

INSTALLATION
AND
OPERATION

MODEL 315
ICE MAKER



INTRODUCTION

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The Sub-Zero Model 315 is a restaurant-type ice maker designed for home use. It produces the same high quality clear ice that you would expect from Sub-Zero.

This guide is intended as a resource for the installation and operation of the Model 315. Because it contains information on safety and maintenance, Sub-Zero strongly recommends that this manual be read thoroughly and that it be kept where it is readily available.

Before you begin your installation, there are a few things you should take special care to observe.

As you follow these installation instructions, take particular note of the **WARNING!** and **CAUTION!** symbols when they appear. This information is important for the safe and efficient installation of this Sub-Zero.

▲ WARNING

alerts you to a hazard that may cause serious injury or death if precautions are not followed.

▲ CAUTION

signals a hazard where minor injury or product damage may occur if you do not follow instructions.

In addition, the printed instructions may signal an **IMPORTANT NOTE**, which highlights information that is especially important for a problem-free installation.

Second, make sure that the actual equipment that was shipped to you matches the design you are expecting to install. If the unit you receive does not match your requirements, contact your Sub-Zero dealer.

MODEL 315 ICE MAKER

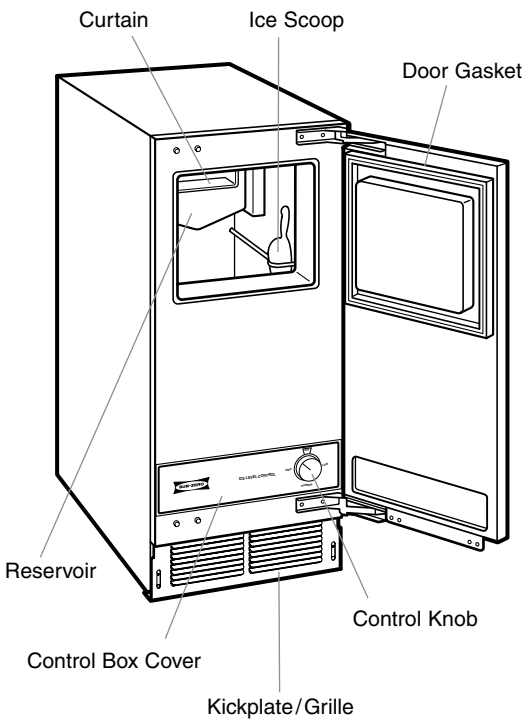


PRE-INSTALLATION

Technical Information

Your Sub-Zero ice maker is designed and manufactured with the highest regard for safety and performance. It meets or exceeds the standards of UL, and CUL. Sub-Zero assumes no liability or responsibility of any kind for products manufactured by Sub-Zero that have been altered in any way, including the use of any parts and/or other components not specifically approved by Sub-Zero. Sub-Zero reserves the right to make design changes and/or improvements at any time. Specifications and designs are subject to change without notice.

Model 315 Features



Pre-Installation Considerations

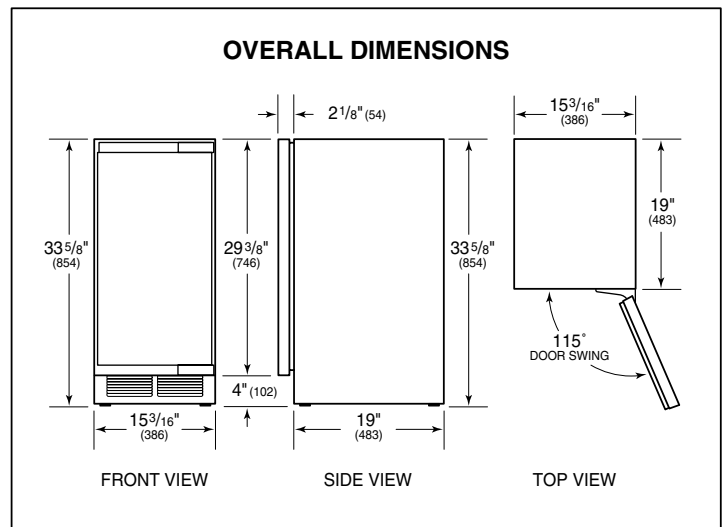
To properly make and store ice, the Model 315 requires access to air, potable water, 115 volt electricity and a drain. The ice maker must be installed indoors, in a controlled environment.

AIR: The ice maker uses a fan to take in room air at the front of the ice maker through the right side of the kickplate. It discharges warm air out the left side of the kickplate. Anything placed in front of the kickplate will restrict air flow and cause a decrease in performance and efficiency. The minimum air temperature the ice maker will operate in is 50°F, and the maximum is 100°F.

WATER SUPPLY: The ice maker requires a continuous supply of potable water at no less than 20 psig of flowing pressure. Static water pressure should not exceed 80 psig. The minimum water temperature the ice maker will operate in is 40°F, and the maximum is 100°F.

WATER QUALITY: There is no such thing as "pure" water; all water, including potable water supplied by municipalities, contains some "impurities". Water absorbs impurities from the air as rain and/or as it flows through the ground. Some of the impurities are solid particles, these are known as suspended solids, and a fine particle filter will remove them. Other impurities are chemically bonded to the water molecules, and cannot be filtered out, these are called dissolved solids.

Ice made by the Model 315 will have a lower mineral content than the water it was made from.



PRE-INSTALLATION

Pre-Installation Considerations

Purer water will freeze first in the ice making molds. The reason for this is that anything dissolved in water lowers the water's freezing temperature.

This concentrates most of the impurities in the ice maker water reservoir where they may form hard deposits known as scale. The Model 315 dilutes the concentration of minerals by over-filling the reservoir during the harvest cycle (with the excess water flowing down the drain). About 3 quarts of water flow into the unit each cycle. About 1 quart of that rinses the reservoir and goes down the drain.

Some impurities will inevitably remain, and will stick to the parts in the ice maker, and will cause malformed ice cubes. Eventually, built up mineral scale can shorten ice maker life.

To keep the ice maker operating properly, these impurities or minerals will have to be regularly dissolved by an acid cleaning, using Sub-Zero ice maker cleaner. Directions for this may be found in the section under cleaning.

In general, it is always a good idea to filter the water. A water filter, if it is of the proper type, can remove taste and odors as well as particles. Some methods of water treatment for dissolved solids include reverse osmosis, and polyphosphate feeders. A reverse osmosis system should include post treatment to satisfy the R.O. water's "aggressiveness".

Deionized water is not recommended.

Because water softeners exchange one mineral for another, Sub-Zero does not recommend their use for ice makers. Where water is very hard, softened water may result in white, mushy cubes that stick together.

Sub-Zero suggests, that if in doubt about the water, that a local point of use water specialist be contacted for recommendations on water treatment.

Area Requirements

Before moving the units in place, be sure the finished dimensions, electrical and plumbing locations and minimum door clearances are accurate. Refer to the "Pre-installation Specifications" illustrations on pages 6 and 7.

Be sure your plumber, electrician and cabinet installer have this information before finishing work is completed.

The Model 315 is a gravity drain model that requires a drain tube that's pitched down from the outlet at the back of the cabinet to the connection to the sanitary sewer.

The Model 315P has a built in drain pump that will pump water up to a drain point, such as a nearby sink.

PRE-INSTALLATION

Moving the Unit

IMPORTANT NOTE: When you move the unit into the house using a hand truck or dolly, position the dolly on the side of the unit and secure the door so it does not open while transporting the unit.

IMPORTANT NOTE: The floor under the ice maker must be at the same level as the surrounding finished floor.

⚠ WARNING

Shut off the power to the wall outlet.

⚠ CAUTION

Any finished flooring should be protected with appropriate material to avoid any damage from moving the unit.

Electrical

A 115 volt, 60Hz, 15 amp circuit breaker and electrical supply are required. A separate circuit is required for each unit. Follow the National Electrical Code and local codes and ordinances when installing the receptacle.

The ice maker is supplied with a cord, and may be plugged into a wall outlet. The ice maker should be the only device using that circuit.

⚠ WARNING

Model 315 is equipped with a 3-prong grounding plug and they must be plugged into a mating 3-prong grounding-type wall receptacle.

Do not use an extension cord, or two prong adapter. Electrical ground is required on this appliance.

Do not under any circumstances remove the power supply cord ground prong.

Plumbing

Rough in the water supply line. Connect a 1/4" OD copper line to the house supply. Be sure to use an easily accessible shut-off valve between the supply and the appliance. This shut-off valve should not be installed behind the unit. Do not use "self-piercing" valves. A saddle valve (part #4-20-088-0) is available from your distributor/dealer. A line filter is required when the water supply has a high mineral content. The water supply must maintain 20 to 80 psi of water pressure.

The water supply and drain should be roughed in and ready at the point of installation. A wall outlet directly behind the ice maker will make the installation easier. All electrical, water and drain connections must conform to local codes.

IMPORTANT NOTE: Although the Model 315 has been designed to be serviced in place, in some cases it may be necessary to pull the unit out for service. For that reason do not restrict access to the cabinet at the front-top and bottom.

If a floor is to be installed after the ice maker, shims the thickness of the floor should be installed under the Model 315 to keep the ice maker level with the floor. Also, allow 1/8" clearance on each side of the cabinet for protruding screw heads.

INSTALLATIONS ON A SLAB: Use a Model 315P and pump the water to the point of drainage. Pump models will pump one story high.

INSTALLATIONS OVER A CRAWL SPACE OR BASEMENT: Either gravity drain or pump model units may be used, if there is not enough room behind the ice maker for a drain/waste receptacle, the drain will have to be below the floor.

INSTALLATION

Plumbing

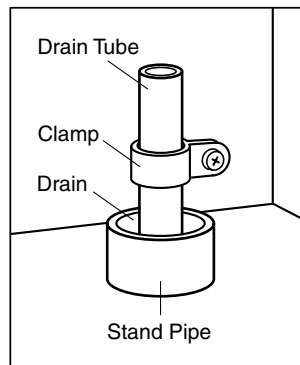
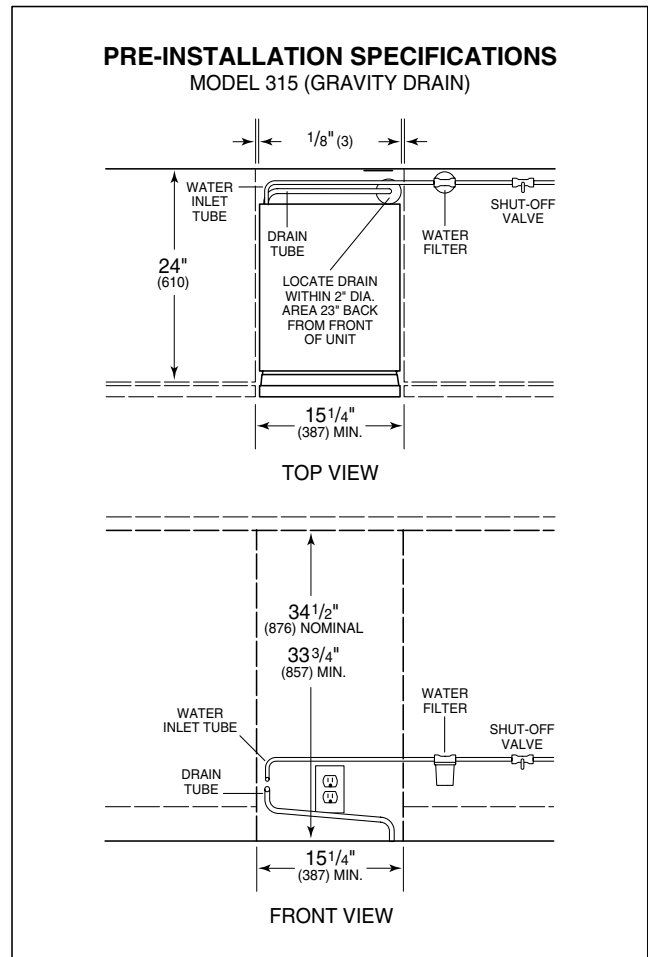
Model 315 – Gravity Drain Model

The drain and inlet water tubes must be plumbed before connecting to the ice maker. All horizontal runs of drain lines must have a 1/4" per foot fall. An air gap will likely be required between the ice maker drain tube and the drain/waste receptacle. A stand pipe with a trap below it would be acceptable for the drain/waste receptacle.

IMPORTANT NOTE: Poor draining will cause a high rate of ice melting in the bin.

- 1) Place ice maker in front of installed location. Adjust leg levelers to approximately correct position.
- 2) Remove door with hinges, control knob, control panel, access panel and lower stainless face plate.
- 3) Route water inlet line, which should be a 1/4" O.D. copper tube, from wall through ice maker to the front.
- 4) Route drain line from wall position through ice maker. NOTE: if using a long horizontal run (more than 5 feet) the drain should be vented at back of cabinet.
- 5) If electrical outlet for ice maker is behind the cabinet, plug in the ice maker now.
- 6) Push ice maker into installed position.
- 7) Cut off water inlet line at required length.
- 8) Flush water line. Place flare nut on inlet water line and flare the end of the copper tube.
- 9) Attach flare nut to the male flare on the inlet water valve.
- 10) Cut off the drain tube to the required length.
- 11) Connect the 5/8" drain tube to the bin drain fitting at the bottom of the bin. Secure with hose clamps. Be certain that the drain tube is pushed up well past the barbs on the drain fitting. If needed to ease installation, soak the drain hose in hot water just before connecting to the fitting.
- 12) Turn on the water supply and check for leaks.
- 13) Replace door with hinges, control knob, control panel, access panel and lower stainless face plate. Level as needed.

IMPORTANT NOTE: All plumbing must meet local codes.



Drain Tube Detail

INSTALLATION

Plumbing

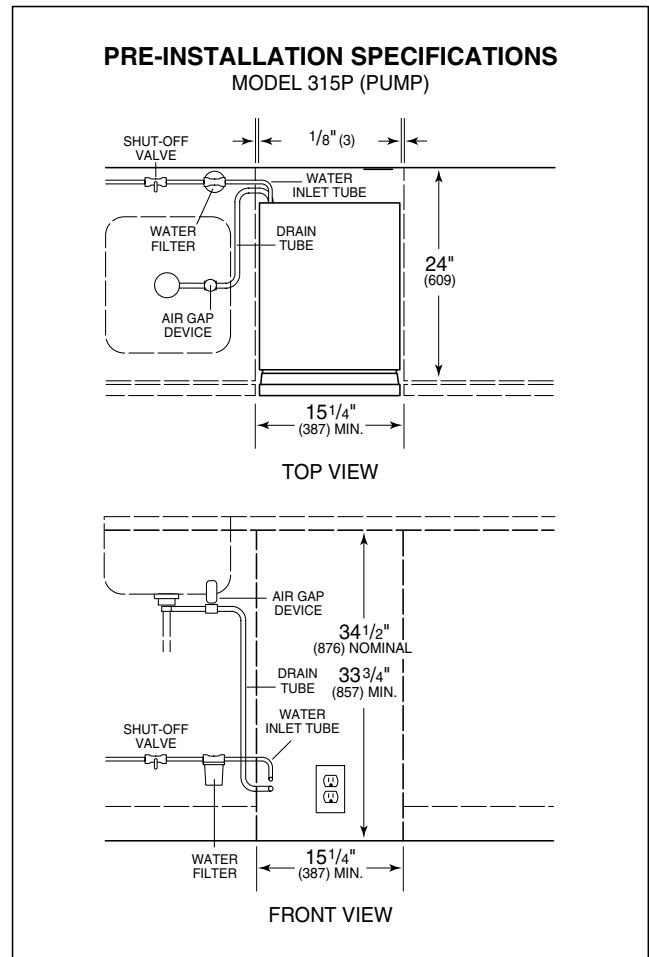
Model 315P – Pump Model

- 1) Place ice maker in front of installed location. Adjust leg levelers to approximately correct position.
- 2) Remove control knob, control panel and control access panel.
- 3) Route water inlet line from wall through ice maker to the front.
- 4) Locate coil of 3/8" ID plastic drain tubing secured to the back of the cabinet.
- 5) Route plastic drain tube from back of cabinet to drain connection point.

IMPORTANT NOTE: Often an air gap is required by local codes between the ice maker drain tube and the drain receptacle.

- 6) If electrical outlet for ice maker is behind the cabinet, plug in the ice maker now.
- 7) Push ice maker into installed position.
- 8) Cut off water inlet line at required length.
- 9) Flush water line. Place flare nut on inlet water line and flare the end of the copper tube.
- 10) Attach flare nut to the male flare on the inlet water valve.
- 11) Turn on the water supply, and make sure that the ice maker is plugged in and the power is on.
- 12) Pour a couple of quarts of water into the storage bin, the drain pump should start and pump water out. Check for leaks.
- 13) Replace control knob, control panel and control access panel.
- 14) Level the cabinet as needed.

IMPORTANT NOTE: All plumbing must meet local codes.



Drain Pump Kit

This ice maker can be ordered with (Model 315P) or without (Model 315) a pump. Models without a drain pump drain their water by gravity. However, gravity drain models may be converted to pump models through the installation of a drain pump kit and drain pump.

Two parts are required for this conversion:

Drain pump kit part number A36892020

Drain pump part number 12250321

Specific step-by-step instructions are included with the kit.

INSTALLATION

Completing the Installation

IMPORTANT NOTE: Turn on the water supply and check all fittings for leaks. Make certain the electrical harness is attached to the solenoid.

Let your customer know that the ice maker will not fill with water immediately, and that the first batch of ice produced should be discarded. Allow 24 to 36 hours to get proper ice production.

IMPORTANT NOTE: When installed in a corner, the door swing may be limited due to handle contact with the wall or cabinet face.

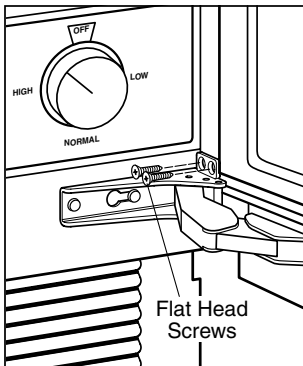
Leveling

Level the unit by turning the leveling legs counterclockwise to raise or clockwise to lower.

HINT: To assist you in adjusting the front leveling legs up or down, use a standard screwdriver blade and place it in the front leg.

Securing the Unit

To secure the unit, install two #8 x 1/2" flat head screws through each hinge. Refer to the illustration below.



Securing the Unit

Kickplate/Grille Installation

Once the Model 315 is secured, you can install the kickplate/grille. As shown in the illustration below, there is some adjustment to the mounting assembly so this decorative piece can fit flush with the surrounding area.

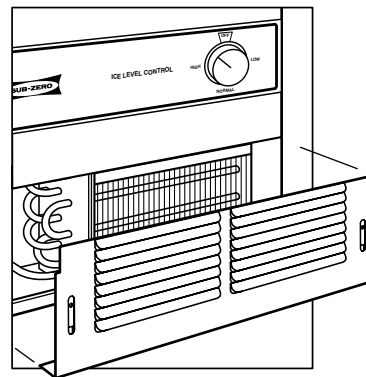
CAUTION

DO NOT cover the kickplate/grille area.

The unit must be allowed to have ventilation through these fins. The door panel may hang in front of the fins, but your kickplate/grille must not cover them.

HINT: The kickplate/grille can be painted another color, if you choose. Follow these easy steps:

- Rough up surface to be painted with fine grit sandpaper.
- Wipe with alcohol to ensure it is clean and dry.
- Use an appliance or industrial grade, oil base, high gloss enamel paint.



Kickplate/Grille Installation

INSTALLATION

Panel Considerations

Refer to instructions for installation under "Panel Installations". You should be sure of panel sizes and placement before proceeding with installation. If you have questions, contact the selling Sub-Zero dealer or cabinet supplier. Instructions regarding sizing of the panels are provided in the "Sub-Zero Design Guide".

IMPORTANT NOTE: Do not install hinge covers until the door swing direction and door stop angle have been finalized.

Side Panels

With Model 315 you must securely fasten the side panels to adjacent cabinets and floor.

Panels should be fastened to the floor and walls using "L" brackets (hardware not provided). To help you move the unit into place, route out an area in the floor so the 'L' bracket will sit flush with the floor level. Brackets and screws are provided for mounting the unit to adjoining cabinets and side panels.

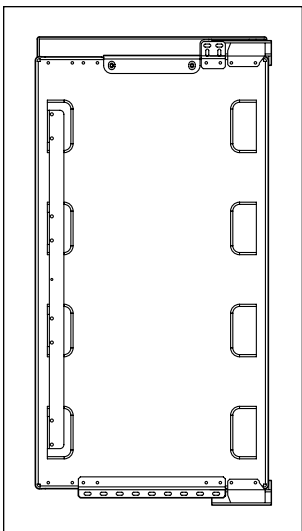
Reversing Door Swing

The hinged side of the door may be reversed to the other side if desired.

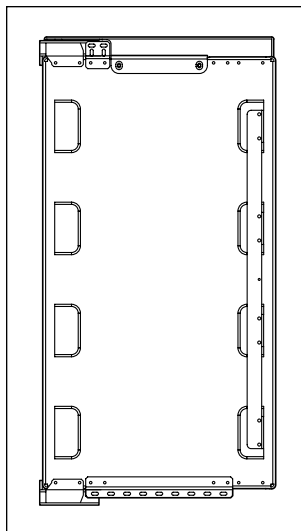
The Model 315 was shipped with the door hinged at the right. The door and hinges are designed for placing the hinges on either the right or the left side of the cabinet. Moving the hinges to the left in the pre-drilled holes, allows the door to pivot from the left side.

IMPORTANT NOTE: There is a part, packed with the ice maker, that is required for this procedure.

- 1) Remove the hinge cover.
- 2) Remove the door by removing the (4) screws that secure the door to the door hinges.
- 3) Remove the door hinges by removing the (4) screws that secure them to the cabinet.
- 4) Remove the (4) screws from the opposite hinge side (or left-hand hinge mount holes) and reposition into the right-hand hinge mount holes.
- 5) Install the hinges using the left-hand cabinet mount holes.
- 6) Install the door using the left-hand door mount holes.
- 7) Remove the (2) screws which secure the upper door panel mount bracket.
- 8) Install the upper door panel mount bracket using the left-hand mount holes.
- 9) Install the left-hand door hinge cover with the original screws.
- 10) Check the operation of the door by opening and closing it.



Right-Hand Door Swing Configuration



Left-Hand Door Swing Configuration

INSTALLATION

Panel Installation

The Model 315 will easily accommodate a door panel as long as you follow these points.

⚠ CAUTION

Please exercise caution when drilling holes for mounting hardware. This is especially critical with inset panels.

For any door handle hardware, we recommend near center pulls on edge opposite of door hinge side

You may have to countersink screw heads to ensure hardware does not interfere with panels fitting flush with unit doors.

Door Panel Dimensions

Models 315 and 315P

Door Panel Width (1/8" reveal)	15"
Door Panel Height (4" toe space, 1/8" reveal)	30 ³ / ₈ "
Door Panel Thickness	⁵ / ₈ " min.
Door Panel Weight	15 lbs. max.
Opening Width (1/8" reveal)	15 ¹ / ₄ "
Opening Height (4" toe space, 1/8" reveal)	34 ¹ / ₂ "

INSTALLATION

Door Panel Installation

Door Panel—15 lb. weight limit

Remove the handle side bracket attached to the front of the door and set aside.

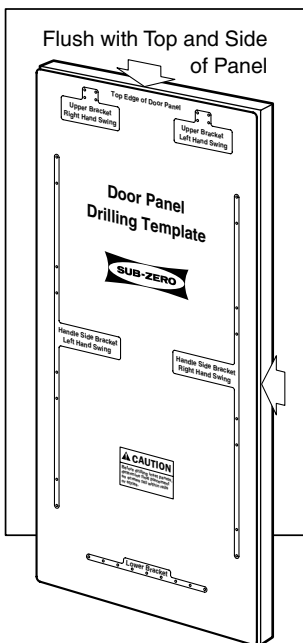
Place the door panel lying face down on a protected surface to ensure the front is not scratched or damaged.

Position the plastic template provided flush with the upper edge of the door. Be sure you are following the exact location for the RH or LH door position. See the following illustrations.

IMPORTANT NOTE: Remember you are viewing the door panel from the back side in the illustrations. The overall size of the panel shown is the minimum size necessary to cover the door of the unit. The exact measurements of your door panel may vary depending on the particular installation you are following.

CAUTION

Where the reveal on the hinge side of the door panel is less than 1/4", and the panel has a square corner, severe finger pinching or damage to the appliance may occur.

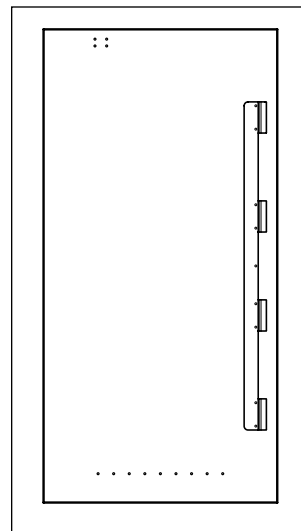


Template Positioning

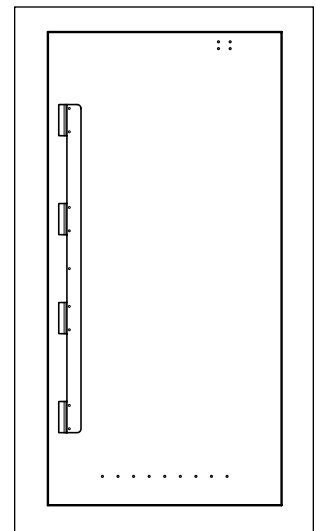
Once you have located the proper position for the hardware, mark the holes, remove template, and drill pilot holes for mounting of the hardware. We recommend starting the first few holes, positioning the hardware, drilling remaining pilot holes, and securing the mounting brackets with the #8 x 1/2" screws.

Install the door panel by engaging the tabbed bracket to the door first and then sliding the hinge side hardware over the positioning screws. You will have a 1/4" inch adjustment, up and down, side to side, with this hardware.

Once you have the door in place, attach the remaining #8 x 1/2" screws to the hinge side mounting bracket and install decorative caps.



Right-Hand Door Panel



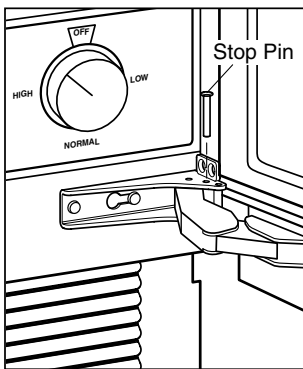
Left-Hand Door Panel

INSTALLATION

90 Degree Door Stop

Model 315 has a 90 degree door stop. Follow these steps for installation:

- 1) Open door to 80 degrees.
- 2) Insert stop pin into the bottom door hinge (pin enters from the top). Refer to the illustration below.
- 3) Pin must be driven until head has made contact with the hinge body.
- 4) Insert stop pin into the top door hinge (pin enters from the bottom).
- 5) Pin must be driven until head has made contact with the hinge body.
- 6) Check for proper operation.
- 7) Install hinge covers if installation is complete.



90 Degree Door Stop

Hinge Cover Installation

This is to be completed after the unit is fully installed.

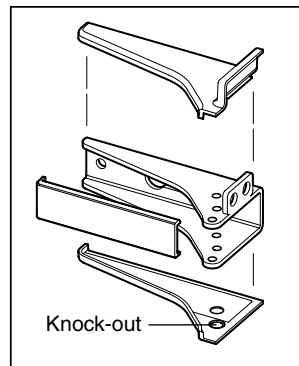
IMPORTANT NOTE: Install the 90 degree stop prior to installing the hinge covers.

- 1) Remove the backing paper of the adhesive pads and bond to the hinge as shown in the illustration.

IMPORTANT NOTE: Hinges must be free of dirt or grease before applying covers.

- 2) Install center covers as shown in the illustration (magnets will secure these covers).

IMPORTANT NOTE: It will be necessary to remove the knock-out in this cover when the 90° door stop is used.



Hinge Cover Installation

INSTALLATION

Installation Check List

The importance of the installation of your Model 315 ice maker cannot be overemphasized. The proper installation of your unit is the responsibility of the selling dealer or installer. The following check list should be completed by the installer to ensure no part of the installation has been overlooked.

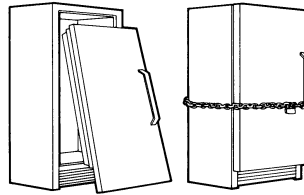
Any questions or problems about your installation should be directed to the selling dealer.

- Is the unit operating? If not, is unit plugged in? Check to see if unit is operating before you install.
- Has the ice maker been properly uncrated, and have all packing materials and tape been removed from inside the bin?
- Have the installation instructions been followed, including connecting the ice maker to water, drain and electricity?
- Has the ice maker been leveled?
- Is kickplate/grille installed?
- Are panels installed properly?
- Does the customer understand the unit's operation?
- Does the customer understand Sub-Zero's "12-Year Protection Plan" warranty?

Think Safety!

If you are storing or disposing of your old appliance, please do it safely.

Child entrapment accidents can be tragic.



OPERATION

Initial Start Up

- 1) Remove control box cover.
- 2) Rotate timer shaft clockwise until the cam is in the harvest position (switch button out).
- 3) Turn on water supply.
- 4) With unit plugged in, rotate ice maker control knob to the ON position.
- 5) Allow the unit to operate for 1 hour, and check the size of the cubes, if they are not correct, adjust as recommended on page 18.
- 6) After the cubes are confirmed to be the correct size, replace all panels.
- 7) Locate the nameplate on the left sidewall of the reservoir.

Record the serial number and date of start up here in the manual. Keep the manual handy for future reference.

Serial Number: _____

Date of initial start up: _____

- 8) Fill out and mail the warranty registration.

Using Your Ice Maker

The ice maker is extremely simple to use, just turn the ice maker control knob to the on position. The Model 315 will automatically begin to freeze ice and will continue to do so until the bin is full.

Use the scoop to remove ice and place the ice scoop in the holder provided (do not leave the scoop on the ice, as it will gradually disappear into the ice).

What to Expect from Your Ice Maker

The Model 315 will release a batch of 8 ice cubes about every 30 minutes. At the same time the cubes fall into the storage bin, water will be entering the ice maker and draining out.

ICE: The ice cubes are tapered cylinders about 1-1/4" in diameter at the widest end; taper down to 1-inch wide at the top; and are 1-1/8" high. When the ice maker is adjusted properly, there should be a 1/4" indent in the base of the cube. The ice will appear wet when fresh, this is normal. It may also develop frost on the outside and look cloudy, this is also normal (the frost will disappear when liquid is poured over the ice).

STORAGE: All restaurant-type ice makers, such as the Model 315, operate on this principal: The ice storage bin is not refrigerated; instead it's heavily insulated, much like a picnic cooler or ice chest. If the ice bin were to be refrigerated, the ice would freeze together into one very large cluster of ice, and would begin to evaporate. This would yield ice that is very poor in quality, and difficult to remove from the ice maker.

The Model 315 will continue to operate until ice builds up high enough to contact the bin thermostat sensor tube, then it will shut off. Models with a drain pump will occasionally pump out melt water when the ice maker is off. The pump will only be on for a few seconds.

RUN TIME: The amount of time the Model 315 will run to replace melted ice is about 2 hours per day. The amount of time the ice maker will run to replace ice removed is dependent upon how much is removed, how clean the ice maker is, and how hot the air and water supplied to the ice maker are. An empty ice maker will usually take about 24-36 hours to re-fill.

OPERATION

Ice Production

There are two distinct cycles: freeze and harvest.

1 freeze cycle + 1 harvest cycle = 1 batch of 8 cubes.

The freeze cycle happens when water is sprayed against the freezing surface. The harvest cycle is when the ice is released and water enters the ice maker. A complete cycle takes about 30 minutes.

FREEZE: During the freeze cycle the compressor is pumping refrigerant, the fan motor is blowing air, and the water pump is circulating water. As the refrigerated surface absorbs heat from the water sprayed against it, that heat is moved to the area where the fan is blowing air. The heat is transferred to the air, and the warmed up air is discharged from the ice maker. At the same time ice is forming on the refrigerated surface (located at the upper back of the ice maker). When the refrigerated surface gets cold enough, the ice maker's timer will begin to turn. When it turns far enough, it will stop the freeze cycle and begin the harvest.

HARVEST: During the harvest cycle the compressor is still operating, but the spray pump and fan motor have stopped. Two other components have been energized; the hot gas valve and the inlet water valve. These two valves open and warm up the freezing surface, allowing the cubes to fall into the bin. The timer is still turning, and when it gets to the end of the harvest cycle, the freeze cycle will restart.

How the Ice Maker Uses Water

The ice maker begins with a fixed charge of water that is contained in the reservoir. As the water is sprayed against the freezing surface, the part of water that does not contain mineral impurities will freeze and stick to the ice cup molds. The water containing impurities falls back into the reservoir. Gradually, during the freezing portion of the ice making cycle, the water in the reservoir will become highly concentrated with mineral impurities.

During the harvest cycle fresh water flows into the ice maker to dilute the reservoir water and to rinse the concentrated minerals down the drain.

CLEANING

Cleaning

IMPORTANT NOTE: Never keep anything in the ice storage bin that is not ice; objects like wine or beer bottles are not only unsanitary, but the labels may slip off and plug up the drain.

Never allow the ice maker to operate without regular cleaning. The ice maker will last longer if it is kept clean. Regular cleaning should happen at least once per year, and preferably twice. Some water conditions will dictate even more frequent cleaning of the ice making section, and some carpets or pets will dictate more frequent cleaning of the condenser.

Make sure that the outside cabinet and door, ice storage bin, condenser, ice making system and ice scoop are kept clean.

Cleaning the Exterior

If you have purchased a stainless steel model, use a soft, non-abrasive stainless steel cleaner you may purchase locally to wipe down the exterior. If you have difficulty finding a good cleaner, try Signature Polish from Signature Limited Laboratory, P.O. Box 13436, Dayton, Ohio 45413-0436; 877-376-5474.

Cleaning the Cabinet

Wipe off any spills on the surface of the door and handle as they occur. If anything spilled on the door or gasket dries onto the surface, wash with soap and warm water to remove. Always remember to use a non-abrasive cloth or pad.

Cleaning the Ice Storage Bin

The ice storage bin should be sanitized occasionally. It is usually convenient to sanitize the bin after the ice making system has been cleaned, and the storage bin is empty.

A sanitizing solution can be made of 1 ounce of household bleach and two gallons of hot (95°F - 115°F) water. Use a clean cloth and wipe the interior of the ice storage bin with the sanitizing solution, pour some of the solution down the drain. Allow to air dry.

Cleaning the Condenser

The condenser is like the radiator on a car, it has fins and tubes that can become clogged. To clean:

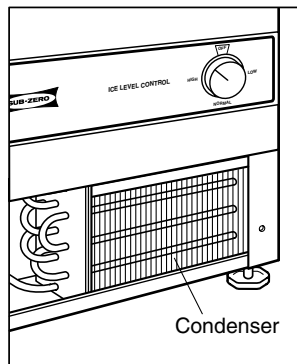
- 1) Remove the kickplate/grille.
- 2) Locate the condenser surface.
- 3) Vacuum the surface, removing all dust and lint.
- 4) Replace the kickplate/grille.

CAUTION

Do not dent the fins.

WARNING

For maintenance and cleaning, we recommend that the circuit breaker to the unit or the on/off control be shut off.



Condenser Location

CLEANING

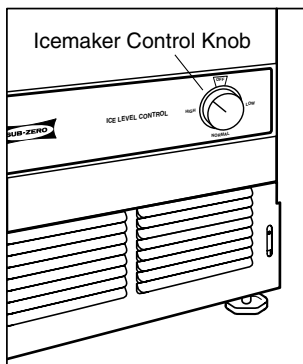
Cleaning the Ice Making System

- 1) Open the door and turn the ice maker control knob to off.
- 2) Scoop out all of the ice, either discard it or save it in a ice chest or cooler.
- 3) Pour 4 ounces of Sub-Zero ice maker cleaner into the ice maker reservoir. (Available from a local Sub-Zero distributor or dealer, ask for part number 19034306, an 8 ounce bottle).
- 4) Turn the ice maker control to ON.
- 5) Allow the ice maker to operate for about 2 hours.
- 6) Pour hot (95°F - 115°F) water into the bin to melt the ice that has formed. That ice will likely be white and frosty looking.
- 7) Clean the bin liner of mineral scale by mixing some ice maker cleaner and hot water, and using that solution to scrub the scale off of the liner.
- 8) Rinse the liner with hot water.
- 9) Sanitize the bin interior.
- 10) Replace the ice removed in step 2. The ice scoop should be washed regularly, wash it just like any other food container.

⚠ WARNING

Sub-Zero ice maker cleaner contains acids. These compounds may cause burns.

If swallowed, **DO NOT** induce vomiting. Give large amounts of water or milk. Call Physician immediately. In case of skin contact, flush with water. Keep out of the reach of children.



Ice Maker Control Knob

MAINTENANCE

Winterizing

- 1) Clean the ice making system.
- 2) Turn off the water supply.
- 3) Drain the water reservoir. Remove the pump hose.
- 4) Disconnect the incoming water line at the inlet water valve.
- 5) Remove control box cover and turn the timer into the harvest cycle.
- 6) With the ice maker operating, blow air through the inlet water valve; a tire pump could do the job.
- 7) Drain pump models should have about 1/2 gallon of RV antifreeze (propylene glycol) poured into the ice storage bin drain.

IMPORTANT NOTE: Automotive antifreeze must **NOT** be used.

- 8) Replace control box cover. Switch off and unplug the ice maker.

NOTE: To use after winterizing, reconnect pump hose and water line. Repeat the initial start up on page 14.

ADJUSTMENTS

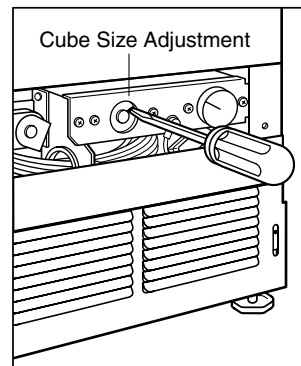
There are three items that may be adjusted: cube size, bin ice level and harvest time.

IMPORTANT NOTE: Cube size and harvest time adjustments should only be done by a qualified service person.

Cube Size Adjustment

The cube size control should only be adjusted to bring the cubes to the correct shape, the overall size cannot be adjusted. Try to adjust the cube size control when the ice maker is in the harvest cycle, or in the first 10 minutes of the freeze cycle.

- 1) Open the door and remove the control box cover.
- 2) Locate the cube size adjustment screw, and to make fuller cubes, turn the screw clockwise about 1/4 turn. This will make the freezing cycle longer.
- 3) To shorten the freezing cycle and make cubes that are not as full, turn the adjustment screw 1/4 turn counterclockwise.
- 4) After the next freezing cycle, the cubes should have responded to the adjustment, if another adjustment is required, do it early in the freeze cycle.



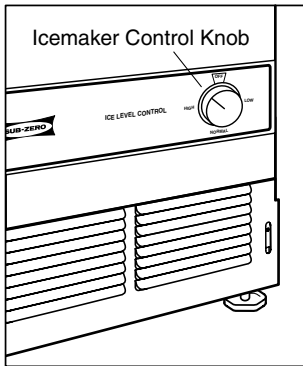
Cube Size Adjustment

ADJUSTMENTS

Bin Ice Level Adjustment

When the ice maker shuts off the ice level in the bin should be even with the metal tube inside the bin. If the ice in the bin is too high or low, turn the ice maker control knob to adjust the bin thermostat.

- 1) To lower the ice level, turn the knob counterclockwise. Usually a 1/8 turn will be enough.
- 2) To increase the ice level, turn the knob clockwise. Usually a 1/8 turn will be enough.



Ice Maker Control Knob

Harvest Time Adjustment

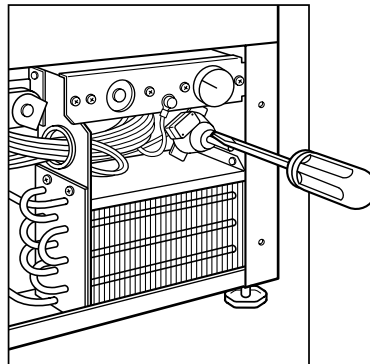
The amount of harvest time may be adjusted. It is preset from the factory at about 3 minutes, which should be adequate to release all cubes and fill the reservoir. If the timer needs to be adjusted:

- 1) Unplug or disconnect the electrical power.
- 2) Remove the kickplate.
- 3) Remove the control box cover.
- 4) Locate the timer, and loosen the set screw that holds the two halves of the timer cam together.
- 5) Rotate one half of the cam to open or close the lower portion of the cam. More of an opening equals more harvest time and less of an opening means less harvest time.
- 6) Tighten the set-screw.
- 7) Replace the control box cover and kickplate.
- 8) Reconnect the electrical power.

⚠ WARNING

Electrical Shock Hazard

Disconnect electrical power before beginning removal of parts.



Harvest Time Adjustment

TROUBLESHOOTING

Problem	Possible Cause	Probable Correction
The ice maker does not operate	The ice maker is unplugged	Plug the ice maker in
	Breaker tripped or fuse is blown	Reset breaker/replace fuse – if it happens again, call for service to check for a short circuit in the ice maker
	Ice maker control turned to OFF	Turn ice maker control to ON
	Bin thermostat open, keeping ice maker off	Ice on sensor tube – its then normal for the ice maker to be off Ice maker in a room below 50°F – room needs to be warmer for ice maker to operate. Bin thermostat stuck open, needs to be replaced.
	Timer contacts open	Replace timer
Cubes are too big	Cube size control set too cold	Adjust cube size control for a smaller cube
Cubes are too small	Cube size control set too warm	Adjust cube size control for a larger cube
	Not enough water	Check water supply – filter may be restricted Check inlet water valve – inlet screen may be restricted
	Cube size control stuck closed – timer runs all the time.	Replace timer
Cubes are partially formed – have ragged sides	Spray jets partially clogged	Clean ice making system with ice maker cleaner.
Ice maker makes ice, but bin does not fill up with ice	The bin should fill up and the ice maker shut off in 24-36 hours. If not, the condenser may be dirty	Clean the condenser.
	The bin drain may be partially restricted	Clean out the drain, check the installation.
	The air flow to the ice maker may be obstructed	Check the installation – the ice maker must be free of obstructions at the kickplate.
Cubes are partially formed – are white at the bottom	Not enough water in the reservoir.	Check water supply – filter may be restricted
		Check inlet water valve - inlet screen may be restricted.
		Check for a water leak at the reservoir.

TROUBLESHOOTING

Problem	Possible Cause	Probable Correction
No ice falling in bin, but ice maker operates	Ice may be stuck in the evaporator and the unit is "frozen up"	Check water supply – filter may be restricted
		Check inlet water valve – screen may be restricted, or valve does not operate
		Hot gas valve may not operate -check and repair/replace
		Harvest time set too short – timer needs adjustment
Too much heat load	Inlet water valve leaks through, needs to be replaced	
No water spray	Water pump does not work, replace it Water leak from reservoir, locate and repair	
Cube size control will not close	See "Too much heat load" or "not enough refrigerant" Control defective - must be replaced	
No airflow		Fan motor not turning, needs to be replaced
		Fan blade broken, needs to be replaced
		Condenser completely blocked up, needs cleaning
Not enough refrigerant	Add low side access valve, locate leak, recover refrigerant, repair, replace dryer, evacuate and weigh in the nameplate charge	
Restricted system	Add low side access valve, recover refrigerant, replace dryer, evacuate and weigh in the nameplate charge	
Hot gas valve leaks through	Add low side access valve, recover refrigerant, replace hot gas valve and dryer, evacuate and weigh in the nameplate charge	
Compressor will not operate or pumps poorly.		Start relay or capacitor needs to be replaced
		Add low side access valve, recover refrigerant, replace compressor and dryer, evacuate and weigh in the nameplate charge.

WARRANTY

"Sub-Zero Protection Plan"

Full 5 Year Warranty and Limited 6th Through 12th Year Warranty on the Sealed System

Full 2 Year Warranty on Total Product

Full Five Year Warranty

For five years from the date of original installation, your Sub-Zero warranty covers all parts and labor to repair or replace any components that prove to be defective in materials or workmanship in the sealed system. The sealed system consists of the compressor, condenser, evaporator, drier and all connecting tubing.

Full Two Year Warranty

For two years from the date of original installation, your Sub-Zero warranty covers all parts and labor to repair or replace any part of the product which proves to be defective in materials or workmanship.

Limited 6th Through 12th Year Warranty

From the 6th through the 12th year from the date of original installation, your Sub-Zero warranty covers all parts that prove to be defective in materials or workmanship in the sealed system (parts only). The sealed system consists of the compressor, condenser, evaporator, drier and all connecting tubing.

Terms Applicable To Each Warranty

All service provided by Sub-Zero under the above warranty must be performed by authorized Sub-Zero service representatives, unless otherwise specified by Sub-Zero. Service will be provided in the home during the normal business hours. This warranty applies only to products installed for normal residential use. Details regarding a non-residential warranty are available upon request.

The warranty applies only to products installed in any one of the fifty states of the United States, the District of Columbia or the ten provinces of Canada. This warranty does not cover any parts or labor to correct any defect caused by negligence, accident or improper use, maintenance, installation, service or repair, including but not limited to improper removal and reinstallation (whether in the unit or at a remote location) of the condensing unit.

The remedies described above for each warranty are the only ones which Sub-Zero will provide, either under these warranties or under any warranty arising by operation of law. Sub-Zero will not be responsible for any consequential or incidental damages arising from the breach of these warranties or any other warranties, whether express, implied or statutory.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

To receive parts and/or service and the name of the Sub-Zero authorized service representative nearest you, contact your Sub-Zero dealer or distributor or contact Sub-Zero Freezer Company, Customer Service Department, P.O. Box 44130, Madison, Wisconsin, 53744-4130, call (800) 222-7820 or e-mail us at customerservice@subzero.com.



SERVICE

Service For Your Ice Maker

Please have model and serial number available. Contact your nearest Sub-Zero Factory Authorized Service Center in your area, your dealer or Sub-Zero Freezer Company, P.O. Box 44130, Madison, WI 53744-4130, call (800) 222-7820 or e-mail us at customerservice@subzero.com.

For installation questions or general product operating information call (800) 222-7820 for your local product distributor or Sub-Zero.

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