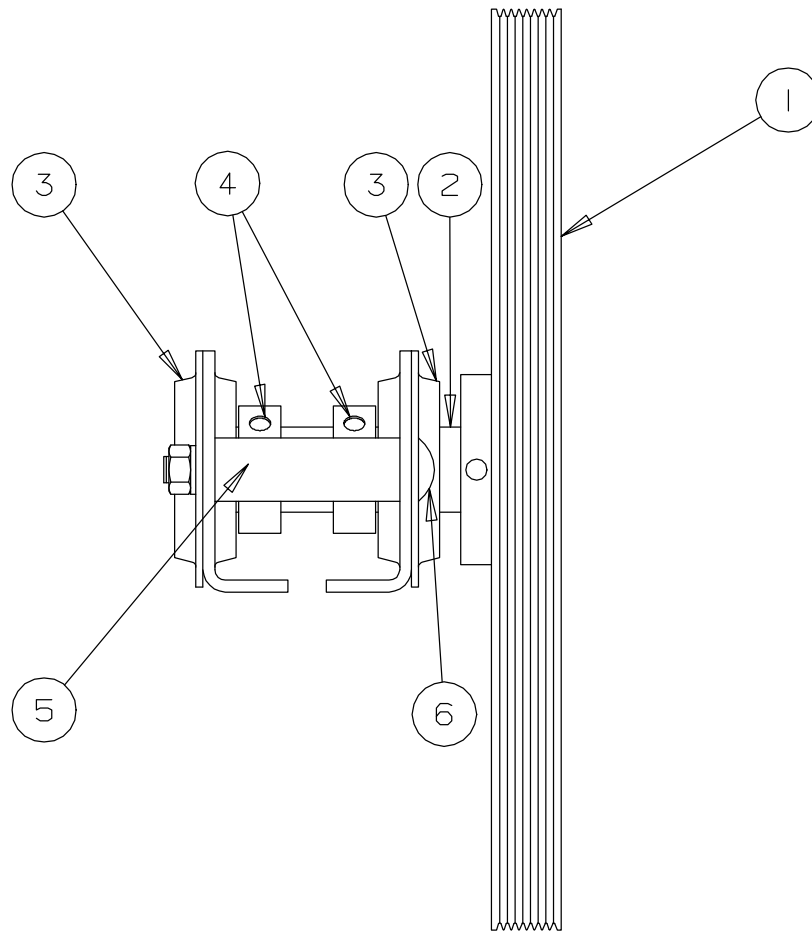
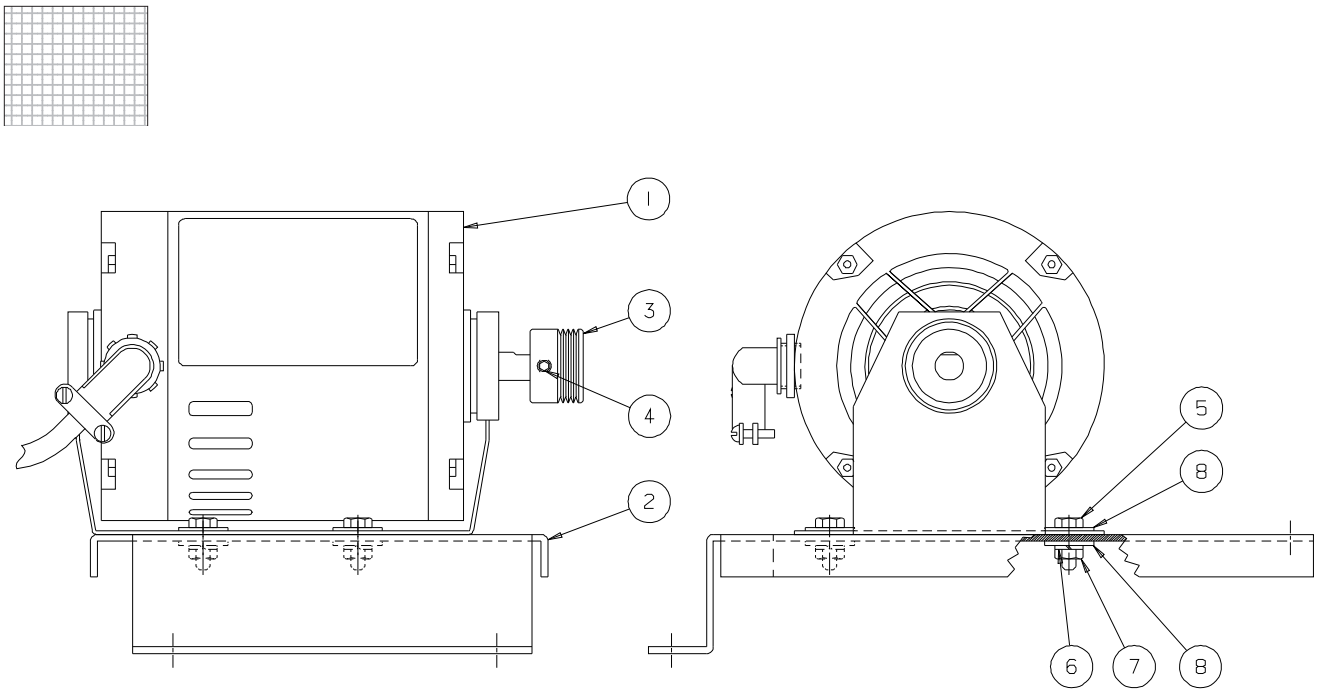


Figure 5 Drive Shaft and Bearing Assembly

Item	Part No.	Description
*	112843	Bearing-Assy. Complete Rear (with Quill & Sheave)
*	112844	Sheave-Assy. Driven & Quill
*	112862	Bearing-Assy. Rear (includes 3, 3A, 4, 5, 6, 6A, 6B)
1	153615	Sheave-Driven
1A	160033	Screw-SK Set
2	112842	Quill-Assy. Drive
3	153127	Plate-Retainer Bearing
3A	153128	Stamping-Bearing Base
4	153013	Bearing-Drive Quill w/Lock Ring
4A	153126	Ring-Bearing Lock (Ring Only)
5	130189	Spacer-Rear Bearing
6	160407	Bolt-Carriage 3/8-16 x 3-1/4
6A	160143	Washer-Lock 3/8
6B	160453	Nut-Hex 3/8-16
Not Shown:		
	115681	Bar-Alignment (Loaner) (used to align bearings to cylinder)
	115681-01	Bar-Alignment (Purchase)



M01022

Figure 6 Motor and Bearing Assembly

Item	Part No.	Description
1	151037	Motor-1/4 HP 120-1-60
2	139947	Plate-Motor
3	139948	Sheave-1/2 Bore 1.31 J4
4	160495	Screw-SK Set 1/4-20 x 1/4 BKOX
5	160021	Screw-HXHC 1/4-20 x 3/4 ZN
6	160141	Washer-Lock 1/4 ZN
7	160104	Nut-Hex 1/4-20 ZN
8	160130	Washer-Flat 1/4 ZN

Not Shown:

153125	Belt-Poly V
115923	Tube-Assy. Drain

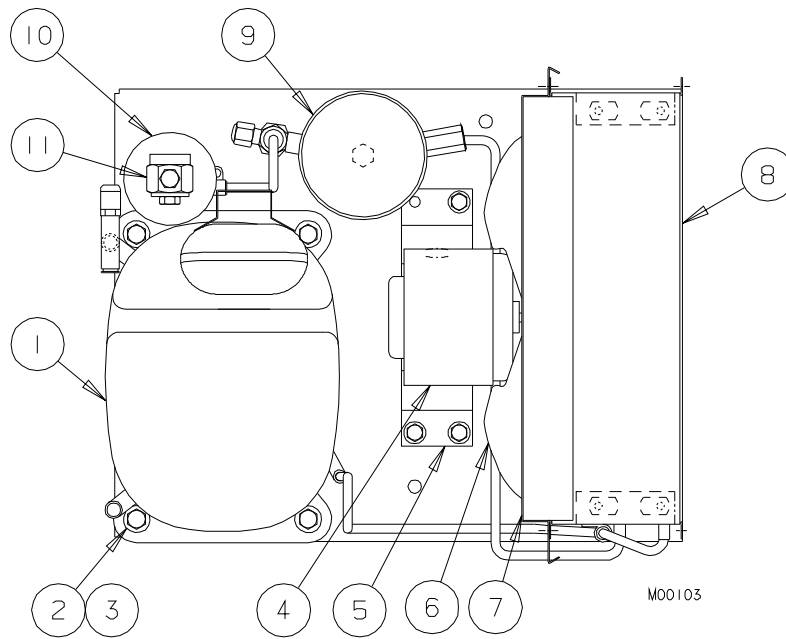


Figure 7 Condensing Unit Assembly-Air Cooled

Item	Part No.	Description
—	116869	Condensing Unit-Assy. 3/4hp - Complete
1	116824	Compressor-Assy. 115-1-60 also includes 151427-01 Relay-Start/Run 151426-01 Capacitor-Start 151421 Capacitor-Run 155063 Drier-Filter 3 cu. in. Sweat
1A	155419	Valve-Access (Not Shown)
2	151431	Grommet-Comp. Mtg.
3	151432	Sleeve-Comp. Mtg.
4	151074-01	Motor-Fan 35w 115v
5	137632	Bracket-Fan Condenser
6	159020	Blade-Fan 11 in. 26°
7	138668	Shroud-Condenser
8	155126-C	Condenser-Air
9	155060	Receiver-2 lb.-1/4 Sweat
10	155063	Drier-Filter 3 cu. in. Sweat
11	155459	Glass-Sight

Refrigeration Components — AIR or WATER (not shown)

Part No.	Description
115916-C	Cylinder-Assy. Evaporator
116332-C	Cylinder-Assy. Evaporator (876RH w/night switch)
112870	Exchanger-Assy. Heat (Floor Models)
155453	Valve-Auto Expansion (Cylinder)
155452	Valve-Auto Expansion (Hopper) (RH Models Only)
155435	Valve-Solenoid (RH Models Only)
155410	Valve-Water

Use only original or authorized replacement parts with this freezer.

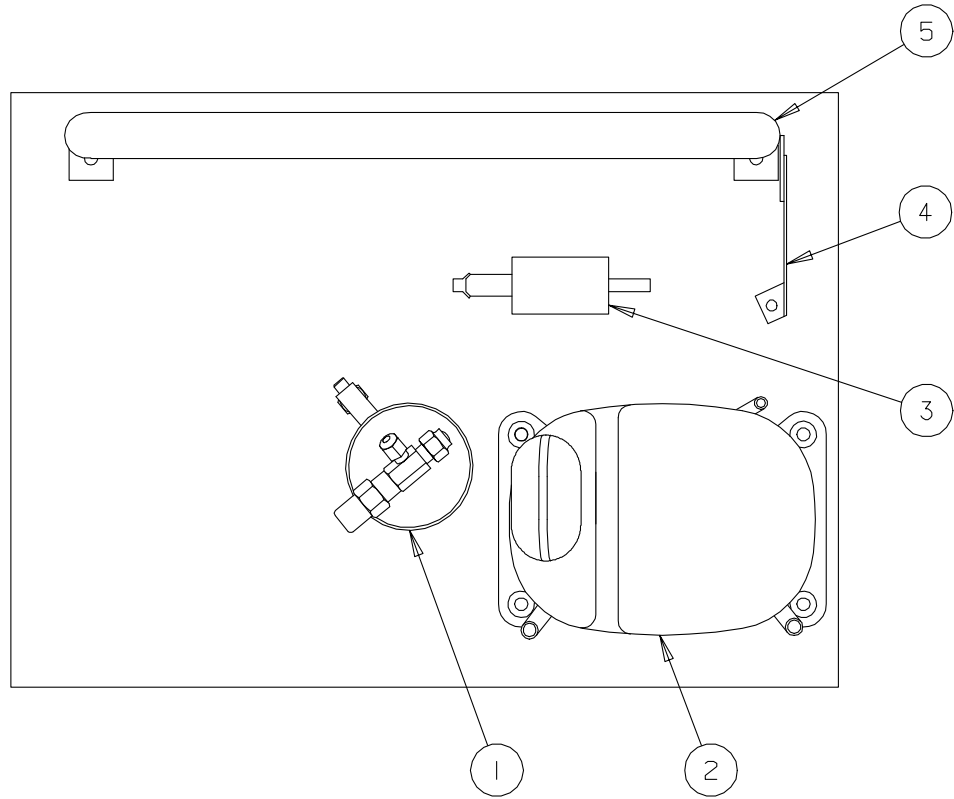
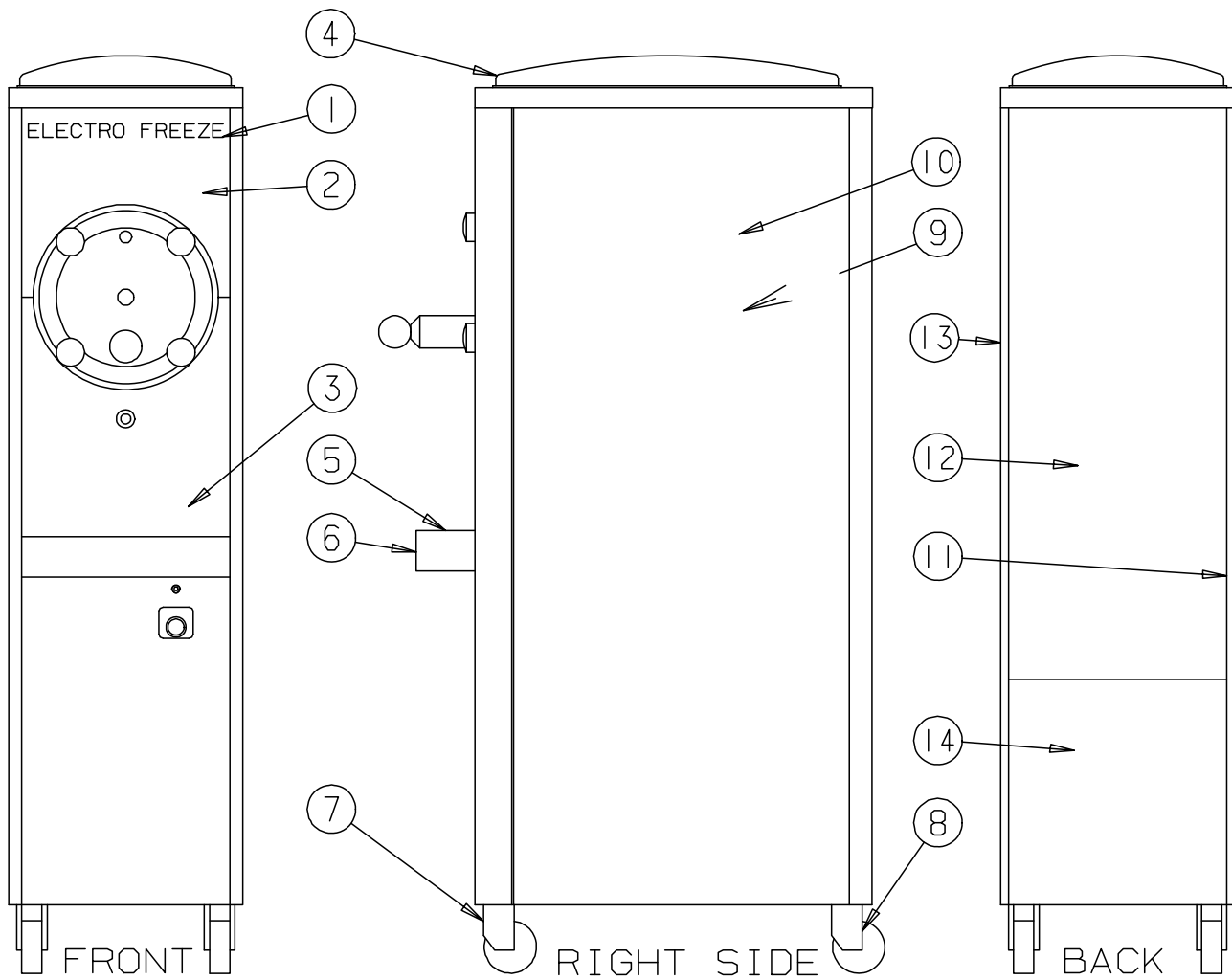


Figure 8 Condensing Unit Assembly - Water Cooled

Item	Part No.	Description
1	155060	Receiver-2 lb-Sweat
2	116824	Compressor-Assy. 115-1-60
		151421 Capacitor-Run
		151426-01 Capcitor-Start
		151427-01 Relay-Start/Run
		155063 Drier-Filter 3 cu. in. Sweat
2A	155419	Valve-Access (Not Shown)
3	155410	Valve-Water
3A	155444	Kit-Water Valve Repair (Not Shown)
4	134440	Bracket-Condenser Support
5	155038	Condenser-Water

Figure 9 Panels (Sheet 2 of 2)



M00532

Hardware for 876 Series Floor Model Panels			
Panel	Screw	Nut-Speed	Space
Front	160048	160117	163103
Rear/Corners	160048	160117	--
Side	160028	160387	138455
Drip Tray	160049	--	163103
Nameplate	--	160291	--

Decals for 876 Floor Models	
Decal	Description
165025	Beater Warning
165091	Clear Overlay
165126	Panel Removal
165065	Cleaning Instructions Model 876RH only

Use only original or authorized replacement parts with this freezer.

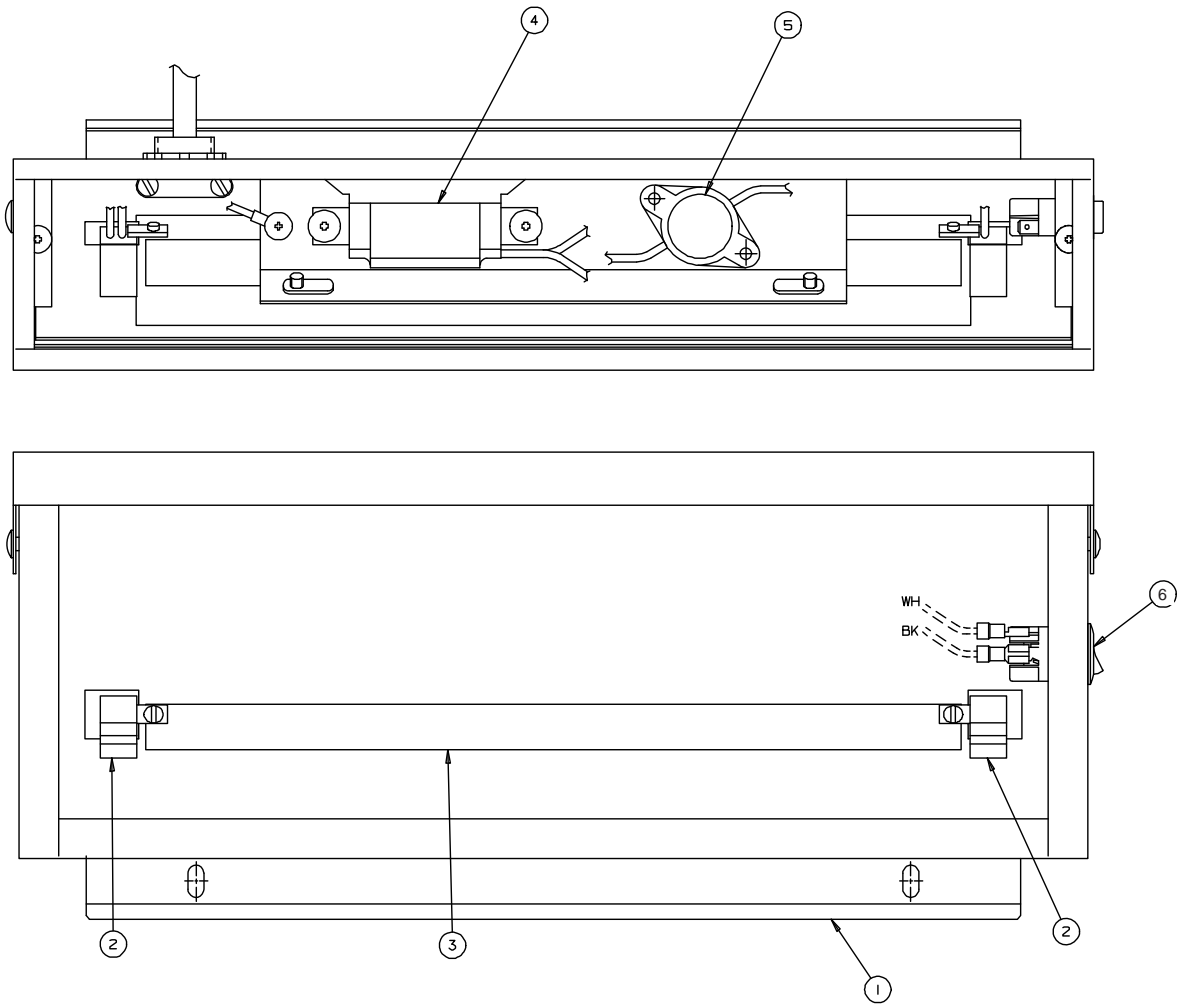
Figure 9 Panels (Sheet 2 of 2)

Item	Part No.	Description
1	165181	Nameplate-Electro Freeze
2	113836-C	Panel-Assy. Upper Front
	116925	Panel-Assy. Upper Front (876RH w/Mix Indicator & Night Switch)
	116926	Panel-Assy. Upper Front (876RH w/Night Switch, Ill.Sign & Bottle Rack)
3	113835-C	Panel-Assy. Lower Front
3A	159064	Grommet-Drain Tube (not shown)
4	196121	Cover-Hopper
4A	116066-C	Panel-Assy. Hopper and Top (876)
4B	116075-C	Panel-Assy.Hopper and Top (876RH)
5	136064	Insert-Drip Tray
	138174	Insert-Drip Tray (876RH w/Night Switch, Ill.Sign & Bottle Rack)
6	136065	Tray-Drip
	117529	Tray-Assy. Drip (876RH w/Night Switch, Ill.Sign & Bottle Rack)
	117530	Tray-Assy. Drip (Tray, Insert, Bottles and Pump)
7	162105	Caster-1-1/4 ST PT with Brake
8	162106	Caster-1-1/14 ST PT w/o Brake
8A	112978	Leg-Assy. 6-inch
9	139949-C	Panel-Side LH*
10	136964-C	Panel-Side RH*
11	136960-C	Post-Rear Corner LH*
12	136962-C	Panel-Rear
13	136961-C	Post-Rear Corner RH*
14	139398	Panel-Lower Rear (Water Cooled)
Not Shown:		
	150546	Light-Indicator 125V (Units with night switch/mix indicator light)(Not shown)

* Left or right hand is determined as you face the front of the freezer.

Accessories

Part Number	Description
199504	Bottles-Flavor Plastic
169122	Cap-Slush Bottle
162105	Caster-w/o Brake
162106	Caster-w/Brake
113073	Container-15 Gallon (w/lid and spigot)
163300	Container-15 Gallon (only)
150604	Cord-Power
196121	Cover-Hopper
165241	Decal-Six Flavor Slush
169212	Dispenser-Cup-EL20 6-12 oz.
169213	Dispenser-Cup-EL30 16-24 oz.
155634	Fitting & Gaskets-3/4" 15 Gallon Container
136064	Insert-Drip Tray
116110	Kit-Slush Poster
112978	Leg-Assy. Six Inch
158054A	Lubricant-Lubri Film 4 oz. Tube
158000A	Lubricant-Petrol Gel 4 oz. Tube
169124	Pumps-Slush Flavor Plastic
169302	Pump (only)-Submersible
115006	Rack-Assy. Flavor 5 Bottle
115008	Rack (only)-5 Bottle
113851	Rack (only)-Flavor-Wire- 5 Bottle
158043	Rod-Stir (Stainless)
158013	Sanitizer-Stera Sheen Sample Pack
158014	Sanitizer-Stera Sheen Case/4
150014A	Sanitizer-Stera Sheen 4 lb. Jar
113324	Spigot Assembly (w/Fitting & Gasket) 15 Gallon Container
162703	Spigot (only) 15 Gallon Container
118128	Tray-Assy. Drip & Flavor (for 4 Bottle style of Models 876RH w/night switch)
136065	Tray-Drip
196058	Tubing 1/2" I.D. x 5/8 O.D.



MO0285

Figure 10 Accessory - Merchandiser (Optional)

Item	Part No.	Description
1	117677	Sign-Assy. Illuminated
2	150574	Socket-Bulb
3	150578	Bulb-Fluorescent
4	150577	Ballast-Fluorescent
5	150576	Starter-Fluorescent
6	150485	Switch-Rocker SPST
	165053	Sign-Illuminated Cocktail Insert
	165054	Sign-Illuminated Smoothie Insert
	165055	Sign-Illuminated Lemonade Insert
	165056	Sign-Illuminated Slush Insert

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Arm - Assy. Torque	116414	1	702 –
Bar - Alignment (Loaner)	115681	1	-----
Bar - Alignment (Purchase)	115681-01	1	-----
Bearing - Assy. Complete Rear	112843	1	702 –
Bearing - Assy. Rear	112862	1	702 –
Bearing w/lock ring - Drive Shaft Assy.	153013	2	702 –
Beater - Assy. Complete	113072	1	702 –
Belt - Poly V	153125	1	702 –
Blade - Fan 11 in. 26° (Air Cooled)	159020	1	702 –
Blade - Scraper (Front & Rear)	138256	2	702 –
Board-PC Power Monitor	150508	1	702 –
Bolt - Carriage - 3/8 -16 x 3 -1/4	160407	2	702 –
Bracket - Condenser Support (Water Cooled)	134440	1	702 –
Bracket - Fan Condenser	137632	2	702 –
Breaker - Circuit 4.5 Amp	150452	1	702 –
Bulb - Fluorescent (Ill. Sign)(Floor Model)	150578	1	702 –
Bushing (Washer) - Shaft Seal	138215	**1	702 –
Bushing - Plastic Door	138336	1	702 –
Bushing - Snap - Switch Plate	150786	1	702 –
Capacitor-Run (See Compressor-Assy.)			
Capacitor-Start (See Compressor-Assy.)			
Caster - 1-1/4"ST PT w/Brake	162105	2	702 –
Caster - 1-1/4" ST PT w/o Brake	162106	2	702 –
Clamp - Hose 3-1/16" to 4" (Switch Box)	150124	1	702 –
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Clip - Retainer (Set of 2)(Optional Mix Indicator)	150120	1	702 –
Compressor - Assy. A/C, W/C, 115v, R404a			
AJA7455ZXA AJ570AT-205-A4 also includes	116824	1	702 –
Capacitor - Run	151421	1	702 –
Capacitor - Start	151426-01	1	702 –
Drier - Filter	155063	1	702 –
Relay - Start/Run	151427-01	1	702 –
Condenser - Air	155126-C	1	702 –
Condenser - Water	155038	1	702 –
Condensing Unit - Assy. R404A, 115v, A/C ¹ includes condenser, compressor, fan, filter, sight glass, receiver, & service valve	116869	1	702 –
Contactora - Compressor	150339	1	702 –
Cord - Power (115v)(see Operator's Section - page 3 for illustration)	150604	1	702 –
Coupler - Switch (to Shaft)	150460	1	702 –
Cover - Hopper	702121	1	702 –
Cut-out - High Pressure	155425	1	702 –
Cylinder - Assy. Evaporator	115916-C	1	702 –
Cylinder - Assy. Evaporator (876RH w/night switch)	116332	1	702 –
Decal - Cleaning Instructions (876RH only)	165065	1	702 –
Drier - Filter 3 cu. in. Sweat	155063	1	702 –
Exchanger - Assy. Heat	112870	1	702 –
Extension - Switch	134653	1	702 –
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Glass - Sight (Sweat fitting)	155459	1	702 –
Grommet - Drain Tube	159064	1	
Grommet - Compressor Mtg.	151431	4	702 –
Head Assy. - Complete Door (Pull Valve Style)	114700	1	702 –
Bushing - Plastic Door	138336	1	702 –
Head w/Valve Body and Air Relief Hole	114989	1	702 –
Knob - Ball	162629	1	702 –
Outlet - Valve (Nozzle)	136249-01	1	702 –
Nut - Piston Rod	139274	1	702 –
O-Ring - Nozzle	160582	1	702 –
O-Ring (Plug Air Bleed)	160561	1	702 –
O-Ring (Piston\Plunger)	160582	1	702 –
O-Ring (Rod)	160610	2	702 –
Plug - Air Bleed	115416	1	702 –
Piston - Valve (Plunger)	136253	1	702 –
Rod - Assy. Piston (Plunger)	113999	1	702 –
Spring - Pull Valve (Plunger)	162319	1	702 –
Head Assy. - Complete Door (Turn Spigot Style)	114729	1	702 –
Head - Assy. w/Spigot	114990	1	702 –
Plug - Assy. Air Bleed Plug	115416	1	702 –
Bushing - Head	138336	1	702 –
O-Ring	160571	2	702 –
Insert - Drip Tray (Floor Model)	136064	1	702 –
Insert - Drip Tray (876RH w/Night Switch, III. Sign & Bottle Rack and 876C - w/4 Bottle Rack)	138174	1	----
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Kit - Rotary Switch Replacement	115816	1	702 –
Kit - Water Valve Repair	155444	1	702 –
Knob - Hand	162633	4	702 –
Knob - Ball (nozzle)	162629	1	702 –
Knob - Rotary Switch	150462	1	702 –
Label - Trimstrip (876RH w/Night Switch)	165151	1	---
Leg - Assy. 6-inch (Floor Model)	112978	4	702 –
Light - Indicator (Optional)	150546	1	----
Lock Ring (only) - Bearing	153126	2	702 –
Motor - 1/4 HP 120-1-60	151037	1	702 –
Motor - Fan 35w (Air cooled)	151074-01	1	702 –
Nameplate - Electro Freeze	165181	1	702 –
Nameplate - CLEAN/OFF/FREEZE (Rotary Switch)	165022	1	702 –
Nozzle (Outlet-Valve)	136249-01	1	702 –
Nut - HEX 1/4 - 20 (Motor Mtg.)	160104	4	702 –
Nut - HEX 3/8 - 16 (Bearing Assy.)	160453	4	702 –
Nut - Piston Rod (Jam)	139274	1	702 –
Nut - Speed 1/8 SPR STL (Nameplate)	160291	4	702 –
Nut - Speed 1/4-20 (Rear/Corners) (Floor Model)	160117	6	702 –
Nut - Speed 1.2-20 (Side Panels) (Floor Model)	160387	4	702 –
O-Ring (Outlet Valve/Nozzle)	160582	**1	702 –
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
O-Ring (Plug Air Bleed)	160561	**1	702 –
O-Ring (Piston/Plunger)	160582	**1	702 –
O-Ring (Rod)	160610	**2	702 –
O-Ring (Spigot)	160624	1	702 –
Outlet - Valve (Nozzle)	136249-01	1	702 –
Quad Ring (Head/Beater Shaft Assembly)	160606	1	702 –
Quill - Assy. Drive	112842	1	702 –
Panel - Assy. Front Lower (Floor Model) SS****	113835-C	1	702 –
Panel - Assy. Front Upper (Floor Model) SS****	113836-C	1	702 –
Panel - Assy. Front Upper (876RH w/Mix Indicator & Night Switch) SS****	116925	1	702 –
Panel - Assy. Front Upper (876RH w/Night Switch, Ill. Sign & Bottle Rack) SS****	116926	1	702 –
Panel - Assy. Hopper & Top (876)	116066-C	1	293 –
Panel - Assy. Hopper & Top (876RH)	116075-C	1	702 –
Panel - Rear (Floor Model) SS****	136962-C	1	702 –
Panel - Side Left (Floor Model) SS****	139949-C	1	702 –
Panel - Side Right (Floor Model) SS****	136964-C	1	702 –
Piston - Valve (Plunger)	136253	1	702 –
Plate - Bearing Retainer	153127	2	702 –
Plate - Motor	139947	1	702 –
Plug - Assy. Air Bleed (Relief)	115416	1	702 –
Plunger (Piston-Valve)	136253	1	702 –
Post - Rear Corner LH SS****	136960-C	1	702 –
Post - Rear Corner RH SS****	136961-C	1	702 –
Pulley	See "Sheave"		
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Quad Ring - Beater/Screw Bleeder	160605	1	702 –
Quad Ring - Head	160606	1	702 –
Quill - Assy. Drive	112842	1	702 –
Receiver - 2 lb. (Sweat fitting)	155060	1	702 –
Relay - Compressor (See Compressor-Assy.)			
Relay - DPDT 120v Coil (876RH)	150384	1	702 –
Ring (only) - Bearing Lock	153126	2	702 –
Rod - Assy. Piston (Plunger)	113999	1	702 –
Screw - HXHC 1/4 -20 x 3/4 (Motor Mtg.)	160021	4	702 –
Screw - HXHC 5/16-18 x 1-1/2" (Comp. Mtg.)	160011	4	702 –
Screw - SK Set 1/4-20 x 1/4 (Driver Pulley)	160495	1	702 –
Screw - SK Set 5/16-18 x 3/8 (Driven Pulley)	160033	2	702 –
Screw - SK Set 1/4-20 x 1/4 (Pin Hanger)	160495	2	702 –
Screw - TRPM 1/4-20 x 1/2 (Rear Panel & Corners)	160048	10	702 –
Screw - TRPM #8-32 x 1/2 (Drip Pan and Flavor Rack)	160049	1	702 –
Screw - TRPM 1/4-20 x 3/4 SST (Side Panels)	160076	2	702 –
Seal - Assy. Shaft (Complete)	116143	**1	702 –
Bushings - Shaft Seal	138215	1	702 –
Seal - Beater Shaft	160557	1	702 –
Seal - Reset Button	150440	1	-----
Shaft Assy. - Drive (Quill Assy.)	112842	1	702 –
Shaft - Beater	113072	1	702 –
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Shaft - Drive and Bearing Assy. - Complete	112843	1	702 –
Shaft Extension - Switch	134653	1	702 –
Sheave - Assy. Driven & Quill	112844	1	702 –
Sheave - Driven	153615	1	702 –
Sheave - Driver	139948	1	702 –
Shroud - Condensor A/C	138668	1	702 –
Sign - Assy. Illuminated (Floor Model)	117677	1	702 –
Sign - Illuminated Cocktail Insert (Floor Model)	165053	1	702 –
Sign - Illuminated Smoothie Insert (Floor Model)	165054	1	702 –
Sign - Illuminated Lemonade Insert (Floor Model)	165055	1	702 –
Sign - Illuminated Slush Insert (Floor Model)	165056	1	702 –
Sleeve - Compressor Mtg.	151432	4	702 –
Socket- Bulb (Illuminated Sign)(Floor Model)	150574	1	702 –
Spacer - Drip Pan and Flavor Rack	163103	2	702 –
Spacer - Panel - Sides	138455	4	702 –
Spacer - Rear Bearing	130189	2	702 –
Spring - Blade (Scraper)	134649	2	702 –
Spring - Pull Valve (Plunger)	162319	1	702 –
Stamping - Bearing Base	153128	2	702 –
Strip - Terminal	150795	1	702 –
Starter - Fluorescent (Illuminated Sign) (Floor Model)	150576	1	702 –
Stud - Cylinder (Freezer Door)	130194	1	702 –
Switch - Rocker SPST (Ill. Sign)(Floor Model)	150485	1	702 –
Switch - Toggle (Day/Night) (876RH w/Night Switch & Mix Indicator)	150461	1	702 –
<p>* As Required ** Items Included In O-Ring Kit No. 116276 *** Left or right hand is determined from the front of freezer. **** SS – Stainless Steel NLA No longer available ¹ Order by refrigerant type and electrical voltage.</p>			

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List

IMPORTANT: All parts shown are for standard models designed for 115/1/60 .

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Thermostat - 5° Fixed Dif. (Cylinder) (Units with Night Switches)	161202	1	702 –
Thermostat - 5° Fixed Dif. (Hopper) (876RH)	161202	1	702 –
Tray - Assy. Drip & Bottles (876RH w/Night Switch, Ill. Sign & Bottle Rack	118128	1	-----
Tray - Drip (Floor Model)	136065	1	702 –
Tube - Assy. Drain w/Pan	115923	1	702 –
Valve - Access	155419	1	702 –
Valve - Auto Expansion (Cylinder)	155453	1	702 –
Valve - Auto Expansion (Hopper) (RH Model Only)	155452	1	702 –
Valve - Solenoid (RH Model Only)	155435	1	702 –
Valve - Water (Water Cooled Only)	155410	1	702 –
Valve - Water (Repair Kit)	155444	1	702 –
Washer - Flat 1/4" (Motor Mtg.)	160130	4	702 –
Washer - Lock 1/4-20 (Motor Mtg.)	160141	4	702 –
Washer - Lock 3/8 (Bearing Assy.)	160143	4	702 –
Washer - Rubber	199012	2	702 –
Washer - Shaft Seal (Bushing)	138215	**1	702 –

* As Required
 ** Items Included In O-Ring Kit No. 116276
 *** Left or right hand is determined from the front of freezer.
 **** SS – Stainless Steel
 NLA No longer available
¹ Order by refrigerant type and electrical voltage.

Use only original or authorized replacement parts with this freezer.