Installation Manual

For Australian refrigerator models:

T1274

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Safety Awareness

Read this manual carefully and understand the contents before you install the refrigerator.

Be aware of possible safety hazards when you see the safety alert symbol on the refrigerator and in this manual. A signal word follows the safety alert symbol and identifies the danger of the hazard. Carefully read the descriptions of these signal words to fully know their meanings. They are for your safety.

WARNING **This signal word means a hazard, which if ignored, can cause dangerous personal injury, death, or much property damage.**

CAUTION **This signal word means a hazard, which if ignored, can cause personal injury or much property damage.**

Safety Instructions

WARNING

- **For installations which need an electric outlet that is energized by an external power source, the refrigerator must be electrically grounded as written in local codes or the National Electrical code, NFPA 70.**
- **Incorrect installation, adjustment, alteration, or maintenance of this refrigerator can cause personal injury, property damage, or both.**
- **Obey the instructions in the "Ventilation Requirements" section of this manual.**
- **Do not bypass or change the refrigerator's electrical components or features.**
- **Protect all wiring from physical damage, vibration, and excessive heat.**
- **Do not spray liquids near electrical outlets, connections, or the refrigerator components. Many liquids are electrically conductive and can cause a shock hazard, electrical shorts, and in some cases fire.**
- **This appliance is suitable for camping use.**
- **To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.**
- **A means for disconnection from the DC supply mains must be incorporated in the fixed wiring in accordance with the wiring rules.**
- **It is necessary to allow disconnection of the appliance from the supply after installation. This disconnection may be achieved by having the plug accessible or by incorporating a switch in the fixed wiring in accordance with the wiring rules.** When positioning the appliance, ensure the supply cord is not trapped or damaged.
- **When positioning the appliance, ensure the supply cord is not trapped or damaged.**
- **Do not locate multiple portable sockets-outlets or portable power supplies at the rear of the appliance.**

CAUTION

- **The front and rear of the refrigerator have sharp edges and corners. To prevent cuts or abrasions when working on the refrigerator, use caution and wear cut resistant gloves.**

Safety Instructions

CAUTION

- **In order to prevent the risk of fire in the event of uncontrolled leakage of the refrigerant system, make sure that the refrigerant charge per net room volume does not exceed 8 g/m³. Net room volume is defined as the gross room volume minus the volume of any product, equipment, or objects located in the living area. The refrigerant charge amount can be found on the serial label.**

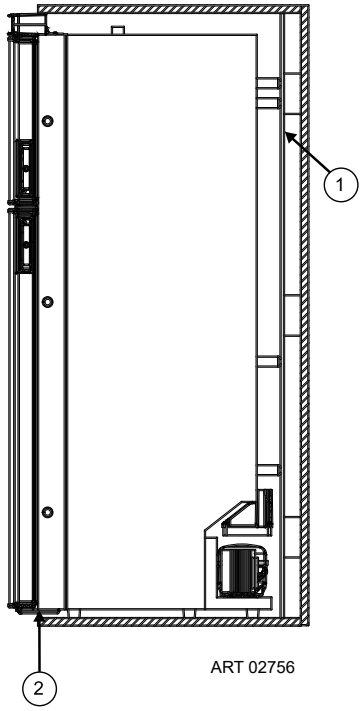
- **Make sure no equipment that produces sparks or flames is installed close to the cooling system.**

Assemble the Enclosure

Make sure that the enclosure is the correct size:

- For T1274 models – 1521-1524 mm high x 597-600 mm wide x 610 mm deep.

- For enclosures deeper than 610 mm ensure that the refrigerator is inserted into the enclosure only to the depth of the breaker (2). This ensures that the door latches can be assessed, and the doors can be opened to the maximum extent without interference from the sides of the enclosure. (See ART02756)
- If the enclosure is deeper then 635 mm, the refrigerator's performance may be optimized by installing a fire retardant baffle (1) in the rear of the enclosure to make the enclosure depth 610 mm.
- Make sure that the back of the solid box baffle is perpendicular to the bottom of the enclosure.
- Make sure that the solid box baffle is the full width and height of the inside of the enclosure.



Make sure the floor is solid and level:

- The floor must extend the full width and depth of the enclosure.
- The floor must be able to support the weight of the refrigerator and its contents.

Make sure that there are no adjacent heat sources such as a furnace vent, etc.

Make sure any exterior vents are blocked.

Ventilation Requirements

This refrigerator is made for a built-in installation. Correct ventilation is necessary for the correct operation of the refrigerator and to increase the life of the refrigerator cooling system.

Ventilation allows the natural air flow that is necessary for good refrigeration. Cooler air comes in under the refrigerator, goes around the refrigerator coils where it removes the excess heat from the refrigerator components, and goes out through an upper exhaust vent. If this air flow is blocked or decreased, the refrigerator will not cool correctly.

⚠CAUTION

The refrigerator has a built-in vent at the top and clearance at the bottom. Make sure that the flow of air through these vents are not blocked in any way. Blockage of air through these vents can cause:

- **shortened life of the refrigerator cooling unit.**
- **poor cooling performance of the refrigerator.**
- **continuous operation of the refrigerator.**
- **fast battery discharge.**
- **void of the refrigerator warranty.**

Key Refrigerator Dimensions

These key refrigerator dimensions are for your reference as necessary

Refrigerator cabinet width:
592 mm
+ installation frame:
614 mm..... 1

Refrigerator cabinet height:
1521 mm
+ installation frame:
1534 mm..... 2

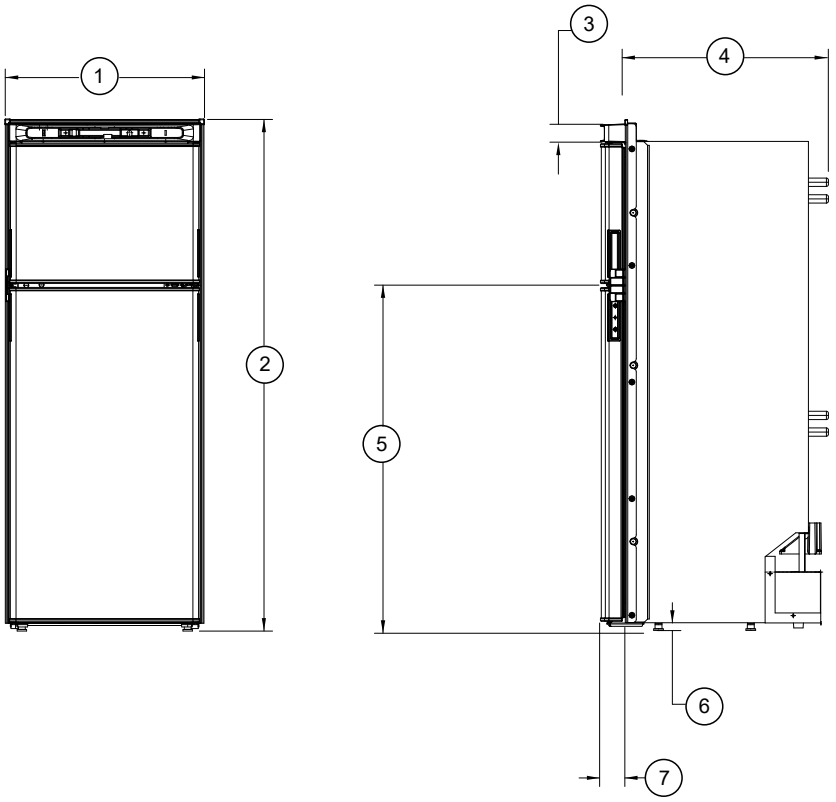
Refrigerator top to control top:
53 mm..... 3

Enclosure depth:
610 mm..... 4

Refrigerator bottom feet to middle handles
1034 mm..... 5

Refrigerator bottom to bottom of feet:
22 mm..... 6

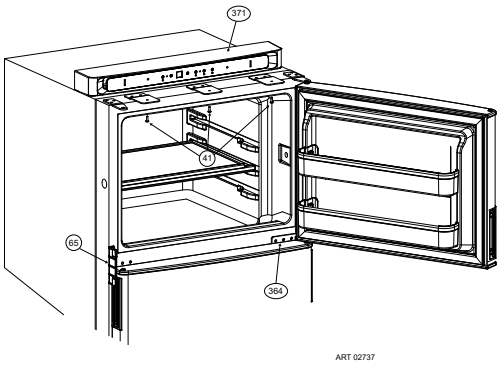
Enclosure front to door front:
75 mm..... 7



Installation Options

Reverse the door swing

This refrigerator has door hinges that allow you to change the direction that the door opens by moving the hinges to the opposite corner.



ART 02737

1. Remove the refrigerator from the enclosure, to allow access to the bottom hinges.

2. Remove the freezer and fresh food door (See Art02737):

   - Open the freezer door.

   - Remove the screws from the center hinge pin. [364]

   - Pull the doors away from the cabinet and lift the freezer door off the center hinge.

   - Remove the center hinge and remove the fresh food door.

3. Reverse cabinet door swing (See Art02737):

   - Remove the screws that attach the strike plate.

   - Reverse the strike plate [65] and put on the other side of the refrigerator cabinet.

   - Attach the strike plate [65] with the screws.

   - Use a flathead screw driver to remove the hinge pin and move it to the other side.

4. Change the position of the door handles. (See Art02738):

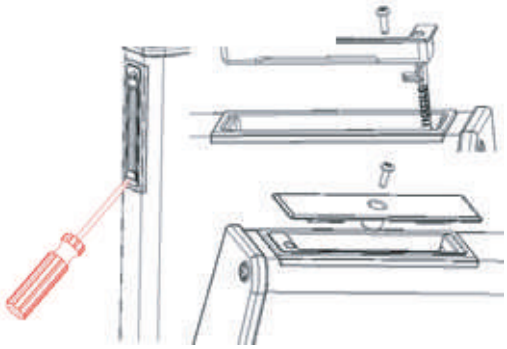
   - Using a flat head screw driver, pop the handle out of the housing of each door.

   - Remove 2 screws and handle housing, catch and spring from each door.

   - On the other side of the door, remove one screw and remove the pocket cover.

   - Move the lower handle to the upper door and the upper handle to the lower door.

   - Attach each door handle and pocket cover with the screws.

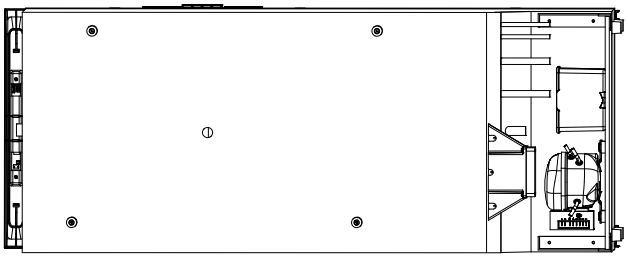

ART 02738

5. Lay the refrigerator on its side to access the bottom hinge.(See Art02743)

NOTICE The refrigerator should be laid on the side closest to the compressor down.

   - Move the bottom hinge to the new side.

   - Return the refrigerator to a standing position.


ART 02743

6. Reinstall the doors

   - Put the fresh food door on the bottom hinge pin.

   - Put center hinge and hinge pin in the top of the fresh food door.

   - Slide freezer door up into the top hinge pin.

   - Pull both doors slightly away from the unit and place freezer door on center hinge pin.

   - Attach center hinge with screws.

NOTICE To prevent damage to the threads of the hinge pins, turn the hinge pins by hand until tight and then tighten with a screw driver.

Install the Refrigerator

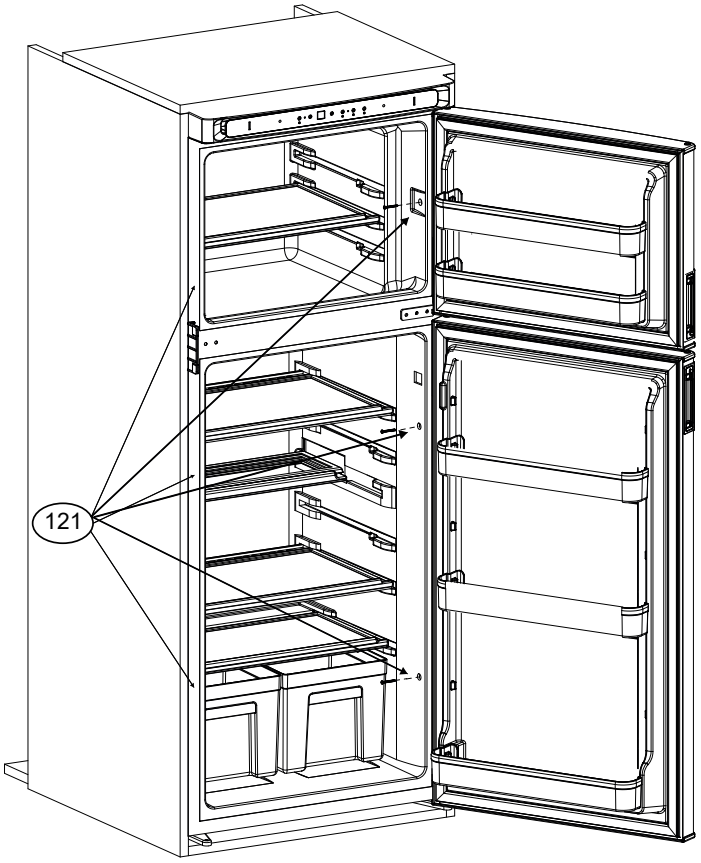
1. Fasten the refrigerator into the enclosure. (See Art 02736):

- Push the refrigerator fully into the enclosure opening

- Install shims between enclosure wall and refrigerator to prevent excessive bowing of refrigerator cabinet walls when installin mounting screws.

- Install 6 provided mounting screws, 3 on each side

- Install hole plugs to cover screw holes



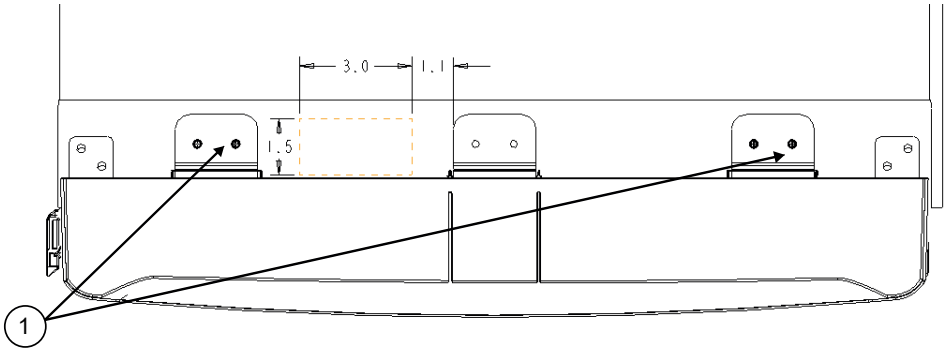
ART 02736

Safety Strap Mounting (optional):

- One of the screws [1] fastening the control bracket may be removed and reinstalled to fasten the strap or cable. (See Art02757)

- Alternatively, a screw may be driven into the breaker in the specified 76 mm (3.0 inch) by 38 mm (1.5 inch) area shown.

- Any strap or cable should be routed away from the wiring on the top of the refrigerator.



ART 02757

Connect the Electrical Components

Electrical current necessary:

DC Operation T1274models - rated voltage 12 volts DC (operation voltage 10.4 volts min. - 15.4 volts max.)

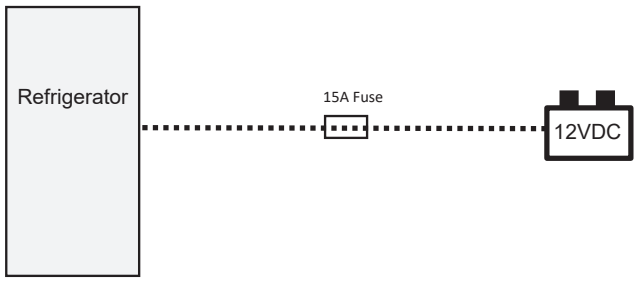
Make no changes to any of the electrical wiring supplied with the refrigerator. Any changes that you would make to the electrical wiring will void the warranty.

Connect the 12V DC supply:

To reduce the risk of electrical interference from other DC appliances and induction from voltage spikes:

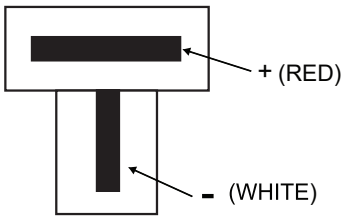
- The refrigerator must have an independent filtered 12volt DC supply.

- Route the DC power supply wires including the fuses directly from the power source to the refrigerator as shown below.



- To connect the DC power supply wires, it is recommended to install 1/4" insulated female spade terminals or Stocko connector W2041.100G to the connecting wire. (See Art 02740)

- Alternatively, the connector may be cut off and the connection can be wired via closed-end connectors (bell cap) or crimp connectors. If the factory connector is cut off, proper care should be taken by the OEM to assure that the connection is made properly. Thetford is not responsible for damage caused by improper capped or crimped connections.



ART 02740

- As the distance from the power source to the refrigerator increases, the correct AWG wire size also increases. Using longer than recommended wire lengths increases voltage drop and increases the risk that the refrigerator may not turn back on after a drop in DC voltage.

- The voltage required to start the compressor on the T1274 is 11.7 volts. The compressor will stop working when the voltage falls below 10.5 volts. The OEM should assure that the draw for all DC powered equipment dose not drop below 11.7 volts when the refrigerator is attempting to power on. If the refrigerator is operated on battery power only, battery life can be extended by replenishing power through the use of solar panels or power from the tow vehicle utilizing a wired 7-way plug.

Connect the Electrical Components

1. Select Wire Size:

WARNING Assuming a minimum voltage of 12V is supplied by the vehicle battery, AWG wire size should be selected so that the voltage drop from the vehicle battery is no more than 0.3V.

- Recommend Wire Size
  - - If the distance is 0 - 3 m, use 4mm^2 min. wire size.
  - - If the distance is 3 - 6 m, use 6mm^2 min. wire size.
  - - If the distance is over 6 mm, use 8mm^2 . wire size.

- To accommodate connectors when 8mm^2 wire is used, a smaller gauge wire may be spliced in.

- Longer than recommended lengths for each wire size may be used if the voltage drop from the power source is less than 0.3V.

NOTICE Using longer than recommended lengths increases the risk that the refrigerator may not turn back on after drop in supply voltage; especially when power is supplied from a battery.

2. To protect the DC power supply wiring, install a fuse or circuit breaker in the positive (+) DC power supply wire as close to the battery or power source as possible. The fuse should be sized according to the BS EN 1648-1 and 2 standard; Leisure accommodation vehicles. 12V direct current extra low voltage electrical installations.

- There is a 15A automotive fuse in the DC circuit at the refrigerator power supply leads to protect the controls of the refrigerator. This amp should only be replaced with a 15A automotive fuse.

3. Connect the DC power supply wire

NOTICE If the DC power supply leads are attached incorrectly, the refrigerator will not operate.

- Connect the positive (+) DC power supply lead to the red wire [99] of the refrigerato .

- Connect the negative (-) DC power supply lead to the black wire [224] of the refrigerato .

- Make sure that
  - Each DC power supply lead is attached to the correct polarity wire of the refrigerator power suppl .
  - The chassis or the vehicle frame is not used as one of the conductors.
  - The DC power supply wires including the fuses are routed directly from the power source to the refrigerator.
  - The wire connections must be clean, tight and free of corrosion. If any of these items are not correct, a voltage drop to the refrigerator will occur.

CAUTION **The voltage drop will decrease the cooling performance of the refrigerator. Please read the instruction of the DC charger before recharging. Please be aware that charging voltages of above 16V might lead to a temporally non-functioning refrigerator or in worst case, damage to the electronics. In this case, please disconnect the power to the refrigerator.**

CAUTION **Allow the refrigerator to stand upright for 30 minutes before being powered on.**

Connect the Electrical Components

Controls:

-Touch and release the ON/OFF [1] button to turn the refrigerator on.(ART02735)

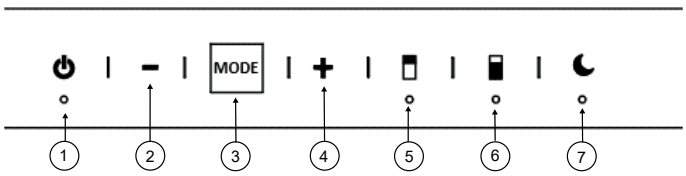
- If the indicator light, below the button, glows solid blue, it means the refrigerator is operating correctly.

NOTICE *The frozen food compartment and cabinet work independent of each other and both must be adjusted to their desired temperature setting.*

- Touch the FREEZER COMPARTMENT [5] button to set the compartment temperature setting.

-Using the + [4] or – [2] buttons adjust the temperature setting.
- The mode [3] will display the temperature setting
- 0 is o
- 1 is the warmest settin
- 5 is the coldest settin

- Touch the CABINET COMPARTMENT [6] button to set the compartment temperature setting.



ART 02735

- Using the + [4] or – [2] buttons adjust the temperature setting
- The mode [3] will display the temperature setting
- 0 is o
- 1 is the warmest settin
- 5 is the coldest settin

- Press any button to return the control to activate mode, the mode [3] will illuminate The display will return to standby mode after 5 seconds.

- Touch the NIGHT MODE [7] button to set the refrigerator to night mode.

- Night mode will turn off automatically after 8 hours or if you push the night mode button again to turn the blue indicator light off

- These 8 hours can be changed by pressing the night mode button for 3 seconds. After the 3 seconds, the default 8 hour will be shown in the display . To change this setting, press the “+” or “-”, then press night mode button to make the setting go into effect.

- The new setting is archived in the memory until it is changed.

Shut down:

- To shut down the refrigerator, touch and hold the ON/OFF button [1] for 5 seconds and release

- Once the refrigerator is turned OFF there is a 5 minute wait cycle before the refrigerator can be turned ON. The refrigerator will not turn on again until the 5 minute wait is up.

CAUTION **Do not operate the refrigerator when the ambient temperature is higher than 43C°. Operation above the recommended ambient temperature can cause permanent damage to the compressor. Operation when the ambient temperature is higher than 43C°. can result in poor cooling perfomance.**