

# TEREF6-00, TEREF6-GD Solid State Undercounter Refrigerators

Installation, Operation and Service Manual



Following installation, please forward this manual to the appropriate operations person.

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# Welcome to Follett

Follett equipment enjoys a well-deserved reputation for excellent performance, long-term reliability and outstanding after-the-sale support. To ensure that this product delivers that same degree of service, we ask that you take a moment to review this manual before beginning the installation. Should you have any questions or require technical help at any point, please call our technical service group at (877) 612-5086 or (610) 252-7301.

# Before you Begin

After uncrating and removing all packing material, inspect the equipment for concealed shipping damage. If damage is found, notify the shipper immediately and contact Follett so that we can help in the filing of a claim, if necessary.

Check your paperwork to determine which item number you have. Follett item numbers are designed to provide information about the type of refrigerator you are receiving. Following is an explanation of the different item numbers.

# **Specifications**

TEREF6	32" H (813 mm) X 26" W	Fits below 34" (86.4 cm) high ADA-	5.5 cu ft capacity
	(660 mm) X 23.6" D (599 mm)	compatible counter	

# **Electrical Specifications**

■ 115 V, 60 Hz, 1 phase

Full load: 3.9A

Minimum circuit ampacity: 15A

Maximum size of branch circuit overcurrent device: 15A

Follett recommends circuit be protected by GFCI

# **Refrigeration Specifications**

■ CO<sub>2</sub>

■ Charge size: 17 grams (0.6 ounces)



The sealed refrigeration system is not serviceable. Breaking into the system will result in voiding the factory warranty.



# **Installation Specifications**

Ambient temperature must not exceed 32 C (90 F).

The front louvered panel must be kept free of any cabinet trim or obstructions to ensure proper ventilation of the refrigeration system.

# CAUTION!

- Equipment must be wired according to local and national electrical codes.
- Always disconnect power before servicing refrigerator.

# Safety

All electrical appliances present some risk of injury. Your refrigerator is designed to meet safety standards. Take care to carry and move your refrigerator with caution. Do not place it where it can fall, be dropped, or where the electrical connection can be submerged into water or other liquids.

# **Electrical Components**

Before installing, using or maintaining this product, be sure to read the manual and product warning labels carefully. Failure to follow these instructions may cause the product to malfunction, which could result in injury or damage.

**CAUTION:** For Class B – Unintentional Radiators: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

**WARNING:** Hazardous voltages are present: To reduce the risk of electric shock and danger to personal health, follow the instructions provided in this manual.

**CAUTION:** ICES-003 Class B Notice—Avis NMB-003, Class B. This Class B digital apparatus complies with Canadian ICES-003.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

**WARNING:** In order satisfy the FCC RF exposure limit for transmitting devices, a separation distance of 20 cm should be maintained between the body and the refrigerator while in operation.

**CAUTION:** This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

**WARNING:** Hazardous voltages are present: To reduce the risk of electric shock DO NOT remove the rear cover on this product. There are no user serviceable parts inside. Services should be done by qualified personnel only.

**CAUTION:** Cells/batteries shall be tested and pass applicable regulations based on type and use such as:

- IEC62133 for secondary battery safety
- UN3090/UN3091 and UN3480/UN3481for Lithium Battery transport regulations

Transport regulations based on the following:

- International Air Transport Association (IATA),
- International Civil Aviation Organization (ICAO),
- International Maritime Dangerous Goods (IMDG) Code
- Transport of Dangerous Goods (TDG).



# Installation

# **Inspecting for Damage**

Please take a moment to inspect your new refrigerator for damages that may have occurred during shipping. For any damage done to the refrigerator, please contact the delivery carrier directly.

We have designed intelligent packaging to assist you in unpacking your undercounter refrigerator. Your product was built, inspected, tested, and packaged with extreme care. Follow the directions provided to unpack your new product safely and easily.

# **Unboxing and Locating**

We recommend you move the box as close as possible to its final location before you begin to unpack. This unit is not provided with handles; therefore, it is recommended that 2 people move and remove the refrigerator from the packaging by lifting at the base of the refrigerator. The packaged unit weighs nearly 145 pounds (66 kg), so lift it with caution. Remove the lower packing strap and lift the top cover of the box to expose the refrigerator for removal and placement. To remove the bottom foam protectors, carefully tip the unit to one side and remove the opposite side foam piece. Repeat for other side.

Follett recommends removing the battery whenever the unit is intentionally unplugged, to prohibit the battery from draining.

# Leveling

Adjust the leveling feet located underneath the refrigerator by turning clockwise to extend the feet, counterclockwise to shorten them. It is important that the unit is leveled.

#### Intended Use

Do not locate or store your refrigerator outdoors. This model was designed for indoor use only and violation of this will void the terms of your warranty. The refrigerators described in this manual are designed for professional use. It is not considered a medical device and has therefore not been registered with a medical device regulatory body (e.g. FDA).

#### Ventilation

Your undercounter refrigerator is equipped with a ventilation area just above the door handle. Do not block or cover the venting area as this can impact the performance of the refrigerator. Because of the front ventilation feature, there are no minimum clearance requirements on the top, sides or rear of the unit.

# **Locating Product Information**

You can find important and specific product information through the user interface. The Serial Number, Model Number, UI Firmware and TEC firmware versions can be viewed through the Main Menu > Model Info selection. You can also find the serial number on the shipping box label and on the product label on the back of the unit as well as inside the cabinet.

# Power on and power cord guidelines

- Use only the power cord provided with your undercounter refrigerator.
- 2. Plug the power cord into the receptacle on the upper rear of the refrigerator as indicated. Secure the strain relief to ensure the cord cannot accidentally pull out (Fig. 1).
- **3.** Position the refrigerator where you intend to locate it and plug into a grounded three prong receptacle. This outlet must be within reach to disconnect power source.

Note: The electrical safety of this product may become impaired if you choose to disregard this power safety steps listed above.

Be careful not to plug into a wall outlet controlled by a wall switch to avoid accidentally switching off the refrigerator. To function properly the refrigerator must continually receive power.

**CAUTION:** Risk of electrical shock. If the cord or plug becomes damaged, replace with an OEM cord.

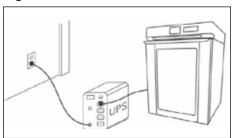
Fig. 1



# **Uninterruptible Power Supply (UPS)**

Your refrigerator is compatible for use with a UPS battery backup. The primary role of any UPS is to provide short-term power when the input power source fails. If you use a UPS backup, take care to follow the directions and precautions accompanying that device.

Fig. 2



# **Reversing the Door Swing – Optional**

Note: Refer to replacing door lock/door/reversing door swing instructions in the Service Manual, literature number 01332220



# Operation

#### **LED Indicator**

When you turn on your refrigerator, verify that the LED indicator is working. The LED indicator appears on the front control panel above the battery. The LED indicator illuminates green when the unit is ON and running (Under normal operation). It illuminates red if there is a concern such as a low battery or other alarms.

Fig. 3



# **Preprogrammed Settings**

Settings can be customized via the Settings and Alerts menus. Temperature Display & Alarm – Temperatures are detected and displayed in Celsius units to one tenth of a degree. Upper and lower thresholds are driven by internal air sensor.

- Set Point Temperature –
   The unit preset/default is set at 5.0°C (41°F)
- Upper Threshold Alarm –
   The unit preset/default is set at 10.0°C (50.0°F)
- Lower Threshold Alarm –
   The unit preset/default is set at 2.0°C (35.6°F)

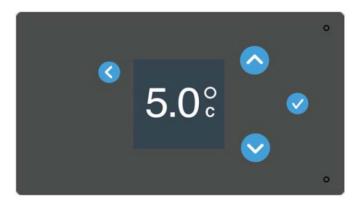
#### **Preset Alarms / Alerts**

Alarm	Factory Setting	Icon
Temperature Range Alarm	Min 2° Max 10°	# TEMP RANGE
Door Ajar Alarm	1 minute	DOOR OPEN
No Power Alarm	>10 seconds outage	POWER LOSS
Battery Low Alarm	<15% remaining	BATTERY LOW



# **Set Point Temperature**

When you first turn on the unit, the fan will run, and the refrigerator will work to reach the default set point temperature. Once set point is reached, the fan speed will reduce to conserve energy. Typical pulldown time from room temperature to setpoint range is 35-40 minutes.



When the unit is first plugged in and powered, the temperature range alarms are not enabled until the unit reaches its upper temperature alarm threshold - an offset of 0.5°. If the upper alarm threshold is 8°C (46° F), then the alarms are enabled when the unit reaches 7.5°C (45.5°F).

# **Loading Products for First Time**

After you power on your refrigerator, monitor the temperature display on the control panel and do not load until the default set point is reached. When you load the refrigerator, do not block air flow around the air sensor. When loading products previously stored at room temperature, monitor the temperature display to prevent a compromise. We suggest you load room temperature samples in small increments to help and maintain a stable temperature.

# **Tips for Managing Door Openings**

When a refrigerator door is opened, warmer ambient air enters and causes the interior temperature to fluctuate.

To mitigate this, there are a few simple steps you can follow to reduce the number of times the door is opened as well as the duration the door is left opened:

- List a detailed inventory of the refrigerator's contents on a chart posted outside the unit to reduce the time spent searching for items when the door is opened.
- Use clearly labeled bins to organize and quickly identify contents.
- Avoid storing beverages or any non-sample items (like food) in any unit used for sensitive inventory. Not only
  is this a health hazard, it also leads to more frequent opening of the door

**Note:** The undercounter refrigerators have a visible and an audible open door alarm that sounds when a door has been open for more than 1 minute.

#### **Automatic Defrost Cycles**

The refrigerator will run an automatic defrost cycle to maintain its performance. The period between defrost cycles will vary depending on the refrigerator use conditions (ranges from 6 hours to 96 hours). During the defrost cycle you may hear the fans turning off and on. The air temperature on the display may briefly rise up to 6 C (43 F) during a defrost cycle, this is normal.

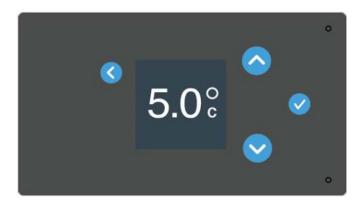


# Getting to know your product

#### **Product Exterior - Front**

# **Display**

The display is located in the center of the upper console and is the single point-of-use for controlling the refrigerator. The display is a 1.44" full color TFT-LCD display with capacitive touch user interface buttons for easy navigation and control.



# **Backup Battery**

#### **Activating the Battery:**

The included battery is shipped with a protective tab so that its power doesn't drain. To activate it you must remove the tab from its location inside the I/O Dock panel.

#### Replacing the Battery:

- 1. Open the I/O Dock panel
- 2. Remove and replace the battery with type CR123A or IEC16340
- 3. Close the I/O Dock panel

**Note:** The battery serves to support alerting the user in the event of a power loss.

When replacing the battery, replace only with a CR123A or IEC16340 type battery.

This battery will not power the refrigeration. You must ensure uninterrupted power to the refrigerator and monitoring system at all times.

#### Ventilation

The refrigeration system is a solid-state system utilizing fans with moving parts. The functioning of the fans is integral to heat dissipation. The fans are mounted under the top cover of the unit. They will run continuously until the programmed temperature set point is achieved. After that, the fans will run at the optimal speed to maintain temperature.

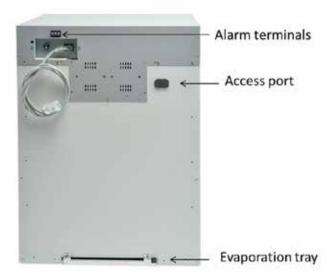
To avoid damaging the unit, do not insert objects into the fan screens to avoid damaging the unit.

#### **Door Lock**

The 5.5 cu.ft. refrigerator uses a mechanical door lock. The refrigerator ships with two keys inside the refrigerator. Turn the key clockwise to unlock and counterclockwise to lock.



#### **Product Exterior - Rear**



#### **Access Port**

The Access Port (located on the back of the unit) is shipped sealed with a foam plug. In order to utilize the port, remove the foam plug and the gray plastic knock-out. After inserting your device, reinsert the foam plug as snug and flush as possible to insulate against cooling loss. Putty may also be used to help reseal the area.

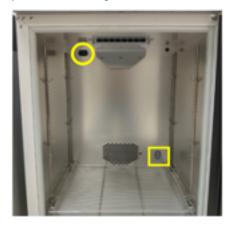
## **Evaporation Tray**

The evaporation tray is located on the bottom rear of the unit

#### **Product Interior**

#### **Interior Components**

- Air temperature sensor
- Access port
- Adjustable shelving



# **Adjustable Shelving**

our undercounter refrigerator is shipped with wire ties holding the shelves in place. Remove the wire ties before using the refrigerator. You may place the shelving wherever you choose by removing and replacing the provided support clips.

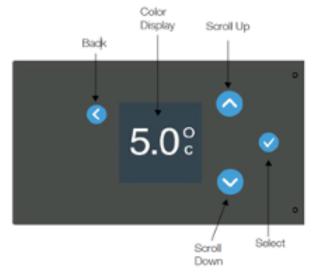


# **Navigating the Refrigerator Controls**

# **System Alerts**

Alarm	Factory Setting	Icon
Temperature Range Alarm	Min 2° Max 10°	 TEMP RANGE
Door Ajar Alarm	1 minute	 DOOR OPEN
No Power Alarm	>10 seconds outage	POWER LOSS
Battery Low Alarm	<15% remaining	BATTERY LOW

# **LCD Display**



# Main menu

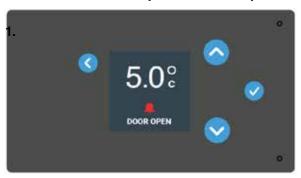




## **Alarms**

#### **Active Alarms**

To clear an alarm state, you can touch any blue button to go to a screen that lists each alarm triggered.



## **Settings**

The settings allow you to select the refrigerator set temperature and the units displayed, Celsius (°C) or Fahrenheit (°F).



## **Alarm Log**

The Alarm Log screen displays a history of all alarms.



## **Alarm Settings**

The Alarm Settings menu allows you to Select the high and low temperature alarms. It also lets you choose to enable or disable the low battery alarm.





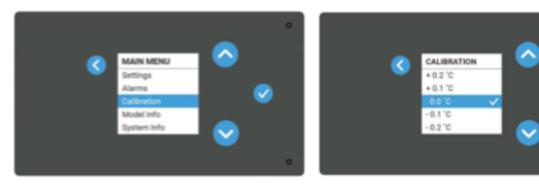
# **Temperature Set Point**

Temperature Set Point is where you can select the desired unit set point. Using the up and down arrows scroll through the preset temperature settings. The temperature is set once the Select button is confirmed. Temperature settings are in 0.5 degree increments in Celsius and 1.0 degree increments in Fahrenheit.



## Calibration

This provides the ability to coordinate the results of a third party external NIST calibrated reference thermometer with the temp displayed on the refrigerator.



**WARNING:** Changing the calibration offset will change the performance of the refrigerator and cool/warm the unit to reflect the changes made. Changes should only be made to reflect the readings from a NIST calibrated thermometer.



#### **Detailed Calibration Steps:**

1. Place NIST traceable calibrated thermocouple/thermometer in center of chamber as shown below



- 2. Set refrigerator to target operating temperature
- 3. Once at setpoint, let fridge stabilize for 180 minutes if initial install and 120 mins for a unit already in use
- 4. After stabilization period, compare UI display temperature to calibrated thermometer temperature
- **5.** If displayed temperature is within +/- 0.2 °C (0.5 F) of calibrated thermometer. Calibration is complete, no need to proceed further.
- 6. Enter the calibration menu of the UI as shown in images above.
- 7. Example: Refrigerator air temperature displays as 3.5°C. Calibrated reference thermometer reads 3.8°C. Based on this information the refrigerator is reading 0.3 degree below the reference temperature. By raising the CALIBRATION to +0.3°C the refrigerator will now display 3.8°C.
- 8. Wait 1hr and return to step 4 to confirm the calibration was effective.

#### **Model Information**

This displays the model number, UI FW version, UI FW date and TEC FW version of your unit.

#### **System Information**

This displays the current settings which includes set temperature, high/low temp alarms and calibration.









#### Maintenance

Suitable products for cleaning interior/exterior: The interior may be cleaned, when needed, using a mild detergent and a damp cloth.

IMPORTANT: Avoid the use of chlorides (cleaners with bleach) as well as abrasive cleaners and scrubbers such as steel wool. They will degrade the protective coating on the painted steel (product exterior) and leave it vulnerable to rust.

Cleaning around ventilation area and precautions: Periodically inspect and monitor the ventilation area just above the door for dust accumulation. It may be cleaned with a duster or vacuum cleaner with a dust attachment.

Note: Do not remove the top cover. Do not attempt to clean the power supply located under the top cover. You could damage your unit.

Cleaning the Condensate Tray: The condensate tray is found on the bottom rear of the exterior cabinet. The tray can be removed for periodic cleaning.

Gasket: Periodically check the gaskets around the door for punctures or tears. Leaks are indicated by a streak of moisture which forms at the point of gasket failure. Make sure that the cabinet is level. Keep the door gaskets clean and moisture free by wiping gently with a soft cloth.



# **Frequently Asked Questions**

#### How does this refrigeration technology work?

The refrigerator uses a non-toxic, non-hazardous refrigerant to absorb and channel heat energy to an internal, solid-state heat pump. The Follett solid-state heat pump cools the refrigerant by channeling the heat energy out of the system and into the ambient environment.

#### How reliable is the system?

We have conducted strenuous-life testing studies to develop confidence in the construction and system design of our refrigerator. The refrigeration system requires minimal maintenance.

#### Is the power cord healthcare/NEMA approved?

Yes, it is a National Electrical Manufacturers Association (NEMA) approved plug (indicated by green dot on the cable).

#### Why is there a battery?

The included internal, standard-sized, non-rechargeable lithium CR123A battery provides power for audible and visual alerts of power loss.

#### How long before I can use the product?

In a normal ambient environment, your refrigerator should pull down to the target set point within a couple of hours. It is common industry practice to monitor the unit over 48 hours to ensure it is holding the set point temperature.

#### Where can I find the Serial Number?

You can find your specific product information by accessing the user interface. The product Serial Number can also be found on the shipping label (on the shipping box) and on the product label (on the back of the unit or inside of the unit).

#### Is the unit calibrated? Can I calibrate my refrigerator?

The refrigerator can be ordered with a National Institute of Standards and Technology (NIST) certificate. To ensure proper calibration in the working environment, the air sensor can be calibrated. See the Calibration section for instructions.

#### What kind of refrigerator maintenance is required?

Occasional check for dust buildup on the external fan and cleaning it is recommended. Otherwise no maintenance is required to keep the system working at peak performance.

#### Can the units be placed in a Pyxis cabinet?

As with any electrical or mechanical system, heat accumulation in a closed environment can impact the cooling performance of the refrigerator. There should be no obstructions in front of the unit's vents above the door handle to allow dissipate heat outside of the cabinet.



# **Troubleshooting**

Problems	Resolution
Initial Setup	
Unit doesn't power on	Check for proper installation of the power plug.
Unit's audible alarm doesn't sound when out of temp range	Did you just power up the refrigerator and is the system pulling down to set point temperature?
	Alarm will not sound until the set point is met.
	Did you have a recent power failure and is the system pulling down to set point temperature? Alarm will not sound until the set point is met.
LED Display Issues	
Solid Red	The red LED is active whenever there is an alarm. It can be cleared by clearing the alarm.
Flashing Red (5 second intervals)	Power Loss
Solid Green	No action required
Other Concerns	T
I have condensation collecting on the walls	Are you opening the door frequently (more than 6 times an hour)? If so, the cooling system is working hard to maintain the target set point and condensation may form on the walls. It will thaw during the next defrost cycle.
Door doesn't close/closes incorrectly	Check to make sure something isn't blocking it from closing completely.
	Check that the door lock is in unlocked position and not blocking the door closure.
Door alarm keeps sounding	Check to make sure the door is properly aligned in the frame by looking for uneven surfaces. For example, is the gap from the hinge to edge equal in width all the way across the surface
I can't hear any noise from the unit	Is the power ON? Is the LED on front a solid green? If so, the unit is powered and operating normally. Once the refrigerator reaches its set point temperature then it will be very quiet during normal operating conditions.
I hear more fan noise than normal	Has the temperature risen recently? Is the front free & clear for proper ventilation? If you've recently held the door open for an extended period of time or you put warmer product in the refrigerator then the unit is likely recovering to its set point temperature. Only be alarmed if you ear abnormal fan sounds.
How long do I have to wait before I can load the refrigerator?	Once the unit displays 5°C, you are safe to start loading. If loading with room temperature product, we recommend loading in small increments to avoid raising the temperature above the controlled temperature zone.
I got a "Sys Fail" Alarm Code	Please email Follett Customer Support at: techsupport@follettice.com, or call +1 (877) 612-5086.
	This alarm triggers if the UI has lost communication with the thermal system control and has been unsuccessful in re-establishing communication for 2 minutes. The UI will display a "SYS FAIL" alarm that only the user can clear, to indicate that the thermal system was not under normal control for at least 2 minutes.
The refrigerator's walls are warm/hot to the touch outer	During initial cooling or high usage periods, the unit's upper outer walls may get warm, but they should not exceed 40 C (104F) . Check the following:
	Is the front free and clear for proper ventilation?
	If you've recently held the door open for an extended period of time or you put warmer product in the refrigerator then the unit is likely recovering to its set point temperature.
	Is the door fully closed?



## System Alarms

# Sys Fail

This alarm triggers if the UI has lost communication with the thermal system (main control board) and has been unsuccessful in re-establishing communication for 2 minutes. The UI will display a "SYS FAIL" alarm that only the user can clear, to indicate that the thermal system may not have been under normal control for at least 2 minutes.





(Left Image) System Fail Alarm Indicating Loss of UI Communication with Thermal System. Dashes displayed when communication is not active and has not been for at least 2 minutes. (Right Image) Known temperature is displayed when a communication failure had occurred for at least 2 minutes but has since recovered.

#### **Thermistor Function**

# **Reject Thermistor**

The reject (external) heat exchanger thermistor is used for limiting power to the heat pump in the event of fan failure or other malfunction. This prevents damage to the heat pump from overheating

#### **Chamber Thermistor**

In normal cooling operation, the chamber thermistor is used for controlling the chamber air thermistor.

In defrost operation, the chamber thermistor is used to stop defrost

#### **Accept Thermistor**

The accept thermistor is foamed onto the accept (cold side) heat exchanger. It is used to initiate and terminate defrost. If the accept thermistor becomes very cold, this indicates frost build up and defrost is initiated.

#### Controller function

#### Cooling operation

The heat pump voltage is controlled based on the difference between to the chamber thermistor and the set point temperature. A PI controller scheme is used.

#### **Defrost control**

Cooling is suspended during defrost operation until frost has been cleared from the accept heat exchanger.



# **Service**

#### **Recommended Tools and Materials**

- Small Phillips head screwdriver #2 with short handle
- 7 mm nut driver
- Wire Cutters
- Slotted screwdriver
- Needle nose pliers
- Torx T8 driver
- Socket set

## **Unit Service Zones**

## Top



## **Removing the Top Cover**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	5 minutes	None	Phillips head screwdriver or
			7mm nut driver

- 1. Unplug the unit from the power source by disconnecting both sides of the power cord.
- 2. Loosen and remove the 7 screws securing the top cover with a Phillips head or 7 mm nut driver. Screw locations are shown in image below.
- 3. Press gently on the sides of the cover while sliding the cover back two inches.
- 4. The cover is now free from the latches and can be lifted off.



#### Reinstall

- 1. Place the lid on top of the refrigerator with the cover hanging slightly off the back. Ensure the lid is seated correctly by making sure the top cover is seated in the slots correctly. See image below for slots detail.
- 2. Press down and slide the cover forward making sure that all 6 latches are engaged with the cover. Once the cover is seated correctly, push lid forward as to engage.
- **3.** Install 7 screws from step 1 to secure the cover to the refrigerator.
- **4.** Plug the unit into the power source.



#### Removing the Power Supply/Control Board Assembly

Difficulty Level	Time Required	Repair Parts	Tools Required
Hard	15 minutes	None	Phillips head screwdriver or 7mm nut driver, wire clippers

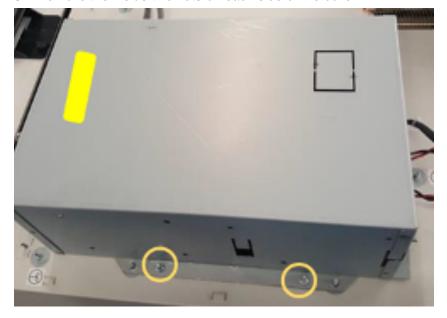
- 1. Use the UI to find the control calibration offset and record it. You will need to re-enter the control offset after replacing the control board.
- 2. Remove the top cover (Refer to the section Removing the Top Cover). Being careful not to cut the cables, use the wire clippers to cut the zip ties, securing the cable to the power supply cover.



Note: Disconnect all electrical clip connections to the power supply and the ground wire nut as shown. Make sure not to remove power receptacle harness.

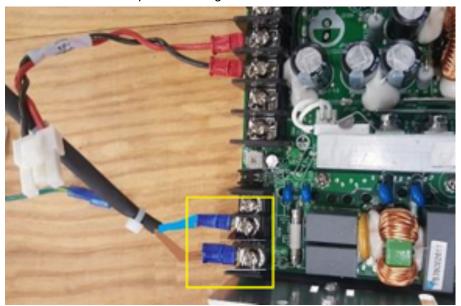


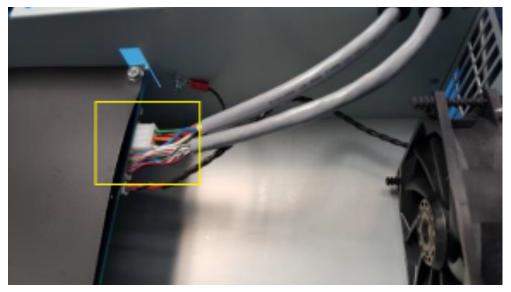
3. Remove the inside two nuts on each side of the cover.





- **4.** Lift the cover to gain access to the electrical connection between the enclosed electronics in the cover and the power supply.
- **5.** Disconnect the power supply from AC inlet harness by unscrewing the electrical connection from the power supply terminal.
- 6. Disconnect the UI power and signal connector from the electronics board in the cover.







- 7. Connect the cover electronics board connectors to the power supply terminals and secure with the terminal screws. Make sure the lug terminals are placed back in same locations as before.
- 8. Connect the UI power and signal connectors from the electronics board in the cover.
- 9. Align and place the power supply cover with the 4 power supply bolts.
- 10. Secure each side with the nuts removed in step 4.
- **11.** Connect all the electrical connections from the refrigerator to the power supply as shown.
- **12.** Connect the loose copper grounding wires as shown.



- **13.** Secure the cables running beside the power supply cover with a zip tie placed around the cables and through the zip tie anchors located on the side of the power supply cover.
- 14. Install the top cover (Refer to the section Removing the Top Cover).

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally.
- 3. Use the UI to update the control calibration offset you recorded from in step1.
- 4. Wait until the unit has pulled down and run for 8 hours before loading with products.



#### **Replacing the Power Receptacle Harness**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Power Receptacle	Phillips head screwdriver, 7mm
		Harness	nut driver

- 1. Remove the top cover from the refrigerator (Refer to the section Removing the Top Cover).
- 2. Remove the power supply cover (Refer to the section Removing the Power Supply Cover).
- 3. Remove the clear plastic cover from the power supply terminals.
- 4. Using a Phillips head screwdriver disconnect the power receptacle harness from the power supply terminal.
- **5.** Remove the three blade electrical connections to the power receptacle. Note which color wire is connected to each blade position.



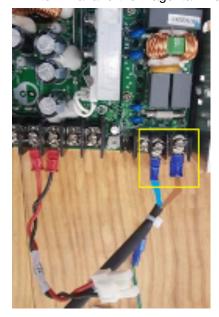
#### Reinstall

- 1. Place the grounding ring connector on the grounding screw.
- 2. Connect the three blade connectors to the power receptacle.

Note: The AC input receptacle wire color and orientation is as shown above.

3. Connect the ring connectors to the power supply terminal and tighten with a Phillips head screwdriver.

Note: When looking at the power supply from the back of the unit, the blue wire should be connected the right terminal and the magenta wire to the center terminal as shown below.



- **4.** Install the clear plastic cover on top of the terminals.
- 5. Install the power supply cover (Refer to the section Removing the Power Supply Cover).
- **6.** Install the top cover (Refer to the section Removing the Top Cover).

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally.
- 3. Wait until the unit has pulled down and run for 8 hours before loading with products.

#### Replacing the Power Receptacle

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Power Receptacle	Phillips head screwdriver, 7mm
			nut driver

- 1. Remove the top cover from the refrigerator (Refer to the section Removing the Top Cover).
- 2. Using a Phillips head screwdriver remove the two power receptacle screws and washers from the back top left corner of the refrigerator.



- 3. Pull the power receptacle towards the power supply, freeing the receptacle from the painted steel.
- **4.** Remove the three electrical connections to the power receptacle.
- 5. Replace with a new power receptacle.

#### Reinstall

1. Connect the power receptacle to the unit by attaching the three electrical connections as shown.



- 2. Align the receptacle with the cutout in the painted steel and secure with the Phillips head screws and washers.
- 3. Reinstall the top cover (Refer to the section Removing the Top Cover).

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally.
- 3. Wait until the unit has pulled down and run for 8 hours before loading with products.



## Replacing the Reject Fans

Difficulty Level	Time Required	Repair Parts	Tools Required
Medium	15 minutes	(2) Reject Fan 92mm	Needle nose pliers, 7 mm nut driver. Wire cutters

- 1. Remove the top cover from the refrigerator (Refer to the section Removing the Top Cover).
- 2. Using the 7 mm nut driver remove the two nuts securing the fan assembly bracket.



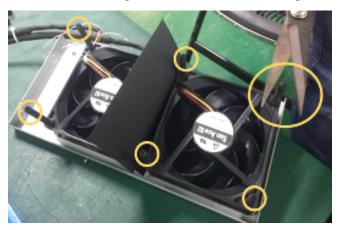
- 3. Using a needle nose pliers remove the 5 plastic rivets connecting the fan shield to the fan assembly bracket.
- 4. Lift and pull the fan assembly bracket away from the fan shield to provide access to the fans.
- **5.** To remove the fan, pull the fan away from the bracket while rotating the rubber fan mounts back and forth to get the screw barb past the top mounting hole.
- 6. Repeat for the remaining three rubber fan mounts.



- **7.** Repeat the removal steps for the second fan.
- 8. Unplug the fan cable harness from the power supply.

#### Reinstall

- 1. Connect the fan cable to the power supply.
- 2. Using new fan mounts, install the fans into the mounting bracket by pulling the rubber fan mounts through the top and bottom mounting holes.
- 3. Trim excess length from the fan mounts using the wire cutters.



Note: Make sure the fans are installed with the fan label facing the heat exchanger.

- **4.** Guide the fan assembly bracket into place while aligning the two threaded studs with the mounting holes.
- 5. Make sure that the fan shield completely encompasses all sides of the fan assembly bracket.
- 6. Secure the fan assembly bracket with the 5 plastic rivets.
- 7. Tighten the tow nuts back onto the mounting studs.



8. Reinstall the top cover (Refer to the section Removing the Top Cover).

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally and that no error codes are being reported.

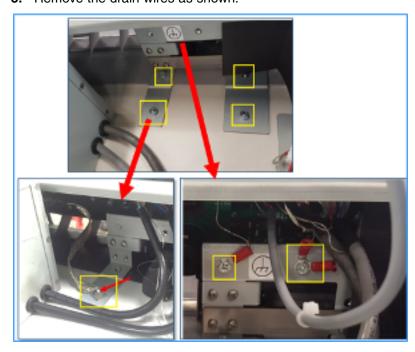
# **Removing the Front Panel**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	None	Phillips head screwdriver, 7
			mm nut driver

- 1. Remove the top cover from the refrigerator (Refer to the section Removing the Top Cover).
- 2. Using a Phillips head screwdriver remove the four top screws connecting the panel to the bracket.



- 3. Remove the two outside nuts (one on each side of the panel).
- 4. Remove the four nuts located behind the display as shown.
- 5. Remove the drain wires as shown.

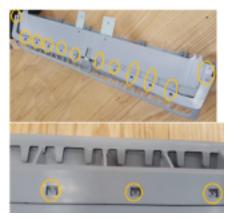




- 6. Lift the panel up and off.
- 7. When facing the back of the panel, disconnect the two electrical connections behind the display as shown



8. Remove the UI bezel from UI fascia using the snap clips shown



9. Pull out the catch and switch assembly (SBA-011269) from the UI fascia



#### Reinstall

- 1. Reinstall the catch and switch assembly into the UI fascia
- 2. Attach the Remove the UI bezel from UI fascia using the snap clips shown in step 8.Ensure the two pieces are flush.
- **3.** Reverse the steps from "removing front panel" above. Making sure to connect the ground wires to the locations shown in step 5.

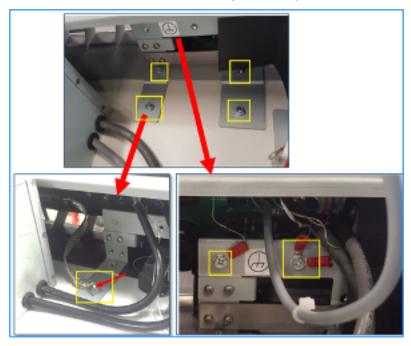
#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally and that no error codes are being reported.

#### Removing the Catch and Switch Assembly

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	None	Phillips head screwdriver

- 1. Remove the top cover from the refrigerator (Refer to the section Removing the Top Cover).
- 2. Remove the front panel from the refrigerator (Refer to the section Removing the Front Panel).
- 3. Pull the catch and switch assembly from the panel.



#### Reinstall

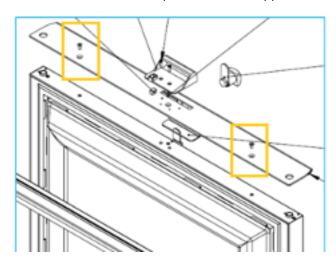
- 1. Align and connect the lock bracket with the front panel.
- 2. Install the front panel (Refer to the section Removing the Front Panel).
- 3. Install the top cover (Refer to the section Removing the Top Cover).



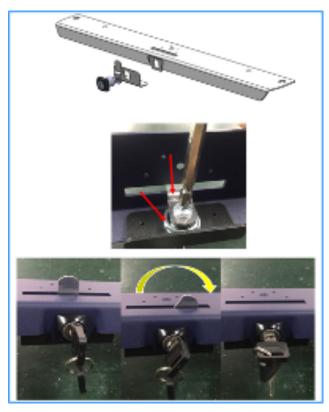
# **Replacing the Door Lock**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Door Lock	Phillips head screwdriver

- 1. Open the door
- 2. Remove the two screws holding the door handle as shown. Note the screws will have some resistance due to Loctite.
- **3.** Lift the door handle up from the side opposite to the door hinge.



- 4. Unscrew the Phillips head screw securing the lock sensor to the handle, as shown
- 5. Replace the lock
- 6. Turn the lock and ensure it has smooth action with no interference, as shown



#### Reinstall

- 1. Return the handle to its original position using the two screws from step 2.
- 2. Test the lock operation again.

#### Verification Process

- 1. Close the door
- 2. Verify that the door can be locked and unlocked using the key
- 3. Plug the power cord into the power receptacle and wall power.
- Verify that the UI on the front of the screen is functioning normally and that no error codes are being reported.
- 5. Allow 3 minutes after opening to ensure no door open alarm is triggered.

# **Removing the Door**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	15 minutes	None	socket set

- 1. Remove all product and shelves from the unit.
- 2. Remove the CR123A or IEC16340 battery from the I/O dock located on the front of the refrigerator to the right of the display.
- 3. Using the key, unlock the refrigerator and immediately remove the power.
- **4.** Test to make sure that the door remains unlocked after removing the power.
- 5. Place a pad or other soft material on the floor next to the unit to protect from scratching.
- 6. Two people should set the unit on its side, with the hinge side of the door facing up.

Note: If the unit has been previously running condensate may spill from the evaporator tray on to the floor.

7. Remove the 4 bolts securing the door bracket to the refrigerator.



- 8. Remove the mounting bracket.
- 9. Keep any shims that are between the door bracket and the refrigerator
- **10.** Gently free the door from the top mounting post by pulling the entire towards the normal base of the refrigerator.

#### Reinstall

- 1. Align the door so that the mounting post on the refrigerator is completely inserted into the mounting hole on the door.
- 2. Press the mounting bracket into the door so that it is properly seated.
- 3. Secure the mounting bracket to the refrigerator with the 4 mounting bolts.
- 4. Two people should lift and set the unit in its normal operating position.
- 5. Reinstall the CR123A or IEC16340 battery.



#### **Verification Process**

- 1. Open and close the door making sure to inspect that the seal is tight and that the door doesn't sag.
- 2. Verify that with the door closed and the system running that the door open alarm does not sound.

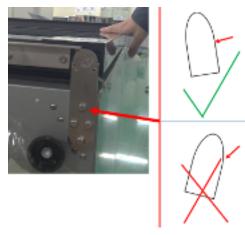
## **Replacing the Door**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Glass door, solid door	socket set

- 1. Remove the door (Refer to the section Removing the Door).
- **2.** Replace with new door.
- **3.** Align the door so that the mounting post on the refrigerator is completely inserted into the mounting hole on the door.



- 4. Press the mounting bracket into the door so that it is properly seated.
- 5. Secure the mounting bracket to the refrigerator with the 4 mounting bolts as shown.
- **6.** Bias the bracket towards the center of the refrigerator as shown.



7. Two people should lift and set the unit in its normal operating position.

#### **Verification Process**

- 1. Open and close the door making sure to inspect that a tight seal is made and that the door doesn't sag.
- 2. Verify that the door closed and the system running that the door open alarm does not sound.

#### **Changing the Door Swing Direction**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	15 minutes	01331867-To Hinge Bracket-Left "Supplied with unit"	Phillips head screwdriver, socket set

1. Remove the door (Refer to the section Removing the Door).

#### Switching the mounting post

- 1. Remove the mounting post bracket by unscrewing the three Phillips head screws.
- 2. On the other side of the refrigerator door opening you will notice three screws in the same pattern as the mounting post bracket. Unscrew these three screws and reinstall in the screw holes that previously used in step two.
- 3. Reinstall the mounting post bracket on the new side.

#### Switching the door ramp

- 1. Uninstall the door ramp by unscrewing the three Phillips head screws.
- 2. Reinstall on the opposite side making sure that the metal bracket faces forward, also move the door stop.



#### Adjusting the mounting bracket

- 1. Unscrew the two Phillips head screws on the mounting.
- 2. Rotate the plastic ramp approximately 10° and reinstall using the other set of pre-tapped holes. (Right hinge mounting shown)

#### Reinstall

- 1. Align the door so that the mounting post on the refrigerator is completely inserted into the mounting hole on the door.
- 2. Press the mounting bracket into the door so that it is properly seated.
- 3. Secure the mounting bracket to the refrigerator with the 4 mounting bolts.
- 4. Two people should lift and set the unit in its normal operating position.



#### **Verification Process**

- 1. Open and close the door making sure to inspect that a tight seal is made and that the door doesn't sag.
- 2. Verify with the door closed and the system running that the door open alarm does not sound.



## **Removing Internal Fan Cover**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	15 minutes	None	Phillips head screwdriver

- 1. Open the refrigerator door.
- 2. Unplug the unit from the power source by disconnecting both sides of the power cord.
- 3. Unscrew the 2 Phillips head screws on each side of the cover.
- 4. Remove the cover.



#### Reinstall

- 1. Insert the fan cover into place making sure to feed the fan wire through the wire channel.
- 2. Secure the fan cover with a Phillips head screw on each side of the cover

#### Replacing the Internal Fan

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	15 minutes	Internal Fan, Optional: Fan mounts	Phillips head screwdriver

- 1. Open the refrigerator door.
- 2. Remove the internal fan cover (Refer to the section Removing the Internal Fan Cover).
- **3.** Remove the fan by pulling the fan towards the front of the unit while sliding the barb on the rubber fan screws past the mounting hole on the fan assembly.
- 4. Disconnect the electrical connection between the fan and the refrigerator.



5. Replace with a new fan.

#### Reinstall

- 1. Connect the electrical connector from the fan to the refrigerator.
- 2. Secure the fan by pulling the rubber fan screw through the mounting hole on the fan assembly. Make sure the barb on the rubber screw is pulled through both the front and back mounting holes on the fan assembly. Repeat for each of the four corners on the fan.

Note: It may be easier to first connect the top two screws fully to the fan and slide the fan into place so that the screw head secures into the back wall. The bottom two screws can then be feed through the screw holes and attached by pulling the screw through.

3. Replace the internal fan cover.

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the UI on the front of the screen is functioning normally.
- 3. Keep the door open for 3 minutes. Air can be felt coming out from the internal duct if the fan is functioning.

#### Replacing the Door Gasket

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Door gasket	None

- 1. Open the refrigerator door.
- 2. Grab the corner of the gasket and pull away from the door.
- **3.** Remove the gasket.
- 4. Replace with a new gasket.



#### Reinetall

1. Press the gasket into place, securing around the entire perimeter of the gasket.

#### **Verification Process**

- 1. Plug the power cord into the power receptacle and wall power.
- 2. Verify that the door is making a complete seal with the refrigerator.
- 3. Wait until the unit has pulled down and run for 8 hours before loading with products.



## **Replacing the Evaporation Tray**

Difficulty Level	Time Required	Repair Parts	Tools Required
Easy	10 minutes	Evaporation Tray	Phillips head screwdriver

- 1. Unplug the unit from the power source by disconnecting both sides of the power cord.
- 2. Remove the two screws securing the evaporation tray to the back of the refrigerator.



- 3. Slide the tray away from the refrigerator.
- **4.** Disconnect the two electrical connections between the tray and the refrigerator.
- **5.** Replace with a new evaporation tray.

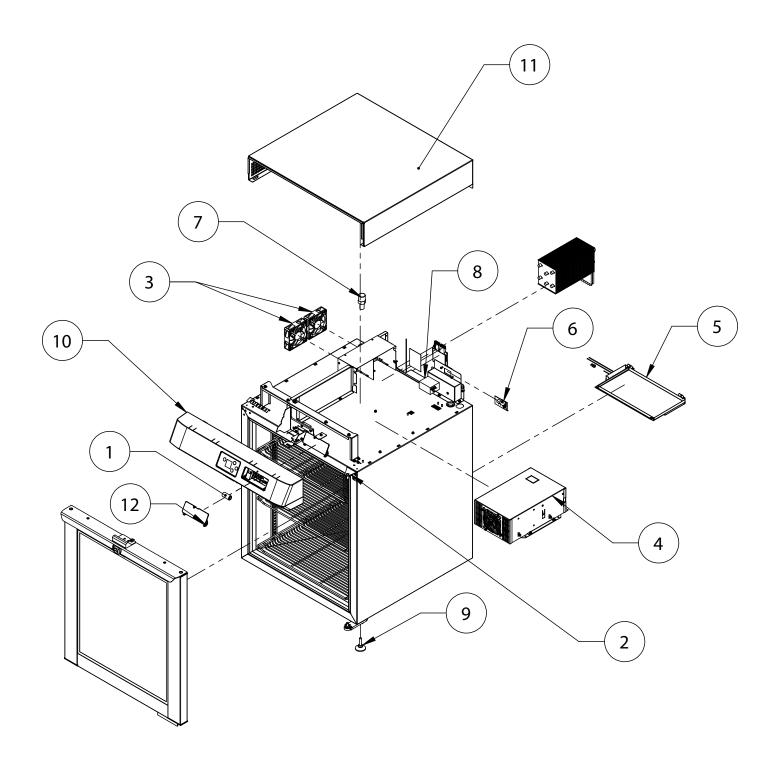
#### Reinstall

- 1. Connect the two electrical connection from the tray to the refrigerator.
- 2. Slide and lift the tray so that the screw holes in the refrigerator align with screw holes in the evaporation tray.
- 3. Secure the tray to the refrigerator by installing two Phillips head screws.

#### **Verification Process**

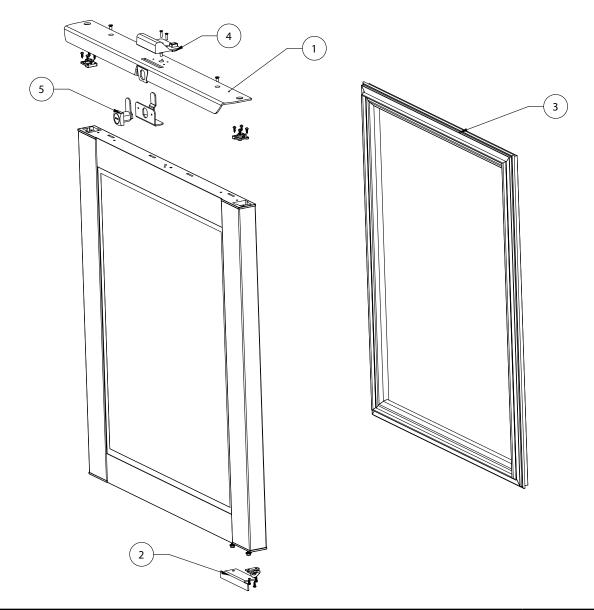
- 1. Connect power to the refrigerator.
- 2. Pour 4 oz. of water in the evaporation tray.
- 3. Wait for 15 minutes and verify that the evaporator tray is warm to the touch.



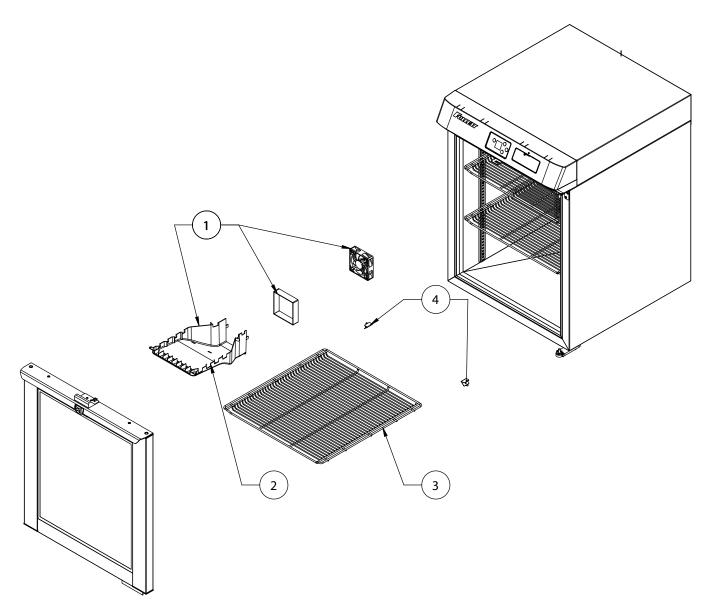


Reference #	Description	Part #
1	Replacement Parts, CR123A Battery	01331750
Not Shown	NEMA 5-15P Power Cord	01331768
Not Shown	Heat Pump Harness	01331800
Not Shown	Reject Probe and Harness	01331826
Not Shown	Glass Door Gasket	01331834
See Internal Components	Wire Shelf (with clips)	01332048
2	Replacement Part, 5.5 cu ft, Top Hinge Bracket (Right)	01331859
Not Shown	Replacement Parts, 5.5 cu ft Top Hinge Bracket (Left)	01331867
3	Exhaust Fan Kit	01331875
4	Cabinet Probe	01331883
Not Shown	5.5 Undercounter Refrigerator Door Mounting Hardware Kit	01331925
See Internal Components	5.5 Undercounter Refrigerator Internal Fan Kit	01331933
5	5.5 Undercounter Refrigerator Evaporation Tray Kit	01331958
6	5.5 Undercounter Refrigerator Remote Alarm Board and Harness Kit	01331966
Not Shown	5.5 Undercounter Refrigerator Hardware Kit	01331974
7	Pin Valve and Cap	Not Available
Not Shown	Replacement Part, 5.5 Strain Relief Santoprene Clamp w/ Screw Kit	01331990
Not Shown	Replacement Part, 5.5 Lock and Key, GP	01332006
Not Shown	Undercounter Glass Door Stop Kit	01332014
Not Shown KIT-013118		Undercounter Solid Door Stop Kit
8	5.5 Undercounter Refrigerator Power Receptacle Kit, GP	01331941
Not Shown	Door Magnet	01332063
9	Leveling Feet Set of 2	01332089
Not Shown	UCL GP Glass Door, ADA	01332097
10	5.5 Follett UI Assembly	01332105
Not Shown	Solid Door Gasket	01332113
See Internal Components	Replacement Part, 5.5 Internal Duct	01332121
See Internal Components	Replacement Shelf Clips (4x), 1.8 and 5.5 Product Families	01332048
Not Shown	UCL Solid Door TA ADA	01332139
Not Shown	Replacement Part, 5.5 cuft Door Handle	01332147
11	UC Top Cover	01332154
12	I/O Battery Door	01332162





Reference #	Description	Part #
1	UCL GP Handle PC Assembly	01332147
2	Door Stop, Glass Door	01332014
3	UCL ADA Glass Door Gasket	01331834
4	Door Magnet	01332063
5	Replacement Part, 5.5 Lock and Key, GP	01332006



Reference #	Description	Part #
1	5.5 Undercounter Refrigerator Internal Fan Kit	01331933
2	Replacement Part, 5.5 Internal Duct	01332121
3	Wire Shelf	01000040
4	Replacement Shelf Clips (4x), 1.8 and 5.5 Product Families	01332048



#### Warranty Registration and Equipment Evaluation

Thank you for purchasing Follett® equipment. We hope you find that our equipment meets or exceeds your expectations, as our goal is to deliver high value products and services that earn your complete satisfaction!

Please review the enclosed installation and operations manual. It is important that the installation be performed to factory specifications, so your equipment operates to its maximum efficiency.

Follett Products LLC will not be liable for any consequential damages, expenses, connecting or disconnecting charges or any losses resulting from a defect of the machine.

For full warranty details, visit our website www.follettice.com/productwarranties.

Warranty registration and equipment evaluation is important to help us keep track of our equipment and to record the machine's performance. We request that you register Follett equipment warranties on our website www.follettice.com/support and choose Warranty Registration and Equipment Evaluation. It's simple to do; please take a moment to register today. There is also space on the form to provide us with comments and feedback. Please let us know about your experience so we can capture it for our continuous improvement efforts.

We pride ourselves on producing outstanding equipment and we work hard to back it up with outstanding customer and technical support. Please let us know what else we can do to assist you. We would be happy to answer your questions.

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