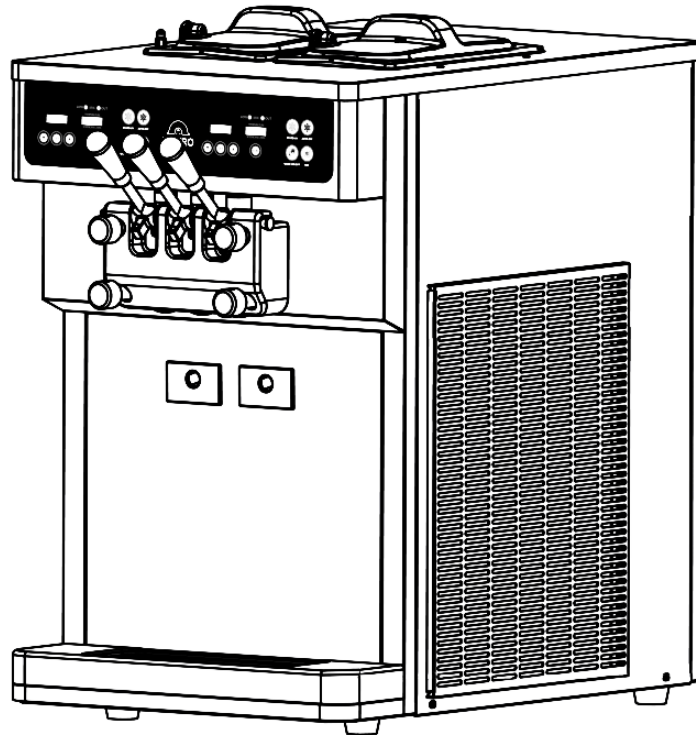




OPERATOR'S MANUAL



Model ISI-163TT Tabletop Soft Serve Freezer

Original Operator Instructions

ISI-163TT

June 2022
(Updated for North America October 2024)

Complete this page for quick reference when service is required:

Taylor/Icetro 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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ICETRO AMERICA, INC



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

Installer Safety



IMPORTANT! In all areas of the world, 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 Icetro Machines.

- Only Taylor service personnel should perform installation, maintenance, and repairs on Icetro Machines.
- Authorized service personnel should consult OSHA Standard 29CFR1910.147 or the applicable code of the local area for 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 where the machine will be installed before uncrating the machine. 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.

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

Uncrate the machine and inspect it for damage. Report any damage to your Taylor distributor.

This piece of equipment is made in the USA and has USA sizes of hardware. All metric conversions are approximate and vary in size.

Air-Cooled Machines

Do not obstruct air intake and discharge openings.

These machines require 11.8 in. (30 cm) of space on all sides to meet UL standards. Minimum air clearances must be met to ensure adequate airflow for optimum performance.

Water Connections

Water-Cooled Machines Only: An adequate cold water supply must be provided with a hand shutoff valve. On the underside rear of the base pan, two 3/8 in. I.P.S. water connections for inlet and outlet 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.) Depending on local water conditions, it may be advisable to install a water strainer to prevent foreign substances from clogging the automatic water valve. There will be only one water-in and one water-out connection. **Do not** install a hand 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! 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).

Electrical Connections



IMPORTANT! In the United States, this machine is intended to be installed in accordance with the National Electrical Code (NEC), ANSI/NFPA 701987. 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, the machine should be installed in accordance with the existing local codes. Please contact your local authorities if you have any questions.

Each machine requires one power supply for each data label on the machine. Check the data label(s) on the

machine 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.



FOLLOW YOUR LOCAL ELECTRICAL CODES.



WARNING! Avoid injury.

- **DO NOT** operate the machine unless it is properly grounded. For safety and legal compliance, know and follow all local grounding requirements.
- **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.

Electrical Hookup Installation

(60 Cycle, 1 Ph, Supplied with Cord and Plug)

This freezer is supplied with a three-wire cord and grounding plug for connection to a single-phase, 60-cycle, branch circuit supply. This machine must be plugged into a properly grounded receptacle. For example, the cord and plug provided for 115/60/1 is 20A; therefore, the wall outlet must also be 20A. Check the data label, located on the side panel, for electrical specifications.

Permanent wiring may be employed if required by local codes. Instructions for conversion to permanent wiring are as follows:

- Make sure the freezer is electrically disconnected.
- Remove the appropriate panel and locate the small electrical box at the base of the freezer.
- Remove the factory-installed cord and strain relief bushing.
- Route incoming permanent wiring through \square 7/8 in. (22 mm) hole in base pan.
- Connect two power supply leads. Attach ground (earth) wire to the grounding lug inside the electrical box.
- Make sure the machine is properly grounded before applying power.

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 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 a Taylor service technician.

Refrigerant



CAUTION! This equipment contains fluorinated greenhouse gases (F-Gas) to provide refrigeration using a hermetically sealed circuit or within foam insulation. This unit's type of gas, quantity, Global Warming Potential (GWP) and CO2 tonnes equivalent information is recorded on the unit's data-label. The refrigerant used is generally considered non-toxic and non-flammable. However, any gas under pressure is potentially hazardous and must be handled with caution.

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



CAUTION! Use only approved refrigerant listed on the 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 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.*

Operator Information

This soft serve freezer has been carefully engineered and manufactured to give you dependable operation.

This machine, when properly operated and cared for, will produce a consistent quality product. Like all mechanical products, it will require cleaning and maintenance. A minimum amount of care and attention is necessary if the operating procedures outlined in this manual are followed closely.

The Icetro soft serve model covered in this manual is ISI-163TT.



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

Your Icetro machine will **NOT** compensate for 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.

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

Note: Your Icetro warranty is valid only if the parts are authorized Icetro parts purchased from the local authorized Taylor distributor, and only if all required service work is provided by a Taylor service technician. Icetro reserves the right to deny warranty claims on units or parts if unapproved parts or incorrect refrigerant were installed in the unit, system modifications were performed beyond factory recommendations, or it is determined that the failure was caused by abuse, misuse, neglect, or failure to follow all operating instructions. For full details of your Icetro warranty, please see "Limited Warranty on Freezers" on pages 33-35 and "Limited Warranty on Parts" on page 36.



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 returning 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.

Operator and Installer Information

We at Icetrol America are concerned about the safety of the operator when they come into contact with the freezer and its parts. Icetrol 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.



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

To Operate Safely



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. This machine is **NOT** intended for use by children! Minors should be supervised when near or around the unit to ensure they do not play with the machine.*



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 fastened with screws.
- **TURN OFF POWER BEFORE INSERTING HANDS OR ANY INSTRUMENTS INTO MACHINE! DO NOT** remove any internal operating parts (including, but not limited to the freezer door, beater, or scraper blades) unless **all control switches are in the OFF position.**

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



WARNING! This 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.

Failure to follow these instructions can 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.



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



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 freezer 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 11.8 in. (30 cm) 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 freezer performance and damage to the machine.

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

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

Section 4

Parts Identification

Model ISI-163TT

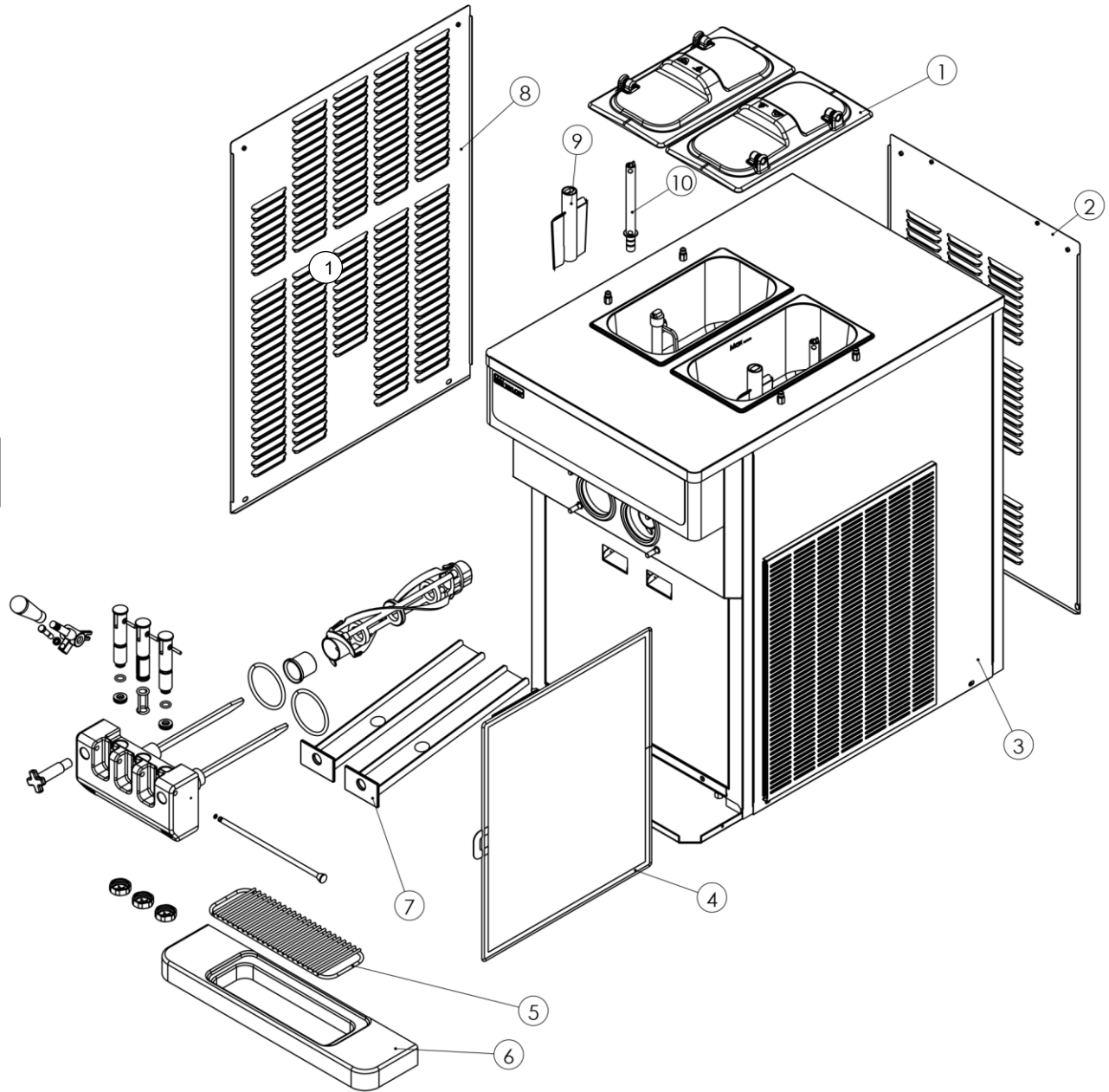


Figure 1

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

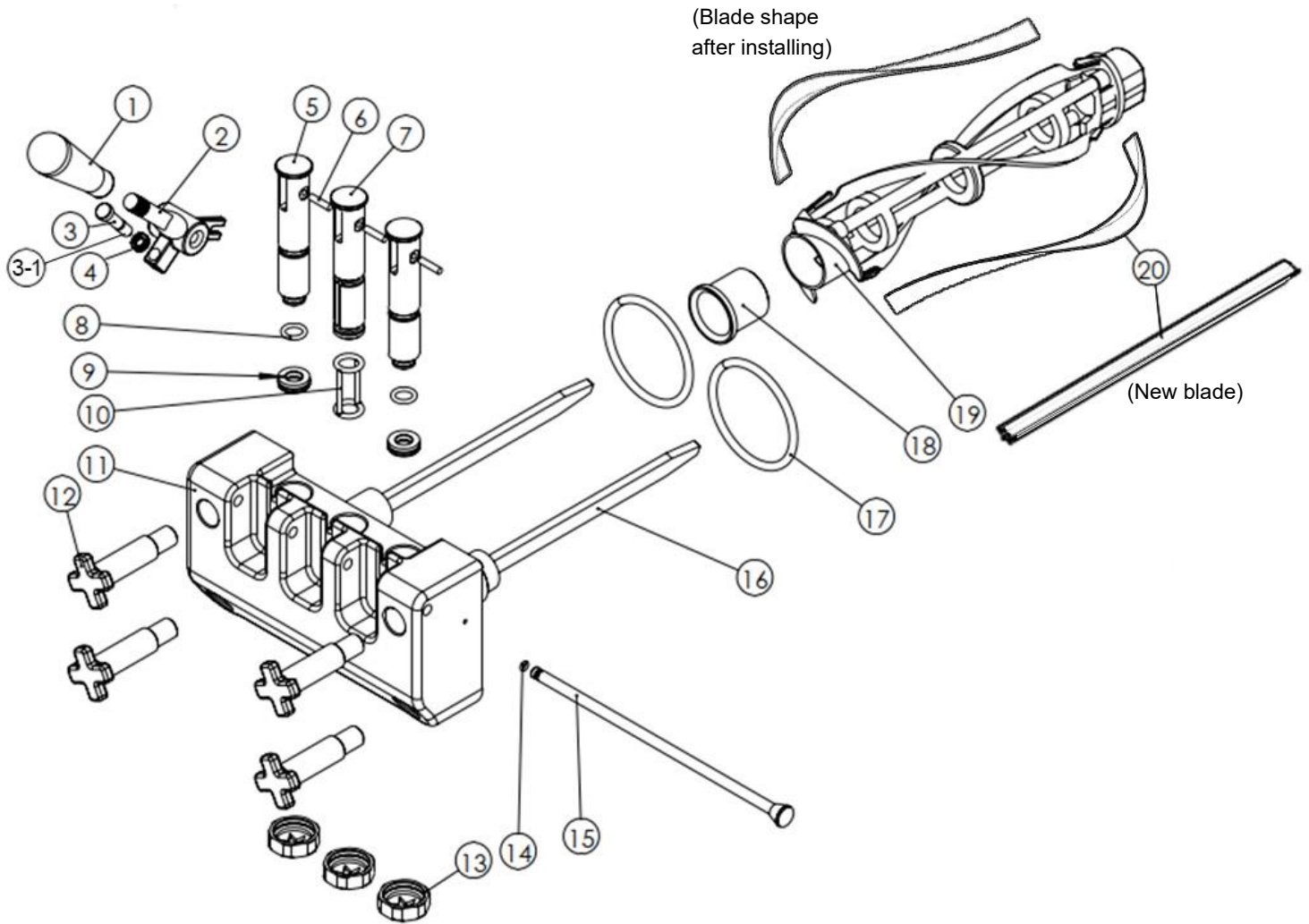


Figure 2

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

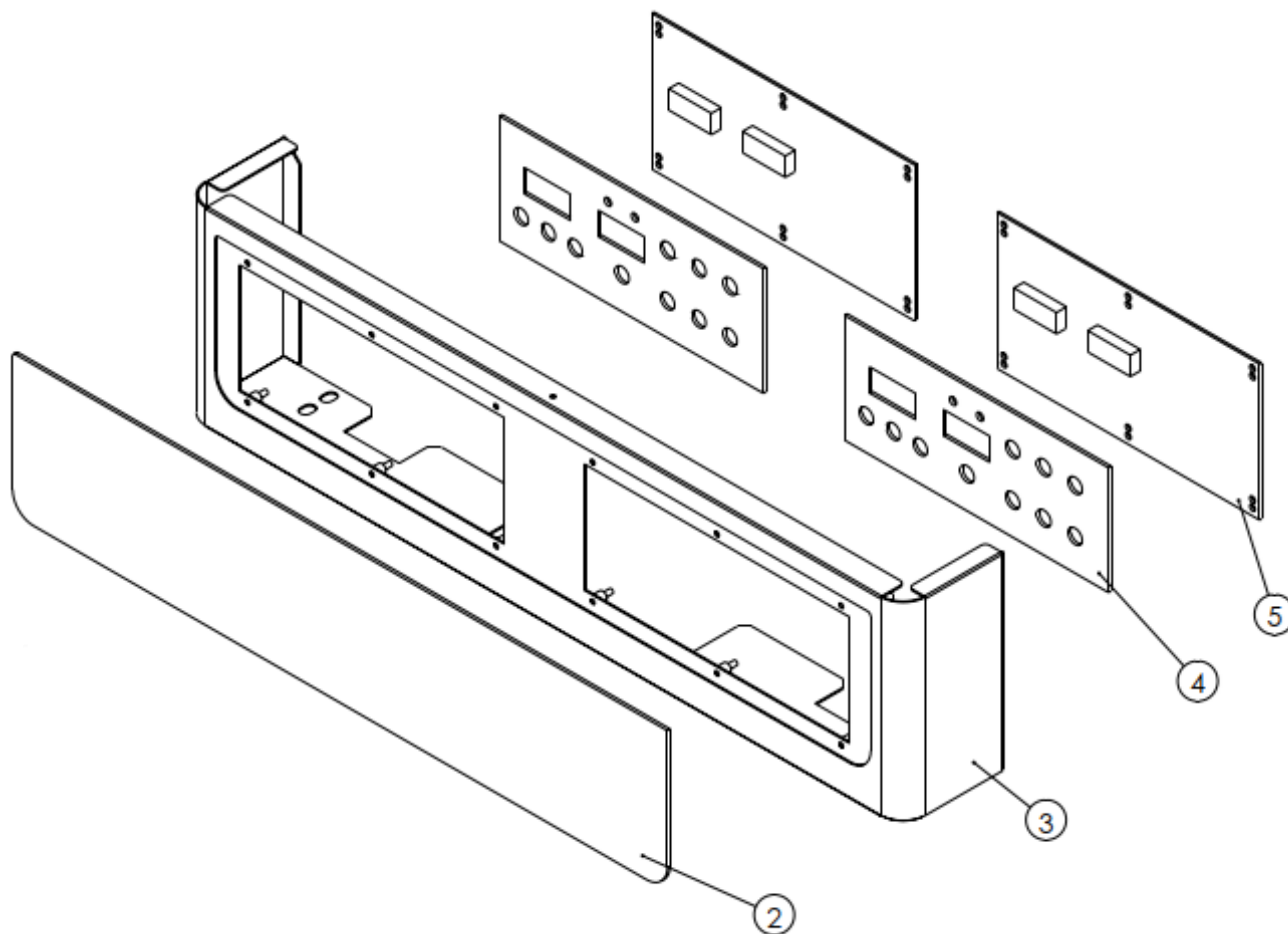


Figure 3

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

Lever Assembly

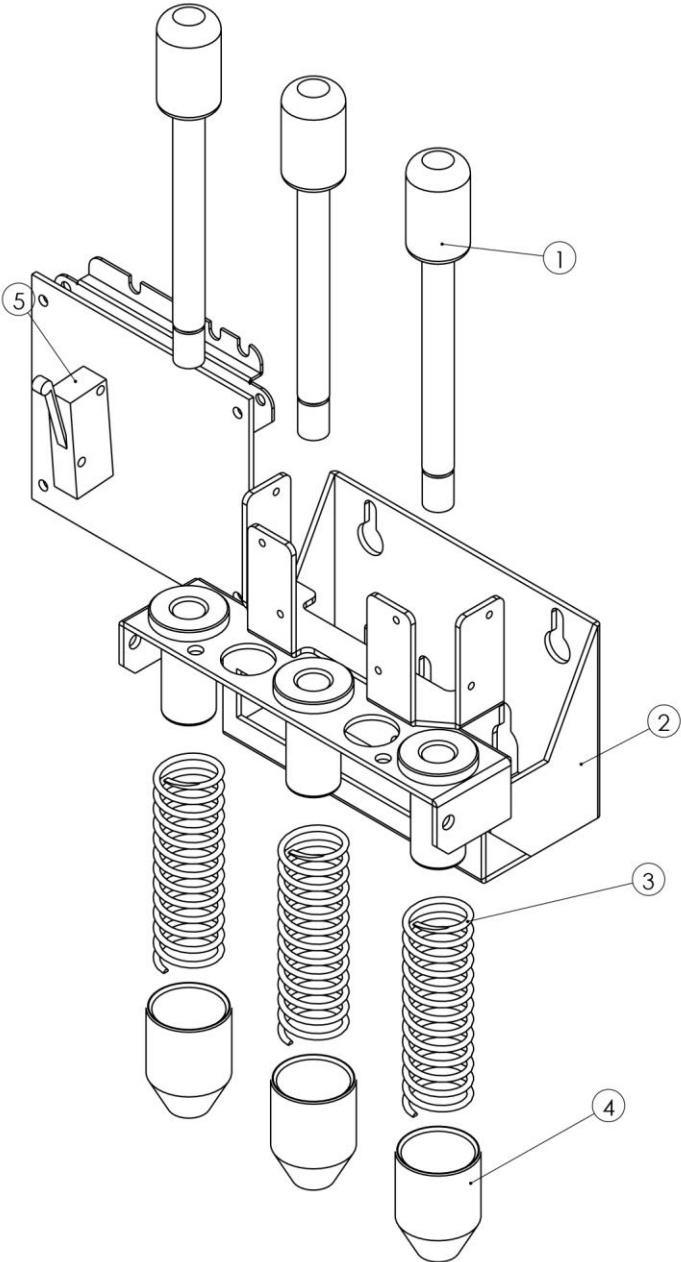


Figure 4

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

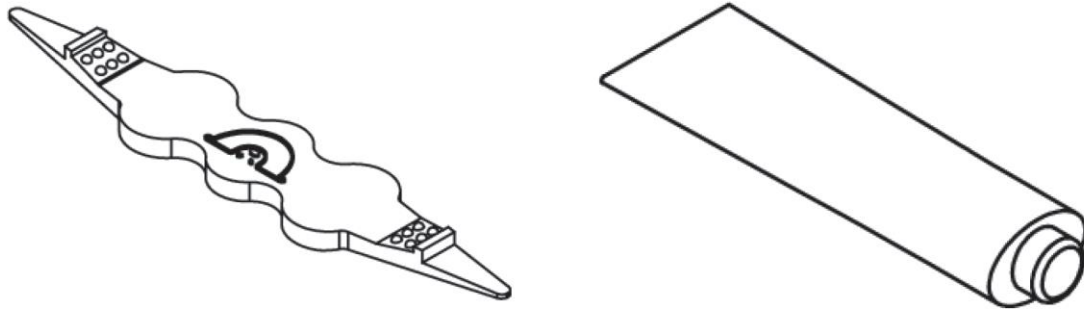


Figure 5

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

ITEM	DESCRIPTION	Part No.
2	Lubricant – Food Grade	221000200

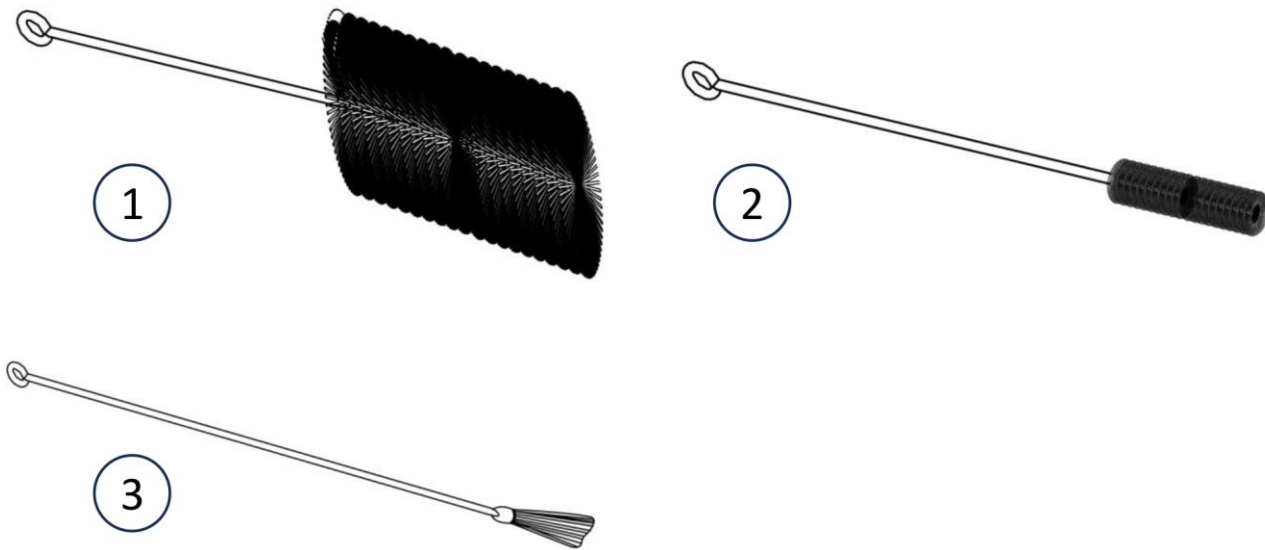


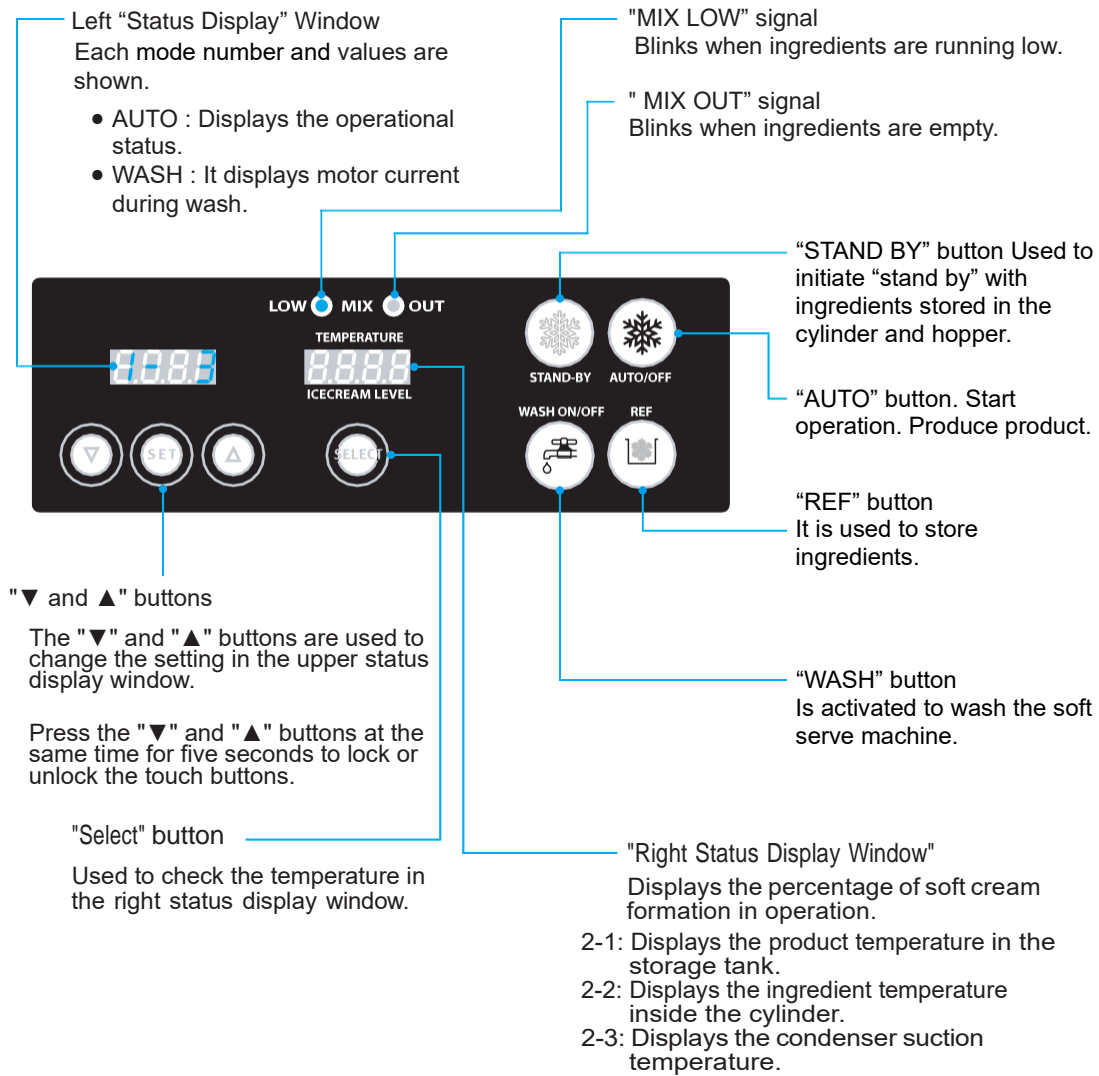
Figure 6

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

Button Display Names and Functions:

Understanding the buttons, the displays, and what they do



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

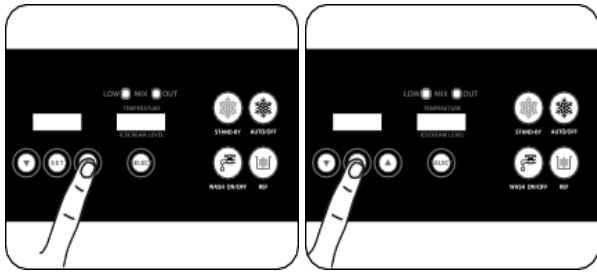


Figure 7

- 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 8

- 1-2: 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 9

- 1-3: 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 10

- 1-4: Check the storage temperature in the hopper. Operator can check the temperature inside the hopper.



Figure 11

- 1-5: Check the voice guide. Operator can check whether a voice guide is activated.

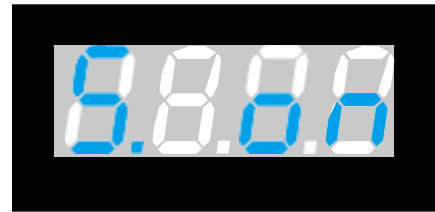



Figure 12


- 1-6: 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.



Figures 13 & 14



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.

- 2-1: Hopper temperature
- 2-2: Freezing cylinder temperature
- 2-3: Ambient temperature

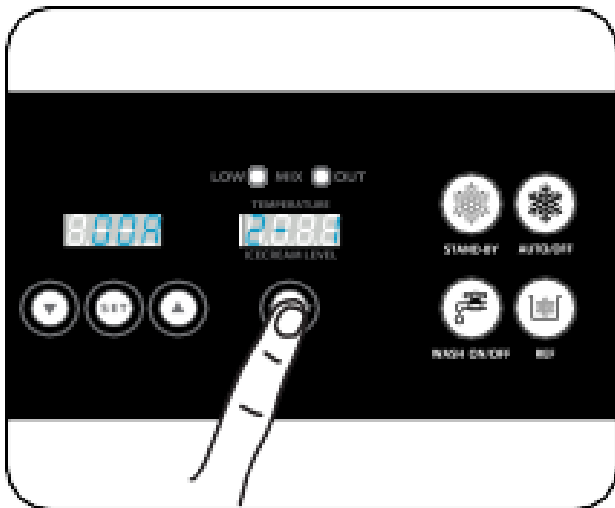


Figure 15

- 2-1: Hopper Temperature: There may be a slight variance in display temperature and actual temperature due to indirect temperature reading by thermistor sensor



Figure 16

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



Figure 17

Change settings

Your ISI-163TT machine has various temperature and product settings. To change the settings, press the "Set" button for three seconds to enter the setting change mode. Proceed as follows.

To Enter Password: 0000 Use the "▼" and "▲" to enter password number 0000 and use the "Set" button to move to each item. When the display blinks, use "▼" and "▲" to change the value and use the "Set" button to leave the item. Press and hold the "Set" button for three seconds to leave the value change mode.

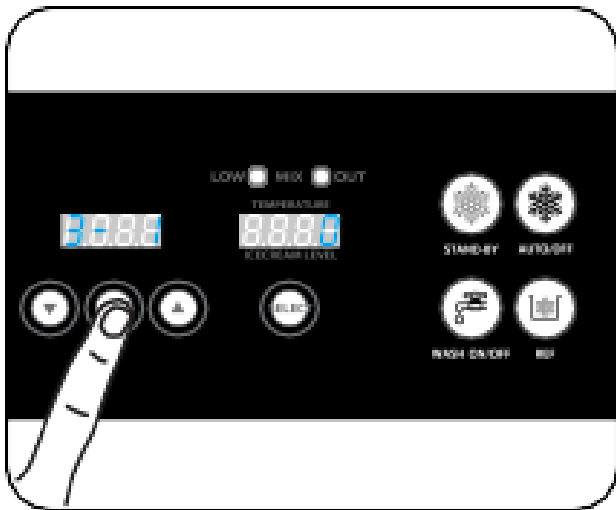


Figure 18

- 3-1: Adjust the Viscosity setting.
This item is used to adjust the target Amp Draw of the soft serve product.
If the Amp value is lower the ice cream product becomes softer. If the level is too high, the quantity of produced ice cream may drop and it causes freezing cylinder to freeze up. Or other malfunctions may occur. Consult your Taylor distributor or technician for adjusting viscosity setting.



Figure 19

- 3-4 : Set the hopper temperature
This item is used to adjust the cooling temperature of the ingredients in the hopper. The larger the number, the higher the storage temperature is. The smaller the number, the colder the storage temperature.

If the temperature is too low the ingredients may freeze. If too high, they may spoil.



Figure 20

- 3-5-1: Select a voice announcement guide option
You can turn on/off the voice announcement guide.



Figure 21



For your information



The ice cream level (3-1) may vary according to ingredients or sugar content.

If it is high, the machine operates too much unnecessarily to make the ice cream soft. Also, if the machine stays in the auto mode for two or three hours without discharging any ice cream, this may make the ice cream icy depending on the ingredients.

In this case the Operator needs to draw a couple of ice cream portions to restore overrun

Before making soft serve

1. START OF DAY: Your Ictero 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 Ictero 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 24 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 Ictero 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 Number 22)

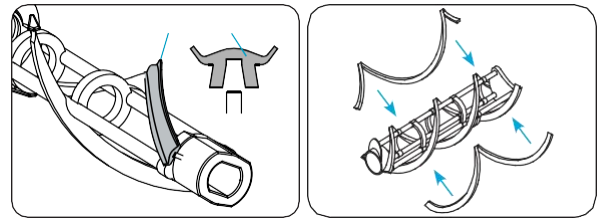


Figure 22

3. Insert the assembled beater over the drive shaft and into the freezing cylinder. (Figure 23)

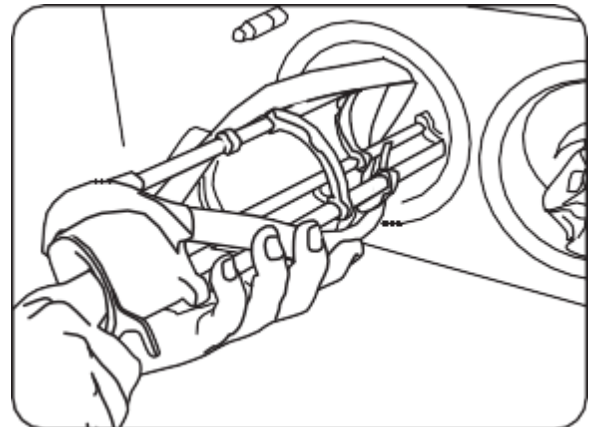


Figure 23

4. Apply food grade lubricant to the O-ring inserted into the draw handle. (Figure 24)

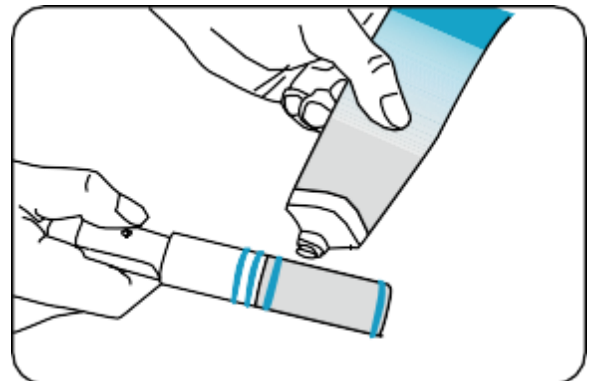


Figure 24

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 25.

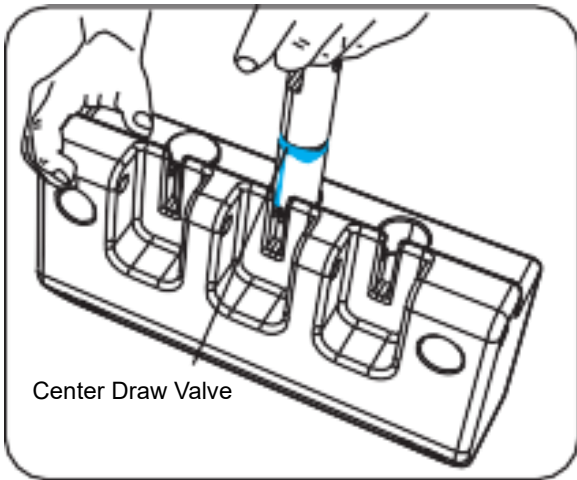


Figure 25

6. When the valve is inserted fully, turn it to face forward as shown in Figure 26 below.
7. Take care to prevent O-rings from getting entangled

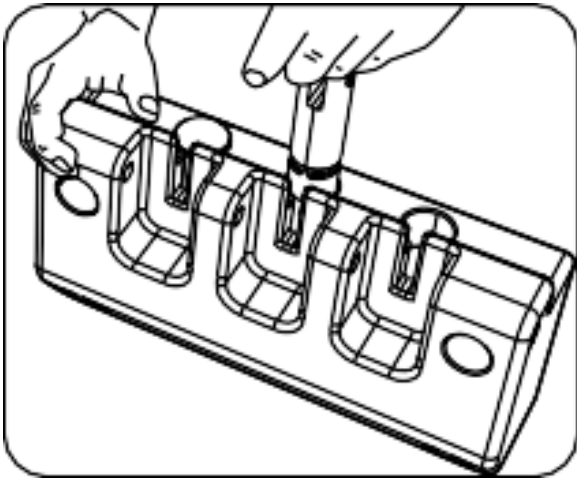


Figure 26

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 27)

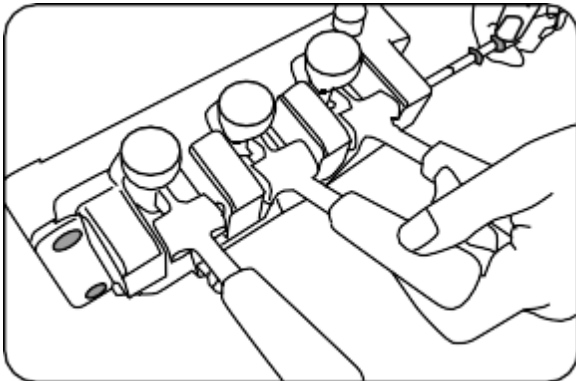


Figure 27

10. Place door gaskets onto freezing cylinder door. (Figure 28)

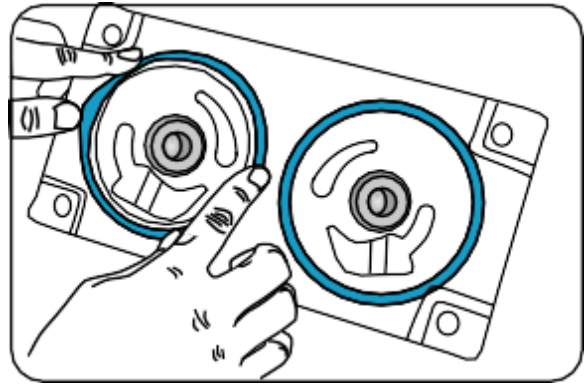


Figure 28

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

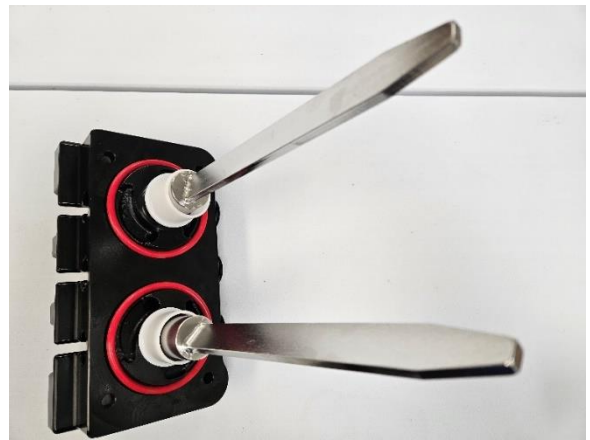


Figure 29

12. Fasten the two pairs of freezer door bolts. Do this by hand, tightening them diagonally as shown in Figure 30. (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.

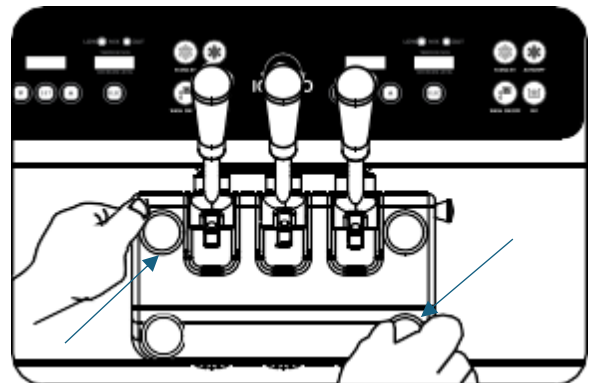


Figure 30

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 31)

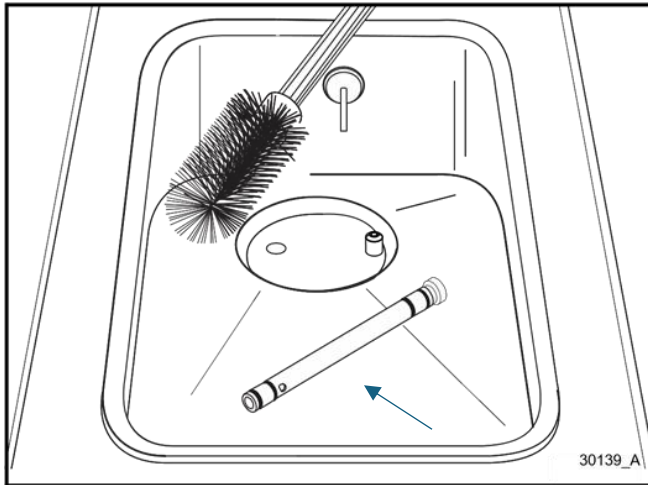


Figure 31

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 32)

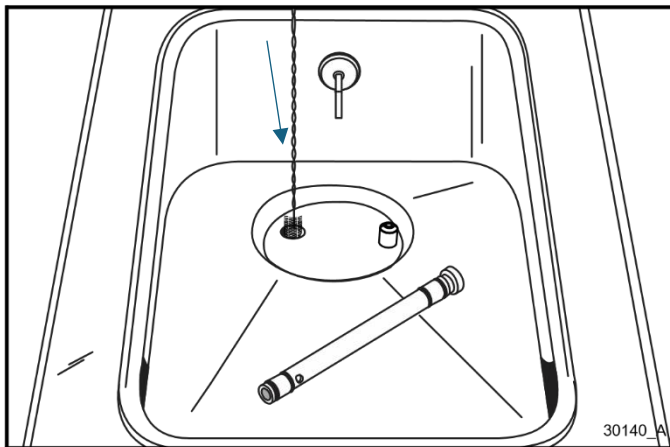


Figure 32

5. Clear any clogged product from the feed tube (Figure 34) then lay feed tube back into the hopper for a final rinse.

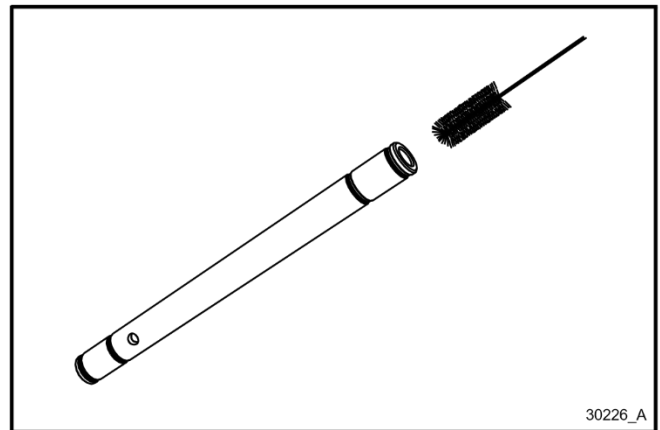


Figure 33

6. Place the power switch in the ON position. Figure 34

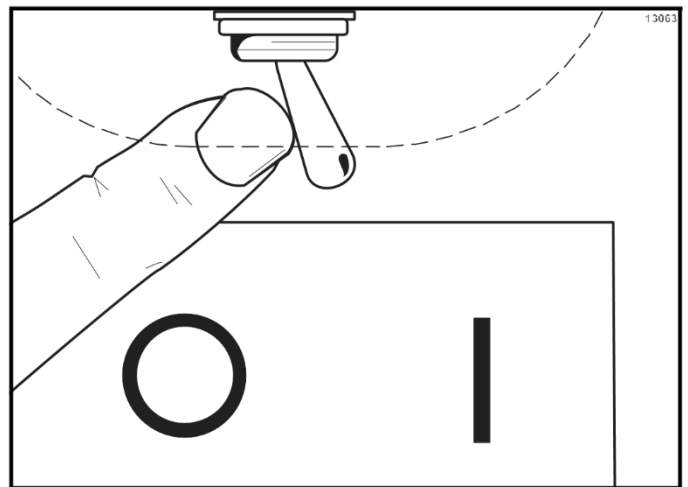


Figure 34

7. Press the WASH button (Figure 35) 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 35

- 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.

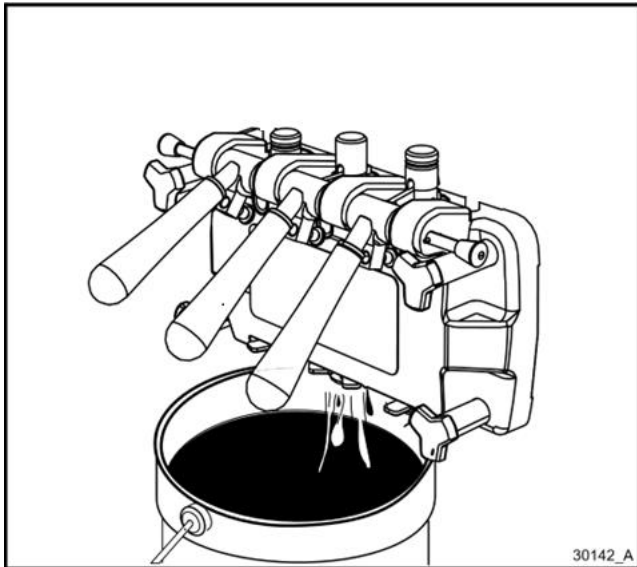


Figure 36

- 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.

- With sanitized hands, replace the feed tube into the mix hopper. (Figure 37)

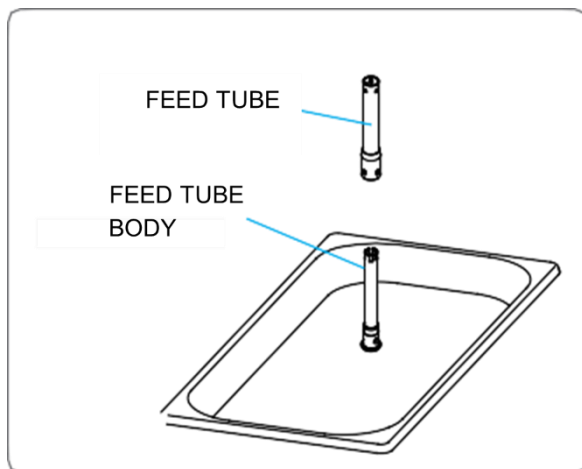


Figure 37

- 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.

- Fill the machine's hopper with fresh mix.
- 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.
- Press the AUTO button.
- Wait until the display shows “100%” then open the feed tube. (Figure 38) There are three holes in the feed tube. To do this, turn the feed tube until the middle hole is unplugged.

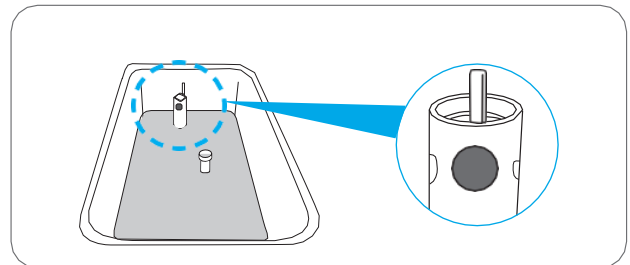


Figure 38

- Before serving product, release one serving and throw it away to ensure there is no residue left from the sanitizer.
- 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.



Figure 39

1. As shown in the figure below, fasten the 'Screw Adjust' to decrease the discharging speed of the soft serve.



Figure 40

※ 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 41

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



Figure 42



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.

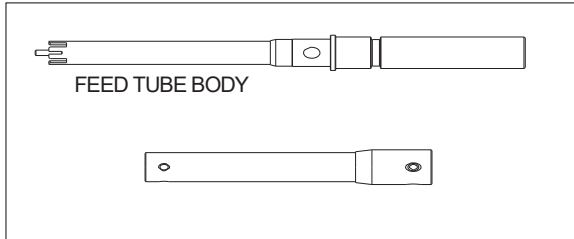


Figure 43

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 44

Figure 41 shows the feed tube with a blocked hole.

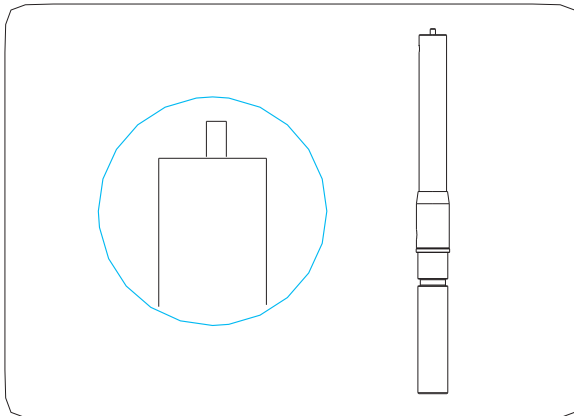


Figure 45

If you align the protrusion of the upper area of the feed tube body with the area having no hole in the upper area of the tube, then the hole in the lower area of the feed tube body will be blocked.

Condition of use:

1. Initial soft serve making
2. "Heating" mode executed (Heat treatment model only)
3. "Regeneration" mode executed (Heat treatment model only)

Figure 46 shows the feed tube aligned with a large hole.

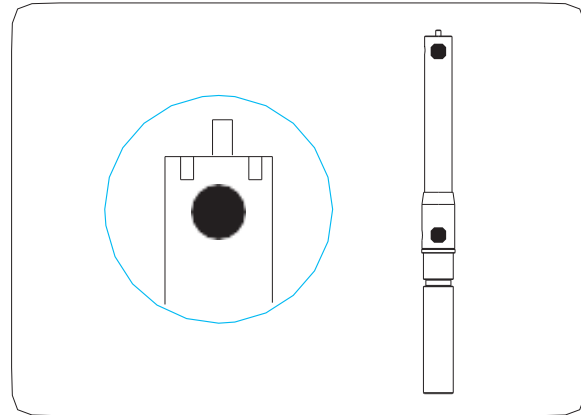


Figure 46

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 47 shows the feed tube aligned with a small hole.

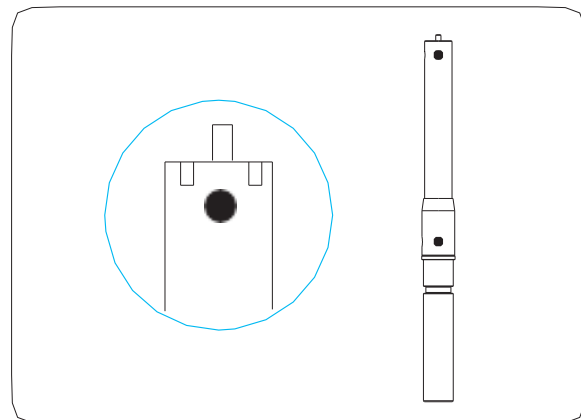


Figure 47

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

Figure 48 shows the feed tube aligned with a medium hole.

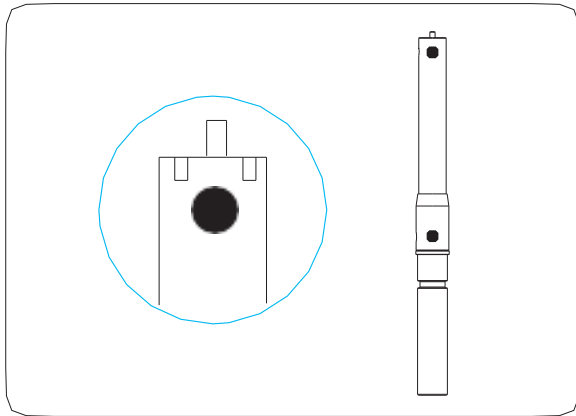


Figure 48

Align the protrusion of the upper area of the feed tube body with the medium hole in the upper area of the tube. Then, it will be aligned with the medium hole in the lower area of the feed tube body. It will make the overrun and the amount of ingredients injection adequate for sales.

Condition of use:
When the "Auto" mode is executed



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.

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.)

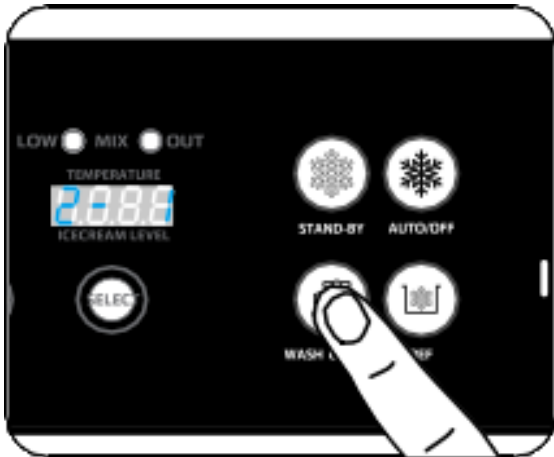


Figure 49

3. Remove the hopper cover (Figure 50) and take out the feed tube, feed tube body and the beater paddle (Figure 51)

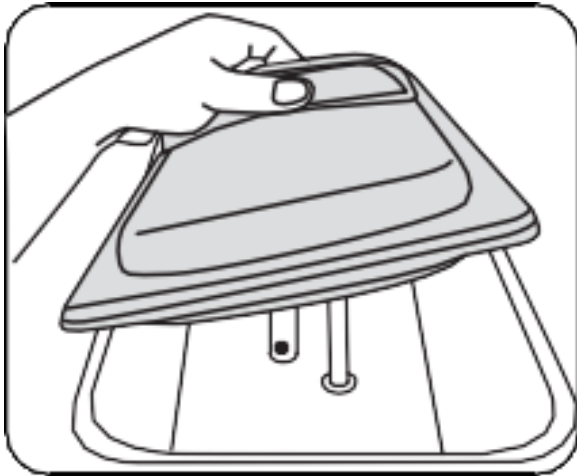


Figure 50

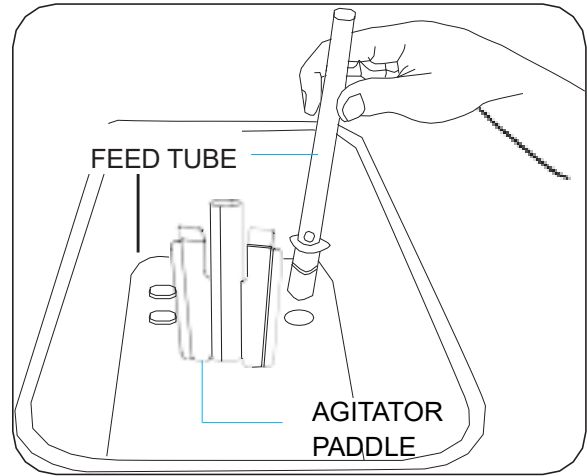


Figure 51

4. 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.

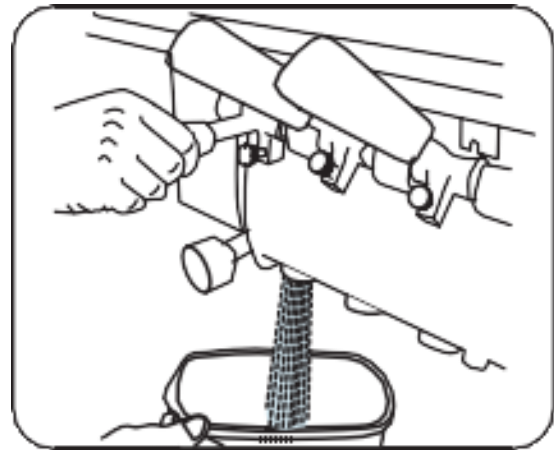


Figure 52

5. Finally, fill a bucket with water and an approved cleaning agent for a final rinse through the machine.
6. 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 53 for comparison)

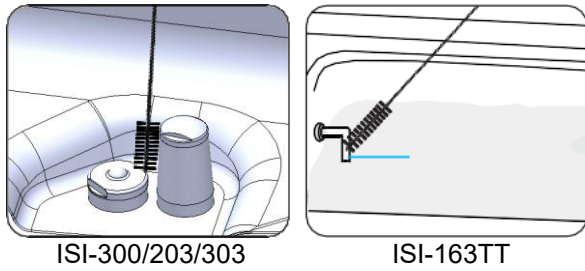


Figure 53

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

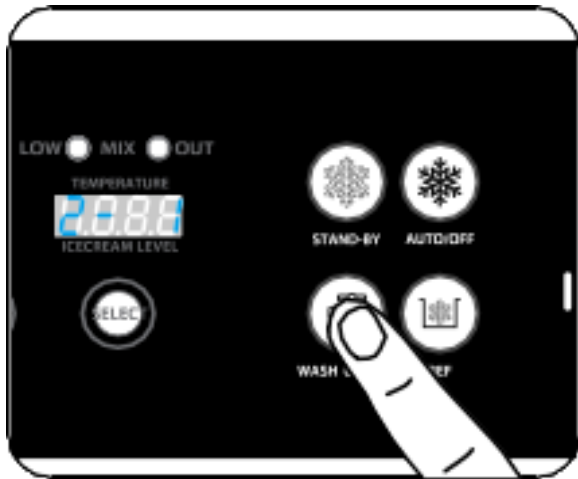


Figure 54

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

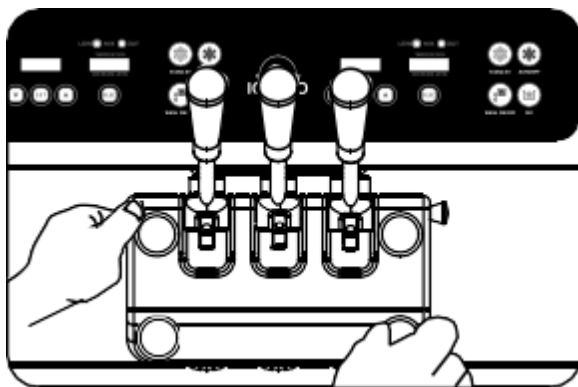


Figure 55

Disassembly

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

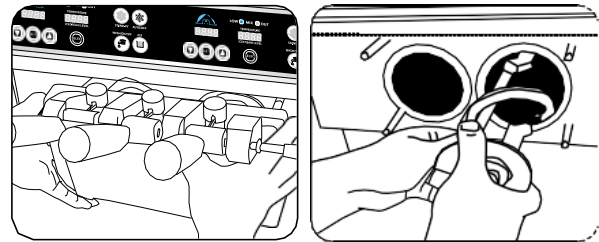


Figure 56

2. Brush out the inside of the freezing cylinder and wipe it with a soft cloth. (Figure 57)

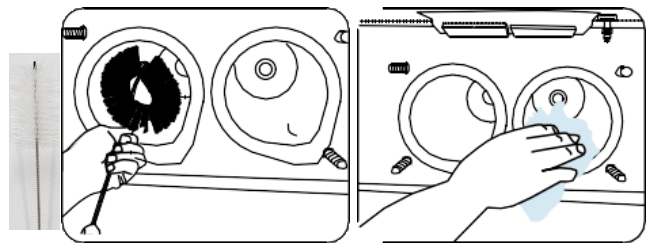


Figure 57

3. Disassemble the beater assembly: Remove scraper blades (Figure 58) and wash all the parts using an approved cleaning detergent and brushes in the kit provided (Figure 59). Wipe all parts with a soft cloth and lay them out to dry overnight.

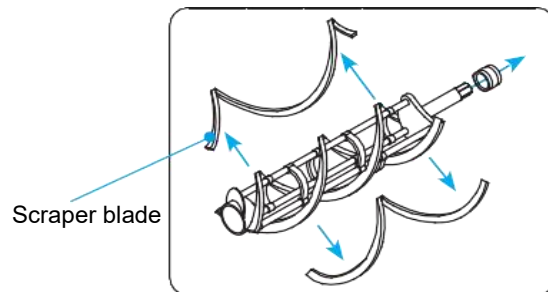


Figure 58

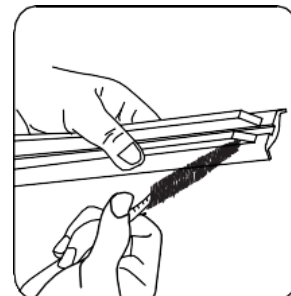


Figure 59

4. Wipe the scraper blade and beater with a soft cloth. (Figure 60)

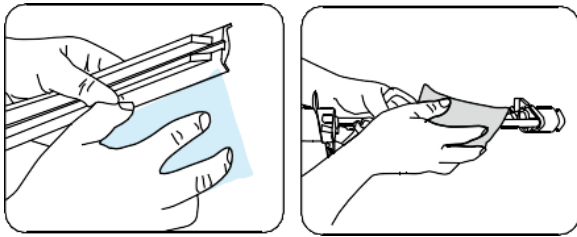


Figure 60

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

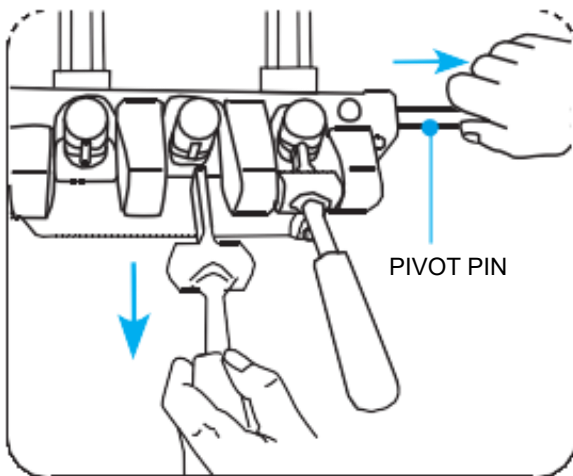


Figure 61

6. Pull out each draw valve (Figure 62) 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.

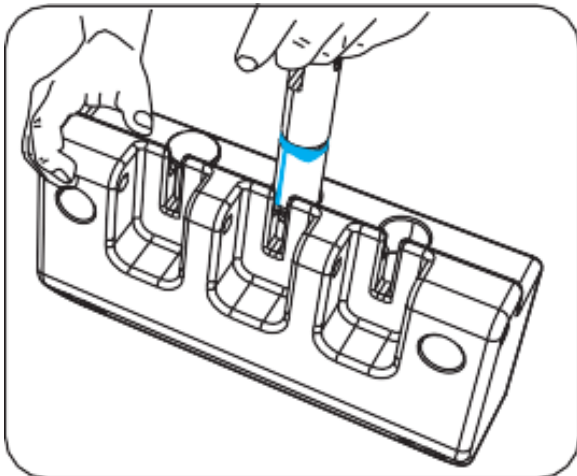


Figure 62

Washing the Parts

1. Disassemble the baffle and clean with a brush.

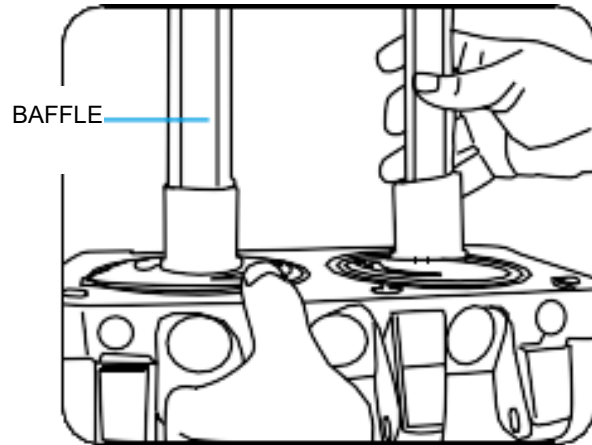


Figure 63

2. After removing the draw valves from the freezer door, clean the openings with a brush and dry with a soft towel. (Figure 64)

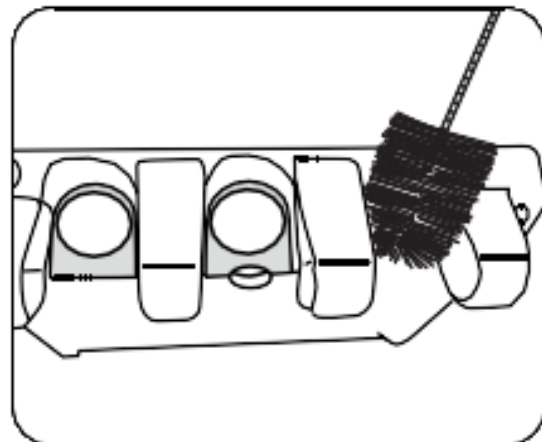


Figure 64

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.

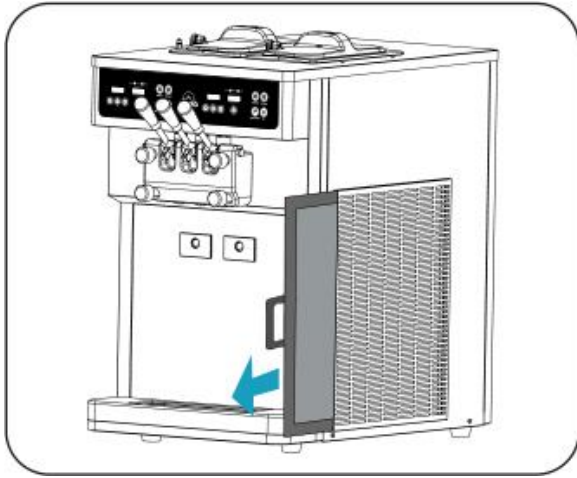


Figure 65

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.

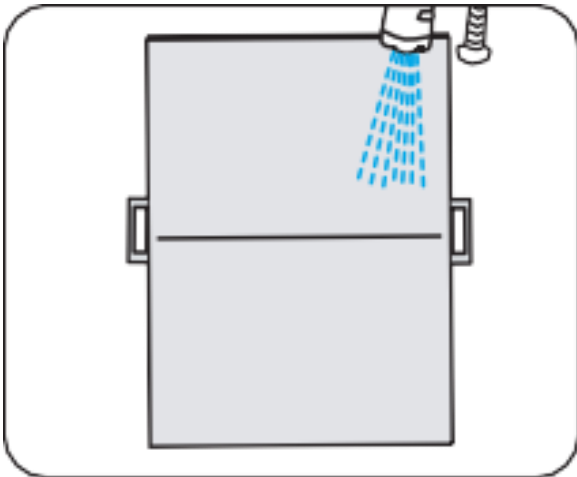


Figure 66

3. The condenser surface accumulates dust. Remove dust by using a household vacuum cleaner or hand held vacuum. Clean and dry the filter and insert it into the machine. (Figure 67)

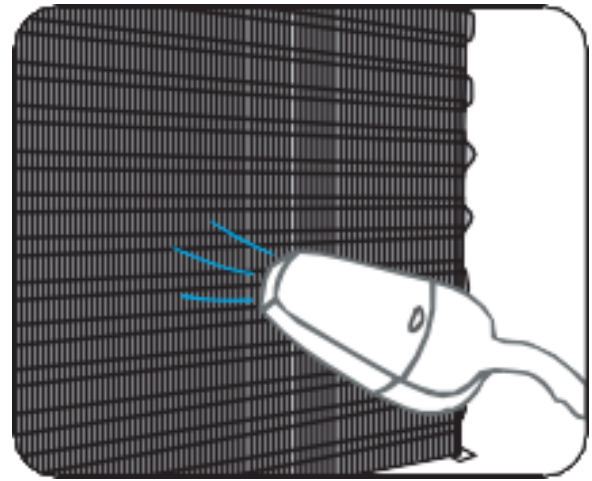


Figure 67

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.

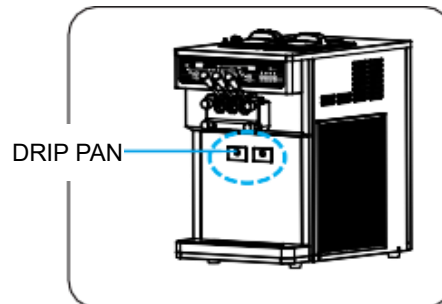


Figure 68

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 69)

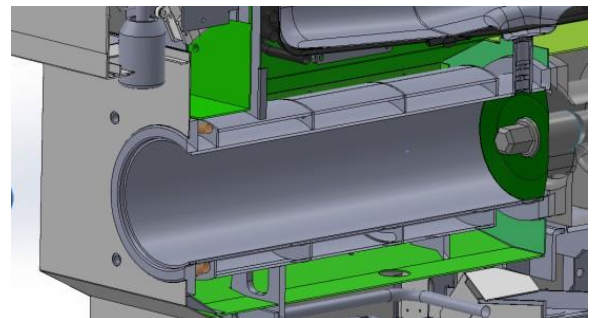


Figure 69

2. Using the "B" brush (Brush 143 in Figure 68): 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 figures 70 & 71.

3. **Every time you clean it, clean it with "B" brush.**

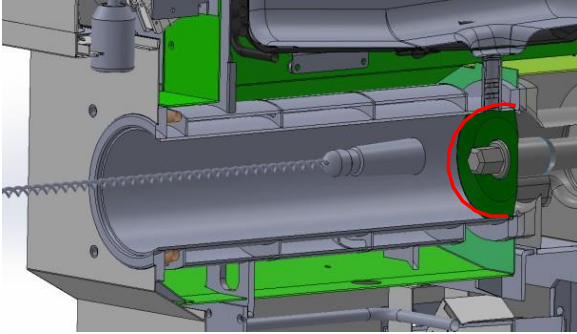


Figure 70

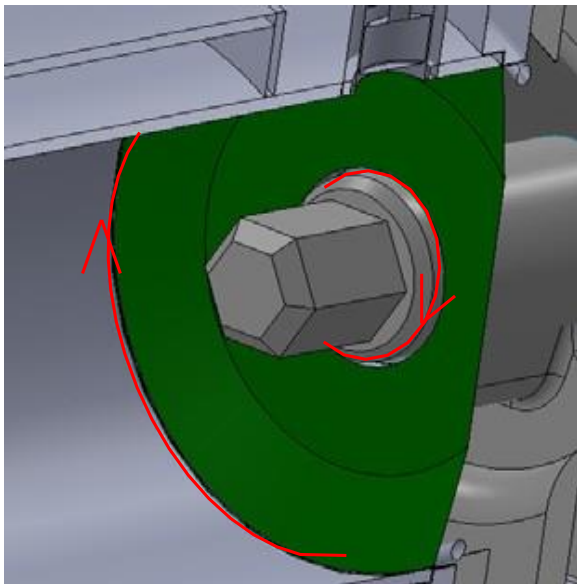


Figure 71

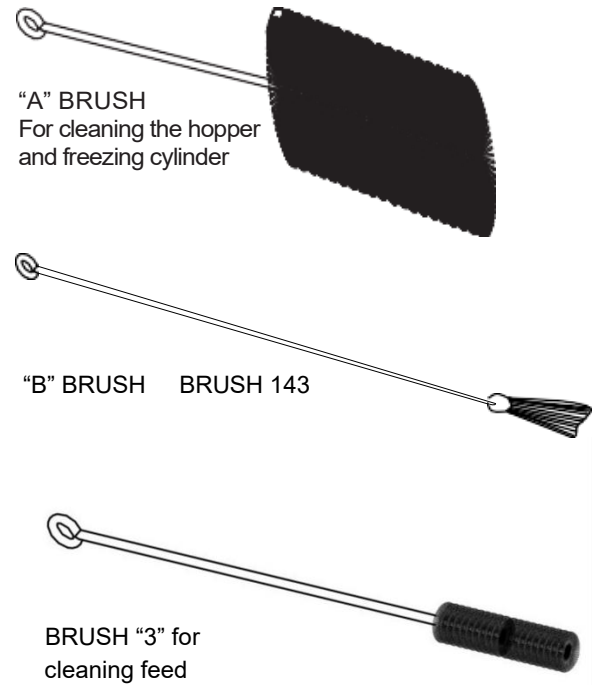
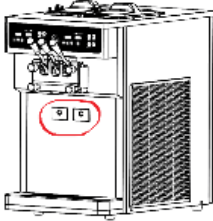


Figure 72

Problem	Probable Cause	Remedy
<p>1. No product is being dispensed.</p>	<ul style="list-style-type: none"> a. The power switch is in the OFF position. b. The mix level is inadequate in the mix hopper. c. The beater motor overloaded. d. The machine is unplugged at the wall receptacle. e. The circuit breaker is tripped. f. The freezer door is incorrectly assembled. g. Product is being drawn off in excess of the freezer's capacity. 	<ul style="list-style-type: none"> a. Place the power switch in the AUTO position. b. Fill the mix hopper with mix. c. Check if feed tube hole is blocked or product is too thick to feed into hole d. Plug in the power cord. e. Check if the circuit breaker is dedicated only the unit and Place the circuit breaker in the ON position f. See "Section 6: Operating Procedures" for proper installation. g. Stop drawing product and allow the machine to recover.
<p>2. The machine will not operate in the AUTO mode.</p>	<ul style="list-style-type: none"> a. The control is set too cold. b. The refrigeration system is not activated. c. The circuit breaker is tripped d. The beater motor overloaded, causing a loss of power to the power switch. 	<ul style="list-style-type: none"> a. Contact service technician. b. Momentarily raise the draw switch to activate the refrigeration system. c. Check if the circuit breaker is dedicated only the unit and Place the circuit breaker in the ON position. d. Contact service technician.
<p>3. The product is too stiff.</p>	<ul style="list-style-type: none"> a. The control is set too cold. 	<ul style="list-style-type: none"> a. Contact service technician.
<p>4. The product is too soft.</p>	<ul style="list-style-type: none"> a. The control is set too warm. b. The air tube is not installed. c. Out-drawing the freezer's capacity. 	<ul style="list-style-type: none"> a. Contact service technician. b. Install the air tube in the mix inlet hole at the bottom of the mix hopper. c. Two 4 oz. (113.4 g) servings in one minute.
<p>5. The freezing cylinder walls are scored.</p>	<ul style="list-style-type: none"> a. Operating freezer without the front bearing on the freezer door. b. The gear machine or the direct drive is out of alignment. 	<ul style="list-style-type: none"> a. Install the front bearing on the freezer door. b. Contact service technician.

Problem	Probable Cause	Remedy
<p>6. Product leakage in front drip pan.</p> 	<p>a. A worn or defective O-ring is on the pom flange behind beater driveshaft.</p>	<p>a. Contact service technician.</p>
<p>7. The draw valve is leaking.</p>	<p>a. Incorrect lubricant was used. b. Worn or defective O-rings are on the draw valve. c. Inadequate lubrication of draw valve.</p>	<p>a. Use food-grade lubricant (example: Taylor Lube). b. Replace O-rings every 3 months. c. Lubricate the draw valve properly.</p>
<p>8. Product is not feeding into the freezing cylinder.</p>	<p>a. The mix level is inadequate in the mix hopper. b. The feed tube hole is in closed position c. The feed tube is installed incorrectly. d. The mix inlet hole is frozen.</p>	<p>a. Fill the mix hopper with mix. b. Turn the feed tube to open position c. 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. d. Contact service technician.</p>
<p>9. The machine goes out on overload excessively.</p>	<p>a. There are too many appliances plugged into the circuit. b. An extension cord has been placed between the power cord and the wall receptacle.</p>	<p>a. A separate 20A circuit is needed for the freezer to operate properly. b. If the extension cord is used, it must match the power cord in size of circuit ampacity.</p>
<p>10. Mix from one freezing cylinder bleeds over to the second cylinder.</p>	<p>a. The center draw valve seal is worn or improperly lubricated.</p>	<p>a. Lubricate properly and replace seal every 3 months.</p>

Section 9

Parts Replacement 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
		Inspect and replace if necessary.	Minimum

ICETRO AMERICA LIMITED WARRANTY ON FREEZERS

Icetro America is pleased to provide this limited warranty on new Icetro products (the "Product") available from the Taylor Company and Middleby. This limited warranty is applicable to the original purchaser only.

LIMITED WARRANTY

Icetro 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 defects during the applicable warranty period, Icetro, through an authorized distributor or service agency, will provide a new or remanufactured part, at Icetro's discretion. The replacement part will be provided to replace the defective part at no charge for the part. Except as otherwise stated herein, these are Icetro'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	Three (3) Years
	Refrigeration Compressor (except service valve)	Three (3) Years
	Beater Motors	One (1) Year
	Beater Drive Gear	One (1) Years One (1) Year
	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 and only if genuine, new Icetro parts are used.
3. Installation, use, care, and maintenance must be normal and in accordance with all instructions contained in the Icetro America Operator's Manual.
4. Defective parts must be returned to the authorized Taylor distributor 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 Operator's manual, including cleaning of condensers.
3. Replacement of wear items designated parts in the Operator's Manual.
4. External hoses, electrical power supplies, and machine grounding.
5. Parts not supplied or designated by Icetrol, 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.
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 Icetrol 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.

Icetrol America
6432 Warren Drive.
Norcross, GA 30093 U.S.A.

ICETRO LIMITED WARRANTY ON GENUINE ICETRO PARTS

Icetro provides this limited warranty on genuine new replacement components and parts (the “Parts”) available from Icetro and Taylor Company, generally to the original purchaser only.

LIMITED WARRANTY

Icetro 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 Icetro unit. If a Part fails due to defects during the applicable warranty period, Icetro, through an Icetro/ Taylor-authorized distributor or service agency, will provide a new or remanufactured Part, at Icetro’s option, to replace the failed defective Part at no charge for the Part. Except as otherwise stated herein, these are Icetro’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
Parts Not Otherwise Listed in Table 10-1	Twelve (12) Months
Replaced parts in Table 10-1	Twelve (12) Months
Wear and Tear parts – scraper blade, Gasket, O-rings, Freezer door front bearing, Brushes	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 Icetro/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 Icetro Operator's Manual.
5. Defective Parts must be returned to the authorized 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 Icetro limited warranty on freezer 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.