

ICETRO Smoothie & Slush Machine



It's so
delicious!



Before
Operation

Operation

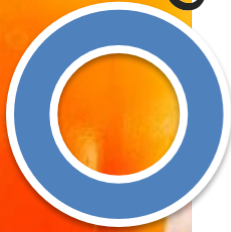
Sale

Turn off

Disassembly

Cleaning

Reassembly





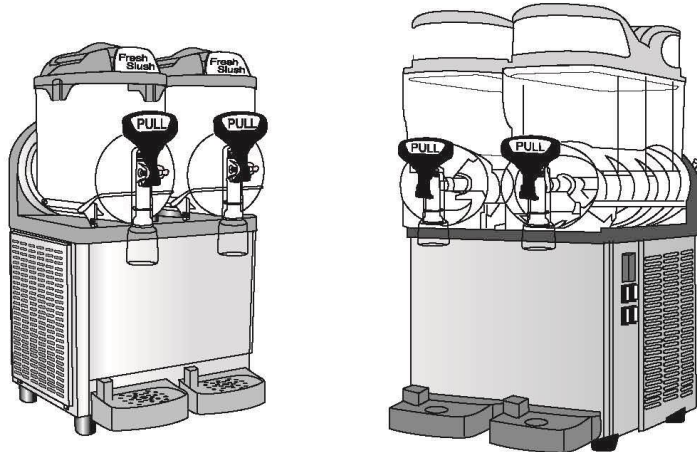
User Manual provided with each unit

Provides simple instructions with setup

Slush & Smoothie Machine User Manual

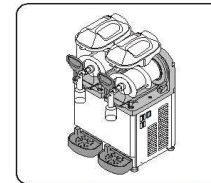
SSM-180, 280, 420, 560, 52(MINI)

- The product has been designed for indoor use only. So do not use it outdoors.
- Before use of the product, be sure to become familiar with this manual. Keep the manual in a convenient place for quick and easy reference.
- This manual contains the product warranty card.
- The product design is subject to change for performance enhancement without prior notice.

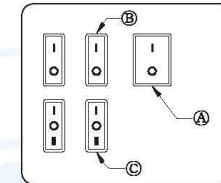


7.1 Controllers

The product is equipped with the power switch. Canisters operate by each individual switch. You can use both soft (refrigeration) drinks and granita (smoothie, slush). In the refrigeration mode, the temperature of the drink is controlled by the thermostat. In the freezing mode, the viscosity of the mixed material is controlled by the bolt on the rear of the product. (For more information about the temperature and viscosity settings, see "7.2 Operations.") All switches are located on the right panel. (See Figure 2.)



(Figure 2)



(Figure 3)

The switches in Figure 3 function as follows:

Ⓐ Power Switch

I POSITION : All functions and switches are activated. The fan motor operates.

○ POSITION : All functions are deactivated.

Ⓑ Supply Switch

I POSITION : The spiral motor operates and the "C" switch is activated.

○ POSITION : The fan motor is turned off.

Ⓒ Freezing/Refrigeration Switch

I POSITION : The product operates in granita (smoothie, slush) mode.

○ POSITION : The freezing and refrigeration functions are deactivated.

II POSITION : The product operates in soft (refrigeration) drink mode.

To operate the product:

① Place the power switch to I. ② Place the supply switch to I.

③ Set the freezing/refrigeration switch as follows:

- Place the switch to I for making granita (smoothie, slush).
- Place the switch to II for providing soft (refrigeration) drink.

To operate the lighting: (excluding SSM-52)

- If you turn on the lighting, the bulb inside the cap of the material box lights.
- Otherwise, check whether the spring cord on the top of the cap is properly inserted.
- If the life of the lighting is expired, remove the bottom panel of the cap and replace the lamp (12 V & 21 W). (If the life of the lamp is expired, replace it with the provided part.)



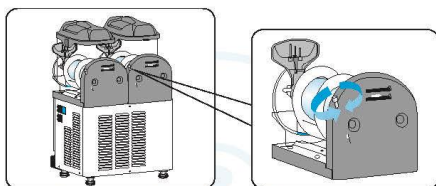


Product Adjustment for Serving

Cleaning & Sterilization Procedures

7.2 Operations

- ① Adjusting the granita viscosity: The optimal granita viscosity is set by the manufacturer. To change the viscosity, rotate the control bolt on the rear of the product as follows: (See Figure 4.)
 - To make thicker granita, rotate the control bolt to the right (clockwise).
 - To make watery granita, rotate the control bolt to the left (counter-clockwise).



(Figure 4)

- ② Adjusting the drink temperature: The optimal temperature is set by the manufacturer. For setting it again, rotate the temperature controller inside the rear panel as follows:
 - To lower the temperature, rotate it to the right (clockwise).
 - To increase the temperature, rotate it to the left (counter-clockwise).



Important

The drink temperature is controlled by the thermostat, only when the freezing/refrigeration switch is located in "II" (soft drink mode).

- ③ The granita forming time is affected by various factors such as ambient temperature, initial material temperature, sugar level (Brix level) and viscosity setting. Though the conditions are the same, the forming time may vary depending on the canister.
- ④ To reduce the granita forming time and increase the productivity, it is recommended to use the refrigerated materials.
- ⑤ To reduce the granita forming time and increase the productivity, when the remaining material level drops below half, fill the material in the canister.
- ⑥ To preserve the material safely, be sure to operate the product in soft drink mode. To leave the material in the canister during all night without refrigeration, operate the product for at least one hour while the freezing/refrigeration switch is in II before switching off the product. It can prevent forming lumps of ice that can give damage to the spiral and motor.

- ⑦ Before operating the product again, check whether lumps of ice have been formed. If any lumps of ice are in the canister, remove them before switching on the product. If you operate the product in refrigeration mode during all night, it can prevent accumulation of the condensed ice
- ⑧ When the granita is in the canister, do not turn off the slush supply switch. It is because hard ice can form if the spiral does not rotate. If you turn on the slush supply switch at this time, the spiral and motor can have damage. Therefore, turn on the slush supply switch after melting the frozen granita.
- ⑨ The product has the shaft so that the gear motor (outside the canister) can drive the spiral (inside the canister).
- ⑩ The product must be located in a well vented place. If the temperature of the product is hot, check whether there is any heat generating source, or air flow through the panel with a hole is blocked by the wall or box. Keep at least 30 cm distance between the product and other materials.

7.3 Cleaning and sterilization procedure

- ① To maintain optimal taste and guarantee the maximum product performance, periodically perform cleaning and sterilization. Only the procedural instructions are provided here.
- ② Before disassembly and cleaning, be sure to remove all materials from the product. For this, follow the procedure below.
 - Place the power switch to I.
 - Place the freezing/refrigeration switch to O.
 - Place the containers beneath each slush supply and extract all materials from the canisters.
 - Place all control switches to O.

7.3.1 Disassembling the product



Before disassembly and cleaning, remove the power plug to block power supply.

- ① Remove the cover of the canister.



7.3.2 Cleaning the product



Never clean the parts in the dish washer.

- ① Prepare the solution mixed with five liters of warm water and kitchen detergent. Do not use a strong detergent.
- ② After inserting the mixed solution that does not harm the food, turn on the slush supply switch to extract the solution.
- ③ Frequently empty the remaining materials in the material box and drain box and clean them.



Turn off the freezing switch. It may cause spiral freezing and motor failure.



In order not to give damage to the product, use the washing detergent for cleaning plastic parts.

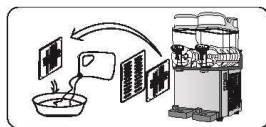
- ④ Use the proper brushes to clean the disassembled parts using the washing detergent.



When cleaning the product, be careful not to insert water in the electrically running parts. It may cause an electric shock or product failure.

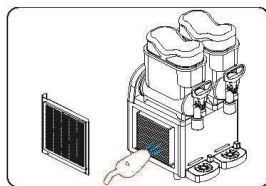
- ⑤ Do not spill any liquid on the cover of the motor that is on the rear of the product.
- ⑥ Likewise, use a soft bristle brush to clean the evaporator & cylinder.
- ⑦ Use clean cold water for cleaning the parts.
- ⑧ Be sure to clean the filter.

As shown in the figure, on a monthly basis, open the cover of the condenser, clean the filter with lukewarm water (about 25°C) or neutral detergent solution, dry it, and attach it back to its original position. If ventilation is not made due to accumulated dust, slush is not smoothly formed and machine failure may follow. When the troubles are caused by careless use or user faults such as no filter cleaning, you can get a charged service.



[Cleaning the condenser]

1. Separate the SIDE PANEL L
2. Use a vacuum cleaner or hand cleaner to remove dust from the condenser



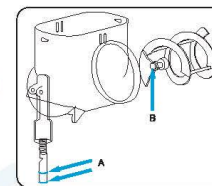
7.3.3 Sterilizing the product

Sterilization is performed before operating the product. After sterilization, do not leave the product for a long time.

- ① Wash your hands with an anti-bacterial soap.
- ② According to the food safety regulations and manufacturer specifications, prepare five liters of warm (45 to 60°C) sterilization solution (dilute a spoon of chloride condense liquefaction or sodium chlorate with two liters of water (100 ppm)).
- ③ Soak the parts in the sterilization solution for five minutes.
- ④ Place the sterilized parts on a clean and dry place for drying them.
- ⑤ Wipe all the surfaces of the product.
- ⑥ Do not spill any liquid on the cover of the motor that is on the rear of the product.

7.3.4 Assembling the product

- ① Attach the drip tray to its original position.
- ② Paint two piston rings and spiral with the grease provided by the manufacturer or the approved edible grease. (See A and B in Figure 11.)



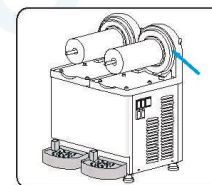
(Figure 11)

- ③ Attach the slush supply in the reverse order of disassembly. (See Figure 10.)

- ④ Attach the rubber cushion.

Caution : Be sure for the wide border of the gasket to face the wall.

(See Figure 12).

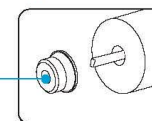


(Figure 12)

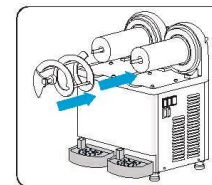
- ⑤ Attach the packing cushion and spiral. (See Figure 13.)

Caution Before attaching the packing cushion, paint the inner part with edible grease.

After assembly, paint the outer area with edible grease.



Packing Cushion



(Figure 13)

BEFORE OPERATION



Before Operation



- Connect the appropriate power
- Turn on the machine

Use Grounded 3 prong plug

Before Operation



- Prepare mix
- Mix the slush / smoothie liquid

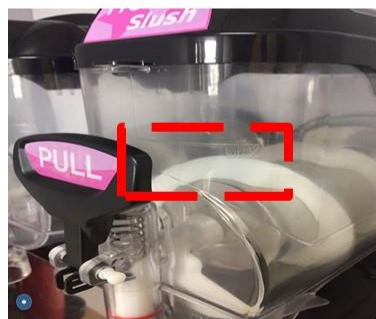
TIP

- ▷ sugar level of Slush / Smoothie mix must be 13%~15%
- ▷ Do not use juice that includes pulp or other particles
- ▷ Do not use low-calorie drinks

Before Operation



- Fill the clear hopper
- Open the canister cover, fill the canister with cold liquid product



Do not overfill, (Maximum Capacity of the canister is marked on the canister)

Before Operation



- Set the switch for Slush or Smoothie production
- Attach the cover after filling up the canister

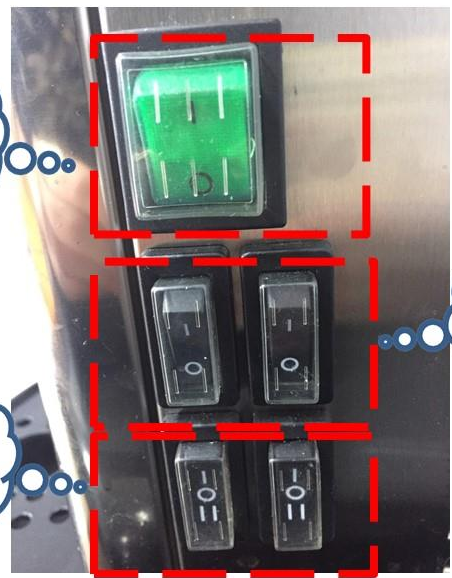
OPERATION \$ SETUP



Operation



Ⓐ Power Switch



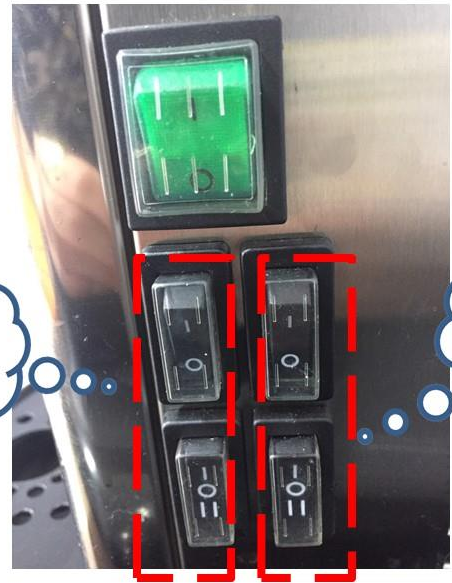
Ⓑ Spiral Switch

Ⓒ Freezing/ Refrigeration Switch

Operation



Switches to control left canister



Switches to control right canister

Operation



- **Power on**
- Turn on the green power switch which is on the right side of the machine (Place the switch up to the "I" mark)
- When the power is on, the green light turns on.

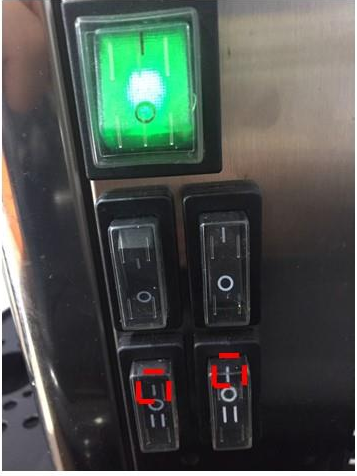


Operation



- **Spiral operation on**
- When the power is on, the Spiral switches (Ⓑ) are activated
- Turn on the Spiral switches to operate the white spiral scraper. (Place the switches to "I")

Operation



• Production mode on [Slush]

- When the Spiral switch (B) is on, Freezing / Refrigeration Switches (C) are activated
- Turn the C switches to "I" to produce cold drinks.

Note: Compressor will NOT run unless Spiral switch (B) is on. Compressor has a 3 minute delay before starting to ensure auger has cleared any ice from evaporator barrel.

Operation



• Production mode on [Smoothie]

- Turn the refrigeration switch down to "II" to produce frozen product - 'Slush'

Operation



• Production mode off

- Turn off the freezing/ refrigeration mode switch.
- (Place 'C' switch to "O")

Operation



- Production
- Turn on Spiral switch plus freeze C switch to produce frozen 'Slush' product



Operation



- Production completed
- When slush is ready, pull the lever to dispense into container

Temperature Control



- How to control Slush viscosity
- Check the control screw on the back of the machine



Slush viscosity control



- How to control Slush viscosity
- Check the freeze level indicator on the back of the machine



Slush viscosity control



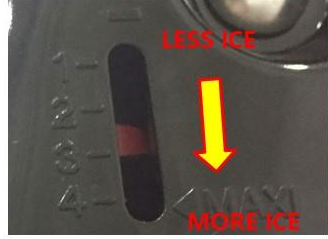
- How to control Slush viscosity
- To make watery slush (less ice), turn the screw to the right (clockwise)



Slush viscosity control



- **How to control Slush viscosity**
- To make icy slush (more ice), turn the screw to the left (counter-clockwise)



Turn off



- **Production mode off**
- To turn off © Freezing / Refrigeration Switch (Place the switch to "O")

Turn off



- **Empty the canister**
- To clean the machine, empty the product from inside of the canister

Turn off



- **Cleaning the hopper**
- Adding tap water can help you remove the icy liquid more quickly
- Do not use HOT water as it can harm the machine



TURN OFF, DISASSEMBLY



Turn off



- **Spiral operation off**
- Turn off the Spiral switch (B)
- (Place the switch to "O")

Turn off



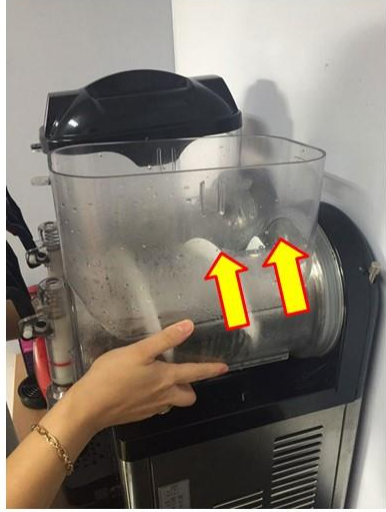
- **Turn off the machine**
- Turn off the green power switch which is on the right side of the machine
- (Place the switch to "O")
- When the power is off, a green light on the switch goes off

Disassembly



- **Cover**
- Disassemble the cover from the canister
- Lift up & off from the hopper

Disassembly



- **Canister**
- After removing the cover, disassemble the canister
- Push in & lift the canister up at the front to unlock the front latch first
- Then pull the canister out towards the front

Disassembly



- **Redundant**
- After removing the cover, disassemble the canister
- Lift the canister up to unlock the latch first, and pull out the canister to the front

Disassembly



- **Spiral**
- After removing the hopper, disassemble the spiral
- Slide the spiral forward off from the freezing barrel

Disassembly



- **Back Hopper Seal**
- Remove the seal from the back of the freezing barrel

Disassembly



- **Cushion Seal**
- Remove the cushion seal from the front of the freezing barrel

Disassembly



- **Lever removal**
- Pull the lever and remove the white pin from the middle clear housing
- When the white pin is removed, the lever will be detached

Disassembly



- **Dispensing shaft removal**
- After removing the pin, use the lever to push the shaft down and out of the hopper spout
- With the lever and pin removed, the lever spring can be separated from the canister spout

Cleaning



- **Cleaning**
- After removing, clean the cover, canister, spiral, rear seal, front seal, dispensing rod, pin and spring

Cleaning



- **Parts**
- Clean the parts using soft towel and kitchen detergent

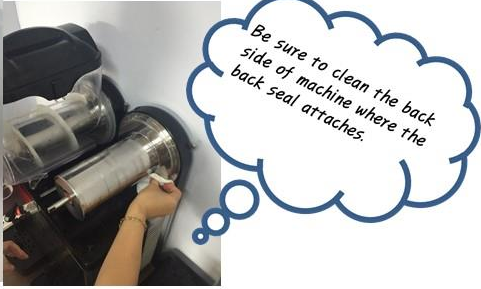
CLEANING & REASSEMBLE



Cleaning



- **Machine**
- Before reassembling the parts, clean the machine with soft towel



Cleaning



- **Condenser filter**
- Clean the condenser filter
- Pull out the filter and rinse dirt away with gentle water spray from reverse side of dirt location

Cleaning



- **Drain basin**
- When the drain basin gets dirty, remove, empty and clean
- Lift the drain box up and pull out to the front

Reassemble



- **Packing cushion**
- Before reassembling the front seal, please lubricate the inside only with food grade petro gel



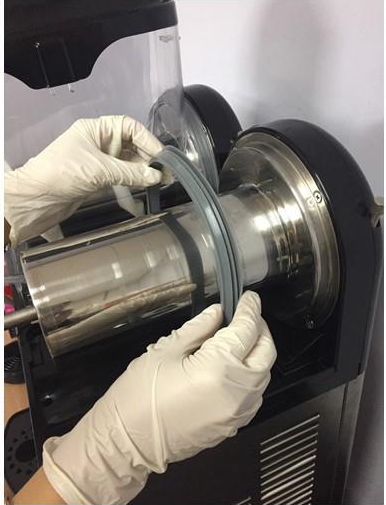
Reassemble



- **Packing cushion**
- After applying lubricant, reassemble the front seal

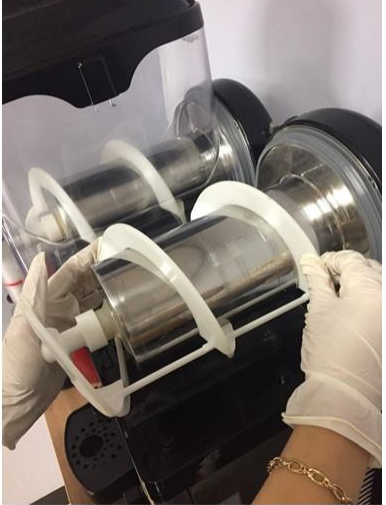


Reassemble



- **Rear seal**
- Reassemble the rear seal to the back of the freezer barrel
- The wide border of the gasket must face the wall and the narrow end faces out

Reassemble



- **Spiral**
- After assembling the front and rear seals, slide the spiral over the freezing barrel and engage the front over the front seal

Reassemble



- **Hopper attachment**
- Attach the canister
- Place the hopper over the barrel and the rear seal
- Then push it towards the back and down to snap into locked position

Reassemble



- **Dispensing shaft**
- Apply the food grade petrogel around the rod and 'O' rings generously



Reassemble



- **Rod reassembly**
- After lubricating, put the lever spring on top of dispenser rod

Reassemble



- **Lever shaft**
- Then insert the rod from the bottom side of the hopper spout
- Hold the bottom of lever shaft and push it up into place

Reassemble



- **Lever shaft**
- While holding the dispenser rod from the bottom, insert the lever into the slot and insert pin.

Reassemble



- **Lever shaft**
- Push the pin through the lever and spout holes to attach the lever



Reassemble



- **Cover**
- Set the cover back on top of the hopper
- Press the cover down and ensure it is properly engaged and lights are activated.

- Thank you -



UNIT BREAKDOWN & SERVICE



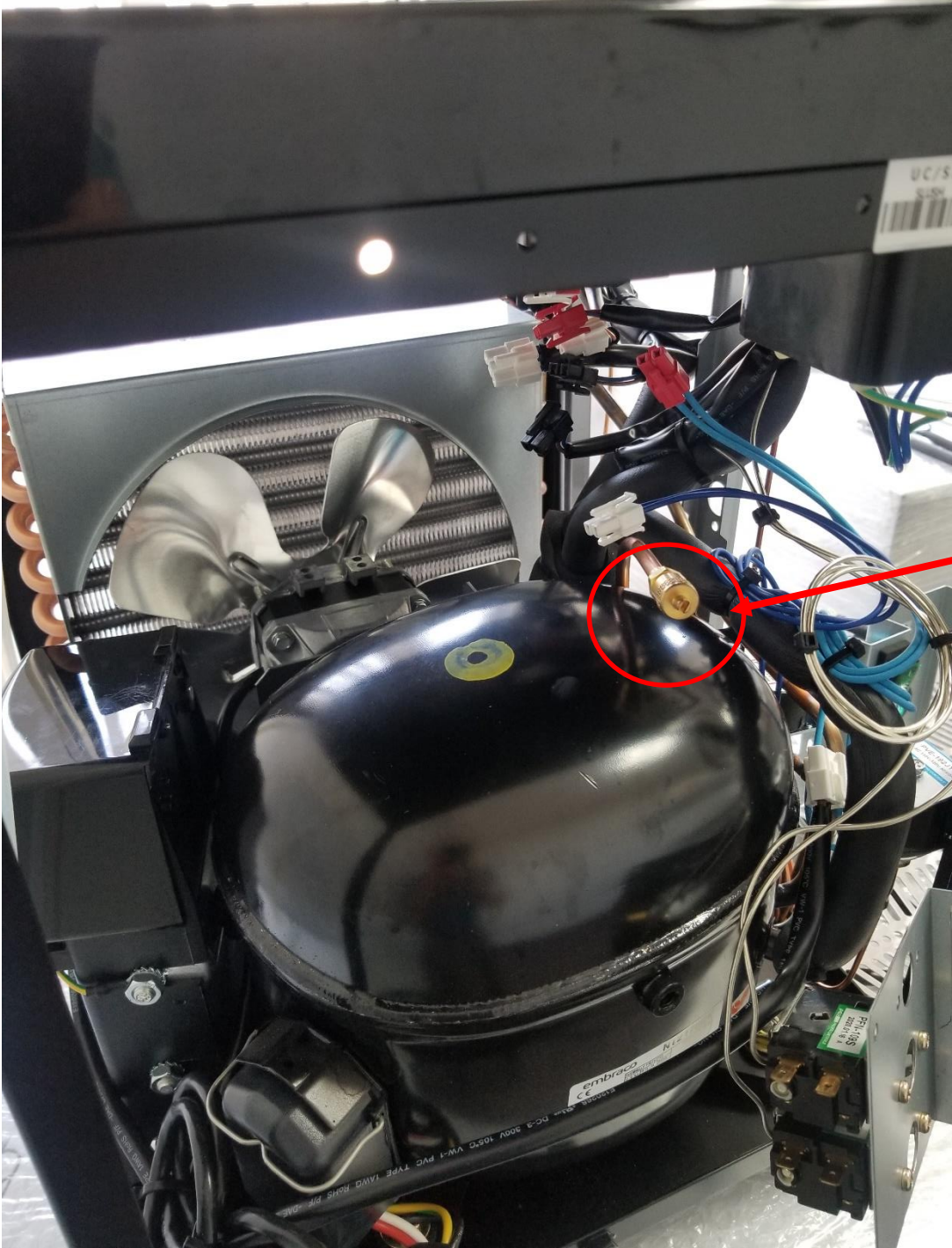


**Clean air filter every
2 weeks**

Unit Accessibility, Safeties & Components

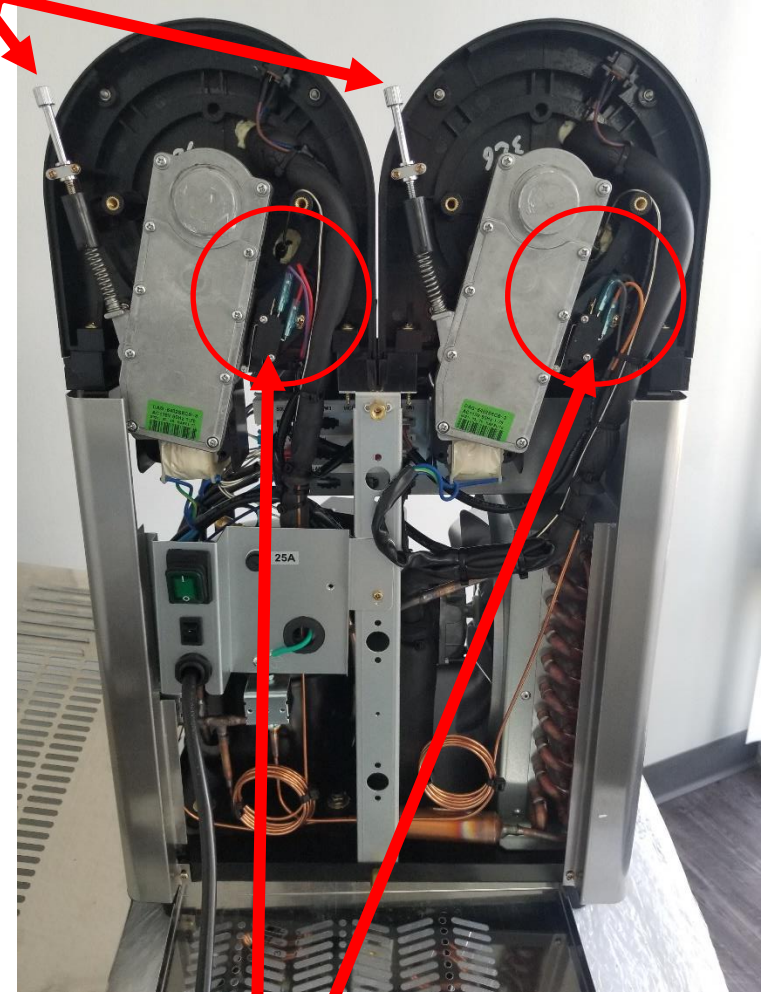
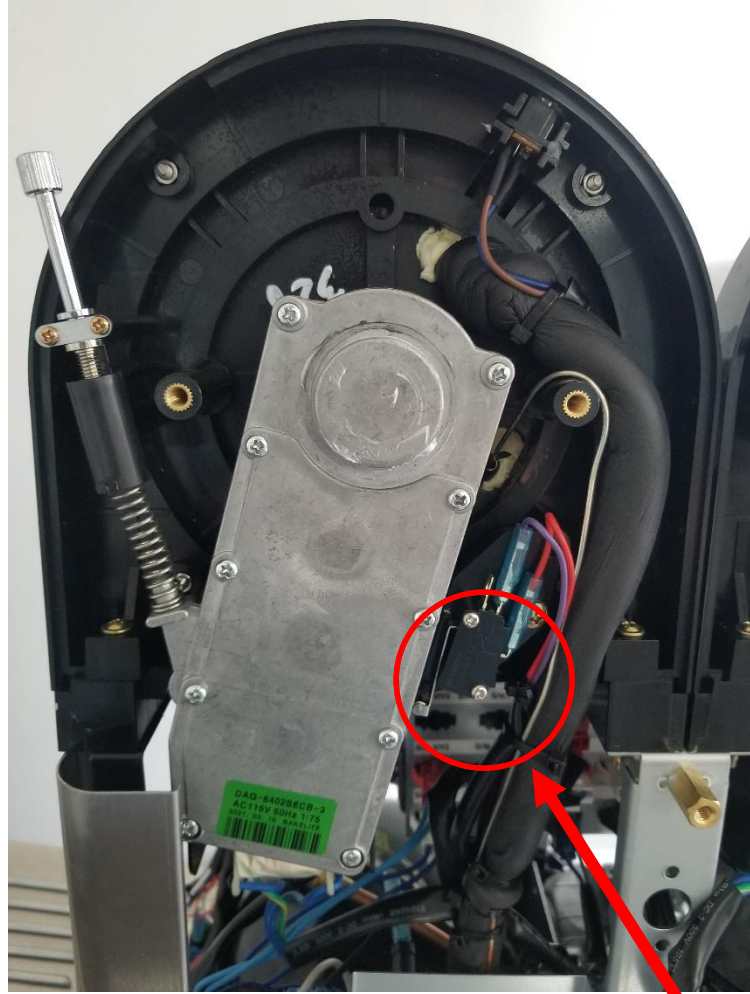


Compressor, Condenser, Control Box & Start Components



**SERVICE
VALVE**

Temperature adjustment knobs

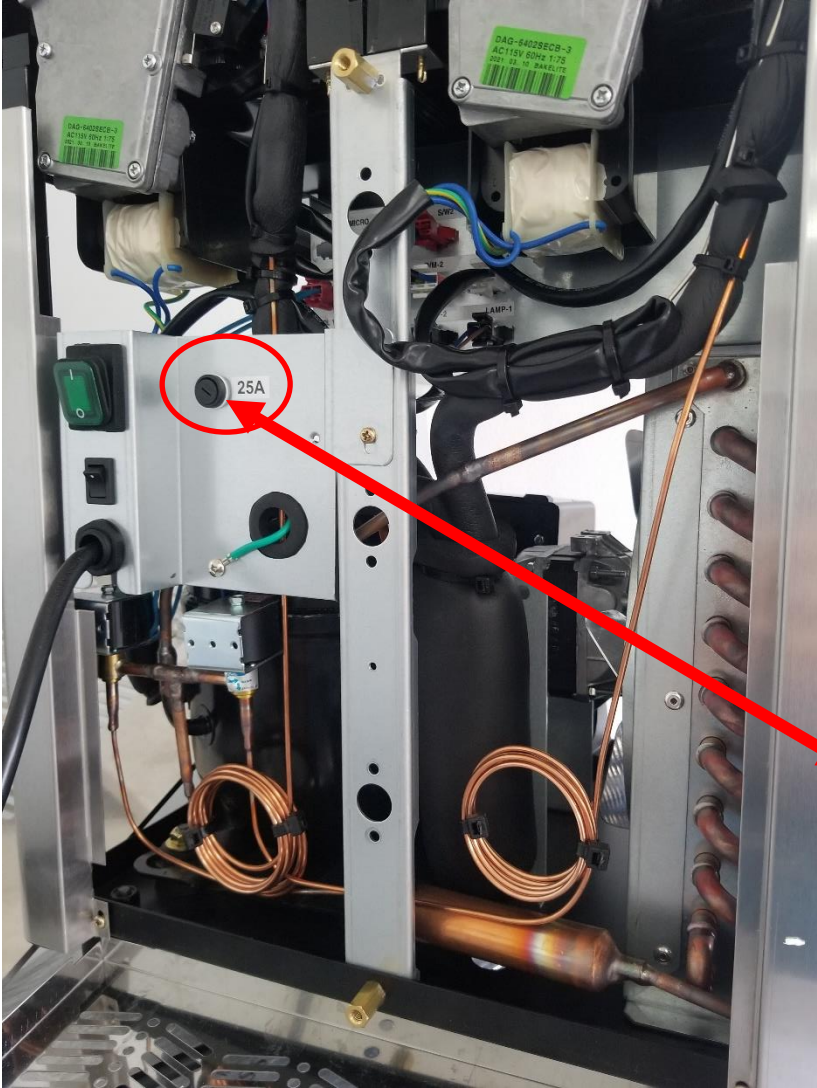


**Drive motors with
Microswitch safety is
accessible from back**

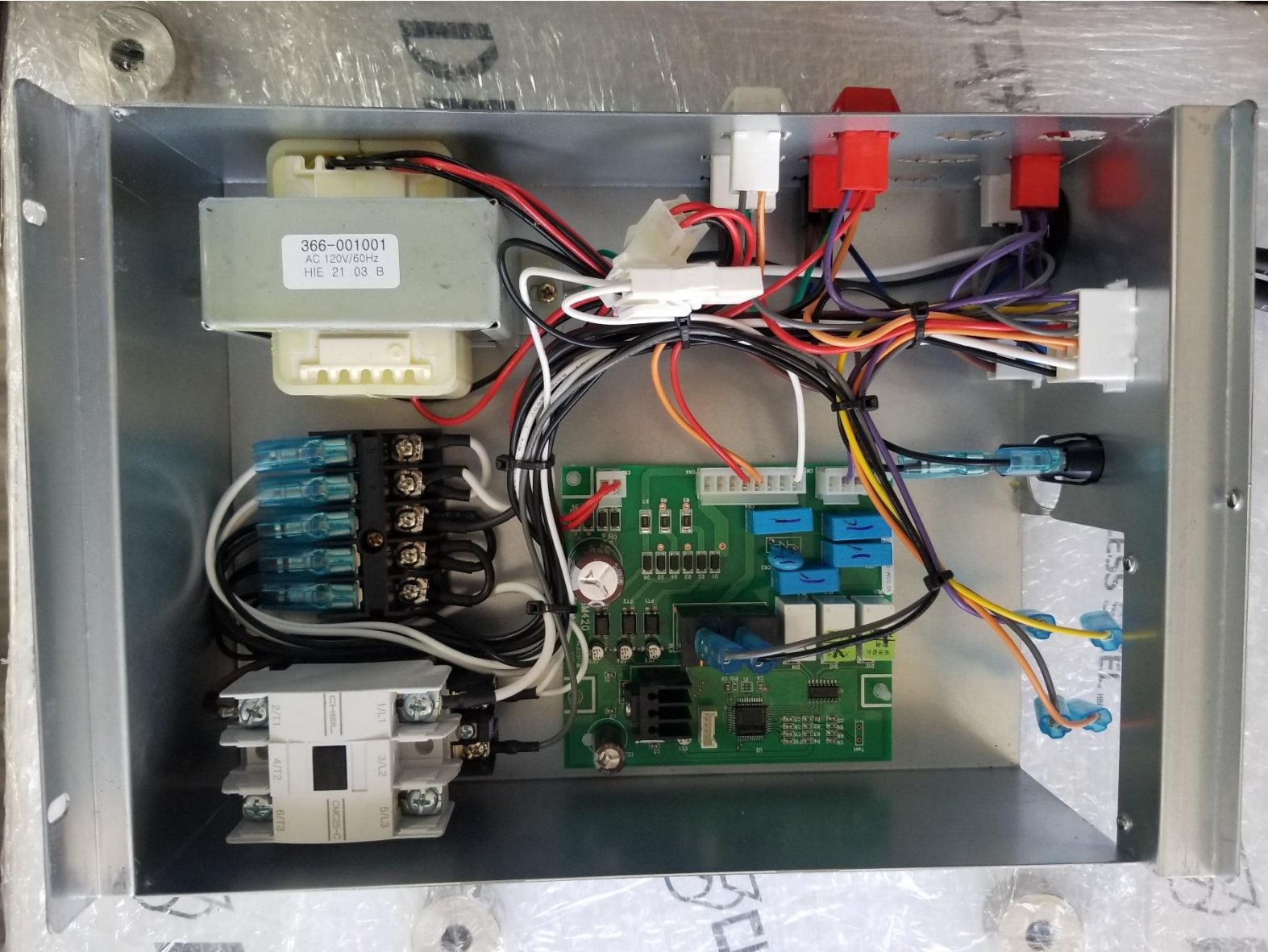
1 Amp Control board fuse



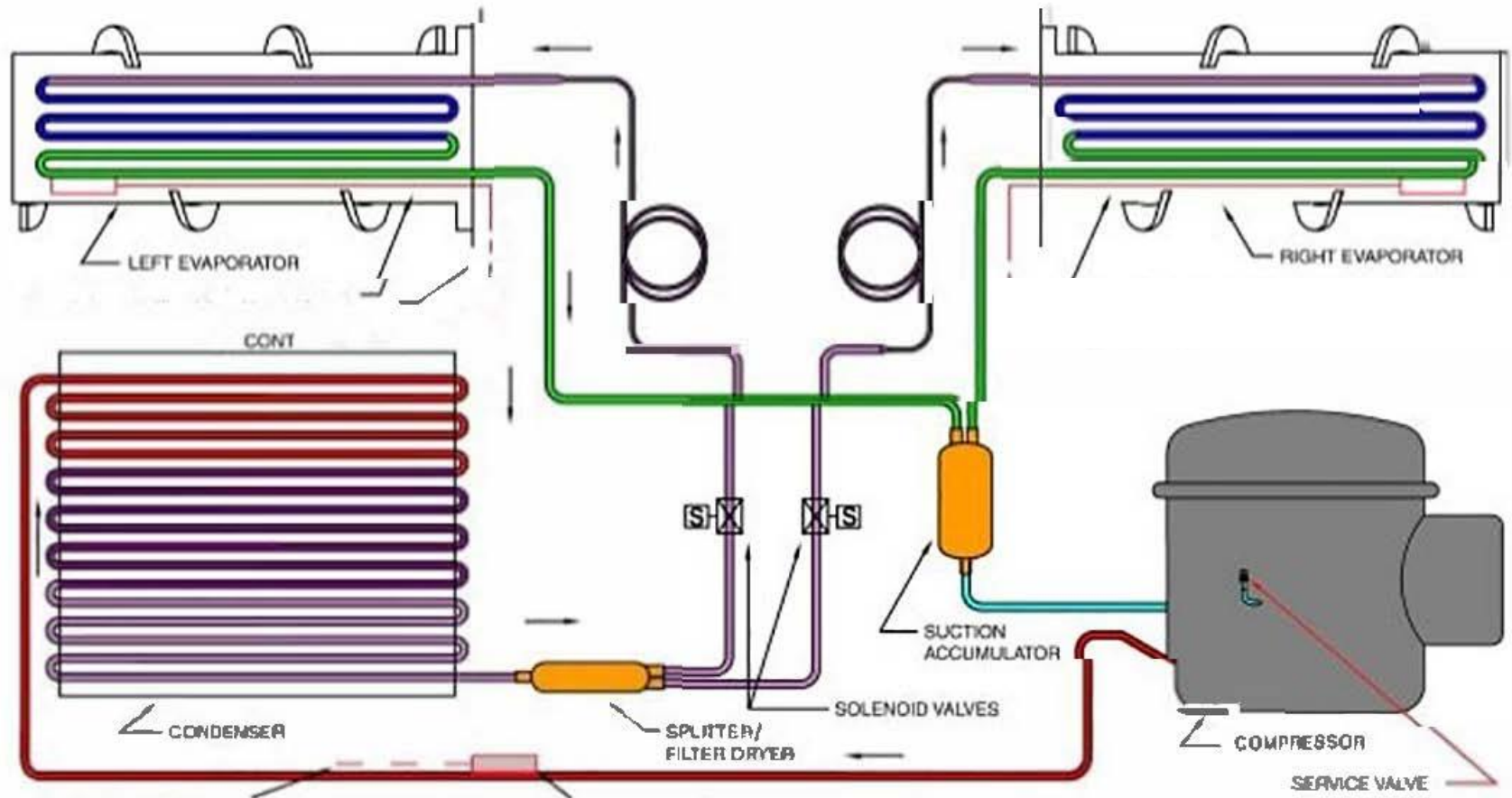
25 Amp Main power fuse



CONTROL PANEL



SM - 280 Refrigeration Schematic

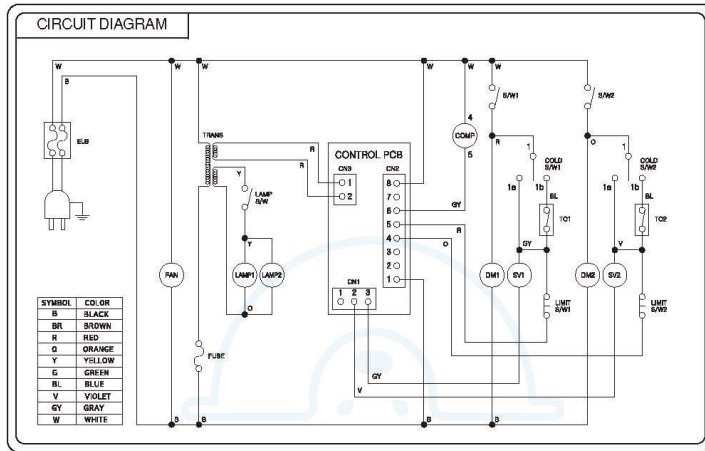




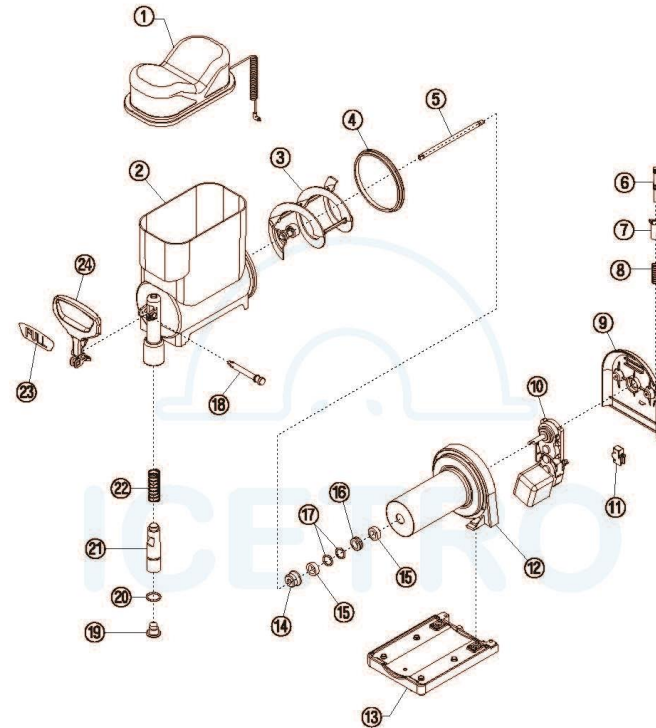
Wiring Diagrams by Model

Parts Breakdown & Identification

SSM-280

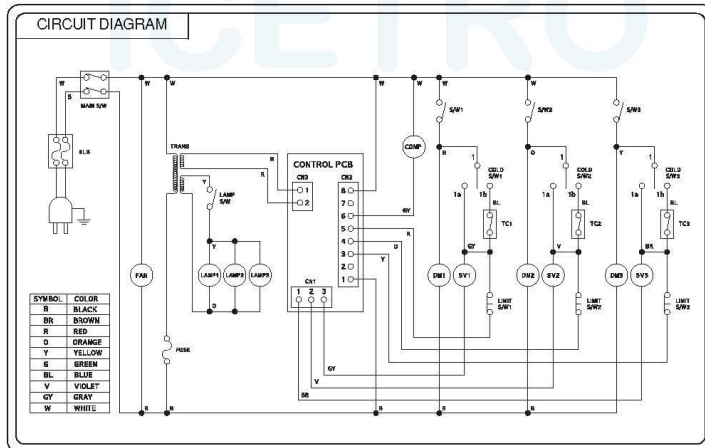


CANISTER ASSEMBLY



NO	ITEM	NO	ITEM	NO	ITEM
1	Canister Cover	9	Motor cover	17	Packing Redenar One
2	Canister	10	Geared Motor	18	Pin Lever
3	Spiral	11	Micro switch	19	Packing Down
4	Packing back	12	ASS'Y Drum	20	O-ring down
5	Dasher Shaft	13	Base Canister	21	Lever Shaft
6	Tension Bolt	14	Packing Cushion	22	Lever Spring Slush
7	Joint Spring	15	Redenar	23	Lever Label
8	Insert Joint Spring	16	Redenar Bushing	24	Lever

SSM-420



SSM-560: Two SSM-280s are applied





9. Specifications

		Description					
Model Name	SSM-180	SSM-280	SSM-420	SSM-560	SSM-52 (MINI)		
Product Name	Slush & Smoothie Machine						
B o d y	Size (W×D×H)	213×480×832	400×480×895	600×480×895	900×480×1350	417×386×705	
	Case	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	
	Insulation	Urethane Foam	Urethane Foam	Urethane Foam	Urethane Foam	Urethane Foam	
E l e c t r i c F e a t u r e	Power Consumption	110V	220V	220V			
		440W	320W	1020	1350	1000×2EA	500
	Current Consumption	5.8A	1.8A	5.0A	6.4A	5.0A×2EA	3.5A
	Geared Motor	1EA	2EA	3EA	4EA	2EA	
	Fan Motor	9 W or below	16W	16W~34W	16W~34W×2EA	10W	
F r e e z i n g	Compressor	Fully Closed					
	Condenser	Pin tube type					
	Evaporator	Tube-launched Drum Type					
	Cooling Type	Capillary Tube					
M i s c e l l a n e o u s	Refrigerant	R-134a	R-404A	R-404A	R-404A	R-134A	
	Proper Material Quantity	10 ℓ × 1TANK	10 ℓ × 2TANK	10 ℓ × 3TANK	10 ℓ × 4TANK	5 ℓ × 2TANK	
	Control Method	Torque and TC Control	Torque and TC Control	Torque and TC Control	Torque and TC Control	MICOM Control	
P r o v i s i o n s	Provisions	User Manual (1 EA) Edible Grease (1 EA) Rubber Ring 1EA Rubber Packing 1EA Lamp 1 EA	User Manual (1 EA) Edible Grease (1 EA) Rubber Ring 2EA Rubber Packing 2EA Lamp 1 EA	User Manual (1 EA) Edible Grease (1 EA) Rubber Ring 3EA Rubber Packing 3EA Lamp 1 EA	User Manual (1 EA) Edible Grease (1 EA) Rubber Ring 4EA Rubber Packing 4EA Lamp 1 EA	User Manual (1 EA) Edible Grease (1 EA) Rubber Ring 4EA Rubber Packing 4EA	
	Operation Environment	Ambient Temperature : 10~38 ℃					

11. Before Calling Service

Failure	Cause	Action
If power is not supplied	1. Power is not supplied from the outlet.	1. Check the outlet connection status.
	2. The power switch is turned off.	2. Turn on the power switch.
	3. The fuse is disconnected.	3. Replace the fuse.
The spiral rotation is stopped. (Noise is generated.)	Low sugar level in the material. (The spiral is frozen.)	Turn off the power switch and melt the ice. (At this time, do not use a sharp tool such as ice pick.) After that, retry.
	Deformation of the spiral and canister. (It can happen when hot water (80 ℃ or above) is used while cleaning and sterilizing the product.)	Replace the spiral and canister.
	Spiral rotation shaft wear (wear of the part that meets the spiral rotation shaft in the middle of the cylinder)	Replace the spiral.
The material does not come out from the slush supply.	The material level is too low.	Fill the material up to three liters.
	The material is too much frozen.	Adjust the control screw on the cover of the motor (on the rear of the product).
The granita is not formed.	1. The material level is too low.	1. Replace the material (sugar level: 13 to 15%)
	2. The sugar level is set to Weak (Level 1).	2. Connect the cord of the cap.
	3. It is set to Stop or Refrigeration.	3. Set it to Freezing.
While operation, water flowing sound is heard.	The sound is heard when the refrigerant flows.	Normal operation
It is too much frozen.	The freezing switch is turn on continually.	Adjust the freezing and refrigeration switch to have optimal temperature. In this case, set the switch to Refrigeration or Stop.



The raw material quantity may vary by the material type and sugar content.
If the slush touches the cover, reduce the quantity of the raw material.

