

# **OPERATOR'S MANUAL**



## **Model 5454 Shake Freezer**

**Original Operating Instructions**

028765-M

10/99 (Original Publication)  
(Updated 4/3/2020)

**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: \_\_\_\_\_ Amps

Minimum Wire Ampacity: \_\_\_\_\_ Amps

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

**Only instructions originating from the factory or its authorized translation representative(s) are considered to be the original set of instructions.**

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028765-M

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The following information has been included in the manual as safety and regulatory guidelines. For complete installation instructions, please see the Installation Checklist.

## Installer Safety



**IMPORTANT!** In all areas of the world, equipment should be installed in accordance with existing local codes. Please contact your local authorities if you have any questions.

Care should be taken to ensure that all basic safety practices are followed during the installation and servicing activities related to the installation and service of Taylor® equipment.

- Only authorized Taylor service personnel should perform installation, maintenance, and repairs on Taylor equipment.
- Authorized service personnel should consult OSHA Standard 29CFR1910.147 or the applicable code of the local area for the industry standards on lockout/tagout procedures before beginning any installation or repairs.
- Authorized service personnel must ensure that the proper protective equipment (PPE) is available and worn when required during installation and service.
- Authorized service personnel must remove all metal jewelry, rings, and watches before working on electrical equipment.



**DANGER!** The main power supply(s) to the unit must be disconnected prior to performing any installation, maintenance, or repairs. Failure to follow this instruction may result in personal injury or death from electrical shock or hazardous moving parts as well as poor performance or damage to the unit.



**WARNING!** This unit has many sharp edges that can cause severe injuries.

## Site Preparation

Review the area where the unit will be installed. Make sure that all possible hazards to the installer, user, and unit have been addressed.

**For Indoor Use Only:** This unit is designed to operate indoors, under normal ambient temperatures of 70°F to 75°F (21°C to 24°C). The unit has successfully performed in high ambient temperatures of up to 104°F (40°C) at reduced capacities.



**WARNING!** This unit must **NOT** be installed in an area where a water jet or hose can be used. **NEVER** use a water jet or hose to rinse or clean the unit. Failure to follow this instruction may result in electrocution.



**CAUTION!** This unit must be installed on a level surface to avoid the hazard of tipping. Extreme care should be taken in moving this unit for any reason. Two or more persons are required to safely move this unit. Failure to comply may result in personal injury or damage to the unit.

The authorized installer should inspect the unit for damage and promptly report any damage to the local authorized Taylor distributor.

This unit is made using USA sizes of hardware. All metric conversions are approximate and vary in size.

### Air-Cooled Units

**Do not** obstruct air intake and discharge openings. Air-cooled units require a minimum of 3 in. (76 mm) of clearance around **all** sides of the freezer and 12 in. (305 mm) of clearance on top, to allow for adequate air flow across the condensers. Failure to allow for adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause permanent damage to the compressor.

1

### 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 unit, two 3/8 in. I.P.S. water connections for inlet and outlet have been provided for easy hookup. 1/2 in. 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.



**IMPORTANT!** A backflow prevention device is required on the incoming water connection side. Please see the applicable national, state, and local codes for determining the proper configuration.

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

Each freezer requires one power supply for each data label. Check the data labels on the freezer for branch circuit overcurrent protection or fuse, wire ampacity, and electrical specifications. See the wiring diagram provided inside the control box, for proper power connections.



**FOLLOW YOUR LOCAL ELECTRICAL CODES.**



**IMPORTANT!** An equipotential grounding lug is provided with this unit. Some countries require the grounding lug to be properly attached to the rear of the frame by the authorized installer. The installation location is marked by the equipotential bonding symbol (5021 of IEC 60417-1) on both the removable panel and the unit's frame.



#### **IMPORTANT!**

- Stationary appliances which are not equipped with a power cord and a plug or another device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 0.125 in. (3 mm) installed in the external installation.
- Appliances that are permanently connected to fixed wiring and for which leakage currents may exceed 10 mA, particularly when disconnected or not used for long periods, or during initial installation, shall have protective devices to protect against the leakage of current, such as a GFI, installed by the authorized personnel to the local codes.
- Supply cords used with this unit shall be oil-resistant, sheathed flexible cable not lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord (code designation 60245 IEC 57) installed with the proper cord anchorage to relieve conductors from strain, including twisting, at the terminals and protect the insulation of the conductors from abrasion.

*If the supply cord is damaged, it must be replaced by an authorized Taylor service technician in order to avoid a hazard.*

## Beater Rotation



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

To correct the rotation on a three-phase unit, interchange any two incoming power supply lines at the freezer main terminal block only. To correct rotation on a single-phase unit, exchange leads inside the beater motor. (Follow the diagram printed on the motor.)

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

It is recommended that beater rotation be performed by an authorized Taylor service technician.



**WARNING!** Refrigerant liquid sprayed onto the skin may cause serious damage to tissue. Keep eyes and skin protected. If refrigerant burns should occur, flush immediately with cold water. If burns are severe, apply ice packs and contact a physician immediately.



**NOTICE!** Taylor reminds technicians to be aware of and in compliance with local government laws regarding refrigerant recovery, recycling, and reclaiming systems. For information regarding applicable local laws, please contact your local authorized Taylor distributor.

## Refrigerant



**CAUTION!** This equipment contains fluorinated greenhouse gases (F-Gas) to provide refrigeration using a hermetically sealed circuit or within foam insulation.

This unit's type of gas, quantity, Global Warming Potential (GWP) and CO2 tonnes equivalent information is recorded on the unit's data-label. The refrigerant used is generally considered non-toxic and non-flammable. However any gas under pressure is potentially hazardous and must be handled with caution.

**NEVER** fill any refrigerant cylinder completely with liquid. Filling a cylinder to approximately 80% will allow for normal expansion.



**CAUTION!** Use only approved refrigerant listed on the unit's data-label or authorized through a manufacturer's technical bulletin. The use of any other refrigerant may expose users and operators to unexpected safety hazards.



**IMPORTANT!** Refrigerants and their associated lubricants may be extremely moisture absorbent. When opening a refrigeration system, the maximum time the system is open must not exceed 15 minutes. Cap all open tubing to prevent humid air or water from being absorbed by the oil

Notes:

1



The freezer you have purchased has been carefully engineered and manufactured to give you dependable operation.

The Model 5454, when properly operated and cared for, will produce a consistent quality product. Like all mechanical products, this machine will require cleaning and scheduled 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 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 study these procedures in order to be properly trained and to make sure that no misunderstandings exist.

If you require technical assistance, please contact your local authorized Taylor distributor.

**Note:** *Your Taylor warranty is valid only if the parts are authorized Taylor parts, purchased from the local authorized Taylor distributor, and only if all required service work is provided by an authorized Taylor service technician. Taylor reserves the right to deny warranty claims on units or parts if Taylor-unapproved parts or incorrect refrigerant were installed in the unit, system modifications were performed beyond factory recommendations, or it is determined that the failure was caused by abuse, misuse, neglect, or failure to follow all operating instructions. For full details of your Taylor warranty, please see the Limited Warranty section in this manual.*



**IMPORTANT!** *If the crossed-out wheeled-bin symbol is affixed to this unit, it signifies that this unit is compliant with the EU Directives as well as other similar end-of-life 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 unit to the appropriate collection facility, as specified by your local code.*

*For additional information regarding applicable local disposal laws, please contact the municipal waste facility and/or local authorized Taylor distributor.*

## Compressor Warranty Disclaimer

The refrigeration compressor(s) on this unit are warranted for the term stated in the Limited Warranty section in this manual. 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 unit's refrigeration system, **only the refrigerant specified on the affixed data label should be used.** The unauthorized use of alternate refrigerants will void your Taylor compressor warranty. It is the unit 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 unit, Taylor has no obligation to either supply or provide replacement refrigerant either at billable or unbillable terms. Taylor will recommend a suitable replacement if the original refrigerant is banned, obsoleted, or no longer available during the five (5) year Taylor warranty of the compressor.

From time to time Taylor may test new refrigerant alternates. Should a new refrigerant alternate prove, through Taylor's testing, that it would be accepted as a drop-in replacement for this unit, then the disclaimer in this "Compressor Warranty Disclaimer" section will not apply to the use of the alternate refrigerant approved by Taylor.

To find out the current status of an alternate refrigerant as it relates to your compressor warranty, call Taylor or your local authorized Taylor distributor. Be prepared to provide the model/serial number of the unit in question.

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

Notes:

2

We at Taylor Company are concerned about the safety of the operator at all times 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.

Installing and servicing refrigeration equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service refrigeration equipment. When working on refrigeration equipment, observe precautions noted in the literature, tags, and labels attached to the unit, and other safety precautions that may apply. Follow all safety code requirements. Wear safety glasses and work gloves.



**DANGER!** Failure to adhere to the following safety precautions may result in severe personal injury or death. Failure to comply with these warnings may also damage the unit and/or its components. Such damage may result in component replacement and service repair expenses.



**NOTICE! DO NOT** operate this machine without reading this entire manual first. Failure to follow all of these operating instructions may result in damage to the machine, poor performance, health hazards, or personal injury.



**IMPORTANT!** *This appliance is to be used only by trained personnel. It is not intended for use by children or people with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge. Where limited equipment operation is allowed for public use, such as a self-serve application, supervision or instruction concerning the use of the appliance by a person responsible for their safety is required. Children should be supervised to ensure that they do not play with the appliance.*



**WARNING!** Avoid injury.

- **DO NOT** operate the unit unless it is properly grounded.
- **DO NOT** operate the unit with larger fuses than specified on the unit's data label.
- All repairs should be performed by an authorized Taylor service technician.
- The main power supplies to the unit must be disconnected prior to performing installation, repairs, or maintenance.
- Units that are permanently connected to fixed wiring and for which leakage currents may exceed 10 mA, particularly when disconnected or not used for long periods, or during initial installation, shall have protective devices to protect against the leakage of current, such as a GFI, installed by the authorized personnel to the local codes.
- Stationary units which are not equipped with a power cord and a plug or another device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 0.125 in. (3 mm) installed in the external installation.
- Supply cords used with this unit shall be oil-resistant, sheathed flexible cable not lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord (code designation 60245 IEC 57) installed with the proper cord anchorage to relieve conductors from strain, including twisting, at the terminals and protect the insulation of the conductors from abrasion.
- If the supply cord is damaged, it must be replaced by an authorized Taylor service technician in order to avoid a hazard.

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



**IMPORTANT!** An equipotential grounding lug is provided with this unit. Some countries require the grounding lug to be properly attached to the rear of the frame by the authorized installer. The installation location is marked by the equipotential bonding symbol (5021 of IEC 60417-1) on both the removable panel and the unit's frame.



**WARNING! DO NOT** use a water jet to clean or rinse the unit. Failure to follow these instructions may result in serious electrical shock.

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**WARNING!** Avoid injury.

- **DO NOT** allow untrained personnel to operate this unit.
- **DO NOT** operate the unit unless all service panels and access doors are restrained with screws.
- **DO NOT** remove any internal operating parts (including, but not limited to, freezer door, beater, or scraper blades), unless all control switches are in the OFF position.

Failure to follow these instructions may result in severe personal injury, especially to fingers or hands, from hazardous moving parts.



**WARNING!** This unit has many sharp edges that can cause severe injuries.



**CAUTION!** This machine must be placed on a level surface. Extreme care should be taken when moving for any reason. Two or more persons are required to safely move this machine. Failure to comply may result in personal injury or damage to the machine.



**IMPORTANT!** Access to the service area of the unit must be restricted to persons having knowledge and practical experience with the unit, in particular as far as safety and hygiene are concerned.



**NOTICE!** Cleaning and sanitizing schedules are governed by your federal, state, or local regulatory agencies and must be followed accordingly. Please refer to the cleaning section of this manual for the proper procedure to clean this unit.



**CAUTION!** This unit is equipped with a refrigerated cabinet, designed to maintain product temperature at or below 41°F (5°C). Before replenishing the mix supply, the product must be refrigerated at or below 41°F (5°C). Failure to follow this instruction may result in health hazards and poor freezer performance.

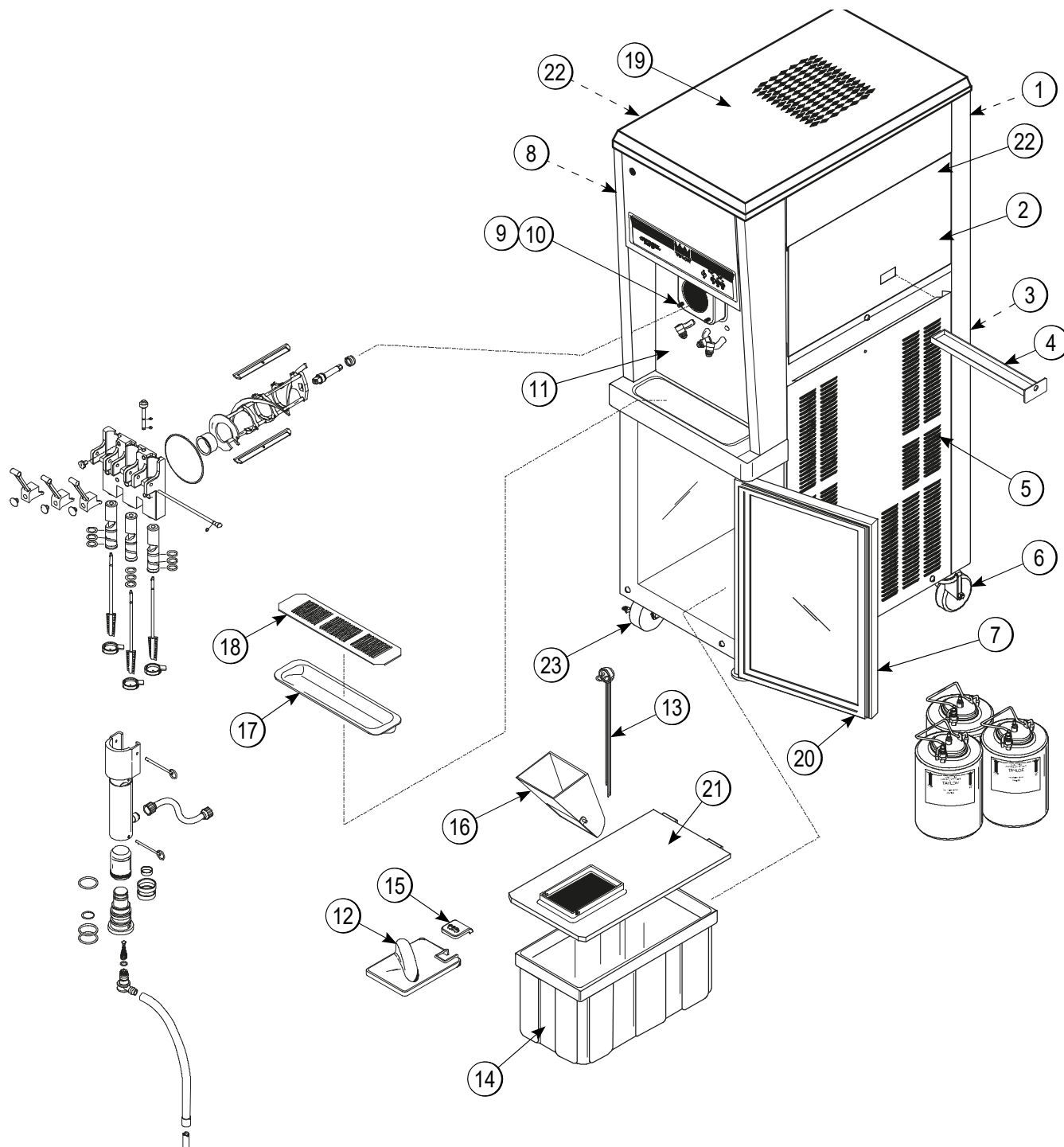
**DO NOT** run the unit without product. Failure to follow this instruction can result in damage to the unit.

**DO NOT** obstruct air intake and discharge openings. A minimum of 3 in. (76 mm) air clearance on both sides of the unit is required. It is recommended to place the rear of the unit against the wall to prevent the recirculation of warm air. Failure to follow this instruction may cause poor freezer performance and damage to the machine.

**For Indoor Use Only:** This machine is designed to operate indoors, under normal ambient temperatures of 70°F to 75°F (21°C to 24°C). The machine has successfully performed in high ambient temperatures of up to 104°F (40°C) at reduced capacities.

**Noise Level:** Airborne noise emission does not exceed 78 dB(A) when measured at a distance of 39 in. (1.0 m) from the surface of the machine and at a height of 62 in. (1.6 m) from the floor.

## Exploded View



4

Figure 4-1

## Exploded View Parts Identification

4

Item	Description	Part No.
1	Panel- Upper Rear	049811
2	Panel- Upper Side Right	028639
3	Panel- Lower Rear	025128
4	Pan- Drip 11- 5/8 Long	027503
5	Panel Assembly- Lower Side R/L	X23956
6	Caster- Swivel - 3/4- 10 ST	021279
7	Door Assembly- Insulated	X22178
8	Panel- Upper Side Left	028638
9	Stud- Upper Freezer	023909
10	Stud- Lower Freezer	023910
11	Panel Assembly- Front	X49780
12	Cover-Mix Storage- Center	038827

Item	Description	Part No.
13	Probe Assembly- Mix w/Ball	X35981
14	Tank-Mix- 15 Gallon- Plastic	020275
15	Boot-Mix Cover	037200
16	Funnel-Mix	036637
17	Tray- Drip 16- 7/8 L x 5- 1/8	020157
18	Shield- Splash	022765
19	Hood	049810
20	Gasket-Mix Door	020134
21	Cover A.-Mix Tank	X38726
22	Trim Assembly- Side R/L	X22424
23	Caster- 3" Swivel 3/4- 10 Stem w/Brake	030307

## Beater Door Assembly

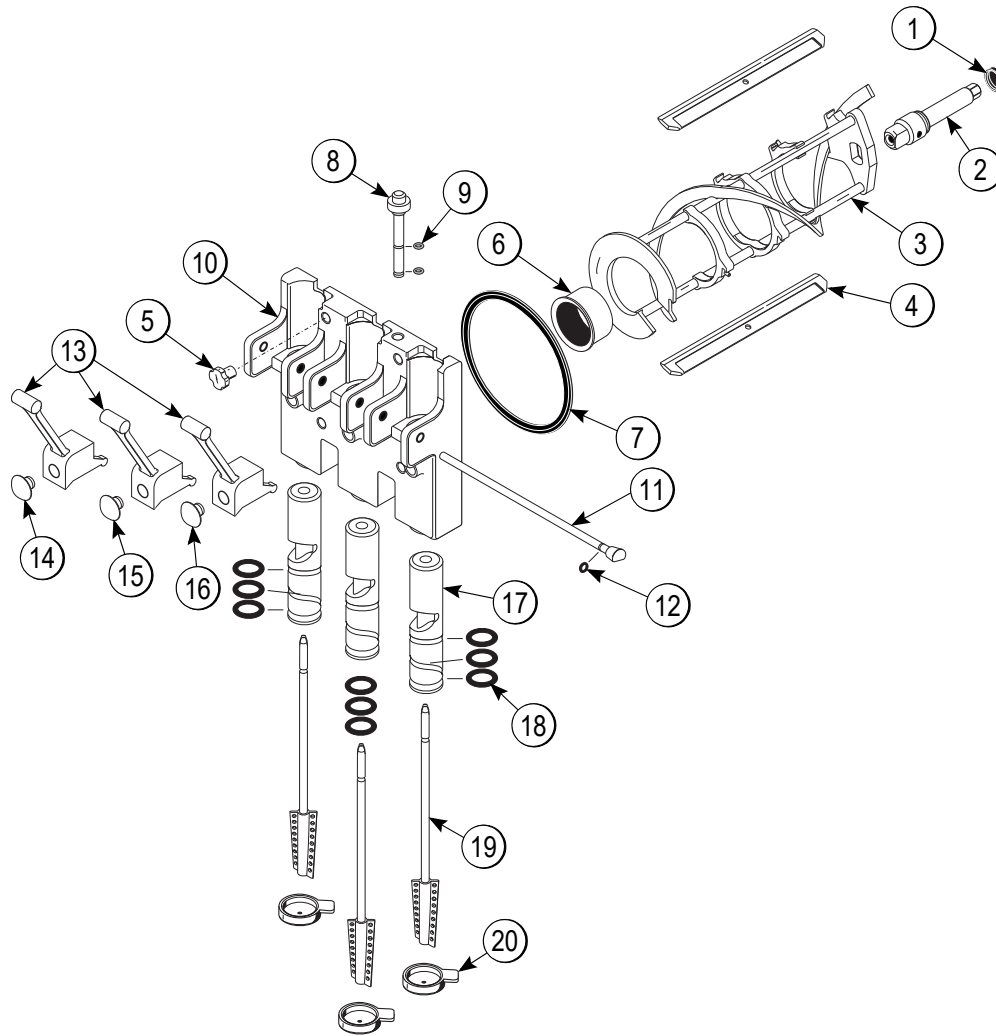


Figure 4-2

Item	Description	Part No.
1	Seal-Drive Shaft	032560
2	Shaft-Beater	033235
3	Beater A. - 7 Qt. - 1 Pin Support	X46233
4	Blade-Scraper- Plastic	084950
5	Nut-Stud - General Usage	021508
6	Bearing-Front	013116
7	Gasket-Door- 5.177 ID x 5.938	016672
8	Plug-Prime	028805
9	O-ring - 3/8 OD x .070 W	016137
10	Door A. - 3 Spout - Shake	X38815-SER

Item	Description	Part No.
11	Pin A.- Pivot	X21781
12	O-ring - 5/16 OD x .070 W	016272
13	Handle-Draw Valve	026952
14	Button-Brown	021225-2
15	Button-Scarlet	021225-1
16	Button-Plain	021225
17	Valve A.-Draw	X20152
18	O-ring -1- 1/16 OD x .139 W	020571
19	Blade A.-Spinner	020112
20	Cap-Restrictor	021183

Pump Assembly

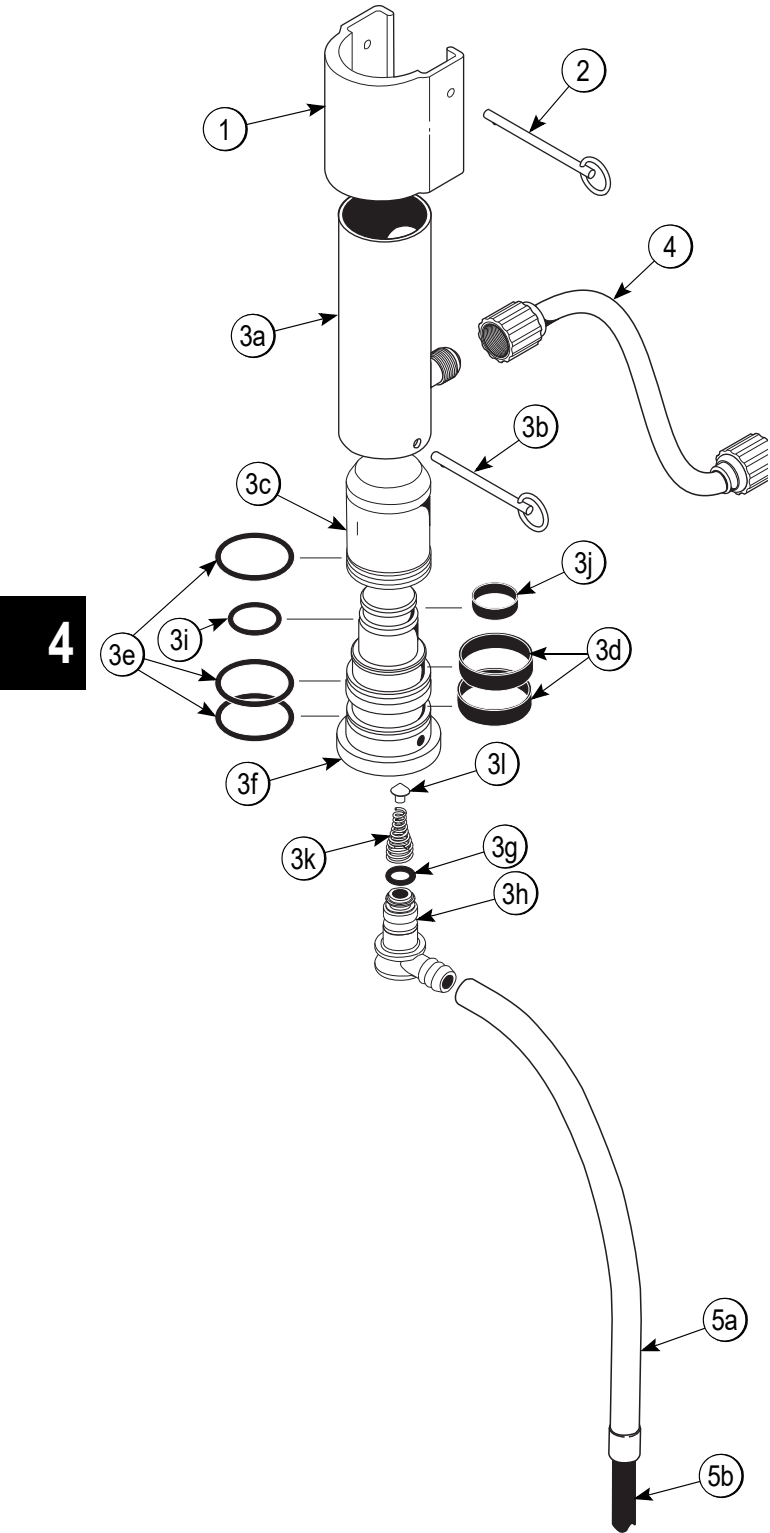


Figure 4-3

Item	Description	Part No.
1	Cap-Pump	021276- 9
2	Pin-Retaining	021276- 8
3	Pump Assembly	X33450
3a	Cylinder A.- Pump	022345- 1
3b	Pin-Retaining	021276- 8
3c	Piston	032733
3d	Ring-Check 2" OD x 1/2	020050
3e	O-ring - 2- 1/8 OD x .139 W	020051
3f	Body- Valve	X33451
3g	O-ring - 13/16 OD x .139 W	021278
3h	Elbow- Inlet 90 Degree	022502- 4
3i	O-ring - 1- 3/8 OD x .103 W	018664
3j	Ring-Check - 1- 1/4 OD x 3/8	033215
3k	Spring-Tapered 1- 7/8 L	022456
3l	Poppet-Rubber- Black	022473
4	Line A.- Flare	038299
5	Tube A.- Suction - 22"	X20450
5a	Tube-Vinyl 5/8 ID x 1/8 W	020945- 22
5b	Counterweight-Suction Tube	020452



# Syrup Tank

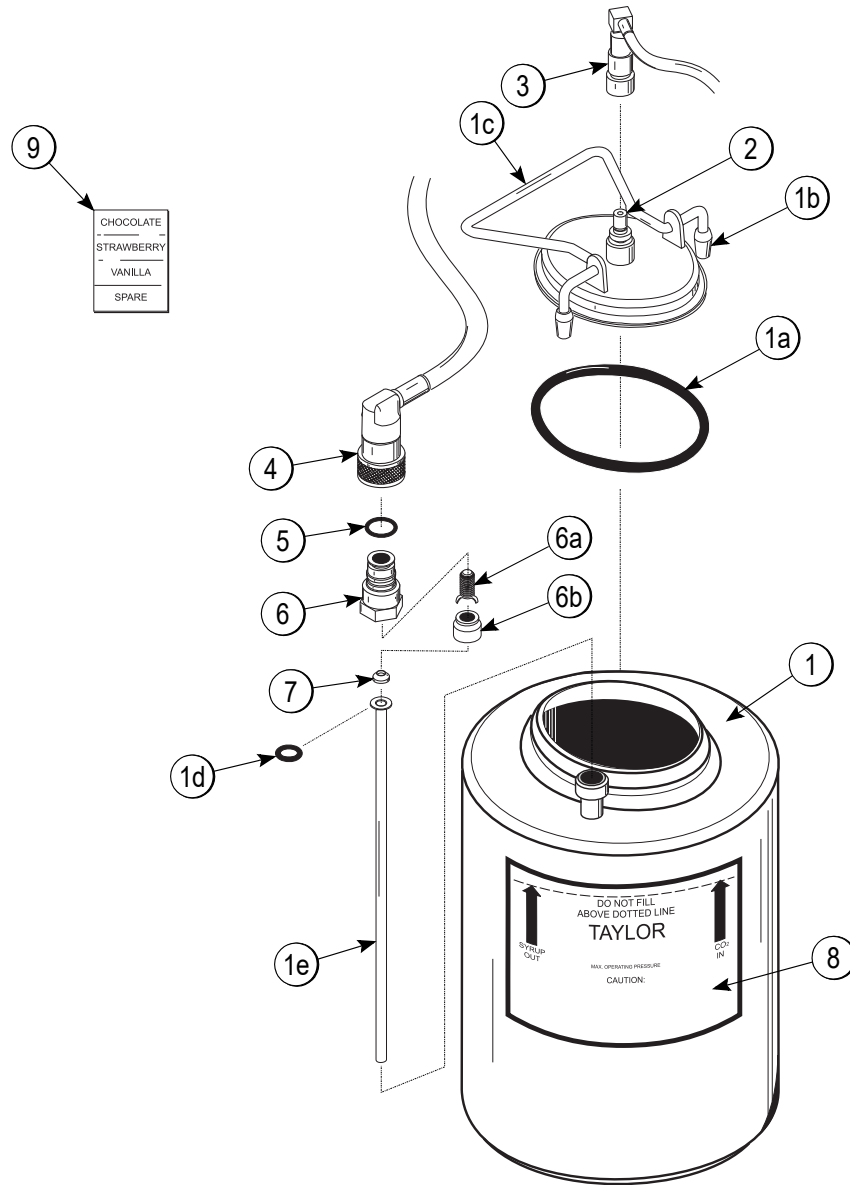


Figure 4-4

Item	Description	Part No.
1	Tank-Syrup	035759
1a	O-ring - 3.437 ID	016037
1b	Tip-Nylon	024261
1c	Cover- Tank	035759-1
1d	O-ring - .291 ID	018550
1e	Dip Tube	020577-4
2	Plug-Q.D. - CO <sub>2</sub>	021077
3	Socket-Q.D. - CO <sub>2</sub>	021524

Item	Description	Part No.
4	Socket-Q.D. - Liquid	021026
5	O-ring - 5/8 OD	016030
6	Plug-Q.D. - Liquid	021081
6a	Valve & Spring	021081-2
6b	Insert- Q.D. Plug	021081-1
7	Washer- 1/4 Flare	018595
8	Decal-Syrup Tank	045533-1
9	Decal-Set 4 Syrup Flavor	021523

Accessories

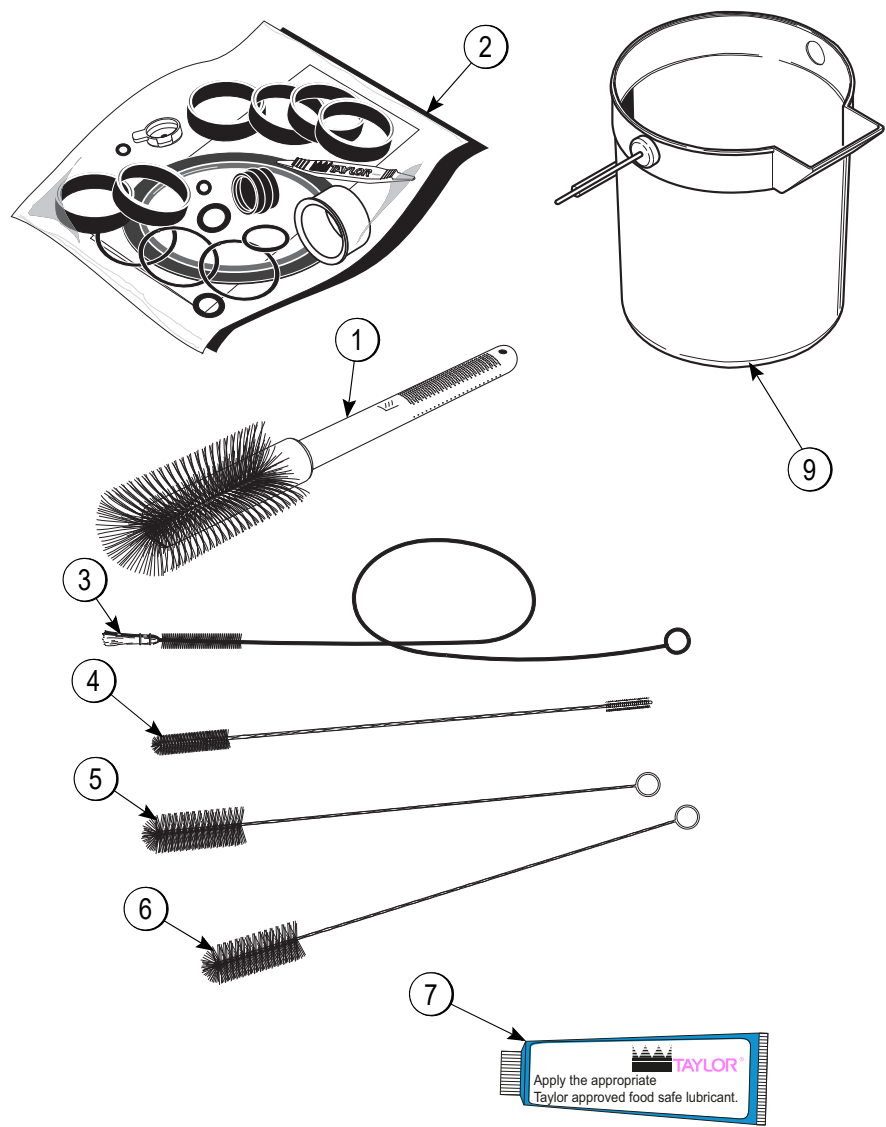
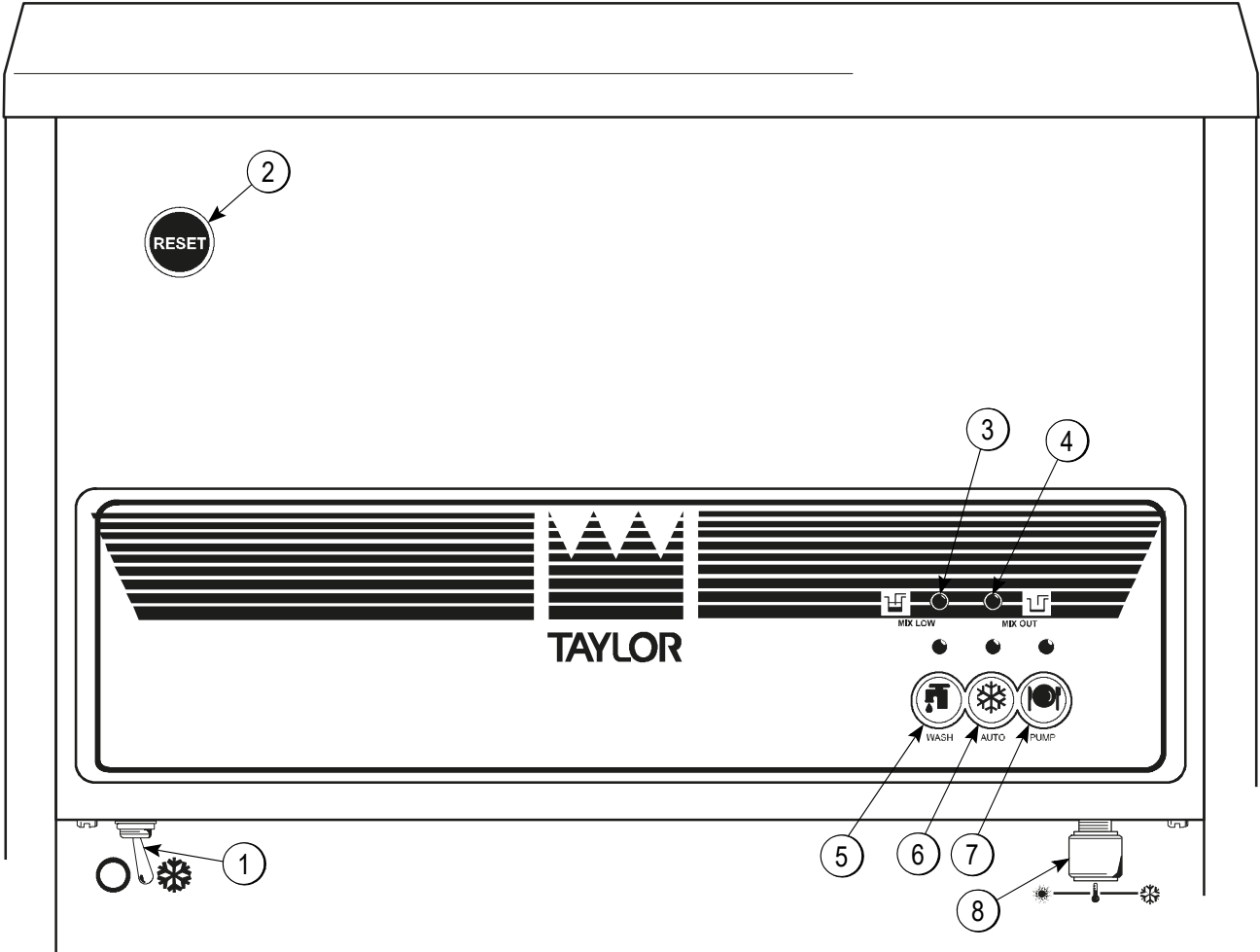


Figure 4-5

Item	Description	Part No.
1	Brush-Mix Pump Body	023316
2	Kit A.- Tune Up 5454	X36568
3	Brush-Feed Tube	021101
4	Brush-Double Ended	013072
5	Brush-Rear Bearing	013071

Item	Description	Part No.
6	Brush-Draw Valve	014753
7	Lubricant-Taylor 4 oz.	047518
*8	Sanitizer-Stera-Sheen-Green	055496
9	Pail-10 qt.	013163
*10	Brush Set LVB	050103

\* Not Shown



5

Figure 5-1

Item	Description
1	Power Switch
2	RESET Button
3	Indicator Light - MIX LOW
4	Indicator Light - MIX OUT

Item	Description
5	WASH Keypad
6	AUTO Keypad
7	PUMP Keypad
8	Thermistor Control

### 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.



= ON/AUTO



= OFF



= WASH



= PUMP



= MIX LOW



= MIX OUT

**5** When placed in the ON position, the power switch allows Softech™ control panel operation.

### Reset Mechanism

The RESET button is located in the upper, left corner of the decorative plate. The reset protects the beater motor from an overload condition. Should an overload occur, the reset mechanism will trip. To properly reset the freezer, turn the power switch to the OFF position. Press the RESET button firmly. Place the power switch in the ON position. Press the WASH keypad 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.

If the drive shaft is turning properly, press the WASH keypad to cancel the cycle. Press the AUTO keypad to resume normal operation. If the reset mechanism should trip again, contact your authorized Taylor distributor to resolve the problem.

### Indicator Lights—Mix Low and Mix Out

When the MIX LOW light begins to flash, it indicates that the mix tank has a low supply of mix and should be refilled as soon as possible. When the MIX OUT light

begins to flash, it indicates that the mix tank has an insufficient supply of mix to operate the freezer. At this time, the Auto mode is locked out and the freezer shuts down. To initiate the refrigeration system, add mix to the tank and press the AUTO keypad. The freezer will automatically begin operation.

### Mix

When the MIX keypad is pressed, the light comes on, indicating that the mix cabinet refrigeration system is operating. The mix refrigeration is controlled by the MIX keypad found on the control panel. By pressing the AUTO keypad, the mix function is automatically turned on. The mix function cannot be canceled unless the Auto mode is canceled.

### Wash

When the WASH keypad is pressed, the light comes on, indicating beater motor operation. The Auto mode must be canceled first to activate the Wash mode.

### Auto

When the AUTO keypad is pressed, the light comes on, indicating that the main refrigeration system has been activated. In the Auto mode, the Wash function is automatically canceled. The mix function is automatically locked in to maintain the mix in the cabinet and the pump function is locked in to allow coaxial air/mix pump operation as required.

### Pump

When the PUMP keypad is pressed, the light comes on, indicating that the coaxial air/mix pump will operate as required.

**Note:** *An indicating light and an audible tone will sound whenever a mode of operation has been pressed. To cancel any function, press the keypad again and the mode of operation will discontinue.*

### Thermistor Control

The product temperature is adjusted by means of a thermistor control. Located just above the freezer door is the thermistor control knob. Turning the adjusting knob clockwise will decrease product temperature, and turning it counterclockwise will increase the temperature. Each half turn will vary the temperature approximately two

degrees. Allow the refrigeration system to cycle on and off two or three times before the adjusted temperature can be evaluated.

## Liquid Valve Body Removal Tool

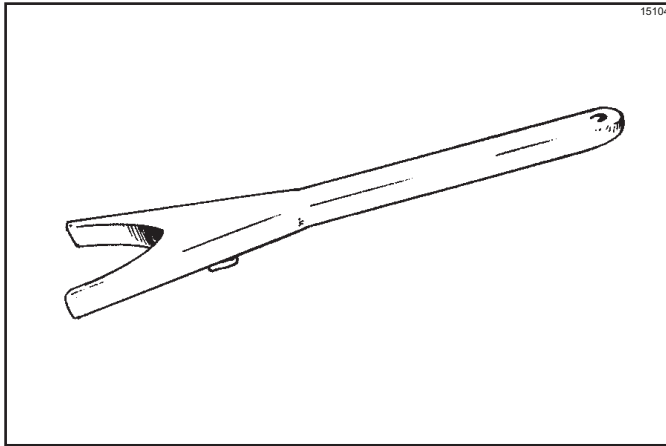


Figure 5-2

This tool was designed to help remove the liquid valve body from the pump cylinder. Remove the suction line, flare line, retaining pin and mix inlet fitting from the pump cylinder. Turn the air/mix pump assembly upside down. Insert the curved end under the edge of the liquid valve body and pull down as shown in Figure 5-3 on page 5-3.

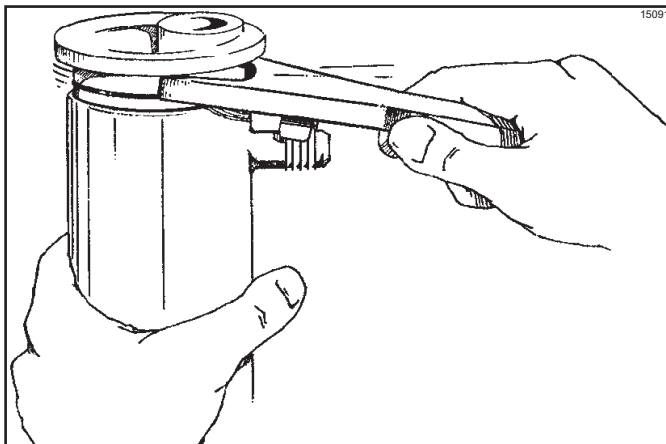


Figure 5-3

This will enable you to easily pull the liquid valve body out of the pump cylinder. To remove the piston, push down from the top end of the pump cylinder. To prevent breakage, do not allow the piston to fall out.

## Syrup Line Fitting with Clean-Out Feature

During the day's operation, hardened syrup could get lodged in the syrup line fitting. To clear the syrup line of restrictions, follow these steps.

Prepare a pail with 1 gal. (3.8 L) of an approved 100 PPM sanitizing solution with warm water.

Disconnect the restricted syrup line at the syrup tank and at the freezer door.

Place the syrup sampler on the syrup line fitting at the freezer door and press it into an empty pail. This will relieve any pressure that might be in the syrup line. Unscrew the cap on the back of the syrup line fitting and pull the cap, spring, and valve out of the fitting.

Rinse the syrup line fitting, cap, spring, and valve in the pail of sanitizing solution.

Once the components are thoroughly rinsed, place the valve, spring, and cap back inside the syrup line fitting and tighten the cap securely. See Figure 5-4.

Reconnect the syrup line fitting at the syrup tank.

Calibrate the syrup flow. See "Calibrating the Syrup Flow" on page 6-14).

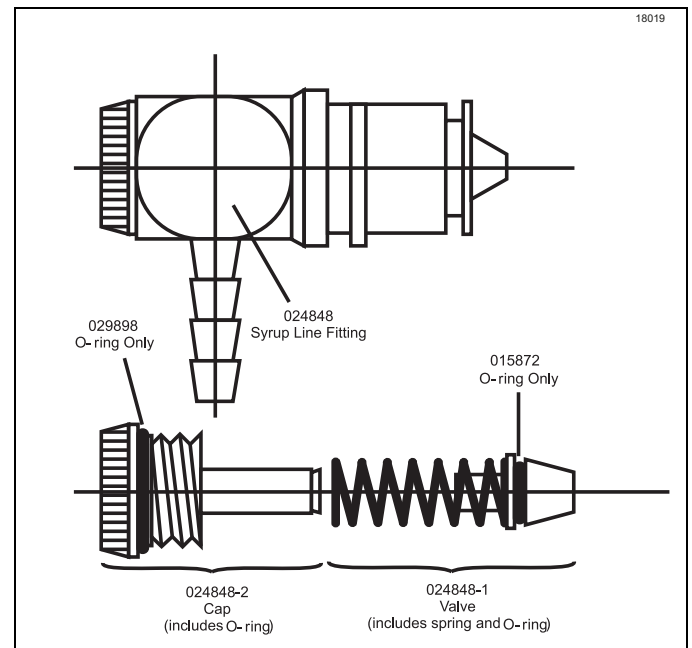


Figure 5-4

Notes:

Lined area for notes.

The Model 5454 has a 15 gal. (56.9 L) storage container and a 7 qt. (6.6 L) freezing cylinder. The mix is pumped up to the freezing cylinder by a coaxial air/mix pump located in the front, lower mix cabinet.

The freezer has a three-flavor door.

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 portion.

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 6-17, "Disassembly", and start there.

## Freezing Cylinder Assembly



**WARNING!** Make sure the power switch is in the OFF position. Failure to follow this instruction may result in severe personal injury from hazardous moving parts.

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

1. Lubricate the groove and shaft portion on the beater drive shaft. Slide the seal on the shaft and over the 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 in. more lubricant and evenly lubricate the end of the seal that fits onto the rear shell bearing.

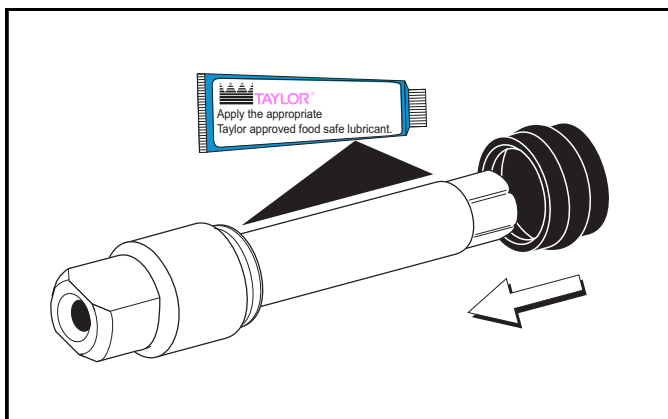


Figure 6-1

2. Install the drive shaft through the rear shell bearing in the freezing cylinder and engage the hex end firmly into the gear box coupling. Be sure the drive shaft fits into the drive coupling without binding.

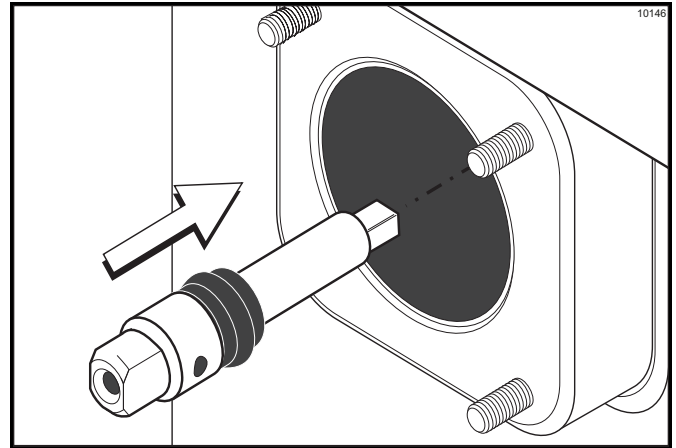


Figure 6-2



**WARNING!** Use extreme caution when handling the beater assembly. The scraper blades are very sharp and may cause injury.

3. Before installing the beater assembly, check the scraper blades for any signs of wear or damage. If a scraper blade is nicked or worn, replace both blades.

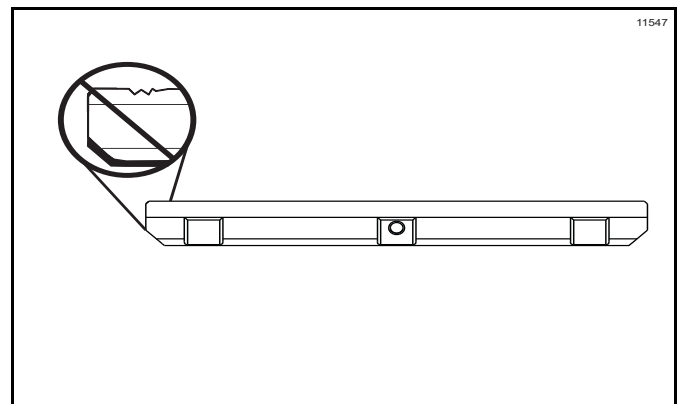


Figure 6-3

- If the blades are in good condition, place the rear scraper blade over the rear holding pin on the beater.

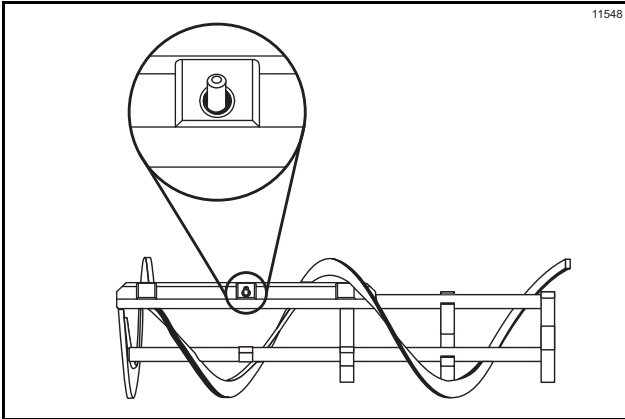


Figure 6-4

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

- Assemble the front blade on the beater, and slide the beater assembly into the freezing cylinder.

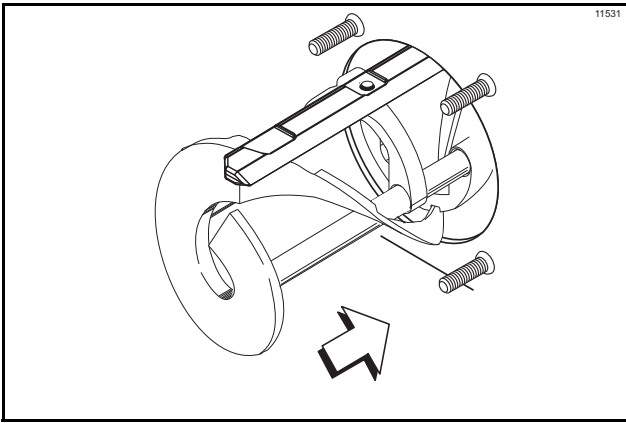


Figure 6-5

- 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.

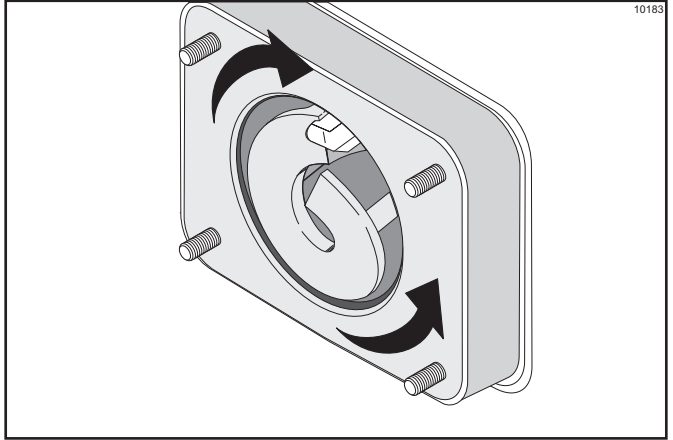


Figure 6-6

- Before assembling the freezer door, check the following for any nicks, cracks, or signs of wear: front bearing, door gasket, draw valve, O-rings, and all sides of the door assembly, including the inside of the draw valve bore. Replace any damaged parts.
- Place the freezer door gasket into the groove on the back of the freezer door. Slide the front bearing onto the bearing hub so the flanged edge is against the door. **Do not** lubricate the gasket or bearing.

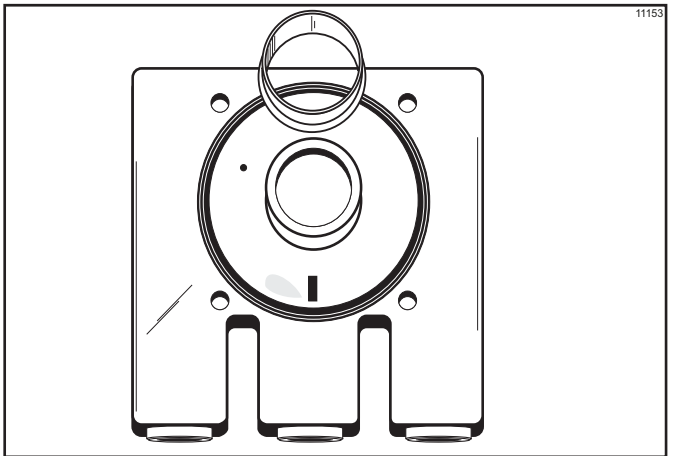


Figure 6-7



9. Slide the two O-rings into the grooves on the prime plug. Apply an even coat of lubricant to the O-rings and shaft.

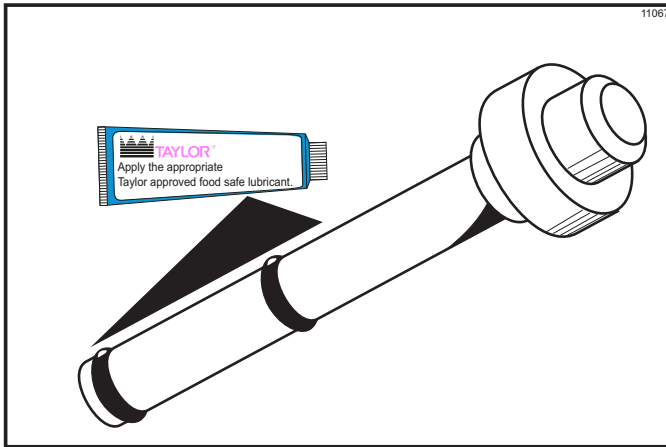


Figure 6-8

10. Insert the prime plug into the hole at the top of the freezer door and push down.

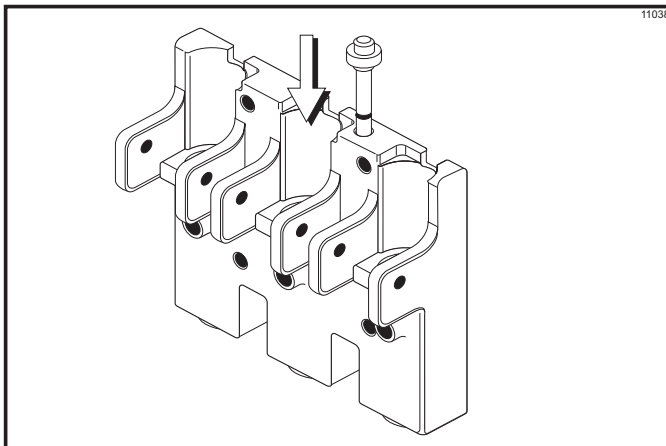


Figure 6-9

11. Position the freezer door on the four studs on the front of the freezing cylinder. Install the handscrews. Tighten them equally in a criss-cross pattern to insure that the door is snug.

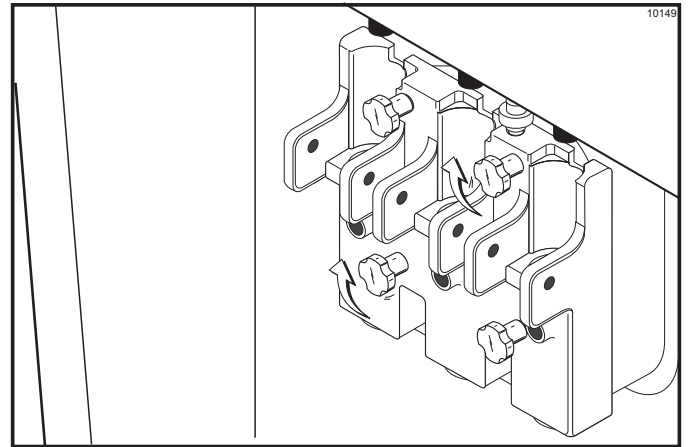


Figure 6-10

12. Slide the three O-rings into the grooves on each draw valve and lubricate the valve per illustration below.

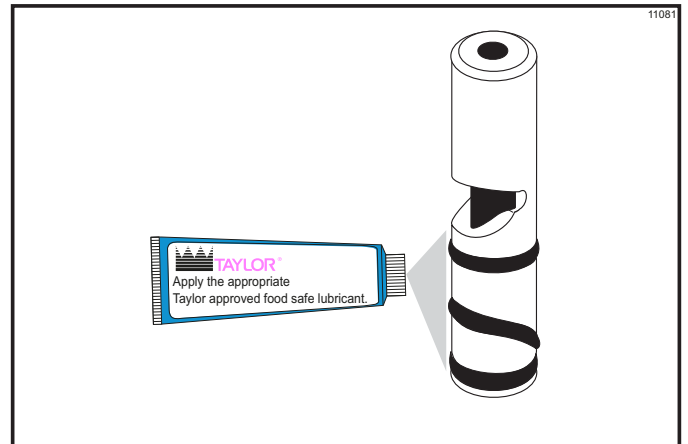


Figure 6-11

## OPERATING PROCEDURES

13. Lubricate the inside of the freezer door spouts (top and bottom). Insert each draw valve from the bottom of the door, until the slot in the draw valve comes into view.

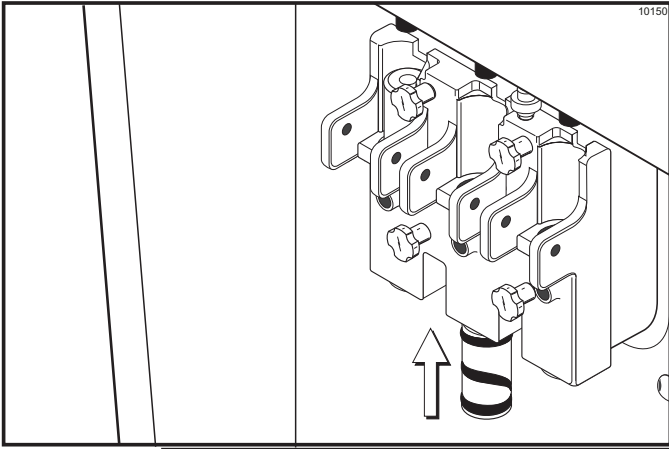


Figure 6-12

14. Slide the O-ring into the groove on the pivot pin and lubricate the pin as illustrated below.

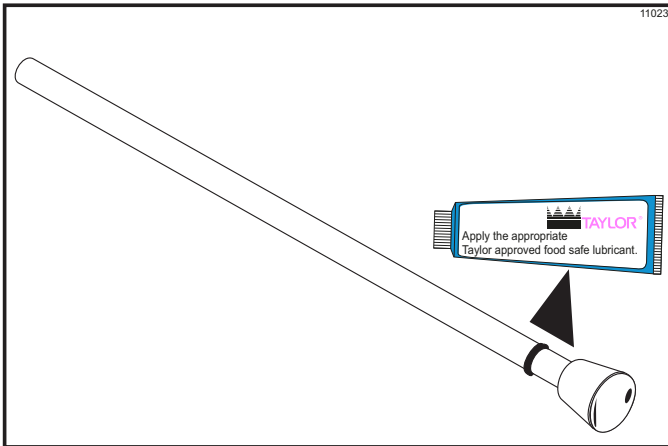


Figure 6-13

15. Slide the fork of the draw handle in the right side of the draw valve slot. Slide the pivot pin through each draw handle as you insert them into the draw valves.

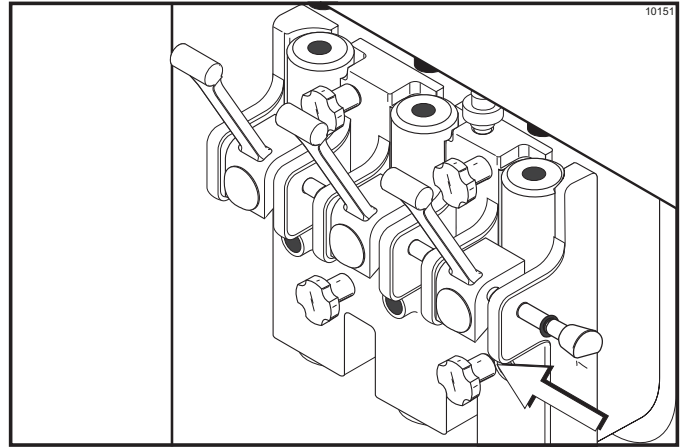


Figure 6-14

**Note:** Match the color coded buttons on the draw handles to the color coded buttons above the door on the freezer.

16. Lubricate the shafts of the spinner blades.

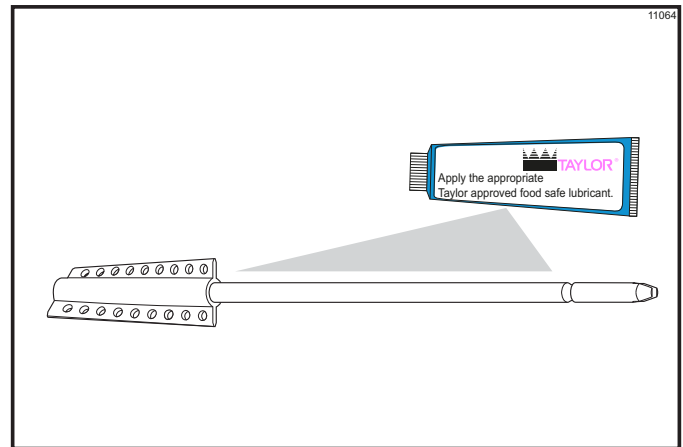


Figure 6-15

17. Insert the spinner blades from the bottom of the door into the center of the draw valves until the shaft appears at the top of the draw valve.

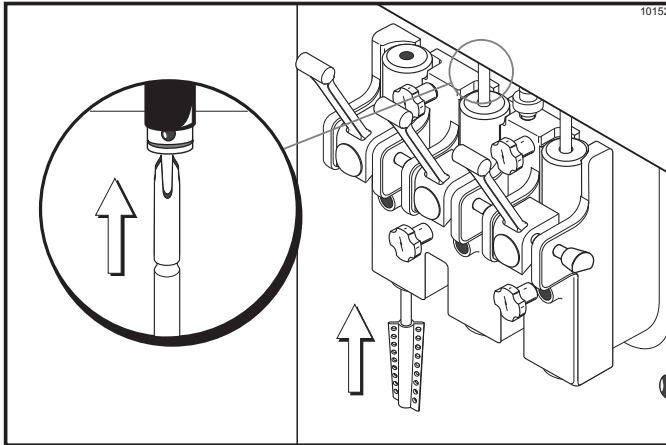


Figure 6-16

**Note:** Slip the spinner coupling over the slotted end of the spinner shaft. Raise the slip collar on the coupling and turn the shaft from the bottom, until the spinner coupling slips down into its locking position.

**Note:** The spinner blade will be correctly installed when the blade is flush with the bottom of the door spout.

18. Snap the restrictor caps over the end of each door spout.

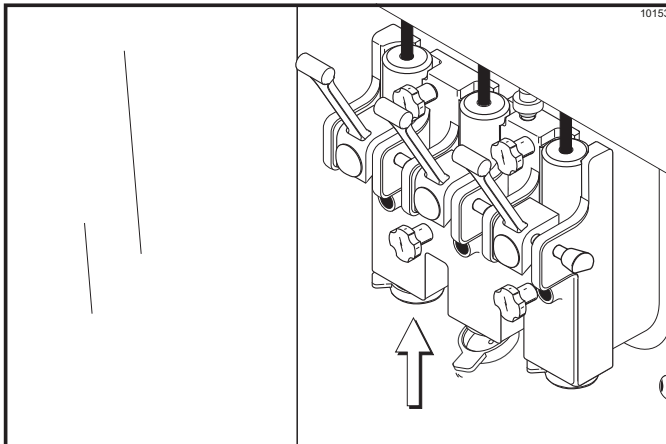


Figure 6-17

19. Slide an O-ring into the groove on each syrup hole plug and lubricate. Install the syrup hole plug in each syrup port of the freezer door.

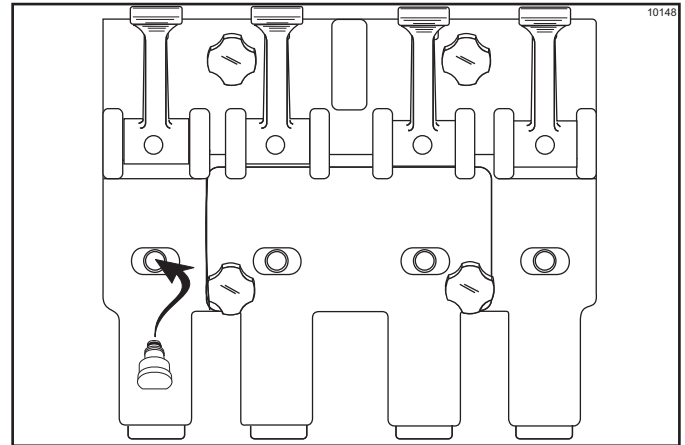


Figure 6-18

## Air/Mix Pump Assembly

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

1. Inspect the rubber and plastic pump parts. The O-rings, check rings, and gaskets must be in 100% good condition for the pump and entire machine to operate properly. They cannot properly serve their intended function if nicks, cuts, or holes in the material are present

Inspect the plastic pump parts for cracks, wear, and de-lamination of plastic.

Replace any defective parts immediately and discard the old.

- Slide the O-ring into the groove on the piston.  
**Do not** lubricate this O-ring.

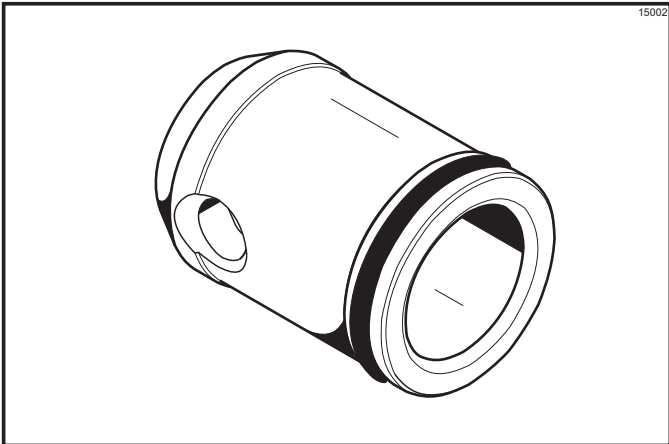


Figure 6-19

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

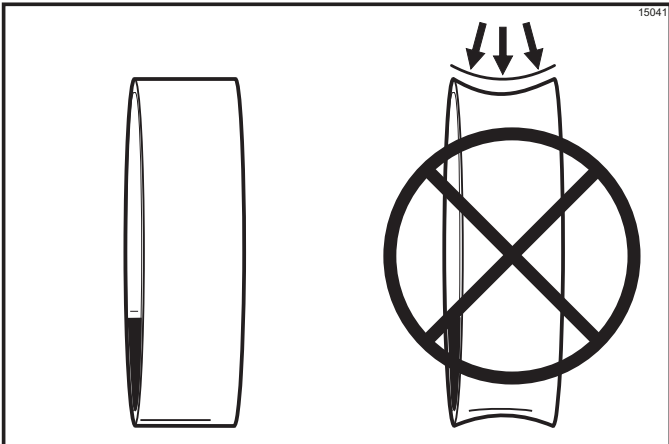


Figure 6-20

- Slide the three check bands and three O-rings into the grooves on the valve body. **Do not** lubricate the check bands or O-rings.

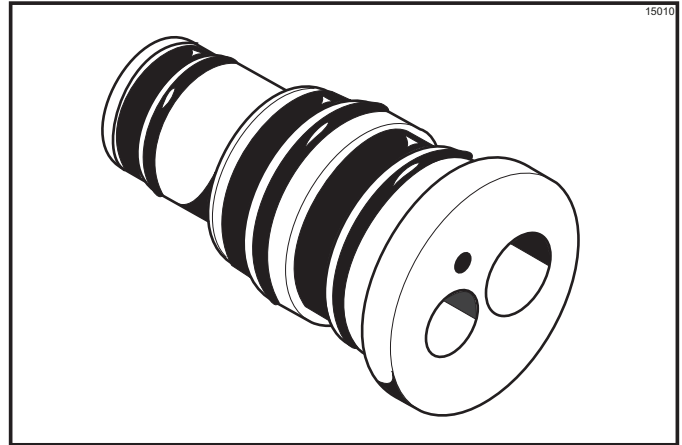


Figure 6-21

- Put a small amount of lubricant inside the piston and insert the valve body into the piston.

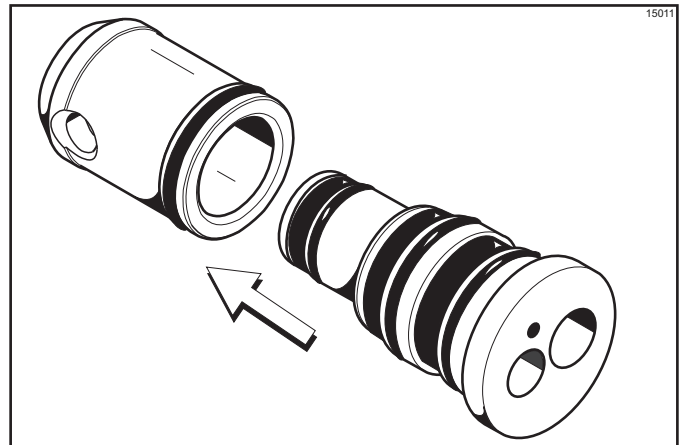


Figure 6-22

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

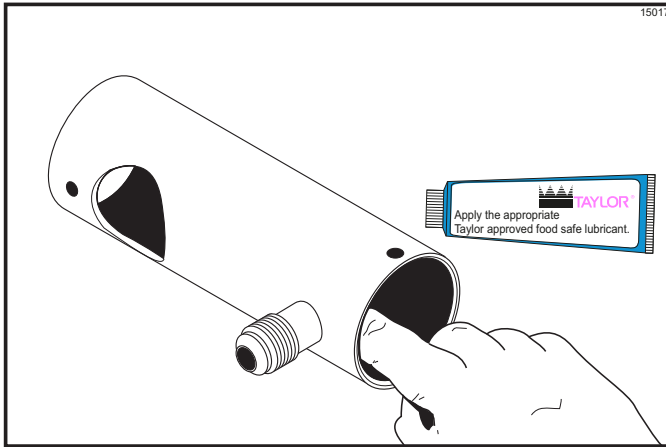


Figure 6-23

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

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

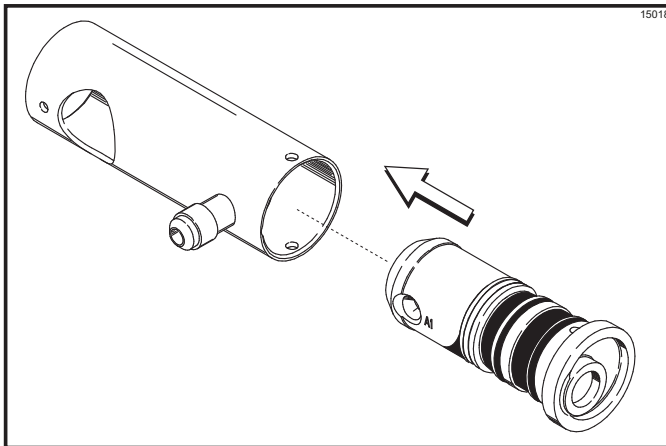


Figure 6-24

7. Slide the O-ring into the groove on the mix inlet fitting and lubricate the fitting as shown in Figure 6-25.

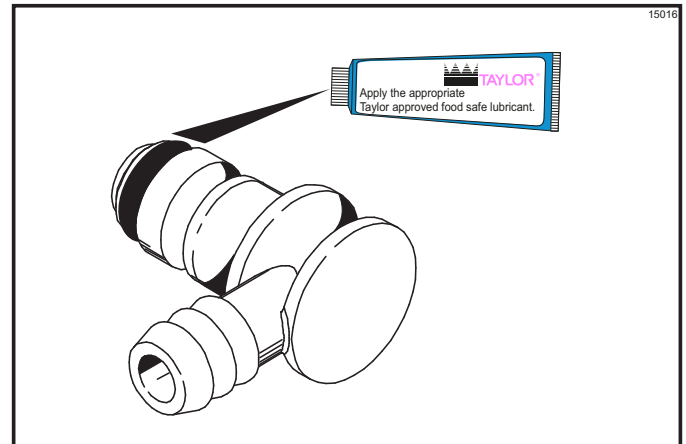


Figure 6-25

8. Attach the poppet and spring to the end of the mix inlet fitting above the O-ring. The spring must be securely fastened and must not be allowed to float freely.

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

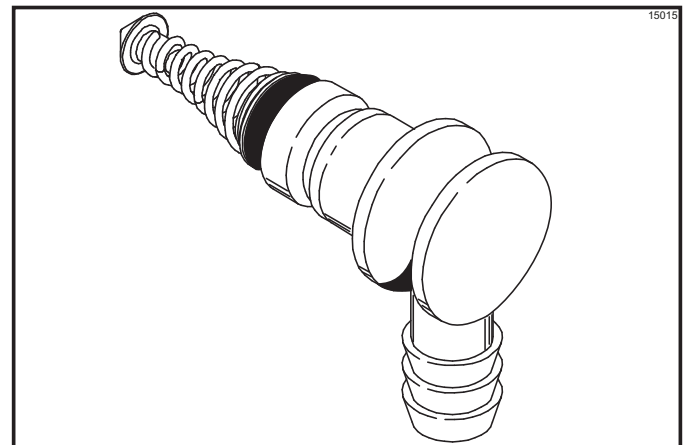


Figure 6-26

## OPERATING PROCEDURES

9. Insert the mix inlet fitting into the hole in the base of the valve body.

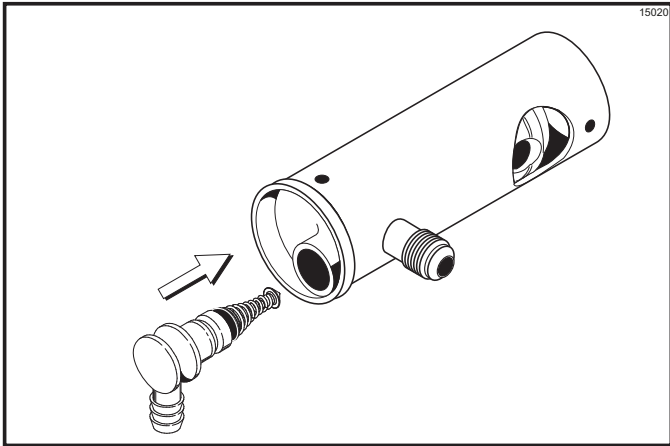


Figure 6-27

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

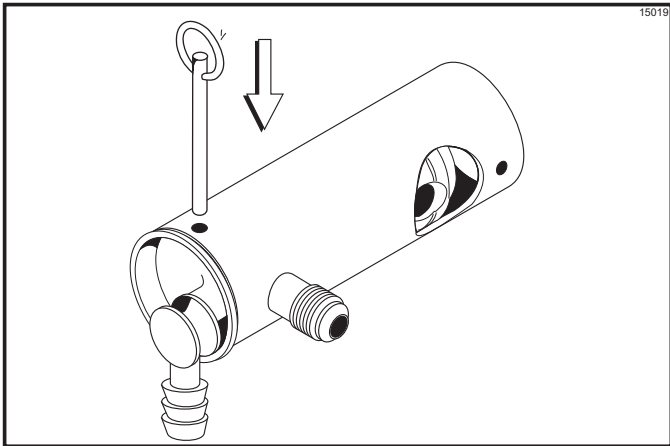


Figure 6-28

11. Assemble the weight into the suction line. Attach the mix suction line to the barbed end of the mix inlet fitting, and allow the weighted end to hang freely.

**Note:** The suction line must fit tightly against the mix inlet fitting.

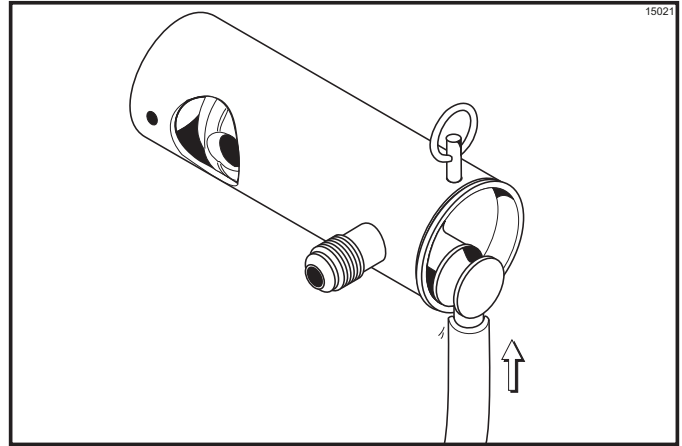


Figure 6-29

12. Push both nuts back from the end of the flare line and lightly lubricate the underside of the plastic flare. This will enable the flare nut to turn freely without twisting the tubing.

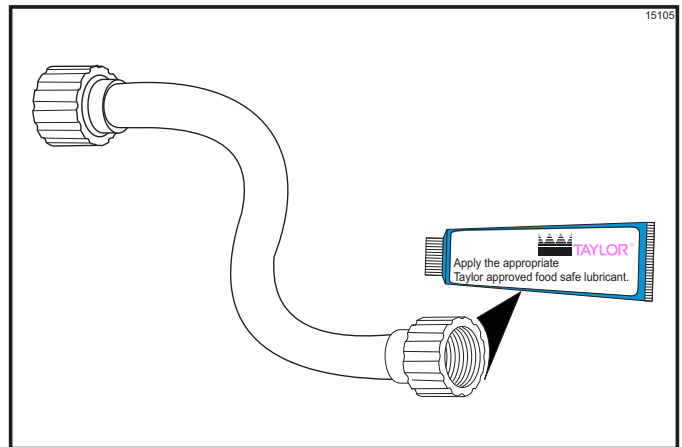


Figure 6-30

13. Attach one end of the flare line to the threaded fitting on the lower side of the pump cylinder, and allow the other end to hang free.

14. Secure the air/mix pump. Place the pump collar over the pump cylinder. (The cross holes of the pump collar will be on top.)

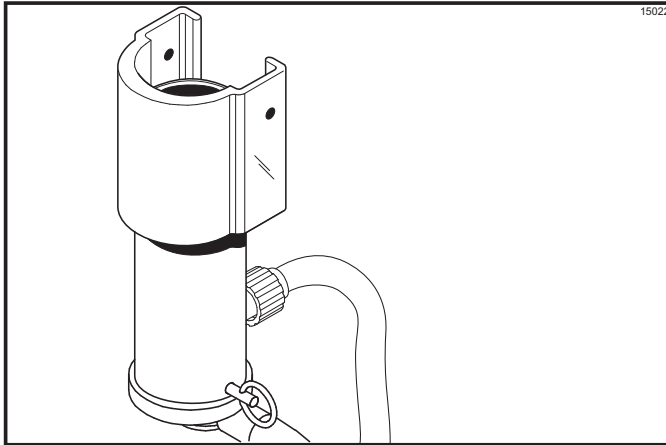


Figure 6-31

15. Align the drive hole in the piston to the ball crank of the motor reducer. At the same time, align the locating pin hole in the pump cylinder to the locating pin on the face plate.

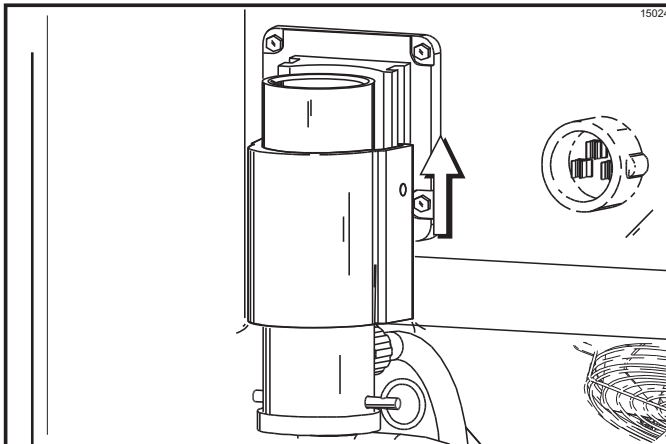


Figure 6-32

16. Slide the pump collar upwards into the grooves on the side of the face plate and secure the air/mix pump in place by slipping the retaining pin through the cross holes of the pump collar.



**IMPORTANT!** Alignment of the air/mix pump is extremely important. Failure to properly align can cause severe and costly damage to the machine.

## Sanitizing

1. Prepare a pail of approved 100 PPM sanitizing solution (example: 2 gal. [7.6 L] of Stera-Sheen™). Use warm water and follow the manufacturer's specifications. Place the pail of sanitizing solution inside the mix cabinet.

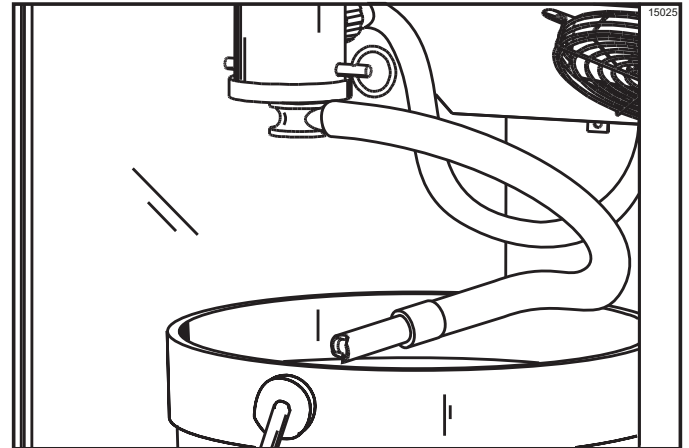


Figure 6-33

2. Dip the long brush in the sanitizing solution and brush clean the mix inlet tube.

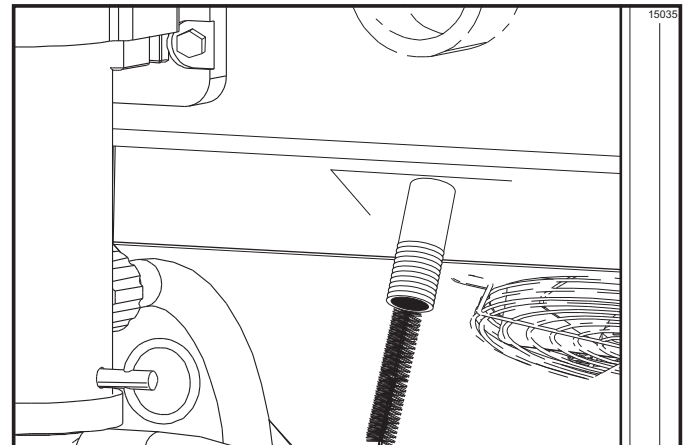


Figure 6-34

## OPERATING PROCEDURES

3. Connect the free end of the flare line to the threaded fitting on the mix inlet tube.

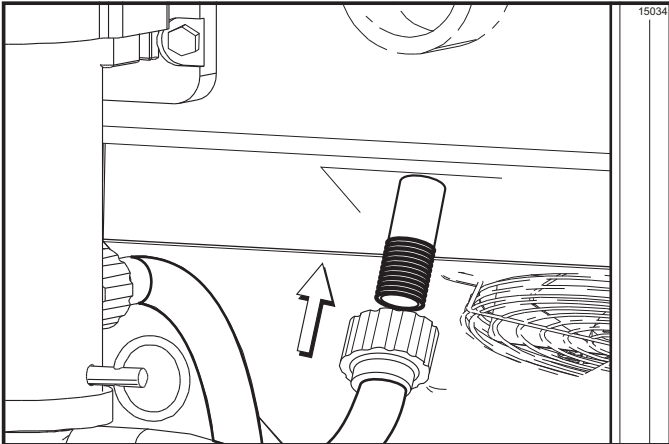


Figure 6-35

4. Insert the free end of the suction line into the pail of sanitizing solution.

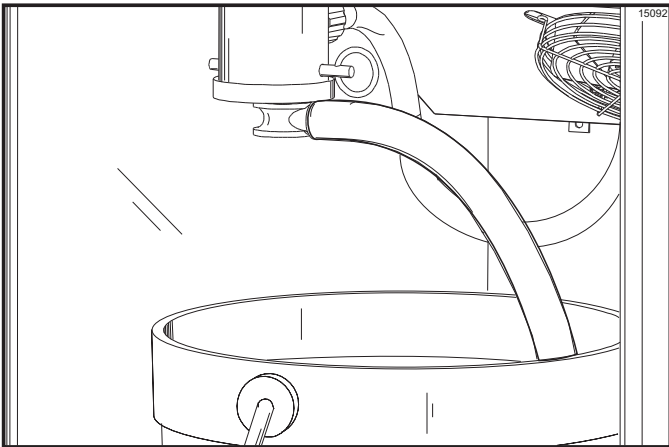


Figure 6-36

5. Place the power switch in the ON position.

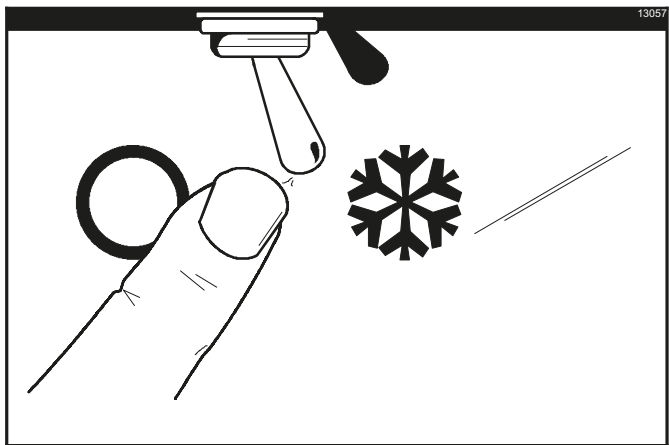


Figure 6-37

6. Place an empty pail beneath the door spouts and raise the prime plug.

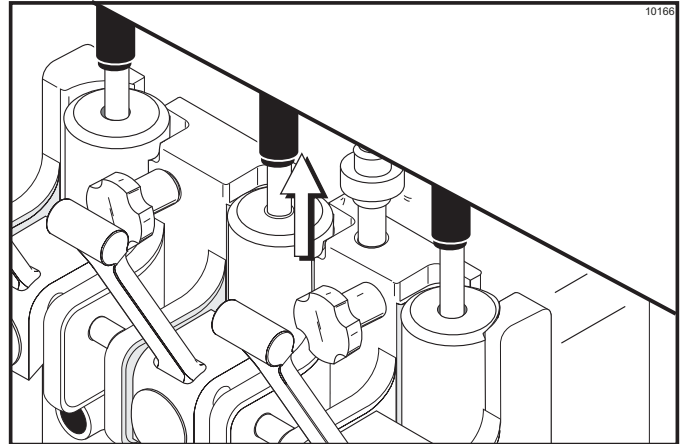


Figure 6-38

7. Press the WASH and PUMP keypads. The lights will come on, indicating the pump and beater motor are operating. When a steady stream of sanitizing solution is flowing from the bleed port in the bottom of the freezer door, press the PUMP keypad, stopping the pump operation. Push down the prime plug. Allow the sanitizing solution to agitate in the freezing cylinder for five minutes.

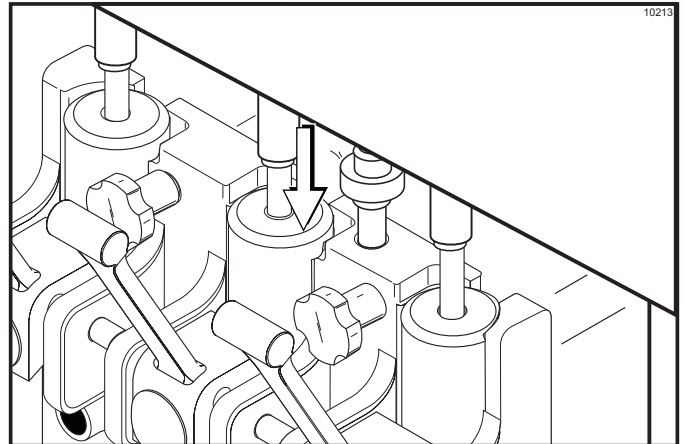


Figure 6-39



- After five minutes, raise the prime plug and press the PUMP keypad. Pull down all three draw handles and draw off the remaining sanitizing solution.

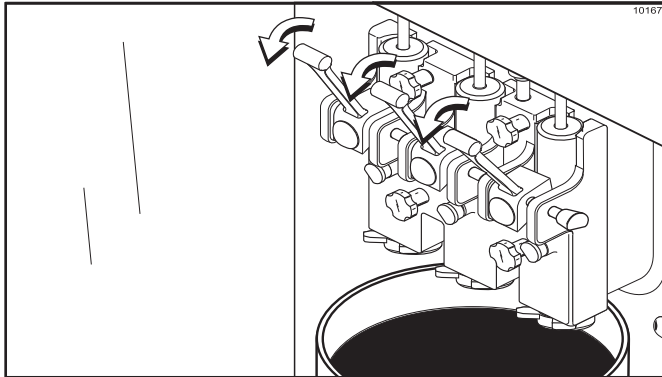


Figure 6-40

- Once the sanitizer stops flowing from the door spouts, close the draw valves. Press the WASH and PUMP keypads to stop operation.

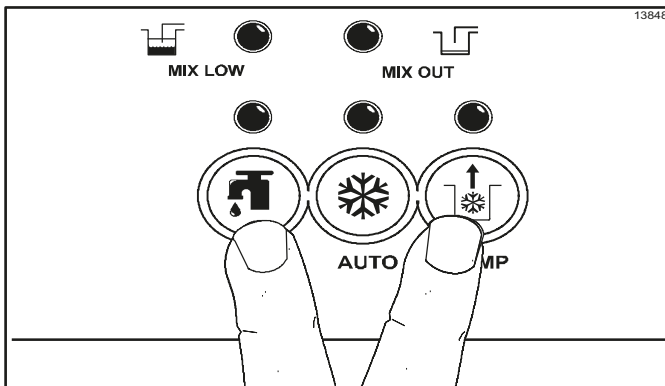


Figure 6-41



**IMPORTANT!** The unit must **NOT** be placed in AUTO until all sanitizing solution has been removed from the freezing cylinder and proper priming procedures have been completed. Failure to follow this instruction may result in damage to the freezing cylinder.



**IMPORTANT!** If this machine is freshly sanitized, make sure your hands are sanitized before continuing these instructions. Failure to follow this instruction may result in health hazards.

## Priming

- Sanitize the mix tank, mix tank cover, mix probe and funnel. Place the mix tank and cover in the mix cabinet.
- Insert the mix probe prongs inside the mix tank, and connect the mix probe to the socket receptacle.

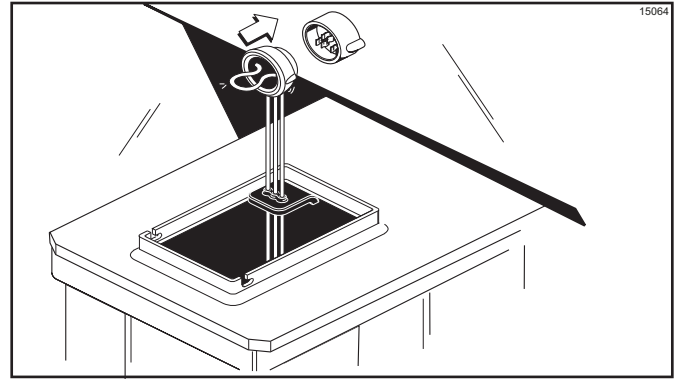


Figure 6-42

- Place the free end of the suction line in the mix tank.

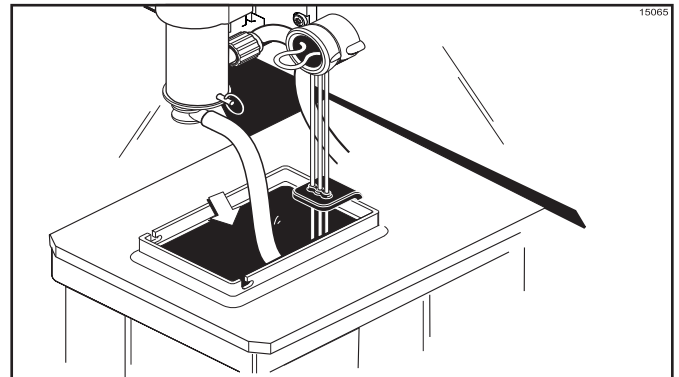


Figure 6-43

- Install the funnel. Fill the tank with FRESH mix and close the mix cabinet door.

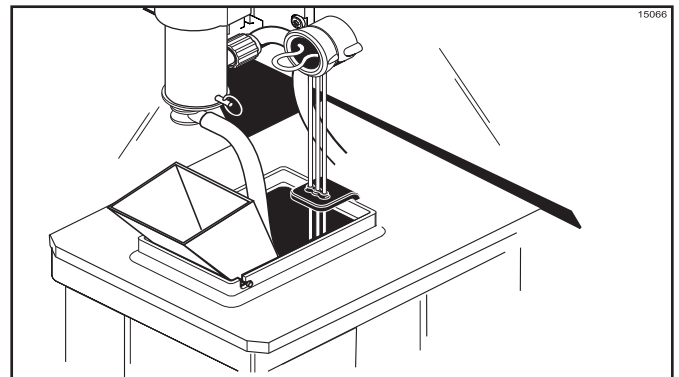


Figure 6-44

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

## OPERATING PROCEDURES

- Place an empty pail beneath the door spouts and open the draw valves. With the prime plug still in the up position, press the PUMP keypad. This will allow the mix to be pumped through the freezing cylinder and force out any remaining sanitizing solution. When full-strength mix is flowing from the door spouts, close the draw valves.

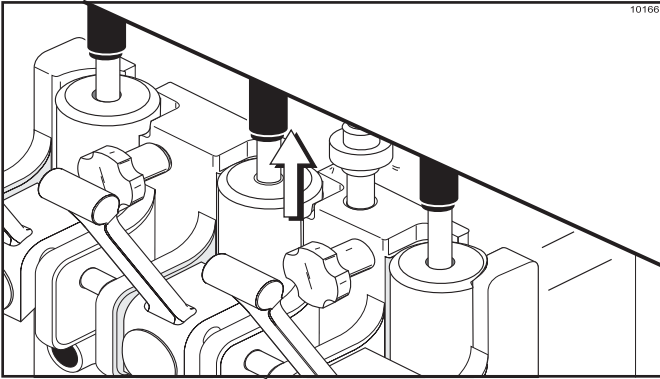


Figure 6-45

- When a steady stream of mix is flowing from the bleed port in the bottom of the freezer door, press the PUMP keypad to stop operation.

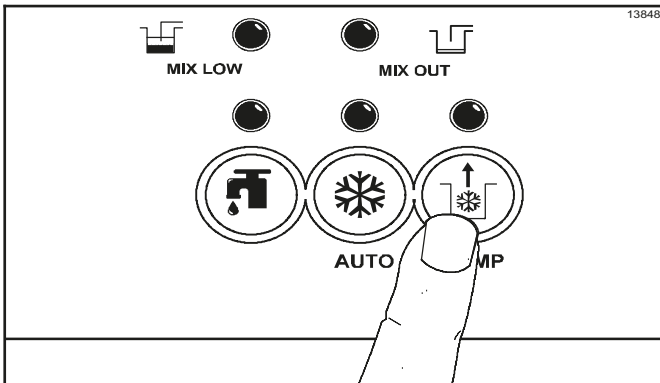


Figure 6-46

- Once the stream of mix stops flowing from the bleed port, push down the prime plug. Rinse the prime plug hole area with water then remove the pail and discard the mix and sanitizer.

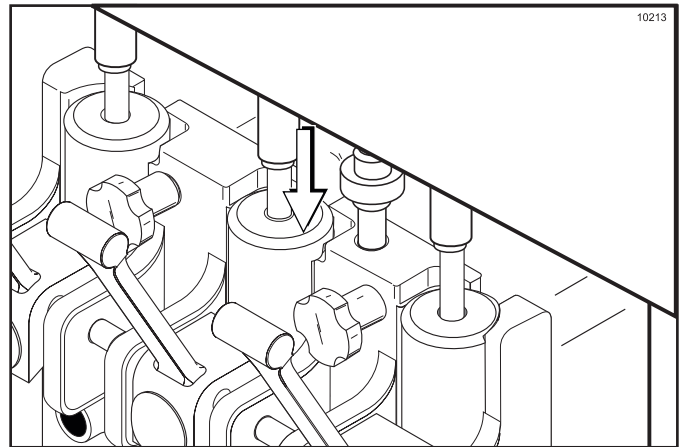


Figure 6-47

**Important!** Failure to remove all sanitizing solution may result in damage to the freezing cylinder.

- Press the AUTO keypad. The MIX light will illuminate, indicating that the mix refrigeration system is operating. The AUTO light will illuminate, indicating that the main refrigeration system is operating. The PUMP light will illuminate, indicating that the air/mix pump will operate whenever mix is needed in the freezing cylinder.

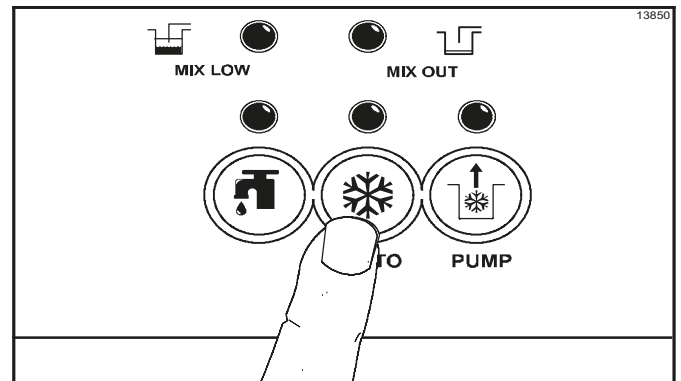


Figure 6-48

- When the unit cycles off, the product will be at the correct viscosity.

**Note:** Keep the mix cabinet door closed, except when filling the mix tank and during the cleaning and sanitizing procedures. Leaving the door open during mix refrigeration may cause ice in the evaporator and impair the mix cabinet refrigeration.

## Syrup System

The two main objectives in your opening procedures must be to fill the syrup tanks, and calibrate the syrup flow.

These conditions must be checked daily to ensure a high-quality shake.

Discard syrup weekly and flush the syrup lines at least once a week. This will prevent syrup from clogging the lines and will break the bacteria chain. See page 6-18 to sanitize the syrup system.

The syrup tanks can be put into a separate compartment that can be placed behind the freezer or to the side. The air lines and syrup lines are color spiral wrapped. Be sure to match the color-wrapped air and syrup line to the correct flavor syrup tank.

**Note:** To maintain proper calibration, vanilla and strawberry syrup lines use restrictors at the syrup tank quick disconnect connections. Use only single-strength syrup that is free of pulp and seeds.

Unscrew the quick disconnect from the elbow portion of the syrup line. Make sure the O-ring rests on the end of the quick disconnect fitting. Place the restrictor on top of the O-ring and screw the quick disconnect back onto the syrup line.

## Filling the Syrup Tanks

1. Pull back the collar of the air line quick disconnect fittings. Allow the air pressure to dissipate from the syrup tanks. Disconnect the syrup lines.

**Note:** Make sure you disengage the air line before you disengage the syrup line.

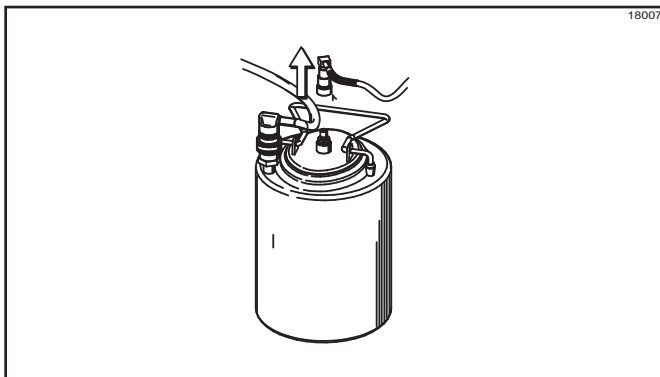


Figure 6-49

2. Remove the syrup tanks from their compartment. Remove the syrup tank lid by lifting the locking lever. Fill the tank with syrup to the indicating mark on the label.

**Important!** Do not overfill the tanks.

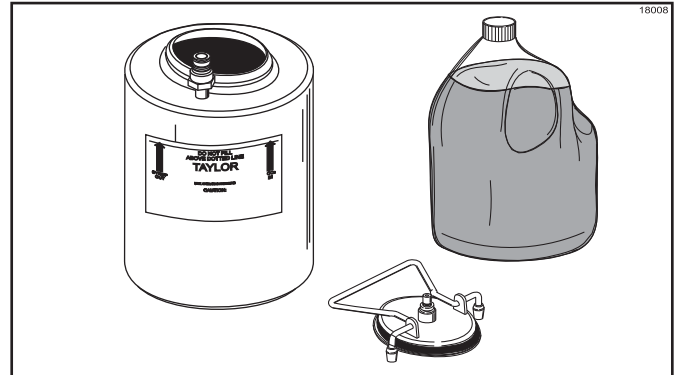


Figure 6-50

3. Replace the tank lid and match the spiral wrapped air and syrup lines to the syrup tank. Connect the lines to the tank.

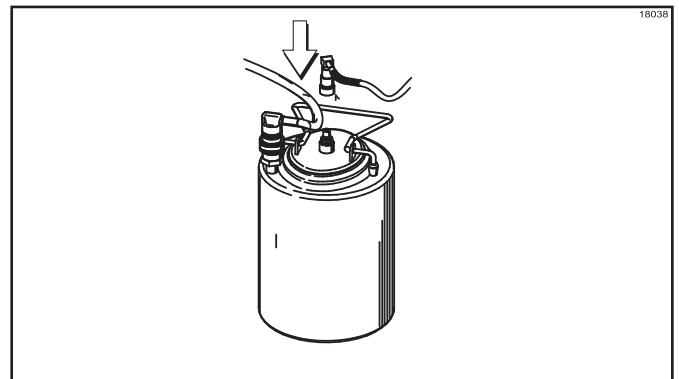


Figure 6-51

Repeat step 1 and step 2 for all syrup tanks.

**Note:** See page 6-18 for sanitizing syrup tanks.

### Calibrating the Syrup Flow

1. To obtain a quality shake, it is vital that the correct amount of syrup be incorporated into the mix. The cause of overly thin shakes is often too much syrup. The cause of overly thick shakes is often too little syrup.
2. To determine the rate of syrup flow, you will need a syrup sampler and a calibrating cup indicating the ounces of liquid. Generally, the proper rate of syrup flow is 1 oz. (29.6 mL) of syrup in 5 seconds. Once this rate is set, the correct amount of syrup will be blended with the shake base regardless of the size of the shake being served.

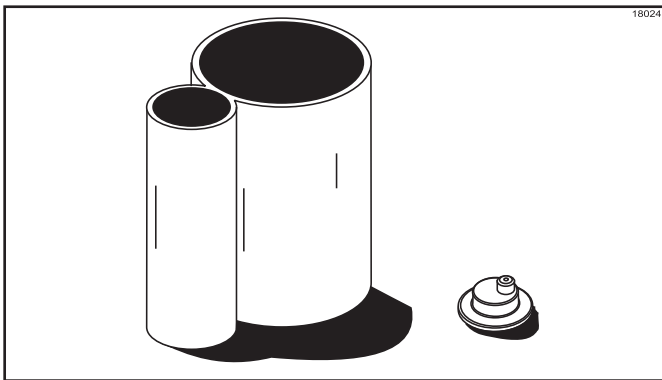


Figure 6-52

- 6** 3. Install the syrup sampler to the fitting on one of the syrup lines.

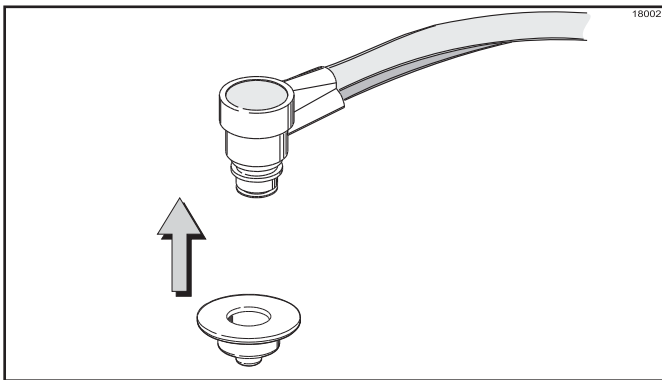


Figure 6-53

4. Hold an empty cup beneath the exit point of the syrup sampler. Press the quick disconnect fitting into the syrup sampler. This will bleed any air pockets from the syrup lines. Continue to press the syrup sampler until a steady stream of syrup is flowing into the cup.

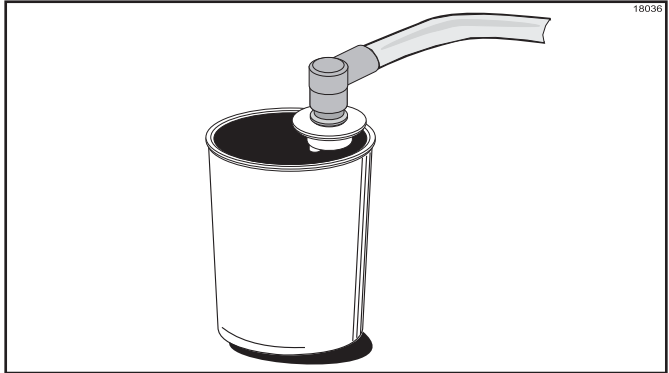


Figure 6-54

5. Hold the calibrating cup under the syrup sampler. Press the syrup sampler and time the rate of syrup flow for five (5) seconds. then release. If the amount of syrup received is 1 oz. (29.6 mL), the syrup is properly calibrated.

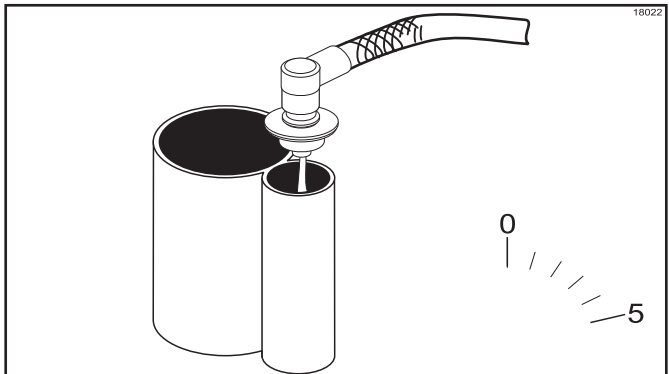


Figure 6-55

## Adjusting the Syrup Pressure

1. If the amount of syrup received is less than 1 oz. (29.6mL), the syrup pressure must be increased. If the amount received is more than 1 oz. (29.6 mL), the pressure must be decreased.  
An air pressure manifold with individual regulators is supplied to control the amount of pressure to each tank and syrup line.

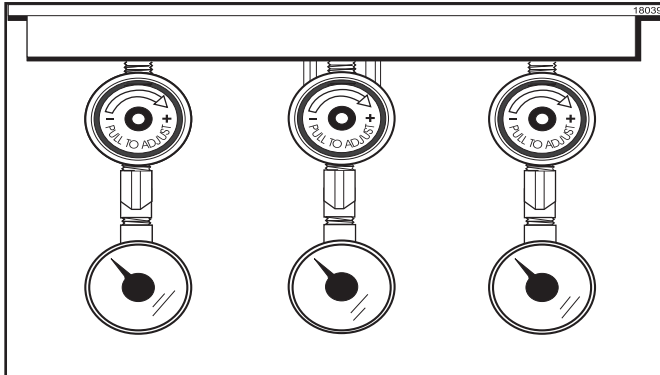


Figure 6-56

2. If less than 1 oz. (29.6 mL) of syrup is received, the pressure must be increased. Raise the locking nut and turn the adjusting screw clockwise. Push down the locking nut.

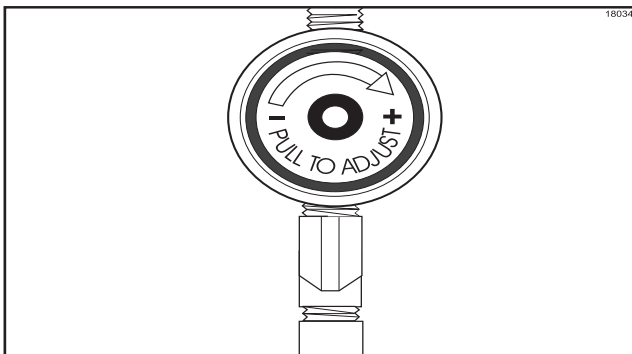


Figure 6-57

3. If more than 1 oz. (29.6mL) of syrup is received, the pressure must be decreased. Raise the locking nut and turn the adjusting screw Counterclockwise to zero. Remove the air supply fitting to the syrup tank to allow the pressure in the tank to dissipate.  
Reconnect the air supply fitting. Adjust the regulator to the new pressure setting and recheck the syrup calibration. Lower the locking nut to lock the regulator into its fixed position.
4. Repeat the calibration step 3 and step 4 for each syrup line.

5. Remove the syrup sampler. Lightly lubricate the O-ring on each syrup line fitting. Remove the syrup hole plugs from each syrup port.

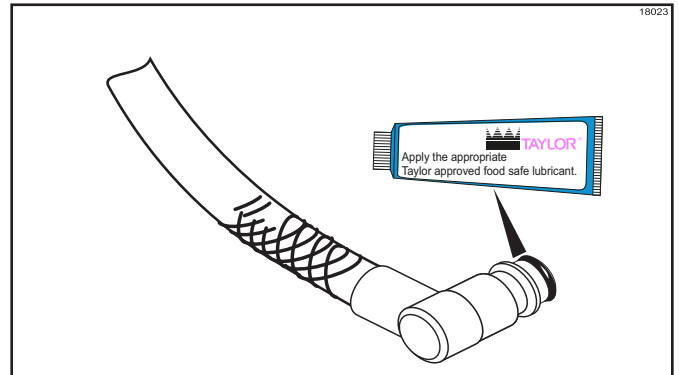


Figure 6-58

6. Match the syrup line to the color-coded draw handles and begin to attach the fittings of the syrup lines to the syrup ports of the freezer door. The flat side of the syrup line fitting should be aligned with the pin in the syrup port at a 90° angle. Rotate the syrup line fitting downward to lock it into place.

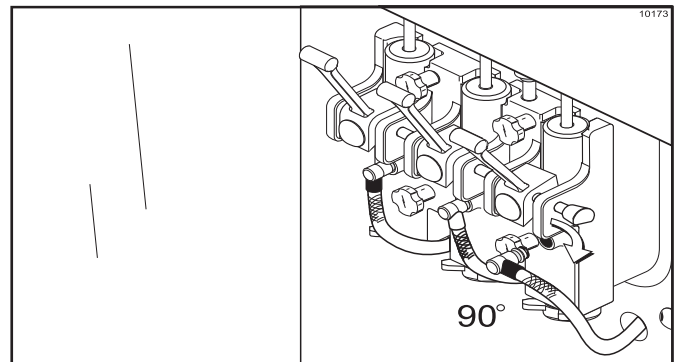


Figure 6-59

7. Prime the syrup lines by holding a cup beneath the door spout and draw off half a shake from each nozzle. Discard this product.

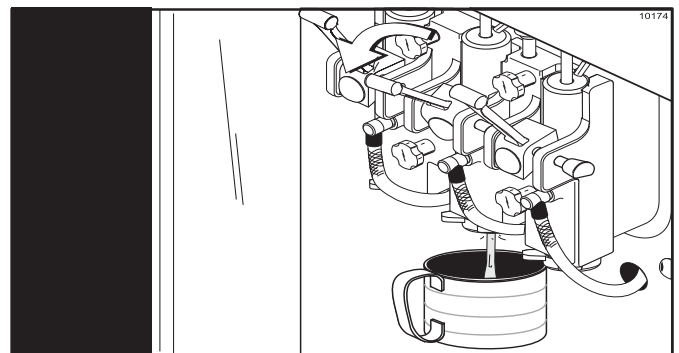


Figure 6-60

**Note:** See page 6-18 for sanitizing syrup lines.

### Closing Procedures

To disassemble the Model 5454, the following items will be needed:

- Two sanitized pails
- Sanitized stainless steel rerun can with lid
- Necessary brushes (provided with the freezer)
- Cleaner
- Single-service towels

### Draining Product from the Freezing Cylinder

1. Press the AUTO and MIX keypads to cancel freezer operation.
2. Remove the syrup lines by rotating the syrup line fittings upward 90° and pulling out them out of the door. Install the syrup hole plugs.
3. Open the mix cabinet door and remove the funnel, mix probe, and mix tank. Empty the mix from the mix tank into a sanitized stainless steel rerun can.
4. Place an empty, sanitized pail in the mix cabinet and insert the suction line.
5. Place an empty pail beneath the door spouts. Lower one draw handle at a time to clear the flavored product left in the draw cavities. Raise the draw handles and discard this product.
6. If local health codes permit the use of rerun, place a sanitized, NSF approved stainless steel rerun container beneath the door spouts. Lower the draw handles, and press the WASH and PUMP keypads. Drain all the mix from the freezing cylinder. When the product stops flowing from the door spouts, raise the draw handles and press the WASH and PUMP keypads to stop operation. Place the sanitized lid on the rerun container and place it in the walk-in cooler.

**Note:** If local health codes do not permit the use of rerun, the product must be discarded. Drain the product into a pail and properly discard it.

### Rinsing

1. Fill the empty pail in the mix cabinet with 2 gal. (7.6 L) of cool, clean water. Put the suction line into the pail of water.
2. Place an empty pail beneath the door spouts, and raise the prime plug.
3. Press the WASH and PUMP keypads. This action will cause the rinse water to be pumped into the freezing cylinder.
4. When a steady stream of rinse water is flowing from the bleed port in the bottom of the freezer door, lower the draw handles and draw off all the rinse water.
5. Once the rinse water stops flowing from the door spouts, raise the draw handles and press the WASH and PUMP keypads to stop operation.
6. Repeat this procedure using clean, warm water, until the water being discharged is clear.

### Cleaning

1. Prepare a pail of approved 100 PPM cleaning solution (example: 2 gal. [7.6 L] of Stera-Sheen™). Use warm water and follow the manufacturer's specifications. Place the pail of cleaning solution inside the mix cabinet. Insert the suction line.
2. Place an empty pail beneath the door spouts. Make sure the prime plug is still in the raised position.
3. Press the WASH and PUMP keypads. When a steady stream of cleaning solution is exiting the bleed port in the bottom of the freezer door, lower the prime plug. Press the PUMP keypad. Allow the cleaning solution to agitate in the freezing cylinder.
4. Press the PUMP keypad. Lower the draw handles and draw off all the cleaning solution. Once the solution stops flowing from the door spouts, close the draw handles and press the WASH and PUMP keypads to stop operation.

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**ALWAYS FOLLOW LOCAL HEALTH CODES.**

## Disassembly



**WARNING!** Make sure the power switch is in the OFF position. Failure to follow this instruction may result in severe personal injury from hazardous moving parts.

1. Be sure the power switch is in the OFF position. Check to make sure no lights are lit on the control panel.

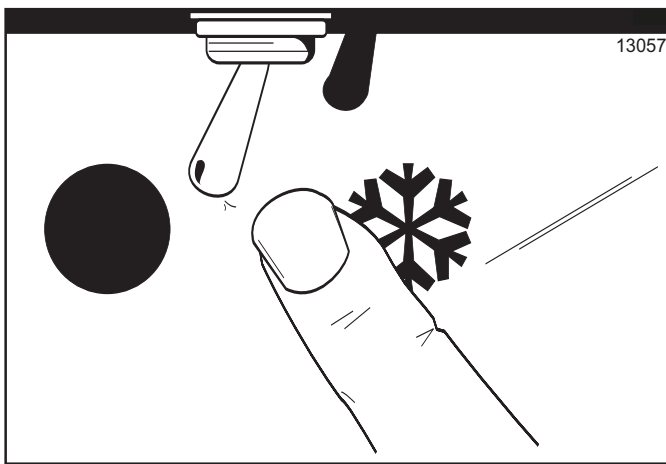


Figure 6-61

2. Remove the restrictor caps from the bottom of each door spout.
3. Remove the spinner blades from the bottom of each door spout by lifting the slip collar on the coupling and lowering the blade.
4. Remove the handscrews, freezer door, beater, scraper blades, and drive shaft from the freezing cylinder. Take these parts to the sink for cleaning.
5. Remove the air/mix pump. Unscrew the flare line from the mix feed tube. Pull the retaining pin out of the pump collar and slide the collar down. Tilt the air/mix pump away from the machine, and take the entire assembly to the sink for further disassembly and brush cleaning.

## Brush Cleaning

1. Prepare a sink with an approved cleaning solution (example: Stera-Sheen™). Use warm water and follow the manufacturer's specifications. If an approved cleaner other than Stera-Sheen™ is used, dilute according to label instructions.

**Important!** Follow label directions, since too strong of a solution can cause parts damage, and too mild of a solution will not provide adequate cleaning.

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

2. Remove the seal from the drive shaft.
3. Remove the gasket, front bearing, pivot pin, draw handles, draw valves, prime plug and syrup hole plugs from the freezer door. Remove all O-rings.

**Note:** To remove 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.

4. Remove the flare line, suction line, retaining pin, mix inlet fitting, spring and poppet, valve body, and piston from the pump cylinder. Remove all O-rings and check bands. Remove the weighted end from the suction line.

**Note:** With cleaned and sanitized parts trays available:

5. 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 in the freezer door. Place all the cleaned parts in their proper places on the cleaned and sanitized parts trays to air dry overnight.

**Note:** Never leave the mix probe immersed in water. Rinse the probe in the cleaning solution and allow it to air dry overnight.



- Return to the freezer with a small amount of cleaning solution. With the black bristle brush, brush clean the rear shell bearing at the rear of the freezing cylinder.

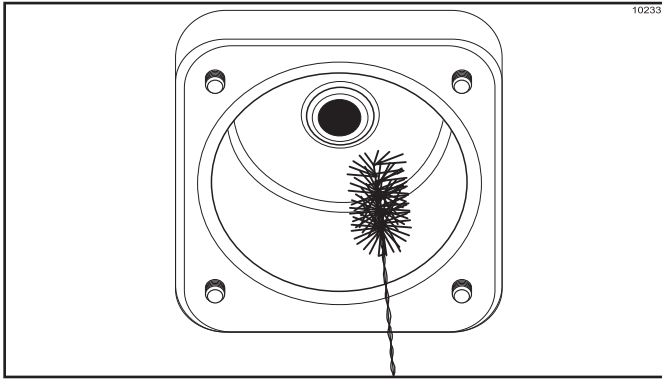


Figure 6-62

- Using the long, flexible brush and cleaning solution, clean the mix inlet tube located in the mix cabinet. Thoroughly clean this tube all the way up to the freezing cylinder. This area needs special attention because bacteria and milkstone can accumulate here.

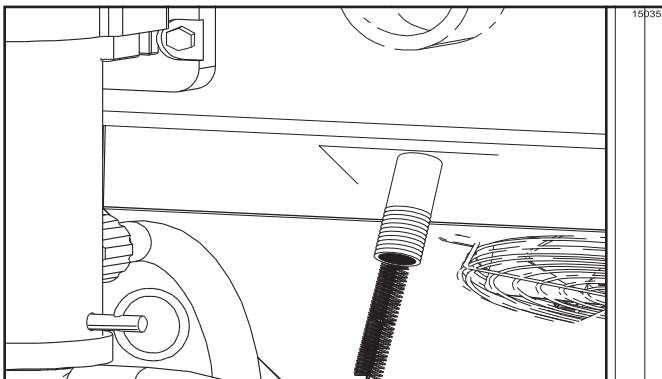


Figure 6-63

- Wipe clean all exterior surfaces of the freezer and mix cabinet.

## Sanitizing the Syrup System

The two main objectives in your closing procedures must be to discard all syrup at least once a week. Flush the syrup lines at least once a week.

Sanitizing the syrup system must be performed on a regular basis to keep old syrup accumulation from clogging the lines and to break the bacteria chain which develops in the tanks and lines. Calibrating the syrup flow must be performed every morning, especially after flushing the syrup lines.

## Sanitizing the Syrup Tanks

- Pull back on the collar of the air line quick disconnect fitting. Allow the air pressure to dissipate from the syrup tank. Disconnect the syrup line.
- Remove the syrup tank from its compartment. Remove the syrup tank lid by lifting up on the locking lever. Discard the remaining syrup.
- Rinse the syrup tank with clean, warm water.
- Prepare a 0.5 gal. (1.9 L) of an approved 100 PPM sanitizing solution with warm water in the syrup tank. Brush clean the inside and outside of the tank.
- Using an adjustable wrench, remove the syrup line fitting from each tank. Remove the dip tube and O-ring from the syrup tank.

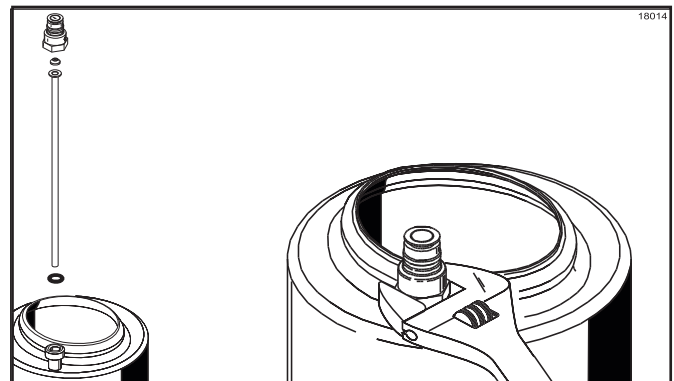


Figure 6-64

- Using the sanitizing water, thoroughly brush clean the dip tube, syrup line fitting, and O-ring. Reassemble the dip tube, O-ring and syrup line fitting.
- Pour off all the sanitizing solution. Air dry the tank by placing it in an upside-down position on a clean, dry surface.



## Sanitizing the Syrup Lines



**ALWAYS FOLLOW LOCAL HEALTH CODES.**

1. Prepare 1 gal. (3.8 L) of an approved 100 PPM sanitizing solution with warm water in the spare syrup tank. Replace and lock the tank lid into position. Place this tank in the syrup compartment.
2. Connect one of the air lines and one of the syrup lines to the syrup tank filled with sanitizing solution.
3. Place the power switch in the ON position. This will activate the air compressor to supply pressure to the syrup system.
4. Attach the syrup sampler to the first syrup line. Press the syrup sampler into an empty pail. This will cause syrup residue to be forced out into the pail.
5. When full-strength sanitizing solution is flowing from the syrup line, release the syrup sampler.
6. Clear the syrup line of any remaining sanitizer by turning the syrup tank (with the sanitizing solution) upside-down and pressing the syrup sampler into the pail. Release the syrup sampler and return the syrup tank right-side up.
7. Place the power switch in the OFF position.

Notes:

Lined area for notes.

## During Cleaning and Sanitizing



**ALWAYS FOLLOW LOCAL HEALTH CODES.**



**NOTICE!** Cleaning and sanitizing schedules are governed by your federal, state, or local regulatory agencies and must be followed accordingly. Please refer to the cleaning section of this manual for the proper procedure to clean this unit.



**IMPORTANT!** Cleaning and sanitizing must be performed daily.

## Troubleshooting Bacterial Count

- ☐ Thoroughly clean and sanitize the machine regularly, including complete disassembly and brush cleaning.
- ☐ Use all brushes supplied for thorough cleaning. The brushes are specially designed to reach all mix passageways.
- ☐ Use the brush to clean the mix feed tube, which extends from the mix cabinet up to the rear of the freezing cylinder.
- ☐ Use the black bristle brush to thoroughly clean the rear shell bearing located at the rear of the freezing cylinder. Be sure to have a generous amount of cleaning solution on the brush.
- ☐ If Local Health Codes Permit The Use Of Rerun, make sure the mix rerun is stored in a sanitized, covered stainless steel container and used the following day. Do Not prime the machine with rerun. When using rerun, skim off the foam and discard, then mix the rerun with fresh mix in a ratio of 50/50 during the day's operation.
- ☐ On a designated day of the week, run the mix as low as feasible and discard after closing. This will break the rerun cycle and reduce the possibility of high bacteria and coliform counts.

- ☐ 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.
- ☐ Empty all syrup from the tanks and discard at least once a week.
- ☐ Thoroughly clean and sanitize the syrup lines at least once a week.
- ☐ The temperature of mix in the mix cabinet and the walk- in cooler should be below 40°F (4.4°C).

## Regular Maintenance Checks

- ☐ Rotate the scraper blades to allow both sides of the knife edge to wear evenly. This will contribute to self-sharpening and help maintain fast, efficient freezing.
- ☐ Replace the scraper blades that are nicked or damaged. Before installing the beater, make sure that scraper blades are properly attached over the pins.
- ☐ Check the rear shell bearing for signs of wear (excessive mix leakage in drip pan) and make sure it is properly cleaned.
- ☐ Using a screwdriver and cloth towel, keep the rear shell bearing and the female square drive socket clean and free of lubricant and mix deposits.
- ☐ Dispose of O-rings and seals if they are worn, torn, or fit too loosely, and replace with new ones.
- ☐ Follow all lubricating procedures as outlined in Freezing Cylinder Assembly on page 6-1.
- ☐ On air-cooled units, 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.

**Important!** Never use screwdrivers or other metal probes to clean between the fins.

- ☐ 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

## OPERATOR CHECKLIST

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water lines should be replaced by an authorized Taylor mechanic.

### Air/Mix Pump Checklist

- ☐ Replace O-rings and check bands with new ones if they are worn, torn, or fit too loosely.
- ☐ Follow lubricating procedures carefully. Never lubricate check bands.
- ☐ Handle plastic pump parts with care to avoid nicks and cracks.
- ☐ Be sure the spring and poppet fit securely over the mix inlet fitting.
- ☐ Be sure the air/mix pump is properly aligned with the face plate of the motor reducer, or severe and costly damage may occur.

Your local Taylor distributor can perform this winter storage service for you.

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

### 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 the spring in the water valve. Use air pressure on the outlet side to blow out any water remaining in the condenser, and then add a liberal amount of a permanent type of auto anti-freeze.

7



**IMPORTANT!** For water-cooled freezers, use air pressure on the outlet side to blow out any water remaining in the condenser. Failure to follow this procedure may cause severe and costly damage to the refrigeration system.

Table 8-1

Problem	Probable Cause	Remedy	Page Ref.
1. No product is being dispensed.	a. The unit is low on mix. The MIX OUT light is on.	a. Add mix to the mix tank.	5-1
	b. The power switch is in the OFF position.	b. Place the power switch to the ON position.	5-1
	c. The beater assembly is rotating counterclockwise.	c. Call a service technician to correct the rotation to clockwise.	- - -
	d. The beater motor is out on reset.	d. Reset the freezer.	5-2
	e. There is a freeze-up in the mix feed tube.	e. Call a service technician.	- - -
	f. The mix suction line is not fully submerged in mix.	f. Arrange the suction line so that it's completely submerged in mix.	6-11
	g. The mix pump ball crank is broken.	g. Call a service technician to replace the ball crank.	- - -
	h. The air/mix pump is incorrectly assembled or improperly lubricated.	h. Check the assembly procedures.	6-5
	i. The spring and poppet in the air/mix pump is missing.	i. The spring and poppet must fit securely on the mix inlet fitting.	6-7
	j. The pump motor is not activated.	j. Push the reset button on the drive motor.	- - -
	k. The mix probe is not installed properly.	k. Check the mix probe installation.	6-11
	l. Missing, defective, or no lubrication on the mix inlet fitting O-ring. (No mix in the suction line.)	l. Replace or evenly lubricate the o-ring on the mix inlet fitting.	6-7
	m. The suction line is not fitting tightly on the barbed fitting of the mix inlet fitting.	m. Make sure the suction line fits tightly to the fitting.	6-8
	n. The check bands or O-rings are either worn or defective.	n. Replace rubber parts every 3 months. Never lubricate check bands.	9-1
2. The product is too stiff.	a. The thermistor control is set too cold.	a. Adjust the thermistor control accordingly.	5-2
	b. There is insufficient mix in the freezing cylinder.	b. Check the air/mix pump assembly. The mix suction line must be completely submerged in mix.	- - -
	c. Improper priming procedures were used.	c. Drain the freezing cylinder and reprime the machine.	6-11
	d. Old, out-of-date mix was used.	d. Use fresh mix. When using rerun, skim off the foam and mix 50/50 with fresh mix.	- - -
	e. Not enough syrup (1 oz. in 5 sec)	e. Calibrate syrups. See problem #14	6-14

Problem	Probable Cause	Remedy	Page Ref.
3. The product is too soft.	a. The thermistor control is set too warm.	a. Adjust the thermistor control accordingly.	5-2
	b. Too much syrup (1 oz. in 5 seconds).	b. Calibrate the syrups.	6-14
	c. The scraper blades are bad.	c. Replace scraper blades every 4 months.	9-1
	d. The condensers on air-cooled units are dirty.	d. Clean condensers regularly.	7-2
	e. There is an inadequate water supply on water-cooled units.	e. Check the water supply. Check the water lines for leaks or kinks.	7-2
	f. Outdrawing the capacity of the freezing cylinder.	f. A continuous draw rate is approximately one 16 oz. shake by volume every 15—20 sec.	- - -
	g. There is inadequate air space around the unit.	g. A minimum of 3 in. (7.6 cm) clearance is required around all sides. Do not obstruct the air discharge on top.	1-1
	h. The compressor is out on overload.	h. Allow the machine to cool the automatic reset. If an overload shuts the compressor down again, call a service technician.	- - -
	i. The condenser fan is defective.	i. Call a service technician to replace the fan.	- - -
	j. Improper priming procedures were used.	j. Refer to proper priming procedures.	6-11
4. The mix cabinet temperature is too warm.	a. Warm mix was placed in the cabinet.	a. Mix placed in the mix tank should be below 40°F (4.4°C).	- - -
	b. The Softech™ control needs to be adjusted.	b. Call a service technician to adjust the Softech control.	- - -
	c. The mix cabinet door was left open.	c. The door must be kept closed.	6-13
	d. The mix cabinet door gasket is not sealing.	d. Repair or replace the door gasket.	- - -
	e. The condenser on air-cooled units is dirty.	e. Clean condensers regularly.	7-2
5. The mix cabinet temperature is too cold.	a. The Softech control needs to be adjusted.	a. Call a service technician to adjust the Softech control.	- - -
6. Syrup is bleeding into the freezing cylinder.	a. The spinner shaft was improperly installed.	a. The spinner blade must be flush with the bottom of the door spout.	6-5
	b. The center O-ring on the draw valve was improperly lubricated or worn.	b. Lubricate the O-ring properly, or replace every 3 months.	9-1
	c. The draw handle is not completely closed.	c. Push the draw handle up completely.	- - -
7. Product is collecting on top of the draw valve.	a. There is inadequate lubrication on the spinner shaft.	a. Lubricate the spinner shaft properly.	6-4
8. Product is collecting on top of the freezer door.	a. The top O-ring on the draw valve is improperly lubricated or worn.	a. Lubricate properly or replace every 3 months.	9-1

Problem	Probable Cause	Remedy	Page Ref.
9. There is excessive mix leakage from the bottom of the door spout.	a. There is a worn, missing, or incorrect O-ring on the draw valve.	a. Replace rubber parts every 3 months. Check the O-ring size.	9-1
	b. There is improper lubrication on the draw valve O-rings.	b. Lubricate the O-rings properly.	6-3
	c. There is inadequate lubrication on the spinner shaft.	c. Lubricate the spinner shaft properly.	6-4
10. There is excessive mix leakage into the rear drip tray.	a. The seal on the drive shaft is either worn or missing.	a. Install the drive shaft seal. Replace rubber parts every 3 months.	9-1
	b. There is improper lubrication on the drive shaft.	b. Lubricate the drive shaft properly.	6-1
	c. The rear shell bearing is worn.	c. Call a service technician to replace the rear shell bearing.	- - -
	d. The gear box is out of alignment.	d. Call a service technician to align the gear box.	- - -
	e. The drive shaft and beater assembly is working forward.	e. Call a service technician to correct the problem.	- - -
11. The drive shaft is stuck in the gear box coupling.	a. There is lubrication on the end of the drive shaft.	a. Do not lubricate the end of the shaft. Call a service technician for removal.	- - -
	b. There are rounded corners on the shaft, gear coupling, or both.	b. Call a service technician to replace the gear coupling, drive shaft, or both.	- - -
12. The freezing cylinder walls are scored.	a. The scraper blades are damaged.	a. Replace the scraper blades.	6-1
	b. The front bearing is missing or worn.	b. Install or replace the front bearing.	6-2
	c. Unit was placed in Auto mode before all sanitizing solution was removed from freezing cylinder.	c. Place unit in Auto mode only after priming is complete and all sanitizing solution is removed.	6-11/6-12
	d. Broken pins on beater assembly.	d. Repair or replace the beater assembly. Be sure the scraper blades are properly seated on pins.	6-1
	e. The beater assembly is bent.	e. Call service technician to repair or replace the beater and to correct the cause of insufficient mix in the freezing cylinder.	- - -
13. The spinner shaft will not rotate to blend the syrup and mix.	a. The flexible coupling is broken.	a. Call a service technician to replace the flexible coupling.	- - -
	b. The pin is missing on the quick disconnect of the spinner coupling.	b. Call a service technician to replace the spinner coupling.	- - -
	c. The spinner motor is out on thermal overload.	c. Allow the spinner motor to cool. Check the lubrication on the spinner shaft. Lubricate the spinner shaft properly.	6-4

## TROUBLESHOOTING GUIDE

Problem	Probable Cause	Remedy	Page Ref.
14. Large pressure adjustments are needed to calibrate the syrups or are unable to get adequate syrup delivery with syrup sampler.	a. There is hardened syrup in the syrup lines.	a. Clean and sanitize the syrup lines weekly.	6-18
	b. The syrup and air lines are not matched.	b. Match the color spiral air and syrup line to the correct syrup tank.	6-13
	c. There is a plugged restrictor in the vanilla or strawberry syrup line connection.	c. Clean the restrictor. Remove the air line from the syrup tank. Remove the syrup line (vanilla or strawberry) from the syrup tank. Disassemble the syrup quick disconnect. Pull the restrictor out and clean.	- - -
	d. The syrup line fitting is plugged at the freezer door connection.	d. Clean the syrup line fitting.	5-3
15. The pump will not operate.	a. The pump motor may be off on reset.	a. Push the RESET button on the pump motor.	- - -
16. The machine will not run while in Auto mode.	a. The machine is unplugged.	a. Plug the machine into the wall receptacle.	- - -
	b. The circuit breaker is off, or the fuse is blown.	b. Turn the breaker on, or replace the fuse.	- - -
	c. The machine is low on mix. The MIX OUT light is on.	c. Add mix to the mix tank.	- - -
	d. The mix probe is not installed properly.	d. Check the mix probe installation.	6-11
	e. The beater motor is out on reset.	e. Reset the freezer.	5-2
17. The machine is short cycling. (The refrigeration system starts and stops repeatedly in very short intervals.)	a. Inadequate water supply on water-cooled units.	a. Check water supply and water lines for leaks and kinks.	7-2
	b. Dirty condensers (A/C units).	b. Clean condensers regularly.	7-2
	c. There is inadequate air space around the unit.	c. A minimum of 3 in. (7.6 cm) clearance around all sides is required. Do not obstruct the air discharge on top.	1-1
	d. Defective condenser fan.	d. Call a service technician.	- - -



Table 9-1

Part Description	Every 3 Months	Every 4 Months	Every 6 Months	Annually
Scraper Blades		X		
Drive Shaft Seal	X			
Freezer Door Gasket	X			
Front Bearing	X			
Draw Valve O-ring	X			
Prime Plug O-ring	X			
Pivot Pin O-ring	X			
Air/Mix Pump O-ring	X			
Valve Body Check Band	X			
Mix Inlet Fitting O-ring	X			
Brush, 3" x 7"			Inspect and replace if necessary.	Minimum
Brush, 1" x 2"			Inspect and replace if necessary.	Minimum
Black Bristle Brush, 1" x 2"			Inspect and replace if necessary.	Minimum
Double-Ended Brush			Inspect and replace if necessary.	Minimum

**Notes:**

**TAYLOR COMPANY LIMITED WARRANTY ON FREEZERS**

Taylor Company is pleased to provide this limited warranty on new Taylor-branded freezer equipment available from Taylor to the market generally (the "Product") to the original purchaser only.

**LIMITED WARRANTY**

Taylor warrants the Product against failure due to defect in materials or workmanship under normal use and service as follows. All warranty periods begin on the date of original Product installation. If a part fails due to defect during the applicable warranty period, Taylor, through an authorized Taylor distributor or service agency, will provide a new or re-manufactured part, at Taylor's option, to replace the failed defective part at no charge for the part. Except as otherwise stated herein, these are Taylor's exclusive obligations under this limited warranty for a Product failure. This limited warranty is subject to all provisions, conditions, limitations and exclusions listed below and on the reverse (if any) of this document.

Table 10-1

Product	Part	Limited Warranty Period
Soft Serve	Insulated shell assembly	Five (5) years
Frozen Yogurt Shakes	Refrigeration compressor (except service valve)	Five (5) years
Smoothies	Beater motors	Two (2) years
Frozen Beverage	Beater drive gear	Two (2) years
Batch Desserts	Printed circuit boards and Softech controls beginning with serial number H8024200	Two (2) years
	Parts not otherwise listed in this table or excluded below	One (1) years

**LIMITED WARRANTY CONDITIONS**

1. If the date of original installation of the Product cannot be verified, then the limited warranty period begins ninety (90) days from the date of Product manufacture (as indicated by the Product serial number). Proof of purchase may be required at time of service.
2. This limited warranty is valid only if the Product is installed and all required service work on the Product is performed by an authorized Taylor distributor or service agency, and only if genuine, new Taylor parts are used.
3. Installation, use, care, and maintenance must be normal and in accordance with all instructions contained in the Taylor Operator's Manual.
4. Defective parts must be returned to the authorized Taylor distributor or service agency for credit.
5. The use of any refrigerant other than that specified on the Product's data label will void this limited warranty.

**LIMITED WARRANTY EXCEPTIONS**

This limited warranty does **not** cover:

1. Labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of defective parts, replacement parts, or new Products.
2. Normal maintenance, cleaning and lubrication as outlined in the Taylor Operator's Manual, including cleaning of condensers.
3. Replacement of wear items designated as Class "000" parts in the Taylor Operator's Manual.
4. External hoses, electrical power supplies, and machine grounding.
5. Parts not supplied or designated by Taylor, or damages resulting from their use.

## LIMITED WARRANTY ON EQUIPMENT

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6. Return trips or waiting time required because a service technician is prevented from beginning warranty service work promptly upon arrival.
7. Failure, damage or repairs due to faulty installation, misapplication, abuse, no or improper servicing, unauthorized alteration or improper operation or use as indicated in the Taylor Operator's Manual, including but not limited to the failure to use proper assembly and cleaning techniques, tools, or approved cleaning supplies.
8. Failure, damage or repairs due to theft, vandalism, wind, rain, flood, high water, water, lightning, earthquake or any other natural disaster, fire, corrosive environments, insect or rodent infestation, or other casualty, accident or condition beyond the reasonable control of Taylor; operation above or below the electrical or water supply specification of the Product; or components repaired or altered in any way so as, in the judgment of the Manufacturer, to adversely affect performance, or normal wear or deterioration.
9. Any Product purchased over the Internet.
10. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
11. Electricity or fuel costs, or increases in electricity or fuel costs from any reason whatsoever.
12. Damages resulting from the use of any refrigerant other than that specified on the Product's data label will void this limited warranty.
13. Any cost to replace, refill or dispose of refrigerant, including the cost of refrigerant.
14. **ANY SPECIAL, INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER.** Some jurisdictions do not allow the exclusion of incidental or consequential damages, so this limitation may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

### LIMITATION OF WARRANTY

**THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS AND/OR REMEDIES UNDER THE LAW, INCLUDING ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE ORIGINAL OWNER'S SOLE REMEDY WITH RESPECT TO ANY PRODUCTS SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE COMPONENTS UNDER THE TERMS OF THIS LIMITED WARRANTY. ALL RIGHTS TO CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING CLAIMS FOR LOST SALES, LOST PROFITS, PRODUCT LOSS, PROPERTY DAMAGES OR SERVICE EXPENSES) ARE EXPRESSLY EXCLUDED. THE EXPRESS WARRANTIES MADE IN THIS LIMITED WARRANTY MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON, WHATSOEVER.**

### LEGAL REMEDIES

The owner **must** notify Taylor in writing, by certified or registered letter to the following address, of any defect or complaint with the Product, stating the defect or complaint and a specific request for repair, replacement, or other correction of the Product under warranty, mailed at least thirty (30) days before pursuing any legal rights or remedies.

Taylor Company  
750 N. Blackhawk Blvd.  
Rockton, IL 61072, U.S.A.

**TAYLOR COMPANY LIMITED WARRANTY ON TAYLOR GENUINE PARTS**

Taylor Company is pleased to provide this limited warranty on new Taylor genuine replacement components and parts available from Taylor to the market generally (the "Parts") to the original purchaser only.

**LIMITED WARRANTY**

Taylor warrants the Parts against failure due to defect in materials or workmanship under normal use and service as follows. All warranty periods begin on the date of original installation of the Part in the Taylor unit. If a Part fails due to defect during the applicable warranty period, Taylor, through an authorized Taylor distributor or service agency, will provide a new or re-manufactured Part, at Taylor's option, to replace the failed defective Part at no charge for the Part. Except as otherwise stated herein, these are Taylor's exclusive obligations under this limited warranty for a Part failure. This limited warranty is subject to all provisions, conditions, limitations and exclusions listed below and on the reverse (if any) of this document.

Table 11-1

Part's Warranty Class Code Or Part	Limited Warranty Period
Class 103 Parts <sup>1</sup>	Three (3) months
Class 212 Parts <sup>2</sup>	Twelve (12) months
Class 512 Parts	Twelve (12) months
Class 000 Parts	No warranty

**LIMITED WARRANTY CONDITIONS**

1. If the date of original installation of the Part cannot be otherwise verified, proof of purchase may be required at time of service.
2. This limited warranty is valid only if the Part is installed and all required service work in connection with the Part is performed by an authorized Taylor distributor or service agency.
3. The limited warranty applies only to Parts remaining in use by their original owner at their original installation location in the unit of original installation.
4. Installation, use, care, and maintenance must be normal and in accordance with all instructions contained in the Taylor Operator's Manual.
5. Defective Parts must be returned to the authorized Taylor distributor or service agency for credit.
6. This warranty is not intended to shorten the length of any warranty coverage provided pursuant to a separate Taylor Limited Warranty on freezer or grill equipment.
7. The use of any refrigerant other than that specified for the unit in which the Part is installed will void this limited warranty.

<sup>1, 2</sup> Except that Taylor Part #032129SER2 (Compressor-Air-230V SERV) and Taylor Part #075506SER1 (Compressor-Air-115V 60HZ) shall have a limited warranty period of twelve (12) months when used in Taylor freezer equipment and a limited warranty period of two (2) years when used in Taylor grill equipment.

## LIMITED WARRANTY ON PARTS

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### LIMITED WARRANTY EXCEPTIONS

This limited warranty does **not** cover:

1. Labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of defective Parts, replacement Parts, or new Parts.
2. Normal maintenance, cleaning and lubrication as outlined in the Taylor Operator's Manual, including cleaning of condensers or carbon and grease buildup.
3. Required service, whether cleaning or general repairs, to return the cooking surface assemblies, including the upper platen and lower plate, to an operational condition to achieve proper cooking or allow proper assembly of release sheets and clips as a result of grease build-up on the cooking surfaces, including but not limited to the platen and plate, sides of the shroud or top of the shroud.
4. Replacement of cooking surfaces, including the upper platen and lower plate, due to pitting or corrosion (or in the case of the upper platen, due to loss of plating) as a result of damage due to the impact of spatulas or other small wares used during the cooking process or as a result of the use of cleaners, cleaning materials or cleaning processes not approved for use by Taylor.
5. Replacement of wear items designated as Class "000" Parts in the Taylor Operator's Manual, as well as any release sheets and clips for the Product's upper platen assembly.
6. External hoses, electrical power supplies, and machine grounding.
7. Parts not supplied or designated by Taylor, or damages resulting from their use.
8. Return trips or waiting time required because a service technician is prevented from beginning warranty service work promptly upon arrival.
9. Failure, damage or repairs due to faulty installation, misapplication, abuse, no or improper servicing, unauthorized alteration or improper operation or use as indicated in the Taylor Operator's Manual, including but not limited to the failure to use proper assembly and cleaning techniques, tools, or approved cleaning supplies.
10. Failure, damage or repairs due to theft, vandalism, wind, rain, flood, high water, water, lightning, earthquake or any other natural disaster, fire, corrosive environments, insect or rodent infestation, or other casualty, accident or condition beyond the reasonable control of Taylor; operation above or below the gas, electrical or water supply specification of the unit in which a part is installed; or Parts or the units in which they are installed repaired or altered in any way so as, in the judgment of Taylor, to adversely affect performance, or normal wear or deterioration.
11. Any Part purchased over the Internet.
12. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
13. Electricity, gas or other fuel costs, or increases in electricity or fuel costs from any reason whatsoever.
14. Damages resulting from the use of any refrigerant other than that specified for the unit in which the Part is installed will void this limited warranty.
15. Any cost to replace, refill or dispose of refrigerant, including the cost of refrigerant.
16. **ANY SPECIAL, INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER.** Some jurisdictions do not allow the exclusion of incidental or consequential damages, so this limitation may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

### LIMITATION OF WARRANTY

THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, CONDITIONS AND/OR REMEDIES UNDER THE LAW, INCLUDING ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE ORIGINAL OWNER'S SOLE REMEDY WITH RESPECT TO ANY PRODUCTS SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS UNDER THE TERMS OF THIS LIMITED WARRANTY. ALL RIGHTS TO CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING CLAIMS FOR LOST SALES, LOST PROFITS, PRODUCT LOSS, PROPERTY DAMAGES OR SERVICE EXPENSES) ARE EXPRESSLY EXCLUDED. THE EXPRESS WARRANTIES MADE IN THIS LIMITED WARRANTY MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON, WHATSOEVER.

### LEGAL REMEDIES

The owner **must** notify Taylor in writing, by certified or registered letter to the following address, of any defect or complaint with the Part, stating the defect or complaint and a specific request for repair, replacement, or other correction of the Part under warranty, mailed at least thirty (30) days before pursuing any legal rights or remedies.

Taylor Company  
750 N. Blackhawk Blvd.  
Rockton, IL 61072, U.S.A.

**Notes:**