OPERATOR'S MANUAL

Model 345, 346, 349, & 355 Non-Pressurized Slush Freezers

Original Operating Instructions

039710NPR

10/16/03 (Original Publication)
(Updated 10/14/2020)

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: _____ A

Minimum Wire Ampacity: _____A

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

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

(Updated 10/14/2020)
039710NPR

TAYLOR®

Taylor Company
750 N. Blackhawk Blvd.
Rockton, IL 61072

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Section 1 To the Installer

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, machines 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® machines.

- *Only Taylor service personnel should perform installation, maintenance, and repairs on Taylor machines.*
- *Authorized service personnel should consult OSHA Standard 29CFRI910.147 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 personal 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 machine 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 machine.

Note: *All repairs must be performed by a Taylor service technician.*

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

Site Preparation

Review the area the machine is to be installed in before uncrating the machine, making sure that all possible hazards the user or machine may come into have been addressed.

WARNING! Only install this machine in a location where its use and maintenance is restricted to trained personnel. Failure to comply may result in personal injury.

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 freezer has successfully performed in high ambient temperatures of 104°F (40°C) at reduced capacities.

WARNING! This machine 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 machine. Failure to follow this instruction may result in electrocution.

CAUTION! This machine must be installed on a level surface to avoid the hazard of tipping. Extreme care should be taken in moving this machine 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.

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

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

Air-Cooled Machines

Do not obstruct air intake and discharge openings.

Air-cooled machines require 6 in. (152 mm) minimum air space around all sides of the freezer to allow for adequate airflow across the condenser(s). Failure to allow adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause permanent damage to the compressor.

Water Connections

(Water-Cooled Machines Only)

An adequate cold-water supply must be provided with a hand shutoff valve on the two water inlet lines. On the underside of the base pan, three 1/2 in. IPS water connections for inlet, outlet, and carbonator have been provided for easy hookup. Permanently connect the machine using 1/2 in. (12.7 mm) inside diameter water lines. Flexible lines are recommended, if local codes permit.

Failure to use adequately sized water lines may cause the machine to go off on high head pressure and shut down. 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 are two water in connections and one water out connection. **Do not** install a hand shutoff 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! *Water pressures are preset at the factory.* ***Do not*** *adjust the water. Improper water adjustments may cause operation discrepancies.*

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. Water pressure to the unit must not exceed 150 psi (1034 kPa).*

It is always a good practice to have a filter system to improve the quality of the water and to avoid clogging the operating components.

Important! *The water filter (064422-SER) must be thoroughly flushed with water before connecting it to the machine. This removes carbon particles that could clog the flow control. To flush the filter, connect the inlet end of the filter to the water supply. Position the outlet end of the filter over an empty pail. Open the water supply. Allow water to flow through the filter until the water exiting the filter is clear. Close the water supply. Attach the outlet end of the filter to the machine. Reopen the water supply.*

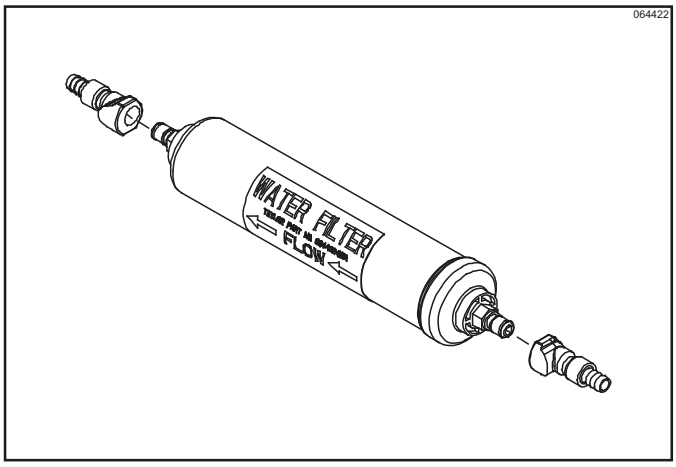

Figure 1-1

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 is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard. In all other areas of the world, equipment should be installed in accordance with the existing local codes. Please contact your local authorities.

FOLLOW YOUR LOCAL ELECTRICAL CODES.

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

WARNING! This machine must be properly grounded. Failure to do so can result in severe personal injury from electrical shock.

IMPORTANT! *An equipotential grounding lug is provided with this machine. 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 machine's frame.*

WARNING! Avoid injury.

- **DO NOT** operate the machine unless it is properly grounded.
- **DO NOT** operate the machine with fuses larger than specified on the machine's data label.
- All repairs should be performed by an authorized Taylor service technician.
- The main power supplies to the machine must be disconnected prior to performing installation, repairs, or maintenance.
- **For Cord-Connected Machines:** Only Taylor service technicians or licensed electricians may install a plug or replacement cord on the machine.
- Machines 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 local codes.
- Stationary machines that 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) in the external installation.
- Supply cords used with this machine 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 the manufacturer, service agent, or a similarly qualified person to avoid a hazard.
- Secure supply cord ground lead to machine in a location where if the cord is pulled the main power leads become taut before the ground lead can break loose.

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

Beater Rotation

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

To correct the rotation on a three-phase machine, interchange any two incoming power supply lines at the machine main terminal block only. To correct rotation on a single-phase machine, 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 adjustment be performed by an authorized Taylor service technician.

(This does not apply to the Model 355.)

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

Note: *The following procedures must be performed by a Taylor service technician.*

Refrigerant

CAUTION! This machine contains fluorinated greenhouse gases (F-Gas) to provide refrigeration using a hermetically sealed circuit or within foam insulation. This machine's type of gas, quantity, Global Warming Potential (GWP), and CO_2 tonnes equivalent information is recorded on the machine's data label. The refrigerant used is generally considered nontoxic and nonflammable. However any gas under pressure is potentially hazardous and must be handled with caution.

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

CAUTION! Use only approved refrigerant listed on the machine'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.

WARNING! Refrigerant liquid sprayed onto the skin may cause serious damage to tissue. Keep eyes and skin protected. If refrigerant burns should occur, flush the area 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.

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.*

Syrup System Connections

1. Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed, and maintained according to federal, state, and local laws.
2. Hook up cold water supply to the freezer to supply water to the carbonator. A minimum of 21 psi (1.45 bar) of water pressure is required at the low-pressure switch. The low-pressure switch will cause the entire freezer to shut down if the water pressure drops below 7 psi (0.483 bar) for longer than one minute.
3. **For Electrical Hookup Specifications:**
   - One power cord
   - Refer to the data label.
   - Make sure all control switches on the front panel are in the OFF position.
   - The freezer must be properly grounded.
4. **For Models 345 and 346:**

   This harness has three Nylobrade® tubes that feed through the base pan and exit the rear of the freezer.

   Note: *For all models, freezing cylinders are numbered from left to right when facing the machine. (e.g., left freezing cylinder is #1.)*

   a. Connect the #1 line to the syrup supply for the #1 freezing cylinder as viewed from the front of the machine.

   b. Connect the #2 line to the syrup supply for the #2 freezing cylinder as viewed from the front of the machine.

   c. Connect the CO_2 line to the CO_2 regulator that is closest to the CO_2 tank (primary regulator). This line will supply CO_2 to the freezer.

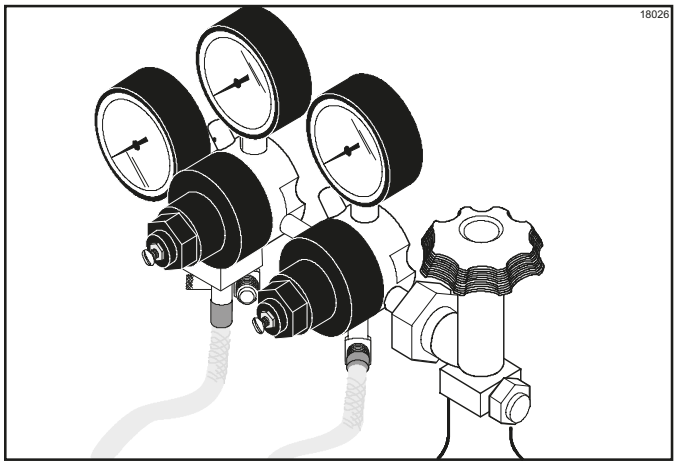

Figure 1-2

5. **For Model 349:**
   This harness has five Nylobrade tubes that feed through the base pan and exit the rear of the freezer.
   a. Connect the #1 line to the syrup supply for the #1 freezing cylinder as viewed from the front of the machine.
   b. Connect the #2 line to the syrup supply for the #2 freezing cylinder as viewed from the front of the machine.
   c. Connect the #3 line to the syrup supply for the #3 freezing cylinder as viewed from the front of the machine.
   d. Connect the #4 line to the syrup supply for the #4 freezing cylinder as viewed from the front of the machine.
   e. Connect the CO_2 line to the CO_2 regulator that is closest to the CO_2 tank (primary regulator). This line will supply CO_2 to the freezer.

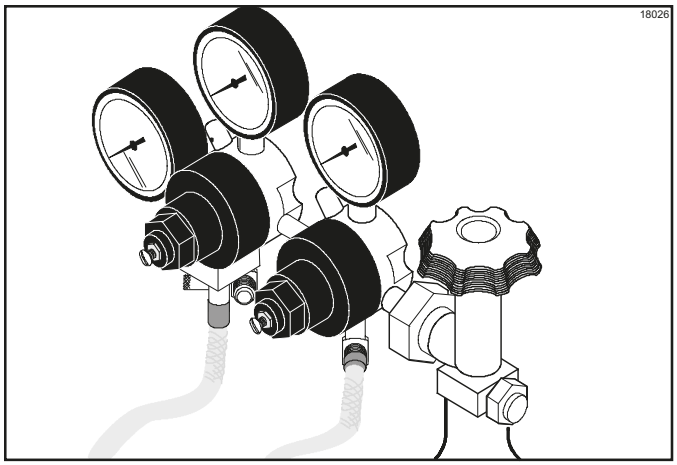

Figure 1-3

6. **For Model 355:**
   This harness has five Nylobrade® tubes that feed through the base pan and exit the rear of the freezer.
   a. Connect the #1 line to the syrup supply for the #1 freezing cylinder as viewed from the front of the machine.
   b. Connect the #2 line to the syrup supply for the #2 freezing cylinder as viewed from the front of the machine.
   c. Connect the #3 line to the CO_2 regulator that is closest to the CO_2 tank (primary regulator). This line will supply CO_2 to the freezer.
   d. Connect the #4 line to the water regulator on the remote carbonator. This line monitors the water pressure supplied to the machine.
   e. Connect the line labeled SODA to the remote carbonator tank.

7. There are spare CO_2 lines provided. For Bag-in-Box (BIB) syrup delivery system, connect the spare CO_2 lines from the secondary regulator to each Gas In fitting on the pumps. Set the secondary regulator pressure to 50 psi (3.45 bar) depending on the length of syrup line run to the unit.

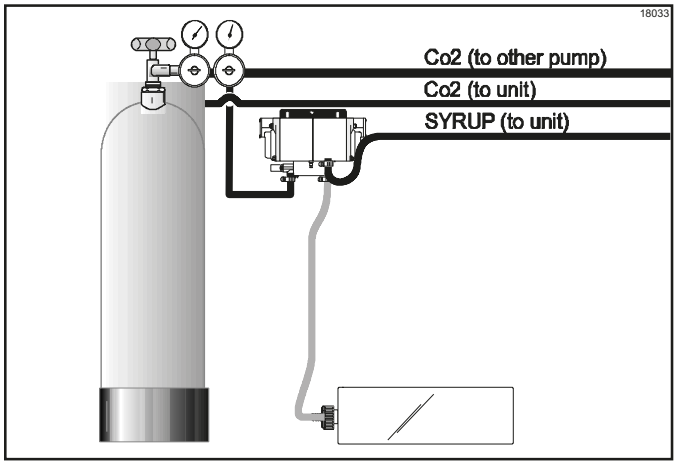

Figure 1-4

8. Set the primary regulator on the CO_2 tank to 60 psi (4.1 bar).

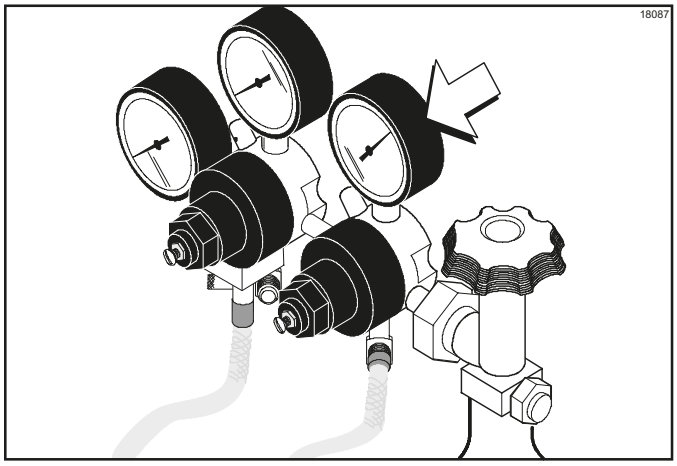

Figure 1-5

9. Set the secondary regulator on the CO_2 tank to 50 psi (3.45 bar) for the syrup tanks or the BIB pumps.

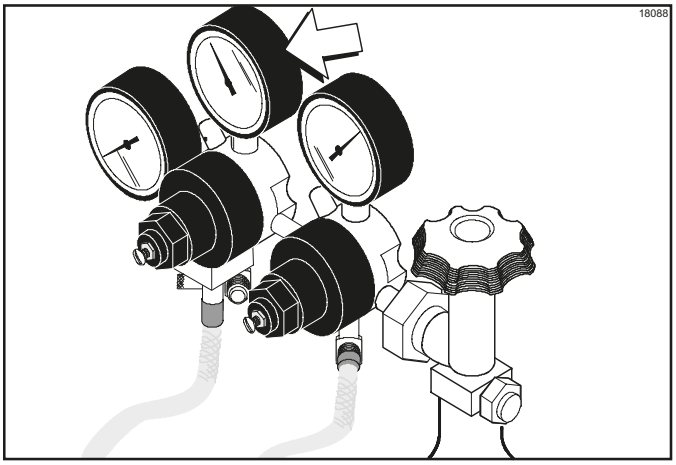

Figure 1-6

10. Turn the cold water supply on.
11. Check for CO_2 leaks. Close the valve on the top of the CO_2 tank. Watch the high-pressure gauge. It should hold pressure. If it does not, there is a CO_2 leak. Use a soap solution to locate and repair the leak.

    Important! *Ensure that the Bag-in-Box switch is enabled.*
12. The CO_2 regulator assembly (primary regulator) inside the freezer should be set at 40 to 45 psi (2.76 to 3.10 bar).
13. The CO_2 low-pressure switch requires at least 21 psi (1.45 bar) before the freezer will start. It is set to cut out at 7 psi (0.483 bar) and cut in at 21 psi (1.45 bar).
14. There are check valves in the CO_2, syrup, and water lines to prevent any backflow of soda water, product, or CO_2.

Remote Condenser Assembly Units

Preparation

Uncrate the condenser assemblies. After inspecting them for damage, position them in the desired location. Two remote condenser assemblies are required for each freezer (one condenser per compressor).

Remote condensers require a minimum of 6 in. (152 mm) air space on the rear and both sides. This is necessary for adequate air flow. Failure to follow this instruction may cause poor freezer performance and damage the equipment.

Refrigeration Charging and Line Construction

Each condenser assembly is shipped with a refrigerant holding charge sufficient to prevent moisture contamination 8 oz. (227 g) HP62. This holding charge will become part of the total system charge.

The condenser assemblies are shipped with the total amount of refrigerant required for a typical installation of 50 ft. (15 m). For other installation configurations, use the following chart for line sizing and for adding required refrigerant.

Recommended System Refrigerant Charge

Table 1-1

Discharge/Liquid Line Length	Required Charge
Up to 50 ft. (15 m) line sets	200 oz. / 567 kg
50 to 75 ft. (15 to 23 m)	214 oz. / 607 kg (add 14 oz. / 40 kg)
75 to 100 ft. (23 to 30 m)	228 oz. / 646 kg (add 28 oz. / 79 kg)

Note: *Maximum line length is 100 ft. (30 m) To meet individual installation requirements, the lines must be purchased and constructed locally.*

Line Size

Liquid Line—Requires 3/8 in. refrigerant grade copper tubing (hard or soft).

Note: *Insulating the liquid line is recommended if it is exposed to high ambient conditions. This will reduce heat accumulation and prevent the formation of flash gas in the liquid line.*

Discharge Line—Requires 1/2 in. refrigerant grade copper tubing (hard or soft).

346/349 Remote Condenser Assembly Lines

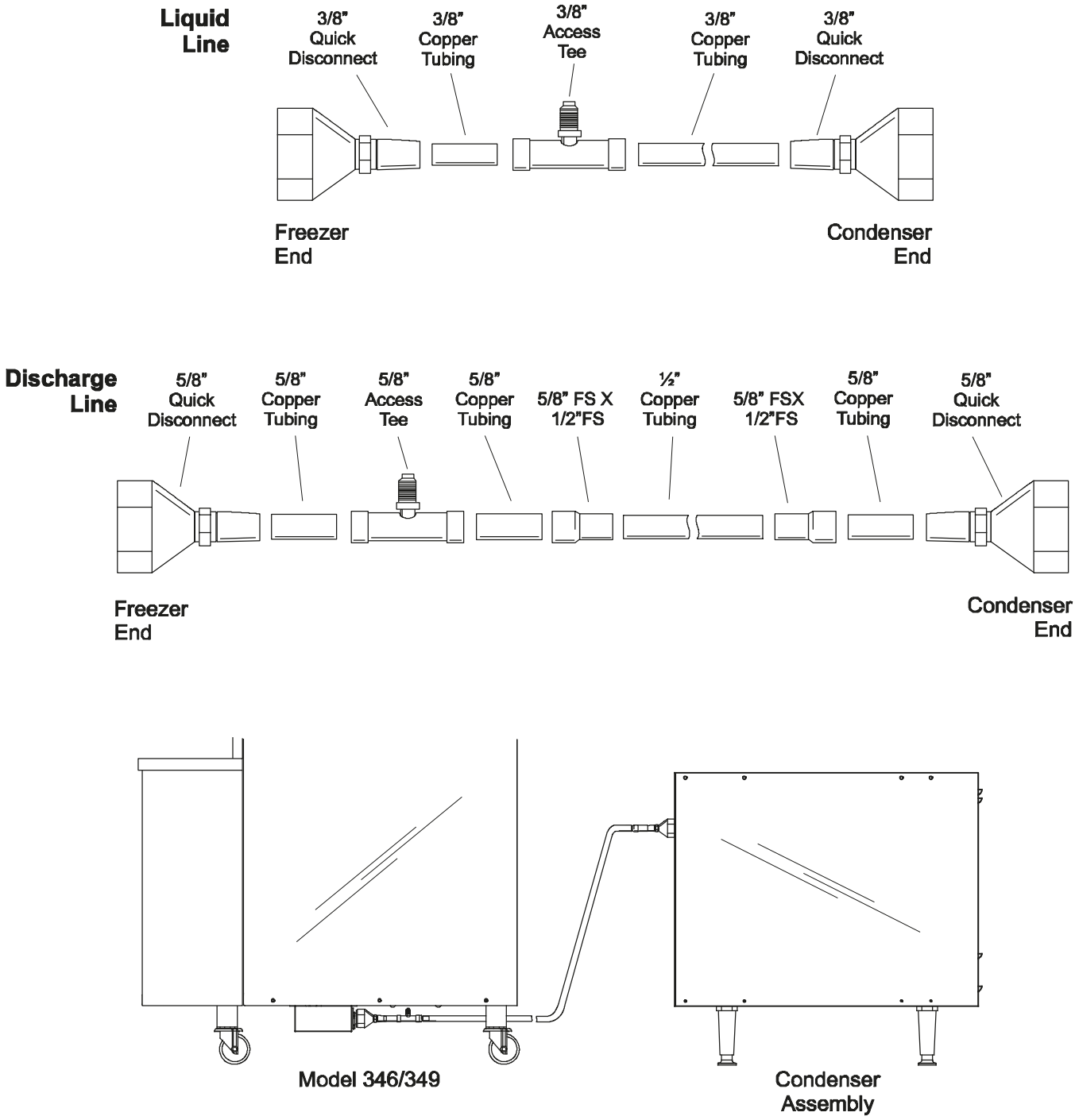

Figure 1-7

Remote Condenser Installation

1. Install refrigeration lines from the freezer to the condenser assemblies. **Do not** create oil traps.
2. Normally, any straight run of tubing must be supported near each end of the run. Long runs require additional supports. As a guide, 3/8 in. to 3/4 in. copper should be supported every 5 ft. (1.52 m). When changing directions, no corner should be left unsupported. Supports should be placed a maximum of 2 ft. (0.61 m) in each direction from the corner. If soft copper tubing is used, make sure it is not kinked or flattened. If hard drawn copper tubing is used, use only long radius elbows.
3. Braze the quick-connect/disconnect couplings and access tees on the freezer end of the refrigeration lines. The couplings and access tees are supplied with the freezer or condenser assembly.
4. Braze the supplied quick-connect/disconnect couplings on the condenser assembly end of the refrigeration lines. The couplings are supplied with the condenser assembly.

   Note: *Wrap a wet cloth around the brass coupling bodies to prevent heat damage to the seal.*
5. Test the field-constructed lines for leaks.
6. Evacuate the field-constructed refrigerant lines using the access fittings brazed on the freezer end of the refrigeration lines.
7. When the evacuation process is complete, relieve the vacuum with 4 oz. (113 g) HP62 refrigerant per line, for a total of 8 oz. (227 g). This procedure will prevent moisture contamination during freezer and condenser assembly connection and will complete the total charge.

Remote Condenser Refrigeration

Connections

Connect the refrigerant line quick-connect/disconnect (QD) couplings to the mating (QD) couplings on the condenser assembly by performing step 1 through step 6. When complete, repeat the instructions to connect the couplings on the freezer.

1. Remove the shipping caps from the quick-connect/disconnect coupling on the condenser assembly.
2. Thoroughly clean and lubricate the mating surfaces of the quick-connect/disconnects.

   Note: *Use polyolester oil to lubricate the surfaces.*
3. Manually thread the coupling halves together to ensure proper mating of the threads.
4. Using properly sized wrenches, tighten the coupling halves until the round, flat surfaces of inner coupling bodies completely depress one another.
5. Once the flat surfaces are completely depressed, tighten the couplings an additional 1/4 turn. This step is necessary to ensure that the knife edge of the seal seats into the brass seat of the coupling halves, forming a leak-proof joint (metal seal).

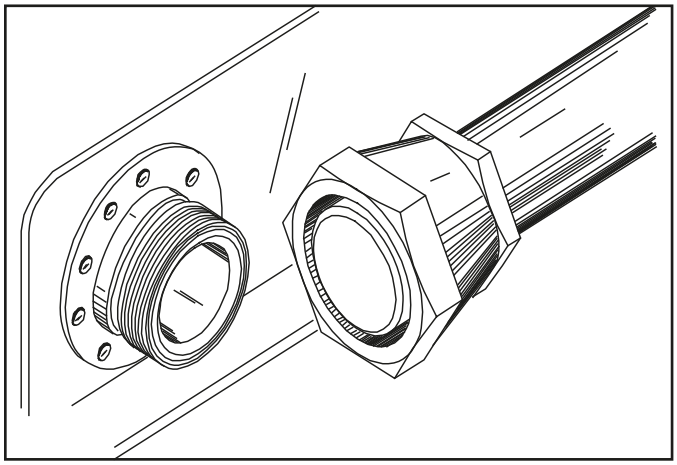

Figure 1-8

6. Check all connections for leaks.

   Repeat step 1 through step 6 to connect the refrigerant line QD couplings to the mating QD couplings on the freezer.

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

This machine(s), 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.

IMPORTANT! *This manual should be read before operating or performing any maintenance on the machine.*

Your Taylor machine will ***NOT*** *compensate for and/or correct any errors made during the setup or filling operations. Thus, the initial assembly, setup, and priming procedures are of extreme importance. It is strongly recommended that all personnel responsible for the machine's operation, including assembly and disassembly, go through these procedures together in order to be properly trained and to make sure that all personnel understand their role in using and maintaining the machine.*

If you should 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 a Taylor service technician. Taylor reserves the right to deny warranty claims on machines or parts if unapproved parts or incorrect refrigerant were installed in the machine, 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.*

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

IMPORTANT! *If the crossed-out wheeled-bin symbol is affixed to this machine, it signifies that this machine 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 delivering the machine 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/she employs.

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

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

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

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 machine is to be used only by trained personnel. It is not intended for use, cleaning, or maintenance by children or people with reduced physical, sensory, or mental capabilities or lack of experience and knowledge, unless given supervision or instruction concerning the use of the machine by a person responsible for their safety. Children should be supervised to ensure that they do not play with the machine.*

IMPORTANT! *An equipotential grounding lug is provided with this machine. 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 machine's frame.*

WARNING! This machine 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 machine. Failure to follow this instruction may result in electrocution.

WARNING! Avoid injury.

- **DO NOT** operate the machine unless it is properly grounded.
- **DO NOT** operate the machine with fuses larger than specified on the machine's data label.
- All repairs should be performed by an authorized Taylor service technician.
- The main power supplies to the machine must be disconnected prior to performing installation, repairs, or maintenance.
- **For Cord-Connected Machines:** Only Taylor service technicians or licensed electricians may install a plug or replacement cord on the machine.
- Machines 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 local codes.
- Stationary machines that 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) in the external installation.
- Supply cords used with this machine 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 the manufacturer, service agent, or a similarly qualified person to avoid a hazard.
- Secure supply cord ground lead to machine in a location where if the cord is pulled the main power leads become taut before the ground lead can break loose.

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

WARNING! Avoid injury.

- **DO NOT** allow untrained personnel to operate this machine.
- **DO NOT** operate the machine unless all service panels and access doors are restrained with screws.
- **DO NOT** remove any internal operating parts (including, but not limited to, machine 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 machine has many sharp edges that can cause severe injuries.

- **DO NOT** put objects or fingers in the door spout. This may contaminate the product and cause severe personal injury from blade contact.
- **USE EXTREME CAUTION** when removing the beater assembly. The scraper blades are very sharp.

CAUTION! This machine must be placed on a level surface. Extreme care should be taken when moving it 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.

WARNING! Only install this machine in a location where its use and maintenance is restricted to trained personnel. Failure to comply may result in personal injury.

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 machine.

CAUTION! This machine 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 machine performance.

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

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

Model 345

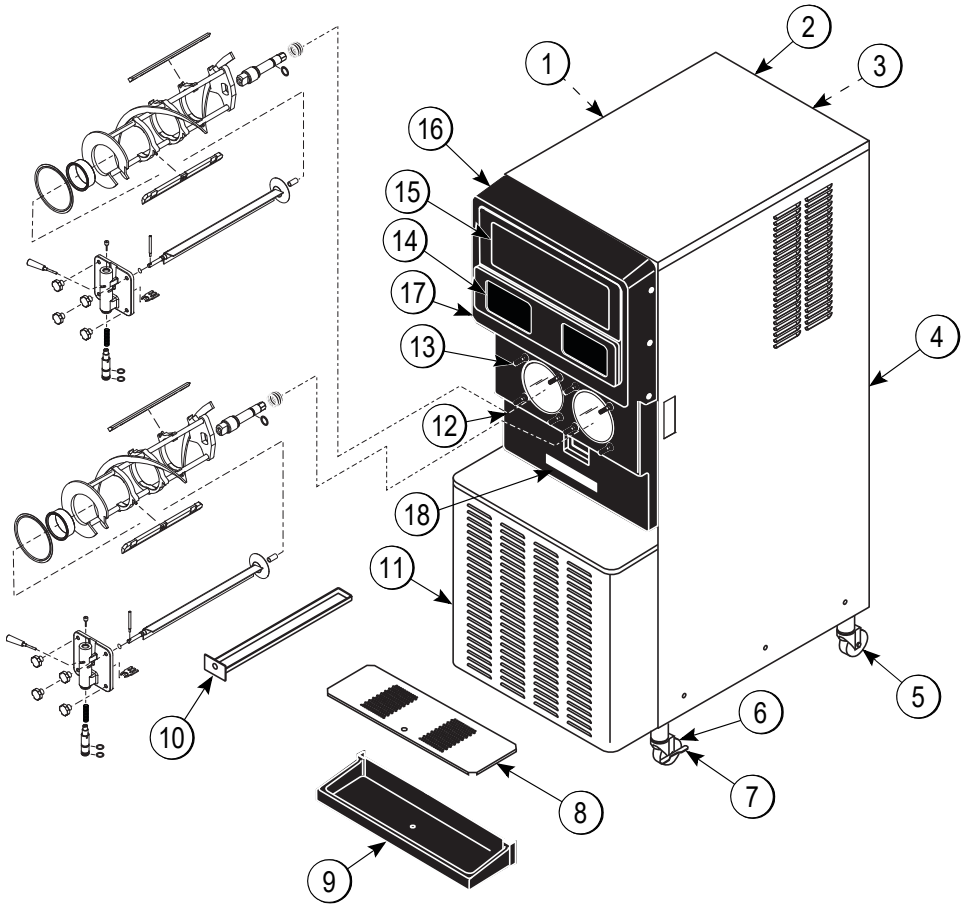

Figure 4-1

Item	Description	Part No.
1	Panel A.-Side L- Handle	X65856
2	Hood	044618
3	Panel-Rear	044921-SP1
4	Panel A.-Side R-Handle	X65858
5	Caster-3” SWV 3/4-10 Stem	021279
6	Caster-3” SWV w/Brake	030307
7	Lock-Caster BRKT	032571
8	Shield-Splash	043719
9	Tray-Drip Black w/Drain	043720-SP
10	Pan-Drip 19-1/2 Long	035034

Item	Description	Part No.
11	Panel-Service	044916
12	Panel-Front-Lower	043599-BLA
13	Stud-Nose Cone	020445
14	Card-Flavor Packet	035324
15	Card-CB POP	043957
16	Panel-Front-Upper	043600-BLA
17	Plate-Dec	043639-BLA
18	Decal-Dec-Taylor Domed	053761
*19	Pan-Drip	043612

*Not Shown

Model 346

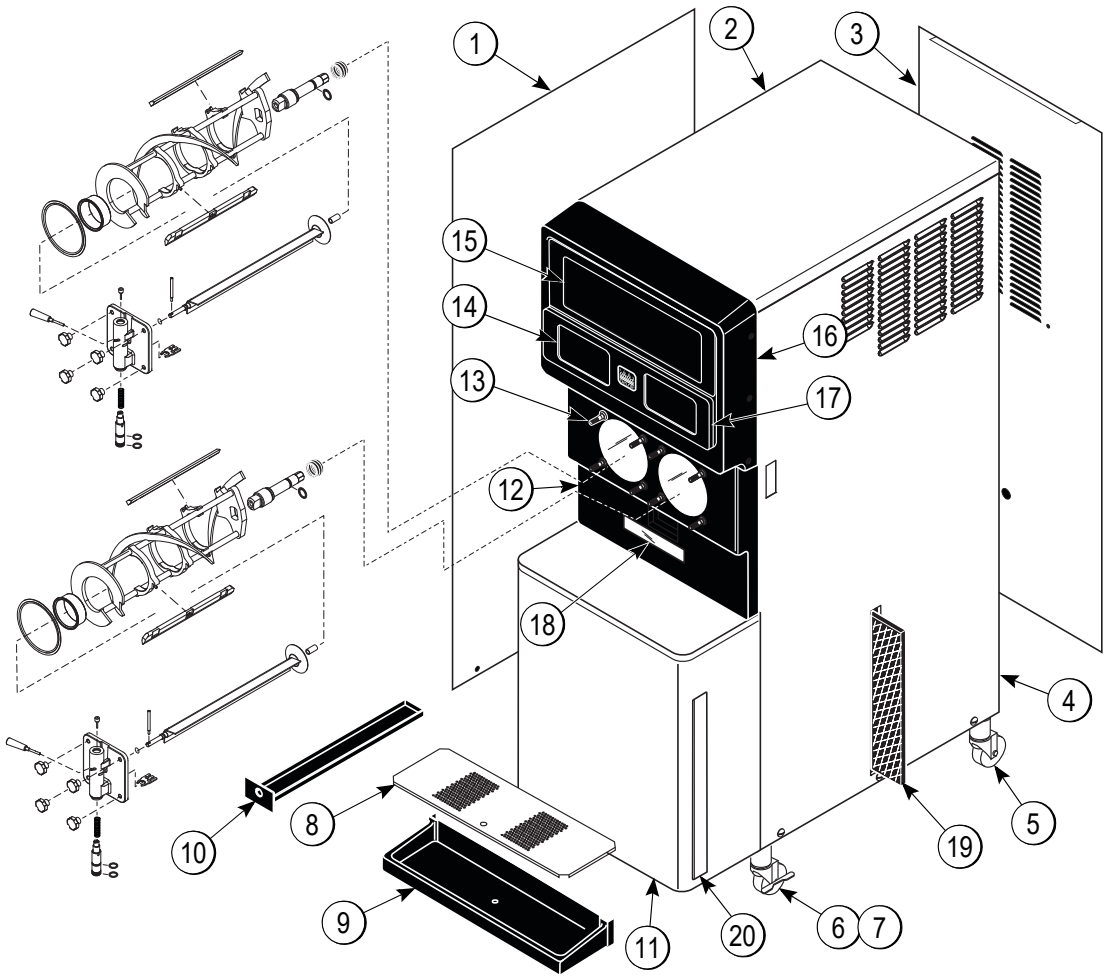

Figure 4-2

Item	Description	Part No.
1	Panel A.-Side L-Handle	X65849
2	Hood	044618
3	Panel-Rear	044921-SP1
4	Panel A.-Side *R (A/C)	X65853
	Panel A.-Side R (W/C)	X65858
5	Caster-3” SWV 3/4-10 Stem	021279
6	Caster-3” SWV w/Brake	030307
7	Lock-Caster Bracket	032571
8	Shield-Splash	043719
9	Tray-Drip Black w/Drain	043720-SP
10	Pan-Drip 19-1/2 Long	035034

Item	Description	Part No.
11	Panel-Service	053612
12	Panel-Front-Lower	043599-BLA
13	Stud-Nose Cone	020445
14	Card-Flavor Packet	035324
15	Card-FCB POP	043957
16	Panel-Front-Upper	043600-BLA
17	Plate-Dec	043639-BLA
18	Decal-Dec-Taylor Domed	053761
19	Filter- Air (A/C)	052779-1
20	Cover-Hole-Filter (A/C)	053801
*21	Pan-Drip	043612

*Not Shown

Model 349

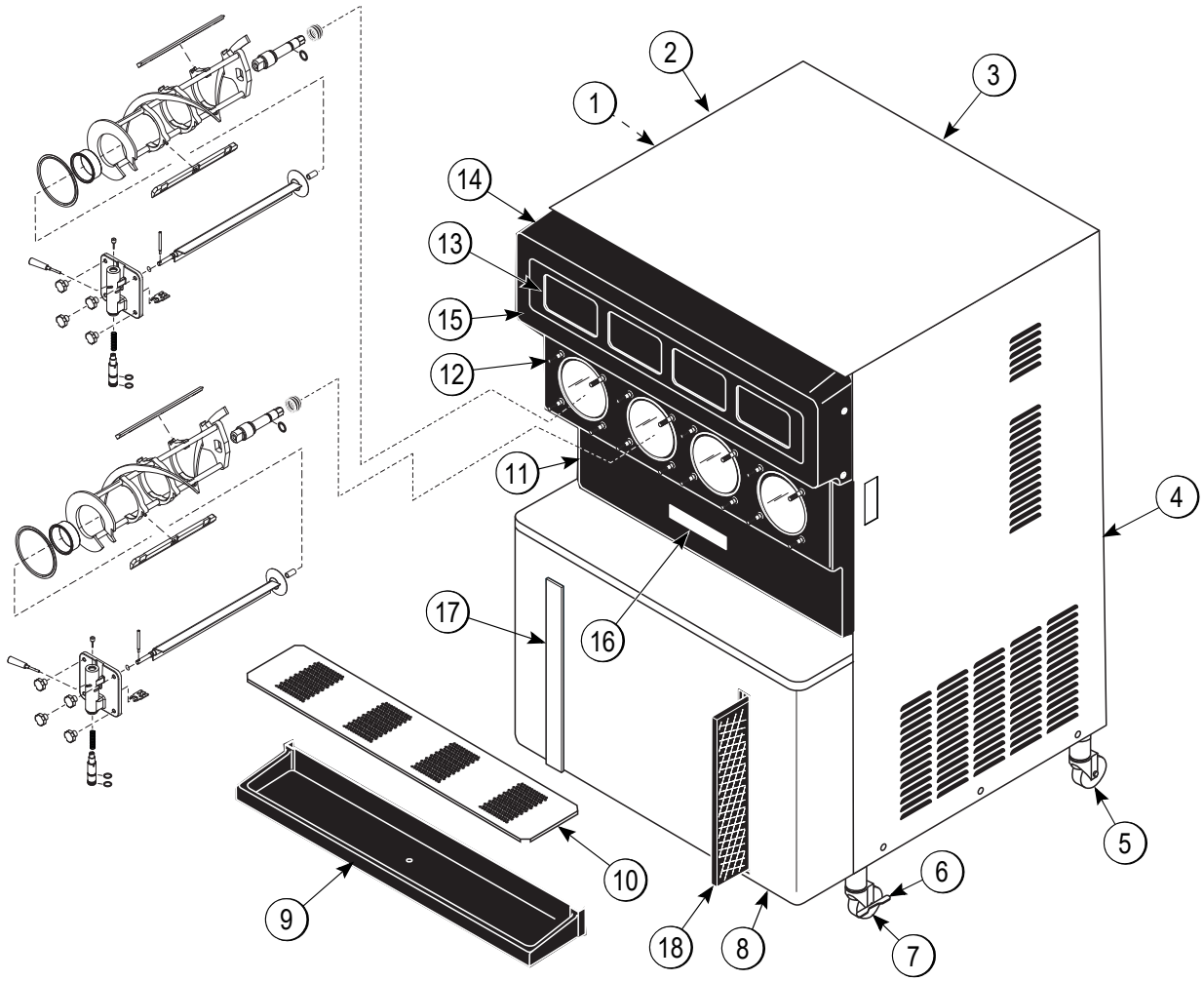

Figure 4-3

Item	Description	Part No.
1	Panel A.-Side *w/Handle-LT	X65550-SP1
2	Hood	042166
3	Panel-Rear *Drain Hole	042198-SP
4	Panel A.-Side Right	X65556-SP1
5	Caster-3” SWV 3/4-10 Stem	021279
6	Caster-3” SWV w/Brake	030307
7	Lock-Caster BRKT	032571
8	Panel-Service	058621
9	Tray-Drip Black w/Drain	038275-SP
10	Shield-Splash	038276
11	Panel-Front-Lower *BLK	042082-BLA

Item	Description	Part No.
12	Stud-Nose Cone	020445
13	Card-Flavor Packet	035324
14	Panel-Front-Upper *BLK	042081-BLA
15	Plate-DEC *Black	035410-BLA
16	Decal-DEC-Taylor Domed	053761
17	Cover-Hole-Filter	053801
18	Filter-Air (A/C)	052779-4
*19	Pan A.-Drip *w/Hose-Left	X42201
*20	Pan A.-Drip *w/Hose-Right	X42203

*Not Shown

Model 355

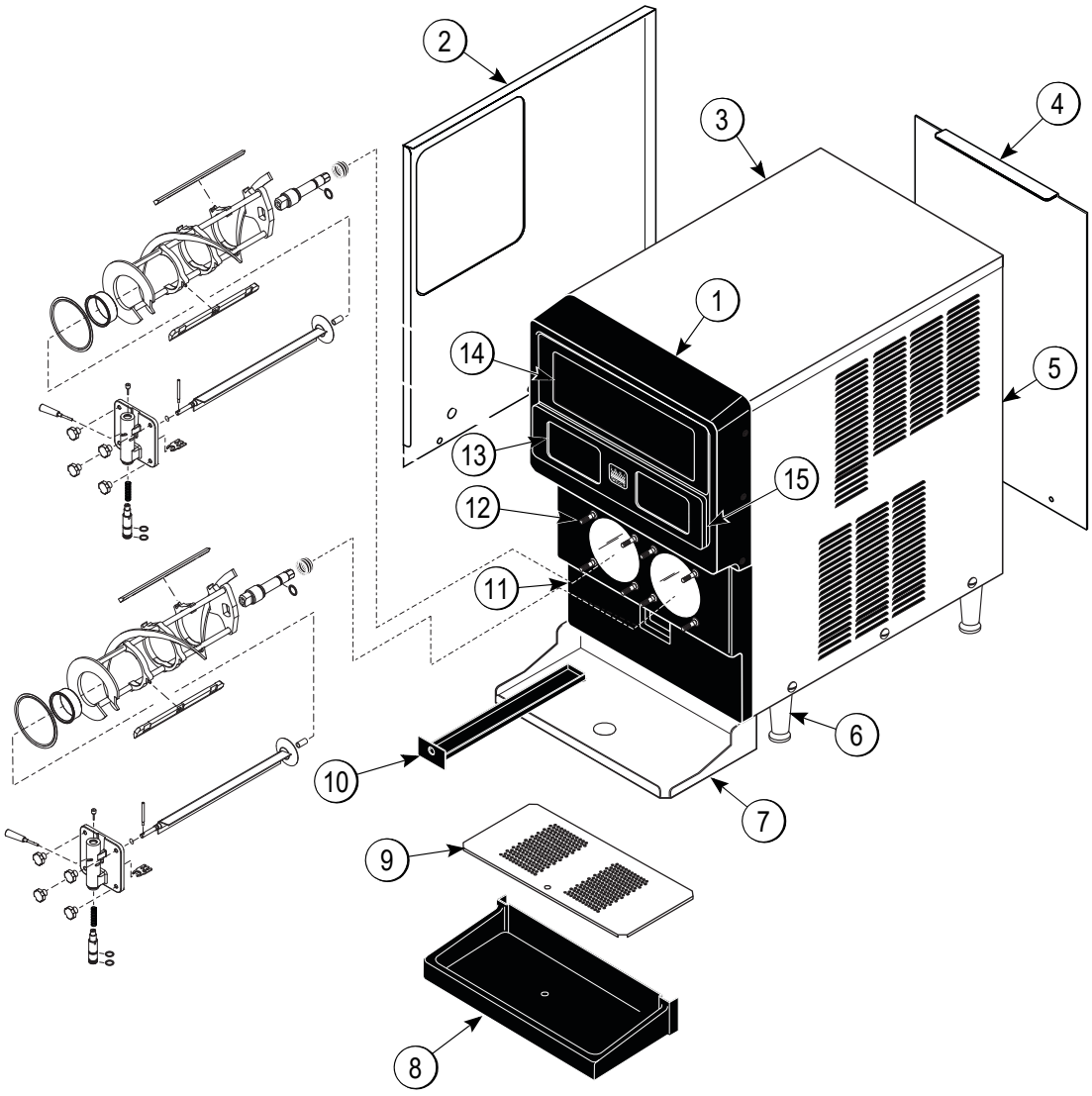

Figure 4-4

Item	Description	Part No.
1	Panel-Front-Upper *BLA	043600-BLA
2	Panel-Side *Left*AC	044619-SP
3	Hood	044618
4	Panel-Rear *Stainless	044621-SS
5	Panel-Side *Right	044620-SP
6	Leg-4” 3/8- 6 Stud	036397
7	Shelf-Drip Tray	049697
8	Tray-Drip*Black w/o Drain	043720

Item	Description	Part No.
9	Shield-Splash	043719
10	Pan-Drip 19-1/2 Long	035034
11	Panel-Front-Lower*Black	043599SBLA
12	Stud-Nose Cone	020445
13	Card-Flavor Packet	035324
14	Card-FCB POP	043957
15	Plate-DEC	043639-BLA
*16	Pan-Drip	043612

*Not Shown

Door Assembly

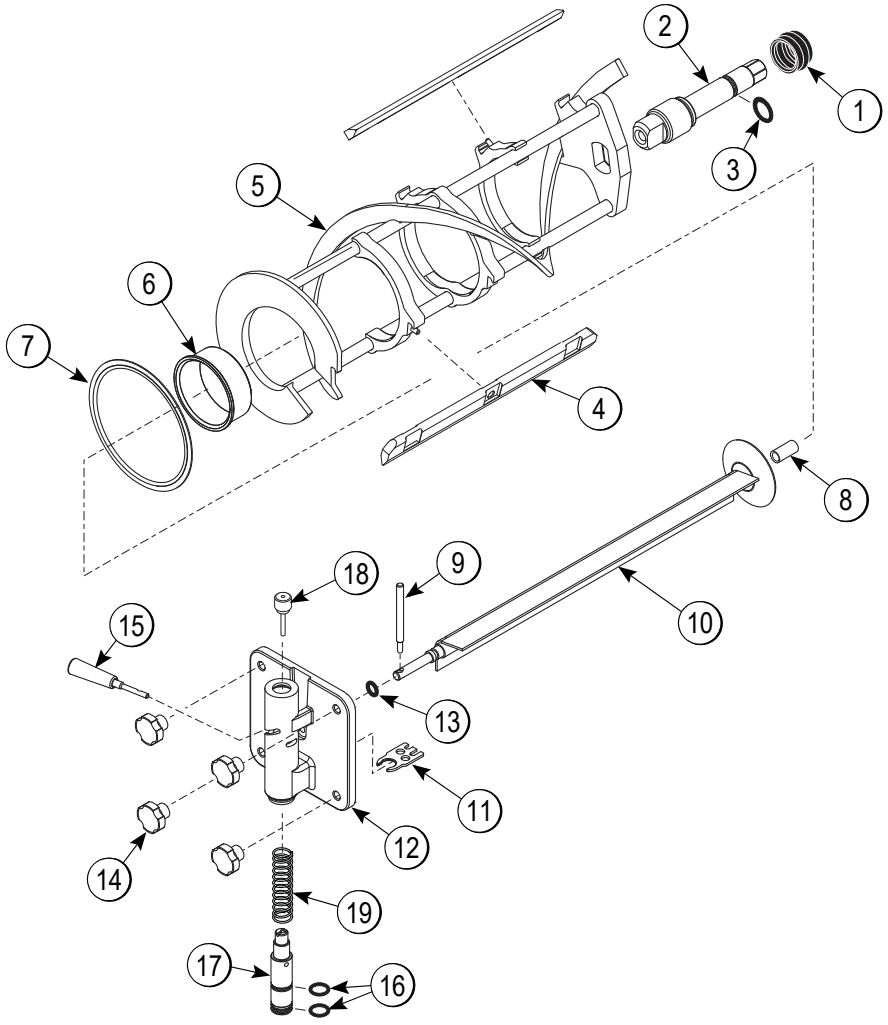

Figure 4-5

Item	Description	Part No.
1	Seal-Drive Shaft	032560
2	Shaft-Beater	036412
3	O-ring-7/8 OD X .139W	025307
4	Blade-Scraper-Plastic	081094
5	Beater A.-7qt.- 1 Pin	X46233
6	Bearing-Front	013116
7	Gasket-Door 5.109 X 5.630	014030
8	Bearing-Guide	014496
9	Arm-Baffle	047729
10	Baffle A.	X47731

Item	Description	Part No.
11	Buster-Ice	047735
12	Door A.-Slush-Partial-Self Close	X83427SSP1
13	O-ring- .291 ID X .080W	018550
14	Nut-Stud	043666
15	Handle A.-Draw-Slush-Black	X47384
16	O-ring-1”OD X .139W	032504
17	Valve-Draw *Self Close	080662
18	Pin A.-Valve Handle	X83812
19	Spring-Comp.	030344

Accessories

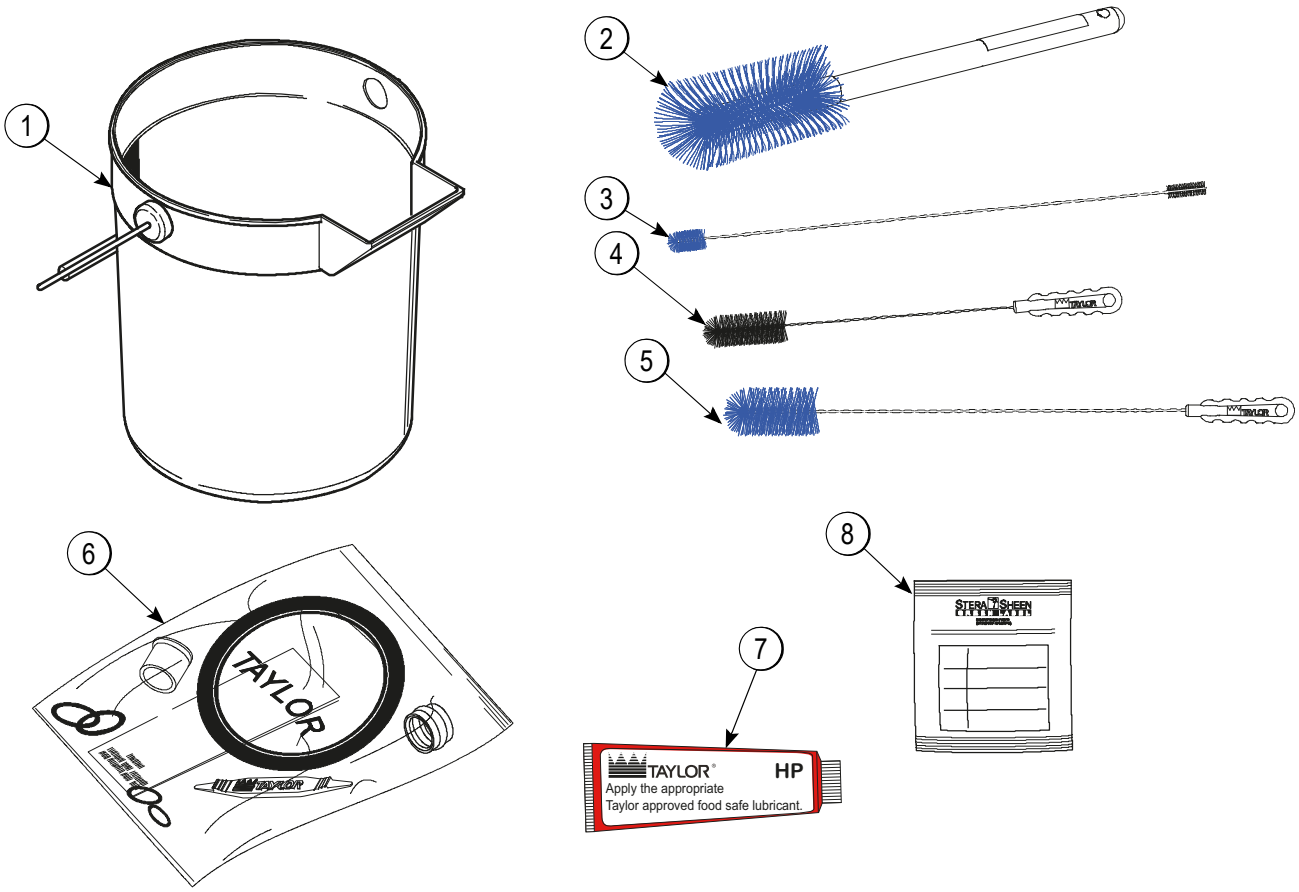

Figure 4-6

Item	Description	Part No.
1	Pail-10 qt.	013163
2	Brush-Mix Pump Body-3”X7”	023316
3	Brush-Double Ended	013072
4	Brush-Rear BRG 1”DX2“L	013071

Item	Description	Part No.
5	Brush-Draw Valve 1-1/2”OD	014753
6	Kit A.-Tune Up	X48942
7	Lubricant-Taylor Hi Perf	048232
8	Sanitizer-Stera-Sheen®	*055492

***Note:** A sample container of sanitizer is sent with the unit. For reorders, order Stera-Sheen® part no. 055492 (100 2 oz. packs) or Kay-5® part no. 041082 (200 packs).*

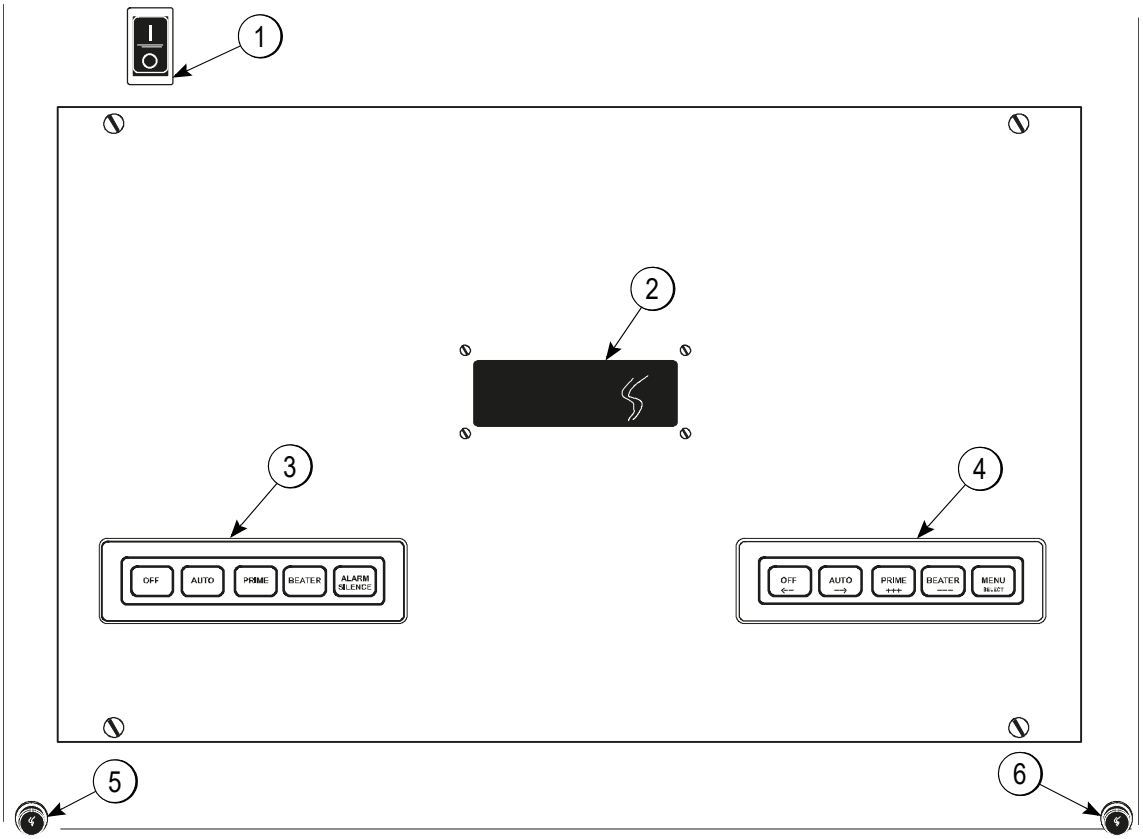

Figure 5-1

Item	Description
1	Control Switch
2	Liquid Crystal Display
3	Keypad-Left

Item	Description
4	Keypad-Right
5	Product Light-Left Side
6	Product Light-Right Side

Symbol Definitions (Model 349 Only)

To better communicate in the international arena, the words on many of our operator switches and keys have symbols to indicate their functions. Model 349 is designed with these international symbols.

The following table identifies the symbol definitions used on Model 349.

Table 5-1

= ON


= OFF


= AUTO


= PRIME


= BEATER MOTOR


= ALARM SILENCE


= MENU/SELECT

Control Switch

The control switch is located on top of the control box on Models 345, 346 and 355. It is located on the rear of the control box on Model 349. Being placed in the ON position allows for Slushtech™ operation.

Liquid Crystal Display

The liquid crystal display (LCD) is located on the front control panel. The LCD is used to show the current operating mode of the freezing cylinders. The LCD also indicates whether there is enough syrup, CO_2, and water being supplied to the freezer. If an error in the machine operation occurs, a warning tone will sound and the word FAULT will flash on the third line of the display.

Operating Screen Descriptions

Operational Mode Display

When the machine is plugged into the wall receptacle and the power switch is placed in the ON position, the following screen appears:

```
SAFETY TIMEOUT
ANY KEY ABORTS
```

This display will remain on the LCD for 60 seconds unless a key is pressed. If any key is pressed (or 60 seconds pass), the following screen appears:

```
OFF          MODE          OFF
OK           SYRUP          OK

CO2=OK                   WATER=OK
```

Note: *Syrup, CO_2, and water are satisfied.*

Pressing both AUTO keys will display the following screen:

```
AUTO         MODE          AUTO
OK           SYRUP          OK

CO2=OK                   WATER=OK
```

The first line indicates the operating mode for each cylinder.

The second line indicates the status of the syrup systems in each freezing cylinder.

The third line indicates if there is a fault in the system (left side).

The same rules apply to the fourth line which indicates the status of the CO_2 and the H_2O.

```
AUTO         MODE          OFF
OK           SYRUP          OK
- - FAULT - -
CO2=OK                   WATER=OK
```

Operator Menu Display

The operator menu is used to enter the operating screens. To access the operator menu, press the word menu. The cursor will flash under the letter A, indicating that this is screen A. To select a different screen, use the arrow keys to move the cursor to the desired screen selection and press the SEL key.

```
OPERATOR MENU
A B C D E F G H
EXIT MENU
<- - - ->                    SEL
```

Operator Menu Timeout

If the display is left in the operator menu or any of the operator menu selections, except for current conditions, the display will return to the system mode screen 60 seconds after the last key press. The current conditions screen will be displayed until manually changed.

Finding Current Fault Conditions

Screen B is fault description. The fault description will indicate if there is a fault in one of the freezing cylinders. When the fault is corrected, the warning tone will stop. Only last two fault messages require pressing the OFF/<- - - key to clear the fault message and warning tone.

Fault Messages	
No Fault Found	No fault conditions are apparent.
Beater Overload	Beater is out on overload.
Chk Refrig Sys Psi	Compressor is out on high head pressure (or low suction pressure = option that applies to some units)
Thermistor Short	Shorted thermistor probe.
Thermistor Open	Open thermistor probe.
H_2O Pressure Low	Water pressure is low.
CO_2 Pressure Low	CO_2 pressure is low.
Syrup Pressure Low	Syrup is no longer present.
BRL Temp 2 High	Freezing cylinder temperature is above 120°F (49°C).
BRL Not Cooling	Freezing cylinder is not cooling after 5 minutes.

The following are explanations of the possible faults and the display screens.

The second and third lines indicate the faults found in the left and right freezing cylinders respectively. The following screen indicates that no faults exist on either side. To see if there is more than one fault, press the +++ key.

NO FAULT FOUND—No fault conditions are apparent.

```
FAULT DESCRIPTION
L:    NO FAULT FOUND
R:    NO FAULT FOUND
CLR          + + +          SEL
```

Note: *On Model 349, faults for freezing cylinders one and two are shown on the first screen. Press the SEL key to read fault messages for freezing cylinders three and four.*

BEATER OVERLOAD—The beater motor is out on overload. When this fault occurs, the machine automatically turns off. The fault clears when the condition is corrected.

```
FAULT DESCRIPTION
L: BEATER OVERLOAD
R: BEATER OVERLOAD
CLR          + + +          SEL
```

CHK REFRIG SYS PSI—The compressor is out on high head pressure (or low suction pressure, an option that applies to some units). When this fault occurs, it places the machine in the OFF mode. The fault clears when the condition is corrected.

```
FAULT DESCRIPTION
L:  CHK REFRIG SYS PSI
R:  CHK REFRIG SYS PSI
CLR          + + +          SEL
```

THERMISTOR SHORT—One or both of the barrel (freezing cylinder) thermistor probes are faulty.

```
FAULT DESCRIPTION
L: THERMISTOR SHORT
R:  NO FAULT FOUND
CLR          + + +          SEL
```

THERMISTOR OPEN—One or both of the barrel (freezing cylinder) thermistor probes are faulty.

```
FAULT DESCRIPTION
L:  THERMISTOR OPEN
R:  NO FAULT FOUND
CLR          + + +          SEL
```

SYRUP PRESS LOW—When the syrup out indicator displays a lack of syrup, a 15-minute internal timer will start. At this time, no refrigeration or product flow from the flow control will be allowed. Only the beater and CO_2 operate. If the syrup is not replenished at the end of the 15 minutes, the freezing cylinder will shut down and this fault message will appear. Replenishing the syrup will cause the fault message and warning tone to clear. If using a tank system, priming may be required. (The example shown is for the right side.)

```
FAULT DESCRIPTION
L:  NO FAULT FOUND
R:  SYRUP PRESS LOW
CLR          + + +          SEL
```

CO_2 PRESSURE LOW—When the CO_2 out indicator displays a lack of CO_2, a 60-second internal timer will start. If the CO_2 is not replenished at the end of the 60 seconds, both freezing cylinders will shut down and this fault message will appear. Replenishing CO_2 will cause the fault message and warning tone to clear.

```
FAULT DESCRIPTION
L:  CO2 PRESSURE LOW
R:  CO2 PRESSURE LOW
CLR          + + +          SEL
```

H_2O PRESSURE LOW—When the water out indicator displays a lack of water, a 60-second internal timer will start. If the water is not replenished at the end of the 60 seconds, all freezing cylinders will shut down and this fault message will appear. Replenishing the water will cause the fault message and warning tone to clear.

```
FAULT DESCRIPTION
L:  H2O PRESSURE LOW
R:  H2O PRESSURE LOW
CLR          + + +          SEL
```

BRL NOT COOLING—A freezing cylinder check has been established for the AUTO mode of operation. If a freezing cylinder enters the AUTO mode, the control will check product temperature. After five minutes, it will again check product temperature. If product temperature does not drop in that five-minute time span, the freezing cylinder will shut down and this message will appear on the fault screen. For this check to be valid, the product temperature must be above 40°F (4.4°C), and the fill switch cannot be activated. If a fill condition exists during this time, the five-minute check will be re-initiated.

```
FAULT DESCRIPTION
L:  BARREL NOT COOLING
R:  NO FAULT FOUND
CLR          + + +          SEL
```

BRL TEMP 2 HIGH—A maximum allowable product temperature has been established to prevent product from excessive heating. If the product exceeds 120°F (49°C) for any reason (in any mode of operation), the entire machine shuts down.

```
FAULT DESCRIPTION
L:  BARREL TEMP 2 HIGH
R:  NO FAULT FOUND
CLR          + + +          SEL
```

Faults, when corrected, are cleared from the fault description screen, with the following exceptions: BRL NOT COOLING and BRL TEMP 2 HIGH. These faults require the operator to press the OFF key (when in the FAULT DESCRIPTION screen) in order for the fault to discontinue.

To see if there is more than one fault in either freezing cylinder, press the plus key. To return to the Operator Menu, press the SEL key once. To return to the Main Screen, use the right arrow key to cycle to MENU ITEM A, then press the SEL key.

Setting the Clock

Screen C is SET CLOCK. Move the cursor under the number you wish to change. Press the +++ key to increase the number; press the - - - key to decrease the number. When the desired time and date appear, press the SEL key once to return to the operator menu.

Note: *The clock is programmed in military time.*

```
SET CLOCK
14:30                                   6/25/03

<- - - ->                    + + +      - - -
SEL
```

The following screen will appear if an invalid date is entered (example: if the date entered exceeds the days of that month).

```
SET CLOCK
14:30                                   02/31/04
                    INVALID DATE
                                            SEL
```

The following screen allows the DAYLIGHT SAVING TIME options.

```
DAYLIGHT SAVING TIME
ENABLE              DISABLE

<- - - - - ->                           SEL
```

If the DAYLIGHT SAVING TIME option is enabled, then the time will be advanced by one hour at 2:00 a.m. on the first Sunday in April, and will be retarded by one hour at 2:00 a.m. on the last Sunday in October.

Manual Defrosting

Screen D is MANUAL DEFROST. This screen allows the operator to manually defrost the left side of the machine.

1. Place the cursor under YES, and press the SEL key, and the command will be executed.

```
MANUAL DEFROST
LEFT SIDE                          YES   NO

<- - - - - ->                           SEL
```

2. Repeat step 1 for the right side of the machine.

```
MANUAL DEFROST
RIGHT SIDE                         YES   NO

<- - - - - ->                           SEL
```

Note: *Models 345, 349, and 355 allow only one freezing cylinder to be defrosted at a time. Attempting to place a freezing cylinder into defrost while the other freezing cylinder is defrosting will result in the following screen. (Model 346 does not have this restriction.)*

```
ALREADY IN DEFROST
```

Press the SEL key to return the machine to the operator menu.

Current System Information

Screen E is SYSTEM INFORMATION. It consists of six display features.

Press the SEL key to advance to the next feature.

- The first feature indicates the software version.

```
SYSTEM INFORMATION
355 CONTROL UVC2
VERSION 2.00
                                        SEL
```

- The second feature indicates the bill of material number and the serial number. It also indicates if the machine is equipped with a water pressure switch.

```
B.O.M. 035527C000
S/N K0000000
WITH H20 PRESS SW
                                SEL
```

- The third feature indicates the version number of the LANGUAGE and text.

```
SYSTEM INFORMATION
LANGUAGE
VERSION 1.05          ENGLISH 386
                                SEL
```

- The fourth feature will display the POWER SAVER MODE, as OFF, REST, or STANDBY. If the POWER SAVER MODE is OFF, the following screen will be displayed.

```
POWER SAVER MODE
        OFF

                                SEL
```

- If a Power Saver mode is programmed, one of the following screens will appear. (Model 349 will display defrost information for freezing cylinders 1, 2, 3, and 4 instead of LEFT and RIGHT.)

  There are seven possible Power Saver mode time frames (cycles). The second line shows the cycle (1 of 7) as well as the time and day at which the Power Saver mode will begin for that cycle. The third line shows the time and day that the Power Saver mode will end for that cycle. Press the +++ or - - - keys to view other cycles.

```
POWER SAVER REST
CYCLE 1          SUN            01:00
                 SUN            08:30
        + + +     - - -          SEL
```

```
POWER SAVER STANDBY
CYCLE 1          SUN            01:00
                 SUN            08:30
        + + +     - - -          SEL
```

- The fifth feature will indicate the left side defrost time(s) and which day(s) the defrost will occur.

  Each freezing cylinder has eight possible defrost times (cycles) for each day of the week. If all seven days have the same time for a given cycle, the following screen will appear. This example shows that all seven days have CYCLE 1 programmed for 9:00. Press the +++ or - - - keys to view other cycles.

```
DEFROST TIME LEFT
CYCLE 1          ALL            09:00

        + + +     - - -          SEL
```

  If one or more days of the week have a given cycle programmed at different times, the following display will appear. This example shows that Sunday's CYCLE 1 is programmed for 9:00. The fact that SUN is displayed (instead of ALL) indicates that for some other day(s) CYCLE 1 is programmed for a different time (or not programmed at all). Using the cursor keys, place the cursor under the cycle number. Press the +++ or - - - keys to view other defrost times (cycles) for the day shown. Place the cursor under the day (SUN) and press the +++ or - - - keys to access the other days of the week.

```
DEFROST TIME LEFT
CYCLE 1          SUN            09:00

<- - - - - ->    + + +    - - -      SEL
```

- The sixth feature will indicate the right side defrost time(s) and the day(s) on which the defrost will occur.

  Note: *The functionality is the same as described previously for the left side defrost.*

```
DEFROST TIME RIGHT
CYCLE 1          ALL            10:00

        + + +     - - -          SEL
```

```
DEFROST TIME RIGHT
CYCLE 1          SUN            10:00

<- - - - - ->    + + +    - - -      SEL
```

Press the SEL key to return to the Operator Menu.

Current Conditions

Screen F is CURRENT CONDITIONS. This screen displays the current viscosity and product temperature for each freezing cylinder. An asterisk will indicate which side is refrigerating. Press the SEL key to return to the Operator Menu.

Note: *Viscosity is checked only when product temperature is below 40°F (4.4°C).*

The following screen will display for Models 345, 346, and 355. Model 349 displays all four freezing cylinders.

```
CURRENT CONDITIONS
L*          999HD        27.5F
R           1200HD       26.5F
                          SEL
```

Searching Fault History

Screen G is FAULT HISTORY. This option provides a record of the last 20 faults. The display also indicates the date and time at which each fault occurs.

```
FAULT HISTORY                 1
06/25/03                  08:34
NO FAULT FOUND
              + + +  - - -   SEL
```

Press the arrow keys to increase or decrease the fault page.

Page numbers are located in the upper right corner of the display. The most recently recorded fault will appear on page 1.

```
FAULT HISTORY                 2
06/25/03
R SYRUP PRESS LOW         08:33
              + + +  - - -   SEL
```

The fault description is listed on the third line of the fault page.

```
FAULT HISTORY                 3
06/25/03                  08:32
B H2O PRESS LOW
              + + +  - - -   SEL
```

Press the MENU/SEL key to return to the Operator Menu.

Service Information

Screen H is SERVICE MENU. This screen allows the authorized service technician to access service information. Return to the OPERATOR MENU by using the arrow keys to move the cursor under the letter A, and press the MENU/SEL key.

```
            OPERATOR MENU
          A B C D E F G H
SERVICE MENU
<- - -  - - ->          SEL
```

Syrup Out Indicator

```
AUTO                MODE          AUTO
OUT                 SYRUP           OK

CO2- OK                         WATER- OK
```

If the word OUT appears in one of the columns next to the word SYRUP, there is a lack of syrup or syrup pressure being supplied for the indicated freezing cylinder. If the machine is in the Auto or Prime modes, the product light will flash and a warning tone will sound for that freezing cylinder. At this time, replace the appropriate syrup. As a safety feature, the refrigeration system automatically stops to prevent a freeze-up in the freezing cylinder.

If a syrup out condition occurs on one side, that side will enter the Hold mode, at which time refrigeration remains off, the beater continues to run, and the CO_2 solenoid is closed for that side to prevent the dispensing of product. The opposite side will not be affected.

CO_2 Out Indicator

AUTO	MODE	AUTO
OK	SYRUP	OK
CO2- OK		WATER- OUT

On the LCD, if the word OUT appears next to the word CO_2, there is a lack of CO_2 being supplied to the freezer. The product light will also flash, and a warning tone will sound. This will continue until the CO_2 is replaced. If the CO_2 is not replaced within one minute, the machine will shut down and a fault message will appear.

Water Out Indicator

AUTO	MODE	AUTO
OK	SYRUP	OK
CO2- OK		WATER- OUT

On the LCD, if the word OUT appears next to the word WATER, there is a lack of water being supplied to the freezer. In addition, the product light will flash, and a warning tone will sound. This will continue until the proper amount of water is supplied to the freezer. If the water is not supplied within one minute, the machine will shut down and a fault message will appear.

Audio Alarm Silencer

The audio alarm will be disabled if the ALARM SILENCE key is pressed. If a new fault or fault condition occurs or the system mode changes, the audio alarm will be re-enabled automatically. If the audio alarm is silenced for more than 30 minutes without correcting the fault, it will be re-enabled automatically.

Product Light

When the light is flashing, the product is not at serving viscosity. This will occur during the initial freeze down, a defrost cycle, a FAULT condition, power saver modes, or anytime the product temperature is above 32°F (0°C).

Sampling Valve

The sampling valve is located behind the front drip tray. The sampling valve is used to obtain a brix reading.

Daily Procedures

The following procedure should be performed daily.

1. Remove the splash shield, front drip tray, and center drip pan.
2. Take these parts to the sink, and brush-clean them.
3. Re-install the parts onto the freezer.

Models 345, 346, and 355 contain two 7 qt. (6.6 L) freezing cylinders. Model 349 contains four 7 qt. (6.6 L) freezing cylinders.

CAUTION! This machine is pressurized when in operation. The control switch, located on the top side of the control box must be in the OFF position until the machine is completely assembled. No part should ever be removed from the machine while it is in operation. No parts should be removed until the control switch has been turned to the OFF position and all pressure has been relieved at the draw handle.

The syrup flow controls combine the two ingredients of soda water and syrup, and send this combination to the mix hoppers. As product is drawn, new product from the hopper will flow through a mix feed tube down into the freezing cylinder. The mix hopper is supplied with 20 lb. of CO_2 gas for dispensing the finished product.

We begin our instructions at the point where the parts are disassembled and laid out to air-dry.

The following procedures will show you how to assemble the parts into the freezer, sanitize them, and prime the freezer with fresh product.

Duplicate the following procedures, where they apply, for the remaining freezing cylinder(s).

If you are disassembling the machine for the first time or need information to get to this starting point in our instructions, (See Disassembly on page 6-12.)

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 HP).*

1. Slide the O-ring into the first groove on the driveshaft. Lubricate the groove, O-ring, the area where the boot seal snaps onto the driveshaft, and the shaft portion that comes in contact with the bearing on the beater driveshaft. **Do not** lubricate the hex end of the driveshaft.

   Slide the seal over the shaft and groove until it snaps into place. Pinch the boot seal and fill the inside portion of the seal with 1/4 in. more lubricant.

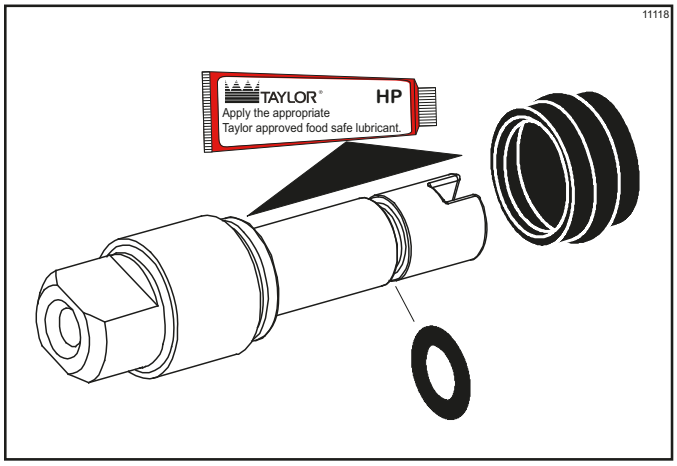

Figure 6-1

2. Insert the driveshaft into the freezing cylinder (hex end first) and into the rear shell bearing, until the seal fits securely over the rear shell bearing. Make sure the driveshaft fits into the drive coupling without binding.

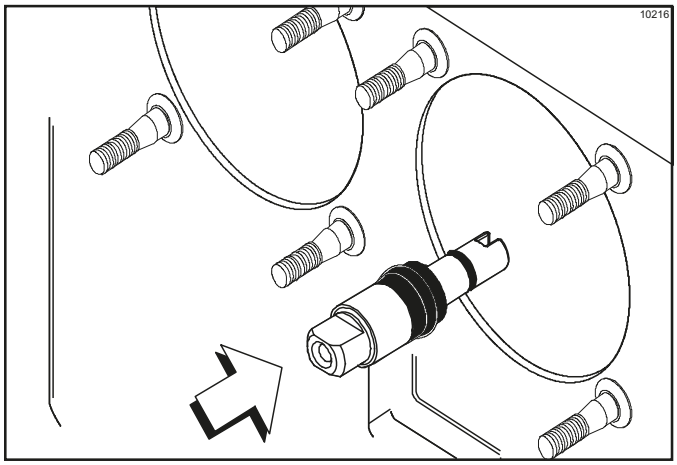

Figure 6-2

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

- **DO NOT** put objects or fingers in the door spout. This may contaminate the product and cause severe personal injury from blade contact.
- **USE EXTREME CAUTION** when removing the beater assembly. The scraper blades are very sharp.

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.

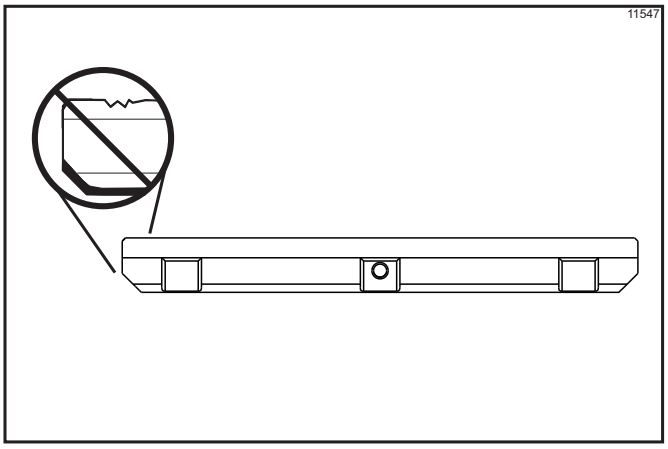

Figure 6-3

4. If the blades are in good condition, place the rear scraper blade over the single holding pin on the beater (knife edge to the outside). Holding the blade on the beater, turn it over and install the front blade the same way.

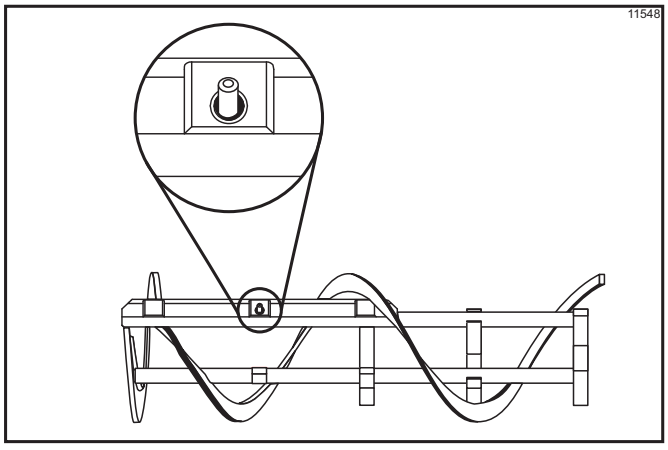

Figure 6-4

5. Holding the blades in position, insert the beater assembly into the freezing cylinder and slide it into position over the driveshaft. Turn the beater slightly to make sure that the beater is properly seated. When in position, the beater will not protrude beyond the front of the freezing cylinder.

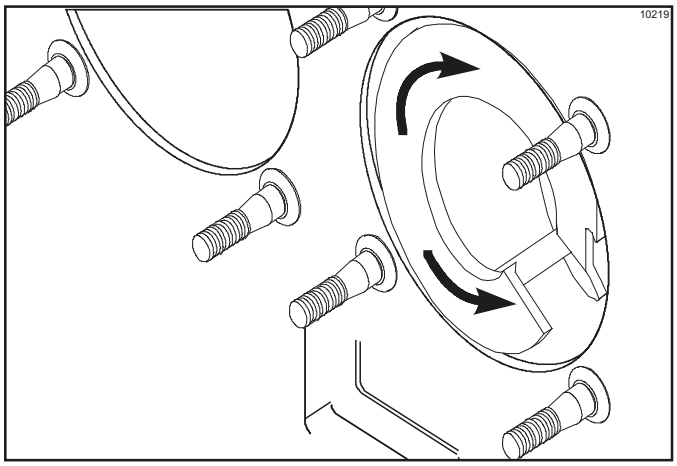

Figure 6-5

6. Install the white, plastic guide bearing on the short end of the baffle assembly. Slide the O-ring into the groove on the long end of the baffle assembly and lubricate the O-ring. **Do not** lubricate the guide bearing.

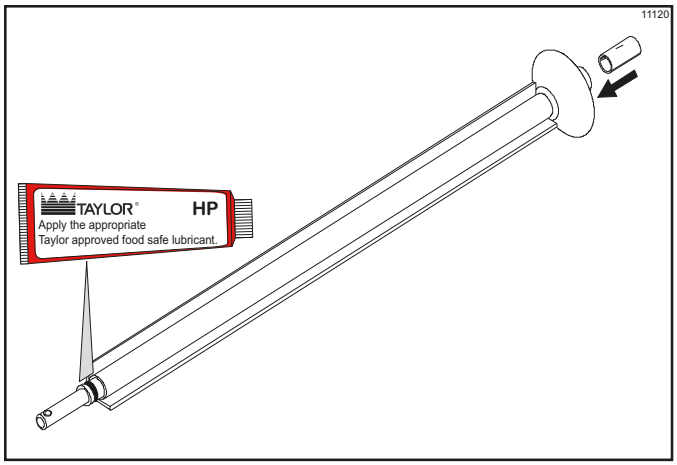

Figure 6-6

7. Insert the short end of the baffle assembly into the pilot hole in the center of the driveshaft. The hole in the baffle assembly should be rotated to the 12 o'clock position.
8. 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.

9. Install the O-rings on the draw valve and lubricate.

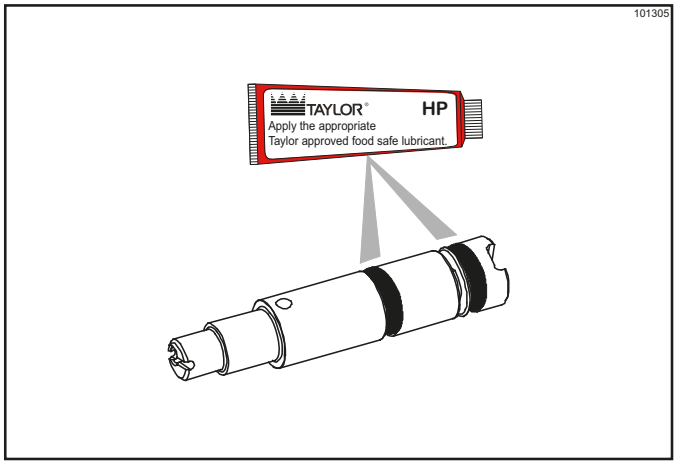

Figure 6-7

10. Turn the door upside down. Insert the draw valve spring.

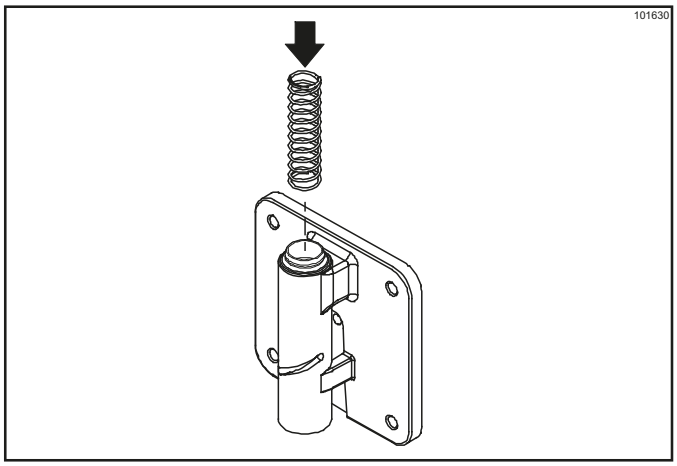

Figure 6-8

11. Insert the draw valve into the door. Line up the small hole on each side of the draw valve with the slot on each side of the door spout.

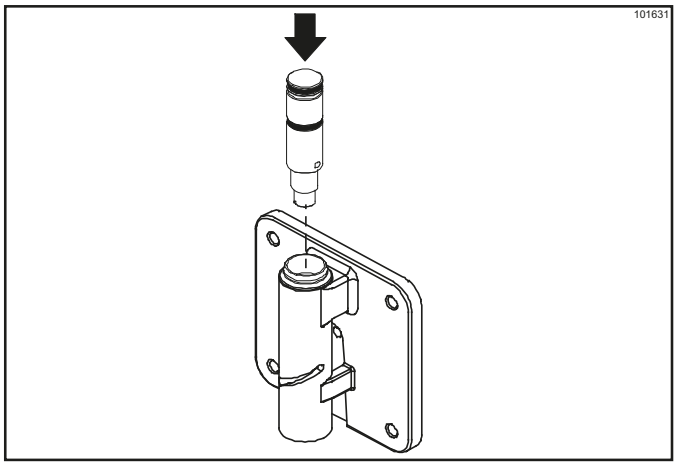

Figure 6-9

12. Apply firm downward pressure on the draw valve and center the draw valve hole in the small slot on the left side of the spout. Insert the draw valve handle through the slot and into the draw valve hole.

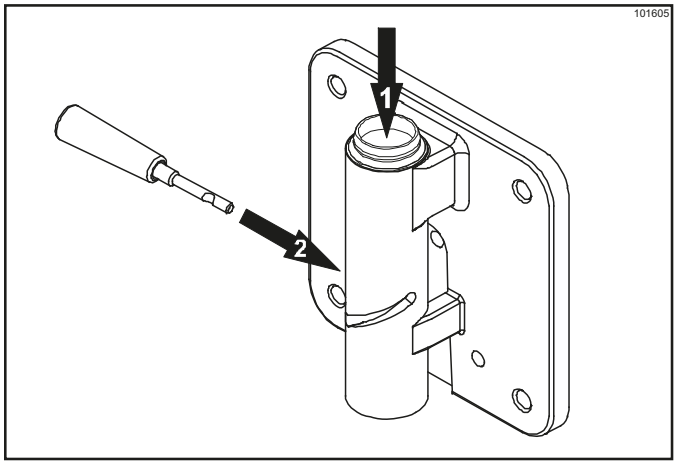

Figure 6-10

13. Move the draw handle to the forward position to allow installation of the ice buster.

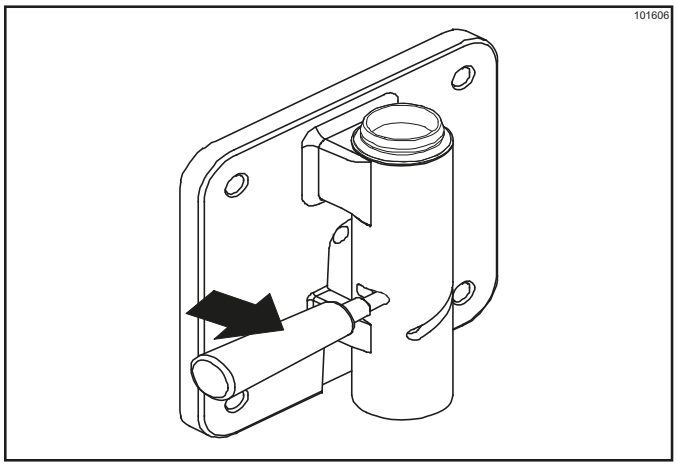

Figure 6-11

6

14. From the back of the door, install the ice buster through the door spout and into the slot located just above the lower O-ring.

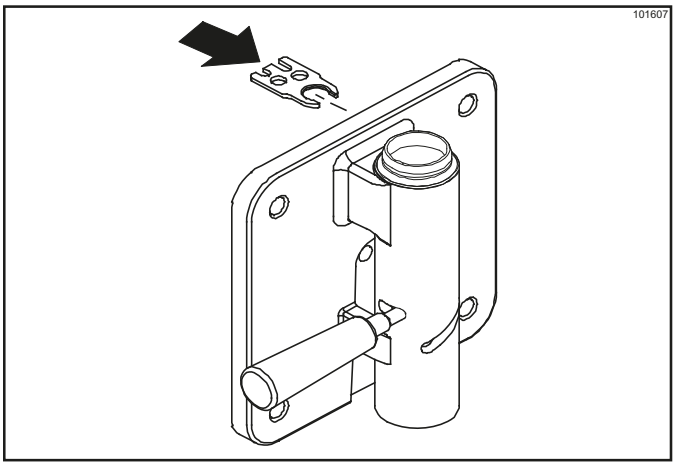

Figure 6-12

15. Move the draw handle to the back position to lock the ice buster in place.

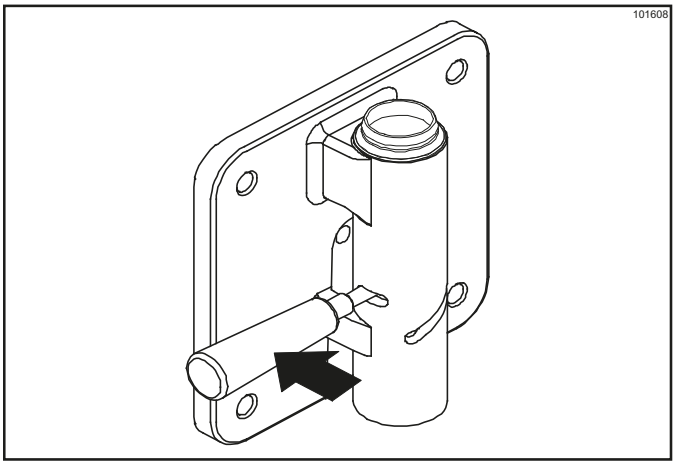

Figure 6-13

16. Turn the door right-side up. Remove the draw valve handle. Install it on the other side through the longer slot and into the draw valve hole.

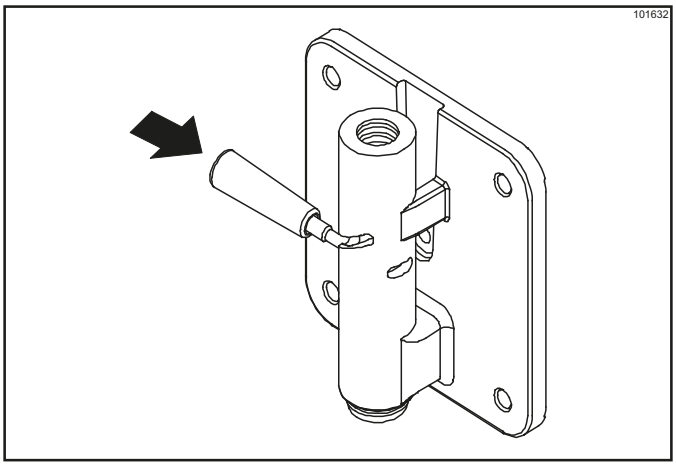

Figure 6-14

17. Insert the valve handle pin. Turn the pin and the draw valve handle until the pin drops completely into place.

Note: *While turning the draw valve handle, it may be necessary to pull the draw valve handle back slightly to allow the pin to fall in place.*

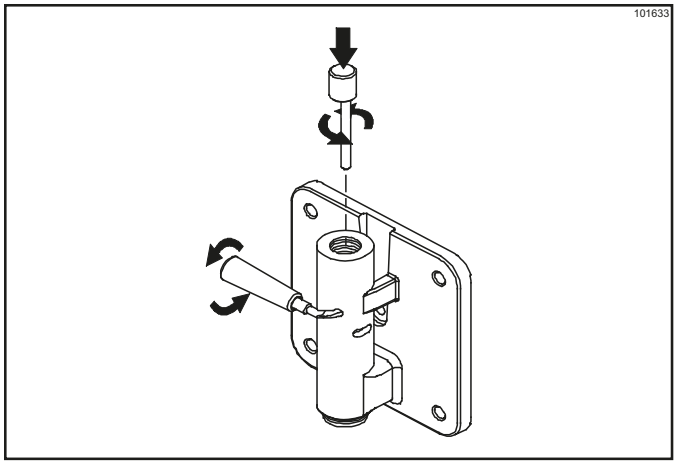

Figure 6-15

18. Place the large rubber gasket into the groove on the back side of the freezer door.

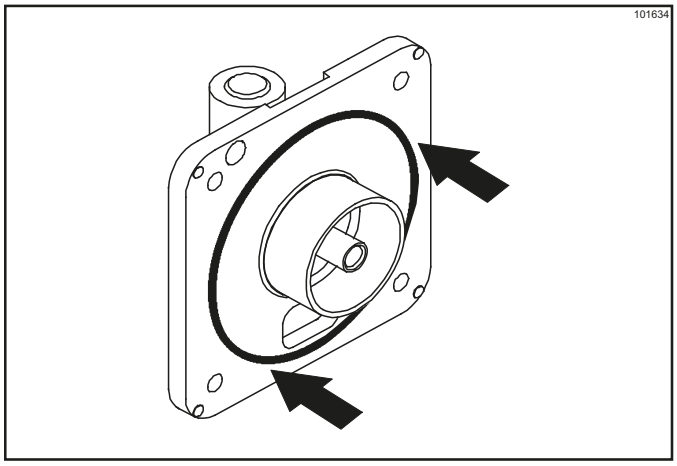

Figure 6-16

19. Slide the white, plastic front bearing onto the bearing hub, making sure that the flanged end of the bearing is resting against the freezer door. **Do not** lubricate the door gasket or front bearing.

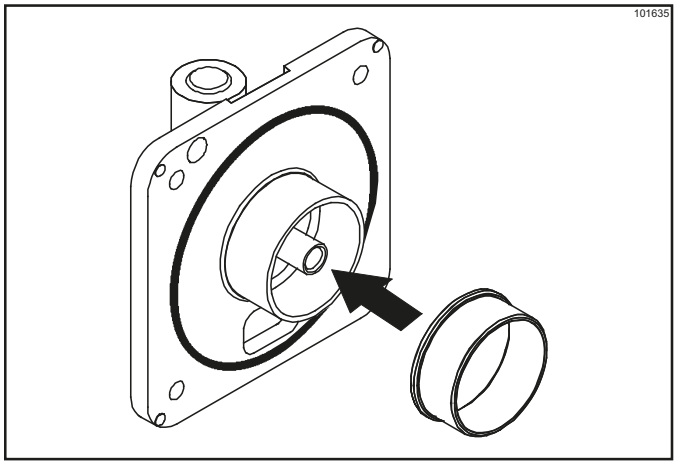

Figure 6-17

20. Position the freezer door onto the four studs on the front of the freezing cylinder and push the door into place. Install the four handscrews onto the studs, and tighten them equally in a crisscross pattern to ensure that the door is snug. **Do not** overtighten the handscrews.

    Note: *If the freezer door does not fit into place easily, position the open end of the beater assembly in the 11 o'clock position.*

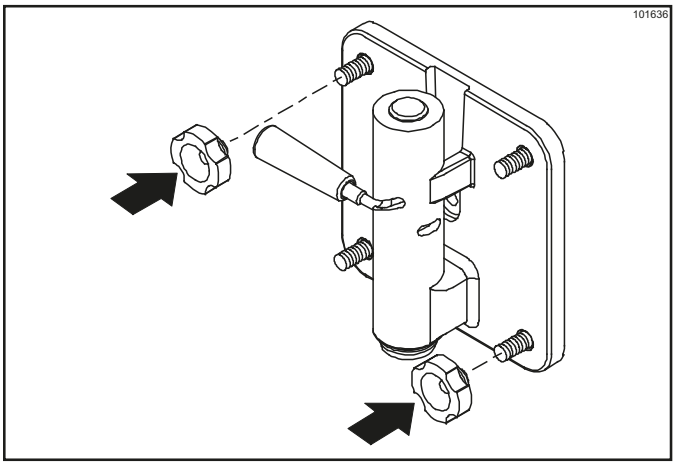

Figure 6-18

21. Position the baffle arm by inserting it down into the hole on the baffle assembly that protrudes from the door. Verify proper installation by moving the baffle arm back and forth to make sure it moves freely.

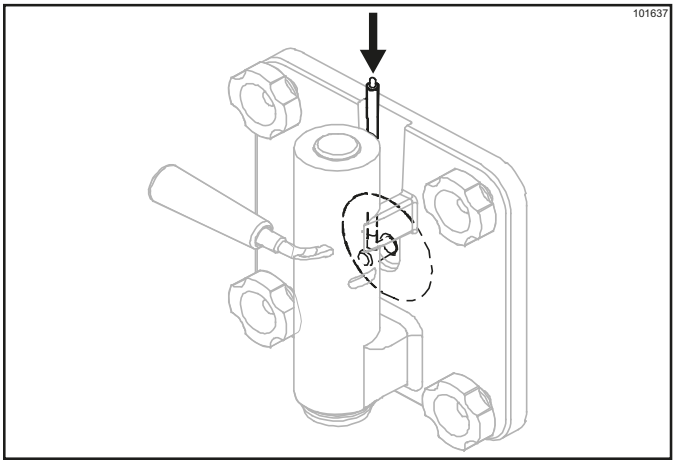

Figure 6-19

22. Place the O-ring into the groove of the hopper cover.

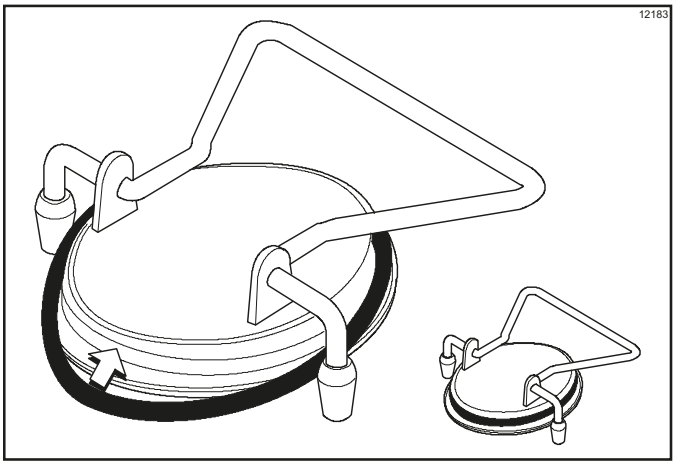

Figure 6-20

23. Install the hopper cover. Lock it into place.

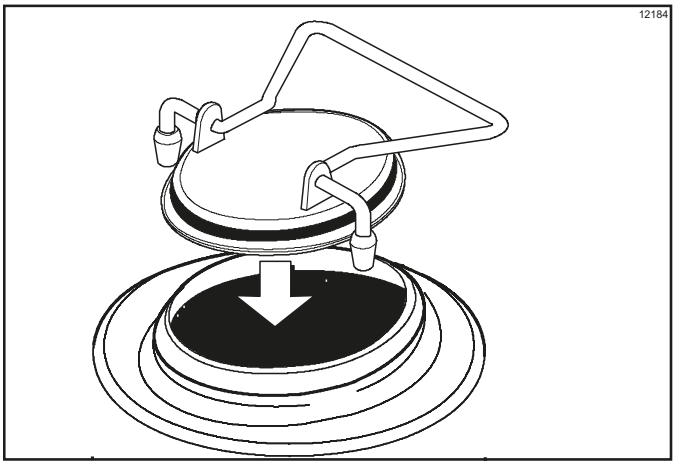

Figure 6-21

24. Repeat step 1 through step 23 for the remaining freezing cylinder(s).
25. Install the center drip pan through the front of the machine.

Sanitizing

Note: *If a machine is sanitized and will not be used for an extended period of time, clean water should be used to flush all sanitizer from the lines prior to storage of the machine. Upon return to service, the machine must be sanitized prior to use.*

1. Open the lighted display door. Remove the hood and the side panels to gain access to the hoppers. Place the control switch in the ON position.

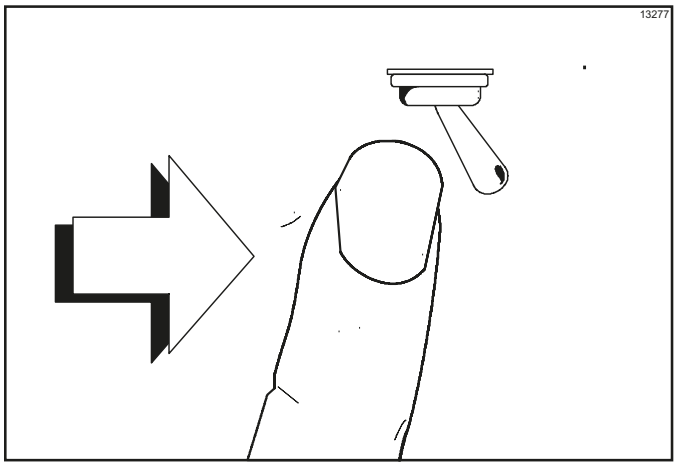

Figure 6-22

2. Prepare a pail of approved 100 ppm sanitizing solution (examples: 2-1/2 gal. [9.5 L] of Kay-5® or 2 gal. [7.6 L] of Stera-Sheen®). Use warm water and follow the manufacturer's specifications.

   Important! *Make sure the sanitizer is completely dissolved.*

3. **For Syrup Tank Machines:** Pour the solution into a clean, empty syrup tank. Place the syrup tank cover in position. Remove the CO_2 line and syrup line number one from the syrup tank for freezing cylinder number one. Connect these lines to the spare syrup tank filled with sanitizing solution.

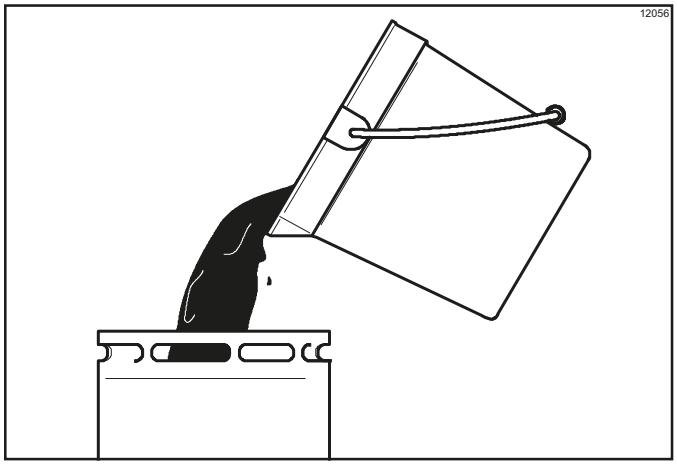

Figure 6-23

4. **For Bag-in-Box Machines:** Using an empty bag of syrup, cut the syrup line connection from the end of the bag.

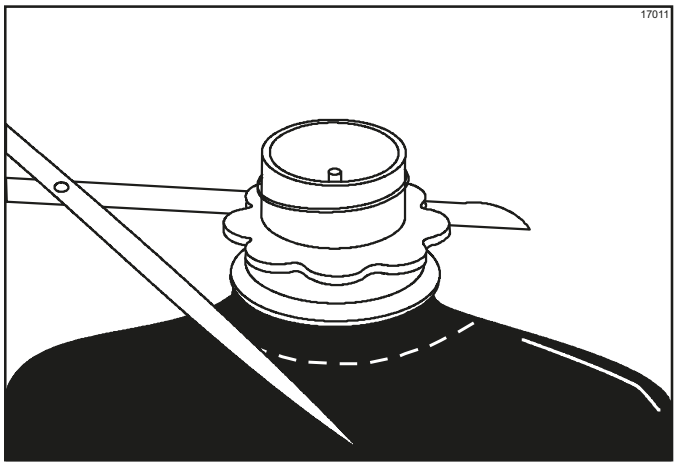

Figure 6-24

5. Connect the syrup line to the syrup connection that was cut from the syrup bag.

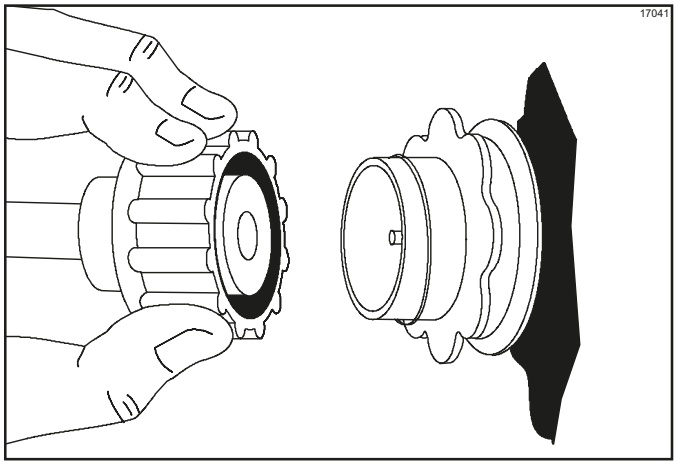

Figure 6-25

6. With the bag connector attached to the syrup line, place the syrup line into the pail of sanitizing solution.

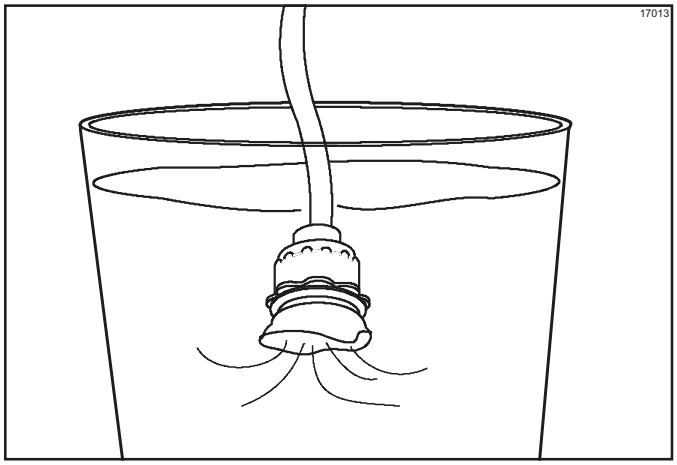

Figure 6-26

7. Press the PRIME key. This will cause the sanitizing solution to flow through the lines and into the mix hopper.

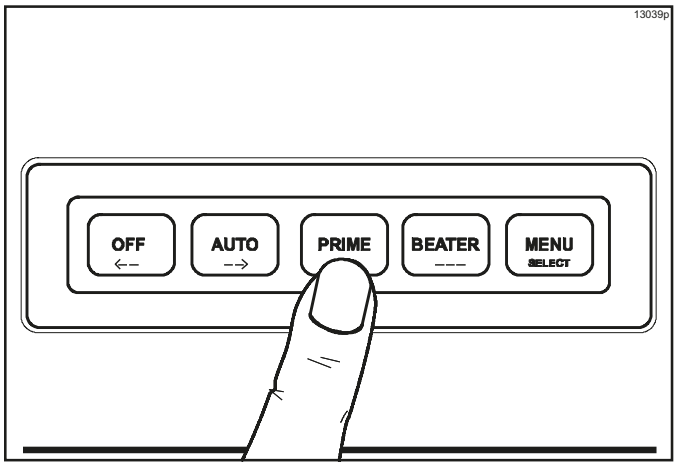

Figure 6-27

8. Place a pail beneath the sampling valve, which is located behind the front drip tray. Slowly open the sampling valve, and allow sanitizer to flow through this line and into the pail. After approximately 1/2 gal. (1.9 L) of sanitizer has been dispensed, close the valve.
9. Prepare a pail of approved 100 ppm sanitizing solution (examples: 2-1/2 gal. [9.5 L] of Kay-5® or 2 gal. [7.6 L] of Stera-Sheen®). Use warm water and follow the manufacturer's specifications.
10. With the pail beneath the door spout, open the draw valve and relieve all pressure from the freezing cylinder. Remove the hopper cover. Slowly pour the sanitizing solution into the mix hopper until the hopper becomes 1/4 full of sanitizing solution.

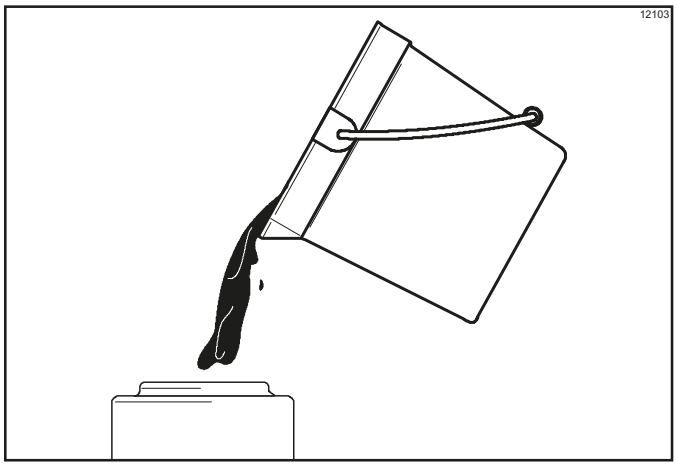

Figure 6-28

11. With the brushes provided, brush-clean the mix hopper, mix inlet hole, mix level float switch, product fitting, and mix feed tube. Use caution when cleaning the float switch so as not to damage it.

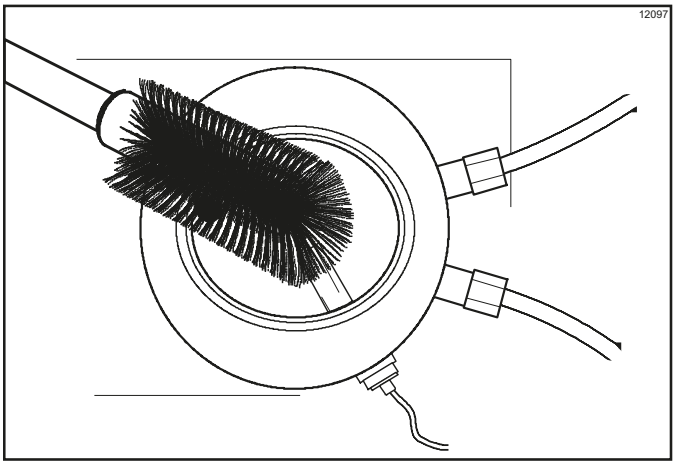

Figure 6-29

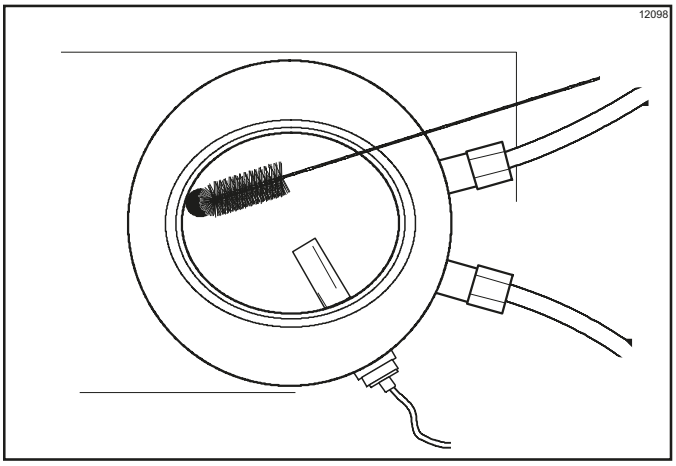

Figure 6-30

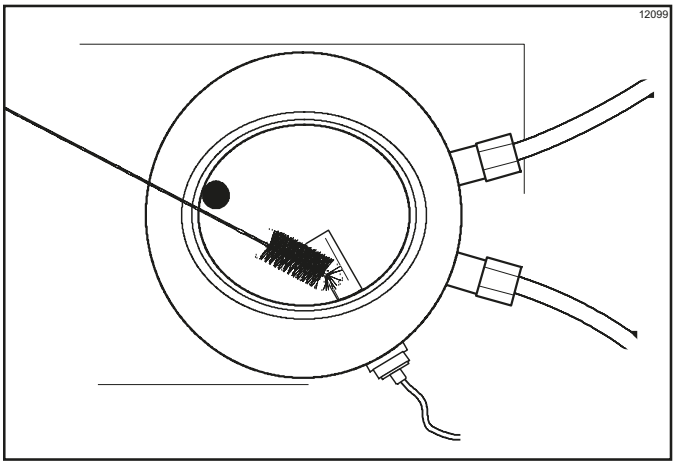

Figure 6-31

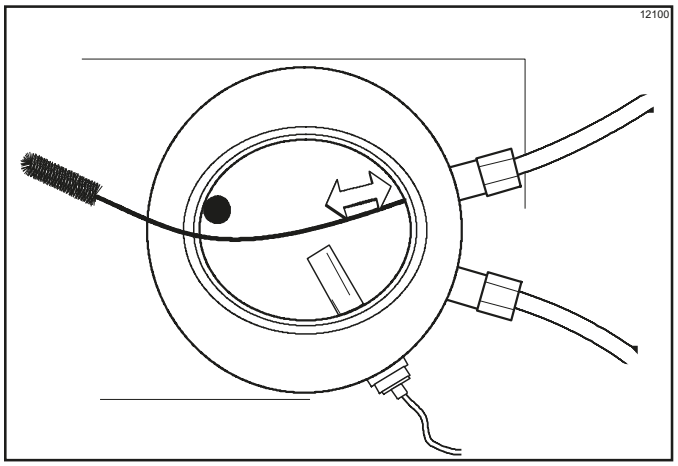

Figure 6-32

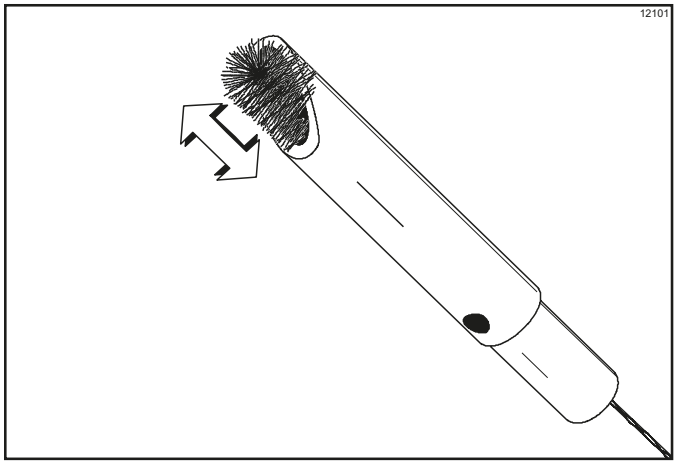

Figure 6-33

12. Install the mix feed tube into the mix inlet hole in the bottom of the mix hopper.

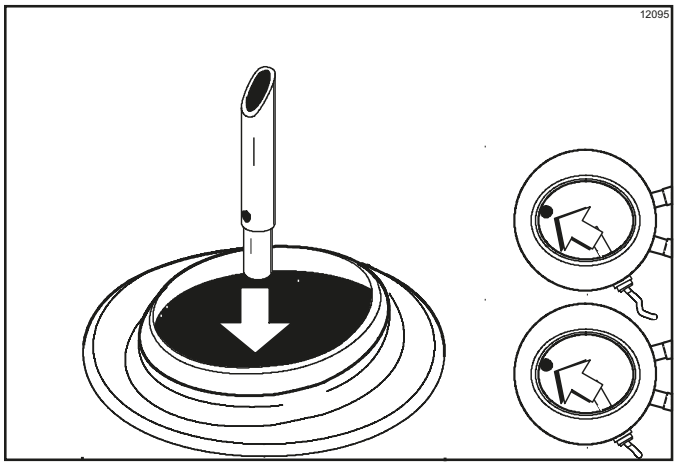

Figure 6-34

13. Sanitize and install the hopper cover. Lock the cover into place. Position the open end of the vinyl tube into the rear drip pan.

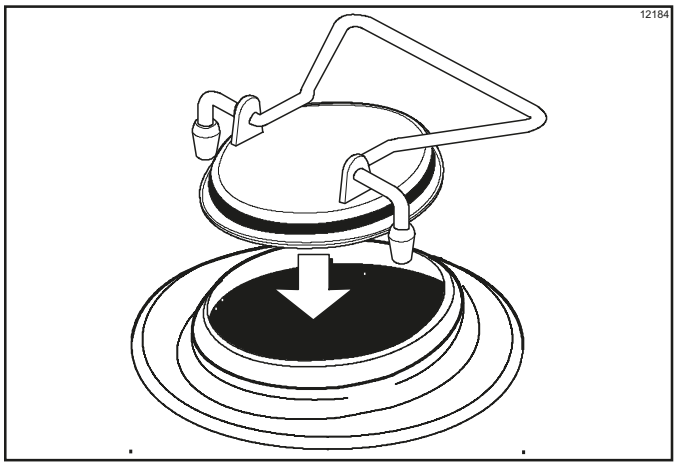

Figure 6-35

14. Press the BEATER key. Agitate the solution in the freezing cylinder for five minutes.

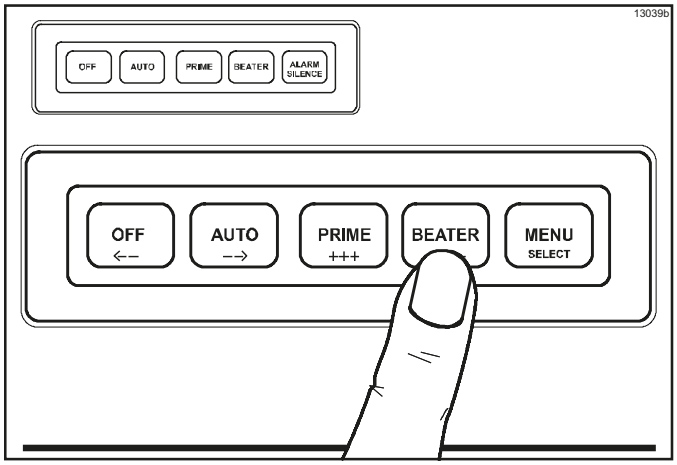

Figure 6-36

15. With a pail beneath the door spout, open the draw valve and drain all the solution from the mix hopper and the freezing cylinder. Press the OFF key, and close the draw valve.

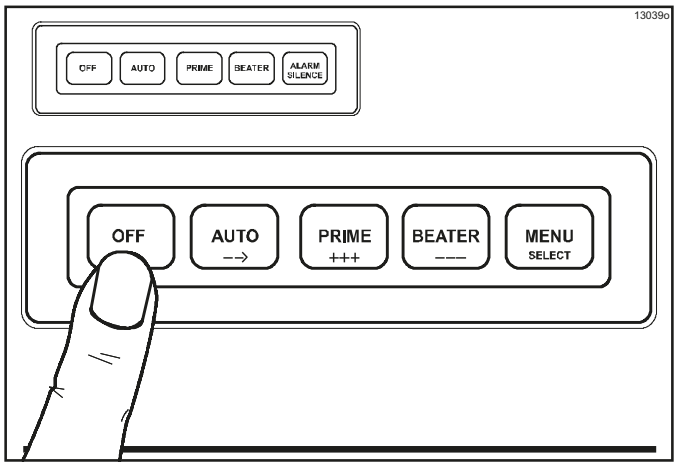

Figure 6-37

CAUTION! The machine must not be placed in Auto mode 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.

16. Repeat step 2 through step 15 for the remaining freezing cylinder(s).
17. Disconnect the syrup connector in the sanitizing solution.
18. Remove the right side panel and install the white rear drip pan.

Priming/Brixing

1. Connect the syrup line to the syrup tank (or the Bag-in-Box).
2. Slowly open the syrup sampling valve and let it run into a pail until all the sanitizer is removed and full-strength product is flowing. **Do not** open the valve so much that the syrup line to the hopper is drained.

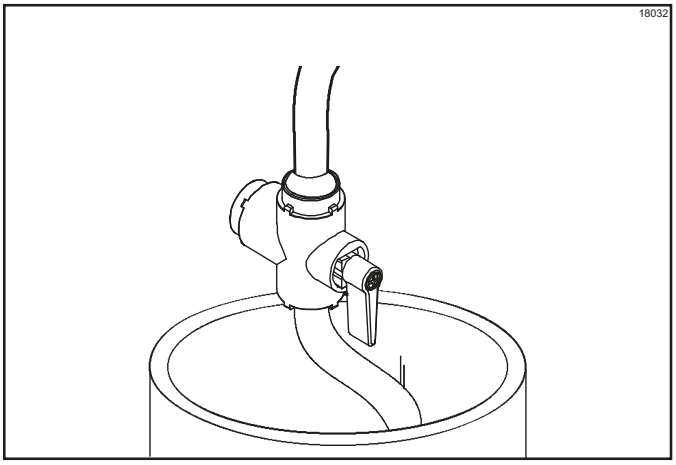

Figure 6-38

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

Brix is the ratio of syrup to water that will directly affect the quality and taste of the product. Brixing should be done before priming the freezer and when a change in syrup flavor has been made.

Allow the product to flow over the refractometer. The brix reading should register 13 to 14. A reading higher than this would cause a darker, richer product. The refrigeration system would have to run longer to freeze this excess syrup. A reading lower than this could cause a freeze-up in the freezing cylinder because of the excess water.

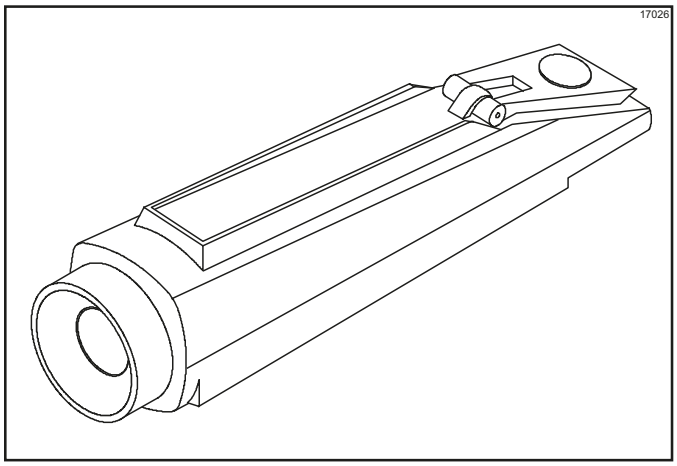

Figure 6-39

3. To adjust the brix, turn the adjustment screw in the service panel. Clockwise adjustments increase the amount of syrup to water, and counterclockwise adjustments decrease the amount of syrup to water. Adjust the screw in small increments and check the brix again.
   Repeat this step until a correct brix reading is registered.

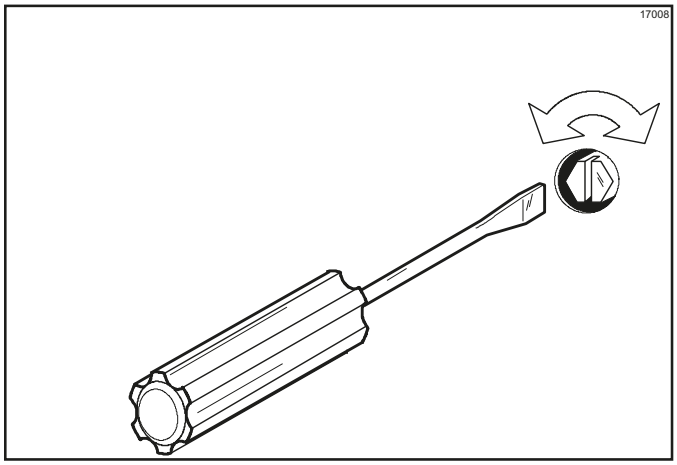

Figure 6-40

4. Once the proper brix has been achieved, close the sampling valve. Install the front drip tray and the splash shield on the front of the freezer.

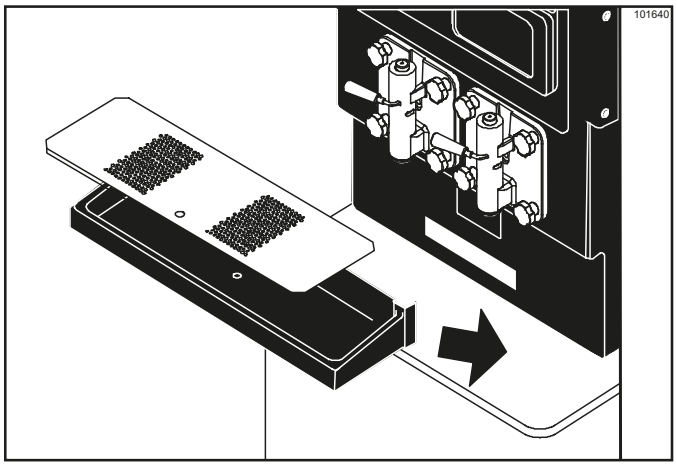

Figure 6-41

5. With a pail beneath the door spout, press the BEATER key. Open the draw valve and drain the freezing cylinder. Close the draw valve. Press the PRIME key. This will cause the product to flow to the mix hopper.
6. Repeat step 1 through step 4 for the remaining freezing cylinder(s).
7. To place the freezing cylinder in Auto mode, press the AUTO key. When the machine cycles off, the product will be at serving viscosity.
   Repeat this step for the remaining freezing cylinder(s).

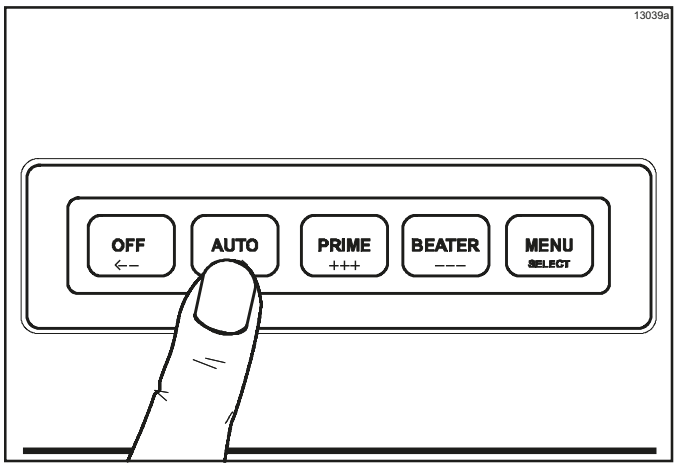

Figure 6-42

8. Replace the side panels.

90-Day Closing Procedure

We recommend that the machine be completely disassembled and cleaned at least every 90 days using the following procedures.

ALWAYS FOLLOW LOCAL HEALTH CODES.

To disassemble a freezer, the following items will be needed:

- Two cleaning pails
- Cleaning brushes (provided with freezer)
- Cleaner
- Single-service towels

Draining Product from the Freezing Cylinder

1. Press the BEATER key. This will allow the beater to operate. Open the draw valve and drain the product from the machine.

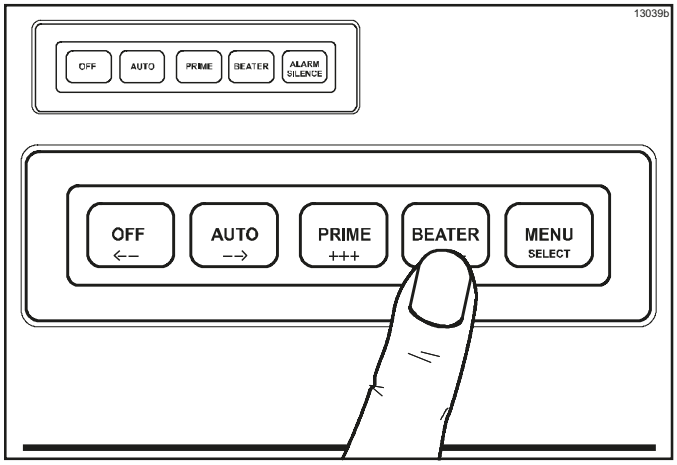

Figure 6-43

6

2. When all the product has been drained from the mix hopper and the freezing cylinder, close the draw valve, and press the OFF key. Properly discard this product.

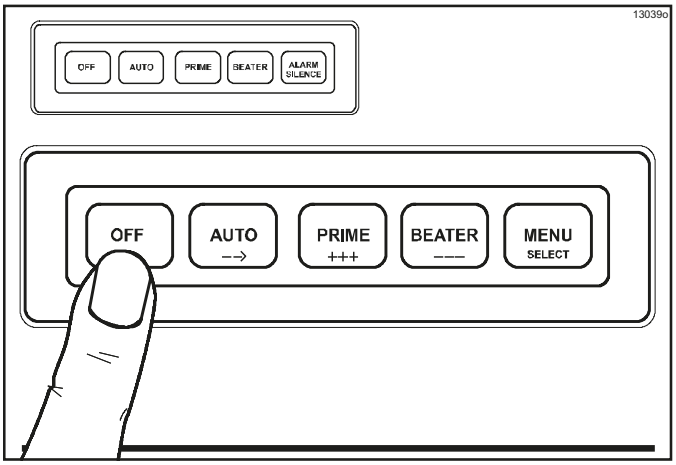

Figure 6-44

3. Repeat step 1 and step 2 for the remaining freezing cylinder(s).

Cleaning

1. Remove the decorative plate from the machine. Remove the hood and side panels to gain access to the hoppers.
2. Prepare a pail of approved 100 ppm cleaning solution (examples: 2-1/2 gal. [9.5 L] of Kay-5® or 2 gal. [7.6 L] of Stera-Sheen®). Use warm water and follow the manufacturer's specifications.

   Important! *Make sure the cleaner is completely dissolved. Pour the solution into a clean, empty pail. Place the syrup line with the old syrup connection into the pail of sanitizer.*
3. Press the PRIME key. This will cause the cleaning solution to flow through the lines and into the mix hopper.
4. Remove the front drip tray. Place a pail beneath the sampling valve behind the front drip tray. Slowly open the sampling valve and allow the cleaner to flow through this line and out into the pail. After approximately 1/2 gal (1.9 L). of cleaner has been dispensed, close the valve.
5. Place an empty pail under the door spout. Remove the hopper cover and the mix feed tube. Take these parts to the sink for cleaning.
6. Prepare a pail of approved 100 ppm cleaning solution (examples: 2-1/2 gal. [9.5 L] of Kay-5® or 2 gal. [7.6 L] of Stera-Sheen®). Use warm water and follow the manufacturer's specifications.
7. Slowly pour the cleaning solution into the mix hopper until the hopper becomes 1/4 full of cleaning solution.

   Important! *Use caution when cleaning the float switch. Failure to do so will cause damage to the component.*
8. With the brushes provided, brush-clean the mix hopper, mix inlet hole, mix level float switch, and product fitting.
9. Clean and install the hopper cover. Lock the cover into place.
10. Press the BEATER key to agitate the solution in the freezing cylinder.
11. With a pail beneath the door spout, open the draw valve and drain all the solution from the mix hopper and the freezing cylinder. Press the OFF key and close the draw valve.
12. Disconnect the syrup connector.
13. Repeat step 2 through step 12 for the remaining freezing cylinder(s).

Disassembly

1. Make sure the control switch is in the OFF position.
2. Remove the following parts from the freezer, and take them to the sink for brush-cleaning: hand screws, freezer doors, baffle assemblies, beater assemblies, and scraper blades, driveshafts, hopper covers, front drip tray, and splash shield.

Brush-Cleaning

1. Prepare a sink with an approved cleaning solution. (examples: Kay-5® or Stera-Sheen®). Use warm water and follow the manufacturer's specifications.

   Important! *Follow the label directions. Too* ***strong*** *of a solution can cause parts damage, while too* ***mild*** *of a solution will not provide adequate cleaning. Make sure all brushes provided with the freezer are available for brush-cleaning.*

2. Return to the freezer with a small amount of cleaning solution. With a single-service towel, wipe clean the bearing surface. Brush-clean the rear shell bearings at the back of the freezing cylinders with the black bristle brush.

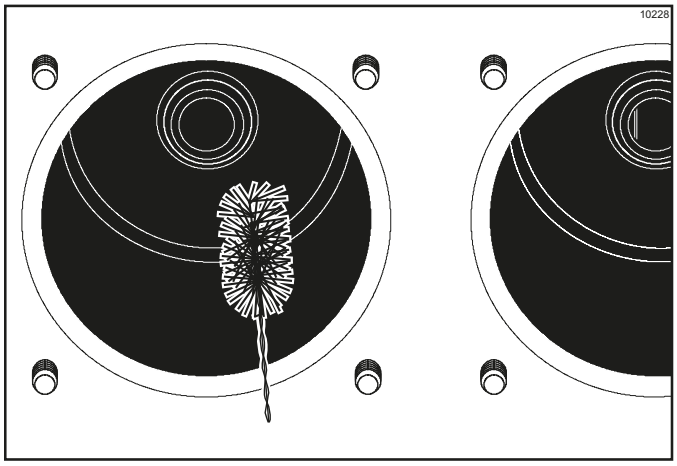

Figure 6-45

3. Remove the rear drip pan (this does not apply to Model 349).
4. Remove the right side panel and take the white rear drip pan to the sink for further cleaning.
5. Remove the O-rings from the mix hopper covers. Remove the O-ring and seal from the driveshaft. Remove the O-ring and bearing from the baffle assembly.
6. Remove the draw valve handle pin from the freezer door.
7. Turn the door upside down and install the draw handle on the other side of the door. Move the draw handle to the forward position to allow removal of the ice buster.

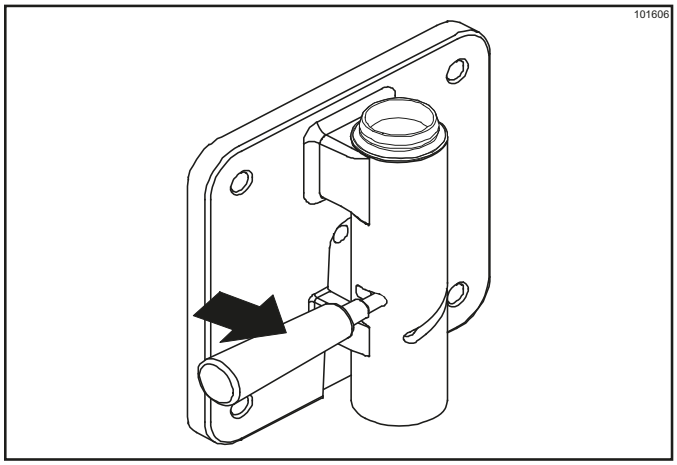

Figure 6-46

8. Remove the ice buster and prepare to remove the draw handle.

   Important! *The draw valve is under pressure from the spring. Apply downward pressure on the draw valve while removing the draw handle. After the draw handle is removed, slowly release the pressure on the draw valve.*

9. Remove the draw valve, spring, front bearing, and gasket. Remove all O-rings.

   Note: *To remove the O-rings, use a single-service towel to grasp the O-ring, and 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 until it rolls out of the groove and can be removed easily.*

10. Thoroughly brush-clean all disassembled parts in the cleaning/sanitizing solution, making sure all lubricant and syrup is removed. Place all the cleaned parts on a clean, dry surface to air dry.
11. Repeat step 1 through step 10 for the other side of the machine.

Notes:

During Cleaning and Sanitizing

ALWAYS FOLLOW LOCAL HEALTH CODES.

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

Important! *General cleaning and sanitizing must be performed daily. A thorough cleaning every 90 days is also recommended.*

- ☐ 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 product passageways.
- ☐ Use the brush to clean the mix inlet hole which extends from the mix hopper down 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. Use a generous amount of cleaning solution on the brush.
- ☐ Using a screwdriver and a cloth towel, clean the rear shell bearing and the female hex drive socket of lubricant and product deposits.
- ☐ Properly prepare the cleaning and sanitizing solutions. Read and follow the 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.
- ☐ Clean and sanitize the syrup lines regularly to prevent syrup residue buildup that would restrict the proper flow of syrup.
- ☐ On a regular basis, take a brix reading to ensure a consistent quality product.

Regular Maintenance Checks

- ☐ Replace scraper blades that are nicked, damaged, or worn down.
- ☐ Before installing the beater, make sure the scraper blades are properly attached over the pins.
- ☐ Check the rear shell bearing for signs of wear (excessive product leakage from the rear drip pans to the front drip tray).
- ☐ Dispose of O-rings or seals if they are worn, torn, or fit too loosely, and replace them with new ones.
- ☐ Follow all lubricating procedures as outlined in the Assembly section. (See “Assembly” on page 6-1.)
- ☐ Check the condenser(s) for dirt and lint. Dirty condensers will reduce the efficiency and capacity of the machine. Condensers should be cleaned monthly by removing and cleaning the poly-flo filter.

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 subject to freezing conditions.

Disconnect the freezer from the main power source to prevent possible electrical damage. Your local Taylor distributor can perform this service for you.

Wrap detachable parts of the freezer such as the beater, scraper blades, driveshaft, and freezer door. Place these parts 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 can attract mice and other vermin.

Note: *It is recommended that a service technician perform winter storage draining, to ensure all water has been removed. This will prevent the components from freezing and rupturing.*

Notes:

Table 8-1

Problem	Probable Cause	Remedy	Page Ref.
1. Product is too stiff.	a. Too much water to syrup ratio. Improper brix adjustment.	a. Adjust the brix accordingly.	6-10
	b. Consistency control needs adjustment.	b. Contact a service technician.	- - -
	c. Torque coupling bound in warm position.	c. Contact a service technician.	- - -
2. Product is too soft.	a. Freezer in a defrost cycle.	a. Wait for defrost cycle to end.	- - -
	b. Consistency control needs adjustment.	b. Contact a service technician.	- - -
	c. Torque coupling bound in cold position.	c. Contact a service technician.	- - -
	d. Broken springs in torque coupling.	d. Contact a service technician.	- - -
3. No product is being dispensed.	a. Product frozen up in freezing cylinder.	a. See problem number one.	- - -
4. Freezer will not operate in the Beater or Auto mode.	a. Machine is unplugged.	a. Check the plug at wall receptacle.	- - -
	b. Blown fuse, or the circuit breaker is off.	b. Replace the fuse or turn the breaker on.	- - -
	c. Beater motor is out on overload. Check fault description screen.	c. Allow the motor to cool. Press the AUTO key. Contact a service technician if the beater motor goes out on overload again.	5-3
5. No compressor operation in the Auto mode.	a. Beater motor is out on overload. Check the fault description screen.	a. Allow the motor to cool. Press the AUTO key. Contact a service technician if the beater motor goes out on overload again.	5-3
	b. The torque coupling is bound in the cold position.	b. Contact a service technician.	- - -
	c. Condenser dirty, A/C.	c. Clean condenser monthly.	7-1
	d. Water supply off, W/C.	d. Turn the water on.	- - -
6. Unable to remove the driveshaft from the rear shell bearing.	a. Rounded corners of hex end of driveshaft, drive coupling, or both.	a. Replace the driveshaft, or contact a service technician to replace the direct drive unit.	- - -
	b. Lubrication of hex end of driveshaft.	b. **Do not** lubricate the hex end. If necessary, contact a service technician for removal.	6-1

Problem	Probable Cause	Remedy	Page Ref.
7. 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.	6-1
	c. Machine was placed in Auto mode before all sanitizing solution was removed from freezing cylinder.	c. Place machine in Auto mode only after priming is complete and all sanitizing solution is removed.	6-10
	d. Broken pins on beater assembly.	d. Repair or replace the beater assembly. Make sure the scraper blades are properly seated on pins.	6-1
	e. The beater assembly is bent.	e. Contact a service technician to repair or replace the beater and to correct the cause of insufficient mix in the freezing cylinder.	- - -
8. Excessive loss of CO_2.	a. Leak in the CO_2 system.	a. Contact a service technician.	- - -
9. Leakage from rear drip pan(s) into front drip tray.	a. Seal or O-ring on driveshaft is worn, missing, or incorrectly installed.	a. Replace or install correctly on driveshaft.	6-1
	b. Worn rear shell bearing.	b. Contact a service technician to replace rear shell bearing.	- - -
10. Excessive mix leakage from door spout.	a. Inadequate lubrication of draw valve O-rings.	a. Lubricate properly.	6-1
	b. Wrong type of lubricant on draw valve O-rings.	b. Use food-grade lubricant (example: Taylor Lube HP).	6-1
	c. Worn or missing draw valve O-rings.	c. Replace or install O-rings on draw valve.	6-1 / 9-1
11. Unable to adjust brix.	a. Syrup lines need to be cleaned and sanitized.	a. Clean and sanitize syrup lines.	- - -
	b. Blocked flow control.	b. Contact a service technician.	- - -
12. Lack of syrup being supplied to machine.	a. Loss of CO_2 to propel syrup.	a. Contact a service technician.	- - -
	b. Clogged or kinked syrup lines.	b. Sanitize syrup lines regularly. If kinked, repair or replace.	- - -
13. Product does not enter mix hopper.	a. Machine is not in the Auto or Prime mode.	a. Place the machine in the Auto or Prime mode.	6-10
	b. The mix level float switch is inoperative.	b. Contact a service technician.	- - -
14. Carbonated water or sulfuric aroma is evident in the faucet or sewage system.	a. Faulty check valve in carbonation system.	a. Contact a service technician to replace the check valve.	- - -

Section 9 Parts Replacement Schedule

Table 9-1

Part Description	Every 3 Months	Every 6 Months	Annually
Scraper Blade		X	Minimum
Driveshaft Seal	X		
Driveshaft O-ring	X		
Freezer Door O-ring	X		
Draw Valve O-ring	X		
Door Spout O-ring	X		
Hopper Cover O-ring	X		
Front Bearing	X		
White Bristle Brush, 3” x 7”		Inspect and replace if necessary.	Minimum
Double-Ended Brush		Inspect and replace if necessary.	Minimum
Bristle Brush, 1-1/2” x 2”		Inspect and replace if necessary.	Minimum
Bristle Brush, 1” x 2”		Inspect and replace if necessary.	Minimum

Notes:

Section 10 Limited Warranty on Equipment

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 remanufactured 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) year

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.
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 GENUINE TAYLOR 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 remanufactured 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

Parts Warranty Class Code or Part	Limited Warranty Period
Class 103 Parts[1]	Three (3) Months
Class 212 Parts[2]	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.

[1, 2] 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 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 buildup 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: