

REFRIGERATOR MANUFACTURER
Turbo air

Turbo Air Speed up the Pace of Innovation

CAUTION!
PLEASE KEEP POWER
SWITCH ON BEFORE
OPERATING THIS EQUIPMENT

Ice Cream Freezer Installation and Operation Manual

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

TSD-27CF
TSD-35CF
TSD-47CF
TSD-60CF



www.turboairinc.com

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SPECIFICATIONS

Model	Basket	CU./FT.	HP	V/Hz/Amps	Refrigerant	Weight
TSD-27CF	1	4.9	1/6	115V/60Hz/2.0A	R134a	45kg(99lbs)
TSD-35CF	2	7.3	1/5	115V/60Hz/3.0A	R134a	55kg(121lbs)
TSD-47CF	3	10.5	1/4	115V/60Hz/2.5A	R134a	62kg(136lbs)
TSD-60CF	3	11.2	1/4	115V/60Hz/2.5A	R134a	64kg(140lbs)

PRODUCT CHARACTER

This product which combines the essence of European and Asian product design adopts many advanced technological features. It has the advantage of beautiful shape, quick chilling and energy saving. It is outstanding for sales as well as strong a variety of frozen foods.

1. Rational insulation layer, outstanding energy-saving.
2. Enlarge 30% congealed area from adopting bottom condenser.
3. Adopt inner evaporator with aluminum plank tub, inside wall is neat and clean.
4. Heavy duty, flat inner tank, white PVC coated, baskets included.
5. Design for convenient access, attractive curved glass lids.
6. Unique folding door and additional inner push door to show fine insulation effects.
7. Heat Reflective Glass to save energy.
8. 2.5" caster. More convenient to move.

TROUBLE SHOOTING

- The following phenomenon is normal which won't impact the freezer's natural running.

1. When freezer is running, the sound of the flowing water may be heard from the internal system of refrigerant. This is normal.
2. When freezer is running, the compressor can feel hot to touch. This is normal.
3. The frost will appear on the surface of the freezer when there is a high degree of environmental humidity and the frost can be wiped down.

- Trouble shooting

Familiar breakdown and handle way

	SYMPTOMS	CAUSES	SOLUTIONS
1		Power off	Checking by electricity
		Unplug	Check
2	Disable to cooling	The set temperature is too higher. The knob of temperature controller placed higher position. for example 2 or 3	Turn the knob to the higher position for example 4 or 5
		Put the freezer in the sunshine or close the hot object	Change the place
		Excessive food stored at one time more than 20% of the storage volume	Less than 20% of the storage volume
		Open the door excessively	Decrease the times of opening
3	The noise is big	The ground is no neat	Improve the position of placed
4	Can't shut down of machine	The knob of temperature controller placed "soon freezing area" or "freezing area" lower position	Adjust the knob to the place higher than "soon freezing area" or "freezing area"

INSTALLATION

1. Never have unit higher a 45 degree angel while transporting, when installing unit, must be leveled.
2. Please be careful while moving and installing unit so that the compressor and system do not get disrupted.

OPERATION AND CAUTION

When you plug the unit, there will be a green light, if you do not see a green light, please do step #1 of trouble shooting. If this does not work, please call for service.

CAUTION

1. Never operate the machine with “Soon freezing area” for a long time. (less than 24 hrs) Otherwise, it will not allow the compressor to shut down, and shorten the compressor’s life
2. The knob of temperature controller can not turn from “Soon freezing area” to “Refrigeration area” directly. It only can be turn clockwise from “Refrigeration area” to “Soon freezing area”

DEFROSTING

1. When the thickness of frost attain 5mm, it should divided the frost on time. Otherwise affect to make the result of cold.
2. Before six hours of defrosting. Please make the knob of temperature controller placed the “Soon freezing area” place to guarantee the lowest temperature when take out the frozen food.
3. Cutoff the power and take out the food, then divided the frost. Please can't spare away with sharp weapon in order to prevent the damage of the inner wall. After defrosting, wipe to freezer with cloth and connect the power supply.

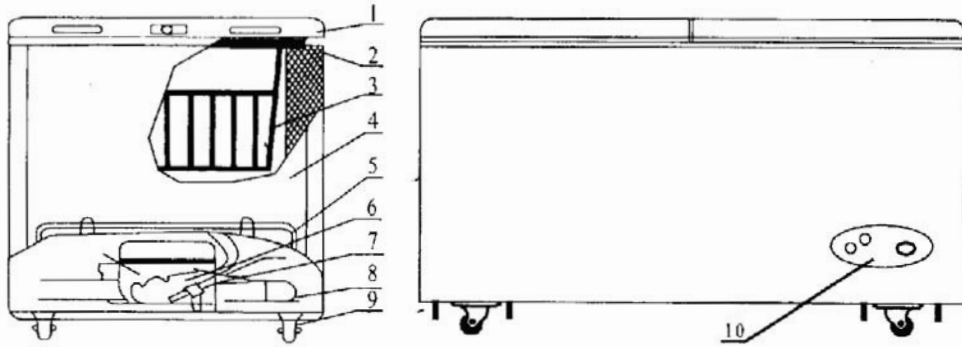
CLEANING AND MAINTENANCE

1. Before cleaning you must turn off the power.
2. Wipe the inside and outward appearance of freezer by cotton cloth. Then dry with dry cloth. Please can't use the organism melting agent, washing power, hot water and harmful material to sweeping.
3. Please clean the dust of compressor and condenser every 3 months to keep the good result of cold.
4. Do not place heavy objects on the top of freezer.

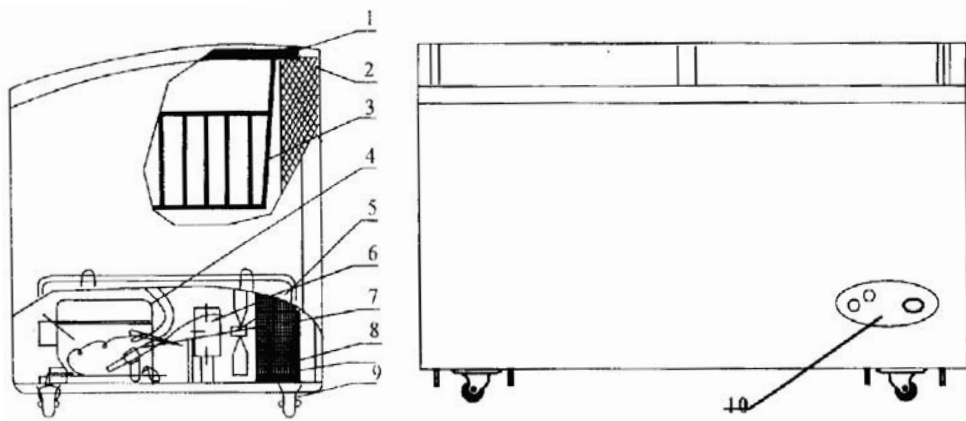
CAUTION

1. The freezer should be provided the fit fuse. Never share one electrical outlet with other electrical appliances. Otherwise, it will not have correct power supply and may start fire.
2. Make sure the freezer use its own dependable ground cable to avoid accidents.
3. In the using process, freezer should be installed with safe and dependable voltage stabilizer. Make sure the power is not smaller than 1000W. Otherwise, the compressor will burn down.
4. Once the power has been off or shut down, please wait for at least five minutes and then restart.
5. Damaged power wires and plug should be replaced immediately by professional personnel. The customer can't replace by oneself.
6. If the power wires requires to be lengthened, it is attachment area can not smaller than 1mm (0.04 inch). Otherwise, it may cause voltage drop and the compressor can not start normally.
7. The freezer should be empty for at least 3 hours before storing the food.
8. The food storage should not be overloaded allow air circulation. It should provide appropriate space to allow air cieculation.
9. The key of the freezer should be put in a place where children can not take it, in order to avoid the danger.
10. Medicines such as vaccine, drugs, blood plasma etc are prohibited to store in the freezer.
11. Big pieces of food, such as meat, should be stored and wrapped separately to prevent the damage of the inside wall.
12. Do not put the freezer on uneven ground in order to prevent the caster damaged.

PART IDENTIFICATION



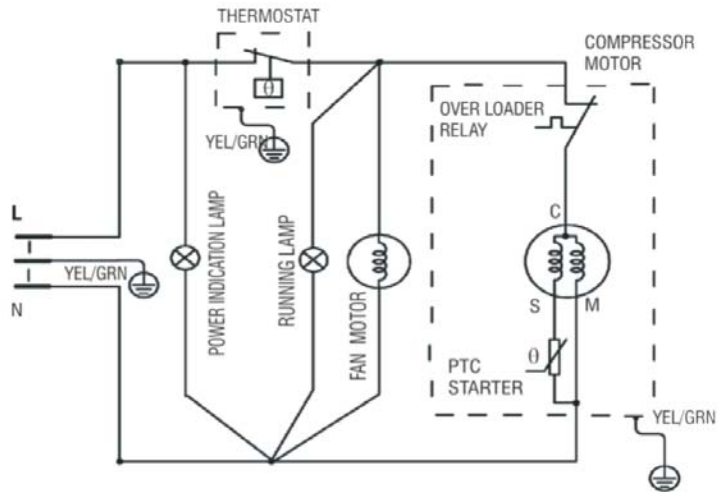
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|---------------------------|----------------|
| 1. Box cover | 7. Dry filter |
| 2. Inner push door | 8. Condenser |
| 3. Basket | 9. 2.5" Caster |
| 4. Body | 10. Controller |
| 5. Compressor room window | 11. Knob |
| 6. Compressor | |



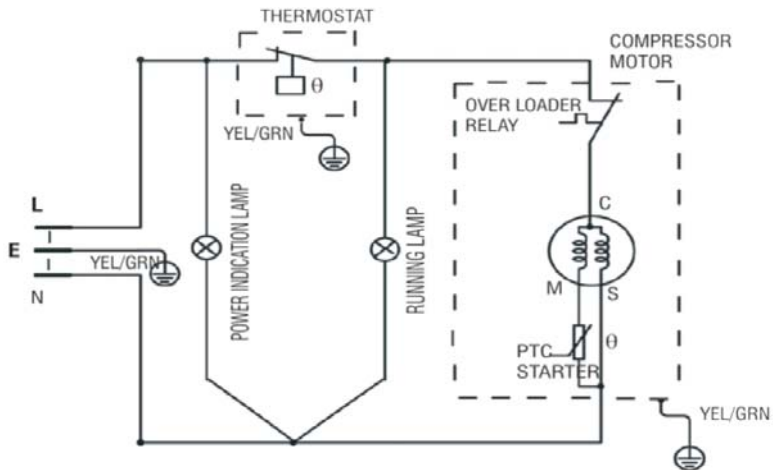
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|---------------------------|----------------|
| 1. Glass door | 6. Fan |
| 2. Body | 7. Dry filter |
| 3. Basket | 8. Condenser |
| 4. Compressor | 9. Wheel |
| 5. Compressor room window | 10. Controller |

ELECTRICITY PRINCIPLE DIAGRAM

Electric Circuit Diagram



(1) TSD-35CF, TSD-45CF, TSD-60CF



(2) TSD-27CF

ONE 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 one (1) year from the date of original installation or 15 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 one (1) year of original installation or fifteen (15) 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 FOUR YEAR COMPRESSOR WARRANTY

In addition to the (1) one 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 four (4) 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 four (4) 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 ONE(1) YEAR WARRANTY AND THE ADDITIONAL FOUR (4) 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 one (1) year after that cause of action has accrued.

Turbo air REFRIGERATOR MANUFACTURER

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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.

One 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 one (1) year from the date of original installation or 15 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 one (1) year of original installation or fifteen (15) 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 Four Year Compressor Warranty...

In addition to the one (1) 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 four (4) 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 four (4) 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 ONE (1) YEAR PARTS & LABOR WARRANTY AND THE ADDITIONAL FOUR (4) 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.