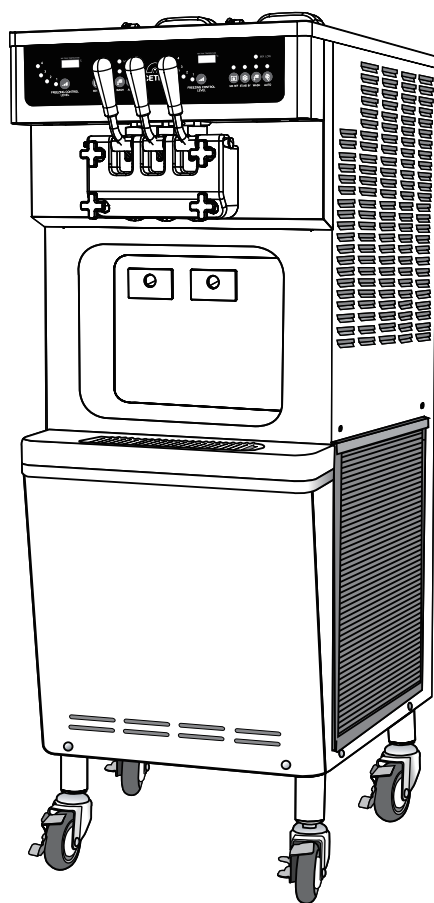


# SOFT ICE CREAM FREEZER

## User's Manual

### ISI-163SB

- This product is for indoors, so do not use it outdoors.
- Before using the product, be fully familiar with the contents in the manual. Please store this manual in a place where you can reach it easily for future reference.
- This user manual contains a product warranty.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance a safe way and understand the hazards involved. Children should be supervised to ensure that they do not play with the appliance.



**ICETRO**

# Dear customers;

Thank you very much for purchasing a soft ice cream maker made by ICETRO. For correct use of the product and its maintenance, please read this manual carefully. If a problem occurs while using the product, you can refer to this manual for troubleshooting. This manual contains a product warranty, so keep it safely for future reference. This product can be installed only by someone qualified for installation. If use of parts and accessories not provided or approved by ICETRO or any part or accessories made by ICETRO but remodeled by other person causes a problem, we are not responsible for it financially. (The functions and specifications shown in this manual and on the web site are subject to change without notice. Please visit our website at <http://www.icetro.com> to obtain the latest specifications.

## Contents

### Acknowledgment

Cautions for your safety	
– Power supply related items	3~4
– Installation related items	4
– During use	5
Part names and controllers	6~7

### Method of Use

Check prior to use	8
Button display names and functions	9
How to make soft ice cream	10
Conversion function between ice-cream mode and yogurt mode	11
How to set non-load	11
Carburetor control	12

### Cleaning Method

Cleaning Method	
– Wash mode	13~14
– Washing of each parts	15
– Condenser and filter cleaning method	15
Dasher cover assembly method	
– Dasher cover assembly	16
– Dasher and dasher cover	17

### ETC

Installation method	
– Electrical connection	18
Before requesting service	19
Error code types	20
Circuit diagram	21
Product specification	22
Refrigerant circuit	23
Part list	24~27
What to watch out for	28
Warranty	29

# Cautions for your safety

These are safety related items. So, comply with them at all times!

They are meant to protect the safety of users and prevent property damages. Please, read the cautionary items carefully for correct use.



**Danger**

If violated, it can cause death or severe injury.



**Warning**

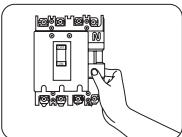
If violated, it can cause severe physical injury or property damages.



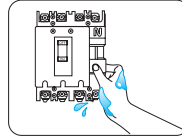
**Caution**

If violated, it can cause slight physical injury or property damages.

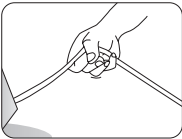
## ■ Power supply related items ■



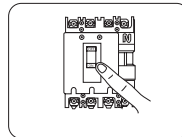
- ⚠ Install it independently with an earth leakage circuit breaker with more than 30[A].  
It can cause electrical shocks or fire.



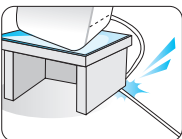
- ⚠ Do not touch the earth leakage circuit breaker with your wet hands.  
It can cause electrical shocks or fires.



- ⚠ Do not move the product by pulling on the power cord.  
It can cause electrical shocks or fires.



- ⚠ Do not turn the power on/off with the earth leakage circuit breaker continuously.  
It can cause electrical shocks or fires.

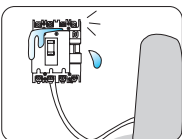


- ⚠ Do not bend the power cord too much or cause damages or deformation by pressing it under a heavy object.  
It can cause electrical shocks or fires.

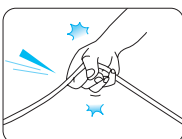


⊘ Prohibited

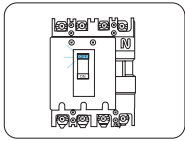
This marking indicated that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling



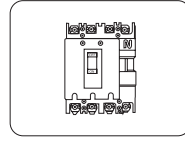
- ⚠ If there is water inside the power supply, turn off the earth leakage circuit breaker and dry it before use.  
It can cause electrical shocks or fires.



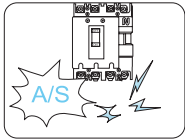
- ⚠ Do not pull on the power cord.  
It can cause electrical shocks or fires.



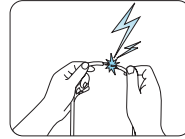
⚠ If you want to leave it unused for a long time, then and turn off the earth leakage circuit breaker.  
It can cause electrical shocks or fires.



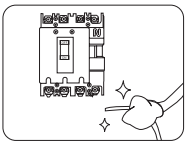
⚠ Do not connect many electrical products to the earth leakage circuit breaker. Use it individually.  
It can cause fires.



⚠ If the power cable is damaged, then do not replace it on your own. Call the service center for cable replacement.  
It can cause electrical shocks or fires.

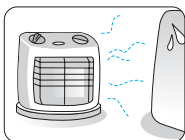


⚠ Do not arbitrarily connect the power cord or process it for use.  
It can cause fires.  
If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

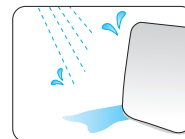


⚠ Use a power cable larger than 3C x 4.0 mm<sup>2</sup>. The outer box for the product should be grounded.  
It can cause electrical shocks or fires.

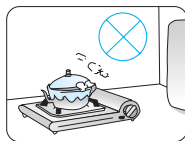
### ■ Installation related items ■



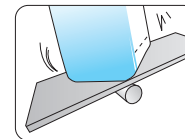
⚠ Do not install it near a heating device.  
It can cause fires.



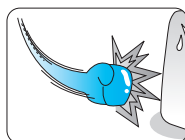
⚠ Do not install it near dust, moisture or rainwater (water) popping.  
It can cause electrical shocks or fires.



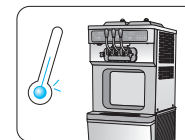
⚠ Do not use or store inflammable gas or material near the product.  
It can cause electrical shocks or fires.



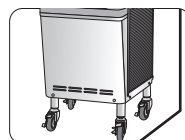
⚠ The installation instructions shall state the maximum tilt of the appliance for safe operation.  
NOTE 101 A tilt of less than 2° need not be stated. An instruction such as "the appliance has to be placed in a horizontal position" is sufficient.



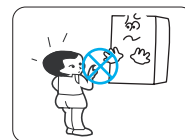
⚠ Do not apply excessive force or impact to the product.  
It can cause damages to the product.



⚠ This product shows the best performance at temperature of 10~30° C.



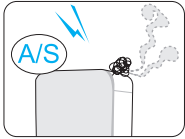
⚠ The side and rear of the product should be maintained at least 20 cm from the wall.



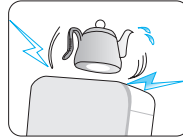
⚠ This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



■ During use ■



⚠ If the product has weird sounds or burning smell or smoke, turn off the earth leakage circuit breaker immediately and call the service center.  
It can cause electrical shocks or fires.



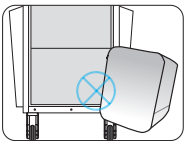
⚠ Do not place water containers, medicine, foods, small metal parts or inflammable material on top of the product.  
If they go inside the product, it can cause electrical shocks, fire and damage.



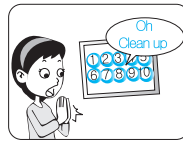
⚠ Do not place candle lights or cigarettes light on top of the product.  
It can cause fires.



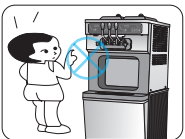
⚠ While operating the product, please completely close the upper cap.  
Bugs or alien substances can enter the product.



⚠ Do not obstruct the entrance of the air vent.  
If so, the performance will be degraded.



⚠ To have good quality soft cream, it is recommended to clean it every day.  
Otherwise, the ingredients can decay.



⚠ Don't let a person who was not educated the product or or child touch or operate the machine  
The damage will go to the machine or there is a possibility which will be injured.



⚠ The installation instructions for appliances of the supervised type shall state that the appliance is only to be installed in locations where it can be overseen by trained personnel.  
It can cause electrical shocks or fires.

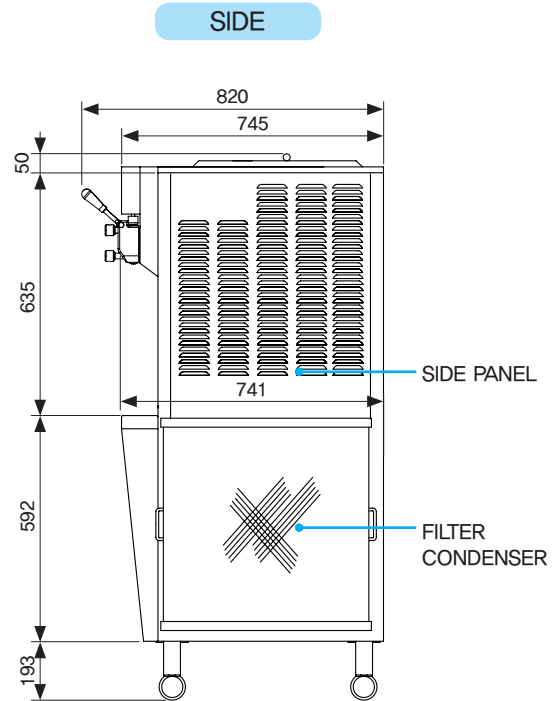
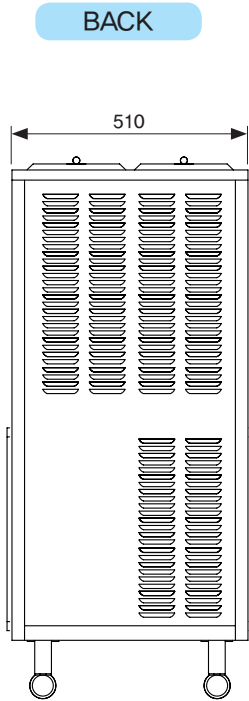
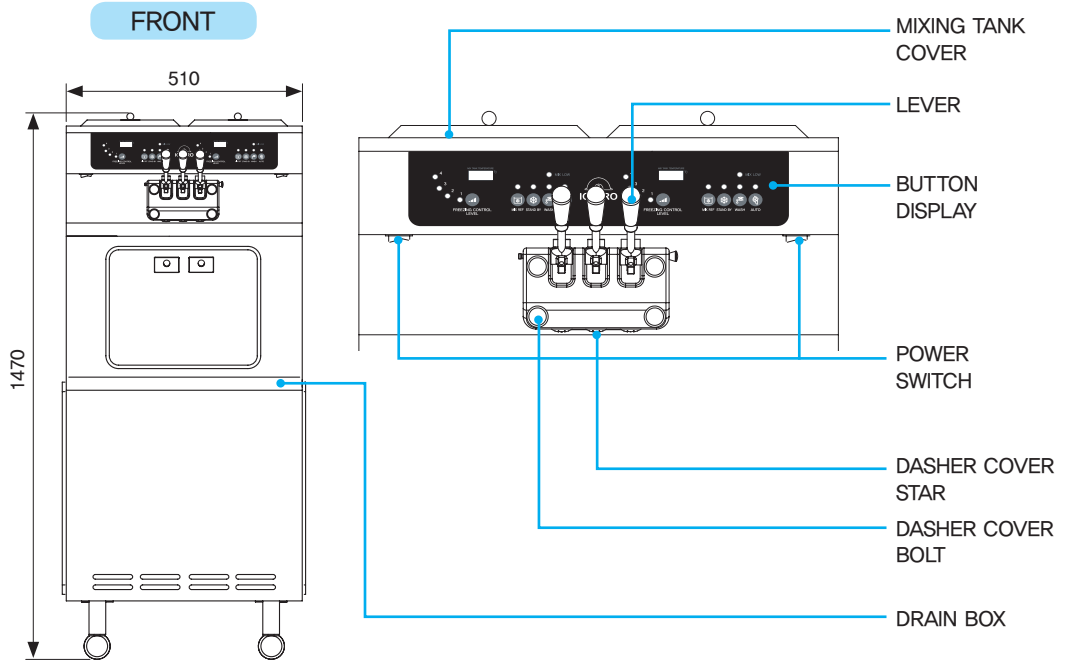


**For your information**

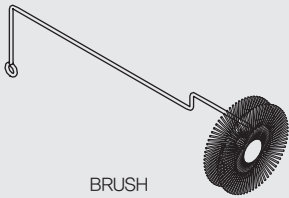


- Clean the filter periodically. Otherwise, the cooling performance will be degrade.
- Comply with the user guideline suggested by the maker. Otherwise, it can cause malfunctions

# Part names and controllers



Included accessories



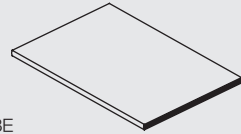
BRUSH  
1EA



CARBURETOR TUBE  
2EA



CARBURETOR TUBE  
BODY  
2EA



MANUAL  
1EA



BRUSH 3  
1EA



BEARING DASHER  
2EA



DASHER COVER PACKING  
2EA



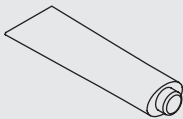
BRUSH 143  
1EA



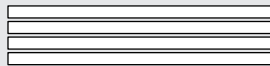
PARTITION FOOD  
2EA



PACKING CARBURETOR  
4EA



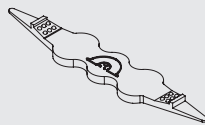
HINES  
1EA



DASHER LUG FOAM  
4EA



PACKING DOWN 143  
2EA



PACKING REMOVE HANDLE  
1 EA



PACKING PISTON  
2EA

# Check prior to use



## ■ Make sure to check them prior to use ! ■



This product is exclusively for 1Ø, 230 V~, 50 Hz / 220 V~, 60 Hz

Install it independently with an earth leakage circuit breaker with more than 30 A and provide an external grounding.

(Ask a qualified electrical technician for the installation.)

The power cable should be connected before the product can operate normally.

### ■ Do not block the air vent.

The air suction and discharge should be facilitated so that the cooling performance can be optimized.

### ■ Close the mixing tank.

If you leave it open, bugs or contaminants may enter the mixing tank.

### ■ Clean the condenser once a month.

It is recommended to clean the cylinder, the mixing tank, the impeller, the dasher, and the piston every day.

Clean the condenser at least once a month or more often.

### ■ Clean it at least once a day.

The cylinder, mix tank, impeller, dasher, and piston inside the product make contact with the ingredients, so you should clean them once every day.

### ■ Clean the filter once a week.



If you intend to leave it unused for a long time, wash it and turn off the water supply valve and turn off the earth leakage circuit breaker.



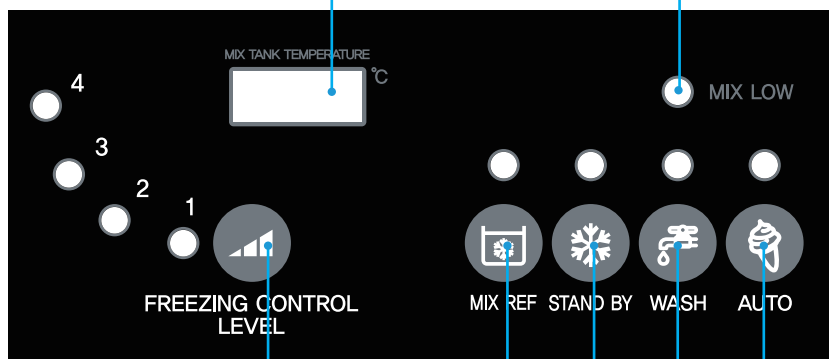
# Button display names and functions

① “MIX TANK TEMPERATURE”

Display the ingredient temperature inside the hopper.

② “MIX LOW”

Lamp blinks when there are insufficient ingredients and It blinks when there is no ingredient.



③ “FREEZING CONTROL LEVEL” BUTTON

Icecream Level Adjustment button

④ “MIX REF” BUTTON

It is used to store ingredients.

⑤ “STAND-BY” BUTTON

Turned on while the raw material in the cylinder and the hopper is being refrigerated

⑥ “WASH” BUTTON

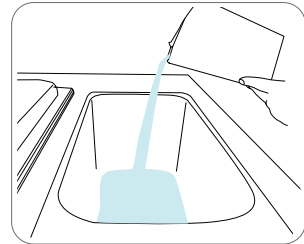
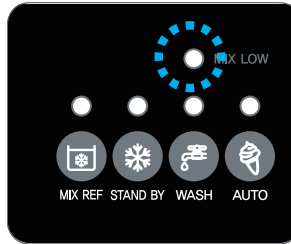
Button is used to wash. It turns the dasher motor and the impeller (applied model) in the tank.

⑦ “AUTO” BUTTON

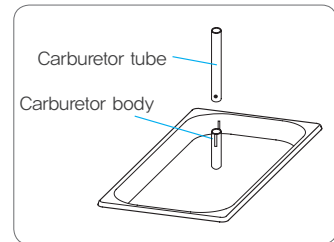
Button is used to make soft freezer.

# How to make soft ice cream

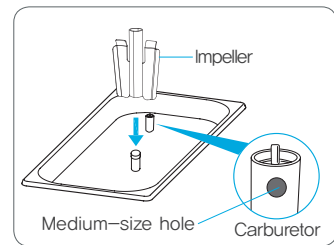
1. Open the top cover and pour ingredient into the hopper tank. Please be aware of using soft serve mix stored under  $-10^{\circ}\text{C}$ . Please check MIX LOW lamp turns OFF.



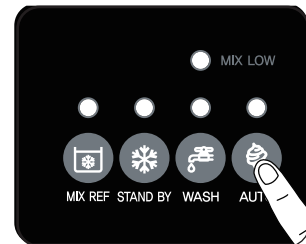
2. After pouring the mix, please insert the carburetor body and carburetor tube into the hole in the hopper.



3. Match carburetor medium-size hole and apply impellers on the shaft in the hopper.



4. Press AUTO button to start making soft ice cream.



- The smaller the carburetor hole is, the higher the overrun (air content) is. Instead, in case of continuous sales, the ingredients supply gets slower and the soft ice cream is let out slowly.
- The carburetor hole can get clogged, so check it and wash it periodically during use.
- The manufacturer shall not be responsible for any trouble (e.g., spoilage of materials, overcooling, non-production of ice cream) caused by using materials in non-frozen state ( $10^{\circ}\text{C}$ ).

# Conversion function between ice-cream mode and yogurt mode



- 1) The default mode is the ice-cream mode.
- 2) The modes can be distinguished by checking LED's; lighting for the ice-cream mode, and blinking for the yogurt mode.
  - ① Pressing 'FREEZING CONTROL LEVEL' button for two seconds converts to other mode (The buzzer sounds when conversion is complete).
  - ② The yogurt mode is used for freezing stronger than the ice-cream mode.

# How to set non-load



Press the freezing adjusting switch for five seconds after supplying power in the MIX OUT (no material) condition to enter into the program.

Perform non-load setting for each of the following cases:

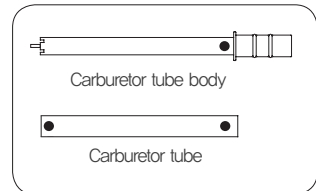
- 1) New installation
- 2) Moving the system to other position, and reinstalling the system
- 3) After replacing parts relevant to producing ice-cream (e.g., Desher motor, LUG POM and compressor)

# Carburetor control

The carburetor has two components.

The one inserted into the hopper is "BODY," with a "TUBE" going into the body.

The tube is open on both sides and cannot be inserted in the wrong direction.

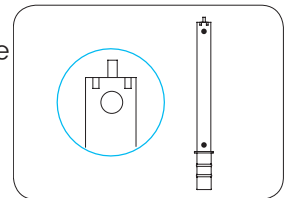


The carburetor is set to a medium-size hole.

Match the projecting part on the upper "BODY" to the medium-size hole in the upper part of the "TUBE" without a hole so that the hole in the lower part of the "BODY" matches the smaller hole.

This is to set medium overrun and ingredient.

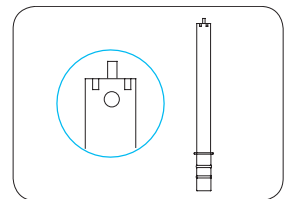
Conditions : For operation  
In normal use



The carburetor hole is closed.

Match the projecting part on the upper "BODY" to the upper part of the "TUBE" without a hole so that the hole in the lower part of the "BODY" is plugged.

Conditions : When making ice cream for the first time to enhanced over run  
After the ice cream is created, it should be changed to small, midium or bigger hole.

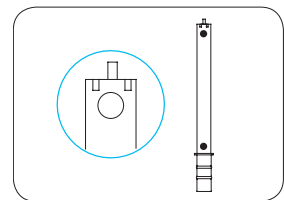


The carburetor is set to a bigger hole.

Match the projecting part on the upper "BODY" to the big hole in the upper part of the "TUBE" without a hole so that the hole in the lower part of the "BODY" matches the big hole.

This is to minimize overrun and increase the ingredient for the continuous making of ice cream.

Conditions : For operation

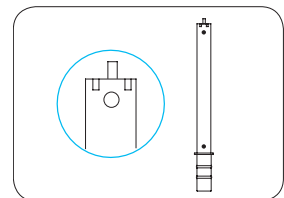


The carburetor is set to a smaller hole.

Match the projecting part on the upper "BODY" to the smaller hole in the upper part of the "TUBE" without a hole so that the hole in the lower part of the "BODY" matches the smaller hole.

This is to increase overrun and decrease the ingredient when demand for ice cream is low.

Conditions : For operation



For your  
information

**information**



Even if overrun is improved with a smaller hole, the amount of ice cream may vary depending on the amount of ingredient in the hopper.  
The smaller the amount of ingredient that the hopper has, the bigger the overrun will become, and vice versa.

The more the ingredients, the lower the overrun is.

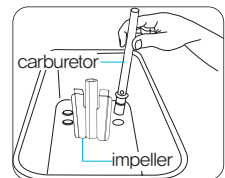
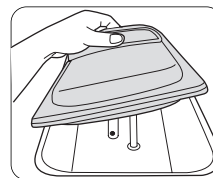
# Cleaning method

## ■ Wash mode ■

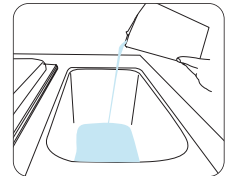
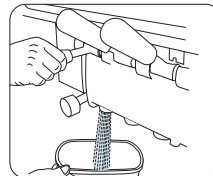
1. Press the wash button on the control panel.  
(Wait until the soft cream in the cylinder is melted,  
About 10 minutes.)



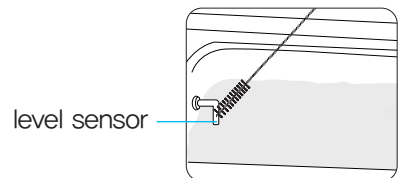
2. Remove the cover food pan and  
Take out the carburetor (tube+body)  
Please do not let water or ice cream mix get  
into the agitator shaft.



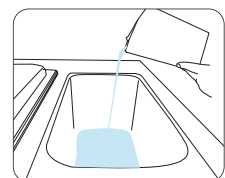
3. Remove the soft ice cream liquid in the mixing  
tank and pour faucet water into it.  
Repeat it two or three times until you get clean  
water from it.



4. Clean out the raw materials and foreign  
objects from around the level sensor,  
drain hole, and so forth from inside the  
Mixing tank with a brush.  
(The location of the level sensor may be different  
depending on model types.)



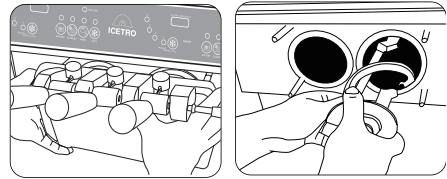
5. Press the 'WASH' button and finally discharge  
the water from the mixing tank.  
Use faucet water to rinse off the cleaning  
agent residuals.



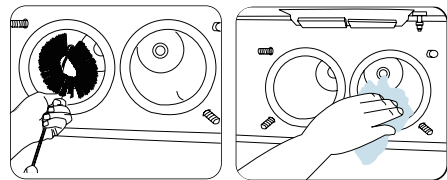
6. Press the wash button to stop the product  
and Release the four dasher cover bolts.  
(do not turn off the power switch)



7. Separate the dasher cover from the main body.  
Disassemble parts of dasher assay.

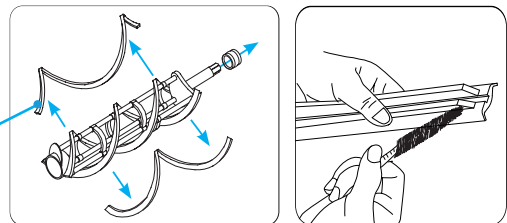


8. Brush off the inner area of the cylinder and wipe it off with a soft cloth.

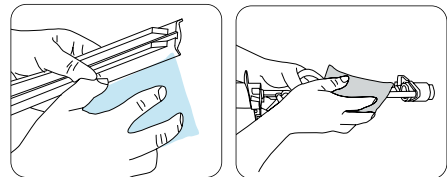


9. Disassemble the dasher assembly, wash all the parts using neutral detergent and wipe them with soft cloth.

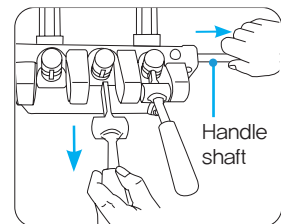
Dasher lug form



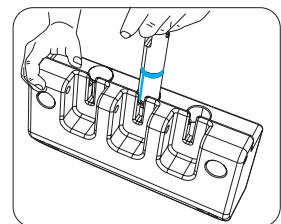
10. Clean up the dasher with a soft cloth.



11. Extract a handle shaft and separate the lever from the dasher cover.

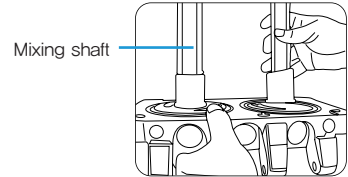


12. Pull out each piston from the dasher cover and clean it up with brush (Please make sure not to switch the middle piston with left and the right piston.)

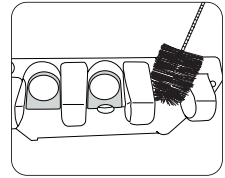


## ■ Washing of each parts ■

13. Disassemble the mixing shaft and wipe it off with a brush.



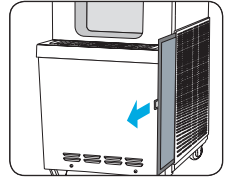
14. Take out the piston of the dasher cover and clean the edge of the piston with a soft towel.



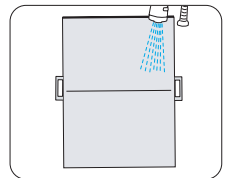
15. After cleaning off all parts, dry them and reassemble them in the reverse order.

## ■ Condenser and filter cleaning method ■

1. Pull out the condenser filter located on the right side of the machine.

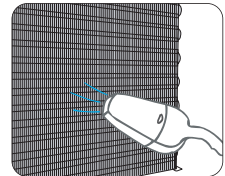


2. Remove dust from the filter element or use a vacuum cleaner, and wash it clean with water.



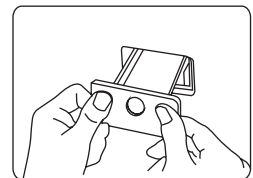
● Clean and dry the filter and insert in into the machine.

3. The condenser surface has lots of dust. Remove it by using a household vacuum cleaner or hand held cleaner. Clean and dry the filter and insert it into the machine.



## ■ Drain slug cleaning method ■

※ One time a week

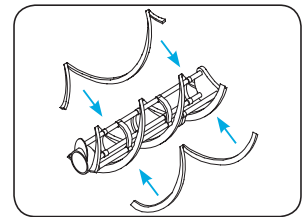
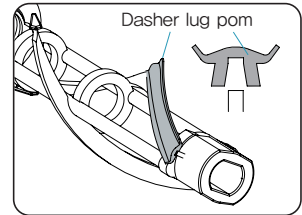


# Dasher and dasher cover assembly method

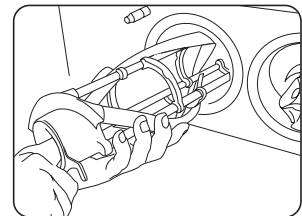


## ■ Dasher assembly ■

1. Please assemble the blades (LUG POM) on the dasher ass'y.



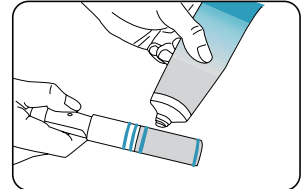
2. Please insert the assembled dasher into cylinder.



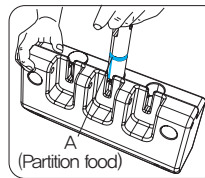


## ■ Dasher cover assembly ■

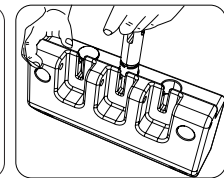
1. Apply edible vegetable oil to the ring inserted into the piston.



2. Insert the piston in the dasher cover.
  - ※ Please make sure not to switch the middle piston with left and the right piston.
  - ※ When reassembling, the (A) part of the middle piston should be placed as shown in the (Picture 1). When the Partition Food (rubber packing) is inserted fully, please turn the piston to look forehead as shown in the (Picture 2). (Prevention of the rubber from getting entangled)

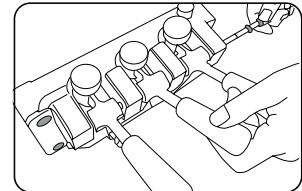


(Picture 1)

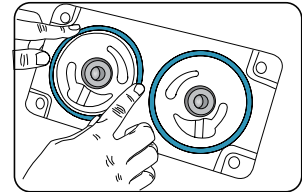


(Picture 2)

3. Insert the discharge lever into the piston and then insert the lever in line with the dasher cover and the discharge lever.

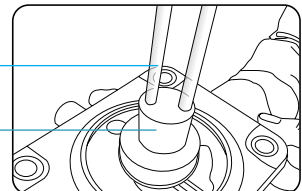


4. Insert the packing dasher to the dasher cover.

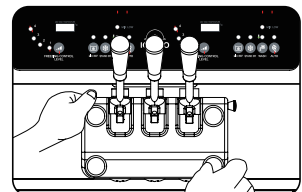


5. Insert the mixing shaft and align the dasher bearing.

Mixing shaft  
Dasher bearing



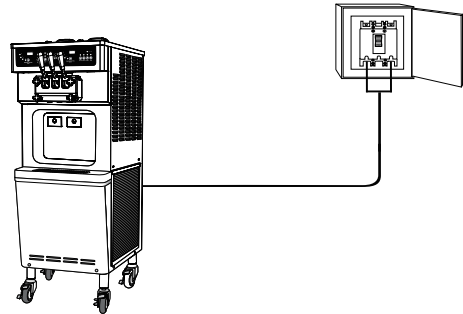
6. Fasten the two pairs of dasher cover bolts facing each other diagonally.  
If they are loose, then the soft cream can leak. Fasten it tightly.



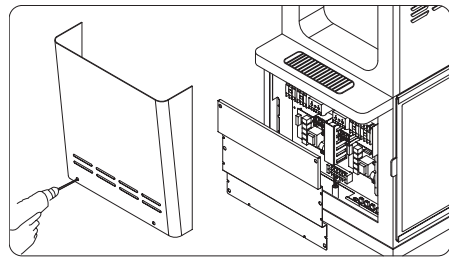
# Installation method

## ■ Electrical connection ■

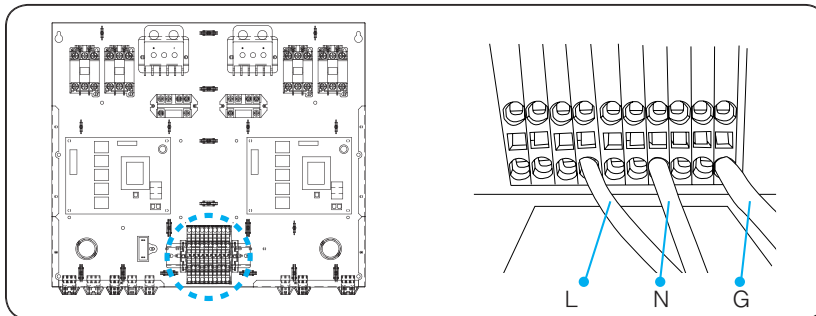
1. Supply AC 1Ø 220/230V electricity to an additional power distribution box with an earth leakage circuit breaker of a capacity of more than 30 A is individually installed.



2. Remove the front panel at the bottom front and remove the control box cover.

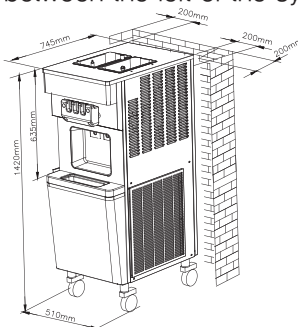


3. Connect the 4.0 mm<sup>2</sup> cable at the bottom of the control box to the terminal block.

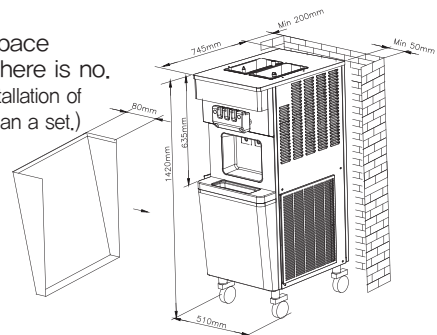


※ Maintain space of 50cm or more each between the walls and the right and rear sides 20cm or more between the left of the system.

1) Floor space when you have



2) Floor space when there is no.  
(The installation of more than a set.)








Electrical connections should be performed by an electrical technician to make sure that each wire is correctly connected. If the connection is wrong, it can cause explosions or ignition of the PCB in the product and electrical shocks or fires.

# Before requesting service

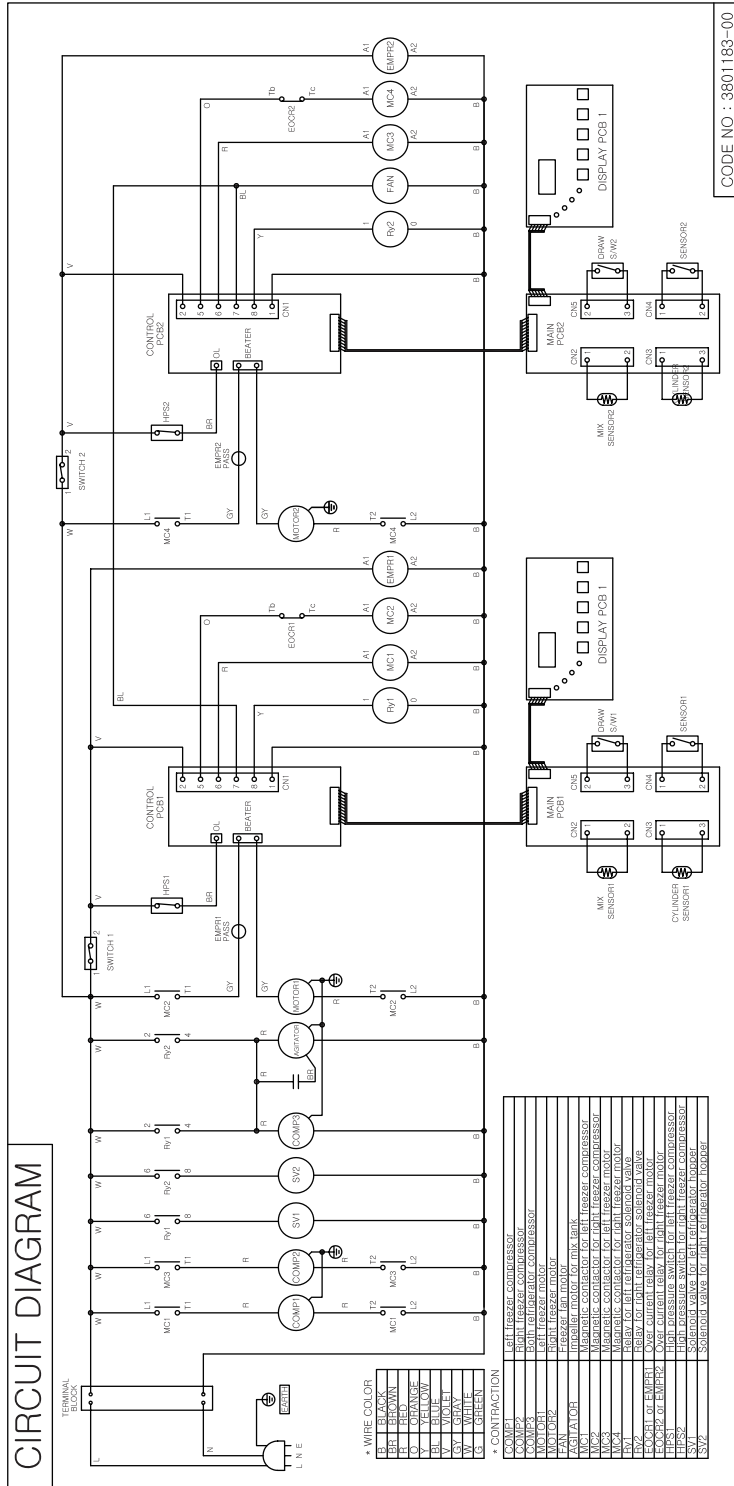
The soft ice cream machine can operate abnormally because you are not familiar with the method for use or due to another insignificant reason. It does not necessarily mean a malfunction. In this case, check the following items to resolve a simple problem on your own without the help from the service center. If you still can't resolve it after checking the following items, please contact our service center.

State	Please check
The machine does not work!	<ol style="list-style-type: none"> <li>1. Contact an electrician or the customer satisfaction team in case a phase error occurred.</li> <li>2. Check whether the ELB and switch are turned off.</li> <li>3. In case the display (front display) is on, turn the ELB (breaker) and switch on.</li> </ol>
Does not stop but continues to operate!	<ol style="list-style-type: none"> <li>1. Check whether dust is stacked in the ventilation hole. Take out the filter and remove the dust.</li> <li>2. If the machine is close to the wall and has no ventilation, it can stop. Please, secure it at least 20~50cm from the wall.</li> <li>3. Check whether the carburetor hole is blocked and if so clean out the hole.</li> <li>4. Check whether the temperature in the ventilation hole (inhalation hole) is high. Set the inhalation temperature of the condenser lower than 38°C.</li> </ol>
Soft ice cream is thin!	<ol style="list-style-type: none"> <li>1. Check whether the carburetor is inserted.</li> <li>2. In case there are no sales for more than 3 hours, the soft ice cream can be melted and made one more time by using the recycling function (cover the carburetor hole during recycling).</li> </ol>
The noise is disturbing!	<ol style="list-style-type: none"> <li>1. This product is an industrial machine and has some operation noise when compared to household appliances. This product is designed to generate noise that is less than 70dB. the customer satisfaction team in case abnormal noise is generated during machine operation.</li> <li>2. A clicking sound can be generated during the initial operation. This is the sound of plastic blade (dasher blade) that cleans the wall of the cylinder while making soft ice cream.</li> </ol>
Soft ice cream dose not come out enough!	<ol style="list-style-type: none"> <li>1. Is the raw material need lamp blinking? In the case of MIX LOW, the ejection amount can become small. In the case of MIX LOW, replenish the raw material.</li> <li>2. The ejection amount can change by carburetor hole. The ejection amount can be large when a large hole is used.</li> <li>3. Did you set up ice cream level too high? (If you increase the level, you may have lower amount of ice cream, If you decrease the level, you may get more amount of ice cream)</li> </ol>
Soft ice cream comes out too much!	<ol style="list-style-type: none"> <li>1. Soft ice cream becomes thin and ejection amount may become large as time passes. Remake soft ice cream by using the recycling function to solve the problem.</li> <li>2. Ejection amount can change by carburetor hole. The ejection amount can be small when a small hole is used.</li> <li>3. Did you set up ice cream level too low? (If you control a high level, you may have lower amount of ice cream, If you control a low level, you may get more amount of ice cream) If setting up the ice cream too high, no ice cream can be discharged</li> </ol>
Overrun is not working correctly.	<ol style="list-style-type: none"> <li>1. Be sure to familiarize yourself with the user instruction.</li> <li>2. Overrun will be improved by replacing the carburetor with one having smaller holes.</li> <li>3. In case to operate the machine for a long time, If soft serve mix left 2/3 capacity of cylinder, it may cause bad overrun, therefore to increase it, please draw about half amount of the soft serve mix and then please make new ice cream. After that, you can produce soft ice cream with good overrun. But, if there is less than 1/3 amount of ice cream in cylinder, it might cause over freezing and can't draw any soft ice cream.</li> </ol>
When having bad texture of soft ice cream	<ol style="list-style-type: none"> <li>1. When you use soft ice cream ingredient with high milk fat, it makes a bit of milk fat chunk inside ice cream. If you have low sales volume, please adjust the carburetor hole at the smallest hole to prevent from it.</li> </ol>
Soft ice cream has gone bad.	<ol style="list-style-type: none"> <li>1. This product must be cleaned daily. The remaining raw material must be wasted and new raw material must be used to make Soft ice cream. The manufacturer is not responsible if this is not observed.</li> </ol>
When having dark color of ice cream	<ol style="list-style-type: none"> <li>1. Did you insert the carburetors? You can make good overrun when using small size carburetor hole.</li> <li>2. You can make soft ice cream with good overrun by opening carburetor hole and by discharging (drawing) ice cream several times.</li> </ol>

# Error code types

Error code	Error details	Error occurrence	Release condition	Display
	Cooling temperature sensor is bad.(Open)	Stop	Auto release	Stand by LED will blink
	Cool temperature sensor is bad.(Short)	Stop	Auto release	Stand by LED will blink
	Cool cylinder entrance's temperature sensor is bad.(Open)	Stop	Auto release	Auto LED will blink
	Cool cylinder entrance's temperature sensor is bad.(Short)	Stop	Auto release	Auto LED will blink
	Over current of the dasher motor and current detection failure.	Stop	Reset	Auto LED will blink Wash LED will blink
	High voltage detected.	Stop	Auto release	Auto LED will blink Wash LED will blink
	Soft ice cream not formed	Start	After a dormancy	Auto LED will blink Wash LED will blink Stand by LED will blink

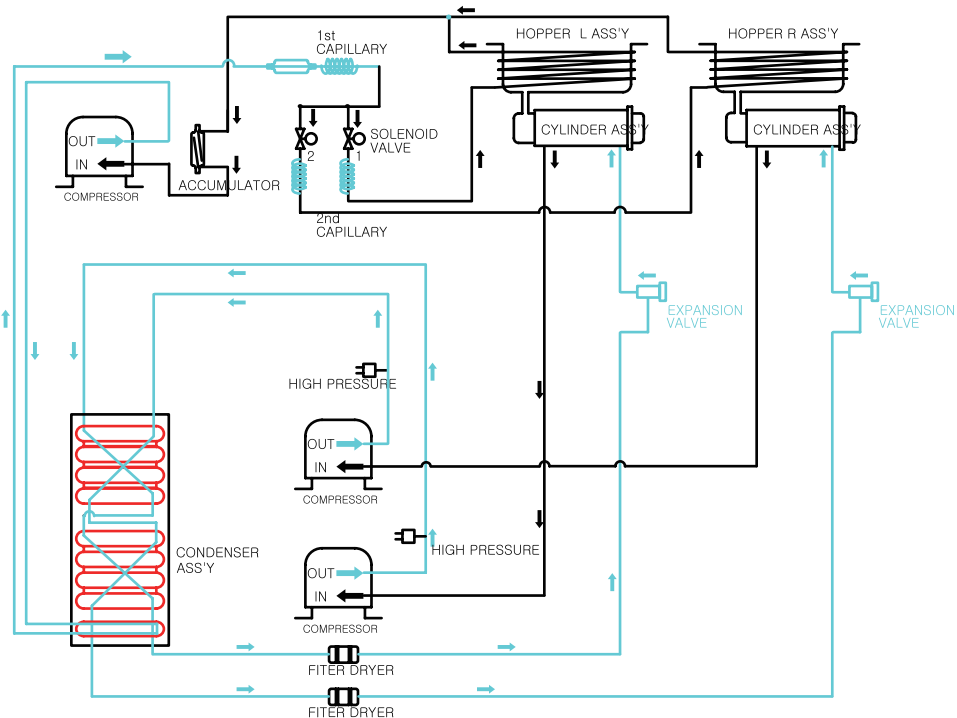
# Circuit diagram



# Product specification

CLASSIFICATION		UNIT	SPECIFICATION
Selling capacity		May vary depending on the ice cream maker and mixes.	Indefinite (a 100 cc serving every 30 seconds) based on ambient temperature of 38°C, humidity of 60%, and mix temperature of 5°C or lower.
Making capacity		kg/hr	9 x 2
Cooling capacity		May vary depending on the ice cream maker and mixes.	Can begin selling 10 minutes after cylinder tank operation based on ambient temperature of 30°C and mix temperature of -6.5°C.
Cylinder capacity		liters	1.6 x 2
Mixing tank capacity		liters	5.5 x 2
Dimensions	WIDTH	mm	520
	DEPTH		745
	HEIGHT		1470 (including the wheel)
Power supply		V/Hz	Single phase 240V~, 50Hz
			Single phase 220V~, 60Hz
Packing	Front	Weight	Kg
	Rear		Kg
Cooling system	Compressor	FREEZER	NT2192GK X 2
		REFRIGERATOR	CUBIGEL GL 60TG
	Output	W	240V~, 50Hz – 743W COND. 45°C, EVAP. -20°C
			220V~, 60Hz – 926W COND. 45°C, EVAP. -20°C
Condenser motor	W	70	
Rated power consumption		KW	2.8
Temperature control		–	Microprocessor controlled

# Product specification



## ■ Charging Refrigerant ■

### ① Leak Test

When the refrigeration system is opened to repair or service the refrigerant system, conduct leak test before vacuum work, at the expanded and welded tube joints.

- 1) Connect the manifold gauge to the low-pressure service port, and connect nitrogen gas tank to the manifold gauge
- 2) When the manifold gauge indicates 300 PSIG, close the valve.
- 3) Perform leak test with the entire refrigerant system.
- 4) If there is no leakage, close the manifold and disconnect the nitrogen gas tank.

### ② Vacuum

Remove the moisture and air from the refrigerant system before charging refrigerant.

- 1) Connect vacuum pump with the manifold gauge, and start the vacuum pump.
- 2) The vacuum time shall be at least 30 minutes and the manifold pressure shall be maintained at 740~750mmHg.
- 3) When full vacuum state is reached, close the manifold gauge and disconnect the vacuum pump.

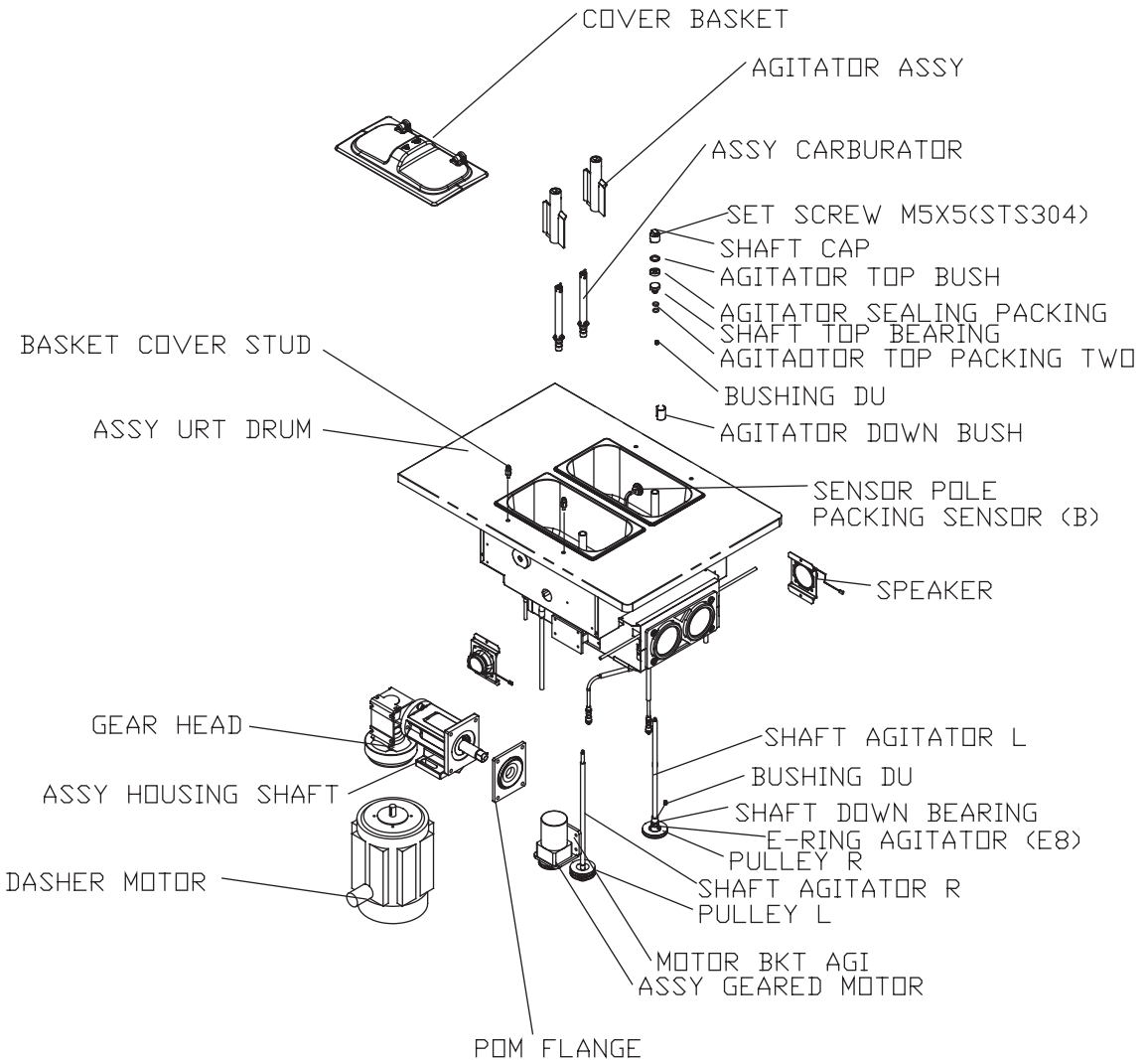
### ③ Charging Refrigerant

- 1) Connect refrigerant container to the manifold.
- 2) Open the refrigerant container valve slightly and purge the air from the manifold hose.
- 3) Measure the gross weight of the refrigerant container using a balance.
- 4) Place the refrigerant container upside down, with the valve at the bottom.  
Wait until the refrigerant stabilizes. Open the valve to charge the refrigerant.
- 5) When the refrigerant has been fully charged, disconnect the manifold.

# Part list



## ■ MOVE PART ■

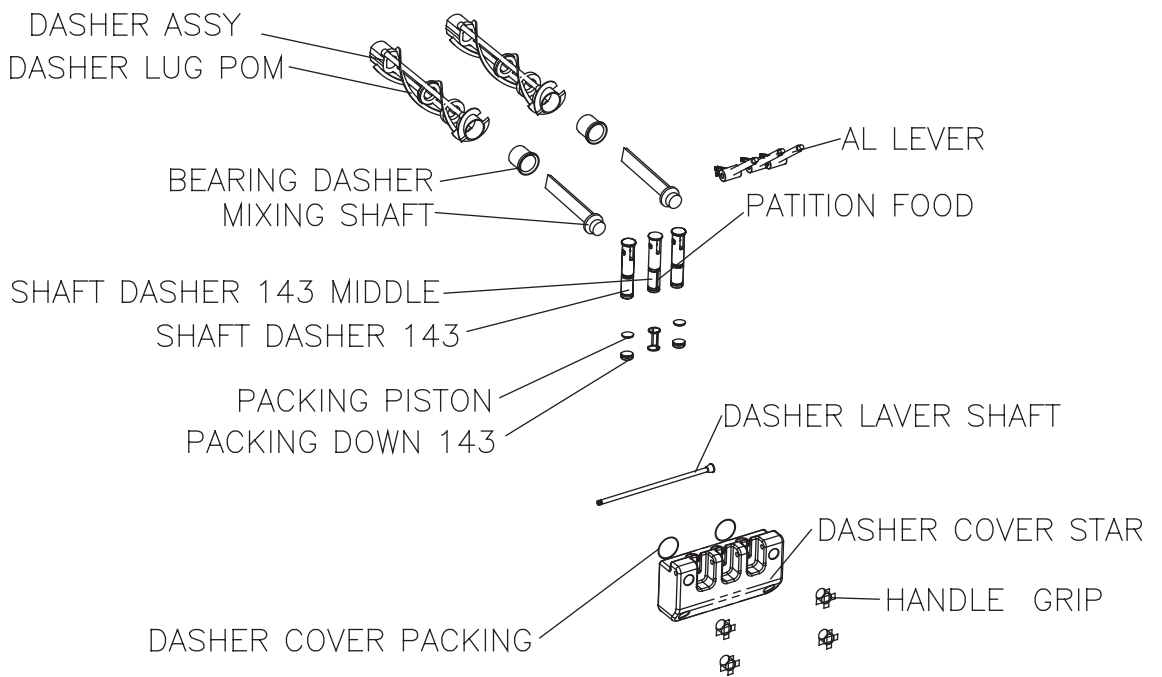




# Part list

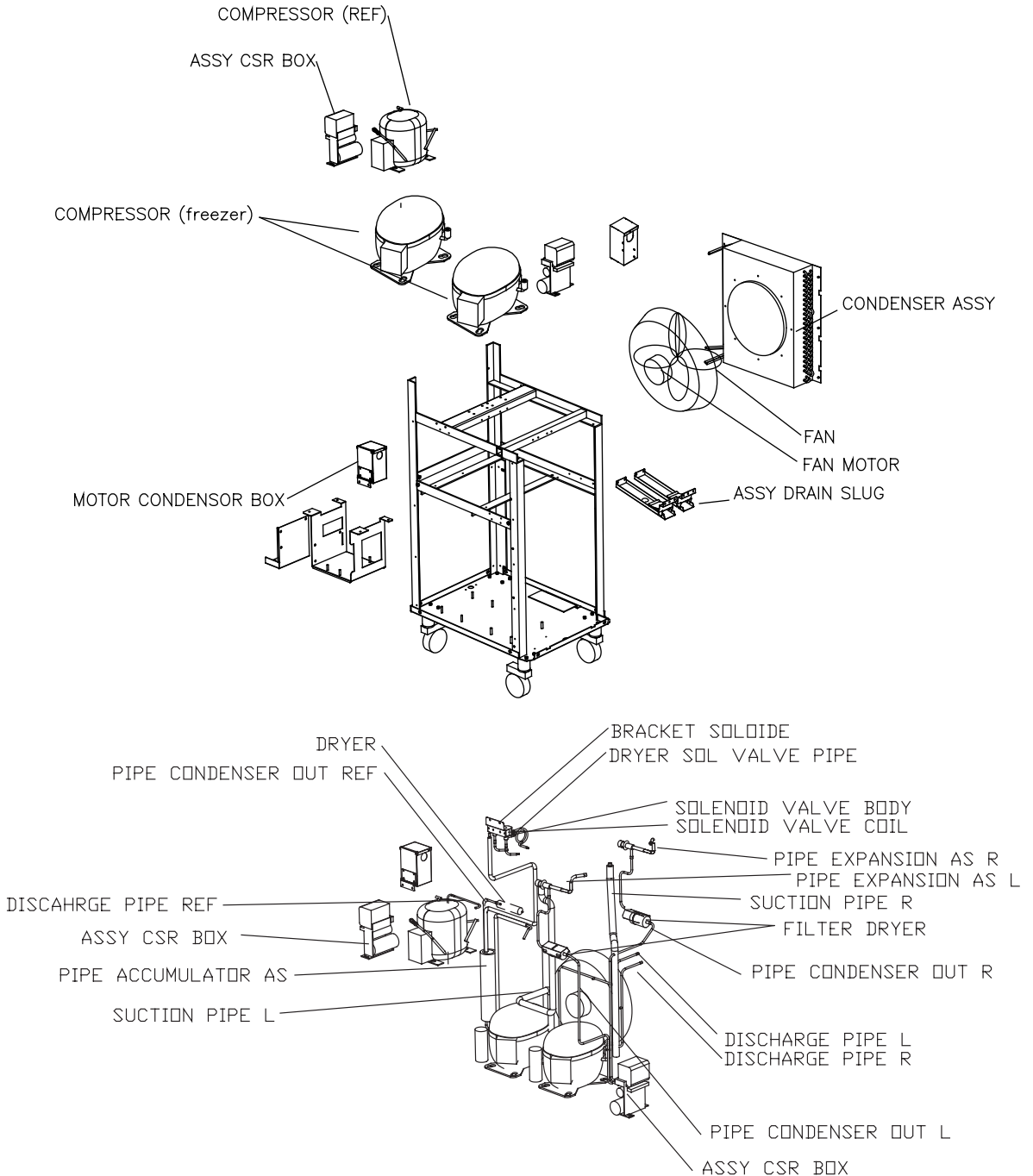


## 【 DASHER ASSY 】



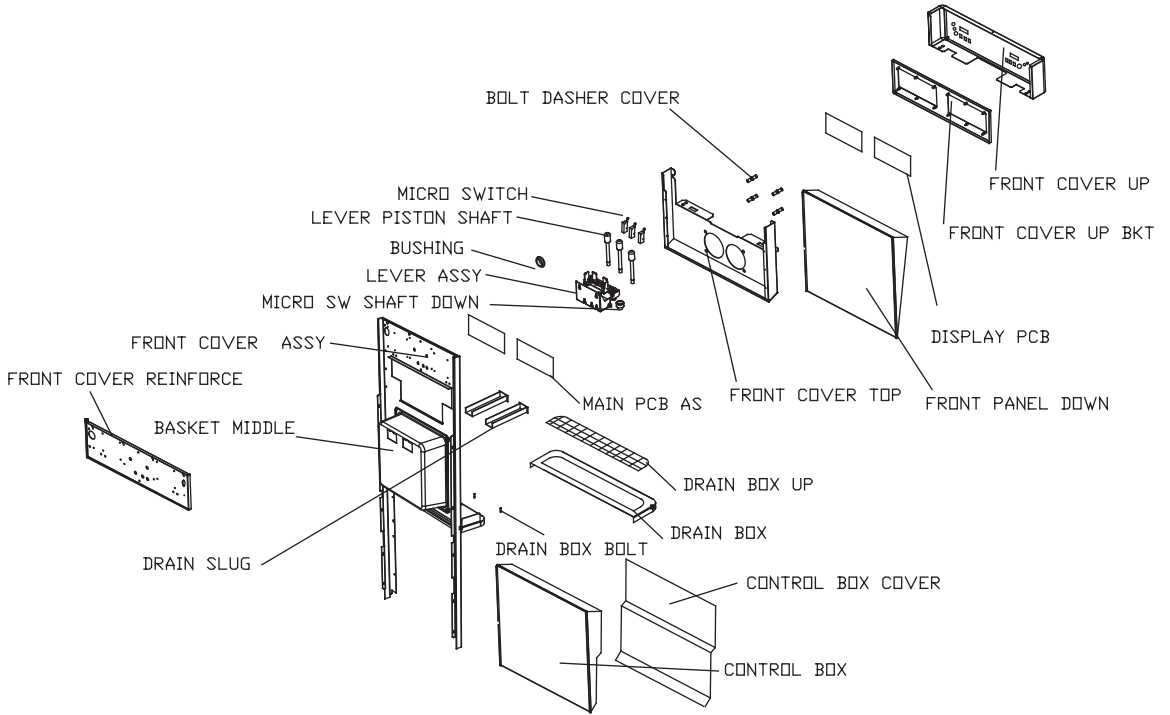
# Part list

## 【 COMPRESSOR AND CONDENSER 】

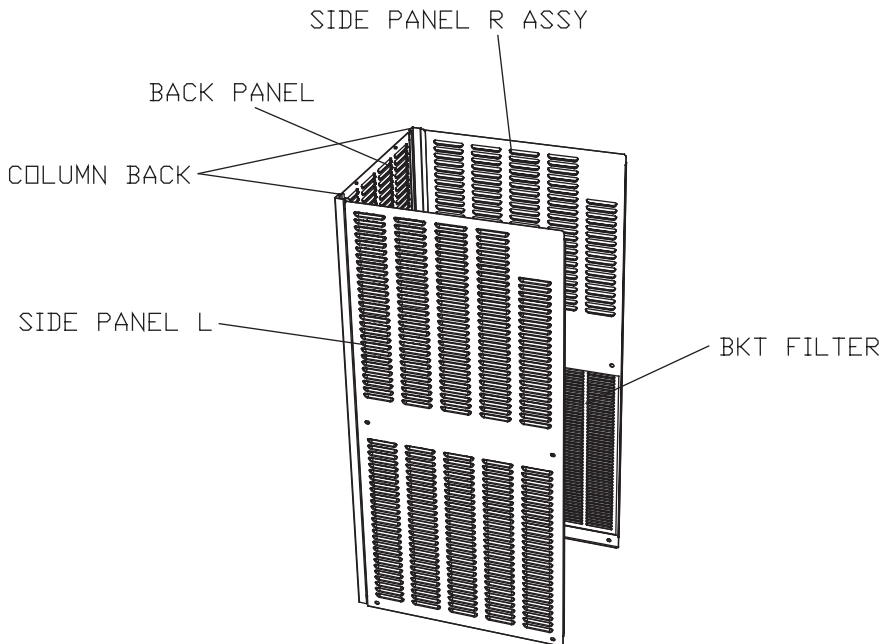


# Part list

## 【 FRONT COVER ASS'Y 】



## 【 SIDE & BACK PANEL ASS'Y 】



# What to watch out for



Overcooling may give rise to issues such as unintended stopping of operation, damage to the product itself or any part, or malfunction of the power delivery axis.

There may be excessive noise or smell due to abrasion. Any issue inside the product may result in the formation of foreign object in the ice cream.

Refer to the main causes of overcooling for safe operation.

1. Using the exclusive liquid ingredient supplied by the manufacturer is recommended. Mixing powdered ingredient with water or milk must be done based on the ratio recommended by the manufacturer.  
(The ice cream maker makes ice cream with appropriately mixed ingredients. Powdered ingredient may cause precipitation or separation of ingredients, leading to overcooling. Making ice cream under such conditions will cause more issues with ice cream.)
2. Mixing the recommended ingredient with other additives or arbitrarily adjusting the mixing ratio of a diluted ingredient may lead either to the proper icing of ice cream or to overcooling. The manufacturer is not liable for any issue arising from improper use or mixing of ingredient. Be sure to check and follow the diluting ratio.
3. Mixing of powdered ingredient must be done by hand slowly.  
If mixing is done fast with the maker, too much oxygen may get into the mixture, resulting in oxidization or clotting of ingredient.  
In such case, the ingredient will coagulate into a form similar to soft tofu, causing difficulty in the supply of ingredient and overcooling.
4. If ingredient is not supplied normally to the inside of the drum where ice cream is made, leading to lack of ingredient, overcooling may occur.  
Check the amount of ingredient frequently to prevent such issues.  
Even if enough ingredient is in the hopper, coagulation may cause the clogging of the carburetor (mixing valve) that supplies the ingredient to the drum and prevent the proper supply of ingredient.  
Be sure to remove and clean the carburetor frequently.
5. If the maker is not used for an extended period of time, the waiting time of the ingredient is extended, causing freezing in the hopper as well as separation of fat in the process of making or keeping ice cream during the waiting time.  
In such case, ice cream may get too thin, or the maker may be overcooled.  
Be sure to operate the maker regularly even though there is no demand for ice cream to prevent such waiting time.
6. Repeated use of ingredient may deteriorate the quality of ice cream and cause overcooling. Be sure to refill with new ingredient after cleaning instead of reusing the old one.
7. You can increase quality of ice cream by controlling 3-1 setting value (ice cream setting value) when using high sugar rated ingredient.
8. Ice could be formed inside the hopper when there is insufficient ingredient.  
It could be prevented by raising the hopper setting temperature.

# Warranty

If no receipt or warranty certificate is received, the receipt/warranty certificate is lost, or the date of purchase cannot be confirmed for reasons other than the foregoing, the warranty expires within 6 months of the manufacturing date.

## [ Free repair ]

1. For issues with functions or performance during normal usage within the warranty period

## [ Paid repair ]

1. If the warranty has expired
2. If installation is required again due to incorrect installation by the customer or the store
3. If installation is required again due to the relocation of product or moving of the customer
4. If the malfunction is not attributable to the product
5. If the wrong power specification is applied
6. If any accessory or consumable other than that recommended by the manufacturer is used
7. If damage is caused by external force or dropping of the product
8. If damage is caused by natural disaster such as lightning, fire, earthquake, storm, typhoon, etc.
9. If any accessory/consumable goes obsolete or its service life comes to an end (packing, o-ring, blade, cleaning brush, etc.)
10. If foreign object is put into the product such as water, beverage, coffee, toy, etc.)
11. If external force is applied during installation or usage, causing damage or malfunction
12. If any accessory/consumable other than that made by the manufacturer is used
13. If directions for installation or standards are not followed
14. If the customer arbitrarily disassembled and lost or damaged any part
15. If a person other than an authorized engineer from the manufacturer repairs or modifies the product
16. If malfunction is caused by failure to follow the "Safety warning / caution" on the user manual
17. If the water supply pipe froze and burst

# MEMO



# MEMO



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