



**Models PH71/PH84**  
**Heat Treatment**  
**Soft Serve Freezers**

**Operating Instructions**

056389-M



1/21/02

**Complete this page for quick reference when service is required:**

Taylor Distributor: \_\_\_\_\_

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

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

Service: \_\_\_\_\_

Parts: \_\_\_\_\_

Date of Installation: \_\_\_\_\_

**Information found on the data label:**

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

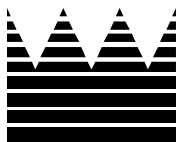
Electrical Specs: Voltage \_\_\_\_\_ Cycle \_\_\_\_\_

Phase \_\_\_\_\_

Maximum Fuse Size: \_\_\_\_\_ A

Minimum Wire Ampacity: \_\_\_\_\_ A





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**Note: Continuing research results in steady improvements; therefore, information in this manual is subject to change without notice.**

# Section 1

# To the Installer

**This machine is designed for indoor use only.**



**DO NOT** install the machine in an area where a water jet could be used. Failure to follow this instruction may result in serious electrical shock.

## Water Connections (Water Cooled Units Only)

An adequate cold water supply must be provided with a hand shut-off valve. On the underside rear of the base pan, two 3/8" I.P.S. (for single-head units) or two 1/2" I.P.S. (for double-head units) water connections for inlet and outlet have been provided for easy hook-up. 1/2" inside diameter water lines should be connected to the machine. (Flexible lines are recommended, if local codes permit.) Depending on local water conditions, it may be advisable to install a water strainer to prevent foreign substances from clogging the automatic water valve. There will be only one water "in" and one water "out" connection. **DO NOT** install a hand shut-off valve on the water "out" line! Water should always flow in this order: first, through the automatic water valve; second, through the condenser; and third, through the outlet fitting; to an **open trap drain**.

## Air Cooled Units

Air cooled units require a minimum of 3" (76 mm) of clearance around all sides of the freezer to allow for adequate air flow across the condensers. Failure to allow adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause permanent damage to the compressors.

## Electrical Connections

Each freezer requires one power supply. Check the data label on the freezer for fuse, circuit ampacity and electrical specifications. Refer to the wiring diagram provided inside of the electrical box, for proper power connections.

In the United States, this equipment is intended to be installed in accordance with the National Electrical Code (NEC), ANSI/NFPA 70-1987. The purpose of the NEC code is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard!

In all other areas of the world, equipment should be installed in accordance with the existing local codes. Please contact your local authorities.

Stationary appliances which are not equipped with a power cord and a plug or other device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 3 mm installed in the external installation.



**CAUTION: THIS EQUIPMENT MUST BE PROPERLY GROUNDED! FAILURE TO DO SO CAN RESULT IN SEVERE PERSONAL INJURY FROM ELECTRICAL SHOCK!**

Beater rotation must be clockwise as viewed looking into the freezing cylinder.



**Note:** The following procedures should be performed by a trained service technician.

To correct the rotation on a three-phase unit, interchange any two incoming power supply lines at freezer main terminal block only.

To correct rotation on a single-phase unit, change the leads inside the beater motor. (Follow the diagram printed on the motor.)

Electrical connections are made directly to the terminal block. The terminal block is provided in the main control box located behind the service panel.

050816

## Section 2

## To the Operator

The freezer you have purchased has been carefully engineered and manufactured to give you dependable operation. The Taylor Models PH71/PH84, freezers, when properly operated and cared for, will produce a consistent quality product. Like all mechanical products, this machine will require cleaning and maintenance. A minimum amount of care and attention is necessary if the operating procedures outlined in this manual are followed closely.

This Operator's Manual should be read before operating or performing any maintenance on your equipment.

Your Taylor freezer will NOT eventually compensate and correct for any errors during the set-up or filling operations. Thus, the initial assembly and priming procedures are of extreme importance. It is strongly recommended that all personnel responsible for the equipment's operation review these procedures in order to be properly trained and to make sure that there is no confusion.

In the event that you should require technical assistance, please contact your local authorized Taylor Distributor.



If the crossed out wheeled bin symbol is affixed to this product, it signifies that this product is compliant with the EU Directive as well as other similar legislation in effect after August 13, 2005. Therefore, it must be collected separately after its use is completed, and cannot be disposed as unsorted municipal waste.

The user is responsible for returning the product to the appropriate collection facility, as specified by your local code.

For additional information regarding applicable local laws, please contact the municipal facility and/or local distributor.

### Compressor Warranty Disclaimer

The refrigeration compressor(s) on this machine are warranted for the term indicated on the warranty card accompanying this machine. However, due to the Montreal Protocol and the U.S. Clean Air Act Amendments of 1990, many new refrigerants are being tested and developed, thus seeking their way into the service industry. Some of these new refrigerants are being advertised as drop-in replacements for numerous applications. It should be noted that, in the event of ordinary service to this machine's refrigeration system, **only the refrigerant specified on the affixed data label should be used.** The unauthorized use of alternate refrigerants will void your compressor warranty. It will be the owner's responsibility to make this fact known to any technician he employs.

It should also be noted that Taylor does not warrant the refrigerant used in its equipment. For example, if the refrigerant is lost during the course of ordinary service to this machine, Taylor has no obligation to either supply or provide its replacement either at billable or unbillable terms. Taylor does have the obligation to recommend a suitable replacement if the original refrigerant is banned, obsoleted, or no longer available during the five year warranty of the compressor.

The Taylor Company will continue to monitor the industry and test new alternates as they are being developed. Should a new alternate prove, through our testing, that it would be accepted as a drop-in replacement, then the above disclaimer would become null and void. To find out the current status of an alternate refrigerant as it relates to your compressor warranty, call the local Taylor Distributor or the Taylor Factory. Be prepared to provide the Model/Serial Number of the unit in question.

# Section 3

# Safety

We at Taylor Company are concerned about the safety of the operator when he or she comes in contact with the freezer and its parts. Taylor has gone to extreme efforts to design and manufacture built-in safety features to protect both you and the service technician. As an example, warning labels have been attached to the freezer to further point out safety precautions to the operator.



**IMPORTANT - Failure to adhere to the following safety precautions may result in severe personal injury or death. Failure to comply with these warnings may damage the machine and its components. Component damage will result in part replacement expense and service repair expense.**

## To Operate Safely:



**DO NOT** operate the freezer without reading this operator's manual. Failure to follow this instruction may result in equipment damage, poor freezer performance, health hazards, or personal injury.



- **DO NOT** operate the freezer unless it is properly grounded.
- **DO NOT** operate the freezer with larger fuses than specified on the freezer data label.
- **DO NOT** attempt any repairs unless the main power supply to the freezer has been disconnected.

Failure to follow these instructions may result in electrocution. Contact your local authorized Taylor Distributor for service.



**DO NOT** use a water jet to clean or rinse the freezer. Failure to follow this instruction may result in serious electrical shock.



- **DO NOT** allow untrained personnel to operate this machine.
- **DO NOT** operate the freezer unless all service panels and access doors are restrained with screws.
- **DO NOT** remove the door, beater, scraper blades, or drive shaft unless the power switch is in the OFF position.

Failure to follow these instructions may result in severe personal injury from hazardous moving parts.



- **DO NOT** put objects or fingers in door spout.
- **USE EXTREME CAUTION** when removing the beater assembly.

Failure to follow these instructions may result in contaminated product or personal injury from blade contact.



**DO NOT** draw product during the HEAT cycle because of high product temperatures.



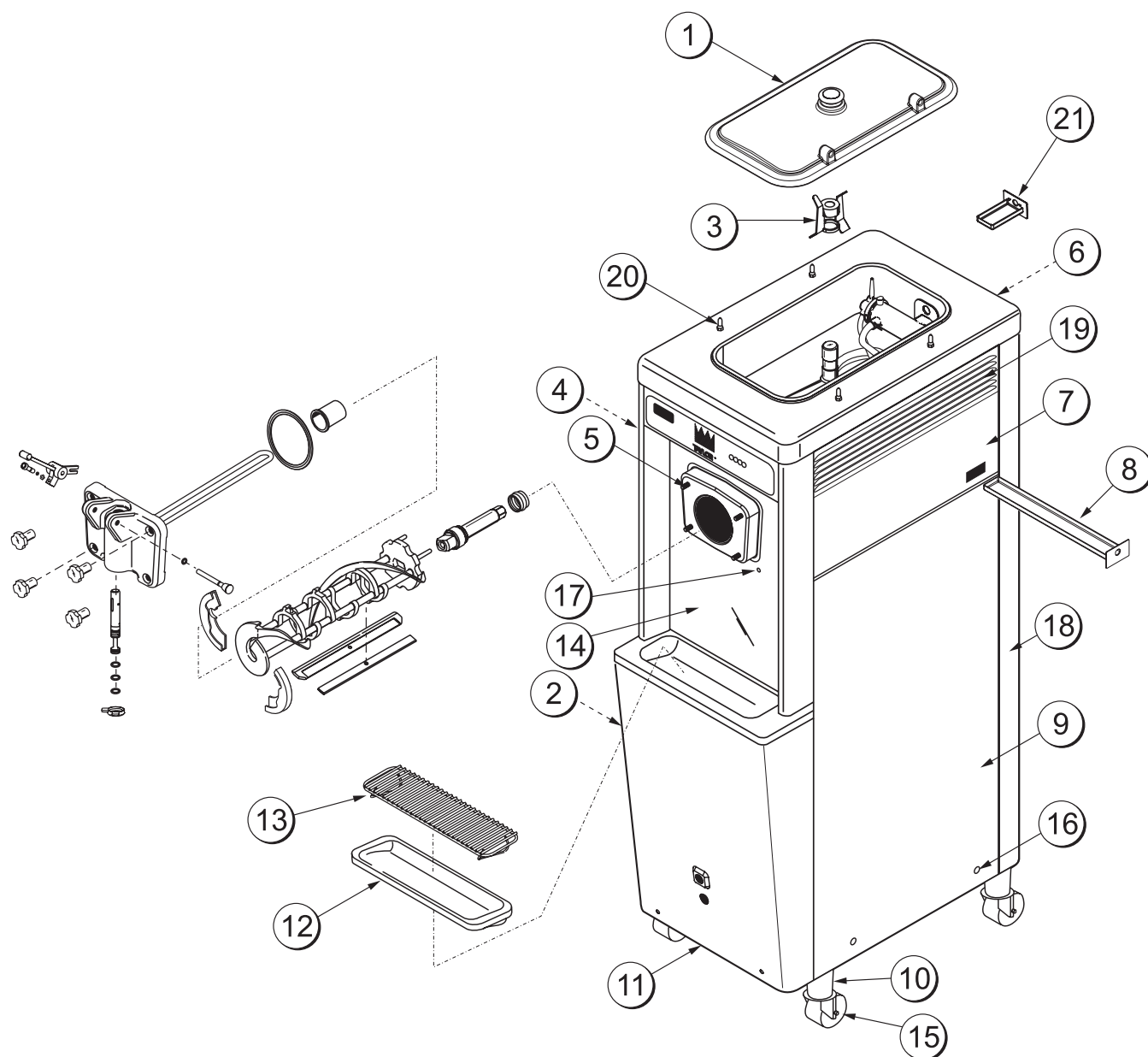
This freezer must be placed on a level surface. Failure to comply may result in personal injury or equipment damage.

**DO NOT** obstruct air intake and discharge openings: 3" (76 mm) minimum air space around all sides. Install the deflector provided to prevent recirculation of warm air. Failure to follow this instruction may cause poor freezer performance and damage to the machine.

**NOISE LEVEL:** Airborne noise emission does not exceed 78 dB(A) when measured at a distance of 1.0 meter from the surface of the machine and at a height of 1.6 meters from the floor.

# Section 4 Operator Parts Identification

PH71





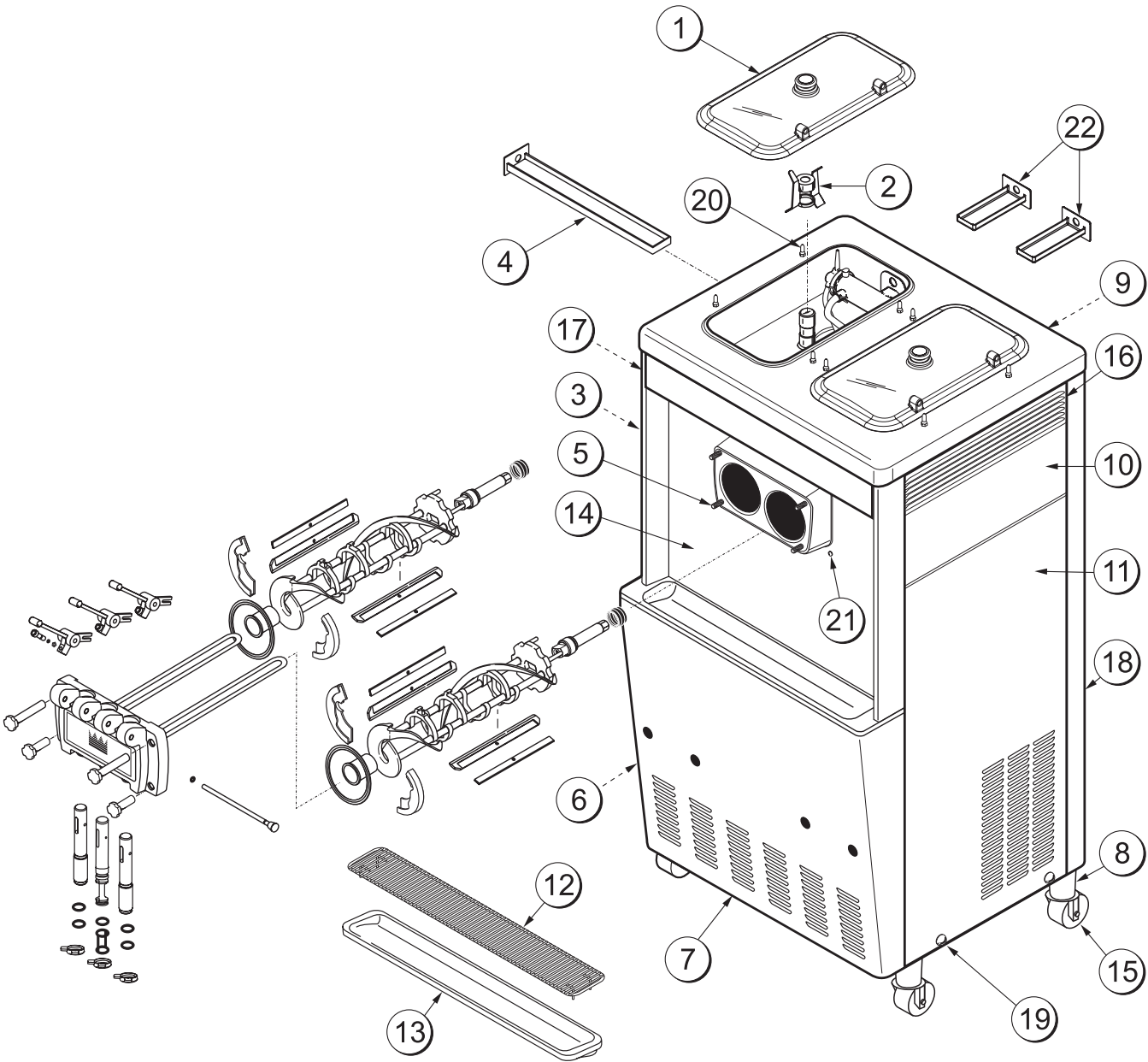
## PH71 Parts Identification

ITEM	DESCRIPTION	PART NO.
1	COVER-HOPPER	053809
2	PANEL A.-LOWER SIDE	X39075-SER
3	AGITATOR A. *HT*20 QT.	X44797
4	PANEL-UPPER-SIDE-LEFT	024426
5	STUD-NOSE CONE	022822
6	PANEL-REAR	048203
7	PANEL-UPPER SIDE RIGHT	028823
8	PAN-DRIP 11-5/8 LONG	027503
9	PANEL A.-LOWER SIDE	X24424-SER
10	ADAPTOR A.-CASTER	X18915
11	PANEL-SERVICE	045637

ITEM	DESCRIPTION	PART NO.
12	TRAY-DRIP 14.8	046275
13	SHIELD-SPLASH-WIRE	046177
14	PANEL A.-FRONT	X45630
15	CASTER-SWV 5/8 STEM 4IN	018794
16	SCREW	011694
17	CARRIAGE BOLT	012347
18	TRIM-REAR CORNER-RIGHT	046391
19	LOUVER SIDE-R&L	017471
20	PIN-RETAINER-HOPPER CVR	043934
21	PAN-DRIP	048435
*22	TRIM-REAR CORNER-LEFT	046390

\*NOT SHOWN

**PH84**



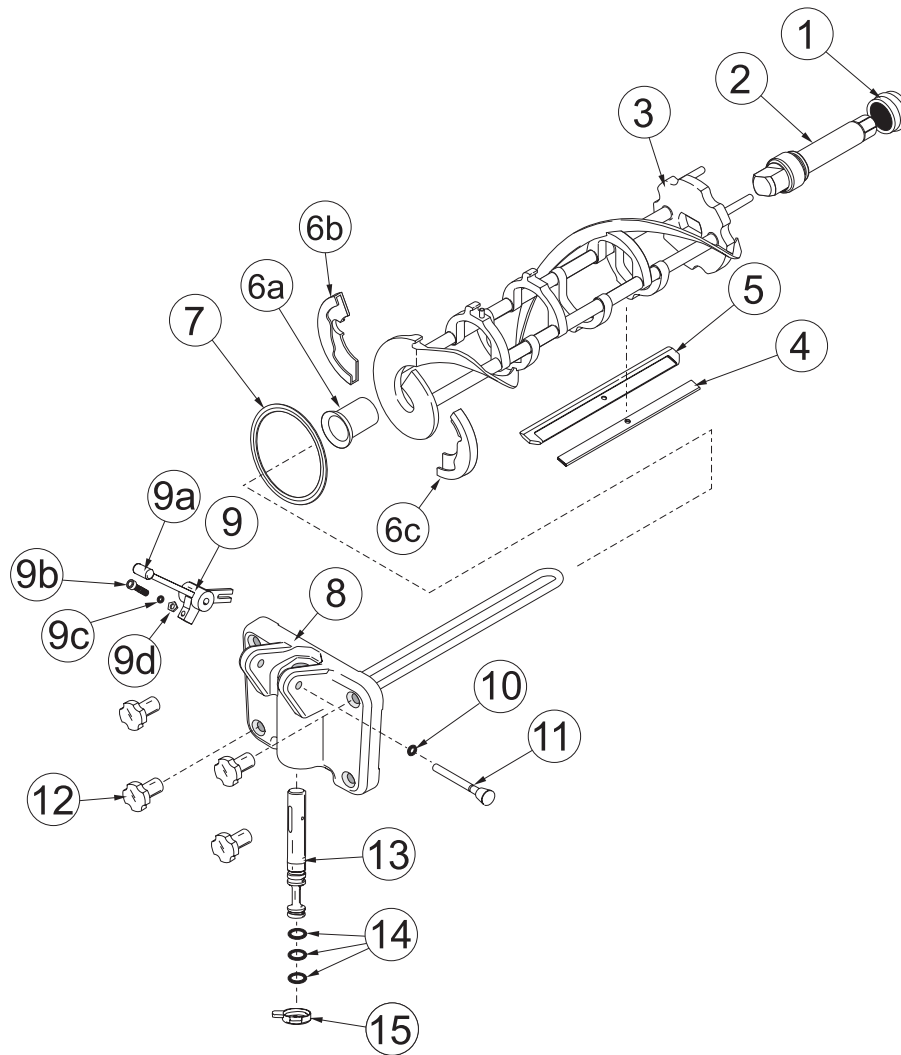
## PH84 Parts Identification

ITEM	DESCRIPTION	PART NO.
1	COVER-HOPPER	053809
2	AGITATOR A. *HT*20 QT.	X44797
3	PANEL-UPPER SIDE LEFT	028822
4	PAN-DRIP 17-1/4"LONG	027504
5	STUD-NOSE CONE	022822
6	PANEL A.-SIDE LOWER LEFT	X46447-SER
7	PANEL-SERVICE	046172
8	ADAPTOR A.-CASTER	X18915
9	PANEL-REAR	051076
10	PANEL-UPPER SIDE RIGHT	028823
11	PANEL A.-SIDE LOWER RIGHT	X46448-SER
12	SHIELD-SPLASH-WIRE	046170

ITEM	DESCRIPTION	PART NO.
13	TRAY-DRIP 22-13/16 X 5-1/8	046171
14	PANEL A.-FRONT	X46167
15	CASTER-SWV 5/8 STEM 4IN	018794
16	LOUVER-SIDE-RIGHT	017471
17	LOUVER-SIDE-LEFT	028288
18	TRIM-REAR-CORNER-RIGHT	013663
19	SCREW	011694
20	PIN-RETAINER-HOPPER CVR	043934
21	CARRIAGE BOLT	012347
22	PAN-DRIP	048204
*23	TRIM-REAR-CORNER-LEFT	013761

\*NOT SHOWN

## Beater Door Assembly - PH71

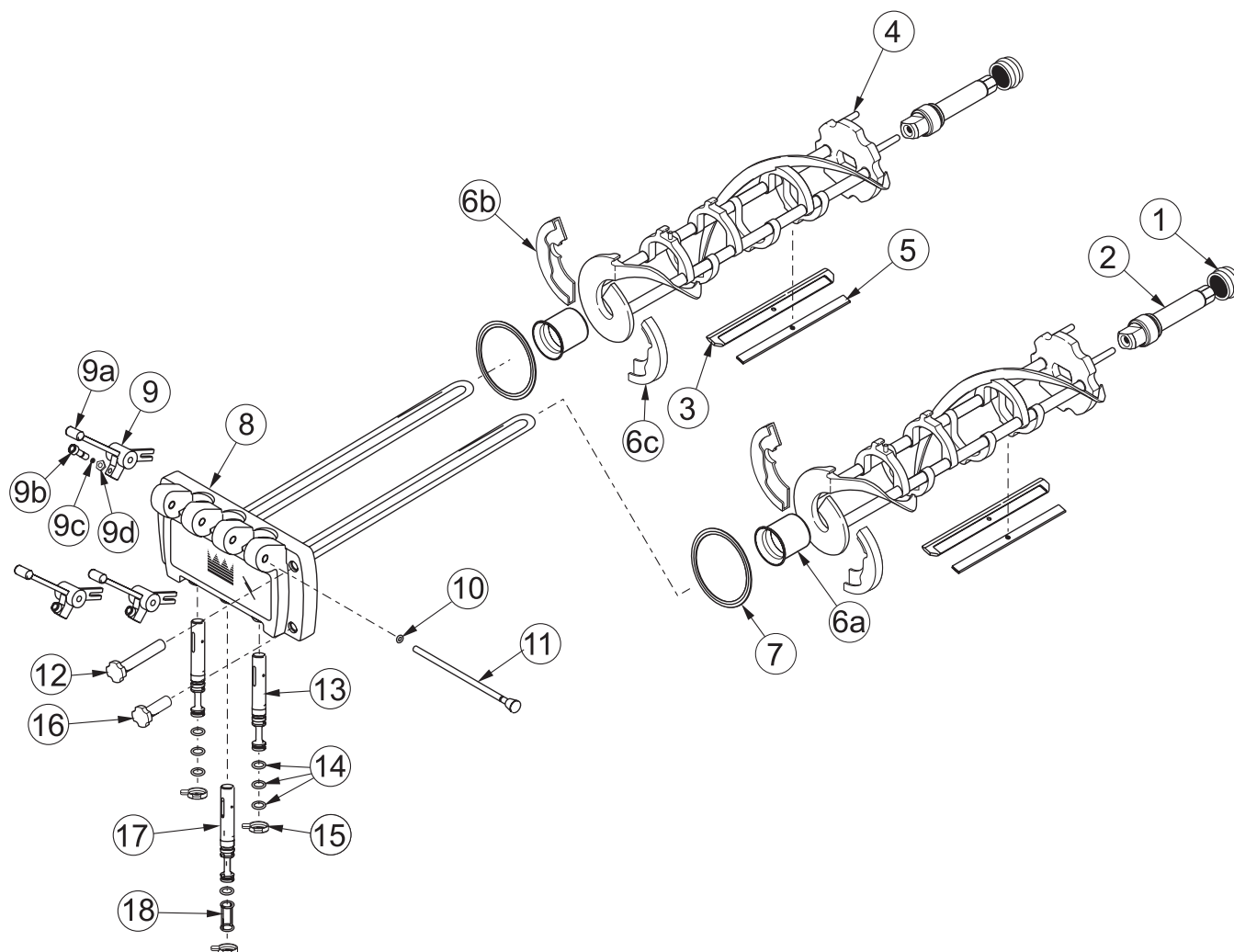


ITEM	DESCRIPTION	PART NO.
1	SEAL-DRIVE SHAFT	032560
2	DRIVE SHAFT	032564
3	BEATER A.	X46231
4	CLIP-SCRAPER BLADE	046236
5	SCRAPER BLADE	046235
*6a	BEARING-FRONT	050348
6b	SHOE-FRONT HELIX-REAR	050346
6c	SHOE-FRONT HELIX-FRONT	050347
7	GASKET-DOOR	048926
8	FREEZER DOOR A.	X51531-9
9	DRAW HANDLE-ADJ.	X55095

ITEM	DESCRIPTION	PART NO.
9a	DRAW HANDLE	044197
9b	SCREW-ADJUSTMENT	055092
9c	O-RING-ADJ. SCREW	015872
9d	NUT-5/16 -24 JAM	029639-BLK
10	O-RING-PIVOT PIN	016272
11	PIVOT PIN A.	X22820
12	HAND SCREW (STUD NUT)	021508
13	DRAW VALVE A.	X33582
14	O-RING-DRAW VALVE	014402
15	DESIGN CAP	014218

\*USED W/FRONT HELIX SHOES 050346 & 050347  
(ORDER KIT X50350)

## Beater Door Assembly - PH84



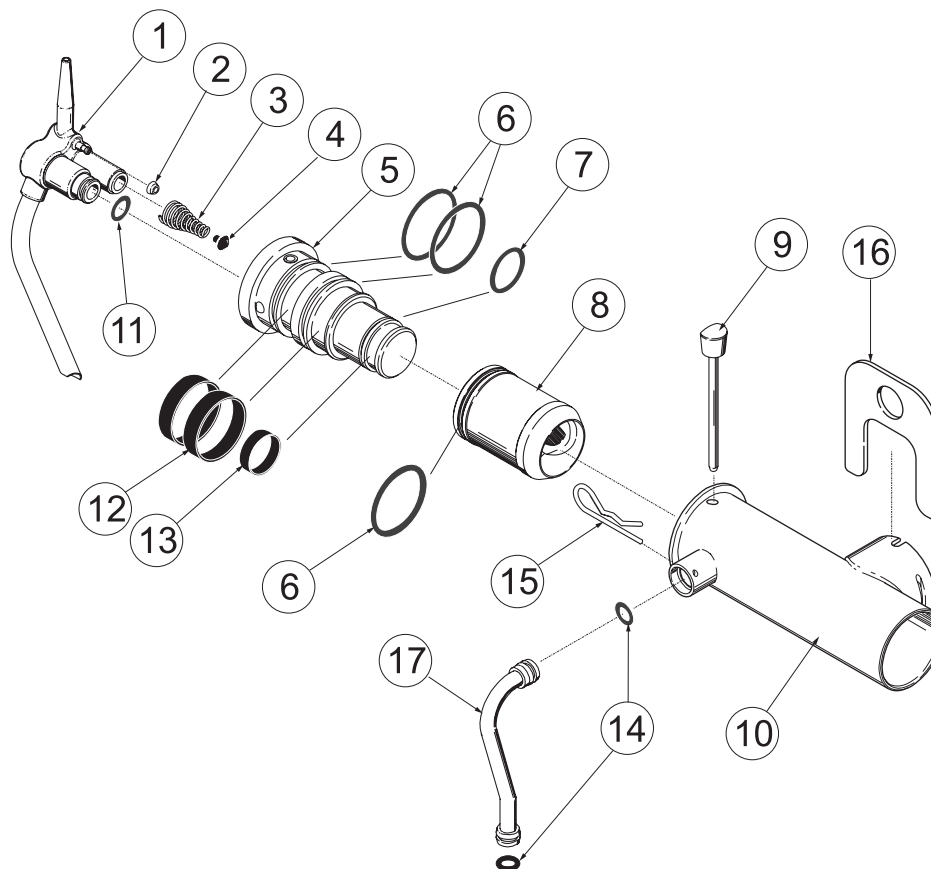
ITEM	DESCRIPTION	PART NO.
1	SEAL-DRIVE SHAFT	032560
2	SHAFT-BEATER	032564
3	BLADE-SCRAPER	046235
4	BEATER ASSEMBLY	X46231
5	CLIP-SCRAPER-BLADE	046236
*6a	BEARING-FRONT	050348
6b	SHOE-FRONT HELIX-REAR	050346
6c	SHOE-FRONT HELIX-FRONT	050347
7	GASKET-DOOR HT 4"-DOUBLE	048926
8	DOOR-3 SPT	X51532-11
9	HANDLE A.-DRAW-ADJ. STLS	X33687
9a	HANDLE-ADJUSTABLE	028804

ITEM	DESCRIPTION	PART NO.
9b	SCREW-ADJUSTMENT-5/16-24	033662
9c	O-RING-1/4 OD X .070W 50	015872
9d	NUT-JAM 5/16-24	029639-BLK
10	O-RING-5/16 OD X .070W	016272
11	ROD A.-PIVOT	X20683
12	NUT-STUD LONG	034382
13	VALVE A.-DRAW*SELF CLEAN	X33582
14	O-RING-7/8 OD X .103W	014402
15	CAP-DESIGN-1.010"ID-6 POINT	014218
16	NUT-STUD SHORT	034383
17	VALVE A.-DRAW CENTER	X37376
18	SEAL-DRAW VALVE	034698

\*USED W/FRONT HELIX SHOES 050346 & 050347  
(KIT X50350)

## Pump Assembly X45316-B

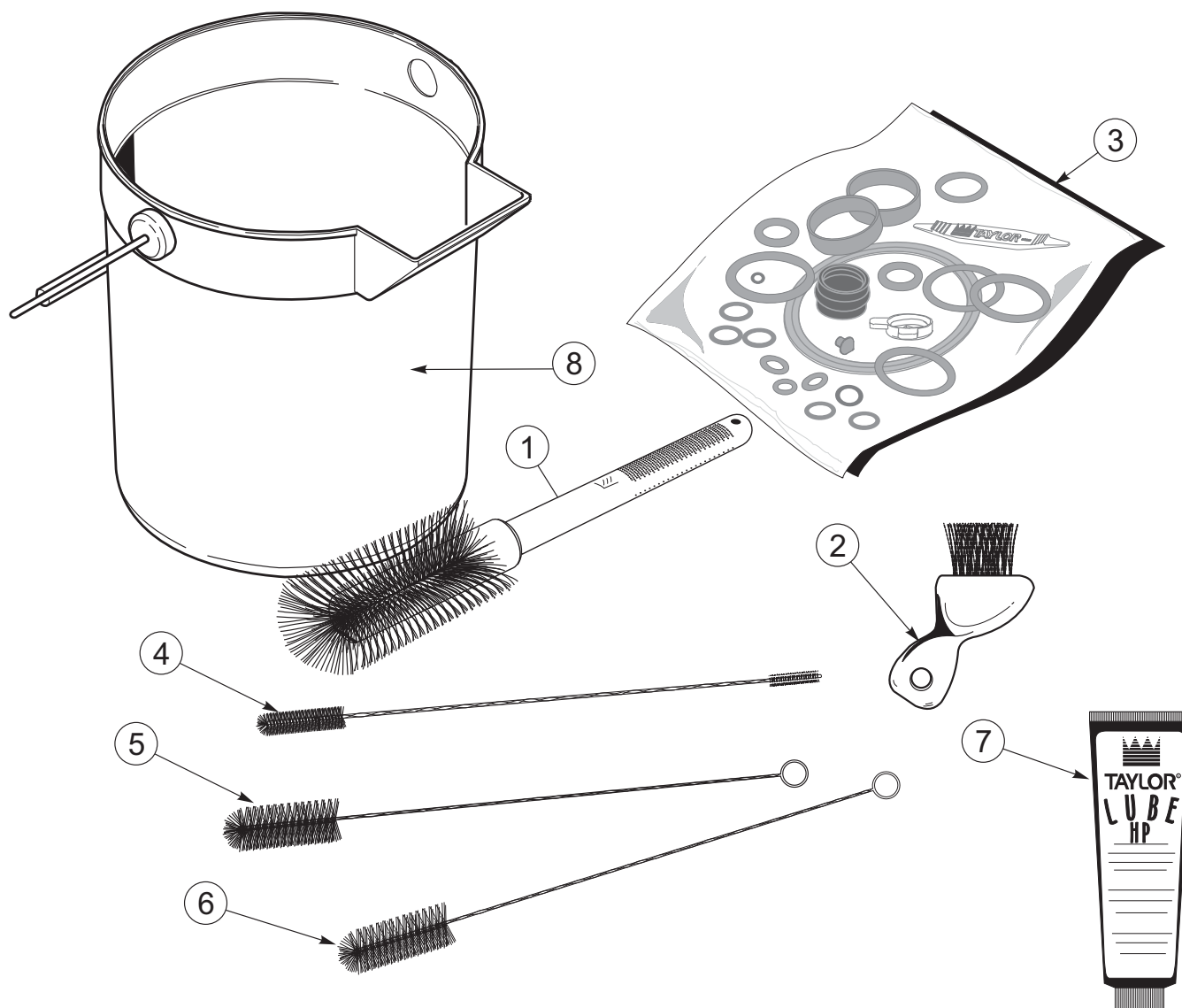
### PH71/PH84



ITEM	DESCRIPTION	PART NO.
1	TUBE A.-MIX INLET	X45318
2	SEAL-AIR INLET FITTING	045327
3	SPRING	022456
4	POPPET	022473
5	BODY A.-COAX VALVE B	X46860-B
6	O-RING-PISTON/LVB (3)	020051
7	O-RING-LVB	018664
8	PISTON-COAX B	045319-B
9	PIN A.-COAX PUMP	X36950
10	CYLINDER A.-PUMP	X44755

ITEM	DESCRIPTION	PART NO.
11	O-RING-MIX INLET TUBE	015835
12	RING-CHECK-LVB (2)	020050
13	RING-CHECK-LVB	033215
SEPARATE ITEMS:		
14	O-RING-FEED TUBE	016132
15	PIN-COTTER-HAIRPIN	044731
16	CLIP-MIX PUMP RETAINER	044641
17	TUBE A.-PUMP FEED (PH71)	X44666
	TUBE A.-PUMP FEED-L (PH84)	X44662
	TUBE A.-PUMP FEED-R (PH84)	X44664

## Accessories



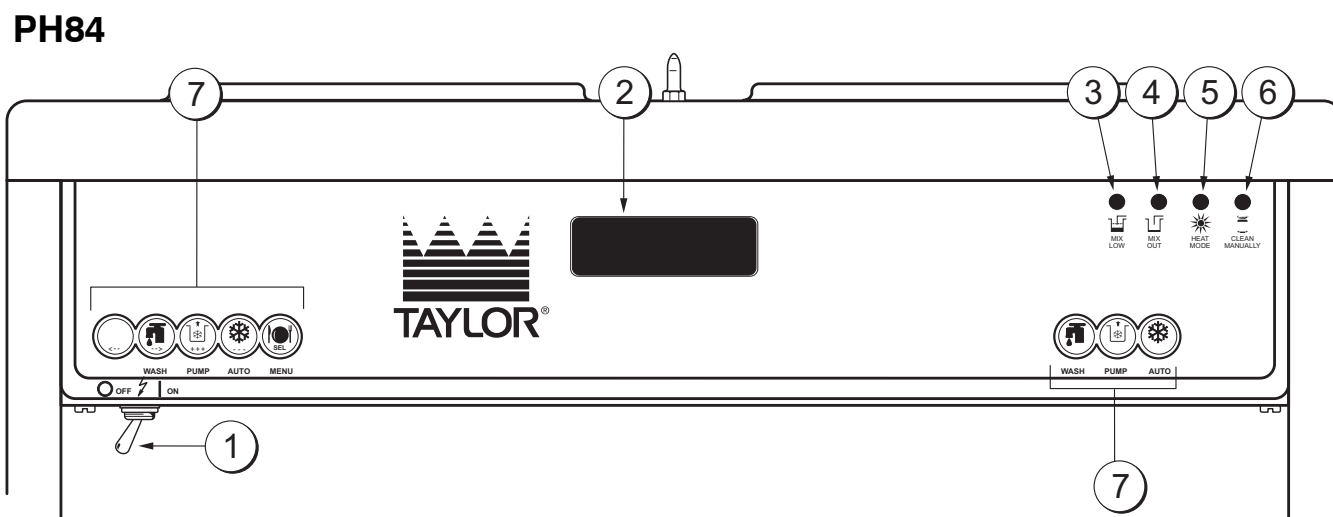
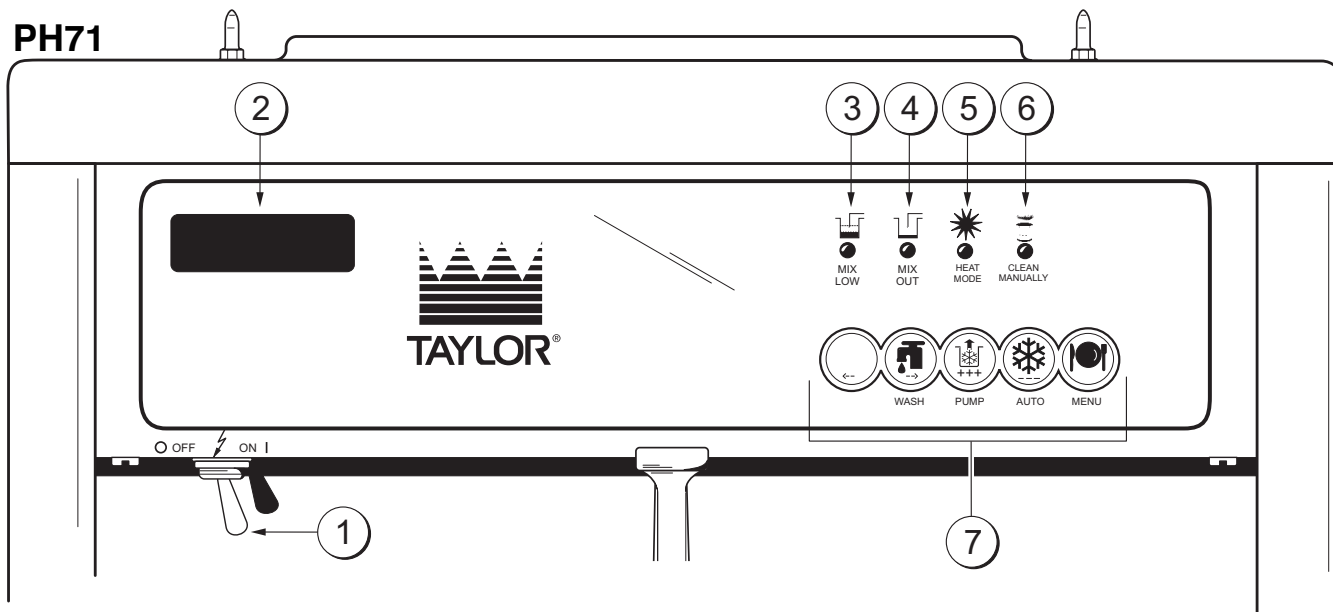
ITEM	DESCRIPTION	PART NO.
1	BRUSH-MIX PUMP BODY-3 X 7	023316
2	BRUSH-END-DOOR-SPOUT	039719
3	KIT A.-TUNE UP-PH71	X49463-8
	KIT A.-TUNE UP-PH84	X49463-1
4	BRUSH-DOUBLE ENDED	013072

ITEM	DESCRIPTION	PART NO.
5	BRUSH-REAR BRG 1IN.D X 2IN	013071
6	BRUSH-DRAW VALVE 1"ODX2"	013073
7	LUBRICANT-TAYLOR HI PERF.	048232
8	PAIL-10 QT.	013163
*	SANITIZER-KAY-5-125-PKTS	041082

\*NOT SHOWN

## Section 5

## Important: To the Operator



ITEM	DESCRIPTION
1	POWER SWITCH (TOGGLE)
2	LCD DISPLAY
3	MIX LOW INDICATOR LIGHT
4	MIX OUT INDICATOR LIGHT












ITEM	DESCRIPTION
5	HEAT MODE INDICATOR LIGHT
6	CLEAN MANUALLY INDICATOR LIGHT
7	KEYPADS



## Symbol Definitions

To better communicate in the International arena, the words on many of our operator switches and buttons have symbols to indicate their functions. Your Taylor equipment is designed with these International symbols.

The following chart identifies the symbol definitions used on the operator switches.

	= AUTO
	= ON
	= OFF
	= WASH
	= PUMP
	= MENU
	= MIX LOW
	= MIX OUT
	= HEAT MODE
	= CLEAN MANUALLY/BRUSH CLEAN
	= POWER

## Power Switch

When placed in the ON position, the power switch allows softech control panel operation.

## Liquid Crystal Display

The Liquid Crystal Display (LCD) is located on the front control panel. The LCD is used to show the current mode of operation, and whether or not there is sufficient mix.

## Indicator Lights

**MIX LOW** - When the MIX LOW light begins to flash, it indicates the mix hopper has a low supply of mix and should be refilled as soon as possible. On double head units, the word "LOW" will also display on the LCD indicator next to the word "MIX".

**MIX OUT** - When the MIX OUT light begins to flash, it indicates the mix hopper has been almost completely exhausted and has an insufficient supply of mix to operate the freezer. At this time, the AUTO mode is locked out and the freezer will be placed in the STANDBY mode. To initiate the refrigeration system, add mix to the mix hopper and press the AUTO key. The freezer will automatically begin operation.

**HEAT MODE** - When the HEAT MODE light is flashing, it indicates that the freezer is in the process of a heat cycle.

**CLEAN MANUALLY** - When the CLEAN MANUALLY light is flashing, it indicates that the machine must be disassembled and brush cleaned within 24 hours.

When the MIX LOW, MIX OUT, HEAT MODE, and CLEAN MANUALLY indicator lights are all flashing, this signifies a locked condition.

## Reset Mechanism

The reset button is located in the service panel. The Model PH84 has two reset mechanisms, one for each side of the freezer.

The reset mechanism protects the beater motor from an overload condition. Should an overload occur, the reset mechanism will trip. To properly reset the freezer place the power switch in the OFF position. Press the reset button firmly. Turn the power switch to the ON position. Clear the fault. Press the WASH key and observe the freezer's performance. Open the side access panel to check if the beater motor is turning the drive shaft in a clockwise (from operator end) direction without binding.



**Warning: Do not use metal objects to press the reset button. Failure to comply may result in severe personal injury or death.**

If it is turning properly, press the WASH key to cancel cycle. Press the AUTO key on both sides of the machine to resume normal operation. If the freezer shuts down again, contact your authorized service technician.

# Air/Mix Pump Reset Mechanism

The reset button for the pump is located in the service panel. The reset protects the pump from an overload condition. Should an overload occur, the reset mechanism will trip. To reset the pump, press the reset button firmly. The Model PH84 has two pump reset mechanisms, one for each side of the freezer.



**Warning:** Do not use metal objects to press the reset button. Failure to comply may result in severe personal injury or death.

# Adjustable Draw Handle

This unit features an adjustable draw handle to provide the best portion control, giving a better, consistent quality to your product and controlling costs. The draw handle should be adjusted to provide a flow rate of 5 to 7-1/2 oz. of product by weight per 10 seconds. To INCREASE the flow rate, turn the screw COUNTERCLOCKWISE, and CLOCKWISE to DECREASE the flow rate. In addition, for purposes of SANITIZING and RINSING, the flow rate can be increased by removing the pivot pin and placing the restrictive bar on the TOP. When drawing product, **always** have the restrictive bar on the BOTTOM.

**IMPORTANT:** Once the draw rate is set, tighten the lock nut with a wrench.

# Operating Screen Descriptions

When the machine is powered the system will initialize. The screen will display "INITIALIZING". There will be four types of data the system will check: LANGUAGE, SYSTEM DATA, CONFIG DATA, and LOCKOUT DATA. During the INITIALIZING... LANGUAGE screen, the alarm will be on. If the system data, configuration data, or lockout history data has become corrupt, the following screen will alert the operator that the system settings may have been changed.

NVRAM FAULT  
RESET TO DEFAULTS  
PRESS SEL KEY

Once the system has initialized the SAFETY TIMEOUT screen is displayed and the alarm is turned on.

SAFETY TIMEOUT  
ANY KEY ABORTS

This screen will be displayed, with the alarm on, for 60 seconds or until any key is pressed.

After the safety timeout has been completed, and the power switch is OFF, one of the following screens is displayed.

The first screen is displayed if the machine is not in a brush clean state. If any of the requirements for a brush clean have not been met, the time displayed will remain at 5:00 minutes.

## PH71 Screen:

POWER SWITCH OFF

TIME: 4:40  
HOPPER: 62.1  
BARREL: 67.7

## PH84 Screen:

POWER SWITCH OFF		
OUT	TIME: 4:40	OUT
68.5	HOPPER	62.1
69.5	BARREL	67.7

When all the requirements for a brush cleaning are met, and the five minutes expire, the screen will change to the second screen, which is the standard power switch OFF screen.

POWER SWITCH OFF  
- - - - -  
UNIT CLEANED

When the power switch is set in the ON position, the system mode of operation screen is displayed. In this example, the machine is ON, but no mode of operation has been selected. The second line of the display indicates whether there is a sufficient supply of mix in the hopper or if there is a LOW or OUT mix condition

(PH84 only). The third line of the display shows the temperature of the mix hopper. After pressing the AUTO key, the last line of the display shows the month and date (MM = month, DD = day) that the machine needs to be disassembled and brush cleaned.

#### PH71 Screen:

MODE: OFF		
HOPPER TEMP: 40.0F		
BRUSH CLEAN ON: MM/DD		

#### PH84 Screen:

OFF	:MODE:	OFF
OK	:MIX:	OK
40.0F	HOPPER	40.0F
BRUSH CLEAN ON: MM/DD		

The next display indicates the freezer is operating in two different modes. The following information is given:

The machine is operating in the WASH and PUMP modes, the temperature of the mix hopper is 40°F (4.4°C), and the machine needs to be brush cleaned on October 31st.

#### PH71 Screen:

MODE: WSH-PMP		
HOPPER TEMP: 40.0 F		
BRUSH CLEAN ON: 10/31		

#### PH84 Screen:

The next display indicates the freezer is operating in 3 different modes. The following information is given:

The left side of the freezer is operating in the STANDBY mode, and the mix level in the hopper is OUT. The right side is operating in the WASH and PUMP modes, and the mix level in the hopper is LOW. The temperature of the mix in both hoppers is 40°F (4.4°C.), and the machine needs to be brush cleaned on October 31st.

STANDBY	:MODE:	WSH-PMP
OUT	:MIX:	LOW
40.0F	HOPPER	40.0F
BRUSH CLEAN ON: 10/31		

The following displays pertain to the HEAT cycle:

While in the heating phase, you will see this display. It shows the present temperature of the hopper.

#### PH71 Screen:

MODE: HEAT		
PHASE: HEAT		
HOPPER TEMP: 140.0 F		
BRUSH CLEAN ON: MM/DD		

#### PH84 Screen:

HEAT	:MODE:	HEAT
HEAT	:PHASE:	HEAT
140.0F	HOPPER	140.0F
BRUSH CLEAN ON: MM/DD		

The mix temperature must be raised above 151°F (66.1°C) within 90 minutes or the freezer will be locked in STANDBY, and the cycle failure display will appear.

In the example, the hopper temperature is 140°F (60°C). The phase shows that the machine is in the heat phase of the heat treatment cycle.

When the heating phase is complete, the freezer goes into the holding phase of the cycle. The holding phase will hold the temperature above 151°F (66.1°C) for a minimum of 30 minutes.

In this example, the hopper temperature is 151°F (66.1°C).

#### PH71 Screen:

MODE: HEAT		
PHASE: HOLD		
HOPPER TEMP: 151.0 F		
BRUSH CLEAN ON: MM/DD		

#### PH84 Screen:

HEAT	:MODE:	HEAT
HOLD	:PHASE:	HOLD
151.0F	HOPPER	151.0F
BRUSH CLEAN ON: MM/DD		

The final phase of the heat treatment cycle is the cooling phase. Now the freezer must cool the mix below 41°F (5°C). If the product fails to cool in two hours, the freezer will lock out.

This example illustrates that the temperature is being lowered, but has not yet reached the set point.

#### PH71 Screen:

MODE: HEAT
PHASE: COOL
HOPPER TEMP: 55.0 F
BRUSH CLEAN ON: MM/DD

#### PH84 Screen:

HEAT	:MODE:	HEAT
COOL	:PHASE:	COOL
55.0F	HOPPER	55.0F
BRUSH CLEAN ON:	MM/DD	

The entire heat treatment cycle must be completed in four hours.

When the entire heat cycle has been completed, the normal display will appear, showing the machine in the STANDBY mode. The machine may now be placed in the AUTO mode or left in the STANDBY mode.

#### PH71 Screen:

MODE: STANDBY
HOPPER TEMP: 41.0 F
BRUSH CLEAN ON: MM/DD

#### PH84 Screen:

STANDBY	:MODE:	STANDBY
OK	:MIX:	OK
41.0F	HOPPER	41.0F
BRUSH CLEAN ON:	MM/DD	

**Hard Lock:** There are two causes for a hard lock:

1. Fourteen days have elapsed since the last brush cleaning. The following screen will be displayed.

14 DAY TIMEOUT CLEANING REQ'D FREEZER LOCKED PRESS SEL KEY
---

2. There has been a thermistor failure (freezing cylinder, hopper, or glycol) during the heat treatment process.

SYSTEM FAULT SERVICE REQ'D FREEZER LOCKED PRESS SEL KEY
--

All four LED's on the front of the freezer will light. Press the SEL key.

The next display is the screen which will appear after the failure message. To comply with health codes, heat treatment system freezers **must** complete a heat treatment cycle daily, and **must** also be brush cleaned every 14 days. Brush cleaning is the normal disassembly and cleaning procedures. Failure to follow these guidelines will cause the control to lock the freezer out of the AUTO mode. Press the WASH key.

NO AUTO OPERATION ALLOWED UNTIL BRUSH CLEANING PRESS WASH KEY
--

The next display is the screen which will appear after the brush cleaning message and illustrates that the control is in the OFF mode and the machine needs to be disassembled and brush cleaned.

#### PH71 Screen:

MODE: OFF
HOPPER TEMP: 41.0 F
FREEZER LOCKED

#### PH84 Screen:

OFF	:MODE:	OFF
OK	:MIX:	OK
41.0F	HOPPER	41.0F
FREEZER LOCKED		

**Soft Lock:** If a heat treatment cycle has not been **initiated** within the last 24 hours, all four LED's on the front of the machine will light and a message will appear on the LCD. Line 3 of the LCD will indicate the reason the message appears. Following are the variable messages which will appear on line 3:

1. **POWER SWITCH OFF:** Power switch was in the OFF position.
2. **MIX OUT PRESENT:** There was mix out condition present.
3. **AUTO OR STANDBY OFF:** The unit was not in the AUTO or STANDBY mode.
4. **NO HEAT CYCLE TRIED:** A heat treatment cycle was not attempted in the last 24 hours. (AUTO HEAT TIME was advanced, or a power loss was experienced at the time the cycle was to occur, or a heat cycle failure not due to a thermistor failure.)

**NO HEAT TREAT START  
BECAUSE  
VARIABLE MESSAGE  
PRESS SEL KEY**

If the following screen appears, a soft lock has occurred **during** the heat treatment cycle.

**HEAT TREAT CYCLE  
FAILURE  
FREEZER LOCKED  
PRESS SEL KEY**

If the temperature of the product has not fallen below 41°F (5°C) by the end of the COOL cycle, the following screen will appear.

**PRODUCT OVER TEMP  
FREEZER LOCKED  
PRESS SEL KEY**

Press the SEL key to advance to the next display.

When one of these messages appears, automatic freezer operation cannot take place until the freezer is disassembled and brush cleaned or has completed a heat treatment cycle. The next display will instruct the operator to start a heat treatment cycle manually (by

pressing the AUTO key), or to disassemble and brush clean the freezer. If the AUTO key is pressed, the freezer will automatically start the heat treatment cycle and only the heat cycle LED will light.

**NO AUTO OPERATION  
ALLOWED. PRESS  
AUTO FOR HEAT CYCLE  
WASH TO BRUSH CLEAN**

If the WASH key is pressed, the next display will appear and the freezer will have to be disassembled and brush cleaned.

#### PH71 Screen:

**MODE: OFF**  
  
**HOPPER TEMP: 41.0F  
FREEZER LOCKED**

#### PH84 Screen:

<b>OFF</b>	<b>:MODE:</b>	<b>OFF</b>
<b>OK</b>	<b>:MIX:</b>	<b>OK</b>
<b>41.0F</b>	<b>HOPPER</b>	<b>41.0F</b>
<b>FREEZER LOCKED</b>		

Once the freezer is unlocked by starting a heat treatment cycle, only the heat cycle LED will light. If the freezer is unlocked by brush cleaning, the mix low and mix out LED's will light.

## Operator Menu

The OPERATOR MENU is used to enter the operator function displays. To access the OPERATOR MENU, simply press the MENU key. The cursor will flash under the letter "A" indicating that this is screen "A". To select a different screen, use the arrow keys and move the cursor to the desired screen selection and press the SEL key.

**OPERATOR MENU**  
**A B C D E F G H I J**  
**EXIT FROM MENU**  
**<- - - ->** **SEL**

Screen "B" is FAULT DESCRIPTION. The fault description will indicate if there is a fault with the freezer and the side of the freezer where the fault occurred. To clear the tone for any faults which have been corrected, press the left arrow key. To see if there is more than one fault per cylinder, press the SEL key. When the last fault is displayed, the control will return to the OPERATOR MENU. To return to the main screen, move the cursor to "A" and press the SEL key again.

Listed below are the variable messages which will appear, along with the corrective action:

1. NO FAULT FOUND: There was no fault found in the freezer. Nothing will appear on the screen after this variable message appears.
2. BEATER OVERLOAD: Press the reset button firmly. Clear the tone.
3. HPCO COMPRESSOR: Place the power switch in the OFF position. Wait 5 minutes for the machine to cool. Place the power switch in the ON position. Clear the tone.
4. COMP ON TOO LONG: Place the power switch in the OFF position. Call a service technician. Clear the tone.
5. HOPPER THERM BAD: Place the power switch in the OFF position. Call a service technician.
6. BARREL THERM BAD: Place the power switch in the OFF position. Call a service technician.
7. GLYCOL THERM BAD: Place the power switch in the OFF position. Call a service technician.
8. HOPPER OVER TEMP: The hopper temperature has risen too high as follows. Clear the tone.
  - a. The hopper temperature reaches 41°F. (5°C.) or higher after a power failure.
  - b. The hopper temperature has not fallen below 41°F. (5°C.) by the end of the COOL phase in the heat cycle.
9. BARREL OVER TEMP: The barrel (freezing cylinder) temperature has risen too high as follows. Clear the tone.

- a. The barrel (freezing cylinder) temperature reaches 41°F. (5°C.) or higher after a power failure.
- b. The barrel (freezing cylinder) temperature has not fallen below 41°F. (5°C.) by the end of the COOL phase in the heat cycle.

10. POWER FAILURE: This message will appear in the FAULT DESCRIPTION if a power failure has occurred. Clear the tone.

#### PH71 Screen:

<b>FAULT DESCRIPTION</b>	
<b>VARIABLE MESSAGE</b>	
<b>CLR</b>	<b>SEL</b>

#### PH84 Screen:

<b>FAULT DESCRIPTION</b>	
<b>L: VARIABLE MESSAGE</b>	
<b>R: VARIABLE MESSAGE</b>	
<b>CLR</b>	<b>SEL</b>

Screen "C" is SET CLOCK. This screen will display the current date and time. The date and time may be changed only after the freezer has been manually brush cleaned, but before it has been placed in the AUTO mode. Move the cursor under the number you wish to change. Press the plus key to increase the number; press the minus key to decrease the number. When the desired time and date appears, press the SEL key once to return to the OPERATOR MENU.

<b>SET CLOCK</b>	
<b>10:21 AM</b>	<b>06/07/2001</b>
--	
<--- -->	+++      --- <b>SEL</b>

If an illegal date is entered, the following screen will appear. The correct date must be entered before leaving this display.

<b>SET CLOCK</b>	
<b>10:34 AM</b>	<b>02/30/2001</b>
--	<b>INVALID DATE</b>
<--- -->	+++      --- <b>SEL</b>

Screen “D” is SYSTEM INFORMATION. The first screen indicates the software version used in the unit.

<b>SOFTWARE VERSION</b>		
<b>PH71 Control UVC2</b>		
Version 2.00		
		<b>SEL</b>

Press the SEL key to view the second screen of the SYSTEM INFORMATION display. This screen indicates the language, version number and language strings used in the unit.

<b>Language</b>		
V1.10r00	English 459	
		<b>SEL</b>

Press the SEL key to view the third screen of the SYSTEM INFORMATION display. This screen indicates the Bill of Material number and serial number of the unit. Press the SEL key once to return to the OPERATOR MENU.

<b>B.O.M.</b>		<b>PH7133B000</b>
<b>S/N</b>		<b>K0000000</b>
		<b>SEL</b>

Screen “E” is AUTO HEAT TIME. This screen is used to set the time of day in which the heat treatment cycle will start. Move the cursor under the number you wish to change. Press the plus key to increase the number; press the minus key to decrease the number. When the desired time appears, press the SEL key once to return to the OPERATOR MENU.

<b>AUTO HEAT TIME</b>		
<b>TIME: 12:00 AM</b>		
--		
<--- -->	+++	---
		<b>SEL</b>

Screen “F” is CURRENT CONDITIONS. This screen gives the viscosity of the product and the hopper and barrel temperatures. The last line of the display is the compressor countdown safety timer. The safety timer prevents the compressor from running more than 11 minutes (other than during the cooling phase of the heat treatment cycle).

Press the SEL key once to view the SERVINGS COUNTER screen.

#### PH71 Screen:

<b>VISC</b>	<b>HOPPER</b>	<b>BARREL</b>
0	38.5	28.5
<b>TIME C</b>	11:00	11:00

#### PH84 Screen:

<b>VISC</b>	<b>HOPPER</b>	<b>BARREL</b>
0	38.5	28.5
0.0	38.5	18.0
<b>TIME C</b>	11:00	11:00

The SERVINGS COUNTER screen indicates the number of times the draw switch has closed (number of draws) since the last brush cleaning or since the last serving counter reset. A maximum of 32,767 draws can be recorded; an additional draw will cause the counter to restart at zero. Pressing the SEL key will return the display to the OPERATOR MENU.

#### PH71 Screen:

<b>SERVINGS COUNTER</b>	
<b>DRAWS</b>	
12	
<b>SEL</b>	

#### PH84 Screen:

<b>SERVINGS COUNTER</b>	
<b>LEFT</b>	<b>RIGHT</b>
12	15
<b>SEL</b>	

Draws are counted during the AUTO mode of operation only.

Screen “G” is HEAT CYCLE DATA. The information from the previous heat treatment cycles can be obtained through this screen. The most recent heat treatment cycle data will be shown first; press the plus key to scroll through the remaining heat cycle displays. If a heat treatment cycle failure should occur, a 2 character message will appear on the second line of the screen. Press the SEL key once to return to the OPERATOR MENU.

Listed below are the variable messages which could appear:

- HT Failure in the heating phase.
- CL Failure in the cooling phase.
- TT Failure in meeting total heat treatment cycle time requirement.
- MO Mix out condition.
- OP Operator interruption.
- PF Power failure. (If a power failure occurs, but the heat treatment cycle does not fail, an asterisk (\*) will appear on the third line of the display.)
- BO Beater overload.
- HO High pressure cut-out.
- TH Failed thermistor probe.
- PS Power switch placed in the OFF position.
- ML Mix Low Condition.
- 14 14 Day Timeout Occurred.
- RC Heat Cycle Record Cleared.

11/07	02:00	05:09	
HEAT	OVER	COOL	XX
01:09	00:45	01:14	
TEMP AT END	38.5		1

Pressing the left arrow key on any HEAT CYCLE DATA screen will cause the extended data screen to be displayed. This screen shows the hopper, barrel, and glycol temperatures, and the amount of time the freezer spent in the phases of the heat cycle when the heat cycle completed, or was terminated.

#### PH71 Screen:

HOPPER	BARREL	GLYCOL	
151.0	134.5	178.0	
PHASE TIME: 1:20			1

#### PH84 Screen:

HOPPER	BARREL	GLYCOL	
151.0	134.5	98.1	
153.0	136.0		
PHASE TIME: 1:20			1

Screen "H" is the LOCKOUT HISTORY. This screen displays a history of the last 40 hard locks, soft locks, and brush clean dates. Page numbers are indicated in the upper right hand corner. Page 1 always contains the most recent failure. Press the PUMP key to cycle through the pages.

The second line of the screen displays the date and time a failure occurs. The third line indicates the reason for a failure, or will indicate a successful brush cleaning has occurred. Some failures occur for multiple reasons. When this occurs, a page will be generated for each reason. Press the SEL key once to return to the OPERATOR MENU, or twice to return to the Main Screen.

LOCKOUT HISTORY		1
06/11/01	02:08	
SOFTLOCK ABORT		
+++	---	SEL

Screen "I" is the SERVICE MENU. This screen can only be accessed by a service technician.

Screen "J" is the STANDBY MODE. To place the freezer in the STANDBY mode, move the cursor under the word "yes". Press the SEL key to execute the command. Pressing the SEL key again will return you to the main screen. To exit the STANDBY mode and place the unit in AUTO, press the AUTO key once. Pressing the AUTO key again will place the unit in the OFF mode.

#### PH71 Screen:

STANDBY MODE			
STANDBY	YES	NO	
		---	
<--- -->			SEL

#### PH84 Screen:

STANDBY MODE			
LEFT	YES	NO	
		---	
<--- -->			SEL

STANDBY MODE			
RIGHT	YES	NO	
		---	
<--- -->			SEL



## Section 6

## Operating Procedures

The “Operator Parts Identification” section in this manual has been included to identify components referenced in these instructions. If this is the first time you have read these procedures, please turn to the “Operator Parts Identification” section, and familiarize yourself with these components before proceeding with the instructions.

Each unit stores mix in a hopper. The mix then flows through a mix feed tube down into the freezing cylinder. They both have 3.4 quart (3.2 liter) capacity freezing cylinders and 20 quart (18.9 liter) mix hoppers; one each for the Model PH71 and two each for the Model PH84.

Duplicate, where they apply, the following steps for the two freezing cylinders on the Model PH84.

We begin our instructions at the point where we enter the store in the morning and find the parts disassembled and laid out to air dry from the previous night's cleaning.

The following procedures will show you how to assemble the parts into the freezer, sanitize them, and prime the freezer with fresh mix in preparation to serve your first product.

If you are disassembling the machine for the first time or need information to get to this starting point in our instructions, turn to page 36 “Disassembly” and start there.

### Assembly

**Note:** When lubricating parts, use an approved food grade lubricant (Example: Taylor Lube HP).



**MAKE SURE POWER SWITCH IS IN THE “OFF” POSITION!** Failure to follow this instruction may result in severe personal injury from hazardous moving parts.

**Be certain your hands are sanitized before assembling the freezer.**

#### Step 1

Lubricate the groove and shaft portion that come in contact with the bearing on the beater drive shaft. Slide the seal over the shaft and groove until it snaps into place. **DO NOT** lubricate the hex end of the drive shaft. Fill the inside portion of the seal with 1/4” more lubricant. Lubricate the flat side of the seal that comes in contact with the bearing.

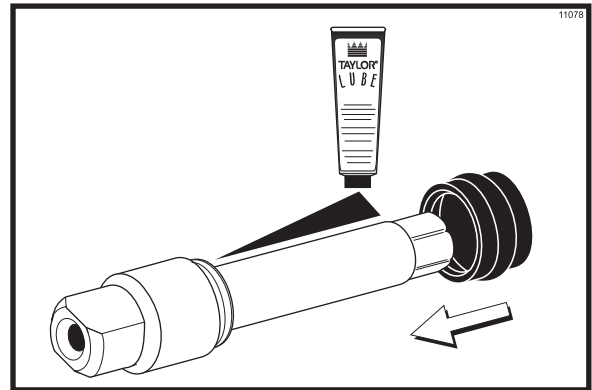


Figure 1

**Note:** Make sure the seal is not installed inside-out. The ridge that protrudes in the center of the seal should be on the **outside**.

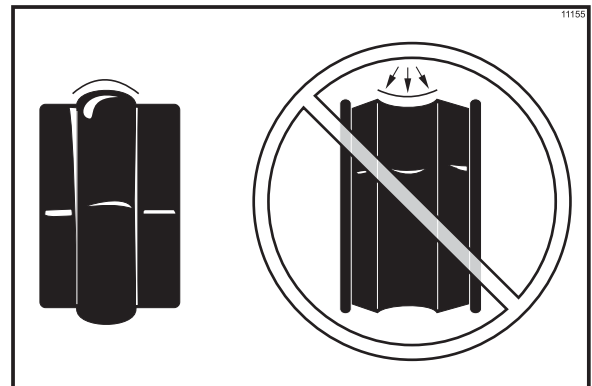


Figure 2

Install the drive shaft. Insert the drive shaft into the freezing cylinder, hex end first, and into the rear shell bearing until the seal fits securely over the rear shell bearing. Be certain the drive shaft fits into the drive coupling without binding.

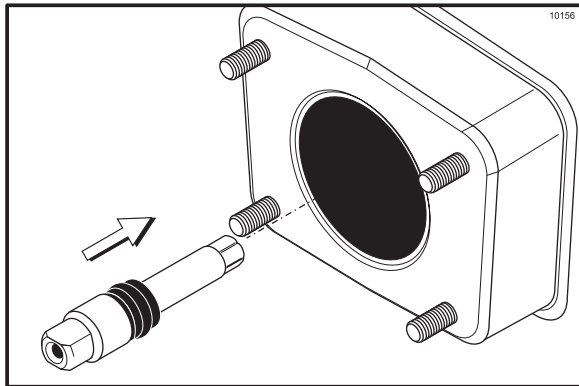


Figure 3

## Step 2

Install the beater assembly. First check the scraper blades for any nicks or signs of wear. If any nicks are present, or if the blades are worn, replace both blades. If the blades are in good condition, install the scraper blade clips over the scraper blades. Place the rear scraper blade over the rear holding pin on the beater.



**USE EXTREME CAUTION** when handling the beater assembly. The scraper blades are very sharp and may cause injury.

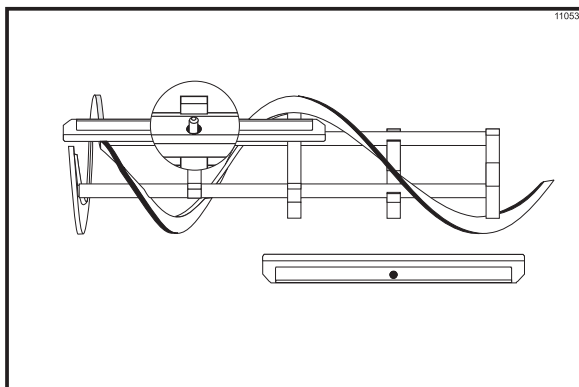


Figure 4

**Note:** The hole on the scraper blade must fit securely over the pin to prevent costly damage.

Holding the rear blade on the beater, slide it into the freezing cylinder halfway. Install the front scraper blade over the front holding pin.

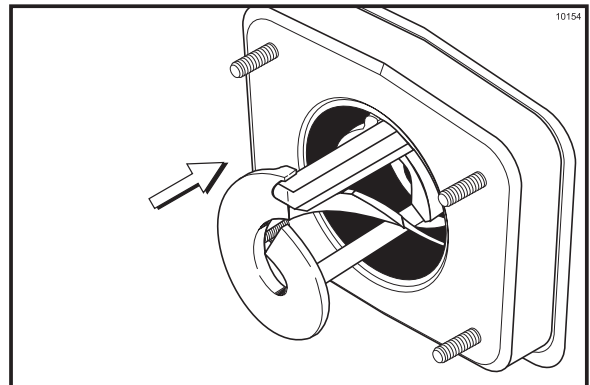


Figure 5

Install the beater shoes.

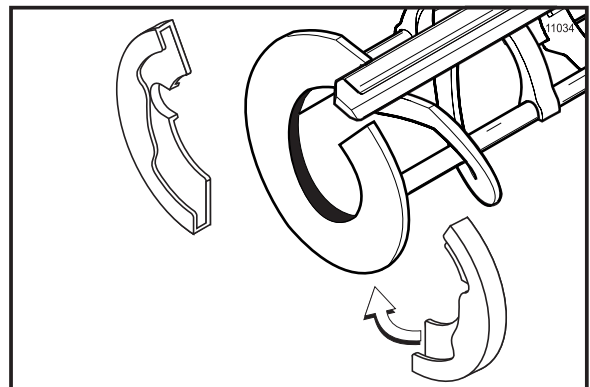


Figure 6

Slide the beater assembly the rest of the way into the freezing cylinder.

Make sure the beater assembly is in position over the drive shaft. Turn the beater slightly to be certain that the beater is properly seated. When in position, the beater will not protrude beyond the front of the freezing cylinder.

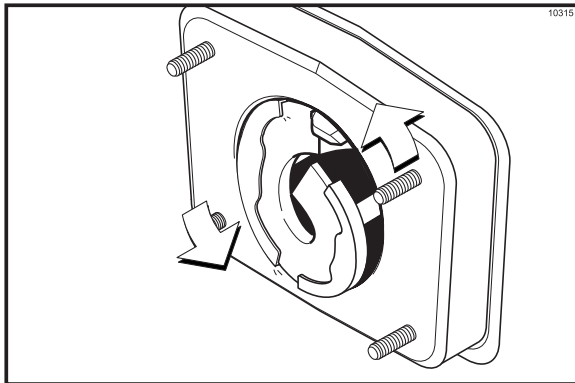


Figure 7

**Duplicate these procedures for the other side of the freezer on the Model PH84.**

### Step 3

Assemble the freezer door. Place the large rubber gasket(s) in the groove(s) on the back side of the freezer door.

Slide the white plastic front bearing(s) onto the bearing hub(s), making certain that the flanged end of the bearing is resting against the freezer door. **DO NOT** lubricate the gasket(s) or the front bearing(s).

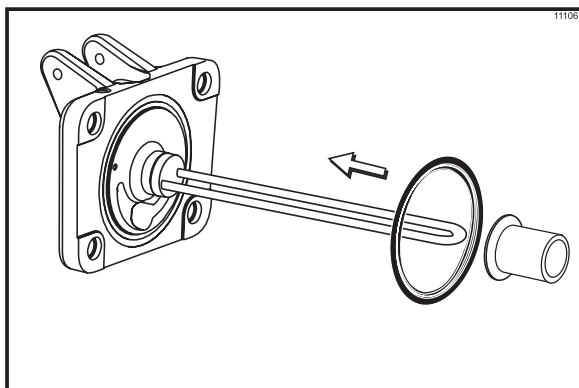


Figure 8

**Note:** There are two gaskets and two front bearings for the Model PH84 door, one for each freezing cylinder.

### Step 4

Install the freezer door. Insert the baffle rod(s) through the opening in the beater assembly(ies) and seat the door flush with the freezing cylinder(s). With the door seated on the freezer studs, install the handscrews. Tighten equally in a criss-cross pattern to insure the door is snug.

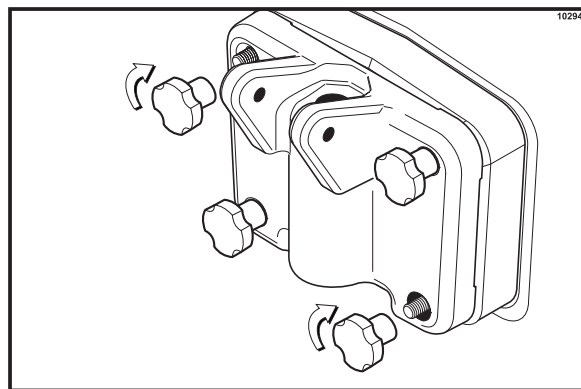


Figure 9

**Note:** On the Model PH84, the short handscrews go on the bottom and the long handscrews go on top.

### Step 5

Install the draw valve(s). Slide the three o-rings into the grooves on the draw valve(s) and lubricate.

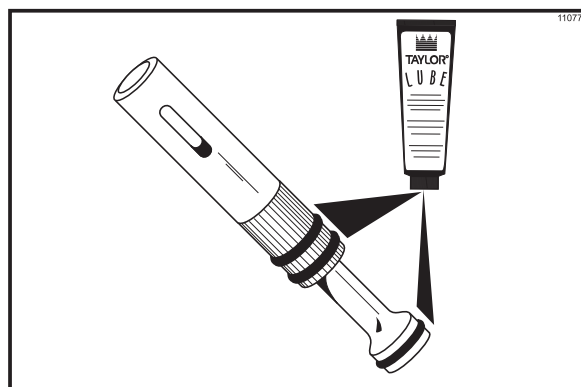


Figure 10

Lubricate the inside of the freezer door spout(s), top and bottom, and insert the draw valve(s) from the **bottom** until the slot in the draw valve(s) comes into view.

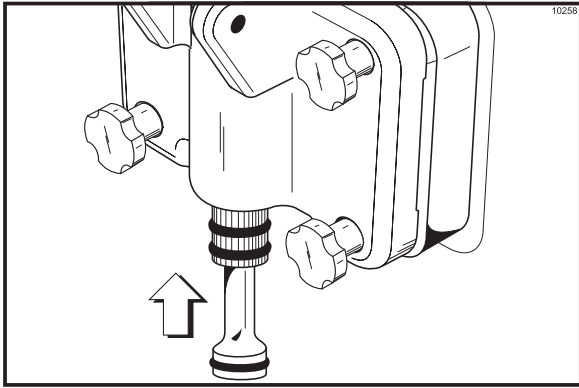


Figure 11

**Note:** The Model PH84 has three draw valves. For the left and right draw valves, follow the assembly and lubrication procedures explained previously. The center draw valve uses a seal and an o-ring. Slide the seal and o-ring into the grooves on the draw valve, and lubricate.

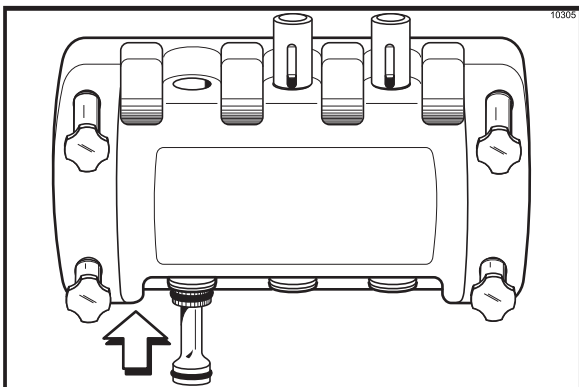


Figure 12

#### Step 6

Install the draw handle(s). Slide the o-ring into the groove on the pivot pin, and lubricate.

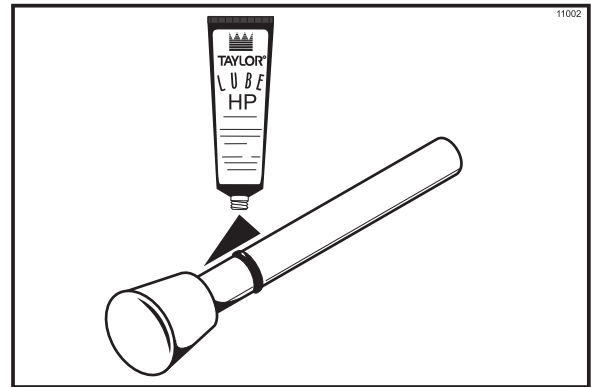


Figure 13

Slide the fork of the draw handle over the bar in the slot of the draw valve. Secure with pivot pin.

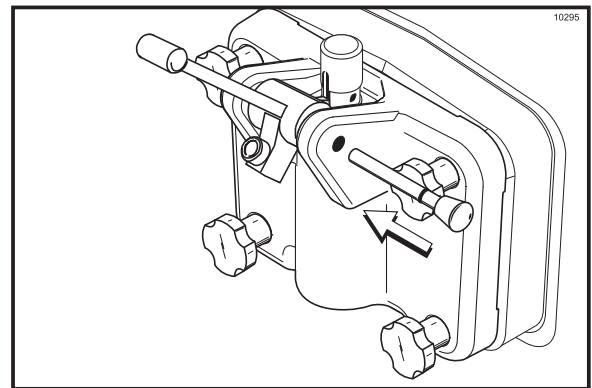


Figure 14

**Note:** The Model PH84 has three draw handles. Slide the fork of the draw handle in the slot of the draw valve, starting from right to left. Slide the pivot pin through each draw handle as you insert them into the draw valves.

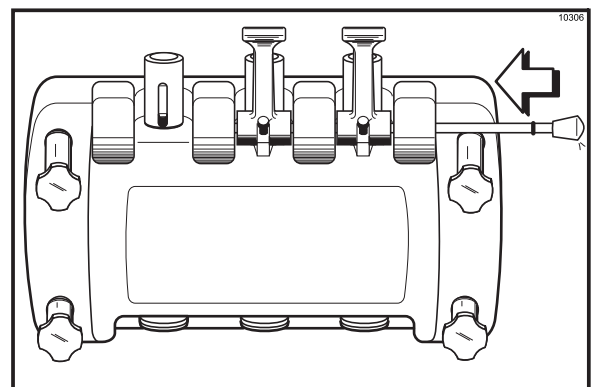


Figure 15

### Step 7

Snap the design cap(s) over the bottom of the door spout(s).

### Step 8

Install the front drip tray and the splash shield under the door spout(s).

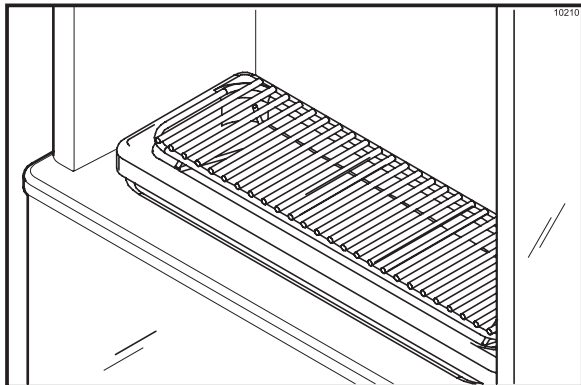


Figure 16

### Step 9

Slide the long drip pan into the hole in the side panel.

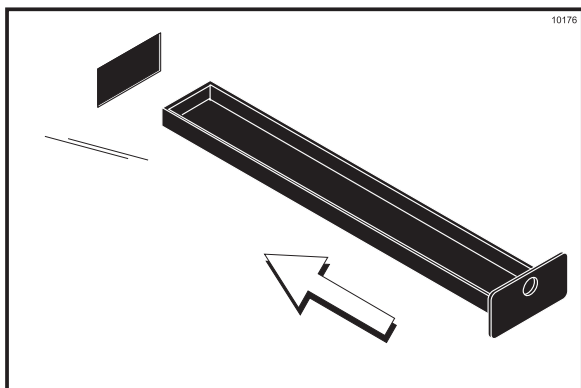


Figure 17

## Air/Mix Pump Assembly

The purpose of the air/mix pump is to meter a specific amount of air and mix, and transfer this combination to the freezing cylinder.

### Step 1

Assemble the piston. Slide the o-ring into the groove on the piston. **DO NOT** lubricate this o-ring.

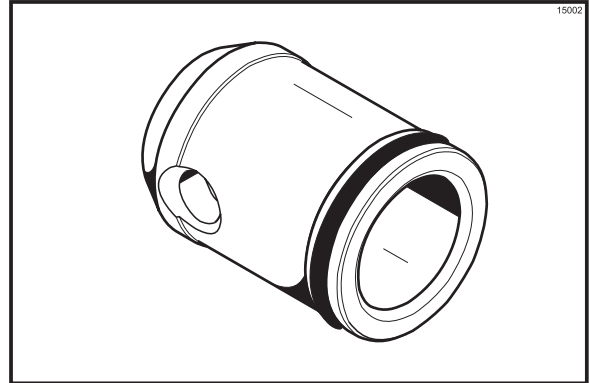


Figure 18

### Step 2

Assemble the valve body. Slide the three check rings and three o-rings into the grooves on the valve body. **DO NOT** lubricate the check rings or o-rings.

**Note:** Check rings have two smooth surfaces. A concave shape indicates an incorrect assembly. Turn the check ring inside out to correctly expose the flat surface.

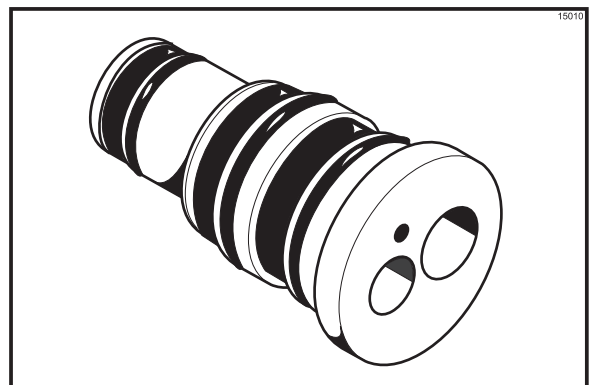


Figure 19

### Step 3

Put a small amount of lubricant on the inside diameter of the piston. Insert the valve body into the piston.

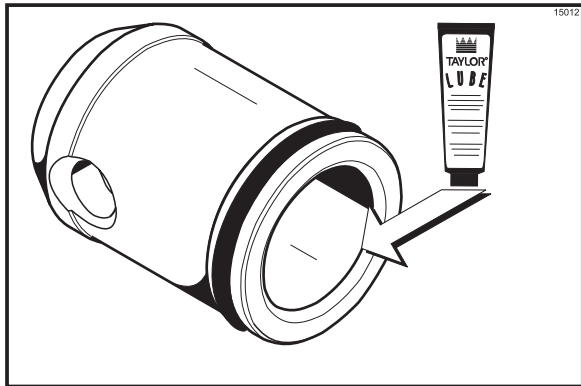


Figure 20

### Step 4

Apply a small amount of lubricant to the LOWER inside diameter of the pump cylinder to a depth equivalent to the length of your index finger. Once applied, the amount of lubricant should be equal to a paper-thin film.

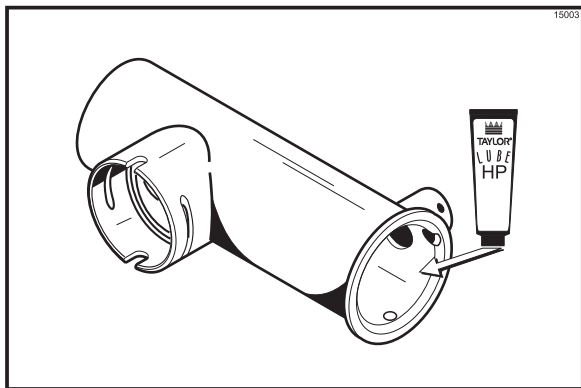


Figure 21

Insert the assembled piston and valve body into the pump cylinder and push upwards. Align the steel button at the base of the valve body with the cut-out groove at the bottom of the pump cylinder.

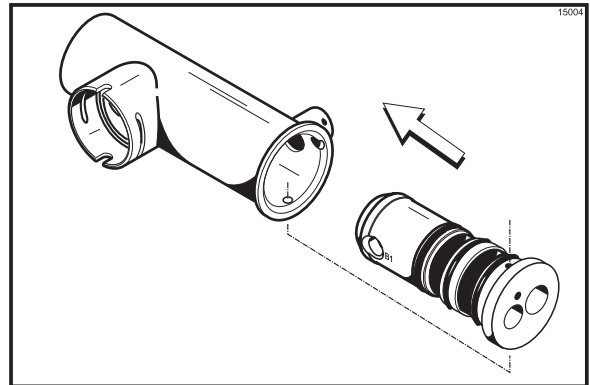


Figure 22

**Note:** The drive hole in the piston must be visible through the drive hole in the pump cylinder.

### Step 5

Assemble the mix inlet tube assembly. Slide the o-ring and seal into the grooves on the inlet fittings and thoroughly lubricate.

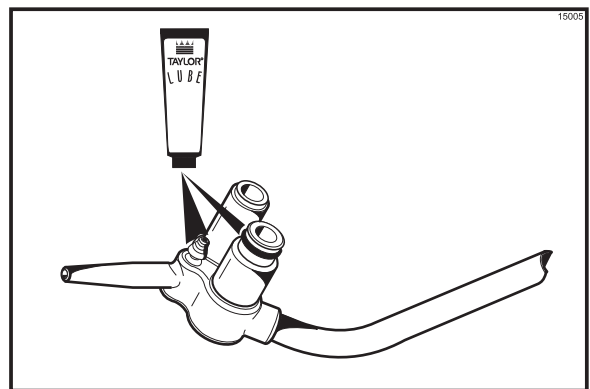


Figure 23

Attach the spring and poppet to the end of the pressure relief fitting. The spring must be securely fastened and not allowed to float freely.

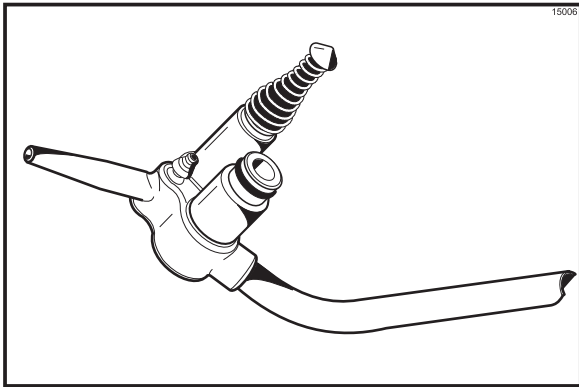


Figure 24

**Note:** The spring and rubber poppet act as a pressure relief valve to prevent a pressure build up in the freezing cylinder.

#### Step 6

Insert the mix inlet tube assembly into the holes in the base of the valve body.

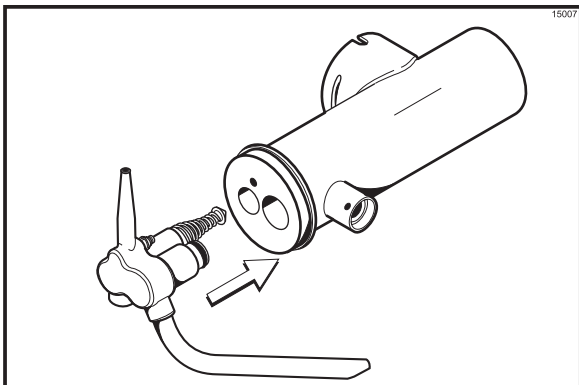


Figure 25

Secure the pump parts in position by sliding the retaining pin through the cross holes located at the bottom of the pump cylinder.

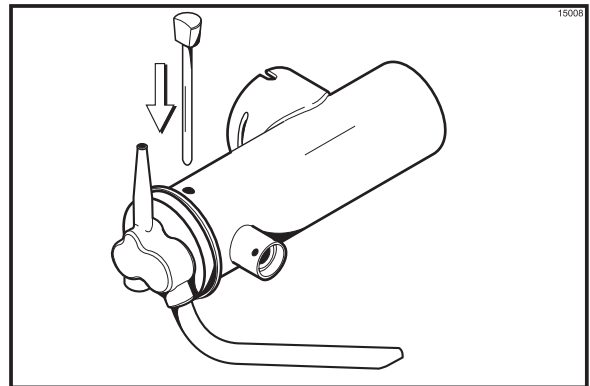


Figure 26

**Note:** The head of the retaining pin should be facing UP with the pump correctly installed.

#### Step 7

Install one o-ring on each end of the mix feed tube, and thoroughly lubricate.

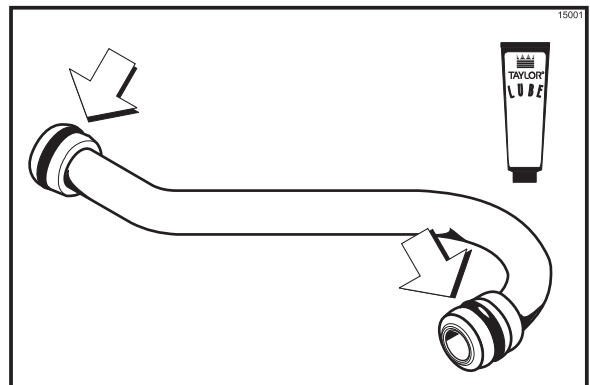


Figure 27

### Step 8

Slide the large o-ring and two cup seals into the grooves on the drive shaft. Thoroughly lubricate the o-ring, seals, and shaft. **DO NOT** lubricate the hex end of the shaft.

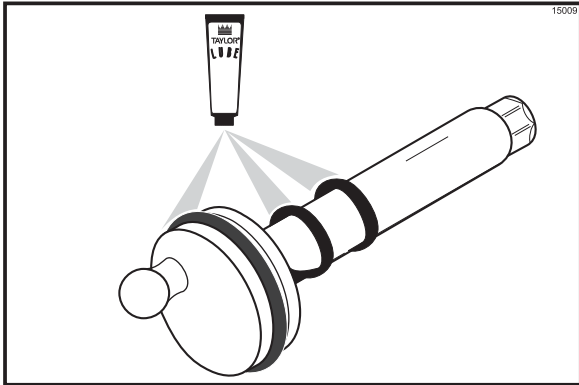


Figure 28

**Note:** The open end of the cup seal must face away from the hex end.

Install the hex end of the drive shaft into the drive hub at the rear wall of the mix hopper.

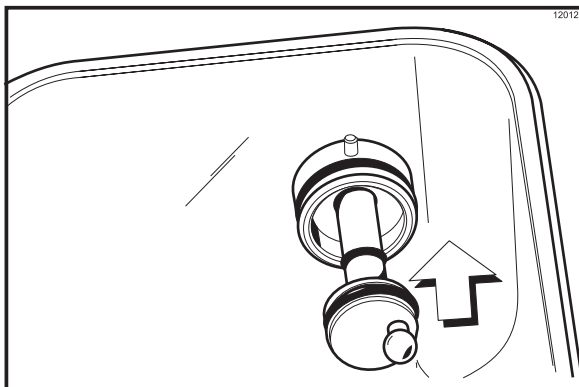


Figure 29

### Step 9

Lay the agitator, pump assembly, pump clip, mix feed tube, and locking clip in the bottom of the mix hopper for sanitizing.

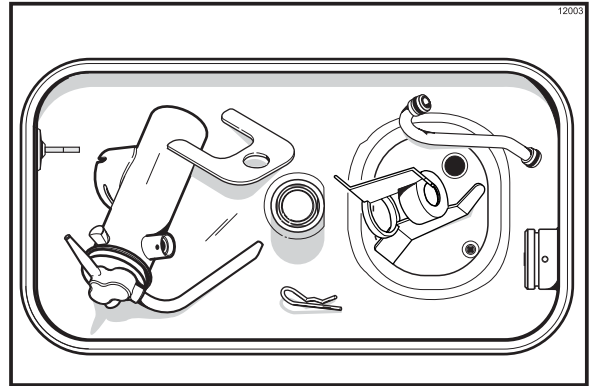


Figure 30

**Repeat Steps 1 through 9** for the other side of the freezer on the Model PH84.

## Sanitizing

### Step 1

Prepare two gallons (7.6 liters) of an approved 100 PPM sanitizing solution (example: Kay-5®). **USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.**

### Step 2

Pour the two gallons (7.6 liters) of sanitizing solution over all the parts in the bottom of the mix hopper and allow it to flow into the freezing cylinder.

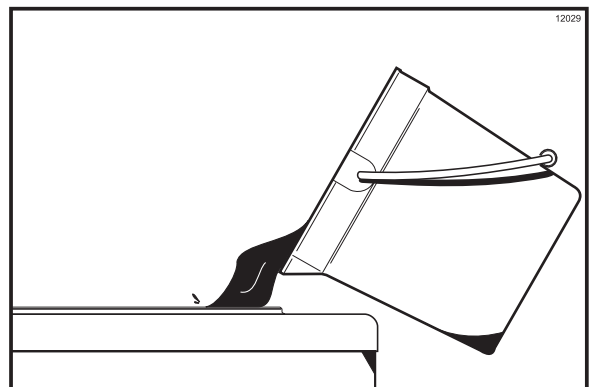


Figure 31

**Note:** You have just sanitized the mix hopper and parts; therefore, be sure your hands are clean and sanitized before going on in these instructions.



**Step 3**

Allow the sanitizing solution to flow into the freezing cylinder. While the solution is flowing into the freezing cylinder, take particular care to brush-clean the mix level sensing probe on the front wall and the bottom of the hopper, the mix hopper, the mix hopper gasket, the mix inlet hole, the air/mix pump, the pump clip, the mix feed tube, and the locking clip.

**Step 4**

Install the pump assembly. To position the pump on the drive hub at the rear of the mix hopper, align the drive hole in the piston, with the ball crank of the drive shaft. Secure the pump in place by slipping the pump clip over the collar of the pump, making sure the clip fits into the grooves in the collar.

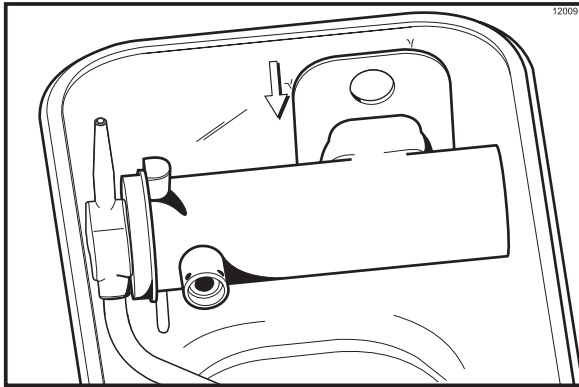


Figure 32

**Step 5**

Push one end of the vinyl sanitizing tube onto the air inlet tube for the pump. Be sure the free end is submerged in the sanitizing solution in the hopper.

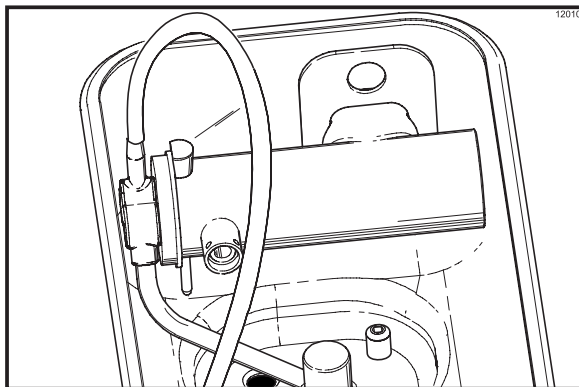


Figure 33

**Repeat Steps 1 through 5** for the other side of the freezer on the Model PH84.

**Step 6**

Place the power switch in the ON position.

**Step 7**

Press the WASH key and allow the sanitizing solution in the freezing cylinder to agitate for five minutes.

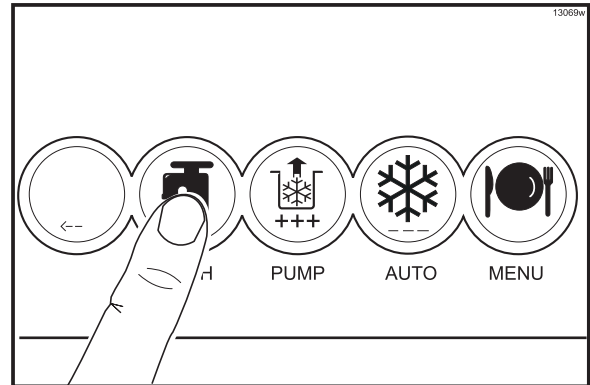


Figure 34

**Step 8**

Place a pail beneath the door spout(s). Press the PUMP key. Open and close the draw valve six times.

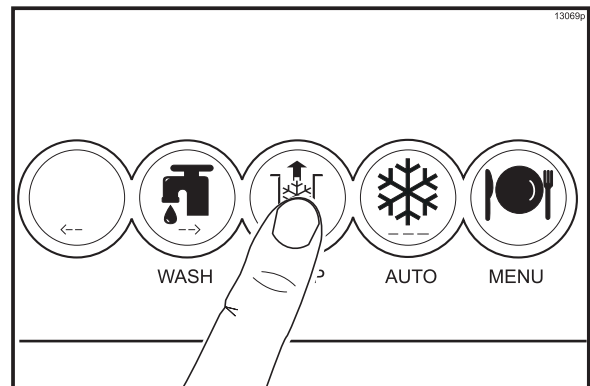


Figure 35

Open the draw valve and draw off the remaining sanitizing solution.

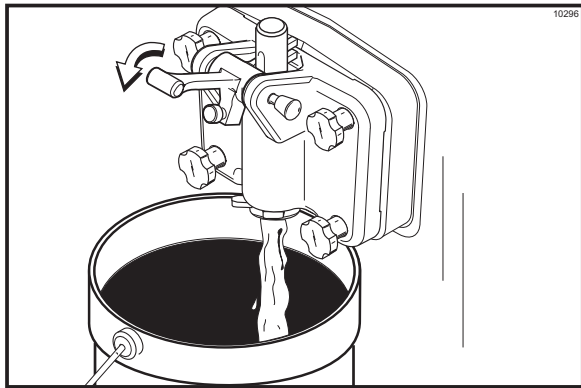


Figure 36

(**Note:** On the Model PH84, momentarily open the center draw valve to sanitize the center door spout.)

Press the PUMP key to stop pump operation.

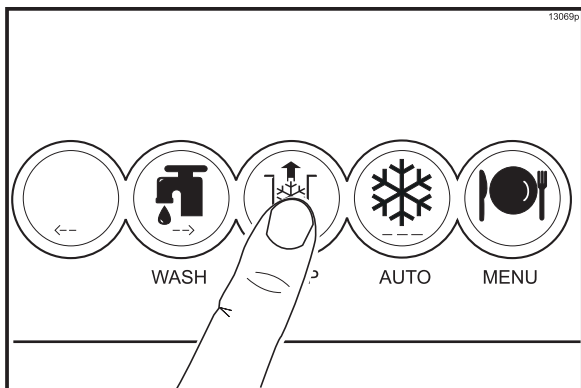


Figure 37

Remove the vinyl sanitizing tube from the air/mix pump.

### Step 9

Press the WASH key and close the draw valve(s).

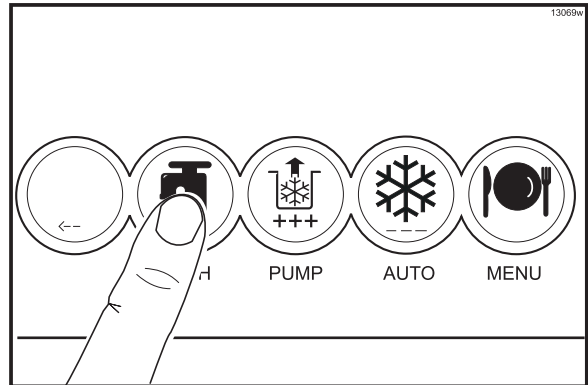


Figure 38

**Note:** Be sure your hands are clean and sanitized before going on in these instructions.

### Step 10

Place the agitator on the agitator housing.

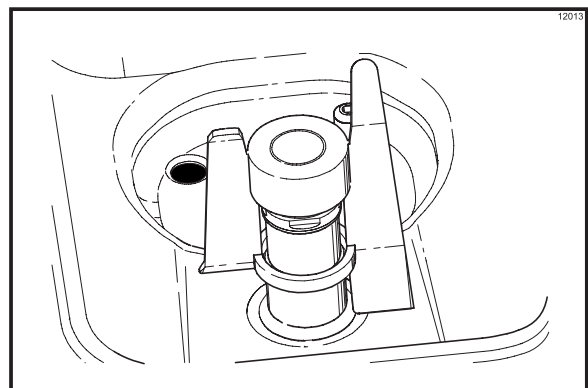


Figure 39

**Note:** If agitator should stop turning during normal operation, with sanitized hands, remove the agitator from the agitator housing and brush clean with sanitizing solution. Install the agitator back onto the agitator housing.

### Step 11

Stand the mix feed tube in the corner of the mix hopper. Place the locking clip in position in the outlet fitting of the pump.

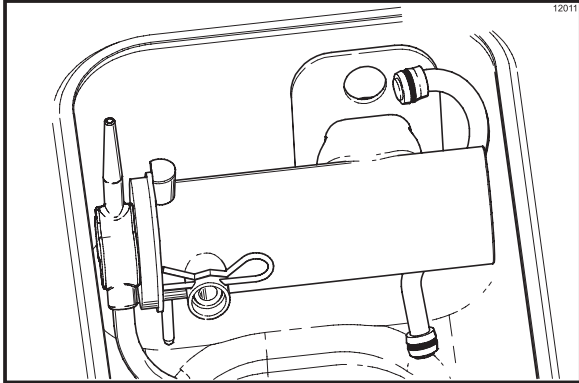


Figure 40

**Repeat Steps 7 through 11** for the other side of the freezer on the Model PH84.

### Step 12

Remove the design cap(s).

### Step 13

Return to the freezer with a small amount of sanitizing solution. Dip the end brush into the sanitizing solution and brush clean the door spout(s) and bottom of the draw valve(s).

**Note:** To assure sanitary conditions are maintained, brush clean each item for a total of 60 seconds, repeatedly dipping the brush in sanitizing solution.

### Step 14

Install the design cap(s).

**Note: You have just sanitized all food contact surfaces of the freezer.**

## Priming

**Note:** Evaluate the condition of LED's (lights) and screen messages before performing priming procedures. If all 4 LED's are flashing, the unit is locked.

### Step 1

With a pail beneath the door spout(s), open the draw valve. Pour two gallons (7.6 liters) of FRESH mix into the mix hopper and allow it to flow into the freezing cylinder. This will force out any remaining sanitizing solution. When full strength mix is flowing from the door spout, close the draw valve.

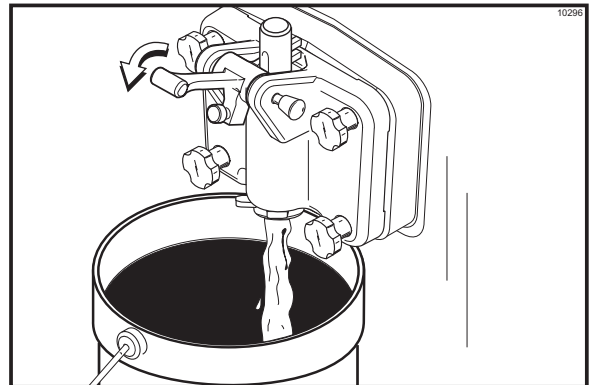


Figure 41

### Step 2

When the mix stops bubbling down into the freezing cylinder, insert the mix feed tube. Remove the locking clip from the outlet fitting of the mix pump. Insert the outlet end of the mix feed tube into the mix inlet hole in the mix hopper. Place the inlet end of the mix feed tube into the outlet fitting of the mix pump. Secure with locking clip.

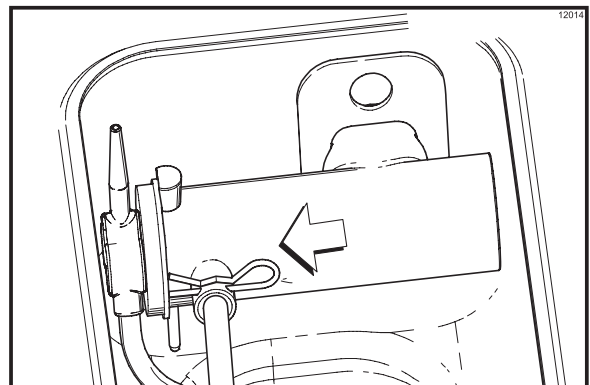


Figure 42

### Step 3

Press the AUTO key. When the unit cycles off, the product will be ready to serve.

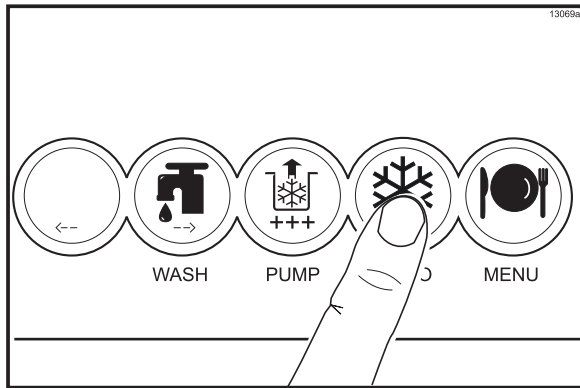


Figure 43

### Step 4

Fill the hopper with FRESH mix. Place the mix hopper cover in position.

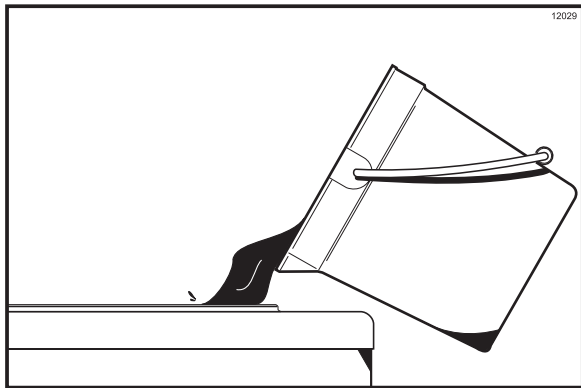


Figure 44

**Note:** Use only **FRESH** mix when priming the freezer.

**Repeat Steps 1 through 4** for the other side of the freezer on the Model PH84.

**Note:** These units feature adjustable draw handles to provide the best portion control, giving a better, consistent quality to your product, and controlling costs. The draw handles can be adjusted for different flow rates. See page 14 for more information on adjusting these handles.

**IMPORTANT! Once the draw rate is set, tighten the lock nut with a wrench.**

## Daily Closing Procedures

**THIS PROCEDURE MUST BE PERFORMED ONCE EVERY 24 HOURS.**

The function of the Heat Treatment Cycle is to destroy bacteria by raising the temperature of the mix in the freezing cylinder and the hopper to a specified temperature for a specified period of time, and then bringing the temperature back down low enough to retard spoilage. The Heat Treatment Cycle will start at the time designated in the AUTO HEAT TIME.

**IMPORTANT: The level of mix in the mix hoppers must be at the line on the agitator paddle.** (The mix low light must not be on.)

### Step 1

The freezer must be in the STANDBY or AUTO mode before the Heat Treatment Cycle may be started. (Both sides of the PH84 must be in STANDBY or AUTO.)

### Step 2

Remove the hopper cover(s). Remove the front drip tray, splash shield, and the rear drip pan(s), and take them to the sink for further cleaning and sanitizing.



**MAKE SURE YOUR HANDS ARE CLEAN AND SANITIZED BEFORE PERFORMING THESE NEXT STEPS.**

**Note:** Pressing the <- - key will stop agitator movement for 10 seconds. At end of 10 seconds, press the <- - key again to return to the mode screen.

Remove the agitator(s) from the mix hopper(s). Remove the design cap(s) from the freezer door spout(s). Take the agitator(s), hopper cover(s) and design cap(s) to the sink for further cleaning and sanitizing.

Rinse these parts in cool, clean water. Prepare a small amount of an approved cleaning solution (example: Kay-5®). **USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.** Brush clean the parts. Place the design cap(s), front drip tray and splash shield on a clean, dry surface to air-dry overnight or until the heating cycle is complete.

Prepare a small amount of an approved 100 PPM sanitizing solution in **WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.** Sanitize the drip pan(s), agitator(s) and hopper cover(s).

### Step 3

**Important:** Install the agitator(s) back onto the agitator housing(s). Replace the hopper cover(s).

### Step 4

Return to the freezer with a small amount of cleaning solution. With a pail beneath the door, dip the end brush into the cleaning solution and brush clean the door spout(s) and bottom of the draw valve(s). (See Figure 45.)

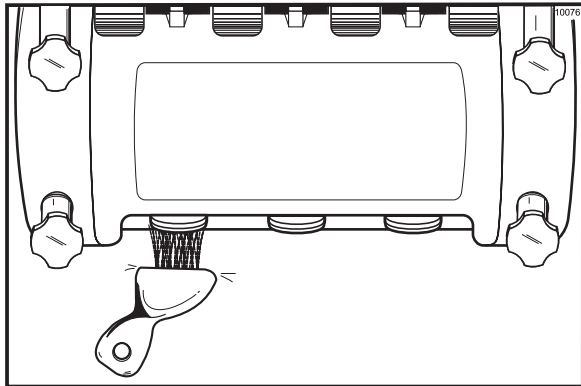


Figure 45

**Note:** To assure sanitary conditions are maintained, brush each item for a total of 60 seconds, repeatedly dipping the brush in cleaning solution.

Rinse a single service towel in cleaning solution and wipe down the freezer door and the area around the bottom of the freezer door.

**Note:** Once the heating cycle has started, it cannot be interrupted. The heating cycle will take a maximum of 4 hours to complete with full hopper(s).



**CAUTION:** Do not draw product or attempt to disassemble the unit during the Heat Treatment Cycle. The product is hot and under extreme pressure.

When the heating cycle is complete, the control will return to the STANDBY mode.

There are 3 phases of the heat cycle: Heating, Holding and Cooling. Each phase has a time limit. If any one of the three phases fail to reach the proper temperatures within the time limit, the cycle will automatically abort and return to the STANDBY mode. The LCD will display the message: HEAT TREAT CYCLE FAILURE - FREEZER LOCKED - PRESS SEL KEY. The product may not be safe to serve. The freezer will be locked (softlock) out of the AUTO mode.

The option is given to press the AUTO key which will begin a new heat cycle or to press the WASH key which will place the side(s) into the OFF mode to allow a brush clean of the unit.

## Daily Opening Procedures

Evaluate the condition of LED's (lights) and screen messages (Hard Lock or Soft Lock, etc.) before performing opening procedures. As indicated in the illustration below, 4 flashing LED's, indicate a "locked" condition.

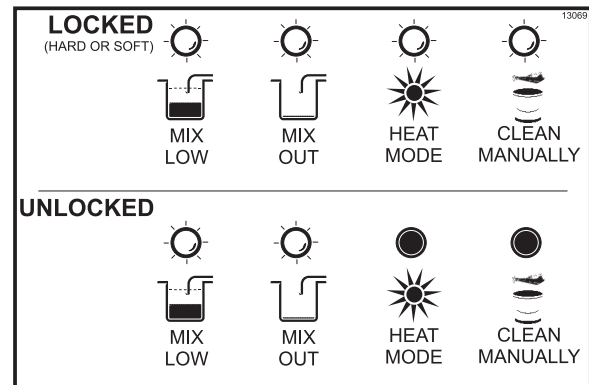


Figure 46

**Note:** If the unit is hard locked, refer to the "Manual Brush Cleaning" section starting on page 34.

### Step 1

When the heating cycle is complete, the normal display will appear, showing the machine in the STANDBY mode. Prepare a small amount of an approved 100 PPM sanitizing solution (example: Kay-5®). USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

Sanitize the design cap(s), front drip tray, and the splash shield in this solution.

### Step 2

Return to the freezer with a small amount of sanitizing solution. With a pail beneath the door, dip the end brush into the sanitizing solution and brush clean the door spout(s) and bottom of the draw valve(s).

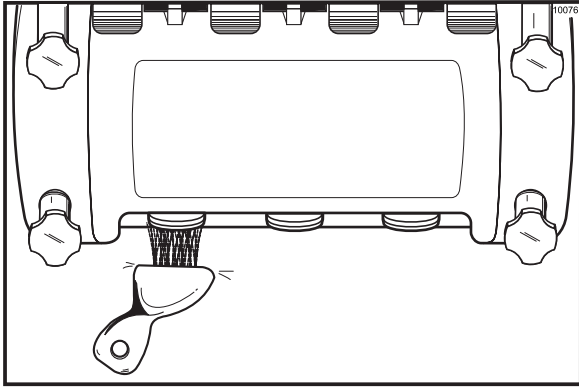


Figure 47

**Note:** To assure sanitary conditions are maintained, brush clean each item for a total of 60 seconds, repeatedly dipping the brush in sanitizing solution.

Install the design cap(s) on the freezer door spout(s). (See Figure 48.)

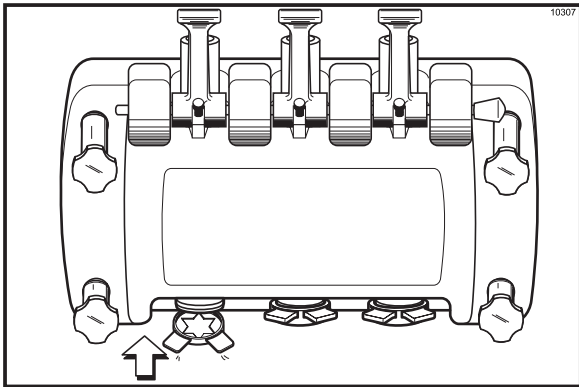


Figure 48

Rinse a single service towel in sanitizing solution, and wipe down the freezer door and area around the bottom of the freezer door. Install the front drip tray and splash shield.

### Step 3

When ready to resume normal operation, press the AUTO key. (See Figure 49.)

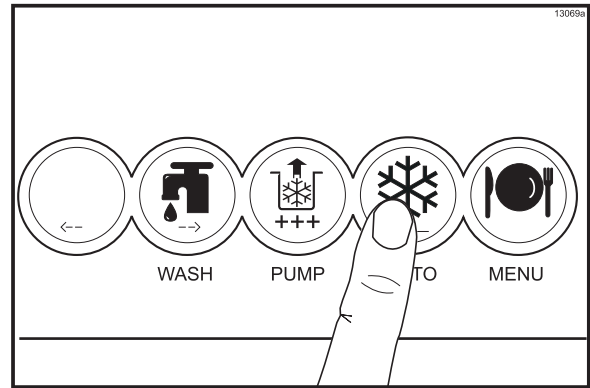


Figure 49

**Note:** This procedure should be done 15 minutes before product is expected to be served.

## Manual Brush Cleaning

**THIS PROCEDURE MUST BE DONE EVERY 14 DAYS!**



**ALWAYS FOLLOW LOCAL HEALTH CODES.**

To disassemble your unit, the following items will be needed:

- Two cleaning pails
- Necessary brushes (provided with freezer)
- Cleaning solution
- Sanitizing solution
- Single service towels

## Draining Product From The Freezing Cylinder

### Step 1

Press the AUTO key, cancelling compressor and beater motor operation.

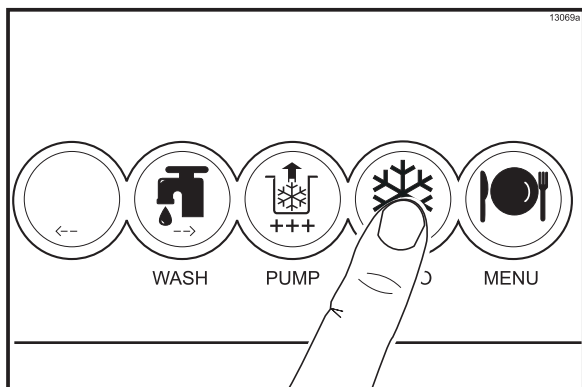


Figure 50

### Step 2

Remove the hopper cover and the agitator. Take these parts to the sink for cleaning.

### Step 3

With a pail below the door spout, press the WASH and PUMP keys. Open the draw valve and drain the remaining product from the freezing cylinder and mix hopper.

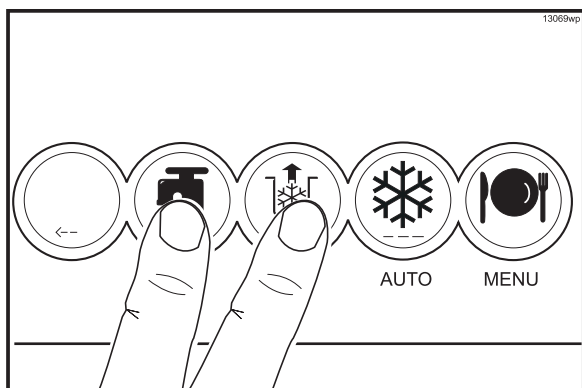


Figure 51

### Step 4

When the flow of product stops, press the WASH and PUMP keys, and close the draw valve. **Discard this product.**

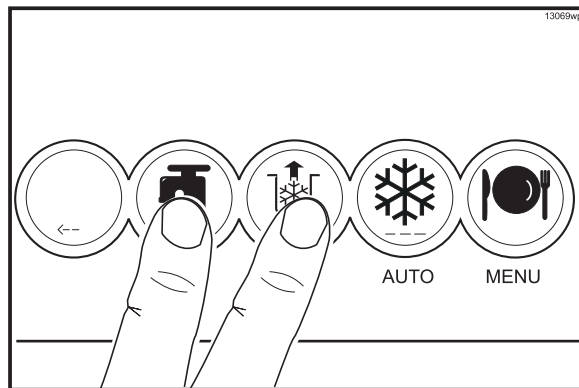


Figure 52

### Step 5

Remove the locking clip and the mix feed tube. Remove the pump clip and the assembled air/mix pump.

**Repeat Steps 1 through 5** for the other side of the freezer on the Model PH84.

## Rinsing

### Step 1

Pour two gallons (7.6 liters) of cool, clean water into the mix hopper. With the white hopper brush, scrub the mix hopper, mix level sensing probes, the outside of the agitator drive shaft housing. Using the double ended brush, clean the mix inlet hole.

**Note:** Do not brush clean the mix inlet hole while the machine is in the WASH mode.

### Step 2

With a pail beneath the door spout, press the WASH key.

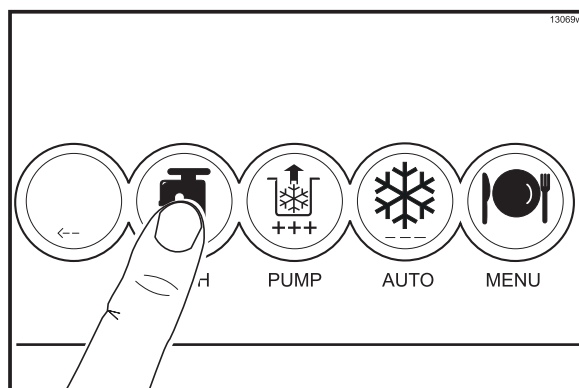


Figure 53



### Step 3

Open the draw valve on the freezer door. Drain all the rinse water from the door spout, close the draw valve, and press the WASH key cancelling the WASH mode.

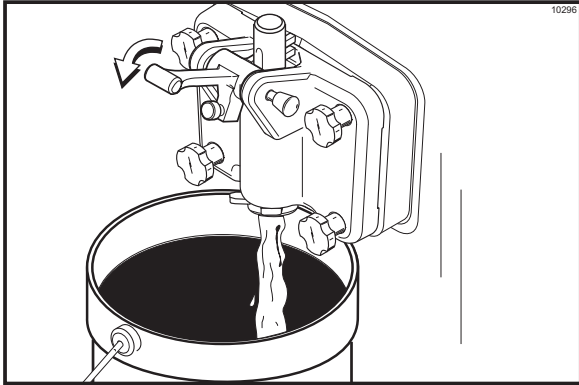


Figure 54

Repeat this procedure until the rinse water being drawn from the freezing cylinder is **clear**.

**Repeat Steps 1 through 3** for the other side of the freezer on the Model PH84.

## Hopper Cleaning and Sanitizing

### Step 1

Prepare two gallons (7.6 liters) of an approved 100 PPM cleaning solution (example: Kay-5®). USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

### Step 2

Pour the two gallons (7.6 liters) of cleaning solution into the hopper and allow it to flow into the freezing cylinder.

### Step 3

Using the white hopper brush, clean the mix hopper, mix level sensing probes and the outside of the agitator drive shaft housing. Using the double ended brush, clean the mix inlet hole.

**Note:** Do not brush clean the mix inlet hole while the machine is in the WASH mode.

### Step 4

Press the WASH key. This will cause the cleaning solution in the freezing cylinder to come in contact with all areas of the freezing cylinder.

### Step 5

Place an empty pail beneath the door spout.

### Step 6

Open the draw valve on the freezer door and draw off all of the solution.

### Step 7

Once the cleaning solution stops flowing from the door spout, close the draw valve and press the WASH key, cancelling the WASH mode.

### Step 8

Prepare two gallons (7.6 liters) of an approved 100 PPM sanitizing solution (example: Kay-5®). USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

### Step 9

Repeat Steps 2 through 7 with the sanitizing solution.

**Repeat Steps 1 through 8** for the other side of the freezer on the Model PH84.

## Disassembly

**Note:** Failure to remove the parts specified below for brush cleaning and lubrication will result in damage to the machine. These parts must be removed and cleaned every 14 days or the machine will lock-out and will not operate.



**MAKE SURE POWER SWITCH IS IN THE "OFF" POSITION!** Failure to follow this instruction may result in severe personal injury from hazardous moving parts.

Remove the following parts and take them to the sink for cleaning.

### Step 1

Remove the design cap(s) from the door spout(s).

### Step 2

Remove the handscrews, freezer door, beater(s), scraper blades, and drive shaft(s) from the freezing cylinder(s).

### Step 3

Remove the scraper blade clips from the scraper blades.

### Step 4

Remove the drive shaft seal(s) from the drive shaft(s).

### Step 5

From the pump cylinder(s), remove the retaining pin(s), valve body(ies), piston(s), spring(s) and poppet(s). Remove the mix inlet tube(s). Remove all o-rings and check rings.



**Note:** To remove the o-rings, use a single service towel to grasp the o-ring. Apply pressure in an upward direction until the o-ring pops out of its groove. With the other hand, push the top of the o-ring forward, and it will roll out of the groove and can be easily removed. If there is more than one o-ring to be removed, always remove the rear o-ring first. This will allow the o-ring to slide over the forward rings without falling into the open grooves.

#### Step 6

Remove the freezer door gasket(s), front bearing(s), pivot pin(s), draw handle(s), and draw valve(s). Remove all o-rings.

#### Step 7

Remove the pump drive shaft(s) from the drive hub(s) in the rear wall of the mix hopper(s). Remove the two small o-rings and one large o-ring from the drive shaft(s).

#### Step 8

Remove the front drip tray and splash shield.

#### Step 9

Remove the long drip pan from the side panel.

**Note:** If the drip pan is filled with an excessive amount of mix, refer to the Troubleshooting Guide.

#### Step 10

Remove the pump drip pan(s) from the rear of the unit.

### Brush Cleaning

#### Step 1

Prepare a sink with an approved cleaning solution. **USE WARM WATER AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.**

**IMPORTANT:** Follow label directions, as too **STRONG** of a solution can cause parts damage, while too **MILD** of a solution will not provide adequate cleaning.

Make sure all brushes provided with the freezer are available for brush cleaning.

#### Step 2

Thoroughly brush clean all disassembled parts in the cleaning solution, making sure all lubricant and mix film is removed. Take particular care to brush clean the draw valve core(s) in the freezer door. Be sure to brush all surfaces and holes, especially the holes in the pump valve body(ies).

Rinse all parts with clean, warm water and place them on a clean, dry surface to air-dry overnight.

#### Step 3

Return to the freezer with a small amount of cleaning solution. With the black bristle brush, brush clean the rear shell bearing(s) at the back of the freezing cylinder(s). Brush clean the drive hub opening(s) in the rear wall of the mix hopper(s).

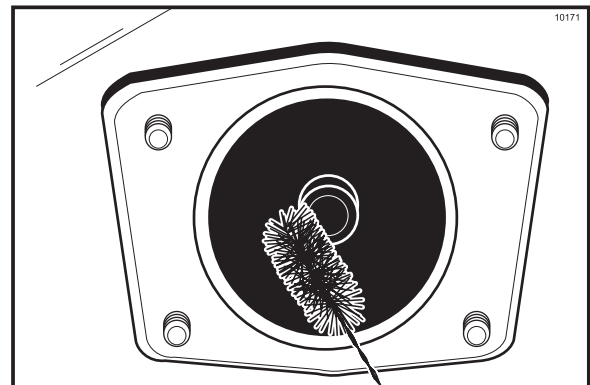


Figure 55

#### Step 4

Wipe clean all exterior surfaces of the freezer with a clean, sanitized towel.

# Section 7      Important: Operator Checklist

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## During Cleaning and Sanitizing



**ALWAYS FOLLOW LOCAL HEALTH CODES.**

Cleaning and sanitizing schedules are governed by your State or local regulatory agencies and must be followed accordingly. The following check points should be stressed during the cleaning and sanitizing operations.



**CLEANING AND SANITIZING MUST BE PERFORMED EVERY 14 DAYS.**

## Troubleshooting Bacterial Count

- ☐ 1. Thoroughly clean and sanitize machine regularly, including complete disassembly and brush cleaning.
- ☐ 2. Use all brushes supplied for thorough cleaning. The brushes are specially designed to reach all mix passageways.
- ☐ 3. Use the white bristle brush to clean the mix inlet hole which extends from the mix hopper down to the rear of the freezing cylinder.
- ☐ 4. Use the black bristle brush to thoroughly clean the rear shell bearing located at the rear of the freezing cylinder and the drive hub opening in the rear wall of the mix hopper, on pump style units. Be sure to have a generous amount of cleaning solution on the brush.
- ☐ 5. Properly prepare the cleaning and sanitizing solutions. Read and follow label directions carefully. Too strong of a solution may damage the parts and too weak of a solution will not do an adequate job of cleaning or sanitizing.
- ☐ 6. Temperature of mix in mix hopper and walk-in cooler should be below 40°F. (4.4°C.).
- ☐ 7. Discard remaining mix from freezer during "Closing Procedures".

## Regular Maintenance Checks

- ☐ 1. Replace scraper blades that are nicked or damaged. Before installing beater, be certain that scraper blades are properly attached.
- ☐ 2. Check rear shell bearing for signs of wear (excessive mix leakage in rear drip pan) and be certain it is properly cleaned.
- ☐ 3. Using a screwdriver and cloth towel, keep the rear shell bearing and the female hex drive socket clean and free of lubricant and mix deposits.
- ☐ 4. Dispose of o-rings and seals if they are worn, torn, or fit too loosely, and replace with new ones.
- ☐ 5. Follow all lubricating procedures as outlined in "Assembly".
- ☐ 6. Check the condenser(s) for accumulation of dirt and lint. Dirty condensers will reduce the efficiency and capacity of the machine. Condensers should be cleaned **monthly** with a soft brush.  
**Note:** For machines equipped with an air filter, it will be necessary to vacuum clean the filters on a monthly schedule.



**Never use screwdrivers or other metal probes to clean between the fins.** Failure to comply can result in severe personal injury from electrical shock.

- ☐ 7. On water cooled units, check the water lines for kinks or leaks. Kinks can occur when the machine is moved back and forth for cleaning or maintenance purposes. Deteriorated or cracked water lines should be replaced only by an authorized Taylor technician.

## The Air/Mix Pump Checklist

- ☐ 1. Dispose of o-rings and check rings if they are worn, torn, or fit too loosely, and replace with new ones.
- ☐ 2. Follow lubricating procedures carefully. DO NOT lubricate check rings.
- ☐ 3. To avoid nicks and cracks, handle plastic pump parts with care.
- ☐ 4. Be sure the air/mix pump is properly attached to the drive hub, or severe and costly damage may occur.

## Winter Storage

If the place of business is to be closed during the winter months, it is important to protect the freezer by following certain precautions, particularly if the building is to be left unheated and subject to freezing conditions.

Disconnect the freezer from the main power source to prevent possible electrical damage.

On water cooled freezers, disconnect the water supply. Relieve pressure on spring in water valve. Use air pressure on the outlet side to blow out any water remaining in the condenser. **This is extremely important.** Failure to follow this procedure may cause severe and costly damage to the refrigeration system.

Your local Taylor Distributor can perform this service for you.

Wrap detachable parts of the freezer such as beater, blades, drive shaft, and freezer door, and place in a protected dry place. Rubber trim parts and gaskets can be protected by wrapping with moisture-proof paper. All parts should be thoroughly cleaned of dried mix or lubrication accumulations which attract mice and other vermin.

## Section 8

## Troubleshooting Guide

PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
1. All four LED's are flashing.	a. The freezer is locked.	a. See soft lock and hard lock information.	16 - 17
2. Soft lock message appears on LCD.	b. More than 24 hours since the last heat cycle.	b. Freezer must go through a Heat Treatment Cycle every 24 hours. Freezer must now be disassembled and brush cleaned or placed in a heat cycle.	17
	c. Power switch is in the OFF position.	c. Power switch must be in the ON position. Freezer must now be disassembled and brush cleaned or placed in a heat cycle.	17
	d. Freezer not in the AUTO or STANDBY mode.	d. Freezer must be in the AUTO or STANDBY mode. Freezer must now be disassembled and brush cleaned or placed in a heat cycle.	17
	e. Mix out condition.	e. Hopper should be at least 1/2 full before starting the Heat Treatment Cycle. Freezer must now be disassembled and brush cleaned or placed in a heat cycle.	17
	f. Agitator not installed.	f. Agitator must be cleaned and installed before starting the heat cycle. Freezer must now be disassembled and brush cleaned.	33
	g. Agitator not rotating.	g. Agitator must be cleaned before starting the heat cycle. Disassemble freezer and brush clean.	33
	h. Insufficient mix in mix hopper.	h. The level of mix in the mix hopper must be above the mix low probe before starting the Heat Treatment Cycle. The freezer must now be disassembled and brush cleaned.	32
3. Hard lock message appears on LCD.	a. More than 14 days since last brush cleaning.	a. Freezer must be disassembled and brush cleaned every 14 days.	16
	b. A barrel or hopper thermistor is faulty.	b. Call a service technician.	16

PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
4. Drive shaft stuck in gear box coupling.	a. Rounded corners of drive shaft, coupling, or both.	a. Call service technician to correct cause and replace the necessary components. Do not lubricate end of drive shaft.	----
	b. Mix and lubricant collected in drive coupling.	b. Brush clean rear shell bearing area regularly.	37
5. No product being dispensed with draw valve open and machine in AUTO mode.	a. Freeze-up in mix inlet hole.	a. Call service technician to adjust hopper temperature.	----
	b. Beater rotating counter-clockwise.	b. Contact service technician to correct rotation to clockwise.	----
	c. Inadequate mix in hopper.	c. Fill hopper with mix.	32
6. Product too stiff.	a. Barrel viscosity set too cold.	a. Contact service technician to adjust barrel viscosity.	----
7. Product too soft.	a. Barrel viscosity set too warm.	a. Contact service technician to adjust barrel viscosity.	----
	b. Not enough air space around unit (air-cooled).	b. Allow for adequate air flow across the condenser(s).	1
	c. Worn scraper blades.	c. Replace regularly.	44
	d. Dirty condenser (air-cooled).	d. Clean regularly.	38
	e. Out-of-date mix.	e. Use only fresh mix.	32
	f. Loss of condenser cooling water (water-cooled).	f. Locate cause of water loss and correct.	38
8. Mix in hopper too cold.	a. Temperature out of adjustment.	a. Call service technician to adjust hopper temperature.	----
9. Mix in hopper too warm.	a. Temperature out of adjustment.	a. Call service technician to adjust hopper temperature.	----
	b. Hopper cover not in position.	b. Place cover in position.	----
	c. Agitator not installed, or installed upside down.	c. Install agitator correctly.	30
	d. Agitator not rotating.	d. Remove agitator and clean.	28
10. Freezing cylinder walls scored.	a. Beater assembly bent.	a. Call service technician to repair or replace beater and to correct cause of insufficient mix in freezing cylinder.	----
	b. Missing or worn front bearing.	b. Install or replace front bearing.	44

PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
11. Excessive mix leakage into rear drip pan.	a. Worn or missing seal on drive shaft.	a. Replace regularly.	44
	b. Inadequate lubrication of drive shaft.	b. Follow lubrication procedures in "Assembly".	21
	c. Worn rear shell bearing.	c. Call service technician to replace rear shell bearing.	----
	d. Seal installed inside-out on drive shaft.	d. Install correctly.	21
	e. Wrong type lubricant being used (Example: petroleum base lubricant).	e. Use proper lubricant (Example: Taylor Lube HP).	21
12. Excessive mix leakage from the door spout.	a. Worn or missing draw valve o-rings.	a. Replace regularly.	44
	b. Inadequate lubrication on draw valve o-rings.	b. Lubricate properly.	23
	c. Wrong type lubricant being used (Example: petroleum base lubricant).	c. Use food grade lubricant (Example: Taylor Lube HP).	21
13. No freezer operation after placing unit in AUTO.	a. Unit unplugged.	a. Plug into wall receptacle.	----
	b. Circuit breaker off or blown fuse.	b. Turn circuit breaker on or replace fuse.	----
	c. Power switch in the OFF position.	c. Place power switch to the ON position.	13
14. Product not feeding into freezing cylinder.	a. Inadequate mix in hopper.	a. Fill hopper with mix.	32
	b. Mix inlet hole frozen up.	b. Hopper temperature needs adjustment. Call service technician.	----
15. Air/mix pump will not operate in the AUTO mode with the draw valve opened.	a. Pump drive out on reset.	a. Reset pump.	----
16. Piston travels back and forth, but product is not being pumped.	a. Inspect check rings.	a. Check rings must be installed correctly, fit tightly, and not have any holes or lubrication.	25
	b. Inspect o-rings.	b. O-rings must not be worn, torn, or fit too loosely.	39
	c. Check pump cylinder.	c. Piston and valve body must be assembled correctly and fit snugly in pump cylinder.	25
	d. Missing or defective spring or poppet.	d. Replace.	27
17. Excessive pump cylinder wear.	a. Inadequate or incorrect lubrication of pump cylinder.	a. Follow lubrication procedures carefully.	26
	b. Incorrect ball crank rotation (should be counterclockwise).	b. Contact service technician.	----

PROBLEM	PROBABLE CAUSE	REMEDY	PAGE REF.
18. Pitting occurring inside pump cylinder.	a. Sanitizer left inside pump cylinder.	a. After sanitizing pump cylinder, allow to air dry. Follow disassembly procedures carefully.	36
19. Ball crank of motor reducer broken or motor going off on reset.	a. Incorrect rotation of pump motor (should be counter-clockwise).	a. Contact service technician.	----
20. Too much pressure in freezing cylinder.	a. Plugged relief hole in valve body below poppet.	a. Clean.	----
21. Not enough pressure in freezing cylinder.	a. Weak or bent spring in valve body.	a. Replace.	----
	b. Malfunctioning draw switch.	b. Contact service technician.	----
	c. Missing poppet.	c. Install poppet.	27
	d. Draw rate not adjusted properly.	d. Adjust draw rate.	14

## Section 9

## Parts Replacement Schedule

PART DESCRIPTION	EVERY 3 MONTHS	EVERY 6 MONTHS	ANNUALLY	QUANTITIES TO BE REPLACED	
				PH71	PH84
Scraper Blade	X	Minimum		2	4
Drive Shaft Seal	X			1	2
Freezer Door Gasket	X			1	2
Front Bearing	X			1	2
Front Beater Shoes	X			2	4
Draw Valve O-Ring	X			3	7
Pivot Pin O-Ring	X			1	1
Design Cap	X			1	3
Center Draw Valve Seal (Model PH84 only)	X				1
Pump O-Ring	X			4	8
Pump Check Ring	X			3	6
Feed Tube O-Ring	X			2	4
Rubber Poppet	X			1	2
Mix Inlet Tube O-Ring	X			1	2
Air Inlet Fitting Seal	X			1	2
Pump Drive Shaft O-Ring (sm)	X			2	4
Pump Drive Shaft O-Ring (lrg)	X			1	2
White Bristle Brush, 3" x 7"		Inspect & Replace if Necessary	Minimum	1	1
White Bristle Brush, 1-1/2" x 2"		Inspect & Replace if Necessary	Minimum	1	1
Black Bristle Brush, 1" x 2"		Inspect & Replace if Necessary	Minimum	1	1
Double Ended Brush		Inspect & Replace if Necessary	Minimum	1	1
End Brush (Door Spout)		Inspect & Replace if Necessary	Minimum	1	1



# Section 10

# Parts List

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
ADAPTOR A.-CASTER	X18915	4	4	103		
ACCUMULATOR-GLYCOL (OLD STYLE)	035175	1	1	103	J4019999/PRIOR (SEE TANK)	79
CAP-RADIATOR (OLD STYLE)	035179	1	1	103	J4019999/PRIOR	79
AGITATOR A. *HT*20 QT HOPPER	X44797	1	2	103		
BEARING-FRONT	050348		2	000	W/FRONT SHOES (X50350-KIT)	
BEARING-REAR SHELL *NICK PLATE	031324	1	2	000		
+GUIDE-DRIP SEAL	028992	1	2	000		
+NUT-BRASS BEARING	028991	1	2	000		
+WASHER-BEARING LOCK	012864	1	2	000		
BEATER A.-3.4QT-1 PIN-SUPPORT	X46231	1	2	103		
+BLADE-SCRAPER-PLASTIC 8-1/8L	046235	2	4	000		
+CLIP-SCRAPER BLADE	046236	2	4	103		
BELT-AX35	022848	2		000		
BELT-AX31	041575		4	000		
BELT-RD 3/16W X 4.70 ID	043121	1		000	AGITATOR MOTOR	
BELT-RD 3/16 W X 4.01 ID	036161		1	000	AGITATOR MOTOR	
BELT-RD 3/16 W X 9.12 ID	039108		1	000	AGITATOR MOTOR	
BLOCK-TERMINAL-2 POLE	039422	1	2	103		
BLOCK-TERMINAL-5 POLE	024329	1	2	103		
BLOCK-TERMINAL-PLUG 10P .2 SIP	040322-005	1	2	103		
BLOCK-TERMINAL-PLUG 7P .2 SIP	040322-003	2	4	103		
BLOCK-TERMINAL-PLUG 8P .2 SIP	040322-004	1	2	103		
BLOWER A.	X47833-	1	1	103	J4090000/UP HP62	86
HOUSING A.-W/WHEEL	X30160	1	1	103		
MOTOR-BLOWER FAN 230V	046536-	1	1	103	J4090000/UP HP62	86
BLOWER A.	X30153-	1	1	103	J4089999/PRIOR	86
HOUSING A.-W/WHEEL	X30160	1	1	103		
MOTOR-BLOWER FAN 230V	030157-	1	1	103	J4089999/PRIOR	86
BRUSH-DOUBLE ENDED-PUMP&FEED T	013072	1	1	000		
BRUSH-DRAW VALVE 1"ODX2"X17"L	013073	1	1	000		
BRUSH-END-DOOR-SPOUT-SS-HT	039719	1	1	000		
BRUSH-MIX PUMP BODY-3"X7"WHITE	023316	1	1	000		
BRUSH-REAR BRG 1IN.DX2IN.LGX14	013071	1	1	000		
CABLE-RIBBON-10C-56"L-DIL/DILR	040040-039	1	1	103	J31FR-LED	
CABLE-RIBBON-14C-14"L SIP/SIPR	040040-015	1	1	103	J9UC-LCD	

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
CABLE-RIBBON-20C-63"L-DIL/DILR	040040-047	1		103	J7UC-J9IFL	
CABLE-RIBBON-20C-72"L-DIL/DIL	040040-037	1	1	103	J2UC-J12IFL	
CABLE-RIBBON-20C-74"L-DIL/DILR	040040-038		1	103	J7UC-J9IFL	
CABLE-RIBBON-20C-9 DIL/DIL	040040-031		1	103	J11IFL-J12IFR	
CABLE-RIBBON-50C-56"L-DIL/DIL	040040-036	1	1	103	J11UC-J2IFR	
CABLE-RIBBON-50C-66 DIL/DIL	040040-034		1	103	J10UC-J2IFL	
CABLE-2 COND -#22 SHIELDED	045154-45		1	103	POWER CABLE IF-UC (BULK P/N R6003001)	
CABLE-2 COND -#22 SHIELDED	045154-55	1		103	POWER CABLE IF-UC (BULK P/N R6003001)	
CAP-DESIGN-1.010"ID-6 POINT	014218	1	3	000		
CAPACITOR-RUN- .8UF/400V	039482	1	1	103	AGITATOR MOTOR	
CAPACITOR	037251-	1	2	103	MOTOR-REDUCER	
CARD-DAILY CLEAN-HT-SS	046703	1	1	000		
CASTER-SWV 5/8 STEM 4IN WHEEL	018794	4	4	103		
CLAMP-HOSE 9/16 CRIMP TYPE	047344	14	22	000	GLYCOL TUBE	
COMPRESSOR AH2490Z-AH566ET (TECUMSEH) (French Manufacture - J9090000/UP)	047519-	1	2	512	J4090000/UP HP62	86
+CAPACITOR-RUN 35UF/440V	048132	1	2	103	J4090000/UP (230-60-1) HP62	86
+CAPACITOR-START-135-155UF/330V	036048	1	2	103	J4090000/UP (230-50/60-1) HP62	86
+RELAY-START-COMPRESSOR	036047	1	2	103	J4090000/UP (230-50/60-1) HP62	86
+GROMMET-COMPRESSOR MOUNTING	037428	4	8	000		
+SLEEVE-COMP. MOUNTING	037429	4	8	000		
COMPRESSOR L53A113BBCA (BRISTOL)	038144-	1	2	512	J4089999/PRIOR (USE 047519- )	86
+CAPACITOR-RUN- 20UF/440V	012906	1	2	103	J4089999/PRIOR (230-60-1)	86
+CAPACITOR-START-161-193UF/250V	031790	1	2	103	J4089999/PRIOR (230-60-1)	86
+RELAY-START-COMPRESSOR	038145	1	2	103	J4089999/PRIOR (230-60-1)	86
CONDENSER-AC-12LX18HX4.3-5ROW	019558	1	2	103		
COUPLING-DRIVE 3/4 HEX X 1-7/8	012721	1	2	103		
+SCREW-5/16-18 X 5/16 ALLEN SET	042511	2	4	000		
COVER A.-HOPPER INS.-COMPLETE	X42628-SER	1	2	103		
+KNOB-MIX COVER	025429	1	2	103		
+PIN-RETAINING-HOPPER COVER	043934	4	2	103		
+RETAINER-HOPPER COVER	042619	2	4	103		
+SCREW-8-32 X 1/2 OVAL HD-SS	043295	8	16	000		
DECAL-DAILY CLEANING-HT SS/YOG	045273	1	1	000		
DECAL-DEC-HT-SS-SGL-PUMP-PH71	045634	1		000		
DECAL-DEC-TAYLOR-PH84	052276		1	000	J8070000/UP	132

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
DECAL-DEC-TAYLOR-PH84	045375		1	000	PRIOR TO J8070000	132
DECAL-MANUAL CLEANING-HT-SS-P	045276	1	1	000		
DECAL-MIX PUMP RESET-SINGLE	044452	1	2	000		
DECAL-TROUBLESHOOTING	038374	1	1	000		
DEFLECTOR-BLOWER EXHAUST	047912	1	1	103	J4090000/UP HP62	86
DEFLECTOR-BLOWER EXHAUST	046586	1		103	J4089999/PRIOR	86
DIAGRAM-WIRING	047926-	1		000	J4090000/UP HP62	86
DIAGRAM-WIRING *PH71*	045635-	1		000	J4089999/PRIOR	86
DIAGRAM-WIRING	047986-		1	000	J4090000/UP HP62	86
DIAGRAM-WIRING *P/H84*	045371-		1	000	J4089999/PRIOR	86
DISPLAY-LIQUID CRYSTAL	X38062-SER	1	1	103		
+LENS-DISPLAY	038221	1	1	103		
+SCREW 2-56 X 1/2 FHM	038219	4	4	000		
+NUT-HEX	038220	4	4	000		
DOOR A.-HT-1 SPT	X51531-9	1		103	J5080000/UP	96
DOOR A.-HT-1 SPT					J5080000/PRIOR SEE KIT A.-DOOR	96
+ GASKET-DOOR -HT-4" SHELL	048926	1		000		
+HANDLE A.-DRAW-ADJ.	X44212	1		103		
HANDLE-DRAW VALVE	044197	1		103		
O-RING-1/4 OD X .070W 50 DURO	015872	1		000		
SCREW-ADJUSTMENT-5/16-24X1-1/	033662	1		000		
+NUT -5/16-24 18-8 SS JAM	029639-BLK	1		000		
+PIN A.-PIVOT	X22820	1		103		
+O-RING-5/16 OD X .070W	016272	1		000		
+VALVE A.-DRAW*SELF CLEANING*	X33582	1		103		
+O-RING-7/8 OD X .103W	014402	3		000		
DOOR A.-HT-3SPT-4"LONG	X51532-11		1	103	J5080000/UP	96
DOOR A.-HT-3SPT-4"LONG					J5080000/PRIOR SEE KIT A.-DOOR	96
+ DECAL-FREEZER DOOR	021521		1	000		
+GASKET-DOOR-HT	048926		2	000	J5080000/UP	96
+HANDLE A.-DRAW-ADJ	X33687		3	103		
O-RING-1/4 OD X .070W 50 DURO	015872		3	000		
SCREW-ADJUSTMENT	033662		3	000		
HANDLE-ADJUSTABLE	028804		3	103		
+NUT -5/16-24 18-8 SS JAM	029639-BLK		3	000		
+ROD A.-PIVOT	X20683		1	103		

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+O-RING-5/16 OD X .070W	016272		1	000		
+ VALVE A.-DRAW CENTER *754 HT*	X37376		1	103		
+SEAL-DRAW VALVE	034698		1	000		
+ VALVE A.-DRAW*SELF CLEANING*	X33582		2	103		
+O-RING-7/8 OD X .103W	014402		7	000		
DRYER-FILTER HP62-3/8 X 1/4 S	048901	1	2	000	J4090000/UP HP62	86
DRYER-FILTER 3/8 X 1/4 SOLDER	045866	1	2	000	J4089999/PRIOR	86
FILTER-CORCOM 6EH1	040140-001	1	1	103		
FILTER-INLINE-GLYCOL-40 MICRON	041670	1	1	103		
+ARMAFLEX-BOOT 1-3/8 ID X 3/8W	047490	1	1	000	GLYCOL FILTER	
FLUID A.-HEAT TRANSFER	X39667	1	1	000	1 GALLON	
FUSE-15 AMP-IN LINE-NON DELAY	045293	1	2	000		
GEAR A.*REDUCER	021286	1	2	212		
GEAR A.*REDUCER-AGITATOR (NEW)	047988	1	1	103	BEGIN APROX 3-1-94	84
GEAR A.*REDUCER-AGITATOR (OLD)	039469	1	1	103	OLD STYLE	84
GUIDE A.-DRIP PAN- PUMP	X48228		2	103	J6111240/UP	113
GUIDE A.-DRIP PAN- PUMP	X48433	1		103	J4093814/UP HP62	87
HEATER A.- GLYCOL *P/H71*	X47339-SER	1		103	J4020000/UP	79
HEATER A.- GLYCOL *P/H71*	X46912-	1		103	J4019999/PRIOR	79
THERMOSTAT-HI LIMIT	035786	1		103		
HEATER A.- GLYCOL-4500 W.-PRTL	X47395-SER		1	103	J4020000/UP	79
HEATER A.- GLYCOL-4500 W.-PRTL	X42729-		1	103	J4019999/PRIOR	79
THERMOSTAT-HI LIMIT	035786		1	103		
HINGE A.-MOTOR	X25731	1	2	103	BEATER MOTOR	
HOLDER-FUSE-IN LINE-TYPE HLR	045606	1	2	103		
HOSE-RUBBER 5/16"ID X 9/16"OD - GLYCOL TUBE	047340-	X	X	000	SIZES VARY - ORDER IN BULK - R50211	79
+CLAMP-HOSE - 9/16 CRIMP	047344	14	22	000		
HOUSING-A.-AGITATOR	X51661	1	2	103	REPLACES X42843	
+CAP-MAGNET *HT*	044796	1	2	103		
MAGNET A.-AGITATOR-INNER	X41733	1	2	103		
KIT A.-1 SPT. DOOR FLD. REPLACEMENT	X51531-1	1		103	MUST USE ON UNITS BEFORE S/N J5080000 TO REPL. X45156-SER DOOR A.	96
BEARING-FRONT 2-1/8"ODX1.33ID	023262	1		000		
DOOR A.-1 SPOUT	X51531-9	1		103		
GASKET-DOOR	048926	1		000		
NUT-STUD	021508	4		103		

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
O-RING-7/8 OD X .103W	014402	3		000		
KIT A.-3 SPT. DOOR FLD. REPLACEMENT	X51532-1		1	103	MUST USE ON UNITS BEFORE S/N J5080000 TO REPL. X41954-SER DOOR A.	96
BEARING-FRONT	050348		2	000	W/FRONT SHOES (X50350-KIT)	
DOOR A.-3 SPOUT	X51532-11		1	103		
GASKET-DOOR HT 4"-DOUBLE	048926		2	000		
NUT-STUD FLAT END-2-9/16 LONG	034383		2	103	REPLACES 048929	
NUT-STUD FLAT END-3-1/4 LONG	034382		2	103	REPLACES 048928	
O-RING-7/8 OD X .103W	014402		7	000		
SEAL-DRAW VALVE	034698		1	000		
KIT A.-TUNE UP-1 SPOUT-HT	X49463-8	1		000	REPLACES X45638	98 & 107
BEARING-FRONT	023262	1		000		
CAP-DESIGN-1.010"ID-6 POINT	014218	1		000		
GASKET-DOOR HT 4"-DOUBLE	048926	1		000		
O-RING-1-3/4 OD X .139W	008904	1		000		
O-RING-1-3/4 OD X .139W	015835	1		000	MIX INLET TUBE	
O-RING-1-3/4 OD X .139W	016272	1		000	PIVOT PIN	
O-RING-1-3/4 OD X .139W	014402	3		000	DRAW VALVE	
O-RING-1-3/4 OD X .139W	022473	1		000		
O-RING-1-3/8 OD X .103W	018664	1		000	LIQUID VALVE BODY	
O-RING-11/16ODX.103W-RED	016132	2		000	FEED TUBE	
O-RING-2-1/8 OD X .139W	020051	4		000	LIQUID VALVE BODY/PISTON	
RING-CHECK 1-1/4 OD X 3/8	033215	1		000	LIQUID VALVE BODY	
RING-CHECK 2 IN OD X 1/2	020050	2		000	LIQUID VALVE BODY	
SEAL-AIR INLET FITTING	045327	1		000		
SEAL-CUP-3/4OD X 1/2ID X 1/8TK	048632	2		000	PUMP DRIVE SHAFT	
SEAL-DRIVE SHAFT	032560	1		000		
TOOL- 0-RING REMOVAL	048260-WHT	1		000		
KIT A.-TUNE UP-3 SPOUT-HT	X49463-1		1	000	REPLACES X42790	98 & 107
BEARING-FRONT	050348		2	000	W/FRONT SHOES (X50350-KIT)	
CAP-DESIGN-1.010"ID-6 POINT	014218		3	000		
GASKET-DOOR HT 4"-DOUBLE	048926		2	000		
O-RING 1/2 ID X .139W-206	048632		4	000	PUMP DRIVE SHAFT	
O-RING-1-3/4 OD X .139W	008904		2	000	MIX PUMP/DRIVE SHAFT	
O-RING-1-3/8 OD X .103W	018664		2	000	LIQUID VALVE BODY	
O-RING-11/16ODX.103W-RED	016132		4	000	FEED TUBE	

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
O-RING-2-1/8 OD X .139W	020051		8	000	LIQUID VALVE BODY/PISTON	
O-RING-3/4 OD X .103W	015835		2	000	MIX INLET TUBE	
O-RING-5/16 OD X .070W	016272		1	000	PIVOT PIN	
O-RING-7/8 OD X .103W	014402		7	000	DRAW VALVE	
POPET- RUBBER- BLACK	022473		2	000		
RING-CHECK 1-1/4 OD X 3/8	033215		2	000	LIQUID VALVE BODY	
RING-CHECK 2 IN OD X 1/2	020050		4	000	LIQUID VALVE BODY	
SEAL-AIR INLET FITTING	045327		2	000		
SEAL-DRAW VALVE	034698		1	000	CENTER DRAW VALVE	
SEAL-DRIVE SHAFT	032560		2	000		
TOOL- 0-RING REMOVAL	048260-WHT		1	000		
LABEL-CAUTION-AGITATOR	045191	1	2	000	MIX HOPPER	
LABEL-MOVING PARTS WARNING	024315	3	3	000		
LABEL-WARN-COVER	051433	5	8	000		
LOUVER-SIDE	017471	2	1	103	Left side on H84	
LOUVER-SIDE	028288		1	103	Right side on H84	
LUBRICANT-SUPER TAYLOR 4 OZ.TUBE	048232	1	1	000		
MAN-OPER H71/H84	048886-M	1	1	000	J5032440/UP	91
MOTOR-1.5 HP	021522-	1	2	212		
CAPACITOR-START	045862	1	2	103	LEESON-230-60-1	
CAPACITOR-RUN	036084	1	2	103	LEESON-230-60-1	
CAPACITOR-START	028315	1	2	103	CENTURY-230-60-1	
CAPACITOR-RUN	033050	1	2	103	CENTURY-230-60-1	
MOTOR-AGITATOR	047987-	1	1	103	BEGIN APPROX 3-1-94	84
MOTOR-AGITATOR	039468-	1	1	103	OLD STYLE	84
MOTOR-REDUCER 32 RPM-HPR PUMPM	036955-34	1	2	103		
CAPACITOR	037251-	1	2	103		
COUPLING-MOTOR-FLEXIBLE	047936	1	2	103		86
GEAR-ONLY	049247-34	1	2	103		93
MOTOR-ONLY	049246-34	1	2	103		93
NUT-OVERLOAD-RESET	045026	1	2	000		
OVERLOAD-TI #2BMKK20-71	044464	1	2	103	KLIXON	
RELAY-MTR START TH#CR-1-625	039725-	1	2	103	PUMP MOTOR	
SEAL-MOTOR REDUCER-INPUT SHAFT	048836	1	2	000		90
SEAL-MOTOR REDUCER-OUTPUT SHAFT	048837	1	2	000		90
NUT-STUD	021508	4		103	J5080000/UP	96

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
NUT- STUD- UPPER (LONG)	034382		2	103	J5080000/UP (REPLACES 048928)	96
NUT- STUD- LOWER (SHORT)	034383		2	103	J5080000/UP (REPLACES 048929)	96
ORIFICE	022465- 100	1	2	103	(016137 - O - RING)	
PAIL- 10 QT.	013163	1	1	000		
PAN A.- DRIP - HOPPER PUMP	X45289		1	103	J6111239/PRIOR -	113
PAN- DRIP- HOPPER PUMP	048204		2	103	J6111240/UP	113
PAN A.- DRIP *PH71* HOPPER PUMP	X46927	1		103	J4093814/PRIOR	87
PAN- DRIP- HOPPER PUMP	048435	1		103	J4093814/UP	87
PAN- DRIP 11- 5/8 LONG	027503	1		103	REAR SHELL BEARING	
PAN- DRIP 17- 1/4" LONG	027504		1	103	REAR SHELL BEARING	
PANEL A.- FRONT *PH71*	X45630	1		103		
PANEL A.- FRONT *PH84*	X46167		1	103		
PANEL A.- SIDE LOWER- RIGHT	X24424- SER	1		103		
PANEL A.- SIDE LOWER- RIGHT (LOUVERED)	X46448- SER		1	103	J4120000/UP	89
PANEL A.- SIDE- LOWER- LEFT (LOUVERED)	X39075- SER	1		103		
PANEL A.- SIDE- LOWER- LEFT (LOUVERED)	X46447- SER		1	103	J4120000/UP	89
PANEL- REAR	048203	1		103	J4093814/UP	87
PANEL- REAR	026980	1		103	J4093813/PRIOR	87
PANEL- REAR	044632		1	103	PRIOR TO J6111240	113
PANEL- REAR	051076		1	103	J6111240/UP	113
PANEL- SERVICE *PH71*	045637	1		103		
PANEL- SERVICE *PH84*	046172		1	103		
PANEL- UPPER SIDE- LEFT	024426	1		103		
PANEL- UPPER SIDE- LEFT	028822		1	103		
PANEL- UPPER SIDE- RIGHT	028823	1	1	103		
PCB A.- CONTROL *PH71* (NEW)	X52627- SER	1		212	J8086520/UP	133
Includes:						
CHIP- SOFTWARE *PH71*	X40778	1		103		
PCB A.- UVC2	X51169- SER	1		212	Base Board	
PCB A.- CONTROL *PH71* (OLD STYLE)	X45633- SER	1		212	Replace w/X52627- SER	133
Includes:						
CHIP- SOFTWARE *PH71*	X40846	1		103		
PCB A.- UNIVERSAL CONTROL 64K	X44863- SER	1		212	Base Board	
PCB A.- CONTROL *PH84*	X46227- SER		1	212		
Includes:						
CHIP- SOFTWARE *PH84*	X40841		1	103		

+ Available Separately

140815

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
IC-PARALLEL PORT CHIP	040176-006		1	103		
PCB A.-UNIVERSAL CONTROL 64K	X44863-SER		1	212		
PCB A.-INTERFACE-HT-SS	X47048-SER	1	2	212		
Includes:						
PCB A.-INTERFACE-HT-BASE	X44747-SER	1	2	212	BASE BOARD	75
PCB A.-PERSONALITY-HT-SS	X46904-SER	1	2	212		
PCB A.-LED-4 POSITION	X44752-SER	1	1	212		
PLATE A.-DEC *P/H71	X46388	1		103		
PLATE A.-DEC-H84/PH84-PARTIAL	X45397		1	103		
PLUG-DRIP TRAY HOLE	029595		1	000		
PROBE A.-MIX LOW-HT	X42077	1	2	103		
+DISC-PROBE *SQ HOLE*	030965	1	2	103		
+SPACER-PROBE *SQ HOLE*	030966	1	2	103		
PROBE A.-MIX OUT-SQUARE HOLE	X41348	1	2	103		
+O-RING-1/2OD X .070W	024278	2	4	000		
+SPACER-PROBE-ROUND HOLE-5/8DIA	041347	1	2	103		
+SPACER-PROBE-SQUARE HOLE-7/8	041346	1	2	103		
PROBE-THERMISTOR-BARREL-2% TOL	038061-BLK	1	2	103	BARREL	
PROBE-THERMISTOR-HOPPER-2% TOL	039470-BLK	2	3	103	HEATER AND HOPPER	
PULLEY-2AK22 X .625-.6265	016403	1	2	103	BEATER MOTOR	
PULLEY-2AK74-5/8	027822	1	2	103	GEAR	
PULLEY-AGT DR-1.910PDX5/16 THD	036210	1	3	103	AGITATOR MOTOR	
+SCREW-8-32 X 1/4 ALLEN SET	043603	1	6	000		
PULLEY-AGT MTR-1.910PDX3/8BORE	042063	1	1	103	AGITATOR MOTOR	
+SCREW-8-32 X 1/4 ALLEN SET	043603	2	2	000		
PUMP A.-COAX *HPR*SS*B	X45316-B	1	2	103		
BODY A.-COAX VALVE *HPR*SS*B	X46860-B	1	2	103		82
+CLIP-MIX PUMP RETAINER	044641	1	2	103		
CYLINDER A.-PUMP *HT*MCD*SS	X44755	1	2	103		
O-RING-1-3/8 OD X .103W	018664	1	2	000		
O-RING-2-1/8 OD X .139W	020051	3	6	000		
O-RING-3/4 OD X .103W	015835	1	2	000		
PIN A.-COAX PUMP *HT*SS*	X36950	1	2	103		
+PIN-COTTER-HAIRPIN-1/8DIA	044731	1	2	103		
PISTON-COAX PUMP *B*HPR	045319-B	1	2	103		
POPPET-RUBBER-BLACK	022473	1	2	000		

+ Available Separately



DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
RING-CHECK 1-1/4 OD X 3/8	033215	1	2	000		
RING-CHECK 2 IN OD X 1/2	020050	2	4	000		
SEAL-AIR INLET FITTING	045327	1	2	000		
SPRING-TAPERED 1-7/8L	022456	1	2	000		
TUBE A.-MIX INLET - HOPPER PUMP	X45318	1	2	103		
PUMP-GLYCOL - 1/8NPT-1650 RPM	041785	1	1	112		
+BOOT-GLYCOL PUMP	042131	1	1	000		
RELAY-3 POLE-20A-208/240 50/60	012725-	1	2	103	MAIN COMPRESSOR	
RELAY-MTR START T#4CR-1-625	039725-	1	2	103	PUMP MOTOR	
RELAY-SPDT-30 A-240 V	032607-	1	1	103	AGITATOR MOTOR	
SANITIZER KAY-5 (125 PACKETS)	041082	1	1	000		
SHAFT-BEATER	032564	1	2	103		
+SEAL-DRIVE SHAFT	032560	1	2	000		
SHAFT A.-DRIVE-MIX PUMP-HOPPER	X39084	1		103		
CRANK-DRIVE-HOPPER MIX PUMP	039235	1		103		
O-RING-1-3/4 OD X .139W	008904	1		000		
SEAL-CUP-3/4OD X 1/2ID X 1/8TK	048632	2		000		
SHAFT- PUMP-MIX	039106	1		103		
SHAFT A.-DRIVE-MIX PUMP-HOPPER	X41947		2	103		
CRANK-DRIVE-HOPPER MIX PUMP	039235		2	103		
O-RING-1-3/4 OD X .139W	008904		2	000		
SEAL-CUP-3/4OD X 1/2ID X 1/8TK	048632		4	000		
SHAFT-DRIVE-MIX PUMP-HOPPER	041948		2	103		
SHELL A.-INSULATED *PH71*	X45629	1		512		
+STUD-NOSE CONE	022822	4		103		
SHELL A.-INSULATED *PH84*	X46173		1	512		
+STUD-NOSE CONE	022822		4	103		
SHIELD-SPLASH-WIRE 13-11/16L	046177	1		103		
SHIELD-SPLASH-WIRE 21-11/16 L	046170		1	103		
SHROUD-FAN *P/H71*BACK	046400	1		103		
SHROUD-FAN *P/H71*FRONT-TOP	046399	1		103		
SHROUD-FAN *P/H71*SIDE-TOP	046401	1		103		
SHROUD-FAN-FRONT BOTTOM	039059	1		103		
SHROUD-FRONT *8784*	042692		1	103		
SHROUD-REAR *8784*	042693		1	103		
SHROUD-TOP *8784*	042717		1	103		

+ Available Separately

051103

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
SLEEVE A.-PUMP	X45012	1		103		
+NUT-PUMP SLEEVE	036933	1		103		
SLEEVE A.-PUMP	X44761		2	103		
+NUT-PUMP SLEEVE	036933		2	103		
STARTER-1 PHASE-4.5 TO 7 AMP	041950-27K	1	2	103	SINGLE PHASE	
STARTER-3 PHASE-3 TO 5 AMP	041950-33J	1	2	103	THREE PHASE	
SWITCH A.-DRAW	X33322-SER	1		103	SELF CLOSING	
ARM A.-DRAW	X33326	1		103		
BRACKET A.-SWITCH	X43722	1		103		
CLIP-HAIRPIN .026 WIRE 37/64L	014051	1		000		
NUT-4-40 HEX -PLATED-	038623	2		000		
PIN-PIVOT	015478	1		103		
SCREW-4-40 X 5/8 RHM-ZP STEEL	027219	2		000		
SPRING-RETURN-LEFT-SELF CLOSE	041660	1		103		
SPRING-RETURN-RIGHT-SELF CLOSE	041661	1		103		
SWITCH-LEVER-SPDT-10A-125-250V	028889	1		103		
SWITCH A.-DRAW	X38547		1	103	SELF CLOSING	
ARM-SWITCH-DRAW-LEFT	038649		1	103		
ARM-SWITCH-DRAW-RIGHT	038650		1	103		
BRACKET A.-SPRING RETURN	X38257		1	103		
BRACKET A.-SWITCH *338-39-754	X38252		1	103		
E-RING 1/4	032190		4	000		
PIN-PIVOT-DRAW SWITCH	038484		1	103		
ROD-SPRING RETAINER	038254		1	103		
SCREW-8-32X3/8 HEX HD TYPE 23	039267		2	000		
SPRING-EXTENSION.375X.045X1.00	038922		2	103		
SPRING-RETURN-LEFT-TWIN TWIST	038923		1	103		
SPRING-RETURN-RIGHT-TWIN TWIST	038924		1	103		
SWITCH A.-DRAW-TWIN TWIST	X39269		1	103		
BRACKET-DRAW SWITCH-TWIN TWIST	039264		1	103		
SCREW-4-40 X1/2	042604		4	000		
SWITCH-LEVER-SPDT-11A-125-25	039252		2	103		
SWITCH-MEMBRANE-5 POSITION-8"L	044520	1	1	103		
SWITCH-MEMBRANE-5 POSITION-20"	044521		1	103		
SWITCH-PRESSURE 440PSI	048230	1	2	103	J4090000/UP (REPLACES 046362)	86 & 119
SWITCH-PRESSURE 25PS OPEN 405	030886	1	2	103	J4089999/PRIOR	86

+ Available Separately

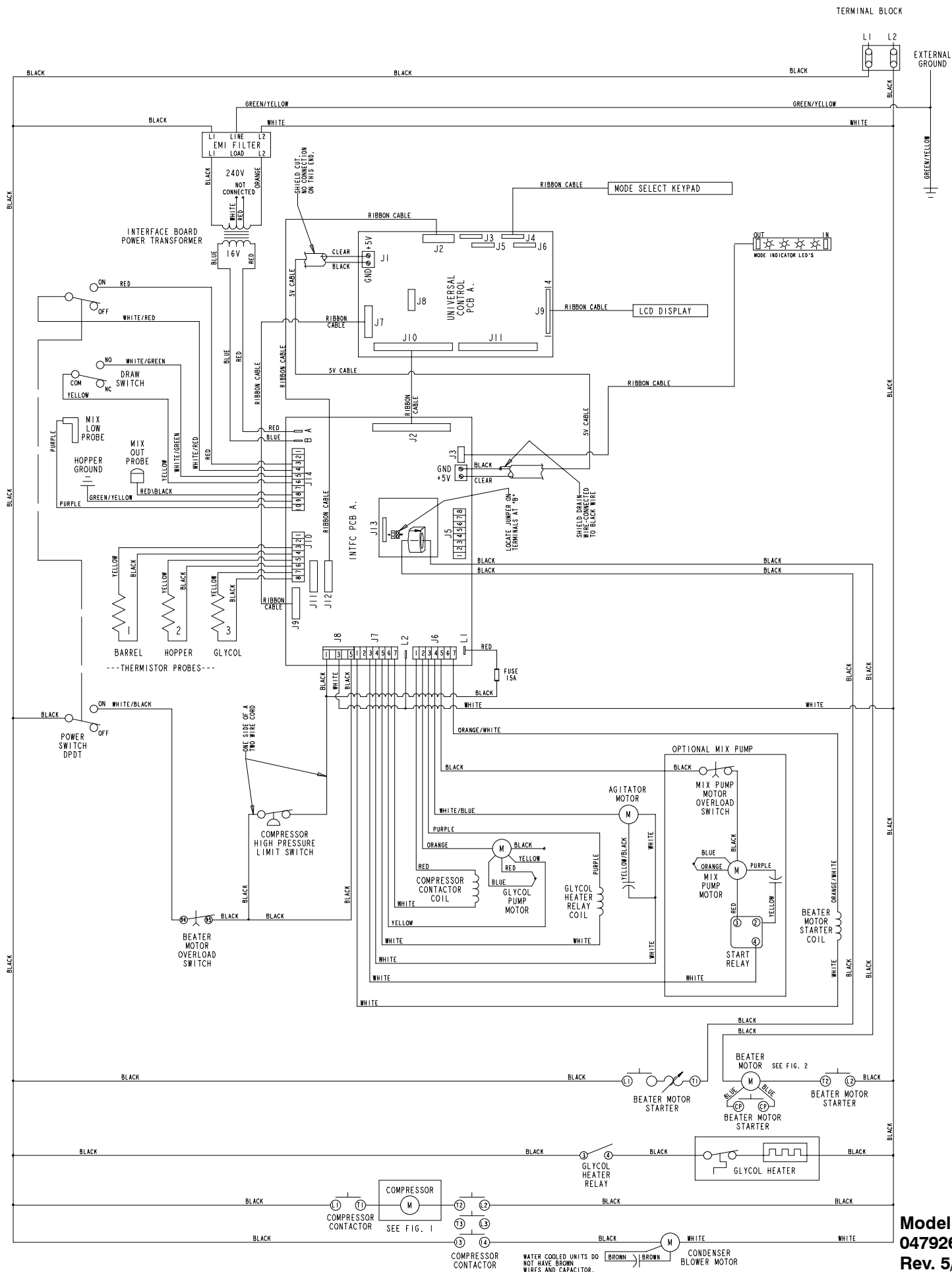
DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
+BOOT-PRESSURE SWITCH	034682	1	2	000	J4089999/PRIOR	
SWITCH-TOGGLE-DPDT*ON-NONE-ON	024295	1	1	103	POWER SWITCH	
TANK-GLYCOL 1.5QT-PLASTIC	047314	1	1	103	J4020000/UP	79
CAP-GLYCOL TANK	047314-1	1	1	103	J4020000/UP	79
THERMOCOTE-1 JOINT COMPOUNT	076046	1	1	000	1 OZ TUBE	
TOOL-COAX PUMP-LVB & DRIVE SHAFT	047919	1	1	000		
TRANS.-CONT.-40VA 120/200/240V	045754	1	1	103		
TRAY-DRIP 14.8	046275	1		103		
TRAY-DRIP 22-13/16 X 5-1/8	046171		1	103		
TRAY-PARTS-PUMP	044117	1	2	000		
TRAY-PARTS-BARREL	045756	1		000		
TRAY-PARTS-BARREL	045755		1	000		
TRIM-REAR CORNER LEFT	046390	1		103		
TRIM-REAR CORNER RIGHT	046391	1		103		
TRIM-REAR CORNER LEFT	013761		1	103		
TRIM-REAR CORNER RIGHT	013663		1	103		
TUBE A.-FEED-HPR PUMP-SS	X44666	1	1	103		
O-RING-11/16ODX.103W-RED	016132	2	2	000		
TUBE A.-FEED-HPR PUMP-SS-LEFT	X44662		1	103		
+ O-RING-11/16ODX.103W-RED	016132		2	000		
TUBE A.-FEED-HPR PUMP-SS-RIGHT	X44664		1	103		
+O-RING-11/16ODX.103W-RED	016132		2	000		
TUBE-VINYL 1/4ID X 1/16WALL	020941-16	1	1	000	BULK 100FT-R30312	
VALVE-ACCESS 1/4FLX5/16SDR-90	053027	1	2	103	French Manufacture -J9090000/UP (Main LS)	
VALVE-ACCESS 1/4FL X 3/8SDR-90	044455	1	2	103	USA Manufacture-Prior to J9090000	
VALVE-ACCESS-1/4 MFL X 1/4S-90	047016	1	2	103	J4090000/UP HP62 (MAIN HS)	86
VALVE-ACCESS 1/4 X 3/8 SOLDER	029406	1		103	J4089999/PRIOR (MAIN HS)	86
VALVE-ACCESS 1/4 FL X 3/8 SOLDER	043232		2	103	J4089999/PRIOR (MAIN HS)	86
VALVE-EXP-AUTO-1/4S X1/4 FPT	046365	1	2	103		
+BOOT-EXPANSION VALVE	050900	1	2	000		
VALVE-SOLENOID 3-W 1/4FPT 240V	037954-27		2	103	GLYCOL HEATER	
+COIL-SOLENOID VALVE	037954-27C		2	103	GLYCOL SOLENOID	86
VIDEO-TRAIN-SS-HT	049013-V	1	1	000		91

+ Available Separately

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
<b>WATER COOLED</b>						
ADAPTOR-3/8MP X 1/2BARB	011021	1		103		
BLOWER-100 CFM	012796-	1	1	103		
BRACKET-CONDENSER	047022		1	103		
BRACKET-MOUNTING-WATER VALVE	038777	1		103		
CLAMP-HOSE-ADJ 7/16 X 25/32	010031	4	8	000		
CONDENSER-W/C-COAXIAL	045740	1	2	103	J4090000/UP HP62	87
CONDENSER-W/C COAX	031651	1	2	103	PRIOR TO J4090000	
GUARD-BLOWER	022505	1	1	103		
OUTLET A.-TEE	X25900		1	103		
HOSE-RUBBER	R50200	3ft	8ft	000		
SWITCH-PRESSURE 350 PSI	048231	1	2	103	REPLACES 046431 HP62	
VALVE-WATER 3/8 REG/HEAD PRESSURE	046686	1	2	103	J4090000/UP HP62	87
VALVE-WATER 3/8 REG /HEAD PRESSURE	008363	1	2	103	J4089999/PRIOR	87

DESCRIPTION	PART NUMBER	PH71 QTY.	PH84 QTY.	WARR. CLASS	REMARKS	PARTS UPDATE
<b>50Hz</b>						
BELT-AX32	032769		4	000	(50Hz PUMP ONLY)	
BLOCK-TERMINAL-7 POLE GREEN	024156	1	2	103		
CAPACITOR-RUN 35UF/370V (TECUMSEH)	029439	1	2	103	COMPRESSOR (230-50-1) J4090000/UP	
CAPACITOR-RUN 25UF/370VAC (BRISTOL)	023739	1	2	103	COMPRESSOR (230-50-1) PRIOR TO J4090000	
CAPACITOR-START-161-193UF/250V (BRISTOL)	031790	1	2	103	COMPRESSOR (230-50-1) PRIOR TO J4090000	
RELAY-START (BRISTOL)	038146	1	2	103	COMPRESSOR (230-50-1) PRIOR TO J4090000	
PULLEY -2AK27 X .625	011545	1	2	103	BEATER MOTOR	
PULLEY-AGT DR -1.690PDX5/16 THD	045717	1	1	103		
PULLEY-AGT DR -1.910PDX5/16 THD	036210		2	103		
PULLEY-AGT MTR-2.110PDX3/8 BORE	045718	1	1	103		
STARTER-1 PHASE-4.5 TO 7 AMP	041950-33K	1	2	103	SINGLE PHASE	
STARTER-3 PHASE-2.0 TO 3.3 AMP	041950-33H	1	2	103	THREE PHASE	

+ Available Separately



**Model PH71**  
**047926-27**  
**Rev. 5/01**

# GROUND FRAME SECURELY

## NOTE:

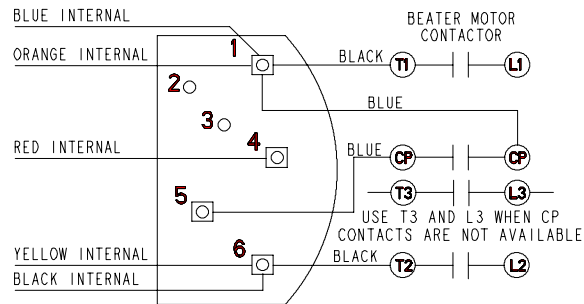
1. STATIC ELECTRICITY MAY CAUSE DAMAGE TO SOLID STATE COMPONENTS. ELIMINATE STATIC ELECTRICITY BY TOUCHING GROUNDED UNIT BEFORE HANDLING SOLID STATE COMPONENTS.
2. RED WIRE ON RIBBON CABLES MUST BE CONNECTED TO PIN 1 AT EACH END.

### MAGNETEK BEATER MOTOR WIRING

#### STEPS:

- 1) REMOVE BROWN JUMPER FROM BETWEEN TERMINAL #1 TO TERMINAL #5
- 2) MOVE BLUE INTERNAL (FROM MOTOR MAIN WINDING) FROM TERMINAL #5 TO TERMINAL #1.

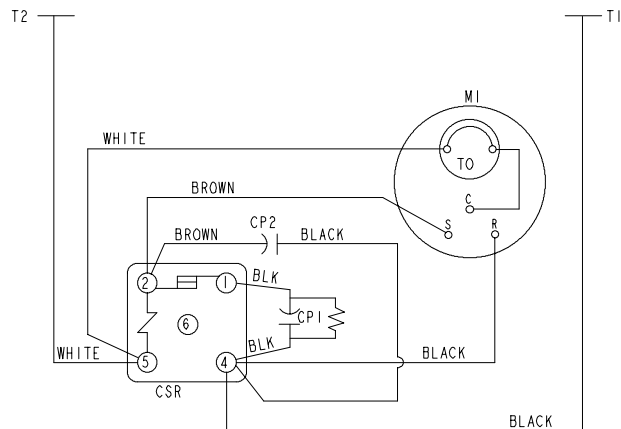
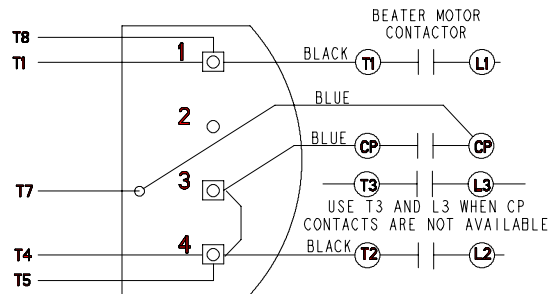
NOTE: FOR CCWLE - BLUE INTERNAL ON #1, YELLOW INTERNAL ON #6



### LEESON BEATER MOTOR WIRING

#### STEPS:

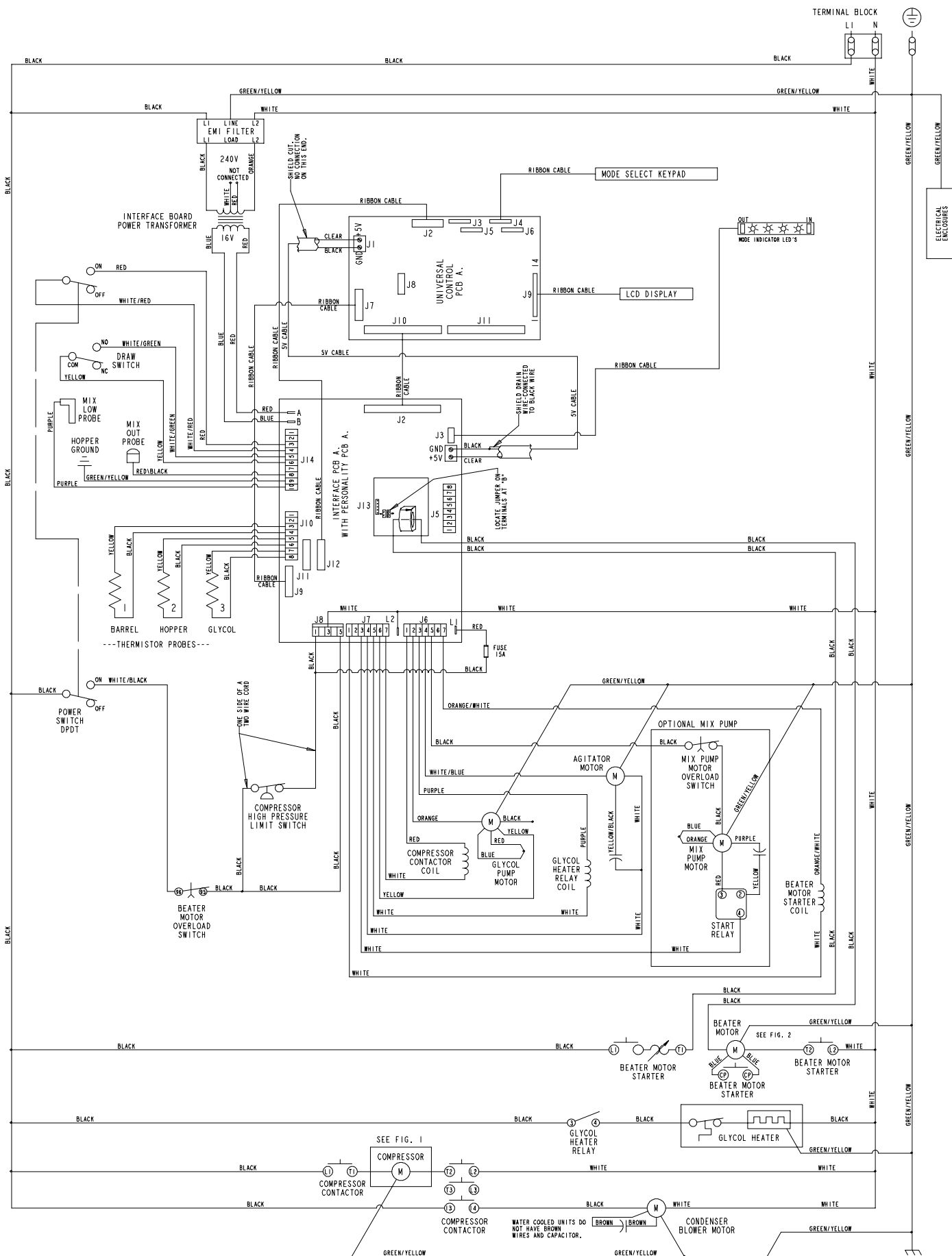
- 1) DISCONNECT WIRE T7 FROM TERMINAL 3
- 2) SPLICE BLUE WIRE AS SHOWN



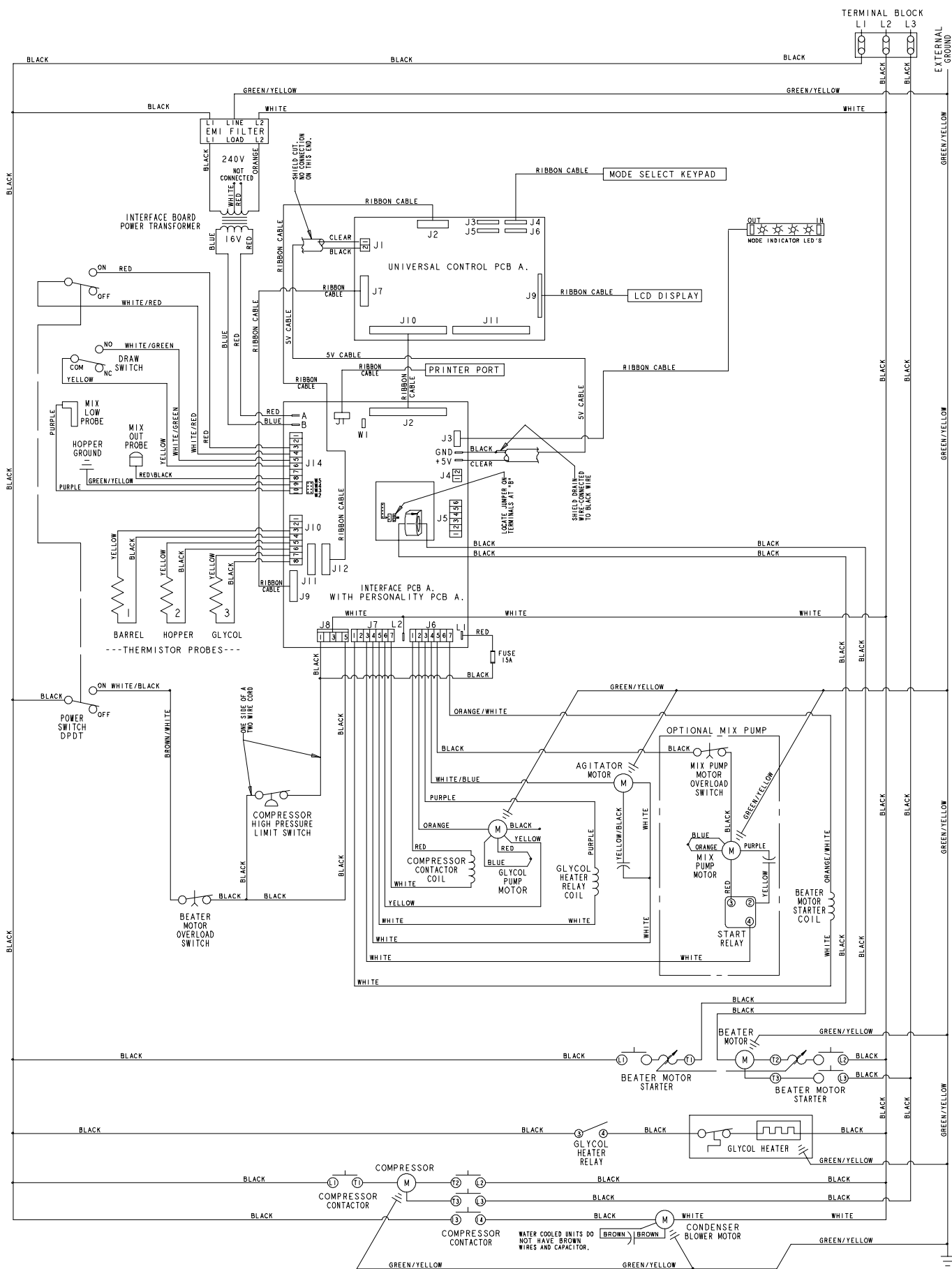
TECUMSEH COMPRESSOR WIRING

FIG 1.









**Model PH71**  
**047926-35**  
 Rev. 5/01





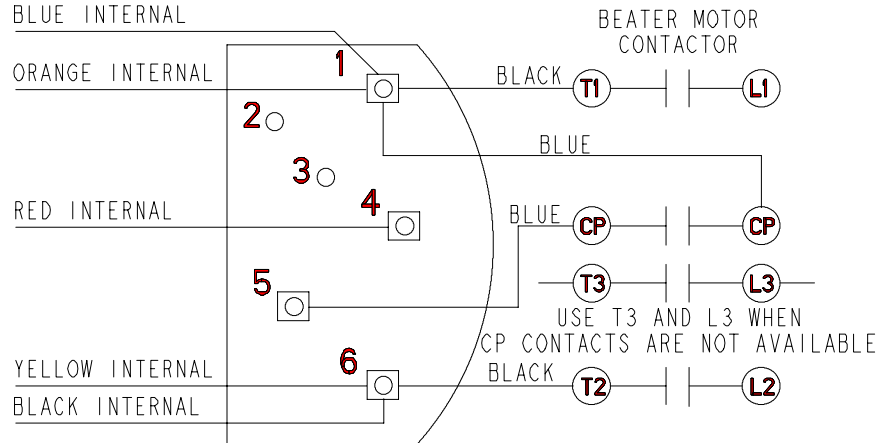


### MAGNETEK BEATER MOTOR WIRING

#### STEPS:

- 1) REMOVE BROWN JUMPER FROM BETWEEN TERMINAL #1 TO TERMINAL #5
- 2) MOVE BLUE INTERNAL (FROM MOTOR MAIN WINDING) FROM TERMINAL #5 TO TERMINAL #1.

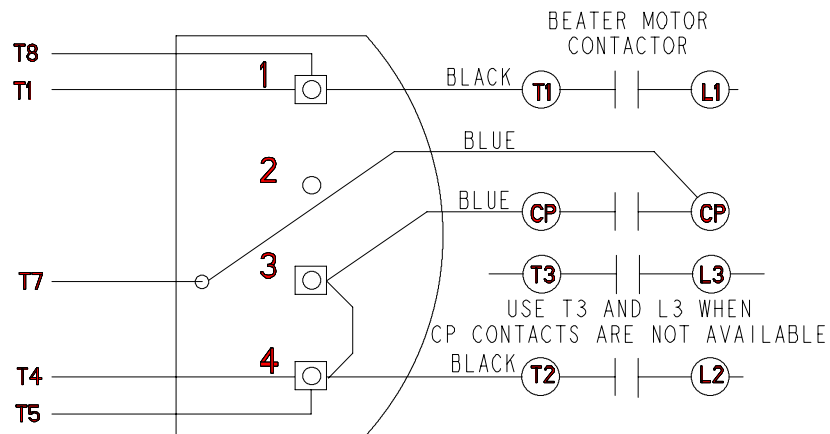
NOTE: FOR CCWLE - BLUE INTERNAL ON #1, YELLOW INTERNAL ON #6



### LEESON BEATER MOTOR WIRING

#### STEPS:

- 1) DISCONNECT WIRE T7 FROM TERMINAL 3
- 2) SPLICE BLUE WIRE AS SHOWN



## GROUND FRAME SECURELY

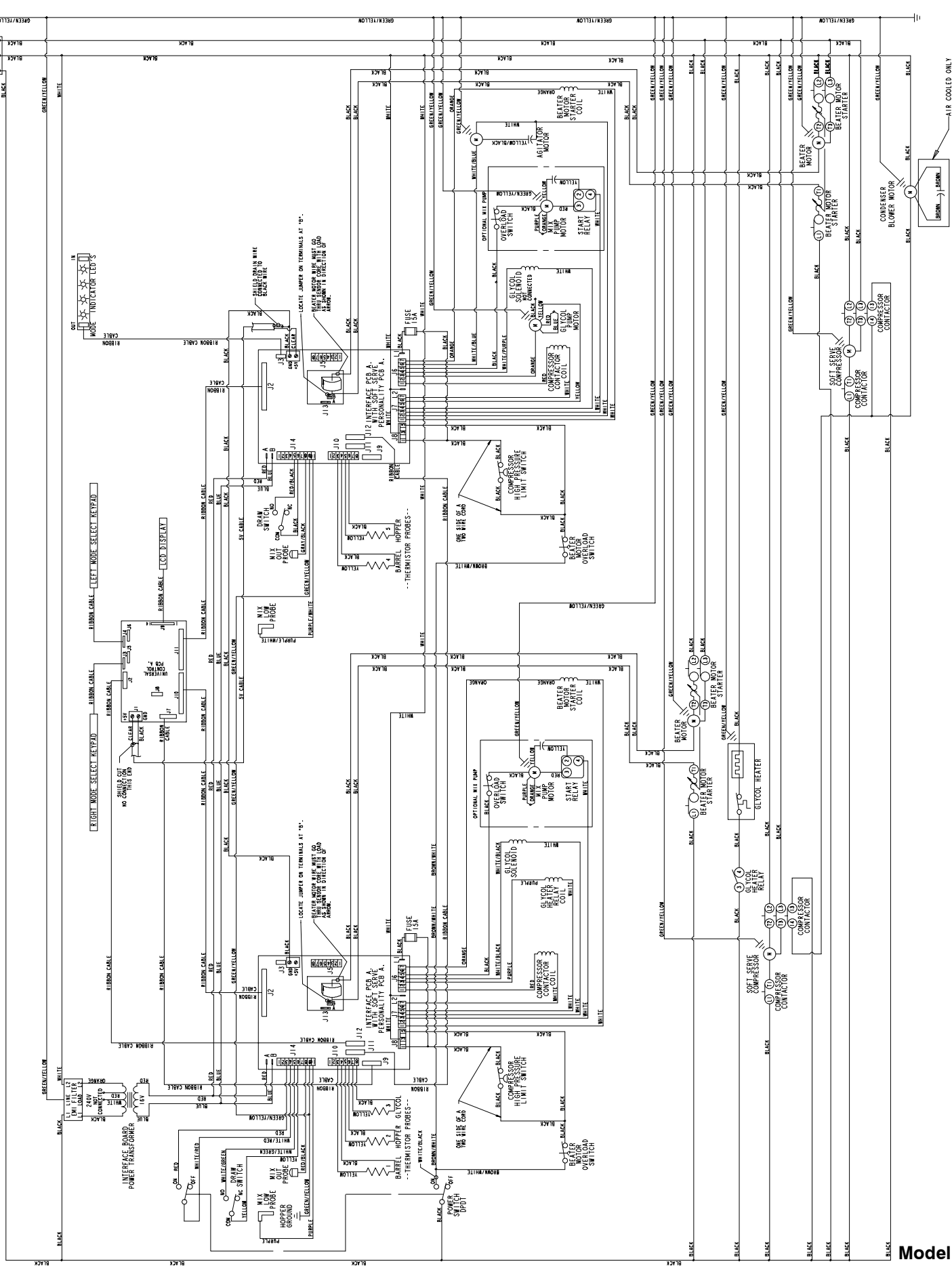
#### NOTE:

1. STATIC ELECTRICITY MAY CAUSE DAMAGE TO SOLID STATE COMPONENTS. ELIMINATE STATIC ELECTRICITY BY TOUCHING GROUNDED UNIT BEFORE HANDLING SOLID STATE COMPONENTS.
2. RED WIRE ON RIBBON CABLES MUST BE CONNECTED TO PIN 1 AT EACH END.





L1 L2 L3  
TERMINAL BLOCK



Model PH84  
047986-35  
Rev. 5/01





