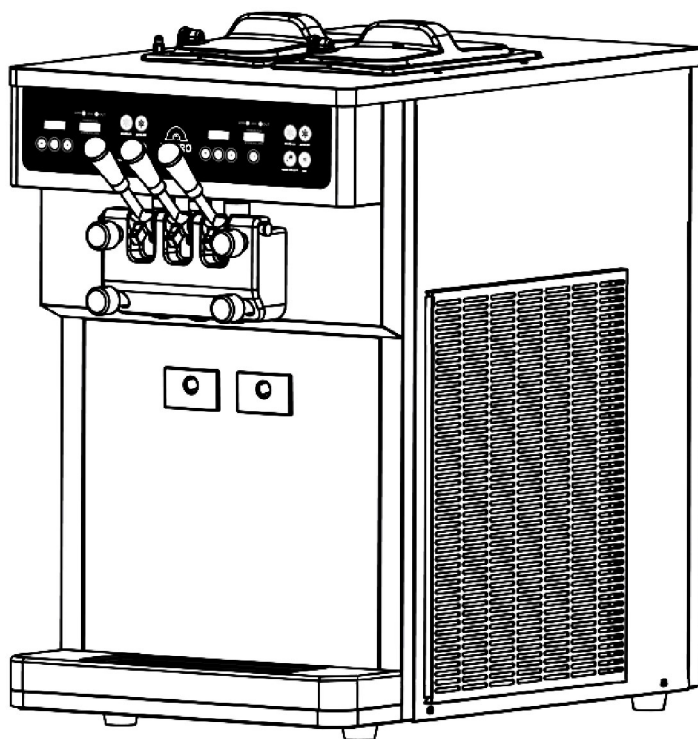


OPERATOR'S MANUAL



Model ISI-163TT Tabletop Soft Serve Freezer



Original Operator Instructions

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.

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ISI-163TT

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

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Caution and warning symbols are intended to alert the user and prevent accidents or danger due to improper use. Please familiarize yourself with these symbols and their meanings accordingly.



DANGER!

If you ignore this symbol and wrongly use the equipment, it may cause fire, serious injury or death.



WARNING!

Ignoring the warning symbol and incorrect use of equipment can result in injury or death.



IMPORTANT!

Ignoring the warning symbol and incorrect use of equipment can result in injury or death.

[Each symbol has the following meanings]



This symbol means never to do the described action.



This symbol means not to touch specific parts with bare hands.



This symbol means to unplug the power from the outlet.



Must be grounded.



This symbol means not to disassemble the unit.



This symbol means to be careful because there is a possibility of electric shock.

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 29CFR1910.147 or the applicable code of the local area for the industry standards on lockout/tagout procedures before beginning any installation or repairs.
- Authorized service personnel must ensure that the proper 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.

All repairs must be performed by an authorized Taylor service technician.

1

Site Preparation

Inspect the area where the machine will be installed before uncrating it. Make sure that all possible hazards to the user and the machine 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.

Air-Cooled Units

Do not obstruct air intake and discharge openings.

Air-cooled machines require a minimum of 3 in. (76 mm) of clearance around all sides to allow for adequate air flow across the condensers. Install the deflector provided to prevent recirculation of warm air. Failure to allow adequate clearance can reduce the refrigeration capacity and may cause permanent damage to the compressors.

For Indoor Use Only: This unit is designed to operate indoors under normal ambient temperatures of 70°F to 75°F (21°C to 24°C). The 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 hardware sizes. All metric conversions are approximate.

Electrical Connections

In the United States, this machine is intended to be installed in accordance with the National Electrical Code (NEC), ANSI/NFPA 70-1987. The purpose of the NEC code is the practical safeguarding of persons and property from hazards arising from the use of electricity. This code contains provisions considered necessary for safety. In all other areas of the world, machine should be installed in accordance with the existing local codes.

Please contact your local authorities.



FOLLOW YOUR LOCAL ELECTRICAL CODES.

Each machine requires one power supply for each data label on the machine. Check the data label(s) on the freezer for branch circuit overcurrent protection or fuse, circuit ampacity, and other electrical specifications. See the wiring diagram provided inside the electrical 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.

**WARNING!** Avoid injury.

- **DO NOT** operate the machine unless it is properly grounded.
- **DO NOT** operate the machine with larger fuses 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 authorized 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 the local codes.
- Stationary machines which are not equipped with a power cord and a plug or another device to disconnect the appliance from the power source must have an all-pole disconnecting device with a contact gap of at least 0.125 in. (3 mm) installed in the external installation.
- Supply cords used with this 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 an authorized Taylor service technician in order to avoid a hazard.
- Secure the supply cord ground lead to the machine in a location where if the cord is pulled, the main power leads will 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.

**IMPORTANT!**

- *Stationary machines which are not equipped with a power cord and a plug or another device to disconnect the machine from the power source must have an all-pole disconnecting device with a contact gap of at least 0.125 in. (3 mm) installed in the external installation.*
- *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 the local codes.*
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- *If the supply cord is damaged, it must be replaced by an authorized Taylor service technician in order to avoid a hazard.*
- *Secure the supply cord ground lead to the machine in a location where if the cord is pulled, the main power leads will become taut before the ground lead can break loose.*

Beater Rotation



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

1 To correct the rotation on a three-phase machine, interchange any two incoming power supply lines at the freezer 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.

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 CO2 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 to 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.



Do not inject flammable material such as benzene, gasoline, paint thinner or LP gas into the machine or store flammable materials near the machine. Explosion, fire or injury may occur.



IMPORTANT! Before cleaning the inside of the unit, unplug from the Ground Fault Circuit Interrupter (GFCI) wearing rubber gloves. Failure to wear rubber gloves may result in electrical shock or injury.



Do not disassemble or alter the unit. Electric shock, fire or injury may occur.



Keep your warning and caution labels clean for easy legibility. If the user misunderstands the content of such a label, serious accident or injury may occur.



Do not put anything on the power cable. Make sure that the power cable is not twisted or knotted. Fire or electric shock may occur.



Stop using the machine, if you find the power cable or any other cable to be defective. Fire or electric shock may occur.



Do not spray or use any flammable products (insecticide, solvents, deodorizers etc) near the machine. Fire or electric shock may occur.



Do not touch the power cable or any electric part with wet hands. Death or injury may occur.



Stop operating the unit if you notice any unusual noise, smell or smoke coming from it. Continued operation under such conditions may result in electric shock or fire.



When you replenish soft serve product ingredients, do not allow outside moisture to get into any interior electric part. Defective operation may occur.



Make sure that no electrical part of this unit has come into contact with water. If the unit has been immersed in water (for example, due to flooding) call an authorized Taylor service center for assistance. Fire or electric shock due to electric leakage may occur.



Do not touch any moving part inside the machine. Serious injury can occur.



Do not climb onto the unit or shake or tilt it. Tipping or damage may occur.



When you dispose of the unit call your distributor to determine proper disposal method. Follow all local safety and disposal regulations.



If you sell or relinquish your ICETRO unit, make sure to provide the correct user's manual with it. Without the manual, an accident may occur because of erroneous handling or operation.



Do not place any obstacle in front of the air vent. It may adversely affect unit's performance.



While operating the unit close the upper cap completely to keep out bugs, dust and foreign materials.



Never operate the discharge lever during sterilization or defrosting. Hot material can be discharged and it may cause burns.



Do not apply excessive force or impact to the unit. Damage to the machine can occur.



Do not use or store any flammable or combustible materials near the unit. Fire or electrical shocks can occur.



Do not press "WASH" button when cylinder is empty. Drum bearing can be damaged because there is no lubrication.



To produce safe, consistent soft serve product it is recommended to pasteurize or clean this unit every day according to instructions. Neglecting the heat treatment or cleaning process will result in product spoilage.

SAFETY



Do not place containers, utensils, or any other items on top of the unit. These can fall into the unit, causing electrical shock or equipment damage.



Do not install machine near dust, moisture, or water. Electrical shock, fire or other dangerous conditions may result.



Do not let untrained personnel touch or operate the machine. The machine can be damaged and injury may occur.



If unit will be left unused for an extended period, close the water supply valve and disconnect from power source.



If there is water inside the power supply, turn off power and disconnect unit from GFCI. Unit, power cord and GFCI must be completely dry before returning to use.



Do not change or make modifications to the power cord. Modifications can cause fire.



Do not turn the power ON/OFF with the circuit breaker continuously. It can cause electrical shocks or fire.



Do not touch the GFCI with wet hands. It can cause electrical shock or fire.

Model ISI-163TT

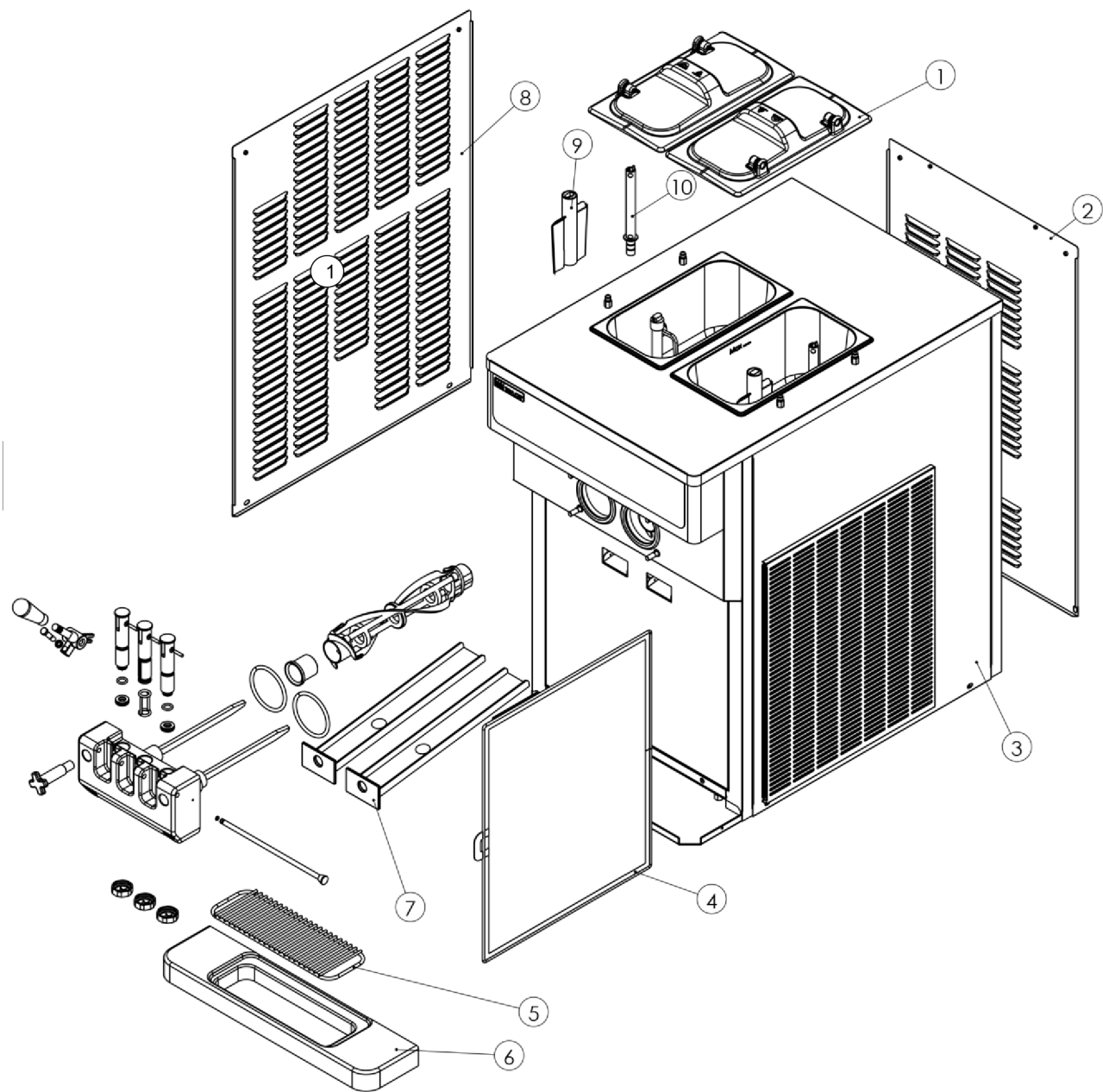


Figure 2-1

ITEM	DESCRIPTION	Part No.
1	Cover - Hopper	317140700
2	Panel – Back	349085901
3	Panel - Side (R) Assy	420040200
4	Filter - Condenser	640007200
5	Shield - Splash	336008600

ITEM	DESCRIPTION	Part No.
6	Tray - Drip	336008400
7	Pan – Drip	610031600
8	Panel - Side L	349085601
9	Assy - Agitator	436002300
10	Assy – Feed Tube	729003100

Beater Door Assembly

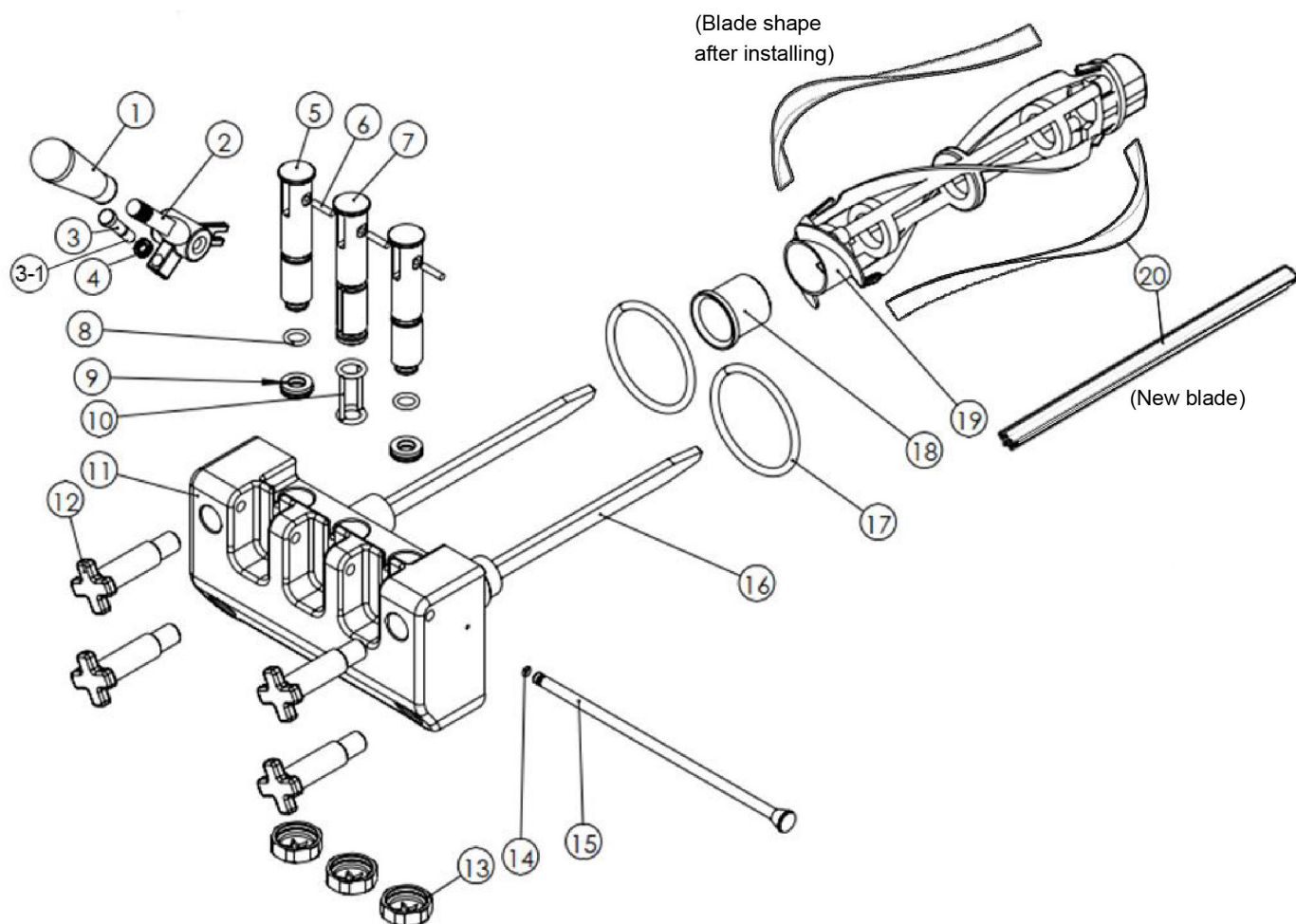
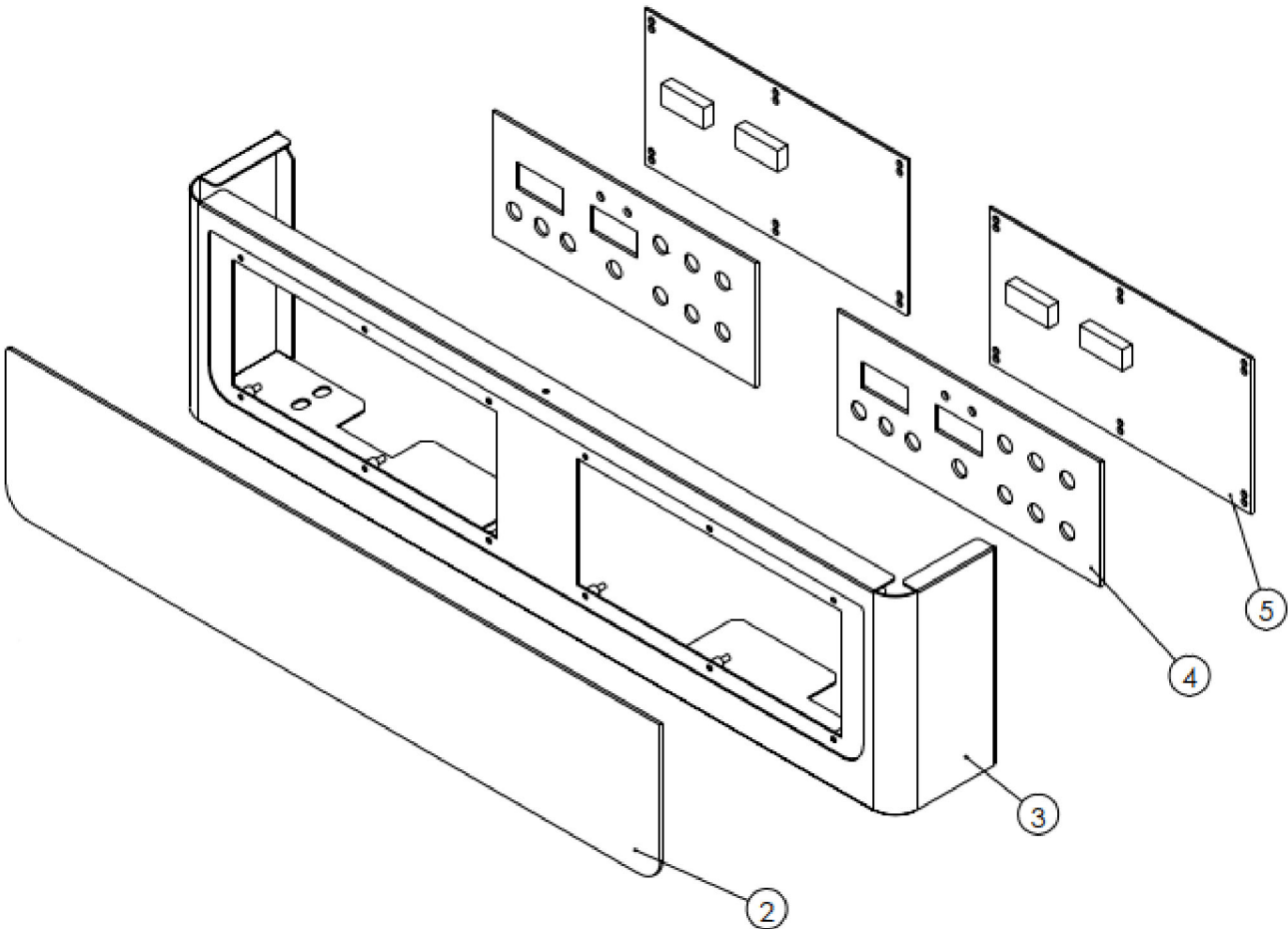


Figure 2-2

ITEM	DESCRIPTION	Part No.
1	Draw Handle	342003910
2	Draw Handle Lever	309003410
3	Screw Adjustment	210806100
3-1	O-Ring Screw Adjustment	303017700
4	Hex Nut	215011000
5	Draw Valve	314038600
6	Shaft Pin	315002900
7	Draw Valve - Center	314038502
8	O-Ring Draw Valve - Upper	303014700
9	O-Ring Draw Valve - Lower	303044000
10	Seal – Draw Valve H-Ring	392000700
11	Door – Freezing Cylinder	317196500

ITEM	DESCRIPTION	Part No.
12	Nut - Stud	342004100
13	Cap Design - Star	388003700
*	Cap Design – Round	388003500
*	Cap Design - Snowflake	388003400
14	O-Ring – Pivot Pin	303020000
15	Pin – Pivot	314038900
16	Baffle	314015601
17	Gasket – Door	303018100
18	Bearing – Door	310003502
19	Beater	403019610
20	Blade – Scraper	403015000

Assembly Cover Front



2

Figure 2-3

ITEM	DESCRIPTION	Part No.
2	Button Display – Panel	440030501
3	Front Interface – Panel	432044400

ITEM	DESCRIPTION	Part No.
4	Button PCB	367005901
5	Display PCB	367005704

2

Lever Assembly

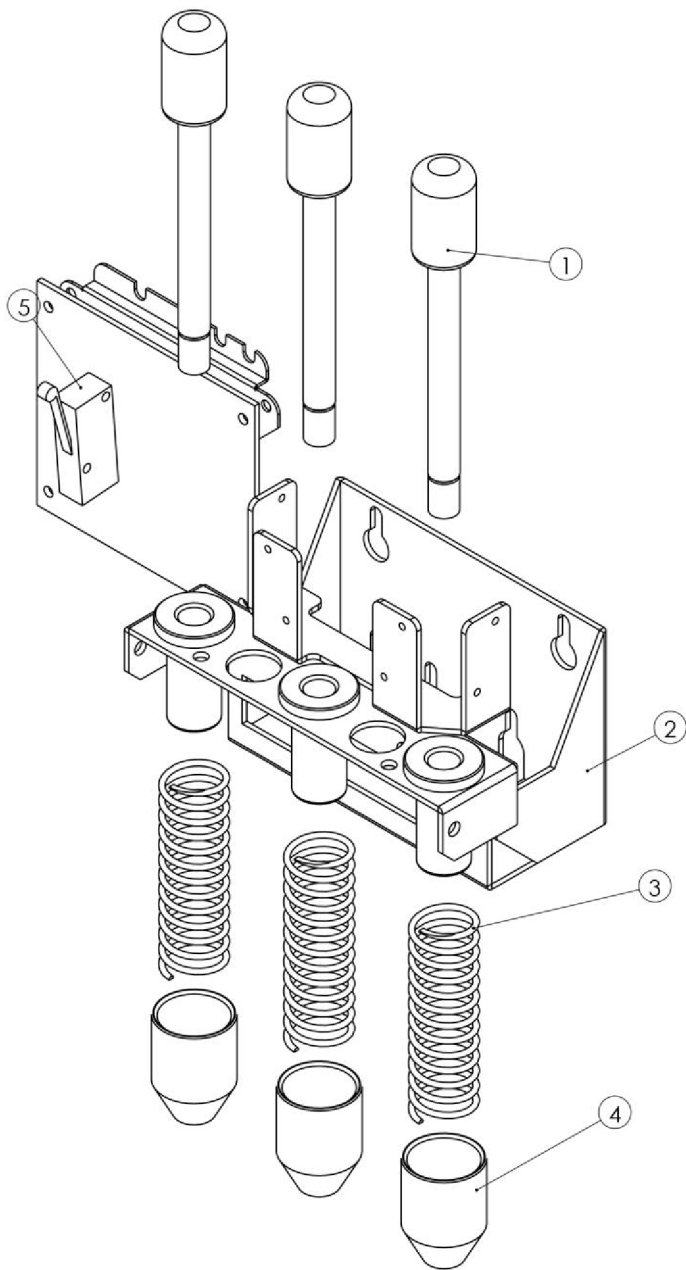


Figure 2-4

ITEM	DESCRIPTION	Part No.
1	Draw Handle – Upper Shaft	314038800
2	Draw Handle – Holder Assembly	425001300
3	Draw Handle – Spring	323006900

ITEM	DESCRIPTION	Part No.
4	Draw Handle – Lower Shaft	314036801
5	Micro Switch	460002700

Accessories

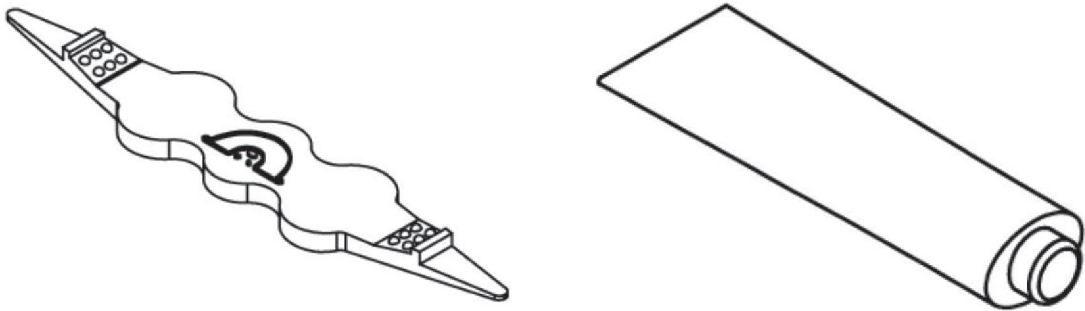


Figure 2-5

2

ITEM	DESCRIPTION	Part No.
1	Tool - O Ring Removal	233000300

ITEM	DESCRIPTION	Part No.
2	Lubricant – Food Grade	221000200

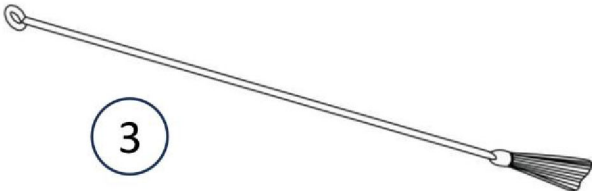
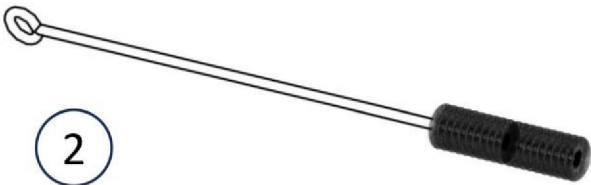
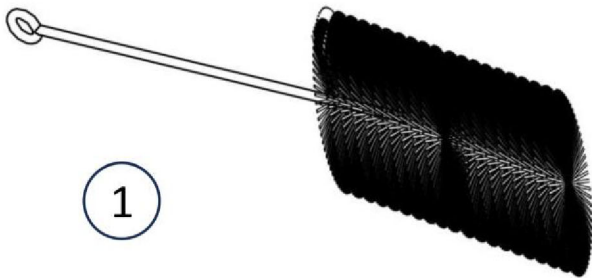


Figure 2-6

ITEM	DESCRIPTION	Part No.
1	“A” Brush for barrel and hopper	388004200
2	Brush “3” for feed tube	388001000

ITEM	DESCRIPTION	Part No.
3	“B” Brush “143” for barrel end	388002900

CLASSIFICATION		SPECIFICATION
Product name		Soft Serve Freezer
Model name		ISI-163TT
Voltage Rating		1 PH, 230V, 60Hz
Power consumption		3.12 KW
Amps		22 A
Dimensions including lever and feet	WIDTH(W)	510 mm (20")
	DEPTH(D)	885 mm (35")
	HEIGHT(H)	800 mm (31")
Cylinder capacity		1.5 L (1.7 qt) x 2
Hopper capacity		5.5 L (5.9qt) x 2
Consecutive selling (30 second interval)		3 ~4 Cups
Initial sales hours		11 minutes once operator hits "AUTO"
Hopper and Standby temperature		Maintain under 5° C (41° F)
Compressor		Hermetic
Air filter for condenser		Located at side
Refrigerant amount		800 g (18.4 oz.) / 80 g(2.9 oz.)
Refrigerant Material		R-404A / 134a
Net weight (before crating)		179 kg (395 lbs)
Gross weight (Shipping)		195 kg (430 lbs)



Install machine in a dedicated outlet equipped with a GFCI (Ground Fault Circuit Interrupter) with more than 15 amps.

The power cable must be connected before the unit can be operated normally.



For your information

If you intend to leave machine unused for an extended period, wash and sanitize it and turn off the water supply valve.

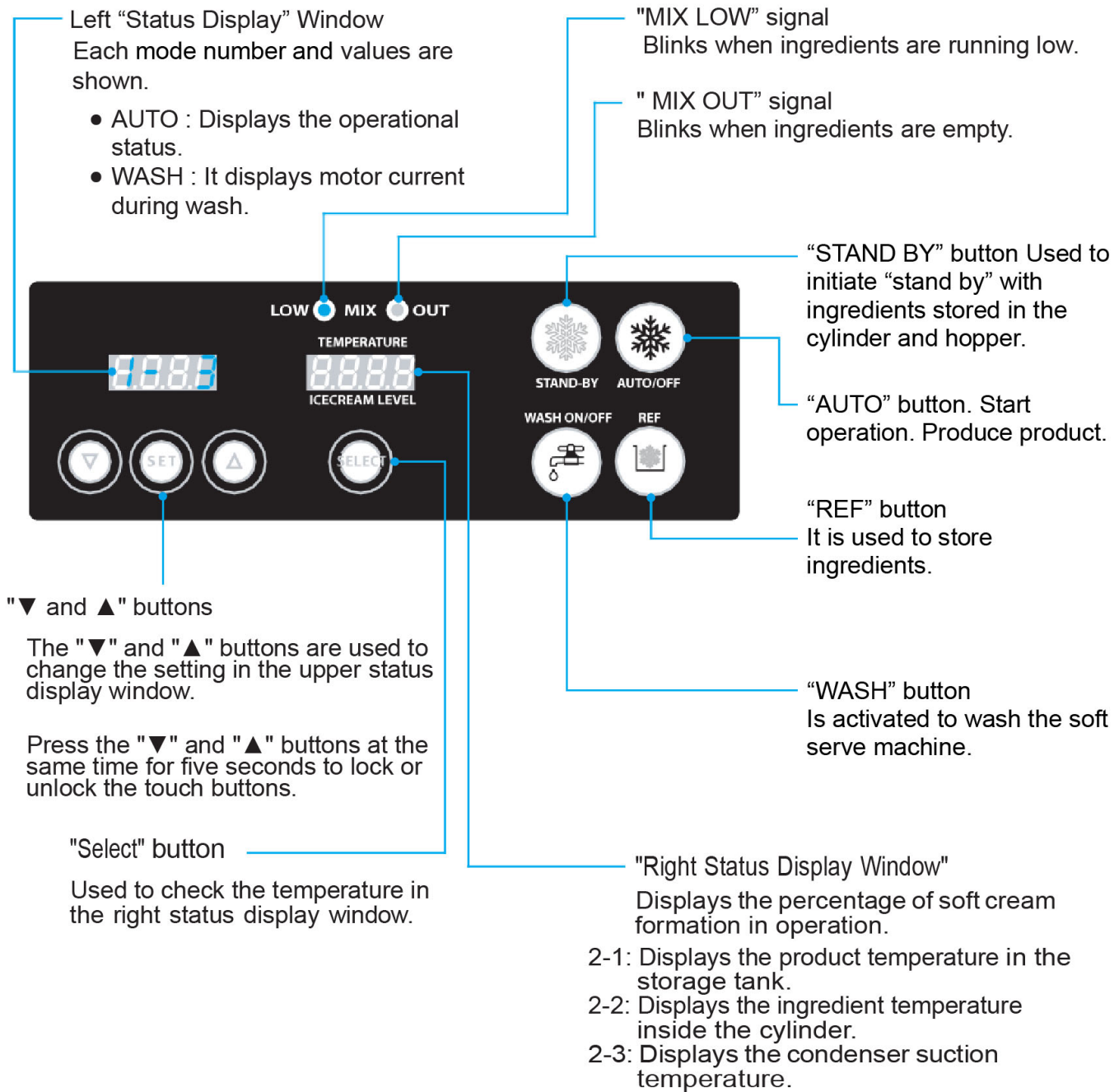
Check Prior to Use

- **Do not obstruct air intake and discharge**
Air suction and discharge must be kept clear for optimum cooling performance.
- **Recommended Daily Cleaning**
It is recommended that the barrel, the hopper, agitation impeller, beater, feed tube, draw spout and the draw valves are cleaned every day.
- **Weekly Air Filter Cleaning**
For better machine performance, clean air filter weekly.
- **Clean the condenser once a month.**
Clean the condenser at least once a month. More frequent cleaning is recommended.

Button Display Names and Functions

Understanding the buttons, the displays, and what they do.

4



Press the "Set" button lightly to check settings:
Use the "▼" and "▲" buttons to see the setting.

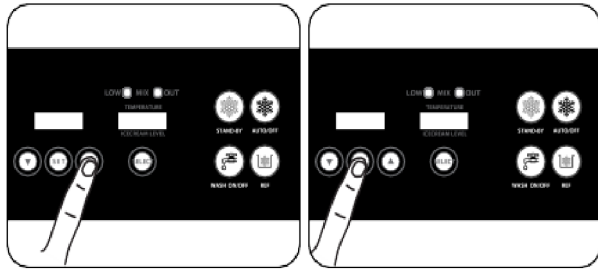


Figure 4-1

1. Check default soft serve viscosity settings. Check the current setting (Amperage draw setting) for the soft serve product. The larger the number is, the harder the soft serve product is. The smaller the number, the softer it is.



Figure 4-2

2. Check no-load amperage draw status. This is the no-load current (Amperage draw in liquid status of product) of the beater motor and shows the current consumed by the beater motor when the ingredients are in the liquid status.



Figure 4-3

3. Check the currently supplied voltage. Confirms power supplied to the machine. If the voltage detection is in off mode, it won't display voltage.



Figure 4-4

4. Check the storage temperature in the hopper. Operator can check the temperature inside the hopper.



Figure 4-5

5. Check the voice guide. Operator can check whether a voice guide is activated.

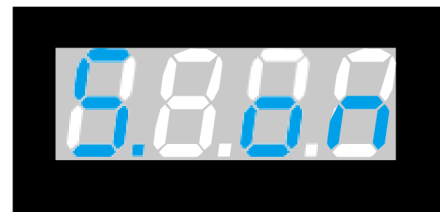


Figure 4-6

6. Check the program version. Operator can check the versions of the main Printed Circuit Board (PCB) and the display PCB. "n" is for the main PCB and "d" is for the display PCB.



Figure 4-7



For your information



The factory default soft serve viscosity is set for the ingredients (vanilla). Depending on the ingredients, you will need to adjust it properly. Please follow Taylor distributor or technician instructions when changing viscosity setting for the ingredients.

Check the temperature

Press the "Select" button to check the different temperature settings mentioned below. The item number and the temperature will be displayed in turns.

1. Hopper temperature
2. Freezing cylinder temperature
3. Ambient temperature

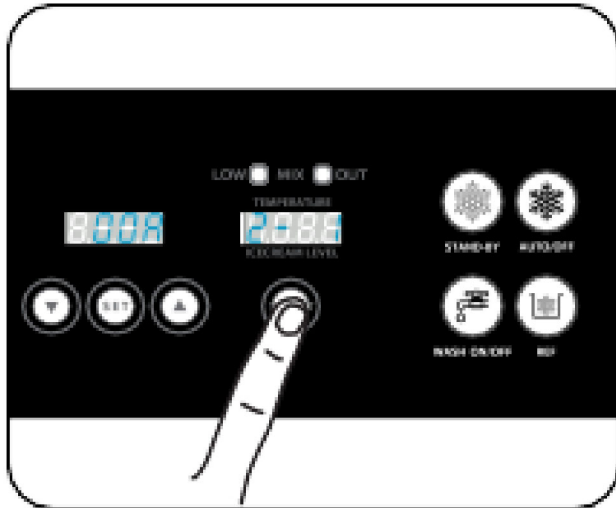


Figure 4-8

1. Hopper Temperature: There may be a slight variance in display temperature and actual temperature due to indirect temperature reading by thermistor sensor.

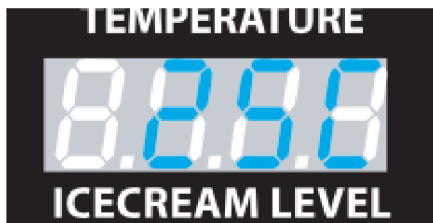


Figure 4-9

2. Freezing Cylinder Temperature: There may be a slight variance in display temperature and actual temperature due to indirect temperature reading by thermistor sensor.

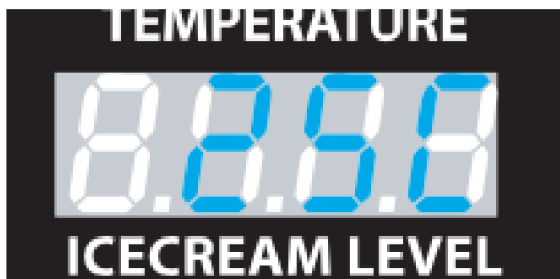


Figure 4-10



IMPORTANT!

Replenishing the raw material (product mix)

This unit will stop during 'AUTO' operation when a MIX OUT condition occurs.

The raw material (product mix) must be replenished immediately.

If the unit is continuously operated in 'STANDBY' mode without replenishing the raw material,

Abnormal noise, freezing inside the hopper and cylinder may occur, which can lead to equipment failure.

Before making soft serve

1. **START OF DAY:** Your Icetro Soft Serve machine must be **re-assembled and properly sanitized every day before operating** and before soft serve product may be made:
2. **END OF DAY:** Your Icetro Soft Serve machine must be **disassembled and all parts properly washed every night** in order to meet food service sanitation requirements. To find Disassembly and Washing instructions, turn to "Disassembly" on page 5-7 in the "Closing Procedures" section.

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

These opening procedures will show you how to assemble these parts into the machine, sanitize them, and prime the machine with fresh mix in preparation to serve your first portion.

If your Icetro unit has a second freezing cylinder you will duplicate these procedures. Once for each side.

Assembly

Note: Some parts need to be lubricated. When lubricating parts, use an approved food-grade lubricant (example: Taylor Lube).



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

1. Using a clean, lint-free cloth, pat dry all parts that were washed the night before and had been set out to dry.
2. Assemble beater by attaching the scraper blades. (See Figure 5-1.)

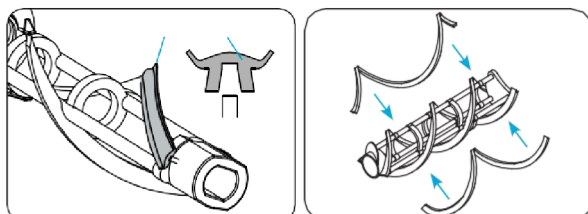


Figure 5-1

3. Insert the assembled beater over the drive shaft and into the freezing cylinder. (See Figure 5-2.)

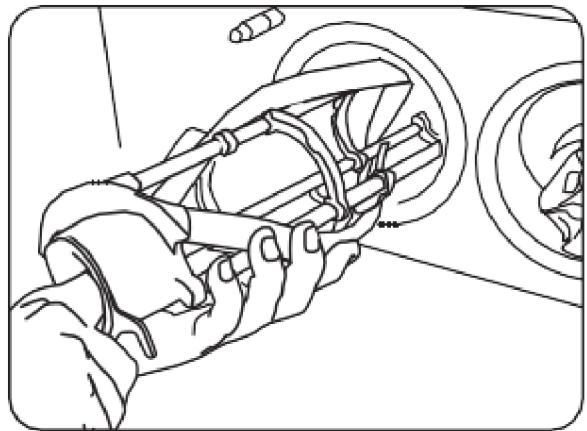


Figure 5-2

4. Apply food grade lubricant to the O-ring inserted into the draw handle. (See Figure 5-3.)

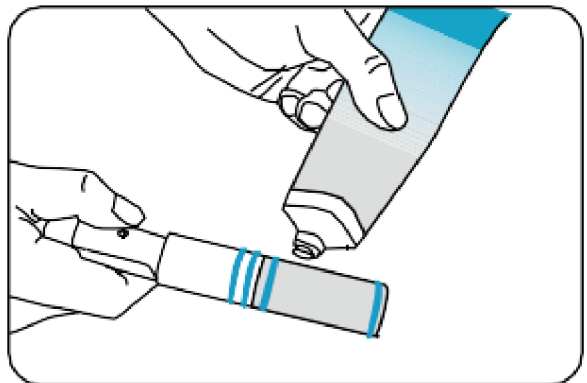


Figure 5-3

5. Insert the draw valve into the freezing cylinder door.
 - ✘ Make sure not to switch the Center valve with either the left or the right valves.
 - ✘ When reassembling, the Center draw valve should be placed as shown in Figure 5-4.

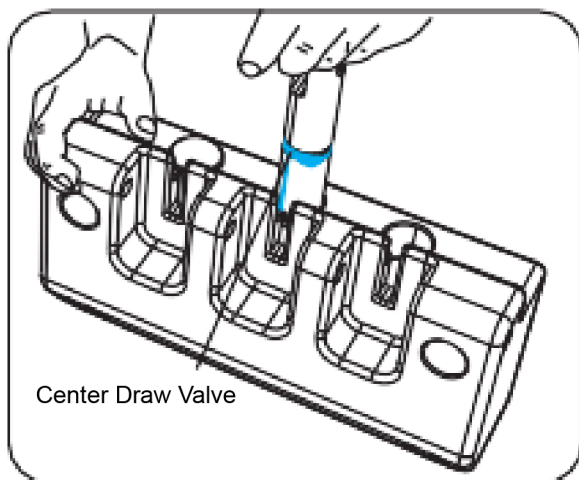


Figure 5-4

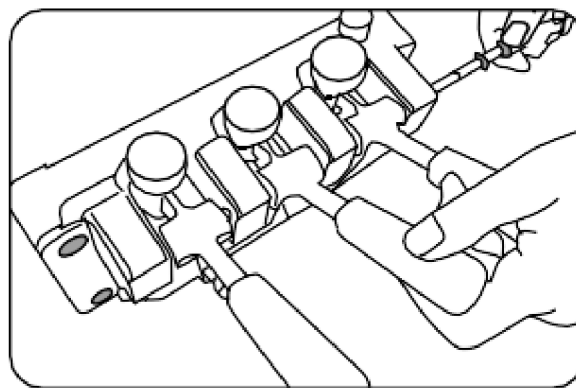


Figure 5-6

6. When the valve is inserted fully, turn it to face forward as shown in Figure 5-5. below.
7. Take care to prevent O-rings from getting entangled.

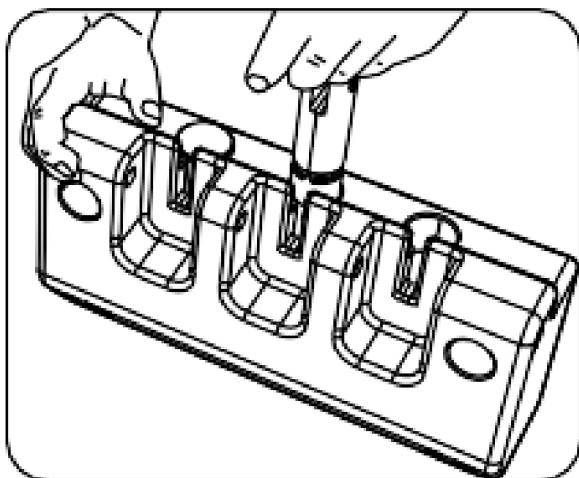


Figure 5-5

8. Insert the draw handle into the draw valve, then insert the handle in line with the freezing cylinder ("freezer") door.
9. Slide Pivot Pin into place (Figure 5-6.)

10. Place door gaskets onto freezing cylinder door. (Figure 5-7.)

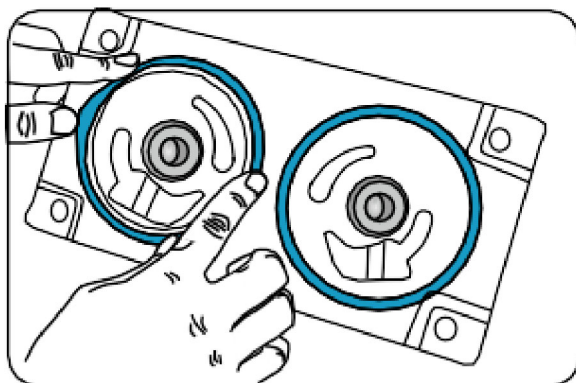


Figure 5-7

11. Guide the door baffles through the installed beaters to align the bearings on the door.

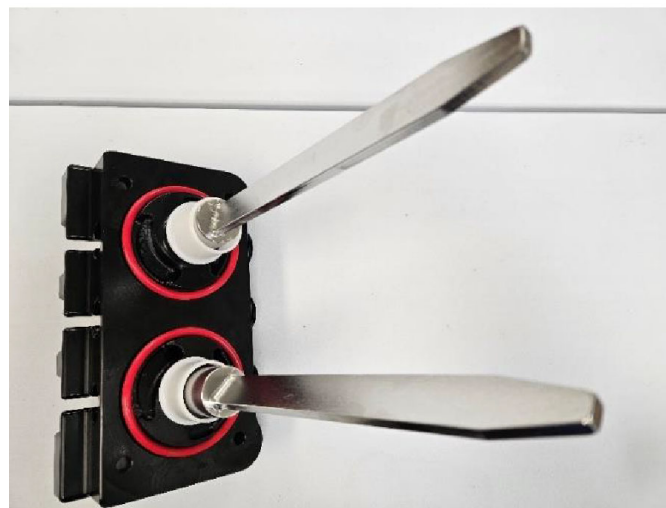


Figure 5-8

12. Fasten the two pairs of freezer door bolts. Do this by hand, tightening them diagonally as shown in Figure 5-9. (Top left and bottom right, then tighten bottom left while tightening the top right). Fasten tightly. If they are loose, the soft serve product can leak.

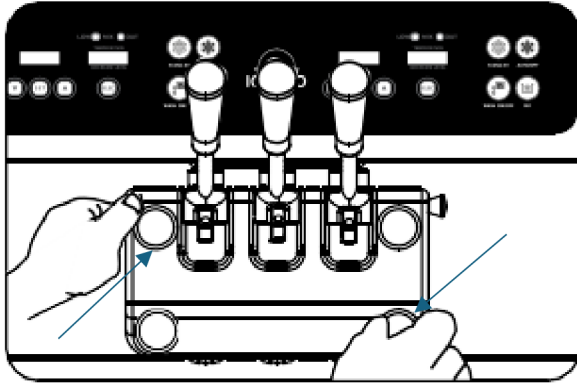


Figure 5-9

Sanitize (before making product)

1. Using a clean bucket, prepare an approved 100 ppm sanitizer such as Stera Sheen, which is approved for use on soft serve ice cream equipment. Follow the sanitizer directions and mix into a bucket of water. Pour the water/sanitizer mixture into the hopper.
2. The water will drain into the freezing cylinder
3. Lay feed tube into the hopper. (Figure 5-10.)

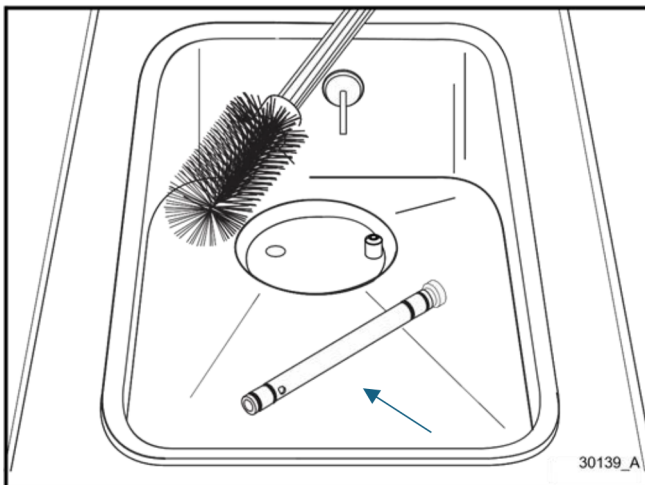


Figure 5-10

4. While solution is flowing into the freezing cylinder, brush-clean the mix hopper making sure to brush the mix level sensing probe, the mix inlet hole, and the feed tube. (Figure 5-11.)

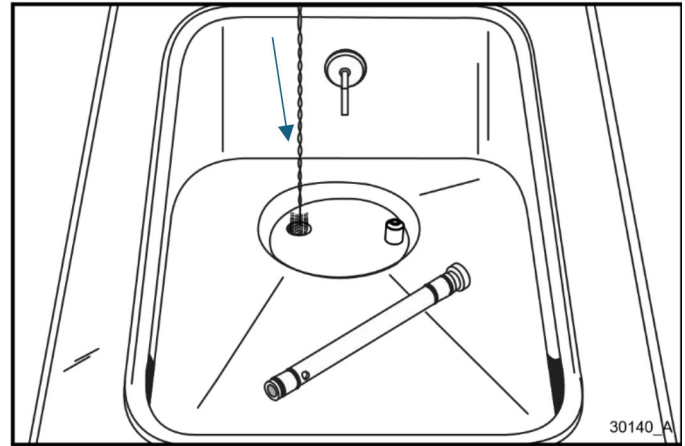


Figure 5-11

5. Clear any clogged product from the feed tube (Figure 5-12.) then lay feed tube back into the hopper for a final rinse.

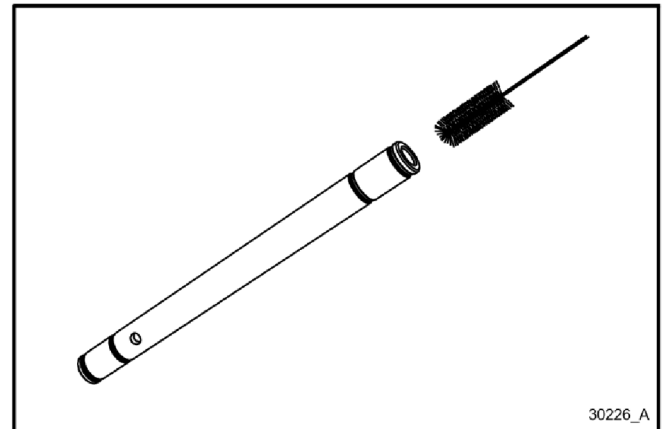


Figure 5-12

6. Place the power switch in the ON position. Figure 5-13.

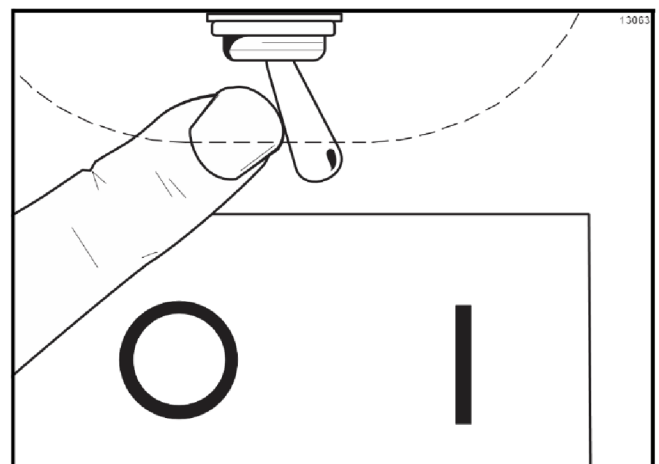


Figure 5-13

7. Press the WASH button (Figure 5-14.) to allow water

and sanitizing solution to flow from the hopper down through the freezing cylinder. Water and solution can then be discharged which will clean out any remaining residue

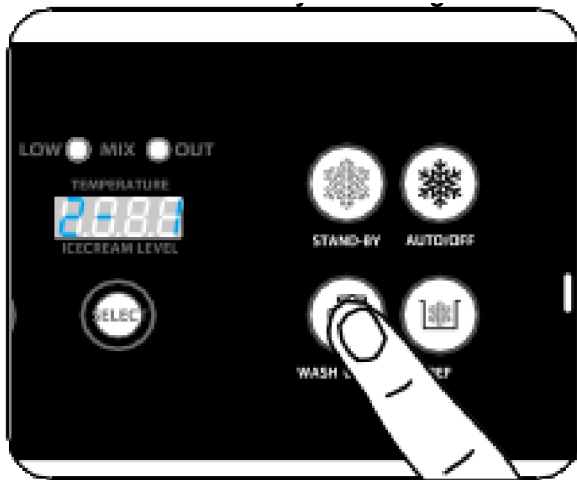


Figure 5-14

8. Place an empty pail beneath the door spouts. When a steady stream of sanitizing solution is flowing from the door spout, lower the draw handle to release all the sanitizing solution.

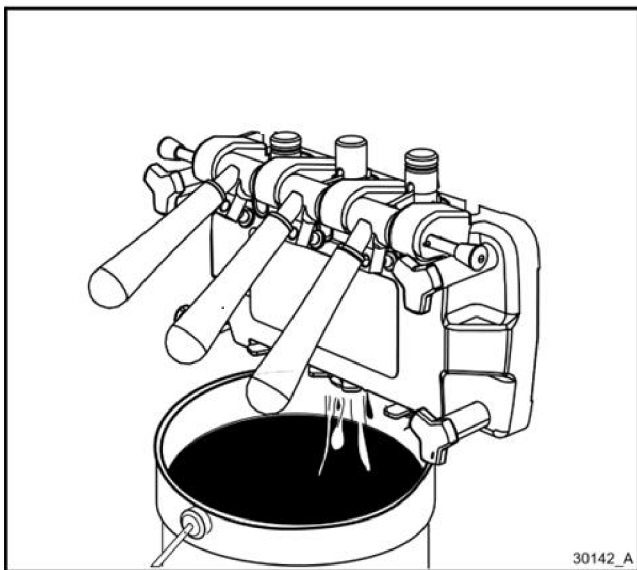


Figure 5-15

9. Once the sanitizer stops flowing from the door spout, raise the draw handle to close the valve. Press the WASH button to stop wash function.

Important! You have just sanitized the freezer. Make sure your hands are sanitized before continuing these additional steps.

10. With sanitized hands, replace the feed tube into the

mix hopper. (Figure 37)

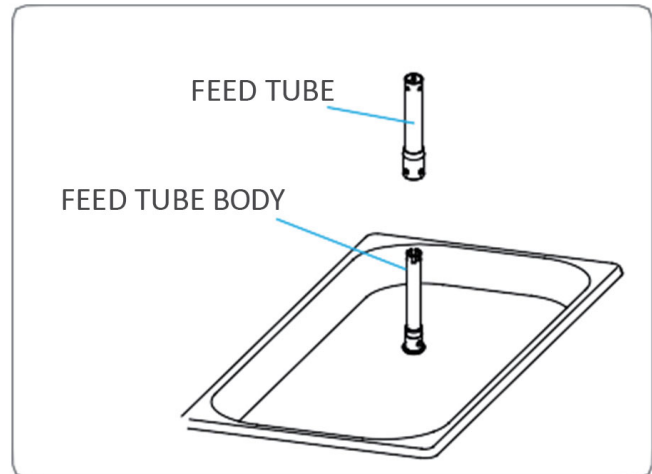


Figure 5-16

11. Repeat steps 1 through 7 for the other side of the freezer (if applicable for your machine).

Making Soft Serve Product

Now that your unit has been sanitized it is time to “prime” the machine and begin serving product.

Prime the machine as close as possible to the time of first product draw.

1. Fill the machine’s hopper with fresh mix.
2. Close the feed tube body (Figure 39) by turning the parts of the feed tube so the holes are plugged. There is an indicator on the feed tube.
3. Press the AUTO button.
4. Wait until the display shows “100%” then open the feed tube. (Figure 5-17.) There are three holes in the feed tube. To do this, turn the feed tube until the middle hole is unplugged.

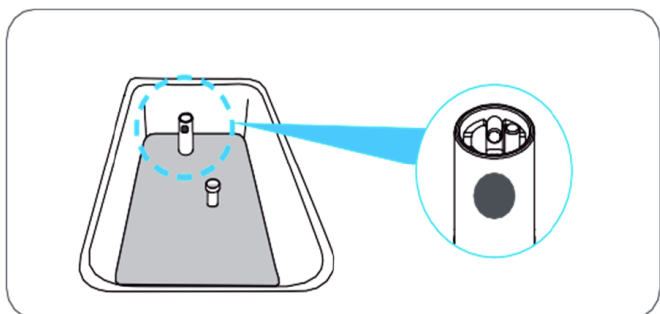


Figure 5-17

5. Before serving product, release one serving and throw it away to ensure there is no residue left from the sanitizer.
6. Machine will run in AUTO mode. You are now ready to begin serving product.



For your information



The smaller the feed tube hole is, the higher the overrun (air content) will be.

- ☒ In case of continuous sales, the ingredient supply gets lower and the soft serve is let out slowly.
- ☒ The feed tube hole can get clogged, so check it and wash it periodically during use.
- ☒ The manufacturer will not be liable for any problems (e.g., spoilage of materials, overcooling, non-production of soft serve) caused by using materials in non-frozen state 10°C (50°F).
- ☒ Using very thick ingredients such as acai berry, please remove feed tube and its body. Using feed tube with these types of ingredients may starve the cylinder.

Soft serve dispense speed control

1. By adjusting 'Screw Adjust' at the bottom of the lever (out lever), you can adjust the discharging speed of the soft serve.

As shown in the figure below, release the 'Screw Adjust' to increase the discharging speed of the soft serve.



Screw Adjust

Figure 5-18

2. As shown in the Figure 5-19. below, fasten the 'Screw Adjust' to decrease the discharging speed of the soft serve.



Screw Adjust

Figure 5-19

※ After setting up the adjustment bolt position, tighten the set nut 'a' to fix the 'Screw Adjust' position and maintain constant dispensing volume.

<Maximum open> - Soft serve dispensing speed is maximized. Please avoid loosening the bolt more than shown in the right picture. Otherwise, dispensing can be interrupted for the Screw Adjust may touch the beater cover.



Figure 5-20

<Minimum open> - Soft serve dispensing speed is minimized when the Screw Adjust is tighten as shown in the right picture.



Figure 5-21



For your information

If you loosen the Screw Adjust it increases flow rate of product. It will quickly starve the cylinder so that it becomes unable to dispense. Therefore, it is recommended to adjust the dispensing speed (flow rate) to one cup every 6 to 8 seconds.

Adjustment method for Feed Tube

Important! Proper adjustment of the feed tube makes all the difference in producing a quality soft serve product. Notes and illustrations on this page are provided so the operator can become familiar with the feed tube and how to make adjustments.

The feed tube is made up of two parts.

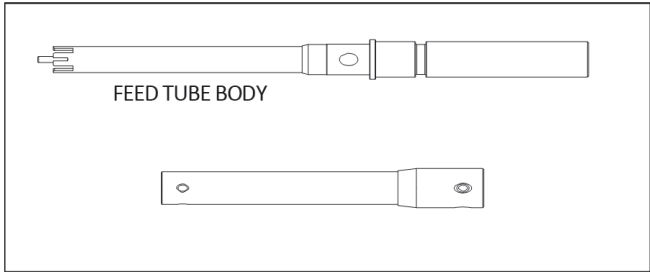


Figure 5-22

The part that is inserted into the hole of the hopper is called the body and a tube is inserted into this. The tube has a hole at the top and at the bottom. It can't be inserted in the reverse direction.



Figure 5-23



For your information

A small hole can improve the overrun, but it may depend on the amount of soft serve mix (ingredient) in the freezing cylinder. The lower the amount of mix in the freezing cylinder, the higher the overrun. The higher the amount of mix (ingredient), the lower the overrun.

See Figure 5-24. This shows the feed tube with a blocked hole.

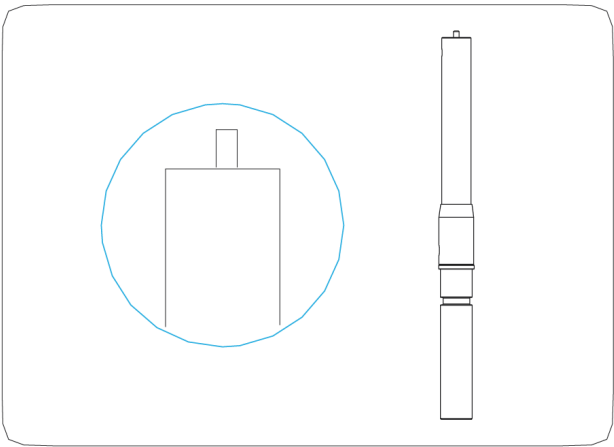


Figure 5-24

Align the protrusion of the upper area of the feed tube body with the large hole in the upper area of the tube. Decrease the overrun and increase the amount of ingredients injection in this way when you need continuous vending of the product.

Condition of use:

When the "Auto" mode is executed

Figure 5-25. shows the feed tube aligned with a small hole.

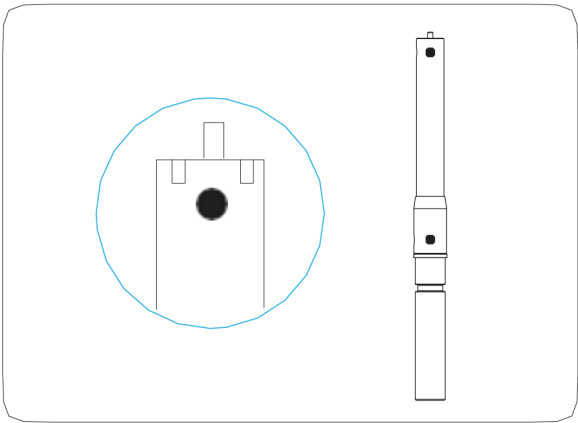


Figure 5-25

Align the protrusion of the upper area of the feed tube body with the large hole in the upper area of the tube. Decrease the overrun and increase the amount of ingredients injection in this way when you need continuous vending of the product.

Condition of use:

When the "Auto" mode is executed

See Figure 5-26. This shows the feed tube aligned with a small hole.

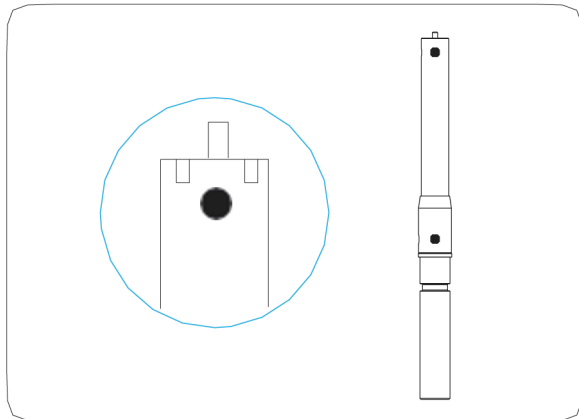


Figure 5-26

Align the protrusion of the upper area of the feed tube body with the small hole in the upper area of the tube. Then it will be aligned with the small hole in the lower area of the feed tube body. Increase the overrun and decrease the amount of ingredients in this way when you expect a small amount of sales.

Condition of use:

When the “Auto” mode is executed

Nightly Closing Procedure

Wash Mode

1. Press the WASH button on the control panel. (Wait until the soft serve product in the cylinder is melted, About 10 minutes.)

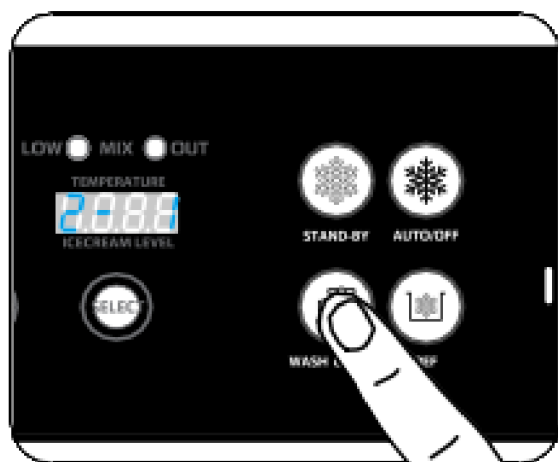


Figure 5-27

2. Remove the hopper cover (Figure 5-28.) and take out the feed tube, feed tube body and the beater paddle (Figure 5-29.)

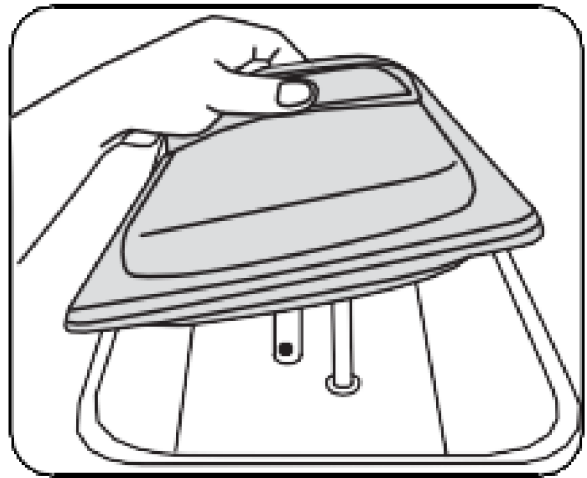


Figure 5-28

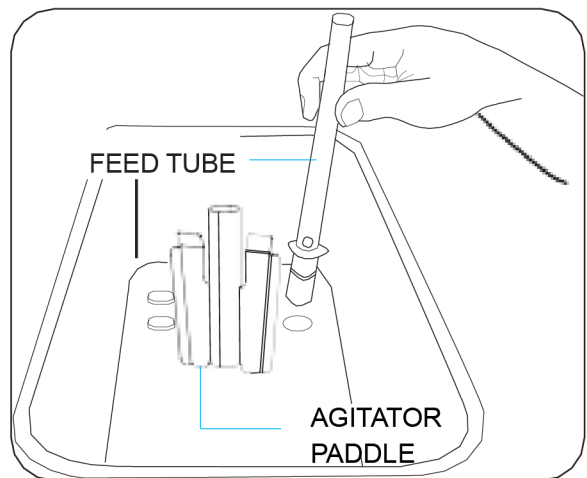


Figure 5-29

3. Remove the soft serve liquid from the hopper by placing a bucket under the spout and opening the draw handle. Melted product will begin flowing into the bucket. (Figure 52)

Using another bucket, pour faucet water into the hopper. Water will flow through the hopper and into the freezing cylinder to rinse out the unit. Keeping draw handles open, repeat this process two or three times until water flows out clear.

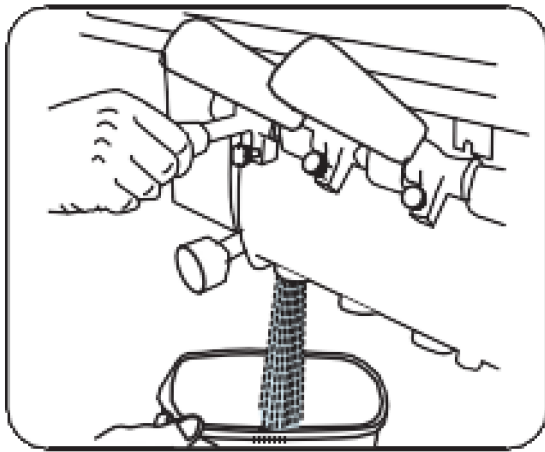
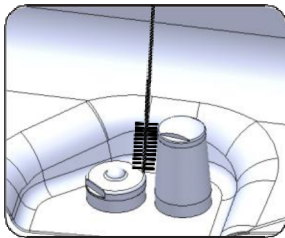


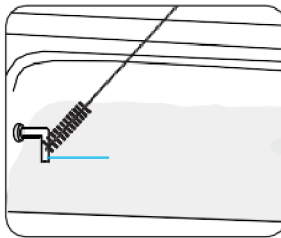
Figure 5-30

4. Finally, fill a bucket with water and an approved cleaning agent for a final rinse through the machine.
5. Using a brush, clean out any product residue from around the level sensor and drain hole inside the hopper tank.

The location of the level sensor may be different depending on model types. (See Figure 5-31. for comparison)



ISI-300/203/303



ISI-163TT

Figure 5-31

6. Press the 'WASH' button to discharge the water from the hopper. Use faucet water to rinse out any cleaning agent residuals.

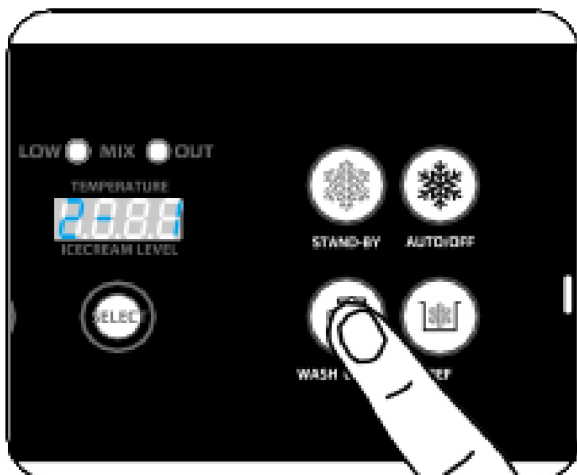


Figure 5-32

7. Press the WASH button to stop the flow. TURN OFF the power switch and release the four beater cover bolts.

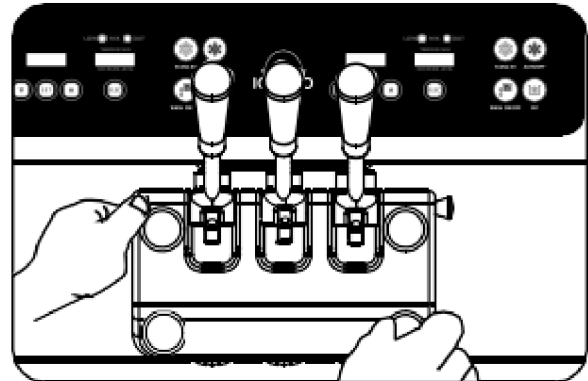


Figure 5-33

Disassembly

1. Separate the freezer door from the body of the machine. Begin to disassemble parts of beater assembly.

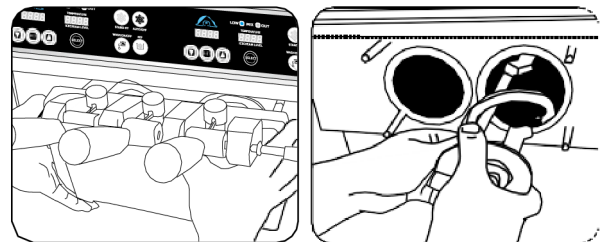


Figure 5-34

2. Brush out the inside of the freezing cylinder and wipe it with a soft cloth. (Figure 5-35.)

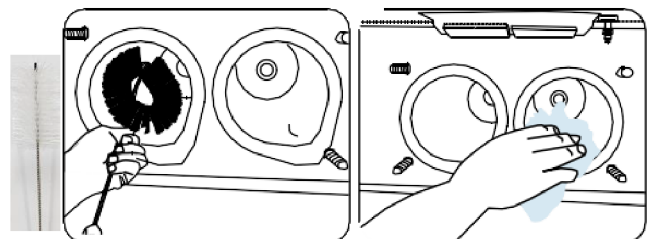


Figure 5-35

3. Disassemble the beater assembly: Remove scraper blades (Figure 5-36.) and wash all the parts using an approved cleaning detergent and brushes in the kit provided (Figure 5-37.). Wipe all parts with a soft cloth and lay them out to dry overnight.

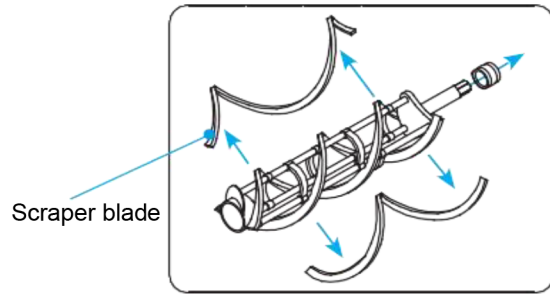


Figure 5-36

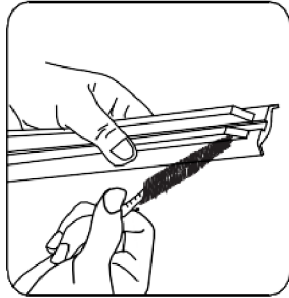


Figure 5-37

4. Wipe the scraper blade and beater with a soft cloth. (Figure 5-38.)

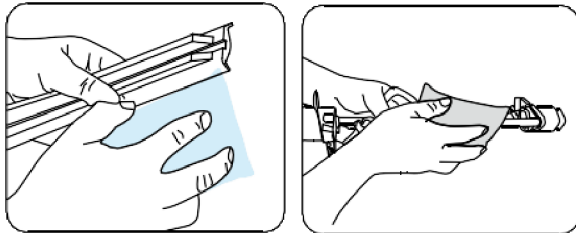


Figure 5-38

5. Extract the pivot pin and separate the draw handles from the freezing cylinder door.

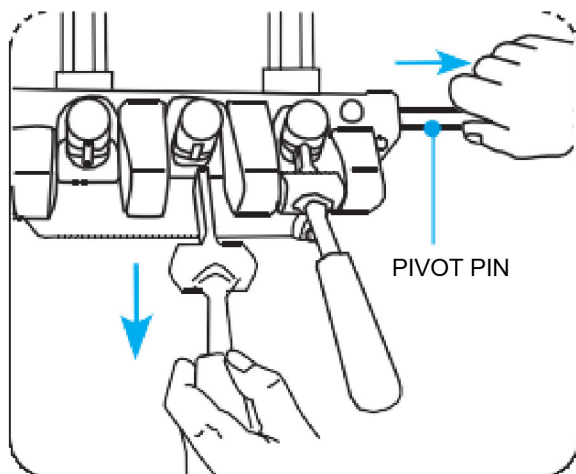


Figure 5-39

6. Pull out each draw valve (Figure 5-40.) from the freezer door and clean them thoroughly with a brush. Do not switch the center draw valve with either the left or right draw valves.

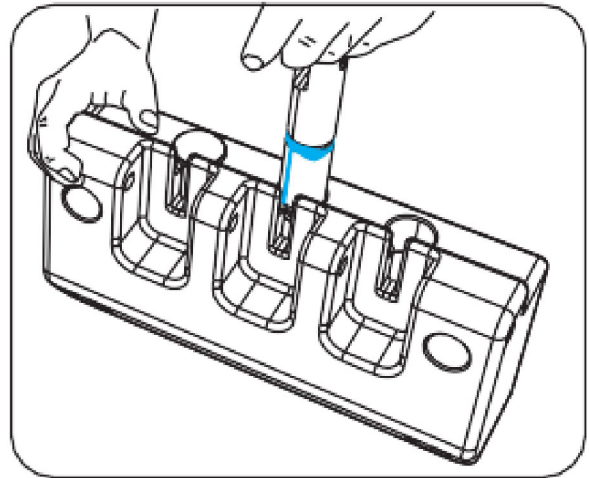


Figure 5-40

Washing the Parts

1. Disassemble the baffle and clean with a brush.

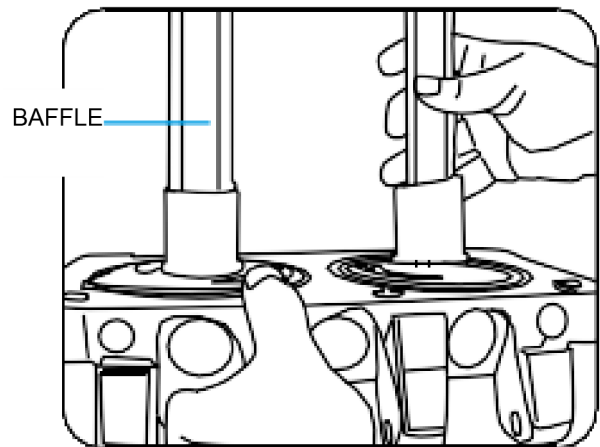


Figure 5-41

2. After removing the draw valves from the freezer door, clean the openings with a brush and dry with a soft towel. (Figure 5-42.)

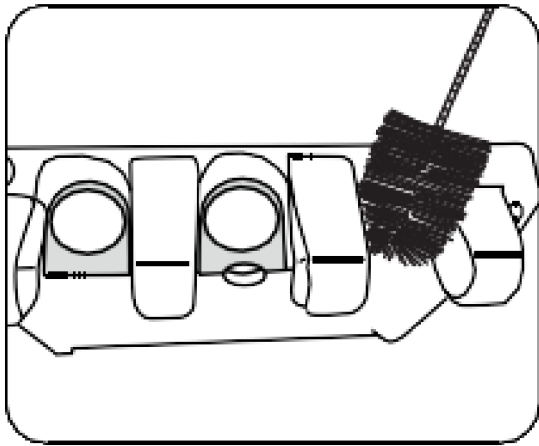


Figure 5-42

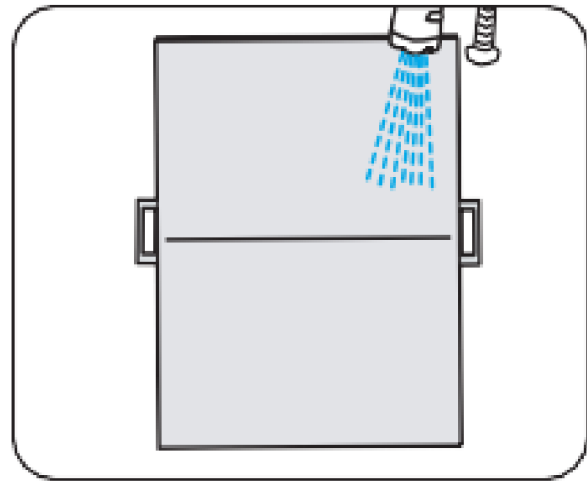


Figure 5-44

3. After cleaning off all parts, lay them out to dry overnight. Unit will be reassembled in the morning.

Condenser and filter cleaning method

1. The filter should be cleaned nightly and is easy to do. Pull out the condenser filter located on the right side of the machine.

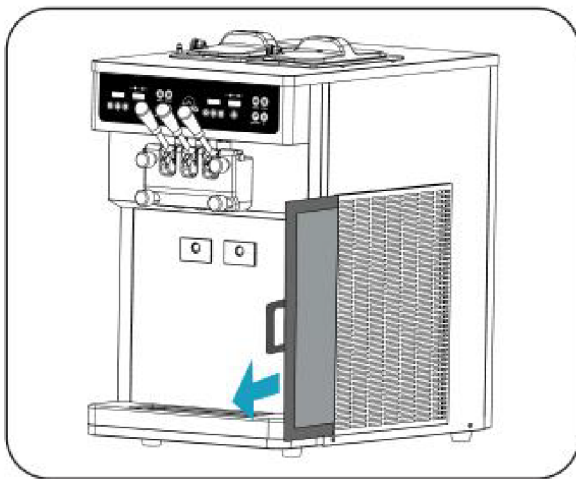


Figure 5-43

2. Remove dust from the filter element or use a small, handheld vacuum. Wash it clean with water.
 - Clean and dry the filter and insert it back into the machine.

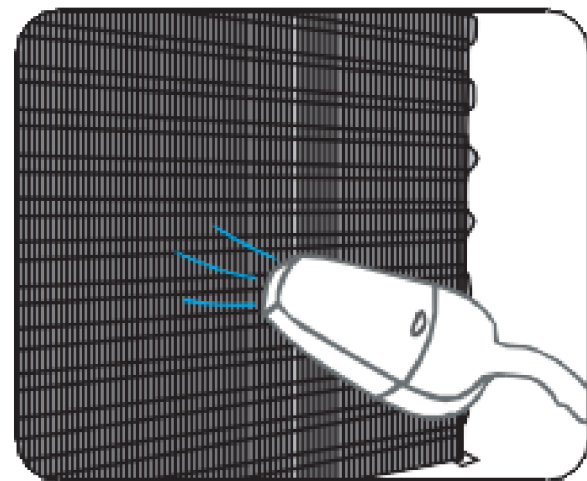


Figure 5-45

Drip Pan cleaning method

The drip pan should be checked and wiped out nightly. However, if product has dripped and accumulated in the drip pan this indicates that the freezer has a leak. Please call a service technician.

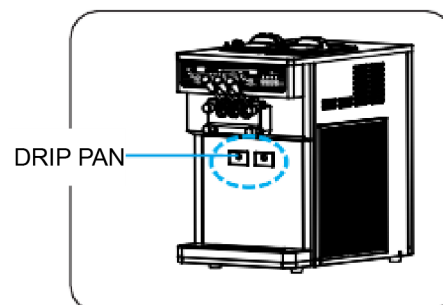


Figure 5-46

How to clean inside the Freezing Cylinder

1. Using the "A" brush and water mixed with an approved detergent, clean the entire freezing cylinder. (Figure 2.)

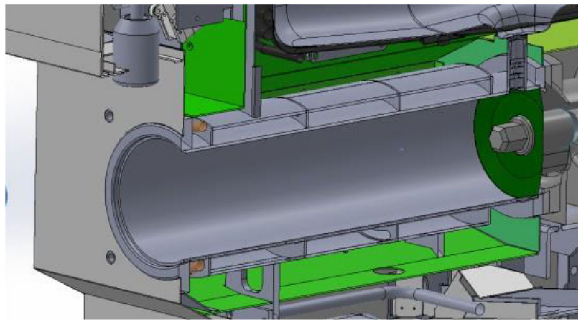


Figure 5-47

2. Using the "B" brush (Brush 143 in Figure 5-50.): Push the brush gently into the shaft gap and the peripheral gap. Press the inner edge of drum and thoroughly clean out any residue, brushing in a clockwise motion as indicated in Figure 5-48.and Figure 5-49.
3. Every time you clean it, clean it with "B" brush.

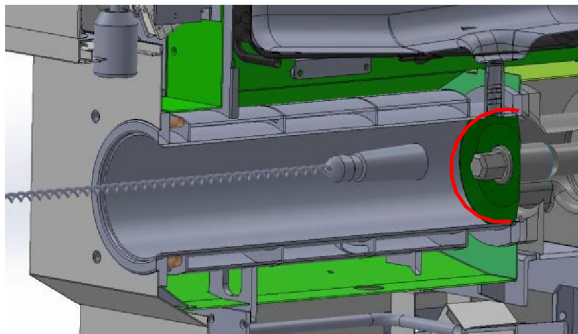


Figure 5-48

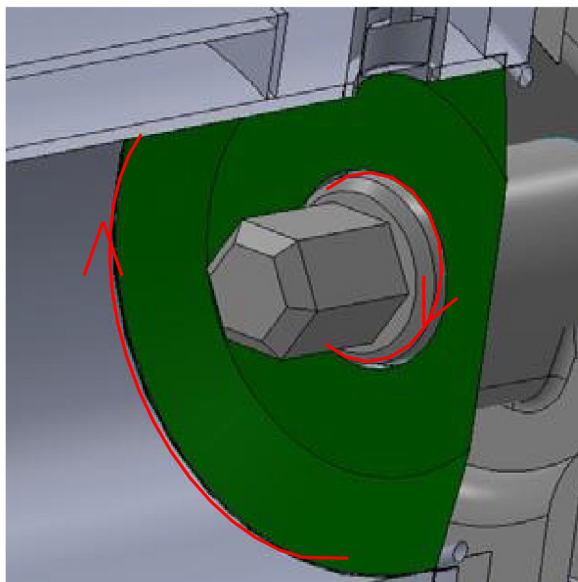
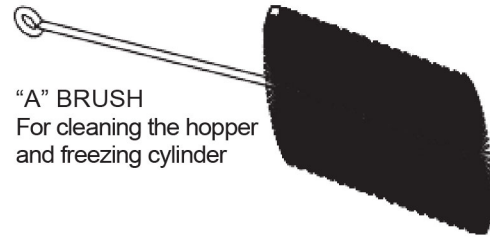
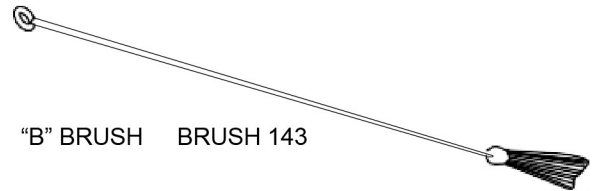


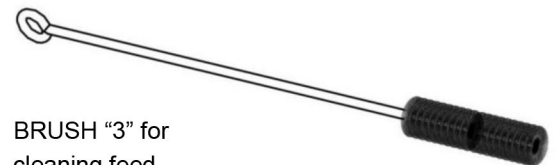
Figure 5-49



"A" BRUSH
For cleaning the hopper
and freezing cylinder



"B" BRUSH BRUSH 143



BRUSH "3" for
cleaning feed

Figure 5-50

Cautions for operation of soft serve machine

1. We highly recommend using the proper liquid ingredients. If you intend to use powder ingredients by mixing it with water or milk, be sure to follow the mixture ratio suggested by its manufacturer.

(This machine should use properly mixed ingredients in order to produce good-quality soft serve. Please use additional caution if you intend to use powder-type ingredients. They tend to get lumpy or separate over time from the water or milk, which results in over-freezing, poor product quality and issues with machine operation.)

2. Even if you use the proper liquid ingredients, adding an additive to it or arbitrarily adjusting the dilution ratio may result in poor quality of the soft serve or over freezing.

We do not provide warranty or assume responsibility for issues related to the ingredients. Be sure to check and follow the dilution ratio.

3. Powdered ingredients must be mixed manually and slowly.

If the powdered ingredients are mixed fast using mechanical means, too much oxygen will be mixed into the final product, which causes oxidization and coagulation over time.

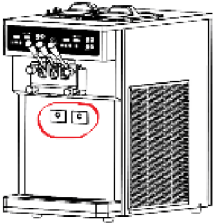
In this case, the ingredients will become lumpy like pieces of tofu, causing trouble with the supply of the ingredients and over-freezing.

4. Over-freezing may also occur when there is not enough ingredient supplied to the freezing cylinder. Be sure to check the volume of ingredients, so the unit is always operated with a sufficient amount. Due to the nature and viscosity of soft-serve ingredients and “mix” it can get lumpy and block the feed tube (mixing valve) hole through which the ingredients are supplied to the freezing cylinder (drum). Be sure to remove and wash feed tube frequently.
5. If the unit is not used for an extended period of time, ice crystal formation may occur in the freezing cylinder. In this case, the product will become too thin, or over freezing will occur. Be sure to operate the unit on a regular basis even when there is no demand, in order to minimize wait time and to ensure quality of product.
6. Re-use of ingredients will result in poor quality soft serve product and over freezing. When making a fresh batch of product, refill unit with new ingredients and re-start.

Before requesting service

The product freezer can operate abnormally because you are not familiar with the method for use or due to another insignificant reason. It does not necessarily mean a malfunction. In this case, check the following items to

resolve a simple problem on your own without the help from your distributor. If you still can't resolve it after checking the following items, please contact your nearest Taylor distributor.

Problem	Please Check	
1. No product is being dispensed.	The power switch is in the OFF position. The mix level is inadequate in the mix hopper. The beater motor overloaded. The machine is unplugged at the wall receptacle. The circuit breaker is tripped. The freezer door is incorrectly assembled. Product is being drawn off in excess of the freezer's capacity.	Place the power switch in the AUTO position Fill the mix hopper with mix. Check if feed tube hole is blocked or product is too thick to feed into hole Plug in the power cord. Check if the circuit breaker is dedicated only the unit and Place the circuit breaker in the ON position See Section 5: Operating Procedures for proper installation. Stop drawing product and allow the machine to recover.
2. The machine will not operate in the AUTO mode.	The control is set too cold. The refrigeration system is not activated. The circuit breaker is tripped. The beater motor overloaded, causing a loss of power to the power switch.	Contact service technician. Momentarily raise the draw switch to activate the refrigeration system. Check if the circuit breaker is dedicated only the unit and Place the circuit breaker in the ON position. Contact service technician.
3. The product is too stiff.	The control is set too cold.	Contact service technician.
4. The product is too soft.	The control is set too warm. The air tube is not installed. Out-drawing the freezer's capacity.	Contact service technician. Install the air tube in the mix inlet hole at the bottom of the mix hopper. Two 4 oz. (113.4 g) servings in one minute.
5. The freezing cylinder walls are scored.	Operating freezer without the front bearing on the freezer door. The gear machine or the direct drive is out of alignment.	Install the front bearing on the freezer door. Contact service technician.
6. Product leakage in front drip pan.	A worn or defective O-ring is on the pom flange behind beater driveshaft.	Contact service technician.
		
7. The draw valve is leaking.	Incorrect lubricant was used. Worn or defective O-rings are on the draw valve. Inadequate lubrication of draw valve.	Use food-grade lubricant (example: Taylor Lube). Replace O-rings every 3 months. Lubricate the draw valve properly.

Problem	Please Check	
8. Product is not feeding into the freezing cylinder.	The mix level is inadequate in the mix hopper. The feed tube hole is in closed position. The feed tube is installed incorrectly. The mix inlet hole is frozen.	Fill the mix hopper with mix. Turn the feed tube to open position. Install the feed tube in the mix inlet hole, using the protrusion on top of feed tube body and set with the medium size hole on top of the feed tube. Contact service technician.
9. The machine goes out on overload excessively.	There are too many appliances plugged into the circuit. An extension cord has been placed between the power cord and the wall receptacle.	A separate 20A circuit is needed for the freezer to operate properly. If the extension cord is used, it must match the power cord in size of circuit ampacity.
10. Mix from one freezing cylinder bleeds over to the second cylinder.	The center draw valve seal is worn or improperly lubricated.	Lubricate properly and replace seal every 3 months.

Schedule

Maintenance Intervals

Part Description	Every 3 Months	Every 6 Months	Annually
Scraper Blade	X		
Freezer Door Gasket	X		
Front Bearing	X		
Draw Valve O-ring	X		
Feed Tube Body O-ring	X		
Brush-Barrel & Hopper		Inspect and replace if necessary.	Minimum
Brush 143		Inspect and replace if necessary.	Minimum
Brush 3-Feed tube		Inspect and replace if necessary.	Minimum

[illegible]

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 to the original purchaser only.

LIMITED WARRANTY

Taylor warrants the Product against failure due to defects 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 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 8-1

Product	Part	Limited Warranty Period
Soft Serve	Insulated Shell Assembly	Five (5) Years
Frozen Yogurt Shakes	Refrigeration Compressor (except service valve)	Five (5) Years
Smoothies	Beater Motors	Two (2) Years
Frozen Beverage	Beater Drive Gear	Two (2) Years
Batch Desserts	Printed Circuit Boards and Softech™ Controls beginning with Serial Number H8024200	Two (2) Years
	Parts Not Otherwise Listed in This Table or Excluded Below	One (1) Years

LIMITED WARRANTY CONDITIONS

1. If the date of original installation of the Product cannot be verified, then the limited warranty period begins ninety (90) days from the date of Product manufacture (as indicated by the Product serial number). Proof of purchase may be required at time of service.
2. This limited warranty is valid only if the Product is installed and all required service work on the Product is performed by a Taylor-authorized 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 Taylor-authorized 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; components repaired or altered in any way so as to, in the judgment of the Manufacturer, 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 for 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 that 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.

Notes:

Lined area for notes.

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 defects during the applicable warranty period, Taylor, through a Taylor-authorized 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 9-1

Part's 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 a Taylor-authorized 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.