

ELECTRO FREEZE®

Operator's Manual

with Illustrated Parts List

***FREEDOM* 360°**
Series

**Soft Serve Twist Freezer
Model 30T-RMT**

P/N 184952 - 9/08

Operator's Manual
for
Electro Freeze Freedom 360° Series
Soft Serve Twist Freezer
Model 30T-RMT

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.

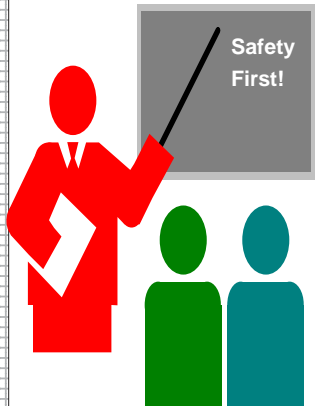
2. Understand Signal Words



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! (continued)

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 decals and order replacements.

DO NOT attempt to operate the 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 repair the freezer until the main power supply has been disconnected. Some freezers have more than one disconnect switch. 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 to the right. 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. Check labels 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, FAX or e-mail:



Phone: (309) 755-4553
(800) 755-4545

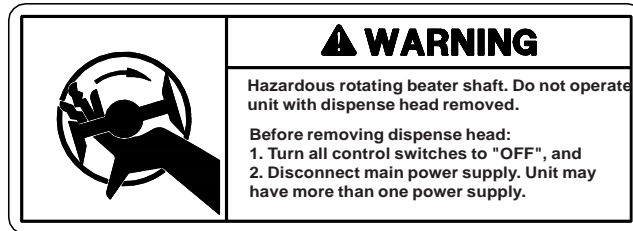
FAX: (309) 755-9858

E-mail: service@hcduke.com

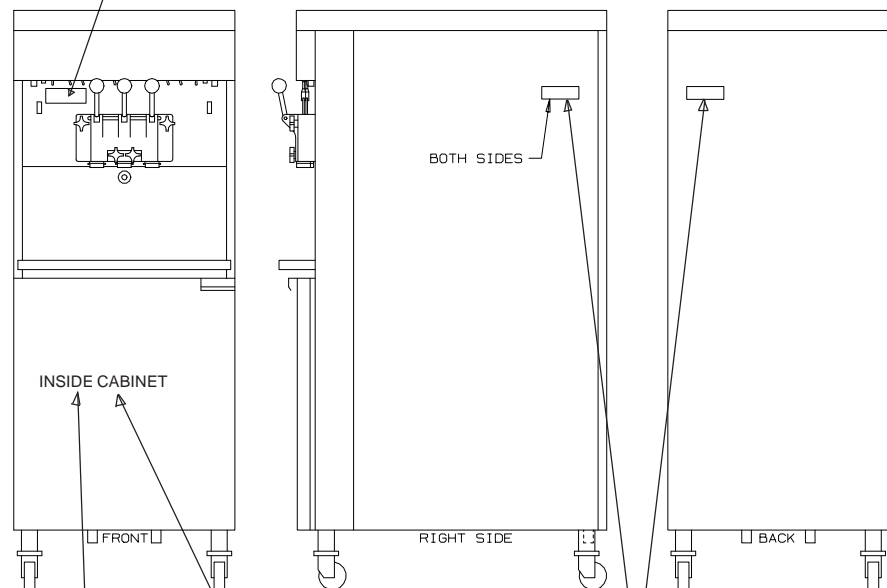
(The decals on the next page are numbered 1, 2, 3, and 4. Those numbers correspond to the numbers in the table below. The table provides the part number, description, and quantity for each decal.)

No.	Part No.	Description (Qty)
1	HC165025	Decal — Beater Warning (1)
2	HC165126	Decal — Panel Removal Warning (3)
3	HC165246	Decal — Pressurized System Warning (1)
4	HC165048	Decal — Warning Rotating Parts (2)

Safety Decal Locations (continued)

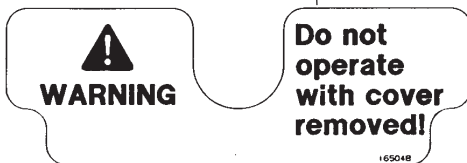


1 P/N
HC165025



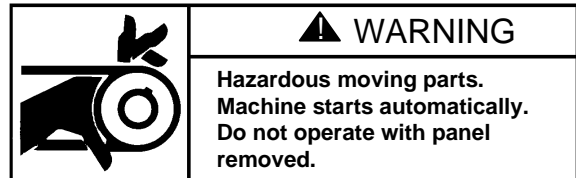
2 P/N HC165126

P/N HC165048



4

165048



3

P/N HC165246

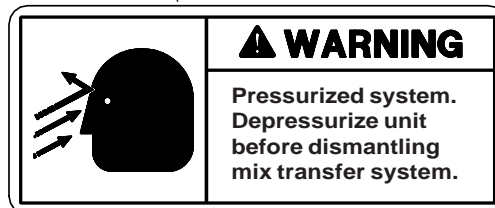


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Part II

Model 30T-RMT Replacement Parts Manual	
with Illustrations	*

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



1 Introduction

The 30T-RMT freezers are designed to produce soft serve ice cream, ice milk, yogurt, and similar frozen dairy products, with a product serving temperature range of 15 to 25°F (-9 to -4°C). If such products are prepared from powdered concentrate, they should be precooled to 40°F (4°C) prior to introduction to the freezer. Use of other products in this machine is considered misuse (see Warranty).

This manual has been prepared to assist you in the proper operation and general maintenance of the Electro Freeze Soft Serve Model 30T-RMT.

Your freezer will not compensate for or correct any assembly or priming errors made during the initial start-up; therefore, it is important to follow the assembly and priming procedures detailed in this manual.

Make sure all personnel responsible for equipment operation completely read and

understand this manual before operating the freezer. When properly operated and maintained, the 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: _____

For factory service assistance — contact H. C. Duke & Son, Inc., *Electro Freeze* Service Department as follows:

Phone: (309) 755-4553
(800) 755-4545



FAX: (309) 755-9858

E-mail: service@hcduke.com

2 Note to Installer

This freezer must be installed and serviced by an *Electro Freeze* Distributor or service technician.

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.

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 damage on the

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

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).

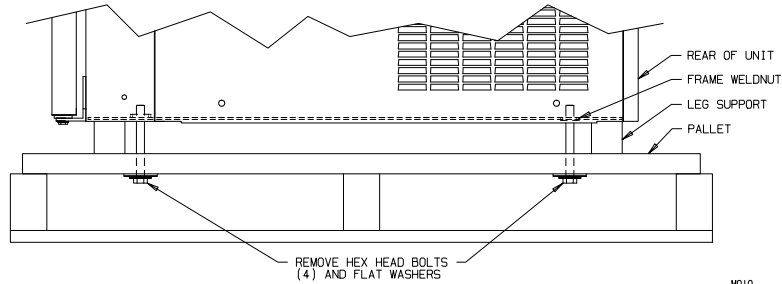
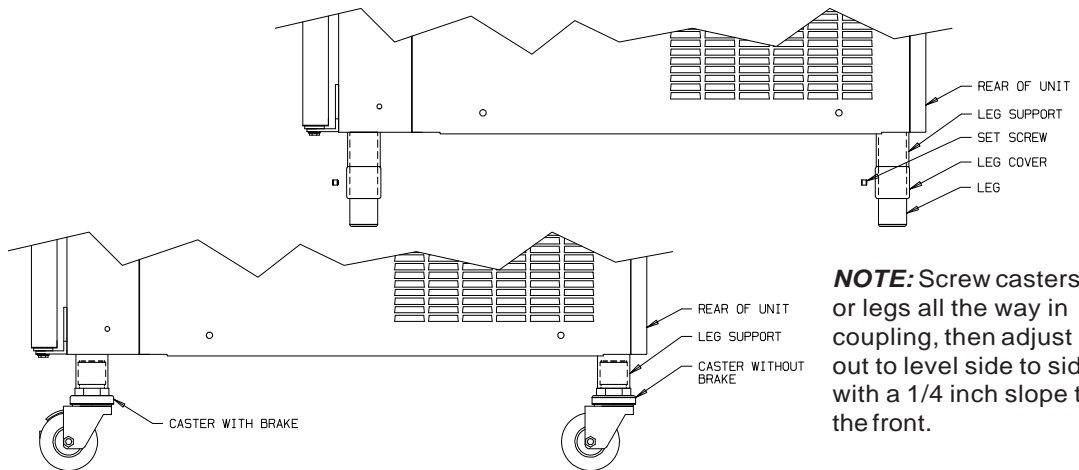


Figure 2-1 Machine bolted to Shipping Base



NOTE: Screw casters or legs all the way in coupling, then adjust out to level side to side with a 1/4 inch slope to the front.

Figure 2-2 Installing Mounting Legs or Casters

2.2 Installation



CAUTION

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

1. This freezer is designed for indoor use and must be protected from outdoor weather conditions.

2. Where codes permit, Electro Freeze recommends that the freezer be installed on casters and have flexible water and electrical connections for easier service and cleaning.

— continued

2.2 Installation (continued)

3. **All** models require a minimum 6 inch (15 cm) clearance on both the side panels or the rear panel for adequate ventilation. Freezers designed with top air discharge require at least 18 inches (45 cm) above the top panel be free of obstructions. Anything blocking ventilation of the freezer (including cone dispensers) will reduce the efficiency of the freezer.

4. **Water cooled** models will require a 1/2 inch MPT water inlet and water waste connection. Both condensers are tied together so that one water inlet and one water waste is all that is required. The connections are found on the bottom under

the compressor mounting area and are clearly tagged "Water Inlet" and "Water Waste." A manual shut-off valve should be installed in the water inlet line at the time of installation. Maintain inlet water pressure above 35 (241kPa) and below 140 psig (965 kPa) for proper operation.

5. Place the freezer in the final location and level by adjusting the legs or casters so that it is level side-to-side and the front is approximately ¼ inch (6 mm) lower than the rear to allow proper drainage of the freezing cylinder.

2.3 Electrical Requirements



CAUTION
To prevent accidental electrical shock, a positive earth ground is required.

1. Always verify electrical specifications on the data plate of each freezer. Data plate specifications will always supersede the information in this manual.

2. Supply voltage must be within \pm

10% of voltage indicated on the nameplate. Also, on three-phase systems, voltage between phases must be balanced within 2%. (More than a 6 volt difference between any two voltage measurements at 208-230 volts indicates a possible imbalance.) Request your local power company to correct any voltage problem.

3. An easily accessible main power disconnect must be provided for all poles of the wiring to the freezer.

2.4 Electrical Connections



CAUTION
To prevent accidental electrical shock, a positive earth ground is required.

1. Double freezers with two compressors require one power supply for each side of the freezer. Each side of the freezer operates independently.

2. Check the data plate for fuse size, wire ampacity and electrical specifications.

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

4. Electrical connections are made in the junction box located mid-level behind the left side panel.

5. Use a flexible connection when permissible.

6. For 3 phase freezers, beater shaft rotation must be clockwise as viewed from the front of the freezer.

3 Specifications

3.1 Particulars

Always check and verify voltage and amperage on the data plate located on the back panel of each freezer.

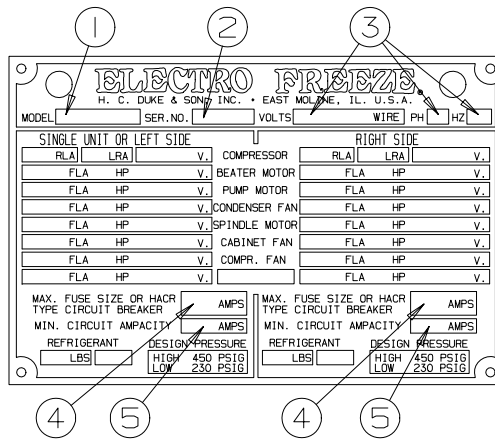
30T-RMT

Width (in/cm)	26/66
Height (in/cm)(water cooled)	67.5/171
Height (in/cm)(air cooled)	68/173
Depth (in/cm)	36.5/93
Weight (lbs/kg)	847/385
Compressor (2)*	2 HP/9300 BTUH 1.5 kw (Motor) 2.8 kw (Cooling)
Beater Motor	2 HP/1.5 kw
Refrigerant	404a
Charge**	3.75 lb/1.7 kg
Mix Container (2)	30 Qts/28.4 Liters
Cylinder (2)	4 Qts/3.8 Liters

*Contact factory for other voltages.

**for each side

3.2 Data Plate



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

Figure 3-1

3.3 Reference Information

Write in Reference Information HERE!



Fill in this information as soon as you receive the Electro Freeze 30T-RMT soft serve twist freezer. The item numbers, encircled, correspond with 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 30T-RMT freezer.

Date of installation: _____

Installed by: _____

Address: _____

Phone: _____

3.5 Dimensions

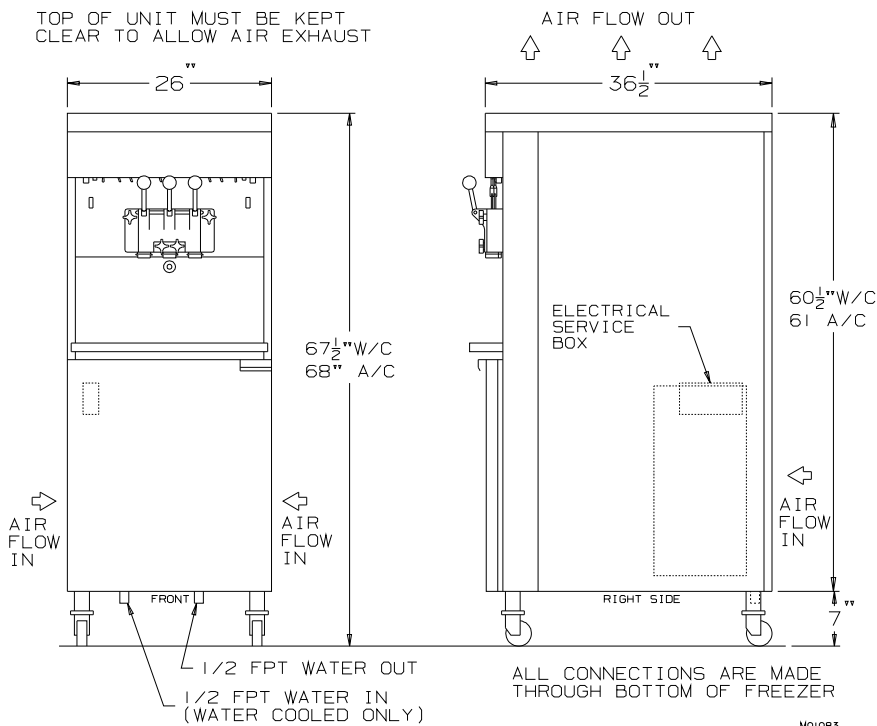
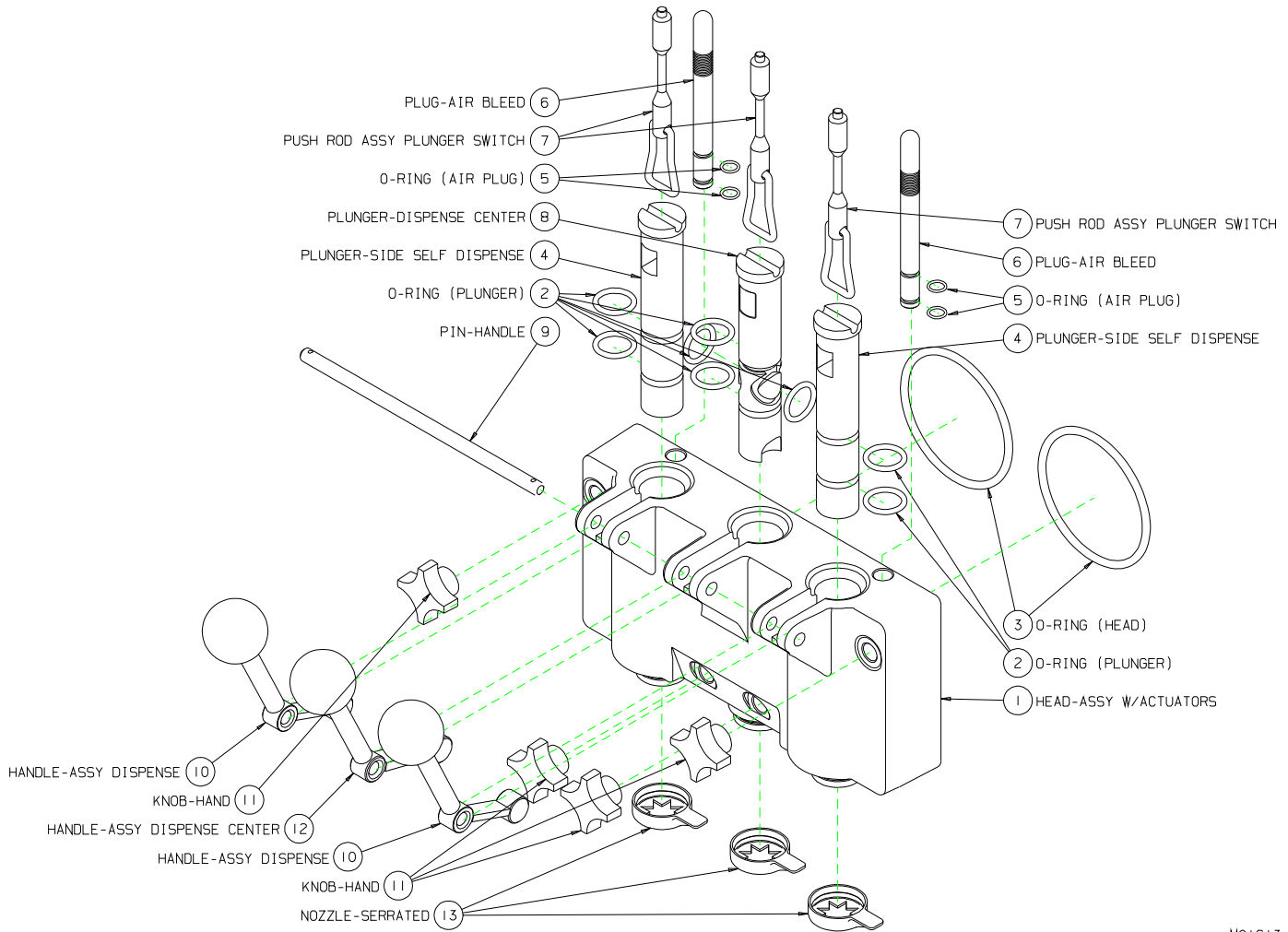


Figure 3-2

4 Part Names and Functions



M01613

Figure 4-1 Head Assembly

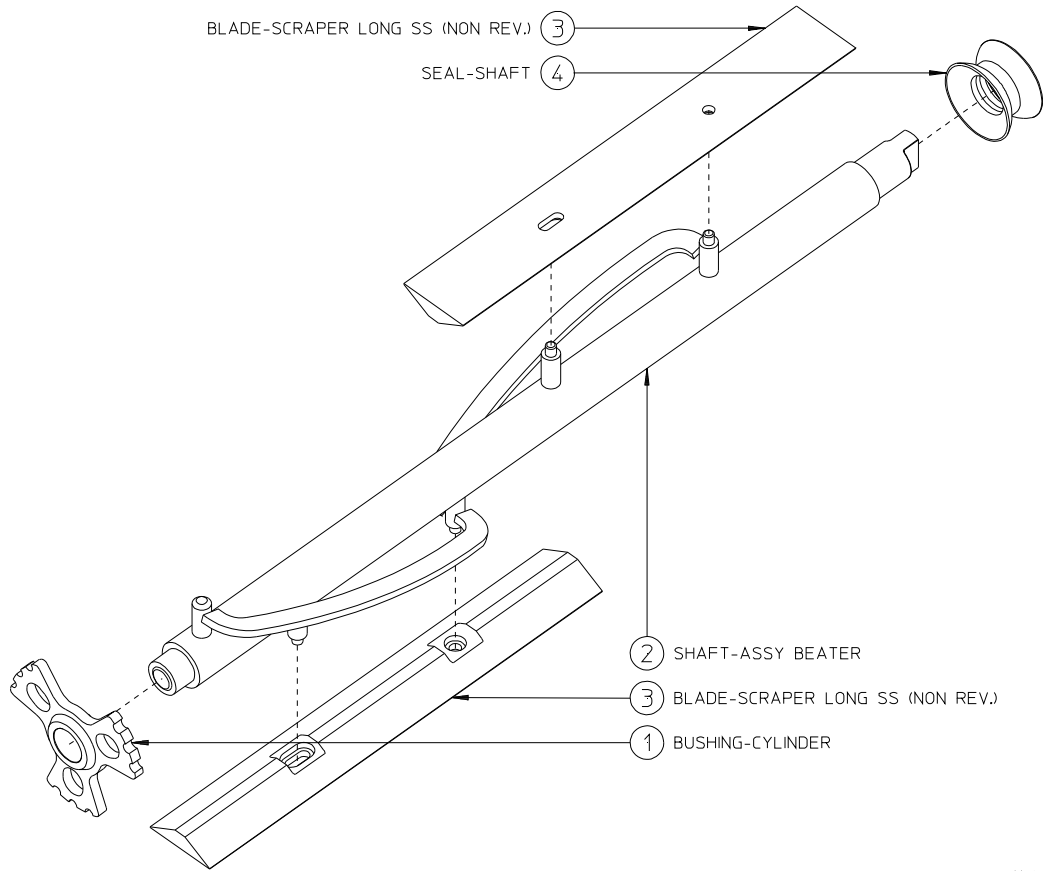
4

Part Names and Functions (continued)

The following descriptions apply to figure 4-1. The number preceding the part name corresponds to the number in the figure.

- | | |
|---|---|
| <p>1 HEAD
Encloses the freezing cylinder and provides an opening for product to be dispensed.</p> <p>2 O-RING - PLUNGER
Seals the plunger in the head. Must be lubricated to seal and slide properly.</p> <p>3 O-RING - HEAD
Seals the head to the freezing cylinder. Must be lubricated.</p> <p>4 PLUNGER - SIDE
Seals the product opening in the dispense head when closed. Allows product to flow when open.</p> <p>5 O-RING - PLUG
Seals the air bleed plug in the dispense head.</p> <p>6 PLUG - AIR BLEED
Seals the air bleed opening in the dispense head when closed. Allows excess air to be removed from the cylinder in the filling process.</p> <p>7 ROD - PLUNGER
Starts the freezer when dispensing. Must be in place before freezer will operate.</p> <p>8 PLUNGER - CENTER
Seals the product opening in the dispense head when closed. Allows product to flow when open.</p> <p>9 PIN - HANDLE
Secures the handle to the dispense head.</p> <p>10 HANDLE - DISPENSE SIDE
Opens and closes the plunger to start and stop the flow of product from the freezer.</p> | <p>11 KNOB - HAND
Secures the dispense head to the freezing cylinder.</p> <p>12 HANDLE - DISPENSE CENTER
Opens and closes the plunger to start and stop the flow of product from the freezer.</p> <p>13 NOZZLE - SERRATED
Forms the frozen product as it is dispensed.</p> |
|---|---|

4 Part Names and Functions (continued)



M01791

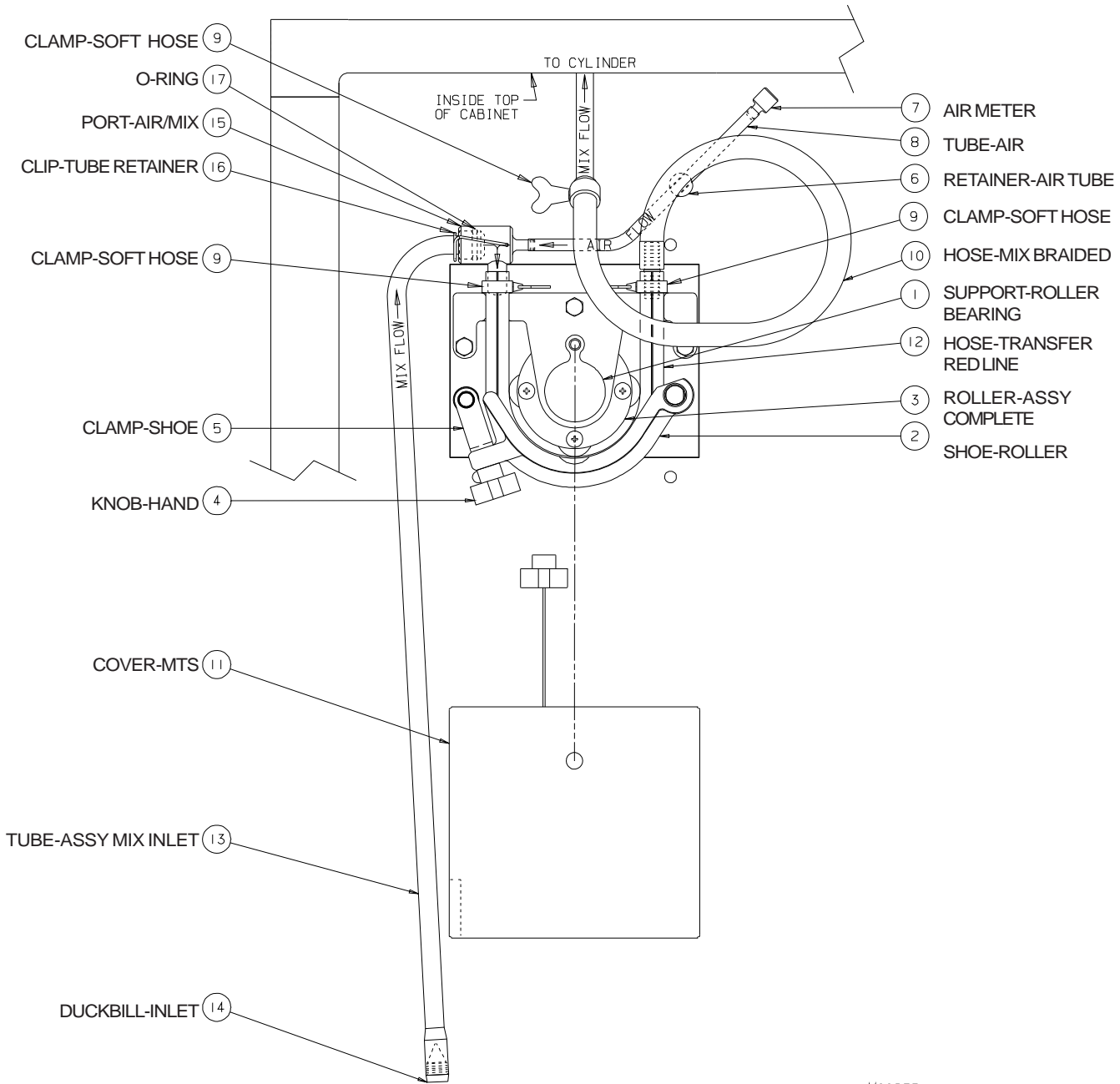
Figure 4-2 Beater Shaft Assembly

4 Part Names and Functions (continued)

The following descriptions apply to figure 4-2. The number preceding the part name corresponds to the number in the figure.

- ① **BUSHING - CYLINDER**
Holds the beater in place at the front of the cylinder. **Center must be lubricated.**
- ② **SHAFT - ASSY. BEATER**
Rotates in the freezing cylinder, blending air and mix as it ejects product.
- ③ **BLADE - SCRAPER SOFT SERVE**
Scrapes the frozen product from the freezing cylinder wall.
- ④ **SHAFT SEAL**
Seals the opening between the freezing cylinder and the beater shaft. **Inside seal lightly lubricate rib that comes into contact with the beater shaft.**

4 Part Names and Functions (continued)



M00B33

Figure 4-3 Mix Transfer System (MTS)

4 Part Names and Functions (continued)

The following descriptions apply to figure 4-3. The number preceding the part name corresponds to the number in the figure.

- | | |
|--|---|
| <p>① SUPPORT-ROLLER BEARING
Holds roller assembly in place.</p> | <p>⑪ COVER-MTS
Protection against moving parts. Cover must be in place for the MTS to operate.</p> |
| <p>② SHOE-ROLLER
Provides an opening to insert the mix transfer hose. Squeezes transfer hose against rollers.</p> | <p>⑫ HOSE-TRANSFERRED
Special "red-lined" hose that is squeezed by rollers to transfer mix to freezer.</p> |
| <p>③ ROLLER ASSEMBLY COMPLETE
Squeezes mix/air through tubing to freezing cylinder.</p> | <p>⑬ TUBE-ASSEMBLY MIX INLET
Carries mix from mix container to MTS.</p> |
| <p>④ KNOB-HAND
Locks roller shoe in position.</p> | <p>⑭ DUCKBILL
A rubber check valve that prevents mix from falling back into the mix container.</p> |
| <p>⑤ CLAMP-SHOE
Swings hand knob into position over roller shoe.</p> | <p>⑮ PORT-AIR/MIX
Blends air and mix as it flows into the transfer hose.</p> |
| <p>⑥ RETAINER-AIR TUBE
Holds air meter tube in the "up" position.</p> | <p>⑯ CLIP-TUBE RETAINER
Locks mix pickup tube into air/mix port.</p> |
| <p>⑦ AIR METER
Regulates the amount of air being drawn into the system.</p> | <p>⑰ O-RING
Seals the mix tube in the air/mix port.</p> |
| <p>⑧ TUBE-AIR
Provides connection for the air meter.</p> | |
| <p>⑨ CLAMP-ASSY. SOFT HOSE 5/8"
Prevents mating parts from leaking.</p> | |
| <p>⑩ HOSE-ASSY. MIX BRAIDED
Connecting tube between the Mix Transfer System and the cylinder inlet.</p> | |

Optional Bag-In-Box Kits are available. Contact your local distributor.

5 Operator Controls and Indicators

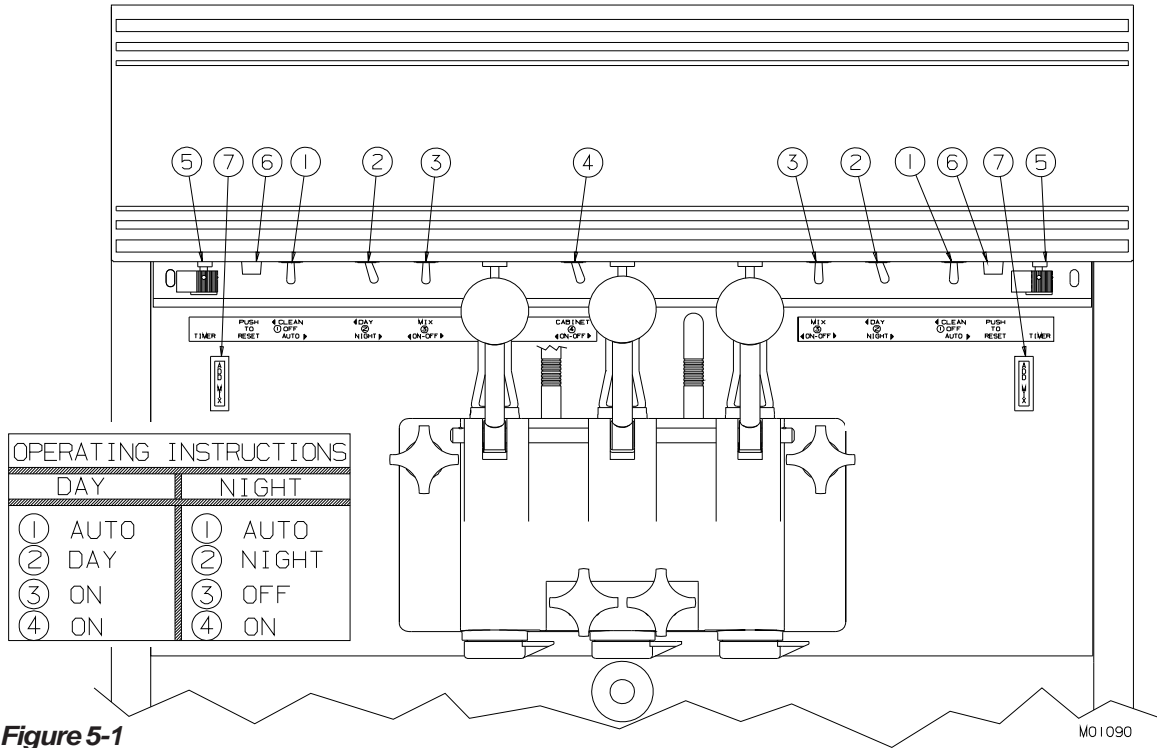


Figure 5-1


M01090

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

NOTE: The head must be in place before the beater will operate.

CAUTION

Test operation of the head switch prior to placing the freezer in service. See Section 11, Routine Maintenance, Monthly.



5.1 Selector Switch ①

This three-position switch controls the operating mode of your freezer.

a. **“CLEAN”** (left) — This position operates the beater only (no refrigeration to the cylinder). Always use this mode when performing cleaning and sanitizing operations.

b. **“OFF”** (center) — In this position the beater motor will not operate and no refrigeration will be provided to the cylinder.

Important:
Do not use the “AUTO” position with water or sanitizer in the cylinder — the freezer will be damaged.

c. **“AUTO”** (right) — This position activates both the beater motor and the refrigeration unit. This is the normal operating position.

5 Operator Controls and Indicators (continued)

5.2 DAY-NIGHT Switch ②

This two-position switch controls the day and night refrigeration modes.

a. **“DAY”** (left) — The temperature thermostat controls the system refrigeration to maintain the product serving temperature between 18 to 21°F (-8 to -6°C). This is the normal operating position.

b. **“NIGHT”** (right) — The temperature thermostat controls the system refrigeration to maintain a mix holding temperature of 40°F (4°C) or below.

5.3 Mix Transfer System (MTS) Switch ③

This two-position switch controls the operation of the MTS located in the refrigerated mix storage cabinet.

a. **“ON”** (left) — This position is the normal operating mode. Use this position for priming the cylinder, cleaning and day operation.

b. **“OFF”** (right) — In this position the MTS will not operate. Use this position for night operation.

5.4 Cabinet Switch ④

This two-position switch controls the cabinet refrigeration.

NOTE: Cabinet door must be closed for cabinet refrigeration to operate.

a. **“ON”** (left) — The cabinet thermostat controls the system refrigeration to maintain a temperature of 35 to 40°F (2 to 4°C) in the storage cabinet. Use this position when mix is in the storage cabinet but not in the cylinder.

b. **“OFF”** (right) — The cabinet will not be refrigerated if the selector switch is also in the “OFF” position.

NOTE: The cabinet is automatically “ON” when either SELECTOR switch is in the “AUTO” position.

5.5 Timer ⑤

This control will bypass the thermostat, forcing the compressor and beater motor to run up to 3 minutes. Use the timer for quick start-ups or fast recovery when dispensing large portions.

Important:
Excessive use of the timer causes freeze-up and damage to the freezer.

5 Operator Controls and Indicators (continued)

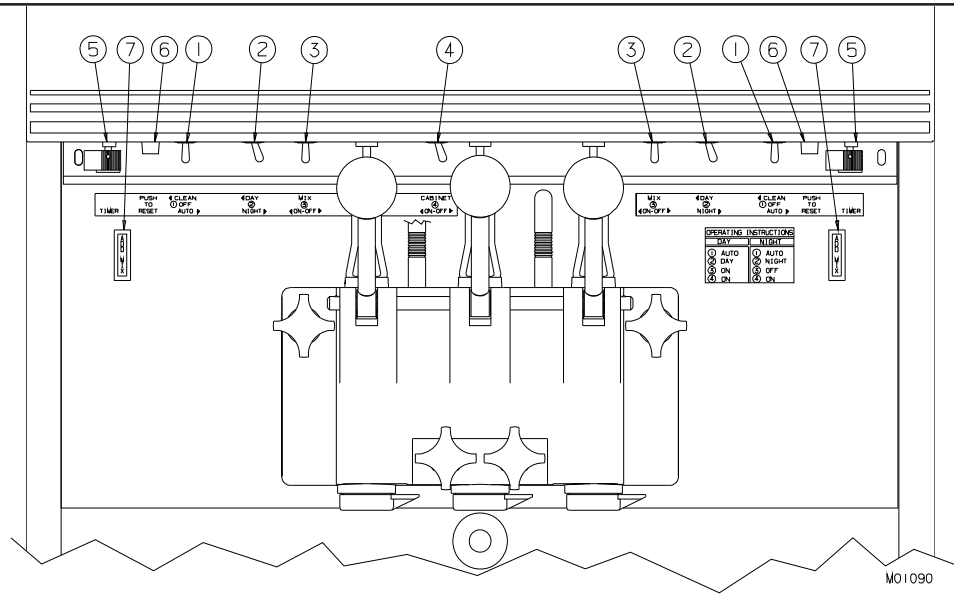


Figure 5-1

M01090

5.6 Reset — Overload (6)

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” and wait 2-3 minutes. Then depress the red reset button and turn the SELECTOR switch back to the “AUTO” or “CLEAN” position.

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

5.7 Indicator Light — “ADD MIX” (7)

When blinking, this light indicates the mix in the mix tank is at a low level and should be refilled as soon as possible. Always maintain at least 2 inches (5 cm) of mix in the tank. For best operating results keep tank full.

For the “ADD MIX” indicator lights to work, the probes must be installed in the mix tank, with cords attached and plugged into the receptacles located in the back of the cabinet.

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

5 Operator Controls and Indicators (continued)

5.8 Thermometer - Cabinet (See Figure 5-2)

This thermometer is used to monitor the temperature in the mix cabinet. When the cabinet switch is in the "ON" position, the thermometer should be green which indicates the temperature is between 35-41°F (2° to 5°C). If the thermometer is indicating red or blue and the cabinet switch is "ON" contact your authorized service company for service.

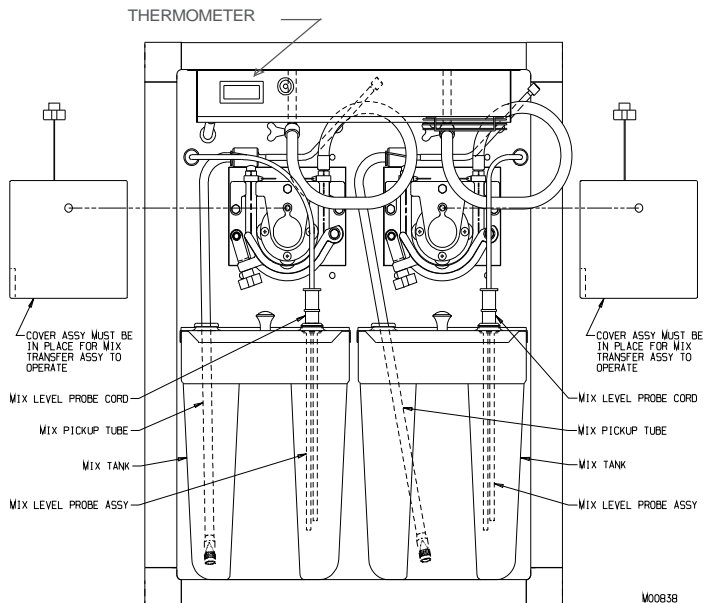


Figure 5-2

OPERATING INSTRUCTIONS	
DAY	NIGHT
① AUTO	① AUTO
② DAY	② NIGHT
③ ON	③ OFF
④ ON	④ ON

This chart shows the correct positions of the switches for day and night operations.

To turn the entire machine off, switches numbered 1, 3, and 4 must be in the "OFF" position.

6 Disassembly and Cleaning

Safety Information

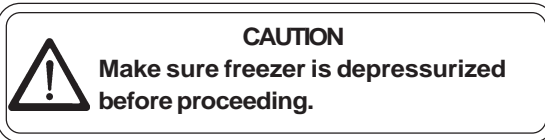
This freezer uses pressure to assure consistent product quality. It is important for your safety that the freezer is depressurized slowly and completely whenever the freezer is to be drained, disassembled, cleaned, or serviced. The safety instructions in this manual will remind you when to check to make sure the freezer is depressurized. When you see this CAUTION statement

Following these steps will assure that the system is depressurized.

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

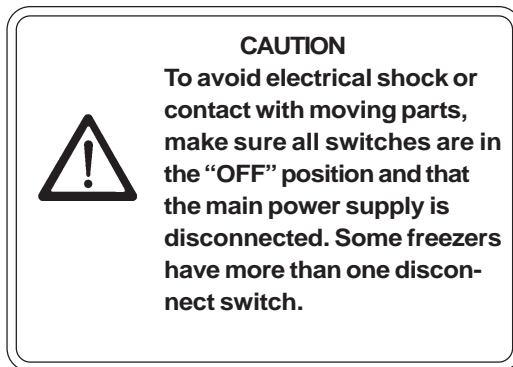
The cleaning and sanitizing instructions explained in this manual are required to maintain a clean, sanitary freezer. The freezer should be disassembled, cleaned, reassembled, lubricated and sanitized daily to ensure the best possible product quality and freezer operation.

Persons assembling, cleaning or sanitizing the freezer must first wash and sanitize hands and forearms with an approved sanitizer.



the following steps should be taken:

1. Make sure both MTS switches and both selector switches are in the "OFF" position.
2. Place a clean bucket under the dispense head.
3. **Slowly** open the plungers by pulling down on each of the dispense handles, allowing any pressurized cleaning solution or air to escape. If there is product in the freezer refer to Section 9, Closing Procedures, 9.2 Draining Product.
4. Remove the plunger rods and open the plungers completely.

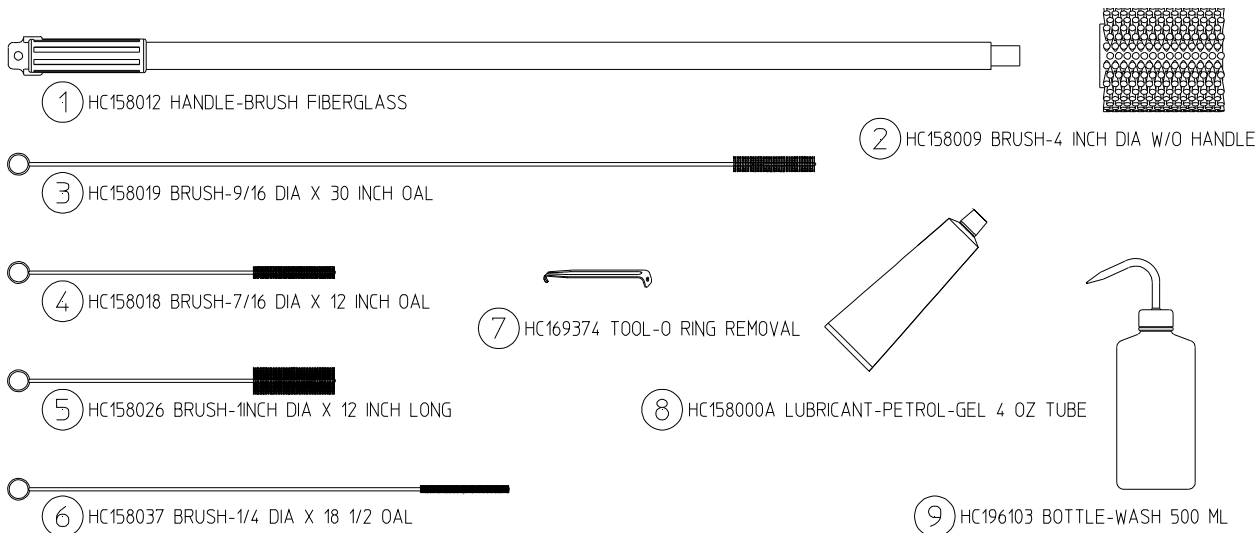


5. Inside the refrigerated cabinet, remove the MTS cover, loosen the shoe clamp hand knob, swing back the shoe clamp and swing open the roller shoe on both mix transfer systems.

6.1 Cleaning Accessories

The following accessories shipped with the freezer are necessary for cleaning, sanitizing, and disassembly/assembly (Figure 6-1):

- ① **HC158012 - HANDLE.** Handle used with HC158009 brush
- ② **HC158009 - BRUSH.** 4 inch diameter brush used with HC158012 handle to clean the freezing cylinder.
- ③ **HC158019 - BRUSH.** 9/16 inch diameter 30 inches long used to clean drain tube, the mix feed tube in the ceiling of the cabinet and the pickup tube.
- ④ **HC158018 - BRUSH.** 7/16 inch diameter 12 inches long used to clean transfer hose, braided hose, and the air relief opening in the dispense head.
- ⑤ **HC158026 - BRUSH.** 1 inch diameter 12 inches long used to clean the disassembled shaft seal and bushing.
- ⑥ **HC158037 - BRUSH.** 1/4 inch diameter 18-1/2 inches overall length used to clean the air meter hose, the small hole in the back of the dispense head and small parts.
- ⑦ **HC169374 - TOOL - O-RING REMOVAL.** Aids in removing O-rings from plunger, head, air relief plug, and spindle.
- ⑧ **HC158000A - LUBRICANT - LUBRIFILM.** Approved lubricant for moving parts and O-rings.
- ⑨ **HC196103 - BOTTLE, WASH.** Used to flush the hose cavity, roller assembly and plunger.
- ⑩ **HC118897 - KIT - O-RING.** Contains all o-rings and seals needing replacement on a regular basis. (not shown)
- ⑪ **HOSE-SPIGOT DRAIN.** Attaches to the spigot for draining product into a bucket. (not shown)



M01773,

Figure 6-1 Cleaning Accessories

See Replacement Parts section of manual, Accessories, for additional part numbers.

6.2 Disassembly Instructions

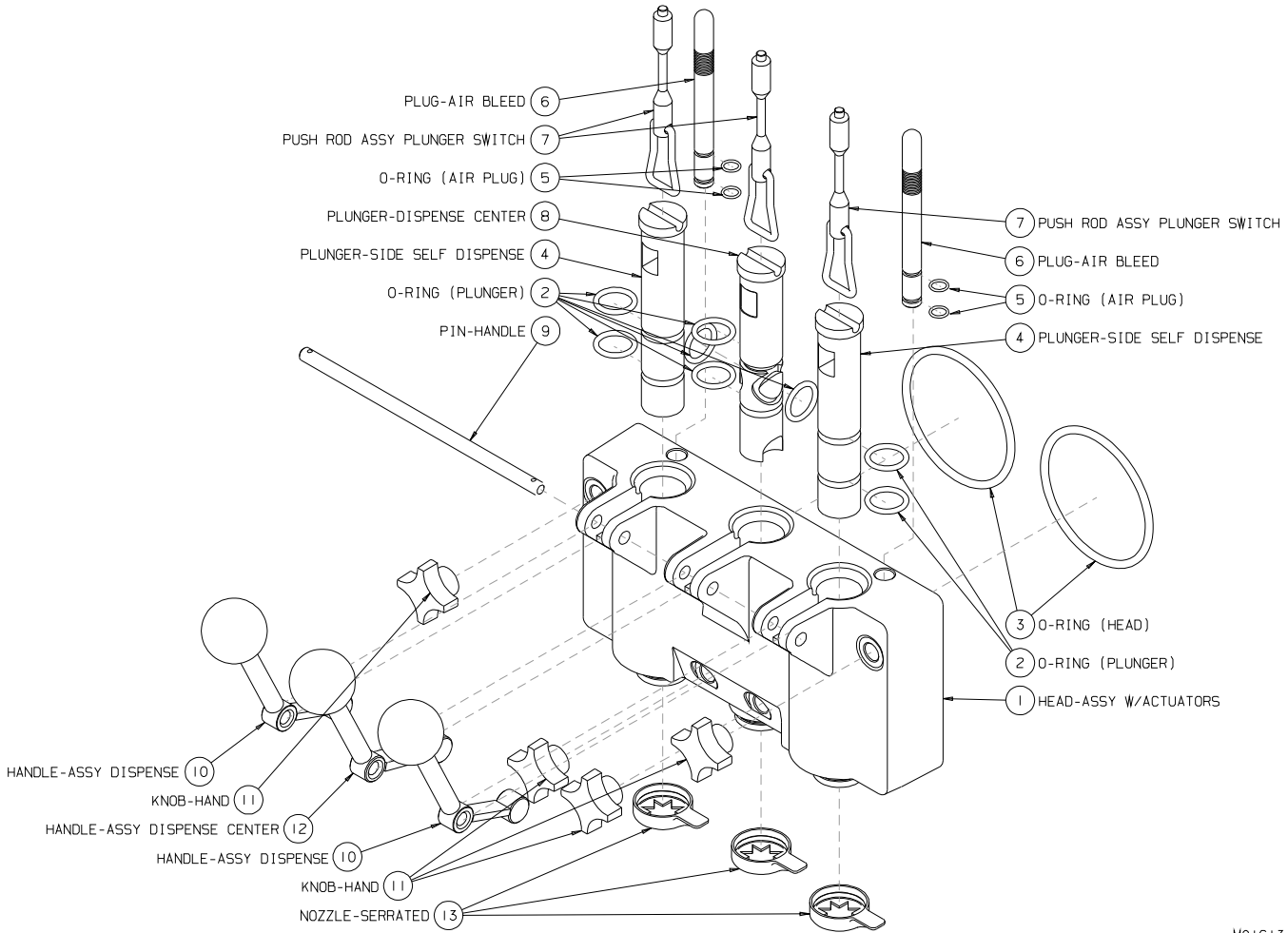


Figure 6-2 Head Assembly

M01613



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. Some freezers have more than one disconnect switch.



CAUTION
Make sure freezer is depressurized before proceeding.



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

1. If there is product in the freezer, refer to Section 9, Closing Procedures, 9.2 Draining Product.

2. Remove the plunger rods (7, figure 6-2) by lifting up and swinging the bottom out and down. Remove hand knobs (11) and pull the dispensing head (1) straight out.

3. Remove the bushings (1, figure 6-3) and beater shafts (2) from the cylinders.

4. Remove scraper blades (3) and shaft seals (4) from the beater shafts.

5. Remove the drip tray (see Replacement Parts Manual, figure 9 - Panel Assembly) and drip tray insert from the front of the freezer.

6. From the dispense head remove the air bleed plugs (6, figure 6-2) and remove the two O-rings (2) on each plug.

-continued

6.2

Disassembly Instructions (continued)

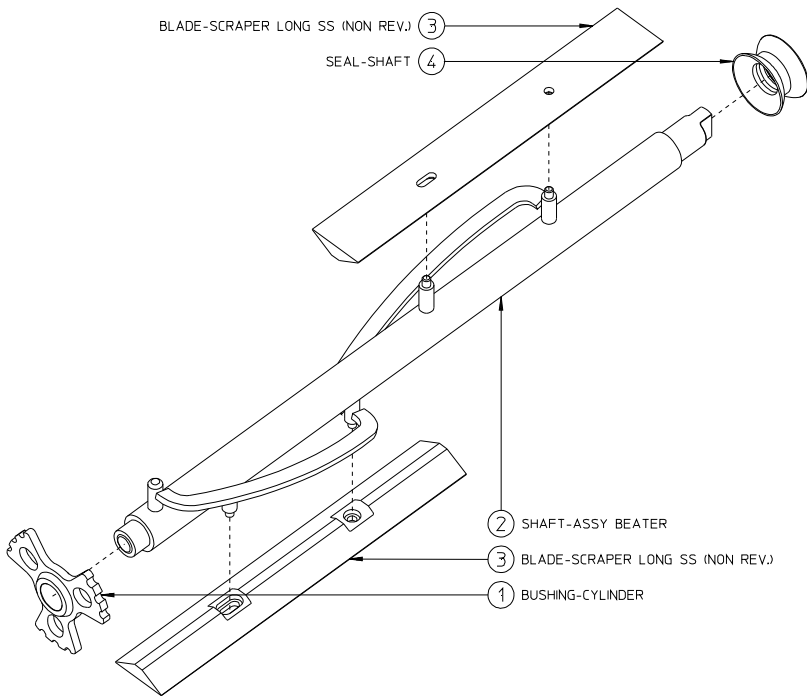


Figure 6-3 Beater Shaft Assembly

7. Remove the handle pin (9), handles (10,12), plungers (4,8) and nozzles (13) from the dispense head.

8. Remove O-rings (3) from the dispense head and O-rings (2) from the plungers (4,8).

9. Remove mix containers, covers and low mix probes.

10. Remove MTS cover.

11. Remove MTS hose assemblies from the Mix Transfer Systems as follows (figure 6-4):

- a. loosen the hand knob,
- b. swing back the shoe clamp,
- c. swing open the roller shoe,
- d. loosen the clamp on braided hose,
- e. pull tube off cylinder inlet and slide hose assembly out of roller support housing.

12. Disassembly MTS hose assemblies as shown in figure 6-5.

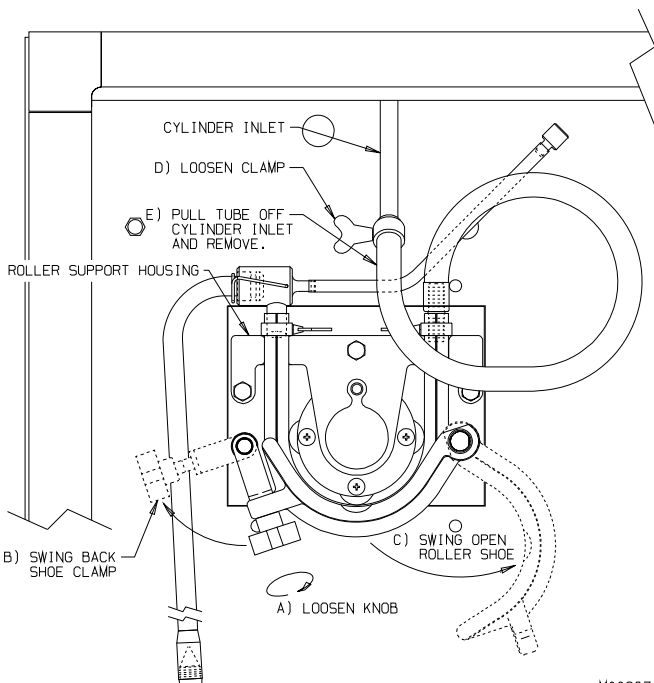


Figure 6-4 MTS

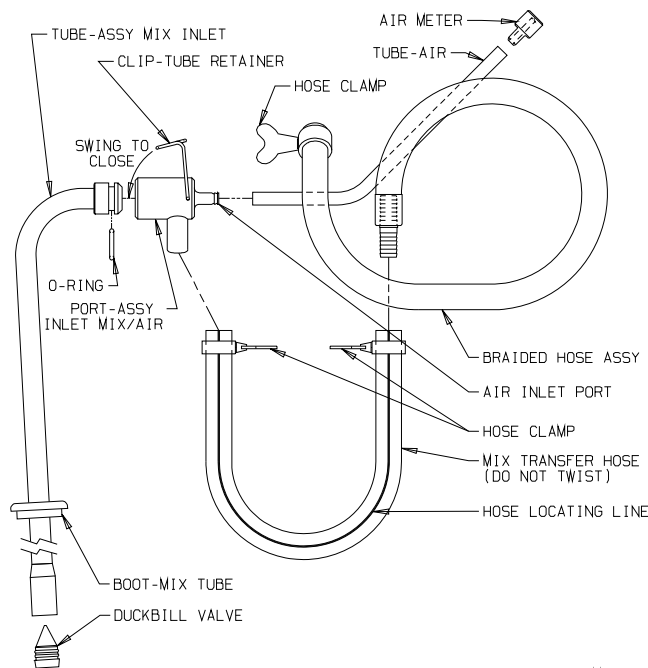


Figure 6-5 MTS Hose Assembly

6.3 Cleaning Instructions



CAUTION

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



CAUTION

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

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

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

⇒ **Important:**

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

NOTE: The sanitizer should be mixed according to the manufacturer's instructions to yield 100PPM 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. Clean the following parts with the appropriate supplied brush:

- a. The mix tank, pickup tube assemblies, hoses, and probes.
- b. The head plunger openings, center plunger ports, O-ring grooves, dispense nozzle mounting rings, and mix ports, as shown in figure 6-6.

— continued

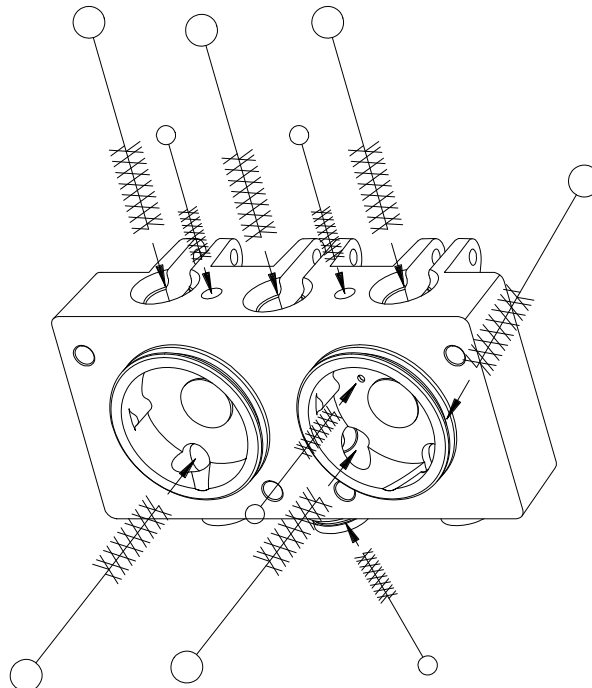


Figure 6-6 Clean head ports and openings with brush.

6.3 Cleaning Instructions (continued)

- c. The shaft cup seals, washers, and O-rings, plunger O-ring grooves and nozzles, as shown in figure 6-7.
- d. The air bleed plug O-ring grooves.(not shown)
- e. The beater shaft and the scraper blade pin holes as shown in figure 6-8.

⇒ **Important:**

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

3. After all parts are washed, rinse and then place them in the sanitizer solution. Brush the inside of all mix transfer hoses with sanitizer. For proper sanitizing, the parts must remain fully immersed in the sanitizer for 5 minutes. Allow parts to air-dry after sanitizing.

4. First using a warm dish detergent solution thoroughly brush; the mix feed tubes from the refrigerated cabinet to the cylinders as shown in figure 6-9, the inside of the cylinders including the back wall, and the inside of the drain tube, as shown in figure 6-10. Then brush the mix feed tubes, cylinders and drain tube with clear water following with sanitizing solution.

5. Remove the drip tray and insert. Wash in a warm dish detergent solution, rinse with clear water and place in sanitizing solution for 5 minutes.

6. Wash the outside of the freezer and inside of the cabinet with a warm dish detergent solution. Rinse with clear water.

**Replace worn brushes.
Use only Electro Freeze original or authorized replacement parts. See Accessories parts list in Part II of this Manual to order new brushes.**

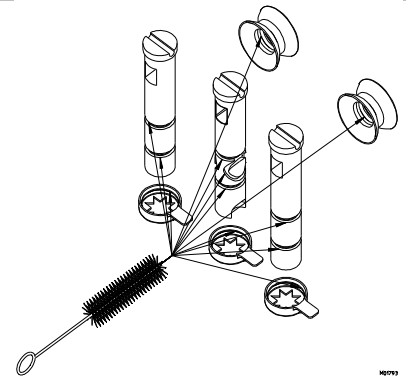


Figure 6-7 Clean O-ring grooves, seal and nozzle with brush.

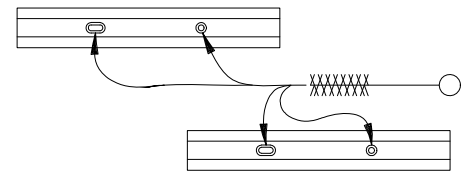


Figure 6-8 Clean beater shaft holes.

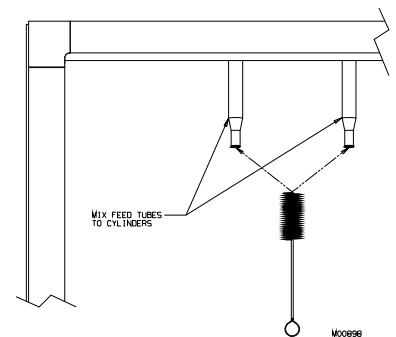


Figure 6-9 Brush inside of cylinder mix feed tubes.

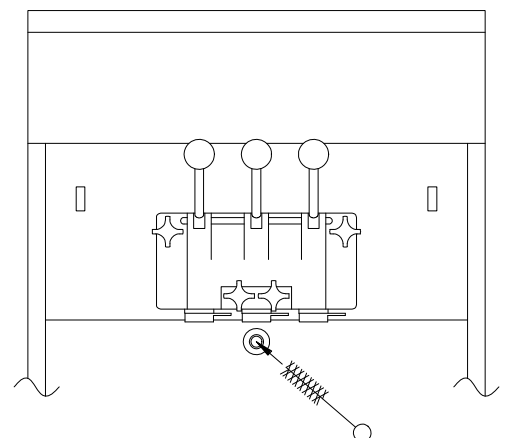


Figure 6-10 Brush inside of drain tube

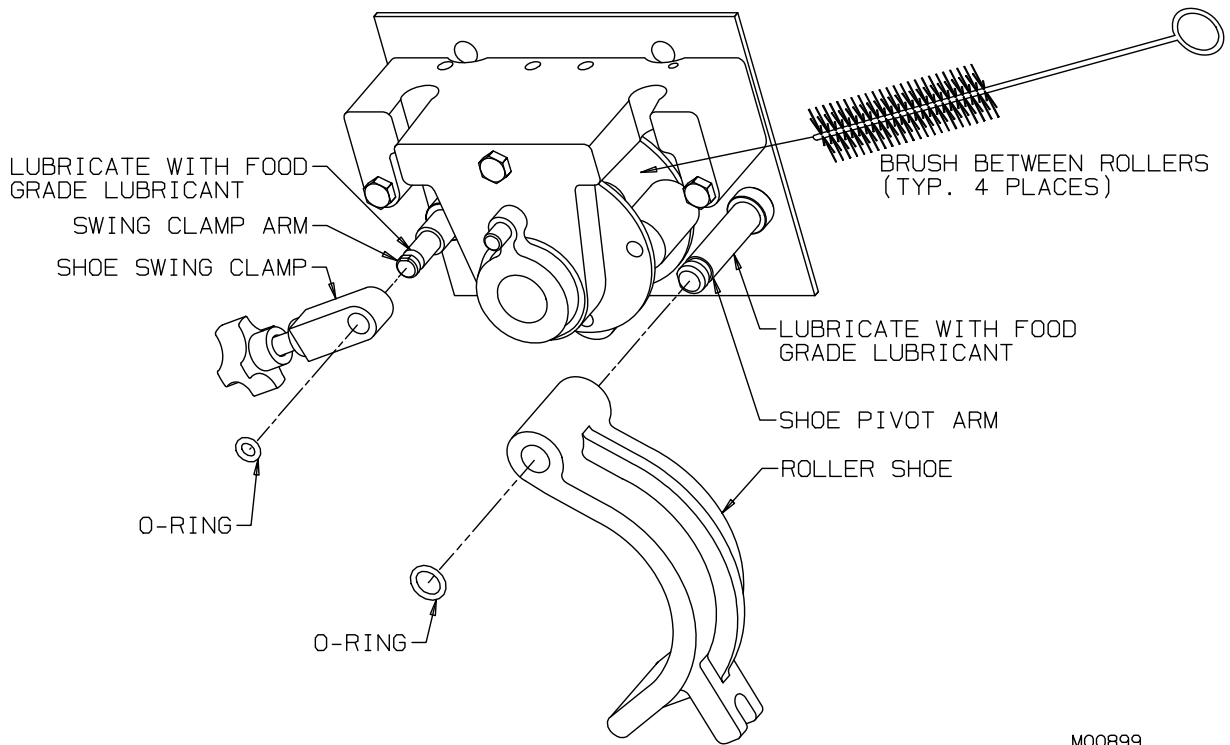
6.3.1 Cleaning Shoe

NOTE: Clean the shoe weekly or when necessary. **Do not interchange the shoe with any other MTS shoes.**

1. Remove the O-rings and slide the shoe off of the pivot arm and the swing clamp off of the clamp arm. See figure 6-11.
2. Carry to the sink, wash in mild detergent with the brush provided and dry thoroughly.
3. Brush in between rollers. Flush clean with water bottle.

⇒ **Important:**
Do not let shoe sit in sanitizing solution or water. Corrosion will occur in bore.

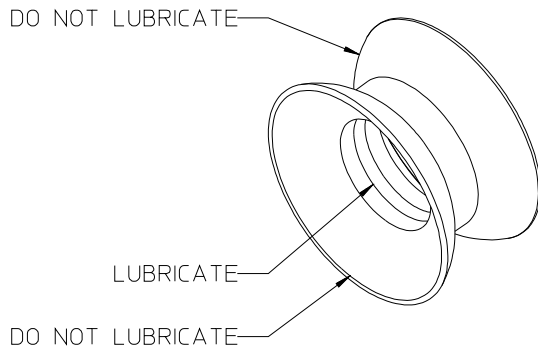
4. Lubricate the shoe pivot arm and the swing clamp arm with food grade lubricant such as Petrol-Gel.
5. Reassemble the shoe and O-ring on pivot arm.
6. Reassemble the shoe swing clamp and O-ring on the swing clamp arm.



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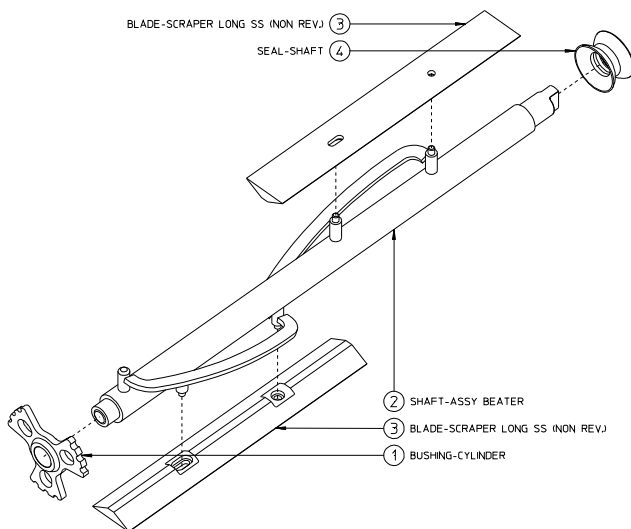
Figure 6-11

7 Assembly



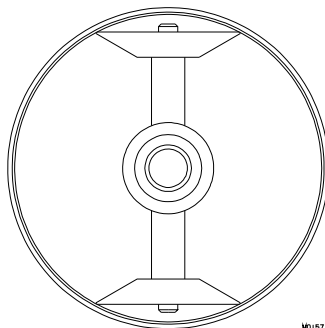
M01792

Figure 7-1 Shaft Seal Assembly



M01791

Figure 7-2 Beater Shaft Assembly



M01571

Figure 7-3 Scraper Blade Installation

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 lubricant (such as Petrol-Gel). 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. Follow these directions for each cylinder of the freezer.

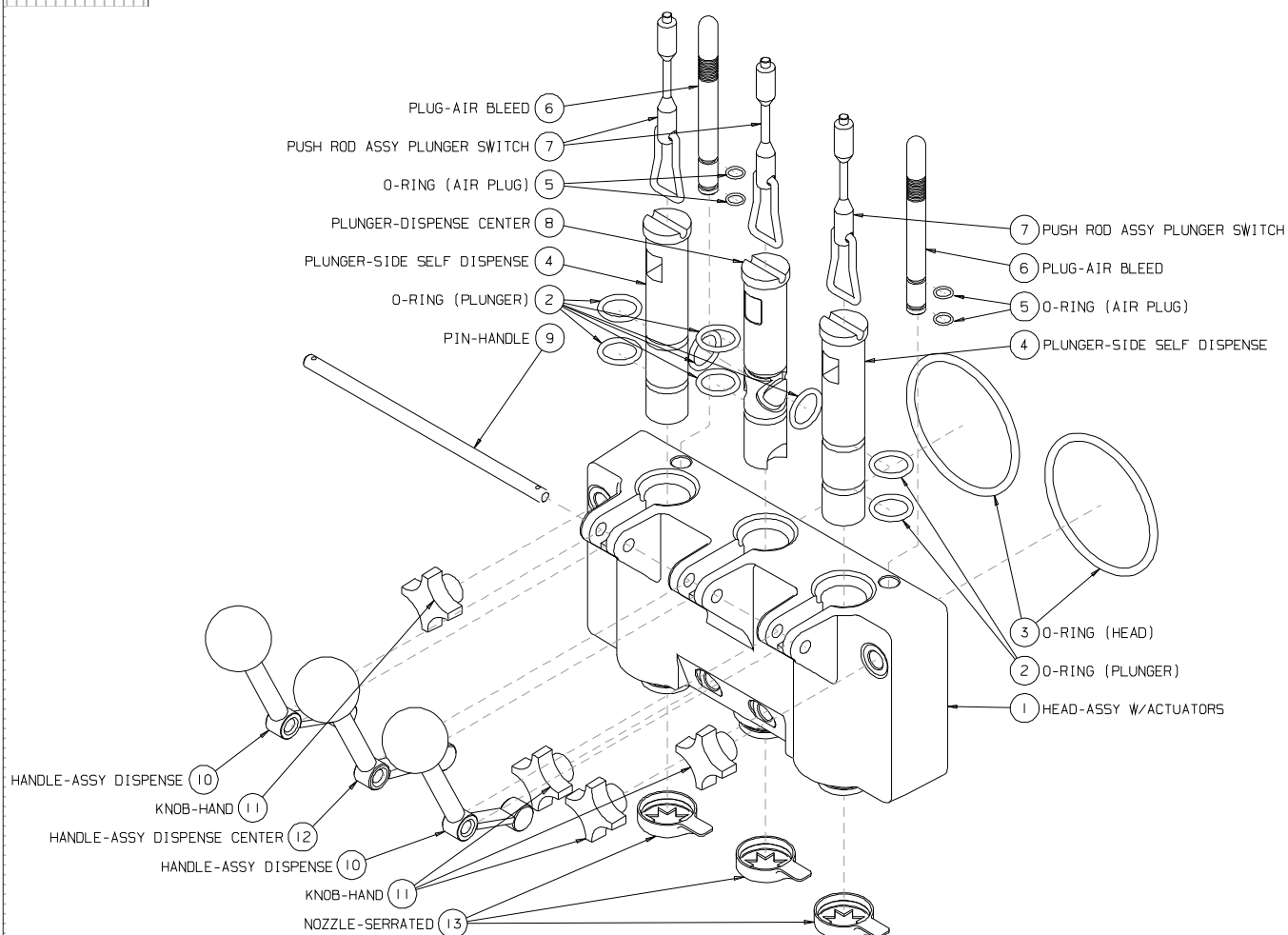
CAUTION

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. Some freezers have more than one disconnect switch.

1. Apply a light amount of approved sanitary lubricant (such as Petrol-Gel) to the center rib of the shaft seal, see figure 7-1 . Do not allow any lubricant to come into contact with the bell-shaped portion of the seal.
2. Install the shaft seal over the rear of the beater shaft, as shown in figure 7-2.
3. Place the scraper blades on the beater shaft, making sure the blades are installed properly (see figure 7-3).
4. Install the assembled beater shaft into the cylinder by placing the rear blade on the bottom of the cylinder. This will center the beater and allow alignment with the drive coupling. Rotate the beater assembly while pushing, until the shank has engaged the coupling. Repeat for second cylinder assembly.

-continued

7 Assembly (continued)



M01613

Figure 7-4 Dispense Head Assembly

5. (Refer to figure 7-4.) Install and then lubricate the O-rings on the dispensing plungers and insert by twisting each plunger halfway into the head.

6. Install and then lubricate the 4-inch head O-rings.

7. Position the handle(s) in the head and ensure that the longest handle is in the center plunger. Lock in place with the handle pin.

8. Install and lubricate O-rings on the air bleed plugs. Insert plugs in the head assembly.

9. Lubricate the inside surface of the cylinder bushing and place on the end of the beater shaft.

⇒ **Important:**

ALWAYS make sure the cylinder bushing is positioned properly. Operating the freezer with a missing or badly worn bushing will damage the beater, dispense head and cylinder.

⇒ **Important:**

Excessive force will damage the head. Do not use tools to tighten.

10. Install the dispensing head onto the freezer by aligning the studs with the holes in the head and sliding toward the freezer. Tighten the hand knobs evenly, finger-tight only.

11. Install the plunger rods. The nozzles will be installed on the mix outlet at the bottom of the dispense head after sanitizing.

-continued

7 Assembly (continued)

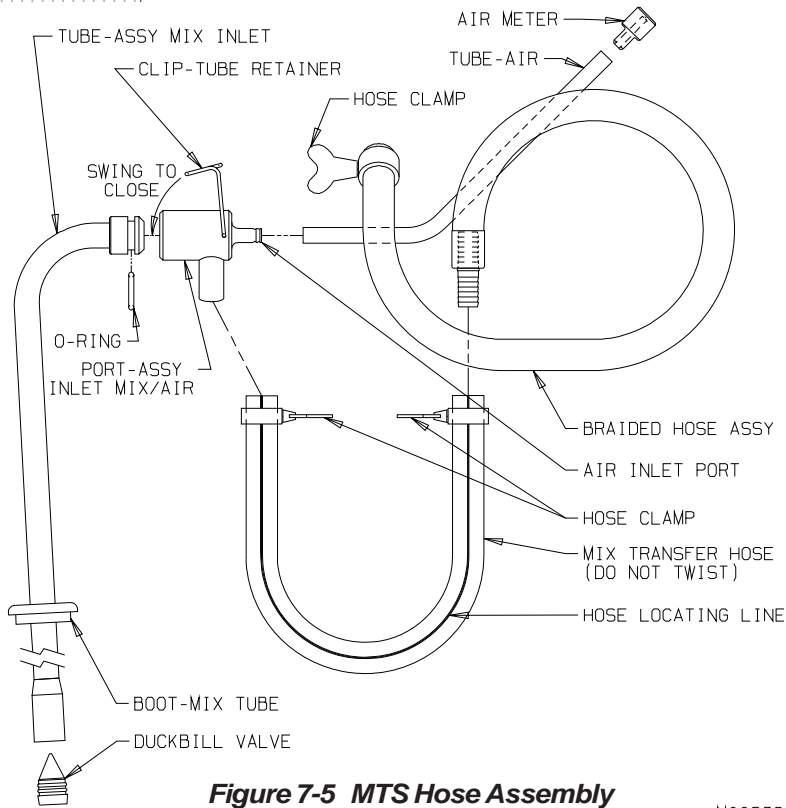


Figure 7-5 MTS Hose Assembly

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⇒ **Important:**

Always inspect the transfer hose during assembly for wear. Do not use tools or sharp objects to remove hose.

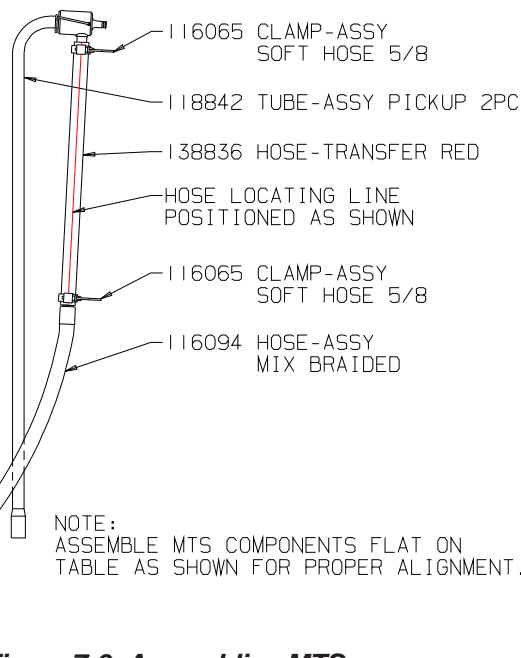
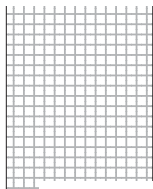


Figure 7-6 Assembling MTS

⇒ **Important:**

Use original Electro Freeze transfer hose only. Your freezer will not operate properly with any other type of hose. Never twist the transfer hose when assembling or installing.

⇒ **Important:**

Replace transfer hose every 30 days.

12. Assemble the MTS hose assembly as shown in figures 7-5 and 7-6. The transfer hose has a red locating line. Hold the mix/air inlet port with the transfer hose mix port on your right and the barbed air port facing away from you. With the locating line up, slide the mix transfer hose onto the port. Then slide a clamp over the hose to secure it to the port. Finger tighten only! The thumbscrew must lie parallel to the mix/air inlet port.

13. Slide another clamp over the mix transfer hose and connect to the barbed end of the braided hose. Tighten the clamp. Finger tighten only! The thumb screw must lay horizontal as shown in figure 7-6.

14. Slide the air tube over the air inlet port and insert air meter in the opposite end of the air tube.

15. Install o-ring on mix inlet tube assembly and lubricate. Place the tube assembly end into the port assembly and swing retainer clip over to lock tube assembly in place.

16. Install mix tube boot with flat side first, over the tube assembly.

17. Insert the duckbill valve into the bottom of the pickup tube. Push until the two ribs are completely inserted.

—continued

7 Assembly (continued)

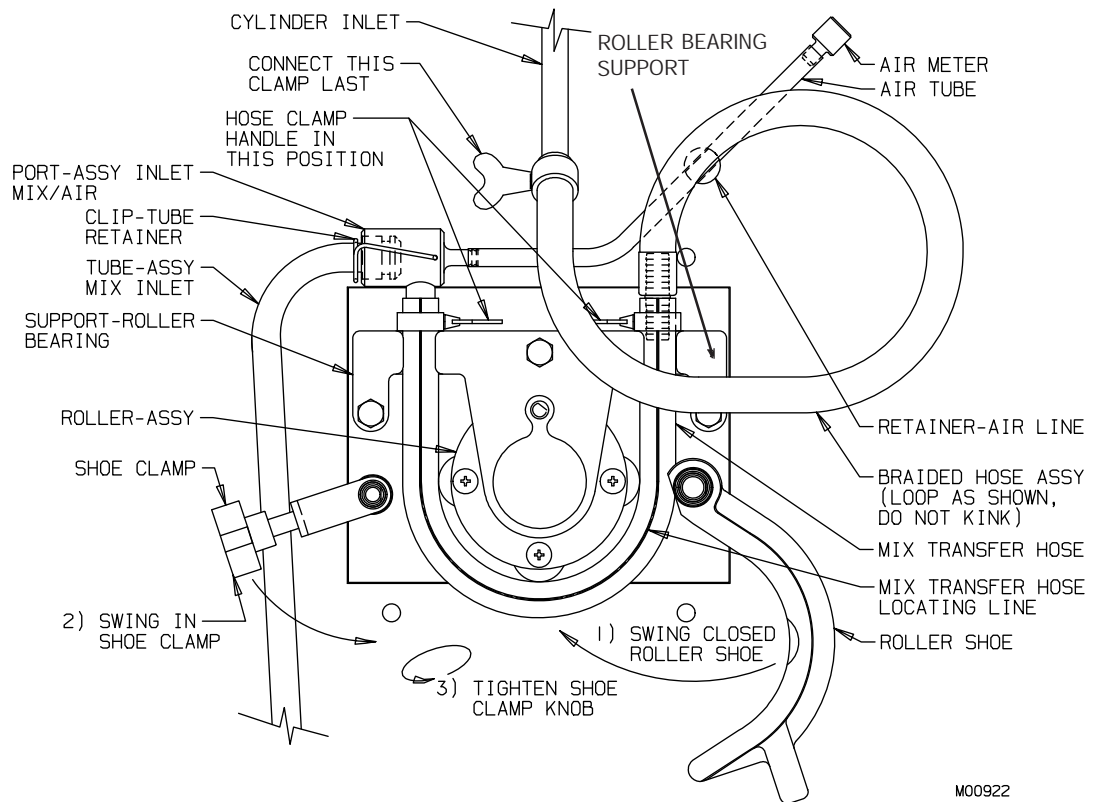


Figure 7-7 MTS

18. Refer to figure 7-7. Always begin with the left side MTS hose assembly first. Install the MTS hose assembly by first placing the clamp next to the braided hose, above the roller bearing support on the right side and push hose into slot. Place the transfer hose under the rollers. While holding the pickup tube stretch the hose so the left hand clamp is above the roller bearing support and push the hose into the slot.

⇒ **Important:**

Do not twist the hose assembly while installing.

19. Check to ensure the transfer hose is straight and centered on the roller assembly making sure the locating line is facing out. The line should be in the same position at the inlet and outlet guides of the roller bearing support, as shown in figure 7-7.

20. Swing the shoe over hose and tighten the swing clamp hand knob in place until it bottoms out and will not turn any further.

21. Insert the air tube into the retainer in the back of the cabinet.

22. Insert the MTS cover over stud. Hose clamps should be exposed. Tighten cover knob. Hand tighten only.

⇒ **Important:**

The MTS will not operate unless the cover is installed and secured by the hand knob.

23. Loop the braided hose towards you and slide the hose over the cylinder inlet tube. Tighten the clamp. Make sure the braided hose is not twisting transfer hose.

—continued

7 Assembly (continued)

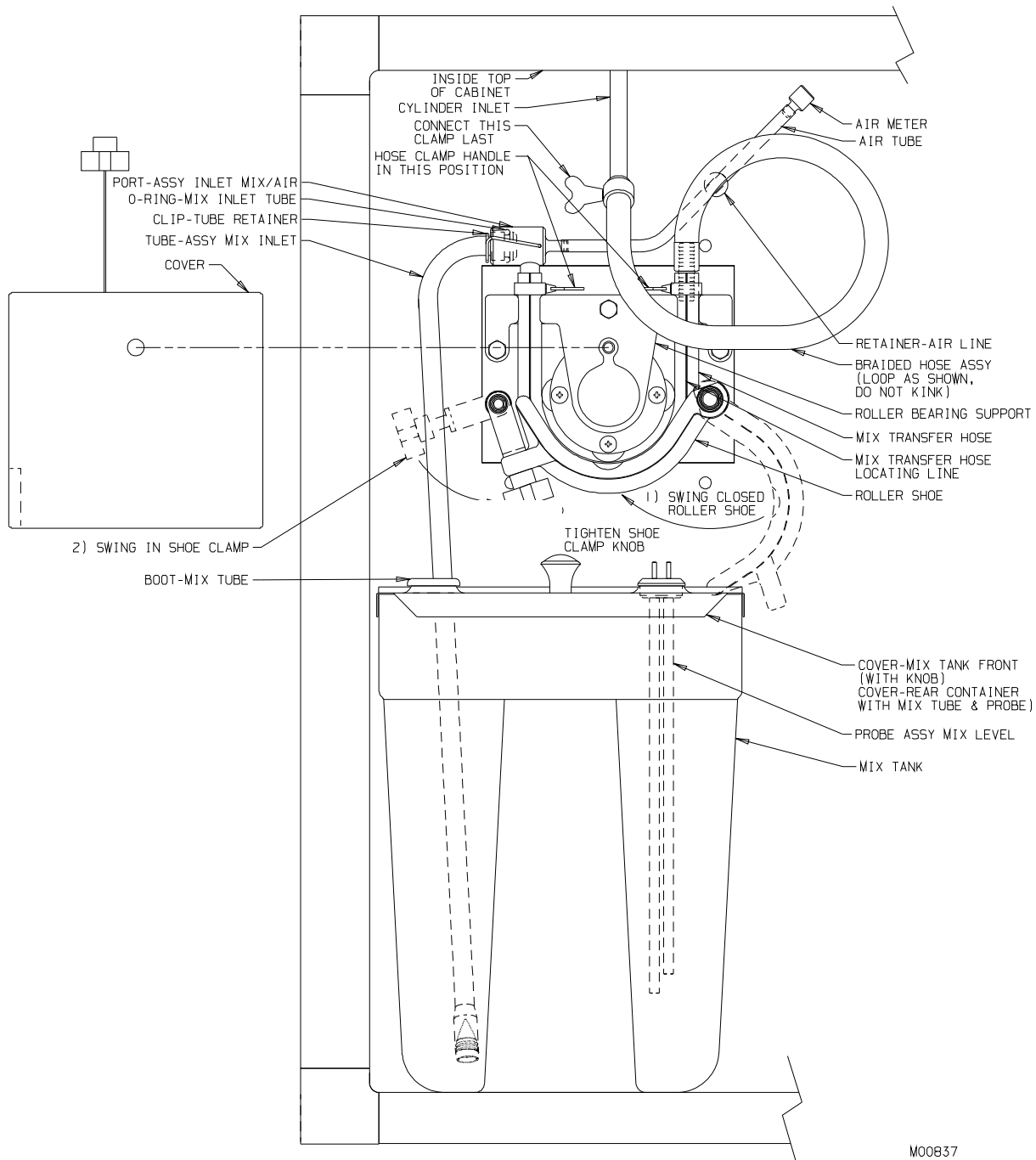


Figure 7-8 MTS

8 Start-up Instructions



CAUTION
Mix Transfer System will be pressurized during operation. Make sure all components and fasteners are secure before start-up.

8.1 Sanitizing Instructions

The washing and sanitizing instructions explained in this manual are important procedures to remove bacteria and maintain a clean, sanitary freezer. The soft serve freezer must be disassembled and washed according to the instructions in the manual. Always sanitize before 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, and conform to, the requirements for meeting all local, state, and federal laws concerning the frequency of cleaning and sanitizing the freezer.

1. Wash and sanitize your hands and forearms.
2. Prepare 2 gallons (7.5 liters) of sanitizing solution in each mix tank. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 PPM available chlorine solution (example: Stera-Sheen Green Label). Use warm water

(100 to 110°F or 37 to 43°C) to wash, rinse, and sanitize.

3. Clean the interior mix tank walls, the underside of the tank covers, and low mix probes (see figure 8-1 probe assembly only) with sanitizer solution and the appropriate brush provided.

4. Place the mix tanks in the refrigerated cabinet and pour in sanitizing solution.

⇒ **Important:**

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

5. Insert the tube assemblies into the sanitizing solution and sanitize the outside portion. If plastic mix bag systems are used, be sure all adaptors and items that will come into contact with mix are sanitized.

6. Place an empty container under the dispensing head.

7. Open the air bleed plugs by pulling up until the plugs touch the bottom of the switch box.

8. Reconnect the main power supply to the freezer. Turn the MTS switches to "ON". This will push the sanitizer up into the cylinders.

9. When sanitizer flows out the bottom of the dispense head, close the air bleed plugs.

⇒ **Important:**

DO NOT use the "AUTO" position with sanitizer in the cylinder. The freezer will be damaged.

—continued

8.1 Sanitizing Instructions (continued)

10. Turn both SELECTOR switches to "CLEAN" and allow the beaters to run for 5 minutes. Check for leaks around the mix transfer system, head and drain tube during this 5 minutes. Open and close the plungers several times during this period to sanitize the plunger openings and o-rings.

11. Turn the SELECTOR Switches to "OFF".

NOTE: Some sanitizer will remain in hoses and cylinders.

12. Drain the solution from the cylinders by slowly pulling down on the dispense handles. Let the MTS force all possible sanitizer out of the freezing cylinders. Some sanitizer will remain in the hoses and cylinders.

13. Turn the MTS switches to "OFF".

14. Remove the pickup tubes, holding the top 6-inch portion only.

15. Remove the mix tanks and empty any remaining sanitizer.

8.2 Priming

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

1. Holding the top 6-inch portion only, insert each pickup tube into a sanitized mix tank through the small hole in the rear cover and set both tanks in the cabinet. Slide the boot seals down on the mix tank covers.

2. Connect each mix probe cord to a mix probe. Insert a sanitized mix probe through the large hole in each rear cover, and connect the probe cord to the back of the cabinet.

3. Fill the mix tanks with mix and install the front cover.

4. Turn the cabinet switch to "ON" and close the cabinet door.

5. Place an empty container under the dispensing head on the drip tray.

6. Open the air bleed plugs and plungers.

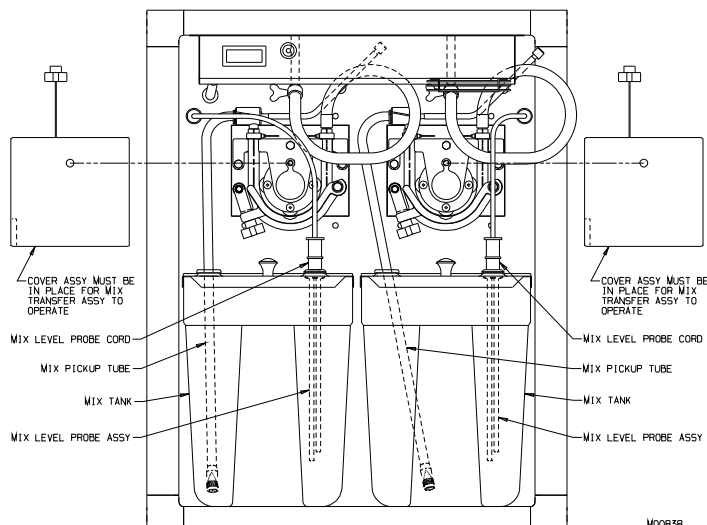
7. Turn the MTS switches to "ON" and allow the mix to push the remaining sanitizer from the freezer cylinders.

8. Close the plungers one at a time when pure mix is coming out.

9. When mix begins coming out of the air bleed plug openings in the bottom of the head, close the air bleed plugs. Wait for the MTS to fill the cylinders and shut off.

10. After the cylinders are pressurized and the MTS has cycled off (approximately 30 seconds) turn both DAY/NIGHT switches to "DAY" and both SELECTOR switches to "AUTO."

11. Allow the freezer to cycle for 15-20 minutes. Sanitize the nozzles and install on the head. The product is now ready to serve.



M00838

Figure 8-1

9 Closing Procedures

9.1 Night Switch Operation

1. In areas where health codes will allow, the freezer may be switched to night operation that will allow the freezer to cycle all night and maintain approximately 38°F (3°C) or lower product in the cylinders and cabinet.
2. To switch the freezer to the night mode, leave the SELECTOR switches on "AUTO" and the cabinet switch "ON".
3. Turn the MTS switches to the "OFF" position.
4. Turn the DAY/NIGHT switches to "NIGHT" and let the machine cycle.
5. Remove serrated nozzles and the drip tray assembly. Clean all soiled surfaces with soap and water. Use sanitizing solution in spray bottle and brush to clean the bottom of the plunger openings.
6. To start the machine after using the NIGHT mode, turn the DAY/NIGHT switches to "DAY" and the MTS switches to "ON". Replace drip tray. Before replacing sanitized nozzles use a small brush and spray bottle with sanitizing solution to clean the bottom of the plunger openings.

9.2 Draining Product

To remove frozen product from the cylinders:

1. Place the SELECTOR switches in the "CLEAN" position and the MTS switches in the "ON" position.
2. Let the beater shafts run for 5 minutes. This will allow the product in the cylinders to soften. Remove nozzles.
3. Disconnect the mix probe cords from the back of the refrigerated cabinet. See figure 9-1.
4. Remove the mix tanks from the cabinet while pulling out the stainless steel pickup tubes from the mix tanks.

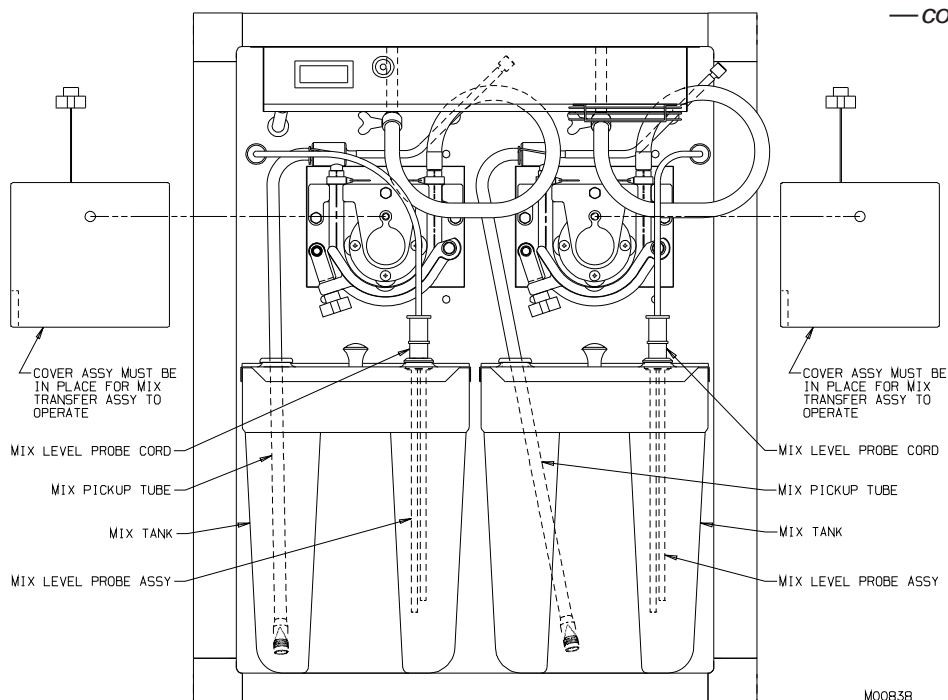


Figure 9-1

9.2 Draining Product (continued)

5. Pour the mix from the mix tanks into a clean, sanitized container and store in a cooler or refrigerator..

6. Place a clean, sanitized container under the dispensing nozzles.

7. Very slowly open the plungers and dispense the semi-frozen product until it quits dispensing. Use this product for making pints, quarts or novelties.

8. Close plungers, turn the MTS switches and the cabinet switch to "OFF".

9. Place the mix pickup tubes into a container of cold water. Turn the MTS switches to "ON" and allow the MTS to fill and pressurize the cylinders with water.

⇒ **Important:**

DO NOT use the "AUTO" position with sanitizer in the cylinder. The freezer will be damaged.

10. Very slowly open the plunger dispensing the cold water. Follow with a container of warm water (100 to 110°F or 37 to 43°C) and repeat until the dispensed water is clear.

11. Turn all switches to "OFF" and drain all water from the cylinders. Close the plungers.

12. Prepare 2 gallons (7.5 liters) of sanitizing solution for each cylinder. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 ppm available chlorine solution (example: Stera-Sheen Green Label). Be sure the sanitizer is mixed thoroughly and has completely dissolved.

13. Insert the pickup tubes into the sanitizing solution.

14. Place an empty container under the dispensing head.

15. Open the air bleed plugs by pulling up until the plugs touch the bottom of the switch box.

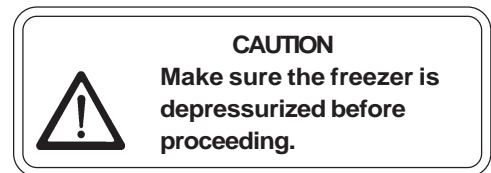
16. Place the MTS switches in the "ON"

position. When the sanitizing solution flows out the bottom of the head, close the plugs and allow cylinders to pressurize.

17. Place the selector switches in the "CLEAN" position and allow the beaters to run for 5 minutes.

18. Slowly open the plungers and allow the MTS to push the sanitizer out of the cylinders. Leaving the plungers open, turn the selector switches to "OFF". Allow the MTS to push all remaining sanitizer out of the cylinders. When the sanitizer quits flowing, turn the MTS switches to "OFF".

15. Remove pickup tubes from sanitizing solution.



16. Refer to Section 6, Disassembly and Cleaning.

10 Soft Serve Information

10.1 Overrun

As mix is frozen in the freezing cylinder, air is incorporated into the mix to increase its volume, as well as enhance the taste and texture of the finished product. The increase in volume is called overrun. Fifty percent overrun means a volume increase of 50% — 10 gallons of liquid mix has become 15 gallons of finished product.

Controlled overrun is important to maintain consistency in product quality. Too much overrun (air) results in a light, fluffy product lacking the cold, refreshing appeal of a quality product. Too little overrun results in a wet, heavy product.

To correctly measure the overrun, perform the following steps:

- a. Place an empty pint container on the scale* and adjust your scale to zero.
- b. Remove container from scale and fill with liquid product to the top. Weigh container and record.

c. Replace liquid product with frozen product, being sure to leave no voids or air spaces in the container.

d. Strike off the excess product so it is even with the top of the container and measure the weight.

e. Use the following formula to figure overrun percentage:

“Weight of liquid mix minus weight of frozen product/divided by the frozen weight.” See example below:

Weight of pint of liquid mix = 18 oz.

Weight of pint of frozen product = 12 oz.

Difference = 6 oz.

6 oz. divided by 12 oz. = 5

.5 x 100 = 50% overrun

* Your Electro Freeze Distributor can provide a scale (P/N HC158049) that is graduated in overrun percentage.

10.2 Overrun Adjustment

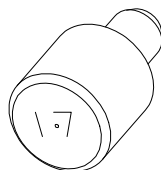
NOTE: Each person who operates the freezer should know what overrun is and how to calculate it.

Overrun is regulated by the air meter. You were supplied with four air meters per side, each having a different size orifice. The smaller the hole and number, the lower the overrun. The larger the hole and number, the higher the overrun. Each half-size change of the air meter number will change the overrun 3 to 5%. Each full size change of the air meter number will change the overrun 8-10%. The orifice in this air meter must be open at all times. It is the only source of air into the freezing cylinder. Check this daily!

The mix will be a factor in determining the amount of overrun you will be able to achieve. Some mixes will accept more air than others, thus affecting the size of air meter you can use. Test to see which air meter will give you the best overrun and the best product. Run each air meter for a few hours until you decide.

You may have a slightly higher overrun when you first start up the machine. After the machine has run long enough to dispense at least one full cylinder of product, you will have the overrun that the machine will hold the remainder of the day. Contact your mix supplier for the recommended amount of overrun for each product used.

Figure 10-1 Air Meter



11 Routine Maintenance

Electro Freeze recommends the following schedule to help maintain your Model 30T-RMT Soft Serve Twist Freezer in like-new operating condition. 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!

DAILY

1. Disassemble, wash, rinse, sanitize, and air-dry all parts that come into contact with the mix or product.



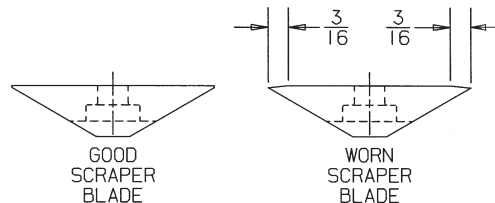
CAUTION

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

2. Clean the cylinder, cylinder inlet tubes and drain tube with the appropriate brushes.
3. When cleaning, inspect all O-rings, seals and hoses. Replace any O-ring, seal or hose that is worn, torn, or loose fitting.
4. Wipe all exterior surfaces of the freezer to remove any splattered mix.
5. Check overrun and temperature of the product.

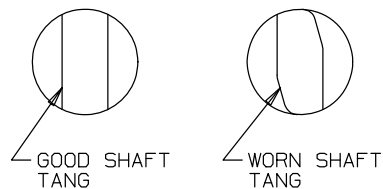
WEEKLY

1. Carefully inspect all parts for wear, including seals, O-rings, mix transfer tubes, and blades.
2. Replace as required.



Replace blades if worn 3/16" or more.

3. Check the shaft tang and drive coupling for wear.



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



11 Routine Maintenance (continued)

AS NEEDED



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. Some freezers have more than one disconnect switch.

1. Clean the Mix Transfer System:

Important:

If the transfer hose is assembled improperly or replacement has been neglected, it may be necessary to clean mix from the MTS due to hose failure.

If this happens frequently the MTS should be removed for complete cleaning.



CAUTION
Make sure the freezer is depressurized before proceeding.

- a. Remove cover, loosen swing clamp and open shoe to gain access to the hose cavity.
- b. Remove mix transfer hose assembly.
- c. Lay a towel on the cabinet base below the MTS.
- d. Using the spray bottle supplied, flush the hose cavity and roller assembly.
- e. Use a brush (supplied) to clean in between rollers. Flush with sanitizer.
- f. Wipe all surfaces with a clean dry cloth.
- g. Remove and clean shoe. See figure 11-1.

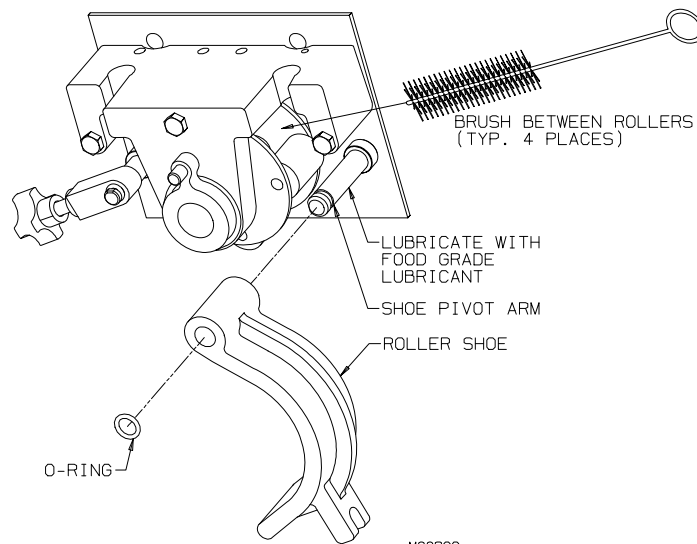


Figure 11-1

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11 Routine Maintenance (continued)

MONTHLY

A. Test Head Switch.

The head switch feature is designed to prevent the beater shaft from being accidentally activated. It is essential that the proper operation of this switch be verified on a routine basis. Use the following instructions to test for proper operation:

1. Be sure all switches are in the "OFF" position.
2. Disconnect the main power supply.
3. Remove the dispense head and beater shaft assemblies.
4. Connect the main power supply.



CAUTION
Moving parts. **DO NOT** place hands in the freezing cylinder. Severe personal injury could result.

5. Turn the selector switch to the "CLEAN" position.
6. Look inside the freezing cylinder toward the rear—the drive shaft coupling should **NOT** be turning. Turn the switch off and disconnect the main power supply.
7. If the drive shaft coupling is turning, or you are unable to determine whether or not the shaft is turning, turn the switch to the "OFF" position, disconnect the main power supply and contact your Electro Freeze distributor for service. **DO NOT** place the freezer in service until the problem has been fixed.

B. Water Condenser.

Check the outlet water temperature of water-cooled condensers at the floor drain. Ideal water temperatures should be about 95°F (35°C) with a 70°F (21.1°C) water inlet temperature.

C. Test MTS Cover Switch.

The MTS cover switch feature is designed to prevent the MTS gear motor from being accidentally activated. It is essential that the proper operation of this switch be verified on a routine basis. Use the following instructions to test for proper operation:



CAUTION
Make sure system is depressurized before proceeding.

Note: Freezer should be cleaned and disassembled for this test.

1. Be sure all switches are in the "OFF" position.
2. Remove the MTS cover to expose the roller assembly.
3. Turn MTS switch to "ON".



CAUTION
DO NOT place hands near the MTS rollers. Severe personal injury could result.

— continued

11 Routine Maintenance (continued)

MONTHLY (continued)

C. MTS Cover Switch (continued)

4. Look at the MTS rollers; they should **NOT** be rotating. If they are rotating, turn "OFF" mix switch and discontinue use until repairs can be made.

5. If there is no movement, slowly install cover and listen for the gear motor to turn on. The cover should be almost completely closed when the gear motor turns on. **DO NOT** insert fingers or objects into roller cavity during this test. If the MTS does not operate as described here, or you are unable to determine if the MTS is operating properly, turn the switches to the "OFF" position, disconnect the main power supply and contact your Electro Freeze Distributor for service. **DO NOT** place the freezer in service until the problem has been corrected.

D. Replace the Mix Transfer Hose

CAUTION

Make sure the freezer is depressurized before proceeding.



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. Some freezers have more than one disconnect switch.



QUARTERLY

A. Air Condenser.

Important:

Never use a screwdriver or sharp object to clean between fins.

Have air-cooled condenser fins cleaned by your Electro Freeze Distributor.

B. Refrigeration System

Have your Electro Freeze Distributor check the refrigeration system and make any necessary adjustments.

Initial 1500 Hours of Operation or 6 Months

1. Contact your local distributor for the gear reducers initial oil change.

11 Routine Maintenance (continued)

SEMI-ANNUALLY

1. Have the condenser fan motor checked by your Electro Freeze Distributor. Add oil as needed.

5000 HOURS OF OPERATION OR 1 YEAR

1. Contact your Electro Freeze distributor to have the oil in the gear reducer changed.

NOTE: Under normal conditions the oil should be changed after 5000 hours of operation or every year, whichever occurs first.

ANNUALLY

CAUTION



To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power source is disconnected. Some freezers have more than one disconnect switch.

1. Call your Electro Freeze Distributor for service to replace drive belts and lubricate fan motor as needed.
2. Call your Electro Freeze Distributor to clean the inside of the freezer including base, side panels, condenser, etc.
3. Call your Electro Freeze Distributor to check water-cooled condensers and flush clean to remove scale and deposits if necessary.



11 Routine Maintenance (continued)

Winter Storage

To protect the unit during seasonal shutdown, it is important to store the soft serve twist freezer properly. Please use the following procedures:

1. Disconnect all power to the freezer.
2. Disassemble and wash all parts that come into contact with the mix with a warm, mild detergent solution. Rinse in clear water and air dry all parts thoroughly.
3. Store the loose parts, such as the head assembly, beater assembly and MTS parts 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. On air-cooled freezers, have condenser fins cleaned by an authorized service technician.

Important

The water valve must be opened in order to blow out the condenser. Failure to purge the freezer of water can result in severe damage to the refrigeration system. Call your Electro Freeze Distributor for service.

7. On water-cooled freezers, disconnect the water supply. Use compressed air to blow out all remaining water in the condenser.

USE ONLY ORIGINAL OR AUTHORIZED REPLACEMENT PARTS WITH THIS FREEZER.

(See your Illustrated Replacement Parts Manual)

Should you have any questions on items that are not included in this maintenance 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 at **(309) 755-4553, (800) 755-4545, E-mail service@hcduke.com or FAX (309) 755-9858.**

12 Troubleshooting Tables

SAFETY



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. Some freezers have more than one disconnect switch.

Important:


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



12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Unit does not operate. 	1. Freezer unplugged.	1. Plug in freezer.
	2. Fuse blown or breaker tripped at main disconnect.	2. Make sure your freezer is connected to a separate circuit independent from any other electrical equipment. Have technician check fuse or breaker size and check for low voltage; if not within 10% of nameplate rating call power company.
	3. Beater motor out on overload.	3. Press overload reset button. Check product temperature. (Note: cabinet will continue to cool.)
	4. Control circuit overload open.	4. Press overload reset button. If freezer still does not operate contact your Electro Freeze Distributor for service.
	5. Off on high pressure cut-out or low pressure cut-out control.	5. Contact your Electro Freeze Distributor for service.
	6. Component failure.	6. Contact your Electro Freeze Distributor for service.
	7. Disconnected or broken wire in electrical circuit.	7. Contact your Electro Freeze Distributor for service.
Mix or water leaking from drain tube to drip tray.	1. Damaged beater shaft seal or installed improperly.	1. Replace cup seal or o-ring inside bushing. Install properly.
	2. Beater shaft pitted or damaged where o-ring rides.	2. Replace beater shaft.
	3. Beater shaft end play not set properly.	3. Contact your Electro Freeze Distributor for service.
Mix leaking at dispensing head.	1. Faulty o-ring.	1. Replace o-ring.
	2. Head not properly installed.	2. Install head properly. Replace o-ring if pinched.


12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Dispensed product too soft. (Product temperature above 19°F [-7.2°C]) 	1. Blades installed upside down.	1. Install properly – flat side to cylinder wall.
	2. Dirty or blocked condenser, restricted air flow.	2. Unblock condenser or have cleaned by your Electro Freeze Distributor.
	3. Component failure.	3. Contact your Electro Freeze Distributor.
	4. Leak in refrigeration system resulting in little or no refrigeration.	4. Contact your Electro Freeze Distributor.
	5. Wrong rotation on beater.	5. Have an electrician correct rotation to clockwise as viewed from the front of the freezer.
Product dispenses slowly out of dispensing head.	1. Product too cold.	1. Check product temperature. Should be 18°F (-7.8°C). See Dispensed Product Too Cold.
	2. Low overrun.	2. Check air meter. If plugged, clean. See MTS Troubleshooting-No Air (Overrun).
	3. MTS problem.	3. See MTS Troubleshooting Charts
	4. Wrong rotation on beater.	4. Have an electrician correct rotation to clockwise as viewed from the front of the freezer.
Dispensed product too hard.	1. Low overrun.	1. Check overrun, if low see MTS Troubleshooting Chart.
	2. Cylinder thermostat erratic or set too cold.	2. Contact your Electro Freeze Distributor for service.
	3. Plunger switch electrically or mechanically stuck closed. (Unit runs all the time.)	3. Contact your Electro Freeze Distributor for service.
	4. Component failure.	4. Contact your Electro Freeze Distributor for service.
	5. Low suction pressure, refrigeration system.	5. Contact your Electro Freeze Distributor for service.
	6. Dispensed speed set to slow.	6. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Freezer runs continually and product continues to get colder.	1. Plunger switch rod engaged.	1. Close plunger completely.
	2. Plunger not seated in head.	2. Push plunger down.
	3. Plunger switch (side or center) out of adjustment or defective.	3. Contact your Electro Freeze Distributor for service.
	4. Faulty thermostat or bulb not deep enough in well.	4. Contact your Electro Freeze Distributor for service.
	5. Starter or relay contact points stuck.	5. Contact your Electro Freeze Distributor for service.
	6. Faulty time delay.	6. Contact your Electro Freeze Distributor for service.
	7. Suction pressure too low.	7. Contact your Electro Freeze Distributor for service.
	8. Mechanical timer stuck or faulty.	8. Contact your Electro Freeze Distributor for service.
Poor or slow product recovery.	1. Worn scraper blade.	1. Replace scraper blade.
	2. Dirty or blocked condenser, restricted air or water flow – high ambient temperature.	2. Have condenser cleaned by your Electro Freeze Distributor; lower ambient temperature.
	3. Thermostat cut-in point out of adjustment or malfunctioning.	3. Contact your Electro Freeze Distributor for service.
	4. Defective condenser fan motor.	4. Contact your Electro Freeze Distributor for service.
	5. Component or compressor failure.	5. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Compressor does not operate or operates improperly.	1. Trouble in compressor condensing circuit.	1. See Troubleshooting Chart- Compressor/Condensing Circuit Section 16.1
	2. Faulty start capacitor, run capacitor or relay. (Single phase only)	2. Contact your Electro Freeze Distributor for service.
	3. Faulty contactor.	3. Contact your Electro Freeze Distributor for service.
	4. Disconnected or broken wire in switch or capacitor relay box.	4. Contact your Electro Freeze Distributor for service.
Compressor runs, but beater motor does not.	1. Head assembly is not installed.	1. Install head assembly.
	2. Magnetic head switch defective.	2. Contact your Electro Freeze Distributor for service.
	3. Loose connection in control circuit.	3. Contact your Electro Freeze Distributor for service.
	4. Open starter coil.	4. Contact your Electro Freeze Distributor for service.
	5. Faulty capacitor assembly. (Single phase only.)	5. Contact your Electro Freeze Distributor for service.
	6. Faulty beater motor.	6. Contact your Electro Freeze Distributor for service.
Compressor and beater motor operates only when dispensing. 	1. Cylinder thermostat setting too warm or thermostat defective.	1. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Compressor and beater motor do not operate when dispensing.	1. Plunger switch(es) defective or out of adjustment.	1. Contact your Electro Freeze Distributor for service.
	2. Component failure.	2. Contact your Electro Freeze Distributor for service.
Cabinet too cold (below 35°F [1.7°C])	1. Cabinet thermostat setting too low.	1. Contact your Electro Freeze Distributor for service.
	2. Defective thermostat.	2. Contact your Electro Freeze Distributor for service.
Cabinet too warm (above 41°F [5°C]).	1. Top of freezer obstructed. (air cooled)	1. Clear top of freezer. Freezer needs at least 18 inches of space on top panel.
	2. Cabinet thermostat defective set too warm or turned off.	2. Contact your Electro Freeze Distributor for service.
	3. Cabinet switch defective.	3. Contact your Electro Freeze Distributor for service.
	4. Door switch defective.	4. Contact your Electro Freeze Distributor for service.
	5. Cabinet refrigeration system problem.	5. Contact your Electro Freeze Distributor for service.

12.1

Compressor/Condensing Circuit Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
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. Ask power company to increase voltage to not less than 10% below dataplate rating or have transformer installed. Have wire checked for inadequate wire size.
	3. Open start capacitor. (Single phase only)	3. Contact your Electro Freeze Distributor for service.
	4. High discharge pressure.	4. See "Discharge pressure too high" this section.
	5. Defective compressor	5. Contact your Electro Freeze Distributor for service.
Compressor starts, but pulls high amps.	1. Low line voltage.	1. Ask power company to increase voltage to not less than 10% below nameplate rating or install transformer.
	2. Improperly wired.	2. Contact your Electro Freeze Distributor for service.
	4. Running capacitor shorted. (Single phase only).	4. Contact your Electro Freeze Distributor for service.
	5. Start capacitor weak. (Single phase only).	5. Contact your Electro Freeze Distributor for service.

12.1 Compressor/Condensing Circuit Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
---------	----------------	--------






Discharge pressure too high.	1. Water hose kinked or pinched. (water cooled models)	1. Move freezer and adjust hose so it is not pinched or kinked.
	2. Water cooled model on glycol system.	2. Check glycol system.
	3. Water turned off or defective water regulating valve. (water cooled models)	3. Turn on water, or contact your Electro Freeze Distributor for service.
	4. Restricted water cooled condenser. (water cooled models)	4. Contact your Electro Freeze Distributor for service.
	5. Dirty air condenser. (air cooled models)	5. Contact your Electro Freeze Distributor for service.
	6. Unit location too warm (air cooled models)	6. Contact your Electro Freeze Distributor for service.
	7. Refrigerant overcharge.	7. Contact your Electro Freeze Distributor for service.
	8. Air in refrigeration system.	8. Contact your Electro Freeze Distributor for service.

Discharge pressure too low.	1. Water regulating valve not working or not adjusted properly. (water cooled model)	1. Contact your Electro Freeze Distributor for service.
	2. Shortage of refrigerant.	2. Contact your Electro Freeze Distributor for service.






Noisy compressor.	1. Tubing rattles.	1. Contact your Electro Freeze Distributor for service.
	2. Spring broken internally.	2. Contact your Electro Freeze Distributor for service.

NOTE: Contact your authorized Electro Freeze Distributor for instructions prior to warranty compressor replacement.

12.2 Mix Transfer System (MTS) Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
Mix leaks out of MTS. 	1. Loose clamps.	1. Tighten clamps, finger tighten only.
	2. Transfer hose worn or split.	Remove cover, clean inside MTS around rollers with spray bottle provided. Install new hose. Do not twist hose.
Mix transfer system (MTS) will not operate. 	1. MTS handle not closed..	1. Close, slide and lock in place.
	2. Hose not installed properly.	2. Check position – reinstall.
	3. Slide switch defective.	3. Contact your Electro Freeze Distributor for service.
	4. MTS relay defective.	4. Contact your Electro Freeze Distributor for service.
	5. Start capacitor defective or motor start switch defective.	5. Contact your Electro Freeze Distributor for service.
	6. Pressure switch defective.	6. Contact your Electro Freeze Distributor for service.
	7. Motor defective or internal overload tripped.	7. Contact your Electro Freeze Distributor for service.
MTS will not shut off. 	1. Worn transfer hose.	1. Replace hose.
	2. Pressure switch stuck in closed position.	2. Contact your Electro Freeze Distributor for service.
	3. MTS relay defective.	3. Contact your Electro Freeze Distributor for service.
MTS cycles on and off without dispensing. 	1. Worn transfer hose.	1. Replace hose.
	2. Leak on pressure side of system.	2. Contact your Electro Freeze Distributor for service.
MTS will not prime. 	1. Insufficient supply of mix.	1. Replenish mix supply.
	2. Swing clamp knob loose.	2. Tighten knob.
	3. Air hose or air meter not installed.	3. Install air hose/air meter.
	4. Hose not installed or worn.	4. Install or replace hose.

12.2 Mix Transfer System (MTS) Troubleshooting Tables (continued)

MTS pickup tube loses prime. 	1. Defective duckbill check valve.	1. Replace check valve.
	2. Inlet clamp not tight.	2. Tighten clamp.
	2. Transfer hose worn.	2. Replace hose.
No air (overrun). 	1. Air meter plugged.	1. Clean or replace air meter.
	2. Air tube pinched.	2. Replace tube.
Too much air, overrun too high – popping problems. 	1. Air meter too large.	1. Install smaller air meter.
	2. Air leak between mix inlet tube and hose.	2. Replace as needed.
	3. Air line hose cracked – sucking air.	3. Replace air line hose.
	4. Defective or missing duckbill valve.	4. Replace valve.
Product dispenses slowly out of dispensing head. 	1. MTS pressure too low.	1. Contact your Electro Freeze Distributor for service.
	2. Product too cold.	2. Check product temperature – should be about 18°F for soft serve and 24-26°F for shake. See "Product too cold..."
	3. Low overrun.	3. Check air meter, if plugged – clean.
Mix shoots out air meter. 	1. Swing Clamp knob loose.	1. Tighten.
	2. Transfer hose worn.	2. Replace hose.
	3. MTS pressure too high.	3. Contact your Electro Freeze Distributor for service.



Keep your freezer in excellent condition — always contact your Electro Freeze Distributor for replacement parts and maintenance scheduling.

**QUALITY PARTS
PROTECT
YOUR
INVESTMENT**

ELECTRO FREEZE®

Replacement Parts Manual with Illustrations

FREEDOM 360°
Series

**Soft Serve Twist Freezer
Model 30T-RMT**

184952-01 - 9/08

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

(800) 755-4545

FAX: (309) 755-9858

E-mail: service@hcduke.com

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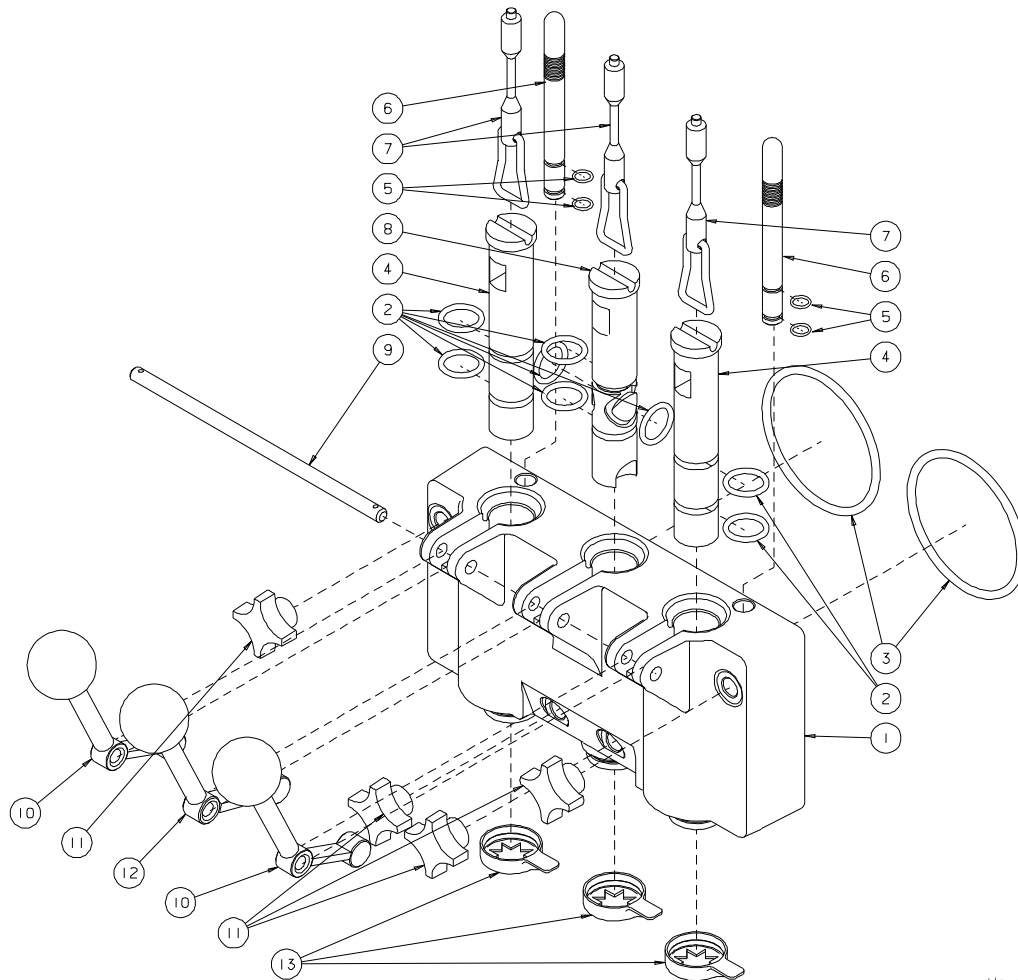
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Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.



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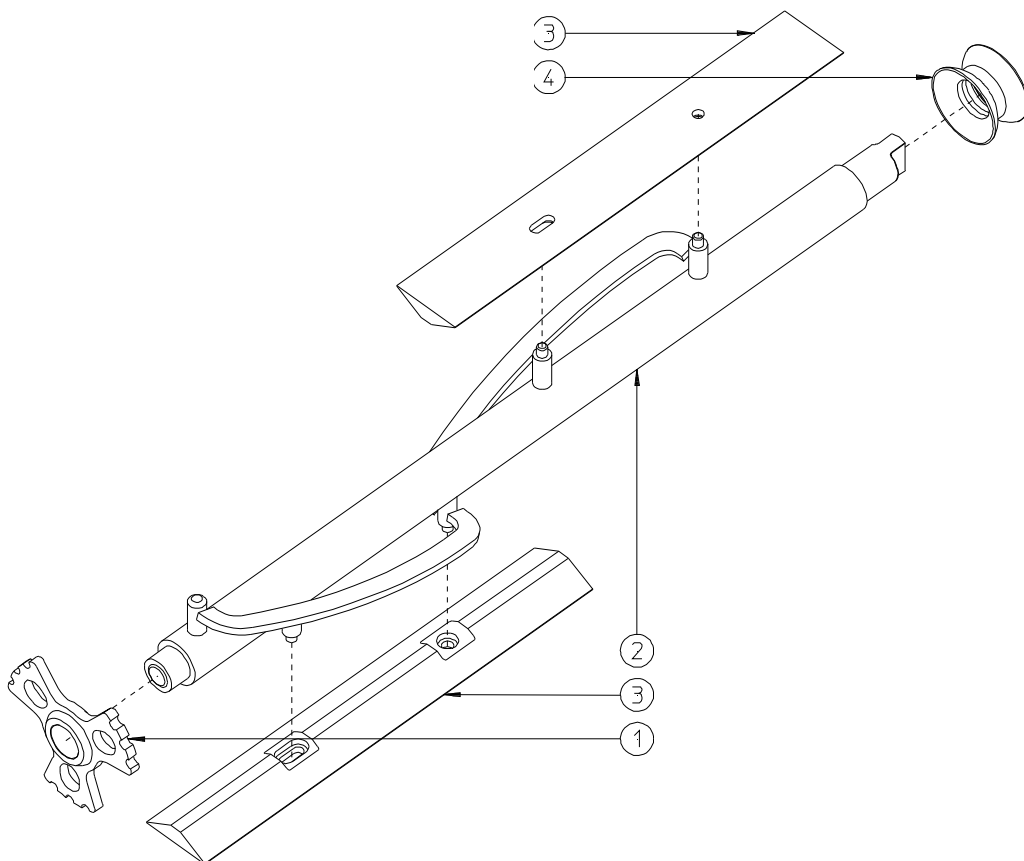
Figure 1 Head Assembly

Item	Part No.	Description
*	HC120013	Head-Assy.Dispense
1	HC120012	Head-Assy. w/actuators
2	HC160501	O-Ring (Plunger)
3	HC160583	O-Ring (Head)
4	HC137174	Plunger-Side Self Dispense
5	HC160610	O-Ring (Air Plug)
6	HC138149	Plug-Air Bleed
7	HC116089	Push Rod-Assy. Plunger Switch
8	HC138009	Plunger-Dispense Center
9	HC160269	Pin-Handl
10	HC110007	Handle-Assy. Dispense (Side) includes HC162629 Knob-Ball 3/8-16 THD Black
11	HC162625	Knob-Hand
12	HC114808	Handle-Assy. Dispense Center includes HC162629 Knob-Ball 3/8-16 THD Black
13	HC196185	Nozzle-Serrated

* Includes all items above except #3, 7 and 11.

HC114341-05 Stud-Assy. Cylinder 3-15/16 (not shown)
 HC116410 Kit-Dispense Head Switch (not shown)

**Use only original or authorized replacement parts with this freezer.
 Use of unapproved parts will void warranty.**



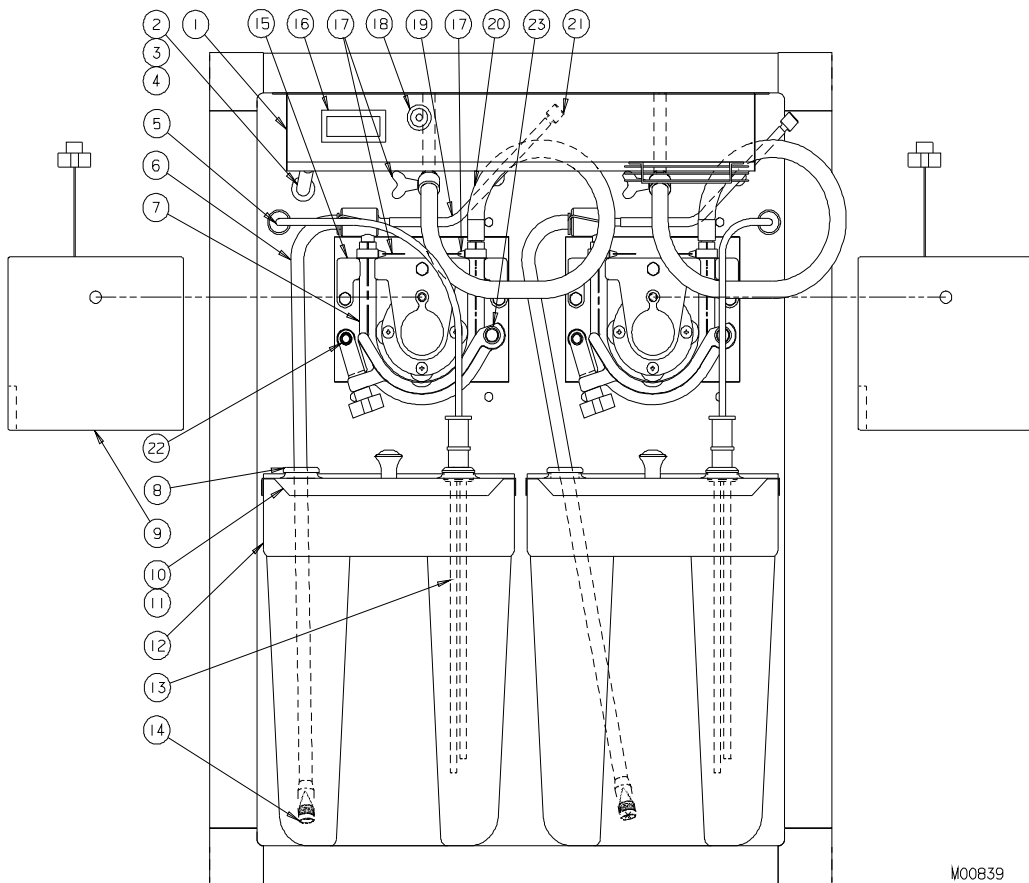
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Figure 2 Beater Shaft Assembly

Item	Part No.	Description
1	HC196085	Bushing-Cylinder
2	HC113438	Shaft-Assy. Beater
3	HC137334	Blade-Scraper Soft Serve
4	HC160567	Seal-Shaft (1 piece)
or	HC111875	Shaft-Assy. Seal (3 piece) (alternate)
	HC160500	O-ring (Seal)
	HC133098	Washer-Shaft Seal
	HC160557	Seal-Beater Shaft

Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.

AIR METERS	
Meter No.	Part No.
9	163423
10	163424
11	163425
12	163426
13	163421
13.5	163421-05
14	163427
14.5	163427-05
15	163428
15.5	163428-05
16	163429
16.5	163429-05
17	163430
17.5	163430-05
18	163431
18.5	163431-05
19	163432
19.5	163432-05
20	163433
20.5	163433-05
21	163434
21.5	163434-05
22	163435
22.5	163435-05
23	163436
24	163437
25	163438
26	163439
28	163440
30	163441
31	163442



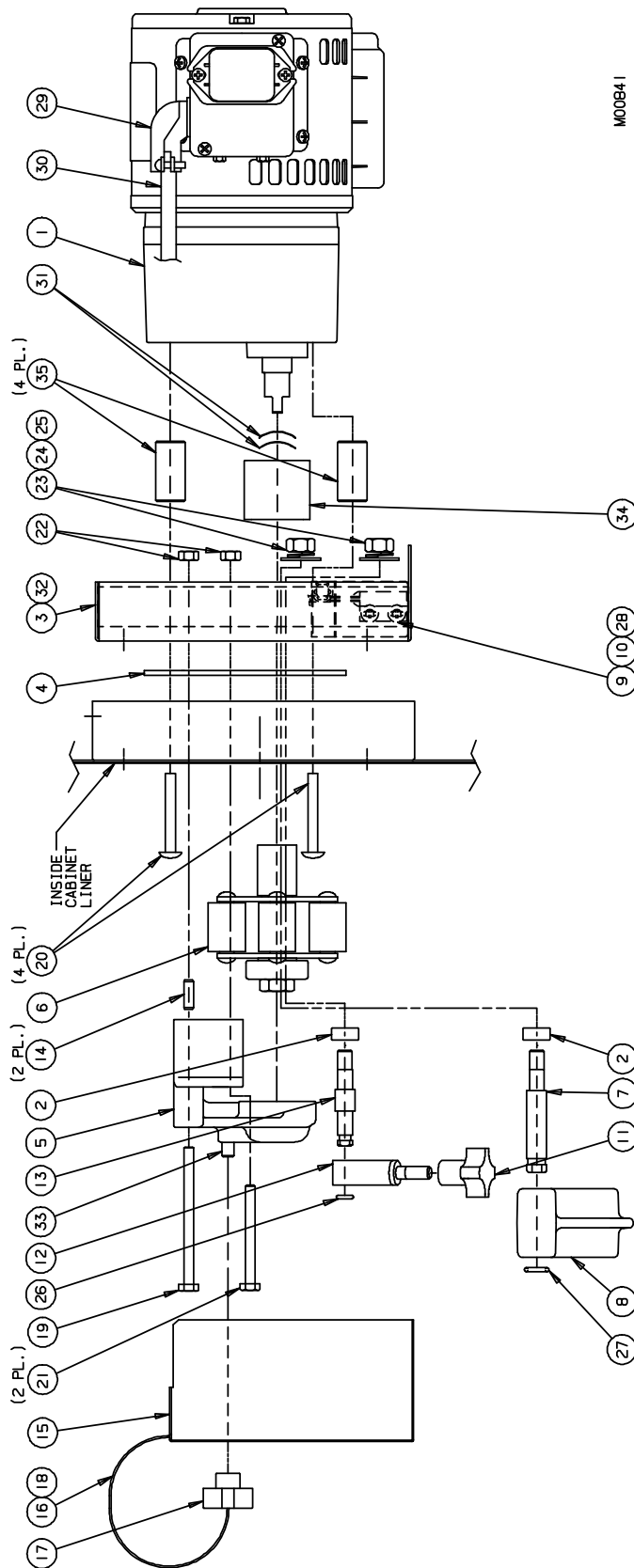
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Figure 3 Cabinet Parts

Item	Part No.	Description	Item	Part No.	Description
1	.....HC117129-01	Shroud-Assy. Evaporator includes HC150532 ... Cord-Assy. Male Plug HC151105 ... Fan-Intake (Cabinet) HC151076 ... Guard-Fan Open HC150509 ... Switch-Door Push Button HC161004 ... Thermometer-Barrel	10	..... HC117553	..... Cover-Assy. Front Mix Tank
1A	..... HC155111	Coil-Evaporator	11	..... HC140446	..... Cover-Rear Mix
1B	..... HC150533	Cord-Assy. Female Plug	12	..... HC196100	..... Tank-Mix 6 Gallon
2	..... HC160738	Clamp-Hose Drain	13	..... HC115397	..... Probe-Assy. Mix Level 10-3/4" includes HC137120 Base- Probe Mtg.
3	..... HC196068	Tubing-3/8 ID x 1/2 OD	14	..... HC199032-01	.. Duckbill-Inlet RM MTS
4	..... HC138919	Tube-Drain Support	15	..... HC118751	..... MT-Assy CAB Redline (See Explode View-Fig. 5)
5	..... HC150537	Cordset-Mix Level Probe	16	..... HC161004	..... Thermometer-Barrel
5A	..... HC150536	Receptacle-Molded Level Sensor	17	..... HC116065	..... Clamp-Assy. Soft Hose 5/8
6	..... HC118842	Tube-Assy. Pickup includes HC118765 ... Port-Assy. Inlet Mix/Air HC118836 ... Tube-Assy. Mix Inlet HC162324 ... Clip-Tube Retainer HC160502 ... O-ring	18	..... HC150509	..... Switch-Door Push Button
7	..... HC138836	Hose-Transfer Red Line	18A	..... HC118597	..... Actuator-Assy. Door Switch
8	..... HC199033	Boot-Mix Tube	19	..... HC138170-02	.. Tube-Air 7-1/2 in.
9	..... HC119023	Cover-Assy. RMT CAB (See Fig. 4)	20	..... HC116094	..... Hose-Assy. Mix Braided
			21	.....	..... Meter-Air (Order by meter number)
			22	..... HC160628	..... O-ring (Swing Clamp)
			23	..... HC160612	..... O-ring (Roller Shoe)

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Figure 4 Mix Transfer System — RMT (sheet 1 of 2)



**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Figure 4 Mix Transfer System — RMT (sheet 2 of 2)

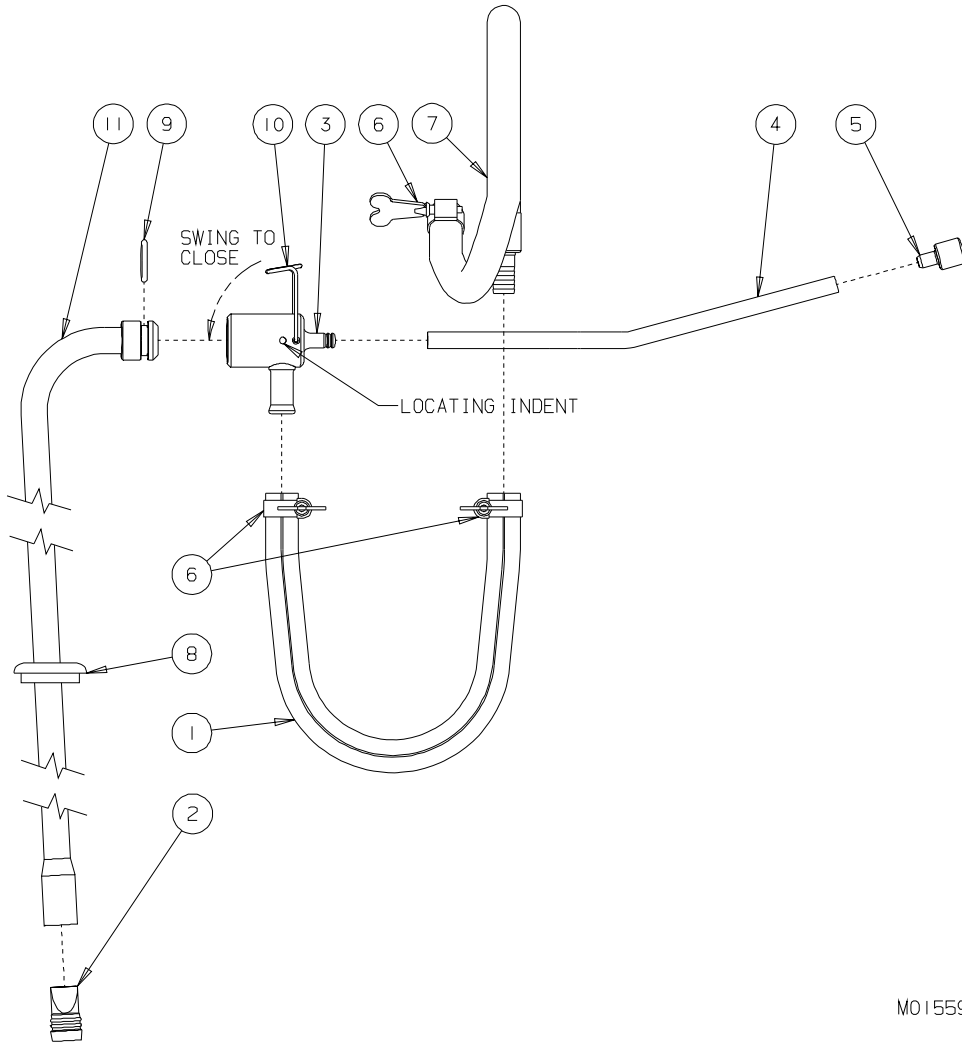
Item	Part No.	Description
*	HC118751	MT-Assy. CAB Red Line
1	HC119918	Kit-Gearmotor Replacement Model RMT includes HC150512 Capacitor-Start w/Bleed HC139046-01 Gauge Shaft Alignment RMT HC162513 Sealant-Alum Silastic
1A	HC150893	Switch-Start Solid State (Relay)
1B	HC160173	Washer-Spring Wave SST
1C	HC151408	Protector-Auto Reset Motor
2	HC138800	Spacer-Swing Arm
3	HC118764	Faceplate-Assy. MTS
4	HC139746	Plate-Backup MTS
5	HC138783-01	Support-Roller Bearing
6	HC116009-01	Kit-Roller (Complete)
7	HC138797	Arm-Shoe Pivot
8	HC139751	Shoe-Roller
9	HC118763	Bracket-Assy. Switch Mtg.
10	HC118894	Kit-Cover Switch RMT Freezer includes HC160357 Screw-RDHM #4-40 x 1/4 STL HC160393 Washer-Flat #6 Brass
11	HC162622	Knob-Hand
12	HC138798	Clamp-Shoe Swing
13	HC138799	Arm-Swing Clamp
14	HC160338	Pin-Dowel 1/4 DIA x 3/4 SST
15	HC119023	Cover-Assy. RMT CAB includes HC165246 Decal-Warning Pressurized HC138889 Knob-Cover RMT HC138890 Lanyard-Wire HC160508 Sleeve-Cable Stop 3/64
16	HC138890	Lanyard-Wire
17	HC138889	Knob-Cover RMT
18	HC160508	Sleeve-Cable Stop 3/64
19	HC160465	Screw-HXHC 1/4-20 x 3-1/2 SST
20	HC160093	Screw-TRPS 1/4-28 x 2-1/4 SST
21	HC160464	Screw-HXHC 1/4-20 x 2-1/2 SST
22	HC159933	Nut-HXSF 1/4-20 SST
23	HC160169	Washer-Flat 3/8 SST
24	HC159927	Nut-HEX 3/8-16 SST
25	HC160170	Washer-Lock 3/8 SST
26	HC160628	O-ring (Swing Clamp)
27	HC160612	O-ring (Roller Shoe)
28	HC159939	Screw-HXSF 1/4-20 x 11/16 SST
29	HC150705	Connector-3/8 x 90°
30	HC118833	Cord-Assy. Motor
31	HC160173	Washer-Spring Wave SST
32	HC165524	Block-Insulation RMT
33	HC160386	Stud-5/16-18 x 3/4 SST
34	HC139756	Shield-Drip
35	HC138793	Spacer-Motor

Not Shown:

HC165246 Decal-Warning Pressurized
HC165048 Decal-Warning Rotating Parts

* Includes all items above.

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**



MO1559

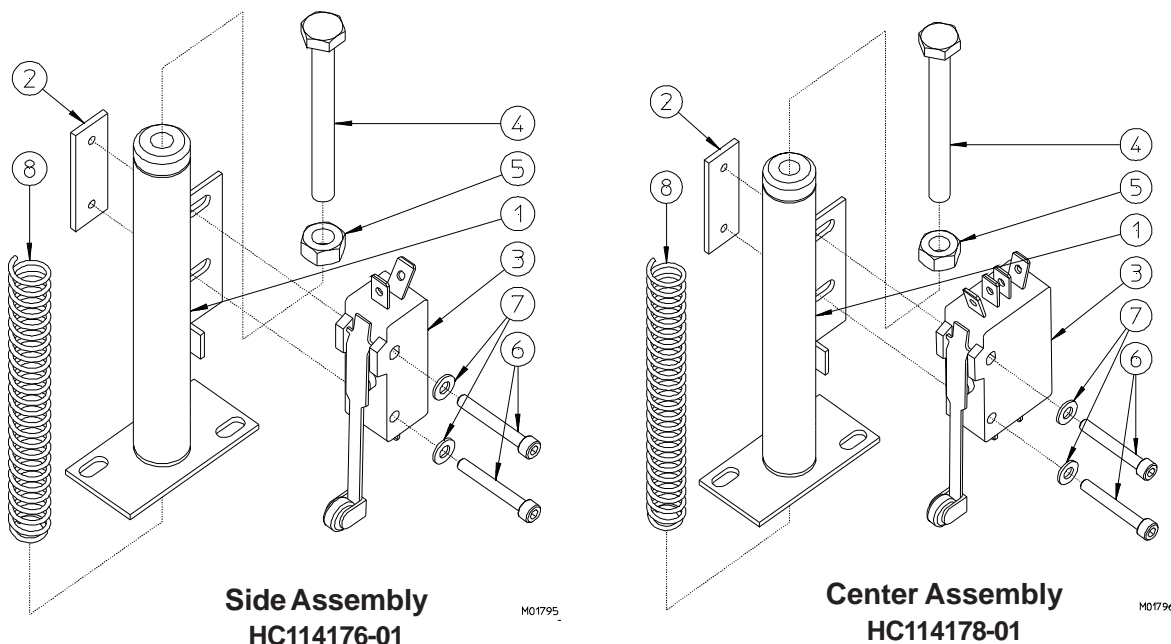
Figure 5 MTS—RMT Hose Assembly

Item	Part No.	Description
1	HC138836	Hose-Transfer Red Line
2	HC199032-01	Duckbill-Inlet RM MTS (Valve)
3	HC118765*	Port-Assy. Inlet Mix/Air
4	HC138170-02	Tube-Air 7-1/2 in.(Hose)
5		Meter-Air (Order by meter number)
6	HC116065	Clamp-Assy. Soft Hose 5/8
7	HC116094	Hose-Assy. Mix Braided
8	HC199033	Boot-Mix Tube (Seal)
9	HC160502*	O-ring
10	HC162324*	Clip-Tube Retainer
11	HC118836*	Tube-Assy. Mix Inlet

* Can be ordered as an assembly:
 HC118842 Tube-Assy. Pickup

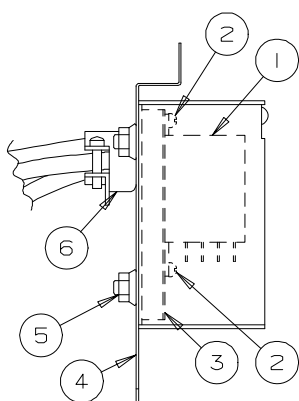
**Use only original or authorized replacement parts with this freezer.
 Use of unapproved parts will void warranty.**

Figure 6 Switch Assemblies



Item	Part No.	Description
1	HC114174	Guide-Assy. Push Rod
2	HC140701	Plate-Switch
3	HC150477	Switch-Roller Actuator SPDT (Sides)
3	HC150478	Switch-Roller Actuator DPDT (Center)
4	HC159965	Screw-HXHM 1/4-20 x 2-1/2" ZN
5	HC160104	Nut-HEX 1/4-20 ZN
6	HC160381	Screw-SKHC #6-32x 1 BKOX
7	HC160393	Washer-Flat #6 Brass
8	HC162323	Spring-Compression MW ZN

Figure 7 Relay Box — MTS

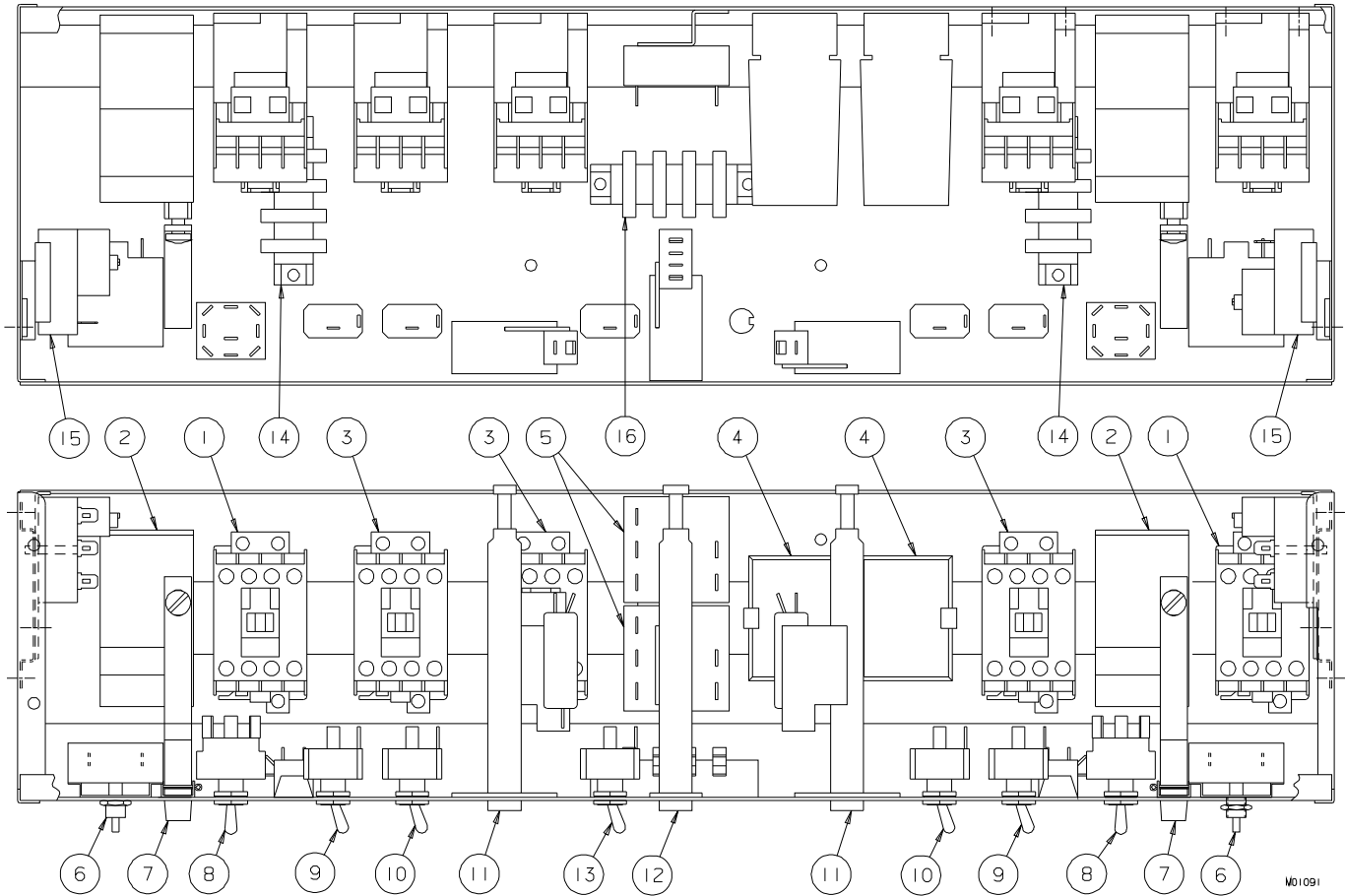


Item	Part No.	Description
*	HC119208	Box-Assy.Relay
1	HC150381	Relay-Flange Base w/Cover
2	HC160308	Screw-RDHM #6-32 x 5/16 ZN
2A	HC160116	Nut-Speed #6-32 BKOX
3	HC138159	Bracket-Flange Relay Mtg.
4	HC139805	Support-MTS
5	HC159950	Screw-HXSF 1/4-20 x 1/2 ZN
5A	HC159951	Nut-HXSF 1/4-20 ZN
6	HC150828	Connector-1/2

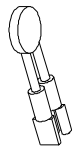
* Includes items 1 through 6 plus box.

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

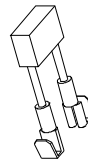
Figure 8 Switch Box— sheet 1 of 2



Detailed Drawings
of
Filter and MOV Assemblies



Item #14A
MOV-Assy.
116188



Item #8A
Filter-Assy.
116125

Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.

Figure 8 Switch Box— sheet 2 of 2

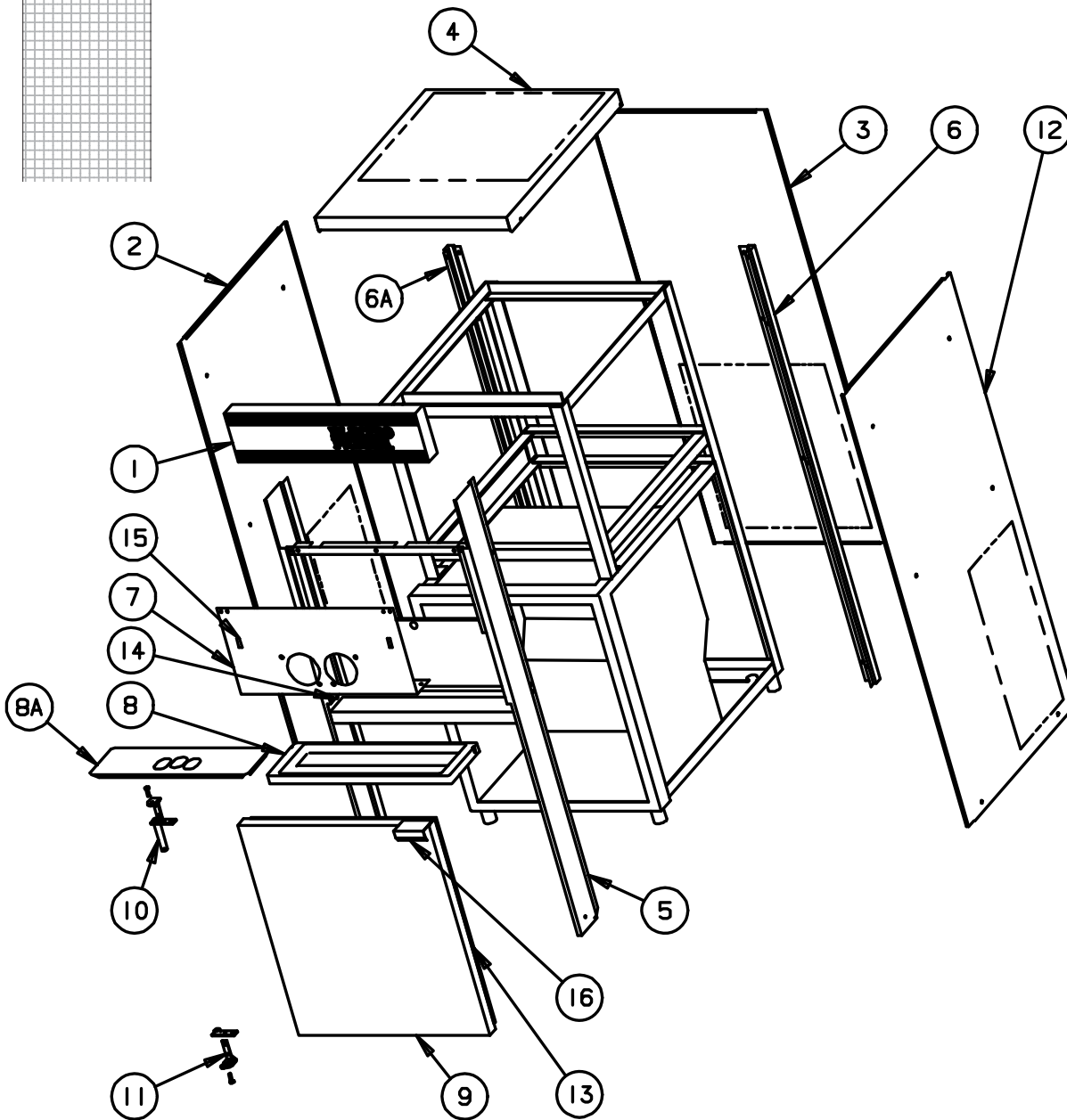
Item	Part No.	Description
1	HC150155	Contactora-IEC 23A 208-230V C (Beater Motor)
1A	HC150156	Coil-A/B 208-230V (Coil only) (not shown)
2	HC120361	Relay-Assy. Overload T1 7.2-10A (1 phase)
	HC150063	Adaptor-Overload Din Rail T1
	HC150064	Adaptor-Reset Threaded T1
	HC150061	Relay-Overload T1 7.2-10A
or	HC120360	Relay-Assy. Overload T15.5-7.5A (3 phase)
	HC150063	Adaptor-Overload Din Rail T1
	HC150064	Adaptor-Reset Threaded T1
	HC150060	Relay-Overload T1 5.5-7.5A
3	HC150155	Contactora-IEC 23A 208-230V C (Compressor & Fan)
3A	HC150156	Coil-A/B 208-230V (Coil only) (not shown)
4	HC150202	Indicator-Mix Level
4A	HC150540	Light-Indicator (not shown)
4B	HC150119	Socket-Octal
4C	HC150120	Clip-Retainer
5	HC150208	Timer-12 Sec. Delay on Break
6	HC150218	Timer-5 Minute
6A	HC162604	Knob-Timer
7	HC120362	Lever-Assy. Reset
	HC159036	Button-Reset
8	HC150465	Switch-Toggle 3PDT Center OFF (Selector)
8A	HC116125	Filter-Assy. (L.H.) (See detailed drawing)
9	HC159235	Switch-Toggle SPST (DAY/NIGHT)
10	HC159235	Switch-Toggle SPST (Mix Transfer System)
11	HC114176-01	Switch-Assy. Self Closing Plunger (Sides)(See Figure 6)
	HC150477	Switch-Roller Actuator SPDT
	HC162323	Spring-Compression
12	HC114178-01	Switch-Assy. Self Closing Plunger (Center) (See Figure 6)
	HC150478	Switch-Roller Actuator DPDT
	HC162323	Spring-Compression
13	HC159235	Switch-Toggle SPST (Cabinet)
14	HC150795	Strip-Terminal
14A	HC116188	M.O.V.-Assy (See detailed drawing)
15	HC150252-01	Timer-.5-45 Delay on Break 230
15A	HC150253	Module-Plug on Variable Time
16	HC150795	Strip-Terminal

L.H. = Left hand side of freezer when facing front.

R.H. = Right hand side of freezer when facing front.

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Figure 9 Panel Assembly (sheet 1 of 2)



Hardware for Panels				
Panel	Screw	Nut-Speed	Spacer	Nut-Speed on Frame
Channel-Rear	HC160048	HC160117	n/a	n/a
Dispense	HC160076	HC159132	HC138456	n/a
Front	HC160076	HC159132	n/a	HC159067
Rear	HC160048	HC160114	HC138456	n/a
Side	HC159219	HC160114	HC138456	n/a
Top	HC160305	n/a	n/a	n/a
Trimstrip	HC160076	n/a	n/a	n/a
n/a – Not Applicable				

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**



Figure 9 Panel Assembly (sheet 2 of 2)

Item	Part No.	Description
1	HC115292-03	Trimstrip-Assy. EF Decal 26 inch includes HC165188-01 Decal-Trimstrip EF Logo 26" HC165191 Decal-Freedom 360°
2	HC136289	Panel-Side L.H.
3	HC136313	Panel-Rear (Air Cooled and Water Cooled)
	HC138982	Panel-Upper Rear (Air Cooled Remote)
	HC138983	Panel-Lower Rear (Air Cooled Remote)
4	HC116567	Panel-Assy. Top (Air Cooled)
	HC114157	Panel-Assy. Top (Water Cooled and Air Cooled Remote)
5	HC113985	Panel-Assy. Front includes HC159175 Catch-Bullet (Button-Drip Tray) HC160289 Nut-Push Round
6	HC130021	Channel-Rear R.H. (Corner)
6A	HC135254	Channel-Rear L.H. (Corner)
7	HC137297	Panel-Dispense
8	HC196108	Tray-Drip 26" Black
8A	HC115132	Insert-Assy. Drip Tray 26" includes HC137282 Insert-Drip Tray HC199030 Bumper-Rubber
9	HC114260	Door-Assy. includes HC160563 Gasket-Magnetic Door (V-Groove) HC136199 Pull-Door (Handle-CAB)
9A	HC118597	Actuator-Assy. Door Switch
10	HC162045	Hinge-Pivot 1-3/8 Top L.H. includes HC162052 Spring-L.H.
11	HC162046	Hinge-Pivot 1-3/8 Bottom L.H.
12	HC136216	Panel-Side-R.H.
13	HC160563	Gasket-Magnetic Door
14	HC159175	Catch-Bullet (Button-Drip Tray)
14A	HC160289	Nut-Push Round
15	HC150540	Light-Indicator 230v ADD MIX
15A	HC159401	Clip-Retainer Indicator Light
16	HC136199	Pull-Door (Handle-CAB)

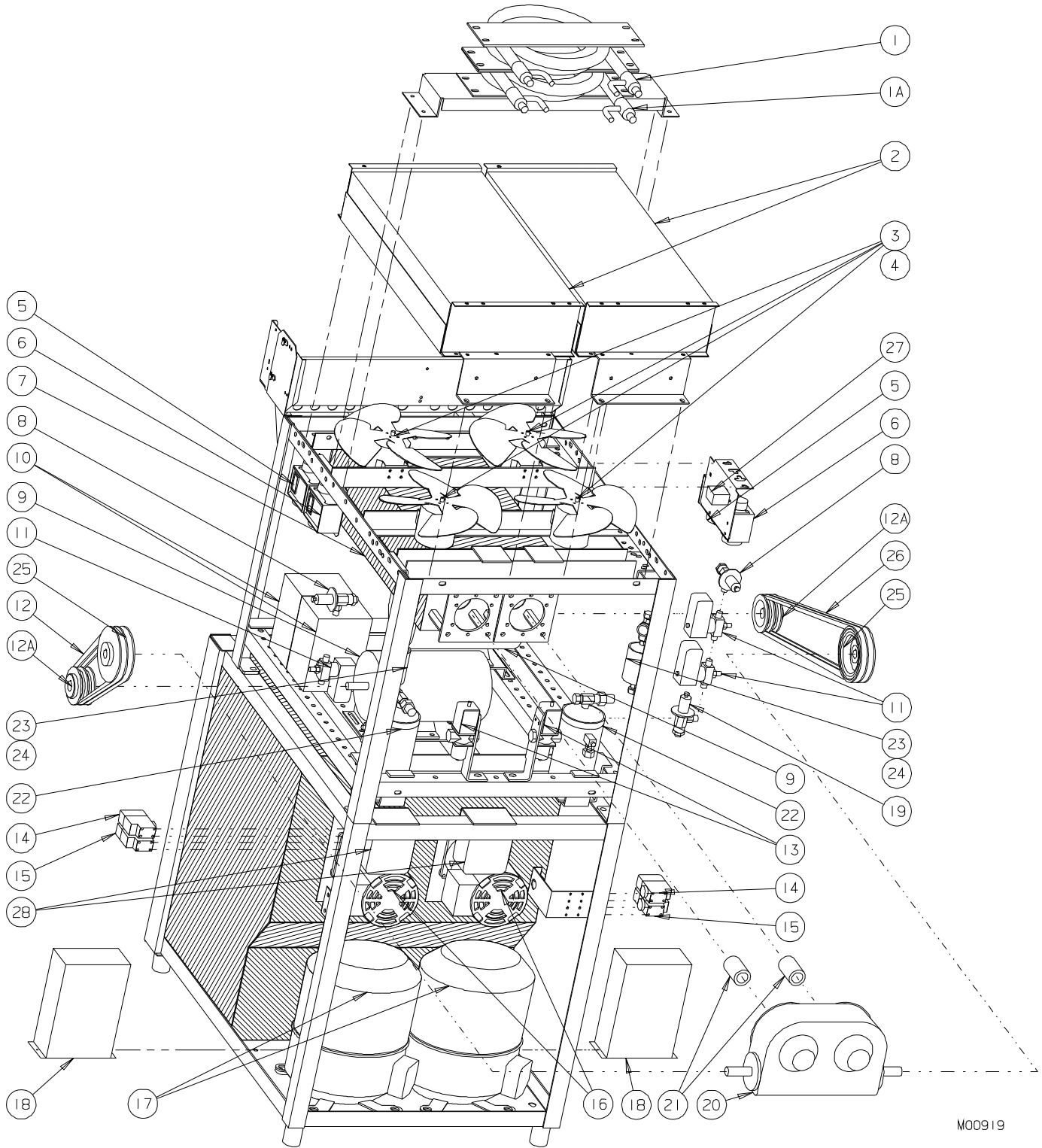
L.H. = Left hand side of freezer when facing front.

R.H. = Right hand side of freezer when facing front.

Panel Decals & Labels	
Part No.	Description
HC165119	6" Air Flow
HC165025	Beater Warning
HC164031	Blade Installation
HC164113	Cleaning Instructions
HC165093	Clear Overlay
HC165013	CMT Patent
HC165191	Freedom 360° Trimstrip
HC164110	MTS Connect Red Line
HC164004-01	Operating Instructions
HC165126	Panel Removal
HC165124	Top Air Discharge
HC165188-01	Trimstrip EF Logo 26"
HC164020	Trimstrip LH
HC164021	Trimstrip RH
HC165246	Warning - Pressurized

Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.

Figure 10 Back/Side View (sheet 1 of 2)



M00919



Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.



Figure 10 Back /Side View (sheet 2 of 2)

Item	Part No.	Description	Item	Part No.	Description
1	HC155029	Condenser-Water (WC)	14	n/a	HPCO see Kits in Not Shown
1A	HC139877	Bracket-Condensor Mtg. (W/C)	15	n/a	LPCO see Kits in Not Shown
2	HC155120	Condenser-Air (AC)	16	HC119918	Kit-Gearmotor Replacement Model RMT (Mix Transfer)
2A	HC116564	Bracket-Assy. Rear (AC)*	17	HC118433	Compressor-Assy. 208-230/3/60 (3 phase) includes compressor and HC155054 Drier-Filter HC155419 Valve-Access
2B	HC116565	Bracket-Assy. Front (AC)*	or	HC119540	Compressor-Assy. 208-230/1/60 (1 phase) includes compressor and HC151463 Capacitor-Run HC151436 Capacitor-Start HC155054 Drier-Filter HC151462 Relay-Start HC155419 Valve-Access
2C	HC113989	Hangar-Assy. Air Condenser*	18	-----	Box-Capacitors (Compressor)
3	HC159023	Blade-Fan 11" 36° (AC)	19	HC155449	Valve-Automatic Expansion (Cabinet)
4	HC151077-01	Motor-Fan 50w 230v (AC)	19A	HC165531	Insulator-Expansion Valve*
5	HC119989	Kit-Thermostat & Retainer (Day)	20	HC153341	Reducer-Gear (See Figure 11)
6	HC119989	Kit-Thermostat & Retainer (Night)	21	HC111964	Coupling-Assy. 1 Inch Drive
7	HC118689	Cylinder-Assy. Complete	22	HC155071	Receiver-3 lb. 3/8 ID Sweat w/o Valve (AC & WC)
7A	HC118712	Kit-Pressure Switch 30 psi*	or	HC155058	Receiver-12 lb. Horizontal Mount (ACR)*
7B	HC116105	Nut-Assy. Pressure Switch*	23	HC155054	Drier-Filter
7C	HC116410	Kit-Dispense Head Switch*	24	HC155059	Glass-Sight
7D	HC115004-01	Tube-Assy. Drain 20-1/4*	25	HC153625	Sheave-3/4 Bore 4.75 OD (Driven) includes HC160495 Screw-Sk Set
8	HC155490	Valve-Automatic Expansion (Cyl)	25A	HC153322	Key-Drive 3/16 sq x 1-1/2*
8A	HC165531	Insulator-Expansion Valve*	26	HC153171	Belt-V (L.H.)
9	HC151066	Motor-2 HP (Leeson) (3ph)	27	HC118813	Kit-Cabinet Thermostat
or	HC151043	Motor-2HP (Emerson) (3ph)	28	HC119208	Box-Assy. MTS Relay (See Figure 7)
or	HC119816	Kit-Motor & Capacitors 2HP (1 ph) includes Blufon motor and capacitors HC150244 Capacitor-Run HC150294 Capacitor-Start	Not Shown:		
or	HC120073	Kit-Motor & Capcitors 2HP (1ph) includes Emerson motor and capacitors HC150318 Capacitor-Run HC119912 Capacitor-Start	HC117133	.....	Pan-Assy. Condensate
10	-----	Box-Motor Capacitors See Item 9 - 1 Phase Motors	HC161216	.....	Sensor-10K Thermistor
11	HC155421	Valve-Solenoid 3/8 OD 208-240V	HC155419	.....	Valve-Access
12	HC153161	Belt-V (R.H.)	HC155574	.....	Cap-Access Valve
12A	HC153626	Sheave-7/8 Bore 3.25 OD (Driver) HC160495 Screw-Sk Set	HC120494	.....	Kit-HPCO 155450 Field (AC & ACR)
12B	HC153322	Key-Drive 3/16 sq x 1-1/2*	HC120495	.....	Kit-HPCO 155702 Field (WC)
13	HC112080	Valve-Assy Water includes HC132972 Bra cket HC155410 Valve-Water	HC120496	.....	Kit-LPCO 155701 Field (AC & WC)
13A	HC155444	Kit-Water Valve Repair*	HC120498	.....	Kit-LPCO 155705 Field (ACR)

* Not Shown

** Order by freezer serial number.

AC = Air Cooled
WC = Water Cooled

R.H. = Right hand side of the freezer as you face the front.

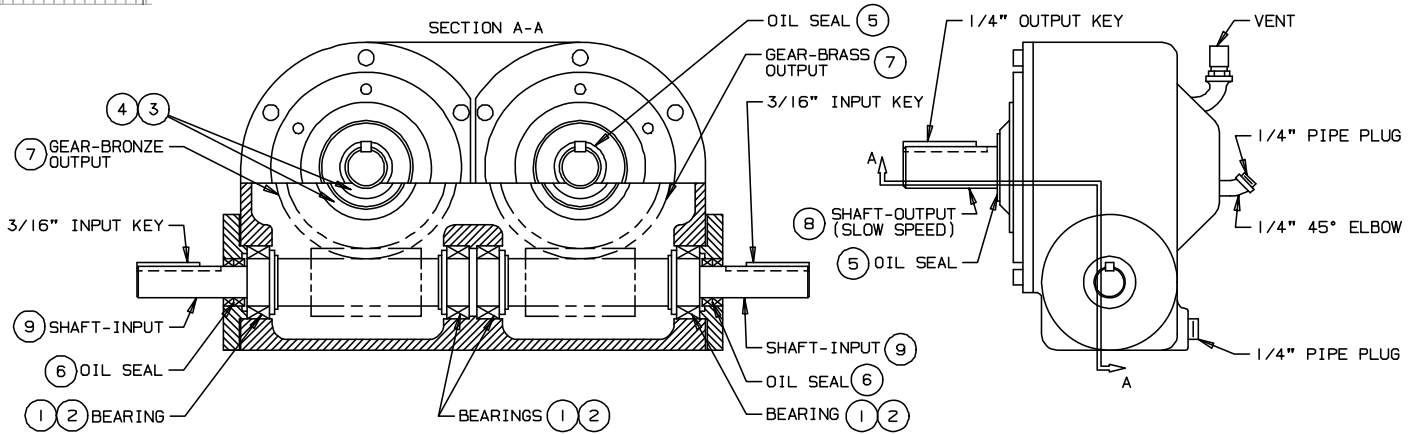
L.H. = Left hand side of the freezer as you face the front.

n/a = Not applicable for this freezer.



**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Figure 11 Gear Reducer



M00057

(Order by freezer serial number)
Model — Wintwin

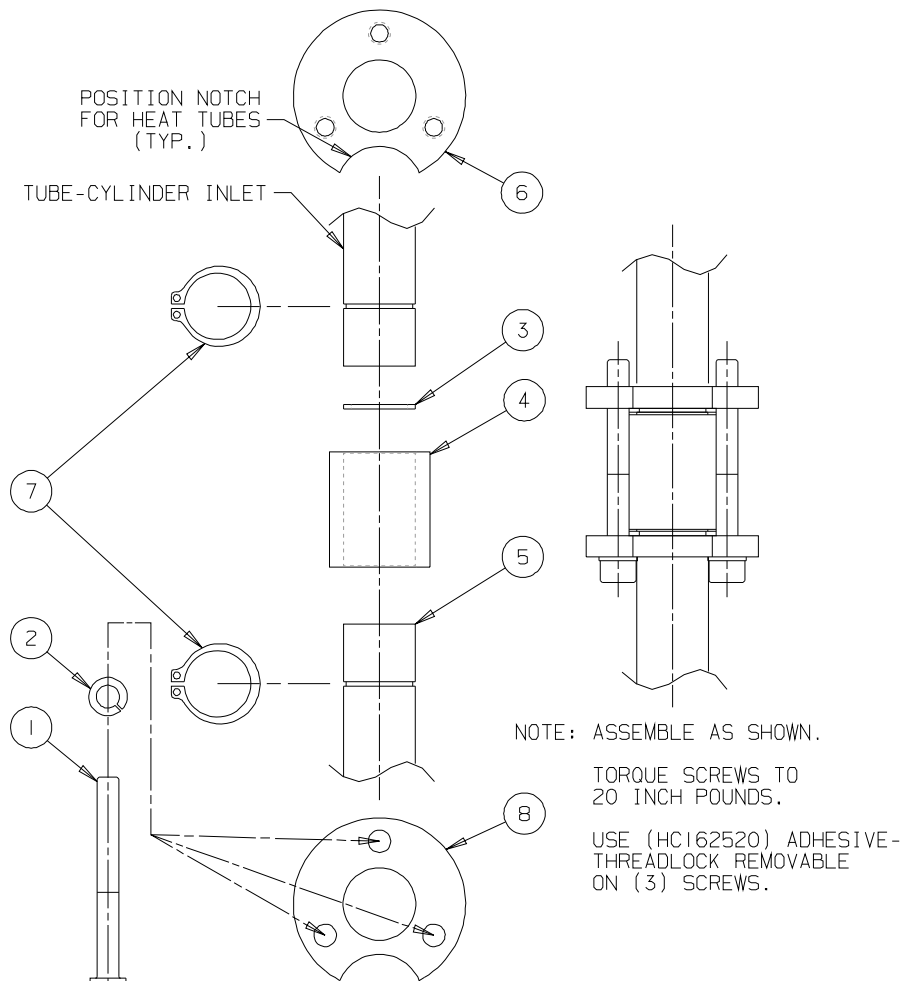
HC153341 Wintwin 10 - 1 Ratio A and B Side

Item	Part No.	Description	Required Per Side
1	HC153014	Bearing-High Speed Cup	2 ea.
2	HC153015	Bearing-High Speed Cone	2 ea.
3	HC153011	Bearing-Slow Speed Cup	2 ea.
4	HC153012	Bearing-Slow Speed Cone	2 ea.
5	HC153051	Seal-Oil (Slow Speed)	2 ea.
6	HC153053	Seal-Oil (High Speed)	2 ea.
7	HC153349	Gear-Bronze	1 ea.
8	HC153350	Shaft-Slow Speed	1 ea.
	HC153000	Gear-Assy. Output (Slow Speed)	
9	HC153348	Shaft-Input (High Speed)	1 ea.
10	HC114874	Kit-Reducer Gasket 4CB	1 ea.
11	HC111964	Coupling-Assy. 1 inch Drive	
**Oil-Gear Reducer (per quart)			
	HC153322	Key-Drive 3/16" High (in)	
	HC153323	Key-Drive 1/4" Slow (out)	

****Note:** To order oil always verify type of oil from the tag located on the gear reducer. Improper oil usage will cause the gear reducer to fail.

Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.

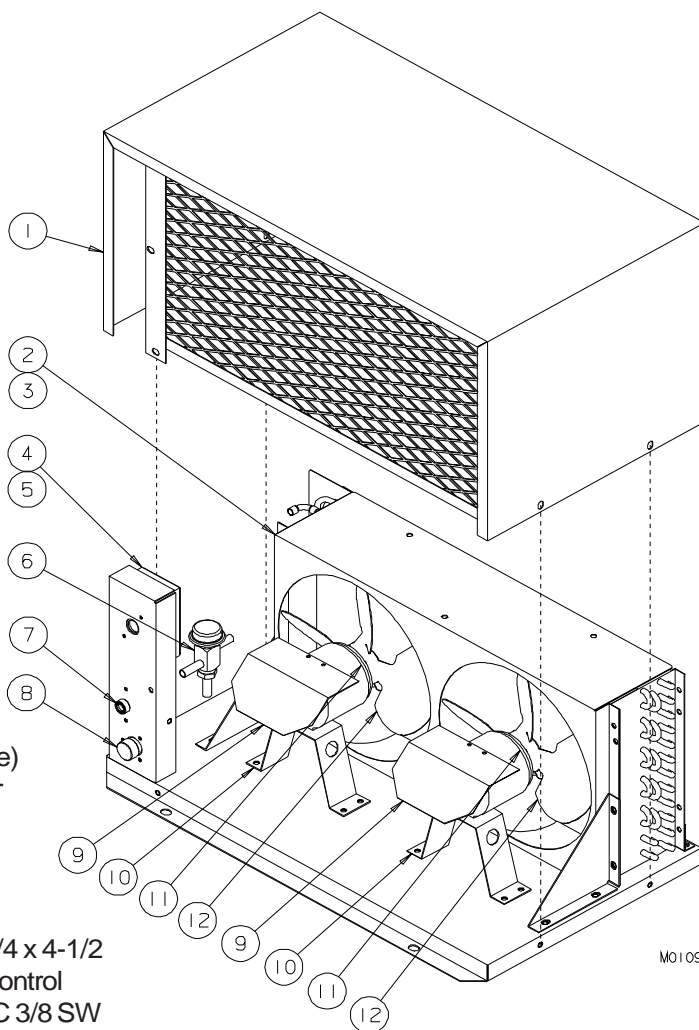
Figure 12 Mix Feed Seal Assembly



Item	Part No.	Description
1	HC160320	Screw-SKHC #10-24 x 1-3/4 SST
2	HC160166	Washer-Lock #10 ST
3	HC160556	Gasket-Mix Joint
4	HC139351	Collar-Alignment
5	HC139349	Tube-Mix Feed Clamp
6	HC139352	Clamp-Ring Threaded
7	HC160312	Ring-Retaining 5/8 Ext. SST
8	HC139353	Clamp-Ring

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Figure 13 Air Cooled Remote Condenser



Item	Part No.	Description
*	HC116781-02	Condenser-Assy. 2 Hp Remote (Complete)
1	HC117207	Cover-Assy. Condenser
2	HC155101	Condenser-Air Rifled
3	HC138465	Shroud-Fan
4	HC150732	Box-Electric 2-3/4 x 4-1/2 x 2
5	HC150737	Cover-Electric Box 2-3/4 x 4-1/2
6	HC155454	Valve-Head Pressure Control
7	HC153420	Coupling-Refr. 3/8 MQC 3/8 SW
7A	HC140039	Plate-Coupling Mtg.
8	HC153418	Coupling-Refr. 1/2MQC 1/2 SW
8A	HC153502	Flange-Refr. Coupling Mount
8B	HC153503	Cap-Dust Refr. Coupling
9	HC139017	Shield-Motor Rain
10	HC137632	Bracket-Fan Condenser
11	HC151072	Motor-Fan 50W 230V 60Hz R/M
12	HC159029	Blade-Fan 11" Dia 36°

* Includes all items above.

Not Shown:

- HC164461 Decal-Connect A/B Side Freezer
- HC155058 Receiver-12 lb. Horizontal Mount
- HC120494 Kit-HPCO 155450 Field
- HC120498 Kit-LPCO 155705 Filed
- HC155466 Control-Pressure Fan
- HC119124 Kit-25 Foot Line Sets 404a
- HC119125 Kit-50 Foot Line Sets 404a

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

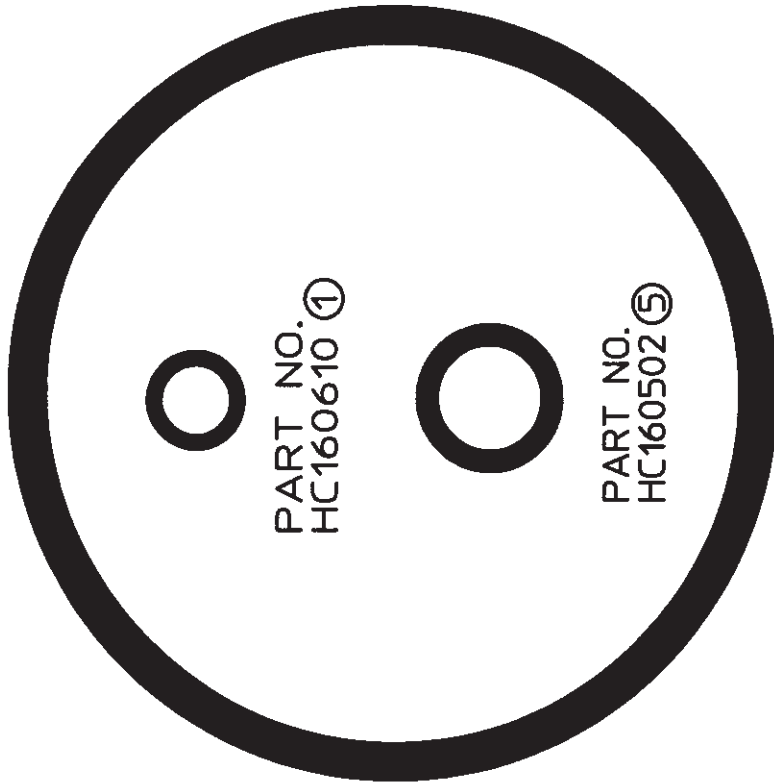
Accessories

Part No.	Description
HC196103	Bottle-Wash 500ML (Plunger and MTS)
HC158037	Brush-1/4"Dia x 18-1/2 Overall Length
HC158018	Brush-7/16" Dia. 12" Overall Length
HC158019	Brush-9/16" Dia. 30" Overall Length
HC158026	Brush-1" Dia. 12" Long
HC158009	Brush-4" w/o Handle (Use with Handle p/n HC158012)
HC162105	Caster-1-1/4" ST PT with Brake
HC162106	Caster-1-1/4" ST PT without Brake
HC184244	Chart-O-ring (Laminated)
HC158051	Cup-Overrun (use with p/n HC158049 scale)
HC184881-01	DVD-Training RMT SS EF (Operator Training)
HC158012	Handle-Brush Fiberglass (Use with Brush p/n HC158009)
HC118897	Kit-O-ring
HC158000A	Lubricant-Petrol Gel 4 oz. tube (per tube)
HC150736	Nut-Lock Conduit 1-1/4 (Casters)
HC158014	Sanitizer-Stera-Sheen (per case/4 jars)
HC158014A	Sanitizer-Stera-Sheen (per 4lb. jar)
HC158049	Scale-Overrun
HC169374	Tool-O-Ring Removal

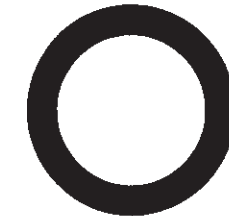
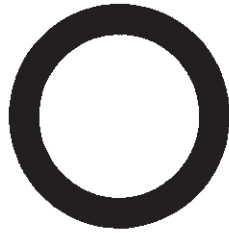
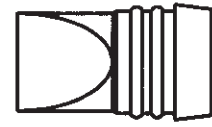
**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

SOFT SERVE DISPENSING HEADS

ELECTRO FREEZE Soft Serve Model 30T-RMT



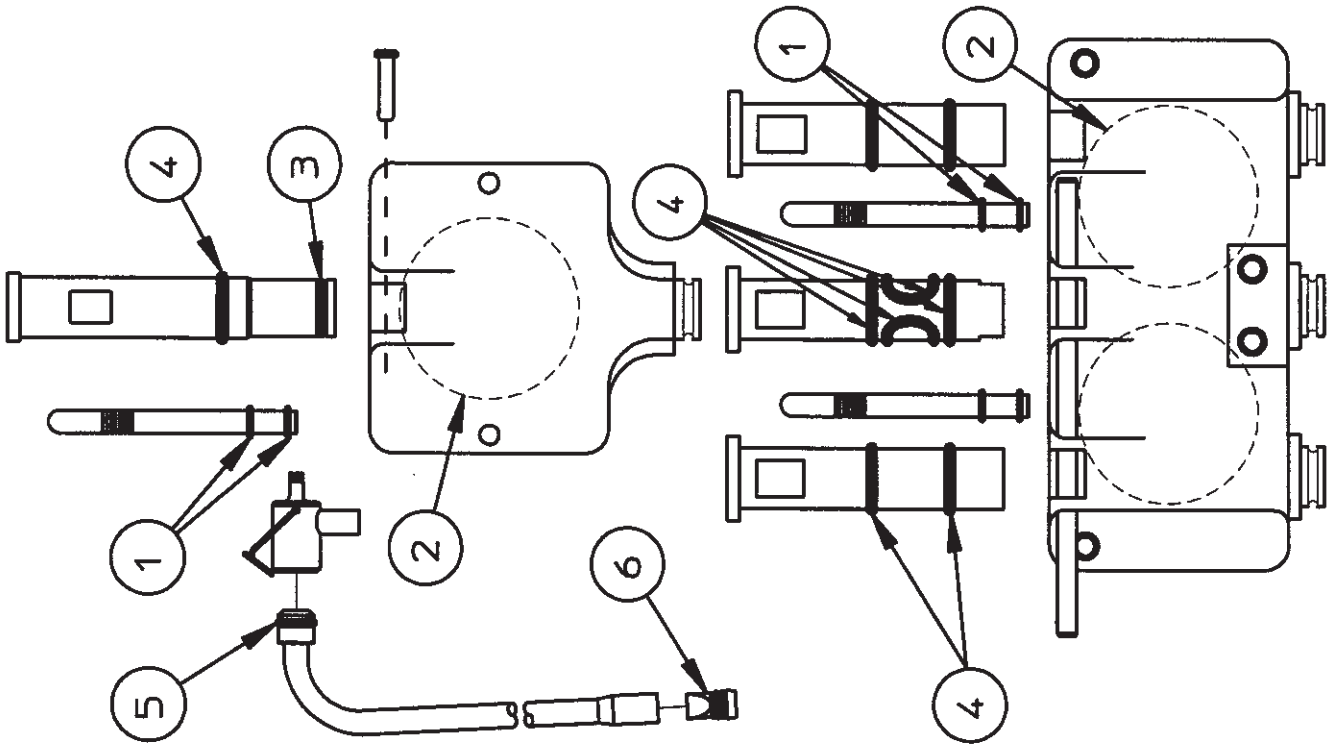
PART NO.
HC160583 ②



PART NO. HC160582 ③

PART NO. HC160501 ④

PART NO. HC199032-01 ⑥



O-RING CHART

Cleaning & Sanitizing Electro Freeze® 30T-RMT and 88T-RMT Freezers

This instruction sheet is not intended to be used in place of the Operator's Manual. Use the following information to assist you only after you have read, understood, and are accomplished in the procedures for cleaning and sanitizing detailed in the Electro Freeze freezer Operator's Manual.

DRAINING PRODUCT

Follow Closing Procedures in Operator's Manual to remove frozen product from the freezer.

1. Turn selector switches to "CLEAN", MTS switches to "ON", CAB switch to "OFF".
2. Empty the remaining mix out of mix containers.
3. Run beaters 5 minutes to soften product. Dispense as much frozen product as possible.
4. Pour 2 gallons of cool water into each mix container, allowing the cylinders to fill with water.
5. Open plungers to drain mix and water. Repeat step 4 until water is clear.
6. Prepare and pour 2 gallons of warm sanitizing solution of 100ppm available chlorine in container.
7. Open air bleed and fill each cylinder with sanitizer. Close air bleed. Place selector switch to clean for 5 minutes.
8. Put all switches in the "OFF" position. Drain completely.

DISASSEMBLY



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. Some freezers have more than one disconnect switch.



CAUTION: PRESSURIZED SYSTEM. Plungers must be open before disassembly.

Disassemble the freezer components in accordance with the Operator's Manual instructions.

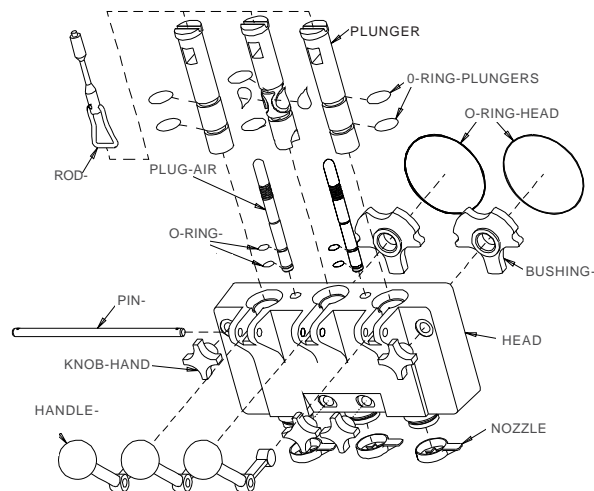
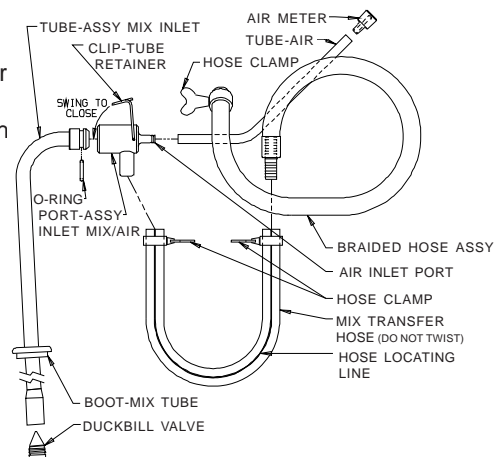
1. Remove dispensing head and beater shafts from freezer. Disassemble MTS and move to cleaning area.

CLEANING

1. Prepare a three-compartment sink for cleaning, rinsing, and sanitizing parts removed from the freezer per applicable health codes. The sanitizer should be mixed according to the manufacturer's instructions to yield 100 parts per million (PPM) available chlorine solution. (example: Stera-Sheen Green Label).
2. Disassemble all parts and remove o-rings. Clean each part with the appropriate brush supplied with freezer.
3. Wash, rinse, sanitize, and air dry all parts removed from the freezer. For proper sanitizing, the parts must remain in the sanitizer for 5 minutes.
4. Go to freezer and use sanitizing solution to thoroughly brush the mix feed tubes from the refrigerated cabinet to the cylinders.
5. Brush the inside of the cylinders with sanitizing solution, making certain to clean the back walls.
6. Brush the inside of the drain tube.

ASSEMBLY

Assemble and lubricate freezer components in accordance with the Operator's Manual instructions.



SANITIZING

1. Wash and sanitize your hands and forearms.
2. Prepare 2 gallons (7.5 liters) of sanitizing solution in each mix container. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 PPM (parts per million) available chlorine solution.
3. Brush the interior mix container walls, the underside of the container covers, and low mix probes with sanitizer solution.
4. Place the mix containers with sanitizer in the refrigerated cabinet, insert pickup tube and sanitize exterior of the tubes.
5. Place an empty container under the dispensing head.
6. Open the air bleed plugs by pulling up until the plugs touch the bottom of the switch box.
7. Reconnect the main power supply to the freezer. Turn the MTS switches to "ON". This will push the sanitizer into the cylinders.
8. When sanitizer flows out the bottom of the dispense head, close the air bleed plugs.

(over)

SANITIZING (continued)

- Turn both selector switches to “CLEAN” and allow the beaters to run for 5 minutes. Check for leaks around the head, drain tube, clamps and MTS.
- Drain the solution from the cylinders by slowly pulling down on the dispense handles. **NOTE: Some sanitizer will remain in hoses and cylinders.**
- Leave the handles down, and turn the selector switches to “OFF”. Let the MTS force all possible sanitizer out of the freezing cylinders.

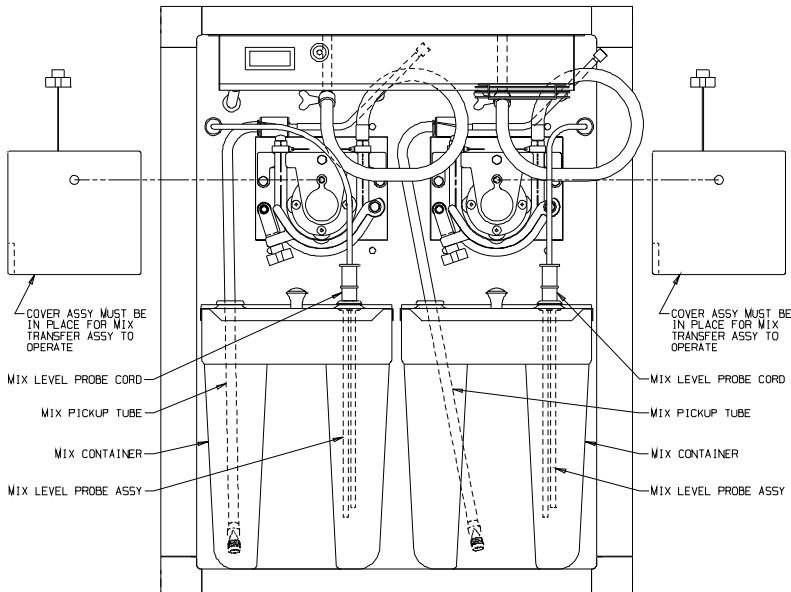
Important:

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

- Turn the MTS switches to “OFF”.
- Remove the mix inlet tubes, holding the top 6-inch portion only.
- Remove the mix containers and empty any remaining sanitizer.

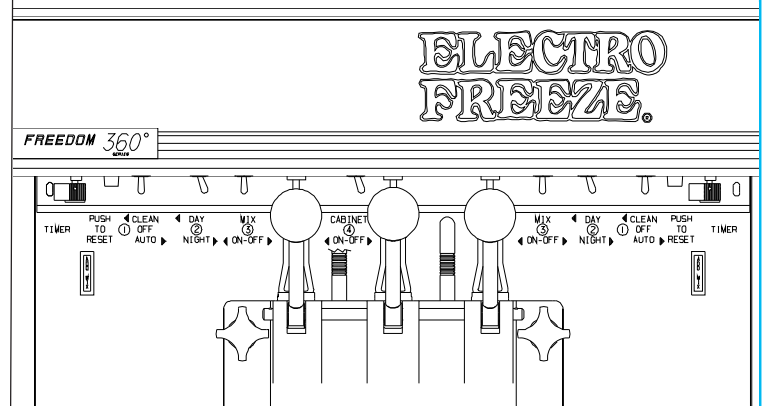
Priming The Freezer

- Make sure that your hands, forearms, and all freezer assemblies are sanitized.
- Holding the top 6-inch portion only, insert the pickup tubes into the sanitized mix container through the small hole in the rear cover and set containers in the cabinet.
- Fill the mix containers with mix and install the front covers.
- Insert the low mix probes through the large hole in the rear cover, and connect the probe cords to the probes and to the back of the cabinet.
- Turn the cabinet switch to “ON” and close the cabinet door.



Priming The Freezer (continued)

- Place an empty container under the dispensing head on the drip tray.
- Open the side plungers and air bleed plugs.
- Turn the MTS switches to “ON” and allow the mix to push the remaining sanitizer from the cylinders through the plunger openings.



- Close the side plungers when pure mix is coming out.

Important:

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

- After mix appears at the bottom of the head (approximately 50–55 seconds), close the air bleed plugs and wait for the MTS to fill the cylinders and shut off.

OPERATING INSTRUCTIONS	
DAY	NIGHT
① AUTO	① AUTO
② DAY	② NIGHT
③ ON	③ OFF
④ ON	④ ON

- After the MTS has cycled off (approximately 30 seconds) turn both selector switches to “AUTO”, both DAY/NIGHT switches to “DAY”, and both MTS switches to “ON”.
- Allow the freezer to cycle for 15 minutes. Sanitize the nozzles and install on the head. The product is now ready to serve.

Problem? Contact your local authorized distributor or the freezer manufacturer, Electro Freeze Service Department, 2116 Eighth Avenue, East Moline, IL 61244, (309) 755-4553 or FAX (309) 755-9858

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Actuator-Assy. Door Switch	HC118597	2	I2G-2214 —
Adaptor-Overload Din Rail	HC150145	2	I2G-2214 — I2N
Adaptor-Overload Din Rail T1	HC150063	2	I2N —
Adaptor-Reset Threaded T1	HC150063	2	I2N —
Arm-Shoe Pivot (MTS)	HC138797	2	I2G-2214 —
Arm-Swing Clamp (MTS)	HC138799	2	I2G-2214 —
Base-Probe Mtg.	HC137120	2	I2G-2214 —
Bearing-High Speed Cone	HC153015	4	I2G-2214 —
Bearing-High Speed Cup	HC153014	4	I2G-2214 —
Bearing-Slow Speed Cone	HC153012	4	I2G-2214 —
Bearing-Slow Speed Cup	HC153011	4	I2G-2214 —
Belt-V (LH)	HC153171	2	I2G-2214 —
Belt-V (RH)	HC153161	2	I2G-2214 —
Blade-Fan 11" 36° (Air Cooled)	HC159023	4	I2G-2214 —
Blade-Fan 11" Dia 36° (Air Cooled Remote)	HC159029	4	I2G-2214 —
Blade-Scraper Front (Short)	HC138830	2	I2G-2214 — K2M-3877
Blade-Scraper Rear (Long).....	HC138831	2	I2G-2214 — K2M-3877
Blade-Scraper Long SS	HC137334	4	K2M-3878 —
Block-Installation RMT (MTS)	HC165524	2	I2G-2214 —
Boot-Mix Tube (Seal)	HC199033	2	I2G-2214 —
Bottle-Wash-Plunger and MTS	HC196103	*	I2G-2214 —
Box-Assy. Capacitor and Relay (1 Phase)	HC118647	2	I2G-2214 —
Box-Electric 2-3/4 x 4-1/2 x 2 (Air Cooled Remote)	HC150732	2	I2G-2214 —
Bracket-Assy. Electric Box (Air Cooled Remote)	HC117197	2	I2G-2214 —
Bracket-Assy. Front (Air Cooled)	HC116565	4	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
*** LH or RH — Left or right hand is determined as you face the front of the freezer.			
MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Bracket-Assy. Rear (Air Cooled)	HC116564	2	I2G-2214 —
Bracket-Assy. Switch Mtg. (MTS-RMT)	HC118763	2	I2G-2214 —
Bracket-Fan Condenser (Air Cooled Remote)	HC137632	4	I2G-2214 —
Bracket-Flange Relay Mtg. (Relay Box)	HC138159	2	I2G-2214 —
Brush-1-inch Dia. 12-inch Long	HC158026	*	I2G-2214 —
Brush-4-inch w/36" Handle (Cylinder) (NLA)	HC158004	*	I2G-2214 — B2N
Brush-4-inch w/o Handle(Cylinder) (w/HC158012)	HC158009	*	I2G-2214 —
Brush-7/16-inch Dia. 12-inch OAL	HC158018	*	I2G-2214 —
Brush-9/16-inch Dia. 30-inch OAL	HC158019	*	I2G-2214 —
Bushing-Dispense Head	HC138427	2	I2G-2214 — K2M-3877
Bushing-Cylinder	HC196085	2	K2M-3878 —
Bumper-Rubber (Drip Tray Insert)	HC199030	4	I2G-2214 —
Button-Overload Reset Adaptor	HC150150	2	I2G-2214 —
Button-Reset (Lever-Assy. Rest)	HC159036	2	I2G-2214 —
Capacitor-Run (Beater Motor)	<i>See "Motor-2 HP"</i>		
Capacitor-Run (Compressor)	<i>See "Compressor"</i>		
Caster-1-1/4" ST PT with Brake	HC162105	2	I2G-2214 —
Caster-1-1/4" ST PT without Brake	HC162106	2	I2G-2214 —
Catch-Bullet (Drip Tray)	HC159175	2	I2G-2214 —
Channel-Rear R.H. (Corner)	HC130021	2	I2G-2214 —
Channel-Rear L.H. (Corner)	HC135254	2	I2G-2214 —
Chart-O-ring (Laminated)	HC184256	1	I2G-2214 — K2M-3877
Chart-O-ring (Laminated)	HC184244	1	K2M-3878 —
Clamp-Assy. Soft Hose 5/8	HC116065	6	I2G-2214 —
Clamp-Hose Drain	HC160738	1	I2G-2214 —
Clamp-Ring (Mix Feed Seal)	HC139353	2	I2G-2214 —
<p>* As Required ** Items Included In O-Ring Kit No. HC118897 *** LH or RH — Left or right hand is determined as you face the front of the freezer. MTS = Mix Transfer System NLA = No Longer Available AC = Air Cooled WC = Water Cooled ACR = Air Cooled Remote</p>			

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Clamp-Ring Threaded (Mix Feed Seal)	HC139352	2	I2G-2214 —
Clamp-Shoe Swing	HC138798	2	I2G-2214 —
Clip-Retainer	HC150120	4	I2G-2214 —
Clip-Tube Retainer	HC162324	2	I2G-2214 —
Coil-Evaporator (Shroud Assembly)	HC155111	1	I2G-2214 —
Coil-A/B 208-230V	HC150156	*	D2J —
Coil-Replacement Contactor	HC150134	*	I2G-2214 — D2J
Collar-Alignment (Mix Feed Seal)	HC139351	2	I2G-2214 —
Compressor-Assy. (1ph)(Maneurop)	HC118685	2	I2G-2214 — B2J-409
Capacitor-Run	HC151447	2	I2G-2214 — B2J-409
Drier-Filter	HC155054	2	I2G-2214 — B2J-409
Kit-Compr. Start Capacitor & Relay	HC151448	2	I2G-2214 — B2J-409
Compressor-Assy. (1ph)	<i>"Order by freezer serial number"</i>		
		B2J-410	— C2L-990
Compressor-Assy. (1ph)(Bristol)	HC118685	2	C2L-991 —
Capacitor-Run	HC151463	2	C2L-991 —
Capacitor-Start	HC151436	2	C2L-991 —
Drier-Filter	HC155054	2	C2L-991 —
Relay-Compressor Start	HC151462	2	C2L-991 —
Valve-Access	HC155419	2	C2L-991 —
Compressor-Assy. (3ph)(Maneurop)	HC118686	1	I2G-2214 — B2J-409
Drier-Filter	HC155054	2	I2G-2214 — B2J-409
Compressor-Assy. (1ph)	<i>"Order by freezer serial number"</i>		
		B2J-410	— C2L-990
Compressor-Assy. (3ph)(Bristol)	HC118686	1	C2L-991 —
Drier-Filter	HC155054	2	C2L-991 —
Valve-Access	HC155419	2	C2L-991 —
Condenser-Air (Air Cooled)	HC155120	2	I2G-2214 —
Condenser-Assy. 2 Hp Remote (Complete)	HC116781	2	I2G-2214 —
Condenser-Assy. 2 Hp Remote (Complete)	HC116781	2	I2G-2214 —
Condenser-Water LH (A Side)(Water Cooled)..	HC155039	1	I2G-2214 — D2H-838
* As Required			
** Items Included In O-Ring Kit No. HC118897			
*** LH or RH — Left or right hand is determined as you face the front of the freezer.			
MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Cut Out-HPCO 155450 Field Kit (AC & ACR)	HC120494	2	D2N —
Cut Out-HPCO 155702 Field Kit (WC)	HC120495	2	D2N —
Cut Out-Pressure High	HC155425	2	I2G-2214 — C2N
Cut Out-LPCO 155701 Field Kit (AC & WC)	HC120496	2	D2N —
Cut Out-LPCO 155705 Field Kit (ACR)	HC120498	2	D2N —
Cut Out-Pressure Low (WC & AC)	HC155403	2	I2G-2214 — C2N
Cut Out-Pressure Low (ACR)	HC155465	2	I2G-2214 — C2N
Cylinder-Assy. Complete	HC118689	2	I2G-2214 —
Decal-6" Air Flow	HC165119	1	I2G-2214 —
Decal-Beater Warning	HC165025	1	I2G-2214 —
Decal-Blade Installation.....	HC164031	1	I2G-2214 —
Decal-Cleaning Instructions	HC165307	1	I2G-2214 — A2I-151
Decal-Cleaning Instructions	HC164113	1	A2I-152 —
Decal-Clear Overlay	HC165093	1	I2G-2214 —
Decal-CMT Connection Red Line	HC164110	1	I2G-2214 —
Decal-CMT Patent	HC165013	1	I2G-2214 —
Decal-Connect A/B Side Freezer	HC164461	1	I2G-2214 —
Decal-Freedom 360° Trimstrip	HC165191	1	I2G-2214 —
Decal-MTS Trimstrip LH	HC164041	1	I2G-2214 — A2I-151
Decal-MTS Trimstrip LH	HC164020	1	A2I-152 —
Decal-MTS Trimstrip RH	HC164042	1	I2G-2214 — A2I-151
Decal-MTS Trimstrip RH	HC164021	1	A2I-152 —
Decal-Operating Instructions.....	HC164043	1	I2G-2214 — A2I-151
Decal-Operating Instructions.....	HC164004-01 .	1	A2I-152 —
Decal-Top Air Discharge	HC165124	1	I2G-2214 —
Decal-Trimstrip EF Logo 26"	HC165188-01 .	1	I2G-2214 —
Decal-Panel Removal	HC165126	3	I2G-2214 —
<p>* As Required ** Items Included In O-Ring Kit No. HC118897 *** LH or RH — Left or right hand is determined as you face the front of the freezer. MTS = Mix Transfer System NLA = No Longer Available AC = Air Cooled WC = Water Cooled ACR = Air Cooled Remote</p>			

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Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Decal-Warning Pressurized.....	HC165246.....	4 ...	I2G-2214 —
Decal-Warning Rotating Parts.....	HC165041.....	2 ...	I2G-2214 —
Door-Assy.	HC114260.....	1 ...	I2G-2214 —
Pull-Door (Handle)	HC136199.....	1 ...	I2G-2214 —
Drier-Filter	HC155054.....	2 ...	I2G-2214 —
Duckbill-Inlet (Valve)	HC199032.....	2 ...	I2G-2214 — L2H
Duckbill-Inlet RM MTS (Valve)	HC199032-01 ..	** ...	L2H —
DVD-Training RMT SS EF	HC184881-01 ..	* ...	I2G-2214 —
Faceplate-Assy. MTS	HC118764.....	2 ...	I2G-2214 —
Fan-Intake (Cabinet)	HC151105.....	1 ...	I2G-2214 —
Filter-Assy. (L.H.) (Switch Box)	HC116125.....	1 ...	I2G-2214 —
Flange-Refr. Coupling Mount 1/2	HC153415.....	2 ...	I2G-2214 —
Flange-Refr. Coupling Mount 3/8	HC153414.....	2 ...	I2G-2214 —
Gasket-Magnetic Door (V-Groove)	HC160563.....	1 ...	I2G-2214 —
Gasket-Mix Joint (Mix Feed Seal)	HC160556.....	2 ...	I2G-2214 —
Gear-Assy. Output (Slow Speed)	HC153000.....	2 ...	I2G-2214 —
Gear-Bronze	HC153349.....	2 ...	I2G-2214 —
Gearmotor-1/8 HP (MTS) Kit	HC119918.....	2 ...	I2G-2214 —
Glass-Sight	HC155059.....	2 ...	I2G-2214 —
Guard-Fan Open	HC151076.....	2 ...	I2G-2214 —
Handle- Assy. Dispense Center	HC114808.....	1 ...	I2G-2214 —
Knob-Ball 3/8-16 THD Black	HC162629.....	1 ...	I2G-2214 —
Handle-Assy. Dispense (Side)	HC110007.....	2 ...	I2G-2214 —
Knob-Ball 3/8-16 THD Black	HC162629.....	2 ...	I2G-2214 —
Handle-Brush Fiberglass (Use w/HC158009 Brush)	HC158012.....	* ...	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
*** LH or RH — Left or right hand is determined as you face the front of the freezer.			
MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Hanger-Assy. Air Condenser	HC113989	2	I2G-2214 —
Head-Assy.Dispense Complete	HC116042	1	I2G-2214 — K2M-3877
Head-Only	HC116041	1	I2G-2214 — K2M-3877
O-Ring (Head)	HC159309	1	I2G-2214 — K2M-3877
Plunger-Side Self Dispense	HC137174	2	I2G-2214 — K2M-3877
O-Ring (Plunger)	HC160501	8	I2G-2214 — K2M-3877
Plunger-Dispense Center	HC138009	1	I2G-2214 — K2M-3877
Plug-Air Bleed (Relief)	HC138149	2	I2G-2214 — K2M-3877
O-Ring (Air Plug)	HC160610	4	I2G-2214 — K2M-3877
Pin-Handle	HC160269	1	I2G-2214 — K2M-3877
Handle-Assy. Dispense (Side)	HC110007	2	I2G-2214 — K2M-3877
Knob-Ball 3/8-16 THD Black	HC162629	2	I2G-2214 — K2M-3877
Handle-Assy. Dispense Center	HC114808	1	I2G-2214 — K2M-3877
Handle-Assy.	HC114809	1	I2G-2214 — K2M-3877
Knob-Ball 3/8-16 THD Black	HC162629	1	I2G-2214 — K2M-3877
Nozzle-Serrated	HC196185	1	I2G-2214 — K2M-3877
Head-Assy.Dispense Complete	HC120013	1	K2M-3878 —
Head-Only	HC120012	1	K2M-3878 —
O-Ring (Head)	HC160583	1	K2M-3878 —
Plunger-Side Self Dispense	HC137174	2	K2M-3878 —
O-Ring (Plunger)	HC160501	8	K2M-3878 —
Plunger-Dispense Center	HC138009	1	K2M-3878 —
Plug-Air Bleed (Relief)	HC138149	2	K2M-3878 —
O-Ring (Air Plug)	HC160610	4	K2M-3878 —
Pin-Handle	HC160269	1	K2M-3878 —
Handle-Assy. Dispense (Side)	HC110007	2	K2M-3878 —
Knob-Ball 3/8-16 THD Black	HC162629	2	K2M-3878 —
Handle-Assy. Dispense Center	HC114808	1	K2M-3878 —
Handle-Assy.	HC114809	1	K2M-3878 —
Knob-Ball 3/8-16 THD Black	HC162629	1	K2M-3878 —
Nozzle-Serrated	HC196185	1	K2M-3878 —
Hinge-Pivot 1-3/8 Top L.H.	HC162045	1	I2G-2214 —
Spring-L.H.....	HC162052	1	I2G-2214 —
Hinge-Pivot 1-3/8 Bottom L.H.	HC162046	1	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
*** LH or RH — Left or right hand is determined as you face the front of the freezer.			
MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Lanyard-Wire (MTS)	HC138890	2	I2G-2214 —
Leg-Assy. 6-inch	HC112978	4	I2G-2214 —
Lever-Assy. Reset	HC120362	2	I2N —
Button-Reset	HC159036	2	I2N —
Lever-Reset & Button	HC118390	2	I2G-2214 — I2N
Button-Reset	HC159036	2	I2N —
Light-Indicator	HC150540	2	I2G-2214 —
Line Sets - 25 Foot Kit 404a	HC117292	*	I2G-2214 —
Line Sets - 50 Foot Kit	HC117293	*	I2G-2214 —
Lubricant-Petrol Gel 4 oz (per tube)	HC158000A	*	I2G-2214 —
M.O.V.-Assy (Switch Box)	HC116188	2	I2G-2214 —
Meter-Air	<i>Order by meter number</i>		
Module-Plug on Vari Time	HC150253	2	A2I-152 — L2L
Motor & Cap 2HP Kit (1ph)(Beater Motor)	HC118254	2	I2G-2214 — L2J-3075
Capacitor-Run	HC150318	2	I2G-2214 — L2J-3075
Capacitor-Start	HC150319	2	I2G-2214 — L2J-3075
Motor & Cap 2HP Kit (1ph)(Beater Motor)	<i>Order by freezer serial number</i>		
			L2J-3074 — K2L-3822
Motor & Cap 2HP Kit (1ph)			
(Blufon/Franklin Beater Motor)	HC119816	2	K2L-3823 —
Capacitor-Run	HC150244	2	K2L-3823 —
Capacitor-Start	HC150294	2	K2L-3823 —
Motor & Cap 2HP (Emerson Beater Motor)			
(Alternate)	HC120073	2	K2L-3823 —
Capacitor-Run	HC150318	2	K2L-3823 —
Capacitor-Start	HC119912	2	K2L-3823 —
Motor-2 HP (3ph) (Leeson Beater Motor)	HC151066	2	I2G-2214 —
Motor-2 HP (3ph)			
(Emerson Beater Motor)(Alternate)	HC151043	2	I2G-2214 —
Motor-Fan 50w 230v (Air Cooled)	HC151077-01	4	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
*** LH or RH — Left or right hand is determined as you face the front of the freezer.			
MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

**Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.**

Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Motor-Fan 50W 230V 60Hz (Air Cooled Remote)	HC151072	4	I2G-2214 —
Motor-Kit Gearmotor 1/8 HP (MTS-RMT)	HC119918	2	I2G-2214 —
MT-Assy CAB Redline	HC118751	2	I2G-2214 —
Nozzle-Serrated (Head Assembly)	HC196185	**	I2G-2214 —
Nut-Assy. Pressure Switch	HC116105	2	I2G-2214 —
Nut-#6-32 BKOX (Relay Box)	HC160116	4	I2G-2214 —
Nut-HEX 1/4-20 ZN (Switch Assembly)	HC160104	3	I2G-2214 —
Nut-HEX 3/8-16 ZN (MTS)	HC160453	2	I2G-2214 — L2G
Nut-HEX 3/8-16 SST (MTS)	HC159927	2	A2H-100 —
Nut-HXSf 1/4-20 ZN (Relay Box)	HC159951	4	I2G-2214 —
Nut-HXSf 1/4-20 ZN (MTS)	HC159951	3	I2G-2214 — L2G
Nut-HXSf 1/4-40 ZN (MTS)	HC159933	3	A2H-100 —
Nut-Push Round	HC160289	2	I2G-2214 —
Nut-Speed #10-24 .100-.125 (On Frame)	HC159067	*	I2G-2214 —
Nut-Speed #10-24 .025-.064 SST (Dispense & Front Panels)	HC159132	*	I2G-2214 —
Nut-Speed 1/4-20 .064-.125 (Rear Channel)	HC160117	*	I2G-2214 —
Nut-Speed 1/4-20 BP&O (Rear & Side Panels)	HC160114	*	I2G-2214 —
Oil-Gear Reducer (per quart)	<i>See tag on gear reducer</i>		
O-Ring (Tube-Assy. Pickup)	HC160502	**	I2G-2214 —
O-Ring (Air Plug)	HC160610	**	I2G-2214 —
O-Ring (Head)(used with Head HC116041)	HC159309	**	I2G-2214 — K2M-3877
O-Ring (Head)(used with Head HC120012)	HC160583	**	K2M-3878 —
O-Ring (Plunger)	HC160501	**	I2G-2214 —
O-Ring (Swing Clamp MTS-RMT)	HC160628	**	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
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MTS = Mix Transfer System		NLA = No Longer Available	
AC = Air Cooled	WC = Water Cooled	ACR = Air Cooled Remote	

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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
O-Ring (Seal)	HC160500	**	I2G-2214 — K2M-3877
O-Ring (Roller Shoe MTS-RMT)	HC160612	**	I2G-2214 —
O-Ring Kit	HC118897	*	I2G-2214 —
Pan-Condensate (w/ ceiling type-26")	HC117133	1	I2G-2214 —
Panel-Dispense (w/ lights)	HC137297	1	I2G-2214 —
Panel-Assy. Front	HC113985	1	I2G-2214 —
Panel-Rear (Air Cooled and Water Cooled)	HC136313	1	I2G-2214 —
Panel-Side LH	HC136289	1	I2G-2214 —
Panel-Side RH	HC136216	1	I2G-2214 —
Panel-Spacer (Rear & Side Panels)	HC138456	*	I2G-2214 —
Panel-Switch Box w/EF Label (Trimstrip)	HC115292-03..	1	I2G-2214 —
Panel-Assy. Top (Air Cooled)	HC116567	1	I2G-2214 —
Panel-Assy. Top (Water Cooled & Air Cooled Remote)	HC114157	1	I2G-2214 —
Panel-Lower Rear (Air Cooled Remote)	HC138983	1	I2G-2214 —
Panel-Upper Rear (Air Cooled Remote)	HC138982	1	I2G-2214 —
Pickup Tube-Assy. Mix	<i>See "Tube-Assy. Pickup 2 Piece"</i>		
Pin-Dowel 1/4 DIA x 3/4 SST (MTS)	HC160338	4	I2G-2214 —
Pin-Handle (Head Assembly)	HC160269	1	I2G-2214 —
Plate-Backup MTS	HC139746	2	I2G-2214 —
Plate-Switch (Switch Assemblies)	HC140701	3	A2E —
Plug-Air Bleed	HC138149	2	I2G-2214 —
Plunger-Dispense Center (Head Assembly)	HC138009	1	I2G-2214 —
Plunger-Side Self Dispense (Head Assembly)	HC137174	2	I2G-2214 —
Port-Assy. Inlet Mix/Air (MTS Hose Assy.)	HC118765	2	I2G-2214 —
Probe-Assy. 6 gallon	HC1HC16439	2	I2G-2214 —
Probe-Assy. Mix Level 10-3/4" (7 Gal.)	HC115397	2	I2G-2214 —
Base-Probe Mtg.	HC137120	2	I2G-2214 —

* As Required

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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Pull-Door (Handle Cabinet)	HC136199	1	I2G-2214 —
Pulley	See "Sheave"		
Push Rod-Assy. Plunger Switch (Head Assy) ..	HC116089	3	I2G-2214 —
Receiver-3 lb. 3/8 ID Sweat	HC155057	2	I2G-2214 — H2M
Receiver-3 lb. 3/8 ID Sweat w/o Valve	HC155071	2	H2M —
Receiver-12 lb. Horizontal Mount	HC155058	2	I2G-2214 —
Receptacle-Molded Level Sensor	HC150536	2	I2G-2214 —
Reducer-Gear	HC153341	1	I2G-2214 —
Reducer-Gear Gasket Set	HC114874	*	I2G-2214 —
Relay-Assy. Overload 1 phase 5-15A	HC118359	2	I2G-2214 — I2N
Adaptor-Overload Din Rail	HC150145	2	I2G-2214 — I2N
Button-Overload Reset Adaptor	HC150150	2	I2G-2214 — I2N
Relay-SS Overload 1ph 5-15A	HC150140	2	I2G-2214 — I2N
Relay-Assy. Overload T1 7.2-10A (1 phase)	HC120361	2	I2N —
Adaptor-Overload Din Rail T1	HC150063	2	I2N —
Adaptor-Reset Threaded T1	HC150064	2	I2N —
Relay-Overload T1 7.2-10A	HC150061	2	I2N —
Relay-Assy. Overload 3 phase 3.7-12A	HC118361	2	I2G-2214 — I2N
Adaptor-Overload Din Rail	HC150145	2	I2G-2214 — I2N
Button-Overload Reset Adaptor	HC150150	2	I2G-2214 — I2N
Relay-SS Overload 3ph 3.7-12A	HC150142	2	I2G-2214 — I2N
Relay-Assy. Overload T1 5.5-7.5A (3 phase)	HC120360	2	I2N —
Adaptor-Overload Din Rail T1	HC150063	2	I2N —
Adaptor-Reset Threaded T1	HC150064	2	I2N —
Relay-Overload T1 5.5-7.5A	HC150060	2	I2N —
Relay-Compressor Start	See "Compressor"		
Relay-Flange Base w/Cover	HC150381	3	I2G-2214 —
Resistor-Assy. (Switch Box)	HC116154	2	I2G-2214 — A2I-151
Ring-Retaining 5/8 Ext. SST (Mix Feed Seal) ..	HC160312	4	I2G-2214 —
<p>* As Required ** Items Included In O-Ring Kit No. HC118897 *** LH or RH — Left or right hand is determined as you face the front of the freezer. MTS = Mix Transfer System NLA = No Longer Available AC = Air Cooled WC = Water Cooled ACR = Air Cooled Remote</p>			

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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Roller-Kit	HC116009-01 ..	*	I2G-2214 —
Sanitizer-Stera-Sheen (per case/4 jars)	HC158014	*	I2G-2214 —
Sanitizer-Stera-Sheen (per 4 lb. jar)	HC158014A	*	I2G-2214 —
Scale-Overrun Z32	HC158049	*	I2G-2214 —
Screw-HXHC 1/4-20 x 2-1/2 SST (MTS-RMT)	HC160464	4	I2G-2214 —
Screw-HXHC 1/4-20 x 3-1/2 SST (MTS-RMT)	HC160465	2	I2G-2214 —
Screw-HXHM 4-20 x 2-1/2 ZN (Switch Assy.)	HC159965	3	I2G-2214 —
Screw-HXSF 1/4-20 x 1/2 ZN (MTS-RMT)	HC159950	2	I2G-2214 — L2G
Screw-HXSF 1/4-20 x 1/2 ZN (Relay Box)	HC159950	4	I2G-2214 —
Screw-RDHM #4-40 x 1/4 (RMT Cover Switch Kit)	HC160357	4	I2G-2214 —
Screw-RDHM #4-40 x 1/4 (MTS-RMT)	HC160357	2	A2H-100 —
Screw-RDHM #6-32 x 5/16 ZN (Relay Box)	HC160308	4	I2G-2214 —
Screw-SKHC #10-24 x 1-3/4 SST (Mix Feed Seal)	HC160320	6	I2G-2214 —
Screw-Sk Set 1/4-20 x 1/4 (Driven & Driver)	HC160495	4	I2G-2214 —
Screw-TRPM #10-24 x 1/2 SST (Dispense & Front Panels)	HC160076	*	I2G-2214 —
Screw-TRPM #10-24 x 3/8 SST (Top Panel)	HC160305	*	I2G-2214 —
Screw-TRPM 1/4-20 x 1 SST (Side Panels)	HC159219	*	I2G-2214 —
Screw-TRPM 1/4-20 x 1/2 SST (Rear Panels & Channels)	HC160048	*	I2G-2214 —
Screw-TRPS 1/4-28 x 2-1/4 SST (MTS-RMT)	HC160093	8	I2G-2214 —
Seal-Assy. Shaft (Beater Shaft Assy.)	HC111875	** ...	I2G-2214 — K2M-3877
O-ring (Seal)	HC160500	** ...	I2G-2214 — K2M-3877
Seal-Beater Shaft (Cup)	HC160557	** ...	I2G-2214 — K2M-3877
Washer-Shaft Seal (Bushing)	HC133098	** ...	I2G-2214 — K2M-3877
Seal-Beater Shaft (Cup-Seal Shaft Assy.)	HC160557	2	I2G-2214 — K2M-3877
<p>* As Required ** Items Included In O-Ring Kit No. HC118897 *** LH or RH — Left or right hand is determined as you face the front of the freezer. MTS = Mix Transfer System NLA = No Longer Available AC = Air Cooled WC = Water Cooled ACR = Air Cooled Remote</p>			

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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Seal-Oil (High Speed)(Gear Reducer)	HC153053	4	I2G-2214 —
Seal-Oil (Slow Speed)(Gear Reducer)	HC153051	4	I2G-2214 —
Seal-Shaft (One piece Beater Shaft Seal)	HC160567	2	K2M-3878 —
Sensor-10K Thermistor	HC161216	2	I2G-2214 —
Shaft-Assy. Beater	HC117079	2	I2G-2214 — K2M-3877
Shaft-Assy. Beater	HC113438	2	K2M-3878 —
Shaft-Input (High Speed)(Gear Reducer)	HC153348	2	I2G-2214 —
Shaft-Slow Speed (Gear Reducer)	HC153350	2	I2G-2214 —
Sheave-7/8 Bore 3.25 OD (Driver)	HC153626	2	I2G-2214 —
Sheave-3/4 Bore 4.75 OD (Driven)	HC153625	2	I2G-2214 —
Shield-Drip (MTS)	HC139756	2	I2G-2214 —
Shield-Motor Rain (Air Cooled Remote)	HC139017	4	I2G-2214 —
Shoe-Roller (MTS)	HC139751	2	I2G-2214 —
Shroud-Assy. Evaporator	HC117129-01 ..	1	I2G-2214 —
Coil-Evaporator	HC155111	1	I2G-2214 —
Cord-Assy. Male plug	HC150532	1	I2G-2214 —
Fan-Intake (Cabinet)	HC151105	1	I2G-2214 —
Guard-Fan Open	HC151076	1	I2G-2214 —
Switch Door Push Button	HC150416	1	I2G-2214 — K2H-2699
Switch Door Push Button	HC150509	1	K2H-2700 —
Thermometer-Barrel	HC161004	1	I2G-2214 —
Shroud-Fan	HC138465	2	I2G-2214 —
Sleeve-Cable Stop 3/64 (MTS)	HC160508	4	I2G-2214 —
Socket-Octal (Switch Box)	HC150119	2	I2G-2214 —
Spacer-Motor (MTS-RMT)	HC138793	8	I2G-2214 —
Spacer-Panel (Rear & Side Panels)	HC138456	*	I2G-2214 —
Spacer-Swing Arm (MTS-RMT)	HC138800	4	I2G-2214 —
Spring-Compression (Switch Assembly)	HC162323	3	I2G-2214 —
Strip-Terminal (Switch Box)	HC150795	2	I2G-2214 —
Stud-5/16-18 x 3/4 SST (MTS)	HC160386	2	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Stud-Assy. Cylinder 3-15/16	HC114341-05..	4	I2G-2214 —
Support-Condenser (Air Cooled Remote)	HC137629	4	I2G-2214 —
Support-MTS (Relay Box)	HC139805	2	I2G-2214 —
Support-Roller Bearing (MTS-RMT)	HC138783-01 .	2	I2G-2214 —
Switch-Assy. Self Closing Plunger (Center)	HC114178-01 ..	1	I2G-2214 —
Spring-Compression	HC162323	1	I2G-2214 —
Switch-Roller Actuator DPDT	HC150478	1	I2G-2214 —
Switch-Assy. Self Closing Plunger (Sides)	HC114176-01 ..	1	I2G-2214 —
Spring-Compression	HC162323	1	I2G-2214 —
Switch-Roller Actuator SPDT	HC150477	1	I2G-2214 —
Switch-Door Push Button (Shroud Assy.)	HC150416	1	I2G-2214 — K2H-2699
Switch-Door Push Button (Shroud Assy.)	HC150509	1	K2H-2700 —
Switch-Dispense Head Kit	HC116410	*	I2G-2214 —
Switch-Pressure Kit	HC118712	*	I2G-2214 —
Switch-Roller Actuator DPDT (Center)	HC150478	1	I2G-2214 —
Switch-Roller Actuator SPDT (Sides)	HC150477	2	I2G-2214 —
Switch-Cover RMT Kit (MTS-RMT)	HC118894	2	I2G-2214 —
Switch-Toggle 3PDT Center OFF (Selector)(Switch Box)	HC150465	2	I2G-2214 —
Switch-Toggle DPDT Center OFF (MTS)(Switch Box)	HC150463	2	I2G-2214 — A2I-151
Switch-Toggle SPST(MTS)(Switch Box)	HC159235	2	A2I-152 —
Switch-Toggle DPST(DAY/NIGHT)(Switch Box)	HC150435	2	I2G-2214 — A2I-151
Switch-Toggle SPST(DAY/NIGHT)(Switch Box)	HC159235	2	A2I-152 —
Switch-Toggle SPST (Cabinet)(Switch Box)	HC159235	1	I2G-2214 —
Tank-Mix 6 Gal. 13-1/8"	HC196100	2	I2L —
Tank-Mix 7 Gal. 13-1/2"	HC196222	2	I2G-2214 — I2L
Thermometer-Barrel (Shroud Assy.)	HC161004	1	I2G-2214 —

* As Required

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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Thermostat-Kit (Cabinet)	HC118868	1	I2G-2214 —
Thermostat & Retainer-Kit (Day & Night)	HC119989	2	I2G-2214 —
Timer-.5-45 Delay on Break (Switch Box)	HC150252-01	2	A2I-152 —
Timer-12 Sec. Delay on Break (Switch Box)	HC150208	2	I2G-2214 —
Timer-5 Minute (Switch Box)	HC150215	2	I2G-2214 — H2H-1997
Timer-5 Minute (Switch Box)	<i>Order by freezer SN ...</i>		H2H-1998 — H2H-2016
Timer-5 Minute (Switch Box)	HC150218	2	H2H-2017 —
Tool-O-Ring Removal	HC169374	*	I2G-2214 —
Tray-Drip 26" Black	HC196108	1	I2G-2214 —
Trimstrip-Assy EF Decal 26 inch	HC115292-03..	1	I2G-2214 —
Tube-Air	HC138170-02	2	I2G-2214 —
Tube-Assy. Drain 20-1/4	HC115004-01..	1	I2G-2214 —
Tube-Assy. Mix Inlet (MTS Hose Assy.)	HC118836	2	I2G-2214 —
Tube-Assy. Pickup (MTS Hose Assy.)	HC118842	2	I2G-2214 —
Clip-Tube Retainer	HC162324	2	I2G-2214 —
O-ring	HC160502	2	I2G-2214 —
Port-Assy. Inlet Mix/Air	HC118765	2	I2G-2214 —
Tube-Assy. Mix Inlet	HC118836	2	I2G-2214 —
Tube-Drain Support	HC138919	1	I2G-2214 —
Tube-Mix Feed Clamp (Mix Feed Seal)	HC139349	2	I2G-2214 —
Tubing-3/8 ID x 1/2 OD	HC196068	2.25'	I2G-2214 —
Valve-1/2 Service Rotalock RH	HC155047	1	I2G-2214 —
Valve-1/2 Service Rotalock LH	HC155049	1	I2G-2214 —
Valve-Automatic Expansion (Cylinder)	HC155448	2	I2G-2214 — F2H-1379
Valve-Automatic Expansion (Cylinder)	HC155451	2	F2H-1380 —
Valve-Automatic Expansion (Cabinet)	HC155449	1	I2G-2214 —
Valve-Head Pressure Control (Air Cooled Remote)	HC155454	2	I2G-2214 —
* As Required			
** Items Included In O-Ring Kit No. HC118897			
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Alphabetized Parts List for Model 30T-RMT

Important: All parts shown are for standard models designed for 230V/1PH/60HZ or 203-230V/3PH/60HZ.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM - TO)
Washer-Lock #10 SST (Mix Feed Seal)	HC160166	6	I2G-2214 —
Washer-Lock 3/8 ZN (MTS)	HC160143	4	I2G-2214 — L2G
Washer-Lock 3/8 SST (MTS)	HC160170	4	A2H-100 —
Washer-Shaft Seal (Bushing-Beater Shaft Seal) ..	HC133098	2	I2G-2214 — K2M-3877
<p>* As Required ** Items Included In O-Ring Kit No. HC118897 *** LH or RH — Left or right hand is determined as you face the front of the freezer. MTS = Mix Transfer System NLA = No Longer Available AC = Air Cooled WC = Water Cooled ACR = Air Cooled Remote</p>			

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