ELECTRO FREEZE®

Operator's Manual

with Illustrated Parts List

FREEDOM 360º
Series

Soft Serve Freezer
Model 30RMT

P/N 184955 — 6/03

Operator's Manual
for
Electro Freeze Soft Serve
Freezer Model
30RMT

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 v and vi of this manual to identify the decal and call or write to H.C. Duke & Son, Inc. or local Electro Freeze distributor.

DO NOT attempt to operate the 30RMT 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 or maintain 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: _____

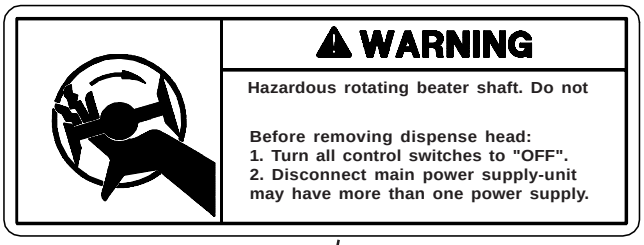
or — for factory service assistance — contact H. C. Duke & Son, Inc. Electro Freeze Service Department by phone or FAX:

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

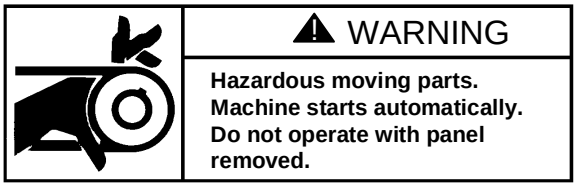
(The decals on the next page are numbered 1, 2, and 3. Those numbers correspond to the numbers in the table below. The table provides the part number, description, and quantity for each decal.)

No.	Part No.	Description (Qty)
1	P/N 165025	Decal — Beater Warning (1)
2	P/N 165126	Decal — Panel Removal (3)
3	P/N 165048	Decal — Rotating Parts (1)
4	P/N 165246	Decal — Pressurized System (1)

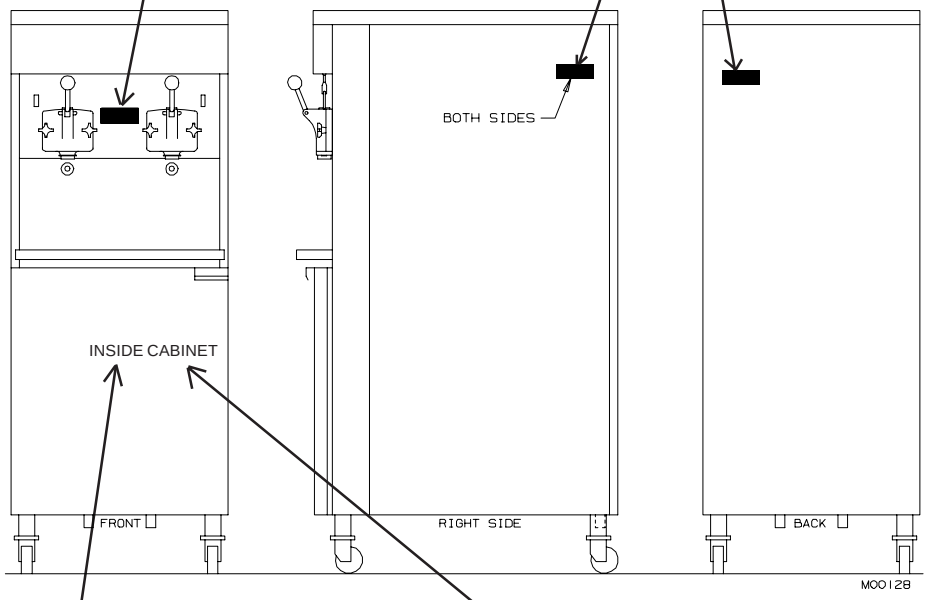
Safety Decal Locations

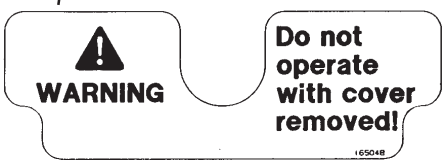


1 P/N 165025



2 P/N 165126





3 P/N 165048

4 P/N 165246

Table of Contents

Table of Contents

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

1 Introduction

The 30RMT 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 30RMT.

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

FAX: (309) 755-9858

2 Note to Installer

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

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

2.1 Uncrating and Inspection

CAUTION

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

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).

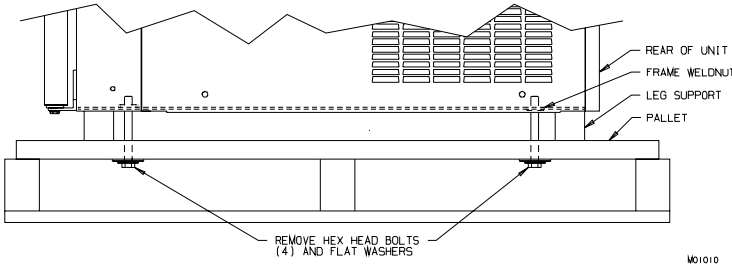
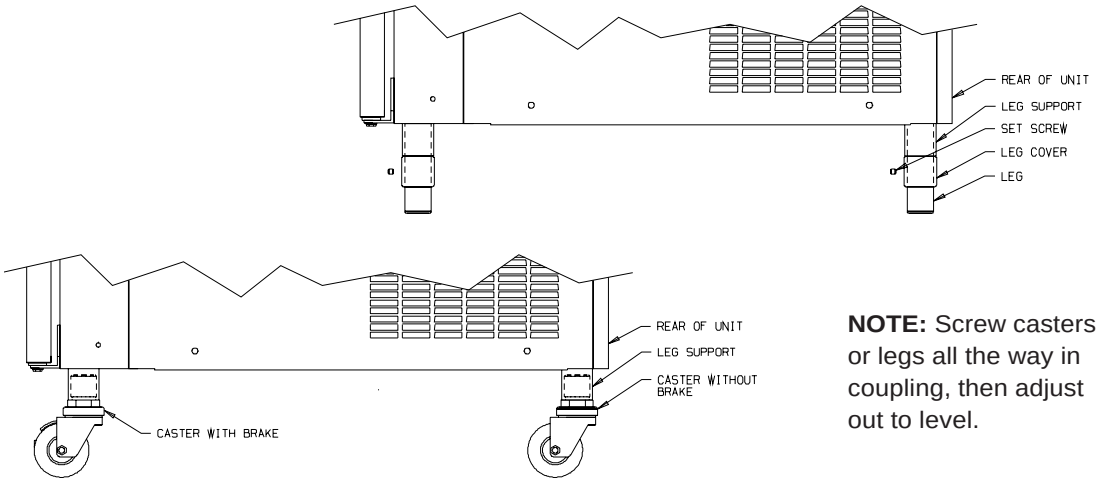


Figure 2-1 Machine Bolted to Shipping Base



NOTE: Screw casters or legs all the way in coupling, then adjust out to level.

Figure 2-2 Installing Mounting Legs or Casters

2.2 Installation

CAUTION

All materials and connections must conform to local requirements and be in compliance with the National Electrical Code (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, we recommend that the freezer be installed on casters and have flexible water and electrical connections for service and cleaning ability.

3. **Air cooled** models 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 1/2 inch MPT water inlet and water waste connection. Both condensers are tied together so that one water inlet and one water waste is all that is required. The connections are found on the bottom under the compressor mounting area and are 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 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. Double freezers with two compressors require one power supply for each side of the freezer. Each side of the freezer operates independently.

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

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

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

5. Use a flexible connection when permissible. All materials and connections must conform to local codes and the National Electrical Code.

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

3 Specifications

3.1 Particulars

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

30RMT

Width (in/cm)	26/66	**Beater Motor**	2 HP/1.5 kw
Height (in/cm)	67.5/171	**Refrigerant**	404a
Depth (in/cm)	36.5/93	**Charge****	3.75 lb/1.7 kg
Weight (lbs/kg)	847/385	**Mix Container (2)**	30 Qts/28.4 Liters
Compressor (2)*	2 HP/9500 BTUH 1.5 kw (Motor) 2.8 kw (Cooling)	**Cylinder (2)**	4 Qts/3.8 Liters

*Contact factory for other voltages.
**for each side

3.2 Data Plate

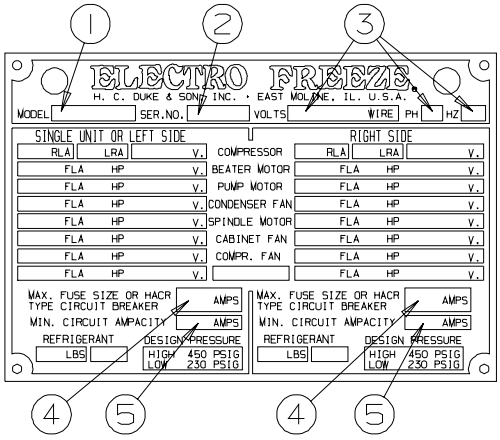


Figure 3-1

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 30RMT Soft Serve 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 30RMT Freezer.

Date of installation: _____

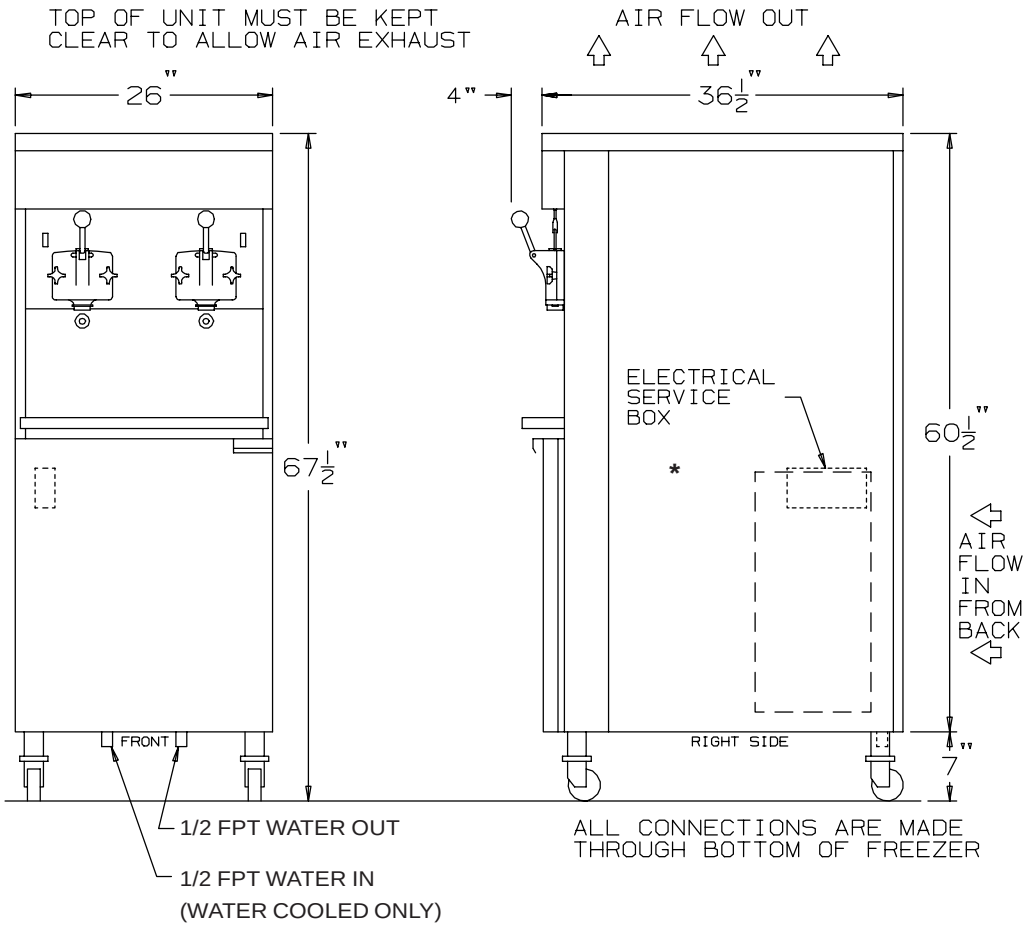
Installed by: _____

Address: _____

_____

Phone: _____

3.5 Dimensions



* NOTE: Electrical service box is located behind left side panel.

Figure 3-2 Dimensions

4 Part Names and Functions

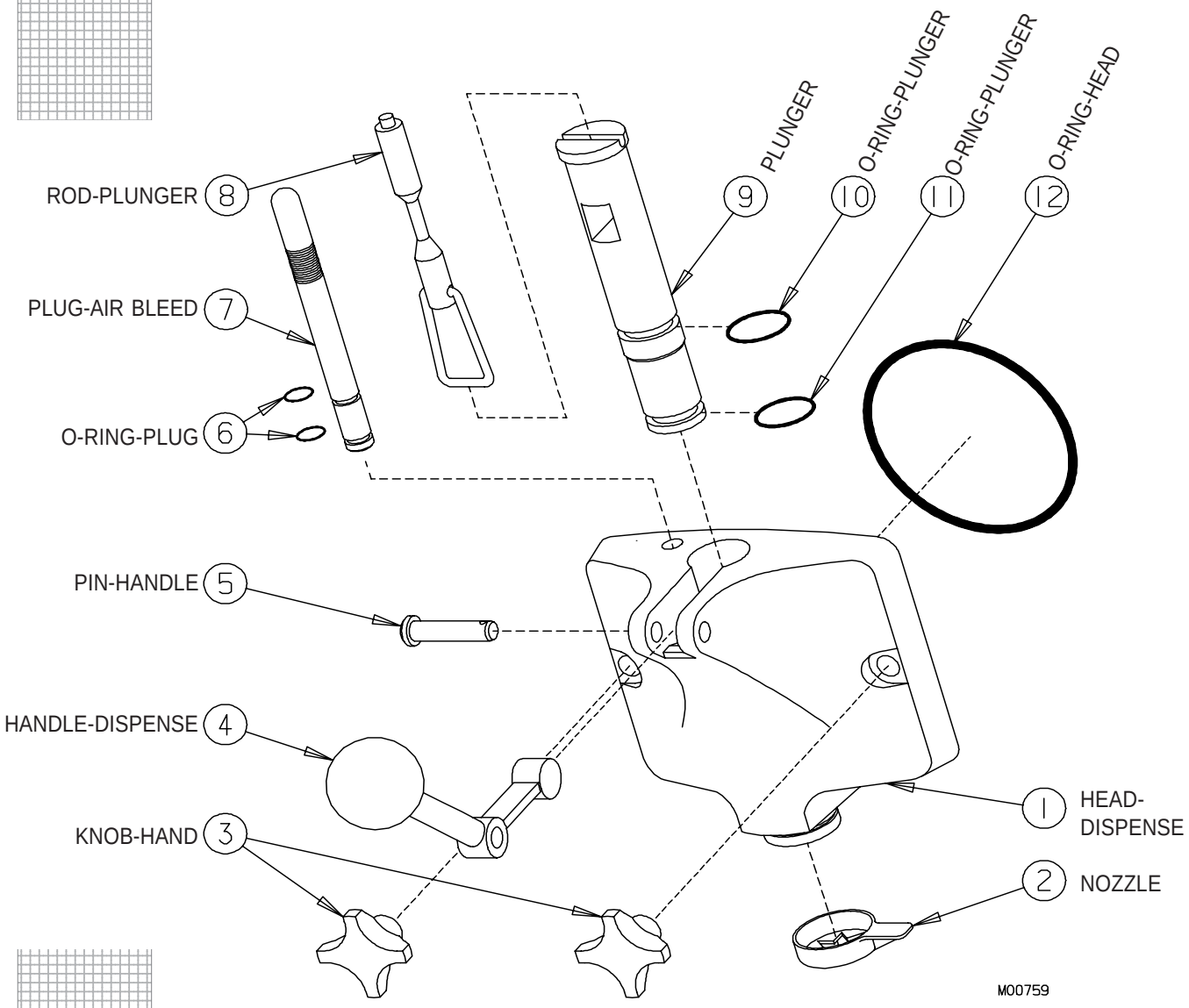


Figure 4-1 Head Assembly

4 Part Names and Functions (continued)

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

1 HEAD - DISPENSE

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

2 NOZZLE

Forms the frozen product as it is dispensed.

3 KNOB - HAND

Secures the dispense head to the freezing cylinder.

4 HANDLE - DISPENSE

Opens and closes the plunger to start and stop the flow of product from the freezer.

5 PIN - HANDLE

Secures the handle to the dispense head.

6 O-RING - PLUG

Seals the air bleed plug in the dispense head.

7 PLUG - AIR BLEED

Seals the air bleed opening in the dispense head when closed. Allows excess air to be removed from the cylinder during the filling process.

8 ROD - PLUNGER

Starts the freezer when dispensing. Must be in place before freezer will operate.

9 PLUNGER

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

10 O-RING - PLUNGER

Seals the plunger in the dispense head. Must be lubricated to seal and slide properly.

11 O-RING - PLUNGER

Seals the plunger in the dispense head. Must be lubricated to seal and slide properly.

12 O-RING - HEAD

Seals the dispense head to the freezing cylinder. Must be lubricated.

4 Part Names and Functions (continued)

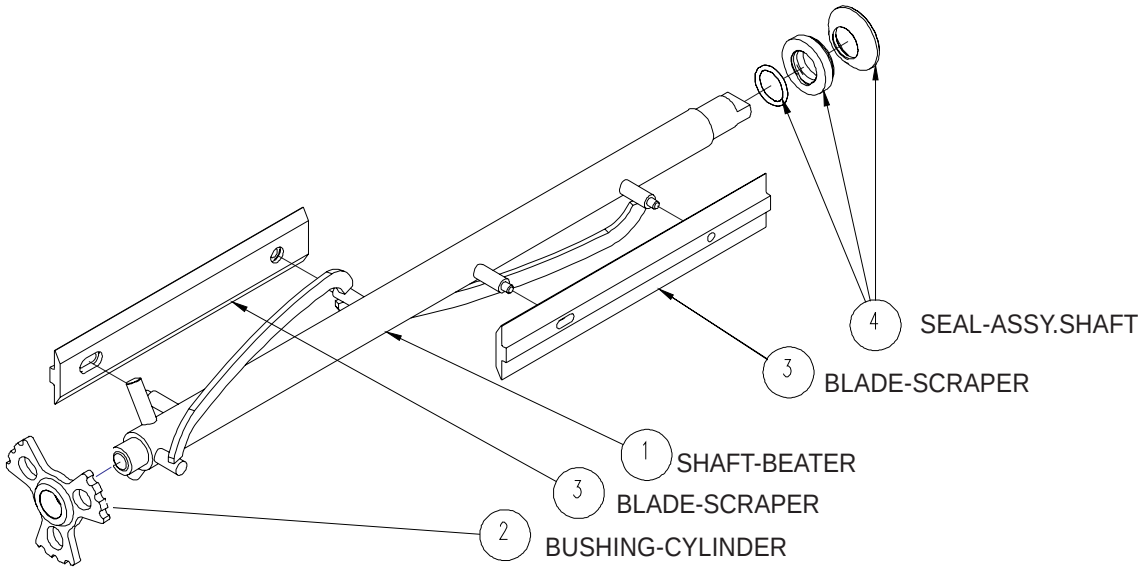


Figure 4-2 Beater Shaft Assembly

4 Part Names and Functions (continued)

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

1 SHAFT - BEATER

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

2 BUSHING - CYLINDER

The cylinder bushing fits onto the beater shaft and holds the beater in place at the front of the cylinder.

3 BLADE - SCRAPER

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 three parts: an o-ring, bushing and seal.

4 Part Names and Functions (continued)

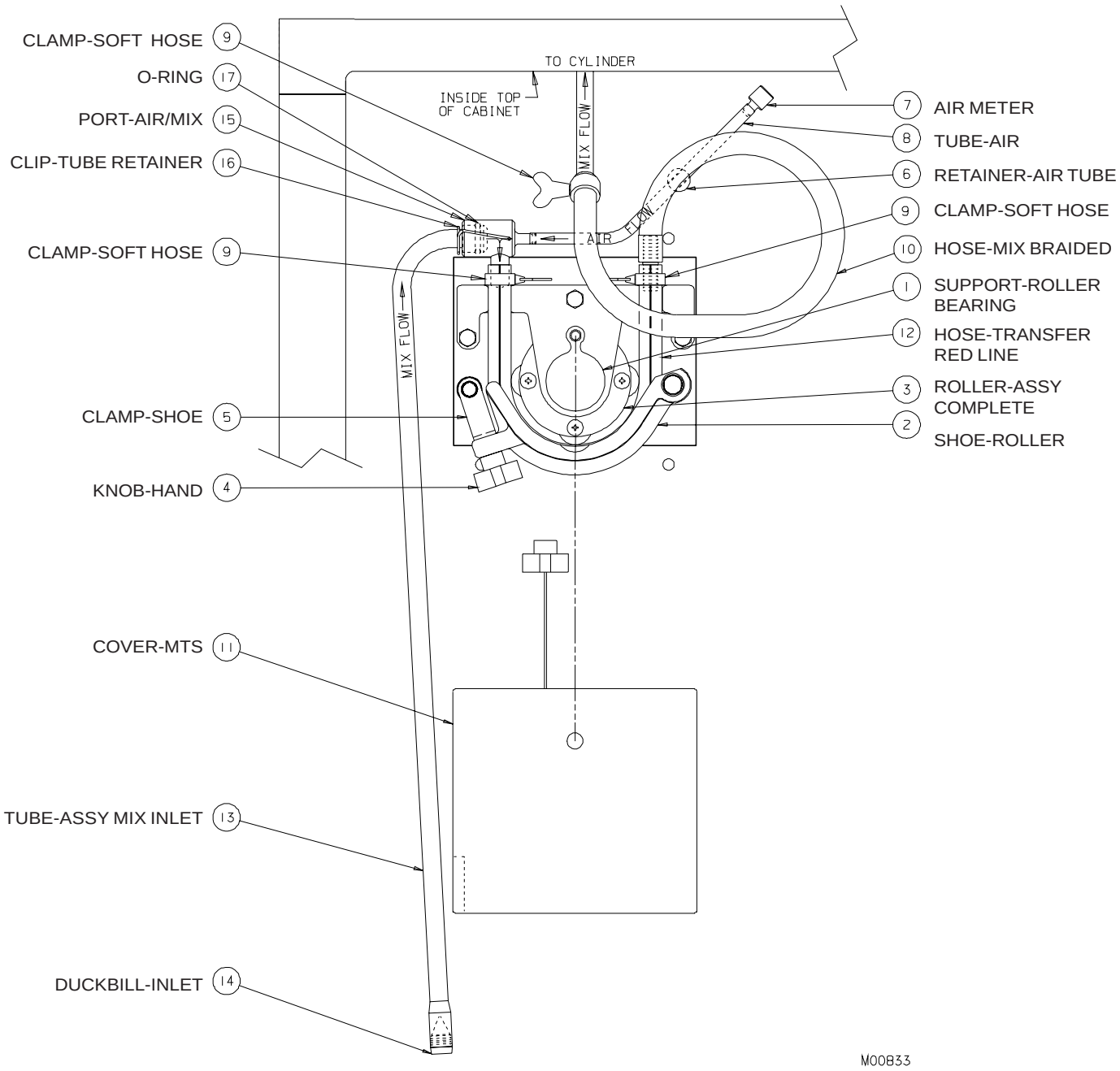


Figure 4-3 Mix Transfer System (MTS)

4 Part Names and Functions (continued)

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

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 tube 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

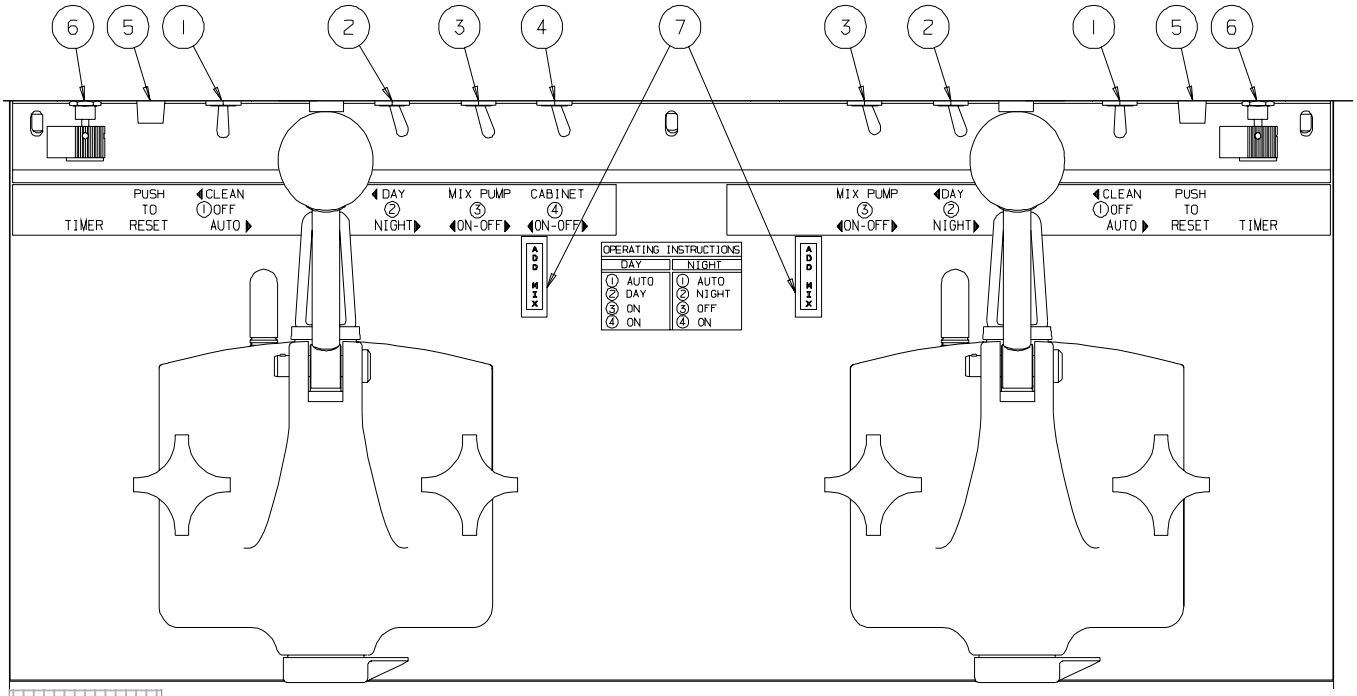


Figure 5-1

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). Always use this mode when performing cleaning and sanitizing operations.

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

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

c. **"AUTO"** (right) — This position activates both the beater motor and 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 low 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 41°F (5ºC) or below.

5.3 Mix Transfer System (MTS) Switch ③

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

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

b. **"OFF"** (right) — In this position the MTS will not operate. Use this position for night mode 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. Always use this position when mix is in the storage cabinet but not in the cylinder.

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

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

5.5 Reset — Overload ⑤

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

This control protects the beater motor against failure from an overload condition by automatically shutting down the freezer. To restart properly, turn the SELECTOR switch to "OFF", wait 2-3 minutes. Then depress the red reset button and turn the SELECTOR switch back to the "AUTO" or "CLEAN" position.

5 Operator Controls and Indicators (continued)

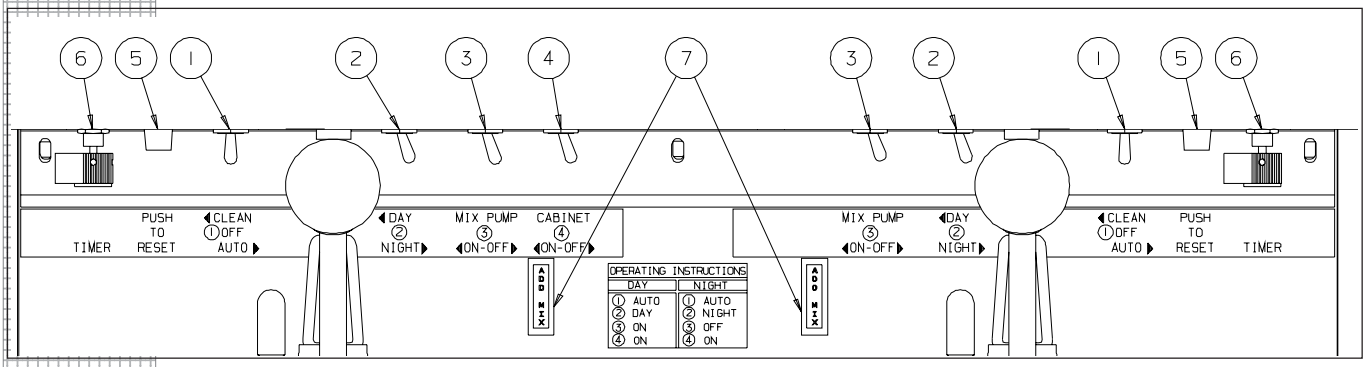


Figure 5-1

5.6 Timer ⑥

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

This control will bypass the thermostat forcing the compressor and beater motor to run up to 3 minutes. The timer can be used for quick start-ups or fast recovery when large portions are dispensed.

5.7 Indicator Light — "ADD MIX" ⑦

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

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 container. For best operating results keep container full.

5.8 Probe — "ADD MIX" ⑧ (not shown)

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

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

To turn the entire machine off, switches numbered 1, 2, 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

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

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. Bottle, Wash: used to flush the hose cavity, roller assembly and plunger.

2. Brush, Cylinder: used to clean the cylinder.

3. Brush, 7/16 inch diameter with 12 inch handle: used to clean transfer hose, braided hose, air meter hose and air relief opening in the dispense head.

4. Brush, 9/16 inch diameter with 30 inch handle: used to clean drain tube, mix feed tube in the ceiling of the cabinet, and the pickup tube.

5. Brush, 1 inch diameter, 12 inches long: used to clean plunger opening in the dispense head and serrated nozzle. Also use it to clean the head/cylinder bushing and the disassembled shaft seal.

6. Kit, O-ring: contains all O-rings and seals needing replacement on a regular basis.

7. Lubricant, Petrol Gel: approved lubricant for moving parts and O-rings.

8. Sanitizer, Sample: approved sanitizer, Stera-Sheen, also available in 4 lb. jar.

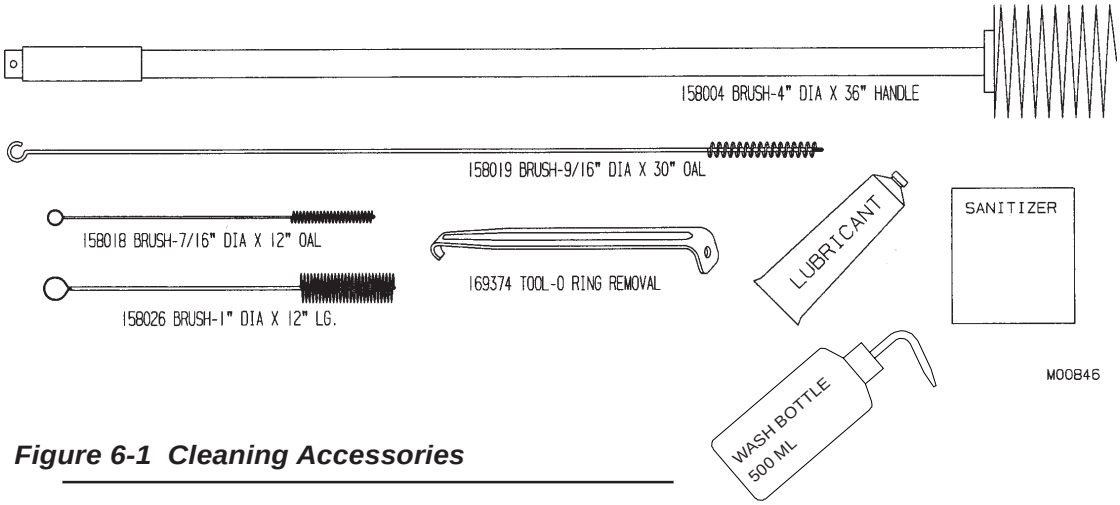


Figure 6-1 Cleaning Accessories

6.2 Disassembly Instructions

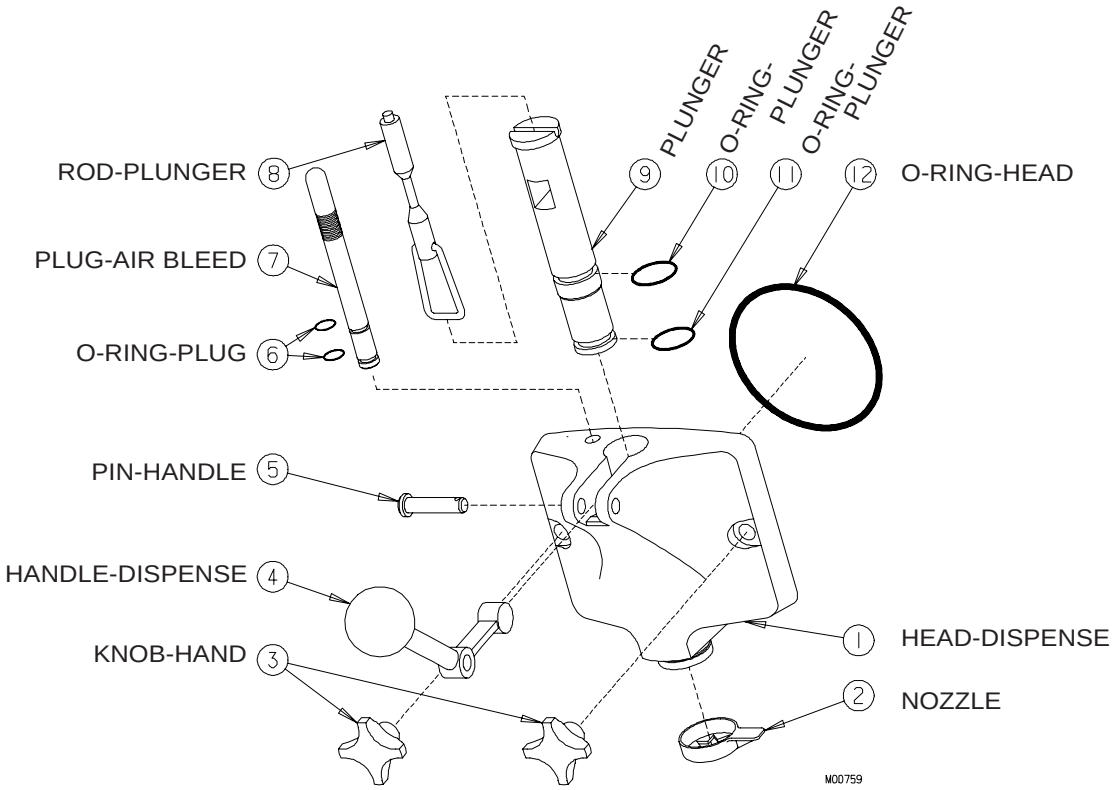


Figure 6-2 30RMT Head Assembly

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.

Follow these directions for each cylinder:

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

2. Remove the plunger rod (8, figure 6-2) by lifting up and swinging the bottom out and down. Remove hand knobs (3) and pull the dispensing head (1) straight out.

3. Remove the cylinder bushing and beater shaft from the cylinder.

4. Remove scraper blades and shaft seal from the beater shaft.

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 plug (7) and remove the two O-rings (6).

– continued

6.2 Disassembly Instructions (continued)

7. Remove the handle pin (5), handle (4), plunger (9) and nozzle (2) from the dispense head.

8. Remove O-ring (12) from the dispense head and O-rings (10, 11) from the plunger (9).

9. Remove the cup seal (figure 6-3) and O-ring from the plastic washer on the shaft seal assembly.

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

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

a. loosen the hand knob,

b. swing back the shoe clamp,

c. swing open the roller shoe,

d. loosen the clamp on braided hose,

e. pull tube off cylinder inlet and slide hose assembly out of roller support housing.

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

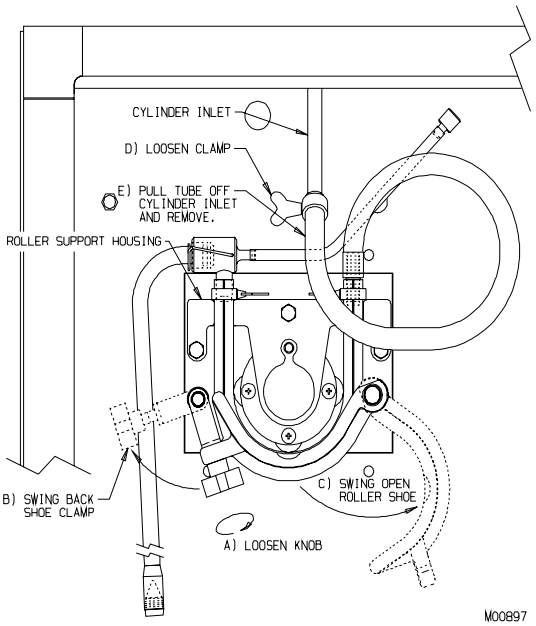


Figure 6-4 MTS

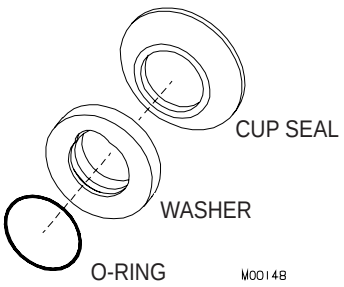


Figure 6-3 Shaft Seal

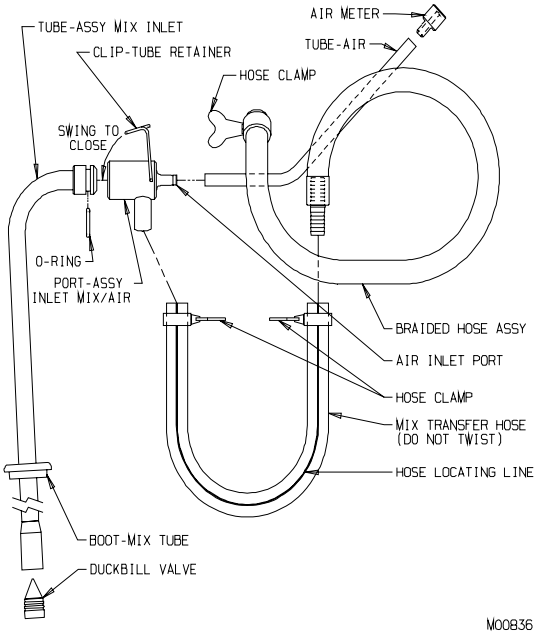


Figure 6-5 MTS Hose Assembly

6.3 Cleaning Instructions

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 federal, state and local laws concerning the frequency of cleaning and sanitizing the freezer.

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

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

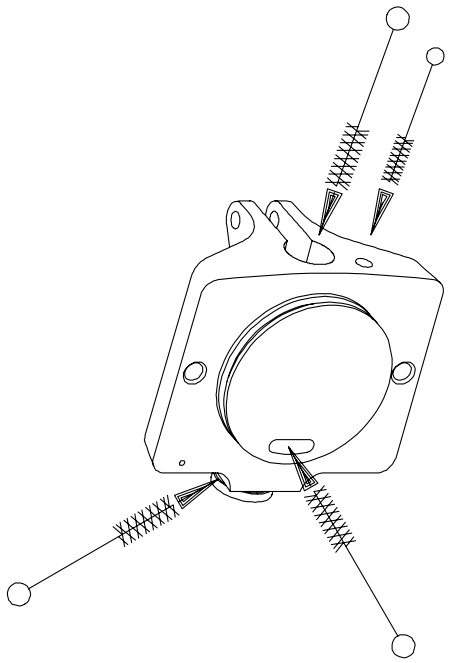


Figure 6-10 30RMT Clean head ports and openings with brush.

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.

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

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

a. The mix containers, pickup tube assemblies, hoses, and probes.

b. The head plunger openings, plunger ports, O-ring grooves, dispense nozzle mounting rings, and mix ports, as shown in figure 6-10.

c. The beater shaft cup seals, plastic washers, and O-rings, plunger O-ring grooves and nozzles, as shown in figure 6-12.

d. The air bleed plug O-ring grooves.

e. The beater shafts and the scraper blade pin holes as shown in figure 6-13.

⇨ ***Important:***
Do not leave parts in sanitizer for more than 15 minutes.

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

4. Use the sanitizing solution to thoroughly brush the mix feed tubes from the refrigerated cabinet to the cylinders.

6.3 Cleaning Instructions (continued)

5. Brush the inside of the cylinders with sanitizer and brush, making certain to clean back wall.

6. Brush the inside of the drain tubes, as shown in figure 6-14.

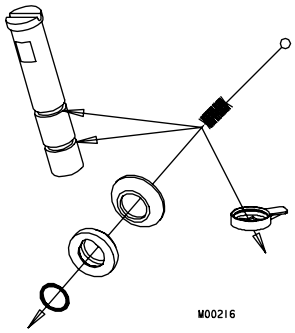


Figure 6-12 Clean O-ring grooves, seal and nozzle with brush.

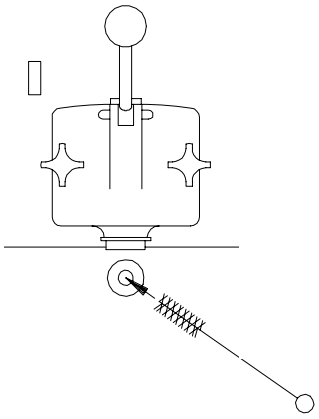


Figure 6-14 Brush inside of drain tube

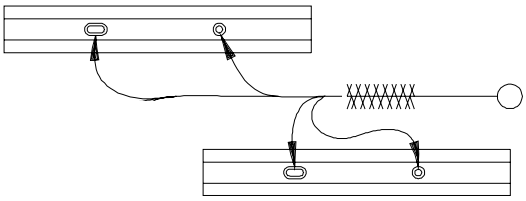


Figure 6-13 Clean beater shaft pin holes.

6.3.1 Cleaning Shoe

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

Follow these directions for each MTS shoe:

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 6-16.

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.

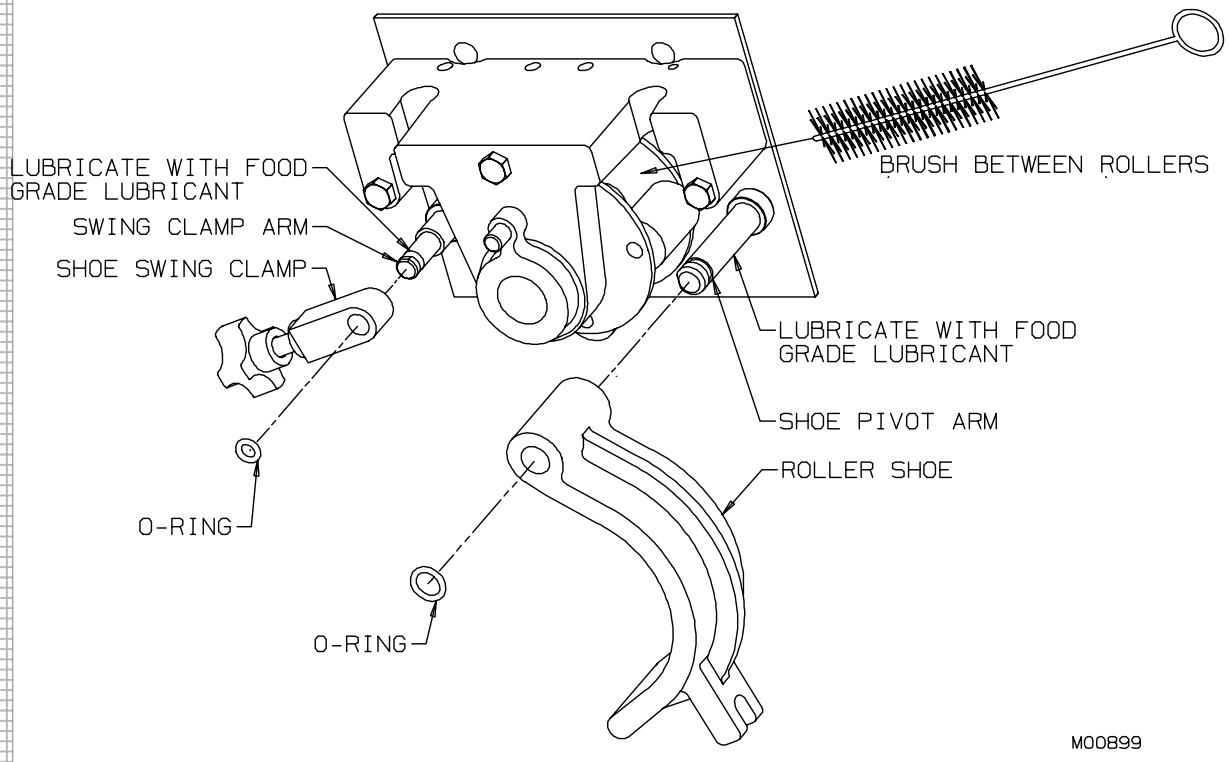


Figure 6-16

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.

7 Assembly

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

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.

7.1 Beater Shaft Assembly

1. To assemble the shaft seal, install the cup seal and O-ring on the plastic washer (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.

2. 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.

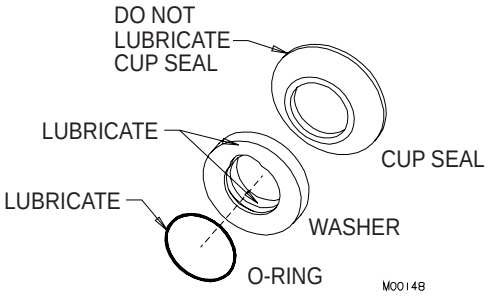


Figure 7-1 Shaft Seal Assembly

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

4. Insert 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.

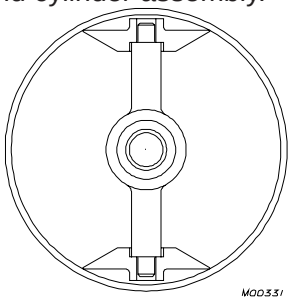


Figure 7-3 Scraper Blade Installation

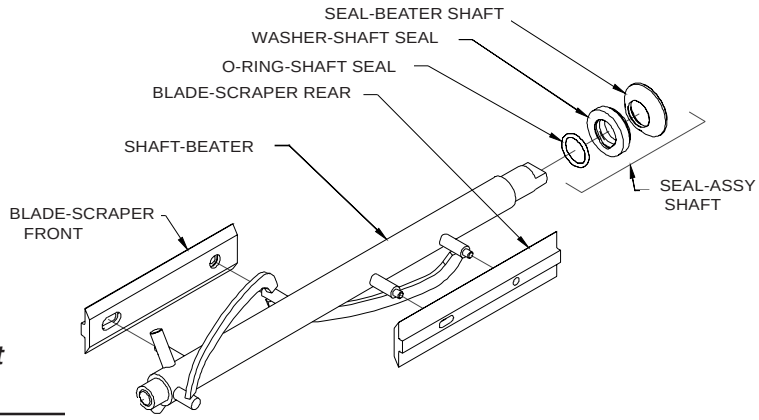


Figure 7-2 Beater Shaft Assembly

7.2 30RMT Head Assembly

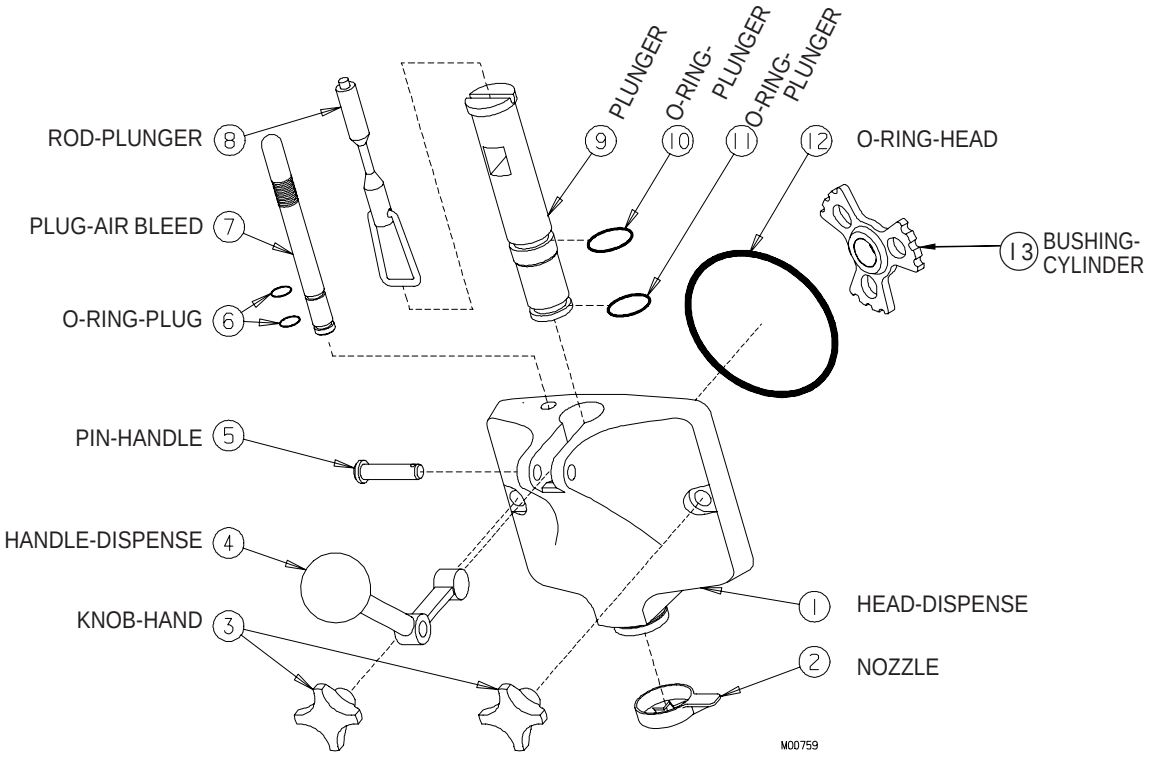


Figure 7-4 30RMT Head Assembly

1. (Refer to figure 7-4.) Install and then lubricate the O-rings (10-11) on the plunger (9) and insert plunger halfway into dispensing head (1).

2. Install and then lubricate the 4-inch head O-rings (12).

3. Position the handle (4) in the plunger (9) and dispensing head (1). Lock in place with the handle pin (5).

4. Install and lubricate O-rings (6) on the air bleed plug (7). Insert plug in the dispensing head (1) assembly.

5. Lubricate the inside bearing surface of the cylinder bushing (13) and place on the end of the beater shaft.

⇨ ***Important:***
ALWAYS make sure the cylinder bushing is positioned on the beater shaft properly. Operating the freezer with a missing or badly worn bushing will damage the beater and cylinder.

⇨ ***Important:***
Excessive force will damage the head. Do not use tools to tighten.

6. Install the dispensing head onto the freezer by aligning the studs with the holes in the head and sliding toward the freezer. Evenly tighten the hand knobs, finger tight only. Repeat for second head assembly.

7. Install the plunger rod (8). The nozzle (2) will be installed on the mix outlet at the bottom of the head after sanitizing.

7.3 MTS Assembly

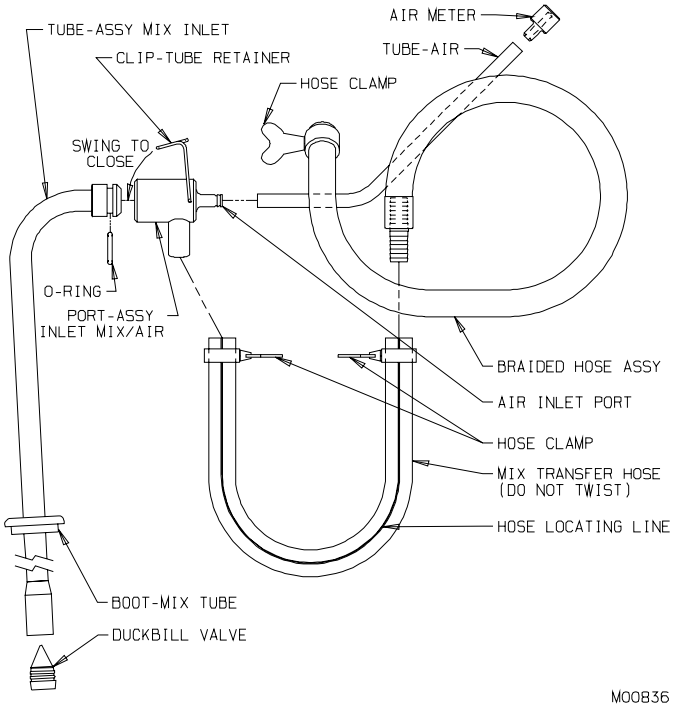


Figure 7-5 MTS Hose Assembly

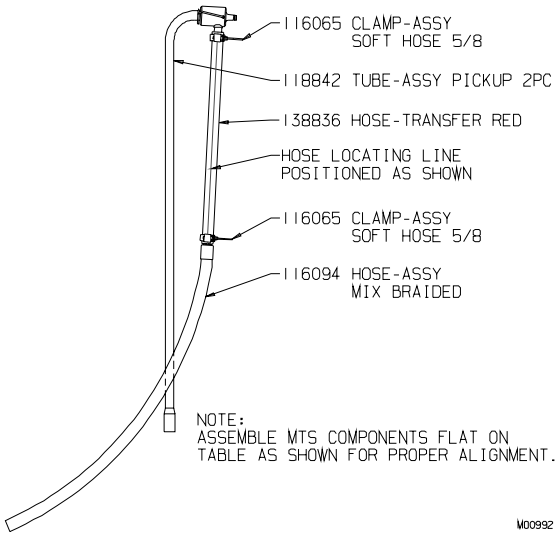


Figure 7-6 Attaching Braided Hose

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

⇨ ***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.

1. 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.

2. 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.

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

4. 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.

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

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

7.3 MTS Assembly (continued)

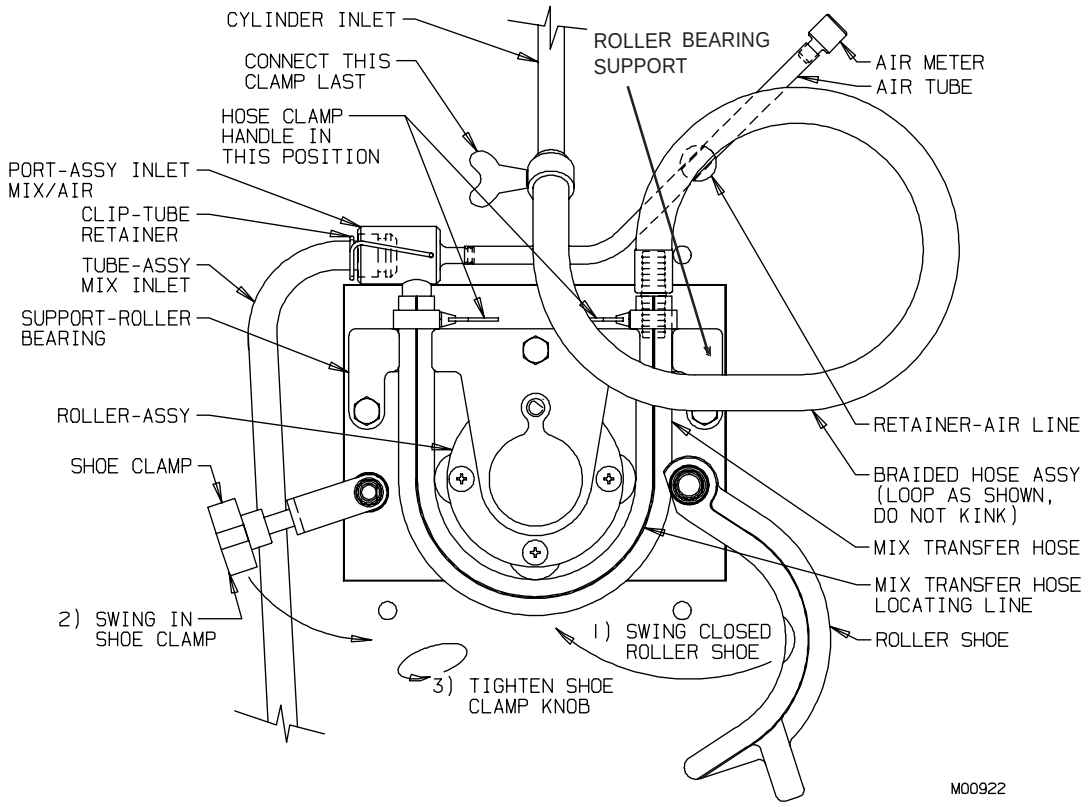


Figure 7-6 MTS

7. 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.

8. 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.

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

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

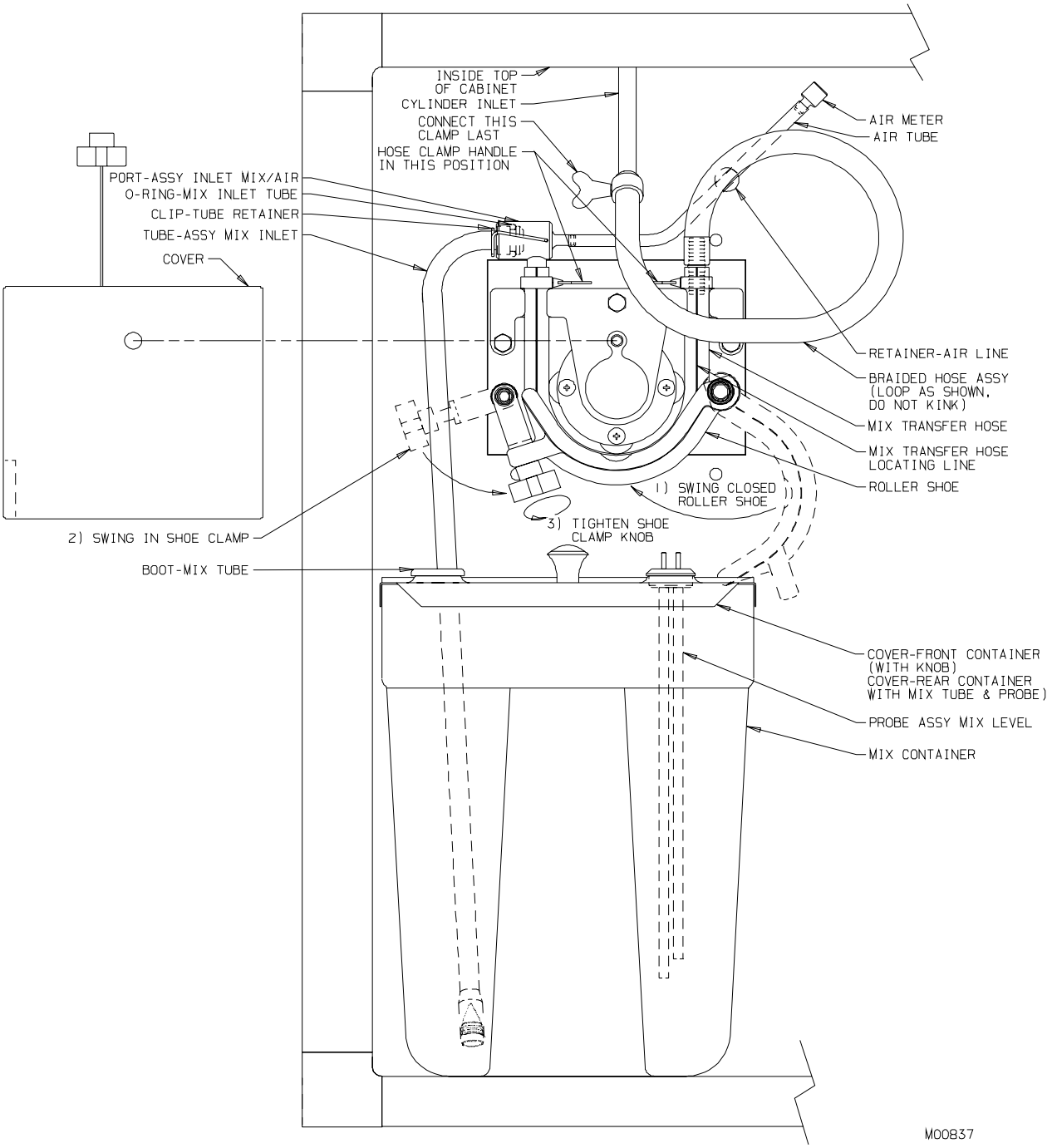
11. Insert the MTS cover over stud see figure 7-8. Hose clamps should be exposed. Tighten cover knob. Hand tighten only.

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

12. 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

7.3 MTS Assembly (continued)



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 before sanitizing 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. Always mix fresh sanitizer.

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

1. Wash and sanitize your hands and forearms.

2. 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). Use warm water (100°-110°F or 37°-43°C) to wash, rinse, and sanitize.

3. Clean the interior mix container walls, the underside of the container covers, and low mix probes with sanitizer solution and the appropriate brush provided.

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

⇨ ***Important:***

Never let the sanitizer remain in the freezer for extended periods.

5. Immerse each pickup tube in 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 each dispensing head.

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

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

9. When sanitizer flows out the air bleed plug opening in the bottom of the head, close the air bleed plug.

–continued

8.1 Sanitizing Instructions (continued)

⇨ ***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 10 minutes. Check for leaks around the heads, drain tubes, clamps and each MTS.

11. Drain the solution from each cylinder by slowly pulling down on the dispense handle.

NOTE: Some sanitizer will remain in hoses and cylinders.

12. Leave the handles down, 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 containers and empty any remaining sanitizer.

8.2 Priming

Priming the freezer removes all excess air and sanitizer from the freezing cylinders and sets the proper overrun for the first cylinder of product. Follow these directions for each cylinder:

1. Holding the top 6-inch portion only, insert each pickup tube into a sanitized mix container through the small hole in the rear cover and set containers in the cabinet.

2. Fill each mix container with mix and install the front cover.

3. Holding the top 6-inch portion only, insert the sanitized mix probes through the large hole in the rear cover, and connect each probe cord to the probe and to the back of the cabinet.

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

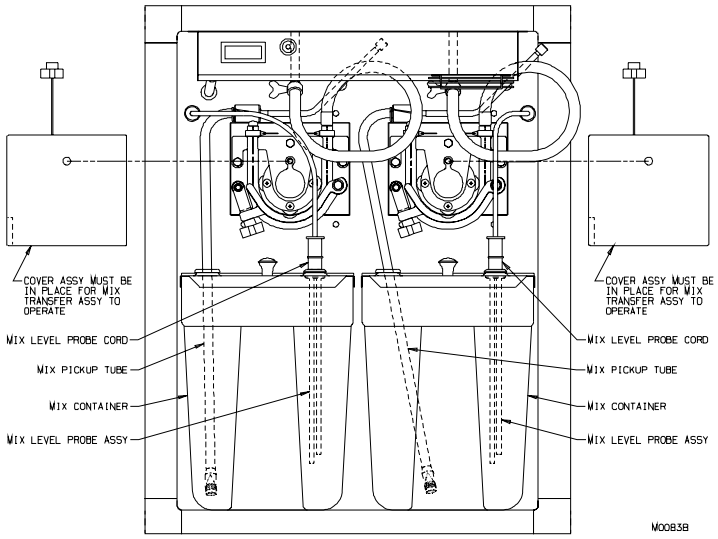


Figure 8-1

5. On the drip tray place an empty container under each dispensing head.

6. Open both plungers and air bleed plugs.

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

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

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

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

10. After each cylinder is pressurized and the MTS has cycled off (approximately 30 seconds) turn the DAY/NIGHT switch to "DAY" and the SELECTOR switch to "AUTO."

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

9 Closing Procedures

9.1 Night Switch Operation

1. In areas where state and local health codes will allow, the freezer may be switched to night operation that will allow the freezer to cycle all night and maintain approximately 38°F (3°C) or lower product in the cylinder and cabinet.

2. To switch the freezer to the night mode, leave the SELECTOR switches on “AUTO” and the cabinet switch “ON”.

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

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

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

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

9.2 Draining Product

To remove frozen product from the cylinders follow these directions for each cylinder.

1. Place the SELECTOR switches in the “CLEAN” position and the MTS switches in the “ON” position.

2. Let the beaters run for 5 minutes. This will allow the product in the cylinder to soften.

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

4. See figure 9-1. In the cabinet below, remove the stainless steel mix pickup tubes from the mix. Remove the mix containers and disconnect the low mix cords. — *continued*

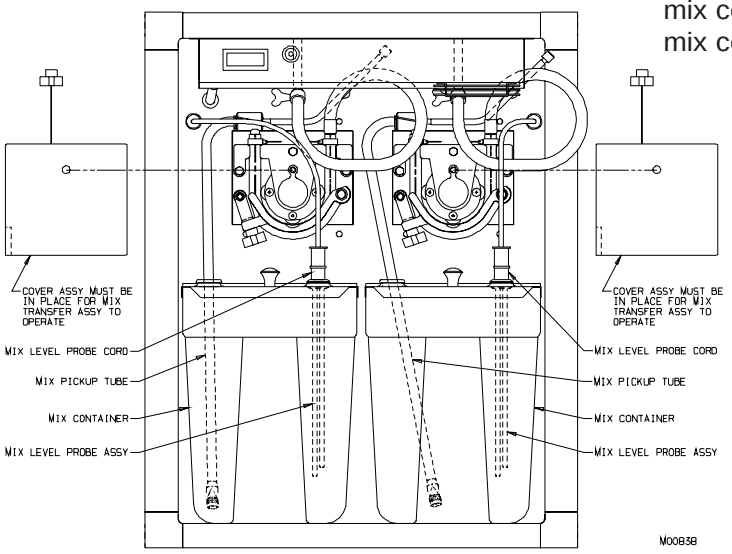


Figure 9-1

9.2 Draining Product (continued)

5. *Very slowly* dispense the semi-frozen product until it quits.

6. Close the plungers and turn the cabinet and MTS switches to “OFF”. Place the pick up tubes into a container of cold water, turn the MTS switches to “ON” and allow the MTS to fill and pressurize each cylinder with water.

7. *Very slowly* dispense the cold water. Follow with a container of warm water (100-110°F or 37-43°C) and repeat until the dispensed water is clear. Turn all switches to “OFF” and drain all water from the cylinders.

8. Prepare 2 gallons (7.5 liters) of sanitizing solution for each cylinder. Always mix fresh sanitizer. Sanitizing solution must be mixed according to manufacturer’s instructions to yield 100ppm available chlorine solution (example: Stera-Sheen Green Label).

9. Place the pickup tubes into the sanitizer solution and close the plungers.

10. Open the air bleed plugs by pulling up until the plug touches the bottom of the switch box. Place the MTS switches to the “ON” position. When sanitizer solution flows out of the air bleed plug opening in the bottom of each head, close the plug and allow the cylinder to pressurize.

11. Place the selector switches in the “CLEAN” position and allow the beaters to run for 10 minutes.

12. Slowly open the plungers and allow the MTS to push the sanitizer out of each cylinder. Leaving the plungers open, turn the selector switches to “OFF”. Allow the MTS to push all remaining sanitizer out of each cylinder. When the sanitizer quits flowing, turn the MTS switches to “OFF”.

13. Remove pickup tubse from sanitizing solution.

CAUTION
Make sure the freezer is depressurized before proceeding.

14. 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."

Example:

Weight of one pint of liquid mix	**=**	**18 oz.**
Weight of one pint frozen product	**=**	**12 oz.**
Difference	**=**	**6 oz.**
6.0 oz. divided by 12 oz.	**=**	**.5**

.5 x 100 = 50% overrun

* Your Electro Freeze Distributor can provide a scale and container (P/N 158049) 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 three air meters, 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 result in a 3-5% increase in overrun. Each full size change will change the overrun 8-10%.

The orifice or hole in this air meter must be open at all times. It is the only source of air into the freezing cylinder. Check this daily!

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

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

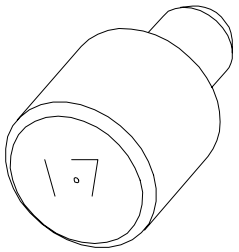


Figure 10-1 Air Meter

10.3 Rerun

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.

11 Routine Maintenance

Electro Freeze recommends the following schedule to help maintain your Model 30RMT Soft Serve 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, air-dry, reassemble and sanitize 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 cylinders, cylinder inlet tubes and drain tubes with the appropriate brushes.

3. When cleaning, inspect all seals, O-rings and hoses. Replace any seal, O-ring and 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.

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 systems:

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.

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.

— continued

11 Routine Maintenance (continued)

AS NEEDED (continued)

a. Remove cover, loosen swing clamp and open shoe to gain access to the hose cavity.

b. Remove mix transfer hose assembly.

c. Lay a towel on the cabinet base below the MTS.

d. Using the spray bottle supplied, flush the hose cavity and roller assembly.

e. Use a brush (supplied) to clean in between rollers. Flush with sanitizer.

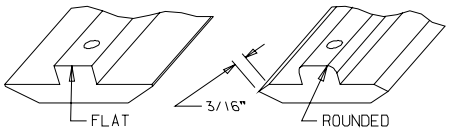
f. Wipe all surfaces with a clean dry cloth.

g. Remove and clean shoe. See figure 11-1.

WEEKLY

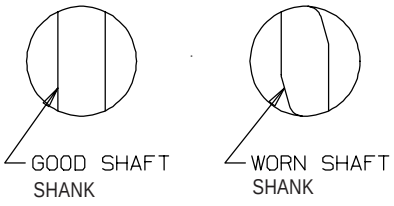
1. Carefully inspect all parts for wear, including seals, O-rings, mix transfer tubes, and blades.

2. Replace as required.



Replace blades if worn 3/16" or more.

3. Check the beater shanks and drive coupling for wear.



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

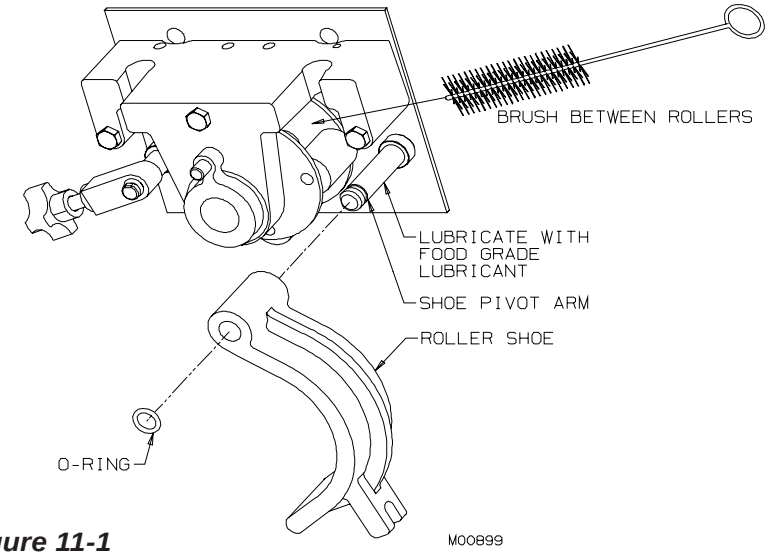


Figure 11-1

11 Routine Maintenance (continued)

MONTHLY

1. 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 assembly.

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.

2. Test MTS Cover Switch.

The MTS cover switch 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.

4. Look at the MTS rollers; they should **NOT** be rotating. If they are rotating, turn "OFF" the 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 gear motor turns on.

— continued

11 Routine Maintenance (continued)

MONTHLY (continued)

2. MTS Cover Switch (continued)

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.

3. 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

1. Have refrigeration technician check the refrigeration system and make any necessary adjustments.

2. On air-cooled freezers have the condenser fins cleaned by your authorized service technician.

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

SEMIANNUALLY

1. Have the oil in the gear reducer changed by your Electro Freeze Distributor..

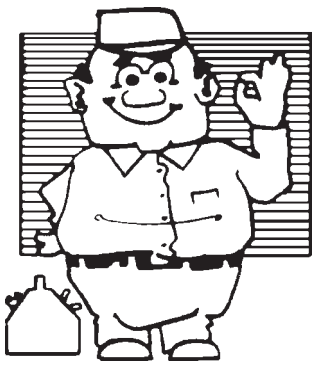
NOTE: Under normal conditions after the initial change, the oil should be changed after 2500 hours of operation or every six months, whichever occurs first.

ANNUALLY

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

1. Call your Electro Freeze Distributor for service to replace drive belts.

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



11 Routine Maintenance (continued)

Winter Storage

To protect the unit during seasonal shutdown, it is important to store the soft serve 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.

USE ONLY ORIGINAL OR AUTHORIZED REPLACEMENT PARTS WITH THIS FREEZER.

(See your Illustrated Replacement Parts Manual)

Should you have any questions on items that are not included in this maintenance schedule, or problems where service assistance is needed, please call your local *Electro Freeze* Distributor or H. C. Duke & Son, Inc., *Electro Freeze* Service Department for factory service at ***(309) 755-4553 or FAX (309) 755-9858.***

12 Troubleshooting Tables

SAFETY

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

CAUTION

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

CAUTION

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

Important:

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

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Unit does not operate. 	1. Freezer unplugged.	1. Plug in freezer.
	2. Fuse or breaker blown at main disconnect.	2. Make sure your freezer is connected to a separate circuit independent from any other electrical equipment. Check fuse or breaker size. Contact your Electro Freeze Distributor to check for low voltage.
	3. Beater motor out on overolad.	3. Press overload reset button. Check product temperature and overrun. (Note: cabinet will cool) Contact your Electro Freeze Distributor to check for low voltage.
	4. Off on high pressure cut out control.	4. Refer to Troubleshooting Table - Compressor/Condensing Circuit - Discharge Pressure Too High.
	5. Off on low pressure cut out control.	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 head 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 [-7ºC]) 	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.	2. Check product temperature; should be about 18°F (-7.8°C). See "Machine runs continuously and product gets too cold".
	3. Low overrun.	3. Check air meter. If plugged, clean. See M.T.S. Troubleshooting Table - No Air.
	4. MTS problem.	4. See M.T.S. Troubleshooting Table.
	5. Reverse rotation on beater.	5. Have an electrician correct rotation to clockwise as viewed from the front of freezer.
Dispensed product too hard.	1. Cylinder thermostat erratic or set too cold.	1. Contact your Electro Freeze Distributor for service.
	2. Low overrun.	2. Check overrun, if low see M.T.S. Troubleshooting Table. No air.
	3. Plunger switch electrically or mechanically stuck closed. (Unit runs all the time.)	3. Remove plunger rod. If the freezer shuts off, contact your Electro Freeze Distributor.
	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. Dispense speed set too slow.	6. Contact your Electro Freeze Distributor for service.
Machine runs continuously and product gets too cold.	1. Plunger switch rod engaged.	1. Close plunger completely.
	2. Plunger switch out of adjustment or defective.	2. Contact your Electro Freeze Distributor for service.
	3. Faulty thermostat or bulb not deep enough in well.	3. Contact your Electro Freeze Distributor for service.
	4. Starter or relay contact points stuck.	4. Contact your Electro Freeze Distributor for service.
	5. Faulty time delay.	5. Contact your Electro Freeze Distributor for service.
	6. Suction pressure too low.	6. Contact your Electro Freeze Distributor for service.
	7. Faulty control relay	7. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Poor or slow product recovery.	1. Dirty or blocked condenser, restricted air flow - high ambient temperature.	1. Have condenser cleaned by your Electro Freeze Distributor; lower ambient temperature.
	2. Thermostat cut in point out of adjustment or malfunctioning.	2. Contact your Electro Freeze Distributor for service.
	3. Defective condenser fan motor.	3. Contact your Electro Freeze Distributor for service.
	4. Component or compressor failure.	4. Contact your Electro Freeze Distributor for service.
Compressor does not operate or operates improperly.	1. Trouble in compressor condensing circuit.	1. Contact your Electro Freeze Distributor for service.
	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. Worn out relay contacts.	5. Contact your Electro Freeze Distributor for service.
	6. Faulty capacitor assembly. (Single phase only).	6. Contact your Electro Freeze Distributor for service.
	7. Faulty beater motor.	7. Contact your Electro Freeze Distributor for service.
Compressor and beater motor operates only when dispensing.	1. Cylinder thermostat, setting too warm or thermostat defective.	1. Contact your Electro Freeze Distributor for service.

12 Troubleshooting Tables (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Compressor and beater motor do not operate when dispensing.	1. Plunger switch 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.
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 contactor coil open (mix sours in night mode only).	5. Contact your Electro Freeze Distributor for service.
Leakage of mix or water from drain tube to drip tray. 	1. Damaged beater shaft seal or installed improperly.	1. Replace cup seal or o-ring inside bushing. Install properly.
	2. Beater shaft pitted or damaged where o-ring rides.	2. Replace beater shaft.
	3. Beater shaft end play not set properly.	3. Contact your Electro Freeze Distributor for service.

12.1 Compressor/Condensing Circuit

PROBLEM	PROBABLE CAUSE	REMEDY
Unit operates long or continuously.	1. Dirty condenser.	1. Have condenser cleaned by your Electro Freeze Distributor.
	2. Shortage of refrigerant.	2. Contact your Electro Freeze Distributor for service.
	3. Moisture in system.	3. Contact your Electro Freeze Distributor for service.
	4. Compressor failing.	4. Contact your Electro Freeze Distributor for service.
Discharge pressure too high.	1. Water turned off or defective water regulating valve.	1. Contact your Electro Freeze Distributor for service.
	2. Restricted water cooled condenser.	2. Contact your Electro Freeze Distributor for service.
	3. Dirty condenser.	3. Have condenser cleaned by your Electro Freeze Distributor.
	4. Unit location too warm (air cooled).	4. Relocate unit away from restriction. Place nothing against the back, sides, or on the top of the unit.
	5. Refrigerant overcharge.	5. Contact your Electro Freeze Distributor for service.
	6. Air in system.	6. Contact your Electro Freeze Distributor for service.
	7. Water hose kinked or pinched. (Water cooled freezers only)	7. Move freezer and adjust hose so it is not pinched or kinked.

12.1 Compressor/Condensing Circuit (continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Discharge pressure too low.	1. Water regulating valve open too wide.	1. Contact your Electro Freeze Distributor for service.
	2. Shortage of refrigerant	2. Contact your Electro Freeze Distributor for service.
Noisy compressor	1. Tubing rattle.	1. Contact your Electro Freeze Distributor for service.
	2. Spring broke internally.	2. Contact your Electro Freeze Distributor for service.

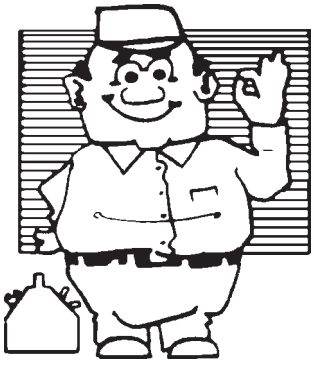
NOTE: Contact your authorized Electro Freeze Distributor for instructions prior to warranty compressor replacement.

12.2 Mix Transfer System (MTS)

PROBLEM	PROBABLE CAUSE	REMEDY
Mix leaks out of MTS.	1. Transfer hose worn and split.	1. Remove, clean inside MTS around rollers with spray bottle provided, install new hose.
Mix transfer system (MTS) will not operate.	1. MTS cover not properly installed.	1. Install cover under hose clamps.
	2. Hose not installed properly.	2. Check position-reinstall.
	3 Cover 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-relay defective.	5. Contact your Electro Freeze Distributor for service.
	6. Pressure switch defective.	6. Contact your Electro Freeze Distributor for service.
	7. Motor burned out or tripped overload.	7. Contact your Electro Freeze Distributor for service.
MTS cycles on and off with out dispensing.	1. Leak on pressure side of system.	1. Find leak and correct, check head, drain tube and all hoses.
	2. Worn transfer hose.	2. Replace hose.
MTS will not prime.	1. Insufficient supply of mix.	1. Replenish mix supply.
	2. Air hose or air meter not installed.	2. Install air hose/air meter.
	3. Hose not installed.	3. Install hose.
Mix pick up tube loses prime.	1. Transfer hose worn.	1. Replace transfer hose.
	2. Defective duckbill check valve.	2. Replace check valve.
No Air (Overrun).	1. Air meter plugged.	1. Clean or replace air meter.
	2. Air tube pinched.	2. Replace tube.

12.2 Mix Transfer System (MTS) (Continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Too much air, overrun too high-popping problems. ⚠	1. Air meter too large.	1. Install smaller air meter.
	2. Air leak between min inlet tube and hose.	2. Replace as needed.
	3. Air line hose cracked-sucking air.	3. Replace air line hose.
	4. Defective or missing duckbill valve.	4. Replace valve.
	5. O-ring on mix inlet tube worn or cut.	5. Replace o-ring.
MTS will not shut off. ⚠	1 MTS hose broke in the prime mode.	1. Replace hose.
	2. Mix relay defective.	2. Contact your Electro Freeze Distributor for service.
	3. Pressure switch stuck in closed position.	3. Contact your Electro Freeze Distributor for service.
Mix shoots out air meter. ⚠	1. Transfer hose worn.	1. Replace hose.
	2. MTS shoe clamp knob not tight.	2. Tighten knob.
	3. MTS pressure too high.	3. Contact your Electro Freeze Distributor for service.



QUALITY PARTS
PROTECT
YOUR
INVESTMENT

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 360º Series

Soft Serve Freezer

Model 30RMT

P/N 184955-01 6/03

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.

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

Name: _____

Address: _____

_____

Phone: _____

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

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

Table of Contents

ILLUSTRATIONS

OTHER LISTS AND INFORMATION

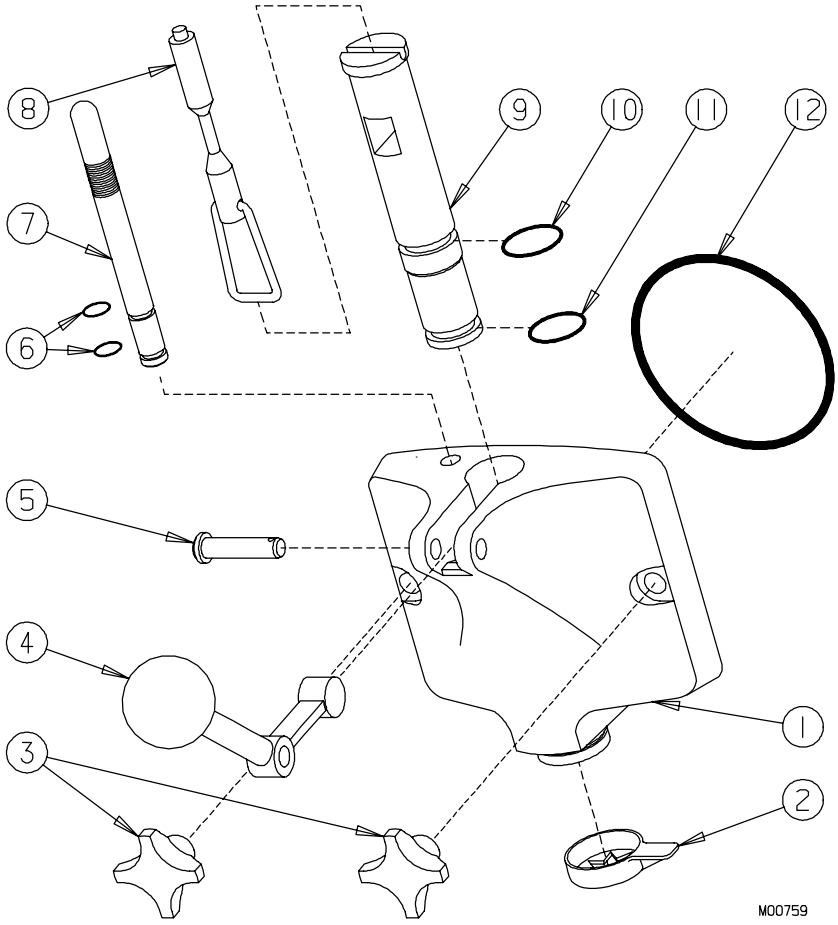


Figure 1 Head Assembly

Item	Part No.	Description
*	118902	Head-Assy. Ported w/Actuator & Bleed (Complete)
1	118566	Head-Assy. w/Actuator
2	196185	Nozzle-Serrated
3	136798	Knob-Hand
4	110007	Handle-Assy. Dispense
	162629	Knob-Ball 3/8-16 TH Black
5	160268	Pin-Handle
6	160610	O-Ring (Plug)
7	138149	Plug-Air Bleed
8	113426	Push Rod-Assy. Plunger Switch
9	139581	Plunger-Dispense Self Close
10	160501	O-Ring (Plunger-Upper)
11	160582	O-Ring (Plunger-Lower)
12	159309	O-Ring (Head)

* Includes all items shown here, except 3 and 8.

Not Shown:

116410	Kit-Dispense Head Switch
114341	Stud Assy.-Cylinder 1-$^{15}/_{16}$ inch

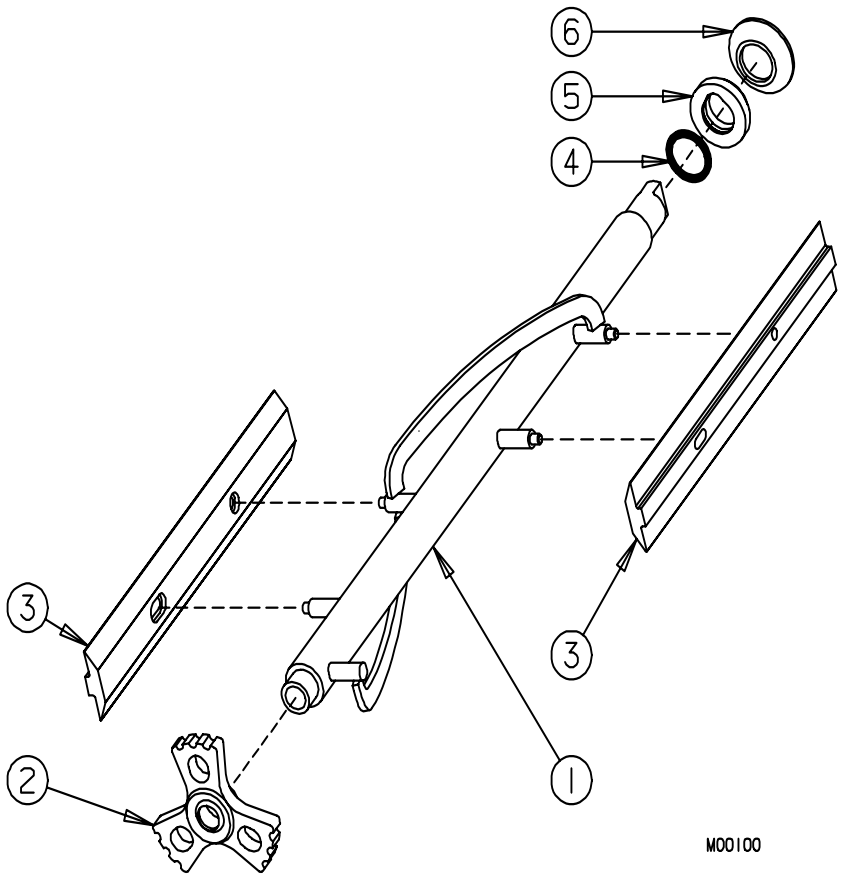


Figure 2 Beater Shaft Assembly

Item	Part No.	Description
1	113438	Shaft-Assy. Beater
2	196085	Bushing-Cylinder
3	137334	Blade-Scraper Soft Serve
4*	160500	O-ring (Seal)
5*	133098	Washer-Shaft Seal
6*	160557	Seal-Beater Shaft

* Items 4,5,6 can be ordered together as:
111875 Seal-Assy. Shaft

Use only original or authorized replacement parts with this freezer

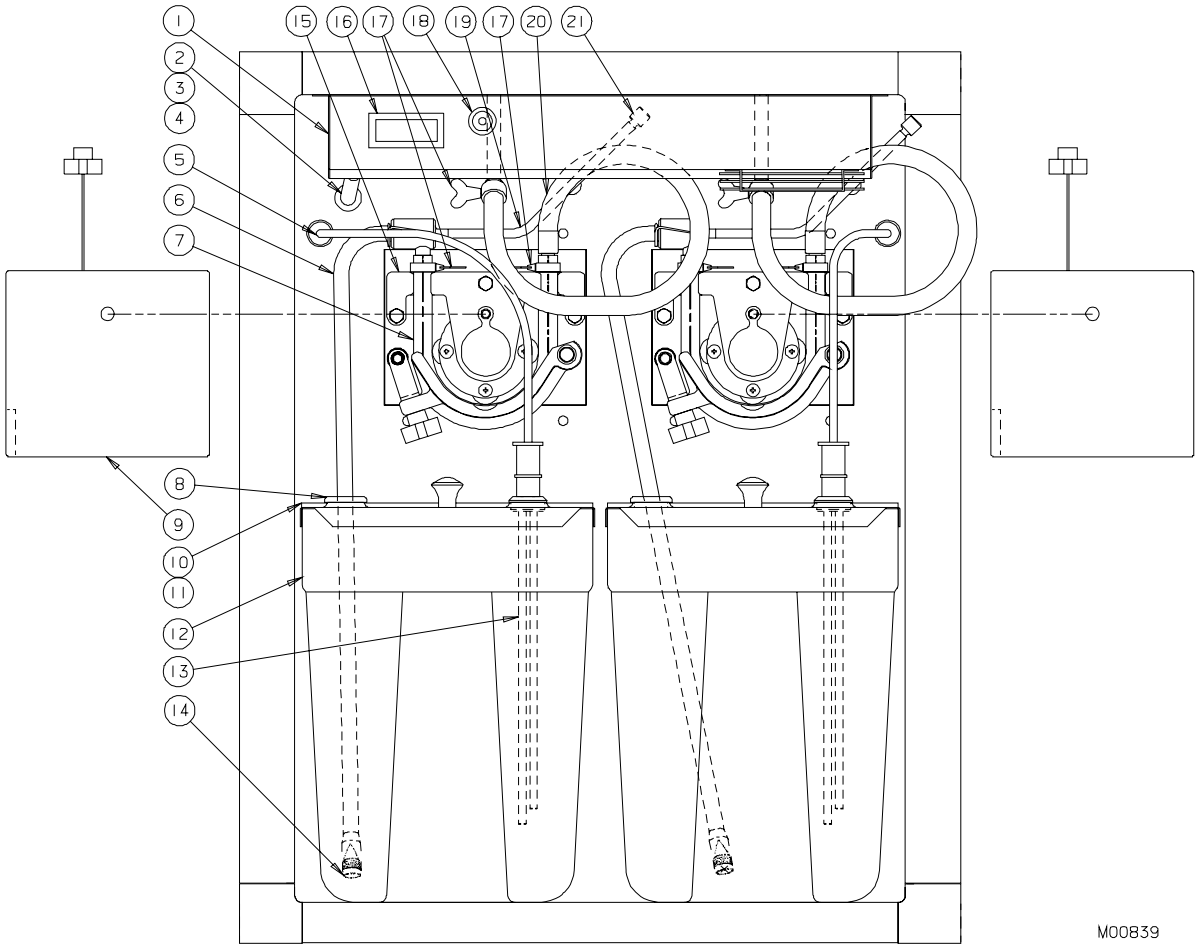


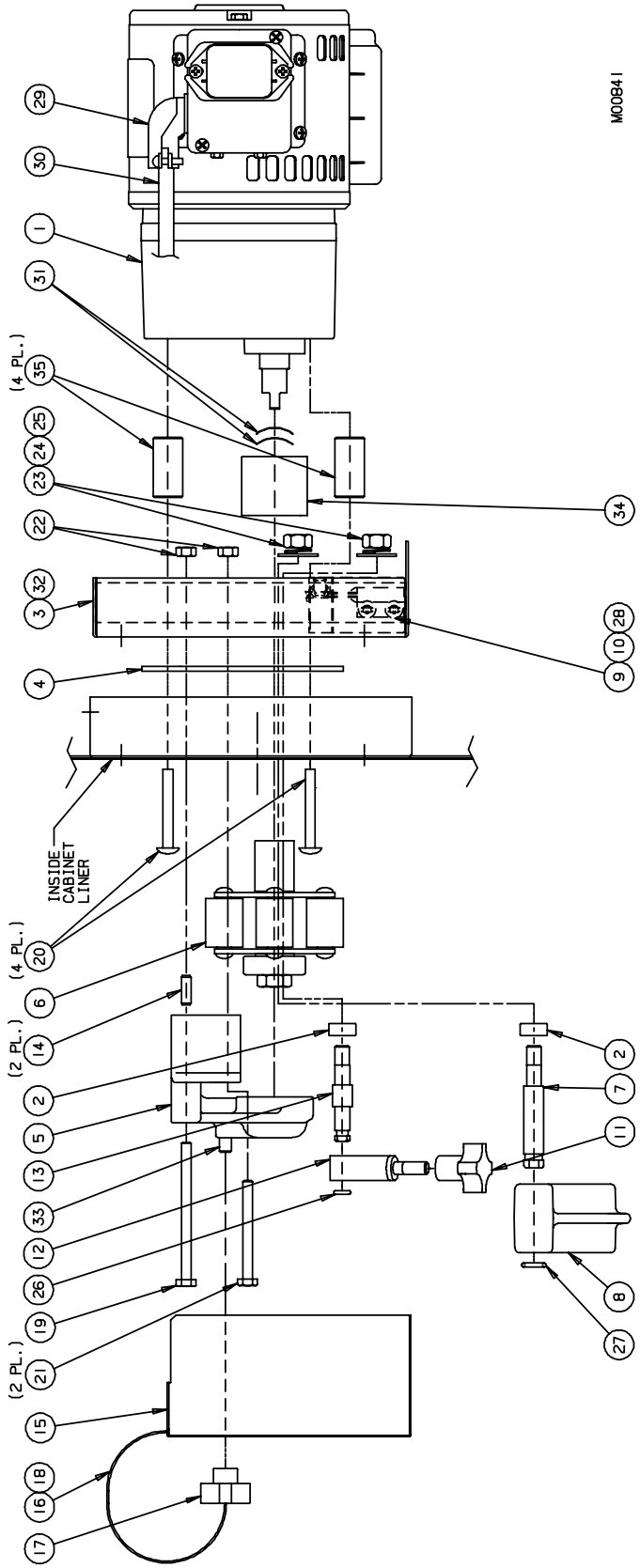
Figure 3 Cabinet Parts

REF.	PART No.	DESCRIPTION
1	117129-01	Shroud-Assy. Evaporator
	150532	Cord-Assy. Male Plug
	151105	Fan-Intake (Cabinet)
	151076	Guard-Fan Open
	150509	Switch-Door Push Button
	161004	Thermometer-Barrel
1A	155111	Coil-Evaporator
1B	150533	Cord-Assy. Female Plug
2	160738	Clamp-Hose Drain
3	196068	Tubing-3/8 ID x 1/2 OD
4	138919	Tube-Drain Support
5	150537	Cordset-Mix Level Probe
5A	150536	Receptacle-Molded Level Sensor
6	118842	Tube-Assy. Pickup
	162324	Clip-Tube Retainer
	118765	Port-Assy. Inlet Mix/Air
	118836	Tube-Assy. Mix Inlet
	160502	O-ring
7	138836	Hose-Transfer Red Line
8	199033	Boot-Mix Tube

REF.	PART No.	DESCRIPTION
9	118767	Cover-Assy. RMT
10	113997	Cover-Assy. Front Mix Tank
11	138165-01	Cover-Rear Mix RMT
12	196222	Tank-Mix 7 Gal. 13-1/2"
13	115397	Probe-Assy. Mix Level 10-3/4" (7 Gal.)
	137120	Base-Probe Mtg.
14	199032-01	Duckbill-Inlet
15	118751	MT-Assy CAB Redline (See Explode View-Figure 4)
16	161004	Thermometer-Barrel (Cabinet)
17	116065	Clamp-Assy. Soft Hose 5/8
18	150509	Switch-Door Push Button
18A	118597	Actuator-Assy. Door Switch
19	138170-02	Tube-Air
20	116094	Hose-Assy. Mix Braided
21		Meter-Air (Order by meter number)

Use only original or authorized replacement parts with this freezer.

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



Use only original or authorized replacement parts with this freezer

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

Item	Part No.	Description
*	118751	MT-Assy. CAB Red Line
1	151132	Gearmotor-1/8 HP includes replaceable parts
	150512	Capacitor-Start w/Bleed
	150893	Switch-Start Solid State (Relay)
2	138800	Spacer-Swing Arm
3	118764	Faceplate-Assy. MTS
4	139746	Plate-Backup MTS
5	138783-01	Support-Roller Bearing
6	116009-01	Kit-Roller (Complete)
7	138797	Arm-Shoe Pivot
8	139751	Shoe-Roller
9	118763	Bracket-Assy. Switch Mtg.
10	118894	Kit-Cover Switch RMT Freezer
	160357	Screw-RDHM #4-40 x 1/4 STL
	160393	Washer-Flat #6 Brass
11	162622	Knob-Hand
12	138798	Clamp-Shoe Swing
13	138799	Arm-Swing Clamp
14	160338	Pin-Dowel 1/4 DIA x 3/4 SST
15	118767	Cover-Assy. RMT
16	138890	Lanyard-Wire
17	138889	Knob-Cover RMT
18	160508	Sleeve-Cable Stop 3/64
19	160465	Screw-HXHC 1/4-20 x 3-1/2 SST
20	160093	Screw-TRPS 1/4-28 x 2-1/4 SST
21	160464	Screw-HXHC 1/4-20 x 2-1/2 SST
22	159933	Nut-HXSF 1/4-20 SST
23	160169	Washer-Lock 3/8 SST
24	159927	Nut-HEX 3/8-16 SST
25	160170	Washer-Flat 3/8 SST
26	160628	O-ring (Swing Clamp)
27	160612	O-ring (Roller Shoe)
28	159939	Screw-HXSF 1/4-20 x 11/16 SST
29	150705	Connector-3/8 x 90°
30	118833	Cord-Assy. Motor
31	160145	Washer-Curved Spring
32	165524	Block-Insulation RMT
33	160386	Stud-5/16-18 x 3/4 SST
34	139756	Shield-Drip
35	138793	Spacer-Motor
Not Shown:		
	165246	Decal-Warning Pressurized
	165048	Decal-Warning Rotating Parts

* Includes all items above.

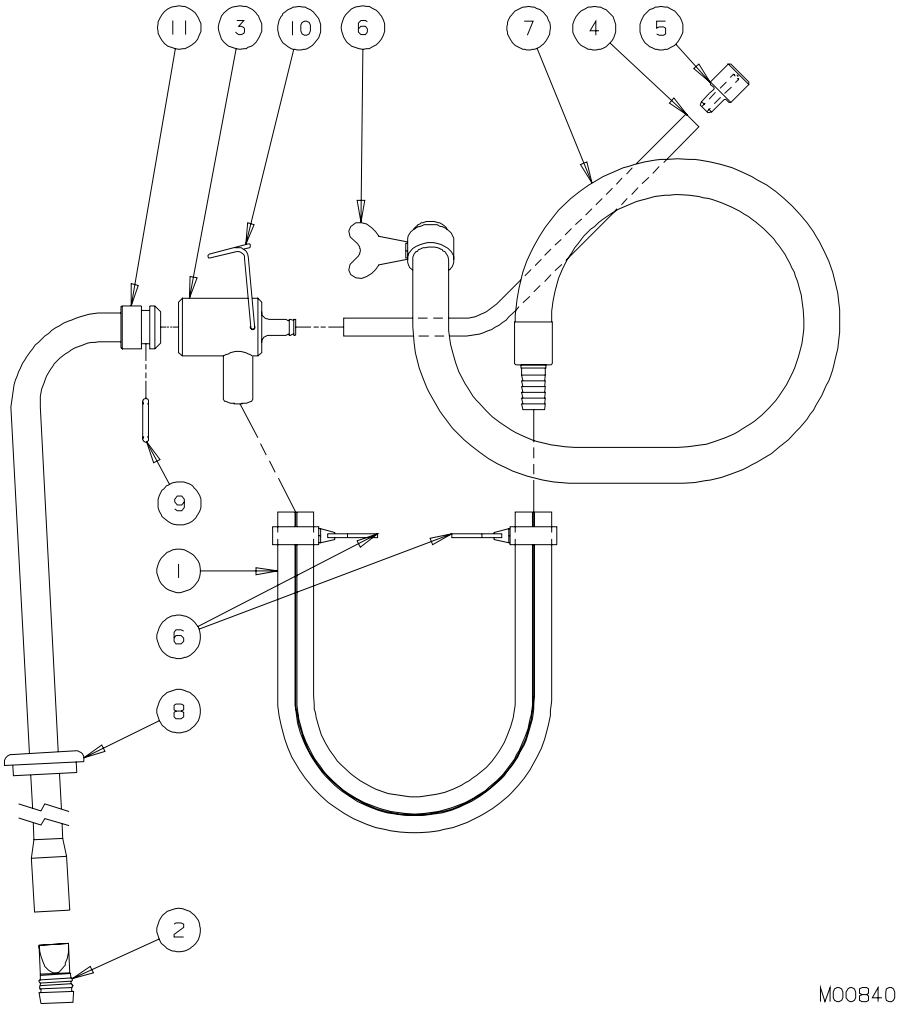


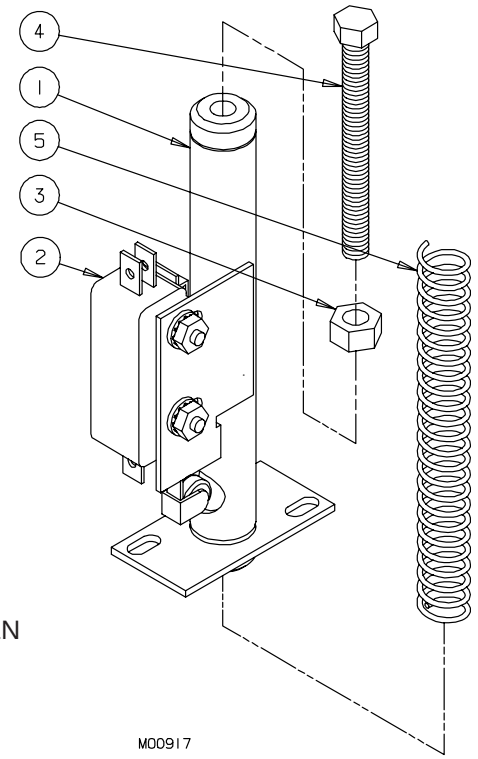
Figure 5 MTS—RMT Hose Assembly

Item	Part No.	Description
1	138836	Hose-Transfer Red Line
2	199032-01	Duckbill-Inlet (Valve)
3	118765*	Port-Assy. Inlet Mix/Air
4	138170-02	Tube-Air (Hose)
5		Meter-Air (Order by meter number)
6	116065	Clamp-Assy. Soft Hose 5/8
7	116094	Hose-Assy. Mix Braided
8	199033	Boot-Mix Tube (Seal)
9	160502*	O-ring
10	162324*	Clip-Tube Retainer
11	118836*	Tube-Assy. Mix Inlet

* Can be ordered as an assembly:

	118842	Tube-Assy. Pickup

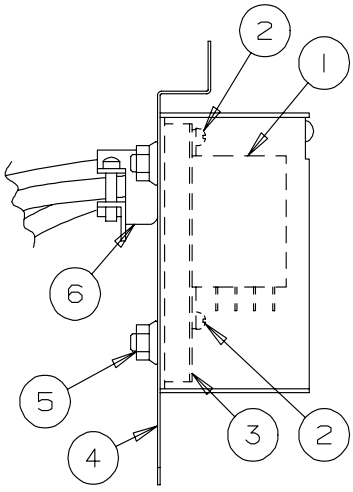
Figure 6 Switch Assembly



Item	Part No.	Description
*	114176-01	Switch-Assy. Self Closing Plunger (Sides)
1	114174	Guide-Assy. Push Rod
2	150477	Switch-Roller Actuator SPDT (Sides)
3	160104	Nut-HEX 1/4-20 ZN
4	159965	Screw-HSHM 1/4-20 x 2-1/2" ZN
5	162323	Spring-Compression

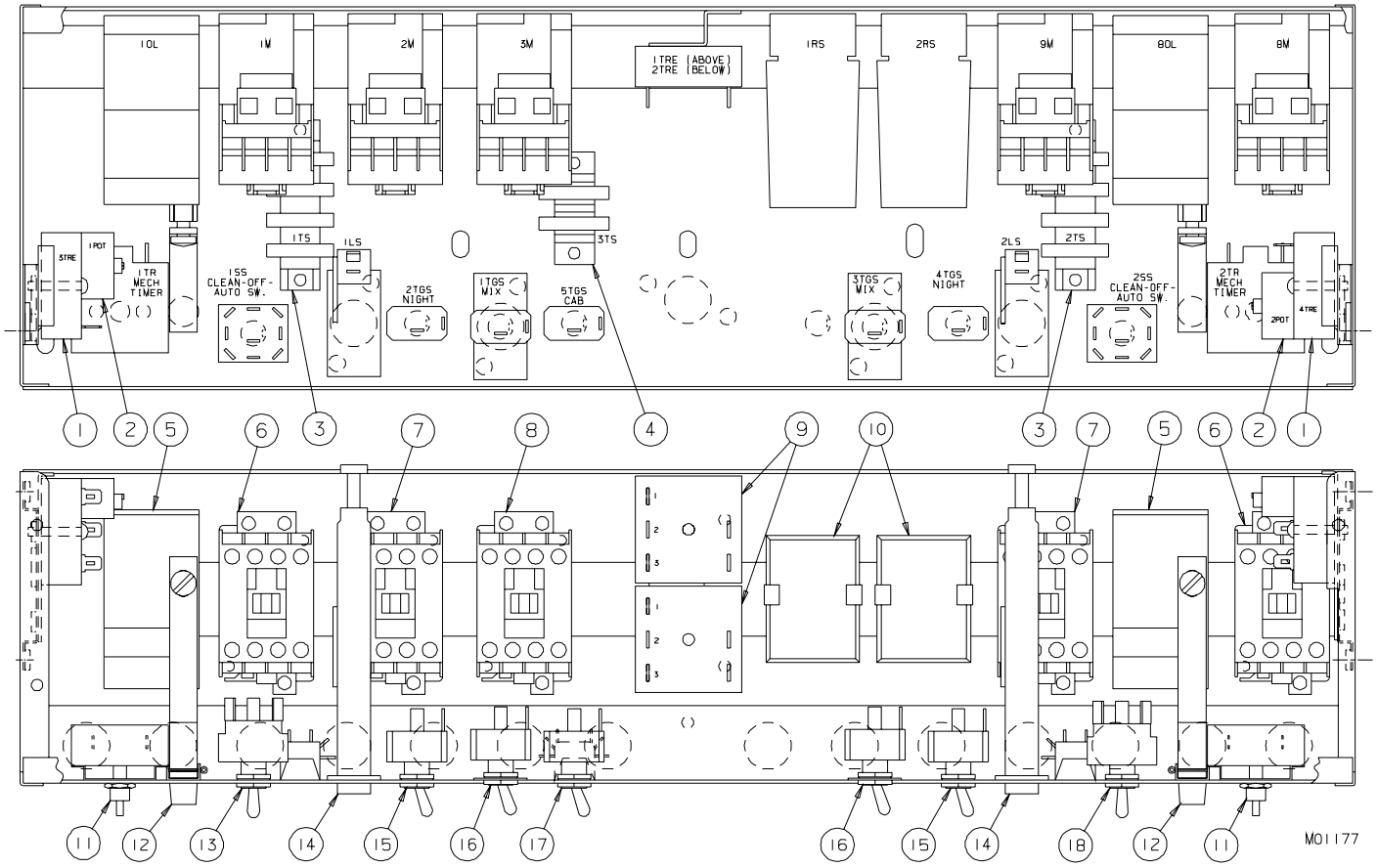
*Includes all items above.

Figure 7 Relay Box — MTS



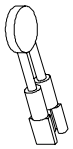
Item	Part No.	Description
1	150381	Relay-Flange Base w/Cover
2	160308	Screw-RDHM #6-32 x 5/16 ZN
2A	160116	Nut-Speed #6-32 BKOX
3	138159	Bracket-Flange Relay Mtg.
4	139805	Support-MTS
5	159950	Screw-HXSF 1/4-20 x 1/2 ZN
5A	159951	Nut-HXSF 1/4-20 ZN
6	150828	Connector 1/2

Figure 8 Switch Box (sheet 1 of 2)

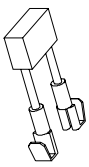


Detailed Drawings of

Filter and MOV Assemblies



Item #3A
MOV-Assy.
116188



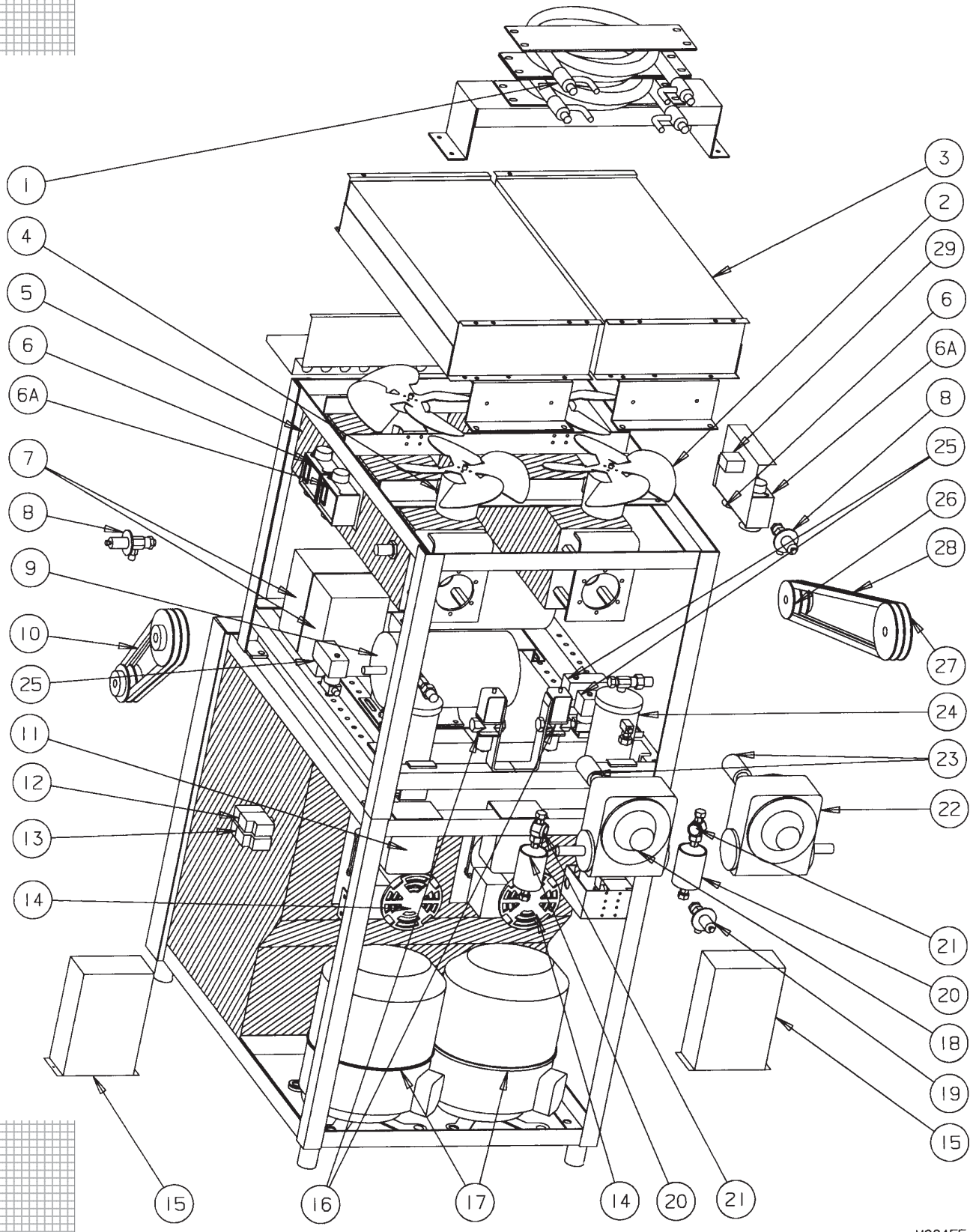
Item #13A
Filter-Assy.
116125

Use only original or authorized replacement parts with this freezer

Figure 8 Switch Box (sheet 2 of 2)

Item	Part No.	Description
1	150252-01	Timer-.5-60 Delay on Break 230
2	150253	Module-Plug On Vari Time
3	150795	Strip-Terminal
3A	116188	Mov-Assy. (See Detailed Drawings)
4	150798	Strip-Terminal
5	118359	Relay-Assy Overload 1 Phase 5-15A (Beater Motor)
	150140	Relay-SS Overload 1 Phase 5-15A
	150145	Adaptor-Overload Din Rail
	150150	Button-Overload Reset Adaptor
5A	118361	Relay-Assy Overload 3 Phase 3.7-12A (Beater Motor)
	150142	Relay-SS Overload 3 Phase 3.7-12A
	150145	Adaptor-Overload Din Rail
	150150	Button-Overload Reset Adaptor
6	150135	Contactor (Beater Motor)
6A	150134	Coil-Replacement (Not Shown)
7	150135	Contactor (Compressor)
7A	150134	Coil-Replacement (Not Shown)
8	150135	Contactor (Cabinet)
8A	150134	Coil-Replacement (Not Shown)
9	150208	Timer-12 Sec Delay on Brake
10	150202	Indicator-Mix Level (Not Shown)
10A	150119	Socket-Octal Terminal (Not Shown)
10B	150120	Clip-Retainer (Set of 2) (Not Shown)
10C	150540	Indicator-Light 230v (Not Shown)
11	150218	Timer-5 Minute
11A	162604	Knob-Timer (Not Shown)
12	118390	Lever-Assy Reset (Overload)
	159036	Button-Reset
13	150465	Switch-Toggle 3PDT Center Off (Selector)
13A	116125	Filter-Assy. (See Detailed Drawings)
14	114176-01	Switch-Assy. Self Closing Plunger
	150477	Switch-Roller Actuator SPDT
	162323	Spring-Compression
15	159235	Switch-Toggle SPST (Day/Night)
16	159235	Switch-Toggle SPST (MTS)
17	159235	Switch-Toggle SPST (Cabinet)
18	150465	Switch-Toggle 3PDT Center Off (Selector)

Figure 9 Side/Back View (sheet 1 of 2)



Use only original or authorized replacement parts with this freezer

Figure 9 Side/Back View (sheet 2 of 2)

Item	Part No.	Description
1	155029	Conderser-Water
2	159023	Blade-Fan 11 in. 36° (Air cooled)
3	155120-C	Condenser-Air
4	151077-01	Motor-Fan 50w 230v 60hz (Air Cooled)
5	118822	Cylinder-Assy. Complete RH
5A	118821	Cylinder-Assy. Complete LH
5B	118712	Kit-Pressure Switch
5C	116410	Kit-Dispense Head Switch
6	155442	Thermostat-Low (Day)
6A	155442	Thermostat-Low (Night)
7	113442	Box-Assy. Capacitors & Components
		(Motor) (1 ph. only) includes
		150872 Capacitor-Start (2)
		150318 Capacitor-Run
8	155451	Valve-Automatic Expansion (Cylinder)
9	151052	Motor-Beater 2 hp (3 ph.)
	118140	Kit-Motor & Cap 2 hp
		(1 phase) includes
		150872 Capacitor-Start (2)
		150318 Capacitor-Run
10	153162	Belt-V RH
11	--	Box-Assy. Relay (See Fig. 7)
12	155425	Cut Out-High Pressure
13	155403	Cut Out-Low Pressure (Air and Water Cooled)
	155465	Cut Out-Low Pressure (Air Cooled Remote)
14	151132	Gearmotor-1/8 hp CSIR (MTS Motor)
		includes replaceable parts
		150512 Capacitor-Start w/ Bleed
		150893 Switch-Start Solid State (Relay)
15	118647	Box-Assy. Capacitor & Relay
		(1 Phase Only)(Compressor)
		151447 Capacitor-Run
		151448 Kit-Compressor Start Cap. & Relay
16	112080	Valve-Assy. Water includes
	155410	Valve-Water
16A	155444	Kit-Water Valve Repair
17	118685	Compressor-Assy (1 Phase) includes
		151447 Capacitor-Run
		151448 Kit-Compressor Start Cap. & Relay
		155054 Filter-Drier
	118686	Compressor-Assy. (3 Phase) includes
		155054 Filter-Drier
17A	118257	Valve-Assy. Rotalock RH
17B	118258	Valve-Assy. Rotalock LH
18	153356	Reducer-Gear RH
19	155449	Valve-Automatic Expansion (Cabinet)
20	155054	Filter-Drier
21	155059	Glass-Sight
22	153355	Reducer-Gear LH
23	111964	Coupling-Assy 1 in Drive
24	155057	Receiver 3 lb 3/8 ID (Air and Water Cooled)
	155058	Receiver-12 lb Sweat Horiz. (Air Cooled Remote)
25	155421	Valve-Solenoid
25A	155434	Kit-Solenoid Valve Repair
26	153625	Sheave-5/8 Bore 4.75 OD (Pulley-Driven)
	153322	Key-Drive 3/16 sq x 1-1/2
	160495	Screw-SK Set 5/16-18 x 3/8
27	153626	Sheave-7/8 Bore 3.25 OD (Pulley-Driver)
	153322	Key-Drive 3/16 sq x 1-1/2
	160495	Screw-SK Set 5/16-18 x 3/8
28	153171	Belt-V LH
29	118868	Thermostat-Assy. w/Cover (Cabinet)

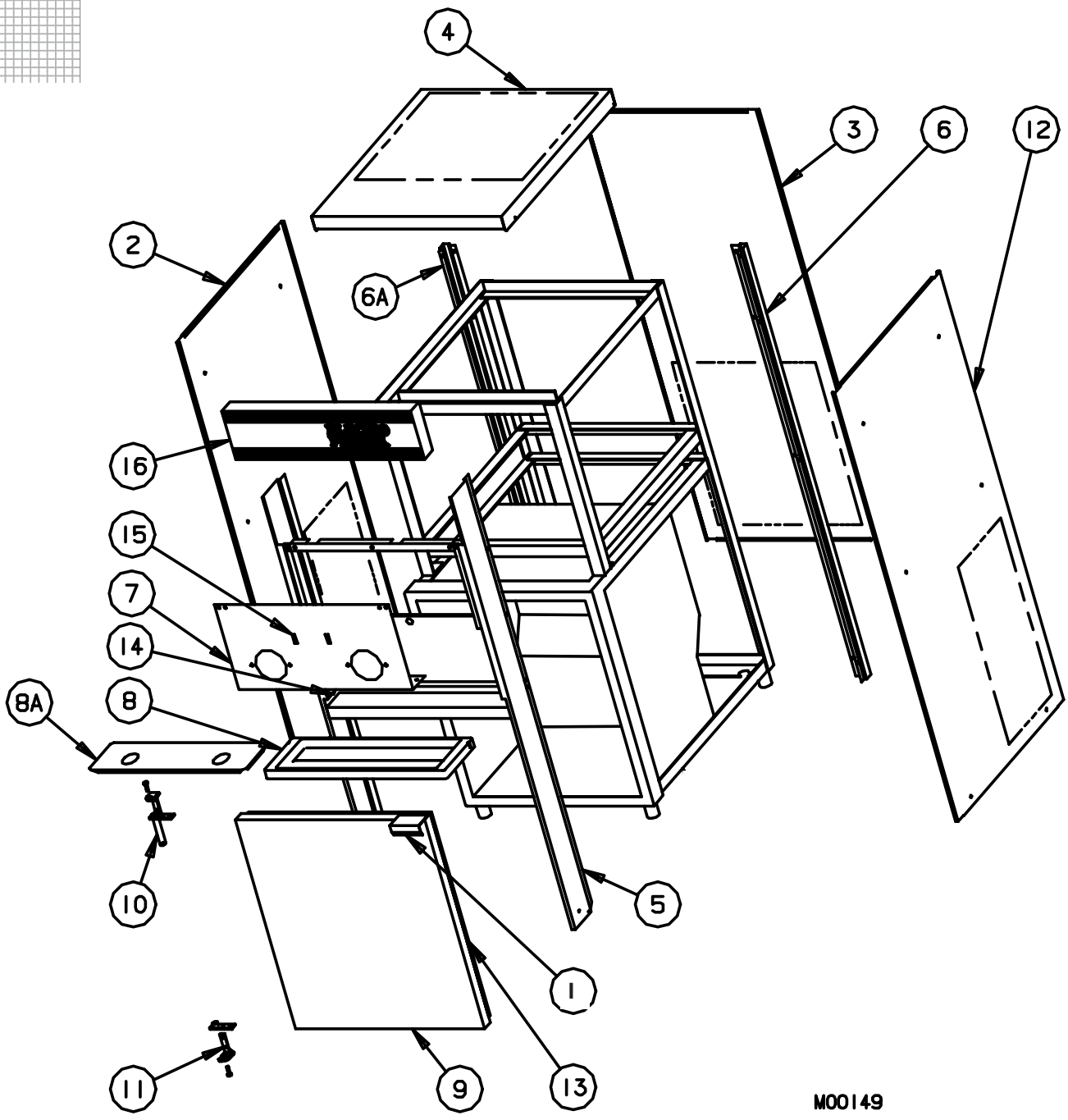
Not Shown:

117133	Pan-Assy. Condensate
161216	Sensor-10K Thermistor

LH or RH — Left or right hand is determined as you face the front of freezer.

Use only original or authorized replacement parts with this freezer.

Figure 10 Panels (sheet 1 of 2)



Use only original or authorized replacement parts with this freezer

Figure 10 Panels (sheet 2 of 2)

Item	Part No.	Description
1	136199	Pull-Door
2	136289-C	Panel-Side LH
3	136313-C	Panel-Rear (Water or Air Cooled)
3A	138982	Panel-Upper Rear (Air Cooled Remote)
3B	138983	Panel-Lower Rear (Air Cooled Remote)
4	114157-C	Panel-Assy. Top (Water Cooled or Air Cooled Remote)
4A	116567-C	Panel-Assy. Top (Air Cooled)
5	113983-C	Panel-Assy Front
6	130021-C	Channel-Rear RH
6A	135254-C	Channel-Rear LH
7	139221-C	Panel-Dispense
8	196108	Tray-Drip 26 inch Black
8A	114608	Insert-Assy. Drip Tray
		136898 Insert-Drip Tray
		199030 Bumper-Rubber
9	114260-C	Door-Assy. Complete 26" EF
9A	118597	Actuator-Assy. Door Switch
10	162045	Hinge-Pivot 1-3/8 Top LH
10A	162052	Spring-LH
11	162046	Hinge-Pivot 1-3/8 Bottom LH
12	136216-C	Panel-Side RH
13	160563	Gasket-Magnetic
14	114374	Tube-Assy. Drain
15	150540	Lights-Mix Indicator
16	115292-03	Trimpstrip-Assy EF Decal 26 inch
		165188-01 Decal-Trimstrip EF Logo 26 inch

Hardware for 30RMT Panels

Panel	Screw	Nut-Speed	Spacer	Nut-Speed on Frame
Channel-Rear	160048	160117	n/a	n/a
Dispense	160076	159132	n/a	n/a
Front	160076	159132	n/a	159067
Rear	160048	160114	138456	n/a
Side	159219	160114	138546	n/a
Top	160305	n/a	n/a	n/a
Trimstrip	160076	n/a	n/a	n/a

n/a - Not Applicable

Decals

Part No.	Description
165119	6 Inch Air Flow
165025	Beater Warning
164113	Cleaning Instructions
165093	Clear Overlay
165013	CMT Patent
164110	MTS Connect Red Line
164004-01	Operating Instructions
165126	Panel Removal
165124	Top Air Discharge (A/C & W/C)
165133	Trimstrip LH
165134	Trimstrip RH
169048	Ventilation (A/CRemote)
165246	Warning Pressurized

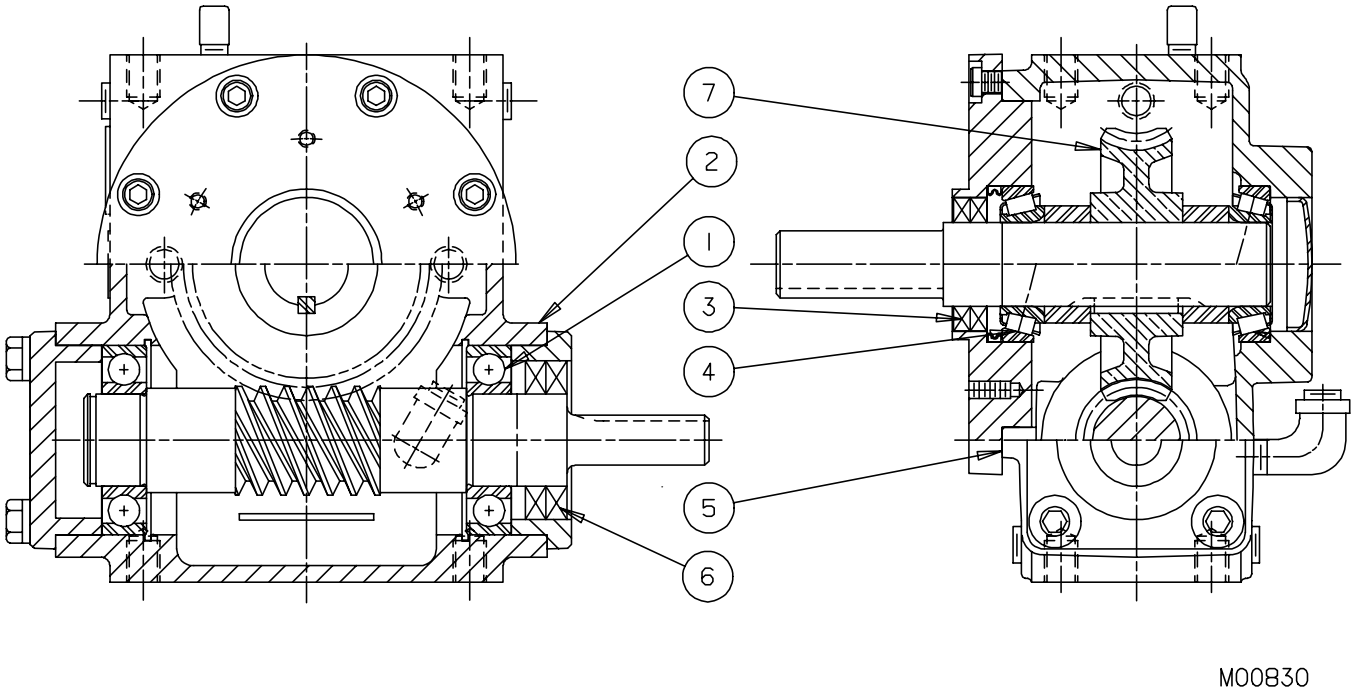


Figure 11 Gear Reducers

Model HCD926

153355 10:1 Ratio A Side 153356 10:1 Ratio B Side

Item	Part No.	Description	Quantity Required
1	153065	Bearing-Ball 1.378 ID x 2.835 OD	2 ea.
2	153066	Gasket-High Speed	1 ea.
3	153071	Seal-Slow Speed	2 ea.
4	153068	Bearing-Slow Speed Cone 1.25"	2 ea.
4A	153069	Bearing-Slow Speed Cup 2.328"	2 ea.
5	153070	Gasket-Slow Speed	1 ea.
6	153067	Seal-High Speed	2 ea.
7	153301	Gear-Slow Speed	1 ea.
	118742	Kit-Reducer Gasket Model HCD926	
	158055	Oil-Special Gear Lube	

Use only original or authorized replacement parts with this freezer

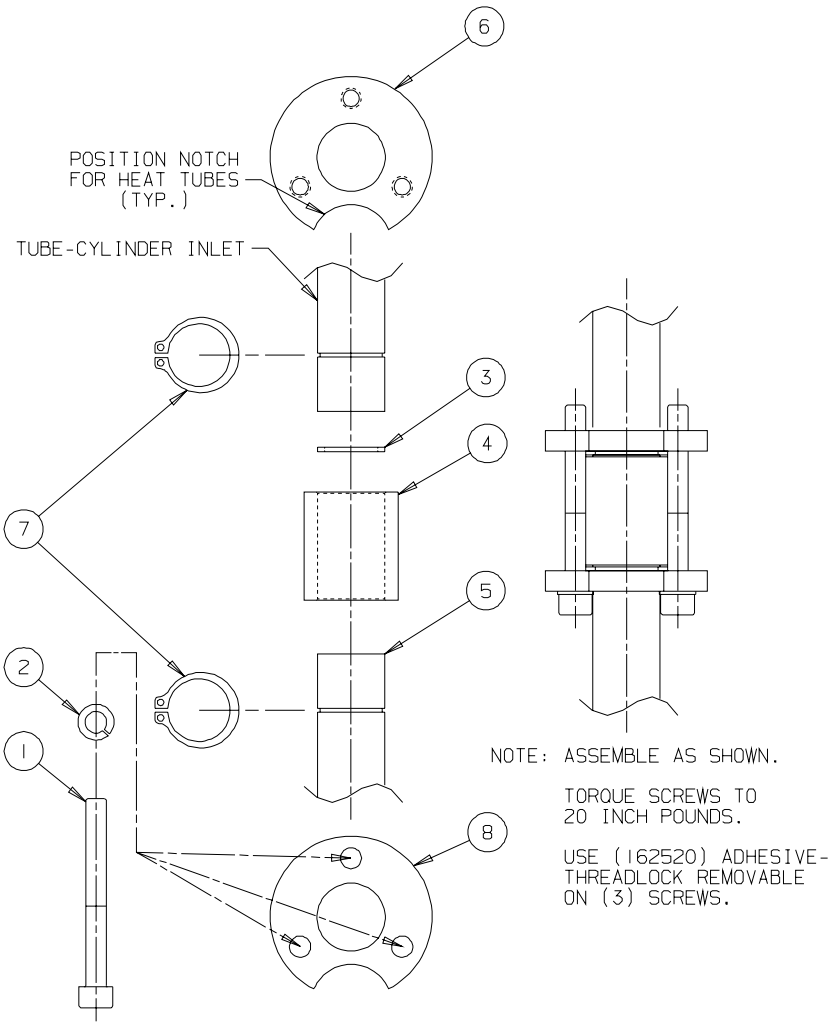
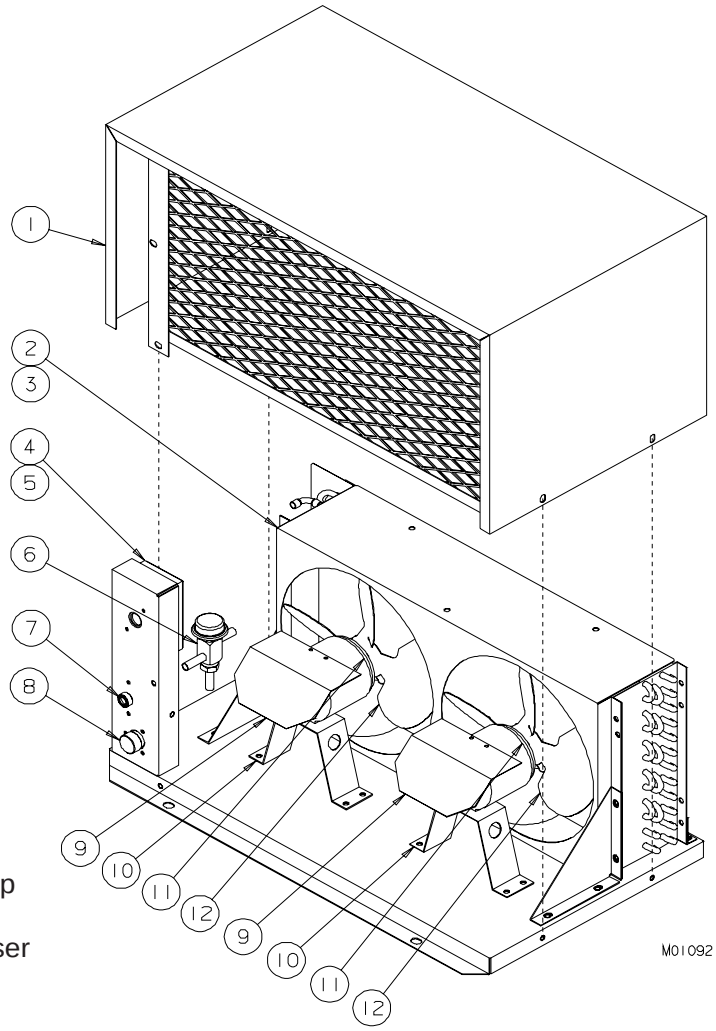


Figure 12 Mix Feed Seal Assembly

Item	Part No.	Description
1	160320	Screw-SKHC #10-24 x 1-3/4 SST
2	160166	Washer-Lock #10 SST
3	160556	Gasket-Mix Joint
4	139351	Collar-Alignment
5	139349	Tube-Mix Feed Clamp
6	139352	Clamp-Ring Threaded
7	160312	Ring-Retaining 5/8 Ext. SST
8	139353	Clamp-Ring

Figure 13 Air Cooled Remote Condenser



REF.	PART No.	DESCRIPTION
*	116781-01	Condenser-Assy. 2 Hp Remote (Complete)
1	117207	Cover-Assy. Condenser
2	155120-C	Condenser-Air
3	138465	Shroud-Fan
4	150732	Box-Electric 2-3/4 x 4-1/2 x 2
5	150737	Cover-Electric Box 2-3/4 x 4-1/2
6	155454	Valve-Head Pressure Control
7	153420	Coupling-Refr. 3/8 MQC 3/8 SW
7A	140039	Plate-Coupling Mtg.
8	153418	Coupling-Refr. 1/2MQC 1/2 SW
8A	153502	Flange-Refr. Coupling Mount 1/2
8B	153503	Cap-Dust Refr. Coupling
9	139017	Shield-Motor Rain
10	137632	Bracket-Fan Condenser
11	151072	Motor-Fan 50W 230V 60Hz
12	159029	Blade-Fan 11" Dia 36°

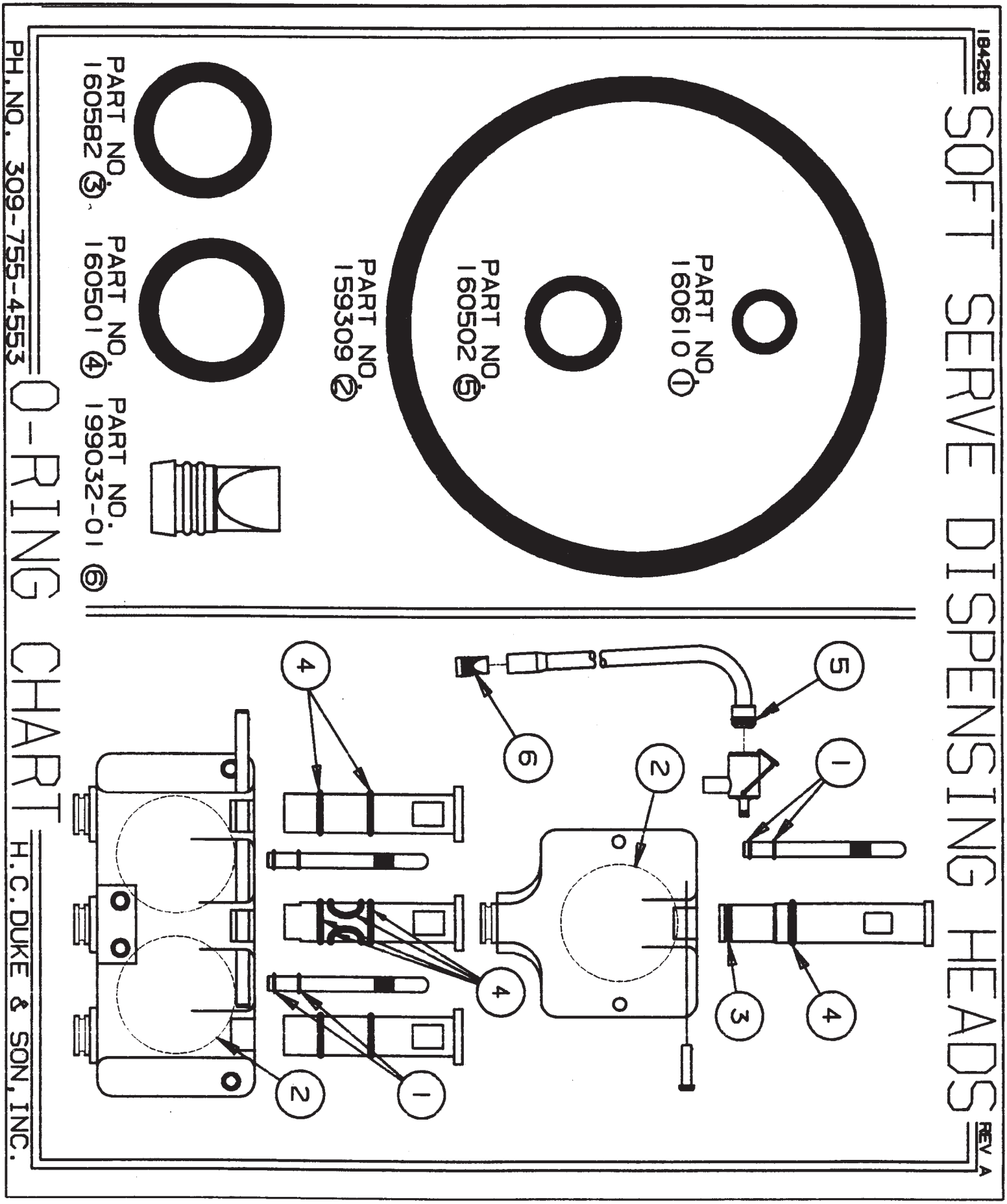
* Includes all items above.

155058	Receiver-12 lb. Horizontal Mount (not shown)
155465	Cut Out-Low Pressure (not shown)
155466	Control-Pressure Fan (not shown)
119124	Kit-25 Foot Line Sets 404a
119125	Kit-50 Foot Line Sets 404a

Use only original or authorized replacement parts with this freezer

Accessories

Part No.	Description
196103	Bottle-Wash 500 ml
158004	Brush-4" w/36" handle
158009	Brush-4" dia w/o handle
158018	Brush-7/16" Dia x 12" Overall Length
158019	Brush-9/16" Dia x 30" Overall Length
158026	Brush-1" Dia 12" Long
162105	Caster-1-1/4" ST w/Brake
162106	Caster-1-1/4" ST w/o Brake
116100	Kit-O-ring
112978	Leg-Assy. Six Inch
158000A	Lubricant-Petrol Gel 4 oz. Tube
158013	Sanitizer-Stera Sheen (sample)
158104	Sanitizer-Stera Sheen (case/4 jars)
158014A	Sanitizer-Stera Sheen (4 lb. jar)
158049	Scale-Overrun
169374	Tool-O-ring Removal
184881	Video-Training RMT SS EF
184256	Chart-O-ring (Laminated)



Use only original or authorized replacement parts with this freezer

Alphabetized Parts List for Model 30RMT

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	118597	1	F2I	—
Adaptor-Overload Din Rail	150145	2	F2I	—
Arm-Shoe Pivot (MTS-RMT)	138797	2	F2I	—
Arm-Swing Clamp (MTS-RMT)	138799	2	F2I	—
Base-Probe Mtg.	137120	2	F2I	—
Bearing-Ball 1.378 IDx2.835 OD (Gear Reducer)	153065	4	F2I	—
Bearing-Slow Speed Cone 1.25" (Gear Reducer)	153068	4	F2I	—
Bearing-Slow Speed Cup 2.328" (Gear Reducer)	153069	4	F2I	—
Belt-V RH	153162	2	F2I	—
Belt-V LH	153171	2	F2I	—
Blade-Fan 11" Dia. 36° (A/C)	159023	4	F2I	—
Blade-Fan 11" Dia 36° (Air Cooled Remote)	159029	2	F2I	—
Blade-Scraper Soft Serve	137334	4	F2I	—
Block-Insulation	165524	2	F2I	—
Boot-Mix Tube (Seal) (RMT Hose Assy.)	199033	2	F2I	—
Bottle-Wash	196103	1	F2I	—
Box-Electric 2-3/4x4-1/2x2 (Air Cooled Remote)	150732	1	F2I	—
Bracket-Assy. Electric Box (Air Cooled Remote)	117197	1	F2I	—
Bracket-Fan Condenser (Air Cooled Remote)	137632	2	F2I	—
Bracket-Flange Relay Mtg. (MTS Relay Box)	138159	1	F2I	—
Brush-4 in. dia w/o handle	158009	1	F2I	—
Brush-4 in. w/36 in. handle	158004	1	F2I	—
Brush-7/16 Dia x 12 in Overall Length	158018	1	F2I	—
Brush-9/16 Dia x 30 in. Overall Length	158019	1	F2I	—
Brush-1" Dia 12" Long	158022	1	F2I	—
Bumper-Rubber (Drip Tray Insert)	199030	4	F2I	—
Bushing-Cylinder (Head Assembly)	196085	2	F2I	—

* As Required
** Items Included In O-Ring Kit No. 116100
*** LH or RH — Left or right hand is determined as you face the front of freezer.
NLA No Longer Available

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List for Model 30RMT

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)	
Button-Overload Reset	150150	2	F2I	—
Button-Reset	159036	2	F2I	—
Cap-Dust Refr. Coupling (Air Cooled Remote)	153503	1	C2I	—
Capacitor-Beater Motors	*See Motor-Beater*			
Capacitor-Compressor	*See Compressor-Assy.*			
Caster-1-1/4 ST w/ Brake	162105	2	F2I	—
Caster-1-1/4 ST w/o Brake	162106	2	F2I	—
Catch-Bullet (Button-Drip Tray)	159175	2	F2I	—
Channel-Rear LH	135254-C	1	F2I	—
Channel-Rear RH	130021-C	1	F2I	—
Chart-O-ring (Laminated)	184256	1	F2I	—
Clamp-Assy. Soft Hose 5/8 (RMT Hose Assy.)	116065	6	F2I	—
Clamp-Hose (Drain)	160738	1	F2I	—
Clamp-Ring (Mix Feed Seal Assy)	139353	2	F2I	—
Clamp-Ring Threaded (Mix Feed Seal Assy)	139352	2	F2I	—
Clamp-Shoe Swing (Mix Feed Seal Assy)	138798	1	F2I	—
Clip-Retainer	150120	4	F2I	—
Clip-Tube Retainer (Pickup Tube)	162324	2	F2I	—
Coil-Evaporator (Cabinet-Ceiling Type)	155111	1	F2I	—
Coil-Replacement	150134	*	F2I	—
Collar-Alignment	139351	2	F2I	—
Compressor-Assy (1 Phase)(Maneurop)	118685	2	F2I	—
Capacitor-Run	151447	2	F2I	—
Kit-Compr. Start Capacitor & Relay	151448	2	F2I	—
Drier-Filter	155054	2	F2I	—
Compressor-Assy. (3 Phase)(Maneurop)	118686	2	F2I	—
Drier-Filter	155054	2	F2I	—
Condenser-Air (Air and Air Cooled Remote)	155120-C	2	F2I	—

* As Required
** Items Included In O-Ring Kit No. 116100
*** LH or RH — Left or right hand is determined as you face the front of freezer.
NLA No Longer Available

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List for Model 30RMT

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)	
Condenser-Assy. 2 Hp (Complete) (Air Cooled Remote)	116781-01	1	F2I	—
Conderser-Water	155029	1	F2I	—
Connector 1/2 (MTS Relay Box)	150828	1	F2I	—
Contactor (Beater Motor)	150135	2	F2I	—
Contactor (Cabinet)	150135	1	F2I	—
Contactor (Compressor)	150135	2	F2I	—
Control-Pressure Fan (Air Cooled Remote)	155466	2	F2I	—
Cord-Assy. Female Plug	150533	1	F2I	—
Cord-Assy. Male Plug	150532	1	F2I	—
Cord-Assy. Motor (MTS-RMT)	118833	2	F2I	—
Cordset-Mix Level Probe	150537	2	F2I	—
Coupling-Assy 1 in Drive (Beater Shaft)	111964	2	F2I	—
Coupling-Refr.1/2MQC 1/2 SW (Air Cooled Remote)	153418	1	F2I	—
Coupling-Refr.3/8MQC 3/8SW (Air Cooled Remote)	153420	1	F2I	—
Cover-Assy. Condenser (Air Cooled Remote)	117207	1	F2I	—
Cover-Assy. Mix Tank Front (6 or 7 Gal.)	113997	2	F2I	—
Cover-Assy. RMT	118767	2	F2I	—
Cover-Electric 2-3/4 x 4-1/2 x 2 (Air Cooled Remote)	150737	1	F2I	—
Cover-Rear Mix RMT	138165-01	2	F2I	—
Cut Out-High Pressure	155425	2	F2I	—
Cut Out-Low Pressure (Air and Water Cooled)	155403	2	F2I	—
Cut Out-Low Pressure (Air Cooled Remote)	155465	2	F2I	—
Cylinder-Assy. Complete LH	118821	2	F2I	—
Cylinder-Assy. Complete RH	118822	2	F2I	—

* As Required
** Items Included In O-Ring Kit No. 116100
*** LH or RH — Left or right hand is determined as you face the front of freezer.
NLA No Longer Available

Use only original or authorized replacement parts with this freezer.

Alphabetized Parts List for Model 30RMT

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-6" Air Flow	165119	1	F2I	—
Decal-Beater Warning	165025	1	F2I	—
Decal-Cleaning Instructions	164113	1	F2I	—
Decal-Clear Overlay	165093	1	F2I	—
Decal-CMT Patent	165013	1	F2I	—
Decal-MTS Connect Red Line	164110	1	F2I	—
Decal-Operating Instructions	164004-01	1	F2I	—
Decal-Panel Removal	165126	3	F2I	—
Decal-Top Air Discharge	165124	1	F2I	—
Decal-Trimstrip EF Logo 26 inch	165188-01	1	F2I	—
Decal-Trimstrip LH	165133	1	F2I	—
Decal-Trimstrip RH	165134	1	F2I	—
Decal-Ventilation	169048	1	F2I	—
Decal-Warning Pressurized	165246	2	F2I	—
Decal-Warning Rotating Parts	165048	2	F2I	—
Door Assy.-Complete w/Hinges	114260-C	1	F2I	—
Drier	*See Filter-Drier*			
Duckbill-Inlet (Valve) (RMT Hose Assy.)	199032-01	2	F2I	—
Faceplate-Assy. MTS	118764	2	F2I	—
Fan-Intake	151105	2	F2I	—
Filter-Assy.	116125	1	F2I	—
Filter-Drier w/sweat	155054	2	F2I	—
Flange-Refr. Coupling Mount (Air Cooled Remote)	153502	1	F2I	—
Gasket-High Speed (Gear Reducer)	153066	2	F2I	—
Gasket-Kit (Gear Reducer)	118742	*	F2I	—
Gasket-Magnetic (V-Groove-Door)	160563	1	F2I	—

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Alphabetized Parts List for Model 30RMT

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)	
Gasket-Mix Joint (Mix Feed Seal Assy.)	160556	2	F2I	—
Gasket-Slow Speed (Gear Reducer)	153070	2	F2I	—
Gauge-Assy. Pressure Test	116312	1	F2I	—
Gearmotor-1/8 hp CSIR (MTS Motor)	151132	2	F2I	—
Capacitor-Start w/Bleed	150512	2	F2I	—
Switch-Start Solid State (Relay)	150893	2	F2I	—
Gear-Slow Speed (Gear Reducer)	153301	2	F2I	—
Glass-Sight-w/sweat	155059	2	F2I	—
Guard-Fan Open	151076	1	F2I	—
Guide-Assy.Push Rod	114174	2	F2I	—
Handle-Assy. Dispense	110007	2	F2I	—
Knob-Ball 3/7-16 TH Black	162629	2	F2I	—
Handle(Pull)-Door (Cabinet)	136199	2	F2I	—
Head-Assy.w/Actuator & Bleed (Complete)	118902	2	F2I	—
Handle-Assy. Dispense	110007	2	F2I	—
Knob-Ball 3/8-16 TH Black	162629	2	F2I	—
Head-only	118566	2	F2I	—
Nozzle-Serrated	196185	2	F2I	—
Pin-Handle	160268	2	F2I	—
Plug-Air Bleed	138149	2	F2I	—
Plunger-Dispense Self Close	139581	2	F2I	—
O-Ring (Head)	159309	2	F2I	—
O-Ring (Plunger-Upper)	160501	2	F2I	—
O-Ring (Plunger-Lower)	160582	2	F2I	—
O-Ring (Plug)	160610	4	F2I	—
Hinge-Pivot 1-3/8 Bottom	162046	1	F2I	—
Hinge-Pivot 1-3/8 Top	162045	1	F2I	—
Hose-Assy. Mix Braided (MTS)	116094	2	F2I	—
Hose-Transfer Red Line (RMT Hose Assy.)	138836	2	F2I	—
Hose (Tube)-Air Meter (RMT Hose Assy.)	138170-02	2	F2I	—

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Alphabetized Parts List for Model 30RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Indicator-Light 230v	150540	2	F2I	—
Indicator-Mix Level	150202	2	F2I	—
Insert-Assy. Drip Tray	114608	1	F2I	—
Bumper-Rubber	199030	4	F2I	—
Insert-Drip Tray	136898	1	F2I	—
Key-Drive 3/16 sq x 1-1/2 (Gear Reducers & sheaves)	153322	4	F2I	—
Kit-25 Foot Line Sets 404a (Air Cooled Remote)	119124	*	F2I	—
Kit-50 Foot Line Sets 404a (Air Cooled Remote)	119125	*	F2I	—
Kit-Compressor Start Capacitor & Relay	151448	2	F2I	—
Kit-Cover Switch RMT Freezer	118894	2	F2I	—
Kit-Dispense Head Switch	116410	*	F2I	—
Kit-Motor & Cap 2 hp (1 phase)	118140	*	F2I	—
Kit-O-ring	116100	*	F2I	—
Kit-Pressure Switch	118712	*	F2I	—
Kit-Reducer Gasket Model HCD926	118742	*	F2I	—
Kit-Roller Complete (MTS)	116009-01	*	F2I	—
Kit-Solenoid Valve Repair	155434	*	F2I	—
Kit-Water Valve Repair	155444	*	F2I	—
Knob-Ball 3/8-16 TH Black (Dispensing Handle)	162629	1	F2I	—
Knob-Cover RMT	138889	2	F2I	—
Knob-Hand (Dispense Head)	136798	2	F2I	—
Knob-Hand (Handle-MTS)	162622	2	F2I	—
Knob-Timer	162604	2	F2I	—
Label-MTS Trimstrip LH (Switches)	165133	1	F2I	—
Label-MTS Trimstrip RH (Switches)	165134	1	F2I	
Lanyard-Wire (MTS-RMT)	138890	2	F2I	—

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Alphabetized Parts List for Model 30RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Leg-Assy. Six inch	112978	4	F2I	—
Lever-Assy Reset (Overload)	118390	2	F2I	—
Button-Reset	159036	2	F2I	—
Lights-Mix Indicator	150540	2	F2I	—
Lubricant-Petrol Gel (per tube)	158000A	*		
Meter-Air (RMT Hose Assy.)	*(Order by Meter Number)*			
Module-Plug On Vari Time	150253	2	F2I	—
Motor-Beater & Capacitors 2 hp (1 ph.)	118140	2	F2I	—
Capacitor-Run	150873	2	F2I	—
Capacitor-Start	150872	4	F2I	—
Motor-2 hp (3 ph.)(Beater Motor)	151052	2	F2I	—
Motor-Fan 50W 230v 60Hz(Air Cooled Remote)	151072	2	F2I	—
Motor-Fan 50w 230v 60Hz (Air Cooled)	151077-01	4	F2I	—
Motor-1/8 hp (MTS-Gearmotor)	151132	2	F2I	—
Capacitor-Start w/Bleed	150512	2	F2I	—
Switch-Start Solid State (Relay)	150893	2	F2I	—
MOV-Assy.	116188	2	F2I	—
MT-Assy. Cab Red Line	118751	2	F2I	—
Nozzle-Serrated	196185	2	F2I	—
Nut-Hex #6-32 ZN (Switch Assy.)	160309	4	F2I	—
Nut-Hex 1/4-20 ZN (Adjusting Bolt-Switch Assy.)	160104	2	F2I	—
Nut-HEX 3/8-16 SST	159927	4	F2I	—
Nut-HXSF 1/4-20 SST	159933	6	F2I	—
Nut-HXSF 1/4-20 ZN (MTS Relay Box)	159951	4	F2I	—
Nut-Speed 1/4-20 BP&O (Side & Rear Panels)	160114	*	F2I	—
Nut-Speed 1/4-20 .064-.125 (Rear Channel)	160117	*	F2I	—
Nut-Speed #6-32 BKOX (MTS Relay Box)	160116	4	F2I	—

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Alphabetized Parts List for Model 30RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Nut-Speed #10-24 .025-.064 SST (Dispense & Front Panel)	159132	*	F2I	—
Nut-Speed #10-24 .100-.125 (Front Panel)	159067	*	F2I	—
Oil-Special Gear Lube (per quart)	158055	*	F2I	—
O-Ring (Head)	159309	2**	F2I	—
O-Ring (Pickup Tube)	160502	2**	F2I	—
O-Ring (Plug)	160610	4**	F2I	—
O-Ring (Plunger-Lower)	160582	2**	F2I	—
O-Ring (Plunger-Upper)	160501	2**	F2I	—
O-Ring (Roller Shoe)	160612	2	F2I	—
O-Ring (Seal-Beater Shaft)	160500	2**	F2I	—
O-ring (Swing Clamp)	160628	2	F2I	—
Pan-Assy. Condensate Pan (Ceiling Type)	117133	1	F2I	—
Panel Assy.-Top (Air Cooled)	116567-C	1	F2I	—
Panel Assy.-Top (Water Cooled or Air Cooled Remote)	114157-C	1	F2I	—
Panel-Assy Front	113983-C	1	F2I	—
Panel-Dispense	139221-C	1	F2I	—
Panel-Lower Rear (Air Cooled Remote)	138983	1	F2I	—
Panel-Rear (Water or Air Cooled)	136313-C	1	F2I	—
Panel-Side LH	136289-C	1	F2I	—
Panel-Side RH	136216-C	1	F2I	—
Panel-Switch Box E/EF Label (Trimstrip)	115292-03	1	F2I	—
Panel-Upper Rear (Air Cooled Remote)	138982	1	F2I	—
Pin-Dowel 1/4 DIA x 3/4 SST (MTS-RMT)	160338	4	F2I	—
Pin-Handle (Head Assembly)	160268	1	F2I	—
Plate-Backup MTS	139746	2	F2I	—

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Alphabetized Parts List for Model 30RMT

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Plug-Air Bleed	138149	2	F2I	—
Plunger-Dispense Self Close	139581	2	F2I	—
Port-Assy. Inlet Mix/Air (Pickup Tube)	118765	2	F2I	—
Probe-Assy. Mix Level 10-3/4" (7 Gal.)	115397	2	F2I	—
Pull-Door (Handle Cabinet)	136199	1	F2I	—
Pulley	*See "Sheave"*			
Push Rod-Assy. Plunger Switch	113426	2	F2I	—
Receiver-3 lb 3/8 ID (Air and Water Cooled)	155057	2	F2I	—
Receiver-12 lb Horz. Mount (Air Cooled Remote)	155058	2	F2I	—
Receptacle-Molded Level Sensor	150536	2	F2I	—
Reducer-Gear LH 10/1 HCD926	153355	1	F2I	—
Reducer-Gear RH 10/1 HCD926	153356	1	F2I	—
Relay-Assy Overload 1 Phase 5-15A	118359	2	F2I	—
Adapter-Overload Din Rail	150145	2	F2I	—
Button-OL Reset Adapter	150150	2	F2I	—
Relay-SS Overload 1 Phase 5-15A	150140	2	F2I	—
Relay-Assy. Overload 3 Phase 3.7-12A	118361	2	F2I	—
Adapter-Overload Din Rail	150145	2	F2I	—
Button-OL Reset Adapter	150150	2	F2I	—
Relay-SS Overload 3 Phase 3.7-12A	150142	2	F2I	—
Relay-Flange Base w/Cover (MTS Relay Box)	150381	1	F2I	—
Relay-Start	*See Compressor or Motor-Beater*			
Ring-Retaining 5/8 Ext. SST(Mix Feed Seal Assy.)	160312	4	F2I	—
Rod(Push)-Assy. Plunger Switch	113426	2	F2I	—
Roller-Kit (MTS)	116009-01	*	F2I	—
Sanitizer-Stera Sheen (per case)	158014	*	F2I	—
Sanitizer-Stera Sheen (per jar)	158014A	*	F2I	—
Sanitizer-Stera Sheen (sample)	158013	*	F2I	—

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Scale-Overrun	158049	1	F2I	—
Screw-HXHM 1/4-20 x 2-1/2 (Adjusting-Switch)	159965	2	F2I	—
Screw-HXSF 1/4-20 x 1/2ZN (MTS Relay Box)	159950	2	F2I	—
Screw-RDHM #6-32 x 5/16ZN(MTS Relay Box)	160308	2	F2I	—
Screw-SK Set 5/16-18 x 3/8 (Gear Reducer)	160495	2	F2I	—
Screw-SKHC #6-32 x 1 BKOX (Switch Assy.)	160381	4	F2I	—
Screw-HXHC 1/4-20 x 2-1/2 SST (MTS-RMT)	160464	4	F2I	—
Screw-HXHC 1/4-20 x 3-1/2 SST (MTS-RMT)	160465	2	F2I	—
Screw-HXSF 1/4-20 x 11/16 SST (MTS-RMT)	159939	2	F2I	—
Screw-RDHM #4-40 x 1/5 STL (MTS-RMT)	160357	4	F2I	—
Screw-SKHC #10-24 x 1-3/4 SST (Mix Feed Seal Assy.)	160320	2	F2I	—
Screw-TRPM 1/4-20X1/2 SST (Rear Panel & Channels)	160048	*	F2I	—
Screw-TRPM 1/4-20X1 SST (Side Panel)	159219	*	F2I	—
Screw-TRPM #10-24X1/2 SST (Dispense & Front Panel, Trimstrip)	160076	*	F2I	—
Screw-TRPM #10-24X3/8 SST (Top Panel)	160305	*	F2I	—
Screw-TRPS 1/4-28 x 2-1/4 SST (MTS-RMT)	160093	8	F2I	—
Seal-Assy. Shaft	111875	2**	F2I	—
O-Ring	160500	2	F2I	—
Seal-Beater Shaft	160557	2	F2I	—
Washer-Shaft Seal	133098	2	F2I	—
Seal(Boot)-Mix Tube	199033	2	F2I	—
Seal-High Speed (HCD926 Gear Reducer)	153067	4	F2I	—
Seal-Slow Speed (HCD926 Gear Reducer)	153071	4	F2I	—
Sensor-10K Thermistor	161216	2	F2I	—
Shaft-Assy. Beater	113438	2	F2I	—
Sheave-5/8 Bore 4.75 OD (Pulley-Driven)	153625	2	F2I	—
Sheave-7/8 Bore 3.25 OD (Pulley-Driver)	153626	2	F2I	—

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Alphabetized Parts List for Model 30RMT

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)	
Shield-Drip (MTS-RMT)	139756	2	F2I	—
Shield-Motor Rain (Air Cooled Remote)	139017	2	F2I	—
Shoe-Roller (MTS-RMT)	139751	2	F2I	—
Shroud-Assy. Evaporator (Cabinet-Ceiling Type)	117129-01	1	F2I	—
Shroud-Fan (Air Cooled Remote)	138465	1	F2I	—
Sleeve-Cable Stop 3/64 (MTS-RMT)	160508	4	F2I	—
Socket-Octal Terminal (Switch Box)	150119	2	F2I	—
Spacer-Motor (MTS-RMT)	138793	8	F2I	—
Spacer-Panel (Rear & Side Panels)	138456	18	F2I	—
Spacer-Swing Arm (MTS-RMT)	138800	4	F2I	—
Spring-Compresson (Plunger Switch)	162323	2	F2I	—
Spring-LH (Pivot Hinge)	162052	1	F2I	—
Strip-Terminal (Switch Box)	150795	2	F2I	—
Strip-Terminal (Switch Box)	150798	1	F2I	—
Stud-Assy. Cylinder 1-15/16 inch	114341	2	F2I	—
Stud-5/16-18 x 3/4 SST (MTS-RMT)	160386	2	F2I	—
Support-Condenser (Air Cooled Remote)	137629	2	F2I	—
Support-MTS (MTS Relay Box)	139805	2	F2I	—
Support-Roller Bearing (MTS-RMT)	138783-01	2	F2I	—
Switch-Assy. Self Closing Plunger	114176-01	2	F2I	—
Guide-Assy.Push Rod	114174	2	F2I	—
Nut-Hex #6-32 ZN	160309	4	F2I	—
Nut-Hex 1/4-20 ZN (Adjusting Bolt)	160104	2	F2I	—
Screw-HXHM 1/4-20 x 2-1/2 (Adjusting)	159965	2	F2I	—
Screw-SKHC #6-32 x 1 BKOX (Switch)	160381	4	F2I	—
Spring-Compression	162323	2	F2I	—
Switch-Roller Actuator SPDT (Plunger)	150477	2	F2I	—
Washer-EXT Tooth #6 ZN (Lock)	160392	4	F2I	—
Washer-Flat #6 Brass	160393	8	F2I	—
Switch-Dispense Head Kit	116410	1	F2I	—

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Switch-Door Push Button (Evaporator)	150509	1	F2I	—
Switch-Pressure Switch Kit	118712	2	F2I	—
Switch-Roller Actuator SPDT (Plunger)	150477	2	F2I	—
Switch-Toggle 3PDT Ctr Off (Selector)	150465	2	F2I	—
Switch-Toggle DPDT Ctr Off (MTS)	159235	2	F2I	—
Switch-Toggle DPST (Day/Night)	159235	2	F2I	—
Switch-Toggle SPST (Cabinet)	159235	1	F2I	—
Tank-Mix 7 Gal. 13-1/4"	196222	2	F2I	—
Thermometer-Barrel (Cabinet-Ceiling Type)	161004	1	F2I	—
Thermostat-Assy. w/Cover (Cabinet)	118868	1	F2I	—
Thermostat-Low (Day & Night)	155442	4	F2I	—
Timer-.5-60 Delay on Break (Switch Box)	150252-01	2	F2I	—
Timer-12 Sec DOB (Switch Box)	150208	2	F2I	—
Timer-5 Minute Mechanical (Switch Box)	150218	2	F2I	—
Tool-O-ring Removal	169374	1	F2I	—
Tray-Drip 26 inch Black	196108	1	F2I	—
Trimpstrip-Assy EF Decal 26 inch	115292-03	1	F2I	—
Tube-Air (Hose)	138170-02	2	F2I	—
Tube-Assy. Drain	114374	2	F2I	—
Tube-Assy. Mix Inlet (Pickup Tube)	118836	2	F2I	—
Tube-Assy. Pickup (RMT Hose Assy.)	118842	2	F2I	—
Clip-Tube Retainer	162324	2	F2I	—
O-Ring	160502	2	F2I	—
Port-Assy. Inlet Mix/Air	118765	2	F2I	—
Tube-Assy. Mix Inlet	118836	2	F2I	—
Tube-Drain Support	138919	1	F2I	—
Tube-Mix Feed Clamp (Mix Feed Seal Assy.)	139349	2	F2I	—
Tubing-.375 ID x .500 OD PVC	196068	6.25	F2I	—

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)	
Valve-Assy.Rotalock LH (Compressor-Maneurop)	118258	2	F2I	—
Valve-Assy.Rotalock RH (Compressor-Maneurop)	118257	2	F2I	—
Valve-Assy. Water	112080	2	F2I	—
Valve-Water	155410	2	F2I	—
Valve-Automatic Expansion (Cabinet)	155449	1	F2I	—
Valve-Automatic Expansion (Cylinder)	155451	2	F2I	—
Valve-Check 1/2 OD Sweat (Air Cooled Remote)	155409	2	F2I	—
Valve-Duckbill-Inlet	199032-01	2	F2I	—
Valve-Head Pressure Control(Air Cooled Remote)	155454	1	F2I	—
Valve-Solenoid	155421	3	F2I	—
Valve-Solenoid Repair Kit	155434	*	F2I	—
Valve-Water Repair Kit	155444	*	F2I	—
Video-Mix Transfer System	184881	*	F2I	—
Washer-Curved Spring (MTS-RMT)	160145	4	F2I	—
Washer-EXT Tooth #6 ZN (Lock)(Switch Assy.)	160392	4	F2I	—
Washer-Flat 3/8 SST (MTS-RMT)	160170	4	F2I	—
Washer-Lock #10 SST (Mix Feed Seal Assy.)	160166	2	F2I	—
Washer-Lock 3/8 SST (MTS-RMT)	160169	4	F2I	—
Washer-Flat #6 Brass (Switch Assy.)	160393	8	F2I	—
Washer-Shaft Seal (Beater Shaft)	133098	2	F2I	—

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