



Refrigerators and Freezers  
**Installation and Operation Manual**

25LCEETSA

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# Introduction

This manual provides installation and operation instructions for Thermo Scientific Refrigerator/Freezer.






The model features:

- Large Capacity – approximately 16.3 cu. ft in the refrigerator compartment. 6.9 cu. ft in the freezer compartment.
- Cooling by forced air circulation
- Automatic defrost
- Separate freezer and refrigerator temperature controls, mounted on a control panel inside the refrigerator compartment

# Safety Information

Thank you for selecting Thermo Scientific Health products for your equipment needs. These instructions contain important operating and safety information. The user must carefully read and understand these instructions before using the unit. Your unit has been designed to optimize function, reliability, safety and ease of use. It is the user's responsibility to install the unit in conformance with local electrical codes.

## Alert Signals

<b>I</b>	ON	
<b>0</b>	OFF	
	Safety Alert	Important operating instructions. To reduce the risk of injury or poor performance of the unit read the user manual before putting the equipment into operation.
	WARNING	Indicates an immediately hazardous situation, which if not avoided, will result in death or serious injury.
	CAUTION	Indicates an immediately hazardous situation, which if not avoided, may result in minor to moderate injury.
(No Symbol)	CAUTION	(Without Safety Alert Symbol) indicates a situation that may result in property damage.
	Shock Hazard	Use of this equipment involves power supplies which convert line voltage to low voltage power. Do not modify or use power supplies other than OEM equipment. Connection of the power supply may require a properly grounded receptacle. Potential for electrical shock or equipment damage exists if precautions are not followed.
	Frost bite/ Low Temperature	Avoid contact with cold freezer surfaces potential for cold burns or skin sticking to cold surfaces.



**DANGER RISK OF CHILD ENTRAPMENT** Before you throw away your old refrigerator or freezer:

- Take off doors
- Leave the shelves in the place so that children may not easily climb inside.



If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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# Intended Use

The Refrigerators/Freezers described in this manual are for professional use only. These products are intended for use in research for the storage of samples or inventory in the following temperature ranges:

Refrigerators +1°C to +12°C  
Freezers -12°C to -20°C



**Warning**

Only Explosion Proof Units or Flammable Material Storage Units are to be used for the storage of flammable inventory/samples.

These are not considered medical devices and have therefore not been registered with a medical device regulatory body (e.g. FDA); that is, it has not been evaluated for the storage of samples for diagnostic use or for samples to be re-introduced to the body.

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# Unpacking

At delivery, examine the exterior for physical damage while the carrier's representative is present. If exterior damage is present, carefully unpack and inspect the unit and all accessories for damage.

If there is no exterior damage, unpack and inspect the equipment within five days of delivery. If you find any damage, keep the packing materials and immediately report the damage to the carrier. *Do not return goods to the manufacturer without written authorization.* When submitting a claim for shipping damage, request that the carrier inspect the shipping container and equipment.

Model and serial numbers are important when requesting service parts from your dealer or the Technical Services Group. These numbers are found inside the cabinet on the left wall at about eye level. You can record the identification numbers on the back page of this manual.

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# Performance Characteristics

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## Temperature Ranges

Refrigerator: 1° to 12°C (34° to 54°F)  
Freezer: -12° to -20°C (-4° to 11°F)

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## Electrical Requirements

120 Volts ±10%, 60 Hz, 11.6 Amps

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## Environmental Operating Conditions

POLLUTION DEGREE*	2
INSTALLATION CATEGORY*	II
ALTITUDE	2000 Meters MSL (Mean Sea Level)
HUMIDITY	80% maximum, non-condensing
ELECTRICAL SUPPLY	120V/60Hz
VOLTAGE TOLERANCE	±10% of normal rated line
AMBIENT OPERATING TEMPERATURE	15°C to 32°C
USAGE	This product is intended for use indoors only



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# Installation

**Caution**

Improper operation of the equipment could result in dangerous conditions. To preclude hazard and minimize risk, follow all instructions and operate within design limits noted on the dataplate.

**Caution**

Connect the equipment to the correct power source. Incorrect voltage can result in severe damage to the equipment.

**Danger**

For personal safety and trouble-free operation, this unit must be properly grounded before it is used. Failure to ground the equipment may cause personal injury or damage to the equipment. Always conform to the National Electrical Code and local codes. Do not connect unit to already overloaded power lines.

**Caution**

Door seal integrity is critical for refrigerators and freezers. A loose fitting gasket allows moist air to be drawn into the cabinet, resulting in quicker frost buildup on the evaporator coil, longer running time, poor temperature maintenance, and increased operation cost.

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## Location

Install the unit in a level area free from vibration with a minimum of 1/8th inch on sides, 2 inches at the rear and 1 inch on the top.

Do not position the equipment in direct sunlight or near heating diffusers, radiators, or other sources of heat. The ambient temperature range must be between 60 and 90°F (16 to 32°C).

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## Wiring

This model uses 15 amp power cords. They are rated for 120V Volts, AC, 60Hz. Do not use extension cords, and always use a three prong grounded wall outlet.

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## Leveling

The unit must be level. Rotate the leveling screws, located under the front corners of the unit, until the unit is level. If the floor is seriously out of level, you may need to shim the corners with thin sheets of metal.

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## Door Seal

To check the door seal, complete the following steps:

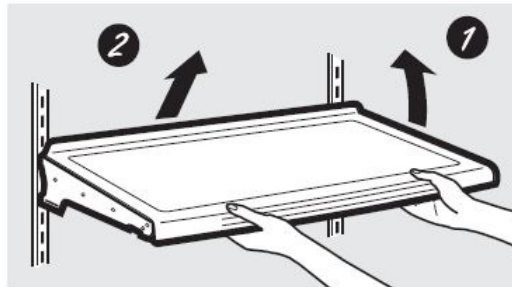
1. Open the refrigerator door.
2. Insert a strip of paper (a couple of inches wide) between the door gasket and the cabinet flange and close the door.
3. Slowly pull the paper strip from the outside. You should feel some resistance.
4. Repeat this test at 4 inch intervals around the door. If the door does not seal properly, replace the gasket.
5. Check the freezer door seal, repeating steps 1-4.

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## Rearranging the Shelves

Shelves in the refrigerator compartment are adjustable.

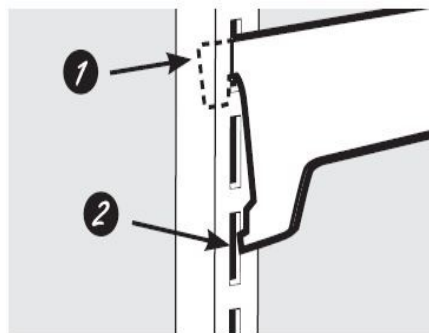
### Refrigerator Compartment



To Remove:

1. Remove all items from the shelf.
2. Tilt the shelf up at the front.
3. Lift the shelf up at the back and bring the shelf out.

To Replace:

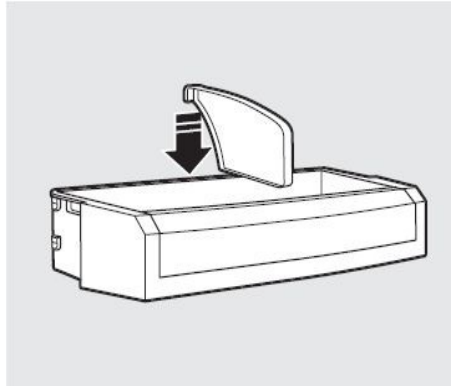


1. While tilting the shelf up, insert the top hook at the back of the shelf in a slot on the track.
2. Lower the front of the shelf until the bottom of the shelf locks into place.

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## Adjustable Bins on the Door

Adjustable bins can easily be carried from refrigerator to work area.



To Remove:

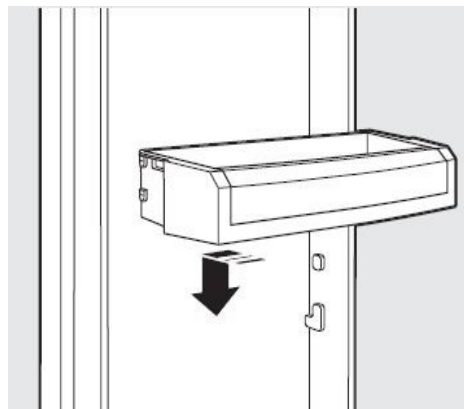
Lift bin straight up, then pull out.

To replace or relocate:

Slide in the bin just above the molded door supports, and push down. The bin will lock in place.

**The snugger** helps prevent tipping, spilling or sliding of small items stored on the door shelf. Grip the finger hold near the rear of the snugger and move it to fit your needs.

## Non-Adjustable Bins on the Door



To Remove:

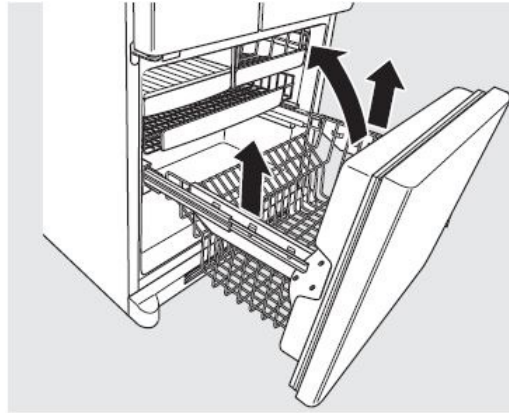
Lift the bin straight up, then pull out.

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To replace or relocate:

Engage the bin in the molded supports on the door and push down. It will lock in place.

## Basket Removal



To remove the deep full-width basket on freezer drawer models:

1. Open the freezer drawer until it stops.
2. The freezer basket rests on the inside tabs on the drawer slides.
3. Lift the basket so that it is out of all 6 slide bracket tabs.
4. Tilt the basket and lift out of the drawer.

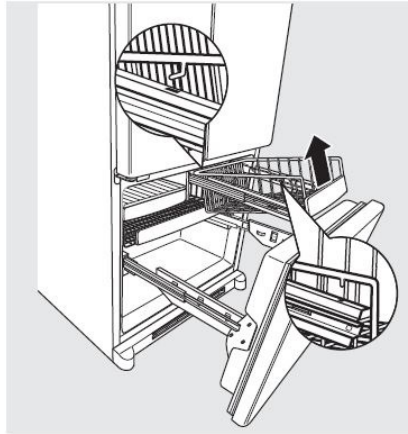
When replacing the deep full-width basket:

Tilt the basket back and lower it down into the drawer. Rotate the basket to a horizontal position and press it down into the 6 alignment tabs.

**NOTE:** Always be sure that the basket is seated in all 6 slide bracket tabs before sliding back into the freezer. The basket can be turned in either direction front to back and installed into the freezer.

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To remove the half-width basket:

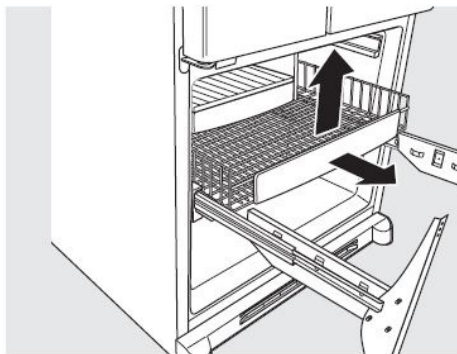


1. Pull the basket out to the stop location.
2. Lift the basket up at the front to release it from the slides.
3. Lift the back up and out of the slide.

**When replacing the basket,** make sure that the wire tabs and wire hooks on the sides of the basket go into the slots in the top of the upper basket slides.

**NOTE:** Always be sure to fully close this basket.

To remove the shallow full-width basket:



1. Pull the basket out to the stop location.
2. Lift the front up and over the stop location.
3. Lift the basket up and out.

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# Operation



**NOTE:** The refrigerator is shipped with protective film covering the temperature controls. If this film was not removed during installation, remove it now.

The temperature control can be adjusted between 0 to 9, 0 being OFF and 9 being the coldest temperatures by tapping the colder and warmer buttons on the temperature control.

Setting either or both controls to OFF stops cooling in both the freezer and refrigerator compartments, but does not shut off electrical power to the refrigerator.

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## Defrosting

This freezer defrosts automatically and there should be no significant frost build up in the freezer compartment.

An automatic 45 minute defrosting period is initiated every 12 hours of compressor run time. During a defrost period, a thermostat will turn the defrost heater off when all the ice has melted from the evaporator.

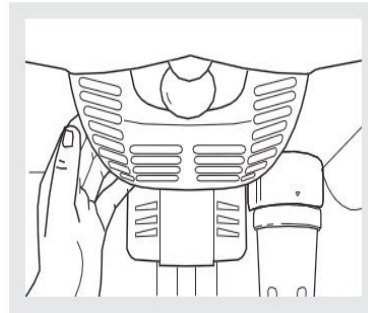


**Caution**  
Light bulbs may be hot.

## Replacing the Light Bulbs

Turning the control to the **0 (off)** position does not remove power to the light circuit.

### Refrigerator Lights



1. Unplug the refrigerator.
2. To remove the light shield, grasp the shield at the back and pull out to release the tabs at the back.
3. Rotate the shield down and then forward to release the tabs at the front of the shield.
4. After replacing with an appliance bulb of the same or lower wattage, replace the shield.
5. Plug the refrigerator back in.

**NOTE:** Freezer light has been disabled.



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# Cleaning

## Cleaning the Outside

**The door handles and trim.** Clean with a cloth dampened with soapy water. Dry with a soft cloth. Do not use wax on the door handles and trim.

**Keep the outside clean.** Wipe with a clean cloth lightly dampened with kitchen appliance wax or mild liquid dish detergent. Dry and polish with a clean, soft cloth.

Do not wipe the refrigerator with a soiled dish cloth or wet towel. These may leave a residue that can erode the paint. Do not use scouring pads, powdered cleaners, bleach or cleaners containing bleach because these products can scratch and weaken the paint finish.

## Cleaning the inside

**To help prevent odours,** leave an open box of baking soda in the refrigerator and freezer compartments.



**Unplug the refrigerator before cleaning.**

If this is not practical, wring excess moisture out of sponge or cloth when cleaning around switches, lights or controls.

Use an appliance wax polish on the inside surface between the doors.

Use warm water and baking soda solution about a tablespoon (15 ml) of baking soda to a quart (1 liter) of water. This both cleans and neutralizes odours. Rinse and wipe dry.



**Avoid cleaning cold glass shelves with hot water because the extreme temperature difference may cause them to break. Handle glass shelves carefully. Bumping tempered glass can cause it to shatter.**

# Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Unit does not operate	Power Supply	<ol style="list-style-type: none"> <li>1. Check that the cord is securely plugged-in.</li> <li>2. Plug another appliance into the outlet to see if it is live.</li> <li>3. If the outlet is dead, check the circuit breaker or fuses.</li> </ol>
Temperature fluctuates	Cold control	Make sure that the cold control is set correctly
	Condenser	Make sure the condenser is clean
Unit Warms up	Door is Open	Make sure the door is completely closed.
	Door is Seal	Check the door seal.
	Warm product recently loaded in unit	Allow ample time to recover from loading warm product.
	Power supply	Check for proper voltage to the unit. If there is no voltage to the unit, call an electrician.
	Compressor	<p>If the compressor is not running, have an electrician check for proper voltage to the unit.</p> <p>If the compressor is running, contact an authorized service provider or call the technical support hot line for assistance.</p>
Orange glow in the freezer	Defrost heater is on	This is normal.
Moisture forms on outside of refrigerator	Not unusual during periods of high humidity	Wipe surface dry and reset the refrigerator control to one setting colder.

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# 13 Month Limited Warranty for United States and Canada

This Thermo Scientific product is warranted to be free of defects in materials and workmanship for 13 months from the first to occur of (i) the date the product is sold by the manufacturer or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above, the MANUFACTURER MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS AND EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF DESIGN, MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE. An authorized representative of the manufacturer must perform all warranty inspections. In the event of a defect covered by the warranty, we shall, as our sole obligation and exclusive remedy, provide free replacement parts to remedy the defective product. In addition, for products sold within the continental United States or Canada, the manufacturer shall provide free labor to repair the products with the replacement parts.

The warranty provided hereunder shall be null and void and without further force or effect if there is any (i) repair made to the product by a party other than the manufacturer or its duly authorized service representative, (ii) misuse (including use inconsistent with written operating instructions for the product), mishandling, contamination, overheating, modification or alteration of the product by any customer or third party or (iii) use of replacement parts that are obtained from a party who is not an authorized dealer of Thermo Scientific products.

Heating elements, because of their susceptibility to overheating and contamination, must be returned to the factory and if, upon inspection, it is concluded that failure is due to factors other than excessive high temperature or contamination, the manufacturer will provide warranty replacement. As a condition to the return of any product, or any constituent part thereof, to the factory, it shall be sent prepaid and a prior written authorization from the manufacturer assigning a Return Materials Number to the product or part shall be obtained.

IN NO EVENT SHALL THE MANUFACTURER BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR ANY DAMAGES RESULTING FROM LOSS OF USE OR PROFITS, ANTICIPATED OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR PERFORMANCE OF ANY PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), ANY THEORY OF STRICT LIABILITY OR REGULATORY ACTION.

For the name of the authorized Thermo Scientific product dealer nearest you or any additional information, contact us.

[www.thermofisher.com](http://www.thermofisher.com) 1-866-9-THERMO

# WEEE Compliance

**WEEE Compliance.** This product is required to comply with the European Union's Waste Electrical & Electronic Equipment (WEEE) Directive 2002/96EC. It is marked with the following symbol. Thermo Fisher Scientific has contracted with one or more recycling/disposal companies in each EU Member State, and this product should be disposed of or recycled through them. Further information on Thermo Fisher Scientific compliance with these Directives, the recyclers in your country, and information on Thermo Scientific products which may assist the detection of substances subject to the RoHS Directive are available at [www.thermo.com/](http://www.thermo.com/)

**WEEE Konformität.** Dieses Produkt muss die EU Waste Electrical & Electronic Equipment (WEEE) Richtlinie 2002/96EC erfüllen. Das Produkt ist durch folgendes Symbol gekennzeichnet. Thermo Fisher Scientific hat Vereinbarungen getroffen mit Verwertungs/Entsorgungsanlagen in allen EU-Mitgliederstaaten und dieses Produkt muss durch diese Firmen verwertet oder entsorgt werden. Mehr Informationen über die Einhaltung dieser Anweisungen durch Thermo Fisher Scientific, die Verwerter und Hinweise die Ihnen nützlich sein können, die Thermo Scientific Produkte zu identifizieren, die unter diese RoHS. Anweisung fallen, finden Sie unter [www.thermo.com/](http://www.thermo.com/)

**Conformità WEEE.** Questo prodotto deve rispondere alla direttiva dell' Unione Europea 2002/96EC in merito ai Rifiuti degli Apparecchi Elettrici ed Elettronici (WEEE). È marcato col seguente simbolo. Thermo Fisher Scientific ha stipulato contratti con una o diverse società di riciclaggio/smaltimento in ognuno degli Stati Membri Europei. Questo prodotto verrà smaltito o riciclato tramite queste medesime. Ulteriori informazioni sulla conformità di Thermo Fisher Scientific con queste Direttive, l'elenco delle ditte di riciclaggio nel Vostro paese e informazioni sui prodotti Thermo Scientific che possono essere utili alla rilevazione di sostanze soggette alla Direttiva RoHS sono disponibili sul sito [www.thermo.com/](http://www.thermo.com/)

**Conformité WEEE.** Ce produit doit être conforme à la directive européenne (2002/96EC) des Déchets d'Equipements Electriques et Electroniques (DEEE). Il est marqué par le symbole suivant. Thermo Fisher Scientific s'est associé avec une ou plusieurs compagnies de recyclage dans chaque état membre de l'union européenne et ce produit devrait être collecté ou recyclé par celles- ci. Davantage d'informations sur la conformité de Thermo Fisher Scientific à ces directives, les recycleurs dans votre pays et les informations sur les produits Thermo Scientific qui peuvent aider le détection des substances sujettes à la directive RoHS sont disponibles sur [www.thermo.com/](http://www.thermo.com/)

Great Britain



Deutschland



Italian



French



# Important

For your future reference and when contacting the factory, please have the following information readily available:

Model \_\_\_\_\_  
Number:

Serial \_\_\_\_\_  
Number:

Date \_\_\_\_\_  
Purchased:

The above information can be found on the dataplate attached to the equipment. If available, please provide the date purchased, the source of purchase (manufacturer or specific agent/rep organization), and purchase order number.

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## IF YOU NEED ASSISTANCE:

### SALES DIVISION

Phone: 828/658-2711 800/252-7100  
FAX: 828/645-3368

### LABORATORY PARTS and SERVICE

Phone: 800/438-4851  
FAX: 828/658-2576

### TECHNICAL SUPPORT

Phone: 800/438-4851

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