

**THETFORD**



# Refrigerator N3000 Series

Installation Manual

# EN

## Original Installation Manual

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## 1. Introduction

This is the installation manual for the Thetford N3000 series refrigerator. The manual is meant for those installing the refrigerator in a mobile leisure vehicle. Read the information and instructions carefully and follow them strictly to install the refrigerator safely and correctly.

Also read the warnings in the user manual before testing the refrigerator after installation.

Our policy is one of continuous development and improvement. Specifications and illustrations may change subsequent to publication.

For the latest version of this manual, please visit [www.thetford.com](http://www.thetford.com).



If the appliance is not installed in accordance with national and European regulations, rules and standards this will void the warranty.

## 2. Symbols

Key to symbols:



**Warning.** Risk of injury and/or damage.



**Attention.** Important information.



**Note.** Additional information.

### 3. Regulations and standards

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Do not modify this appliance, unless the modification is authorised and carried out by the manufacturer or their agent.



Use only genuine and approved parts and materials.



Wear the correct Personal Protective Equipment during the installation. Also follow the applicable safety regulations.



Never open or damage the cooling system at the back of the refrigerator. The cooling system is pressurised and contains substances harmful to health.



Never expose the refrigerator to water or moisture.



The performance of the refrigerator may be affected by adjacent heat sources such as an oven or stove. Protect the refrigerator against any heat sources by fitting insulation.



Only a qualified person is allowed to install the refrigerator and its electrical and gas components.



Install the refrigerator in accordance with the local/national laws.



The electrical connections and gas components must be installed in accordance with the latest technical regulations.



Incorrect installation or maintenance of the refrigerator may cause physical injury and/or damage to the refrigerator.



The refrigerator must be sealed from the living area of the caravan or motor home according EN1949. Air for the burner must not be drawn from the living area of the caravan or motor home and combustion gases must not enter the living area.



To cool the system and to supply the burner with sufficient airflow, make sure that there is always sufficient ventilation through the outside vents.



The gas pipe has to be installed free of tension.



The refrigerator must be installed in a way that allows easy access for maintenance and repairs.



Only a qualified installation person is allowed to maintain, remove or repair (electronic or gas components of) the refrigerator.



Never use naked flames whilst performing maintenance or repairs on gas lines or when checking fittings for leaks. Gas may ignite and cause an explosion resulting in serious physical injury and/or damage to the product.



Never reposition or change the electronic or gas components or parts.



The refrigerator only runs on liquid gas (propane, butane or a mixture of these both). It does not run on natural gas or coal gas.

The fully installed refrigerator must allow proper and complete discharge of combustion gases.



Combustion gases may contain carbon monoxide. Inhalation of this gas may cause tightness of the chest, dizziness and can lead to death.



Combustion gases must always be discharged upwards.



It is recommended to use an additional filter when operating on Liquefied Petroleum Gas (LPG).



To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.



Make sure the power plug is accessible so that the appliance can be disconnected from the supply after installation.



If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

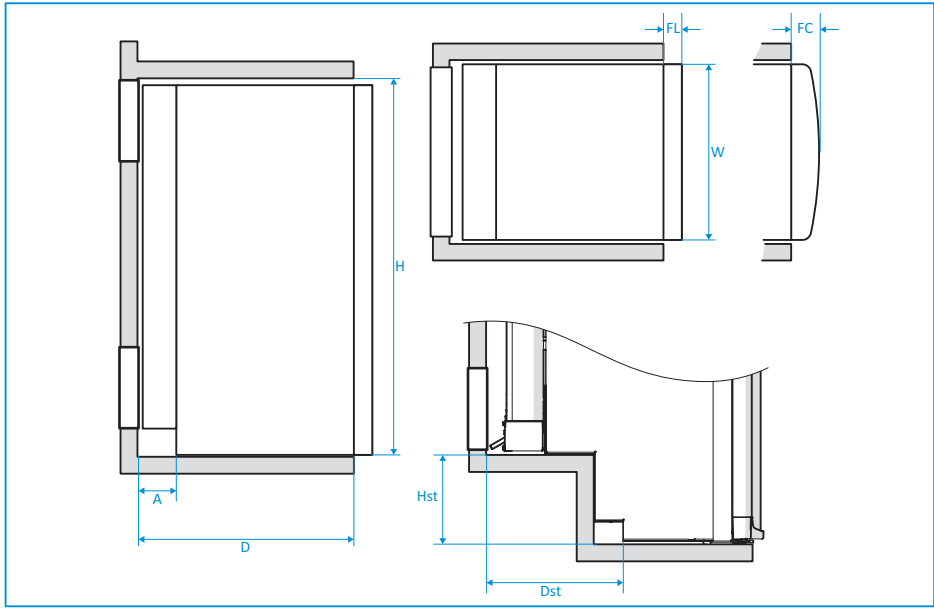
## 4. Serviceability

The installer of Thetford products is responsible for proper installation to ensure the correct functionality and serviceability of the appliance. In terms of serviceability, this means that a dealer or an authorised Thetford service partner must be able to de-install and re-install the Thetford products within the time that is allowed according to the Thetford time-list, using standard tools and equipment.

This is to claim any warranty during the period of 3 years after purchase date. In case of any queries on this subject, please contact the Thetford local service representative before installing the product.

## 5. Position and placement

- Use the mounting dimensions as shown below.



**Table 1: Mounting dimensions**

Model	H*	W	D	Hst	Dst	FL	FC	A
N3080	825	487.5	530 - 570	209	186	43	-	130 - 170
N3090	825	526.5	530 - 570	209	186	43	-	130 - 170
N3097	825	526.5	530 - 570	209	186	-	78	130 - 170
N3100	825	526.5	530 - 570	-	-	43	-	130 - 170
N3104	825	526.5	530 - 570	-	-	-	78	130 - 170
N3108	825	526.5	580 - 620	209	186	43	-	130 - 170
N3112	825	526.5	580 - 620	209	186	-	78	130 - 170
N3141	1504	419.5	530 - 570	-	-	43	-	130 - 170
N3142	1504	419.5	530 - 570	-	-	43	-	130 - 170
N3145	1249	526.5	516 - 556	-	-	43	-	130 - 170
N3150	1249	526.5	516 - 556	-	-	-	78	130 - 170
N3170	1249	526.5	566 - 606	-	-	43	-	130 - 170

Model	H*	W	D	Hst	Dst	FL	FC	A
N3175	1249	526.5	566 - 606	-	-	-	78	130 - 170



\*Height is including feet (8mm), except for models N3141 and N3142.

Models N3141 and N3142 have no feet. For these models, maintain a minimum distance of 12mm from the floor.

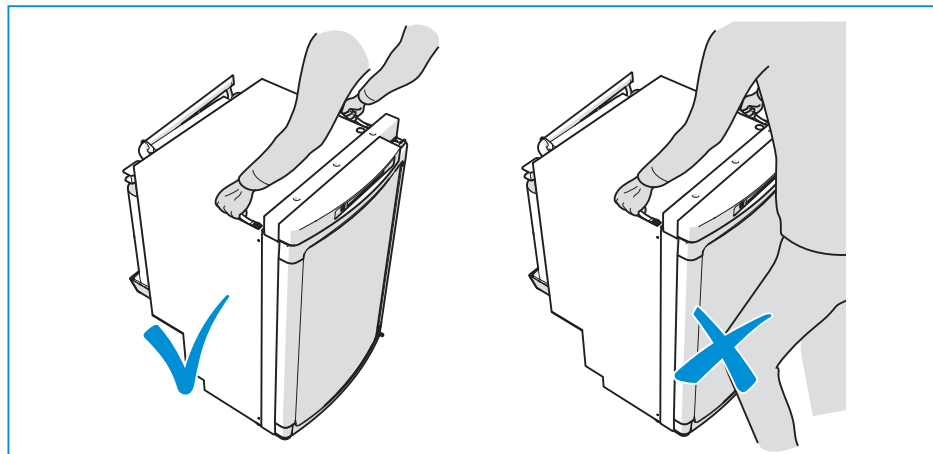


Never lift or handle a refrigerator at the power supply cables.

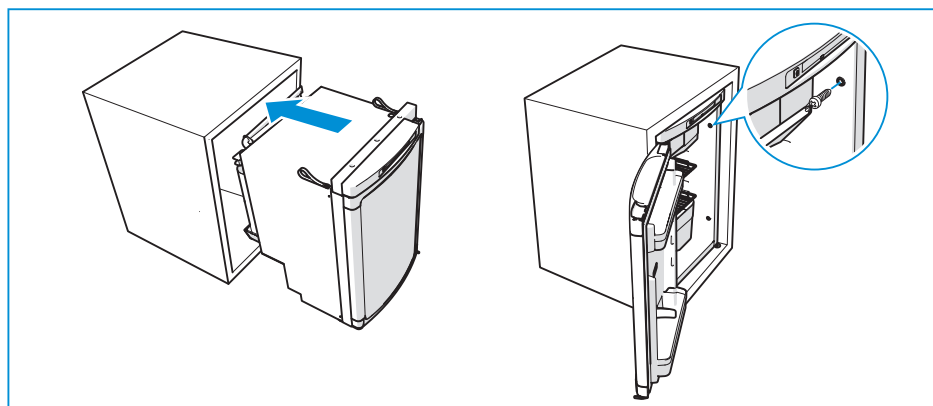


Only small refrigerators (height 825mm): Carry the refrigerator at the strap handles on top. Do not use your knee to lift the refrigerator.

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- Fixate the refrigerator with screws, using the predefined positions in the cabinet.



For flat door models, excluding N3080, there is also the possibility to build in the refrigerator in such a way that the refrigerator door is aligned with the front of the installation cabinet.



When a model N3141 or N3142 refrigerator is put next to a wall, it is important to keep a minimum distance of 15mm between the door and the wall, to be able to open the door completely.

- Use the white caps for finishing.



For the models N3141, N3142, N3145, N3150, N3170 and N3175, 6 screws and 6 white caps are supplied. For the models N3080, N3090, N3097, N3100, N3104, N3108 and N3112, 4 screws and 4 white caps are supplied.



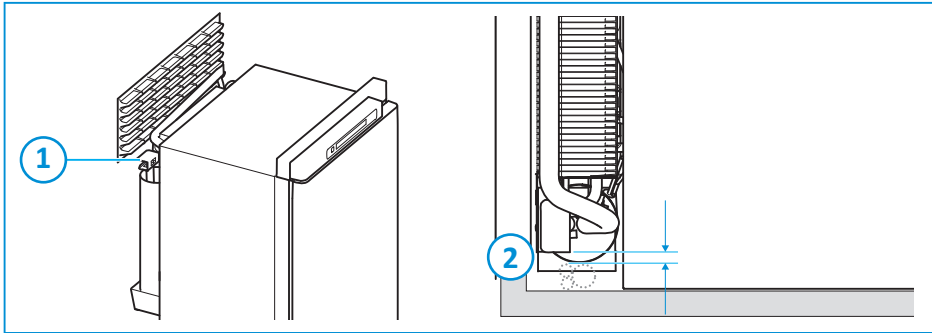
Do not screw into the refrigerator cabinet.



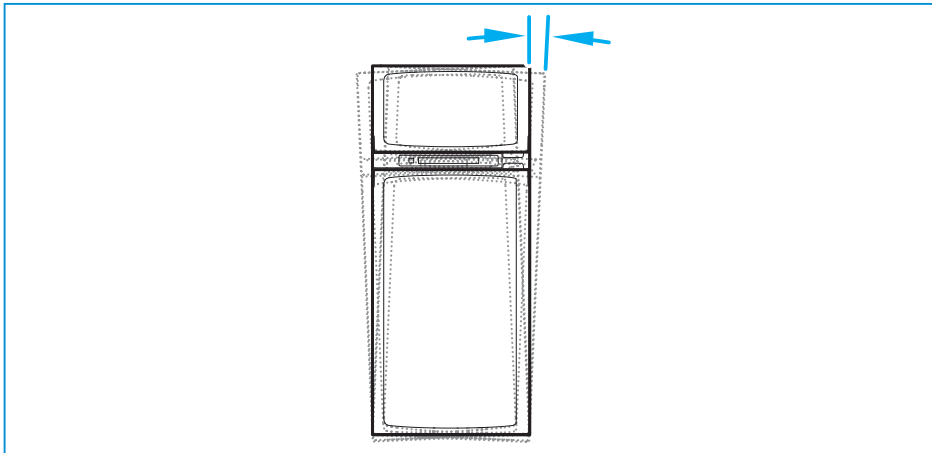
Combustion gasses will be extracted via the heat cap [1] through the upper vent, when installed properly.



For PVC tubes and/or water tubes within the sealing space, Thetford recommends using a heat shield or creating a minimum distance of 35mm [2] between heat cap and tubes.



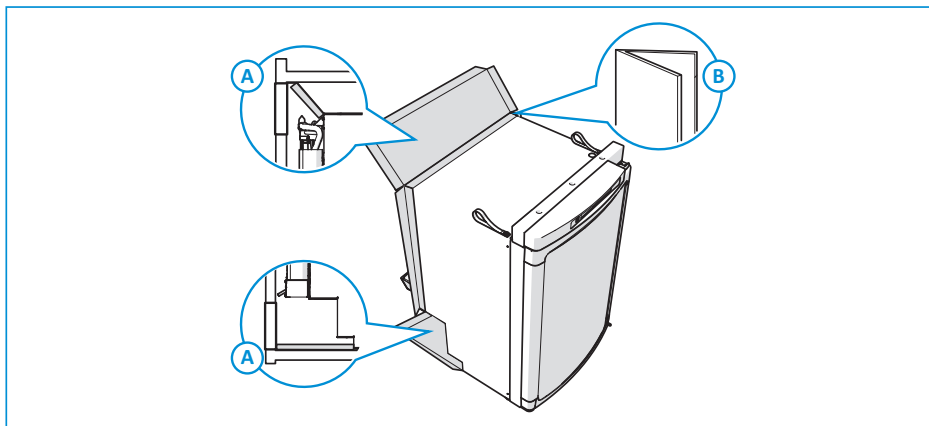
- Place the refrigerator on a flat and stable floor.
- For optimum performance the refrigerator must be level. Performance is still guaranteed within the limit of  $\pm 2.5$  degrees.



Notice that the tilt of the chassis or floor can already be a few degrees.



- Apply strips to the rear of the refrigerator to seal the refrigerator from the living area.
- Fix the strips to the sides of the refrigerator (B) in a vertical direction at the rear of the refrigerator.
- Fix the upper and lower flap of the combustion sealing (A) according to the image.



## 6. Connecting gas and electrical supplies

The refrigerator is designed for powering by liquid gas (propane, butane or a mixture of these both), 12V DC or 230V AC. These are the values of the gas and electrical supplies.



Install the electrical and gas connections in such a way that wires can't come into contact with hot or sharp parts.

**Table 2: Gas**

Category	C11
Gas type	I <sub>3+</sub> (G30: 28-30/G31: 37 mbar) for BE, FR, EL, LU, PT, ES, GB, GR, IT I <sub>3B</sub> /I <sub>3P</sub> (G30/G31: 28-30 mbar) for DK, DE, IS, NL, SE, FI, NO Butane = G30 / Propane = G31
Diameter gas tube	8mm
Gas pressure	See the serial label inside the refrigerator (behind the vegetable bin or on the left side underneath the freezer) for pressure settings of the gas pressure control

**Table 3: AC**

AC	230V
Operating window	220-250V/ 50-60Hz
Fuse	2A slow



It is obligated to connect the AC wiring to a properly earthed power point.

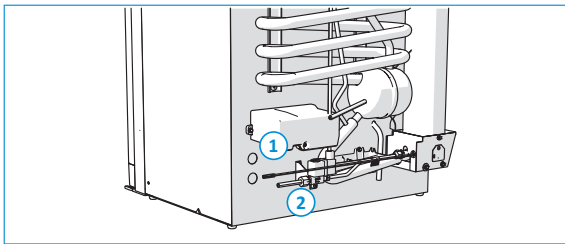
**Table 4: DC**

DC	12V
Power requirement 12V high current	12V- 14.4V at the fridge (when 12V heaters are enabled)
Cable dimensions (Cable thickness vs cable length)	<ul style="list-style-type: none"><li>■ <math>4\text{mm}^2 = &gt; 2.5\text{m}</math></li><li>■ <math>6\text{mm}^2 = &gt; 3.5\text{m}</math></li><li>■ <math>10\text{mm}^2 = &gt; 6\text{m}</math></li></ul>
Fuse high-current	20A
High current supply	red cable (+) and white cable (-) for heating element. Only switched if signal on D+
Fuse low-current	1.1A
Low current supply	purple (+) and black (-) for electronics
D+ signal	orange + when engine runs
If D+ signal is not present on vehicle	No cooling on DC/12V. Possible solution: bridge D+ with LC+



The bridge D+ with LC+ can drain the battery, when cooling on DC/12V while the engine is not running.

The connection points for gas and electricity are located at the rear of the refrigerator.



1. Electricity connection point
2. Gas connection point

- Connect a 8mm gas tube to the gas connecting point of the refrigerator.



- Use the proper vents for your refrigerator model. The correct measurements are shown in Table 5: Vent size.

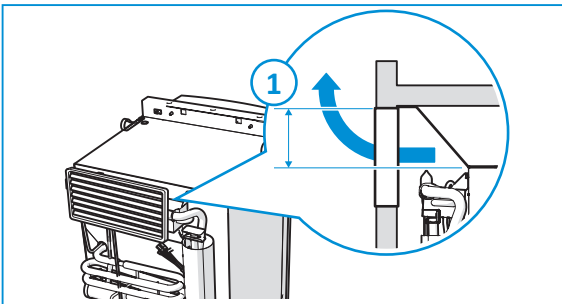
**Table 5: Vent size**

Model	186 x 483mm	257 x 432mm	281 x 523mm
N3080	X	-	-
N3090	X	-	-
N3097	X	-	-
N3100	X	-	-
N3104	X	-	-
N3108	X	-	-
N3112	X	-	-
N3141	-	X	-
N3142	-	X	-
N3145	-	-	X
N3150	-	-	X
N3170	-	-	X
N3175	-	-	X



You can buy vents at an authorised local Service Centre. For further instructions, see the installation instructions of the vents.

- Install the upper vent in the wall of the vehicle at the top of the refrigerator.



1. Vent size 186 x 483mm:  
Min. 110mm

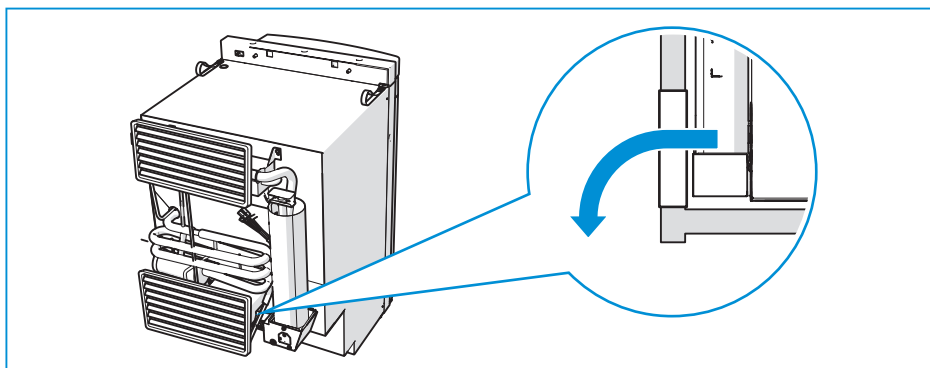
Vent size 257 x 432mm:  
Min. 135mm

Vent size 281 x 523mm:  
Min. 175mm

- Install the lower vent in the wall of the vehicle on the floor level behind the power board.

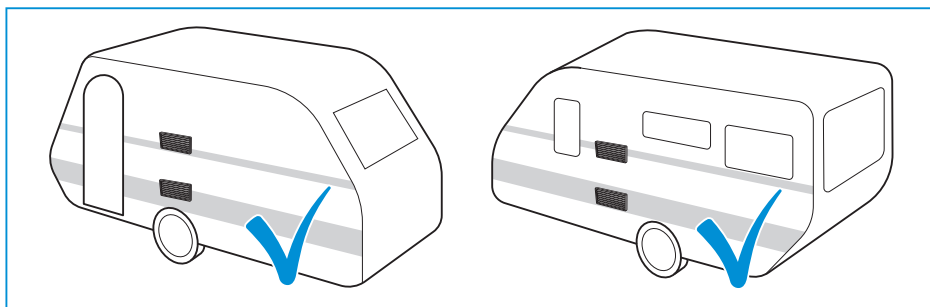


This vent is also used for periodical maintenance or repairs of the refrigerator.

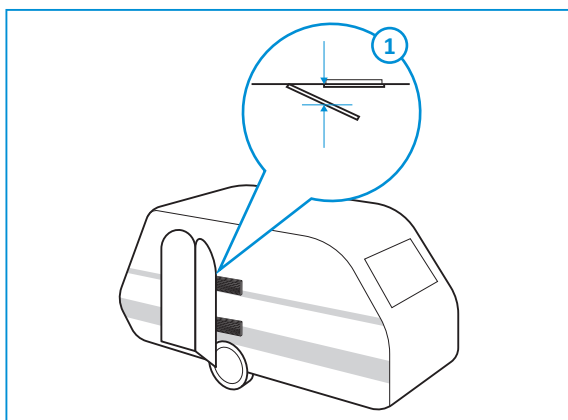


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- The recommended installation is when the vents are not covered.



- When installation is next to the caravan door, make sure that there will be at least a 25mm distance between the vents and the door.

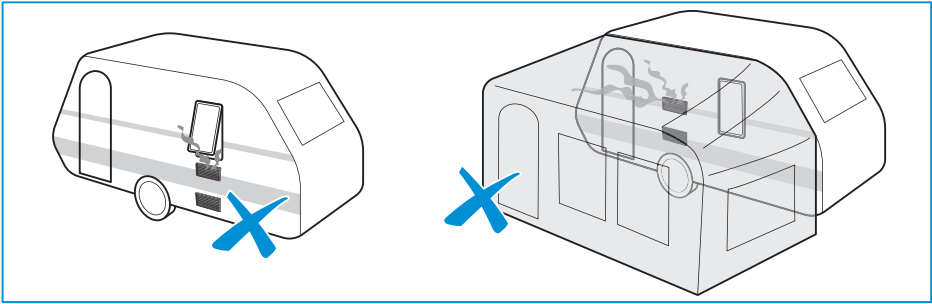


1. Min. 25mm



Make sure vents cannot be blocked by the door or other objects. An insufficient air supply can result in incomplete combustion, the forming of carbon monoxide and reduction of cooling performance.

- Make sure that combustion gases can not enter the living area.



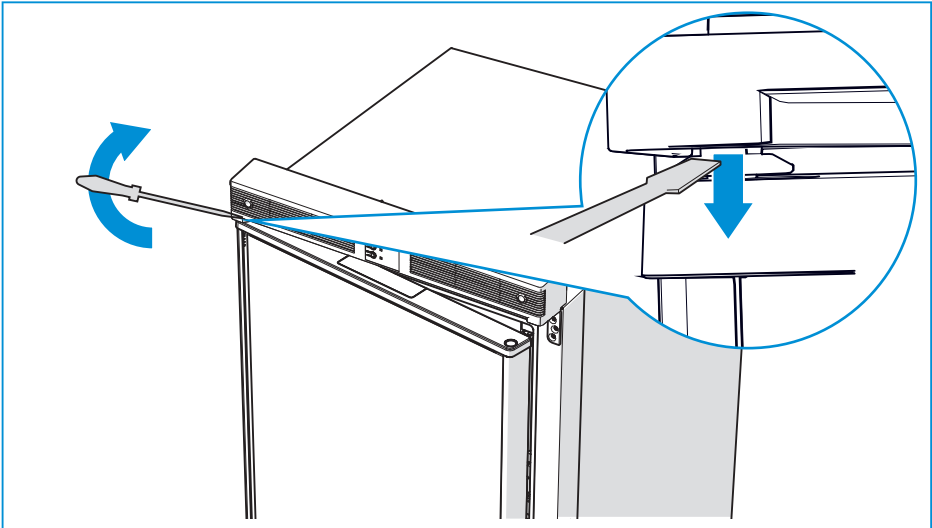
## 8. Door conversion

### Only for N3141/N3142

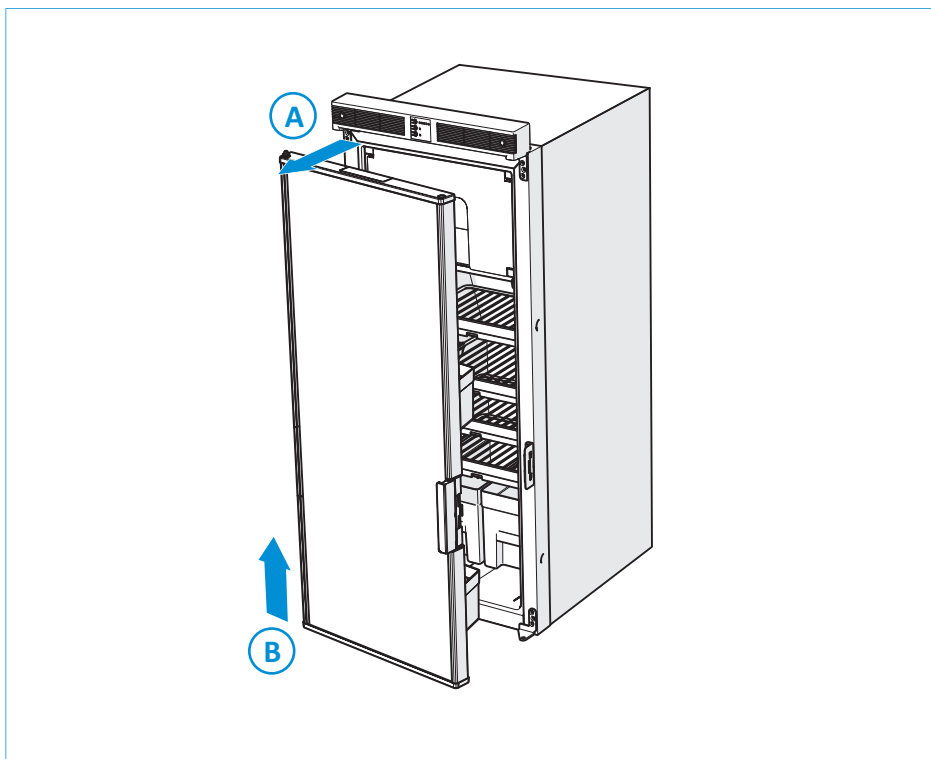


Images may differ from your model.

- Open the door a little and remove the hinge pin.

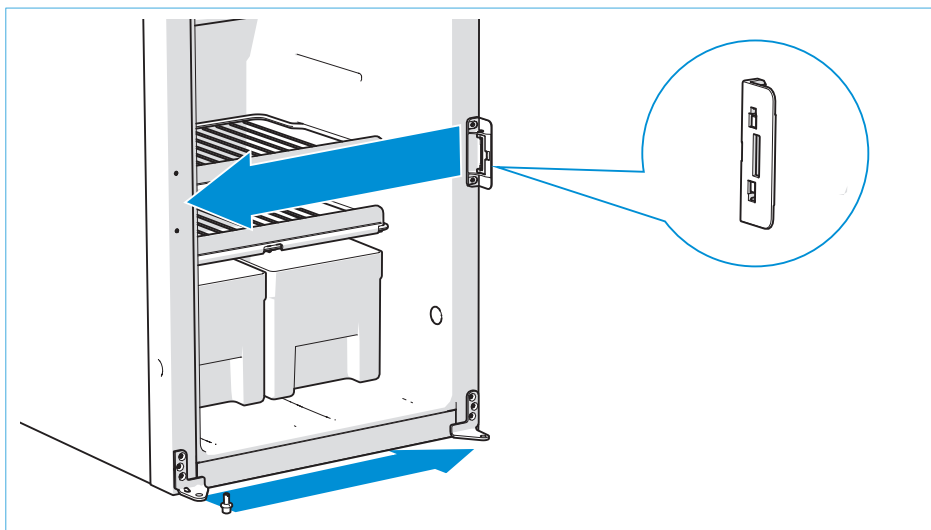


- Lift the door out of the hinges.

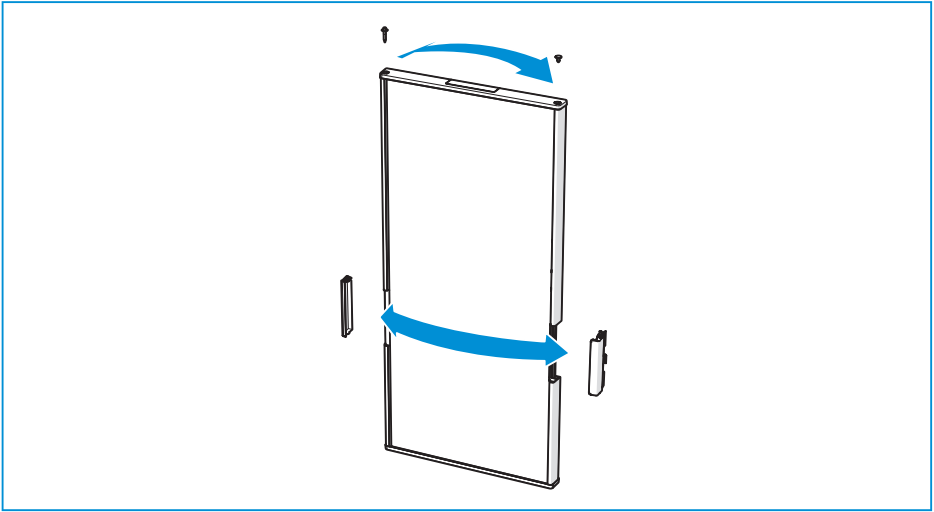


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- Move the lock on the refrigerator from one side to the other.



- Move the hinges, handle, hinge pin and hinge hole plug from one side to the other on the door.



### For other models

For instructions to convert the door on the other models, refer to the installation instructions supplied with the door conversion kit.

## 9. After installation

- Ensure that all packaging materials have been removed.
- Test all gas piping and connections and make sure they do not leak.
- Check all electrical connections.
- Check if the sealing has been applied correctly.
- Check if the vegetable bins can be removed from the appliance.
- Check if the door can be closed correctly.
- Check for correct operation.



## 10. Technical specifications

Table 6: Refrigerator specifications

Model	Display	Total volume (L)	Volume freezer (L)	Energy consumption (kWh/24h)	Energy consumption gas (g/24h)	Net weight (kg)
N3080	LED	81	10	2.4	240	22.5
N3090	LED or LCD	89	11	2.6	270	22.5
N3097	LED or LCD	96	11	2.6	270	23.5
N3100	LED or LCD	97	11	2.8	330	27
N3104	LED or LCD	105	11	2.8	330	27
N3108	LED or LCD	106	14	2.6	270	24
N3112	LED or LCD	113	14	2.6	270	24
N3141	LED, LED+ or LCD	141	15	3.9	400	38
N3142	LED, LED+ or LCD	142	15	3.9	400	37
N3145	LED or LCD	141	23	4.0	420	37
N3150	LED or LCD	149	25	4.0	420	37.5
N3170	LED or LCD	167	29	4.0	420	39
N3175	LED or LCD	175	31	4.0	420	39.5

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Average energy consumption at an ambient temperature of 25°C.

## 11. Servicing

All servicing must be carried out by an authorized person. Before any service work is started, the appliance must be disconnected from both the gas and the electrical supplies. After each service the appliance must be checked for gas soundness and must be sealed from the living area.

For service, please contact your authorised local Service Centre giving details of the model and serial number on the data badge plus date of purchase.

# THETFORD

Model No .....

Type **C 11**

**e4**



Serie No .....

Climate Class **SN**

03 1887

0063

230 VAC / 50 - 60 Hz / 153 W 12 VDC / 140 W

IP 20

130112

Gross Volume Brutto Volume Volume Brut Bruto Volume	108 L	Qn 278 W (HS) m 20 g/h
Freezer Volume Gefrierfach Volume Volume Congelat Volume Vriesvak	14 L	I3+ G30/G31: 28-30/37 mbar I3B/P G30/G31: 30 mbar
Net Volume Netto Volume Volume Net Netto Volume	102 L	 E013N1000611
CE 0063 BN3297	Part No	634607
ABSORBER NH3 = 154.9 g	NA2CR04 = 10.1 g	p max = 21 bar
		620019 0020_SerialFridge_EUR

## 12. Questions / customer service

- Visit [www.thetford.com](http://www.thetford.com).
- Contact Customer Service Thetford in your country. See the addresses on the back.

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