

REFRIGERATOR MANUFACTURER  
**Turbo air**

*Turbo Air Speeds up the Pace of Innovation*

# Super Deluxe Glass Door Refrigerators & Freezers Installation and Operation Manual

Please read this manual completely before attempting to install or operate this equipment

## REFRIGERATORS

TGM-5SD  
TGM-7SD  
TGM-10SD  
TGM-12SD  
TGM-15SD  
TGM-20SD  
TGM-23SD  
TGM-35SD  
TGM-47SD  
TGM-72SD

## FREEZERS

TGF-5SD  
TGF-10SD  
TGF-15SD  
TGF-23SD  
TGF-35SD  
TGF-47SD  
TGF-72SD



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## SERIAL NUMBER

The serial number can be found on the data label located inside the unit.  
Please retain the unit serial number for service purposes.

## ENERGY STAR

As an Energy Star Partner, the following products meet the Energy Star guidelines for energy efficiency.

TGM-5SD / TGM-7SD / TGM-10SD / TGM-12SD / TGM-20SD / TGM-23SD  
TGM-35SD / TGM-47SD / TGM- 72SD  
TGF-23SD / TGF-35SD / TGF-47SD / TGF-72SD

# INSTALLATION

## 1. GOOD AIR CIRCULATION

- Please make sure to avoid any partition or objects that may stop the air flow
- Please make sure there is enough space for air circulation to the rear of the unit  
Recommended space between the rear of the unit to the wall is at least 5 inches

## 2. PLACE ABOVE STRONG FOUNDATION

- Please make sure that the floor where the unit will be placed can support the total weight plus any other contents that it may hold

## 3. DO NOT PLACE NEAR HEAT

- Please make sure to avoid hot corners and locations near stoves
- High ambient temperature will significantly reduce cooling efficiency

## 4. INDOOR USAGE ONLY

- This unit is designed and tested for indoor use only
- Outdoor usage will void its warranty

## 5. STABILIZATION

- Turn leg levelers counter-clockwise in order to level the unit properly

## 6. LEVELING

- Please make sure that the unit levels from the front to the back and side to side

## 7. ***UNIT NEEDS TO BE PLUGGED TO A DEDICATED OUTLET***

## CLEANING

### 1. CLEANING STAINLESS STEEL INTERIOR AND EXTERIOR

: Damage to stainless steel finish due to improper use of cleaning products or non-recommended products is **NOT** covered under this product's warranty

• **Do**

- Use warm, soapy water and a soft, clean cloth or sponge
- Rinse surfaces with clean, warm water and dry immediately to avoid water spots

• **DO NOT USE**

- Abrasive or harsh cleaners
- Ammonia
- Chlorine bleach
- Concentrated detergents or solvents
- Metal or plastic-textured scouring pads
- Vinegar-based products
- Citrus-based cleaners

### 2. CLEANING THE CONDENSER FINS

- To maintain proper refrigeration performance, the condenser coil must be free of dust, dirt, and grease

This will require periodic cleaning. Condenser fins should be cleaned at least every three months (90 days) or as needed

### 3. CLEAN THE GASKET

- The door gasket should be cleaned frequently to maintain proper sealing

### 4. CHECK AFTER CLEANING

- Check the unit again for safety
- Check that the unit is operating properly

## CAUTION

### 1. POWER CORD

- Please make sure that the power cord is connected to the proper voltage
- The power cord must be connected to a protected circuit with the correct voltage and amperage
- Turn 'off' the power switch before disconnecting the power cord, whenever performing maintenance functions or cleaning the refrigerated cabinet
- Compressor warranties are void if compressor burns out due to improper voltage

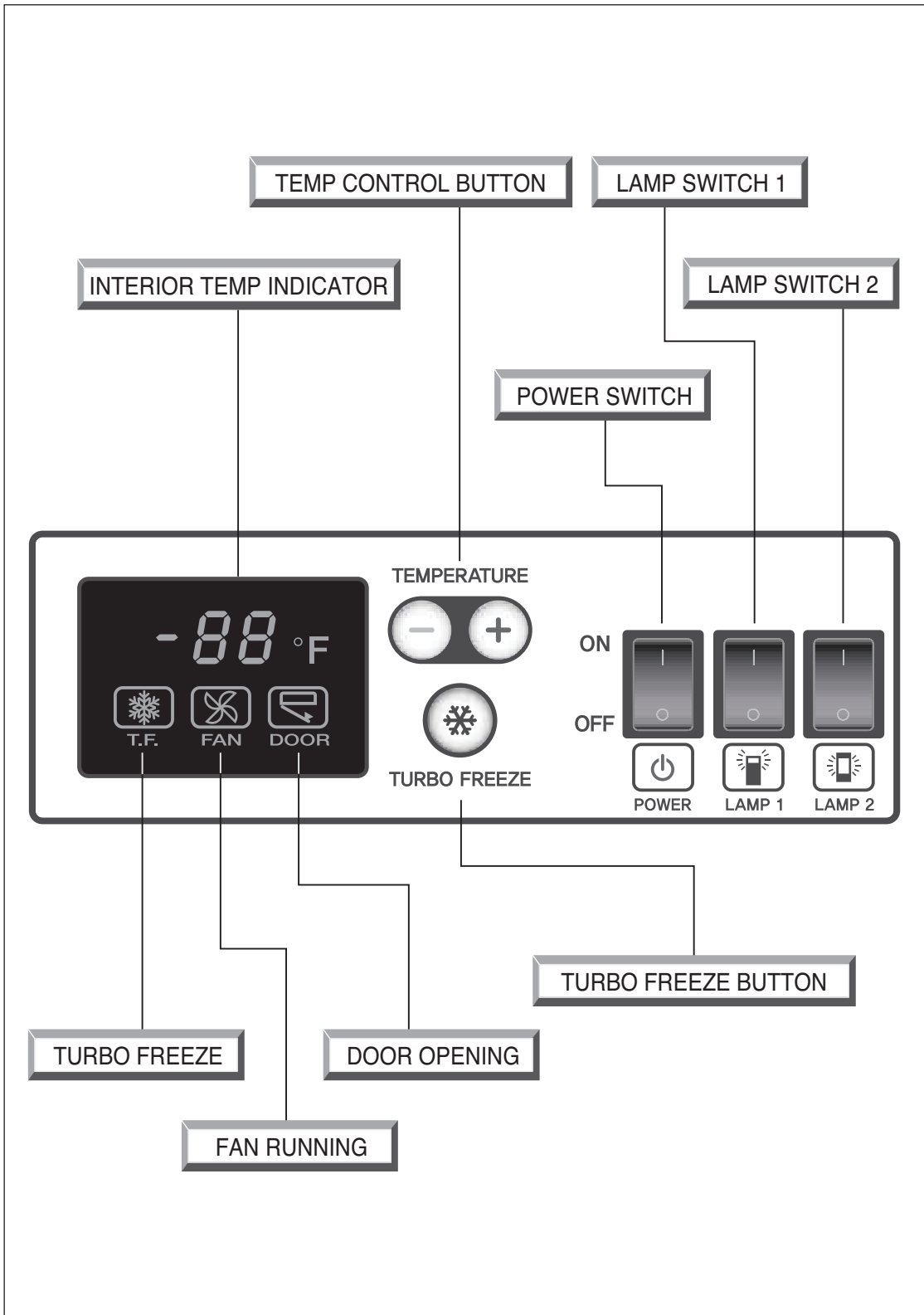
### 2. RE-STARTING

- If disconnected, wait for 5 minutes before re-starting

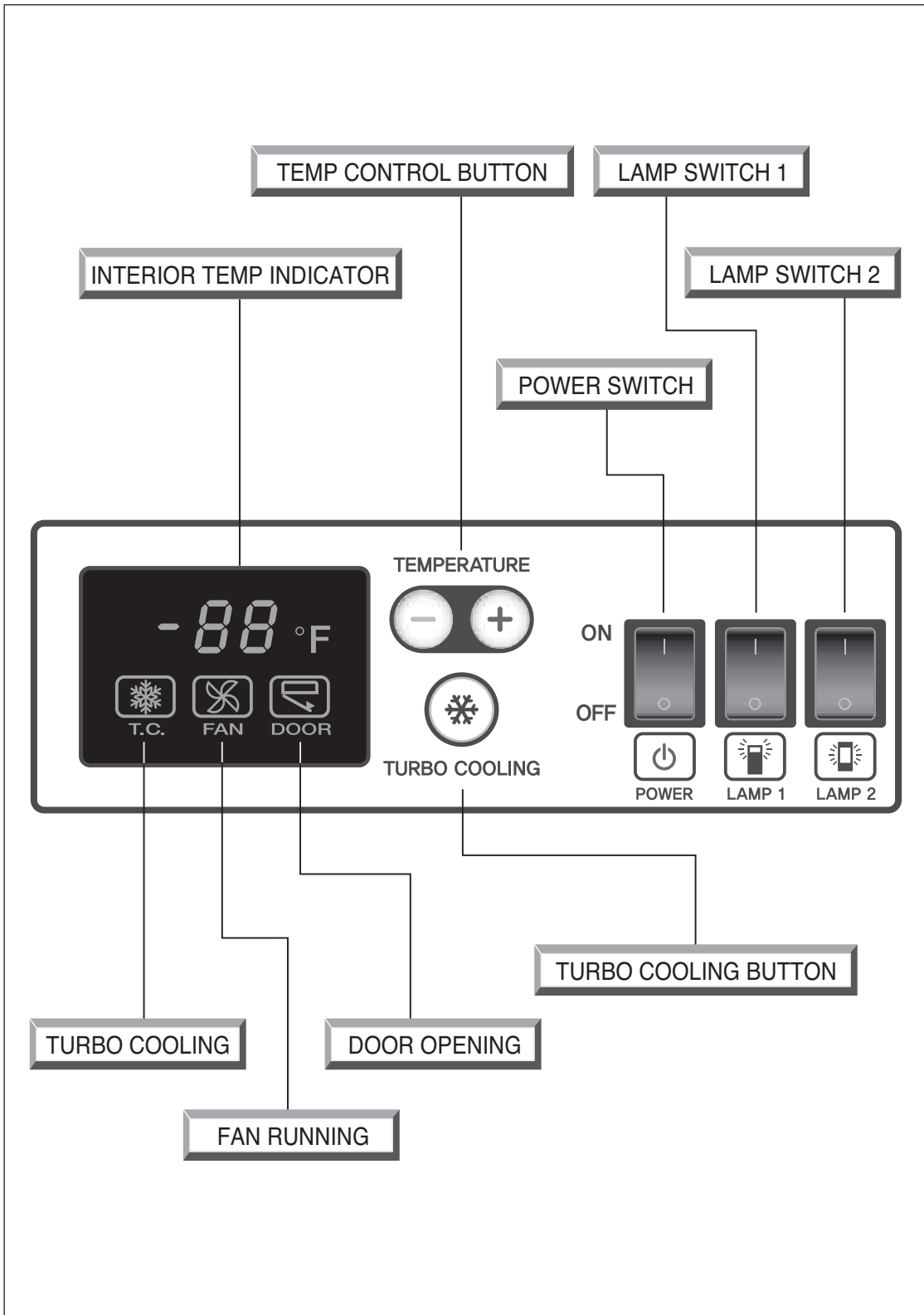
## BASIC OPERATION

1. Plug in to turn on the power and lamp switch located to the right side of the bottom grille. The display panel will light up and make a beeping noise. The compressor will begin to run.
2. The default temperature setting is at “37°F” for the Refrigerators.  
The default temperature setting is at “-8°F” for the Freezers.
3. The compressor is automatically cycled by the electronic controller (PCB, F-Sensor).
4. The defrost cycle is automatically controlled by the D-sensor, and the PCB.
5. Push the temperature up(+) button for higher temperatures and the temperature down(-) button for lower temperatures.
6. Evaporator fan motor will run after all doors are completely closed.
7. Good air flow in freezer is critical.  
Be careful when stationing the product so that it does not press against the back wall, and is at least 4 inches away from the evaporator compartment.

# DISPLAY PANEL OF FREEZERS



# DISPLAY PANEL OF REFRIGERATORS



## TURBO FREEZE

1. If you push the T.F. (Turbo Freeze) button, the compressor will run for 120 minutes to bring down the temperature more rapidly.
2. If you push the T.F. button again during Turbo Freeze mode, the compressor will return to the normal operation.
3. During the Turbo Freeze mode, the temperature Up(+)/Down(-) button will not affect the compressor's operation.

## UP(+)/DOWN(-) BUTTON (TEMPERATURE CONTROL BUTTON)

1. By pushing the UP(+)/Down(-) button, you can set the inside temperature.
  - Refrigerators : From '+50°F' to '+30°F'
  - Freezers : From '+5°F' to '-17°F'
2. To reduce the temperature, push the Down (-) button.

## DEFROST

1. The electronic controller (PCB) features an intellectual algorithm which can recognize the defrost period that eliminates any icing on the evaporator, which automatically adjusts to optimal energy saving temperatures. For additional options, this feature can be monitored and adjusted remotely by a wireless connection.
2. If it is necessary to change the intervals of defrost due to unusual operating conditions, it can be accomplished by adjusting the switch which is located on the inside the bottom grille.
3. Once all frost is eliminated, the temperature will continue to rise until it reaches 42.8 (6°C). When this temperature is detected by the defrost limit control, the defrost control changes to refrigeration mode.
4. The panel displays “ dF ” during the defrost cycle.



## IN ORDER TO SAFELY STORE FOOD (ALARM)

This refrigerator will sound a warning alarm when temperatures fall outside of normal temperature ranges.

After pressing the temperature adjustment button and turning off the alarm, please place a service call.



## INNER TEMPERATURE DISPLAY

1. It displays inside temperature.
2. Display range is -40°F to 99°F (-40°C ~ +40°C).
3. When inside temperature is lower than -40°F, the panel will display 'LO'.

LO

when inside temperature is higher than +99°F, the panel will show 'Hi'.

Hi

## FAN RUNNING INDICATOR

1. If the fan motor is running, fan running indicator will be turned on.
2. Evaporator fan motor will stop when the door is opened.

## DOOR OPENING INDICATOR

1. If the door is opened, an indicator will be turned on.
2. 30 seconds after the door is opened, it will sound beep three (3) times.
3. 1 minute after the door is left opened, it will sound beep again five (5) times.
4. After 5 minutes of staying open, the beeping sound will ring continuously.
5. Once the door is closed, the beeping noise will stop.

## TROUBLESHOOTING

SYMPTOMS	CAUSES	SOLUTIONS
<b>The unit is freezing or melting food</b>	<ul style="list-style-type: none"> <li>• The temperature is set too high or low to contain food fresh.</li> </ul>	<ul style="list-style-type: none"> <li>• Push the temperature button to the suitable position.</li> </ul>
<b>The unit does not refrigerate at all</b>	<ul style="list-style-type: none"> <li>• There is a power connection failure problem.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the power cord and plug in it correctly.</li> </ul>
<b>The unit does not refrigerate well</b>	<ul style="list-style-type: none"> <li>• The unit is in sunlight or near a heating device.</li> <li>• The unit contains hot food or too much food.</li> <li>• The unit door is opened too frequently or left open long.</li> <li>• The condenser is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the installation place.</li> <li>• Check the condition of stored food.</li> </ul>
<b>There is a loud noise</b>	<ul style="list-style-type: none"> <li>• The floor is too weak or the leveling feet is set incorrectly.</li> <li>• The back-side of the unit is too close to the wall.</li> <li>• The tray is not in the correct position.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the installation and adjust the tray position.</li> </ul>
<b>There are dew-drops on the unit exterior</b>	<ul style="list-style-type: none"> <li>• High-moisture air can produce dewdrops during rainy season.</li> </ul>	<ul style="list-style-type: none"> <li>• Wipe with a dry cloth.</li> </ul>
<b>There are dew-drops on the unit interior</b>	<ul style="list-style-type: none"> <li>• The door is opened too frequently or left open long.</li> <li>• Damp food is stored.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep the door closed to remove dewdrops.</li> </ul>
<b>The door does not close tightly</b>	<ul style="list-style-type: none"> <li>• The door is bent.</li> <li>• The unit has a leveling issue.</li> <li>• The door gasket has come out.</li> </ul>	<ul style="list-style-type: none"> <li>• Level the unit again.</li> <li>• Reposition the gasket.</li> </ul>

### The following are not malfunctions:

- A water-flowing sound can be heard when the compressor stops. This is the sound of REFRIGERANT flowing.
- The compressor does not run against defrosting function.

### THREE YEAR WARRANTY

Turbo Air warrants to the original purchaser of every new Turbo Air refrigerated unit, the cabinet and all parts thereof, to be free from defects in material or workmanship, under normal use and service, for a period of three (3) year from the date of original installation or 39 months after shipment date from Turbo Air , whichever occurs first.

Any parts covered by this warranty that are examined and determined by Turbo Air to have been defective within three (3) year of original installation or thirty nine (39) months after shipment date from manufacturer, whichever occurs first, shall be repaired or replaced as stated below. Turbo Air shall be deemed to have fully complied with its obligation under the foregoing warranties by electing either one of the following procedures, at the sole discretion of Turbo Air.

1. Furnishing a replacement part, freight collect, in even exchange for the returned part, freight collect.
2. Receiving the defective part, freight collect; repairing it; and returning it, freight collect.

### ADDITIONAL TWO YEAR COMPRESSOR WARRANTY

In addition to the three (3) year warranty stated above, Turbo Air warrants its hermetically and semi-hermetically sealed compressor to be free from defects in both material and workmanship under normal use and service for a period of two (2) additional years from the date of original installation but not to exceed five (5) years and three (3) months after shipment from manufacturer.

Compressors determined by Turbo Air have been defective within this extended time period will, at Turbo Air's option, be either repaired or replaced with a compressor or compressor parts of similar design and capacity.

The two (2) year extended compressor warranty applies only to hermetically and semi-hermetically sealed parts of the compressor and does not apply to any other parts or components, including, but not limited to, cabinet, paint finish, temperature control, refrigerant, metering device, driers, motor starting equipment, fan assembly any other electrical component, etcetera.

### 134A(404A) COMPRESSOR WARRANTY

The five year compressor warranty detailed above will be voided if the following procedure is not carefully adhered to:

1. This system contains R134A refrigerant and polyol ester lubricant. The Polyol ester lubricant has rapid moisture absorbing qualities. If long exposure to the ambient conditions occur, the lubricant must be removed and replaced with new. Listed below are the approved lubricants for the Tecumseh compressors.

- 1 ICI-Emkarate RL 184
- 2 Emery-2927-A
- 3 Mobile Artic 22A

Failure to comply with recommended lubricant specification will void the compressor warranty.

2. Dryer replacement is very important and must be changed when a system is opened for servicing. dryer must be used with XH-9 desiccant.
3. Micron level vacuums must be achieved to insure low moisture levels in the system. 500 microns or lower must be obtained.

## What is NOT covered by this warranty

Turbo Air's sole obligation under this warranty is limited to either repair or replacement of parts, subject to the additional limitations below. This warranty neither assumes nor authorizes any person to assume obligations other than expressly covered by this warranty.

1. **WARRANTY IS NOT TRANSFERABLE.** This warranty is not assignable and applies only in favor of the original purchaser/user to whom delivered. ANY SUCH ASSIGNMENT OR TRANSFER SHALL VOID THE WARRANTIES HEREIN MADE AND SHALL VOID ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
2. **NO CONSEQUENTIAL DAMAGES.** TURBO AIR IS NOT RESPONSIBLE FOR ECONOMIC LOSS; PROFIT LOSS OR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOSSES OR DAMAGES ARISING FROM FOOD OR PRODUCT SPOILAGE CLAIMS WHETHER OR NOT ON ACCOUNT OF REFRIGERATION FAILURE.
3. **ALTERATION, NEGLIGENCE, ABUSE, MISUSE, ACCIDENT, DAMAGE DURING TRANSIT OR INSTALLATION, FIRE, FLOOD, ACTS OF GOD.** TURBO AIR is not responsible for the repair or replacement of any parts that Turbo Air determines have been subjected after the date of manufacture to alteration, neglect, abuse, misuse, accident, damage during transit or installation, fire, flood, or an Act of God.
4. **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** THERE ARE NO OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, EXCEPT THE THREE(3) YEAR WARRANTY AND THE ADDITIONAL TWO(2) YEAR COMPRESSOR WARRANTY AS DESCRIBED ABOVE. THESE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTY AND MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.
5. **TRANSPORTATION COSTS.** Turbo Air will accept parts covered under this warranty freight collect, provided that shipment has received prior approval. Turbo Air is not responsible for any other transportation costs, but will ship freight collect parts either repaired or replaced under these warranties.
6. **WARRANTY CLAIMS.** All claims should include: model number of the cooler, the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect. Any action or breach of these warranty provisions must be commenced within three (3) year after that cause of action has accrued.

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**Turbo air** REFRIGERATOR MANUFACTURER

4184 E. Conant St.  
Long Beach, CA 90808  
TEL : 310-900-1000  
FAX : 310-900-1077  
TOLL FREE : 1-800-627-0032  
(U.S.A. & Canada)  
Website : [www.turboairinc.com](http://www.turboairinc.com)

### **Warranty Claims...**

All claims for parts or labor must be made directly through Turbo Air.

All claims should include: model number of the unit, the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the alleged defect.

In case of compressor replacement under warranty, either compressor or compressor tag must be returned to Turbo Air along with above listed information.

Failure to comply with warranty policies will result in voiding claims.

### **Three Year Parts & Labor Warranty...**

Turbo Air warrants all new refrigerated components, the cabinet and all parts, to be free from defects in materials or workmanship, under normal and proper use and maintenance service as specified by Turbo Air and upon proper installation and start-up in accordance with the instruction packet supplied with each Turbo Air unit. Turbo Air's obligation under this warranty is limited to a period of three (3) year from the date of original installation or 39 months after shipment date from Turbo Air, whichever occurs first.

Any part, covered under this warranty, that are by Turbo Air to have been defective within three (3) year of original installation or thirty-nine (39) months after shipment date from manufacturer, whichever occurs first, is limited to the repair or replacement, including labor charges, of defective parts or assemblies. The labor warranty shall include standard straight time labor charges only and reasonable travel time, as determined by Turbo Air.

### **Additional Two Year Compressor Warranty...**

In addition to the three (3) year warranty stated above, Turbo Air warrants its hermetically sealed compressor to be free from defects in both material and workmanship under normal and proper use and maintenance service for a period of two (2) additional years from the date of original installation, but not to exceed five (5) years and three(3) months after shipment from the manufacturer.

Compressor determined by Turbo Air to have been defective within this extended period will, at Turbo Air's discretion, be either repaired or replaced with a compressor or compressor parts of similar design and capacity.

The two (2) year extended compressor warranty applies only to hermetically sealed parts of the compressor and does not apply to any other parts or components, including, but not limited to, cabinet, paint finish, temperature control, refrigerant, metering device, driers, motor starting equipment, fan assembly or and other electrical components, etcetera.

### **404A / 134a Compressor Warranty...**

The five-year compressor warranty detailed above will be void if the following procedure is not carefully adhered to:

1. This system contains R404A or R134a refrigerant and polyol ester lubricant. The polyol ester lubricant has rapid moisture absorbing qualities.
2. Drier replacement is very important and must be changed when a system is opened for servicing. A620 copper drier or better is highly recommended.
3. Micron level vacuums must be achieved to insure low moisture levels in the system. 500 microns or lower must be obtained.
4. When compressor is grounded, suction drier and 620 drier or better must be replaced.
5. Compressor must be obtained through Turbo Air, unless otherwise specified in writing, through Turbo Air's warranty department.

### **404A / 134a Compressor Warranty...**

Turbo Air's sole obligation under this warranty is limited to either repair or replacement of parts, subject to the additional limitations below. This warranty neither assumes nor authorizes any person to assume obligations other than those expressly covered by this warranty.

NO CONSEQUENTIAL DAMAGES. TURBO AIR IS NOT RESPONSIBLE FOR ECONOMIC LOSS; PROFIT LOSS; OR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOSSES, OR DAMAGES ARISING FROM FOOD OR PRODUCT SPOILAGE REGARDLESS OF WHETHER OR NOT THEY RESULT FROM REFRIGERATION FAILURE.

WARRANTY IS NOT TRANSFERABLE, This warranty is not assignable and applies only in favor of the original purchaser/user to whom delivered. ANY SUCH ASSIGNMENT OR TRANSFER SHALL VOID THE WARRANTIES HEREIN AND SHALL VOID ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR LABOR COVERAGE FOR COMPONENT FAILURE OR OTHER THE WARRANTY PACKET PROVIDED WITH THE UNIT.

ALTERATION, NEGLIGENCE, ABUSE, MISUSE, ACCIDENT, DAMAGE DURING TRANSIT OR INSTALLATION, FIRE, FLOOD, ACTS OF GOD. Turbo Air is not responsible for the repair or replacement of any parts that Turbo Air determines have been subjected after the date of manufacture to alteration, neglect, abuse, misuse, accident, damage during transit or installation, fire, flood, or act of GOD.

IMPROPER ELECTRICAL CONNECTIONS. TURBO AIR IS NOT RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF FAILED OR DAMAGED COMPONENTS RESULTING FROM ELECTRICAL POWER FAILURE, THE USE OF EXTENSION CORDS, LOW VOLTAGE, OR VOLTAGE DROPS TO THE UNIT. NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; THERE ARE NO OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, EXCEPT THE THREE (3) YEAR PARTS & LABOR WARRANTY AND THE ADDITIONAL TWO (2) YEAR COMPRESSOR WARRANTY AS DESCRIBED ABOVE. THESE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTY AND MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Outside U.S. and Canada; This warranty does not apply to, and Turbo Air is not responsible for, any warranty claims made on products sold or used outside the continent of the United States and Canada.