

TempArmour™ Vaccine Refrigerator

Model# BFRV84

User Guide



For more information, contact:

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Introduction

Congratulations on your purchase of the worry-free TempArmour™ Vaccine Refrigerator. The design of the TempArmour™ Refrigerator and integrated technology eliminates many causes of cold chain incidents of refrigerated vaccines during storage.

Before using this appliance, read through this manual carefully including all the information on safety, installation and operation. These guidelines do not cover every possible condition or situation that may occur, but they are an important start. If you are unsure about any of these instructions or require technical support, please contact TempArmour™ Refrigeration for assistance (1.866.485.4199).

Note: The TempArmour™ Refrigerator was formerly known as the TempStable Refrigerator – new name, same worry free vaccine refrigerator!

Important Safety Instructions

These warnings are provided in the interest of your safety. Please ensure that you understand them before installing or using this appliance.

Child Safety

- Keep children away from the packaging material. DANGER OF SUFFOCATION!
- Keep children from playing in, on, or around this appliance. There is a DANGER OF SUFFOCATION if a child becomes trapped inside!
- When the unit is not in use, please secure or remove the lid to prevent children from playing inside the cabinet.

Prior to Installation

- At delivery, please check that the appliance is complete and has not been damaged during transport. In the event of damage, do not plug in and contact TempArmour™ Refrigeration for assistance.
- This refrigerator weighs 200 lbs. Care should be taken when moving it.
- Be sure that the appliance does not stand on the electrical supply cable. Also, be sure the electrical cable is not squeezed or bent when the appliance is being installed or moved.

General Safety

- Before cleaning, servicing, or repositioning the appliance, always disconnect from the electrical power supply.
- It is dangerous to make alterations or attempt to modify this product in any way. Product alterations will void the warranty.
- Do not store any containers with flammable vapors or liquids in or around the appliance, such as organic solvents, spray cans, gas cans, etc. Danger of explosion!

Service

Contact TempArmour™ Technical Support for guidance prior to initiating any service on the refrigerator.

The TempArmour™ Refrigerator technology & design is unique and only TempArmour personnel are qualified to assess if on-site service is required. If a 3rd party repair service / technician is needed, TempArmour™ Refrigeration will arrange for, or provide Advanced Authorization to retain a technician who will be guided by TempArmour™ Technical Support. See Warranty for more information.

Note: The TempArmour™ Refrigerator does not require pre-scheduled maintenance/service calls during normal operation.

Disposal

At the end of the appliance life, please contact your local City/Municipality for direction on the appropriate disposal channel in your area.

Note: The refrigerant must be completely drained and collected by an authorized technician for recycling prior to disposal. Check with your local Environmental Agency or Municipality for recommendations on recycling options in your area.

This appliance contains refrigerant R-134a and a polyol-ester compressor oil in its refrigerant circuit. R-134a is non-toxic, non-hazardous, non-ozone depleting and water based.

Installation

Attention: Please allow the refrigerator to sit for 12 hours prior to plugging it in to ensure that the refrigerant has settled.

Prior to Plugging in the TempArmour™ Vaccine Refrigerator

- Remove all packaging from the refrigerator. Take utmost care when handling your appliance so as to not cause damage to the refrigerant circuit with consequent possible leakage.

Service (continued)

- The area in which the appliance is to be installed must be relatively cool, dry, and suitably ventilated. Avoid exposure of the appliance to direct sunlight. Do not place the appliance close to heat sources (heater, stove, boiler, chimney, etc.).
- Allow adequate spacing around the cabinet for air circulation (3 inches). Make sure that the air vent on the side of the refrigerator is not obstructed.
- To ensure proper function, the appliance must be placed horizontally on a flat, firm, and stable surface resting level on all four supports.
- Check that the condensation drain plug is in place at the front of the fridge.

After Plugging in the TempArmour™ Vaccine Refrigerator

The TempArmour™ Refrigerator will begin to cool immediately. It is normal for the exterior to become very warm during the initial period when the inside of the refrigerator is cooling down. Wait 3 days prior to using the refrigerator to ensure that the temperature within the fridge has settled to within our recommended range of 3.0°C-4.5°C (37.5°F-40°F). This will ensure that the temperature holdover time is maximized in the event of a power outage or other disruption to the operation of the fridge.

Set up the Data Logger and Digital Temperature Display

A certified and calibrated data logger and a digital min-max thermometer (Refrigerator's Temperature Display) are included with the unit. Unpack the min-max thermometer and place the temperature display on the outside of the fridge using the magnetic backing. Place the temperature probe in glycol bottle on the inside of the fridge near the midpoint of the vaccine storage space. Refer to the thermometer user manual to understand its operation and to set up the thermometer and alarm function.

The data logger provided can be used as the primary temperature monitoring device or for use as a backup data logger. Follow your local Vaccine Program instructions for data logger use.

Operation

If the ambient temperature of the room is below 5°C/41°F or above 43°C/109°F, there is risk of the interior fridge temperature going outside of the required 2-8°C/35-46°F range. Note: The appliance is not equipped with a heater. In the event that the ambient temperature falls below 5°C/41°F for an extended period of time, the internal temperatures could fall below the safe range and the vaccines will become susceptible to freezing.

This appliance is designed for medical use only. Do not store food or drink in the fridge. Storing food, drink (or other items not already within the 2-8 °C range) inside the TempArmour™ refrigerator may cause the temperature of other stored items to be negatively impacted.

Vaccines may be placed anywhere within the TempArmour™ Refrigerator to the top of the upper baskets as the temperature throughout is very consistent. However, do not store vaccines above the top of the upper baskets to ensure that all vaccines are maintained within the 2-8°C/36-46°F temperature range when the fridge is opened.

Temperature Control

The temperature within the TempArmour™ is controlled by an internal sensor set prior to shipping. No temperature adjustment is usually necessary. However, if temperature adjustment is required, the temperature setting can be viewed and adjusted within a limited range of about half a degree using the buttons on the digital display at the front of the fridge.

Note: The built-in temperature displayed on the front of the fridge is the ambient (room) temperature. Refer to your min-max thermometer (or data logger) readings for the actual temperature within the fridge.

PLEASE DON'T HESITATE TO CALL US AT: **1 866 485-4199**

Operation (continued)

Directions to view/adjust TempArmour™ Temperature Setting:

To view the temperature setting on the built-in digital display at front of fridge, push and immediately release the SET key.

To adjust the temperature setting:

- 1/ Push and hold the SET key for more than 2 seconds.
- 2/ The temperature setting will be displayed and the “C” (Celsius) or “F” (Fahrenheit) LED will start blinking.
- 3/ Push the up or down arrow keys within 10 seconds and adjust to the desired temperature.
- 4/ Push the SET key again or wait 10 seconds

Opening and Closing the Lid

NEVER USE EXCESSIVE FORCE ON THE HANDLE TO OPEN THE LID!

When the lid is opened, the air inside the appliance becomes slightly warmer and expands. When the lid is closed again, the air is cooled quickly and contracts. This can create a vacuum which makes it more difficult to open the lid again immediately. Wait for a few moments until the vacuum has equalized and then open gently.

The lid is fitted with a uniform sealing strip. Be sure that the lid seal is free from obstructions and forms a complete seal around the rim of the cabinet. External thermometer wires are designed to be shut in the lid and will not affect performance.

Understand TempArmour™ Holdover Time

Holdover time: The period of time until the internal temperature of the refrigerator rises to 8°C (46°F) in the event of a disruption to the operation of the refrigerator (e.g., power outage, unplugged cord, broken compressor, etc.). The holdover time is dependent on many factors including the initial temperature of the fridge; how full the refrigerator is; the ambient temperature of the room, etc.

The TempArmour™ Refrigerator will typically remain in the required temperature range for up to 6 days if its operation is disrupted.

IMPORTANT: When there is a power outage or other disruption to the operation of the fridge, the temperature will typically remain within the range of 4-5°C/39-41°F for most of the holdover time, typically 3 or more days. Once the temperature reaches about 5°C/41°F, you will notice that the temperature will rise at a quicker pace and may reach 8°C/46°F within several hours to 1 day. It is important to understand that the temperature will hold around the 4-5°C/39.2- 41°F range much longer than it will once it has reached 5°C/41°F.

You will find that the daily temperature readings of the TempArmour™ Refrigerator are very consistent. If the internal temperature of the fridge begins to rise above previous readings, investigate whether any of the following has occurred:

- Power outage
- Power disruption to the fridge only (unplugged cord or power cut to fridge only*)
- Refrigerator malfunction (compressor malfunction or refrigerant leak)

* note: appliances often have a dedicated breaker which means the outlet for the fridge may have no power even when there is power to the rest of the office.

Cleaning

Defrosting

Defrosting is not necessary for this appliance. This refrigerator model is not setup with defrost capability and the defrost button on the digital display at the front of the fridge is not active

Internal Cleaning

Wipe the inside of the appliance with a wet sponge or towel. Never use abrasive or corrosive cleaning agents, steel wool, scouring sponges, chemical cleaning agents, or highly perfumed cleaning products to clean the interior as these will damage the surface and leave behind a strong odor. A cleaning mixture of one tablespoon of baking soda to 0.5L warm water can be used. **AVOID USING EXCESS WATER.** Use a wet sponge or towel with clean water to remove the cleaning solution, then dry.

External Cleaning

Wash the outside of the cabinet with warm water and a mild soap or detergent. Do not use abrasive or corrosive cleaning agents, chemical cleaning agents, steel wool or scouring sponges to complete this task as it may cause damage to the surfaces.

Always keep the air vent openings of the compressor housing cover free from dust and obstructions.

Condensate Drain

There is a condensate drain located at the front bottom of the vaccine refrigerator. Remove the cap to allow condensate to drain as required. Use a pan to collect condensate and replace the cap when complete. Note: it is very unlikely that condensate will accumulate when the TempArmour™ is used for the normal storage of vaccines and pharmaceuticals.

Troubleshooting

SYMPTOM	SOLUTION
When first plugged in: Appliance is operating, but the interior is not cold.	<p>The appliance can take a couple of days to settle at its operating temperature from initial turn-on.</p> <p>Check that the room/ambient temperature is within the rated temperature range of 41 to 109°F (5 to 43°C).</p> <p>Does the cabinet have adequate ventilation around the side walls allowing it to transfer heat properly?</p>
Fridge beeping	Press the “SET” button on the digital display (front bottom right of fridge) to turn off beeping and call tech support for assistance.
Condensation in the fridge	Ensure that the drainage plug at the front of the fridge is in place.
The lid will not open	<p>Has the lid just been opened? If so leave for a few minutes to allow the air pressure to equalize and try again.</p> <p>DO NOT USE EXCESSIVE FORCE ON THE HANDLE TO OPEN THE LID!</p>
Fluctuating Temperatures	Fluctuating temperatures may be related to the temperature device (not the refrigerator). Check the temperature on your backup temperature monitoring device to determine if the temperature readings are accurate. If not, the device may require a new battery, servicing or replacement. Please contact us for assistance if needed at 1 866 485-4199.

Warranty

TempArmour™ Refrigeration (TempArmour) warrants, to the original owner, that this product is free from defects in workmanship and material for a period of 2 years from the purchase date (5 years for compressor) as outlined below.

Service

To obtain service under this Warranty, the customer must contact TempArmour™ Technical Support for guidance prior to initiating any service on the refrigerator. (Note: The TempArmour™ Refrigerator does not require pre-scheduled maintenance / service calls during normal operation).

The TempArmour™ Refrigerator technology & design is unique and only TempArmour personnel are qualified to assess if on-site service is required. If a 3rd party repair service / technician is needed, TempArmour™ Refrigeration will arrange for, or provide Advanced Authorization to retain a technician who will be guided by TempArmour™ Technical Support.

TempArmour will cover the cost of a 3rd party local technician and supplies necessary to perform authorized repairs. The customer is responsible for any costs related to shipping a unit for repair, if no refrigeration technicians service the customer's location.

TempArmour reserves the right to provide guidance to on-site personnel in lieu of servicing in the field.

Any service undertaken on the TempArmour™ Refrigerator without contacting TempArmour Technical Support, following provided guidance, and/or failing to obtain Advanced Authorization, may void this Warranty.

Parts

This warranty shall be limited to repairing or replacing, at TempArmour's option and without charge to the purchaser, defective components, or providing replacement components. TempArmour reserves the right to provide replacement components/solutions with comparable functionality.

Any product repaired or replaced under this warranty will be warranted for the balance of the warranty period with respect to the original purchased product.

This warranty covers shipping charges related to shipping replacement parts to locations within the Continental United States and limited regions within Canada. Shipping charges to all other locations are the responsibility of the purchaser and are not covered by this warranty.

Warranty (continued)

Customer Responsibilities:

- Proper care of refrigerator as described in the User's Manual.
- Replacement of light bulb (available for purchase through TempArmour)
- Replacement and/or re-calibration of external temperature monitoring devices as required.

Additional Warranty Information

This warranty does not apply to damage or wear to the product caused by accident, abuse, misuse, neglect, unauthorized alteration or repair, using the product in a manner other than for its intended use, or if the product was not installed in accordance with TempArmour printed installation and operating instructions. This warranty does not cover damages that are a result of flooding, fire, lightning, or acts of God.

TempArmour will not be liable for any indirect, incidental, consequential or special damages, losses, or expenses arising from installation, use or any other causes, including without limitation damages related to lost revenues or profits, or loss of products. There are no express or implied warranties, including merchantability or fitness for a particular purpose, which extend beyond those warranties described or referred to above.

The liability, if any, of TempArmour for direct damages whether arising from a breach of any sales agreement, breach of warranty, negligence, or indemnity, strict liability or other tort, or otherwise with respect to the goods or any services is limited to an amount not to exceed the price of the particular goods or services giving rise to the liability.

For Technical Support, contact:

TempArmour™ Refrigeration

1.866.485.4199

Email: info@temparmour.com

If you did not purchase directly through TempArmour™ Refrigeration, please provide us with your contact details in order that we can forward to you any future notifications related to your TempArmour™ Refrigerator.

