

USER MANUAL

FLOOR STANDING SOFT SERVE ICE MACHINE WITH AIR PUMP



MODEL: NEO-F3



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USRESTAURANT® RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE

Air Cooled Units

Air cooled units require a minimum of 6" (152 mm) of clearance on all sides of the freezer. Failure to allow for adequate clearance can reduce the refrigeration capacity of the freezer and possibly cause damage to the compressor.

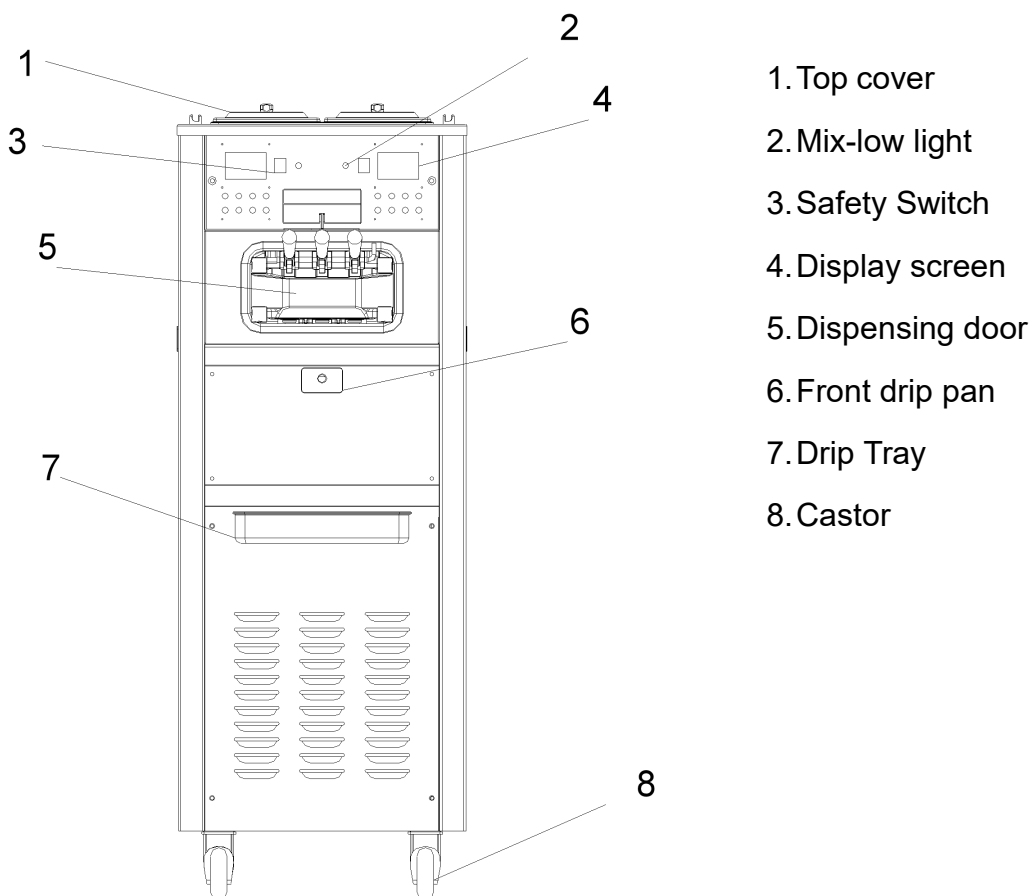
Electrical Hook-Up Installation for 220V-240V, 50Hertz/60 Hertz, 1 Phase

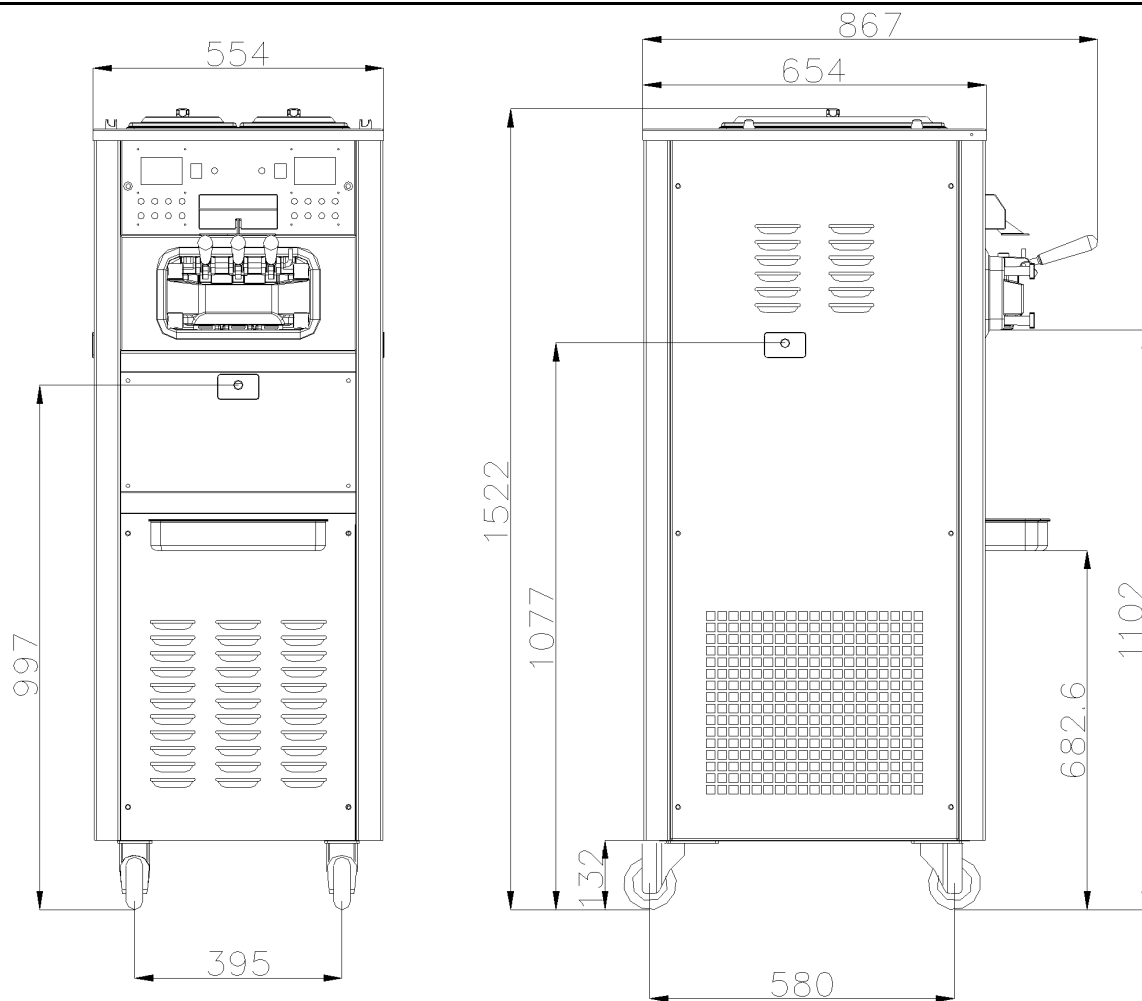
Check the data label in the rear panel for electrical specifications. The power supply must be connected through the circuit breaker. This equipment is supplied with a 3-wire cord. The cord provided for is 20 amp, therefore the wall outlet must over 20 Amp.

CAUTION:

THIS EQUIPMENT MUST BE PROPERLY GROUNDED! FAILURE TO DO SO CAN RESULT IN SEVERE PERSONAL INJURY FROM ELECTRICAL SHOCK!

**SPECIFICATIONS MODEL NEO-F3
FLOOR MODEL, AIR PUMP FEED
MACHINE VIEW**



**Equipment Parameters****Freezing Cylinder**

Two

Mix Hopper

Two

DIMENSIONS:

NET: 21.8"W x 25.7"D x 60"H

Packing: 25.8"W x 31.8"D x 65.8"H

WEIGHT

Net: 496 lb. Packing: 540 lb.

ELECTRICAL

Voltage AC: 1 Phase ,220V 60Hertz

Total Run Amps: 20 Amps

Power:3600W

Drive Motor: Two, 1.25HP**Refrigeration System**

Main Compressor:

Two,2x3838 BTU/hr R404a

Pre-cooling Compressor:

One, 400 BTU/hr R134a

(BTU may vary depending on compressor used.)

AIR COOLING

Air-cooled required minimum 152mm air clearance around the freezer.

CAUTION

Failure to install the machine within recommended limits will result in poor performance of this system

Note: The machine can't avoid some shaking during transport. It will be great to let the machine have a rest more than 12 hours in the work place. This will help the machine work perfect.

- A. Uncrate the machine.
- B. Remove 4 nuts holding the machine to the pedestal (Figure 1-1).
- C. Raise the machine, then draw out the pallet (Figure 1-2).

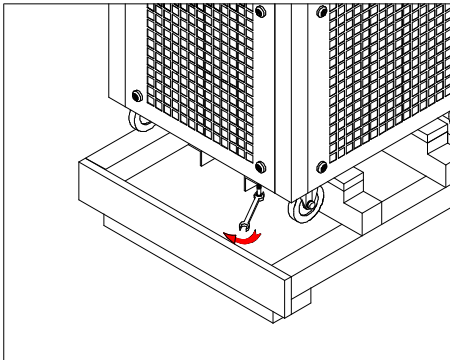


Figure 1-1

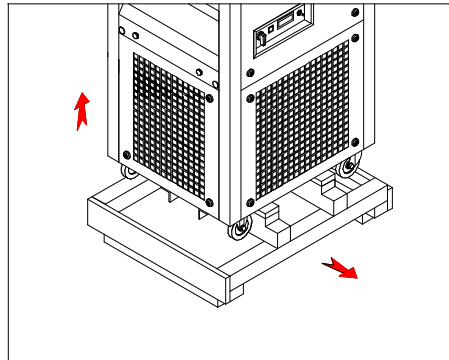


Figure 1-2

(NOTE: The maximum gradient that is allowed is 15 degree during movement)

- D. Check the machine's back panel of the nameplate. Make sure the working power fit the machine. The unit must be connected to a properly grounded receptacle.
- E. This machine is air cooling unit, which require a minimum of 200mm of clearance around both sides.
- F. Keeping the working place dry and clean. Pay attention the insect and mice, don't let them go inside of machine to destroy the wires and other parts.
- G. After the installation press the wheel brake to make sure the machine in the fixed position
- H. Open the back panels (Figure 1-3). Make sure all the components are not loose during transport. Such as motor, motor belt, compressor and so on

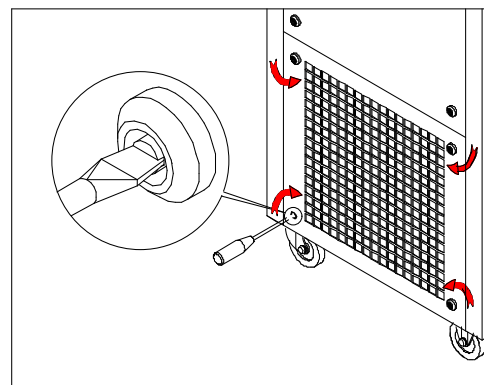


Figure 1-3

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

The SPACE Model NEO-F3 is highly sophisticated pieces of equipment, when properly operated and cared for, will produce a consistent quality product. Like all mechanical products, they will require cleaning and maintenance. A minimum amount of care and attention is necessary if operating procedures outlined in this manual are followed closely.

This Operator's Manual should be read before operating or performing any maintenance on your equipment.

The Models NEO-F3 will NOT eventually compensate and correct for any errors during the set-up or filling operations. Thus, the initial assembly and priming procedures are of extreme importance. It is strongly recommended that personnel responsible for the equipment's operation, both assembly and disassembly, go through these procedures together in order to be properly trained and to make sure that no misunderstandings exist.

In the event you should require technical assistance, please contact your local authorized SPACE Distributor.

MIX INFORMATION

The Hygeian ice cream mix is required to be used for frozen production. Mix can vary considerably from one manufacturer to another. Differences in the type of ingredients, quality, and quantity all have a different bearing on the finished frozen product. A change in machine performance that cannot be explained by a technical problem may be related to mix. Mix does not improve with age. Old mix or mix that has been stored at too high temperature can result in a finished product that is less than satisfactory from the appearance and taste standpoint.

Always maintain at least 2cm of mix in the hopper. The maximum of mix in the hopper is not more over the two small holes of pump.

We are concerned about the safety of the operator when he or she comes in contact with the freezer and its parts. We have gone to extreme efforts to design and manufacture built-in safety features to protect both you and service technician.

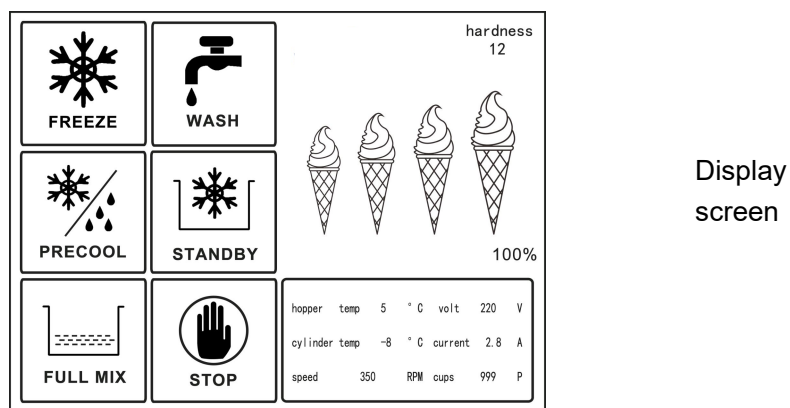
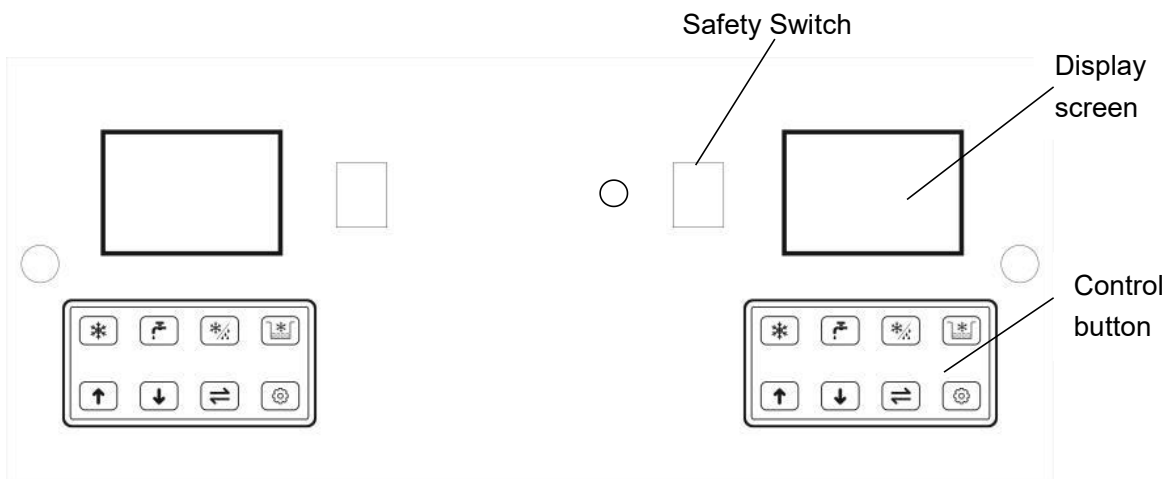
IMPORTANT- Failure to adhere to the following safety precautions may result in severe personal injury. Failure to comply with these warnings may damage the accessories and raise your operation cost.

TO OPERATE SAFELY:

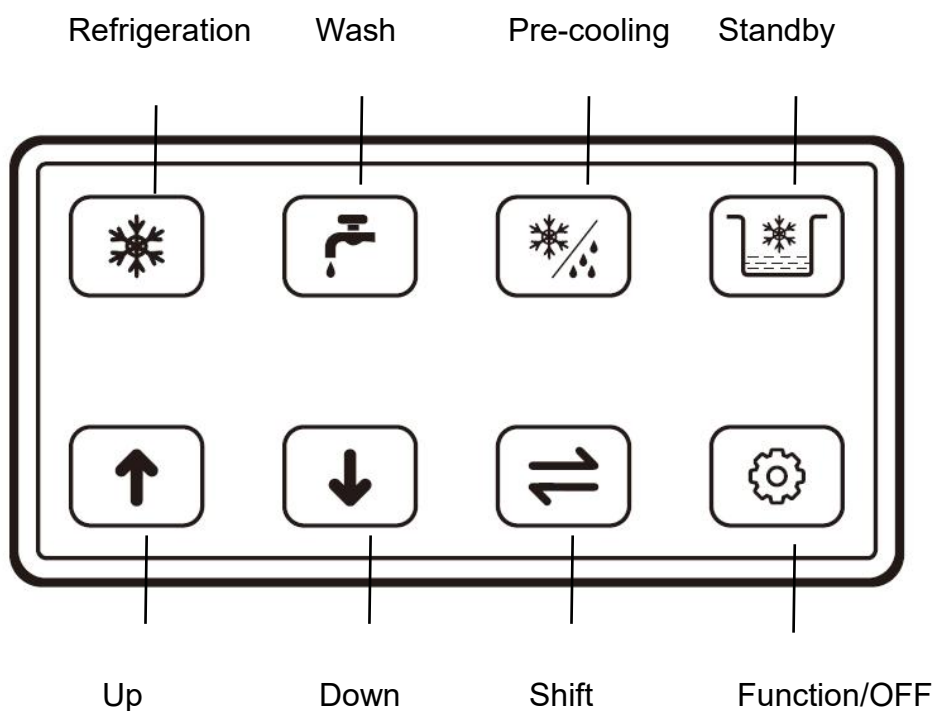
1. **DO NOT** operate the freezer without reading this operator's manual. Failure to follow this instruction may result in equipment damage, poor freezer performance, health hazards, or personal injury.
2. **DO NOT** operate the freezer unless it is properly grounded. Failure to follow this instruction may result in electrocution.
3. **DO NOT** allow untrained personnel to operate this machine. Failure to follow this instruction may result in severe personal injury to fingers or hands from hazardous moving parts.
4. **DO NOT** attempt any repairs unless the main power supply to the freezer has been cut off. Failure to follow this instruction may result in electrocution. Contact your local authorized Distributor for service.
5. **DO NOT** operate the freezer unless all service panels and access doors are restrained with screws. Failure to follow this instruction may result in severe personal injury from hazardous moving parts.
6. **DO NOT** obstruct air intake and discharge openings: minimum of 200mm of clearance around both sides.
7. **DO NOT** remove the door, beater and blades, or drive shaft unless all control switches are in the OFF position.
8. **DO NOT** put objects or fingers in door spout.
USE EXTREME CAUTION When removing the beater assembly. The scraper blades are very sharp and may cause injury.
9. This freezer must be placed on a level surface. Failure to comply may result in personal injury or equipment damage.

Failure to follow this instruction may cause poor freezer performance and damage to the machine.

This freezer is designed to operate indoors, under normal ambient temperatures of 70° ~75° F (21° ~24°C). The freezer has successfully performed in high ambient temperatures of 104° F (40°C) at reduced capacities.



Control Button



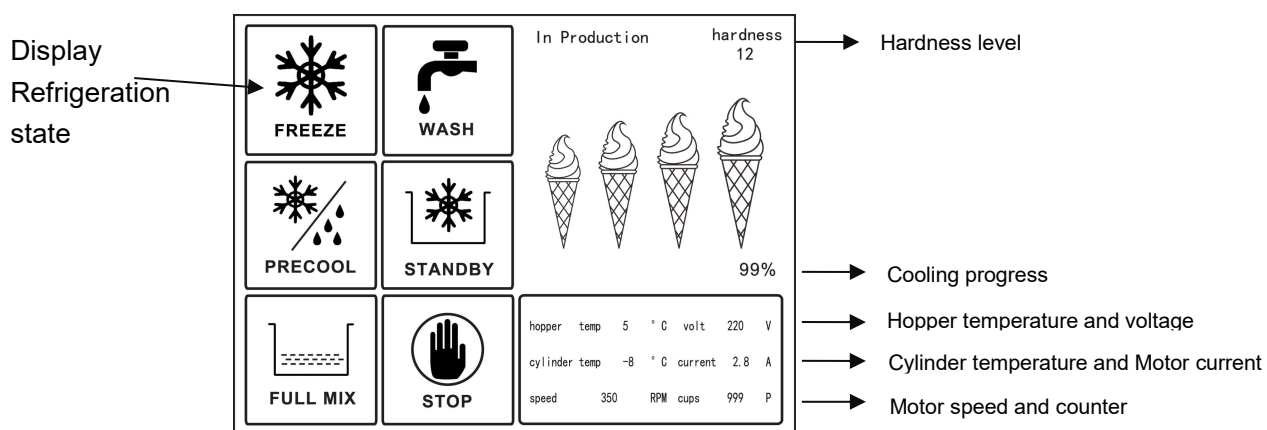
**FUNCTION/OFF BUTTON**

Press FUNCTION/OFF button to exit present mode, LCD display indicates . All function buttons are available. To change to other function, IT IS ALWAYS NECESSARY to first

Press  FUNCTION/OFF button to return STOP.

**REFRIGERATION BUTTON**

Press  button, the main compressor will start to refrigeration. When the number show 100% on the display screen, the refrigeration cycle will OFF automatically. Display screen show SOFTY IS READY



The refrigeration state will blink on the screen during REFRIEGRATION is ON.

Press  Can exit from Refrigeration state.

**WASH BUTTON**

Press:  WASH button, the machine will be in washing state. Only the beater motor operate. And LCD screen display  Press  Can exit from WASH state.

**PRE-COOLING BUTTON**

This maintains product temperatures below 5°C in the hopper, keep mix fresh in hopper.

Press  button , LCD display show Pre-cooling is ON .

Note: Agitator in hopper will working with pre-cooling automatically.

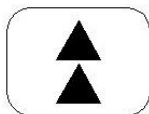
Press  button again can stop pre-cooling ,and LCD display show pre-cooling OFF

**STANDBY**

This maintains product temperatures below 5°C in both the hopper and cylinder for long time .At night ,can open standby to keep mix fresh .

Press  button , LCD display show STANDBY is ON  and start cooling ,when cooling finish display show KEEPING FRESH

Press  button can stop STANDBY ,and LCD display show STANDBY OFF 

**UP and DOWN BUTTON**

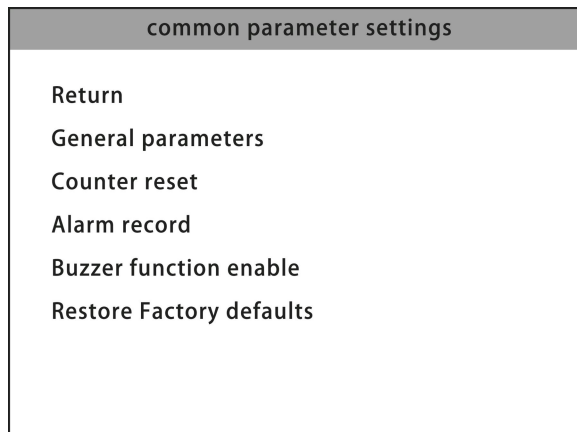
UP and DOWN button use for increases and decreases the value

**SHIFT BUTTON**

SHIFT KEY use for move the cursor for setting

PARAMETER SETTING

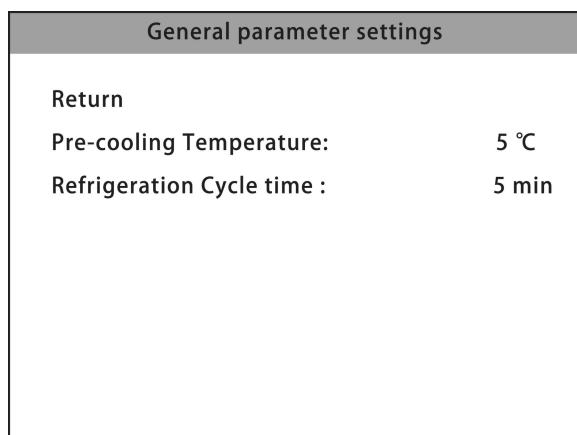
Press and hold  FUNCTION/OFF button for 5 seconds , machine will go to SETTING MENU for parameter setting(Picture 4-1)



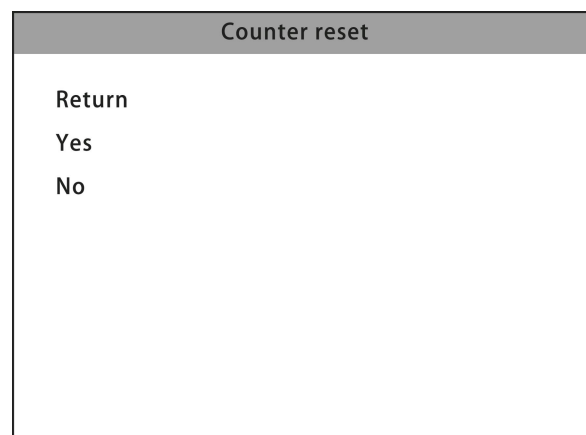
Picture 4-1

Press  Shift button can select menu .Press  button can confirm the setting

  UP and DOWN button use for increases and decreases the value



Picture 4-2



Picture 4-3

General parameter setting(Picture 4-2)

- Pre-cooling temperature . Can adjust the hopper temperature , factory default 5 °C
- Refrigeration cycle time : Can adjust cooling cycle time , factory default 5 minutes

  UP and DOWN button use for increases and decreases the value

Counter reset (Picture 4-3) Select “yes” can Reset the counter to 0

Alarm records
Return
1/
2/
3/
4/
5/

Picture 4-4

Alarm Records (Picture 4-4)

Can record the alarms list for the machine

Buzzer function enable (Picture 4-5)

Select “YES” can cancel the buzzer

Restore Factory defaults (Picture 4-6)

Select “YES” can restore factory setting

Buzzer function enable
Return
Yes
No

Picture 4-5

Restore Factory defaults
Return
Yes
No

Picture 4-6

ICE CREAM Hardness setting

Ice cream hardness from 1 to 20 , number 1 is hardest number 20 is softest .

Press and hold  UP button for 3 seconds ,then hardness level at top right corner can be adjust .

Press  UP or  DOWN button can increases or decreases the hardness

When finish the setting ,press  Function button Confirm the setting

 FREEZE	 WASH	In Production  hardness 12 99%
 PRECOOL	 STANDBY	
 FULL MIX	 STOP	hopper temp 5 °C volt 220 V cylinder temp -8 °C current 2.8 A speed 350 RPM cups 999 P

Mix-low alert system

The mix-low sensor(Figure 4-7) in the hopper, when mix low ,the red light at front panel will be ON .And buzzer will also start working to alert operator fill enough mix into the hopper.

Note: Machine will turn OFF COOLING automatically if low mix working over 10 minutes .Machine will restart cooling once filling enough mix .

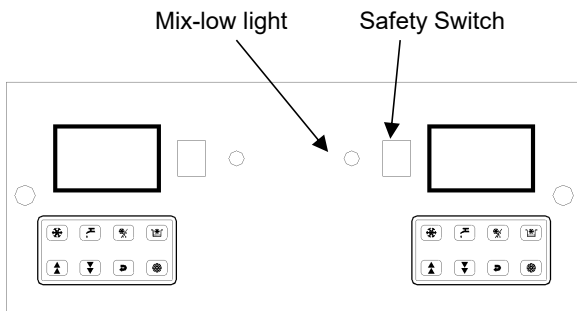


Figure 4-7

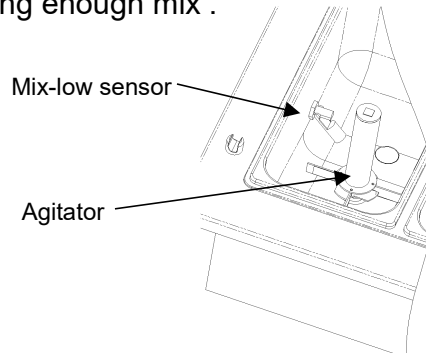


Figure 4-8

Safety Switch

When meet something urgently ,press Safety Switch(Figure 4-8) can cut off the power supply for control systems .Machine will be stop working at once .

Agitator in hopper

The agitator in the hopper can keep the consistence of the ice cream liquid, working together with pre-cooling .(Note:When hopper reach the setting temperature ,pre-cooling off ,agitator will off at same time. Figure 4-8)

DO NOT put objects or fingers close to the agitator when pre-cooling is ON .Failure to comply may result in personal injury or equipment damage.

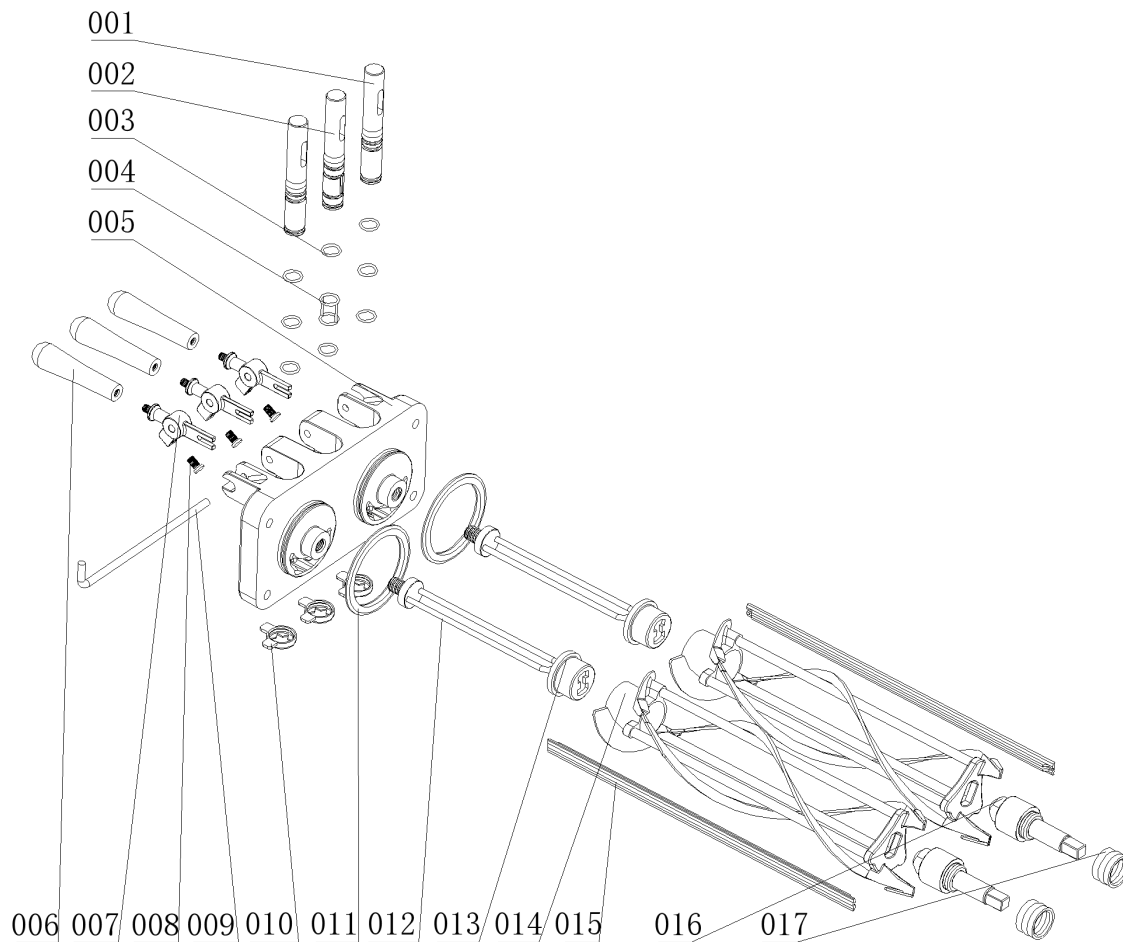
Alarm list :

E02: voltage is too high

E04: voltage is too low

E08: Rpm is too low

E10: Cylinder temperature is too low

BEATER AND DISCHARGE DOOR

Item	Description
001	Side draw valve
002	Middle draw valve
003	Valve O seal
004.	Valve O-O seal
005	Dispenser door
006	Dispensing handle
007	Handle stand
008	Screw adjustment
009	Dispensing retention

Item	Description
010	Design cap
011	Seal of dispensing door
012	Beater rod
013	Front bearing
014	beater
015	Plastic Scraper
016	Rear shell bearing
017	Beater seal

Beater Assembly

MAKE SURE THE POWER SWITCH IS IN THE “OFF” POSITION. Failure to follow this instruction may result in electrocution or injury to fingers or hands from hazardous moving parts.

Note: When lubricating parts, use an approved food grade lubricant.

Step 1

1. Assembly the scraper of beater

Insert the plastic beater scraper on the beater . The plastic blade can be soak in warm water for a quarter before assembly for more easy installation.

2. To install the drive shaft, lubricate the groove (position A) and shaft portion that comes in contact with the bearing on the beater drive shaft. Lubricate the beater seal and slide the seal over the shaft and groove until it snaps into place.

Figure 5-1

DO NOT lubricate the square end of the beater shaft.

3. Slide the beater assembly into the cylinder. Make sure the square end is put into the hole of axis guide of reducer. Turn the beater slightly to be certain that the beater is properly seated. When in position, the beater will not protrude beyond the front of the freezing cylinder. Figure 5-2

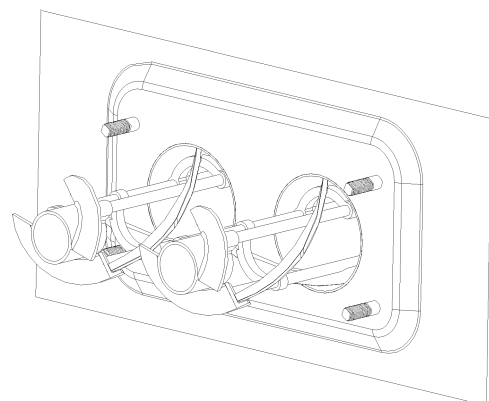
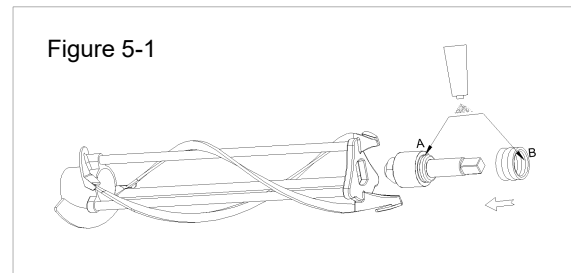


Figure 5-2

Step 2

Assemble the discharge door

Place the large rubber gaskets in the grooves on the back side of the discharge door. Slide the white plastic front bearings over the baffle rods, making certain that the flanged end of the bearing is resting against the discharge door. Figure 5-3

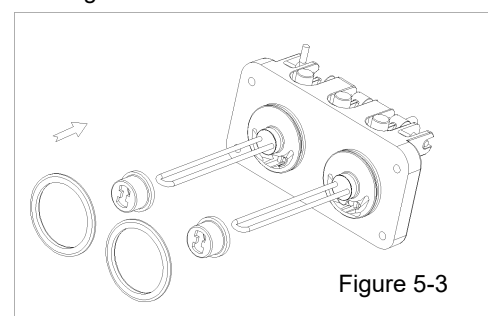
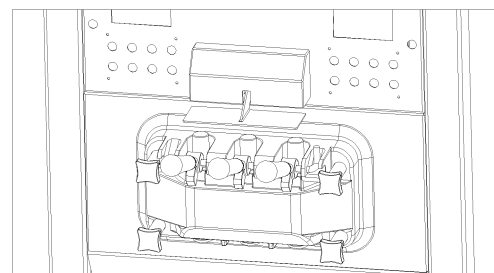


Figure 5-3

Step 3

Install the discharge door. Insert the beater rod through the beaters in the freezing cylinders. With the door seated on the machine studs, install the four attaching nuts. Tighten equally in a crisscross pattern to insure the door is snug.

Figure 5-4



Section 5

Installation Instructions

Step 4

Install the draw valves. Slide the o-rings into the grooves on the draw valve and lubricate.

Figure 5-5

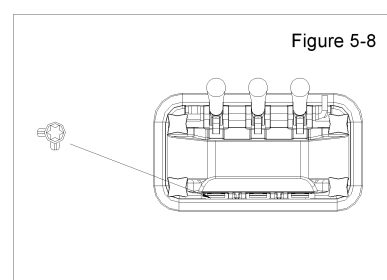
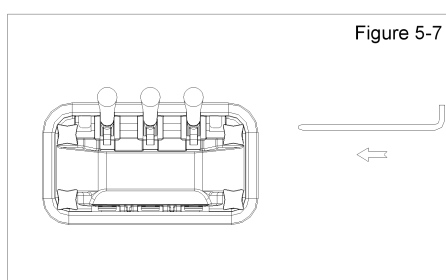
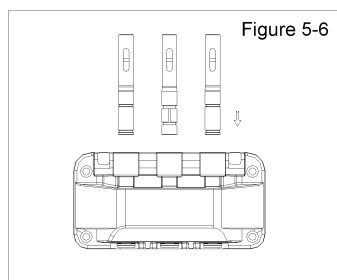
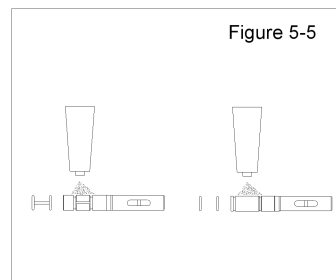
Lubricate the inside of the discharge door spout, top and bottom, and insert the draw valve

Figure 5-6.

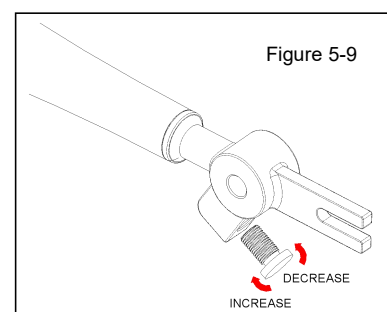
Slide the fork of the draw handles in the slot of the draw valves.

Figure 5-7

Snap the design cap over the bottom of door spout. Figure 5-8



The draw handle can be adjusted to provide a flow rate of 5 to 7-1/2oz of product per 10 seconds. To increase the flow rate, turn the screw clockwise. Turn the screw counterclockwise to decrease the flow rate. Figure 5-9



Step 5

Install the rear drip pan. Slide the rear drip pan into the hole in the side panel. Figure 5-10

Step 6

Install the front drip tray. Figure 5-11

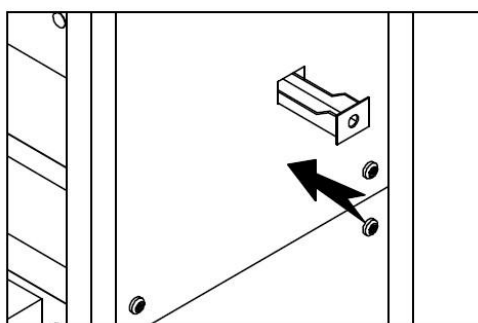


Figure 5-10

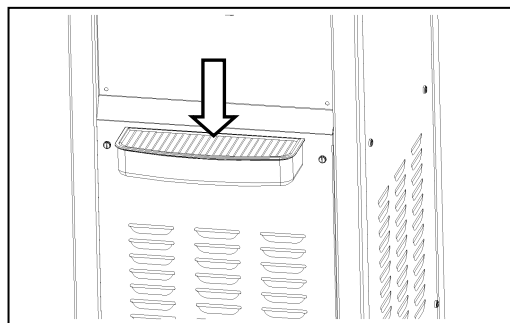
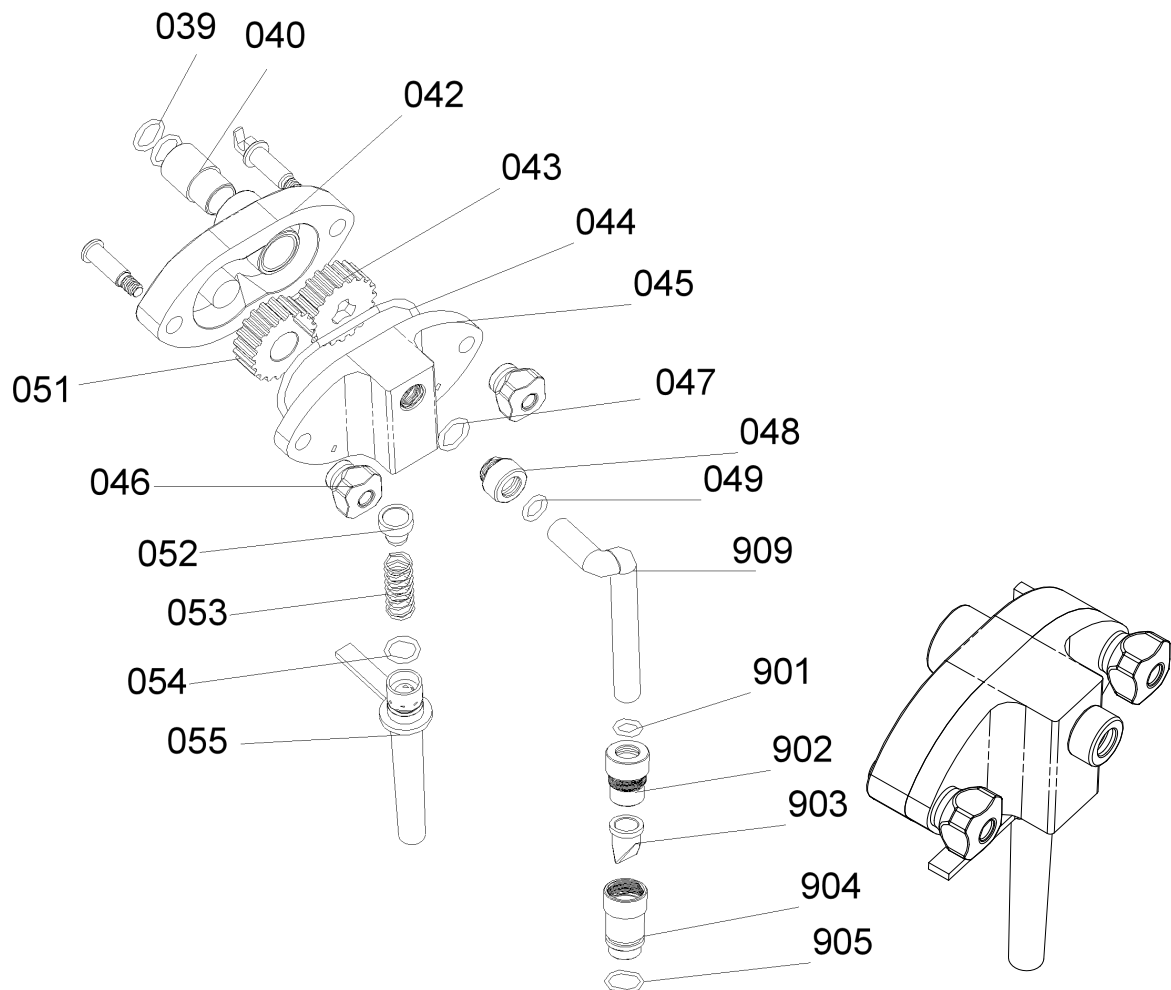


Figure 5-11

INSTALL THE AIR PUMP

Item No.	Description	Item No.	Description
039	Copper bush seal	052	Plug
040	Copper bush	053	Spring-Air pump
042	Air Pump Shell	054	seal
043	Driving Gear	055	indraft tube
044	Seal – Pump Cover	909	Pressure Tube
045	Air Pump Cover	901	O-ring
046	Air Pump Attaching Bolts	902	non-return valve-fixed
047	Seal	903	non-return valve
048	Connect Tube	904	Shell- non-return valve
049	Seal	905	O-ring
051	Driven Gear		

Section 5

Installation Instructions

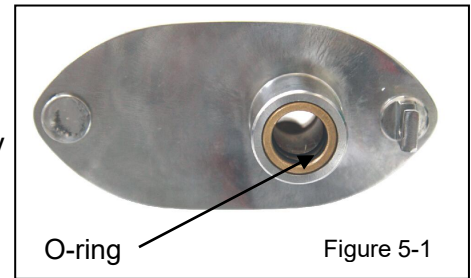
Step 1

Install the large seal (item 044) in pump cover .

Step 2

Lubricate and install the seal (item 049) in the connect tube (item 048).

Lubricate the two seals (item 039) in pump body.(Note: Every time when cleaning pump ,check O-ring 039 broken or not .If broken ,maybe mixture easy leaking from the back of pump)

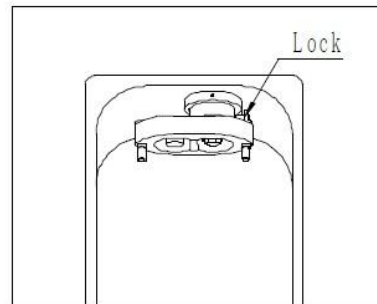
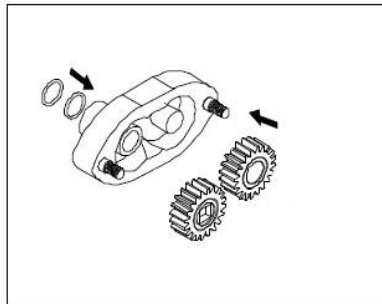
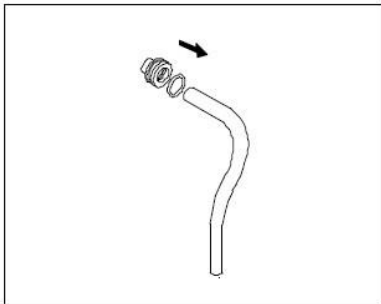


Step 3

Lubricate the sides as well as the center of the pump gears (item 043 and 051) with a thin film of lubricate insert them into the pump body (item 042). Insert the initiative and driven gears into pump body.

Step 4

Install the pump body with gears in the hopper with the blocking pin hook on the right, turning the pump counter clockwise until it locks onto the hopper blocking pin.



Step 5

Lubricate and install the seal (item 054) on the indraft tube (item 055).

Step 6

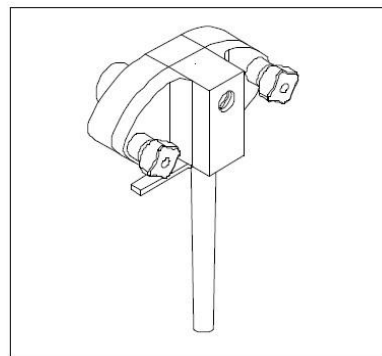
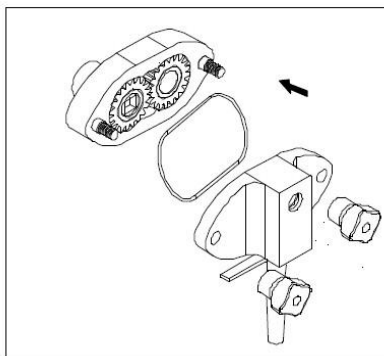
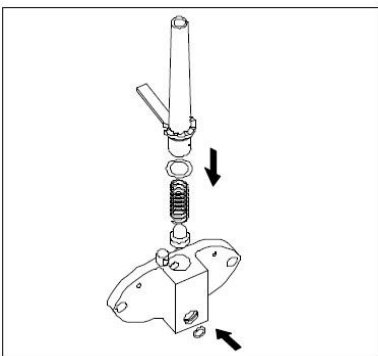
Hold the pump cover (item 045) upside down and insert the plug (item 052) and spring (item 053) in their pump cover housing.

Step 7

Insert the indraft tube(item 055) in the pump cover, push and turn it counter-clockwise.

Step 8

Assemble the pump cover (item 045) with the indraft tube downwards onto the pump body and turn the two bolts (item 046) tightly.



Sanitizing

Step 1

Prepare 7.6 liters of an approved 100PPM sanitizing solution. USE WARM WATER (the temperature not allowed over 45 °C) AND FOLLOW THE MANUFACTURER'S SPECIFICATIONS.

Step 2

Pour 7.6 liters of sanitizing solution into the hopper and allow it to flow into the freezing cylinder.

Step 3

While the solution is flowing into the freezing cylinder, brush-clean the mix hopper, mix level stem, mix inlet hole, and air tube.

Step 4

Press the WASH Keypad. This will cause the sanitizing solution in the freezing cylinder to be agitated. Allow beater motor working for five minutes.

Step 5

Place an empty pail beneath the door spout.

When a steady stream of sanitizing solution is flowing from the prime plug opening in the bottom of the dispensing door, lower the draw handle. Draw off all the sanitizing solution.

Once the sanitizer stops flowing from the door spout, raise the draw handle and press the OFF button, cancelling the beater motor operation.

Note: You have just sanitized the machine. Be sure your hands are sanitized before continuing these instructions.

Step 6

Place the agitator on the agitator drive shaft.

Figure 6-1

Note: The agitator will working with pre-cooling at same time .

DO NOT touch the agitator when the agitator working. Failure to follow this instruction may result in severe personal injury to fingers or hands.

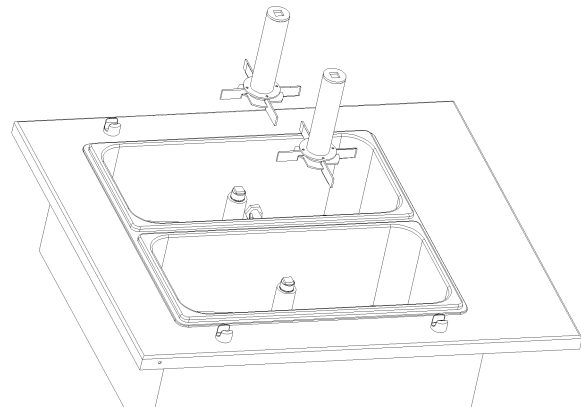


Figure 6-1

Step 7

Install the non-return valve at the bottom of the hopper

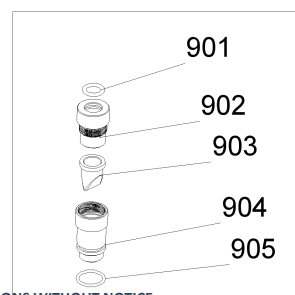


Figure 6-2

USRESTAURANT® RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE

Filling ice cream mixture

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

Never:

1. Too much water in the mix.
2. REFRIGERATION Keypad in “ON” when only water in the hopper and cylinder.
3. REFRIGERATION Keypad in “ON” when no mix in the hopper and cylinder.

Step 1

With a pail beneath the door spout, lower the draw handle. This will force out any remaining sanitizing liquid. When full strength mix is flowing from the door spout, raise the draw handle.

Step 2

Pour 7.6 liters FRESH mix into the hopper

Use only fresh mix when filling the freezing cylinder.

NOTE: The maximum of mix in hopper is not more over the two small holes of pump.

Step 3

Insert the feeding tube (Item 909)at the bottom of the hopper.

Step 4

Press  WASH button. The WASH state will come ON indicating the beater motor operating to flow the mix into cylinder through air pump.

When mix comes out from the big hole of pump body

press  OFF button to stop it. Figure 6-3

NOTE: If the mix can't come out from the big hole of pump body, use a vessel add the mix into the big hole of pump to let the air out. Then mix will come out easily.

Note: Pay attention to the pressure from the air pump .Adjust the two screws at air pump can adjust the pressure .(High pressure from pump may cause the leaking at the back of cylinder)

Low pressure: Unscrew the pump screws

High pressure: Tighten the pump screws

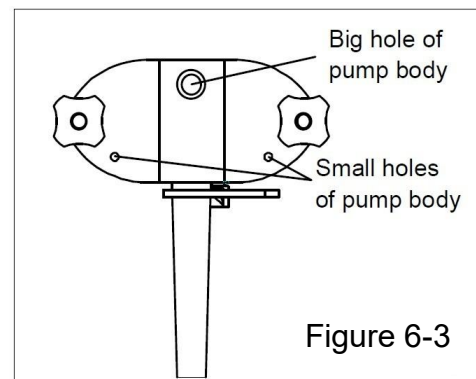


Figure 6-3

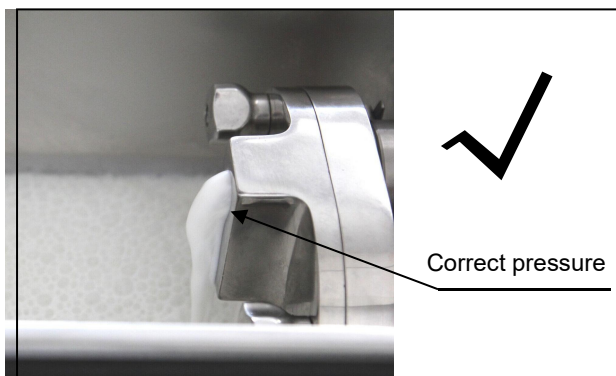


Figure 6-4

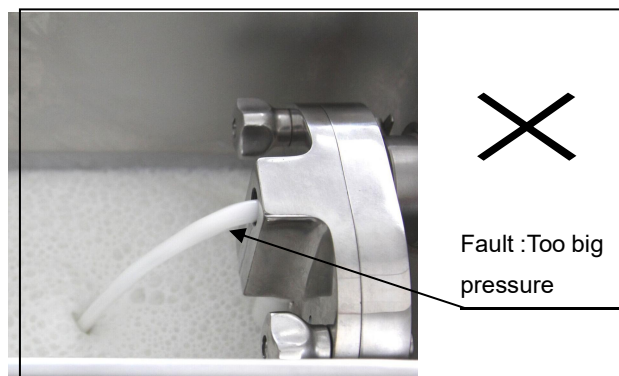


Figure 6-5

Step 5

When mix flow glibly from the big hole (Same as Figure 6-4), OFF the machine ,connect the pressure tube (Item 909) with screw (Item 048) to the pump body and tighten the screw 048. Figure 6-6

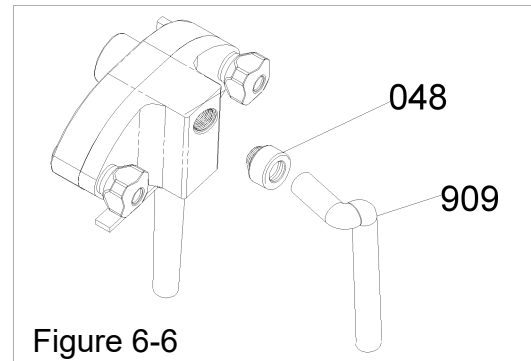


Figure 6-6

Beater mixing

Step 6

Press  the WASH button again, let the machine working in WASH state for 3 minutes. Mix will fill into the cylinder during beater motor working . When cylinder full of mix ,the mix should come out from the two small holes of air pump .If no mix come out ,please adjust the two screws at pump till the mix come out from small holes

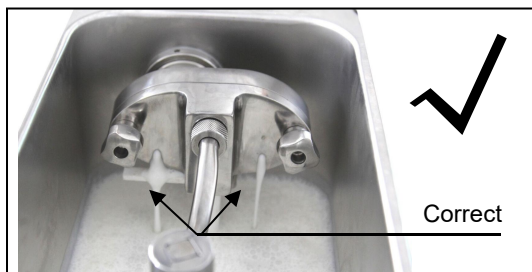


Figure 6-7

Correct: Mix come out from two small holes

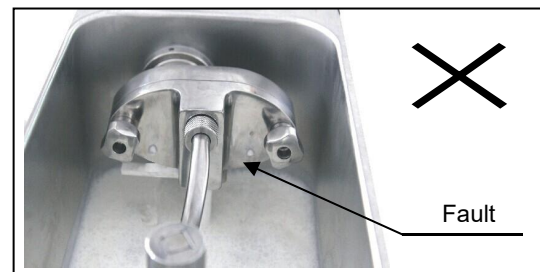


Figure 6-8

Start Refrigeration

Step 7

When cylinder full of mix ,Press  OFF button to stop.

Press  REFRIGERATION button, the refrigeration state will come ON indicating the main refrigeration system operating. When the refrigeration cycles off, the product will be at serving viscosity.

Overrun Adjustment:

Pump allows, by changing position of regulator, to vary proportions between air and mix conveyed to the freezing cylinder, so within certain limits, it allows overrun regulation depending on mix used. Turn the regulator of pump to right, overrun will be higher. Turn left, overrun will be lower.

Figure 6-9

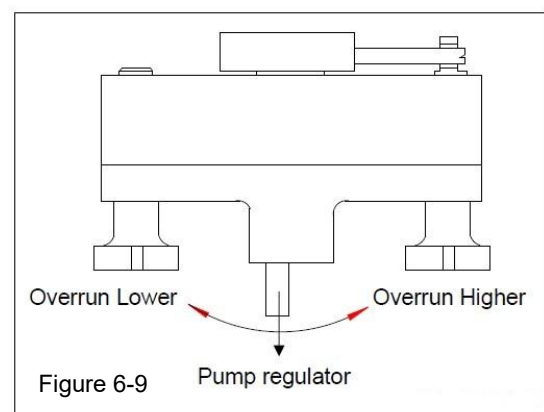


Figure 6-9

When you add new mixture, pump regulator should be set to the left position, the lowest overrun is recommended in order to let pump to suck mix easier. If, after dispensing a significant number of cones, ice cream is too heavy and wet, you may move the pump regulator a notch at a time towards the right. If ice cream comes out of spigot mixed with air bubbles, then turn pump regulator a notch at a time towards the left.

Step 10

Place the mix hopper cover in position over the mix hopper.

Note: Insure enough mix in hopper. If the Mix Low light comes on, the hopper should be refilled as soon as possible. Otherwise will be caused eventual damage to the beater assembly, the dispensing door and gear box.

STANDBY CYCLE

During long “No Sale” periods, the unit should be placed into the Standby mode. This maintains product temperatures below 5°C in both the hopper and the freezing cylinder, and helps prevent overheating and product breakdown

Step 1

Press OFF button, place machine in STOP mode.

Step 2

Press STANDBY  button. The STANDBY state will come ON, machine enter automatic STANDBY cycle to keep mixture fresh in cylinder

Step 4

To recover Sale, press OFF button, exit STANDBY mode ,then can start refrigerate

CLEANING PROCEDURE

To disassemble this machine, the following items will be needed:

- Cleaning pails
- Sanitized stainless steel container with lid
- Necessary brushes
- Cleaner
- Towels

DRAINING PRODUCT FROM THE FREEZING CYLINDER

Always remember to wait at least 30 minutes until ice cream melt inside the cylinder ,then can drawing the product from the freezing cylinder and cleaning the machine .

Step 1

Press OFF button place machine in STOP mode

Step 2

Remove the hopper cover.

Step 3

Pull upward the agitator from the agitator drive shaft housing.

Step 4

Pull the connection tube (Item 048) backwards and remove the pressure tube (Item 909) by turning it 90° then pulling upwards. Remove the pump by turning it clockwise of 45° then pull backwards.

Step 5

Press WASH button. With a sanitized pail beneath the door spout, lower the draw handle and drain the remaining product from the freezing cylinder and the mix hopper.

Step 6

When the flow of product stops, press the “OFF” button, and raise the draw handle. If local health codes permit, empty the rerun into a sanitized stainless steel container. Cover the container and place it in the refrigerator.

DISASSEMBLY AND CLEANING**IMPORTANT :**

- Because this is a food-producing machine ,always remember to keep good hygiene and to wash and sanitize all parts that have been in contact with the product after the machine has been used
- After the cleaning process is done ,the parts should be rinsed with bacteria-free drinking water and thereafter dried
- The temperature of the water use during cleaning should never exceed 105°F (40°C) since it may cause damage to the plastic parts and seal in the machine

Note: The cleaning process is also necessary as a daily routine after soft ice cream production has been done or if the machine has not been used for a long time

Step1

Prepare 7.6 liters of an approved cleaning solution. USE WARM WATER (not over 40°C)AND FOLLOW THE MANUFACTURE’S SPECIFICATIONS.

Step 2

Pour the 7.6 liters of cleaning solution to the mix hopper and allow it to flow into the freezing cylinder.

Step 3

Using the brush, clean the mix hopper, mix level sensing, the outside of the agitator drive shaft housing and the mix inlet hole.

NOTE: Do not brush clean the mix inlet hole while the machine is in the WASH mode.

Step 4

Press the Wash Button. This will cause the water inside the freezing cylinder to come in contact with all areas of the freezing cylinder.

Step 5

Place an empty pail beneath the door spout. Draw off all the cleaning solution. When the solution stops flowing from the door spout, close the draw valve and press the OFF Button cancelling the “WASH” mode.

DISASSEMBLY**WARNING**

BE SURE THE POWER SUPPLY IS DISCONNECTED BEFORE DISASSEMBLY.

Step 1

Remove the dispenser screws, dispensing door, beater and scraper blades, and rear shell bearing with seal from the freezing cylinder.

Step 2

Remove the scraper blade clips from the scraper blades.

Step 3

Remove the beater seal from the rear shell bearing

Step 4

Remove the dispensing door gasket, front bearing, pivot pin, draw handle, and draw valve. Remove all the o-rings from the draw valve. Remove the design cap.

Step 5

Draw out the front drip tray and rear side drip pan.

NOTE: If the rear drip pan are filled with an excessive amount of mix, it is an indication that the beater seal or o-ring should be replaced or properly lubricated.

Step 6

Remove AND DISASSEMBLING AIR PUMP , cleaning all the parts. (Disassembling the air pump according Page 16)

Step 7

Use clean water wash all the parts disassembling .Cleaning the hopper and cylinder .

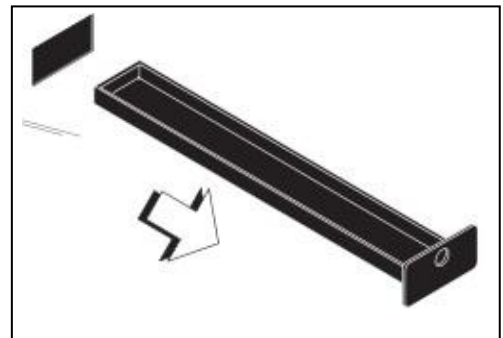


Figure 6-10

BRUSH CLEANING**Step 1**

Prepare a sink with an food approved cleaning solution.

Step 2

Thoroughly brush clean all disassembled parts in the cleaning solution, making sure all lubricant and mix film is removed. Be sure to brush all surfaces and holes, especially the holes in the pump components and the draw valve hole in the dispensing door. Rinse all parts with clean, warm water. Place the parts on a clean, dry surface to air dry overnight.

Step 3

Return to the machine with a little cleaning water. With the brush, brush clean the rear shell bearing at the back of the freezing cylinder. Figure 6-11

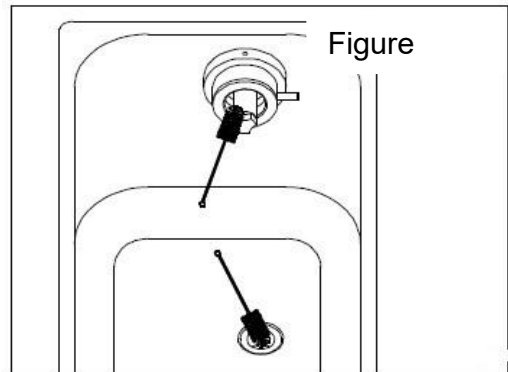
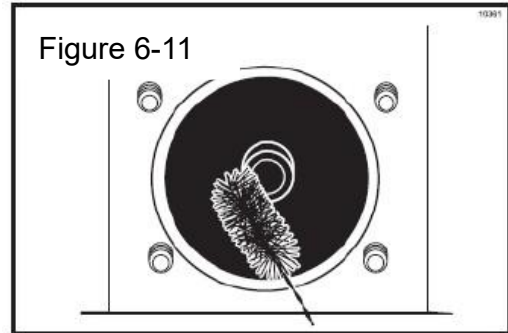
Step 4

Using the brush, clean the drive shaft hole opening in the rear wall of the mix hopper installing pump and hole opening in the bottom of the mix hopper installing pressure tube. Figure 6-12

Note: After cleaning ,lubricate the driven shaft

Sep 5

Wipe clean all exterior surfaces of the machine.



Machine Maintenance

Regular Maintenance Checks

1. Check the rear shell bearing (Item 017)for signs of wear (excessive mix leakage in rear drip pan) and be certain it is properly cleaned.
2. Dispose of O-rings or seals if they are worn, torn, or fit too loosely, and replace with new ones.
3. If the machine get frozen occurs frequently, maybe the motor belt is worn, torn, or fit too loosely. Dispose of the belt and replace with new ones.

Note: Check the motor belt every month .If the belt loose ,tighten the screws under the motor will be fine .Figure 7-1

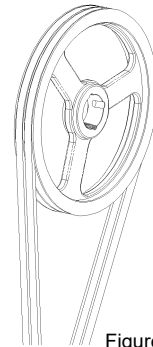


Figure 7-1

4. Follow all lubricating procedures as outlined in ASSEMBLY.

5. This machine is air cooled, check the condenser for an accumulation of dirt and lint. A dirty condenser will reduce the efficiency and capacity of the machine. Condensers should be cleaned monthly with a soft brush. Never use screwdrivers or other metal probes to clean between the fins. Failure to comply may result in electrocution. Figure 7-2

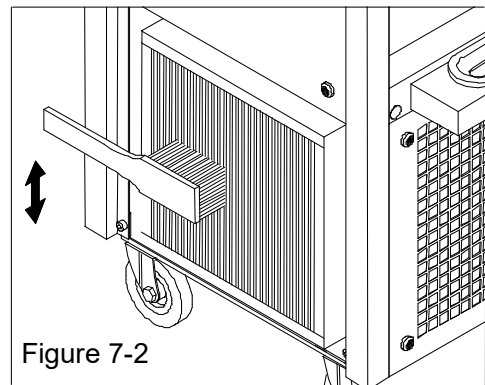


Figure 7-2

Winter Storage

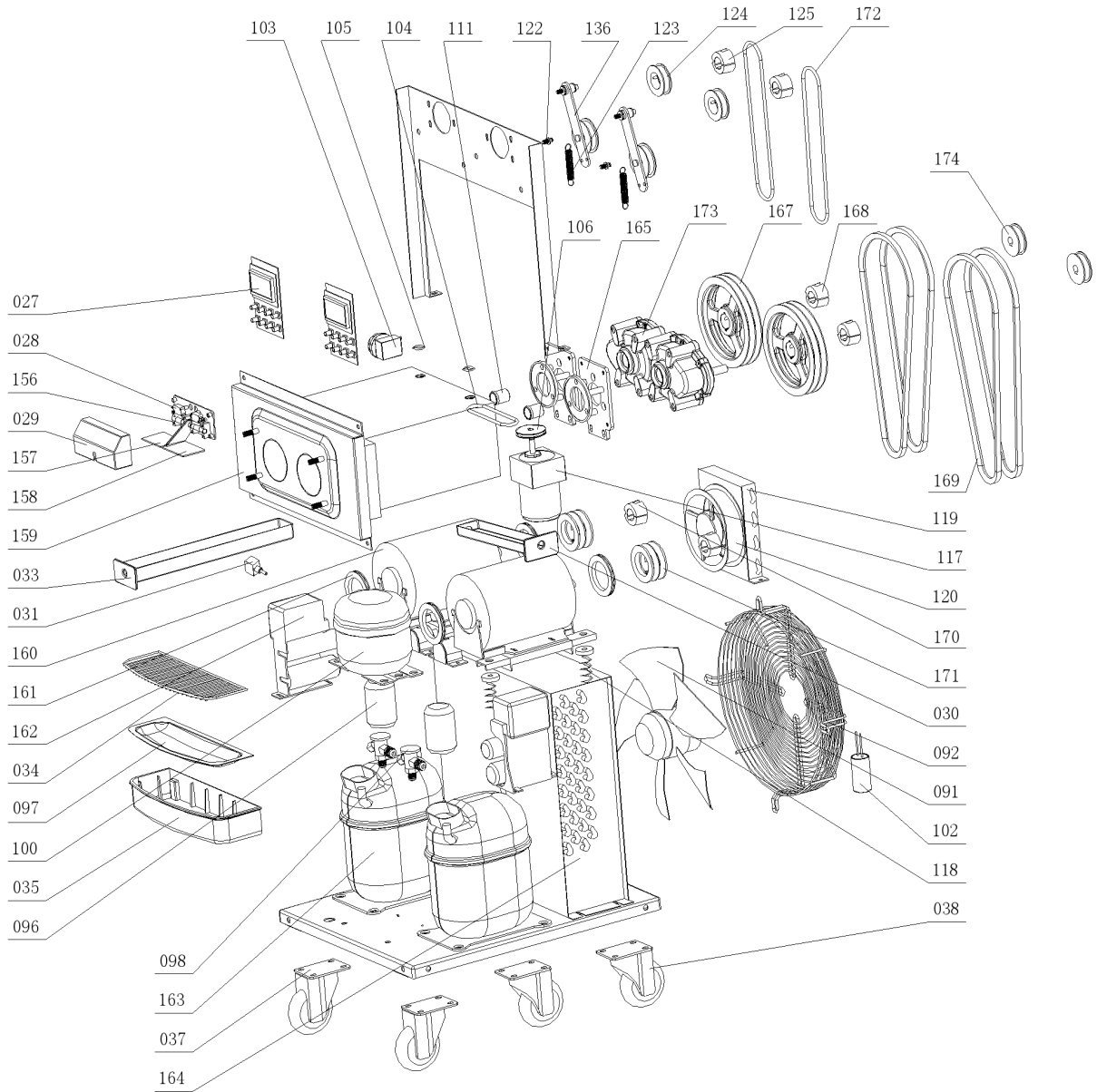
If the place of business is to be closed during the winter months, it is important to protect the machine by following certain precautions, particularly if the building is subject to freezing conditions.

Disconnect the machine from the main power source to prevent possible electrical damage.

Wrap detachable parts of the freezer such as the beater, blades, drive shaft, and freezer door.

Place these parts in a protected, dry place. Rubber trim parts and gaskets can be protected by wrapping them with moisture-proof paper. All parts should be thoroughly cleaned of dried mix or lubrication which attract mice and other vermin.

Main Parts



Item	Description	Item	Description
027	Display board	120	Fan-precooling
028	Microswitch	122	Hook-tensioner
029	Spigot Switch Cover	123	Spring-tensioner
030	Side Drip Tray	124	Pulley – air pump
031	Power Switch	125	Bushing-Pump Pulley
033	front Drip Tray	136	Tensioner assembly
034	Drip pan cover	156	switch baseplate
035	Drip pan- front	157	Arm – Return-left
037	Universal caster	158	Arm – Return-right
038	Rigid caster	159	Assembly cylinder
091	Fan	160	Motor
092	Fan cover	161	Damping ring
096	Dry filter	162	Accessories – Compressor
097	Drip pan-inside	163	Compressor-Main
098	Expansion valve	164	Condenser
100	Precooling compressor	165	Reducer -Support
102	Fan Capacitor	167	Pulley – Gear Box
103	Thermostat	168	Bushing- Reducer Pulley
104	Agitator belt	169	Belt-Motor
105	o-ring	170	Bushing- Motor Pulley
106	Pulley -Agitator motor	171	Pulley – Motor
111	Copper bush	172	Belt - pump
117	Motor- Agitator	173	Reducer
118	Spring - Motor	174	Pulley –reducer-pump
119	Condenser-precooling		

PROBLEM	PROBABLE CAUSE	REMEDY
1.The machine can't stop automatically	a. The viscosity or the parameter its setting too hard	a. Adjust the hardness a little softer
2. No product being dispensed	a. The mix level is inadequate in the mix hopper. b. The discharge door is incorrectly assembly. c. The mix didn't flow into frozen cylinder d. Travel switch its not connected e. Product is being drawn off in excess of machine's capacity. f. The unit is unplugged at the wall receptacle. g. The beater motor overload. h. The circuit breaker is tripped or the fuse is blown.	a. Fill the mix hopper with mix. b. See "Operating Procedures" for proper installation. c. Check the feeding tube blocking or not .Or Check the air pump working well or not d. Readjustment the Travel switch e. Stop drawing product and allow the unit to recover. f. Plug in the power cord. Press the OFF keypad. g. OFF the machine. h. Place the circuit breaker in the "ON" position, or replace the fuse.
3. The machine will not operate in the "COOL" mode.	a. The unit is unplugged. b. The circuit breaker is tripped or the fuse is blown. c. The beater motor overload d. Safe switch its OFF	a. Plug in the power cord; press the OFF keypad. b. Place the circuit breaker in the "ON" position, or replace the fuse. Press the OFF keypad. c. OFF the machine. d. Place the safe switch ON
4. The product is too hard	a.The viscosity or the parameter its setting too hard b. Mix proportion not correct	a. Adjust the hardness a little softer b. Add correct proportion mixture
5. The product is too soft	a. The viscosity or the parameter its setting too soft b. Mix proportion not correct	a. Adjust the hardness a little harder b. Add correct proportion mixture
6. Machine can't working in WASH state	a. Loose connection b.Beater motor broken or Motor capacitor its broken c.PC board its broken	a. Rewiring b. Repair or change new one c. Change new one

PROBLEM	PROBABLE CAUSE	REMEDY
7.Start Refrigeration , beater motor working for several mins, compressor stop	Beater motor broken or Motor capacitor its broken	a. Beater motor broken or Motor capacitor its broken
8. The noise is big	a. Internal components loose b. Voltage its not stable c. Incorrect placement of the machine d. Reducer or motor broken	a. Tighten the components b. Solve the voltage problem c. Fix the machine in the right place d.Change new one
9. Compressor shaking ,doesn't working	a. Voltage its too low b. Compressor starting components fault	a. Solve the voltage problem b. Change new start components
10 .Refrigeration button not work	a. AC contactor fault b. PC board broken	a. Change new AC contactor b. Change new PC board
11. Ice cream its ready , compressor Stop ,motor can't stop	a. Travel switch its not disconnect	a. Adjust the Travel switch or change a new one
12. The unit can't refrigeration	a. Refrigerant leaking b. Condenser blocking c. Condenser Fan its not working	a. Add refrigerant b. Cleaning Condenser c. Repair or change new one
13. Expansion rate its low	a. Indraft tube doesn't adjust well b. Materials mixing in cylinder too long	a. Readjust the indraft tube
14. Excessive leakage in rear drip pan.	a. Beater O-ring worn b. Incorrect lubricant was used. c. Inadequate lubricant of beater drive shaft.	a. Replace the beater O-ring b. Use food lubricant. c. Lubricate the beater drive shaft properly.

PROBLEM	PROBABLE CAUSE	REMEDY
15. The draw valve is leaking.	a. Incorrect lubricant was used. b. A worn or defective O-ring is on the draw valve. c. Inadequate lubricant of draw valve. d. Draw valve its broken e. Installation fault of the middle and the side draw valve	a. Use food lubricant. b. Replace new O-rings every 3 months. c. Lubricate the draw valve shaft properly. d. Change new draw valve e. Re-install the draw valve
16. Leaking from the back of the air pump driven shaft	a. Air pump seal broken (Item 039) b. Pump driven shaft, oil seal and bearing broken	a. change new seal b. Change new
17. Product is not feeding into the freezing cylinder.	a. The mix level is inadequate in the mix hopper. b. The mix inlet hole is frozen. c. Air pump didn't suck the mix well	a. Fill the mix hopper with mix. b. Contact service technician. c. Re-install the air pump
18. The unit goes out on overload excessively.	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.	a. A separate 16 Amp. Circuit is needed for the machine to operate properly. b. If the extension cord is used, it must match the power cord in size of circuit ampacity.
E02	voltage is too high	Check your local volatge
E04	voltage is too low	Check your local volatge
E08	Rpm is too low	Check the cylinder get frozen or not
E0A	Rpm is too low and voltage is too high	
E0C	Rpm is too low and voltage is too low	
E10	Cylinder temperature is too low	Adjust the hardness a little softer
E12	Cylinder temperature is too low and voltage is too high	
E14	Cylinder temperature is too low and voltage is too low	
E18	Cylinder temperature is too low and Rpm is too low	
E1A	Cylinder temperature is too low, Rpm is too low and voltage is too high	