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# **ELECTRO FREEZE®**

## **OPERATOR'S MANUAL** with Illustrated Parts List

**COMPACT SERIES  
SHAKE FREEZER  
Model CS700**

184602 - 4/10

**Operator's Manual  
for the  
Electro Freeze Model CS700  
Compact Series  
Shake Freezer**

# ***SAFETY FIRST!***

***Follow these four steps to safety ....***

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

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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.


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***2. Understand Signal Words ....***

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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.

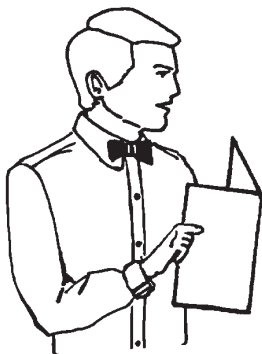
In this manual, CAUTION messages with the safety alert symbol  call attention to safety messages.

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# ***SAFETY FIRST!***

## ***3. Follow Safety Instructions ....***

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Read and understand all safety messages in this manual. Read and understand the decal safety messages on your freezer. Take notice of the location of all decals on the freezer and keep the safety decals in good condition. Check them periodically and replace missing, damaged or illegible safety decals. The safety decals must remain in place and legible for the life of the freezer. If you need new decals, use the information and illustrations on pages iv and v of this manual to identify the decal and order replacement parts.

***DO NOT*** attempt to operate the CS700 freezer until you read and understand all safety messages and the operating instructions in this manual.

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## ***4. Operate Safely ....***

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

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## Safety Decal Locations

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

Take notice of all warning, caution, instruction and information decals (or labels) on the freezer as shown in the figure on the following page. The labels have been put there to help maintain a safe working environment.

The labels have been designed to withstand washing and cleaning. All labels must remain legible for the life of the freezer. 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. 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, LLC. *Electro Freeze* Service Department by phone or FAX:



Phone: 309-755-4553

800-755-4545

FAX: 309-755-9858


E-mail: [service@hcduke.com](mailto:service@hcduke.com)

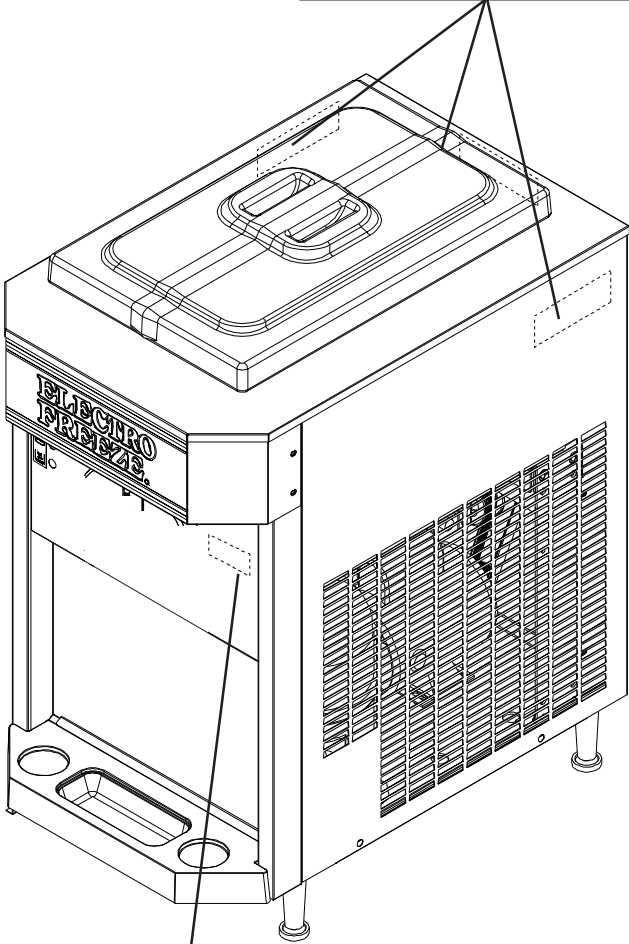
(The decals on the next page are numbered 1 and 2. Those numbers correspond to the numbers in the table below. The table provides the part number, description, and quantity for each decal.)

No.	Part No.	Description (Qty)
1	HC165126	Decal — Panel Removal Warning (3)
2	HC165025	Decal — Beater Warning (1)

# Safety Decal Locations


1 P/N HC165126

	<p><b>▲ WARNING</b></p> <p>Hazardous moving parts. Machine starts automatically. Do not operate with panel removed.</p>
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M01830

2 P/N HC165025

	<p><b>▲ WARNING</b></p> <p>Hazardous rotating beater shaft. Do not operate unit with dispense head removed.</p> <p>Before removing dispense head:</p> <ol style="list-style-type: none"><li>1. Turn all control switches to "OFF", and</li><li>2. Disconnect all power supplies. Unit may have more than one power supply.</li></ol>
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# Table of Contents

<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
	<b>SAFETY</b> .....	<b>ii</b>
	<b>SAFETY DECALS LOCATIONS</b> .....	<b>iv</b>
<b>PART I</b>		
<b>1.</b>	<b>INTRODUCTION</b> .....	<b>1</b>
<b>2.</b>	<b>NOTE TO INSTALLER</b> .....	<b>1</b>
	2.1. Uncrating and Inspection .....	2
	2.2. Installation .....	2
	2.3. Electrical Requirements .....	3
<b>3.</b>	<b>SPECIFICATIONS</b> .....	<b>3</b>
	3.1 Particulars. ....	3
	3.2 Data Plate .....	3
	3.3 Reference Information .....	3
	3.4 Installation Date .....	4
	3.5 Dimensions. ....	5
<b>4.</b>	<b>PART NAMES AND FUNCTIONS</b> .....	<b>6</b>
<b>5.</b>	<b>OPERATOR CONTROLS &amp; INDICATORS</b> .....	<b>10</b>
	5.1 Selector Switch .....	11
	5.2 Reset -Circuit Breaker .....	11
	5.3 Indicator Light "ADD MIX" .....	11
	5.4 Indicator Light "MIX OUT" .....	11
	5.5 Mix Float .....	11
<b>6.</b>	<b>DISASSEMBLY AND CLEANING</b> .....	<b>12</b>
	6.1 Accessories .....	12
	6.2 Disassembly Instructions .....	13
	6.3 Cleaning Instructions .....	15
<b>7.</b>	<b>ASSEMBLY</b> .....	<b>17</b>

Table of Contents - continued

SECTION	DESCRIPTION	PAGE
<b>8.</b>	<b>START-UP INSTRUCTIONS .....</b>	<b>20</b>
	8.1 Sanitizing .....	20
	8.2 Priming .....	21
<b>9.</b>	<b>CLOSING PROCEDURES .....</b>	<b>22</b>
	9.1 Night Switch Operation .....	22
	9.2 Draining Product From Freezer .....	23
<b>10.</b>	<b>PRODUCT INFORMATION .....</b>	<b>24</b>
	10.1 Overrun .....	24
	10.2 Rerun .....	24
<b>11.</b>	<b>SPINDLE MIXER (OPTIONAL) .....</b>	<b>25</b>
	11.1 Preparation .....	25
	11.2 Part Names and Functions .....	25
	11.3 Cleaning and Sanitizing - Spindle Mixer .....	26
	11.3.1 Daily Cleaning .....	26
	11.3.2 Daily Sanitizing .....	26
	11.4 Operation-Spindle Motor .....	27
<b>12.</b>	<b>ROUTINE MAINTENANCE .....</b>	<b>28</b>
<b>13.</b>	<b>TROUBLESHOOTING TABLES .....</b>	<b>32</b>

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**PART II**

**REPLACEMENT PARTS WITH ILLUSTRATIONS ..... \***

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



# 1 Introduction

This freezer is designed to produce milkshakes with a temperature range of 24° to 30°F (-4° to -1°C). If such products are prepared from powdered concentrate, they should be precooled to 38°F (3°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 Model CS700 Freezer.

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

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

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

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

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



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

FAX: (309) 755-9858

E-mail: [service@hcduke.com](mailto:service@hcduke.com)

# 2 Note to Installer

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

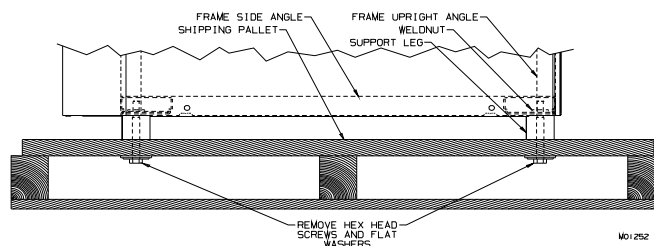
**After installation, the warranty registration card must be completed and returned to validate the warranty.**

## 2.1 Uncrating and Inspection

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

When the unit is received and while the carrier is still present, inspect the shipping carton for any damage that may have occurred in transit. If the SHOCKWATCH® label indicates red and/or the carton is broken, torn, or punctured note the damage on the carrier's freight bill and notify the carrier's local agent immediately. Also note on the freight bill.

1. Remove the carton from the pallet, and move the machine as close as possible to the permanent location.
2. Remove the shipping bolts on the bottom of the freezer (figure 2-1) and install the legs.



**Figure 2-1 Machine bolted to Shipping Base**

## 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.
2. Water cooled models. Where codes permit, Electro Freeze recommends flexible water and electrical connections for easier service and cleaning.
3. All models require a minimum 3-inch (7.6 cm) air space on both sides and back of the freezer for adequate ventilation.

4. Freezer is equipped with an air deflector that will need to be mounted. Facing the front of the freezer the deflector plate will be mounted on the screws on the left side panel. The deflector is required to prevent air from recirculating back to the freezer. **Failure to install the deflector will void warranty.**

5. Verify weight of freezer. Ensure the counter or table has sufficient strength to hold this weight and prevent excessive vibration.

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

## 2.3 Electrical Connections



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



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

1. Always verify electrical specifications on the data plate (figure 3-2) of each individual freezer. Data plate specifications will always supersede the information in this manual.
2. This freezer requires a protected 20 amp 230 volt circuit. Connect the freezer to a circuit separate from any other electrical equipment. The power cord on this freezer connects to a NEMA 6-20R receptacle. See Figure 2-1.

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

4. The transformer in the electrical box is factory wired for 240 volts. This connection maybe used for voltages above 200 volts. If the power supply is less than 200 volts, move the L2 transformer wire connector to the 208 volt connector.

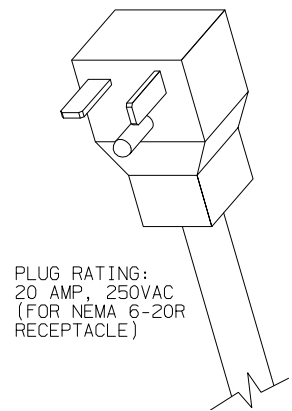


Figure 2-1

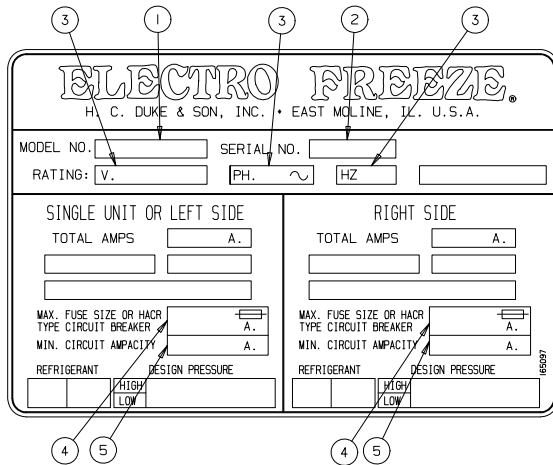
## 3 Specifications

### 3.1 Particulars

<b>Width (in/cm)</b>	18.4/46.7	<b>Beater Motor</b>	1/2 HP/.37 kw
<b>Height (in/cm)</b>	35.2/89.4	<b>Refrigerant</b>	R-404a
<b>Depth (in/cm)</b>	28.1/71.4	<b>Charge</b>	32.0 oz/.91 kg
<b>Weight (lbs/kg)</b>	220/99.8	<b>Cooling</b>	Air
<b>Voltage*</b>	208-230/60/1	<b>Hopper</b>	20 qts/18.8 liters
<b>Min.Circuit Ampacity</b>	20.0	<b>Cylinder</b>	7 qts/7.1 liters
<b>Compressor</b>	1 HP/8000 (BTUH) .75 kw (Motor) 2.3 kw (Cooling)		

\*Contact factory for other voltages.

### 3.2 Data Plate



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

**Figure 3-1**

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### 3.3 Reference Information

**Write in Reference Information HERE!**



Fill in the following information as soon as you receive the *Electro Freeze* CS700. (The item numbers — encircled, below — correspond with the callout numbers in figure 4-1.)

- 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 CS700 Freezer.

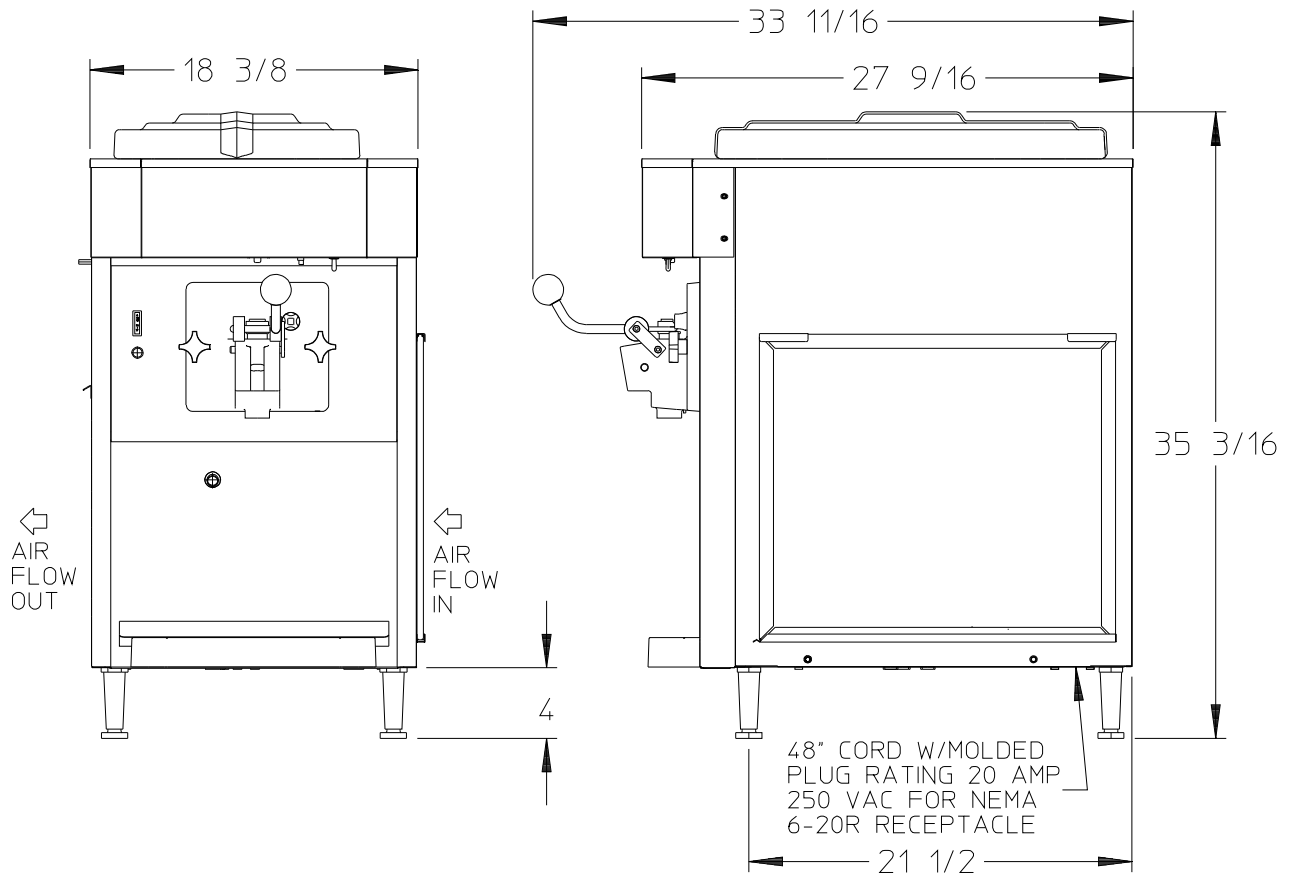
Date of installation: \_\_\_\_\_

Installed by: \_\_\_\_\_

Address: \_\_\_\_\_

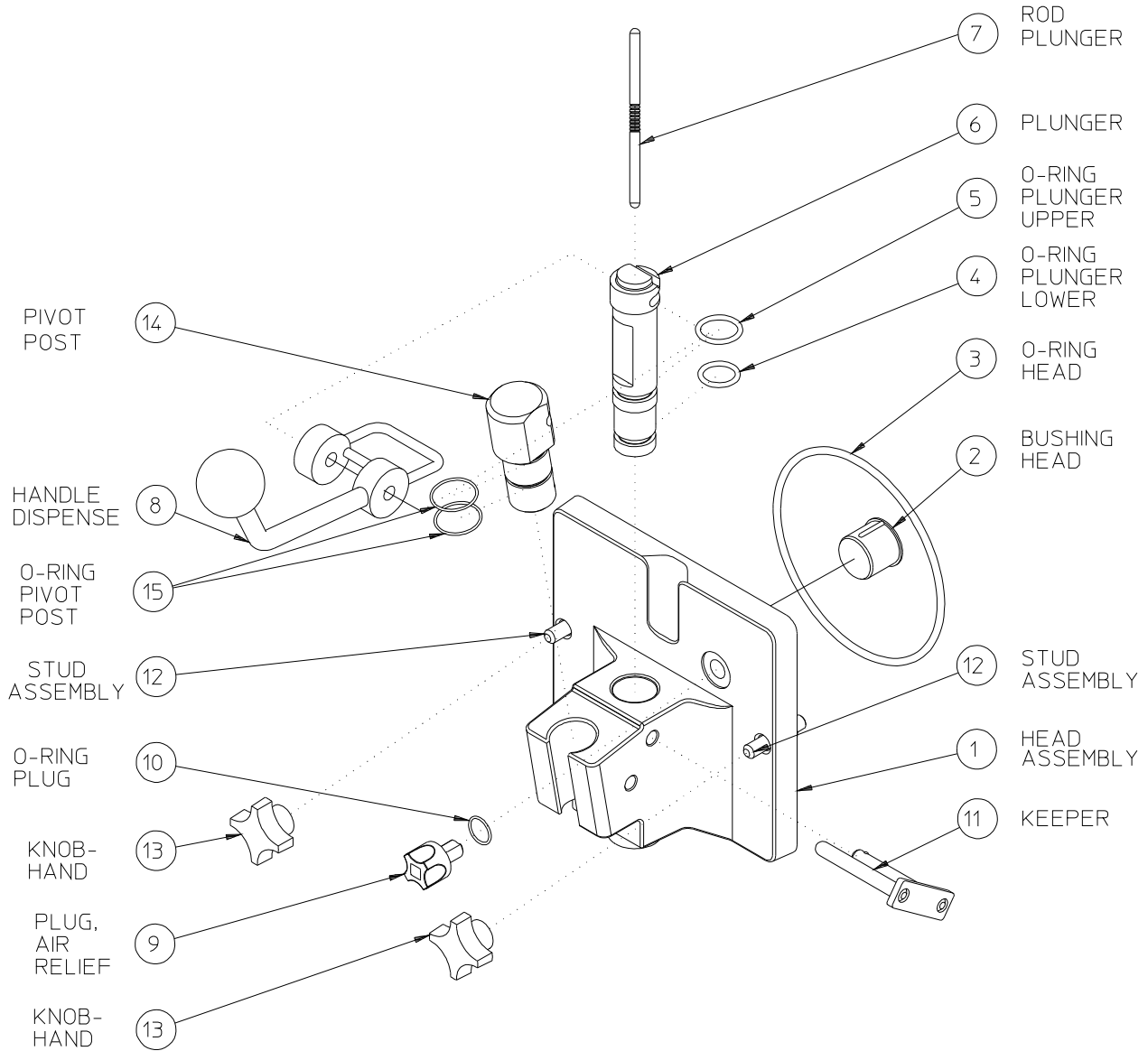
Phone: \_\_\_\_\_

### 3.5 Dimensions



**Figure 3-2 Electro Freeze Model CS700 Dimensions**

# 4 Part Names and Functions



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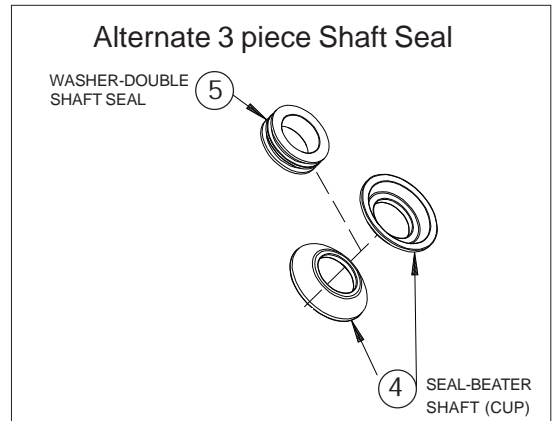
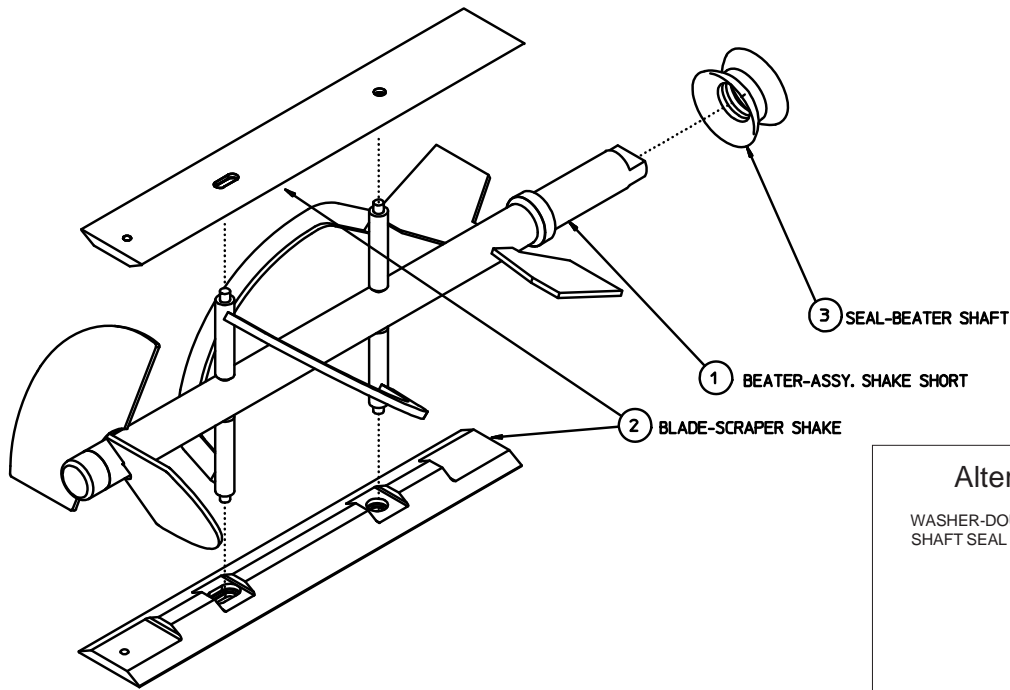
**Figure 4-1 Head Assembly**

## 4 Part Names and Functions — continued

The following part names and descriptions refer to figure 4-1.

- 1 HEAD - ASSY. DISPENSE**  
Encloses the freezing cylinder and provides an opening for product to be dispensed.
- 2 BUSHING - HEAD**  
Holds the beater in place at the front of the cylinder. Must be inserted into the head and lubricated before assembly.
- 3 O-RING - HEAD**  
Seals the head to the freezing cylinder. Must be lubricated.
- 4 O-RINGS - PLUNGER - LOWER**  
Seals the plunger in the head. Must be lubricated to seal and slide properly.
- 5 O-RINGS - PLUNGER - UPPER**  
Seals the plunger in the head. Must be lubricated to seal and slide properly.
- 6 PLUNGER**  
Seals the product opening in the head when closed. Allows product to flow when open.
- 7 ROD - ACTUATOR**  
Starts the freezer when dispensing. Must be in place before freezer will operate.
- 8 HANDLE - DISPENSE**  
Opens and closes the plunger to start and stop the flow of product from the freezer.
- 9 PLUG - AIR RELIEF**  
Seals the air relief opening in the head when closed. Allows excess air to be removed from the cylinder when filling.
- 10 O-RING - PLUG**  
Seals the air relief screw in the head.
- 11 KEEPER**  
Secures the handle to the head.
- 12 STUD - ASSY.**  
Hand knobs screw on studs to hold head assembly in place.
- 13 KNOB - HAND**  
Secures the head to the freezing cylinder.
- 14 POST - PIVOT**  
Holds the handle in place when the spindle is not used.
- 15 O-RING - PIVOT POST**  
Holds the pivot post in place.

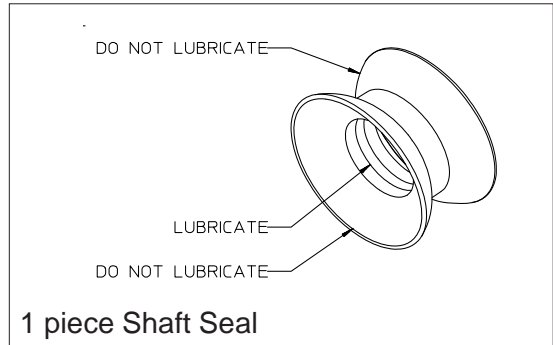
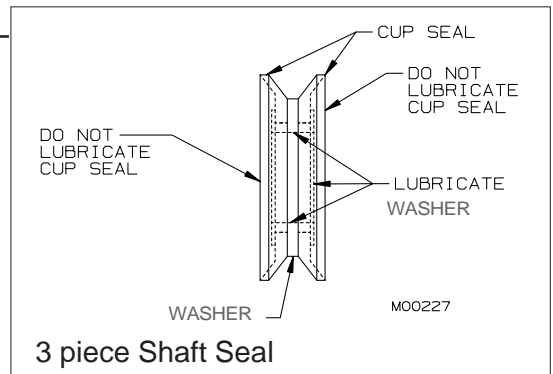
## 4. Part Names and Functions — continued



**Figure 4-2 Beater Shaft**

The following part names and descriptions refer to figure 4-2.

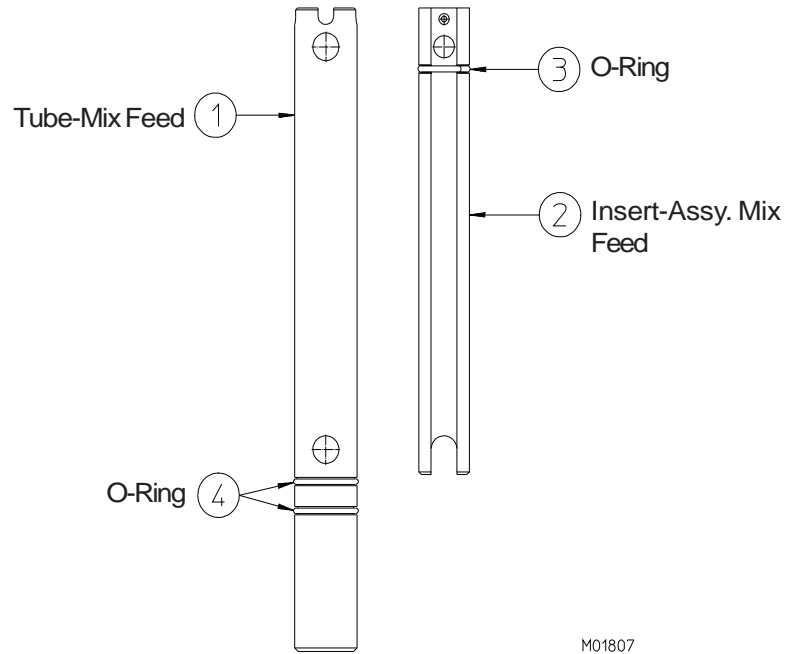
- 1 SHAFT-BEATER**  
 Rotates in the freezing cylinder, blending air and mix and ejecting product.
- 2 BLADE-SCRAPER**  
 Scrapes the frozen product from the freezing cylinder wall.
- 3 SEAL - BEATER SHAFT**  
 Seals the opening between the freezing cylinder and the beater shaft. **This may be a one piece or three piece shaft seal. Lubricate only inside rib portion of seal. DO NOT allow lubricant to come in contact with the cupped portion of the seal.** See figure 4-3.



**Figure 4-3 Shaft Seal Lubrication**



## 4. Part Names and Functions — continued



**Figure 4-4 Mix Feed Tube**

The following part names and descriptions refer to figure 4-4.

- |          |   |          |   |
|----------|---|----------|---|
| <p>①</p> | <p><b>TUBE-MIX FEED</b><br/>Meters the correct amount of mix and air into the freezing cylinder from the hopper.</p>                      | <p>④</p> | <p><b>O-RING-MIX FEED ASSEMBLY</b><br/>Seals the opening between the hopper and mix feed tube. O-rings do not need lubrication.</p> |
| <p>②</p> | <p><b>INSERT-ASSEMBLY MIX FEED (Regulator)</b><br/>Regulates mix flow. Open position for day operation and closed position for night.</p> |          |   |
| <p>③</p> | <p><b>O-RING-INSERT ASSEMBLY</b><br/>Holds the insert in place in the mix tube. Must be lubricated.</p>                                   |          |   |

## 5 Operator Controls

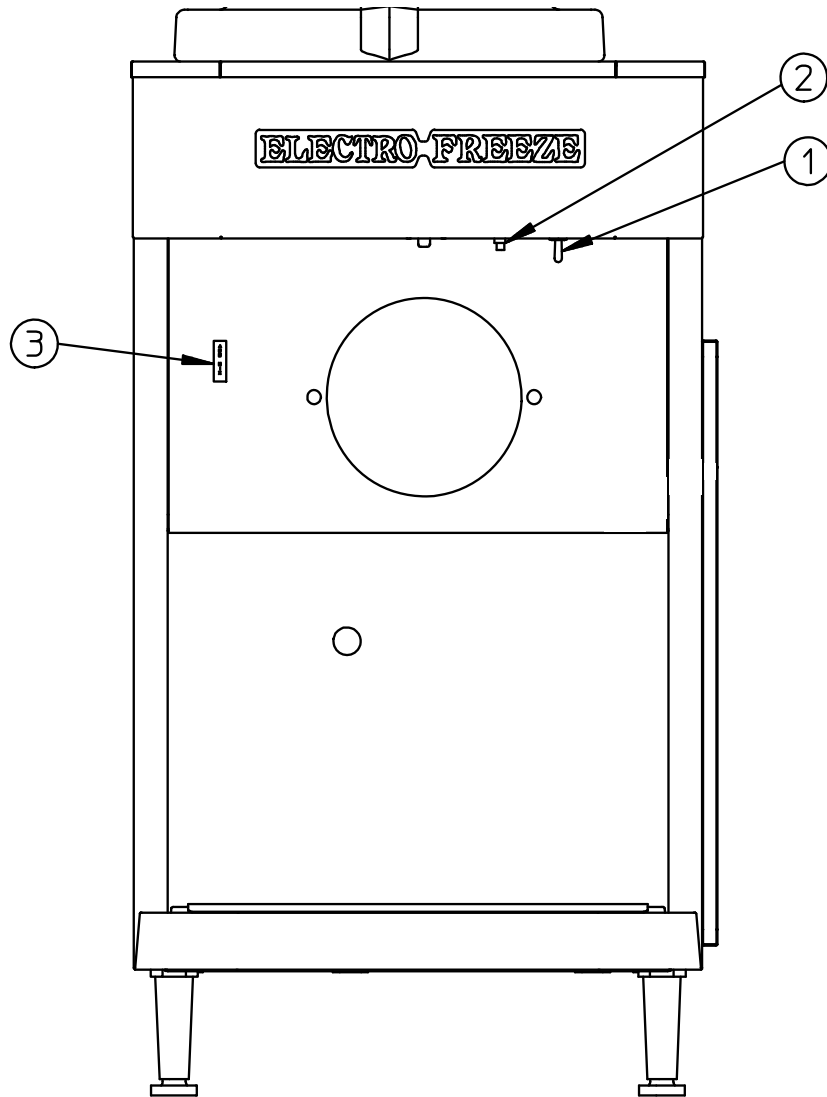


Figure 5-1

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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 and actuator rod 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.

—continued

## 5 Operator Controls — continued

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

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

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

c. **“AUTO”** (right) — This position activates both the beater motor and refrigeration unit. This is the normal operating position which will maintain a cylinder temperature of 26° to 28°F (-3° to -2°C).

### 5.2 Reset — Circuit Breaker ②

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 reset button and turn the SELECTOR switch back to the “AUTO” or “CLEAN” position.

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

### 5.3 Indicator- Light — “ADD MIX” ③

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


### 5.4 Mix Float (not shown)

When this float is mounted on the float stem inside the hopper it automatically senses the mix level. It activates the “Add Mix” light

# 6 Disassembly and Cleaning

**CAUTION**

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



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

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

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

## 6.1 Cleaning Accessories

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

1. **BRUSH - HC158010.** 6-inch diameter used to clean the cylinder.
2. **HANDLE - HC158012.** 36-inch handle used with brush p/n HC15010.
3. **BRUSH - HC158077.** 9/16-inch in diameter with 36-inch handle used to clean drain tube.
4. **BRUSH - DOUBLE END - HC158003.** 1-1/8-inch diameter and 7/16-inch diameter used for cleaning mix feed tube and general cleaning.
5. **TOOL - O-RING REMOVAL. HC169374.** Aids in removing O-rings from plun

6. **LUBRICANT - LUBRI-FILM PLUS HC158054A.** Approved lubricant for moving parts and O-rings.
7. **BRUSH - HC158026.** 1-inch in diameter 12 inches long used to clean the hopper walls.
8. **WASH BOTTLE - HC196103.** used to flush the plunger and hopper walls.
9. **KIT - O-RING.** Contains all O-rings and seals needing replacement on a regular basis. (not shown)

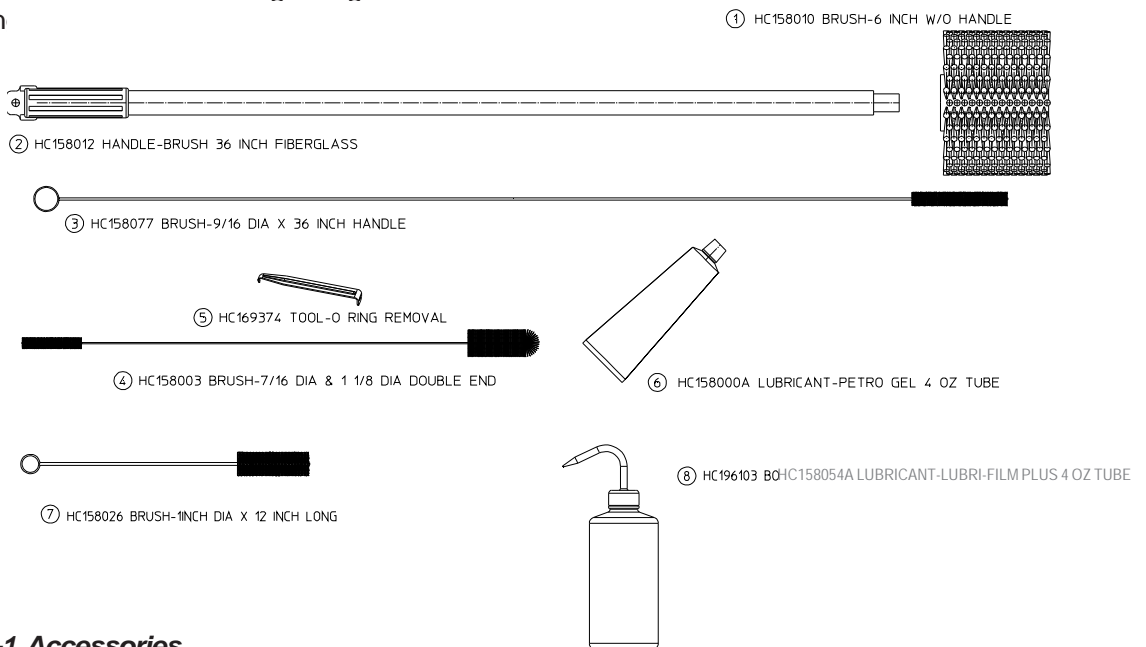
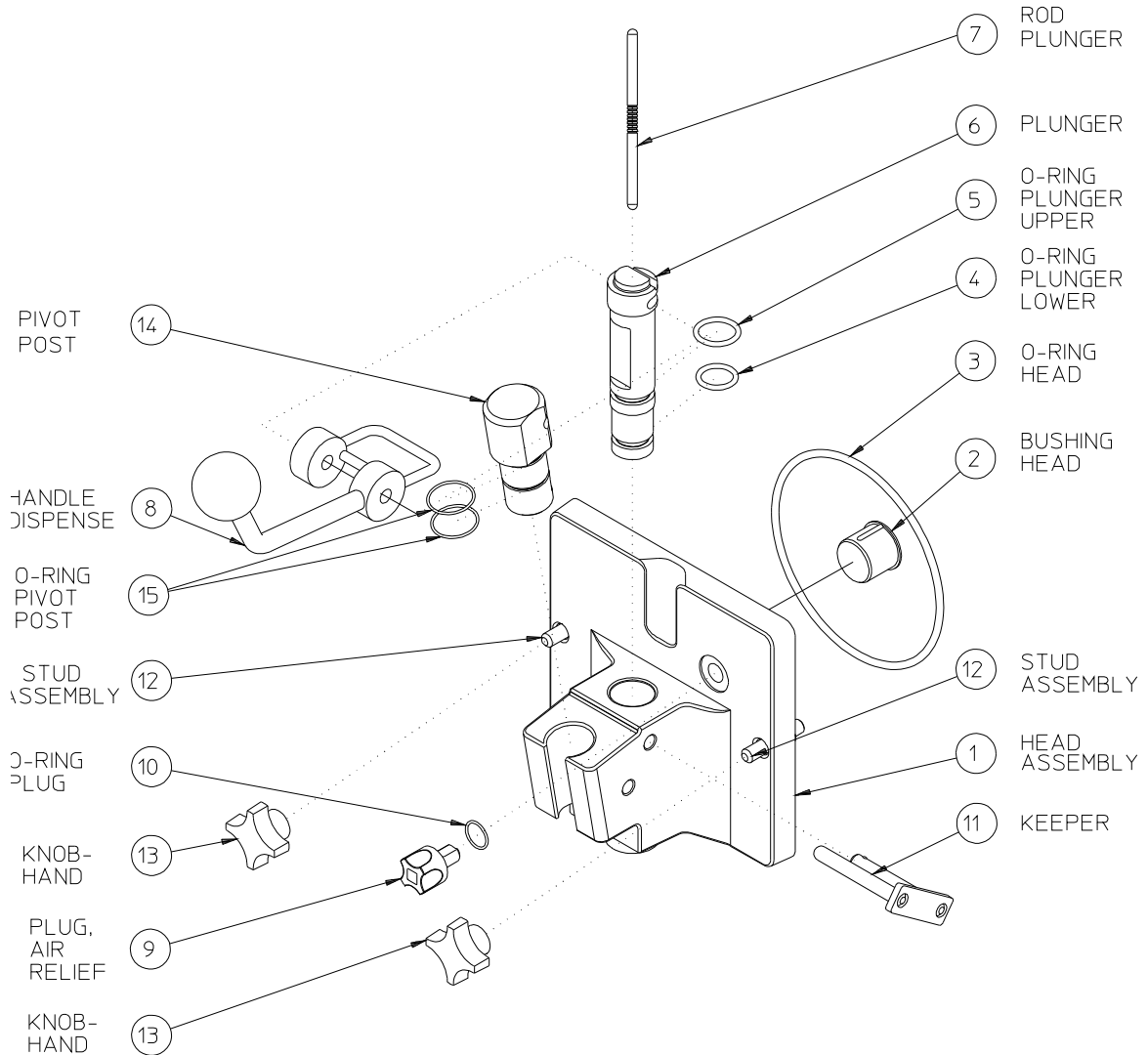


Figure 6-1 Accessories

## 6.2 Disassembly Instructions



**Figure 6-2 Dispense 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.

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

1. If there is product in the freezer refer to Section 9.1, CLOSING PROCEDURES - DRAINING PRODUCT.
2. (Refer to figure 6-2) Remove the actuator rod (7) by lifting up and swinging towards you.
3. Pull the keeper (11) out of the head.
4. Remove the handle (8), hand knobs (13) and then pull the head straight out.

—continued

6.2 Disassembly Instructions — continued

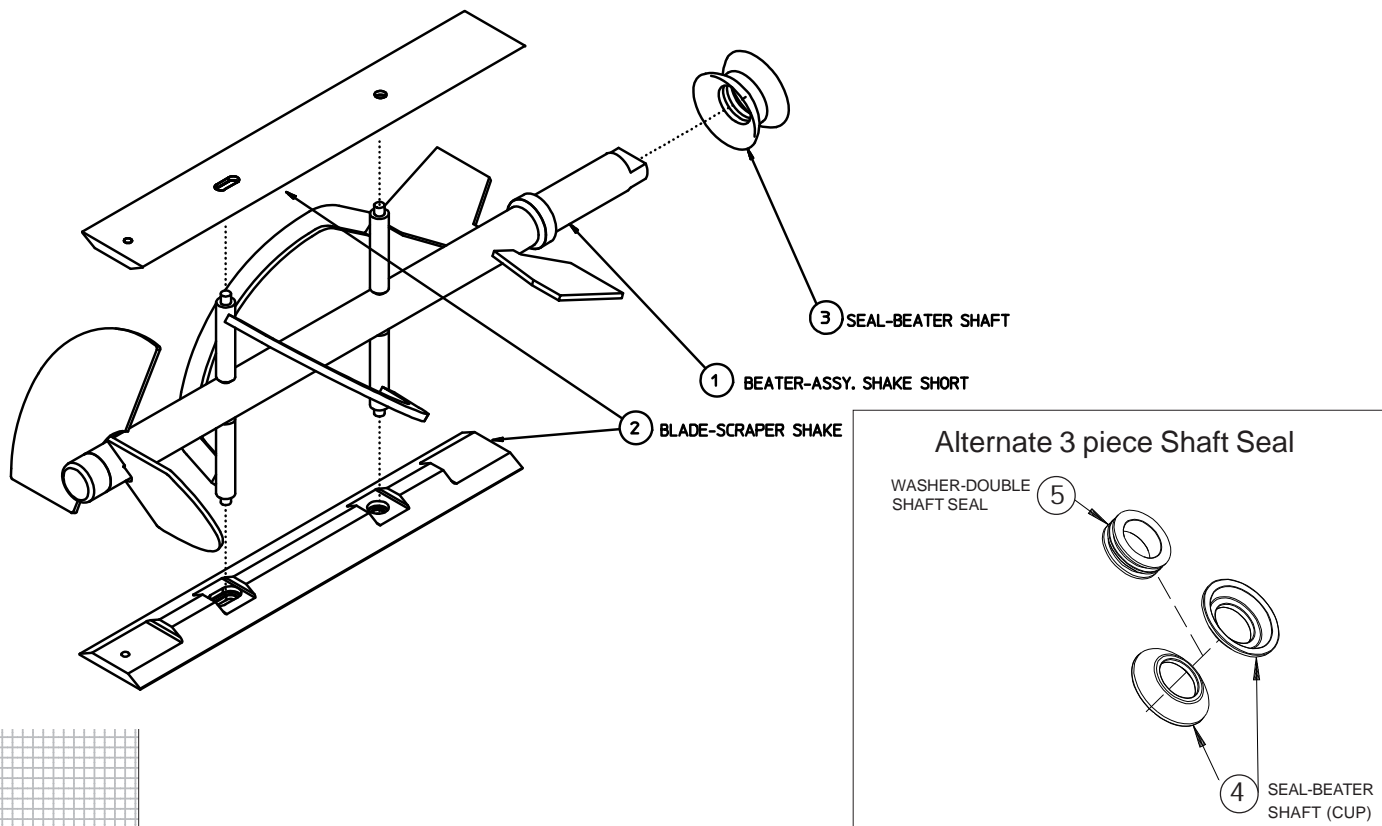


Figure 6-3 Beater Shaft Assembly

5. Remove the plunger (6, figure 6-2) and the O-rings from the head and plunger (3,4,5).
6. Remove the air relief plug (9) from the head assembly. Remove the o-ring (10) from the air relief plug.
7. Remove the head bushing (2) and beater shaft (figure 6-3) from the cylinder. Then remove the scraper blades (2) and shaft seal (3) from the beater shaft (1). If using the 3 piece shaft seal remove the cup seals (4) from the washer (5) on the shaft seal assembly . Remove the drip tray.
8. Remove the mix feed tube assembly from the hopper, as shown in Figure 6-4 and remove the o-rings (2).
9. Wipe off all lubricants with paper towel.

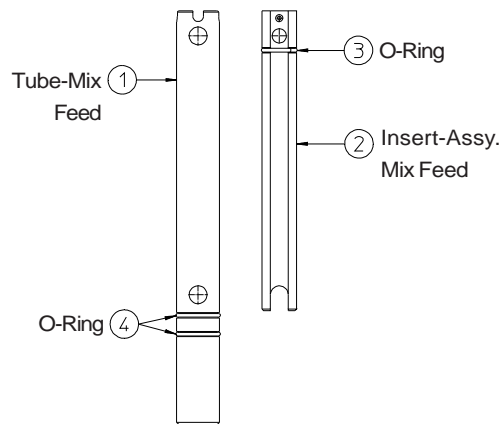



Figure 6-4 Diassemble Mix Feed Tube


### 6.3 Cleaning Instructions

**CAUTION**



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

**CAUTION**



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

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

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

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

1. Prepare a three-compartment sink in accordance with local health regulations. The sink will be used to wash, rinse, and sanitize the freezer components which will be removed later. Also, prepare a clean surface to air-dry all parts.

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

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

- a. The head assembly, o-ring grooves, plunger, air relief plug, key and dispense openings as shown in figure 6-5.

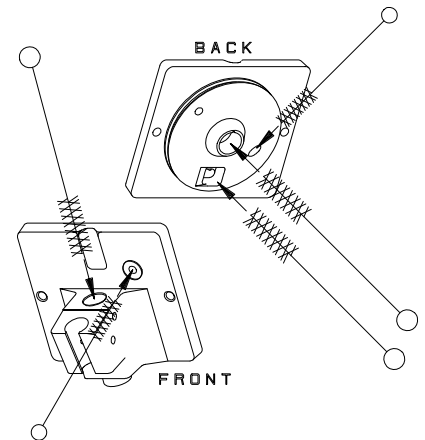


Figure 6-5

- b. The mix feed tube, insert and o-rings as shown in figure 6-6.

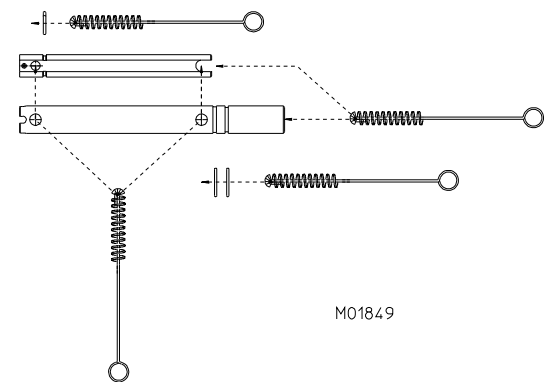
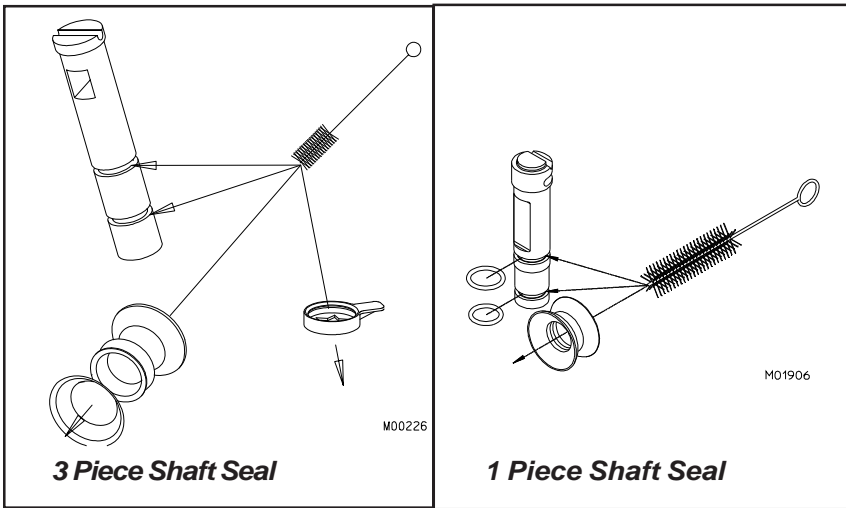


Figure 6-6

—continued

### 6.3 Cleaning Instructions — continued



c. The shaft cup seal, washer, and plunger O-ring grooves (figure 6-7).

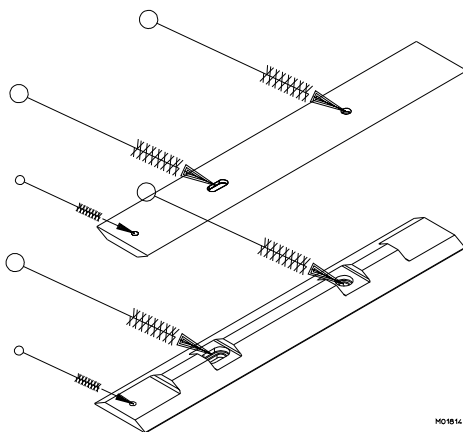
d. The beater shaft and the scraper blade pin holes, shown in figure 6-8.

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

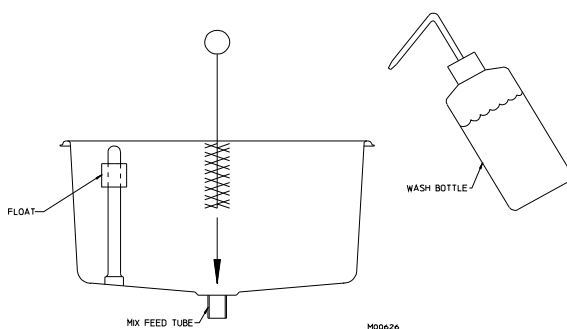
**Important:**

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

**Figure 6-7 Clean shaft seal and plunger**



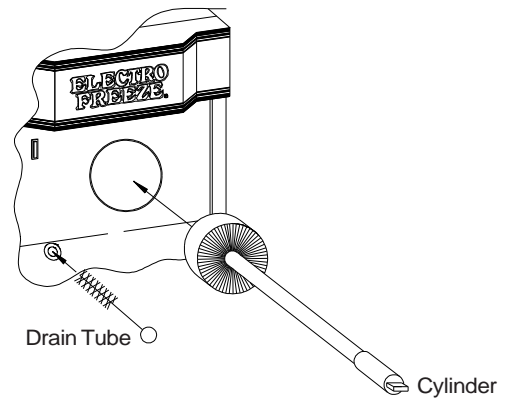
**Figure 6-8 Clean scraper blades**



**Figure 6-9 Clean hopper and mix feed port**

4. Wash hopper walls and all soiled surfaces on the freezer with a clean disposable towel. Using proper brush, brush the hopper inlet tube (figure 6-9), the cylinder and cylinder back wall (figure 6-10) thoroughly. Rinse using rinse bottle. Using sanitizing solution, repeat brushing and rinsing procedure making sure all surfaces contact sanitizer.

5. Brush the inside of the drain tube with sanitizing solution and rinse, as shown in figure 6-10.



**Figure 6-10 Clean drain tube and cylinder**

**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

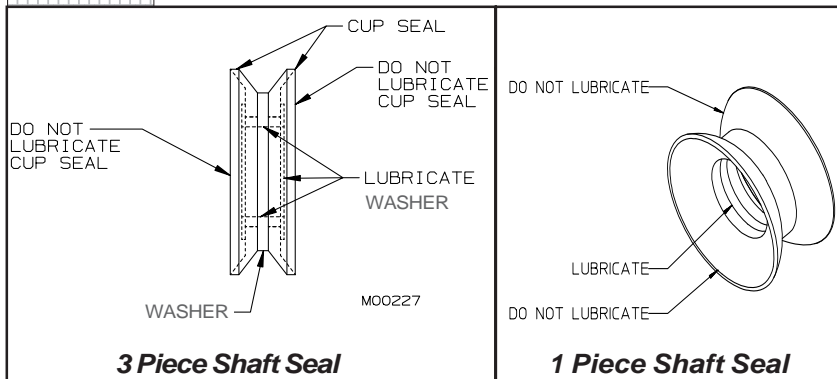
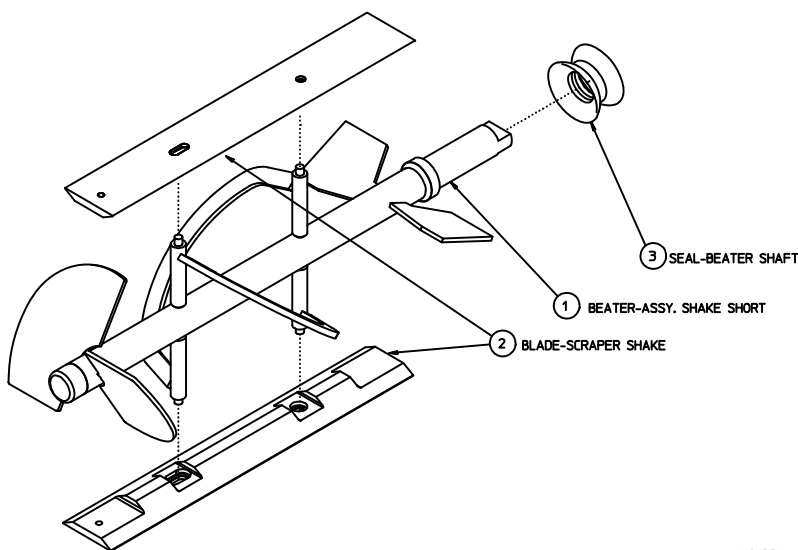


Figure 7-1 Shaft Seal Lubrication

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 Lubri-Film Plus). 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.

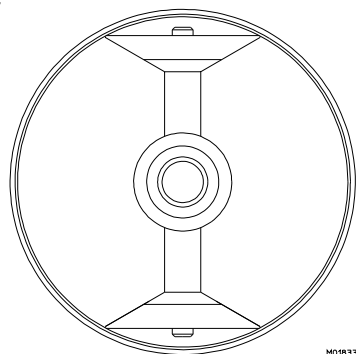


**CAUTION**  
To avoid electrical shock or contact with moving parts, make sure all switches are in the "OFF" position and that the main power supply is disconnected.



M01924

Figure 7-2 Beater Shaft Assembly



M01933

Figure 7-3 Scraper Blade Installation

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

2. Shaft seal:

a. **If using the 3 piece shaft seal**, assemble the shaft seal by installing the cup seals on the plastic washer. Apply a moderate amount of approved sanitary lubricant (such as Lubri-Film Plus) to the washer. Do not allow any lubricant to come in contact with the bell-shaped rubber portions of the seal (figure 7-1).

b. **If using the 1 piece shaft seal**, apply a light amount of approved sanitary lubricant (such as Lubri-Film Plus) to the center rib of the shaft seal, see figure 7-1. Do not allow any lubricant to come into contact with the bell-shaped portion of the seal.

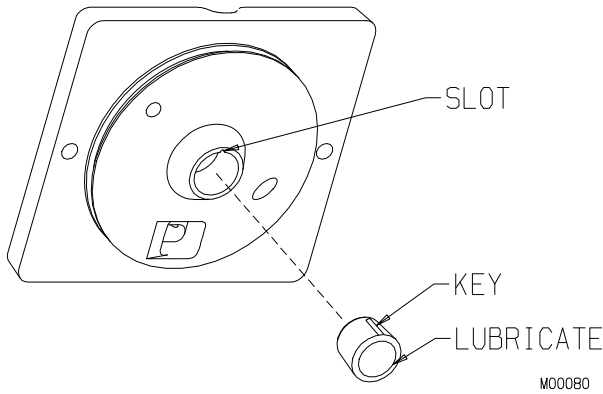
3. See figure 7-2. Install the shaft seal over the rear of the beater shaft. Wipe off excess lubricant from the beater shaft.

4. Place the scraper blades on the beater shaft, making sure the blades are installed properly.

5. See figure 7-3. Insert the assembled beater shaft into the cylinder by placing one blade on the bottom of the cylinder. This will center the beater and allow alignment with the drive shaft. Rotate the beater assembly while pushing, until the shank has engaged the drive shaft.

—continued

# 7 Assembly — continued



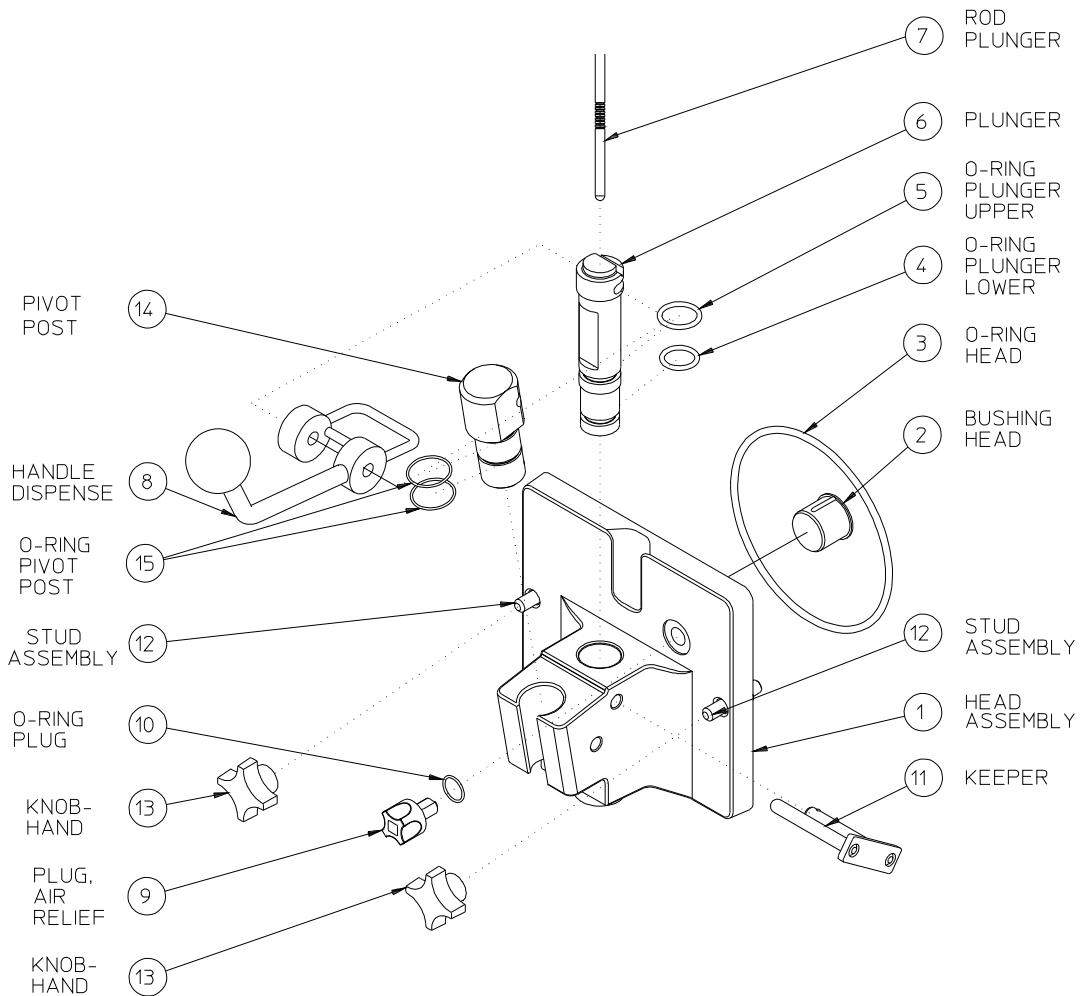
6. See figure 7-5 and o-ring chart in the Replacement Parts Section. Install and lubricate the o-rings (4, 5) on the plunger (6). Insert halfway into the head (1), with the rectangular hole facing the front.

7. Install and lubricate O-ring (10) on the air relief plug (9). Then thread the plug into the head (1).

8. Lubricate the inside surface of the head bushing (2) and place in the head (1) making sure to align bushing key into head slot, as shown in figure 7-4.

—continued

**Figure 7-4 Head Bushing**



**Figure 7-5 Head Assembly**

## 7 Assembly — continued

**Important:**

**ALWAYS make sure the head bushing is positioned in the head properly (see Figure 7-4). The head is slotted to match the key on the bushing. Make sure the key aligns with the slot. Failure to install the bushing properly in the dispensing head will damage the head.**

9. Install the dispensing head onto the freezer by tilting the top of the head towards you, aligning the studs with the holes in the head, and sliding toward the freezer. As you push the head towards the freezer, carefully rock it into place, and align the shaft with the drive coupling.

10. Tighten the hand knobs (13) simultaneously, finger-tight only.

**Important:**

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

11. Hook the handle (8) into the slot on the plunger (6).

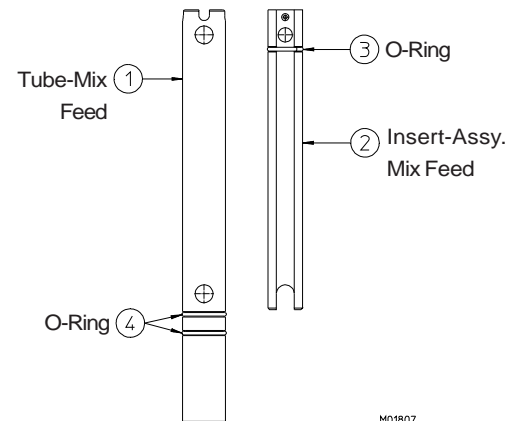
12. Install the plunger rod (7).

13. Install the pivot post (14) or mixer (optional).

14. Insert the keeper (11) through the holes in the handle (8) and head (1) and lock in place. **Do not lubricate.**

16. See Figure 7-6. Install the o-ring (3) on the mix feed insert (2) and lubricate. Then install the o-rings (4) on the mix feed tube (1). The mix feed tube o-rings do not need to be lubricated.

16. Lay the mix feed tube assembly in the hopper pan. (Do not install in the mix feed port at this time.)



**Figure 7-6**

## 8 Start-up Instructions

### 8.1 Sanitizing

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



#### CAUTION

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

#### Important:

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

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

1. Wash and sanitize your hands and forearms.
2. Prepare 2 gallons (7.6 liters) of sanitizing solution in a container. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 PPM strength chlorine solution. (example: Stera-Sheen Green Label). Use warm water (100-110°F or 37-43°C) to wash, rinse, and sanitize.
3. The mix feed tube assembly should be laying in the bottom of the hopper pan. Do not install.

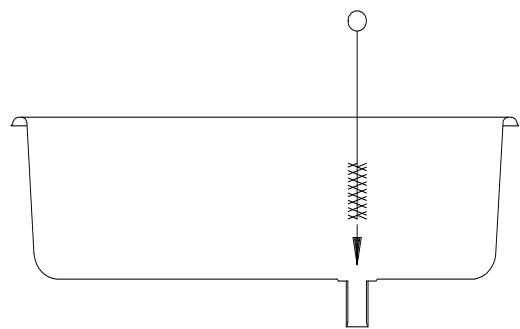
#### Important:

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

#### Important:

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

4. Pour sanitizing solution into the hopper pan. Using a clean brush, scrub the hopper walls, the mix feed port from the hopper to the cylinder, the inside of the mix feed tube and adapter, and the inside of the hopper cover. (See Figure 8-1)
5. Insert mix float on mix level sensor.
6. Allow sanitizer to fill the cylinder.
7. Connect the main power supply.
8. Turn the selector switch to the "CLEAN" position and allow the beater to run for 5 minutes. During this time period check for leaks around the head, plunger and drain tube.
9. Place an empty container under the dispensing head and drain the sanitizing solution from the cylinder by slowly pulling down on the dispense handle. Open and close the handle at least 10 times during draining to sanitize the port area of the dispense head.
10. With most of the sanitizing solution drained, turn the selector switch to the "OFF" position and drain remaining solution from the hopper and cylinder and close the plunger.



**Figure 8-1 Sanitize hopper and its components**

## 8.2 Priming

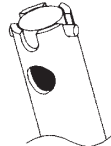
*Pin is in line with hole.*



**OPEN**

*Look through top hole in tube — you should see clear through.*

*Pin is not in line with hole.*



**CLOSED**

*Look through top hole in tube — you should see the inner white plastic insert tube (regulator) blocking the opening.*

**Figure 8-2** *Mix Feed Tube Positions*

Priming the freezer removes all excess air and sanitizer from the freezing cylinder and sets the proper overrun for the first cylinder of product. Always have clean, sanitized hands when handling mix feed assemblies. Handle only the top 1”.

1. Wash and sanitize your hands and forearms.

2. Place an empty container under the dispense head. Install the mix feed tube assembly in the “closed” position into the mix feed drain in the hopper. Pour a minimum of 2 gallons of mix into the hopper. Hold plunger open and remove mix feed tube and allow mix to push out the sanitizer. When pure mix flows from the dispense head close the plunger. Install the mix feed tube into the mix feed hopper drain in the “open” position as shown in figure 8-2 and place the selector switch to the “Auto” position.

***Important:***

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

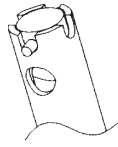
3. Install the hopper cover.

4. During long idle periods, the regulator should be closed — ***but remember — when dispensing product, ensure that the mix feed regulator is OPEN at all times.*** If not open, the flow of mix will be restricted. If lubricant blocks the inlet hole in the tube it would also restrict the flow of mix.

## 9 Closing Procedures

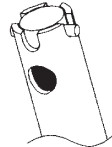
### 9.1 Night or Idle Operation

*Pin is in line with hole.      Pin is not in line with hole.*



**OPEN**

*Look through top hole in tube — you should see clear through.*



**CLOSED**

*Look through top hole in tube — you should see the inner white plastic tube (regulator) blocking the opening.*

**Figure 9-1      Mix Feed Tube Positions**

1. In areas where state and local health codes allow, product may remain in the freezer overnight, leave the Selector Switch in the “AUTO” position.

3. The plunger rod must be in place for the unit to operate.

4. Clean all soiled surfaces with a warm dish detergent solution.

5. Using the small brush supplied in the spare parts kit, brush the bottom of the plunger with with a warm dish detergent solution, then brush with sanitizing solution.

6. Turn the mix feed regulator to the “CLOSED” position as shown in figure 9-1.

7. Check mix level in hopper to ensure that there is enough mix to keep the indicator light off, add mix if necessary. **Do not dispense product when the mix feed regulator is in the “CLOSED” position.**

8. Before serving from the machine brush the plunger opening with sanitizing solution and “OPEN” the mix feed regulator and fill the hopper with mix (figure 9-1).

## 9.2 Draining Product from Freezer

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

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

1. Place a clean, sanitized container under the dispensing nozzle.
2. Remove the mix feed tube from the hopper. (See figure 9-3.
3. Turn the selector switch to the "CLEAN" position.
4. Dispense the product until the mix hopper is empty. Turn the selector switch to "OFF" and continue dispensing product until it quits flowing and close the plunger. If local health codes permit, cover the rerun product container and place it in the cooler. (See 10.2 General Information - Rerun).

5. Pour 2 gallons of cold water into the hopper. Turn the selector switch to "CLEAN" and dispense the cold water.

**Important:**

**DO NOT use hot water. Damage to the freezer could occur.**

6. Follow with 2 gallons of warm water and repeat until the freezer dispenses clear water. With most of the water dispensed, place selector switch in the "OFF" position and drain off remaining water.

7. Prepare 2 gallons (7.6 liters) of sanitizing solution in a container. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 ppm available chlorine solution (example: Stera-Sheen Green Label).

8. Pour all the sanitizing solution into the hopper pan. Using a clean brush scrub the hopper walls.

9. Turn the selector switch to the "CLEAN" position and allow the beater to run for 5 minutes.

10. Place an empty container under the dispensing head. Drain the sanitizing solution from the cylinder by slowly pulling down on the dispense handle. Open and close the handle several times while draining.

11. With most of the sanitizing solution drained, turn the selector switch to the "OFF" position and drain remaining solution from the freezer and close the plunger.

12. Proceed to disassembly, cleaning and sanitizing instructions.

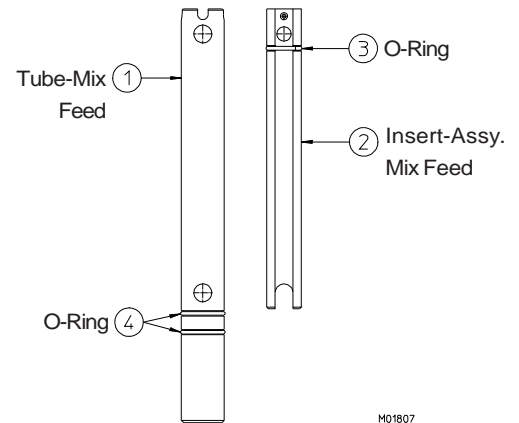


Figure 9-3

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## 10 Product 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 the container from the scale and fill with liquid mix. Measure and record the weight.

c. Remove the liquid mix and fill the same container with frozen product. Be sure there are no voids or air spaces in the container.

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

e. Use the following formula to figure overrun percentage:

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

**Example:**

**Weight of one pint of 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 (P/N HC158049) that is graduated in overrun percentage.

### 10.2 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.
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 and discard foam. Then combine the rerun with fresh mix in a ratio of 50/50 and add to the hopper 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, LLC, phone (309) 755-4553 or (800) 755-4545.



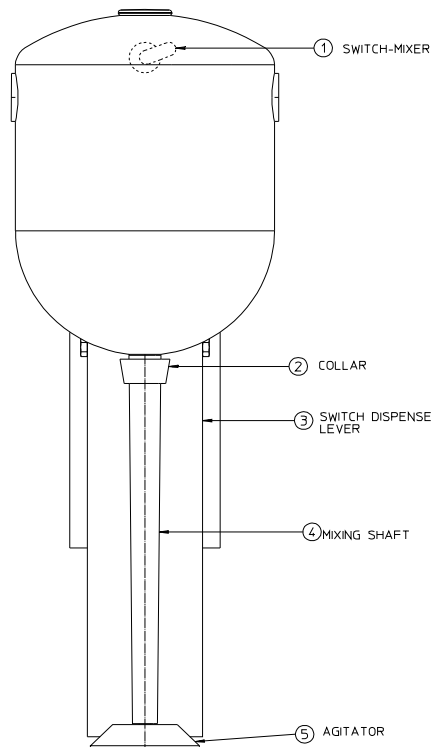
# 11 Spindle Mixer (Optional)

## 11.1 Preparation

Before use, the spindle shaft, agitator and surrounding surfaces should be washed, rinsed, and sanitized. Follow the procedures for Cleaning & Sanitizing - Spindle Mixer.

## 11.2 Part Names and Functions

The following part names and descriptions refer to figure 11-1.



### 1. SPINDLE MIXER SWITCH

This switch is located on the motor shell in the back, near the top. It is used to turn the spindle mixer ON and OFF.

### 2. COLLAR

Highest point allowed for mixing. **DO NOT** allow product or water above this point.

### 3. SWITCH DISPENSE LEVER

When this lever is pressed with the cup, a switch mounted behind the lever turns the spindle mixer ON and OFF. Relieving pressure on the lever stops mixer.

**NOTE:** Spindle mixer switch must be "ON" for the dispense lever to operate.

### 4. MIXING SHAFT

A tapered shaft for holding agitator.

### 5. AGITATOR

Used for mixing flavor into product.

**Figure 11-1 Spindle Mixer**

## 11.3 Cleaning and Sanitizing - Spindle Mixer



**CAUTION**  
**High Speed Rotating**  
**Mixing Shaft**

To avoid injury from rotating mixer shaft, turn spindle mixer switch to "OFF" and disconnect power before cleaning.

**Important:**

***Do not allow water or product above the collar at the top portion of the agitator shaft. Water above this collar can damage the motor and bearings.***

To maintain cleanliness, the spindle shaft and agitator must be washed, rinsed, and sanitized at the end of each day's operation. The operator should wash hands with an antibacterial soap and avoid coughing and/or sneezing on parts.

### 11.3.1 Daily Cleaning

Using a solution of warm soapy water wash the back wall, switch lever bracket, and all soiled surfaces around the spinner shaft. Wash the shaft and agitator. Use supplied brush to scrub sides and bottom of the agitator. Repeat with rinse water.

### 11.3.2 Daily Sanitizing

In a clean container prepare a sanitizing solution. Sanitizing solution must be mixed according to manufacturer's instructions to yield 100 PPM strength chlorine solution. (example: Stera-Sheen Green Label). Use warm water (100-110°F or 37-43°C). Wash hands in sanitizer. Wash the back wall, switch lever bracket and surrounding surfaces with the sanitizing solution. Using supplied brush, scrub the shaft and agitator, including the bottom, with sanitizer. Fill a paper cup with sanitizer and immerse agitator and spinner shaft in sanitizer. Allow all surfaces to contact sanitizer for at least one minute. Remove and allow all surfaces to air dry.

During slow periods, repeat cleaning and sanitizing of shaft and agitator to maintain cleanliness.

## 11.4 Operation - Spindle Mixer



**CAUTION**  
**High Speed Rotating**  
**Mixing Shaft**

Do not allow hands, clothing, hair, or jewelry to contact moving parts. Items may get tangled on shaft and cause injury.

***Important:***

***To prevent wear on the agitator, use only paper or plastic mixing containers for mixing. The mixer is designed to blend shakes in cups up to 20 oz. (.6L) in size. The spindle mixer should only be used for blending of flavors into the shake product. It is NEVER to be used to grind or crush solid ingredients. The temperature of shake product should be between 24-28°F (-4.4 to -2.2°C).***

For best blending results, first dispense the desired flavor ingredient into the cup, fill cup with shake mix, and then immerse agitator and shaft into product. Start mixer with motor switch in the "ON" position, then press the switch lever bracket with the cup. Move the cup around until the product is fully blended. Slowly lower the cup out of the spinning mixer shaft and time the shut off of the mixer to the moment when the agitator exits the product. This will spin off most of the product from the agitator.

# 12 Routine Maintenance

Electro Freeze recommends the following schedule to help maintain your equipment 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

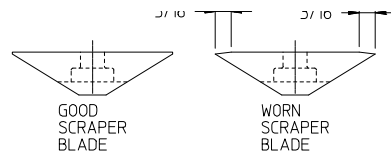
To prevent bacteria growth, remove all O-rings when cleaning. Failure to do so could create a health hazard.

2. Clean the cylinder and drain tube with the appropriate brushes.
3. Upon cleaning, inspect and lubricate all seals and O-rings as instructed that come into contact with mix. Replace any O-ring that is worn, torn, or loose-fitting.
4. Wipe all exterior surfaces of the freezer to remove any splattered mix.
5. Check overrun and temperature of the product.

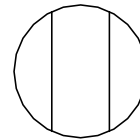
## WEEKLY

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

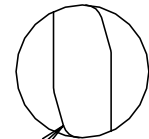
2. Replace as required.  
**Replace blades if worn 3/16" or more.**



3. Check the beater tangs and drive shaft for wear.



GOOD SHAFT TANG



WORN SHAFT TANG

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

4. Check the air filter and clean as necessary. After cleaning apply spray adhesive, p/n HC162548.

# 12 Routine Maintenance — continued

## MONTHLY

### A. Test Head Switch.

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

1. Be sure all switches are in the “OFF” position.
2. Disconnect the main power supply.
3. Remove the dispense head and beater shaft assembly.
4. Connect the main power supply.
5. Turn the selector switch to the “CLEAN” position.



#### CAUTION

**Moving parts. Do not place hands in the freezing cylinder. Severe personal injury could result.**

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.

## MONTHLY

### B. Air Condenser.

Call your Electro Freeze Distributor for service to clean air-cooled condenser fins.

## 12 Routine Maintenance — continued

### QUARTERLY

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

### 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 supply is disconnected.

1. Contact your Electro Freeze Distributor for service to replace drive belts.
2. Contact your Electro Freeze Distributor to have the inside of the freezer cleaned, including base, side panels, condenser, etc.
3. Contact your Electro Freeze Distributor to check water-cooled condenser and flush clean to remove scale and deposits if necessary.

### USE ORIGINAL OR AUTHORIZED REPLACEMENT PARTS ONLY WITH THIS FREEZER.

Should you have any questions on items which are not included in this schedule or problems where service assistance is needed, please call your local Distributor or H. C. Duke & Son, LLC, *Electro Freeze*, Service Department for factory service assistance.

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

**Fax number :** (309) 755-9858  
**E-mail:** service@hcduke.com

## 12 Routine Maintenance — continued

### Winter Storage

To protect the unit during seasonal shutdown, it is important to store the CS700 Shake 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 dry all parts thoroughly.
3. Store the loose parts, such as the head assembly, beater assembly, and pump 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.



**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.**

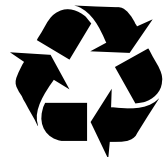


**CAUTION**

**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:**

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





13

Troubleshooting Charts — continued

PROBLEM	PROBABLE CAUSE	REMEDY
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Unit does not operate.	1. Freezer unplugged.	1. Plug in freezer.
Mix or water leaking from drain tube to drip tray.	2. Fuse or breaker blown at main disconnect. 1. Damaged beater shaft seal or installed improperly.	2. Make sure your freezer is connected to a separate circuit independent from any other electrical equipment. Have technician check fuse or breaker size and check for low voltage; if not within 10% of nameplate rating call power company. 1. Replace cup seal. Install properly.
Mix leaking at dispensing head.	3. Actuator rod not installed. 1. Faulty head o-ring.	3. Install actuator rod. 1. Replace o-ring.
	4. Off on high pressure cut-out control. 2. Head not properly installed.	4. Water turned off or defective water regulating valve. Check water supply. 2. Install head properly. Replace o-ring if pinched.
	5. Circuit breaker tripped. .	5. Contact your Electro Freeze Distributor for service.
Dispensed product too soft (Product temperature above 28°F [-2.2°C])	1. Dirty or blocked condenser, restricted air flow. Faulty selector switch. 2. Torque control not set firm enough. Disconnected or broken wire in electrical circuit. 3. Component failure.	1. Unblock condenser or have cleaned by your Electro Freeze Distributor. 6. Contact your Electro Freeze Distributor for service. 2. Contact your Electro Freeze Distributor for service. 7. Contact your Electro Freeze Distributor for service. 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.

# 13 Troubleshooting Charts — continued

PROBLEM	PROBABLE CAUSE	REMEDY
Product dispenses slowly out of dispensing head.	1. No product in hopper.	1. Fill hopper.
	2. Product too cold.	2. See "Dispensed product too hard."
Dispensed product too hard.	1. Torque control erratic or set too firm	1. Contact your Electro Freeze distributor for service.
	2. Low suction pressure, refrigeration system.	2. Contact your Electro Freeze distributor for service.
Freezer runs continually and product continues to get colder.	1. Plunger not fully closed.	1. Close plunger completely.
	2. Starter or relay contact points stuck.	2. Contact your Electro Freeze Distributor for service.
	3. Torque control not set properly or faulty.	3. Contact your Electro Freeze Distributor for service.
	4. Suction pressure too low.	4. Contact your Electro Freeze Distributor for service.
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.

## 13

## Troubleshooting Charts — continued

PROBLEM	PROBABLE CAUSE	REMEDY
Compressor and beater motor operates only when dispensing.	1. Defective torque control.	1. Contact your Electro Freeze Distributor for service.
Compressor will not start – hums intermittently (cycling on overload)	1. Improperly wired.	1. Contact your Electro Freeze Distributor for service.
	2. Low line voltage.	2. Ask power company to increase voltage to not less than 10% below dataplate rating or have transformer installed. Have wire checked for inadequate wire size.
	3. Open start capacitor. (Single phase only)	3. Contact your Electro Freeze Distributor for service.
	4. Defective compressor	4. Contact your Electro Freeze Distributor for service.

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



**QUALITY PARTS**

**PROTECT**

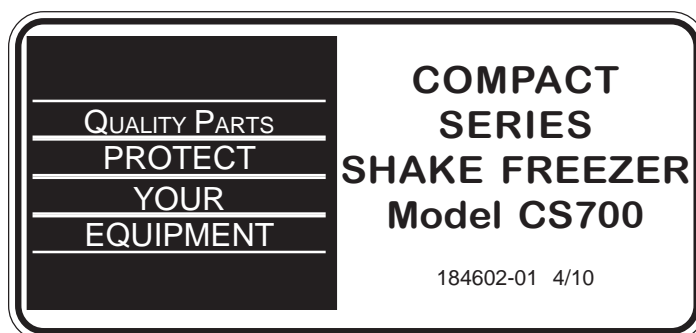
**YOUR**

**EQUIPMENT**

**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



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

## **Replacement Parts Orders**

---

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

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

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

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

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



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

FAX: (309) 755-9858

E-mail: [service@hcduke.com](mailto:service@hcduke.com)

## **Table of Contents**

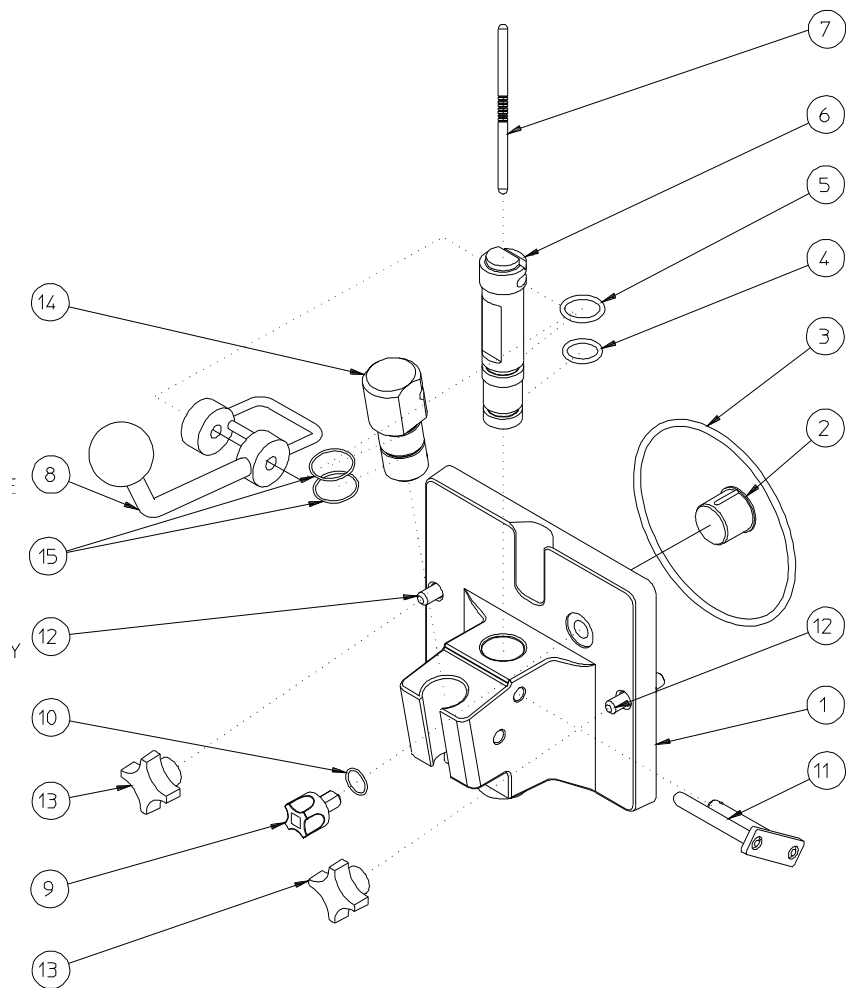
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### **ILLUSTRATIONS**

<b>Figure 1</b>	<b>Head Assembly .....</b>	<b>1</b>
<b>Figure 2</b>	<b>Beater Shaft Assembly .....</b>	<b>2</b>
<b>Figure 3</b>	<b>Mix Feed Tube Assembly .....</b>	<b>3</b>
<b>Figure 4</b>	<b>Plunger Box .....</b>	<b>4</b>
<b>Figure 5</b>	<b>Switch Assembly .....</b>	<b>4</b>
<b>Figure 6</b>	<b>Electrical Box .....</b>	<b>5</b>
<b>Figure 7</b>	<b>Side View .....</b>	<b>6</b>
<b>Figure 8</b>	<b>Drive Shaft &amp; Bearing Assembly .....</b>	<b>8</b>
<b>Figure 9</b>	<b>Panel View .....</b>	<b>9</b>

### **OTHER LISTS and INFORMATION**

<b>Accessories .....</b>	<b>10</b>
<b>O-Ring Chart .....</b>	<b>11</b>
<b>Alphabetized Parts List .....</b>	<b>13</b>



M01804-

## Figure 1 Head Assembly

Item	Part No.	Description
*	HC120506	Head-Assy. Dispense Shake Complete
1	HC120771	Head-Assy. w/Actuator
2	HC196072	Bushing-Beater Bearing
3	HC160622	O-Ring (Head)
4	HC160582	O-Ring (Plunger-Lower)
5	HC160501	O-Ring (Plunger-Upper)
6	HC140713	Plunger-Dispense Modified
7	HC138611	Rod-Actuator
8	HC120837	Handle-Assy. Shake
	HC162629	Knob-Ball 3/8
9	HC196066	Plug-Air Relief
10	HC160621	O-Ring (Plug)
11	HC113435	Keeper-Assy. Spindle
12	HC114341	Stud-Assy. Cylinder 1-15/16"

Item	Part No.	Description
13	HC162625	Knob-Hand
14	HC135182	Post-Pivot
15	HC160555	O-ring (Pivot Post)

\* Includes Items 1-6, 8-11

*Optional Side Mounted Spindle:*

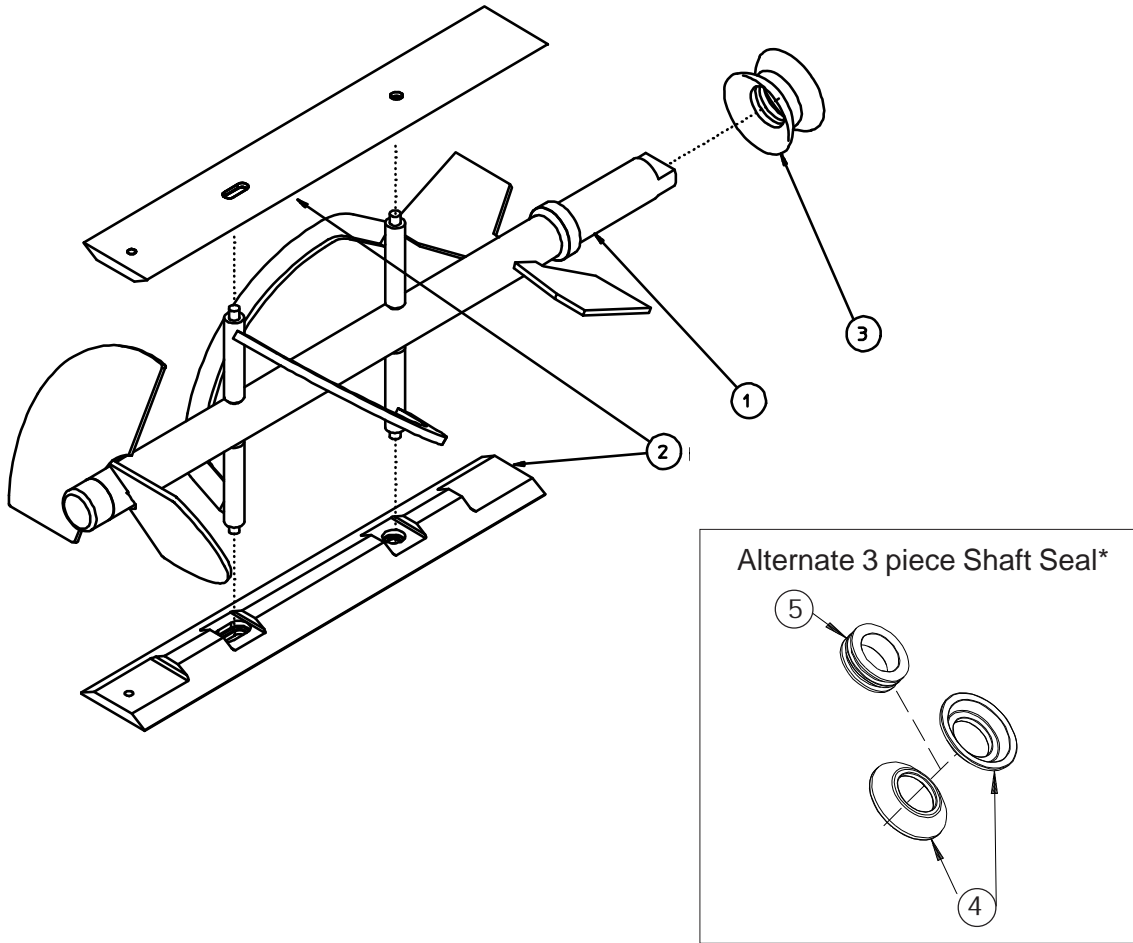
HC120646	Kit-Assy Spindle Mixer (complete with mtg)
HC151008	Motor-Spindle 230v
HC160512	Seal-Switch Boot
HC116101	Kit-Spinner
HC150619	Switch-Push Button

*Optional Head Mounted Spindle:*

HC120764	Spindle-Assy. 24 oz. 230v
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**Use only original or authorized replacement parts with this freezer.  
Use of unapproved parts will void warranty.**

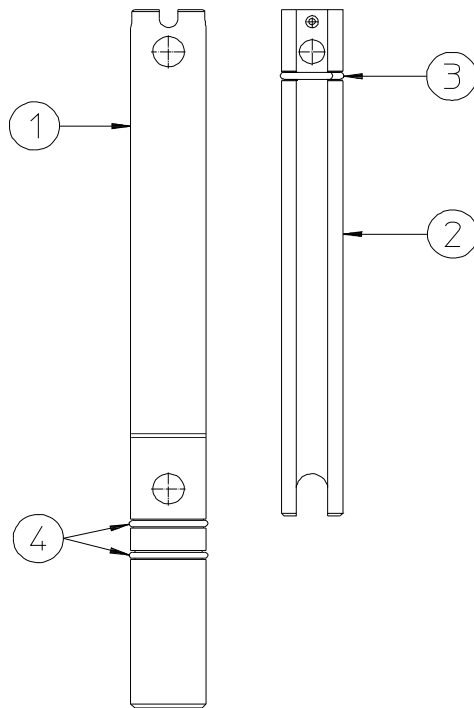


**Figure 2 Beater Shaft Assembly**

Item	Part No.	Description
1	HC118708	Beater-Assy. Shake Short
2	HC137362-01	Blade-Scraper Shake
3	HC160657	Seal-Shaft (1 piece)
<i>or</i>		
4*	HC160557	Seal-Beater Shaft
5*	HC137593	Washer-Double Shaft Seal
* Can be ordered together		
	HC115525	Seal-Assy. Shaft Double

**NOTE:** Your freezer may be shipped with a 1 piece shaft seal (Item 3) or a 3 piece shaft seal (Items 4 and 5).

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



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**Figure 3 Mix Feed Tube Assembly**

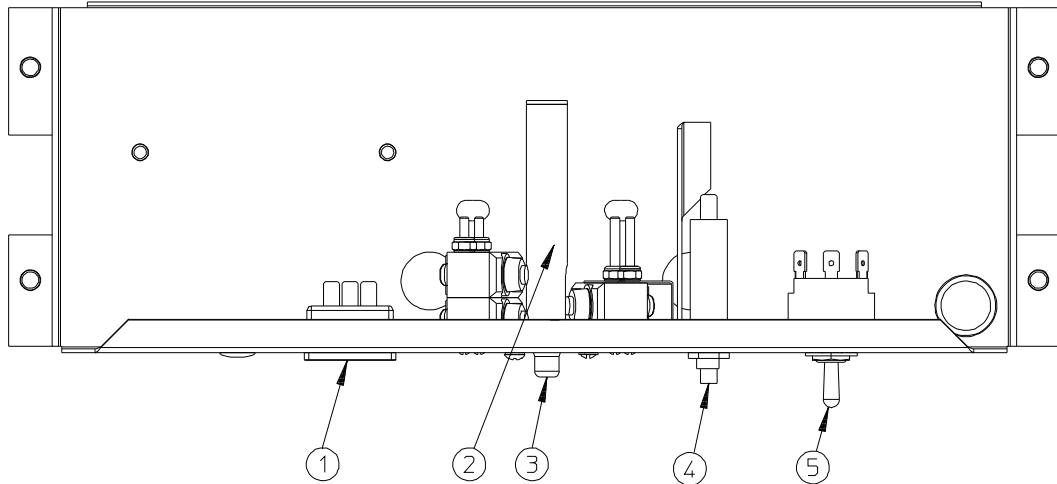
Item	Part No.	Description
*	HC120797	Tube-Assy. Mix Feed .281
1	HC140955	Tube-Mix Feed .281 Orifice
2	HC120664	Insert-Assy. Mix Feed (Regulator)
3	HC160611	O-ring (Insert-Regulator)
4	HC160621	O-ring (Mix Feed Tube)

\* Includes items 1 through 4.

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



Figure 4 Plunger Box



Item	Part No.	Description
1	HC150629	Receptacle-Snap In
2	HC120767	Switch-Assy. Plunger (See Figure 5)
3	HC137760	Rod-Plunger Switch (Actuator Button)
4	HC150452	Breaker-Circuit 4.5A
5	HC150465	Switch-Toggle 3PDT Center Off

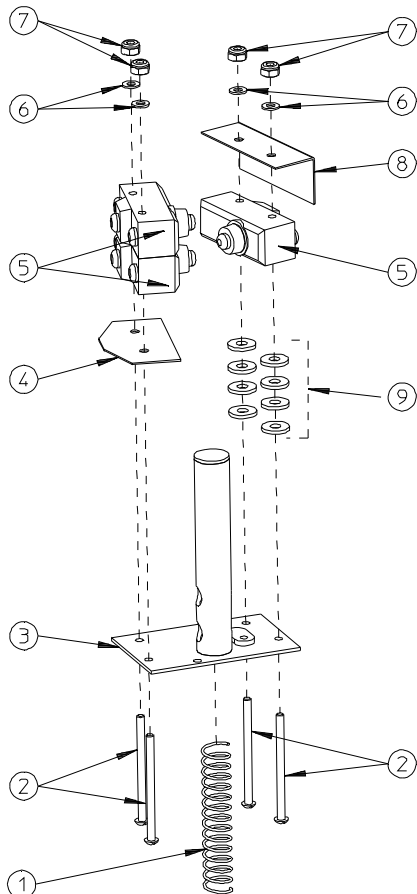
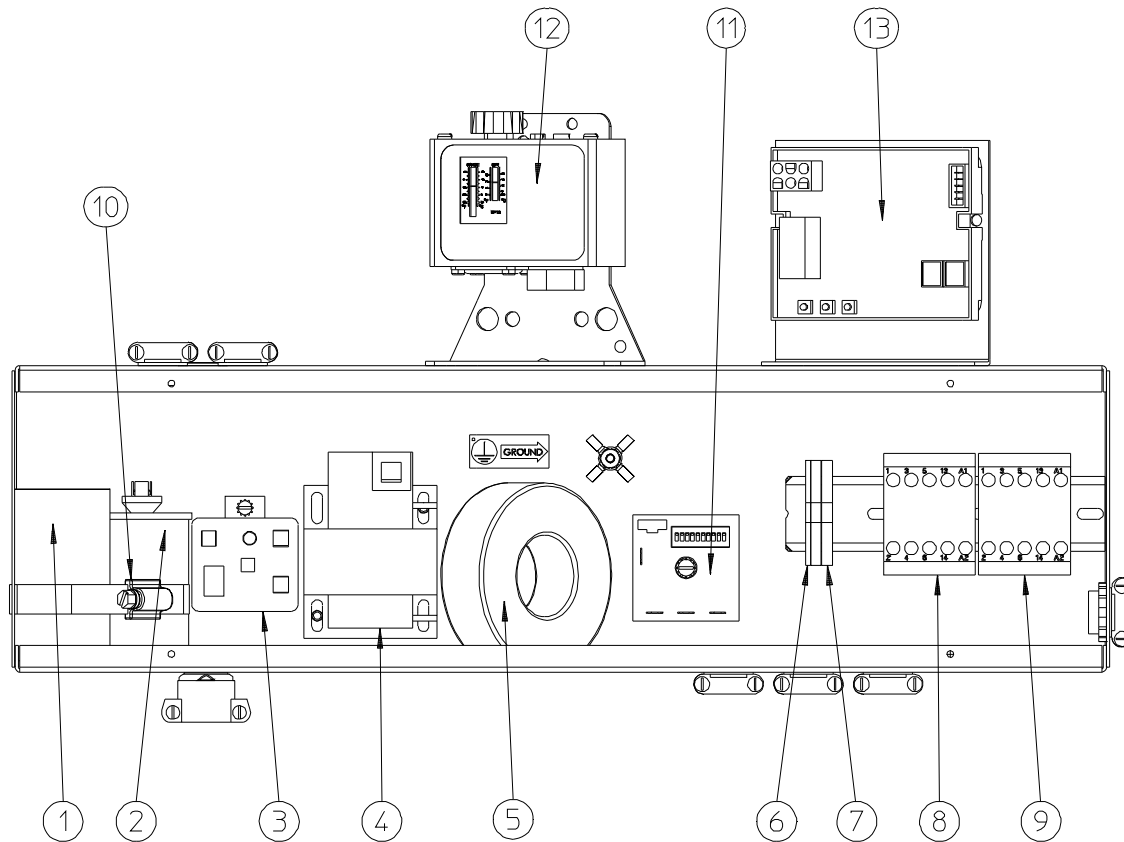


Figure 5 Switch Assembly

Item	Part No.	Description
*	HC120767	Switch-Assy. Plunger Shake Pres
1	HC162303	Spring-Plunger Rod
2	HC159973	Screw-RDHM #6-32 x 2 Zn
3	HC120768	Guide-Assy Push Rod
4	HC137798	Insulator-Switch
5	HC150456	Switch-Snap Button
6	HC160393	Washer-Flat #6 Brass
7	HC160199	Nut-El Stop #6-32 ZN
8	HC139175	Insulator-Switch
9	HC160157	Washer-1/2 x .196 x 1/16

\* Includes all items above.

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



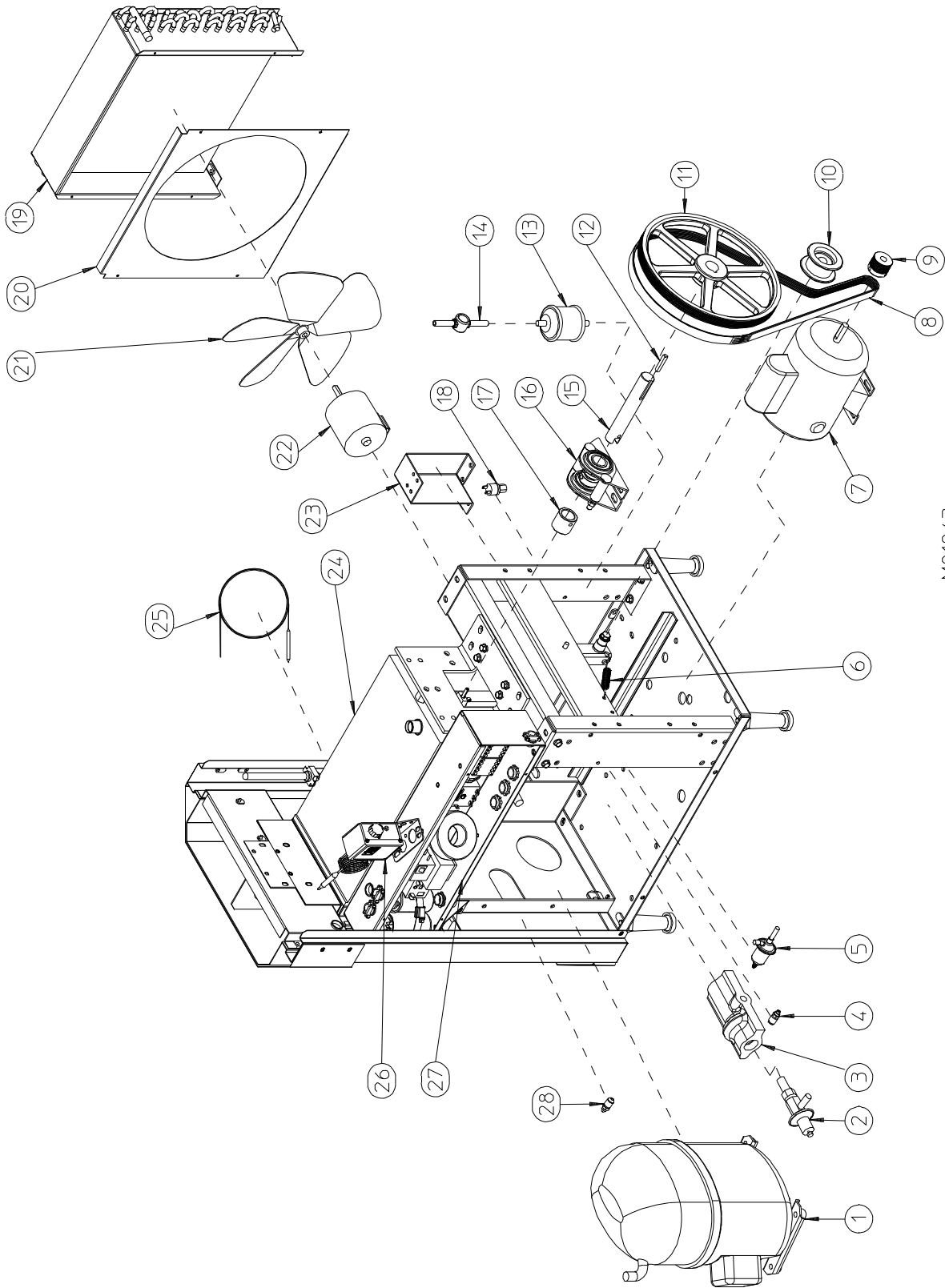
M01951

## Figure 6 Electrical Box

Item	Part No.	Description
1	HC151414	Capacitor-Start
2	HC150244	Capacitor-Run
3	HC151474	Relay-Compressor Start
4	IC574100325	Transformer-75VA / 24VAC / MURD
5	HC150572	Transformer-Current
6	HC150594	Stop-Terminal BLock End (Cover)
7	HC150591	Block-Terminal
8	HC150095	Contactor-Mini 3P (Beater Motor)
9	HC150095	Contactor-Mini 3P (Compressor)
10	HC160743	Clamp-Hose 3-1/6 to 4
11	HC120095	Kit-Recyle Timer Wiring Instructions
12	HC119989	Kit-Thermostat & Retainer
13	HC120603	Board-Assy. Torque Monitor Shake

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

Figure 7 Side View (Sheet 1 of 2)



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

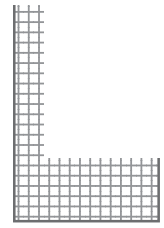
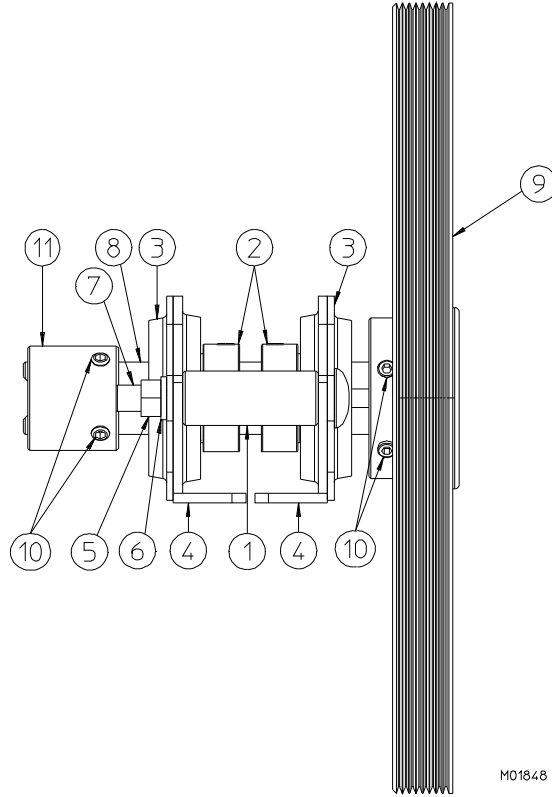


Figure 7 Side View (Sheet 1 of 2)

Item	Part No.	Description	Item	Part No.	Description
1	HC120602	Compressor-Assy. 208-230-1-60 includes compressor and: HC150244 ..... Capacitor-Run HC151414 ..... Capacitor-Start HC155063 ..... Drier-Filter 3 cu. in. Sweat HC151478 ..... Grommet-Comp.Mfg. HC151474 ..... Relay-Compressor Start HC151479 ..... Sleeve-Comp.Mfg.	19	HC155140	Condenser-Air 14 x 14
2	HC155490	Valve-Automatic Expansion	20	HC140656	Shroud-Fan .
3	HC165531	Insulator-Expansion Valve	21	HC159033	Blade-Fan 12 in. 24°
4	HC155497	Valve-Access (EPR)	22	HC151077-01	Motor-Fan 50W 230V 50/60 HZ
5	HC155398	Valve-EPR	23	HC120580	Bracket-Assy. Fan Mount
6	HC162331	Spring-Extension	24	HC120417	Cylinder-Assy. Complete
7	HC151143	Motor-1/2 HP 115/208-230-1-60 (Beater Motor)	25	HC155397	Tube-Capillary w/Strainer
8	HC153185	Belt-Poly V	26	HC119989	Kit-Thermostat & Retainer
9	HC140654	Sheave-Drive 1.438 PD J8	27	-----	Electric Box (See Figure 5)
9A	HC153323	Key-Drive 1/4" Sq. x 1-1/2" (not shown)	28	HC155497	Valve-Access (Suction)
10	HC120588	Pulley-Assy. Idler Tensioner			
11	HC153614	Sheave-Driven			
11A	HC160033	Screw-SK Set 5/16-18 x 3/8 (not shown)			
12	HC153323	Key-Drive 1/4" Sq. x 1-1/2"			
13	HC155063	Drier-Filter 3 cu in Sweat			
14	HC155059	Glass-Sight			
15	HC140824	Shaft-Drive			
15B	HC160056	Screw-Set 1/4-20 x 1/4 (not shown)			
16	HC120614	Bearing-Assy Rear (See Figure 7)			
17	HC140823	Bearing-Wide Inner Ring & Collar			
18	HC155450	Cap-Coupling			
18A	HC155419	Cut Out-High Pressure 450 PSI			
18B	HC155649	Valve-Access			
		Valve-Core ...			

Not Shown:  
HC120606 ..... Tube-Assy. Drain

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



**Figure 8 Drive Shaft and Bearing Assembly**

Item	Part No.	Description
*	HC120614	Bearing-Assy. Rear
1	HC140740	Spacer-Bearing
2	HC153024	Bearing-Wide Inner Ring & Collar
3	HC153025	Stamping-Retainer Plate
4	HC153026	Stamping-Main
5	HC160105	Nut-Hex 5/16-18 ZN
6	HC160142	Washer-Lock 5/16 ZN
7	HC160415	Bolt-Carriage 5/16-18 x 3 ZN
8	HC140824	Shaft-Drive
9	HC153614	Sheave-Driven
10	HC160056	Screw-SK Set
11	HC140823	Cap-Coupling

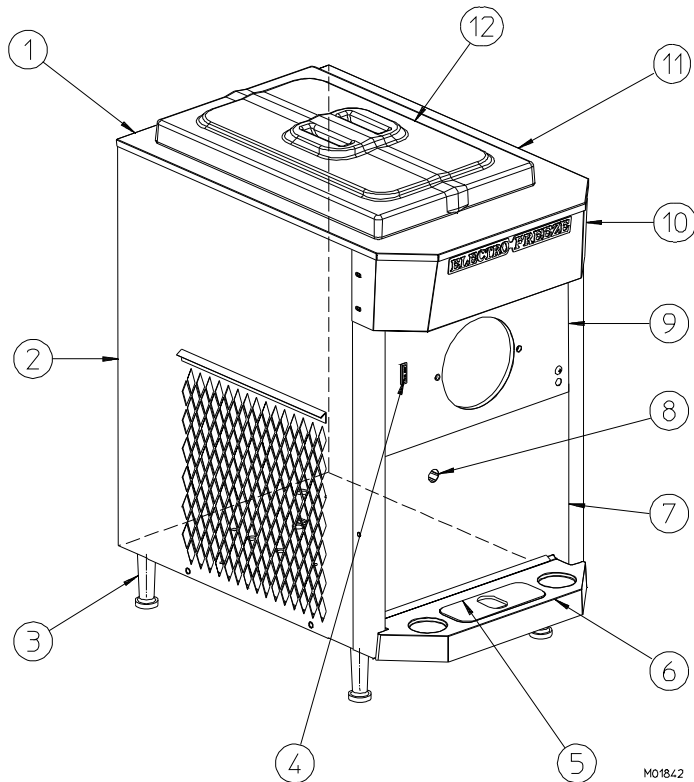
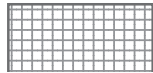
\* Includes items 1 through 7.

**Not Shown:**

- HC113948 ..... Bar-Alignment (Loaner)  
(used to align bearings to cylinder)
- HC113948-01 ..... Bar-Alignment (Purchase)

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

# ELECTRO FREEZE Model CS700



CS700 Panel Decals & Labels	
Part No.	Description
HC165025	Beater Warning
HC165250	Cleaning Instructions
HC165093	Clear Overlay
HC165126	Panel Removal
HC164081	Label-Trimstrip
HC165414	Nameplate-Electro Freeze
HC164198	Spindle Outlet 230v
HC169052	Ventilation 3 in.

## Figure 9 Panel View

Item	Part No.	Description
1	HC140737	Panel-Rear
2	HC140659	Panel-Side LH
3	HC120574	Leg-Assy. Short
	HC162114	Leg-Four Inch Adj.
	HC162130	Pad-Foot Anti Slip
4	HC150541	Light-Indicator 28v ADD MIX
5	HC196261	Cover-Drip Tray
6	HC196260	Tray-Drip
6A	HC140738	Retainer-Drip Tray (Not Shown)
7	HC120610	Panel-Assy. Front
7A	HC159064	Grommet-1.1 OD 7/8 GD x 5/8 ID (Drain Tube)(Not Shown)
8	HC140658	Panel-Side RH
9	HC120565	Panel-Assy. Dispense Spindle Brace
10	HC120760	Trimstrip-Assy. Tapered
11	HC120804	Panel-Assy. Hopper & Top
12	HC118691	Cover-Assy. Hopper Insulate

**Not Shown:**

- HC161300 ..... Switch-Level Float Sensor
- HC161301 ..... Float-Level Sensor
- HC155143 ..... Filter-22 x 19 x 3/8
- HC140749 ..... Deflector-Air (Left side bottom)
- HC139230 ..... Deflector-Panel (Left side top)

Hardware for Panels		
Panel	Screw	Nut-Speed
Dispense -Top	HC160025	n/a
Dispense -Bottom	HC160076	n/a
Front	HC160048	n/a
Rear	HC160048	n/a
Side	HC159219	n/a
Trimstrip	HC160076	n/a
*N/A - Not Applicable		

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

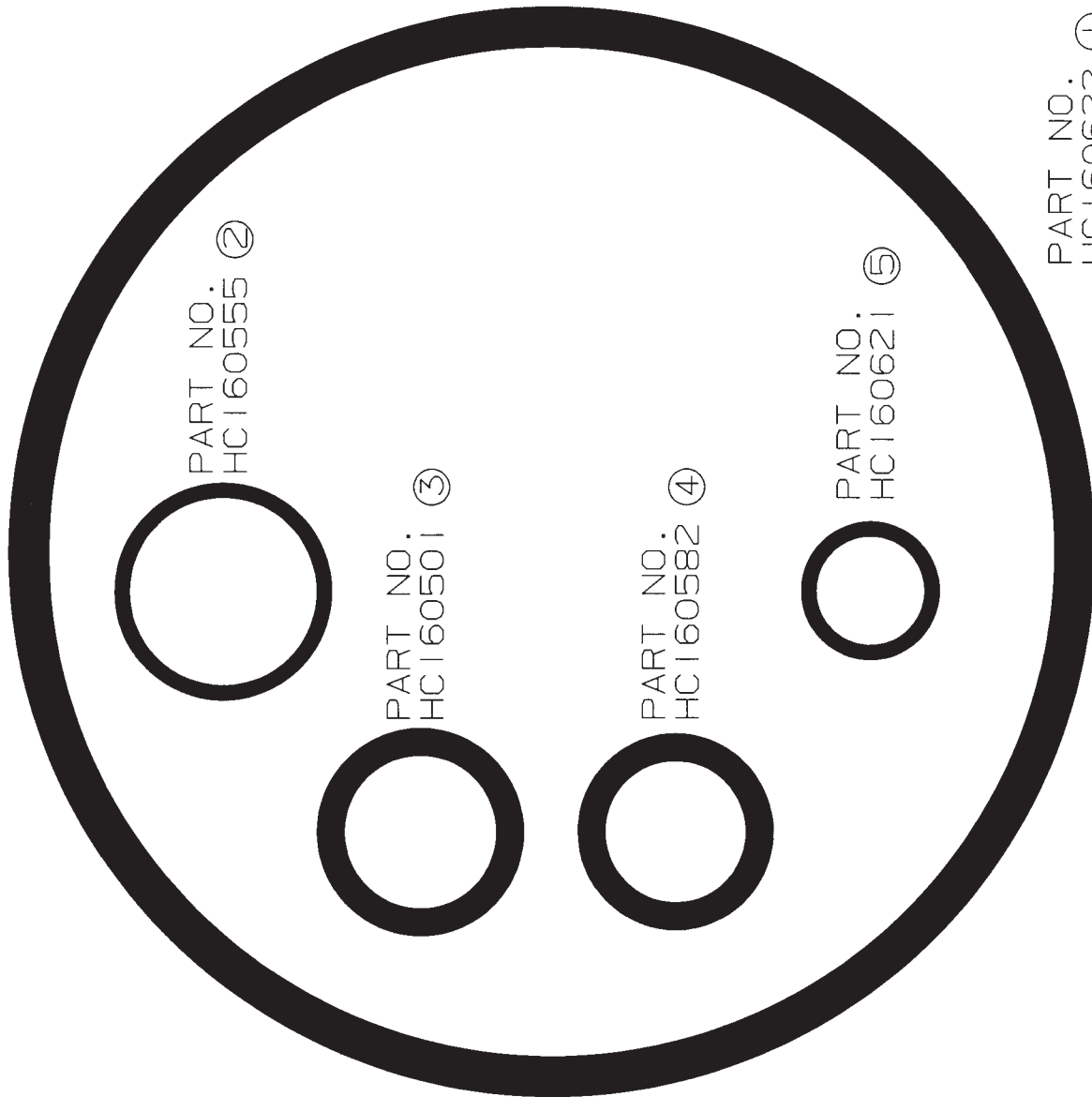
## Accessories

Part No.	Description
HC162548 .....	Adhesive-Filter Spray
HC196103 .....	Bottle-Wash 500ML
HC199505 .....	Bottle-Flavor Plastic 32 oz
HC158003 .....	Brush-7/16 x 1-1/8 Double Handle
HC158010 .....	Brush-6 inch w/o Handle (Use with Handle HC158012)
HC158026 .....	Brush-1 inch Diameter 12 inches Long
HC158077 .....	Brush-9/16 inch with 36 inch Handle
HC184236 .....	Chart-O-ring (Laminated)
HC158051 .....	Cup-Overrun Measuring 1 Pint (Use with P/N 158049 scale)
HC158012 .....	Handle-Brush 36 inch Fiberglass (Use with Brush HC158010)
HC120646 .....	Kit-Assy. Spindle Mixer
HC158000A .....	Lubricant-Petrol Gel 4 oz. tube (per tube)
HC120671 .....	Rack-Assy Flavor Complete with HC199505 ..... Bottle-Flavor Plastic 32 oz. HC169121 ..... Pump-Slush 1 oz.
HC169121 .....	Pump-Slush 1 oz. (For Flavor Syrups)
HC158014 .....	Sanitizer-Stera-Sheen Case/4 Jars
HC158014A .....	Sanitizer-Stera-Sheen 4 lb. jar
HC158049 .....	Scale-Overrun
HC169374 .....	Tool-O-Ring Removal

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

# SHAKE DISPENSING HEAD

## ELECTRO FREEZE Shake Model CS700



PART NO. ②  
HC160555

PART NO. ③  
HC160501

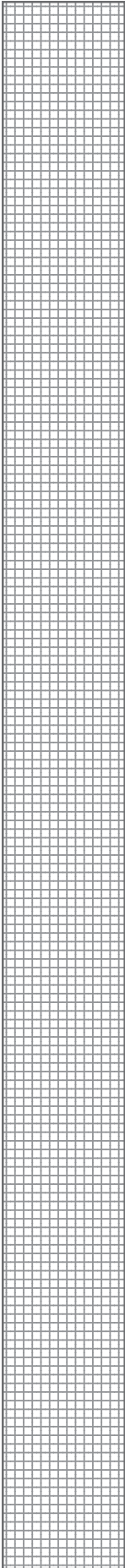
PART NO. ④  
HC160582

PART NO. ⑤  
HC160621

PART NO. ①  
HC160622

# O-RING CHART





Notes: \_\_\_\_\_

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

# Alphabetized Parts List for Model CS700

**IMPORTANT:**

All parts shown are for standard models designed for 208-230v/60Hz/1phase.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Bearing-1" Pillow Block .....	HC153030 .....	2 .....	H2N-3151 –
Bearing-Assy. Rear .....	HC120614 .....	1 .....	E2O –
Bearing-Wide Inner Ring & Collar .....	HC153024 .....	2 .....	E2O –
Bolt-Carriage 5/16-18X3 ZN .....	HC160415 .....	2 .....	E2O –
Nut-HEX 5/16-18 ZN .....	HC160105 .....	2 .....	E2O –
Spacer-Bearing .....	HC140740 .....	2 .....	E2O –
Stamping-Main .....	HC153026 .....	2 .....	E2O –
Stamping-Retainer Plate .....	HC153025 .....	2 .....	E2O –
Washer-Lock5/16 ZN .....	HC160142 .....	2 .....	E2O –
Beater-Assy. Shake Short .....	HC118708 .....	1 .....	E2O –
Beater-Assy. Weldment SH CM .....	HC120586 .....	1 .....	H2N-3151 – E2O
Belt-Poly V .....	HC153185 .....	1 .....	A2O –
Belt-Poly V .....	HC153187 .....	1 .....	H2N-3151 – A2O
Blade-Fan 12 in. 24° .....	HC159033 .....	1 .....	H2N-3151 –
Blade-Scraper Shake .....	HC137362-01 .....	.2 .....	H2N-3151 – E2O
Blade-Scraper Shake Non Rev .....	HC137362-01 .....	.2 .....	E2O –
Block-Terminal .....	HC150591 .....	1 .....	H2N-3151 –
Board-Assy. Torque Monitor Shake .....	HC120603 .....	1 .....	H2N-3151 –
Bolt-Carriage 5/16-18X3 ZN (Rear Bearing) .....	HC160415 .....	2 .....	E2O –
Bottle-Wash 500ML .....	HC196103 .....	* .....	H2N-3151 –
Bracket-Fan Mount .....	HC140647 .....	1 .....	H2N-3151 –
Breaker-Circuit 4.5A .....	HC150452 .....	1 .....	H2N-3151 –
Brush-6 inch w/o Handle (Use with Handle HC158012) .....	HC158010 .....	1 .....	H2N-3151 –
Brush-7/16 x 1-1/8 Double Handle .....	HC158003 .....	1 .....	H2N-3151 –
Brush-9/16 inch with 36 inch Handle .....	HC158077 .....	1 .....	H2N-3151 –
Brush-1 inch Dia 12 inch Long .....	HC158026 .....	1 .....	E2O –
Bushing-Beater Bearing .....	HC196072 .....	1 .....	H2N-3151 –
Cap-Coupling .....	HC137787 .....	1 .....	H2N-3151 – E2O
Cap-Coupling .....	HC140823 .....	1 .....	E2O –
* As Required			
** LH or RH — Left or right hand is determined as you face the front of the freezer.			
NLA No Longer Available			

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

# Alphabetized Parts List for Model CS700

**IMPORTANT:**

All parts shown are for standard models designed for 208-230v/60Hz/1phase.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Capacitor-Run (Compressor) .....	HC150244	1	H2N-3151 –
Capacitor-Start (Compressor) .....	HC151414	1	H2N-3151 –
Capillary-Tube & Strainer .....	HC155397	1	H2N-3151 –
Chart-O-ring (Laminated) .....	HC184246	1	H2N-3151 – E2O
Chart-O-ring (Laminated) .....	HC184236	1	E2O –
Clamp-Hose 3-1/6 to 4 .....	HC160743	1	H2N-3151 –
Clip-Miniature Relay Retaining .....	HC150166	1	H2N-3151 –
Compressor-Assy. ....	HC120602	1	H2N-3151 –
Capacitor-Run .....	HC150244	1	H2N-3151 –
Capacitor-Start .....	HC151414	1	H2N-3151 –
Drier-Filter 3 cu. in. Sweat .....	HC155063	1	H2N-3151 –
Grommet-Comp. Mtg. ....	HC151478	4	D2P –
Relay-Compressor Start .....	HC151474	1	H2N-3151 –
Sleeve-Comp. Mtg. ....	HC151479	4	D2P –
Condenser-Air 14 x 14 .....	HC155140	1	H2N-3151 –
Contacto-Mini 3P (Beater Motor) .....	HC150095	1	H2N-3151 –
Contacto-Mini 3P (Compressor) .....	HC150095	1	H2N-3151 –
Cover-Assy. Hopper Insulate .....	HC118691	1	H2N-3151 –
Cover-Drip Tray .....	HC196261	1	E2O –
Cup-Overrun Measuring 1 Pint (Use with P/N 158049 scale) .....	HC158051	1	H2N-3151 –
Cut Out-High Pressure 450 PSI .....	HC150450	1	H2N-3151 –
Cylinder-Assy. Complete .....	HC120417	1	H2N-3151 –
Decal-Beater Warning .....	HC165025	1	H2N-3151 –
Decal-Cleaning Instructions .....	HC165250	1	H2N-3151 –
Decal-Clear Overlay .....	HC165093	1	H2N-3151 –
Decal-Panel Removal .....	HC165126	3	H2N-3151 –
Decal-Trimstrip EF Logo .....	HC165147	1	H2N-3151 –
Decal-Ventilation 3 in. ....	HC169052	1	H2N-3151 –
Drier-Filter 3 cu in Sweat .....	HC155063	1	H2N-3151 –

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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

All parts shown are for standard models designed for 208-230v/60Hz/1phase.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Filter-22x19x3/8 .....	HC155143	1	E2O –
Float-Level Sensor .....	HC161301	1	H2N-3151 –
Glass-Sight .....	HC155059	1	H2N-3151 –
Grommet-1.1OD x 7/8 GD x 5/8 ID .....	HC159064	1	H2N-3151 –
Grommet-Comp. Mtg. ....	HC151478	4	D2P –
Guide-Assy. Push Rod .....	HC115684	1	H2N-3151 – I2O
Guide-Assy. Push Rod .....	HC120768	1	I2O –
Handle-Assy. Shake .....	HC120037	1	C2P –
Handle-Assy. Spindle Head .....	HC113123	1	H2N-3151 – C2P
Handle-Brush 36 inch Fiberglass (Use with Brush HC158010) .....	HC158012	1	H2N-3151 –
Head-Assy. Dispense Complete .....	HC120506	1	H2N-3151 –
Bushing-Beater Bearing .....	HC196072	1	H2N-3151 –
Handle-Assy. Spindle Head .....	HC113123	1	H2N-3151 – C2P
Handle-Assy. Shake .....	HC120037	1	C2P –
Head-Assy. Dispense (Head Only) .....	HC140712	1	H2N-3151 – I2O
Head-Assy. Dispense (Head Only) .....	HC120771	1	I2O –
Keeper-Assy. Spindle .....	HC113435	1	H2N-3151 –
O-Ring (Head) .....	HC160622	1	H2N-3151 –
O-Ring (Plug) .....	HC160621	1	H2N-3151 –
O-Ring (Plunger-Lower) .....	HC160582	1	H2N-3151 –
O-Ring (Plunger-Upper) .....	HC160501	1	H2N-3151 –
Plug-Air Relief .....	HC196066	1	H2N-3151 –
Plunger-Dispensing .....	HC140713	1	H2N-3151 –
Indicator-28v ADD MIX .....	HC150541	1	H2N-3151 –
Insert-Assy. Mix Feed .....	HC120664	1	E2O –
Insert-Drip Tray .....	HC196205	1	H2N-3151 – E2O
Insert-Drip Tray .....	HC196261	1	E2O –
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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Insulator-Expansion Valve .....	HC165531	1	H2N-3151 –
Insulator-Switch .....	HC137893	1	H2N-3151 – I2O
Insulator-Switch .....	HC137798	1	I2O –
Insulator-Switch .....	HC139175	1	I2O –
Keeper-Assy. Spindle .....	HC113435	1	H2N-3151 –
Key-Drive 1/4" Sq. x 1 1/2" .....	HC153323	4	H2N-3151 –
Kit-Recyle Timer Wiring Instructions .....	HC120095	1	H2N-3151 –
Kit-Assy. Spindle Mixer .....	HC120646	1	E2O –
Kit-Thermostat & Retainer .....	HC119989	1	H2N-3151 –
Knob-Ball 3/8-16 THD Black (Handle Assy) .	HC162629	1	H2N-3151 –
Knob-Hand .....	HC162625	2	H2N-3151 –
Leg-Assy. (4" Adjustable) .....	HC120574	1	H2N-3151 –
Light-Indicator 28V "Add Mix" .....	HC150541	1	H2N-3151 –
Light-Pilot Red (Out of Mix) .....	HC150561-01	1	H2N-3151 – E2O
Lubricant-Lubri-Film Plus 4oz. tube (per tube)	HC158054A	1	H2N-3151 –
Motor-1/2 HP 115/208-230-1-60 (Beater Motor) .....	HC151143	1	H2N-3151 –
Motor-Fan 50W 230V 50/60 HZ .....	HC151077-01	1	H2N-3151 –
Motor-Spindle 230v .....	HC151008	1	H2N-3151 –
Seal-Switch Boat .....	HC160512	1	H2N-3151 –
Nut-EL Stop #6-32 ZN .....	HC160199	4	I2O –
O-ring (Head) .....	HC160622	1	H2N-3151 –
O-ring (Mix Feed Tube) .....	HC160621	2	H2N-3151 –
O-ring (Mix Feed Tube) .....	HC160611	1	E2O –
O-ring (Pivot Post) .....	HC160555	2	H2N-3151 –

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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

All parts shown are for standard models designed for 208-230v/60Hz/1phase.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
O-ring (Plug) .....	HC160621	1	H2N-3151 –
O-ring (Plunger-Lower) .....	HC160582	1	H2N-3151 –
O-ring (Plunger-Upper) .....	HC160501	1	H2N-3151 –
Panel-Assy. Front .....	HC120436	1	H2N-3151 – E2O
Panel-Assy. Front .....	HC120610	1	E2O –
Panel-Assy. Hopper & Top .....	HC120428	1	H2N-3151 – E2O
Panel-Assy. Hopper & Top .....	HC120680	1	E2O – B2P
Panel-Assy. Hopper & Top .....	HC120804	1	B2P –
Panel-Assy. Dispense Spindle Brace .....	HC120565	1	A2O –
Panel-Dispense .....	HC140665	1	H2N-3151 – A2O
Panel-Rear .....	HC140657	1	H2N-3151 – E2O
Panel-Rear .....	HC140737	1	E2O –
Panel-Side LH (22-1/4" wide) .....	HC140659	1	H2N-3151 – E2O
Panel-Side LH (22-3/4" wide) .....	HC140659	1	E2O –
Panel-Side RH (22-1/4" wide) .....	HC140658	1	H2N-3151 – E2O
Panel-Side RH (22-3/4" wide) .....	HC140658	1	E2O –
Pin-Guide .....	HC135670	1	A2O –
Plug-Air Relief .....	HC196066	1	H2N-3151 –
Plunger-Dispensing .....	HC140713	1	H2N-3151 –
Post-Pivot .....	HC135182	1	H2N-3151 –
Pulley-Idler Tensioner .....	HC120588	1	H2N-3151 –
Receptacle-Snap In IED60320 .....	HC150629	1	I2O –
Relay-Compressor Start .....	HC151474	1	H2N-3151 –
Relay-Miniature DPDT 24V Coil .....	HC150097	1	H2N-3151 –
Rod-Actuator .....	HC138611	1	I2O –
Rod-Actuator .....	HC140724	1	E2O – I2O
Rod-Actuator .....	HC140791	1	H2N-3151 – E2O
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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

All parts shown are for standard models designed for 208-230v/60Hz/1phase.

PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Sanitizer-Stera-Sheen 4 lb. jar .....	HC158014A	1	H2N-3151 –
Sanitizer-Stera-Sheen Case/4-4 lb. Jars .....	HC158014	1	H2N-3151 –
Scale-Overrun .....	HC158049	1	H2N-3151 –
Screw-RDHM #6-32 x 2 ZN (Plunger Switch) .....	HC159973	4	I2O –
Screw-SK Set 5/16-18 x 3/8 BKOX .....	HC160033	2	H2N-3151 –
Screw-SK Set 1/4-20 x 1/4 ZN .....	HC160056	1	H2N-3151 –
Screw-TRPM #8-32 x 3/8 SST (Top Dispense Panel) .....	HC160025	2	H2N-3151 –
Screw-TRPM #10-24 x 1/2 SST (Bottom Dispense Panel & Trimstrip) .....	HC160076	6	H2N-3151 –
Screw-TRPM 1/4-20 x 1/2 SST (Front & Rear Panels) .....	HC160048	8	H2N-3151 –
Seal-Assy. Shaft Double (3 Piece) .....	HC115525	1	H2N-3151 –
Seal-Beater Shaft .....	HC160557	2	H2N-3151 –
Washer-Double Shaft Seal .....	HC137593	1	H2N-3151 –
Seal-Beater Shaft (1 Piece) .....	HC160567	1	H2N-3151 –
Seal-Switch Boot (Spindle) .....	HC160512	1	H2N-3151 –
Shaft-Drive .....	HC140655	1	H2N-3151 – E2O
Shaft-Drive .....	HC140824	1	E2O –
Sheave-Drive 1.344 PD J8 .....	HC140654	1	H2N-3151 –
Sheave-Driven .....	HC153614	1	H2N-3151 –
Sheet-Clean & Sanitize Compact Series .....	HC184646	1	H2N-3151 –
Shroud-Fan .....	HC140656	1	H2N-3151 –
Sleeve-Comp. Mtg. .....	HC151479	4	D2P –
Socket Miniature Relay DPDT .....	HC150098	1	H2N-3151 –
Spacer-Bearing (Rear Bearing) .....	HC140740	2	E2O –
Spindle-Assy. Kit (Optional) .....	HC120646	1	H2N-3151 –
Motor-Spindle 230v .....	HC151008	1	H2N-3151 –
Seal-Switch Boat .....	HC160512	1	H2N-3151 –
Spinner-Mixer .....	HC136454	1	H2N-3151 –
Switch-Push Button SPDT .....	HC150619	1	H2N-3151 –
Spinner-Mixer .....	HC136454	1	H2N-3151 –

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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Spring-Plunger Rod .....	HC162303	1	H2N-3151 –
Spring-Extension .....	HC162332	1	H2N-3151 – A2O
Spring-Extension .....	HC162331	1	A2O –
Stamping-Main (Rear Bearing) .....	HC153026	2	E2O –
Stamping-Retainer Plate (Rear Bearing) .....	HC153025	2	E2O –
Stop-Terminal Black End (Cover) .....	HC150594	1	H2N-3151 –
Stud-Assy. Cylinder 1-15/16" .....	HC114341	2	H2N-3151 –
Support-Assy Driptray .....	HC120513	1	H2N-3151 – E2O
Support-Driptray .....	HC140729	1	E2O –
Switch-Add/Out Float Sensor .....	HC161299	1	H2N-3151 – E2O
Switch-Assy Plunger .....	HC116613	1	H2N-3151 – I2O
Guide-Assy. Push Rod .....	HC115684	1	H2N-3151 – I2O
Spring-Plunger Rod .....	HC162303	1	H2N-3151 – I2O
Insulator-Switch .....	HC137893	1	H2N-3151 – I2O
Switch-Snap Button .....	HC150456	2	H2N-3151 – I2O
Switch-Assy Plunger .....	HC120767	1	I2O –
Guide-Assy. Push Rod .....	HC120768	1	I2O –
Insulator-Switch .....	HC137798	1	I2O –
Insulator-Switch .....	HC139175	1	I2O –
Nut-EL Stop #6-32 ZN .....	HC160199	4	I2O –
Screw-RDHM #6-32 x 2 ZN .....	HC159973	4	I2O –
Spring-Plunger Rod .....	HC162303	1	I2O –
Switch-Snap Button .....	HC150456	3	I2O –
Washer-1/2 x .196 x 1/16 .....	HC160157	8	I2O –
Switch-Level Float Sensor .....	HC161300	1	E2O –
Switch-Push Button SPDT (Spindle) .....	HC150619	1	H2N-3151
Switch-Snap Button (Plunger Switch) .....	HC150456	3	I2O –
Switch-Snap Button (Plunger Switch) .....	HC150456	3	H2N-3151 – I2O
Switch-Toggle DPDT Center Off (AUTO/OFF/CLEAN) .....	HC150463	1	H2N-3151 –
Switch-Toggle 3PDT Center Off (AUTO/OFF/CLEAN) .....	HC150465	1	H2N-3151 –
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# Alphabetized Parts List for Model CS700

**IMPORTANT:**

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PART DESCRIPTION	PART NUMBER	QTY	SERIAL NUMBER (FROM – TO)
Timer-Recycle Kit .....	HC120095	1	H2N-3151 –
Tool-O-Ring Removal .....	HC169374	1	H2N-3151 –
Transformer-75VA / 24VAC / MURD .....	IC574100325	1	H2N-3151 –
Transformer-Current .....	HC150572	1	H2N-3151 –
Tray-Drip (Black) .....	HC140717	1	H2N-3151 – E2O
Tray-Drip (Black) .....	HC196260	1	E2O –
Trimstrip-Assy. ....	HC120500	1	H2N-3151 – E2O
Trimstrip-Assy. ....	HC120627	1	E2O –
Tube-Assy. Drain .....	HC120339	1	H2N-3151 – E2O
Tube-Assy. Drain .....	HC120606	1	E2O –
Tube-Capillary & Strainer .....	HC155397	1	H2N-3151 –
Tube-Assy.Mix Feed .....	HC120666	1	H2N-3151 – I2O
Insert-Assy. Mix Feed .....	HC120664	1	H2N-3151 – I2O
O-ring .....	HC160611	1	H2N-3151 – I2O
O-ring .....	HC160621	1	H2N-3151 – I2O
Tube-Mix Feed .313 Orifice .....	HC140721	1	H2N-3151 – I2O
Tube-Assy.Mix Feed .281 .....	HC120797	1	I2O –
Insert-Assy. Mix Feed .....	HC120664	1	I2O –
O-ring .....	HC160611	1	I2O –
O-ring .....	HC160621	2	I2O –
Tube-Mix Feed .281 Orifice .....	HC140955	1	i2O –
Tube-Mix Feed .313 Orifice .....	HC140721	1	H2N-3151 – I2O
Tube-Mix Feed .281 Orifice .....	HC140955	1	I2O –
Valve-Access (HPCO) .....	HC155419	1	H2N-3151 –
Valve-Access (EPR) .....	HC155419	1	H2N-3151 –
Valve-Automatic Expansion .....	HC155490	1	H2N-3151 –
Valve-Core (HPCO) .....	HC155649	1	H2N-3151 –
Valve-EPR .....	HC155398	1	H2N-3151 –
Washer-1/2 x .196 x 1/16 (Plunger Switch) ..	HC160157	8	I2O –
Washer-Double Shaft Seal (3 Piece Seal) ....	HC137593	1	H2N-3151 –

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