SPACEMAN

COMMERCIAL ICE CREAM & FROZEN BEVERAGE EQUIPMENT

Machine Manual

Soft Serve Models

Two-Line Display :: Standard or Air Pump :: Counter or Floor Standing

About the Manual

Welcome to your machine

Welcome to your Spaceman soft serve machine, engineered to provide dependable operation and a consistent quality product. Your machine is approved for dairy and nondairy products, with hopper refrigeration function to maintain product temperature below 4°C (40°F), and with digital viscosity control system to adjust and maintain product consistency. All models, countertop or floor, single flavor or twin twist, operate in the same fashion.

This manual is a universal version that provides instructions on installation, operation, cleaning and routine maintenance to all NON-HEAT TREAT models with advanced two lines digital controls. Identify options included in your machine and refer to the corresponding sections for details. Information contained in this manual may be subject to change. Please check online or contact your local Spaceman distributor for continued updates and detailed information about your Spaceman machine.

Look out for these icons

WARNING: Denotes an action that WILL cause harm to the operator or machine if performed incorrectly.

NOTE: Non-hazard, but pay extra attention.

CAUTION: Informs the operator of a task that may lead to harm if protocol is not properly performed.

Green boxes throughout the manual represent instructions for machines with air pumps.

IMPORTANT: Represents a vital mechanical step or note that the user must be aware of.

Follow instructions to be safe

CAUTION: This machine has many built-in safety features to protect the operator while the machine is running.

Be cautious and follow instructions carefully when operating, cleaning, and servicing the machine.

All personnel operating this machine **MUST** read and understand this manual in its entirety. Failure to comply with this manual may damage the machine and cause severe injury to the operator.

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Quick Operation Guide

Unpalletize Machine

Warning: Unpalletizing requires lifting. **Two or more personnel should remove the machine from its packaging and place it in its final operating location.** Failure to do so may result in severe injury or damage. Inspect equipment for hidden damage before signing for delivery.

1. Cut packing straps, and remove cardboard lid and outer sides from the pallet. DO NOT cut cardboard.
2. Remove plastic wrapping around machine.
3. Cut stabilizing straps, being careful not to scratch or dent the machine panels.
4. Prepare the area where the machine will be placed, remove packing cardboard from underneath machine, and place ramp wedges near front casters.
5. Unlock front casters, and roll machine down the wedges off the pallet.
6. Place the machine in its final location according to the Installation Requirements.

Check for shipping damage

Inspect the machine for any shipping damage. If you find any, contact Spaceman Technical Service immediately after unpalletizing. Our technicians will help you assess the damage and determine the appropriate action prior to accepting the delivery.

Unpack and inspect parts

Refer to the detailed parts diagrams on the back pages if necessary.

1. Remove all packaged parts and accessories from your machine.
2. Organize items on a clean table or operating area using the checklist.
3. Inspect for damage immediately upon unpacking and call Spaceman Technical Service if you discover any damaged or missing parts.
4. Clean and properly lubricate machine parts prior to machine operation.

Included Parts:

- Hopper Cover (1 or 2)
- Front Drip Tray + Splash Shield
- Dispensing Handles (1 or 3)
- Retention Pin with Nut
- Start-Up Kit
- Operator's Manual

Installation and Setup

1

Unpack and inspect machine, parts, and accessories.

2

Place machine in appropriate food preparation area. Comply with all installation requirements.

3

Read and understand ALL safety and standard operating procedures.

Cleaning and Preparation

4

Fully disassemble machine, and prepare parts for cleaning.

5

Thoroughly clean and scrub machine hoppers, cylinders, and all parts.

6

Lubricate and re-assemble all machine parts.

7

Fully sanitize machine.

Operation

8

Prepare product in a separate container, and ensure product is thoroughly mixed.

9

Add product to hoppers and prime the cylinder using the prime plug.

10

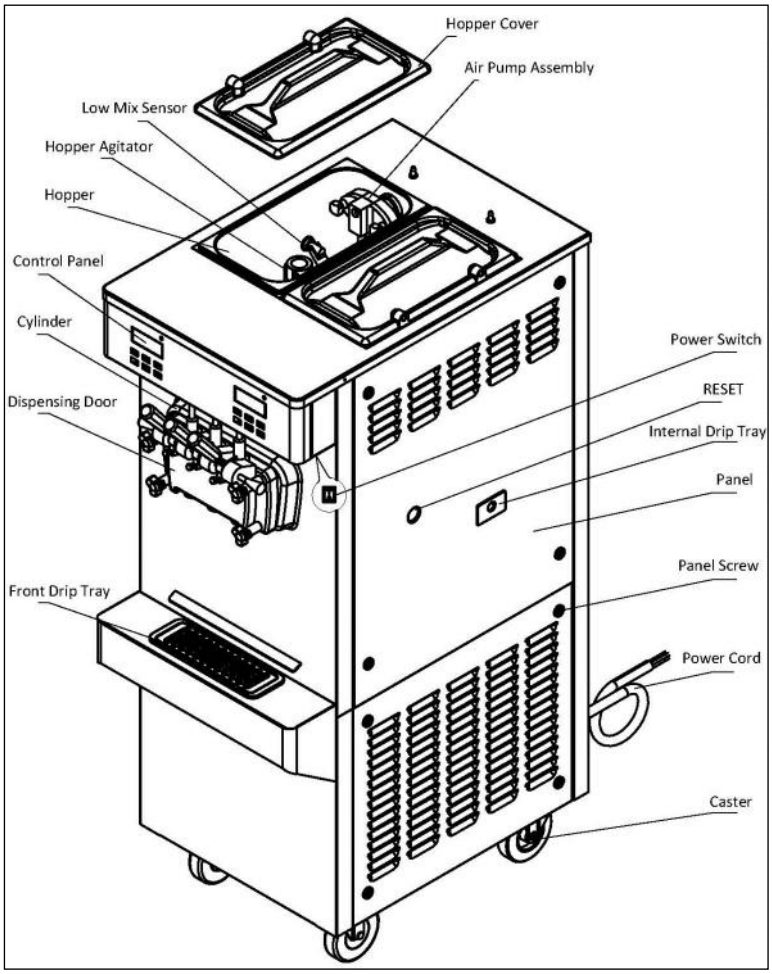
Turn machine to FREEZE mode, and wait for product to reach frozen consistency.

11

Slightly adjust viscosity setting as necessary to adjust product firmness.

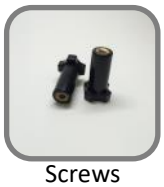
Getting to Know Your Machine

Common Machine Parts



The model displayed is for illustration purpose only and may differ from the actual product.

Hopper Cover


Screws (Short & Long)

Dispensing Door with Beater Rods

Retention Pin with Nut

Prime Plug with Seals

Draw Handle

Side & Middle Draw Valves with Seals

Dispensing Door Gaskets

Design Caps

Front Drip Tray with Splash Shield

Internal Drip Tray

Tune-Up Kit

Feed Tube V2 (Gravity Feed Only)

Quick Operation Guide

Cleaning Guide

Beater & Other Options

SS Beater

Beater

End of Seal

Front Bearing

Flexible Blade Beater

Beater

Scraper Blade

Drive Shaft

Drive Shaft Gasket

Beater Shoe (Left and Right)

Front Bearing

Flexible Blade Beater V2

Beater

Scraper Blade

Drive Shaft

Drive Shaft Gasket

Front Bearing

Air Pump Assembly (Optional)

Others

Hopper Agitator

Brush Kit

Feed Tube V1 (Gravity Feed Only)

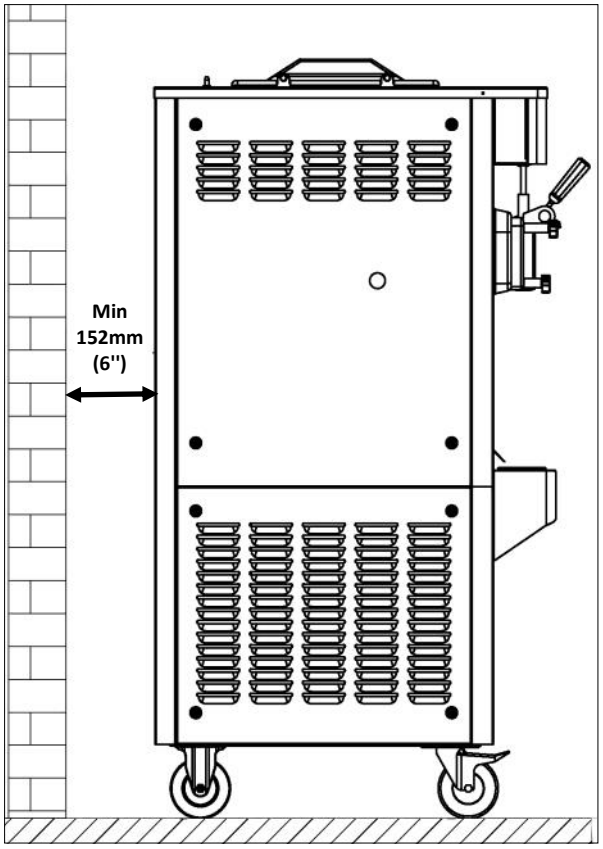
Installation Requirements

Machine placement requirements

CAUTION: The machine must be placed on a level surface away from walls and other objects. Failure to comply will damage the machine and refrigeration components and will void all warranties.

CAUTION: The machine is designed to operate in normal ambient temperatures of 16°C to 24°C (60°F to 75°F). Operating in higher ambient temperatures will result in degraded performance.

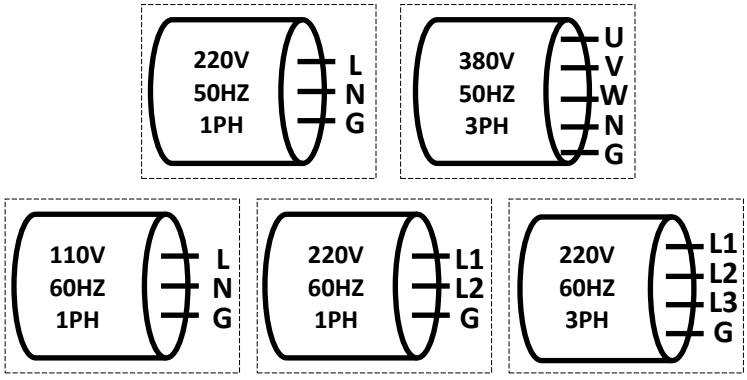
- Place on a flat, level, and solid surface fitted to the machine dimensions.
- Ensure a minimum 152mm (6'') clearance on all sides.
- Completely clear area of dust, grease, and airborne particles.
- Place away from hot equipment such as stoves, frying baskets, ovens, etc.



The image displayed is for illustration purpose only and may differ from the actual product.

Power Connection

1. Connect all wires to Circuit Breaker (including neutral & ground bus terminals) or Local Plug according to supply voltage and wire codes on machine power cable.
2. Verify Incoming Supply Cable is wired the same way on Circuit Breaker or Wall Receptacle before switching on or plugging in the machine.



Attention 3 Phase Machines

Must Check Motor Rotation!
Switch on power and verify that motor turns clockwise as per Red Arrow on motor pulley. If not, switch any two line wires on Circuit Breaker or Plug and verify again.

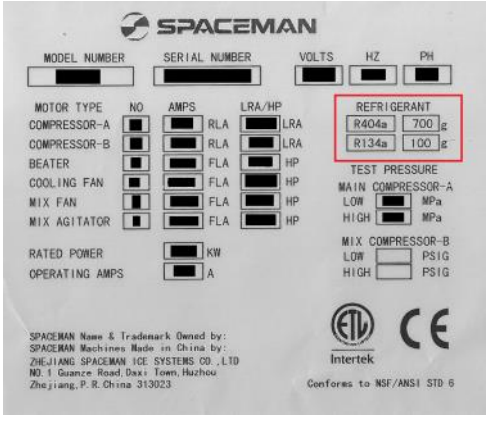
IMPORTANT: Machine will **NOT** work properly and WILL be damaged if motor turns in wrong direction.

Refrigerant Requirements

Spaceman requires that only the specified refrigerant be used in your machine.

Alternative refrigerants may cause damage to the cooling system and/or prevent the machine from operating at optimal performance.

If you require an alternative refrigerant, please call Spaceman Technical Support for a list of compatible alternatives for your compressor.



Routine Maintenance

Routine Maintenance Operations

After unpacking and inspecting the parts, you are ready to disassemble the machine and prepare for the first operation. **Read about Routine Maintenance carefully prior to disassembling your machine for the first time.**

For optimal machine performance and many years of efficiency and reliability from your machine, Spaceman recommends cleaning and sanitizing the machine and its parts **weekly**.

Manufacturer Recommendations

- **Disassemble, Clean and Lubricate** Daily
- **Replace Wearable Parts** Every 1 to 3 months*
- **Preventative Maintenance** Quarterly**

* Based on machine usage and cleaning intervals; a Tune-Up Kit is available with all wearable parts (O-rings, gaskets, etc.) except scraper blades.

** Based on cleanliness of location and proximity to powder-based machines. Preventative maintenance includes cleaning condensers, checking belt tensions, and cleaning the interior of the machine frame as required.

The image displayed is for illustration purpose only and may differ from the actual product.

WARNING: If this is the first time operating the machine, you MUST clean and sanitize ALL parts prior to running the machine.

IMPORTANT: Cleaning and sanitizing schedules are governed by state or local regulatory agencies and MUST be followed accordingly. Routine maintenance MUST be performed a minimum of once every three days.

CAUTION:
- Do NOT run the machine without properly lubricating required parts
- Do NOT clean the machine with abrasive or toxic chemicals and cleaners. Doing so may cause damage to the stainless steel material
- ONLY use Spaceman-included cleaning brushes and lubrication
- NEVER use metal objects to clean or operate the machine
- ALWAYS replace wearable parts a minimum of every 3 months
- ALWAYS prime machine prior to operating
- ALWAYS inspect parts for excess wear and damage

NOTE: Additional brushes, lubrication, wearable parts, and tools can be purchased from Spaceman to ensure proper maintenance. Extra wearable parts (except scraper blades) are found in the Start-Up Kit.

Preparation : Disassemble Parts

NOTE: Prepare dishwashing area prior to disassembly, use bucket to temporarily store large removed parts and a small container for O-rings, and have a towel nearby to capture excess water.

CAUTION: Always separate O-rings and gaskets from metal parts to prevent damage while washing.

1. Switch to OFF

2. If machine has air pumps, disassemble them

a. ***OPEN draw handles to verify zero pressure in cylinders.***

b. Twist air tube connectors to unlock and disconnect air tube.

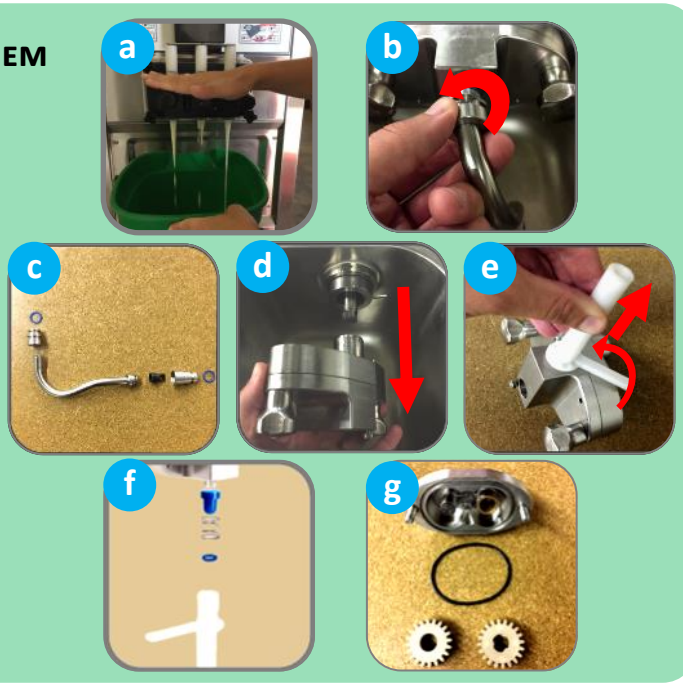
c. Take air tube apart completely; each air tube has O-rings, connectors, and check valve.

d. Push in and rotate air pumps 1/4 turn clockwise; pull to remove.

e. Rotate suction tubes to unlock and remove suction tubes, springs, and stoppers out of air pumps; *watch that springs don't fly out.*

f. Take suction tubes apart completely; each suction tube has O-ring, spring, and stopper.

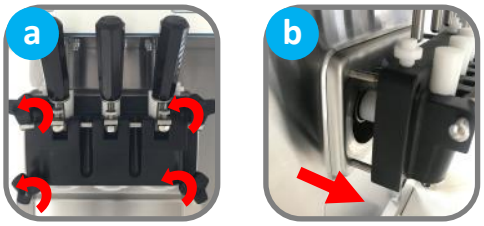
g. Unscrew bolts on air pump housing; separate air pump cover from shell. Remove gears and O-rings from shells.



3. Remove dispensing door

a. Remove dispensing-door hand-screws.

b. Remove dispensing door assembly from cylinders.



4. Disassemble dispensing door

a. Remove front bearing from door assembly; remove gaskets from door assembly using O-ring removal tool.

b. Remove prime plug from door assembly; remove O-rings from prime plugs using O-ring removal tool.

c. Unscrew and remove retention nut; remove retention pin.

d. Remove draw handles, pushing down first to pop up draw valves, then pulling out.

e. Remove draw valves, *twisting while removing to prevent damage.*

f. Remove O-rings and H-ring from draw valves using O-ring removal tool.

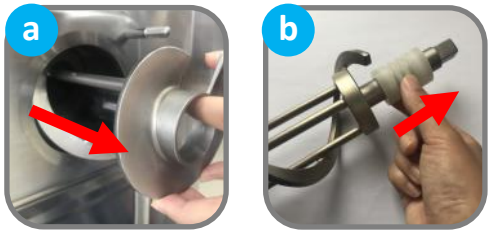
g. Rotate design caps so that tabs are accessible; snap off design caps.

Preparation : Disassemble Parts

5. Disassemble beater assemblies

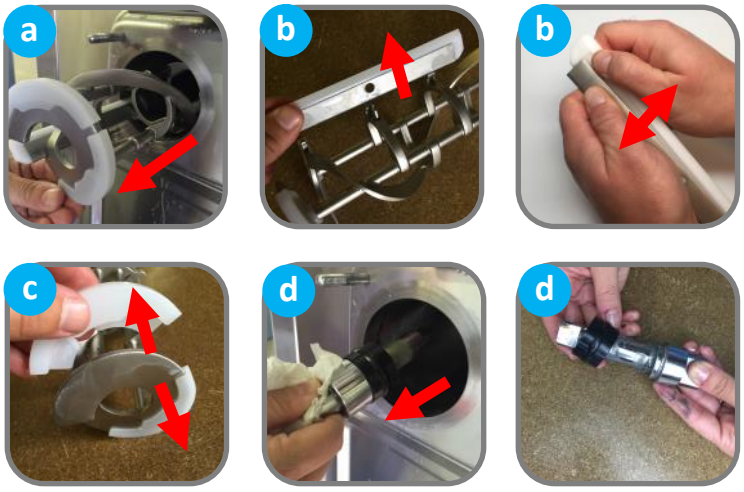
Option A: Stainless Steel Beater

a. Remove beater assembly from cylinder.
b. Remove seal from beater assembly.



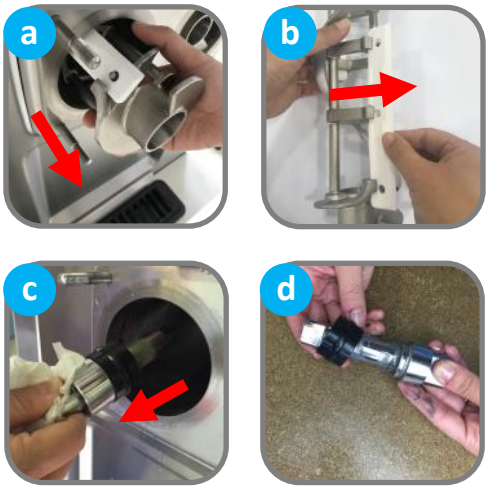
Option B: Flexible Blade Beater V1

a. Remove beater assembly from cylinder.
b. Remove scraper blades from beater assembly; separate scraper blade clips from scraper blade.
c. Pull off beater shoes.
d. Remove drive shaft from inside cylinder using a dry towel.
e. Separate seal from drive shaft.



Option C: Flexible Blade Beater V2

a. Remove beater assembly from cylinder.
b. Remove blades from beater assembly.
c. Remove drive shafts from inside cylinder using a dry towel.
d. Separate seal from drive shaft.



6. Remove internal drip tray and front drip tray + splash shield

Preparation : Wash Parts

CAUTION: Never wash parts in a dishwasher. Always hand-wash components with nontoxic, food-safe cleaners.

1. Verify power switches are in the OFF position.
2. Use the large brush and cool water to thoroughly clean inside the cylinder; *be sure to scrub the back of the cylinder.*
3. Thoroughly clean and dry the rear of the cylinder with a clean, dry towel.
4. Gently clean and wipe down the outside of the machine.
5. Carefully and thoroughly wash all parts removed from the machine using supplied brushes, sponges, and clean towels;
   if machine has air pumps, be sure to include all air pump parts in cleaning.
6. When cleaning the dispensing door assembly, clean the priming ports with a small brush.
7. Carefully and thoroughly clean all gaskets and O-rings removed from the machine; *be sure to wipe gaskets and O-rings to remove excess lubricant.*
8. Verify all parts are clean prior to re-assembling machine.

Preparation : Assemble Parts

CAUTION: Never force the installation of any parts. All parts fit correctly without force. If parts don't seem to fit, remove all parts and repeat assembly.

1. Switches to OFF

2. Install beater assemblies

Option A: Stainless Steel Beater

a. Lubricate the seal on both ends; then place seal on the beater.

b. Insert beater assemblies into cylinders, making sure beater shoes stay in place; turn assemblies until they engage the drive shaft keys and no longer turn 360°.

Option B: Flexible Blade Beater V1

a. Install drive shaft seal; lubricate drive shaft and end of seal (Shaded Area).

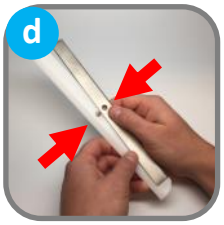
b. Insert drive shafts into rear shell bearings at the back of the cylinders, and turn them until the key engages firmly into the socket (when inserted correctly, the drive shaft will no longer turn 360°).

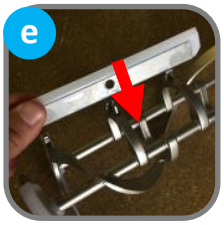
c. Attach beater shoes onto beaters; when properly placed, neither shoe overhangs beater edge.

d. Install scraper blade clips onto scraper blades.

e. Fit scraper blades onto beaters.

f. Insert beater assemblies into cylinders, *making sure beater shoes stay in place*; turn assemblies until they engage the drive shaft keys and no longer turn 360°.





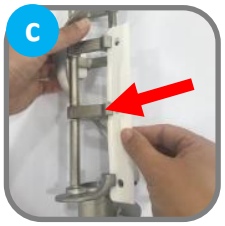
Option C: Flexible Blade Beater V2

a. Install drive shaft seal; lubricate drive shaft and end of seal (Shaded Area).

b. Insert drive shafts into rear shell bearings at the back of the cylinders, and turn them until the key engages firmly into the socket (when inserted correctly, the drive shaft will no longer turn 360°).

c. Fit scraper blades onto beaters.

d. Insert beater assemblies into cylinders, *making sure beater shoes stay in place*; turn assemblies until they engage the drive shaft keys and no longer turn 360°.



3. INSTALL DISPENSING DOOR

a. Place O-rings on side draw valves; place H-ring on middle draw valve; place O-rings on prime plugs; coat all ring areas with Spaceman lubricant.

b. Push prime plugs into holes on top of dispensing door.

c. Insert draw valves into dispensing door; *middle draw valve goes in the middle and slots face outward.*

d. Set draw handles into slots on dispensing door, with adjustment screws facing down.

e. Slide retention pin through draw handles; secure with nut.

f. Snap design caps onto bottom of dispensing door.

g. Fit gaskets into grooves on back of door, flat side out; slide beater guides over beater rods, with flanged edges against the door.

h. Insert dispensing door assembly into cylinders, beater rods first, pushing handles all the way up as you insert.

i. Secure door assembly in a cross-pattern using hand-screws, with the long hand-screws on top.

4. IF MACHINE HAS AIR PUMPS, ASSEMBLE AND INSTALL THEM

a. Place O-rings on rear shells, coating with Spaceman lubricant; install gears into shells (they only fit one direction).

b. Connect covers and shells, ensuring they fit flush; secure with hand-screws.

c. Place O-rings on suction tubes; lightly lubricate O-ring areas.

d. Place air pump stoppers into air pump springs, verifying orientation of stopper in spring; insert into housings ***stopper-first.***

e. Insert suction tubes into pumps; rotate to lock, and turn to desired overrun setting.

f. Coat air pump drive shafts with Spaceman lubricant.

g. Install air pumps onto machine:

→ insert at an angle

→ while pushing air pump in, slightly rotate back and forth until the gear engages the air pump drive shaft

→ push in and rotate counter-clockwise to lock in place

h. Assemble air tubes; each air tube has O-rings, connectors, and check valve; lubricate O-ring areas.

i. If machine will go unused, install air tubes into hopper, but do not connect to air pumps; otherwise, set air tubes aside until after machine has been primed.

Preparation : Sanitize

5. Install hopper cover, agitators, and drip trays

a. Coat inside of agitators (if present) with Spaceman lubricant and install with arrow pointing up.

b. Install internal and front drip trays.

c. If machine will be left unused, install air tubes and place hopper lids on top; otherwise, set air tubes aside until after machine has been primed.

IMPORTANT: After sanitizing the machine, DO NOT rinse or touch areas that have been sanitized. Product must be added immediately. If new product will not be added immediately, rinse machine with clean water and loosen door hand-screws to allow cylinders to air-dry. Sanitize machine before using again.

CAUTION: Always use food-grade, no-rinse sanitizer to sanitize. If warm water is required to dissolve sanitizer, allow the solution time to cool before adding to machine.

1. Verify assembly is complete.
2. If installed, remove hopper covers and air tubes.
3. Verify draw valves are in the CLOSED position (UP).
4. Mix a minimum of 8 liters (2.11 gallons) of food-grade sanitizer in a bucket or container.
5. Pour half the food-grade sanitizer solution into each hopper.
6. Turn power switches ON.
7. Press RESET button; press WASH button to begin cycle. Allow solution to agitate for 5 to 10 minutes; *NEVER leave machine on WASH for more than 10 minutes.*
8. While agitating, gently use a clean brush to scrub and distribute sanitizer solution along hopper walls.
9. Place a bucket or container below the draw valves; OPEN the draw valves (DOWN) and drain solution from the machine.
10. Press RESET buttons to stop cycle.

Operating Control : Introduction

Before operating the machine, it is required that the operator know the function of each operating control.

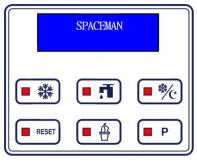
Mix Low Indicator: A mix level indicating light is located at the front of the machine. When the light is "ON", it indicates that the mix hopper has a low supply of mix and should be refilled as soon as possible. Always maintain at least 2cm of mix in the hopper. If you neglect to add mix, a freeze-up may occur. This will cause eventual damage to the beater assembly, the dispensing door, and gear box.

Display Screen: During normal operation the display is used to indicate function, the temperature of the mix in the hopper and cylinder, the electric current of beater motor, error, and warning message.

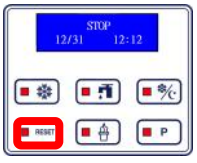
Touch Switch Panel: To better communicate in the International arena, symbols have replace words on many of your operator switches. SPACEMAN equipment is designed with these international symbols.

1. **Freeze Button**
2. **Wash Button**
3. **Standby Button**
4. **Reset Button**
5. **Ice Cream Button**
6. **P Button**

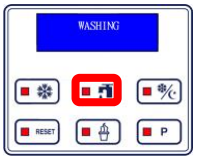
Machine Display Indicates



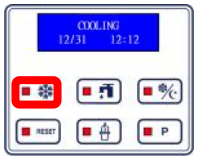
Turn on power



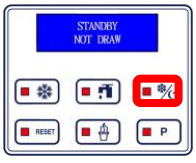
Press RESET button to turn to STOP mode



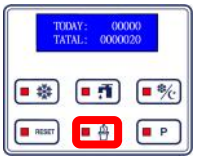
Press WASH button to turn to WASH mode



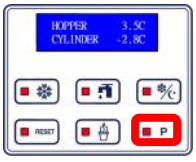
Press FREEZE button to turn on FREEZE Mode



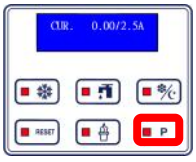
Press STANDBY button to turn on STANDBY mode



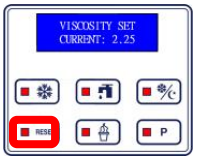
Press ICE CREAM button, screen displays dispense count



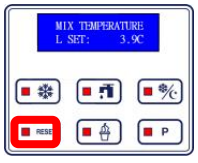
Press P button, displays temperature of Hopper & Cylinder



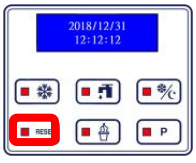
Press P button again, displays motor current



Viscosity Setting



Hopper Temperature



Date & Time

Auto Programming

Language

Press and hold RESET for 3 seconds to enter into Menu;
Press RESET to turn to next page

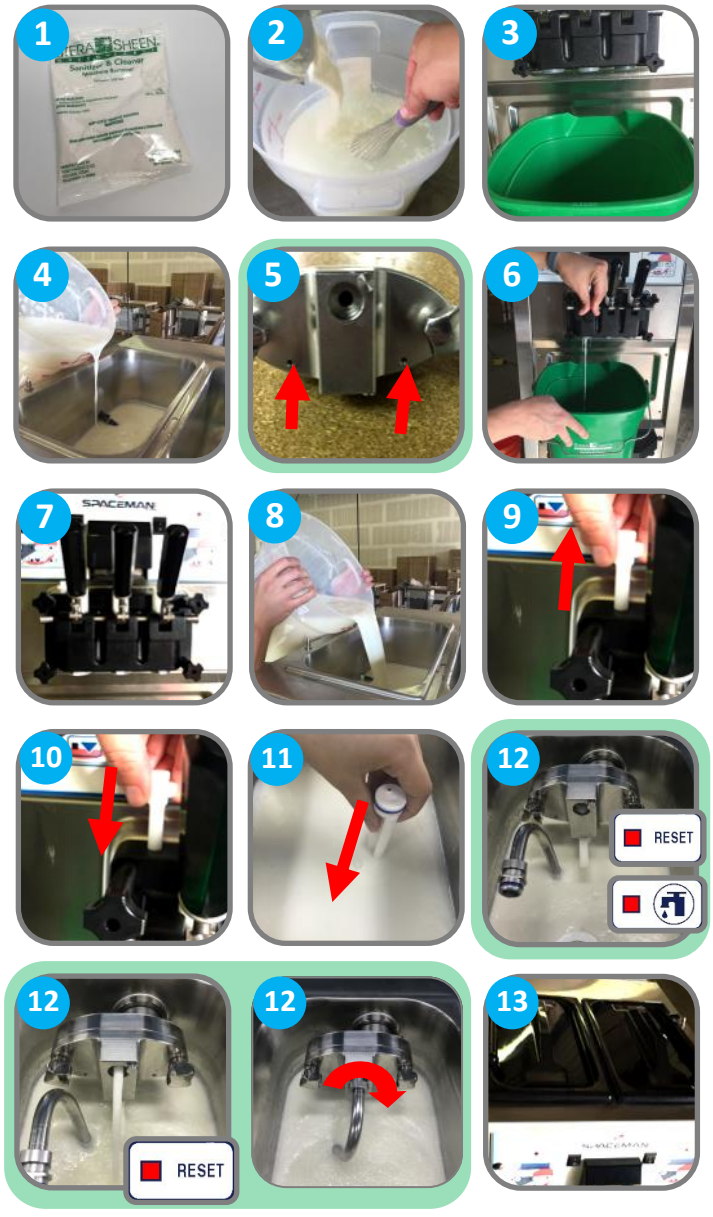
Operating Control : Freeze

Add product to machine

NOTE: The mix-low lights illuminate **RED** when a hopper is low on product mix and automatically de-illuminate when machine is filled.

NOTE: Instructions assume product is added one hopper at a time. Repeat steps as needed.

1. Verify machine has been recently sanitized (within 1 hour); if machine has not been recently sanitized, verify door hand-screws are tight, and perform sanitizing steps (Page 11).
2. Thoroughly mix and prepare at least 8 liters (2.11 gallons) of product according to manufacturer instructions; mix should be cool and smooth (free of large chunks).
3. Place bucket or large container below draw valve.
4. Pour 2 liters (0.53 gallons) of product into hopper.
5. For machine with air pumps, use filter when add mix. *Do not* fill product over small air inlet holes on the bottom of the air pump.
6. OPEN draw valve (Handle Down); sanitizer will start to flow out draw valve.
7. Once sanitizer has been purged from the machine and a steady stream of product is flowing from the spout, CLOSE draw valve (Handle Up).
8. Pour remaining product into hopper.
9. Raise the prime plug on the top of the dispensing door until flow is 100% product.
10. Push prime plug back down.
11. Wash air tube; install air tube in hopper (inlet hole on side of air tube at bottom).
12. For machine with air pumps:
    - → Insert air tube into hopper but do not connect to air pump
    - → Press RESET, then press WASH to Prime
    - → Ensure product is coming out of the large hole near the top of the air pump. Press RESET
    - → Rotate and insert air pump connector into air pump; rotate connector to lock in place
13. Install hopper cover. Product is now ready to freeze.



Freeze product

Never disconnect air pump (if present) with the machine running. If disconnecting air pump, *first* press RESET to stop operations and open draw handles for 10 to 15 seconds to relieve pressure in cylinder.

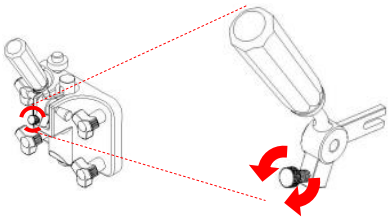
1. Verify cylinder is full of mixed product and primed.
2. Press FREEZE button.
3. The motor will begin to agitate the product, and the cooling system will begin to freeze the product.
4. Freezing product takes approximately 10 minutes.
5. When product reaches the set viscosity, it is ready to dispense (viscosity can be changed in the Settings menu (Page 16).

Operating Control : Freeze

Dispense product

Side draw handles dispense product from their respective hoppers. The middle draw handle twists product from the left and right hoppers.

1. OPEN draw valve (Handle Down) until desired amount is dispensed
2. CLOSE draw valve (Handle UP) when finished dispensing

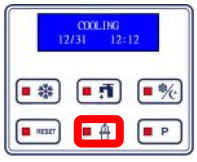


Adjustment screws below draw handles control dispensing speed.

- Tighter (clockwise) reduces speed
- Looser (counter-clockwise) increases speed

NOTE: If adjustment screw is tightened too far, product may not dispense. If this occurs, loosen adjustment screw until product dispenses.

Quick Freeze

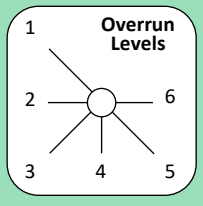


Turn on freezing immediately to cool product down to serving consistency.
Use when quick serve is required after long idle period.

To turn on Quick Freeze:

- Under FREEZE mode press ICE CREAM button

Adjust Overrun (For Pump Feed Models)



Overrun is the amount of air mixed in with the product.
The higher the overrun, the higher the amount of air in each serving.

1. Turn suction tube lever to the LEFT to reduce overrun;
   Turn suction tube lever to the RIGHT to increase overrun.
2. Six overrun levels total. Recommend to use 2-5.
3. Overrun and texture change will be visible after 6-8 dispenses.

CAUTION: Overrun setting can differ between products. Setting too high of overrun can cause the machine to malfunction. When increasing overrun, you may need to reduce the viscosity setting.

Machine power reset

IMPORTANT: Machine shuts down automatically if cylinders experience freeze-up (usually because the viscosity is set too high for the selected product) to prevent motor damage. Use the **Quick Freeze** function to return the machine to normal operation.

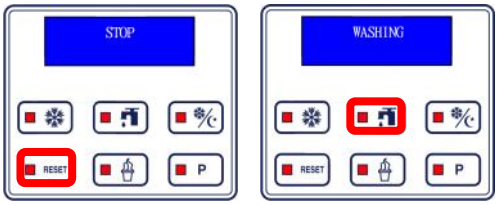
CAUTION: If machine makes any abnormal noise during reset, immediately switch power OFF and contact service team.

NOTE: If machine doesn't turn on, turn power OFF, repeat steps 1 to 5. If problem persists, contact service team.

1. Switch power switches OFF.
2. Press power reset button underneath front overhead, (If you can not find power reset button, please disassemble the machine panel and press Reset button on Inverter).
3. Press and hold STANDBY button for 3 seconds and turn on Defrost mode.
4. Press RESET on Control Panel and re-prime. Lift up prime plug and make sure product comes out from bottom prime port. Close prime plug.
5. Press RESET then WASH button. Once product comes out of two small holes on pump cover, press RESET to complete priming.
6. Observe machine performance and return to normal use if functioning properly.

Operating Control : Wash/Standby/Defrost

Wash Mode



To turn on Wash mode:

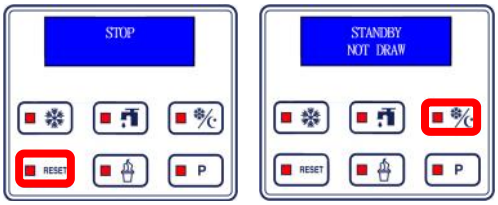
- Press RESET button, then WASH button
- Displays read WASHING when machine is in Wash mode

To turn off Wash mode:

- Press RESET button
- Machine is ready for a new mode selection

Standby Mode

IMPORTANT: When the machine will NOT be utilized for several hours, place it in STANDBY mode to conserve electricity and reduce product loss.
In STANDBY, product remains below 4°C (40°F) in both the cylinders and hoppers, but will NOT be frozen.



To turn on STANDBY mode:

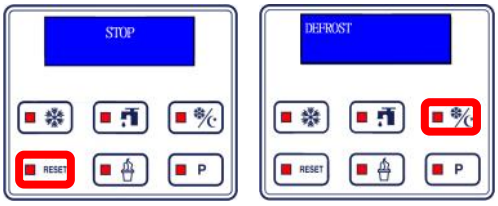
- Press RESET buttons, then STANDBY buttons
- Displays read STANDBY when machine is in STANDBY mode

To turn off STANDBY mode:

- Press RESET buttons
- Machine is ready for a new mode selection

Defrost Mode

IMPORTANT: Heat up frozen product in cylinder for faster draining and cleaning.
Use right before draining; start draining after it completes in 3 to 5 minutes.



To turn on DEFROST mode:

- Press RESET button, then STANDBY for 3 seconds
- Displays read DEFROST when machine is in DEFROST mode

To turn off DEFROST mode:

- Press RESET button
- Machine is ready for a new mode selection

Nightly Standby Procedure

Gravity Feed

Store closing:

1. With machine in FREEZE mode, remove air tubes.
2. Clean air tubes, hopper agitators, design cap, front trip tray, and internal trip tray.
3. Insert into machine upside down (inlet hole on the side of the air tube at the top).
4. Confirm product is above minimum product level (top of hopper agitator blade) in hoppers.
5. Press RESET, press STANDBY.

Store opening:

1. Open draw handles to draw 170 g to 227 g (6 oz. to 8 oz.) of product; discard product.
2. Press RESET, press FREEZE. Wait until machine finishes freeze cycle and motors stop turning.
3. Insert air tubes into machine with correct orientation (inlet hole on the side of the air tube at the bottom).
4. Machine is ready for normal operation.

Pump Feed

Store closing:

1. Clean hopper covers, hopper agitators, design cap, front trip tray, and internal trip tray.
2. Confirm product is above minimum product level (top of hopper agitator blade) in hoppers.
3. Press RESET, press STANDBY.

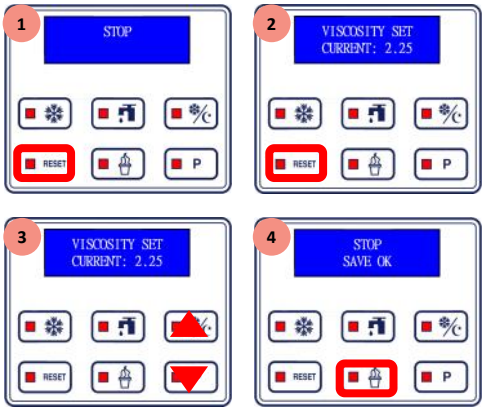
Store opening:

1. Open draw handles to draw 170 g to 227 g (6 oz. to 8 oz.) of product; discard product.
2. Press RESET, press FREEZE. Wait until machine finishes freeze cycle and motors stop turning.
3. Machine is ready for normal operation.

Adjust product consistency

IMPORTANT:

1. Viscosity controls how hard ice cream will be. Slightly adjust viscosity during initial setup and for each flavor/brand change.
2. Start with lower viscosity and gradually increase. Allow at least 2 freezing cycles to verify. Adjust maximum 0.3A at a time.
3. Once desirable viscosity is set, DO NOT adjust again unless product (mix) is changed.
4. Soft and icy product in the afternoon requires more frequent dispense or a re-prime. Adjust viscosity will result in FREEZE UP and/or DAMAGE to the machine.

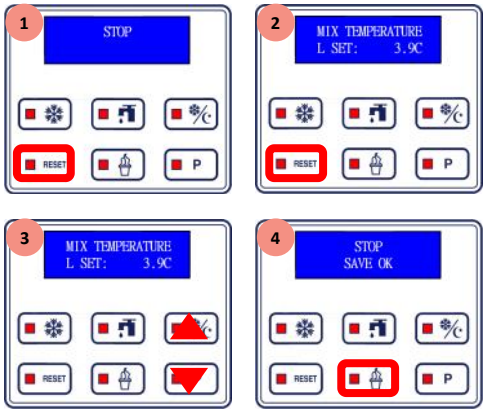


1. Press RESET to stop machine functions.
2. Press and hold RESET until display shows settings (viscosity is the first setting shown). *If you scroll past the viscosity setting, continue pressing RESET* until it comes back around.
3. Press STANDBY to increase viscosity (more firm).
   Press P to decrease viscosity (less firm).
4. Press and hold ICE CREAM button for 3 seconds to save changes.

NOTE: Refer to viscosity range (page 18) for detailed viscosity setting value.

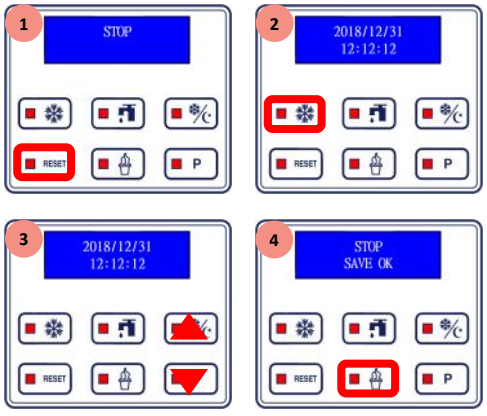
Change product temperature in hoppers

IMPORTANT: If temperature setting is too cold, product will freeze around the sides of the hopper and potentially cause damage. Hopper temperature should be set above freezing at 3°C to 4°C (37°F to 40°F).



1. Press RESET to stop machine functions. Press and hold RESET until display shows settings.
2. Viscosity is the first setting shown; press RESET again (without holding), temperature will be next. *If you scroll past the temperature setting, continue pressing RESET until it comes back around.*
3. Press STANDBY to increase temperature (warmer).
   Press P to decrease temperature (cooler).
4. Press and hold ICE CREAM button for 3 seconds to save changes.

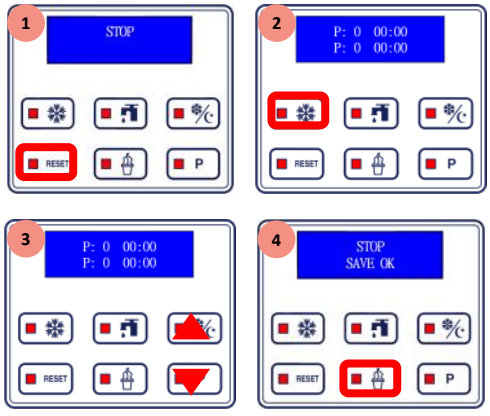
Change date and time



1. Press RESET to stop all machine functions. Press and hold RESET until display shows settings. Press RESET twice (without holding) to reach the date/time setting. *If you scroll past the date/time setting, continue pressing RESET until it comes back around.*
2. Press FREEZE to toggle cursor between date/time fields. Once highlighted, a field can be changed.
3. Press STANDBY to increase highlighted number.
   Press P to decrease highlighted number.
4. Press and hold ICE CREAM button for 3 seconds to save changes.

Operating Control : Set Menu

Auto Programming



1. Press RESET to stop all machine functions. Press and hold RESET until display shows settings. Press RESET to reach the Auto Programming setting. *If you scroll past the Automatic Mode Programming setting, continue pressing RESET until it comes back around.*
2. Press FREEZE to toggle cursor between fields. Once highlighted, a field can be changed.
3. Press STANDBY to increase highlighted number.
   Press P to decrease highlighted number.
4. Press and hold ICE CREAM button for 3 seconds to save changes.

Language

1. Press RESET to stop machine functions. Press and hold RESET until display shows settings.
2. Press RESET to reach the Language setting. *If you scroll past the Language setting, continue pressing RESET until it comes back around.*
3. Press STANDBY and P button to change the language.
4. Press and hold ICE CREAM button for 3 seconds to save changes.

Viscosity Range & Brush Kit

Adjust product consistency

110V-60Hz-1Ph	
Model Series	**Viscosity Range (A)**
6220	3.5 - 6.0
6210-C	3.5 - 5.5

380V-50Hz-3Ph	
Model	**Viscosity Range (A)**
6236	1.6 - 2.3
6338	1.6 - 2.3
6368	1.6 - 2.3
6378	1.6 - 2.3
6350	1.8 - 2.8
6236-C	1.6 - 2.3
6338-C	1.6 - 2.3
6368-C	1.6 - 2.3
6378-C	1.6 - 2.3

220V-60Hz-3Ph	
Model	**Viscosity Range (A)**
6236	2.0 - 3.5
6338	2.0 - 3.5
6368	2.0 - 3.5
6260	2.0 - 3.5
6378	2.0 - 3.5
6350	3.0 - 5.0
6236-C	2.0 - 3.5
6338-C	2.0 - 3.5
6368-C	2.0 - 3.5
6378-C	2.0 - 3.5

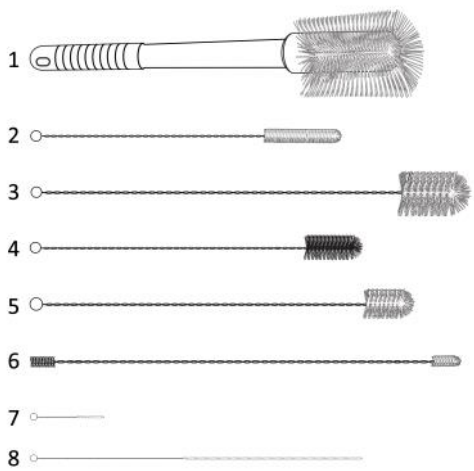
220V-50Hz-1Ph	
Model Series	**Viscosity Range (A)**
6220	2.5 - 3.5
6228	2.5 - 3.5
6236	2.5 - 3.5
6225	3.0 - 5.0
6240	3.0 - 5.0
6235	2.5 - 3.5
6250	2.5 - 3.5
6245	2.5 - 3.5
6248	2.5 - 3.5
6265	2.5 - 3.5
6268	2.5 - 3.5
6338	2.5 - 3.5
6368	2.5 - 3.5
6210-C	2.0 - 3.0
6228-C	2.0 - 3.5
6236-C	2.0 - 3.5
6234-C	1.0 - 1.8
6235-C	2.0 - 3.5
6250-C	2.0 - 3.5
6338-C	2.0 - 3.5
6368-C	2.0 - 3.5

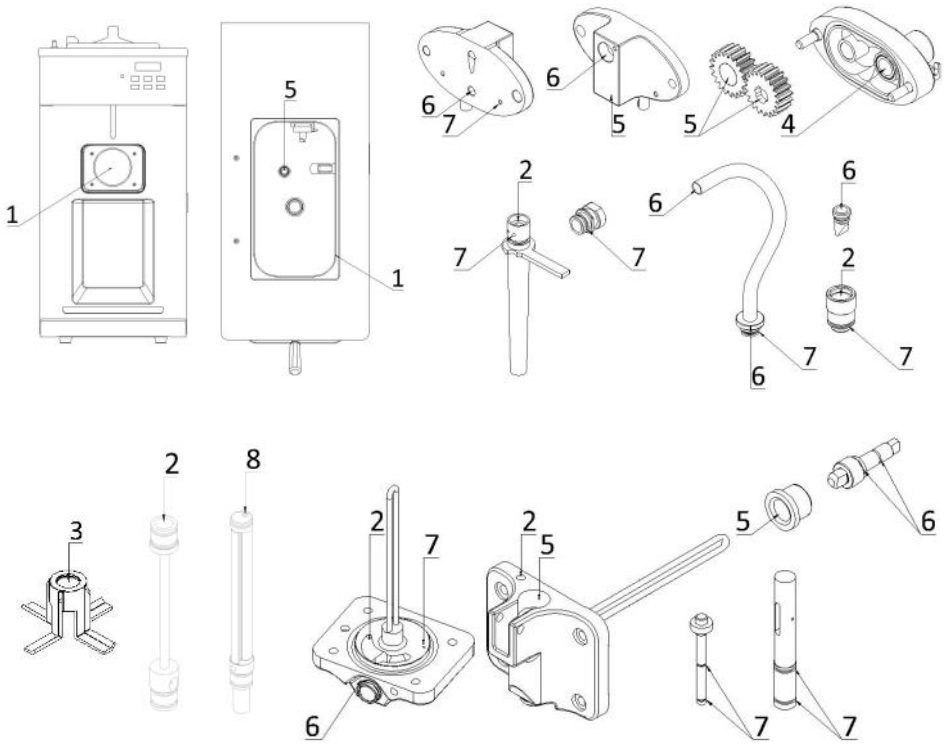
220V-60Hz-1Ph	
Model Series	**Viscosity Range (A)**
6220	2.5 - 3.5
6228	2.0 - 3.5
6236	2.0 - 4.0
6225	3.0 - 5.0
6240	3.0 - 5.0
6235	2.0 - 3.5
6250	2.0 - 3.5
6245	2.0 - 3.5
6248	2.0 - 3.5
6265	2.0 - 3.5
6268	2.0 - 3.5
6338	2.0 - 3.5
6368	2.0 - 3.5
6210-C	2.0 - 3.0
6228-C	2.0 - 3.5
6236-C	2.0 - 3.5
6234-C	1.0 - 1.6
6235-C	2.0 - 3.5
6250-C	2.0 - 3.5
6338-C	2.0 - 3.5
6368-C	2.0 - 3.5
6378-C	2.0 - 3.5

1. Locate your model series based on voltage rating of your machine
2. Configuration model extensions such as A, B or W do not affect viscosity range of their model series.

Brush Kit (Optional, available to order)

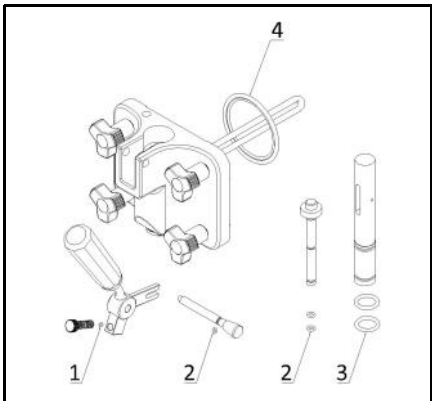
	Part Number	Description
1	3.7.24.001	Brush - Large
2	3.7.24.002	Brush - ϕ13×77
3		Brush - ϕ38×80
4		Brush - ϕ25×60
5		Brush - ϕ25×70
6		Brush - ϕ10×25
7		Brush - ϕ3×25
8		Brush - ϕ3×230



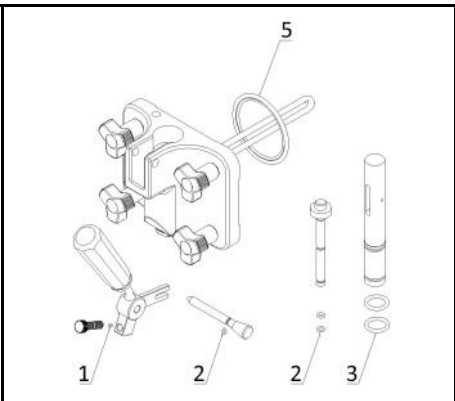


O-Rings & Seals

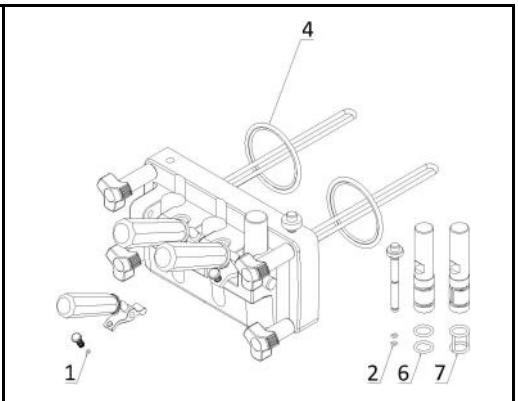
Dispensing Door



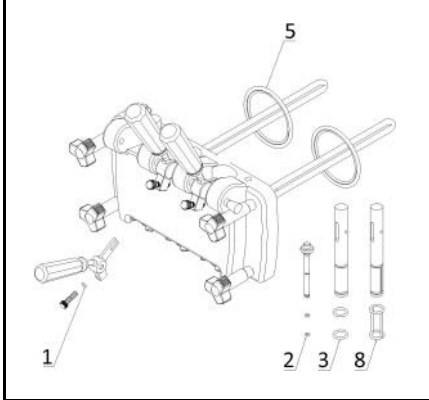
6210 6220 6228 Series



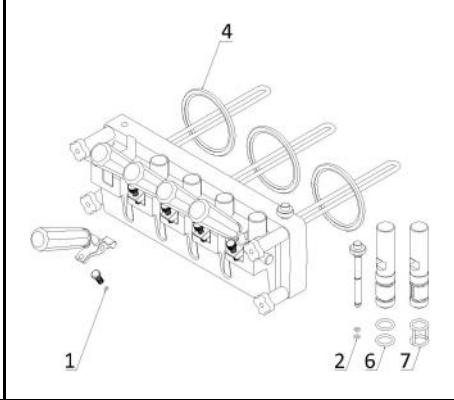
6236 6338 Series



6225 6234 6235 6245 6240 6250 6248 6368 Series

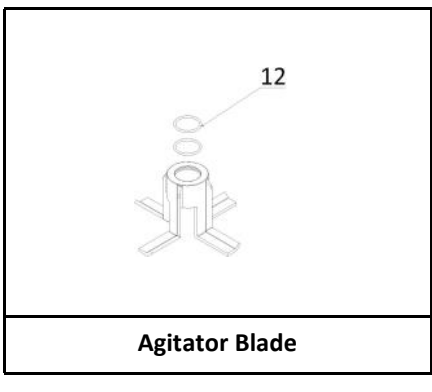


6260 6378 Series

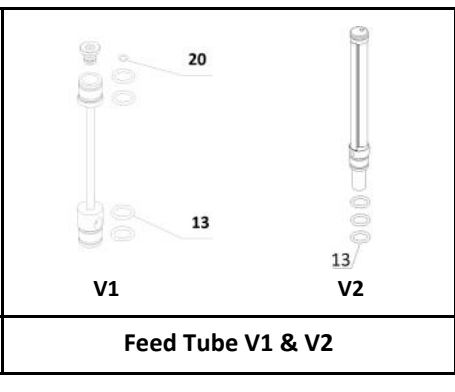


6265 6268 Series

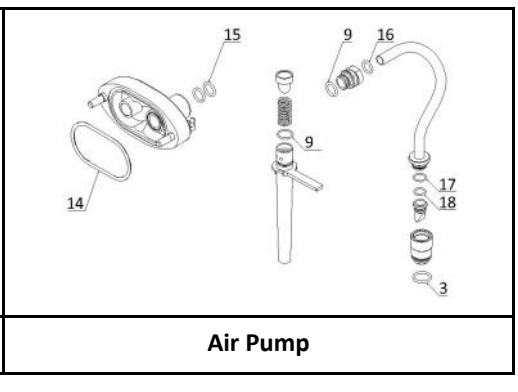
Optional Parts



Agitator Blade



Feed Tube V1 & V2

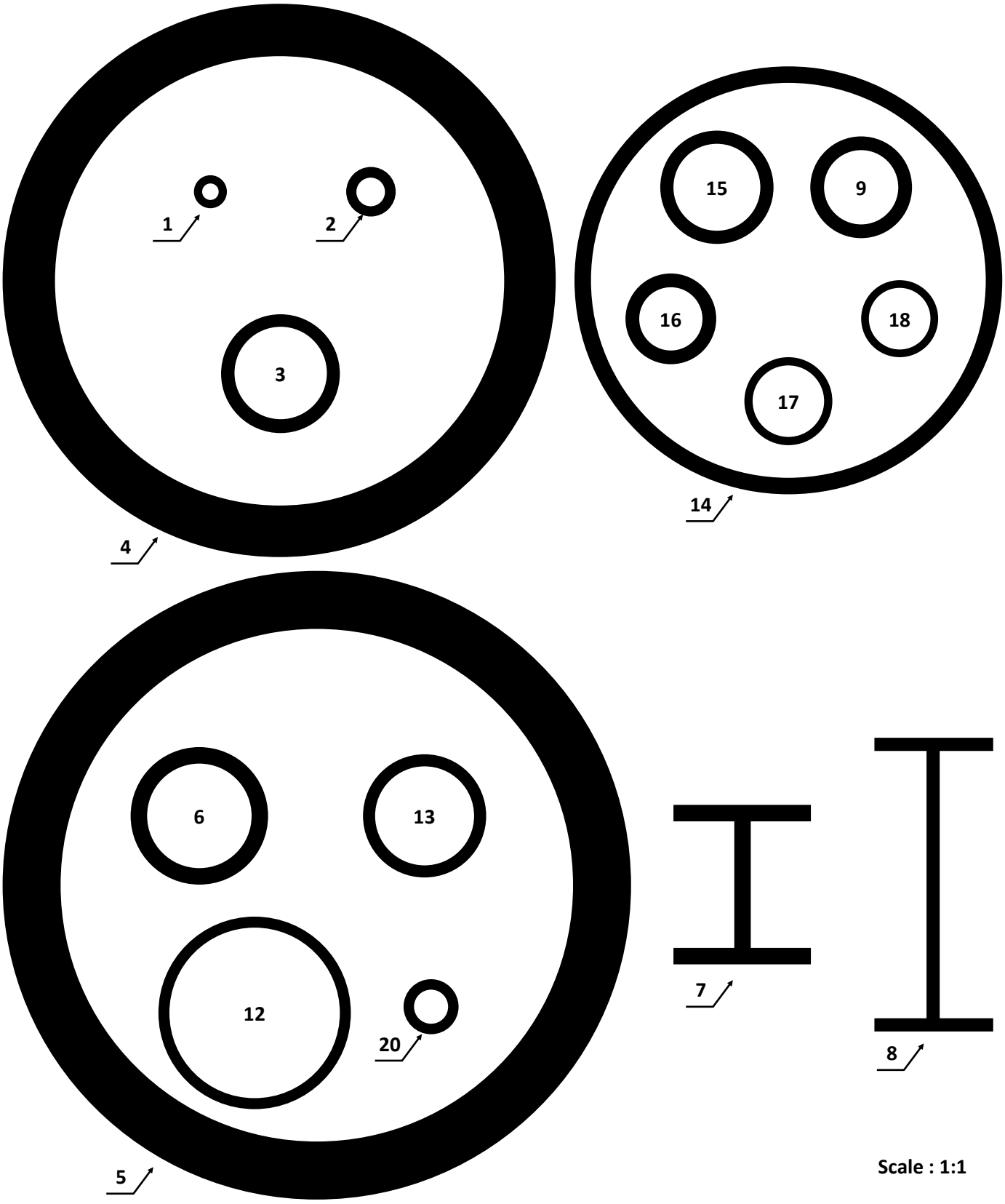


Air Pump

Bill of Material

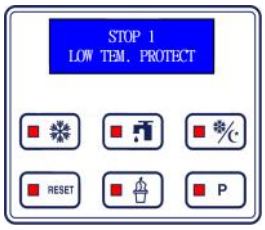
No.	Parts Number	Description	No.	Parts Number	Description
1	3.4.08.01.012	O-Ring - 3x1.5	12	3.4.08.01.034	O-Ring - 31×2
2	3.4.08.01.013	O-Ring - 5.2x1.9	13	3.4.08.01.002	O-Ring - 18x2.2
3	3.4.08.01.006	O-Ring - 16.8x2.4	14	3.4.08.01.041	O-Ring - 71.8x3
4	3.4.08.02.007	Door Gasket - SS - 1.3-1.8qt	15	3.4.08.01.025	O-Ring - 15.8x2.4
5	3.4.08.02.008	Door Gasket - SS - 3.4qt	16	3.4.08.01.008	O-Ring - 11.5x2.5
6	3.4.08.01.011	O-Ring - 19x3	17	3.4.08.01.024	O-Ring - 13x1.5
7	3.4.08.01.019	H-Ring - 19x3x2	18	3.4.08.01.040	O-Ring - 11.2x1.4
8	3.4.08.01.018	H-Ring - 16.8x2.4x2	20	3.4.08.01.028	O-Ring - 6.2x1.9
9	3.4.08.01.003	O-Ring - 13.5x2.5			

Use below 1:1 size comparison chart and explosion diagrams on left page to confirm item, size and location of O-rings and seals.



Troubleshooting

Problem: STOP 1—Low Temp Protect



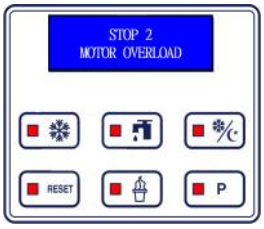
Probable Cause

1. Starved cylinder
2. Inadequate mix in hopper.
3. Improper mixing of product.
4. Air tube isn't installed correctly.
5. Viscosity adjustment is set incorrectly.
6. Air pump is not primed

Remedy

1. Ensure hopper is at least half full.
2. Follow manufacturer instructions for mixing product; ensure correct mix ratios.
3. Lower viscosity setting as required.
4. Ensure air tube isn't clogged, allow machine 2 to 5 seconds between servings.
5. (G) Clean air tube, ensure proper orientation.
6. (A) Check to make sure hand screws tight on pump shell body and that shell gasket is installed.
7. Prime air pump
8. Turn on DEFROST mode. (Page 15)

Problem: STOP 2—Motor Overload



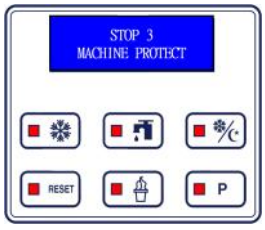
Probable Cause

1. Viscosity adjustment is set incorrectly.
2. Inadequate mix in hopper.
3. Improper mixing of product.
4. Air tube isn't installed correctly.
5. Product is being drawn too quickly.

Remedy

1. Ensure hopper is at least half full.
2. Follow manufacturer instructions for mixing product; ensure correct mix ratios.
3. Lower viscosity setting as required.
4. 5. Ensure air tube isn't clogged, allow machine 2 to 5 seconds between servings.
5. (G) Clean air tube, ensure proper orientation.
6. (A) Check to make sure hand screws tight on pump shell body and that shell gasket is installed.
7. Prime air pump
8. Turn on DEFROST mode. (Page 15)

Problem: STOP 3—Machine Protect



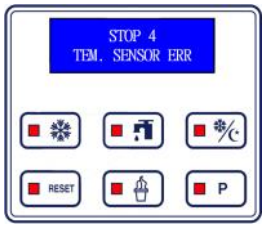
Probable Cause

1. Dispensing door is off.
2. Jumper on display board is disconnected or loose.

Remedy

1. Install the dispensing door.
2. Check and reinstall jumper on display board.

Problem: STOP 4—Temperature



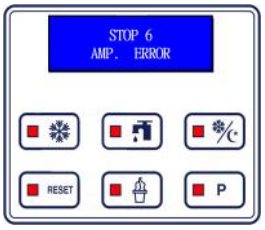
Probable Cause

Malfunctioning temperature probe

Remedy

Replace temperature probe.

Problem: STOP 6—Motor Amp



Probable Cause

Malfunctioning power board.

Remedy

Replace power board.

PROBLEM: HOPPER ISN'T COLD ENOUGH

Probable Cause

1. Warm product was recently added.
2. Hopper temperature setting is too high.
3. Temperature offsets need adjustment.

Remedy

1. Allow at least 1 hour after adding new mix for hopper temperatures to stabilize.
2. Adjust hopper temperature warmer (Page 16).
3. Call Spaceman Technical Support.

PROBLEM: HOPPER IS FREEZING

Probable Cause

1. Inadequate mix in hopper.
2. Warm product added to hopper.
3. Hopper temperature setting is too low.

Remedy

1. Ensure hopper is at least half full.
2. Pre-chill product before adding to hopper.
3. Adjust hopper temperature warmer (Page 16).

PROBLEM: PRODUCT LEAKS EXCESSIVELY FROM DISPENSING DOOR SPOUT

Probable Cause

1. Improper or inadequate lubrication of draw valve and draw valve O-rings.
2. Cracked, broken, or worn draw valve O-rings.

Remedy

1. Use sufficient food-grade lubricant when assembling draw valves (Page 10).
2. Replace O-rings every 1 to 3 months.

PROBLEM: MACHINE SHUTS DOWN AUTOMATICALLY

Probable Cause

Cylinders are experiencing freeze-up.

Remedy

1. Check mix level.
2. Check for starved cylinder (refer to Stop 1 and Stop 2 troubleshooting on page 21)
3. Reset machine (Page 14), and lower viscosity as required (Page 16).

PROBLEM: PRODUCT LEAKS EXCESSIVELY INTO INTERNAL DRIP TRAY

Probable Cause

1. Improper or inadequate lubrication of drive shaft seal.
2. Damaged, missing, or improperly installed drive shaft seal.

Remedy

1. Use sufficient food-grade lubricant, and add sufficient lubricant inside drive shaft gasket during assembly (Page 9).
2. Replace drive shaft gaskets every 1 to 3 months.

PROBLEM: PRODUCT IS TOO SOFT

Probable Cause

1. Machine isn’t cleaned/lubricated adequately.
2. Inadequate mix in hopper.
3. Product breakdown
4. Improper mixing of product.
5. Machine doesn’t have adequate ventilation.
6. Viscosity adjustment is set incorrectly.

Remedy

1. Clean and properly lubricate machine daily.
2. Ensure hopper is at least half full.
3. Recycle fresh product.
4. Follow manufacturer instructions for mixing product; ensure correct mix ratios.
5. Ensure at least 152mm (6'') clearance on all sides.
6. Raise viscosity setting as required (Page 16)

PROBLEM: MACHINE IS MAKING NOISE

Probable Cause

1. Improper assembly.
2. Wearable parts need replacement.
3. Internal cleaning/maintenance required.
4. Damaged internal parts.

Remedy

1. Stop machine use, drain product with machine powered OFF; clean and inspect parts.
2. Replace wearable parts (including scraper blades) at least once every 3 months.
3. Inspect parts carefully for damage, ensure proper assembly; replace as required.
4. Contact Spaceman Technical Support.

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