



# **N3000 series**

Installation Manual

Australian market

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## 1 Introduction

This Thetford appliance is specially developed for caravans and motorhomes. We advise you to read the manual before installing the appliance. It provides you with the necessary information for correct and safe installation of the Thetford appliance. Not all sections of this manual are relevant for all appliances. Make sure you completely read the parts of the manual that are relevant for your appliance. Keep this manual in a safe place for future reference.

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

### Symbols used



Caution [possible risk of injury or product damage].



Attention. Important information.

### Safety instructions

#### General



Before installing a Thetford N3000 series refrigerator, you need to observe the underneath precautions and general recommendations.

Improper installation, adjustment, alteration, service or maintenance can cause personal injury or property damage. Refer to this manual. For assistance or additional information, contact a qualified installer, service agency or the gas supplier.

- Do not install this refrigerator in below deck marine applications or in fixed indoor cabin or other dwelling applications. This refrigerator is made for use in RV and towable applications, and is correct for camping use.
- Do not install the refrigerator directly on carpet. Put the refrigerator on a metal or wood panel that extends the full width and depth of the refrigerator.
- The refrigerator is designed for powering by LP gas, 12V DC or 240V AC.
- Never open, damage, bend, drop, weld, move, drill, puncture, or hit the cooling device at the rear of the refrigerator. The cooling system is pressurised and contains substances harmful to health. The cooling system contains sodium

chromate. The breathing of certain chromium compounds can cause cancer. The cooling system contents can cause severe skin and eye burns, and can ignite and burn with an intense flame.

#### Installation



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




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

- Install the refrigerator in accordance with the local/national laws;
- Do not bypass or change the refrigerator's electrical components or features;
- Never expose the refrigerator to water or moisture, or 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;
- The electrical connections and gas components must be installed in accordance with the latest technical regulations;
- There are sharp edges and corners at the rear of the refrigerator and the installation frame. Always wear protection against cuts when installing the refrigerator.
- 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 AS NZS 5601. 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;
- Make sure that no sawdust, insulation, or other construction debris is on the refrigerator or in the enclosure. Debris can cause a combustion hazard and prevent the refrigerator from operating correctly;
- The performance of the refrigerator may be affected by adjacent heat sources such as an oven or stove. Make sure the refrigerator is completely isolated from its heat generating components through the correct use of baffles and panel construction;
- The refrigerator must be installed in a way that allows easy access for maintenance and repairs.

## Ventilation


- This refrigerator must use only Thetford designed and approved outside air intake and exhaust ventilation for correct and safe operation. Any other ventilation could cause lethal combustion exhaust fumes and/or explosive LP gas fumes to be in the living area and/or to be below deck;
- To cool the system and to supply the burner with sufficient airflow, make sure that there is always sufficient ventilation through the outside vents;
- Make sure there is sufficient intake of fresh air for combustion;
- Make sure the bottom of the opening of the lower intake vent is even with or immediately below the floor level. This allows any leaking LP gas to escape to the outside and not to collect at floor level.


## Maintenance

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

- Disconnect all energy sources before you remove the refrigerator or do servicing to the refrigerator;
- Never reposition or change the electronic or gas components or parts.

## Use of LP 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.

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

- The refrigerator only runs on LP gas. It does not run on natural gas or coal gas;
- The gas pipe has to be installed free of tension. Always use two wrenches to tighten or loosen the gas supply line connections;
- Combustion gases must always be discharged upwards;
- Do not store or use gasoline or other flammable vapours and liquid in the vicinity of this or any other appliance;

- If you smell gas directly close the valve of the gas bottle, extinguish any naked flames, do not switch on any electrical devices or lighting, open the windows and leave the room. Then contact the Customer Service Department in your country.

## Standards/legislation

AGA 8085 G / 8087 EA • AS 4555/AG 105-2002 (inc. Amendment 1) • AS/NZS 60335.1-2011 (inc. Amendments 1, 2 & 3) • AS/NZS 60335.2.24-2010 (inc. Amendments 1 & 2)

## Content of the box


refrigerator • installation instructions • user manual • ice cube tray • fixation screws + white caps

## 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.

## Identification code

THETFORD		Type	CE	RoHS	WEEE
Model No.	300 VAC • 50 Hz • 300 W	Climate Class	C 12	EN 300	EN 300
Serial No.	300 VAC • 50 Hz • 300 W	12 VDC • 300 W	WPS	101211	
Gas Volume	177 L	Gas	418 W		
		in	30.7 g/h		
		Gas consumption	1.5 kg/h		
Certificate of compliance	For universal LP gas use only				
AGA 8085 G/EA	up to 2.75 MPa				
					
CE mark EN300		Part No. 8085/2			
AGASERIES 8085 • 300.5 g		NAGASERIES 12.5 g			
		p max = 24 bar			
		8085_Serial fridge_AUS			

Each refrigerator has a specific identification code, which you can find on the serial label inside the refrigerator behind the vegetable bin. The first 5 characters will be used for further reference, for example N3185.

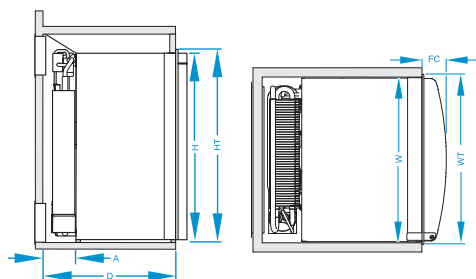
## 2 General dimensions & model information

Model	Display	Dimensions HxWxD (mm) *	Gross volume (L)	Volume freezer (L)	Gas usage (MJ/h)	Net weight (kg)	Door panel size HxW (mm)	Door panel thickness (mm)
N3185	LED+ or LCD	1250x546x628	177	31	1,5	39	876x469 + 275x469	3

\* Depth inclusive door

### Refrigerator enclosure

#### Dimensions (mm)



Model	HT	H*	WT	W**	D	A***	FC
N3185	1250	1245	546	531.5-534	585-620	135 - 170	78

\* Maintain a minimum distance of 15mm from the floor

\*\* If there is more than 13 mm of clearance between either side of the refrigerator and the wall, fill the space with fiberglass insulation or add a baffle to eliminate the excess clearance

\*\*\* For further instructions, please refer to page 9 "Installation of the refrigerator"

#### Floor

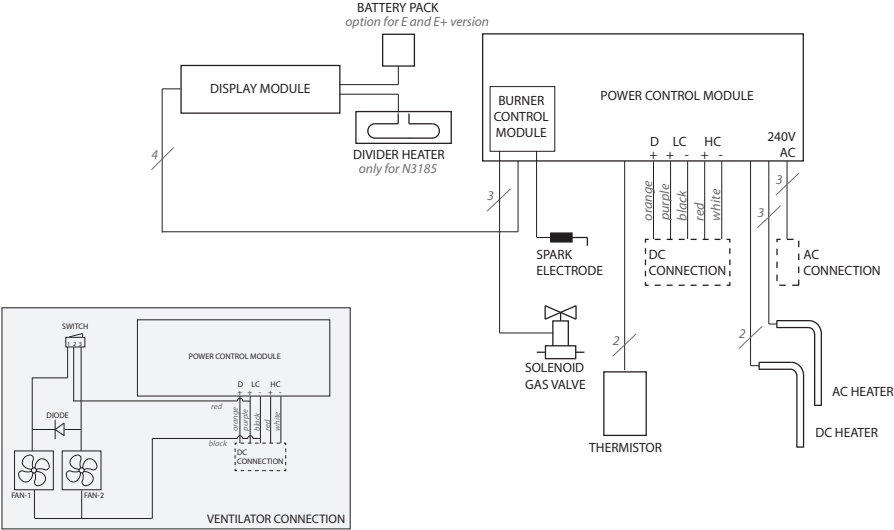
Make sure the floor is solid and level. The floor must be metal or wood plate and extend the full length and width of the enclosure. The floor must be able to support the weight of the refrigerator and its contents.

#### Heat sources


Make sure there are no adjacent heat sources such as a furnace vent or a hot heater vent.

### 3 Power supply

#### MAIN CONNECTIONS



The electrical connections have to comply with AS/NZS 60335.1. All electrical components must be in accordance with the latest technical regulation. Only a qualified person is allowed to install the electrical and gas connections, in such a way that wires can't come into contact with hot or sharp parts. Cables, except heater cables, should not touch the burner box.

 D+ is an "engine run" signal that is only present while the engine of the tow vehicle is running. Additional information with recommended wire schemes is available upon request.

Gas	The gas connection has to comply with AS4555	
Gas type	Gas pressure	For universal LP gas use only 2,75kPa
Diameter gas tube	3/8 inch	
AC/240V	It is obligated to connect the AC wiring to a properly earthed power point.	
Operating window	220-250V / 50Hz	
Fuse	2A slow	
DC/12V	These models have 2 connection points to prevent the battery from being discharged by the refrigerator when the engine is not running	
Power requirement	12V-14.4V at the fridge	

Cable dimensions (preferred)	<2.5m: 4mm <sup>2</sup> <3.5m: 6mm <sup>2</sup> <6m: 10mm <sup>2</sup>
Fuse high-current	20A
High current supply	red cable (+) and white cable (-) for heating element. Only switched if signal on D+
Low current supply	purple (+) and black (-) for electronics
D+ signal	orange, + when engine runs
D+ signal not present on vehicle	No cooling on DC/12V possible. Additional information with recommended wire schemes is available upon request.

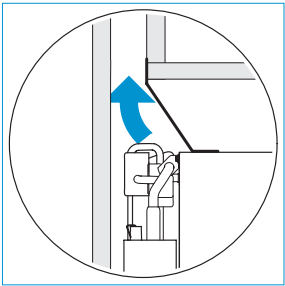
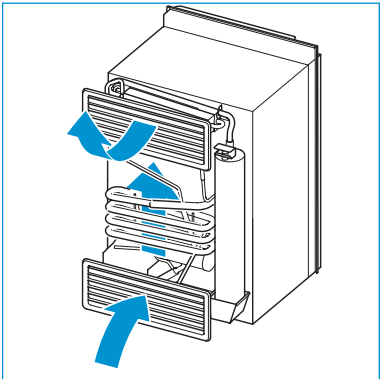
4 Ventilation

The refrigerator performance depends on good ventilation. Thetford has several vents available. The choice depends on the refrigerator model used. Use the table below to define the correct vents.

	<b>N3185</b>
Top vent	Large vent
Bottom vent	Large vent

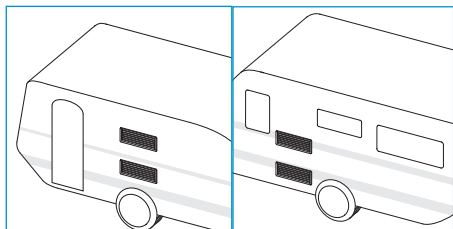
### Working principle

Ventilation takes place through two vents in the wall of the vehicle. Ventilation can also take place by means of a bottom vent and a roof vent. Cold air comes in through the lower vent, passes the cooling unit and leaves hot through the upper vent (chimney effect).

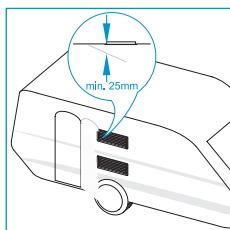


## Position

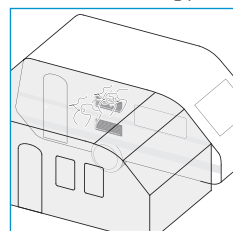
**Recommended:** The recommended installation is when the vents aren't covered.



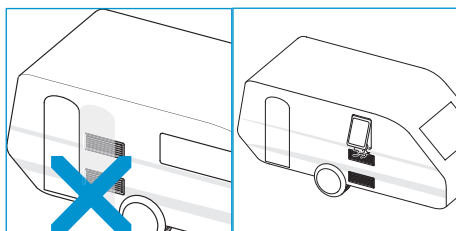
**Good:** When installation is next to the caravan door, make sure that there will be at least a 25mm distance between the vents and the door.



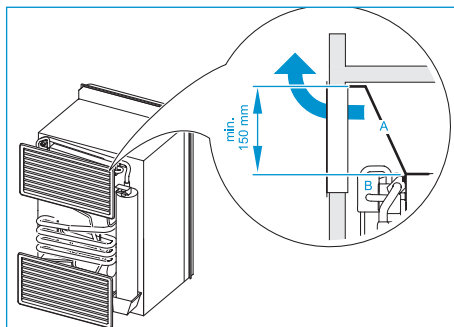
**Wrong:** Make sure vents can't be blocked. An insufficient air supply can result in incomplete combustion, the forming of carbon monoxide and reduction of cooling performance.



**Not recommended:** The installation is not recommended, when combustion gases may enter the living area.




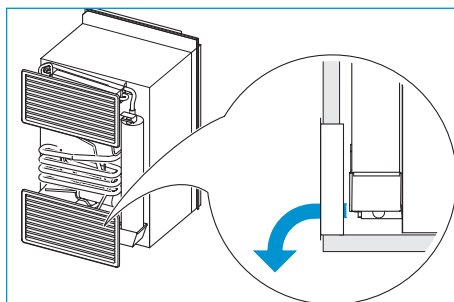
**Upper vent:** Ventilation can be achieved through installation of an upper vent.



- 1 The vent must be installed at a minimal distance of 150mm from the top of fridge to the top of vent. This way, the top of the condensor [B] is in line with the bottom of the upper vent.
- 2 To prevent stagnant hot air in the area above the refrigerator a combustion flap [A] must be installed between the top of the refrigerator and the top of the upper vent.
- 3 Combustion gases will be extracted via the upper vent. Additional installation instructions are available for the connection of an independent flue kit.

**Lower vent:** This vent must be positioned behind the burner box and the power board. This vent is also used for periodical maintenance or repairs to the refrigerator.

 If the lower vent is not on floor level, make sure all unburned gas will go to the outside [for example via a hole in the floor].



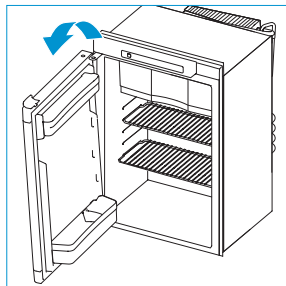


## 5 Installation

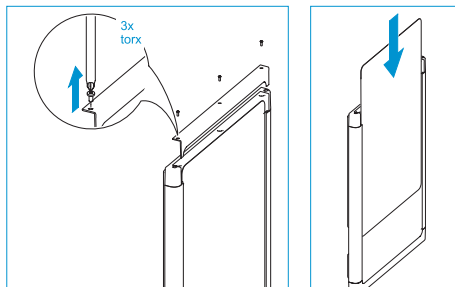
### Installation of the door panels

A door panel for a framed door should be fitted before installing the refrigerator

- 1 Demount the refrigerator door and freezer door from the refrigerator.



- 2 Remove the panel retainers and slide the door panels into the holders.



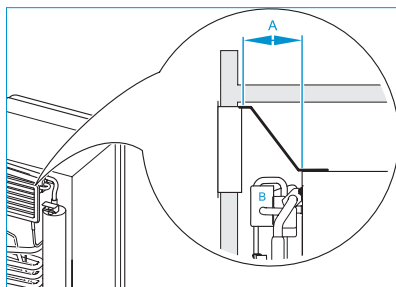
- 3 Replace the panel retainers and place the door back on the cabinet.

### Installation of the refrigerator



The refrigerator must be installed in a completely air-tight sealed place from the living area of the vehicle. If the sealing is not complete, exhaust fumes can be present in the living area of the vehicle. The breathing of exhaust fumes can cause dizziness, nausea, or in extreme cases, death.

- 1 For optimal performance it is important to make sure that the air flow will entirely go through the condensor (B) of the refrigerator. Please follow the underneath instructions for safeguarding an optimal performance.

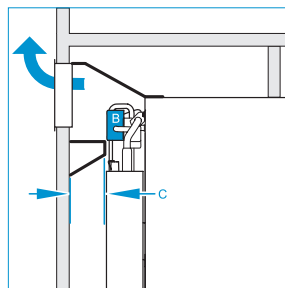


#### Option 1:

Dimension A =  $135 \pm 5\text{ mm}$   
No baffle needed.

#### Option 2:

Dimension A =  $140 < A < 170$



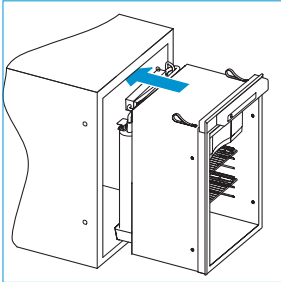
Baffle (C) needed. Baffle dimension:

Dimension A (mm)	Dimension C (mm)
140 - 150	30
150 - 160	40
160 - 170	50

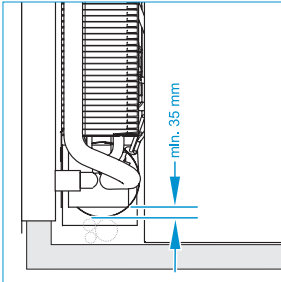
- 2 Push the refrigerator into the enclosure until the installation frame touches the furniture.



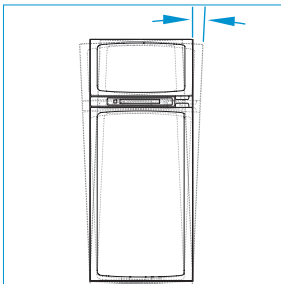
The foam tape at the back of the installation frame is isolation foam strip only!



- 3 For PVC tubes and/or water tubes within the sealing space, Thetford recommends using a heat shield or creating a minimal distance between exhaust pipes and tubes.



- 4 For optimum performance the refrigerator must be level. Performance is still guaranteed within the limits shown above. Tilt of the chassis or floor of the vehicle can already be a few degrees.

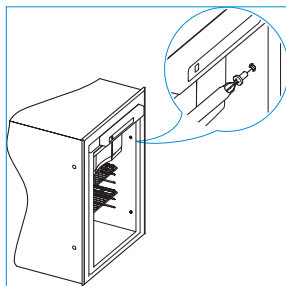


Nominal: 0°  
(level)  
Tolerance:  
 $\pm 2.5^\circ$

- 5 Use 6 screws to fixate the refrigerator, place the white caps for finishing.



It is not allowed to screw into the fridge cabinet. If needed, please contact Thetford for further assistance.



- 6 Connect the electrical components (see page 6 for further details)
- 7 Connect the LP gas components (see page 6 for further details)

*Thetford is not responsible for printing errors and reserves the right to make changes to product specifications without notice.*

**AUSTRALIA**

Thetford Australia Pty. Ltd.  
41 Lara Way  
Campbellfield VIC 3061  
Australia

T +61 3 9358 0700  
F +61 3 9357 7060  
E [infoau@thetford.eu](mailto:infoau@thetford.eu)  
[www.thetford.com.au](http://www.thetford.com.au)

**EUROPEAN HEADQUARTERS**

Thetford B.V.  
Nijverheidsweg 29  
P.O. Box 169  
4870 AD Etten-Leur  
The Netherlands

T +31 76 504 22 00  
F +31 76 504 23 00  
E [info@thetford.eu](mailto:info@thetford.eu)

**UNITED KINGDOM**

Thetford Ltd.  
Unit 6  
Brookfields Way  
Manvers, Rotherham  
S63 5DL, England  
United Kingdom

T +44 844 997 1960  
F +44 844 997 1961  
E [info@thetford.eu](mailto:info@thetford.eu)

**GERMANY**

Thetford GmbH  
Schallbruch 14  
D-42781 Haan  
Deutschland

T +49 2129 94250  
F +49 2129 942525  
E [infod@thetford.eu](mailto:infod@thetford.eu)

**FRANCE**

Thetford S.A.R.L.  
Parc BUROPLUS / Bâtiment 6  
18, Boulevard de la Paix  
CS 80008  
95895 CERGY PONTOISE CEDEX  
France

T +33 1 30 37 58 23  
F +33 1 30 37 97 67  
E [infof@thetford.eu](mailto:infof@thetford.eu)

**ITALY**

Thetford Italy c/o Tecma s.r.l.  
Via Flaminia  
Loc. Castel delle Formiche  
05030 Otricoli (TR)  
Italia

T +39 0744 709071  
F +39 0744 719833  
E [infoi@thetford.eu](mailto:infoi@thetford.eu)

**SPAIN AND PORTUGAL**

Mercè Grau Solà  
Agente para España y Portugal  
c/ Castellet, 36 bxs 2ª  
08800 Vilanova i la Geltrú  
Barcelona  
España

T +34 938 154 389  
F not available  
E [infofp@thetford.eu](mailto:infofp@thetford.eu)

**SCANDINAVIA**

Thetford B.V.  
Representative Office  
Scandinavia  
Hantverkaregatan 32D  
521 61 Stenstorp  
Sverige

T +46 31 336 35 80  
F +46 31 44 85 70  
E [infos@thetford.eu](mailto:infos@thetford.eu)

**CHINA**

Thetford China  
Rm. 1207, Coastal Building (East Block)  
Haide 3<sup>rd</sup> Road, Nanshan District  
Shenzhen 518054  
China

T +86 755 8627 1393  
F +86 755 8627 1673  
E [info@thetford.cn](mailto:info@thetford.cn)  
[www.thetford.cn](http://www.thetford.cn)