

REFRIGERATOR MANUFACTURER  
**Turbo air**

*Turbo Air Speeds up the Pace of Innovation*

# Open Display Merchandiser Installation and Operation Manual

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

### **Extra Deep**

TOM-36-DX\*-\*-\*  
TOM-48-DX\*-\*-\*  
TOM-60-DX\*-\*-\*

### **Full Heights**

TOM-40\*-\*-\*  
TOM-50\*-\*-\*

### **Mid Heights**

TOM-40M\*-\*-\*  
TOM-50M\*-\*-\*

### **Vertical Air Curtain**

TOM-36E\*-\*-\*  
TOM-48E\*-\*-\*  
TOM-60E\*-\*-\*



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## INTRODUCTION

This owner's manual has important information. Please read the entire manual before installing your new Turbo Air Open Display Merchandiser. For specific questions not answered on this manual, please call:

### **CUSTOMER SERVICE DEPARTMENT**

#### **TURBO AIR**

**4184 E. Conant St.  
Long Beach, CA 90808**

**1-800-381-7770**

Please write down the model and serial number of your merchandiser for future references:

**MODEL NUMBER** \_\_\_\_\_

**SERIAL NUMBER** \_\_\_\_\_

## WARNING

Keep this manual in a safe place for your reference.

Failure to read this manual in its entirety can result in misuse of the equipment, which may cause personal injury or equipment failure.

### **WARNING!**

Display Case should be on a minimum 20 Amps dedicated outlet and minimum 12 AWG wire for proper operation.

## SPECIFICATIONS

Model	TOM-40*-**-*	TOM-50*-**-*	TOM-40M*-**-*	TOM-50M*-**-*
Dimension (W x D x H) in.	39 x 28 x 78.5	50.9 x 28 x 78.5	39 x 28 x 60.5	50.9 x 28 x 60.5
Electricity	120V/1Ph/60Hz			
Full Load Amperes	15A	15A	15A	15A
Compressor	NT6226GK / CAJ9513Z			
Refrigerant	R-404A			
Lighting	10.8W X 5	14.4W X 5	10.8W X 5	14.4W X 4
Defrost	Timed off defrost			
Net Weight	512 lbs.	590 lbs.	421 lbs.	463 lbs.

Model	TOM-36DX*-**-*	TOM-48DX*-**-*	TOM-60DX*-**-*
Dimension (W x D x H) in.	36 x 34.2 x 78.8	48 x 34.2 x 78.8	60 x 34.2 x 78.8
Electricity	120V/1Ph/60Hz		
Full Load Amperes	16.5A	16.5A	16.5A
Compressor	NT6226GK / CAJ9513Z		
Refrigerant	R-404A		
Lighting	9.6W X 5	13.2W X 5	16.8W X 5
Defrost	Timed off defrost		
Net Weight	488 lbs.	562 lbs.	635 lbs.

Model	TOM-36E*-**-*	TOM-48E*-**-*	TOM-60E*-**-*
Dimension (W x D x H) in.	36 x 29.5 x 81.2	48 x 29.5 x 81.2	60 x 29.5 x 81.2
Electricity	120V/1Ph/60Hz		
Full Load Amperes	15A	15A	15A
Compressor	NT6226GK		
Refrigerant	R-404A		
Lighting	9.6W X 5	13.2W X 5	16.8W X 5
Defrost	Timed off defrost		
Net Weight	498 lbs.	573 lbs.	648 lbs.

## INSTALLATION INSTRUCTIONS

### **DAMAGE INSPECTION**

Prior to installation, the customer must check for damages with the freight company before the unit is accepted.

1. If the crate is damaged, make sure to note the damage on the Bill of Lading prior to signing the delivery off.
2. Concealed damage must be reported within 24 hours of receiving the unit. Bill of Lading must be faxed to the Claims department. Pictures of both unit and crating may be requested.

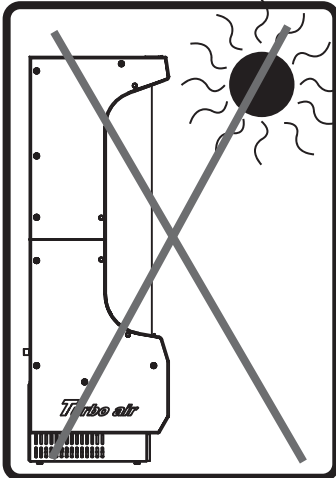
### **LOCATION OF OPEN DISPLAY MERCHANDISER**

Open Display Merchandisers are designed to be in an area that is ambient 75 degrees Fahrenheit (dry bulb) or colder with 55 percent relative humidity. If the installed unit is in a warm ambient area, it may not be as effective. Position the Merchandiser at the final location before removing the shipping skid. There are four bolts at the bottom of the merchandiser that secures the shipping skid. Remove all four bolts to remove the skid. Allow three inches of space from the wall to the back of the merchandiser. Condenser is located to the front. Do NOT block inlet.

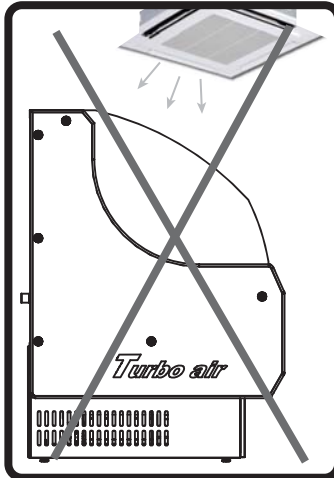
### **LEVELING THE OPEN DISPLAY MERCHANDISER**

Four leveling legs are provided to level your Merchandiser. Use a leveler to ensure the unit is evenly leveled on all four corners. If the unit is not leveled correctly, excess water buildup will not drain properly. If you do not wish to use the levelers, they can be turned inwards.

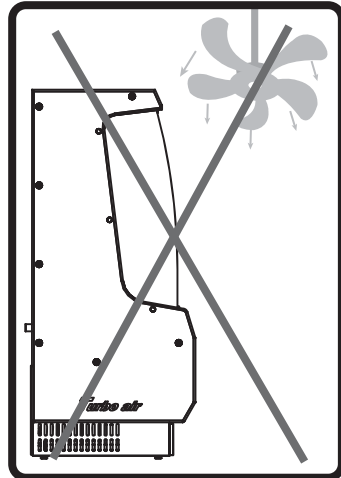
# TURBO AIR RECOMMENDED OPERATING CONDITIONS



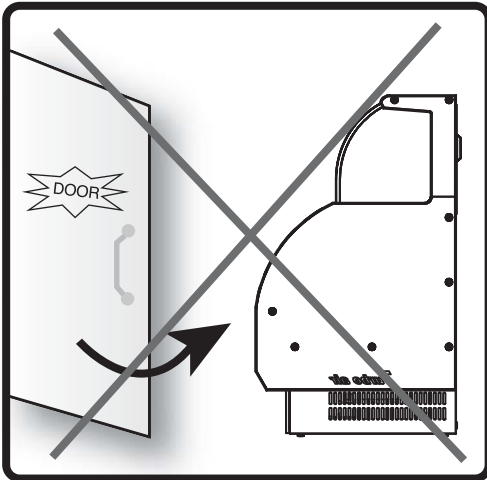
- Unit should not be placed in direct sunlight.



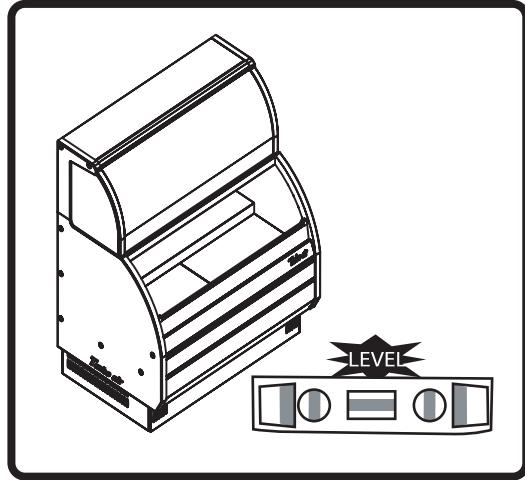
- Unit should not be placed near HVAC vents.



- Unit should not be placed near fans.

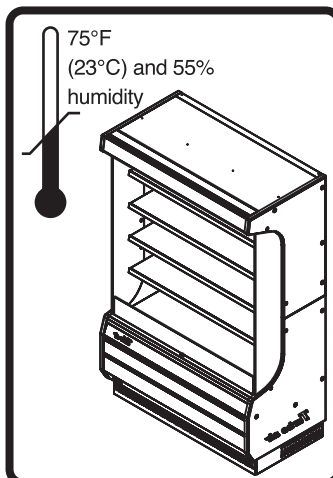
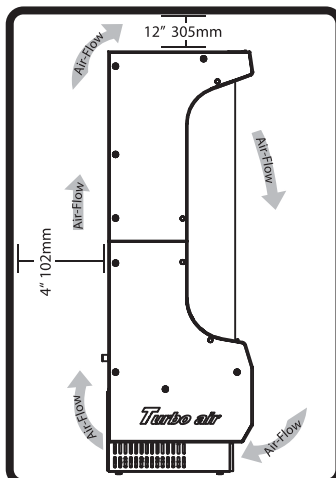


- Unit should not be placed near doorways.



- Level the cabinet on all four corners of the base.

- Confirm there is enough clearance for proper air circulation.



- Operating environment not to exceed 75°F (23°C) and 55% humidity.

- Do not load product beyond the edge of the shelf

## OPERATING INSTRUCTIONS

Level and set your merchandiser in place. Connect all necessary electrical connections. Your Open Display Merchandiser should now be ready for use.

### **POWER SWITCH:**

Located at the bottom of front panel, colored in red.

### **LIGHT SWITCH:**

Located at the bottom of front panel, colored in green.

### **TEMPERATURE CONTROL:**

The temperature control is located underneath the bottom shelf and near the inner right-hand side of your merchandiser.

1. The default setting for the control is Normal.
2. The working temperature is from 37°F to 40°F.
3. To lower the temperature, adjust the knob towards “COLD”.  
To raise the temperature, adjust the knob towards “WARM”.
4. In case of icing caused by hikes in ambient temperature or humidity, adjust the knob towards “WARM”.

### **THERMOMETER:**

Thermometer showing temperature is located on the right side of the back panel under the fourth shelf.

#### **NOTE:**

- Do not place products into your merchandiser until the desired temperature is reached.
- Do not place hot products into the merchandiser.

### **PRODUCT PLACEMENT:**

Overloading of product or placing products against the back wall may cause disruption in air flow, which may cause the unit to not cool properly.

## MAINTENANCE & CLEANING

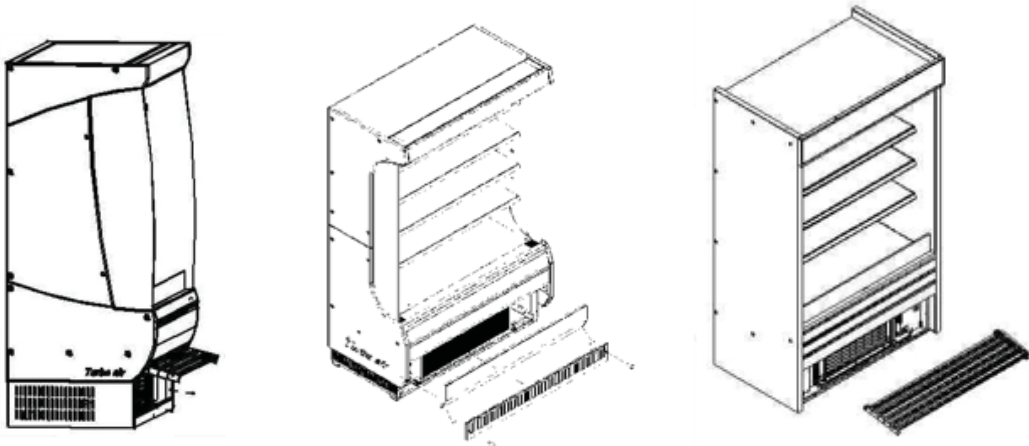
Always turn off your unit (both power and lights) when cleaning. Remove all products and allow your unit to reach room temperature. Do not allow electrical components to get wet.

### **CLEAN YOUR OPEN DISPLAY MERCHANDISER THOROUGHLY BEFORE FIRST USAGE.**

- a. Do not clean with harsh detergents. Use mild soap.
- b. Remove all products.
- c. Remove shelves and bottom trays.
- d. Clean interior with warm water and mild detergent.
- e. Wipe with damp cloth. Do not leave soap residue.

### **CLEANING THE CONDENSER COIL**

Condenser coil is located at bottom behind panel.



1. Disconnect the electrical power to the unit.
2. Remove the front cover and base cover with screw driver.
3. Brush the dirt, lint, etc. from the finned condenser coil.
4. When finished, be sure to replace the front cover and base cover.
5. Reconnect the electrical power to the unit.
6. Condenser should be cleaned every 3 months or as needed.



## TROUBLESHOOTING

For any problems with your unit, please refer to the following check list. If you are still experiencing problems or have questions, please call the Customer Service line at 1-800-381-7770.

### **I. MERCHANDISER NOT FUNCTIONING**

- a. Check to see that the breaker hasn't tripped.
- b. Check that enough power is BEING supplied to the unit.
- c. Check that the power switch is on.

### **II. MERCHANDISER IS WARM**

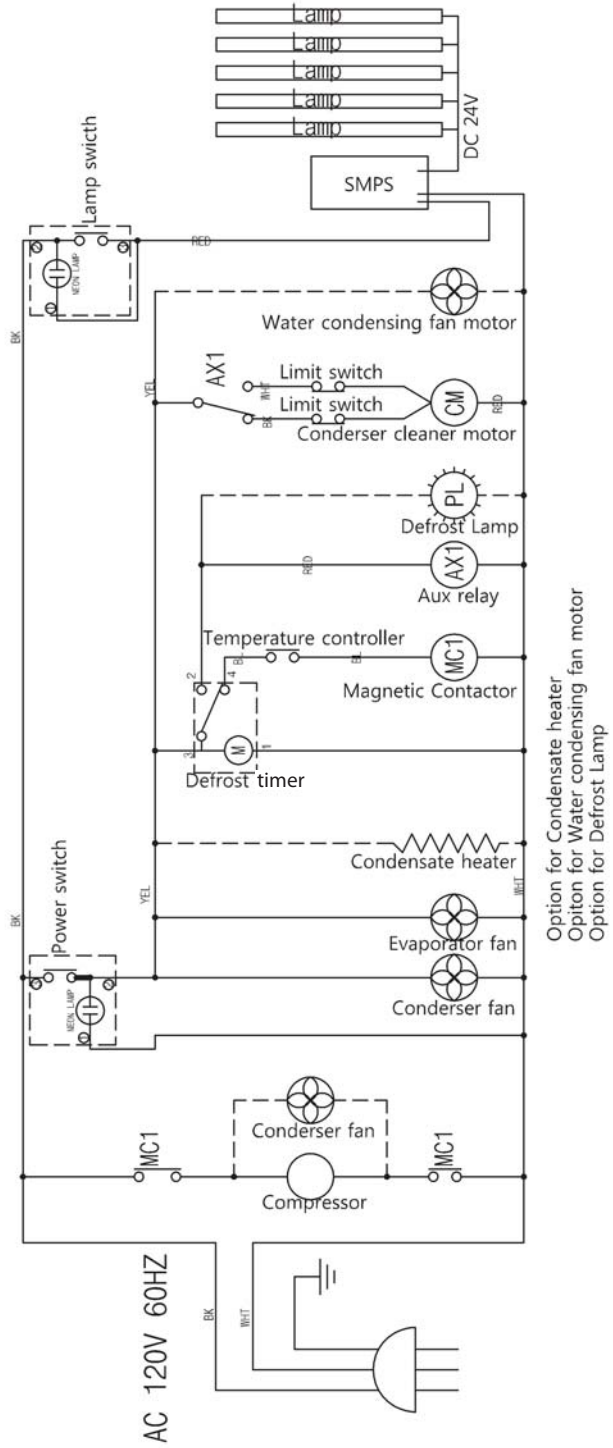
- a. Check the condenser to see if it is clean.
- b. Check that the inner airflow is not being blocked by products.

### **III. LIGHTS ARE NOT WORKING**

- a. Check that light switch is on.
- b. Check that the lights are placed in the lamp holders correctly.

# WIRING DIAGRAM

TOM-40\*--\*--\*. TOM-50\*--\*--\*, TOM-40M\*--\*--\*. TOM-50M\*--\*--\*.  
 TOM-36DX\*--\*--\*. TOM-48DX\*--\*--\*. TOM-60DX\*--\*--\*.  
 TOM-36E\*. TOM-48E\*. TOM-60E\*.



Option for Condensate heater  
 Option for Water condensing fan motor  
 Option for Defrost Lamp

## TWO 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 two (2) year from the date of original installation or 27 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 two (2) year of original installation or twenty seven (27) 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 THREE YEAR COMPRESSOR WARRANTY

In addition to the (2) two 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 three (3) 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 three (3) 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 TWO(2) YEAR WARRANTY AND THE ADDITIONAL THREE (3) 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 two (2) 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.

### **Two 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 two (2) year from the date of original installation or 27 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 two (2) year of original installation or twenty seven (27) 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 Three Year Compressor Warranty...**

In addition to the two (2) 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 three (3) 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 three (3) 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 TWO (2) YEAR PARTS & LABOR WARRANTY AND THE ADDITIONAL THREE (3) 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.