ELECTRO FREEZE®

Operator's Manual

with Illustrated Parts List

FREEDOM 360º
Series

Soft Serve Twist Freezer
Model 88T-RMT

P/N 184950 7/07

H.C. Duke & Son, Inc. P/N 184950 July 2007 Printed In U.S.A.

Operator's Manual
for
Electro Freeze Freedom 360° Series
Soft Serve Twist Freezer
Model 88T-RMT

SAFETY FIRST!

Follow these four steps to safety ....

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

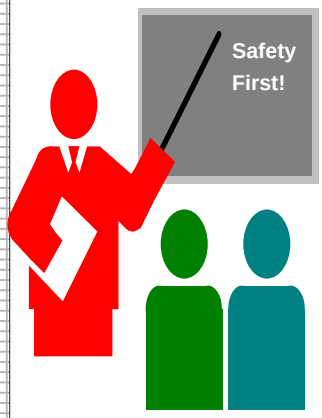
When you see this symbol on your freezer or in this manual, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

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!

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

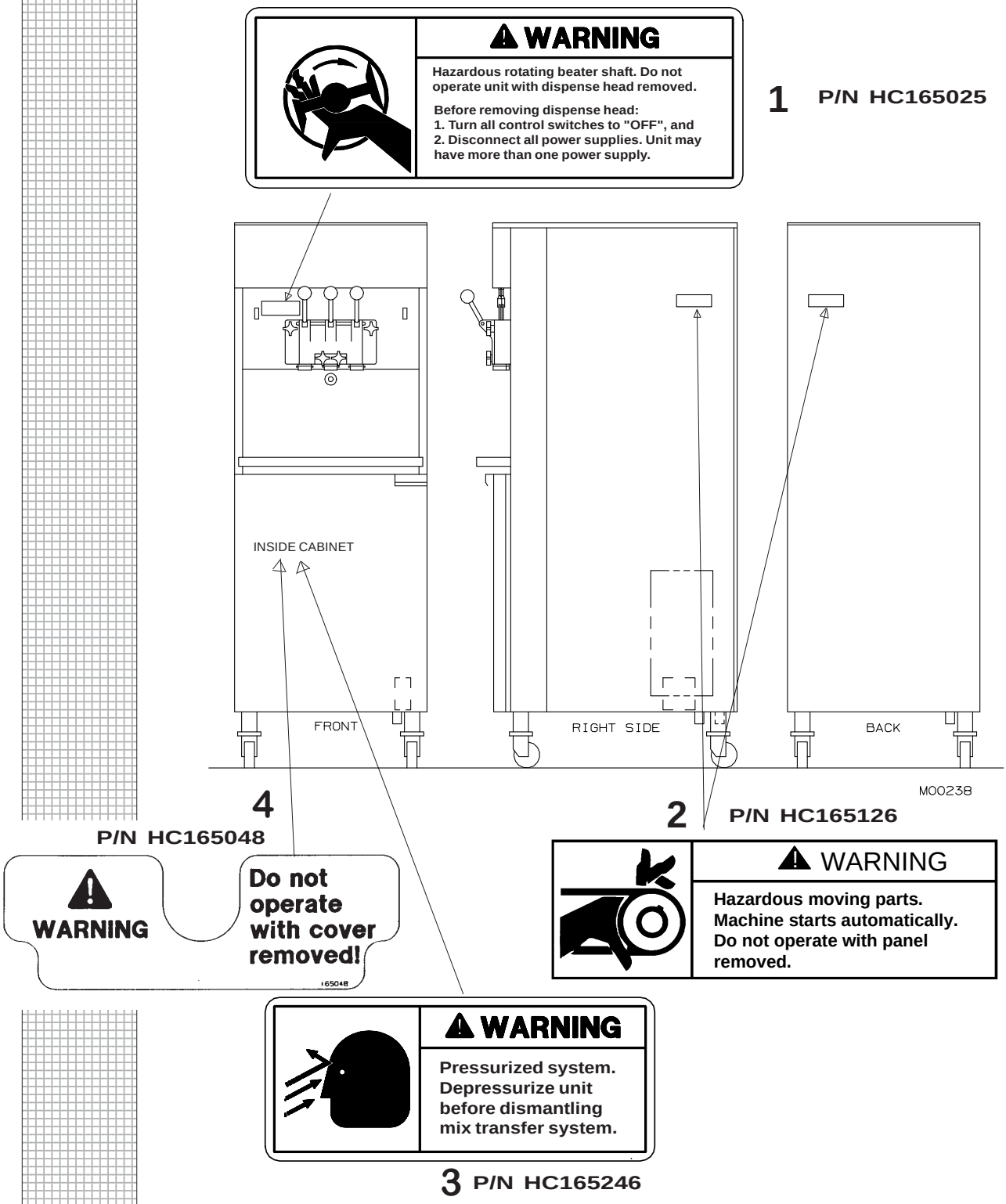


Table of Contents

Table of Contents (continued)

Part II

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

1 Introduction

The Model 88T-RMT Freezer is 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 40ºF (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 88T-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 authorized service technician in accordance with the installation instructions.

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

2.1 Uncrating and Inspection

CAUTION

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

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.

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).

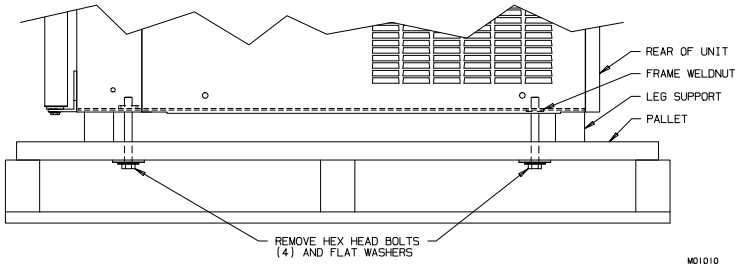


Figure 2-1 Machine Bolted to Shipping Base

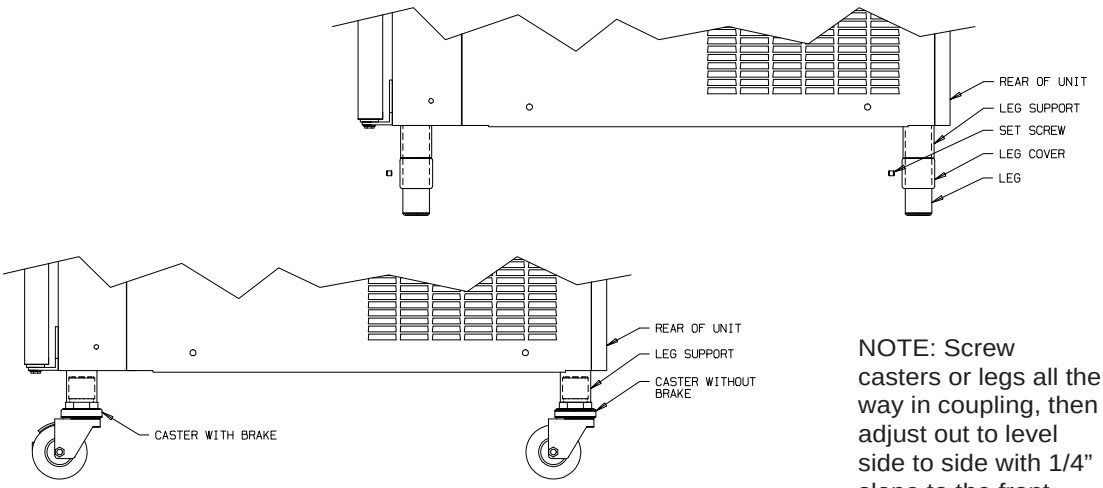


Figure 2-2 Installing Mounting Legs or Casters

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

2.2 Installation

CAUTION

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

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

– continued

2.2 Installation (continued)

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.

3. All freezers require a minimum 6 inch (15 cm) clearance on either the side panels or the rear panel for adequate ventilation. Freezers designed with top air discharge require that 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 3/8 inch MPT water inlet and water waste connection. 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. The water pressure must be between 35-140 psig (241-965 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 ± 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. Check the data plate for fuse size, wire ampacity and electrical specifications.

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

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

4. Use a flexible connection when permissible. All materials and connections must conform to local codes and/or the National Electric Code.

5. 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.

88T-RMT

Width (in/cm)	24/61
Height (in/cm)	68/173
Depth (in/cm)	30.5/77.5
Weight (lbs/kg)	680/308
Compressor*	2 HP/12000 BTUH 1.5 kw (Motor) 3.8 kw (Cooling)
Beater Motor	2 HP/1.5 kw
Refrigerant	404a
Charge	3.75 lb/1.7 kg
Mix Container (2)	20 Qts/18.9 Liters
Cylinder (2)	3 Qts/2.8 Liters

*Contact factory for other voltages

3.2 Data Plate

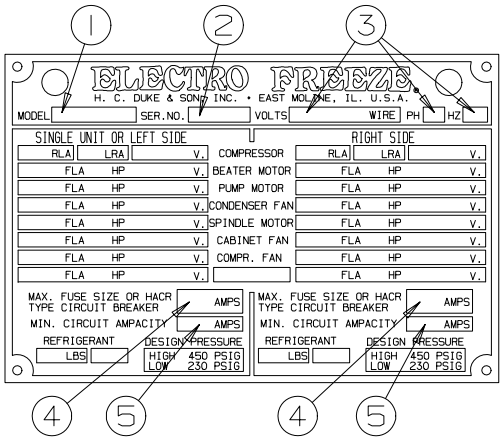


Figure 3-1

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

3.3 Reference Information

Write in Reference Information HERE!

Fill in this information as soon as you receive the Electro Freeze 88T-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 88T-RMT Freezer.

Date of installation: _____

Installed by: _____

Address: _____

_____

Phone: _____

3.5 Dimensions

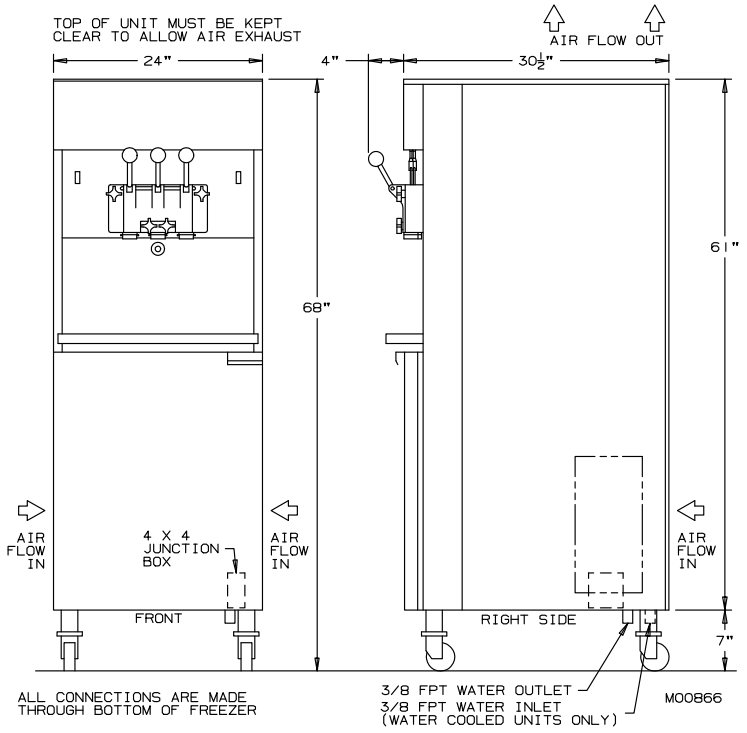


Figure 3-2

4 Part Names and Functions

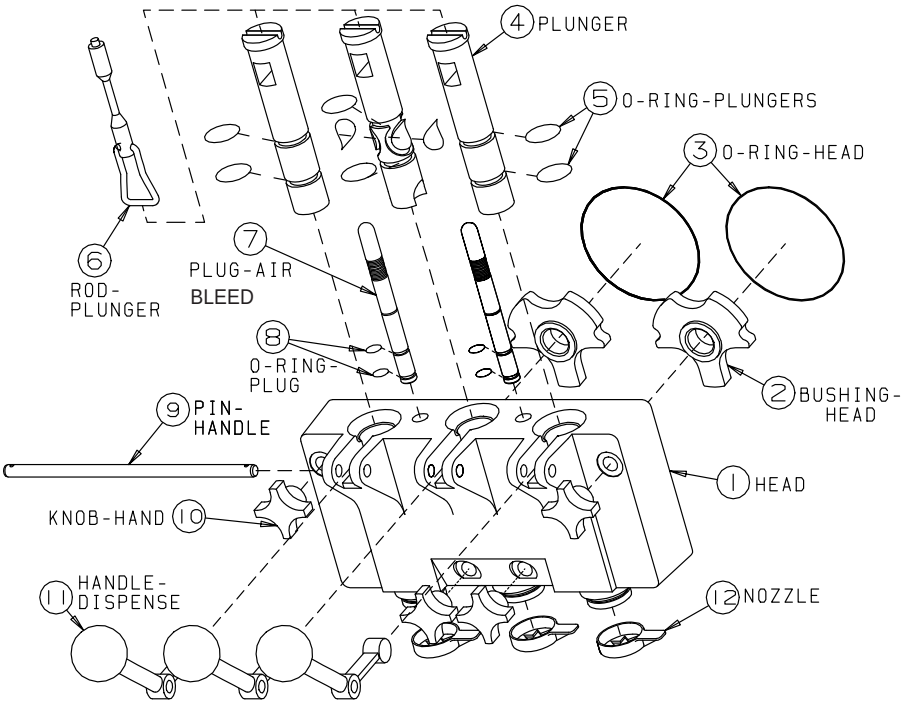


Figure 4-1 Head Assembly

1 HEAD
Encloses the freezing cylinder and provides an opening for product to be dispensed.

2 BUSHING - HEAD
Holds the beater in place at the front of the cylinder. Must lubricate center of bushing.

3 O-RING - HEAD
Seals the head to the freezing cylinder. Must be lubricated.

4 PLUNGER
Seals the product opening in the dispense head when closed. Allows product to flow when open.

5 O-RING - PLUNGER
Seals the plunger in the head. Must be lubricated to seal and slide properly.

6 ROD - PLUNGER
Starts the freezer when dispensing. Must be in place before freezer will operate.

7 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.

8 O-RING - PLUG
Seals the air bleed plug in the dispense head.

9 PIN - HANDLE
Secures the handle to the dispense head.

10 KNOB - HAND
Secures the dispense head to the freezing cylinder.

11 HANDLE - DISPENSE
Opens and closes the plunger to start and stop the flow of product from the freezer.

12 NOZZLE
Forms the frozen product as it is dispensed.

4 Part Names and Functions (continued)

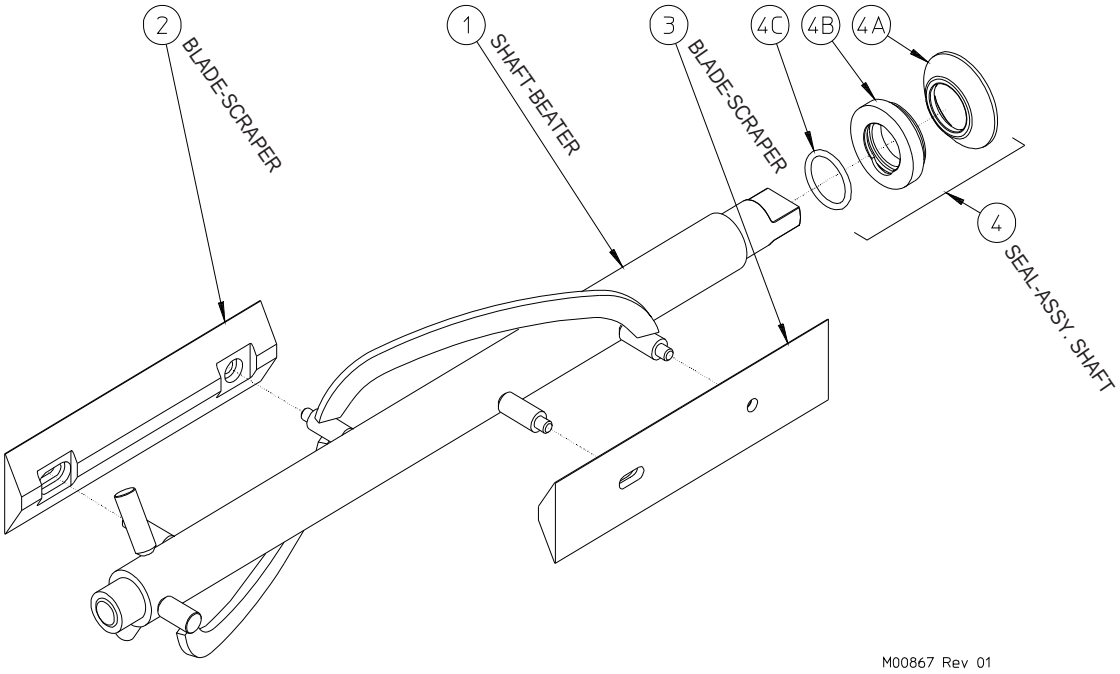


Figure 4-2 Beater Shaft Assembly

1 SHAFT - BEATER

Rotates in the freezing cylinder, blending air and ejecting product.

2 BLADE - SCRAPER FRONT

Scrapes the frozen product from the freezing cylinder.

3 BLADE - SCRAPER REAR

Scrapes the frozen product from the freezing cylinder.

4 SEAL - ASSY. SHAFT

Seals the opening between the freezing cylinder and the beater shaft. Consists of the following 4A, 4B, and 4C.

4A SEAL - BEATER SHAFT (CUP SEAL)

4B WASHER - SHAFT SEAL (BUSHING)

4C O-RING - SEAL

4 Part Names and Functions (continued)

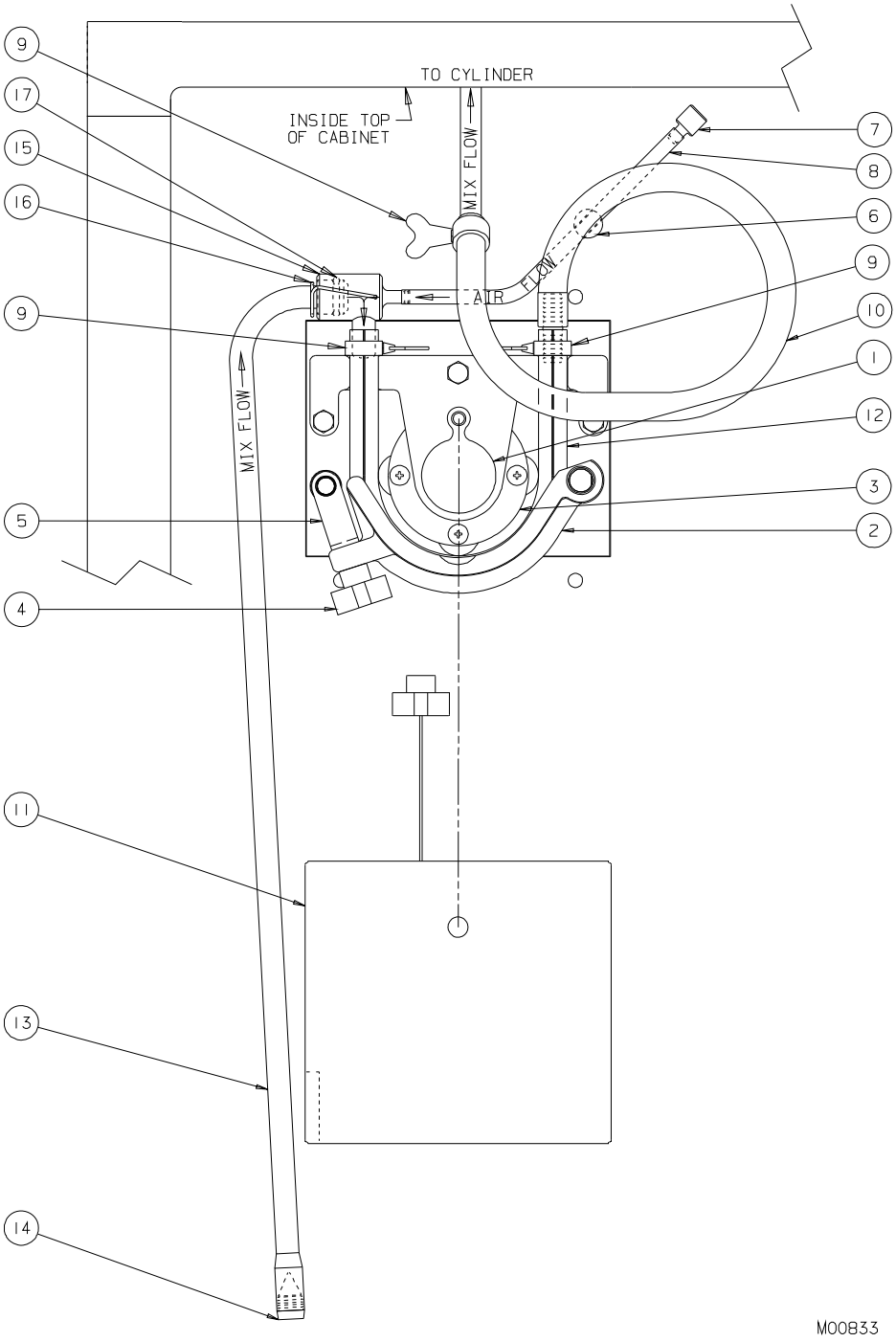


Figure 4-3 Mix Transfer System (MTS)

4 Part Names and Functions (continued)

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

5 Operator Controls and Indicators

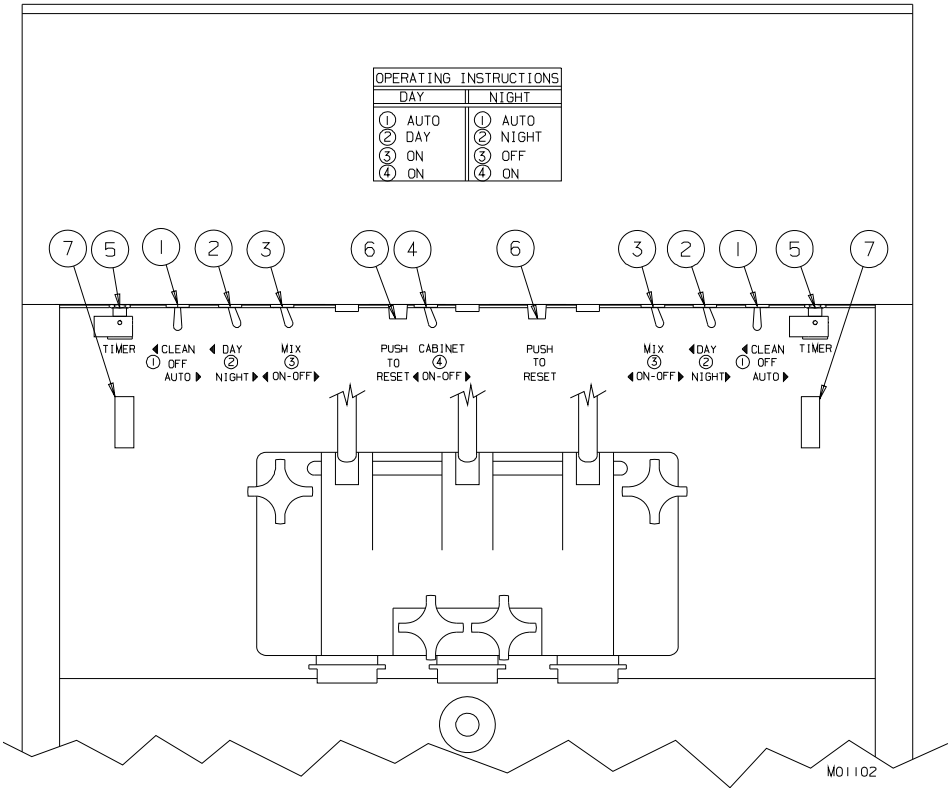


Figure 5-1

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). This position must be used in all cleaning and sanitizing operations.

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

⇨ ***Important:***
Do not use the "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 medium-temperature thermostat controls the system refrigeration to maintain a mix holding temperature of 40°F (4ºC) 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. **"MIX ON"** (left) — This position is the normal operating mode. This position is 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 mix temperature of 36 to 41°F (2 to 5°C) in the storage cabinet. Use this position when mix is in the storage cabinet but not in the cylinder.

b.**"OFF"** (right) — In this position the cabinet will not be refrigerated.

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 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)

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 flashing, this light indicates the mix in the mix container 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 mix tank full.

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

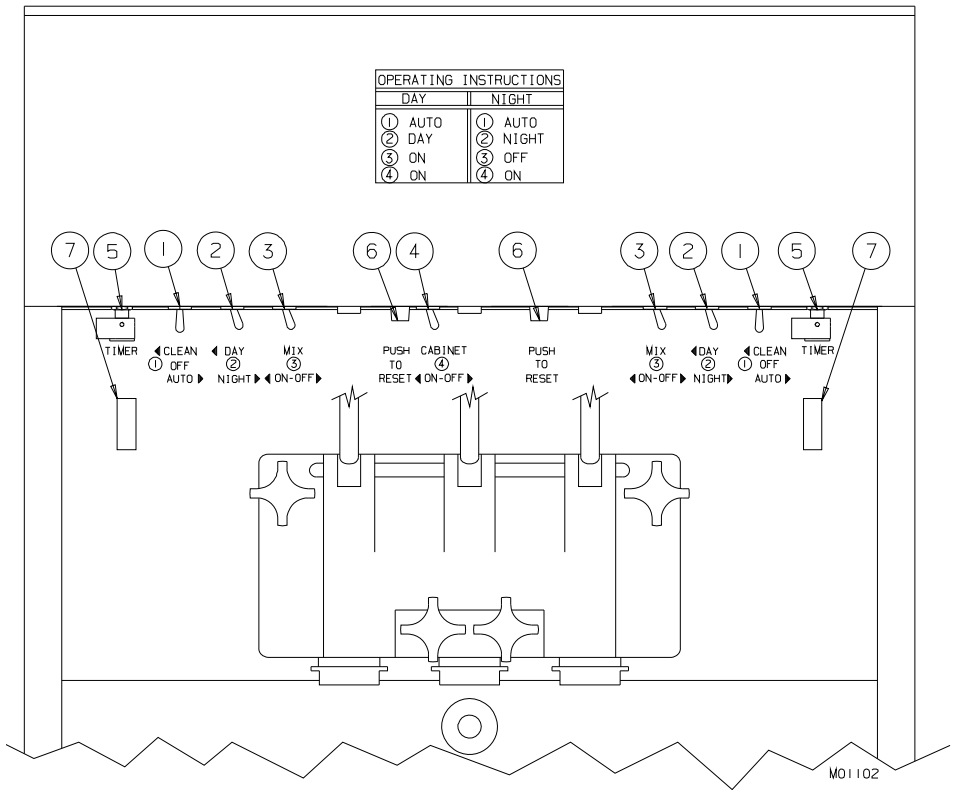


Figure 5-1

5 Operator Controls and Indicators (continued)

5.8 Probe - "ADD MIX" (See Figure 5-2)

For the "ADD MIX" indicator light to indicate low mix, the must be installed in the mix tank, with cord attached and plugged into the receptacle located in the back of the cabinet wall.

5.9 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 35º to 41ºF (2º to 5ºC). If the thermometer is indicating red or blue and the cabinet switch is "ON" contact your authorized service company for service.

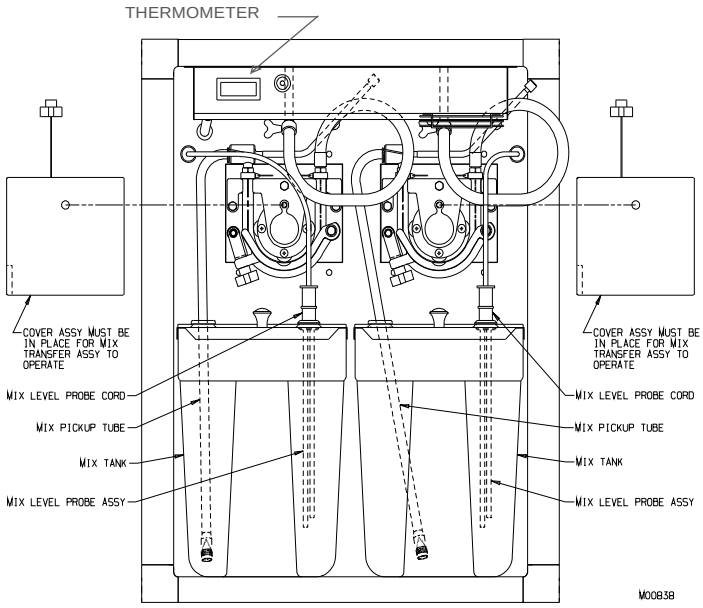


Figure 5-2

This chart shows the correct positions of the switches for day and night operations. This decal is located on the dispensing panel.

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

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

M01103

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

CAUTION
Make sure freezer is depressurized before proceeding.

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.

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.

5. Inside the 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.

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.

6.1 Cleaning Accessories

The following accessories shipped with the freezer are necessary for cleaning, sanitizing, and disassembly/assembly:

1. BRUSH - Cylinder, 4 inch diameter with 36 inch handle: used to clean the cylinder.
2. BRUSH - 9/16 inch diameter with an overall length of 30 inches: used to clean the drain tube, the mix feed tube in the ceiling of the cabinet, and the pickup tube.
3. BRUSH - 7/16 inch diameter with an overall length of 12 inches: used to clean the transfer hose, the braided hose and the air bleed opening in the dispense head.
4. BRUSH - 1 inch diameter with an overall length of 12 inches: used to clean the plunger opening in the dispense head. Also use to clean the disassembled shaft seal and the head bushing.
5. BRUSH - 1/4 inch diameter with an overall length of 18-1/2 inches: used to clean the air meter hose, the small hole in the back of the dispense head and small parts.
6. TOOL - O-RING REMOVAL: aids in removing o-rings from the spigot, head, air bleed plug, and shaft seal.
7. LUBRICANT - Petrol Gel: approved lubricant for moving parts and o-rings.
8. KIT - O-RING: contains all o-rings and seals needing replacement on a regular basis. (not shown)

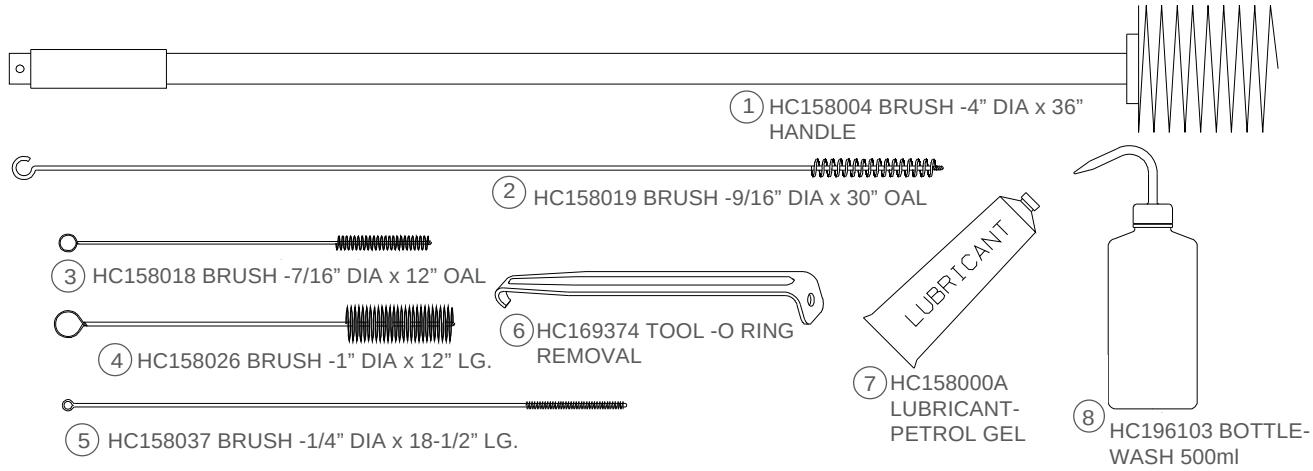


Figure 6-1

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

6.2 Disassembly Instructions

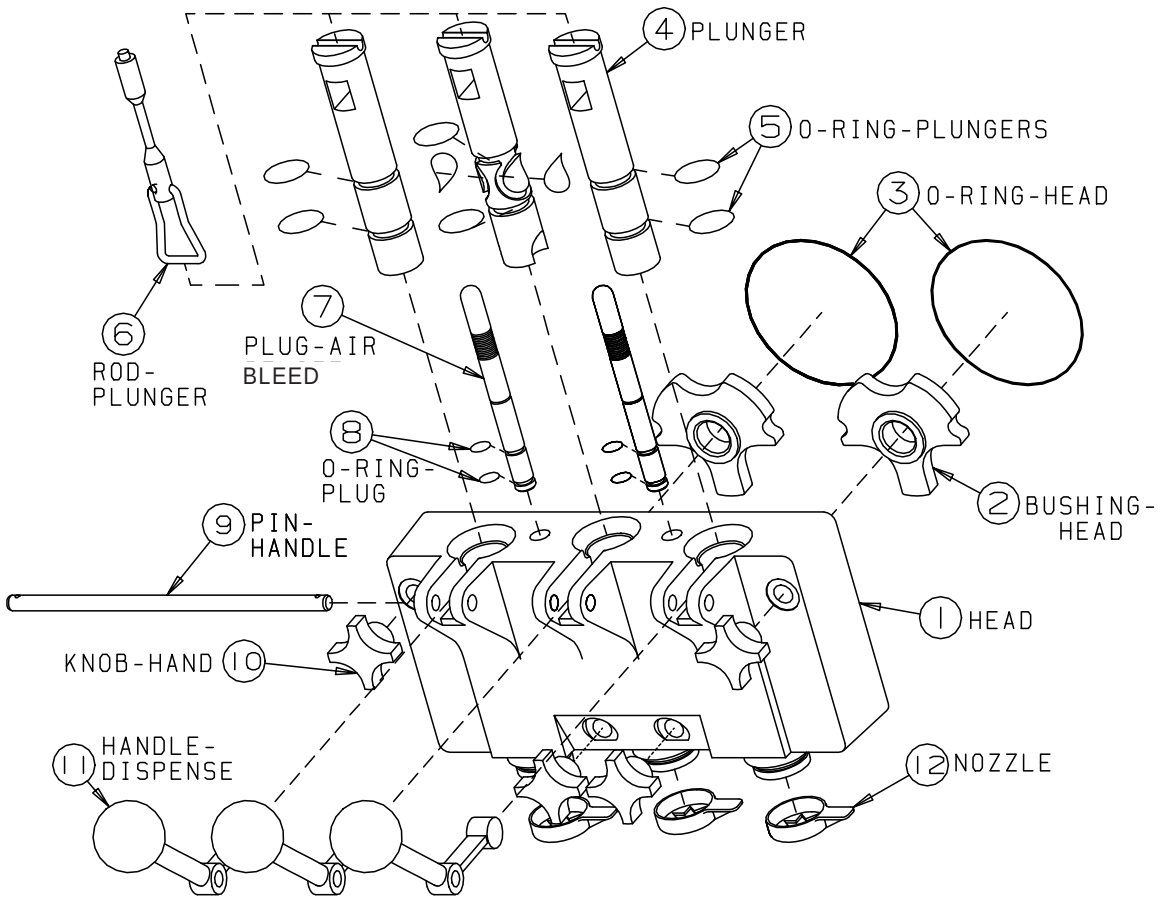


Figure 6-2 Head Assembly

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 (6, figure 6-2) by lifting up and swinging the bottom out and down. Remove hand knobs (10) and pull the dispensing head (1) straight out.

3. Remove the head bushings and beater shafts from the cylinders.

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

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

6. Remove the air bleed plugs (7, figure 6-2) and remove the two O-rings (8) on each plug. (See figure 6-2)

6.2 Disassembly Instructions (continued)

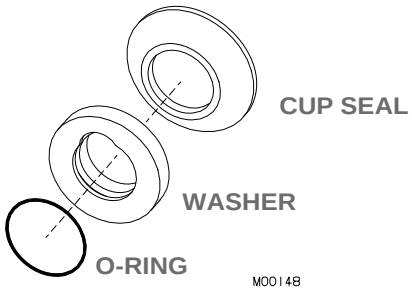


Figure 6-3 Shaft Seal

7. Remove the handle pin (9), handles (11), plungers (4) and nozzles (12) from the dispense head.

8. Remove O-rings (3) from the dispense head and O-rings (5) from the plungers (4).

9. Remove the cup seals (figure 6-3) and O-rings from the plastic washers on the shaft seal assemblies.

10. Remove mix tanks, covers and low mix probes.

11. Remove MTS cover.

12. 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.

13. Disassemble MTS hose assembiles as shown in figure 6-5.

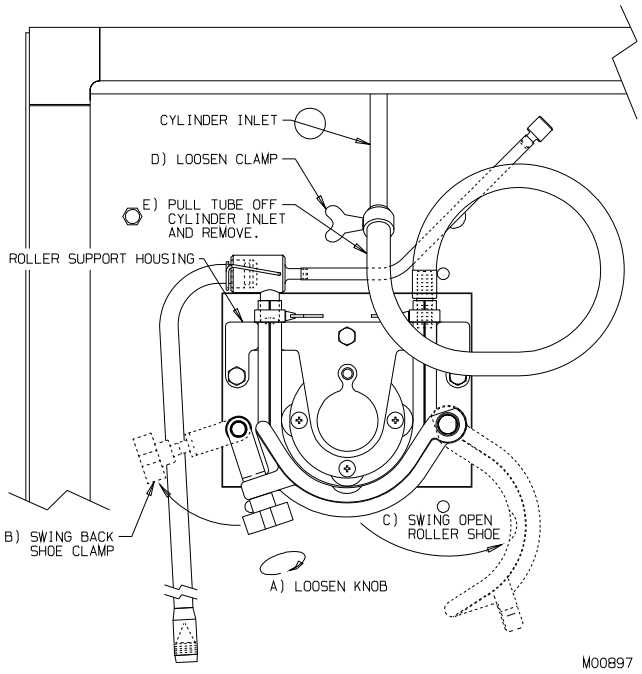


Figure 6-4 MTS

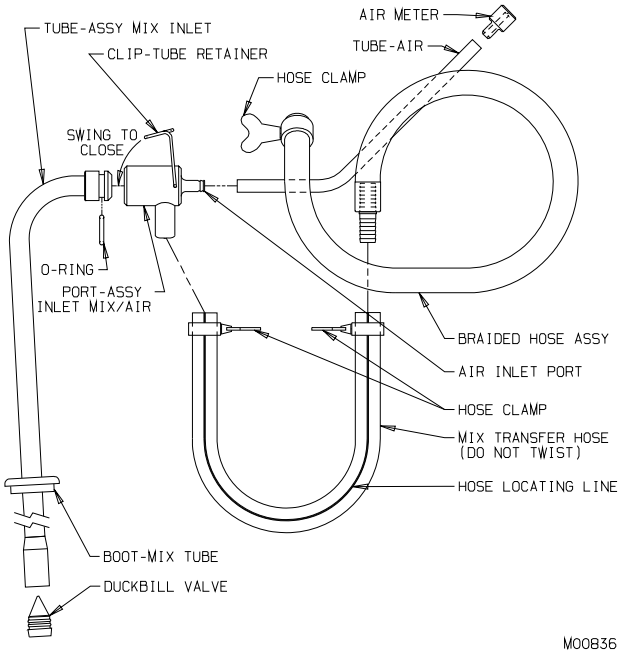


Figure 6-5 MTS Hose Assembly

6.3 Cleaning Instructions

The cleaning instructions explained in this section are procedures to remove bacteria and maintain a clean, sanitary freezer. The freezer must be disassembled, washed, and sanitized according to the instructions in this manual. Always sanitize before start-up to ensure the best possible cleanliness.

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.

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

⇨ ***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.

— continued

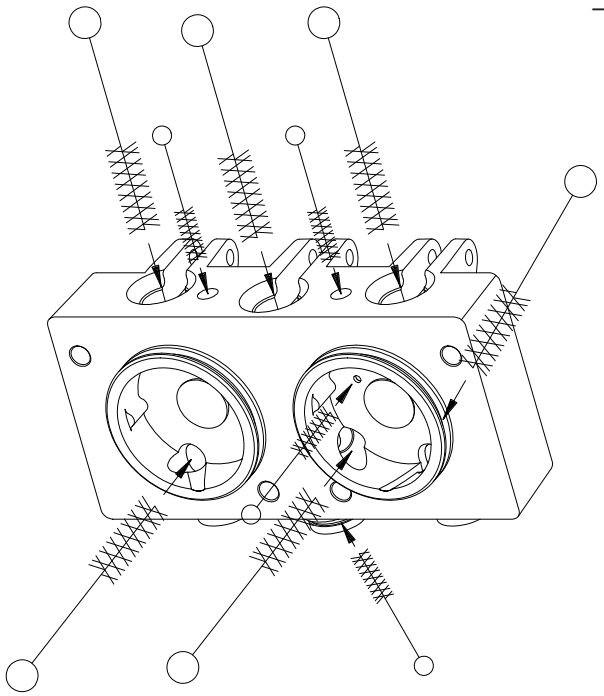


Figure 6-6 Clean head ports and openings with brush.

6.3 Cleaning Instructions (continued)

b. The head plunger openings, center plunger ports, O-ring grooves, dispense nozzle mounting rings, and mix ports, as shown in figure 6-6.

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.

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. 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. Repeat with sanitizing solution and rinse with clear water.

5. Remove the drip tray and insert. Wash in a warm dish detergent solution and rinse with clear water.

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.

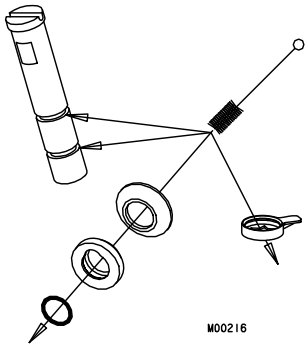


Figure 6-7 Clean O-ring grooves, seal and nozzle with brush.

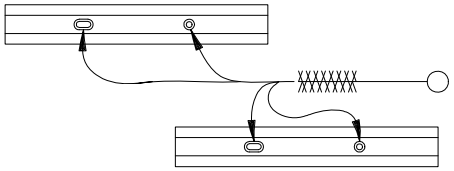


Figure 6-8 Clean beater shaft pin holes.

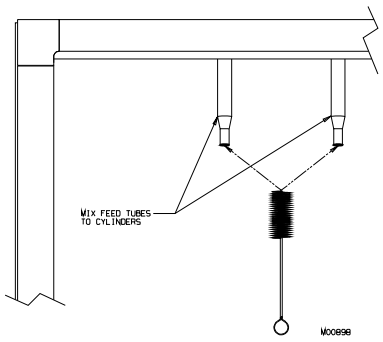


Figure 6-9 Brush inside of cylinder mix feed tubes.

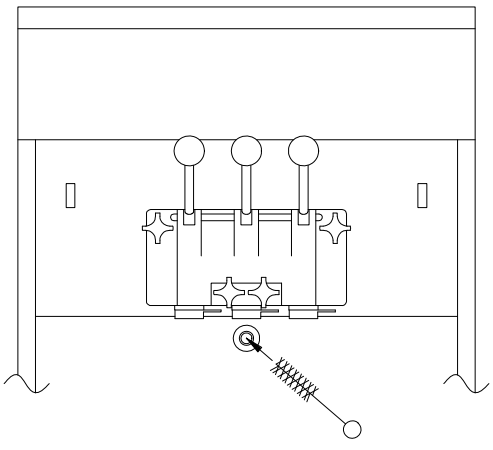


Figure 6-10 Brush inside of drain tube

6.3.1 Cleaning and Lubricating MTS Assembly

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.

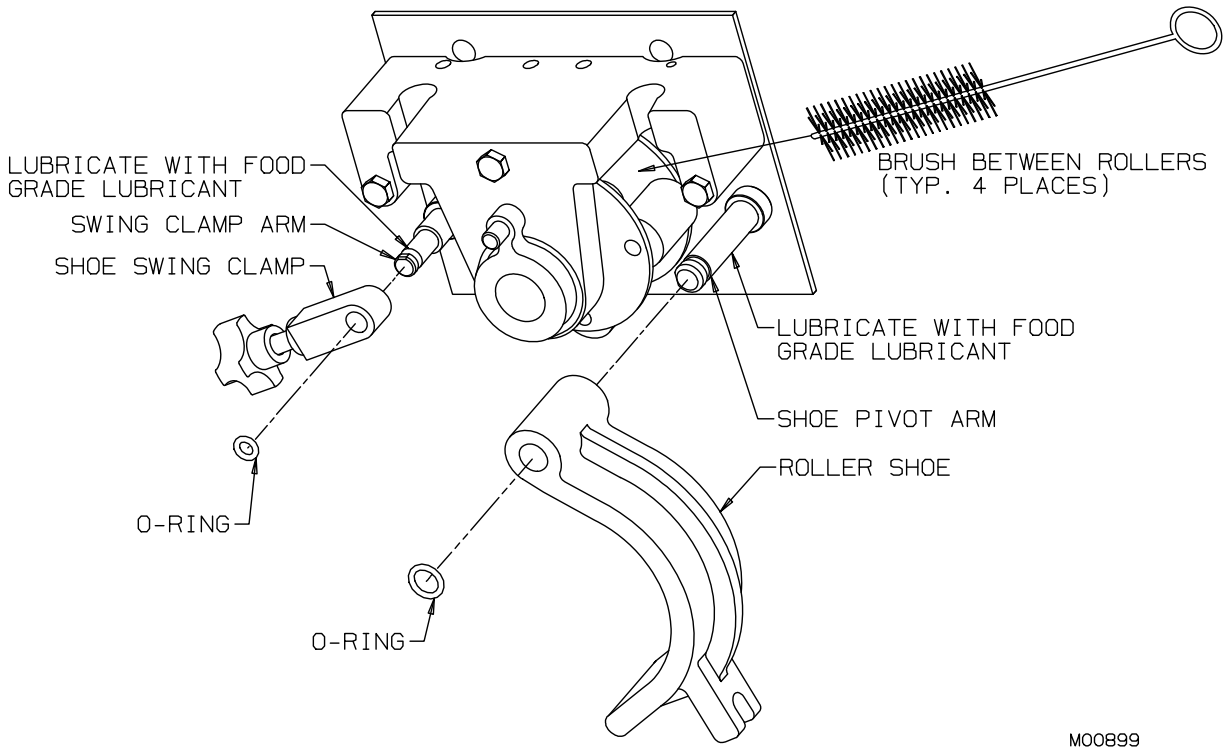


Figure 6-11

7 Assembly

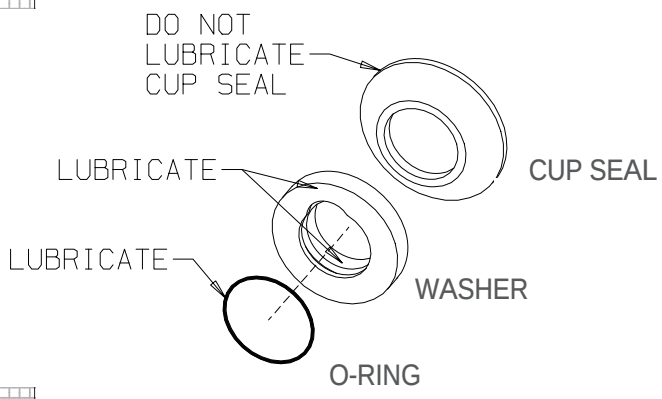
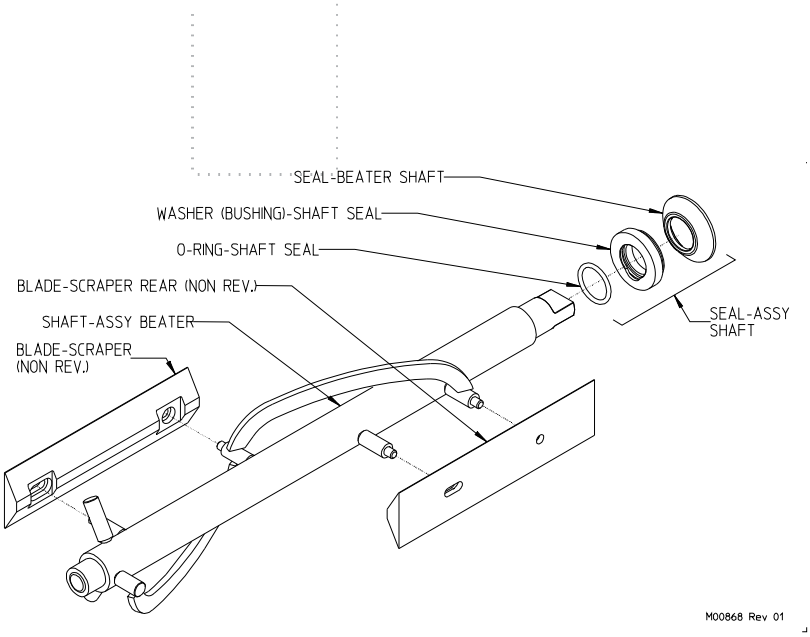


Figure 7-1 Shaft Seal Assembly



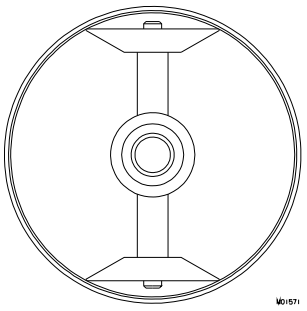


Figure 7-3 Scraper Blade Installation

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. 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. Persons assembling the freezer must first wash and sanitize their hands and forearms with an approved sanitizer.

2. To assemble the shaft seal, install the cup seal and O-ring on the bushing (see figure 7-1). Apply a light amount of approved sanitary lubricant (such as Petrol-Gel) to the O-ring and the face of the plastic washer opposite the bell portion of the seal. Do not allow any lubricant to come into contact with the bell-shaped rubber portion of the seals.

3. Install the shaft seal over the rear of the beater shaft, with the bell-shaped portion facing the rear, as shown in figure 7-2.

4. Place the scraper blades on the beater shaft, making sure the blades are installed properly (see figure 7-3).

5. 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)

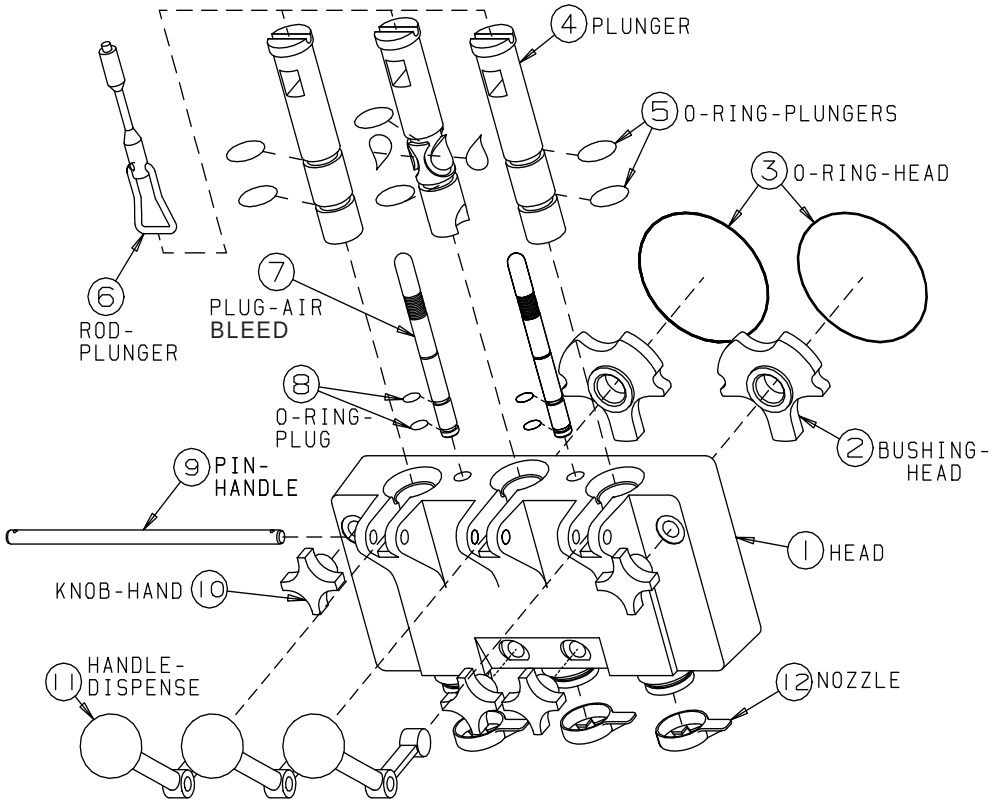


Figure 7-4 Dispense Head Assembly

6. (Refer to figure 7-4.) Install and then lubricate the O-rings on the dispensing plungers and insert all three halfway into the head.

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

8. Position the handles in the head and ensure that the longest handle is in the center plunger. Lock in place with the handle pin.

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

10. Lubricate the inside surface of the head bushing and place in the dispense head assembly by rotating until the bushing locks in place.

⇨ ***Important:***
ALWAYS make sure the head bushing is positioned in the head 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.

11. 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.

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

7 Assembly (continued)

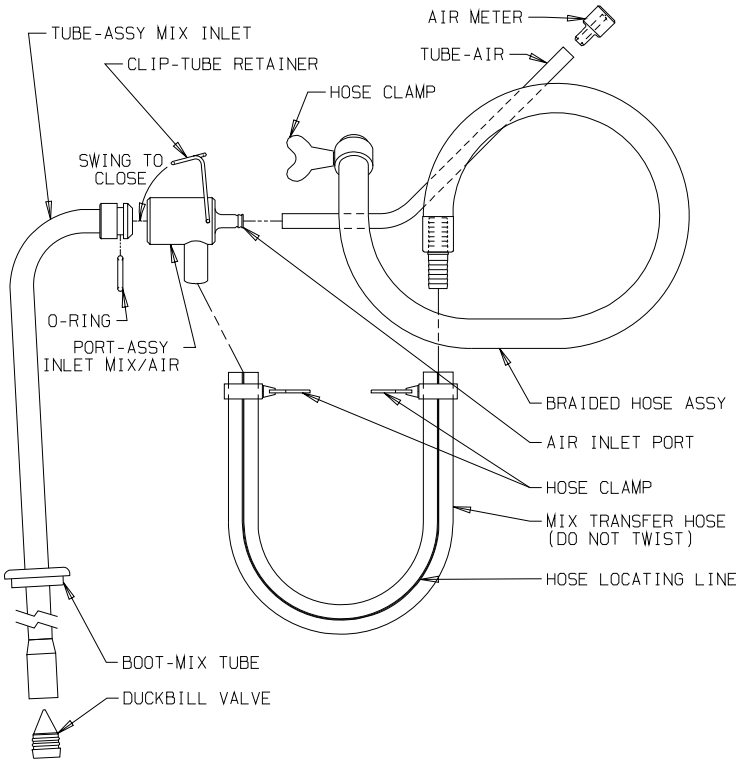


Figure 7-5 MTS Hose Assembly

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

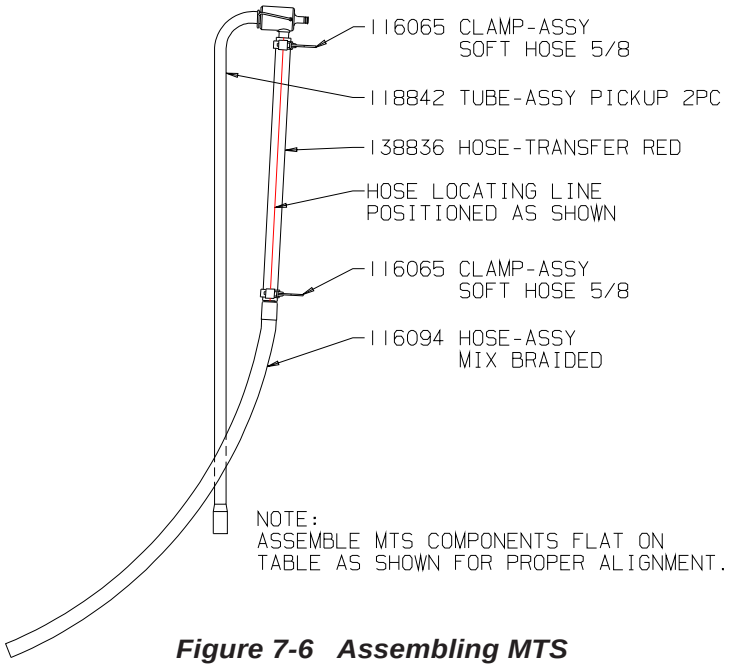


Figure 7-6 Assembling MTS

⇨ ***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.

13. 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 tranfer 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.

14. 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.

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

16. 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.

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

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

—continued

7 Assembly (continued)

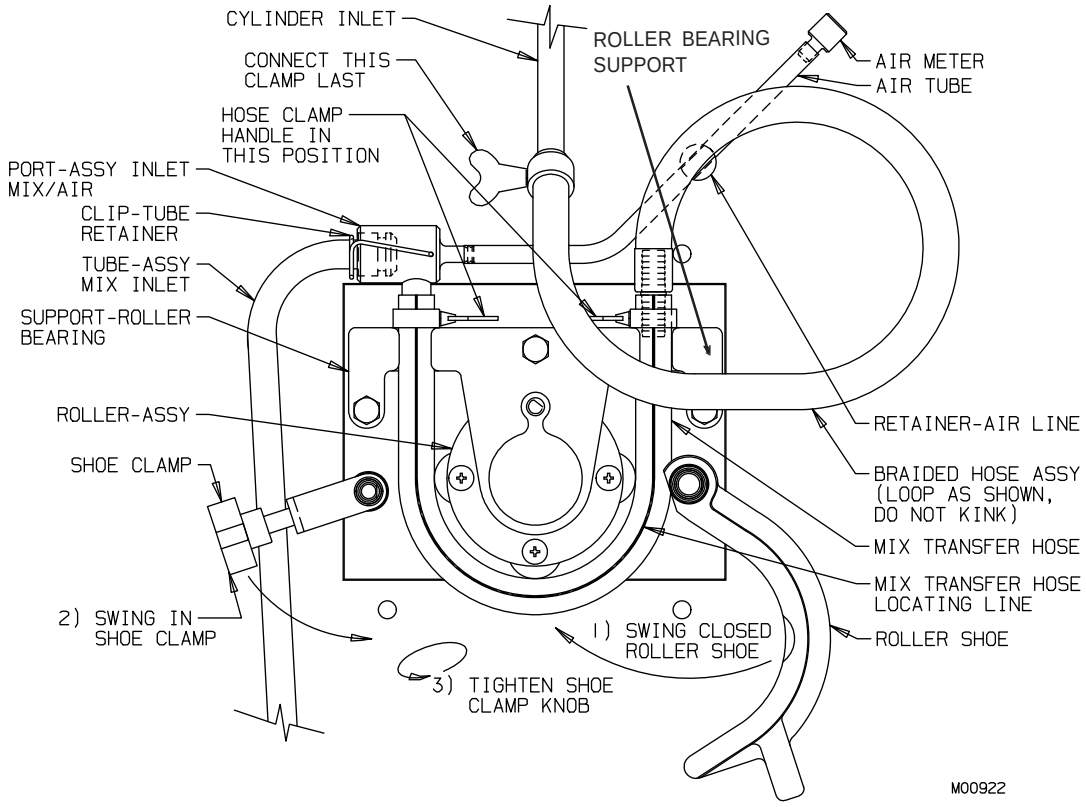


Figure 7-7 MTS

19. Refer to figure 7-7. 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.

20. 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.

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

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

23. 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.

24. 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)

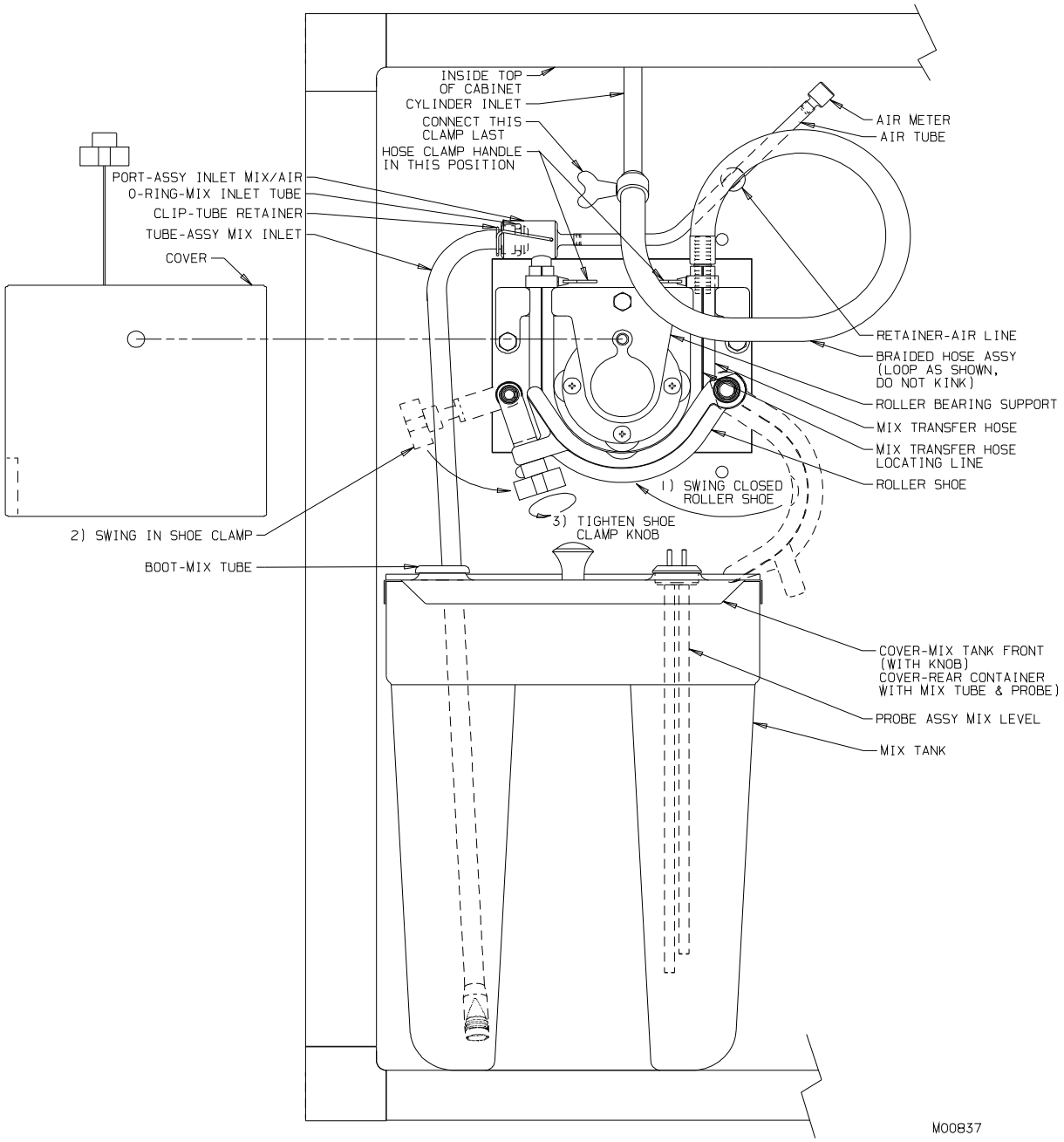


Figure 7-8 MTS

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

4. Place the mix tanks with sanitizer in the refrigerated cabinet.

⇨ ***Important:***

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

5. Insert the tube assemblies into the sanitizer 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.

— continued

8.1 Sanitizing Instructions (continued)

8. Connect 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 appears at the air bleed port, close the air bleed plug.

⇨ ***Important:***
DO NOT use the “AUTO” position with sanitizer in the cylinder. The freezer will be damaged.

10. Turn the SELECTOR switches to “CLEAN” and allow the beaters to run for 5 minutes. At this time check for leaks around the head, drain tube, clamps and MTS. Open and close the plungers a few times during this period to sanitize the plunger opening and o-rings.

11. Drain the solution from the cylinders by slowly pulling down on the dispense handles.

NOTE: Some sanitizer will remain in hoses and cylinders.

12. Leave the handles down, and turn the SELECTOR switches to “OFF” and let the MTS force all possible sanitizer out of the freezing 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.

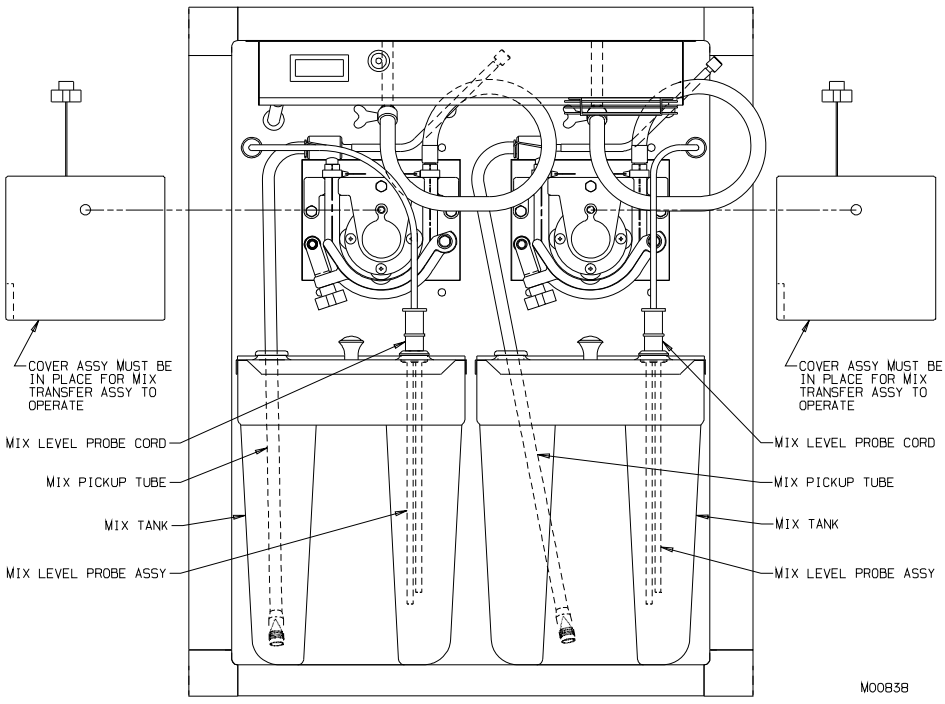


Figure 8-1

8.2 Priming

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

1. Wash and sanitize your hands and forearms with an approved sanitizer.

2. Holding the top 6-inch portion only, insert the pickup tubes into the sanitized mix tanks through the small hole in the rear covers and set tanks in the cabinet.

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

4. Insert the sanitized 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.

5. Turn the cabinet switch to “ON” and close the cabinet door.

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

7. Open the plungers and air bleed plugs.

8. Turn the MTS switches to “ON” and allow the mix to push the remaining sanitizer from the tubing and freezer cylinder.

9. Close the plungers when pure mix is being expelled.

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

10. When mix is 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.

11. 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.”

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

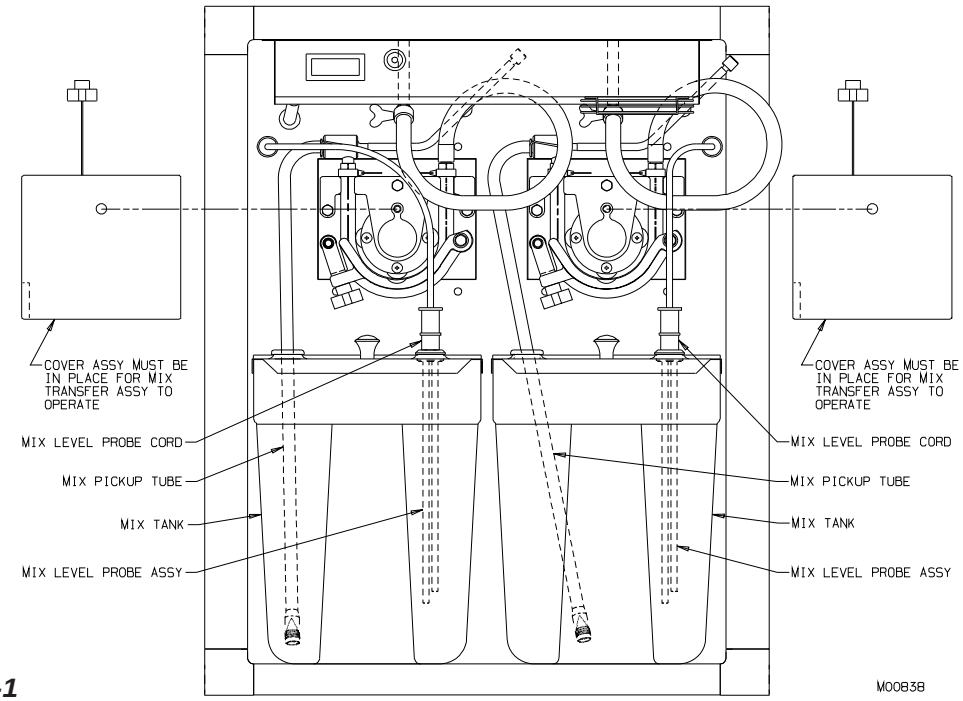


Figure 8-1

9 Closing Procedures

9.1 Night Switch Operation

1. In areas where health codes will allow, the freezer may be switched to night operation which 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” (1, Figure 9-1) and the cabinet switch “ON” (4).

3. Turn the MTS switches to the “OFF” (3) position.

4. Turn the DAY/NIGHT switches to “NIGHT” (2) and let the machine cycle.

5. Remove serrated nozzles and clean the drip tray assembly and all soiled surfaces with soap and water. Use sanitizing solution in spray bottle and brush to clean the bottom of the plunger openings.

7. To start the machine after using the NIGHT mode, turn the DAY/NIGHT switches to “DAY” (2) and the MTS switches to “ON” (3). Before replacing sanitized nozzles use a small brush and sanitizer to clean the bottom of the plunger openings.

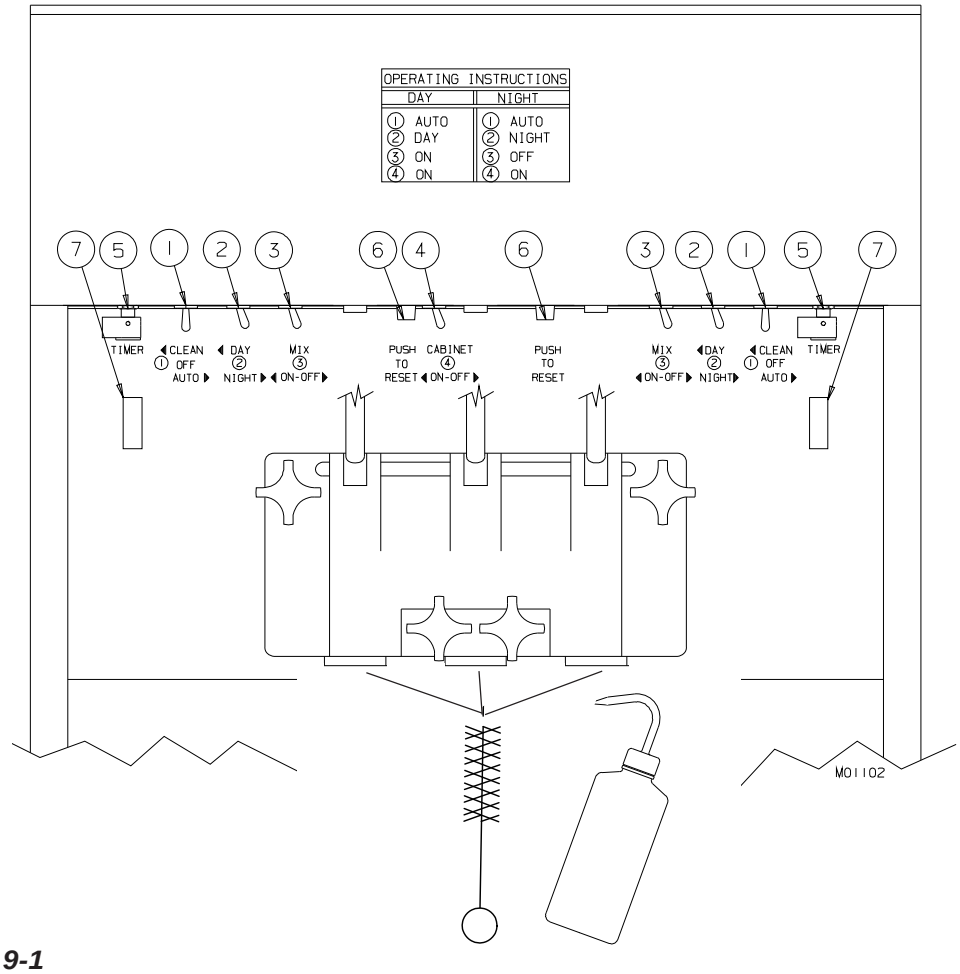


Figure 9-1

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.

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

4. See figure 9-2. In the cabinet below, disconnect the low mix probes from the back of the cabinet and remove from the mix tanks. Remove the mix tanks while pulling the stainless steel pickup tubes from the mix tanks. Place mix in a clean, sanitized container.

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

6. Very slowly dispense the semi-frozen product until it quits dispensing. Use this product for making pints, quarts, and/or other novelties.

7. Close plungers. Turn CABINET and MTS switches to the “OFF” position. Place the pickup tubes into a container of cold water, turn MTS switches to “ON,” and allow the MTS to fill and pressurize the cylinders with water.

8. Very slowly open the plungers and dispense the cold water. Follow with a container of warm water 100 to 110°F (37 to 43°C), and repeat until the dispensed water is clear.

9. Place the SELECTOR switches and MTS switches in the “OFF” position. Drain all water from the cylinders. Close the plungers.

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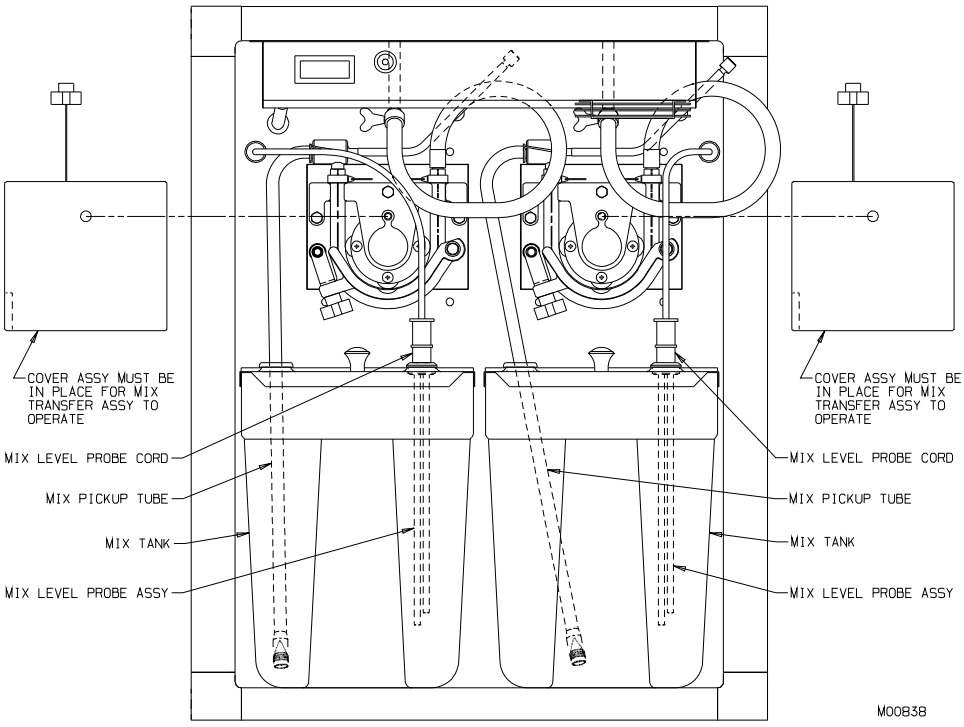


Figure 9-2

9.2 Draining Product (continued)

10. Prepare 2 gallons (7.6 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). Make sure the sanitizer is mixed thoroughly and has completely dissolved.

11. Place the mix tanks with the sanitizing solution in the cabinet. Insert the pickup tubes into the sanitizing solution.

12. Place an empty container under the dispense heads.

13. Open the air bleed plugs by pulling up until the plugs touch the bottom of the switch box. Place the MTS switches in the "ON" position. When the sanitizing solution flows out the air bleed plugs, close the plugs and allow cylinders to pressurize.

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

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

15. 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 the "OFF" position. Leave the MTS in the "ON" position and allow them to push all remaining sanitizer out of the cylinders. When the sanitizer quits flowing, turn the MTS switches to the "OFF" position.

16. Remove pickup tubes from sanitizing solution.

CAUTION
Make sure the freezer is depressurized before proceeding.

17. 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!

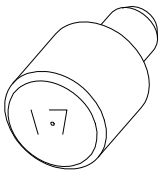


Figure 10-1 Air Meter

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.

10.3 Rerun

Rerun is product that has been drawn through the freezer into a container and has melted down to be reprocessed. If local health codes permit the use of rerun make sure to follow these procedures:

1. Store rerun mix in a clean, sanitized container with a lid.

2. Store in a cooler with a temperature below 40˚F (4.4˚C).

3. DO NOT prime the machine with rerun. Always skim off with a sanitized spatula and discard foam. Then combine the rerun with fresh mix in a ratio of 50/50 and add to the mix container during operation.

4. Once a week run the mix as low as possible and discard after closing. This will break the rerun cycle and reduce the possibility of high bacteria and coliform counts.

NOTE: **Rerun product is unable to accept the same amount of air as fresh product. As a result, the quality will be affected and product may appear grainy and icy.**

For further information contact your local Electro Freeze distributor or the Service Department of H. C. Duke & Son, Inc. phone (309) 755-4553, (800) 755-4545 or e-mail at service@hcduke.com.

11 Routine Maintenance

Electro Freeze recommends the following schedule to help maintain your Model 88T-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.

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 roller shoe. See figure 11-1.

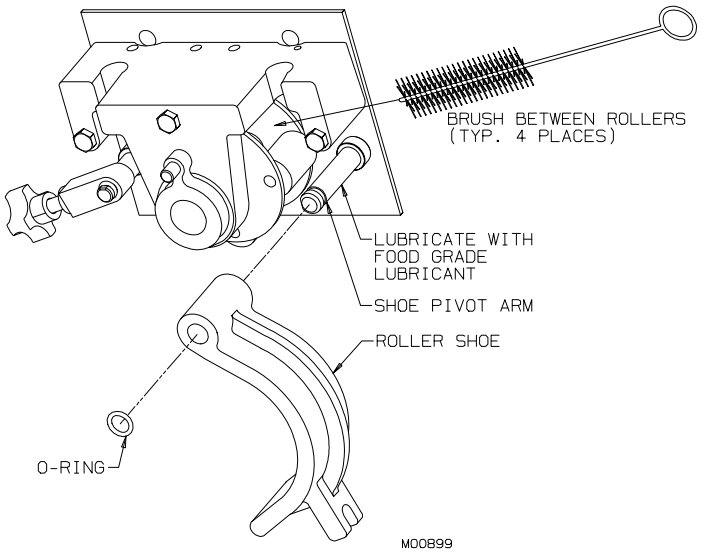


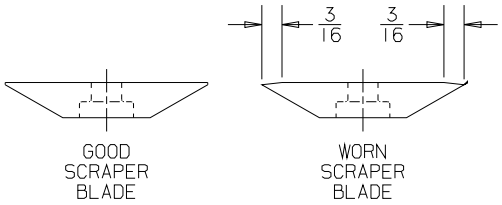
Figure 11-1

11 Routine Maintenance (continued)

WEEKLY

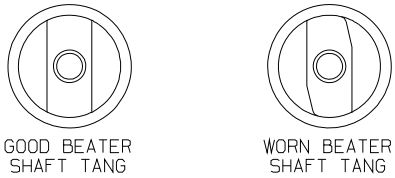
1. Carefully inspect all parts for wear, including seals, O-rings, mix transfer tubes, and blades.

2. Replace as required.

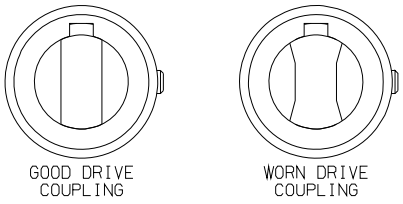


Replace blades if worn 3/16" or more.

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



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



1500 Hours of Operation or 6 Months

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

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 35°C with a 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.

11 Routine Maintenance (continued)

QUARTERLY

A. Air Condenser.

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

On air cooled freezers have the air condenser fins cleaned by your Electro Freeze Distributor to remove dirt,, lint and dust.

B. Refrigeration System

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

SEMI-ANNUALLY

1. Condenser Fan Motor.
(Air Cooled Models)

Have the condenser fan motor checked by your Electro Freeze Distributor. to add oil as needed.

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.

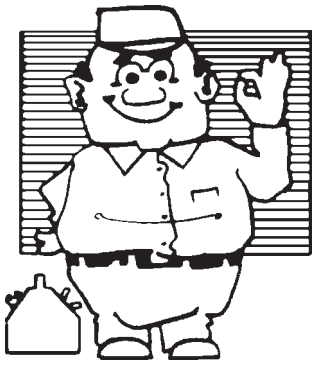
1. Call your Electro Freeze Distributor to have your gear reducer oil changed.

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

2. Call your Electro Freeze Distributor for service to replace drive belts and lubricate the fan motors as needed.

3. Call your Electro Freeze Distributor to clean the inside of the freezer, including base, side panels, condenser, etc.

4. Call your Electro Freeze Distributor to check water-cooled condenser 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 contact your local *Electro Freeze* Distributor or H. C. Duke & Son, Inc., *Electro Freeze* Service Department for factory serviceat:

Phone: (309) 755-4553 , (800) 755-4545
Fax: (309) 755-9858 or
E-mail : service@hcduke.com.

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 or breaker blown 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. Off on high pressure cut-out or low pressure cut-out control.	4. Contact your Electro Freeze Distributor for service.
	5. Component failure.	5. Contact your Electro Freeze Distributor for service.
	6. Faulty selector switch.	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 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.
Dispensed product too soft (Product temperature above 19°F [-7°C])	1. Dirty or blocked condenser, restricted air flow.	1. Contact your Electro Freeze Distributor for service.
	2. Thermostat set too high or faulty.	2. Contact your Electro Freeze Distributor for service.
	3. Component failure.	3. Contact your Electro Freeze Distributor for service.
	4. Leak in refrigeration system resulting in little or no refrigeration.	4. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Product dispenses slowly out of dispensing head. 	1. MTS pressure too low.	1. Contact your Electro Freeze distributor for service.
	2. Product too cold. Check Hot settings.	2. Check product temperature. Should be 18°F (-7.8°C). See Dispensed Product Too Hard.
	3. Low overrun.	3. Check air meter. If plugged, clean. See MTS Troubleshooting-No Air (Overrun).
	4. MTS problem.	4. See MTS Troubleshooting Charts
	5. Dispensed speed set to low.	5. Contact your Electro Freeze distributor for service.
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 low.	6. Contact your Electro Freeze Distributor for service.
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.

12 Troubleshooting Table (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 local service company; 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 Table (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.
Beater motor does not operate.	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 Table (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. Time delay defective.	2. Contact your Electro Freeze Distributor for service.
	3. Control relay defective.	3. Contact your Electro Freeze Distributor for service.
	4. Out on HPCO or LPCO.	4. 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.
	3. Cabinet solenoid stuck open.	3. Contact your Electro Freeze Distributor for service.
	4. Cabinet expansion valve set too low.	4. Contact your Electro Freeze Distributor for service.
Mix sours in cabinet.	1. Cabinet thermostat defective set too warm or turned off.	1. Contact your Electro Freeze Distributor for service.
	2. Cabinet solenoid defective (does not open).	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 compressor contactor defective.	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.	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 remain in start windings.	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

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 turned off or defective water regulating valve. (water cooled models)	2. Turn on water, or contact your Electro Freeze Distributor for service.
	3. Restricted water cooled condenser. (water cooled models)	3. Contact your Electro Freeze Distributor for service.
	4. Dirty air condenser. (air cooled models)	4. Contact your Electro Freeze Distributor for service.
	5. Unit location too warm (air cooled models)	5. Contact your Electro Freeze Distributor for service.
	6. Refrigerant overcharge.	6. Contact your Electro Freeze Distributor for service.
	7. Air in system.	7. Contact your Electro Freeze Distributor for service.
Discharge pressure too low.	1. Water regulating valve open too wide. (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. Transfer hose worn or split.	1. 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 inplace..
	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. Hose broken.	1. Replace hose.
	2. Pressure switch stuck in closed position.	2. 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.	4. Install hose.
Mix pickup tube loses prime.	1. Defective or missing duckbill valve.	1. Replace duckbill valve.
	2. Inlet clamp not tight.	2. Tighten clamp.
	3. Worn transfer hose.	3. Replace transfer hose.

12.2 Mix Transfer System (MTS) Troubleshooting Tables

PROBLEM	PROBABLE CAUSE	REMEDY
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 pickup 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.

ELECTRO FREEZE®

Replacement Parts Manual with Illustrations

FREEDOM 360° Series

Soft Serve Twist Freezer
Model 88T-RMT

184950-01 7/07

H.C. Duke & Son, Inc. P/N 184950-01 July 2007 Printed in U.S.A.

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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ILLUSTRATIONS

OTHER LISTS and INFORMATION

Use only original or authorized replacement parts with this freezer.

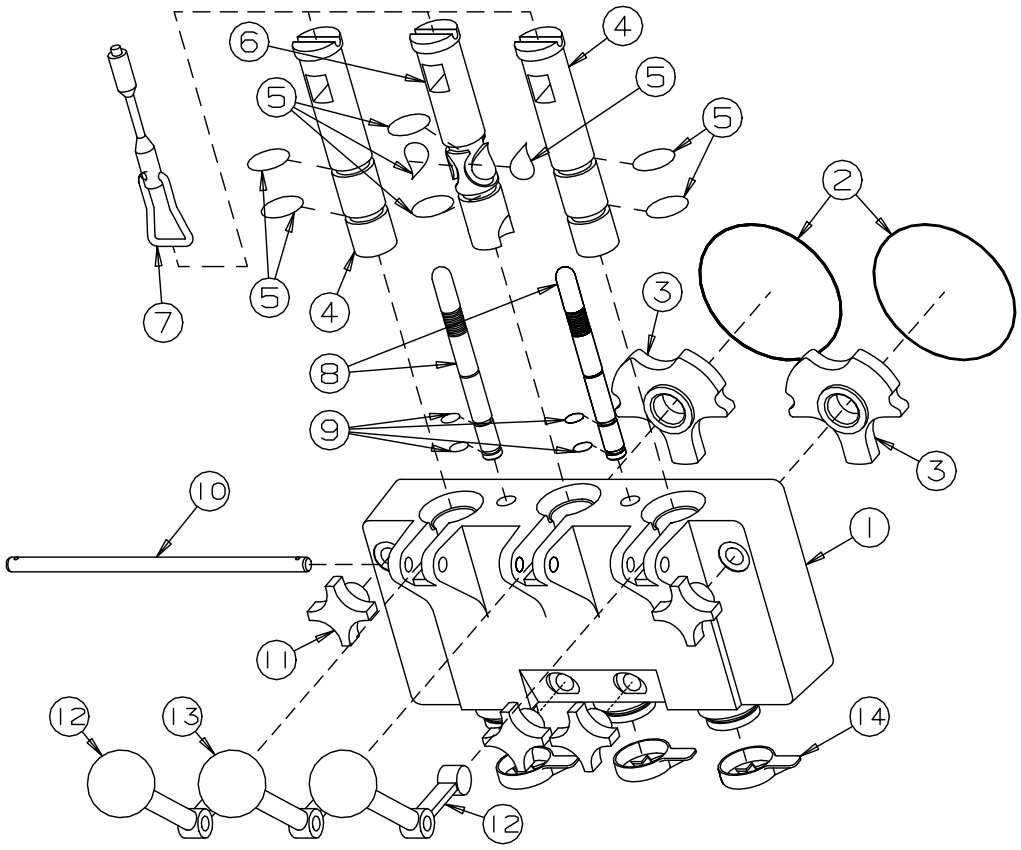


Figure 1 Head Assembly

Item	Part No.	Description
*	HC116042	Head-Assy.Dispense
1	HC116041	Head-Assy. w/actuators
2	HC159309	O-Ring (Head)
3	HC138427	Bushing-Dispense Head
4	HC137174	Plunger-Side Self Dispense
5	HC160501	O-Ring (Plunger)
6	HC138009	Plunger-Dispense Center
7	HC116089	Push Rod-Assy. Plunger Switch
8	HC138149	Plug-Air Bleed
9	HC160610	O-Ring (Air Plug)
10	HC160269	Pin-Handle
11	HC162625	Knob-Hand
12	HC110007	Handle-Assy. Dispense (Side)
	HC162629	Knob-Ball 3/8-16 THD Black
13	HC114808	Handle-Assy. Dispense Center
	HC162629	Knob-Ball 3/8-16 THD Black
14	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.

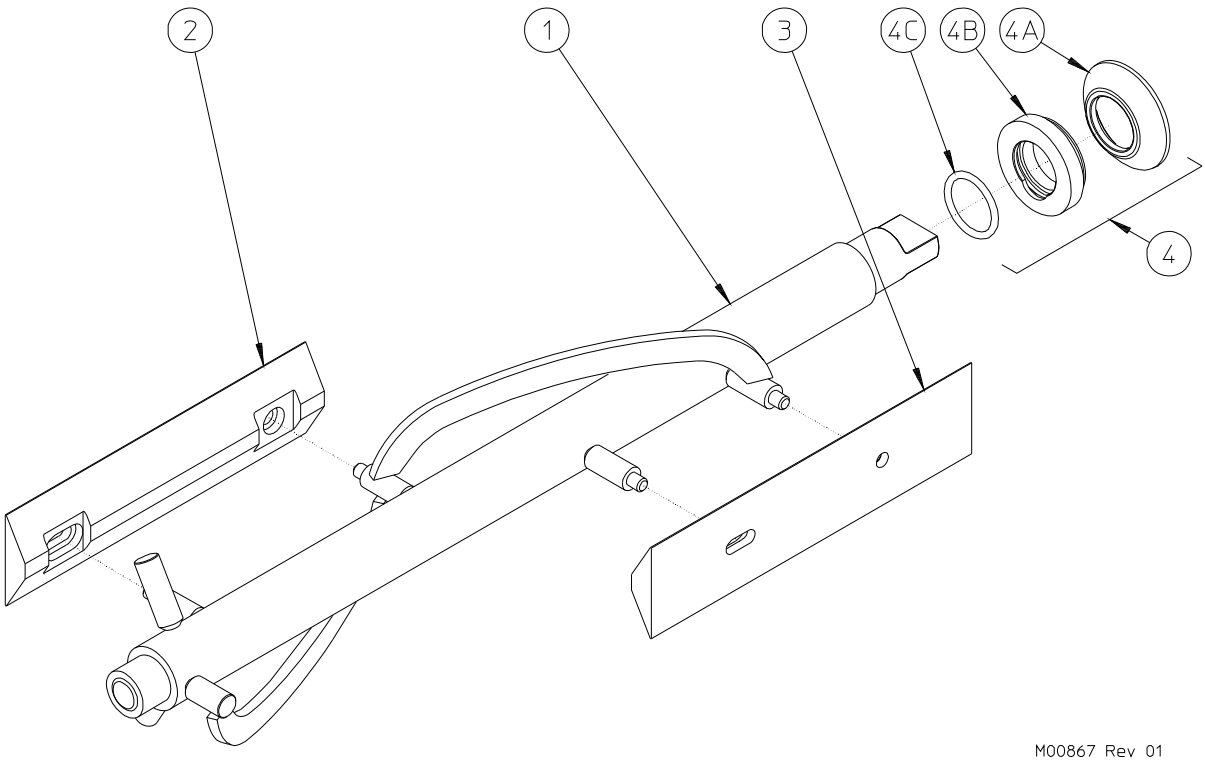


Figure 2 Beater Shaft Assembly

Item	Part No.	Description
1	HC117080	Shaft-Assy. Beater
2	HC138086	Blade-Scraper (Short)
3	HC138839	Blade-Scraper Rear (Long)
4	HC111875	Seal-Assy. Shaft includes
4A	HC160557	Seal-Beater Shaft (Cup)
4B	HC133098	Washer-Shaft Seal (Bushing)
4C	HC160500	O-ring (Seal)

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

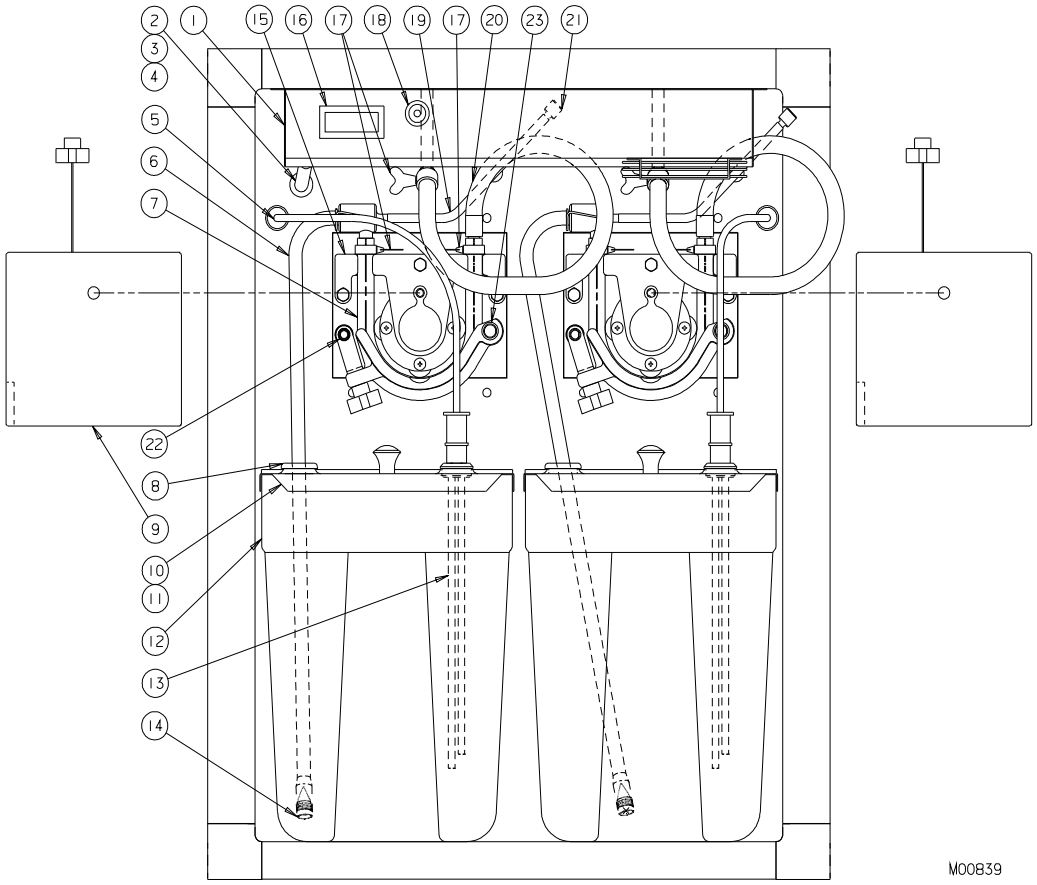
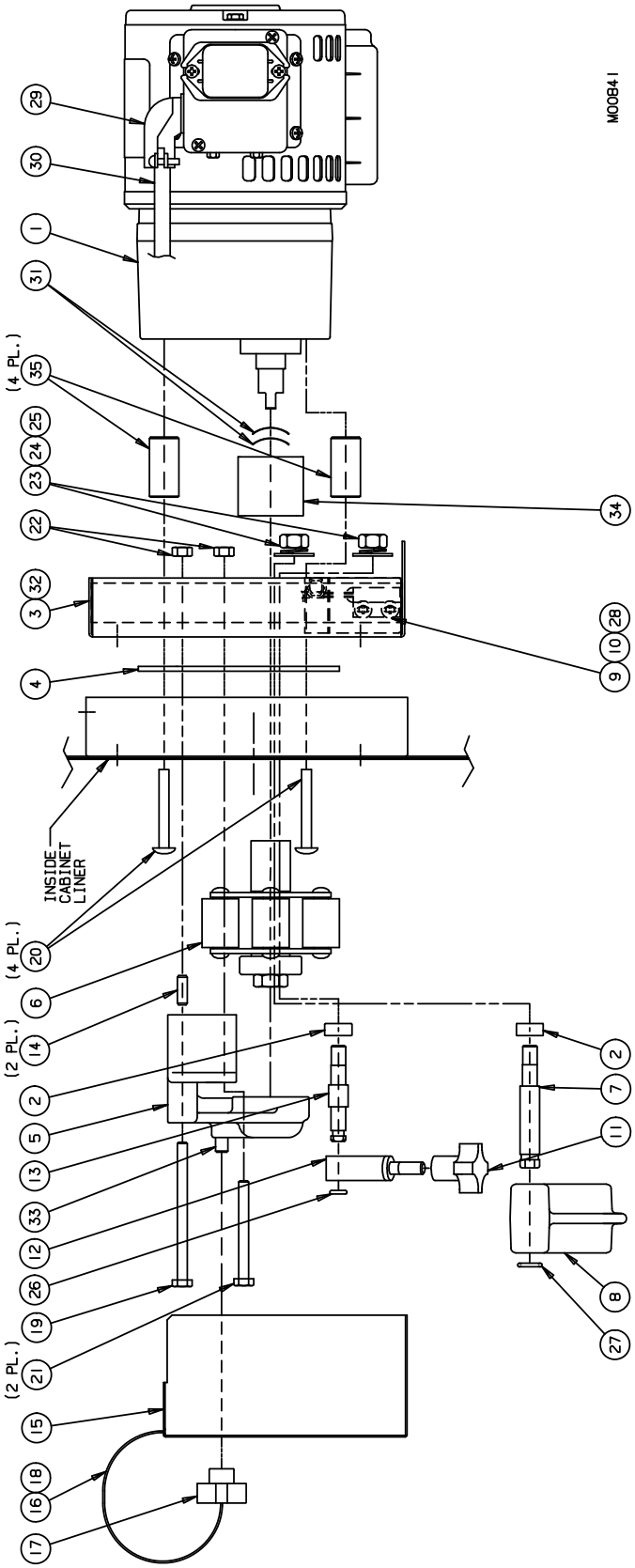


Figure 3 Cabinet Parts

Item	Part No.	Description
1	HC117443-01	Shroud-Assy. Evaporator
	HC150532	Cord-Assy. Male Plug
	HC151105	Fan-Intake (Cabinet)
	HC151076	Guard-Fan Open
	HC150509	Switch-Door Push Button
	HC161004	Thermometer-Barrel
1A	HC155111	Coil-Evaporator
1B	HC150533	Cord-Assy. Female Plug
2	HC160738	Clamp-Hose Drain
3	HC196068	Tubing-3/8 ID x 1/2 OD
4	HC139384	Tube-Drain Support
5	HC150537	Cordset-Mix Level Probe
5A	HC150536	Receptacle-Molded Level Sensor
6	HC118842	Tube-Assy. Pickup 2PC
	HC118765	Port-Assy. Inlet Mix/Air
	HC118836	Tube-Assy. Mix Inlet
	HC162324	Clip-Tube Retainer
	HC160502	O-ring
7	HC138836	Hose-Transfer Red Line
8	HC199033	Boot-Mix Tube
9	HC119023	Cover-Assy. RMT CAB
10	HC119995	Cover-Assy. Mix Tank Front
11	HC140445	Cover-Rear Mix
12	HC196255	Tank-Mix 5 Gal.
13	HC115397	Probe-Assy. Mix Level
14	HC199032-01	Duckbill-Inlet RM MTS
15	HC118751	MT-Assy CAB Redline (See Figure 4)
16	HC161004	Thermometer-Barrel
17	HC116065	Clamp-Assy. Soft Hose 5/8
18	HC150509	Switch-Door Push Butt
19	HC138170-02	Tube-Air 7-1/2 inches
20	HC116094	Hose-Assy. Mix Braided
21		Meter-Air (see chart above or 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
		HC150893 ..... Switch-Start Solid State (Relay)
		HC160173 ..... Washer-Spring Wave SST
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-RHMS 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.

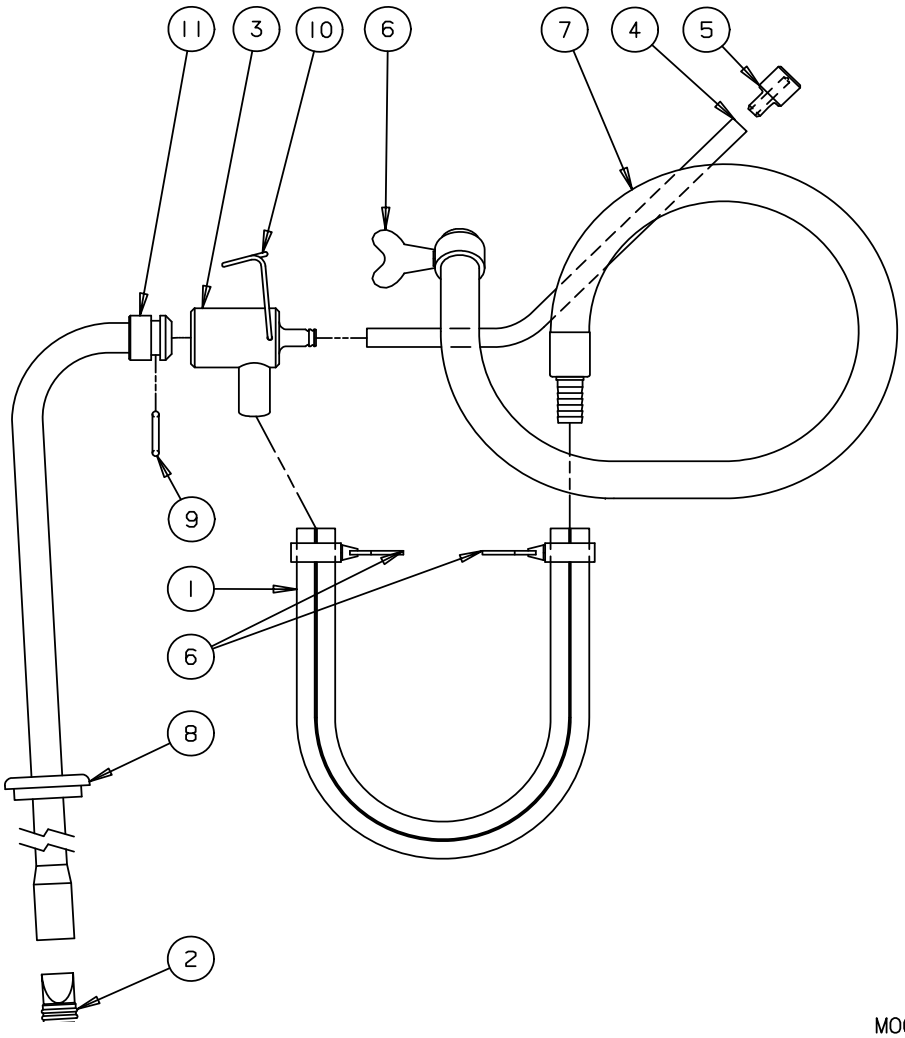
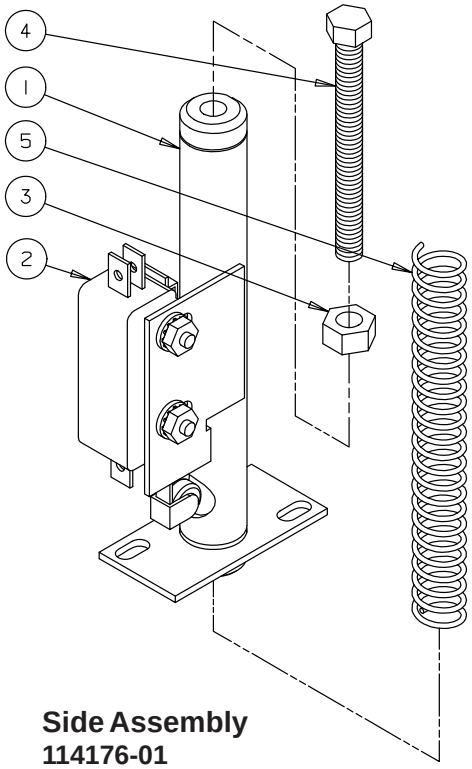


Figure 5 MTS—RMT Hose Assembly

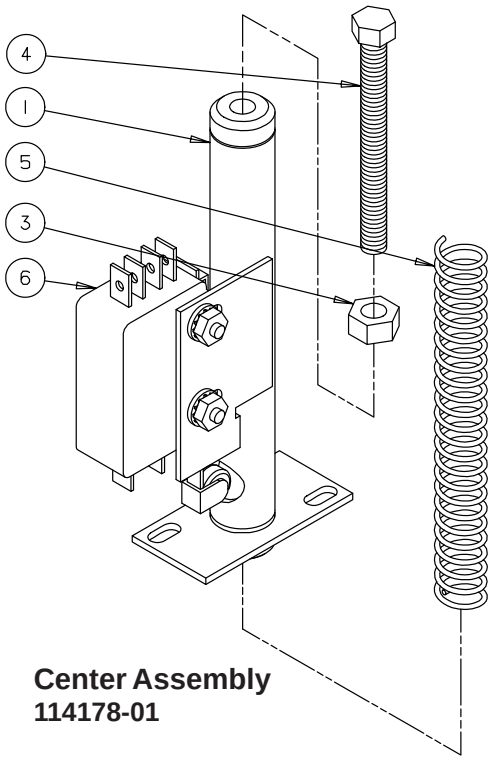
Item	Part No.	Description
1	HC138836	Hose-Transfer Red Line
2	HC199032-01	Duckbill-Inlet RM MTS (Valve)
3	HC118765*	Port-Assy. Inlet Mix/Air
4	HC138170-02	Tube-Air 7-1/2 in.(Hose)
5		Meter-Air (Order by meter number)
6	HC116065	Clamp-Assy. Soft Hose 5/8
7	HC116094	Hose-Assy. Mix Braided
8	HC199033	Boot-Mix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



Side Assembly
114176-01



Center Assembly
114178-01

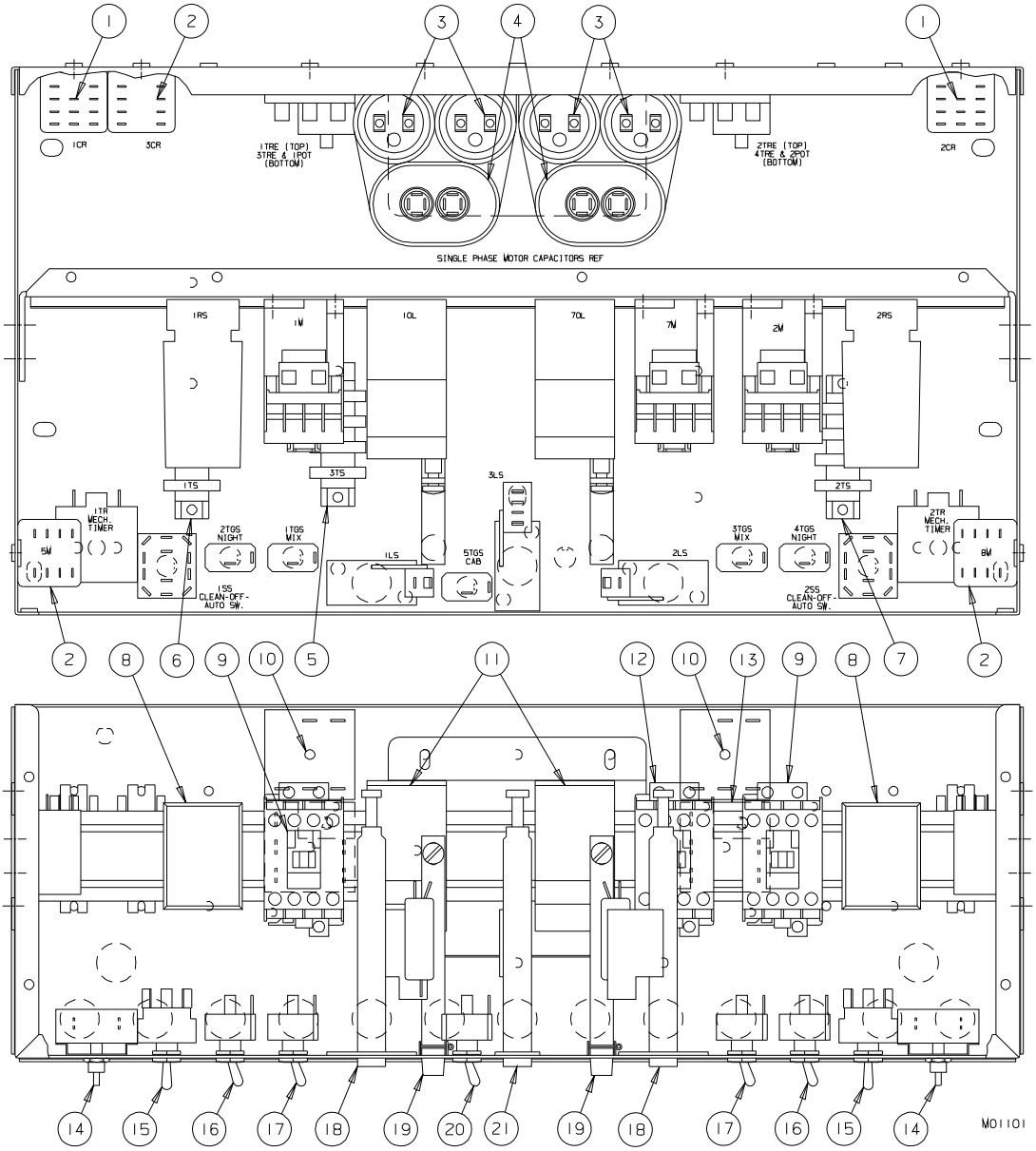
Figure 6 Switch Assemblies

Item	Part No.	Description
*	HC114176-01	Switch-Assy. Self Closing Plunger (Sides)
**	HC114178-01	Switch-Assy. Self Closing Plunger (Center)
1	HC114174	Guide-Assy. Push Rod
2	HC150477	Switch-Roller Actuator SPDT (Sides)
3	HC160104	Nut-HEX 1/4-20 ZN
4	HC159965	Screw-HXHM 1/4-20 x 2-1/2" ZN
5	HC162323	Spring-Compression MW ZN
6	HC150478	Switch-Roller Actuator DPDT (Center)

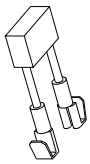
* Includes items 1-5
** Includes items 1, 3-6

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

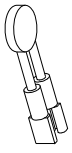
Figure 7 Switch Box (sheet 1 of 2)



Detailed Drawings
of
Filter and MOV Assemblies



Item #5A
Filter-Assy.
116125



Item #6A and #7A
MOV-Assy.
116188

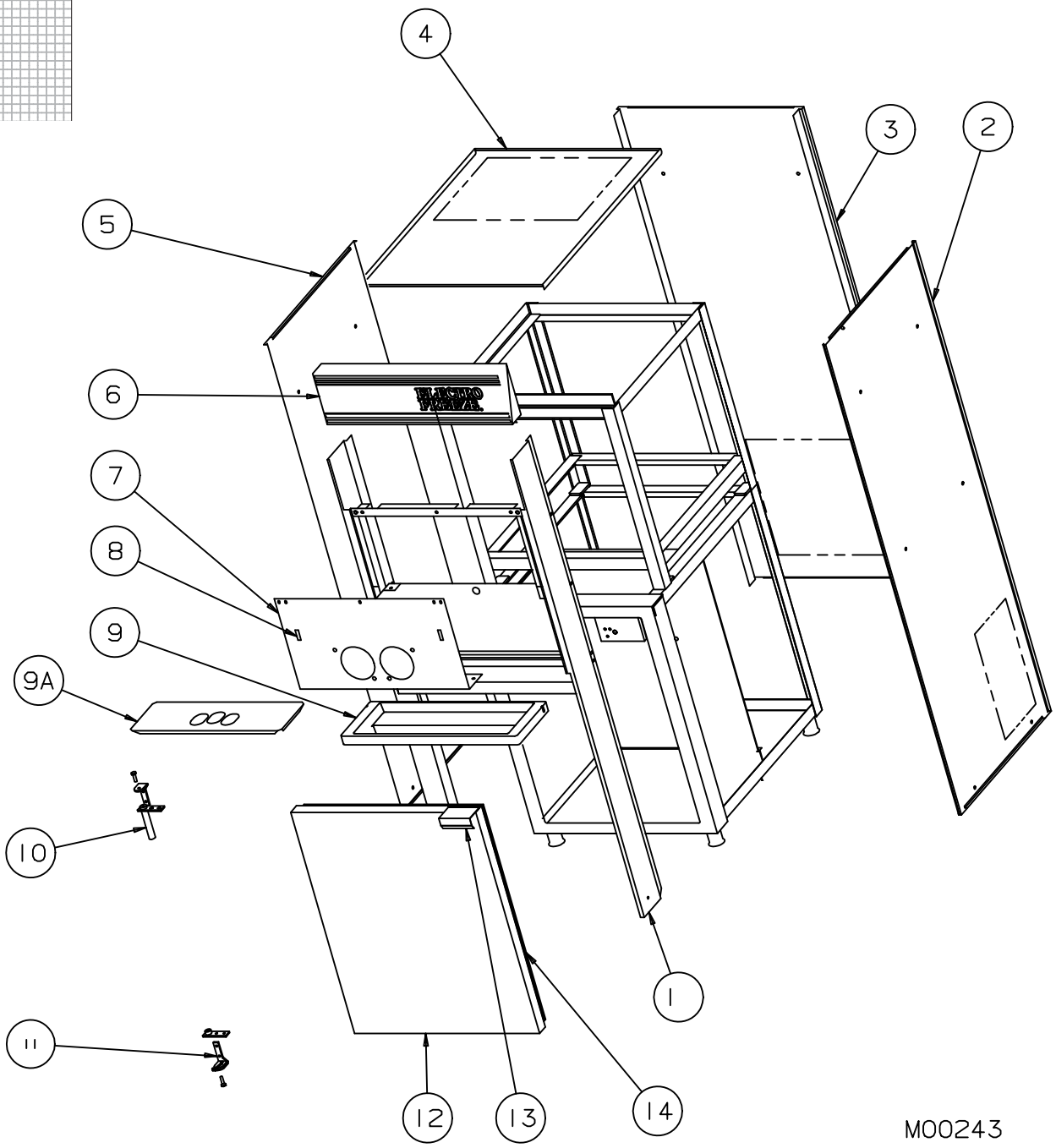
Use only original or authorized replacement parts with this freezer.
Use of unapproved parts will void warranty.

Figure 7 Switch Box (sheet 2 of 2)

Item	Part No.	Description
1	HC150380	Relay-Flange Base w/Cover 3PDT
2	HC150381	Relay-Flange Base w/Cover
3	HC150872	Capacitor-Start (Beater Motor-1ph only)
4	HC150318	Capacitor-Run (Beater Motor-1ph only)
5	HC150795	Strip-Terminal
5A	HC116125	Filter-Assy. (See detailed drawing)
6	HC150759	Terminal-Strip
6A	HC116188	Mov-Assy. (See detailed drawing)
7	HC150795	Strip-Terminal
7A	HC116188	Mov-Assy. (See detailed drawing)
8	HC150202	Indicator-Mix Level
8A	HC150540	Light-Indicator (not shown)
8B	HC150119	Socket-Octal
8C	HC150120	Clip-Retainer (Set of 2)
9	HC150155	Contactor-IEC 23A 208-230v C (Compressor & Cabinet)
9A	HC150156	Coil-A/B 208-230v (Replacement coil only) (not shown)
10	HC150208	Timer-12 Sec. Delay on Break (Compressor)
11	HC118359	Relay-Assy. Overload 1ph 5-15A includes
	HC150145	Adaptor-Overload Din Rail
	HC150150	Button-Overload Reset Adapator
	HC150140	Relay-SS Overload 1ph 5-15A
or	HC118361	Relay-Assy. Overload 3ph 3.7-12A includes
	HC150145	Adaptor-Overload Din Rail
	HC150150	Button-Overload Reset Adapator
	HC150142	Relay-SS Overload 3ph 3.7-12A
12	HC150155	Contactor-IEC 23A 208-230v C (Beater Motor)
12A	HC150156	Coil-A/B 208-230v (Replacement coil only)(not shown)
13	HC150252-01	Timer-.5-60 Delay on Break 230 (behind contactor)
14	HC150218	Timer-5 Minute
14A	HC162604	Knob-Timer
15	HC150436	Switch-Toggle 4PDT Center OFF (Selector)
16	HC159235	Switch-Toggle SPST (DAY/NIGHT)
17	HC159235	Switch-Toggle SPST (Mix Transfer System)
18	HC114176-01	Switch-Assy. Self Closing Plunger (Sides) includes
	HC150477	Switch-Roller Actuator SPDT
	HC162323	Spring-Compression
19	HC118550	Lever-Assy. Reset includes
	HC159036	Button-Reset
20	HC159235	Switch-Toggle SPST (Cabinet)
21	HC114178-01	Switch-Assy. Self Closing Plunger (Center) includes
	HC150478	Switch-Roller Actuator DPDT
	HC162323	Spring-Compression

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

Figure 8 Panel Assembly (sheet 1 of 2)



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

Figure 8 Panel Assembly (sheet 2 of 2)

Item	Part No.	Description
1	HC117441	Panel-Assy. Front
2	HC139197	Panel-Side RH
3	HC139196	Panel-Rear
4	HC118000	Panel-Assy. Top (Air Cooled)
4A	HC118001	Panel-Assy. Top (Water Cooled)
5	HC139198	Panel-Side LH
6	HC117442	Trimstrip-Assy. EF Decal 24"
	HC165147	Decal-Trimstrip EF Logo
	HC165191	Decal-Freedom
6A	HC117355	Cover-Assy. Electric Box (not shown)
7	HC139194	Panel-Dispense
8	HC150540	Light-Indicator (Low Mix)
9	HC196107	Tray-Drip 24" Black
9A	HC117447	Insert-Assy. DripTray includes
	HC199030	Bumper-Rubber
10	HC162045	Hinge-Pivot 1-3/8" Top LH includes
	HC162052	Spring LH
11	HC162046	Hinge-Pivot 1-3/8" Bottom LH
12	HC114260-01	Door-Assy. Complete 24" EF includes
	HC160563-01	Gasket-Magnetic (Cabinet Door)
	HC136199	Pull-Door
	HC165414	Nameplate-EF Large (not shown)
12A	HC118597	Actuator-Assy. Door Switch (not shown)
13	HC136199	Pull-Door
14	HC160563-01	Gasket-Magnetic (Cabinet Door)

LH = Left hand side of freezer when facing front.

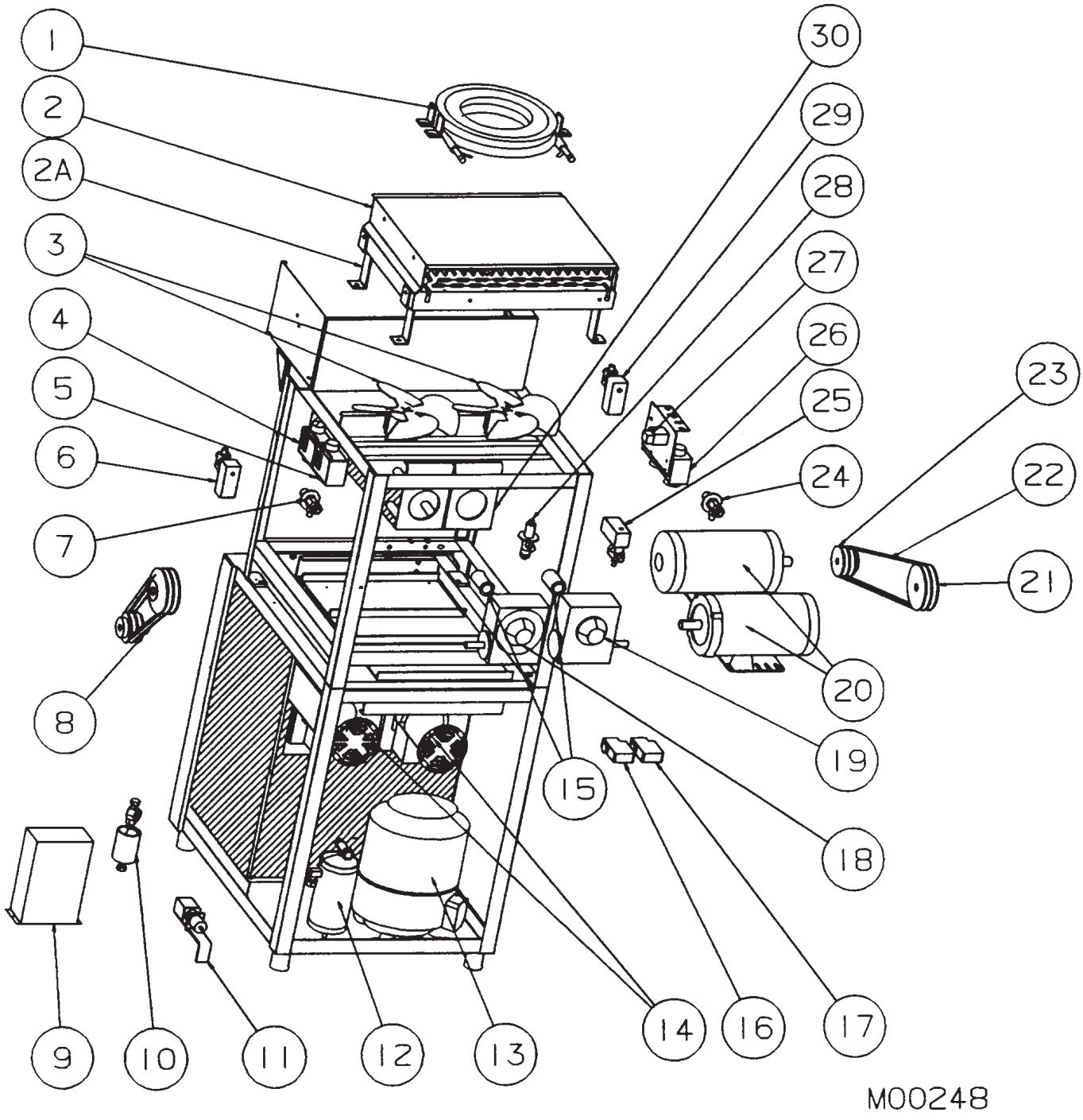
RH = Right hand side of freezer when facing front.

Hardware for Panels				
Panel	**Screw**	**Nut-Speed**	**Spacer**	**Nut-Speed on Frame**
Dispense	HC160076	HC159132	n/a	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				

Panel Decals & Labels	
Part No.	**Description**
HC165119	6" Air Flow
HC165025	Beater Warning
HC164113	Cleaning Instructions
HC165093	Clear Overlay
HC165013	CMT Patent
HC165191	Freedom 360°
HC164110	MTS Connect Red Line
HC164114	MTS Trimstrip LH
HC164115	MTS Trimstrip RH
HC164004-01	Operating Instructions
HC165126	Panel Removal
HC165147	Trimstrip EF Logo
HC165124	Top Air Discharge
HC165246	Warning - Pressurized

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

Figure 9 Assembly (sheet 1 of 2)



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

Figure 9 Assembly (sheet 2 of 2)

Item	Part No.	Description
1	HC155029	Condenser-Water
2	HC155115	Condenser-Air
2A	HC139123	Bracket-Mtg. Air Condenser
3	HC159018	Blade-Fan 10" 32°(Air Cooled)
3A	HC151080-01	Motor-Fan 35w Enclosed (Air Cooled)
3B	HC139131	Bracket-Fan Motor
4	HC119989	Kit-Thermostat & Retainer (Day)
5	HC119989	Kit-Thermostat & Retainer (Night)
6	HC155421	Valve-Solenoid 208-240V (Cylinder)
6A	HC155434	Kit-Solenoid Valve
7	HC155490	Valve-Expansion Automatic(Cylinder)
7A	HC165531	Insulator-Expansion Valve
8		Belt-V (RH) (order by freezer serial number)
9	--------	Box-Assy. Capacitor & Relay (1 ph only) (Bristol) HC151463 .... Capacitor-Run HC151436 .... Capacitor-Start HC151462 .... Relay-Comp. Start
10	HC155054	Drier-Filter 16 cu in
10A	HC155059	Glass-Sight
11	HC113769	Valve-Assy. Water includes HC155410 .... Valve-Water 3/8"
11A	HC155444	Kit-Water Valve Repair
12	HC155071	Receiver-3 lb. 3/8 ID Sweat w/o Valve
13	HC119541	Compressor-Assy.(3 ph) includes Bristol compressor and HC155574 .... Cap-Access Valve HC155054 .... Drier-Filter 16 cu in HC155419 .... Valve-Access
or	HC119540	Compressor-Assy.(1 ph) includes Bristol compressor and HC151463 .... Capacitor-Run HC151436 .... Capacitor-Start HC155054 .... Drier-Filter 16 cu in HC151462 .... Relay-Comp. Start
14	HC119918	Kit-Gearmotor Replacement Model RMT
15	HC111780	Coupling-Assy. 7/8" Drive
16	HC155425	Cut Out-High Pressure
17	HC155403	Cut Out-Low Pressure
18	HC153354	Reducer-Gear RH (B Side) 3CB 5:1
19	HC153353	Reducer-Gear LH (A Side) 3CB 5:1

LH = Left hand side of freezer when facing front.

RH = Right hand side of freezer when facing front.

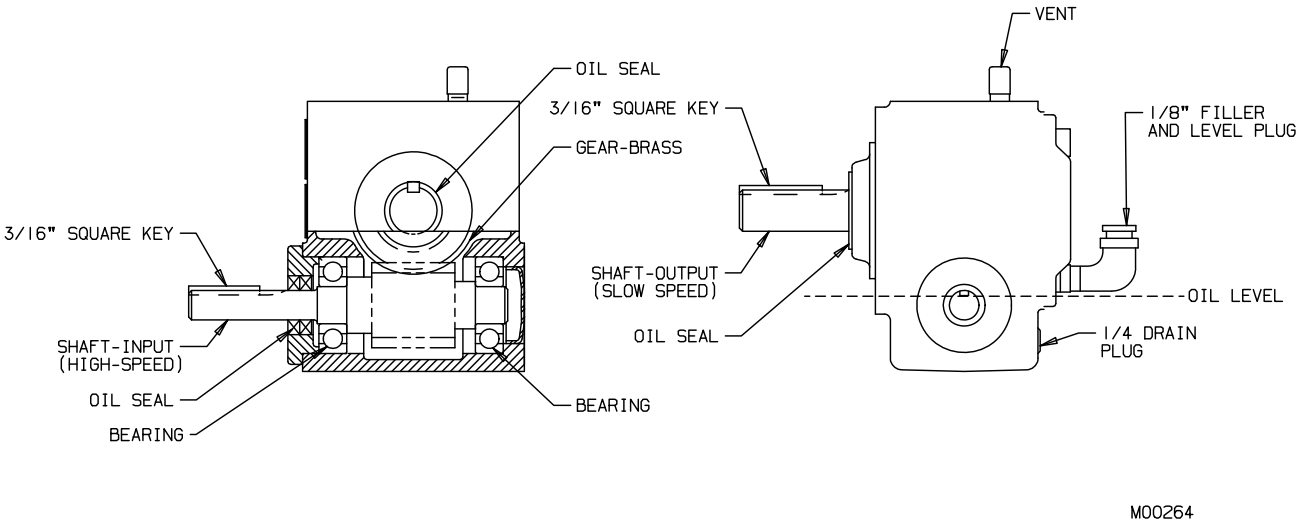
Item	Part No.	Description
20	HC151052	Motor-2HP (3 ph)
or	HC118140	Kit-Motor & Cap 2HP 230V (230-1-60) includes motor & HC150318 .... Cap.-Run HC150872 .... Capacitor Motor Start (2)
or	HC119816	Kit-Motor & Cap 2HP (208/230-1-60) includes motor and HC150244 .... Cap.-Run HC150294 .... Capacitor-Start (2)
20A	HC150877	Centrifugal Switch (For Motor in Kit HC119816)
21	HC153602	Sheave-5/8 Bore (Driven)
22A	HC153322	Key-Drive 3/16" sq x 1-1/2"
22B	HC160033	Screw-SK Set 5/16"-18x3/8"
22		Belt-LH (order by freezer serial number)
23	HC153611	Sheave-7/8 Bore (Driver)
23A	HC153322	Key-Drive 3/16" sq x 1-1/2"
23B	HC160033	Screw-SK Set 5/16"-18x3/8"
24	HC155490	Valve-Expansion Automatic (Cylinder)
24A	HC165531	Insulator-Expansion Valve
25	HC155421	Valve-Solenoid 208-240V (Cabinet)
25A	HC155434	Kit-Solenoid Valve
26	HC119989	Kit-Thermostat & Retainer (Night)
26A	HC119989	Kit-Thermostat & Retainer (Day)
27	HC118813	Kit-CAB Thermostat
28	HC155449	Valve-Automatic Expansion (Cabinet)
28A	HC165531	Insulator-Expansion Valve
29	HC155421	Valve-Solenoid 208-240V (Cylinder)
29A	HC155434	Kit-Solenoid Valve
30	HC118837	Cylinder-Assy. Complete
30A	HC118712	Kit-Pressure Switch 30 psi
30B	HC116105	Nut-Assy. Pressure Switch
30C	HC116410	Kit-Dispense Head Switch

Not Shown:

HC116560	Pan-Assy. Condensate
HC161216	Sensor-10K Thermistor
HC115004	Tube-Assy. Drain 14-1/4"
HC155487	Valve-Check 5/8 ODF Sweat

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

Figure 10 Gear Reducer



Model — HCD920

153353 5 - 1 Ratio A Side*
153354 5 - 1 Ratio B Side*

116537 .... Kit-Shaft Seals ..... 1 ea. req.

111780 .... Coupling-Assy. 7/8" Drive

****Oil-Gear Reducer (per quart)**

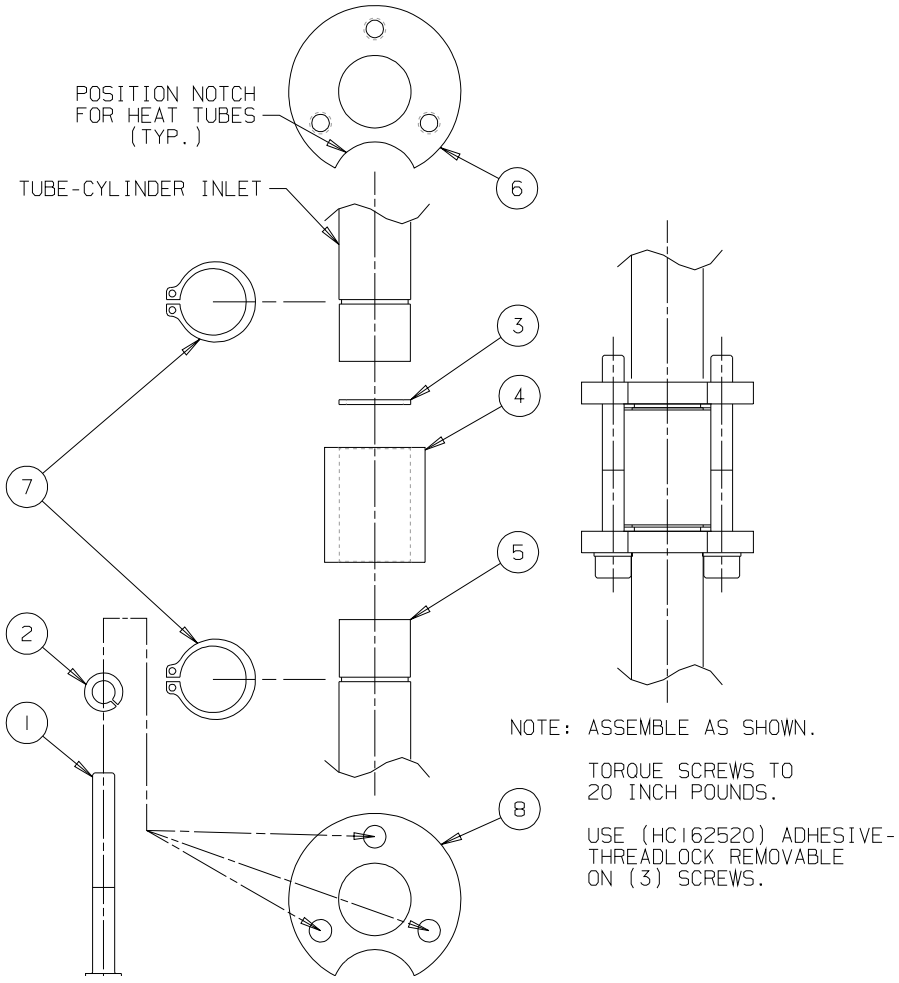
* A is left side when facing front of freezer.
B is right side when facing front of freezer.

****Note:** **To order oil always verify type of oil from the tag located on the gear reducer. Improper oil usuage will cause failure and void of warranty.**

NOTE: Model HCD920 is not a rebuildable gear reducer.

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

Figure 11 Mix Feed Seal Assembly



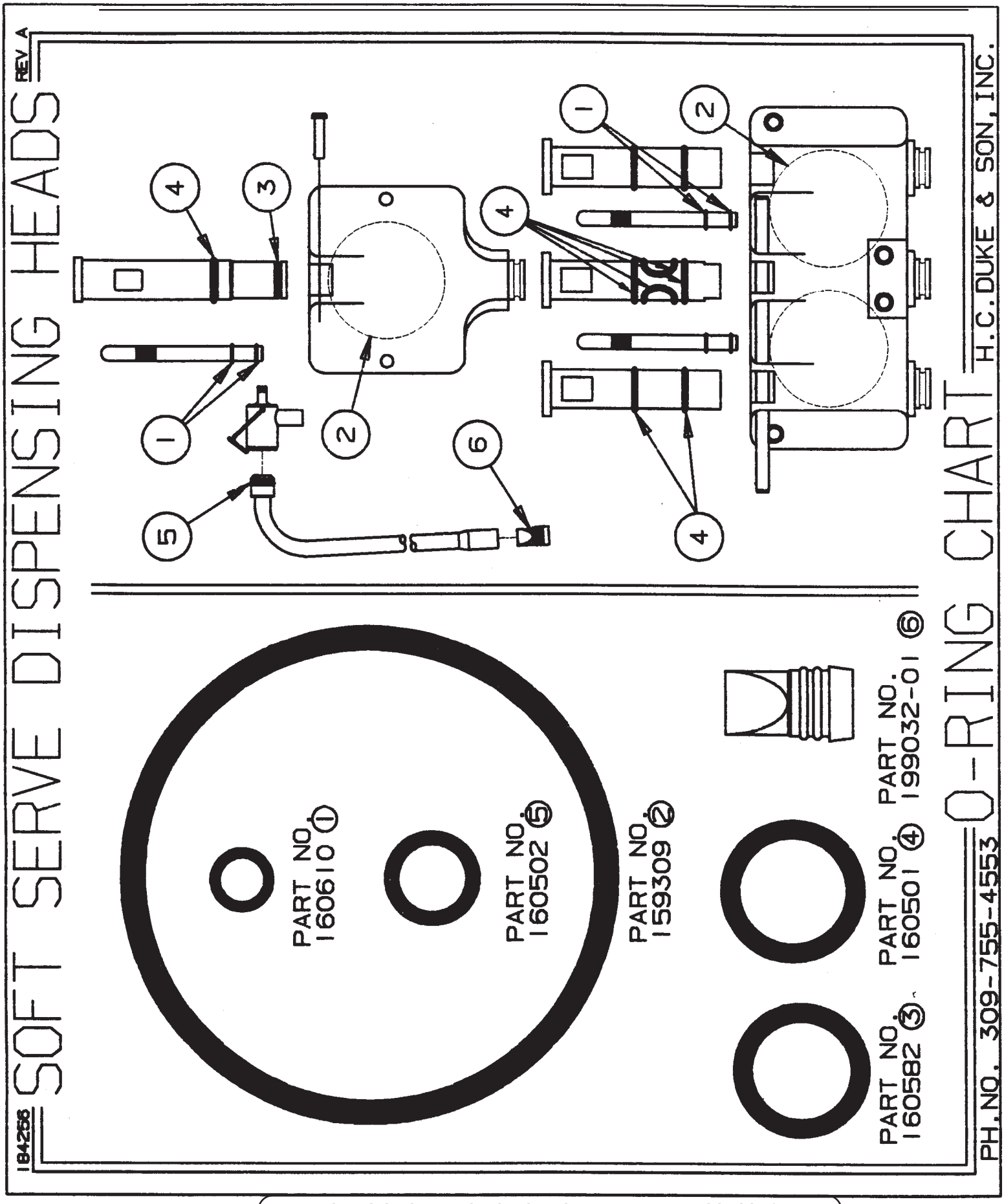
Item	Part No.	Description
1	HC160320	Screw-SKHC #10-24 x 1-3/4 SST
2	HC160166	Washer-Lock #10 SST
3	HC160556	Gasket-Mix Joint
4	HC139351	Collar-Alignment
5	HC140352	Tube-Mix Feed Clamp
6	HC139352	Clamp-Ring Threaded
7	HC160312	Ring-Retaining 5/8 Ext. SST
8	HC139353	Clamp-Ring

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

Accessories

Part No.	Description
HC196103	Bottle-Wash 500ML (Plunger and MTS)
HC158004	Brush-4" w/36" Handle (Cylinder)
HC158009	Brush-4" w/o Handle (Cylinder)
HC158037	Brush-1/4 Dia x 18-1/2 Overall Length
HC158022	Brush-1/4 Dia 2LG 6-1/2 Overall Length
HC158018	Brush-7/16" Dia. 12" Overall Length
HC158019	Brush-9/16" Dia. 30" Overall Length
HC158026	Brush-1" Dia. 12" Long
HC162105	Caster-1-1/4" ST PT w/Brake
HC162106	Caster-1-1/4" ST PT w/o Brake
HC184256	Chart-O-ring (Laminated)
HC158051	Cup-Overrun Measuring 1 pint (Use with P/N HC158049 Scale)
HC184881-01	DVD-Training RMT SS EF
HC118747	Kit-RMT EF Redline
HC118897	Kit-O-ring
HC112978	Leg-Assy. 6-inch (Set of 4)
HC158000A	Lubricant-Petrol Gel (4 oz. Tube)
HC150736	Nut-Lock Conduit 1-1/4" (Casters)
HC158014	Sanitizer-Stera Sheen (Case/4 lb. Jars)
HC158014A	Sanitizer-Stera Sheen (4 lb. Jar)
HC158049	Scale-Overrun Z32
HC184871	Sheet-Clean & Sanitize
HC169374	Tool-O-Ring Removal
HC184881	Video-Training RMT SS EF (VHS)

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



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

NOTES:

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

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.

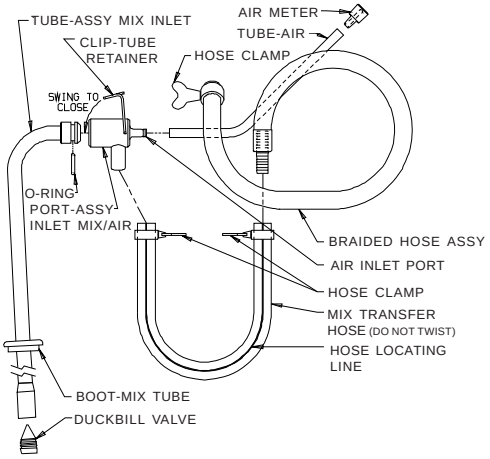
1. Remove dispensing head and beater shafts from freezer. Disassemble MTS and move to cleaning area.

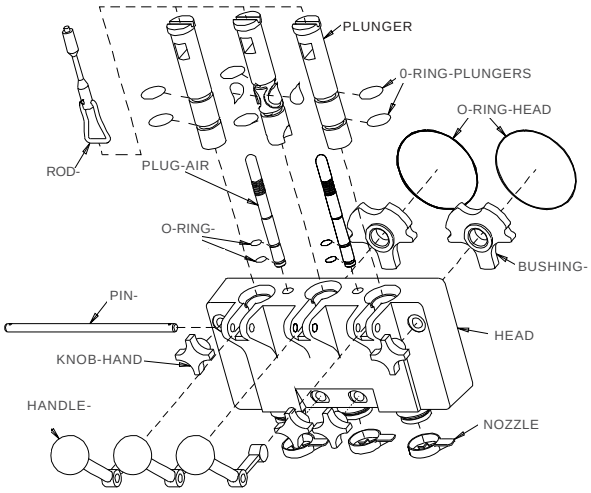
CLEANING

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)

9. 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.
10. Drain the solution from the cylinders by slowly pulling down on the dispense handles. **NOTE: Some sanitizer will remain in hoses and cylinders.**
11. Leave the handles down, and turn the selector switches to **"OFF"**. Let the MTS force all possible sanitizer out of the freezing cylinders.

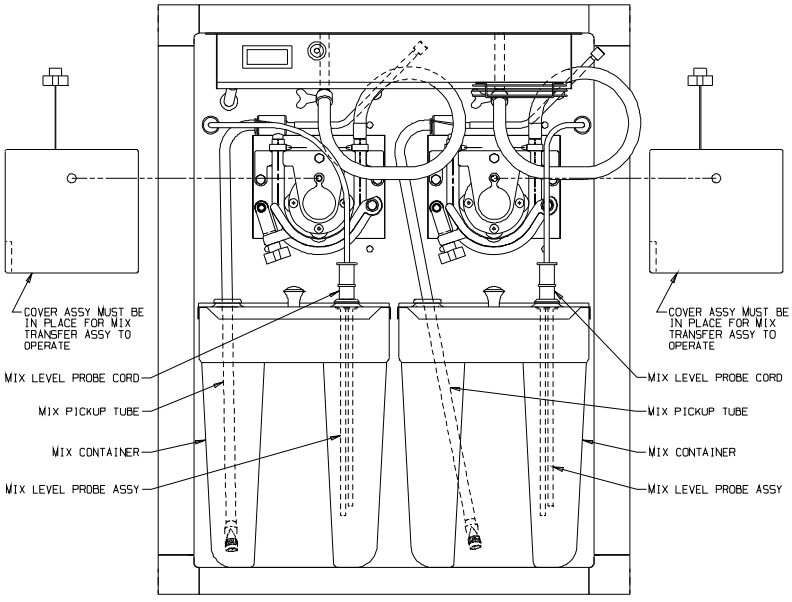
Important:

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

12. Turn the MTS switches to **"OFF"**.
13. Remove the mix inlet tubes, holding the top 6-inch portion only.
14. Remove the mix containers and empty any remaining sanitizer.

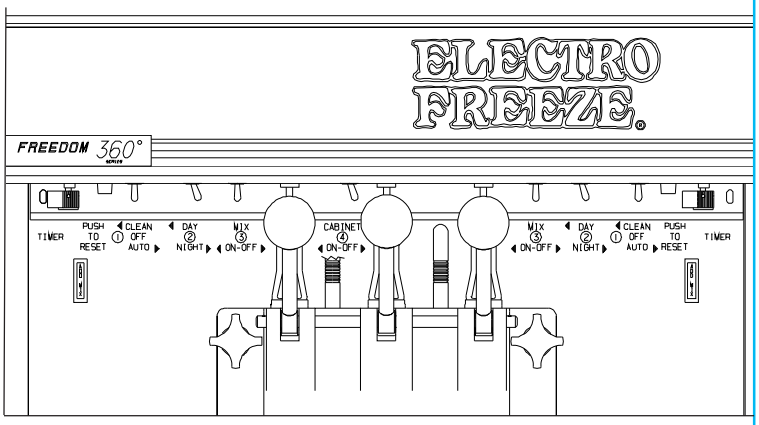
Priming The Freezer

1. Make sure that your hands, forearms, and all freezer assemblies are sanitized.
2. 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.
3. Fill the mix containers with mix and install the front covers.
4. 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.
5. Turn the cabinet switch to **"ON"** and close the cabinet door.



Priming The Freezer (continued)

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



9. 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.

10. 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

11. 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"**.
12. 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 88T-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	1	H2G-2001 —
Adaptor-Overload DIN Rail (Overload Relay)	HC150145	2	H2G-2001 —
Arm-Shoe Pivot (MTS)	HC138797	2	H2G-2001 —
Arm-Swing Clamp	HC138799	2	H2G-2001 —
Belt-V (LH)	*Order by Freezer Serial Number*		
Belt-V (RH)	*Order by Freezer Serial Number*		
Blade-Fan-10-" Dia.-32° A/C	HC159018	2	H2G-2001 —
Blade-Scraper Front (Short)	HC138086	2	H2G-2001 —
Blade-Scraper Rear (Long)	HC138839	2	H2G-2001 —
Block-Insulation (MTS)	HC165524	4	H2G-2001 —
Bottle-Wash 500ML (Plunger and MTS)	HC196103	1	H2G-2001 —
Boot-Mix Tube (Seal)	HC199033	2	H2G-2001 —
Box-Assy. Capacitor & Relay (Complete) (1 Phase-Maneurop Compressor)	HC118647	1	H2G-2001 —
Bracket-Assy. Switch Mtg. (MTS-RMT)	HC118763	2	H2G-2001 —
Bracket-Mtg. Air Condenser	HC139123	4	H2G-2001 —
Brush-1/4" Dia. x 18-1/2" Overall Length	HC158037	1	H2G-2001 —
Brush-1" Dia. 12" Long	HC158026	1	H2G-2001 —
Brush-4" Cylinder w/ 36" Handle	HC158004	1	H2G-2001 —
Brush-4" Cylinder w/o Handle	HC158009	1	H2G-2001 —
Brush-7/16" Dia. 12" Overall Length	HC158018	1	H2G-2001 —
Brush-9/16" Dia. 30" Overall Length	HC158019	1	H2G-2001 —
Bumper-Rubber (Insert-Drip Tray)	HC199030	4	H2G-2001 —
Bushing-Dispense Head	HC138427	2	H2G-2001 —
Bushing (Beater Shaft Seal Washer)	HC133098	2	H2G-2001 —
Button-Overload Reset Adaptor	HC150150	2	H2G-2001 —
Button-Reset (Reset Lever)	HC159036	2	H2G-2001 —

* 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.
NLA No Longer Required

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List for Model 88T-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)
Cap-Access Valve (Bristol Compressor)	HC155574	1	K2L-3775 —
Capacitor & Relay Box Assy.(Complete)			
(1 Phase-Maneurop Compressor)	HC118647	1	H2G-2001 — K2L-3774
Capacitor Start & Relay Kit	HC151448	1	H2G-2001 — K2L-3774
Capacitor-Run	HC151447	1	H2G-2001 — K2L-3774
Capacitor & Beater Motor-Kit (208/230-1-60)			
(Franklin Ele. #HC1201007109-Beater Motor)	HC119816	1	H2G-2001 —
Capacitor-Motor Start	HC150294	2	H2G-2001 —
Capacitor-Run	HC150244	1	H2G-2001 —
Capacitor & Beater Motor Kit (230-1-60)			
(Franklin Ele. #HC1201740101-Beater Motor)	HC118140	1	H2G-2001 —
Capacitor-Motor Start	HC150872	1	H2G-2001 —
Capacitor-Motor Run	HC150318	1	H2G-2001 —
Capacitor-Run (1 Phase-Bristol Compressor)	HC151463	1	K2L-3775 —
Capacitor-Start (1 Phase-Bristol Compressor)	HC151436	1	K2L-3775 —
Caster-1-1/4" ST PT with Brake	HC162105	2	H2G-2001 —
Caster-1-1/4" ST PT without Brake	HC162106	2	H2G-2001 —
Chart-O-ring (Laminated)	HC184256	1	H2G-2001 —
Clamp-Assy. Soft Hose 5/8 (MTS Hose Assy.)	HC116065	6	H2G-2001 —
Clamp-Ring (Mix Feed Seal Assy.)	HC139353	1	H2G-2001 —
Clamp-Ring Threaded (Mix Feed Seal Assy.)	HC139352	1	H2G-2001 —
Clamp-Shoe Swing (MTS)	HC138798	2	H2G-2001 —
Clip-Retainer (Switch Box)	HC150120	4	H2G-2001 —
Clip-Tube Retainer	HC162324	1	H2G-2001 —
Coil-Evaporator (Cabinet Refrigeration)	HC155111	1	H2G-2001 —
Coil-Replacement			
(Contactorompressor & Cab)	HC150134	1	H2G-2001 — D2J-977
Coil-A/B 208-230v (Replacement coil for			
Contactorompressor & Cabinet)	HC150156	1	D2J-978 —
Coil-Replacement (Contactor-Beater Motor)	HC150134	2	H2G-2001 — D2J-977

* As Required
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Alphabetized Parts List for Model 88T-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)	
Coil-A/B 208-230v (Replacement coil for Contactor-Beater Motor)	HC150156	1	D2J-978	—
Collar-Alignment (Mix Feed Seal Assy.)	HC139351	1	H2G-2001	—
Compressor-Bristol L63A113DBLA (3 Phase)	HC119541	1	K2L-3762	—
Drier-Filter 16 cu. in.	HC155054	1	K2L-3762	—
Valve-Access	HC155419	1	K2L-3762	—
Cap-Access Valve	HC155574	1	K2L-3762	—
Compressor-Bristol L63A113BBCA (1 Phase)	HC119540	1	K2L-3775	—
Capacitor-Run	HC151463	1	K2L-3775	—
Capacitor-Start	HC151436	1	K2L-3775	—
Relayompressor Start	HC141462	1	K2L-3775	—
Drier-Filter 16 cu. in.	HC155054	1	K2L-3775	—
Valve-Access	HC155419	1	K2L-3775	—
Cap-Access Valve	HC155574	1	K2L-3775	—
Compressor-Maneurop MTZ-40JH3AVE (3 Phase)	HC118686	1	H2G-2001	— K2L-3761
Drier-Filter 16 cu. in.	HC155054	1	H2G-2001	— K2L-3761
Insulationompressor Wrap MTZ	HC165522	1	H2G-2001	— K2L-3761
Rivet-Ratchet Plastic	HC160419	4	H2G-2001	— K2L-3761
Compressor-Maneurop MTZ-40JH1AVE (1 Phase)	HC118685	1	H2G-2001	— K2L-3774
Kit-Assy. Start Capacitor & Relay	HC151448	1	H2G-2001	— K2L-3774
Capacitor-Run	HC151447	1	H2G-2001	— K2L-3774
Drier-Filter 16 cu. in.	HC155054	1	H2G-2001	— K2L-3774
Insulationompressor Wrap MTZ	HC165522	1	H2G-2001	— K2L-3774
Rivet-Ratchet Plastic	HC160419	4	H2G-2001	— K2L-3774
Condenser-Air	HC155115	1	H2G-2001	—
Condenser-Water	HC155029	1	H2G-2001	—
Connector-3/8 x 90° (MTS-RMT)	HC150705	2	H2G-2001	—
Contactor-IEC (Compressor & Cabinet)	HC150135	1	H2G-2001	— D2J-977
Contactor-IEC 23A 208-230v C (Compressor & Cabinet)	HC150155	1	D2J-978	—

* As Required
** Items Included In O-Ring Kit No. HC118897
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Alphabetized Parts List for Model 88T-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)	
Contactor-IEC (Beater Motor)	HC150135	2	H2G-2001 —	D2J-977
Contactor-IEC 23A 208-230v C (Beater Motor)	HC150155	2	D2J-978 —	
Cord-Assy. Female Plug (Cabinet Parts)	HC150533	1	H2G-2001 —	
Cord-Assy. Male Plug (Cabinet Parts)	HC150532	1	H2G-2001 —	
Cordset-Mix Level Probe (Retractable)	HC150537	2	H2G-2001 —	
Coupling-Assy. 7/8" Drive (Beater Shaft)	HC111780	2	H2G-2001 —	
Cover-Assy. Electric Box	HC117355	1	H2G-2001 —	
Cover-Assy. Mix Tank Front (5 Gal. Tank)	HC119995	2	J2L —	
Cover-Assy. Mix Tank Front (6 Gal. Tank)	HC117553	2	H2G-2001 —	
Cover-Assy. RMT CAB	HC119023	2	H2G-2001 —	
Cover-Rear Mix (5 Gal. Tank) .	HC140445	2	J2L —	
Cover-Rear Mix Tank (6 Gal. Tank).	HC139263	2	H2G-2001 —	
Cup-Overrun Measuring 1 Pint (use with P/N HC158049 scale)	HC158051	*	H2G-2001 —	
Cup (Beater Shaft Seal)	HC160557	2	H2G-2001 —	
Cut Out-High Pressure	HC155425	1	H2G-2001 —	
Cut Out-Pressure Low	HC155403	1	H2G-2001 —	
Cylinder-Assy. Complete	HC118837	1	H2G-2001 —	
Decal-6" Air Flow	HC165119	1	H2G-2001 —	
Decal-Beater Warning	HC165025	1	H2G-2001 —	
Decal-Cleaning Instructions	HC165307	1	H2G-2001 —	A2I-159
Decal-Cleaning Instructions	HC164113	1	A2I-160 —	
Decal-Clear Overlay	HC165093	1	H2G-2001 —	
Decal-CMT Connecction	HC164110	1	H2G-2001 —	
Decal-CMT Patent	HC165013	1	H2G-2001 —	
Decal-Freedom 360°	HC165191	1	H2G-2001 —	
Decal-MTS Operating Instructions	HC164043	1	H2G-2001 —	A2I-159

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Alphabetized Parts List for Model 88T-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-MTS Trimstrip LH	HC164092	1	H2G-2001 —	A2I-159
Decal-MTS Trimstrip LH	HC164114	1	A2I-160 —	
Decal-MTS Trimstrip RH	HC164093	1	H2G-2001 —	A2I-159
Decal-MTS Trimstrip RH	HC164115	1	A2I-160 —	
Decal-Operating Instructions	HC164004-01	1	A2I-160 —	
Decal-Panel Removal	HC165126	3	H2G-2001 —	
Decal-Trimstrip EF Logo	HC165147	1	H2G-2001 —	
Decal-Warning Pressurized	HC165246	2	H2G-2001 —	
Decal-Warning Rotating Parts	HC165048	2	H2G-2001 —	
Door-Assy. Complete 24" EF	HC114260-01	1	H2G-2001 —	
Drier-Filter 16 cu. in.	HC155054	1	H2G-2001 —	
Duckbill-Inlet (Valve)	HC199032	2	H2G-2001 —	L2H
Duckbill-Inlet RM MTS (Valve)	HC199032-01	2**	L2H —	
Faceplate-Assy. MTS	HC118764	2	H2G-2001 —	
Fan-Intake 230v (Evaporator Motor)	HC151105	1	H2G-2001 —	
Filter-Assy. (Switch Box)	HC116125	1	H2G-2001 —	
Gasket-Magnetic (V-Groove Door)	HC160563-01	1	H2G-2001 —	
Gasket-Mix Joint (Mix Feed Seal Assy.)	HC160556	1	H2G-2001 —	
Gauge-Assy. Pressure Test	HC116312	1	H2G-2001 —	
Gearmotor-Replacement Kit (MTS)	HC119918	2	H2G-2001 —	
Glass-Sight	HC155059	1	H2G-2001 —	
Grommet-Rubber 1/2 I.D.	HC199014	1	H2G-2001 —	
Grommet-Rubber 5/8 I.D.	HC199016	1	H2G-2001 —	
Guard-Fan Open	HC151076	1	H2G-2001 —	
Handle-Assy. Dispense Center	HC114808	1	H2G-2001 —	
Knob-Ball 3/8-16 THD Black	HC162629	1	H2G-2001 —	

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Alphabetized Parts List for Model 88T-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)	
Handle-Assy. Dispense Side	HC110007	2	H2G-2001 —	
Knob-Ball 3/8-16 THD Black	HC162629	2	H2G-2001 —	
Handle (Cabinet Door)	HC136199	1	H2G-2001 —	
Head-Assy.Dispense (Complete)	HC116042	1	H2G-2001 —	
Handle-Assy. Dispense Side	HC110007	2	H2G-2001 —	
Handle-Assy. Center Dispense	HC114808	1	H2G-2001 —	
Head (Only)	HC116041	1	H2G-2001 —	
Nozzle-Serrated	HC196185	3	H2G-2001 —	
Pin-Handle	HC160269	1	H2G-2001 —	
Plug-Air Bleed (Relief)	HC138149	2	H2G-2001 —	
Plungerenter Dispense	HC138009	1	H2G-2001 —	
Plunger-Side Self Dispense	HC137174	2	H2G-2001 —	
O-ring (Head)	HC159309	2	H2G-2001 —	
O-ring (Plug)	HC160610	4	H2G-2001 —	
O-ring (Plunger)	HC160501	7	H2G-2001 —	
Hinge-Pivot 1-3/8" Bottom LH	HC162046	1	H2G-2001 —	
Hinge-Pivot 1-3/8" Top LH	HC162045	1	H2G-2001 —	
Hose-Assy. Mix Braided (MTS)	HC116094	2	H2G-2001 —	
Hose-Transfer Red Line (MTS)	HC138836	2	H2G-2001 —	
Indicators-Mix Level (Switch Box)	HC150202	2	H2G-2001 —	
Insert-Assy. Drip Tray	HC117447	1	H2G-2001 —	
Bumper-Rubber	HC199030	4	H2G-2001 —	
Insulation-Compressor Wrap MTZ	HC165522	1	H2G-2001 —	K2L-3761
Insulator-Expansion Valve	HC165531	3	H2G-2001 —	
Key-Drive 3/16" Sq. x 1-1/2"	HC153322	2	H2G-2001 —	
Kit-Capacitor Start & Relay (1 Phase-Maneurop Compressor)	HC151448	1	H2G-2001 —	K2L-3761
Kit-Cover Switch RMT	HC118894	8	H2G-2001 —	
Kit-Dispense Head Switch	HC116410	1	H2G-2001 —	
Kit-Gearmotor Replacement Model RMT	HC119918	2	H2G-2001 —	

* As Required
** Items Included In O-Ring Kit No. HC118897
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NLA No Longer Required

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List for Model 88T-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)	
Kit-RMT Double EF Redline	HC118747	*	H2G-2001	—
Kit-Manureop Compressor Mounting	HC151446	*	H2G-2001	— K2L
Kit-O-ring	HC118897	*	H2G-2001	—
Kit-Pressure Switch Field Repl. (30 psi)	HC118712	*	H2G-2001	—
Kit-Solenoid Valve	HC155434	*	H2G-2001	—
Kit-Reducer Shaft Seal HCD920	HC116537	*	H2G-2001	—
Kit-Roller (MTS)	HC116009-01	*	H2G-2001	—
Kit-ThermostatCAB (Cabinet)	HC118813	1	H2I	—
Kit-Thermostat & Retainer (Day and Night)	HC119989	4	H2G-2001	—
Kit-Water Valve Repair	HC155444	*	H2G-2001	—
Knob-Ball 3/8-16 Thd. Black (Handle)	HC162629	3	H2G-2001	—
Knob-Cover RMT (w/o Wire)	HC138889	2	H2G-2001	—
Knob-Hand (Dispense Head)	HC162625	4	H2G-2001	—
Knob-Timer (Switch Box)	HC162604	2	H2G-2001	—
Leg-Assy. 6"	HC112978	*	H2G-2001	—
Lever Assy.-Reset	HC118550	2	H2G-2001	—
Light-Indicator "ADD MIX"	HC150540	2	H2G-2001	—
Lubricant-Petrol-Gel 4 oz. Tube	HC158000A	*	H2G-2001	—
M.O.V.-Assy.	HC116188	2	H2G-2001	—
Meter-Air	*Order by Meter Number*			
Mix Container	*See "Tank-Mix"*			
Module-Plug on Vari Time	HC150253	2	A2I-160	— K2L
Motor-Kit Motor & Capacitor 2 HP (208/230-1-60) (Franklin Ele. #HC1201007109-motor)	HC119816	1	H2G-2001	—
Capacitor-Motor Start	HC150294	2	H2G-2001	—
Capacitor-Run	HC150244	1	H2G-2001	—

* As Required
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NLA No Longer Required

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Alphabetized Parts List for Model 88T-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-Kit Motor & Capacitor 2 HP (230-1-60)				
(Franklin Ele. #HC1201740101-Motor)	HC118140	1	H2G-2001 —	
Capacitor-Motor Start	HC150872	2	H2G-2001 —	
Capacitor-Run	HC150244	1	H2G-2001 —	
Motor-208/230/460-3-60 2HP (3 Phase-Beater Motor)	HC151052	2	H2G-2001 —	
Motor-Fan (Air Cooled)	HC151080	2	H2G-2001 —	A2M
Motor-Fan 35w Enclosed (Air Cooled)	HC151080-01	2	A2M —	
Motor-Gearmotor 1/8 HP (MTS-RMT)	HC151132	2	H2G-2001 —	
MTS-Assy. (Complete)	HC118751	2	H2G-2001 —	
Nameplate-Electro Freeze Large	HC165181	1	H2G-2001 —	
Nozzle-Serrated	HC196185	3**	H2G-2001 —	
Nut-Assy. Pressure Switch	HC116105	*	H2G-2001 —	
Nut-Hex 1/4-20 ZN (Switch Assy.)	HC160104	3	H2G-2001 —	
Nut-Hex 3/8-16 ZN (MTS)	HC160453	4	H2G-2001 —	L2G
Nut-Hex 3/8-16 sst (MTS)	HC155927	4	A2H —	
Nut-HXSF 1/4-20 ZN (MTS)	HC159951	6	H2G-2001 —	L2G
Nut-HXSF 1/4-40 SST (MTS)	HC159933	6	A2H —	
Nut-Lock Conduit 1-1/4" (Casters)	HC150736	4	H2G-2001 —	
Nut-Speed #10-24 .025-.064 (Dispense and Front Panels)	HC159132	8	H2G-2001 —	
Nut-Speed #10-24 .100-.125 (Frame)	HC159067	8	H2G-2001 —	
Nut-Speed 1/4-20 (Rear and Side Panels)	HC160114	18	H2G-2001 —	
O-Ring (Beater Shaft Seal)	HC160500	2**	H2G-2001 —	
O-Ring (Head)	HC159309	1**	H2G-2001 —	
O-Ring (Swing Clamp MTS-RMT)	HC160628	1**	H2G-2001 —	

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Alphabetized Parts List for Model 88T-RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
O-Ring (Plug)	HC160610	4**	H2G-2001 —
O-Ring (Plunger)	HC160501	8**	H2G-2001 —
O-Ring (Roller Shoe MTS-RMT)	HC160612	1**	H2G-2001 —
O-Ring (Tube-Assy. Inlet)	HC160502	1**	H2G-2001 —
Oil-Special Gear Lube (Per Quart)	*Verify Type of Oil from Tag on Gear Reducer*		
Overload Block	*See "Relay-Assy. Overload"*		
Pan-Assy. Condensate	HC116560	1	H2G-2001 —
Panel-Assy. Front	HC117441	1	H2G-2001 —
Panel-Assy. Top (Air Cooled)	HC118000	1	H2G-2001 —
Panel-Assy. Top (Water Cooled)	HC118001	1	H2G-2001 —
Panel-Dispense	HC139194	1	H2G-2001 —
Panel-Rear	HC139196	1	H2G-2001 —
Panel-Side LH	HC139198	1	H2G-2001 —
Panel-Side RH	HC139197	1	H2G-2001 —
Pickup Tube-Assy. Mix	*see "Tube-Assy. Pickup"*		
Pin-Dowel 1/4" Dia x 3/4" SST (MTS-RMT)	HC160338	2	H2G-2001 —
Pin-Handle	HC160269	1	H2G-2001 —
Plate-Back MTS	HC139746	2	H2G-2001 —
Plug-Air Bleed	HC138149	2	H2G-2001 —
Plunger-Dispense, Center	HC138009	1	H2G-2001 —
Plunger-Side Self Dispense	HC137174	2	H2G-2001 —
Port-Assy. Inlet Mix/Air	HC118765	1	H2G-2001 —
Probe-Assy. Mix Level 10-3/4"	HC115397	2	H2G-2001 —
Pull-Door (Handle)	HC136199	1	H2G-2001 —
Pulley	*See "Sheave"*		
Push Rod-Assy. Plunger Switch	HC116089	3	H2G-2001 —

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Alphabetized Parts List for Model 88T-RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Receiver-3 lb 3/8 ID Sweat (NLA use p/n HC155071)	HC155057	1	H2G-2001 — G2M	
Receiver-3 lb 3/8 ID Sweat w/o Valve	HC155071	1	G2M —	
Receptacle-Molded Level Sensor	HC150536	2	H2G-2001 —	
Reducer-Gear LH Side	HC153353	1	H2G-2001 —	
Reducer-Gear RH Side	HC153354	1	H2G-2001 —	
Relay-Assy. Overload 1 Phase 5-15A	HC118359	1	H2G-2001 —	
Adaptor-Overload Din Rail	HC150145	1	H2G-2001 —	
Button-Overload Reset Adapator	HC150150	1	H2G-2001 —	
Relay-SS Overload 1 Phase 5-15A	HC150140	1	H2G-2001 —	
Relay-Assy. Overload 3 Phase 3.7-12A	HC118361	1	H2G-2001 —	
Adaptor-Overload Din Rail	HC150145	1	H2G-2001 —	
Button-Overload Reset Adapator	HC150150	1	H2G-2001 —	
Relay-SS Overload 3.7-12A	HC150142	1	H2G-2001 —	
Relay-Flange Base w/Cover (DPDT)	HC150381	3	H2G-2001 —	
Relay-Flange Base w/Cover (3PDT)	HC150380	2	H2G-2001 —	
Relay-Compressor Start (1 Phase-Bristol Compressor)	HC141462	1	K2L-3775 —	
Relay-Start\Run (1 Phase-Maneurop Compressor)	HC150401	1	H2G-2001 —	K2L-3775
Resistor-Assy. (Switch Box)	HC116154	2	H2G-2001 —	A2I-159
Ring-Retaining 5/8 Ext SST (Mix Feed Seal Assy.)	HC160312	2	H2G-2001 —	
Rivet-Ratchet Plastic(Maneurop Compressor)	HC160419	4	H2G-2001 —	K2L-3761
Roller-Assy. Kit (MTS)	HC116009-01	2	H2G-2001 —	
Sanitizer-Stera Sheen 4 lb. Jar	HC158014A	*	H2G-2001 —	
Scale-Overrun Z32	HC158049	*	H2G-2001 —	
Screw-HSHM 1/4 -20 x 2-1/2 ZN (Switch Assy.)	HC159965	3	H2G-2001 —	

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Alphabetized Parts List for Model 88T-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)	
Screw-HXHC 1/4-20 x 2-1/2 SST MTS-RMT)	HC160464	4	H2G-2001	—
Screw-HXHC 1/4-20 x 3-1/2 SST(MTS-RMT)	HC160465	2	H2G-2001	—
Screw-HXSF 1/4 -20 x 1/2 ZN (MTS-RMT)	HC159950	4	H2G-2001	— L2G
Screw-HXSF 1/4 -20 x 11/16 SST(MTS-RMT)	HC159939	4	A2H	—
Screw-RDHM #4-40 x 1/4 STL (MTS-RMT)	HC160357	4	H2G-2001	—
Screw-RHMS 1/4-28 x 2-1/4 SST(MTS-RMT)	HC160093	8	H2G-2001	—
Screw-SK Set 5/16:-18 x 3/8	HC160033	2	H2G-2001	—
Screw-SKHC #10-24 x 1-3/4 SST (Mix Feed Seal Assy.)	HC160320	3	H2G-2001	—
Screw-TRPM #10-24 x 1/2 SST (Dispense and Front Panels, Trimstrip)	HC160076	16	H2G-2001	—
Screw-TRPM #10-24 x 3/8 SST (Top Panel)	HC160305	4	H2G-2001	—
Screw-TRPM 1/4 x 20 x 1/2 SST (Rear Panel)	HC160048	6	H2G-2001	—
Screw-TRPM 1/4 x 20 x 1 SST (Side Panel)	HC159219	12	H2G-2001	—
Seal-Assy. Shaft	HC111875	2**	H2G-2001	—
O-Ring	HC160500	2**	H2G-2001	—
Seal-Beater Shaft (Cup)	HC160557	2**	H2G-2001	—
Washer-Shaft Seal (Bushing)	HC133098	2**	H2G-2001	—
Sealant-Clear Silicone	HC162509-01	*	H2G-2001	—
Sealant-Gray Silicone	HC162513-01	*	H2G-2001	—
Sensor-10K Thermistor	HC161216	2	H2G-2001	—
Shaft-Assy. Beater	HC117080	2	H2G-2001	—
Sheave-5/8 Bore 7.25 OD (Driven)	HC153602	1	H2G-2001	—
Sheave-7/8 Bore 2.25 OD (Driver)	HC153611	1	H2G-2001	—
Sheet-Clean & Sanitize	HC184871	1	H2G-2001	—
Shield-Drip (MTS)	HC139756	2	H2G-2001	—
Shoe-Roller (MTS)	HC139751	2	H2G-2001	—

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Alphabetized Parts List for Model 88T-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)	
Shroud-Assy. Evaporator (Cabinet)	HC117443-01	1	H2G-2001	—
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	— A2I-159
Switch Door Push Button	HC150509	1	A2I-160	—
Thermometer-Barrel	HC161004	1	I2G-2214	—
Shroud-Assy. Condenser (Air Cooled)	HC116566	1	H2G-2001	—
Sleeve-Cable Stop 3/64 (MTS-RMT Cover)	HC160508	4	H2G-2001	—
Socket-Octal Terminal (Switch Box)	HC150119	2	H2G-2001	—
Spacer-Motor (MTS-RMT)	HC138793	8	H2G-2001	—
Spacer-Panel	HC138456	18	H2G-2001	—
Spacer-Swing Arm (MTS-RMT)	HC138800	4	H2G-2001	—
Spring-Compression (Plunger Switch)	HC162323	3	H2G-2001	—
Spring-Pivot Hinge LH	HC162052	1	H2G-2001	—
Stud-Assy. Cylinder 3-5/16"	HC114341-05	4	H2G-2001	—
Support-Roller Bearing (MTS-RMT)	HC138783-01	2	H2G-2001	—
Switch-Assy. Center Self Closing Plunger	HC114178-01	1	H2G-2001	—
Spring-Compression	HC162323	1	H2G-2001	—
Switch-Roller Actuator DPDT	HC150478	1	H2G-2001	—
Switch-Assy. Self Closing Plunger (Sides)	HC114176-01	2	H2G-2001	—
Spring-Compression	HC162323	2	H2G-2001	—
Switch-Roller Actuator SPDT	HC150477	2	H2G-2001	—
Switch-Assy. Kit Pressure (MTS)	HC118712	1	H2G-2001	—
Switch-Centrifugal	HC150877	2	H2G-2001	—
Switch-Cover RMT Freezer Kit	HC118894	2	H2G-2001	—
Switch-Door Push Button	HC150416	1	H2G-2001	— A2I-159
Switch-Door Push Button	HC150509	1	A2I-160	—
Switch-Kit Dispense Head	HC116410	2	H2G-2001	—

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Alphabetized Parts List for Model 88T-RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Switch-Roller Actuator DPDT (Center Plunger)	HC150478	1	H2G-2001	—
Switch-Roller Actuator SPDT (Side Plungers)	HC150477	2	H2G-2001	—
Switch-Toggle 4PDT Center Off (Selector)(Switch Box)	HC150436	2	H2G-2001	—
Switch-Toggle DPDT Center OFF (MTS)(Switch Box)	HC150463	2	H2G-2001	— A2I-159
Switch-Toggle SPST (MTS)(Switch Box)	HC159235	2	A2I-160	—
Switch-Toggle DPST (DAY/NIGHT) (Switch Box)	HC150435	2	H2G-2001	— A2I-159
Switch-Toggle SPST(DAY/NIGHT)(Switch Box)	HC159235	2	A2I-160	—
Switch-Toggle SPST (Cabinet)(Switch Box)	HC159235	1	H2G-2001	—
Tank-Mix 5 Gal.(8-9/16" wide x 14-1/16" deep)	HC196255	2	J2L	—
Tank-Mix 6 Gal.(9-9/16" wide x 15-1/16" deep)	HC196100	2	H2G-2001	— J2L
Thermometer-Barrel (Cabinet)	HC161004	1	H2G-2001	—
Thermostat-Assy. w/Cover (Cabinet) NLA use p/n118813	HC118868	4	H2G-2001	— H2I
Thermostat-Kit CAB (Cabinet)	HC118813	1	H2I	—
Thermostat & Retainer-Kit (Day and Night)	HC119989	4	H2G-2001	—
Timer-5-60 Delay on Break (Switch Box)	HC150252-01	2	A2I-160	—
Timer-12 Sec. Delay on Break (Switch Box)	HC150208	2	H2G-2001	—
Timer-5 Minute (Switch Box)	HC150215	2	H2G-2001	— A2I-159
Timer-5 Minute (Switch Box)	HC150218	1	A2I-160	—
Tool-O-Ring Removal	HC169374	*	H2G-2001	—
Tool-Pressure Switch Installation	HC117013	*	H2G-2001	—
Tray-Drip-24" Black	HC196107	1	H2G-2001	—
Trimstrip-Assy. EF Decal 24"	HC117442	1	H2G-2001	—
Tube-Assy. Drain 14-1/4"	HC115004	1	H2G-2001	—

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Tube-Assy. Mix Pickup (2 piece)	HC118842	1	H2G-2001 —	
Clip-Tube Retainer	HC162324	1	H2G-2001 —	
O-ring	HC160502	1	H2G-2001 —	
Port-Assy. Inlet Mix/Air	HC118765	1	H2G-2001 —	
Tube-Assy. Mix Inlet	HC118836	1	H2G-2001 —	
Tube-Drain Support	HC139384	1	H2G-2001 —	
Tube-Air 7-1/2" (MTS Hose Assy.)	HC138170-02	2	H2G-2001 —	
Tube-Mix Feed Clamp (Mix Feed Seal Assy.)	HC139797	2	H2G-2001 —	
Tubing-.375 x 500 OD	HC196068	1	H2G-2001 —	
Valve-Access (Bristol Compressor)	HC155419	1	K2L-3762 —	
Valveheck 1/2 OD Sweat (Refrigeration)	HC155409	2	H2G-2001 —	
Valve-Duckbill Inlet	HC199032	2	H2G-2001 —	
Valve-1/2 Service RotaLock (Maneurop Compressor)	HC118257	1	H2G-2001 —	K2L
Valve-Expansion Automatic (Cylinder)	HC155448	2	H2G-2001 —	A2J-183
Valve-Expansion Automatic (Cylinder)	HC155490	2	A2J-184 —	
Valve-Expansion Automatic (Cabinet)	HC155449	1	H2G-2001 —	
Valve-Solenoid	HC155421	3	H2G-2001 —	
Valve-Solenoid Kit	HC155434	*	H2G-2001 —	
Valve-Assy. Water	HC113769	2	H2G-2001 —	
Valve-Water 3/8"	HC155410	2	H2G-2001 —	
Valve-Water Repair Kit	HC155444	*	H2G-2001 —	
Video-Training	HC184881	*	H2G-2001 —	
Washer-Curved Spring (MTS)	HC160145	4	H2G-2001 —	K2I
Washer-Spring Wave (MTS)	HC160173	2	K2I —	
Washer-Flat #6 Brass (MTS)	HC160393	4	H2G-2001 —	
Washer-Flat 3/8 ZN (MTS)	HC160132	4	H2G-2001 —	L2G
Washer-Flat 3/8 SST (MTS)	HC160169	4	A2H —	

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Washer-Lock #10 SST (Mix Feed Seal Assy.)	HC160166	3	H2G-2001	—
Washer-Lock 3/8 ZN (MTS)	HC160143	4	H2G-2001	— L2G
Washer-Lock 3/8 sst (MTS)	HC160143	4	A2H	—
Washer-Shaft Seal (Bushing-Shaft Seal)	HC133098	2	H2G-2001	—
Wire-Lanyard (w/o Sleeve) (RMT Cover)	HC138890	2	H2G-2001	—

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