* Installer: Leave this manual with the proud new owner *

Renaissance Cooking Systems

Owner's Manual

Renaissance
Cooking Systems

America's Best Value in Outdoor Kitchen Equipment

Installation, Operation, Maintenance Instructions & Parts List

REFR3 & REFR3A
Cubed & Nugget Ice Makers

Certified For Outdoor Use

We strongly recommend utilizing a water filter with this ice maker.

For the latest news, recipes and cooking tips for your new Renaissance Cooking Systems , check out www.RCSGasGrills.com

Safety information

Before using your ice machine, please read this manual thoroughly to ensure that you know how to operate the features and functions that the equipment offers safely and efficiently.

Important safety symbols and precautions:

Please read and always follow all safety instructions in this manual.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word " DANGER" or "WARNING"

DANGER — **Hazard or unsafe practices that may result in severe personal injury,property damage or death.**

WARNING — **Hazard or unsafe practices that may result in severe personal injury,property damage or death.**

The warning signs are here to prevent injury to you and others, please follow them explicitly. After reading this manual, keep it in a safe place for further reference.

Warning information

1- Read this instructions carefully before operating, installation or maintenance. Failure to follow instruction can cause personal injury, property damage, injury or death.

2- The installation instructions shall indicate the ice maker is to be installed in accordance with the Safety Standard for Refrigeration Systems, ASHRAE 15. In addition, the instructions shall indicate the ice maker shall not be installed in corridors or hallways of public buildings.

3- The installation and operating instructions shall indicate that component parts shall be replaced with like components and that servicing shall be done by authorized service personnel, to minimize the risk of possible ignition due to incorrect parts or improper service.

4- Installation and operating instructions shall be provided with cautionary statements concerning the handling, moving, and use of the ice maker to avoid either damaging the refrigerant tubing, or increasing the risk of a leak.

5- At least three people are required to lift this ice machine or it is recommended that a lifting device is used to avoid injury.

6- When moving this ice machine, please keep the unit upright with inclination not exceeding 45° degrees. Do not invert the unit or lay it horizontally.

7- Allow sufficient space (minimum clearance of 15mm) around the ice maker and install it on a flat, firm surface to support the full weight of the ice machine when loaded with ice and water.

8- Do not keep volatile, flammable objects or liquids in or near to the ice machine.

9- Do not use high-pressure water cleaning devices to clean the ice machine.

10- Do not install the ice machine in a damp location where it may come in contact. Deteriorated insulation on electrical parts may cause an electric shock or fire.

11- **In order to keep the lubricant fully precipitated before start up, please keep the machine upright for 24 hours before plugging to prevent compressor damage.**

Danger information

1-The Ice machine may contain flammable refrigerant R-290 that risk fire and explosion. Please contact your local authority in regard to safe disposal of this product. Please check the nameplate on the rear panel of machine to identify the type of refrigerants to confirm the refrigerant type and amount.

2-To minimize the risk of ignition due to improper installation, replacement part or service procedures, only certified and properly trained refrigerator technicians are allowed to work on these ice machine.

Risk of fire or explosion! Do not use mechanical devices to defrost the machine,do not puncture the cooling tube

3-Do not operate the ice machine if there are any unauthorized change to the original manufactures specifications or if the machine has been misused, abused or neglected.

4-All replacement parts must be use obtained from the equipment manufacturer.

5-Due to potential safety hazard risk, make sure that the power plug is not crushed or damaged. Do not use the ice machine with an extension cord.

Installation information

Unpacking

- Carefully remove all shipping material such as wrapping, tape and packing, if any is left in the ice machine it will cause the machine to work improperly. (Make sure the packing is in good condition before unpacking.)

- After removing the packing make sure the machine and all components are in good condition. If any doubt, do not install or use the ice machine and contact to your supplier immediately.

- Put the ice machine on the floor and screw the four adjustable feet into the bottom of the ice machine. A level should be use to check the machine is perfectly level.

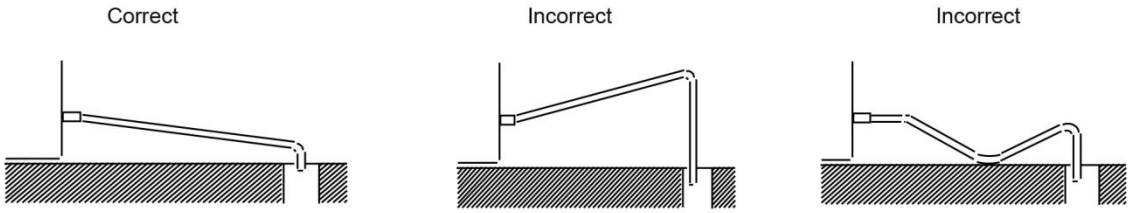
Water supply and ambient temperature

1- The water used for ice machine must be in accordance with local drinking water quality standards. We recommend installation of an in-line water filter to the ice machine, this will reduce lime and scale build up, improve efficiency and extend the overall lifespan of the machine.

2- Water supply pressure should be between 0.2psi and 0.8psi. If pressure exceed 0.8psi, a pressure reducing device must be used.

3- Water inlet temperature should be between 41° F and 77° F. Faults due to low or high water pressure and temperature are not covered under warranty.

4- The ice maker drain is gravity flow, make sure the unit is installed above the height of the drain connector and make sure the hose does not bent to allow for easy draining out.



5- Attach one end of the water inlet hose to the rear of the ice machine, attach the other end of the hose to the water supply. It is advisable to have a stop valve close to the ice machine.

6- Check both connector washers for a good fit.

7- Put the flexible drain hose on the drain connector at the rear of the machine and secure with clip provided. The drain pipe can be cut to length to allow drain connection to have a slight fall.

8- It is recommended that the water supply and drain lines be insulated to prevent condensation.

9- Ambient temperature for the ice machine operation should between 41~89.6°F.

water temperature	Water pressure	Internal diameter of water inlet pipe	Drain pile
41 ~ 77 ° F	0.2psi~0.8psi	Internal diameter 3/4 connector	Internal diameter 3/4 connector

Electrical

1- ⚠ The ice machine must be plugged into an independent power source or an electrical socket of voltage and frequency specified. Electrical rating information can be found on the name plate of the machine. Do not operate this machine above or below the voltage specified limited on the machine name plate.

> ⚠**Warning**
>
> All electrical connections must conform to local regulations and be carried out by a qualified electrician.

> ⚠**Warning**
>
> If the power supply is damaged, do not install or operate the ice machine until the cable has been replaced by an authorized service partner or a qualified electrician.

2-⚠ Due to potential safety hazards this ice machine is not recommended for use with an extension cord.

3-⚠ This ice machine must be connected to a stable power source. The maximum accepted range of voltage fluctuation is +10%, -5% than the rated voltage.

> ⚠**Warning**
>
> If the ice machine is turned off, please wait for at least 3 minutes before restarting to prevent damage to the compressor.

4- Electric Specification

MODEL	VOLTAGE	WATTE	CURRENT
REFR3 & REFR3A	220 /50Hz, 110V/60Hz	160W	1.5A

Pre-start up check list

1- Has the unit been connected to the proper water supply and no leaks? ☐

2- Has the unit been connected to a drain and no leaks? ☐

3- Has the unit connected to the proper electrical supply? ☐

4- Has the unit been leveled? ☐

5- Have all packing materials been removed from the ice machine? ☐

6- Is there proper ventilation around all side of the ice machine? ☐

7- Does the unit have an earth ground (electrical)? ☐

8- Is the water to ice maker turned on? ☐

9- Is the power to the ice maker switched on? ☐

10- Has the unit located in room that temperature between 41°F AND 89.6°F? ☐

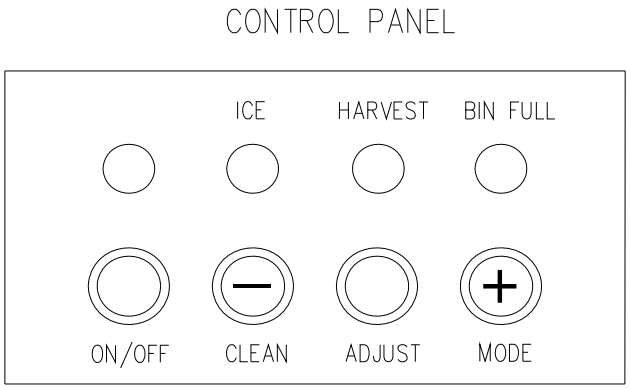
11- Has the water temperature between 41°F AND 77°F? ☐

12- Has the user been fully trained in the operation of the ice machine? ☐

REFR3 - Cubed Ice Machine

Your ice machine features a touch control to operate the controls, please lightly tap the control button with your finger tip. The control panel also feature an easy read display which shows the status of the ice machine at all times.

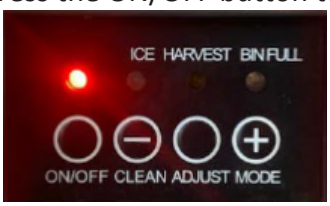
Digital & indicator display

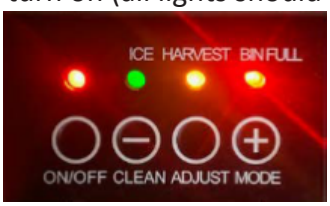


Description of LEDs and buttons:

1. **Bin Full (Red) LED**: Bin full indicator light
   When this is lit, the ice storage bin is full of ice or there is something blocking the bin-full probe. The unit will stop working. When ice cubes are removed from the ice storage bin, freeing the bin-full probe, the red LED will remain flashing for 3 minutes, then the unit will restart and return to the ice making mode.
2. **Ice Making(Green) LED**: Ice making indicator light
   When this is lit, the unit is working in the ice making mode controlled by a temperature probe on the evaporator. When the green LED flashes, the unit is working in the ice making mode controlled by a fixed timer.
3. **Ice Harvest (Yellow) LED**: Ice harvest indicator light
   When this is lit, the unit is working in the ice harvest mode controlled by the ice-full probe.
4. **Mode button**: Mainly for service. When this is pressed, the ice making mode changes to the ice harvest mode or vice versa. The mode can be judged from the status of the green and yellow LEDs.
5. **Adjust button**: Mainly for service. When it is pressed over 3 seconds, the unit will enter the Ice Size Adjustment mode. The mode can be judged from the status of the yellow LEDs.

To manually restart the unit press power button for 2 seconds and you should hear the unit power up. All lights should be lit, if only the ON/OFF button is red the unit has power but is turned off. Press the ON/OFF button to turn on (all lights should light up).





Ice Size Adjustment Guide:

1. Press and hold the "**Adjust**" button for at least 3 seconds. The unit will enter the Ice Size Adjustment mode. The "**HARVEST**" LED (yellow) will be blinking continuously during the ice size adjustment. Release the button when the LED blinks continuously to adjust the ice size.
2. While in the Ice Size Adjustment mode, press the "**Clean**" (-) button or the "**Mode**" (+) button for the desired ice size.

Smaller ice setting:
By pressing the "Clean" (-) button, you can decrease the size of the ice cubes. The "ICE" LED (green) will flash as you lower the ice size and will finally be blinking at the setting of smallest ice size.

Larger ice setting:
By pressing the "Mode" (+) button, you can increase the size of the ice cubes. The "BIN FULL" LED (red) will flash as the larger size is set and will blink when the setting of largest ice size has been reached.

After 10 seconds without any operation, the unit will return to the previous mode.

NOTE:

- If during the ice size adjustment mode the "BIN FULL", "ICE" and "HARVEST" LEDS blink all at once, this indicates that the unit is in the regular (middle) setting of the ice size.
- When the machine is in the cleaning stage or ice full stage, the ice size adjustment mode cannot be accessed

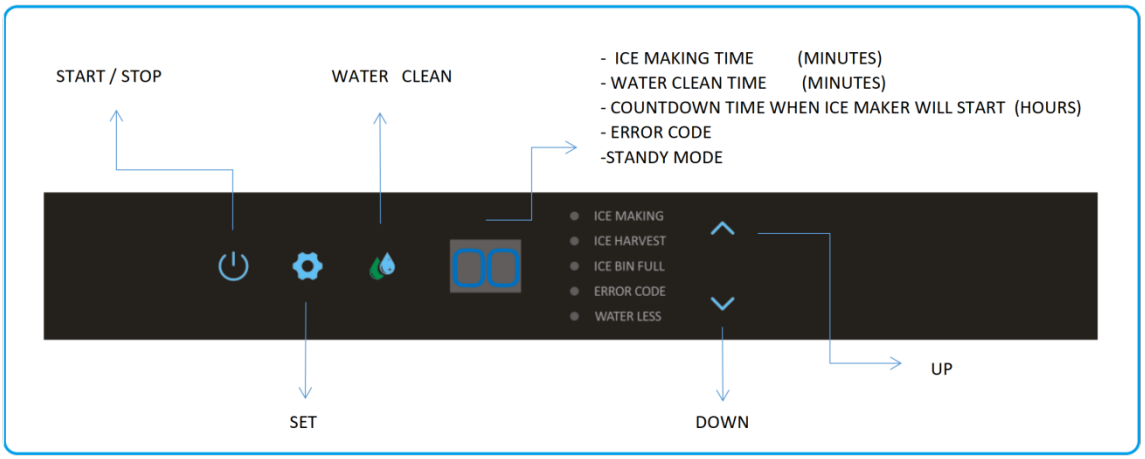
MAJOR FUNCTIONS

1. The operating procedure is completely automatic.
2. When the ice storage bin is full of ice cubes, the machine stops making ice automatically. It starts making ice again after ice cubes are removed.
3. The different colors of the LED display indicate various work modes.
4. A sensitive probe and accurate timer enhance the performance of the ice maker.
5. A compressor protection system is built in.

Operating Instructions

Your ice machine features a touch control to operate the controls, please lightly tap the control button with your finger tip. The control panel also feature an easy read display which shows the status of the ice machine at all times.

Digital& indicator display and controller



Display	Per Ice making cycle time / Water clean on / Error code / Delay time of resume ice production / Water inlet / Panel locked / Standby status
Indicators	Start & Standby / Set / Water clean / Ice making / Ice harvest / Ice bin full / Error code / water less / Up / Down
Button	Start & standby / Set / Water clean / Up / Down

⚠ Warning

After turning off your ice maker, please wait at least 3 minutes before restarting to avoid damage to the compressor.

Noted: If a "**.**" appeared on the button right coroner of the display window, the ice machine was under locked status.

Noted: The ice machine will auto-locked if no tap or operate in 30 seconds!

Un-lock: tap the "power" key for 3 seconds to un-lock the control panel before operating the desired button.

Ice production

Tap the start/standby button ⏻ for 3 seconds to start ice making. The button ⏻ will illuminate green and the ice making indicator will illuminate green. The ice making time will be displayed in the digital window also.

The water inlet valve, compressor, and water pump will start and step by step the evaporator will cool to make ice.

Note: The ice maker will automatically start the ice making cycle after plugging in the machine and powering it on.

Note: The display window will appear "Co" while water inlet is filled by the water valve

Note: During the ice making cycle, Pressing the set button for 5 seconds will enforce the harvest cycle immediately.

Ice harvest

Once the ice production cycle has completed the machine will switch into the ice harvest cycle, the ice harvest indicator will illuminate blue, then water pump will stop and the hot gas bypass valve will energize to release ice from the evaporator. Once the ice harvest cycle has completed the hot gas bypass valve and ice harvest indicator will both shut off.

If the ice bin is not full the next ice making cycle will begin until the ice bin full.

Standby

To stop the ice production cycle tap the start/ standby button ,the ice machine will return to standby status, the display window will show "Of" and the button will flash.

If the ice machine has started the program of "counting down time of delay until ice production will resume", tap the start/ standby button to revert the program to standby mode, the display window will show the countdown time, and the set button will illuminate white and the start/ standby button will flash.

Note: Tapping the start/standby button DOES NOT turn off the power of the ice machine. The ice machine must be unplugged and isolated from the main electricity before any service or cleaning is undertaken.

Ice bin full

When the ice bin is full, the ice maker will stop ice production automatically. The ice full indicator will illuminate yellow and start/standby button will illuminate green. "FL" will also be display in the digital window.

Water cleaning cycle

Tap the clean button for 3 seconds to start a water cleaning cycle, the clean indicator will illuminate white and "CN" will be displayed in the digital window. Once the clean cycle has finished, the ice maker will revert to standby mode. Alternately, press the clean button for 3 seconds again or tap the start/ standby button during the water cleaning cycle, the cycle will finish and return to standby mode or countdown mode immediately.

Note: When first turning on the ice maker, the system will rinse itself before making ice. The rinsing process takes about 5 minute.

Note: During the ice making cycle or ice harvest cycle, the water clean button does not work, the clean indicator will quickly flash.

How to delay the ice production cycle

The delay function is a key feature that allows the operator to delay the ice production for 0-24hours. This makes it easier to manage ice production and lower costs. After the set delay time passed, the machine will automatically resume ice production.

To set up the delay feature tap the set button for 3 second, the set button will illuminate white and the start/standby button will flash, the countdown time will also be displayed on the digital window. You can touch the up and down arrows to increase or decrease the countdown time.

Note: Time set to "00" will not execute the delay program.

After the delay function has been implemented, the set button will illuminate white and the start/standby button will flash. The display window will also show the countdown time.

Note: During the ice making cycle the ice production delay function will not work.

Note: If the ice maker is powered off or disconnected, the delay function will need to be reset.

How to set the ice making cycle time

Tap the up / down button , the display window will show the ice making cycle time. The time can be set between 0~45minutes, default time is 16 minutes for maximum ice production.

Note: The ice maker is only able to set up the ice making time during the ice making cycle.

Below are recommended cycle times. Please do not set the ice making time out of our suggested time frame to prevent issues.

Recommended ice production time for different ambient temperatures	
Ambient Air Temperature	**Recommended Cycle Length**
50° F	8 - 12 minutes
50 - 57° F	10 - 15 minutes
59 - 75° F	12 - 20 minutes
77 - 93° F	14 - 25 minutes
95 - 107° F	20 - 30 minutes

Maintenance & Cleaning

Periodic cleaning and proper maintenance will extend the life of your ice machine, ensure maximum efficiency, and deliver better ice.

⚠ **Warning:** Disconnect the ice maker from the main electrical and the water source before preforming any cleaning or maintenance.

⚠ **Warning:** Inspection, descaling and servicing should only be performed by a qualified technician.

⚠ **Warning:** Never clean the ice maker with a pressure washer or by spraying water, never use acidic or abrasive detergents.

Exterior cleaning

Always clean the exterior stainless steel surface of the ice machine with a micro-fibre cloth or a sponge. Make sure to clean in the direction of the grain of the stainless steel.

⚠ **Warning:** Do not use abrasive or metallic products such as wire wool which could cause corrosion of the stainless steel finish.

⚠ **Warning:** Do not clean plastic components with alcohol or disinfectants as this could cause damage to the plastic components.

Air filter cleaning

The ice machine is equipped with a condenser dust filter to prevent dirt and dust from entering the condenser. It is important that the condenser and air filter is cleaned routinely to ensure efficient operation of the machine. We recommend this procedure is carried out every 30 days.

Note: Push down the buckle at the rear panel of the machine to lift out the panel and remove air filter from the metal side of the rear panel. Clean with soft brush and vacuum cleaner and replace back.

Condenser cleaning

A dirty or clogged condenser will prevent proper air flow. This will lead to reduced efficiency, reduced ice production performance and increase operation temperatures which may lead to component failure. We recommend the condenser is cleaned every six month by a qualified technicians. To clean the condenser disconnect the ice machine from the main electricity and water source. Remove the condenser from the back panel of the machine. Clean dirt and dust from the condenser with a soft brush and vacuum cleaner. Reattach the rear panel and reconnect the power and water to the machine after cleaning.

⚠ **Warning:** Failure to clean the condenser could cause component failure and will invalidate your warranty.

⚠ **Warning:** Be careful when doing the condenser cleaning as the edge of the condenser and pin are sharp.

Water distributor, water tank and float switch cleaning

Mineral, dirt and lime scale that are present in the water during the freezing cycle will build up in the water distributor, water tank and other parts of the ice maker. Routine cleaning will help prevent build up.

We recommend cleaning the water distributor, water tank, and float switch every three months with a citric acid and baking soda powder solution.

We strongly recommend utilizing a in line water filter with this ice maker.

⚠ **Warning:** Dirt and lime scale build up will reduce the efficiency of the ice maker and could lead to component failure which will invalidate your warranty.

Trouble shooting

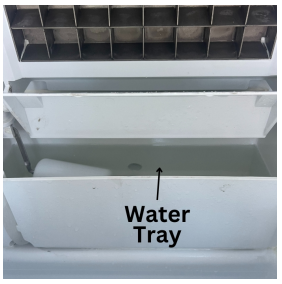
Before calling for service, review the error code, symptoms and recommended solution below, if none of the suggested solution resolve your problem, please contact your local distributor or authorized service company.

Error code	Symptom	Possible cause	Solution
E1	Ice damper or ice full sensor fault	Ice damper dislocation	Check ice damper and ice full sensor, replace if necessary
		Ice full sensor defective	
Eb	Poor cooling performance	High ambient temperature	Wait until ambient temperature meets requirement
		Poor ventilation	Ensure the sufficient clearance for proper air circulation
		Shortage of refrigerant, inefficient compressor	Check for leak & recharge refrigerant, replace compressor if necessary
		Shortage of water	Check or replace water system components of ice machine and water supply.
		Water temperature sensor inoperative or disconnect.	Check and replace if necessary
		Inefficient compressor	Check the compressor, replace if necessary
E3	Ice harvest overtime	solenoid valve not opening	Check and replace valve if necessary
		Ice making time set too short (ice too thin)	Make sure the set time of ice making cycle is complying with the suggested set time range by manufacturer
		In-sufficient water or water less in water tank	See remedies for shortage of water
E4	Ambient temperature too high	ambient temperature too high	Wait until ambient temperature meets requirement
		Poor ventilation	Make sure the sufficient clearance for air circulation
		Condenser dirty	Clean the condenser
		Condenser fan faulty	Check the condenser fan, replace if necessary

E5	Shortage of Water	Water supply is turned off or no water	Make sure the water supply is turned on and has a good connection.
		Water pressure too low or water leak	Make sure the water pressure is between 0.2psi to 0.8psi
		Water inlet valve not opening	Check the water inlet valve, replace if necessary
		Water tank leak	Check the water tank, replace if necessary
		Water pump fault	Check the pump, replace if necessary
		Leak of water drain valve	Check the valve, replace if necessary
E6	Out of the pressure limit	Condenser temperature too high	Make sure the sufficient clearance for proper air circulation, Check the pressure of refrigeration system
		Blockage of cooling system	Check the condenser and clean
		Pressure switch fault	Check the switch, replace if necessary
E7	Open circuit fail of the condenser sensor	Condenser sensor defective	Check related parts, replace if necessary
		Connector lose or disconnect	
E8	Short circuit fault of the condenser sensor	Condenser sensor defective	
		Connector lose or disconnect	
E9	Open circuit fault of water temperature	Water temperature sensor defective	Check the water temperature sensor, replace if necessary
		Connector lose or disconnect	
EA	Short circuit fault of water temperature	Water temperature sensor defective	
		Connector lose or disconnect	

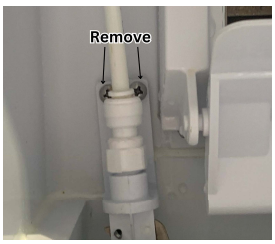
E11	Power	Power Surge or Power Outage	Restart the unit. After unplugging make sure to wait 3 minutes before restarting the machine. **(See page 7 for additional help with REFR3 Cubed Ice Maker)**
E12	**REFR3** Cubed Ice Maker Water Supply Issue	Water supply blockage	Does the water tray on the REFR3 have water in it? Is the tube on the top of the REFR3 feeding water to the freezer tray? See picture. Remove the two screws shown and see if water is flowing. If not, remove the white zip tie and clean out the white tube. If either of these are a no the water supply may be blocked. Clear out line and add a in-line water filter if one isn't being used. **(See below for instructions on clearing out the water line).**
E13	**REFR3A** Nugget Ice Maker Water Supply Issue	Water supply blockage	Is water flowing through the white tube on the back of the fridge? If not clean out the line by removing the little blue piece and pulling out the line. Clean any debris from the line before replacing.

Make sure all lights are on for REFR3

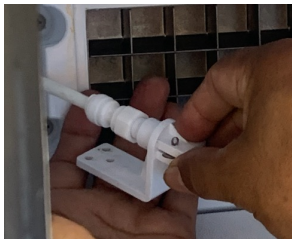


Remove to clean line on REFR3A

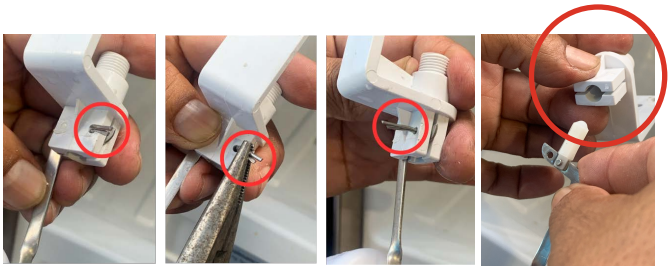
Cleaning out water line for REFR3 Cubed Ice Machine:



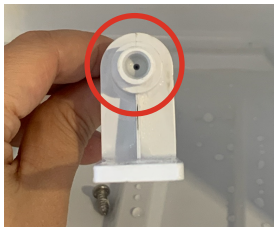
1. Remove the two screws that secure the float valve.



2. Unscrew the water line from the float valve.



3. On the float valve is a metal pin. Straighten it out with pliers and remove the float.



4. Make sure both the water line and the float valve are clear of debris.

To reconnect, replace the flat and metal pin. Connect the float valve to the water line and screw back into place.

Renaissance Cooking Systems Product Warranty

RCS is proud to provide the industries most comprehensive warranty program.

All RCS American Renaissance Grills, Cutlass Pro Series Grills and Cutlass Pro Series side burners, sinks, as well as ALL doors and drawers are warrantied to be free from manufacturer defects for the lifetime of the original owner.

All RCS Premier Series Grills and Premier Series Side Burners are warrantied to be free from manufacturer defects for 15 years to the original owner.

All RCS Refrigeration products are warrantied to be free from manufacturer defects for 5 years to the original owner.

All other products carry a one-year warranty to the original owner.

This RCS warranty is effective for product sales beginning January 1st, 2020. For service assistance, please reach out to us at the email address below. You may also check our website for lots of great information on using, servicing, or cooking on your new RCS grill.

This warranty excludes normal surface corrosion, discoloration, surface scratches and surface rust which may occur. Improper maintenance, salt spray, chemicals, pesticides will affect the look and integrity of the components of these products. RCS will not be responsible for any damage caused as a result of not following owner's manual instructions. This non-transferrable warranty is limited to the replacement of original (one-time) defective parts, does not include shipping and labor to remove or install replacement parts, if necessary. The owner must retain and submit their original receipt with any warranty claim to receive warranty parts. The warranty applies to the original owner only. Coverage is for residential use only, no commercial applications apply. No registration required.

For more information, questions or assistance please visit us at
RCSGasGrills.com and click the Customer Care Form