# Refrigerators, Freezers, and Ice Machines

Chapter Table of Contents

PAGE NUMBER **SECTION** Refrigerators and Freezers – 2 Overview Refrigerators and Freezers – 3 Cleaning Refrigerators and Freezers -8 Troubleshooting Ice Machines - Overview 9 Ice Machines – Cleaning 10 Ice Machines – 18 Troubleshooting

# Overview

### Daily:

Spot clean spills as needed throughout the day using a wiping cloth saturated in ClickSan®
Disinfectant/Sanitizer solution or other approved sanitizer.

### Weekly:

- Clean the interior of the refrigerator or freezer.
- Clean the condenser coil fins (under counter models).
- Check for leaks. Call the FCC if any leaks are found.

#### Monthly:

• Compact refrigerators and freezers – tighten door hinges with a screwdriver.

### As Needed:

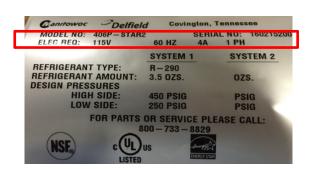
- Clean the drain pan (under counter models).
- Replace refrigerator door gasket.

### Temperature:

- The refrigerator temperature should never exceed 41° F / 5° C.
- The freezer temperature should be maintained at 0° F / -18° C and should not exceed 10° F / -12° C during defrost cycles.

# **Identifying Your Refrigerator:**

- Manufacturer and model information for refrigerators are located inside the unit.
- Locate label (shown on right).
- Manufacturer, model and serial number are located on the top of the label (shown in box on right).





# Cleaning Interior

Frequency: Weekly

# **Materials Needed:**

- Wiping Cloth
- Blue Scrub Pad

- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer
- INSTANT SOLUTIONS™ Multi-Surface & Glass Cleaner

#### SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer, KAY-5® Sanitizer, and INSTANT SOLUTIONS™ Multi-Surface Glass Cleaner can be found on the Partner Hub and in your First Aid Kit.

# Warning:



The refrigerator must be unplugged before cleaning fan guards to stop fan blades from rotating. Serious injury may result if unit is not unplugged.

# 01 - Move or remove product

 Move products to the opposite side from where you are cleaning, or remove products and transfer to an alternate refrigerator.

# 02 – Clean all walls and shelves, and wipe drain ledge along back wall of refrigerator

- Include metal brackets and wire rack shelves.
- Use a paper towel sprayed with Multi-Surface & Glass Cleaner.
- Wipe drain ledge from left to right to avoid clogging the drain.

#### 03 - Remove heavy build up

Use a Blue Scrub Pad.

# 04 – Scrub door interior, seals, and door sealing surfaces

• Use a paper towel with Multi-Surface Cleaner.

# 05 - Unplug unit

# 06 - Clean fan guards for dust build up

 Vacuum the fan guard, and plug refrigerator back in when finished.

# 07 - Wipe all surfaces

Use a wiping cloth saturated in sanitizer.
Make sure to clean the fold within the seal.

#### 08 - Clean the exterior surface of the door

Spray Multi-Surface Glass Cleaner into a clean paper towel.



01 Move or remove product





02 Clean all walls and shelves, and wipe drain tray along back wall of refrigerator



03 Remove heavy build up



**04** Scrub door interior, seals and door sealing surfaces



06 Clean fan guards for dust build up



**07** Wipe all surfaces



R

# Cleaning the Condenser Coil Fins

Frequency: Weekly

# **Materials Needed:**

• Non-food Contact Vacuum Attachment

# Warning:



- The refrigerator must be unplugged before cleaning fan guards to stop fan blades from rotating. Serious injury may result if unit is not unplugged.
- The condenser coil fins are sharp and can cut your hands if touched.

#### 01 - Locate the condenser coil

• If you are not sure where the condenser coil fins are located, contact the FCC.

# 02 – Remove all dust and lint from the condenser coils

- Carefully use the vacuum with the brush attachment.
- Move the vacuum in the direction of the fins.

**Note:** Do not brush perpendicular to the fins, as they can fold over and damage the unit. The condenser fins are very delicate and will bend easily.

# 03 – Remove all dust and lint from the fan cover underneath the condenser coils

• Use the vacuum with the brush attachment.



01 Locate the condenser coils





**02** Remove all dust and lint from the condenser coils



**03** Remove all dust and lint from the fan cover underneath the condenser coils

# Cleaning the Freezer Condenser Coil

**Frequency:** *Monthly* 

#### **Materials Needed:**

- Non-food Contact Vacuum Attachment
- Detail Brush
- Phillips Head Screwdriver

- Paper Towels
- INSTANT SOLUTIONS<sup>TM</sup> Multi-Surface & Glass Cleaner

# Warning:



The condenser coil fins are sharp and can cut your hands if touched.

# 01 - Roll out the freezer and unplug it

 Keep doors closed when cleaning the condenser coil to ensure freezer remains cold.

### 02 - Remove the louvered grill

• Use the screwdriver to remove the louvered grill.

# 03 - Wipe down grill

Spray cleaner onto grill and clean any visible spills.

# 04 - Vacuum the coil

- Use the vacuum with the brush attachment.
- Move the vacuum attachment in the direction of the fins to remove debris.
- If the debris is dense, use a paper towel to gently wipe off the excess.

## 05 – Brush dust/debris from the coil

 Carefully use the detail brush to remove any debris from the coil.

# 06 – Remove dust/debris from the floor near condenser

• Look under unit and vacuum floor to remove excess debris or dust.

# 07 - Replace louvered grill

# 08 – Plug unit back into outlet

 Restore power to the freezer and roll unit back into position.



01 Roll out the freezer and unplug it



02 Remove the louvered grill



03 Wipe down grill



04 Vacuum the coil



05 Brush dust/debris from the coil





Cleaning the Drain Ledge (Under Counter Models)

Frequency: As Needed

#### **Materials Needed:**

Wiping Cloth

 ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in your First Aid Kit.

# 01 - Remove wire rack shelves

• Remove all product first.

# 02 – Wipe drain ledge along back wall of refrigerator

• Wipe drain ledge from left to right to avoid clogging the drain.

# 03 -Clean out any obstructions from the drain hole

• Use a piece of flexible tubing or wire to clean out any obstructions.



01 Remove wire rack shelves



**03** Clean out any obstructions from the drain hole

# Replacing Door Gasket

**Frequency:** As Needed (When Torn)

#### **Materials Needed:**

- Wiping Cloth
- Tape

# SDS:

- Paper Towel
- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in your First Aid Kit.

# 01 - Remove product

• Store in another refrigerator/freezer.

# 02 - Remove old gasket and discard

# 03 – Wipe gasket groove

 Use wiping cloth moistened with sanitizer solution to remove any debris, such as syrup and/or dairy spills.

# 04 – Dry gasket groove and area with paper towels

# 05 - Run new gasket through dishmachine

• This softens the gasket for installation.

# 06 – Install new gasket

• Insert the smaller rigid side into the gasket groove.

# 07 – Firmly press gasket into groove around door

• Ensure it is properly seated.

# 08 – Close refrigerator door and tape shut

• Use sign that states "Do Not Use" for two hours.



02 Remove old gasket and discard



03 Wipe gasket groove



**05** Run new gasket through dishmachine



06 Install new gasket



**07** Firmly press gasket into groove around door



**08** Close refrigerator door and tape



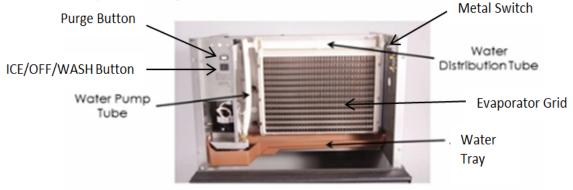
# Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The refrigerator/freezer is too warm (above 41° F / 5° C or the freezer is above 10° F / -12° C).	The airflow to the unit is obstructed.	Ensure airflow is unobstructed by moving shelves or shifting products.
	The door(s) do not shut properly.	Remove any obstructions to allow the door to close completely.
		Door seals or hinges are in need of repair. Notify the FCC.
	The condenser coil fins are dirty.	Clean the condenser coil fins.
	The internal fans are obstructed.	Rearrange product to permit complete airflow.
	Too much product.	For front of house refrigerators, remove some product and place in the backroom refrigerator. For back of house refrigerators, see what product can be moved to front of house and check par levels.
The refrigerator/freezer is not running.	The unit is unplugged.	Plug in the unit.
	The circuit breaker has tripped.	Reset the circuit breaker.
There is water build up on the floor of an under counter unit.	The condensate pan drain is clogged.	Clean the drain pan.
The refrigerator/freezer is too cold.	Temperature is set too low.	Set to appropriate temperature listed in the calibration standards. If temperature is set appropriately and it is still too cold, notify the FCC.



# Overview

# Ice Machine Component Diagram



### Daily:

- Sanitize the ice machine door and deflector plate.
- Clean floor under the ice machine.

### Weekly:

- Clean condenser coil fins.
- Check for leaks. Call the FCC if any leaks are found.

# Monthly:

- Run ice maker cleaner through the ice machine.
- Run sanitizer solution through the ice machine.
- Clean the ice bin of the ice machine (backroom model).
- Clean the ice bin of the ice machine (under counter model).
- Clean the chute assembly which is typically found in under counter model ice machines and connects the machine to the bin. (Breve Bar and B-stores).

# As Needed:

- Align the ice curtain and bin switch (free standing back room models).
- Reset the thermal breaker (under counter model).
- Calibrate the ice machine.

# Sanitizing the Ice Machine Deflector, Door, and Gasket

Frequency: Daily

#### **Materials Needed:**

- Wiping Cloth
- Bucket

 ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

## SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer, KAY-5® Sanitizer, and KAY® QSR All Surface Floor Cleaner can be found on the Partner Hub and in the First Aid Kit.

### 01 - Ensure ice level is below deflector place

# 02 - Wipe clean the lid surfaces and edges

 Use a wiping cloth soaked in sanitizer solution and wrung out so that no sanitizer drips from the cloth.

# 03 – Sanitize door gasket on lid and edges

• Use wiping cloth.

# 04 - Sanitize the deflector surface and edge

- Use care not to miss the groves and the bottom edge of the deflector.
- Close the lid to the ice machine. Do not touch the ice.



**02** Wipe clean the lid surface and edges



**03** Sanitize door gasket on lid and edges



**04** Sanitize the deflector surface and edge

# Cleaning the Condenser Coil Fins (Under Counter and Backroom Models)

Frequency: Weekly

#### **Materials Needed:**

• Non-food Contact Vacuum Attachment

# Warning:



The condenser coil fins are sharp and can cut your hands if touched.

# 01 – If possible, roll ice machine out and unplug it

 Locate the condenser coil fins on the ice machine.

# 02 – Remove all dust and lint from the condenser coils

- Carefully use the vacuum with the brush attachment.
- Move the vacuum in the direction of the fins.

**Note:** Do not brush perpendicular to the fins, as they can fold over and damage the unit. The condenser fins are very delicate and will bend easily.

03 - Roll ice machine back and plug in



01 Locate the condenser coils



**02** Remove all dust and lint from the condenser coils

# Cleaning the Ice Machine Chute Assembly (Breve Bar and B-Stores)

Frequency: Daily

#### **Materials Needed:**

- Wiping cloth
- Ice Scoop

- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer
- Bucket

### SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in the First Aid Kit.

#### 01 - Turn off the ice machine

• Locate the switch in the breaker panel.

#### 02 - Remove ice

 A small bucket of hot water can be used to melt the last bit of ice that is difficult to scoop out.

# 03 - Open chute access door

# 04 - Wipe the inside of the ice chute

Use a wiping cloth saturated in sanitizer solution.

### 05 - Allow the chute and bin to air dry

Use a wiping cloth saturated in sanitizer solution.

# 06 - Turn machine back at the breaker panel

• It will take at least 20 minutes for the first batch of ice to be produced.



01 Turn off the ice machine



02 Remove ice



03 Open chute access door



04 Wipe the inside of the ice chute

# Running Cleaner Through Ice Machine

**Frequency:** *Monthly* 

#### **Materials Needed:**

- Wiping Cloth
- Splashes Goggles
- Rubber Gloves
- Ice Scoop
- SDS:

- Ice Bucket
- Plexi-cube
- Phillips Head Screwdriver
- FRFF7 Ice Machine Cleaner

A Safety Data Sheet for FREEZ Ice Machine Cleaner can be found on the Partner Hub and in the First Aid Kit.

### Warning:



Wear splash goggles and rubber gloves.

# 01 – Wait for cycle to complete, then turn off water supply

- Wait for the ice to drop into the bin so ice doesn't block cleaner.
- On the wall behind the ice machine, turn the valve so that the water supply to the ice machine is shut off.

### 02 – Remove front panel

- Remove the two screws holding the panel using a screwdriver.
- Place the screws in a plexi cube. Lift out and up to remove panel.

# 03 - Purge water from water tray

• Push the "ICE/OFF/WASH" switch in "WASH" position. Press and hold the "PURGE" button until all water is removed from the water tray.

# 04 – Place switch into OFF position

Push the "ice/off/wash" switch to "OFF" position.

#### 05 - Mix FREEZ Ice machine cleaner with water

Wearing rubber gloves and goggles, use white tick marks on side of bottle to mix 1.5 oz. FREEZ cleaner with 0.5 gallon water into a clean sanitizer container per label directions.

## 06 - Add cleaner to water tray

 Add the cleaner to the water tray (tray capacity approximately one-half gallon).



**01** Wait for cycle to complete, then turn off water supply



02 Remove front panel



03 Purge water from water tray



04 Place switch into OFF position



06 Add cleaner to water tray



# Running Cleaner Through Ice Machine (continued)

**Frequency:** *Monthly* 

#### **Materials Needed:**

- Wiping Cloth
- Splash Goggles
- Rubber Gloves
- Ice Scoop

- Ice Bucket
- Plexi-cube
- Phillips Head Screwdriver
- FRFF7 Ice Machine Cleaner

#### SDS:

A Safety Data Sheet for FREEZ Ice Machine Cleaner can be found on the Partner Hub and in the First Aid Kit.

### Warning:



Wear splash goggles and rubber gloves.

# 07 – Place in WASH cycle, and empty ice machine

• Start the wash cycle by placing the "ICE/OFF/WASH" switch in the "WASH" position.

### 08 – Remove all ice from bin

• A small bucket of hot water can be used to melt the last bit of ice that is difficult to scoop out.

# 09 - Purge cleaner from tray

• Press and hold the "PURGE" switch until the cleaner has been emptied from the water tray.

# 10 – Turn the water supply to the ice machine

• This will fill the water tray with fresh water.

## 11 – Press PURGE for two minutes

 Press and hold the "PURGE" switch for two minutes. It is critical to rinse all cleaner from the machine to avoid contamination.

# 12 - Push switch into OFF position

• Push the "ICE/OFF/WASH" switch to OFF position.

# 13 - Continue on to the next procedure, "Running Sanitizer Through Ice Machine"



09 Purge cleaner from tray





11 Press PURGE for two minutes



12 Push switch into OFF position



# Running Sanitizer Through Ice Machine

**Frequency:** *Monthly* 

#### **Materials Needed:**

- Wiping Cloth
- Small Sanitizer Container
- Sanitizer Bucket

\_\_\_\_

- Plexi-cube
- Phillips Head Screwdriver
- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

#### SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in the First Aid Kit.

# 01 - Turn off water supply to the ice machine

• On the wall behind the ice machine, turn the valve so that the water supply to the ice machine is shut off.

# 02 - Purge water from water tray

• Push the "ICE/OFF/WASH" switch in "WASH" position.

### 03 – Add sanitizer solution to water tray

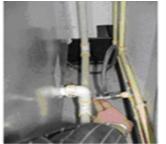
- Prepare a solution of sanitizer in a sanitizer
- Use a 2L Tea Pitcher or other small container to transfer the solution to the water tray until it is overflowing.

# 04 - Place in "WASH" cycle

- Start the wash cycle by placing the "ICE/OFF/WASH" switch in the "WASH"
- Set a timer for 10 minutes to allow the cleaner to circulate to remove mineral deposits.
- Clean/sanitize the lower bin & vacuum coils while sanitizer is circulating.

### 05 – Clean and sanitize the lower bin

- Wipe with saturated sanitize towel.
- Allow the ice bin to air dry.



01 Turn off water supply to the ice machine



04 Place in "wash" cycle



02 Purge water from water tray



05 Clean and sanitize the lower bin



# Running Sanitizer Through Ice Machine (continued)

**Frequency:** *Monthly* 

#### **Materials Needed:**

- Wiping Cloth
- Small Sanitizer Container
- Sanitizer Bucket

- Plexi-cube
- Phillips Head Screwdriver
- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

### SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in the First Aid Kit.

### 06 - Purge sanitizer from tray

 Press and hold the "PURGE" switch until the cleaner has been emptied from the water tray.

# 07 - Turn water supply to the machine back on

• This will fill the water tray with fresh water

# 08 - Press "PURGE" for two minutes

- Press and hold the "PURGE" switch for two minutes.
- It is critical to rinse all cleaner from the machine to avoid contamination.

# 09 - Place switch in "ICE"

#### 10 - Replace panel

 Tighten the two cover panel screws by turning them clockwise.

# 11 – Scoop out and discard the first two batches of ice

- Ensure all cleaner is purged from the ice machine, allow the machine to make two cycles of ice, and scoop out this ice.
- It takes 15-20 minutes for each cycle of ice.



06 Purge sanitizer from tray



**07** Turn water supply to the machine back on



08 Press PURGE for two minutes



09 Push switch into OFF position



10 Replace panel

Cleaning Ice Bin of the Ice Machine (Backroom Models and Under Counter Models)

**Frequency:** Monthly or More Frequently As Needed

#### Materials Needed:

- Wiping Cloth
- Ice Scoop
- Sanitizer Bucket

- Plexi-cube
- Phillips head screw driver
- ClickSan® Disinfectant/Sanitizer / KAY-5® Sanitizer

#### SDS:

A Safety Data Sheet for ClickSan® Disinfectant/Sanitizer and KAY-5® Sanitizer can be found on the Partner Hub and in the First Aid Kit.

# 01 – Remove two screws holding front cover panel

• Use screwdriver. Turn counter clockwise. Place screws in plexi cube.

# 02 - Remove the front cover panel and set aside

### 03 - Turn office machine

• Turn the "ICE/OFF/WASH" switch into the "OFF" position.

### 04 - Remove ice

 A small bucket of hot water can be used to melt the last bit of ice that is difficult to scoop out.

# 05 - Wipe the inside of the bin

 Use wiping cloth saturated with sanitizer solution. Allow the ice bin to air dry.

# 06 - Turn machine on

- Replace front cover.
- Replace cover panel screws

**Note:** It will take at least 20 minutes for the first batch of ice to be produced.



**01** Remove two screws holding front cover panel



**02** Remove the front cover panel and set aside



03 Turn off ice machine



**04** Remove ice



05 Wipe the inside of the bin



# Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Ice production is low.	The airflow to the unit is obstructed.	Ensure that airflow is unobstructed around the entire machine. A minimum of 6" clearance is required for incoming and exhaust air.
	The water filters are plugged.	Check the water treatment system performance. (See the Water Treatment Systems section.)
There is no ice being produced.	The thermal breaker on the unit is tripped.	Reset the thermal breaker. (See Resetting the Thermal Breaker in this section.)
	The ice curtain is out of alignment and not contacting the bin switch.	Realign the ice curtain so that it activates the switch properly.
	The machine is not in ice mode.	Check that the "ICE/OFF/WASH" switch is set to "ice".
	There is no water supply to the machine.	Make sure that the water supply valve to the machine is open.
Ice being produced is not uniform in size and shape.	Ice bridge is not proper thickness (1/8") across the entire batch for even distribution.	If thickness or distribution is incorrect contact the FCC.