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**FOR SERVICE CENTER
ASSISTANCE**
CALL: 800-544-4881



**RECORD THIS INFORMATION FOR FUTURE REFERENCE
BEFORE INSTALLING THE UNIT:**

Model No. _____ Serial No. _____
Product No. _____
Date Purchased _____ Place of Purchase _____

REFRIGERATOR MODEL**RMD 8501****RMD 8505****RMD 8551****RMD 8555**

**For Mobile Home or Recreational Vehicle
Installation**

Operation by LP Gas, 12V DC or 120V AC

FOR CHILD SAFETY!

DANGER: Risk of child entrapment. Before you throw away your old refrigerator: Take off the doors, leave the shelves in place, so that children may not easily climb inside.

FOR YOUR SAFETY

If you smell gas:

1. Shut off gas supply at main valve.
2. Open windows.
3. Don't touch electrical switches.
4. Extinguish any open flame.
5. Immediately call your gas supplier.

WARNING!

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

FOR YOUR SAFETY!

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

AVIS!

Cet appareil doit être réparé seulement par un réparateur autorisé. Modification de l'appareil pourrait être extrêmement dangereuse, et pourrait causer mal ou mort.

INSTALLATION INSTRUCTIONS**REFRIGERATOR
MODEL****RMD 8501****RMD 8505****RMD 8551****RMD 8555**

Dometic Corporation
LaGrange, IN 46761
USA

**IMPORTANT INSTRUCTIONS
READ CAREFULLY**

289 0458 13
10/2014



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For your safety



WARNING!

The appliance may be installed by authorised personnel only!



WARNING!

Protect children:

When disposing of the old refrigerator, detach all refrigerator doors and leave the storage racks in the refrigerator. In this way inadvertent entrapment and suffocation is prevented.



DANGER !



Never use an unshielded flame to check gas bearing parts and pipes for leakage!

There is a danger of fire or explosion.



WARNING!

Never open the absorber cooling unit! It is under high pressure.

There is a danger of injury!



WARNING!

Work on gas equipment, exhaust system and electrical facilities must be carried out by authorised personnel only. Substantial damage to property and/or injury to persons can arise through unprofessional procedures.



DANGER!

Pay attention to clean and residue-free workmanship if silicone sealing compound or similar is used .

There is a danger of fire if silicone threads come into contact with hot parts or an open flame.



CAUTION!

It is imperative that the operating pressure of the pressure reducer on the gas system corresponds to the data specified on the rating plate of the refrigerator.

If the values are different, the appliance can be damaged and a dangerous situation can be produced.



CAUTION!

If the connection cable is damaged it must be replaced by the Customer Service at Dometic, or by respectively qualified personnel, in order to prevent any hazards.

CAUTION!

The refrigerator must not be exposed to rain.



Unpacking and transport

Lifting / carrying the refrigerator

CAUTION!

Never use parts on the refrigerator other than those shown in the illustration (particularly not the cooling unit, gas lines and control panel) for carrying or lifting the refrigerator !

This prevents damage to the refrigerator.

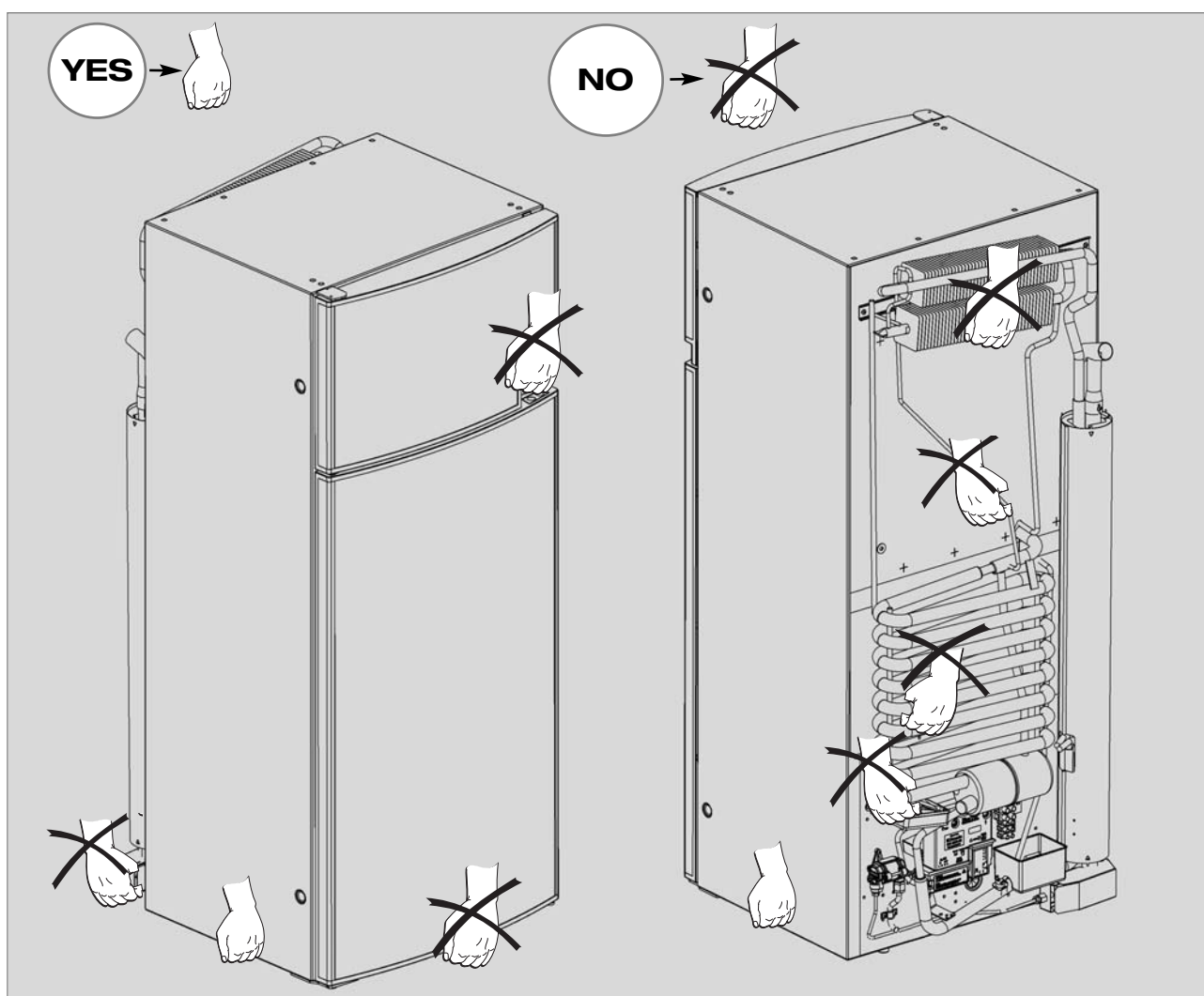


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1.0 General

1.1 Introduction

On installation of the appliance, the technical and administrative regulations of the country in which the vehicle will first be used must be adhered to. Otherwise the refrigerator must be installed as described in these instructions.

1.2 Guide to these installation instructions

Before you start installing the refrigerator, please read the installation instructions carefully.

These instructions provide you with the necessary guidance for the proper installation of your refrigerator. **Observe in particular the safety instructions.** Observation of the instructions and handling recommendations is important for dealing with the refrigerator safely and for protecting you from injury and the refrigerator from damage. You must understand what you have read before you carry out a task.

Keep these instructions in a safe place close to the refrigerator so they may be referred to at any time.

1.3 Copyright protection

The information, texts and illustrations in these instructions are copyright protected and are subject to industrial property rights. No part of these instructions may be reproduced, copied or utilised in any other way without written authorisation by Dometic.

1.4 Explanation of symbols used in this manual

Warning notices

Warning notices are identified by symbols. A supplementary text gives you an explanation of the degree of danger.

Observe these warning notices rigorously. You will thus protect yourself and other people from injury, and the appliance from damage.



DANGER!

DANGER indicates an imminent hazardous situation which, if not avoided, could result in death or serious injury.



WARNING!

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury



CAUTION!

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury

CAUTION!

CAUTION (used without the safety alert symbol) indicates a potentially hazardous situation which, if not avoided, may result in damage to the appliance.

Information



INFORMATION gives you supplementary and useful guidance when dealing with your refrigerator.

Environmental Tips



ENVIRONMENTAL TIPS gives you useful guidance for saving energy and disposal of the appliance.

1.5 Warranty

Warranty arrangements are in accordance with the normal conditions applicable for the country concerned. For warranty or other maintenance, please contact our customer services department. Any damage due to improper use is not covered by the warranty. The warranty does not cover any modifications to the appliance or the use of **non-original Dometic** parts. The warranty does not apply if the installation and operating instructions are not adhered to and no liability shall be entertained.



Deviations from these installation instructions without prior notification of Dometic result in Dometic's warranty obligations becoming void!

1.6 Limitation of liability

All information and guidance in these operating instructions were prepared after taking into consideration the applicable standards and regulations as well as the current state of the art. **Dometic** reserves the right to make changes at any time which are deemed to be in the interest of improving the product and safety.

Dometic will assume no liability for damage in the case of :

- non-observation of the operating instructions
- application not in accordance with the regulations or provisions
- use of non-original spare parts
- modifications and interferences to the appliance

1.7 Environmental notices



Refrigerators manufactured by Dometic GmbH are free of CFC/HCFC and HFC. Ammonia (a natural compound of hydrogen and nitrogen) is used in the cooling unit as a coolant. Non-ozone-hazardous cyclopentane is used as a propellant for manufacturing PU foam insulation.

Disposal

In order to ensure that the recyclable packaging materials are re-used, they should be sent to the customary local collection system.

2.0 Safety instructions

2.1 Application according to regulations

This appliance is designed for storage of food and storage of frozen food and making ice. The refrigerators outlined herein have been design certified by CSA under ANS Z21.19 / CSA 1.4 Refrigerator Standard for installation in a mobile home or recreational vehicle.

The refrigerator is to be used solely for storing foodstuffs.

CAUTION!

The refrigerator must not be exposed to rain.

2.2 User's responsibility

Anyone operating the refrigerator must be familiar with the safe handling and understand the advice in the operating instructions (part no. 289 0457-13).

2.3 Working upon and checking the refrigerator



WARNING!

Work on gas equipment, exhaust system and electrical facilities must be carried out by authorised personnel only. Substantial damage to property and/or injury to persons can arise through unprofessional procedures.



DANGER!



Never use an unshielded flame to check gas bearing parts and pipes for leakage!

There is a danger of fire or explosion.



WARNING!

Never open the absorber cooling unit! It is under high pressure.

There is a danger of injury!

2.4 Operating the refrigerator with gas

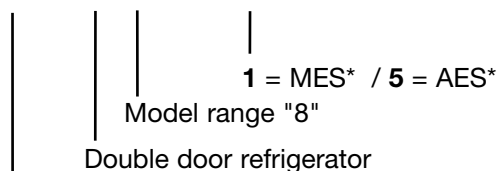
It is imperative that the operating pressure corresponds to the data specified on the rating plate of the appliance. Compare the operating pressure of the rating plate with the data specified on the pressure reducing valve of the liquid gas cylinder.

3.0 Description of model

3.1 Model identification

Example :

RM D 8 5 5 1



Refrigerator Mobile /
Mobile Absorption Refrigerator

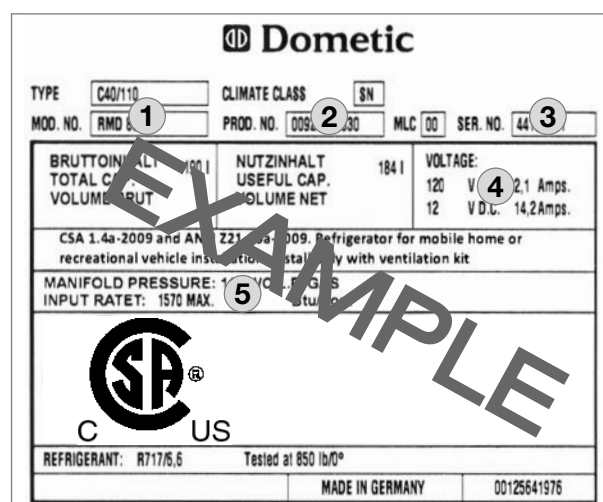
*

1 = manual energy selection, automatic ignition
(MES)

5 = automatic and manual energy selection,
automatic ignition (AES)

3.2 Refrigerator rating plate

The rating plate is to be found on the inside of the refrigerator. It contains all important details of the refrigerator. You can read off from this the model identification, the product number and the serial number. You will need these details whenever you contact the customer service centre or when ordering spare parts.



Example

Fig. 1

- 1 Model number
- 2 Product number
- 3 Serial number
- 4 Electrical rating details
- 5 Gas pressure

3.3 Technical data

Model	Dimensions H x W x D (inches) Depth incl. door	Gross capacity (Cu.ft.) freezer compartm.	Rating details mains/battery	Consumption * electricity/gas over 24hrs	Net weight	Ignition Piezo	Automat
RMD 8501	49x20.6x22.32	5.65 1.06	250 W / 170 W	ca.4.2 KWh / 15.5 oz	88.2 lb		•
(mm) (lit.)	1245x523x567	160 30		440g	40 kg		
RMD 8505	49x20.6x22.32	5.65 1.06	250 W / 170 W	ca.4.2 KWh / 15.5 oz	88.2 lb		•
(mm) (lit.)	1245x523x567	160 30		440g	40 kg		
RMD 8551	49x20.6x24.50	6.71 1.23	250 W / 170 W	ca.4.2 KWh / 15.5 oz	91.5 lb		•
(mm) (lit.)	1245x523x622	190 35		440g	41.5 kg		
RMD 8555	49x20.6x24.50	6.71 1.23	250 W / 170 W	ca.4.2 KWh / 15.5 oz	91.5 lb		•
(mm) (lit.)	1245x523x622	190 35		440g	41.5 kg		

Subject to technical changes.

*Average consumption measured at an average ambient temperature of 77°F (25°C) in pursuance of ISO Standard.

4.0 Installation instructions

4.1 Installation



WARNING!

The appliance may be installed by authorised personnel only!

The refrigerators outlined herein have been design certified by CSA under ANS Z21.19 / CSA 1.4 Refrigerator Standard for installation in a mobile home or recreational vehicle. The certifications are, however, contingent on the installation being made in accordance with the following instructions as applicable.

In the U.S.A., the installation must conform with:

- **National Fuel Gas Code ANSI Z223.1 - (latest edition)**
- **Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280**
- **Recreational Vehicles ANS A119.2 - (latest edition)**

The unit must be electrically grounded in accordance with the National Electric Code ANS / NFPA 70 - (latest edition) when installed if an external alternating current electrical source is utilized.

- **Any applicable local code.**

In Canada., the installation must conform with:

- **Current CSA B 149.1 Natural Gas and Propane Installation Code**
- **Current CSA Standard Z 240.4 GAS-EQUIPPED RECREATIONAL VEHICLES AND MOBILE-HOUSING**
- **Any applicable local code.**

The unit and the exhaust duct system must be in principle installed so that it is accessible for maintenance work, can be easily installed and dismantled and removed from the vehicle without great effort.

CAUTION!

The appliance shall be installed in such a way that it is shielded from excessive heat radiation.

4.1.1 Side installation with ventilation grilles

If possible, do not install the refrigerator on the side of the entrance door. An awning or a caravan annex tent is often installed on this side. This complicates evacuation of combustion gases and heat through the ventilation grilles (loss in cooling performance)!

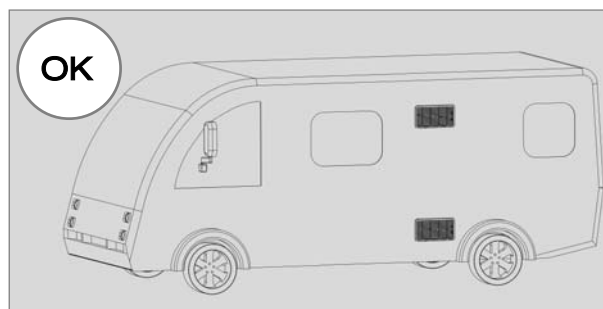


Fig. 2

If the refrigerator is installed on the same side of the vehicle as the entrance door, it is desirable that the door does not cover the refrigerator's vents. Otherwise ventilation could be impaired which causes a loss in cooling performance.

There must be a distance between the door and the air vents of at least 0.98" (25 mm) (Fig. 4).

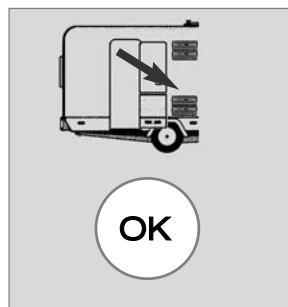


Fig. 3

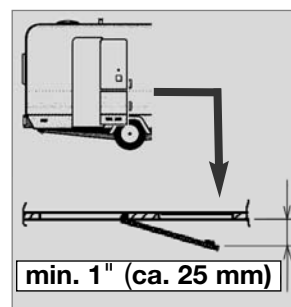


Fig. 4

If the door/grille distance is between 0.98" (25 mm) and 1.77" (45 mm), we recommend installing a **Dometic ventilation kit (item no. 241 2985 - 01)** to achieve an optimal cooling performance in high ambient temperatures.

4.1.2 Rear installation

Rear installation often causes an unfavourable installation arrangement, as ideal ventilation cannot always be assured (e.g. the ventilation grilles are covered by installed accessories such as bike racks!) The maximum cooling performance of the aggregate is actually not available.

An unfavourable method of rear installation is to install the refrigerator lateral to the ventilation grilles (Fig. 5). The air-heat recirculation is very restricted which means that heat exchangers (condenser, absorber) cannot be adequately cooled. The optional method of an additional air vent grille installed in the floor also exhibits an insufficient air flow duct.

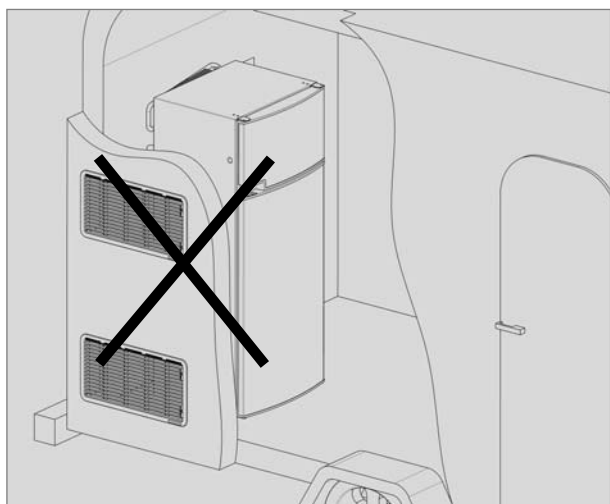


Fig. 5

CAUTION!

Do not apply this installation method, as it does not provide proper ventilation! Please refer to the description in section 4.2 .

4.1.3 Installation recess

The refrigerator must be installed **draught-proof** in a recess. The floor of the recess must be level, allowing the refrigerator to be pushed easily into its correct position. The floor must be substantial enough to bear the weight of the appliance. Push the appliance far enough into the recess until the front edge of the refri-

gerator casing is aligned with the front of the recess. Allow a **gap of 1" (25.4 mm)** mm between the back wall of the recess and the refrigeration unit.

Ensure that the refrigerator is installed level in the recess.



4.1.4 Draught-proof installation

Refrigerators in motorhomes, caravans or other vehicles must be installed in a draught-proof manner. This means that the combustion air for the burner is not taken from the living space and that exhaust fumes are prevented from entering the living space. Adequate sealing between the back of the refrigerator and the vehicle interior has to be provided. **Dometic strongly recommends carrying this out using a flexible seal (in order to simplify later removal and installation of the unit for maintenance purposes).**



WARNING!

By no means use durable sealing compounds, fitting foam or similar material to realise draught-proof installation of the refrigerator! Do NOT use any easily inflammable materials for sealing (in particular silicon sealing compound or similar). Risk of fire! The device manufacturer's product liability and warranty shall lapse if such materials are used.



WARNING!

Pay attention to clean and residue-free workmanship if silicone sealing compound or similar is used elsewhere (e.g. sealing of the ventilation grille frames).

There is a danger of fire if silicone threads come into contact with hot parts or an open flame.

Proposal 1

The lip seals **(1)** are installed at the bottom and on each side in the installation recess (Fig. 6-8). A heat deflector plate **(2)** is installed in the installation recess above the refrigerator. **Affix this plate to the caravan wall, do NOT attach to the refrigerator !**

Insert deflector plate in such a way that the hot air escapes through the air vent grille into the open air.

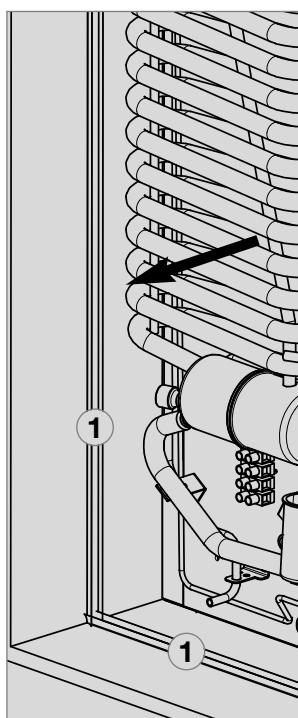


Fig. 6

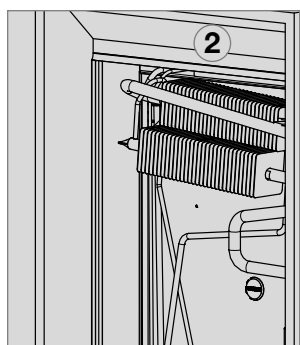


Fig. 7

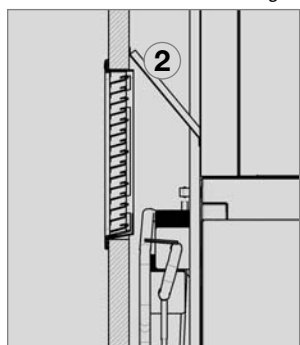


Fig. 8

Proposal 2

Fasten the sealing lips to a stop bar on the rear side **(1)**, e.g. by gluing.

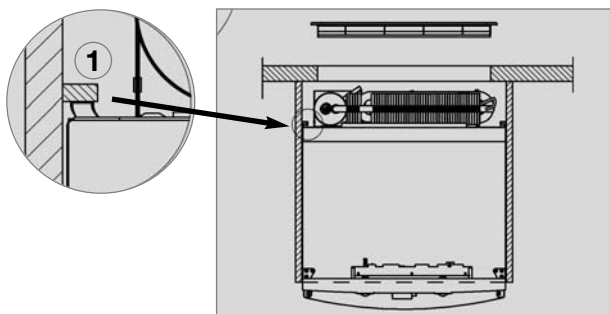


Fig. 9

The refrigerator is later pushed into the installation recess from the front. Ensure that the seals abut the case evenly.

This installation option facilitates the removal and installation of the appliance for servicing.

The cavity in-between the outer vehicle wall and refrigerator is completely isolated from the vehicle interior. Intrusion of exhaust fumes into the living space is prevented. Fumes will escape through the upper ventilation grille to the outside.

The draught-proof installation does not require a special exhaust gas duct to be used.



Deviations require the consent of the manufacturer !

4.2 Ventilation

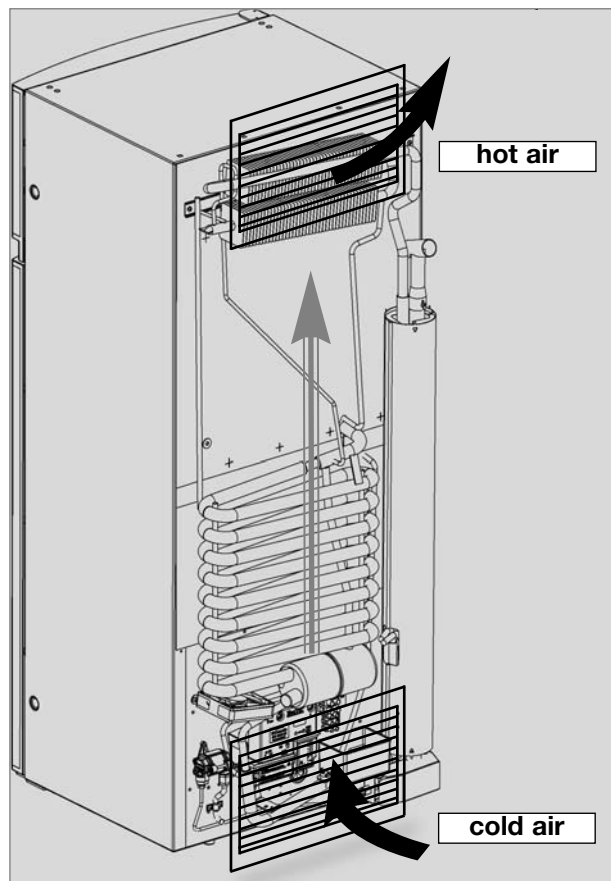
A correct installation of the refrigerator is essential for its correct operation, as due to physical reasons heat builds up at the back of the appliance which must be allowed to escape into the open air.



In the event of high ambient temperatures, full performance of the cooling unit can only be achieved by means of adequate ventilation and extraction.

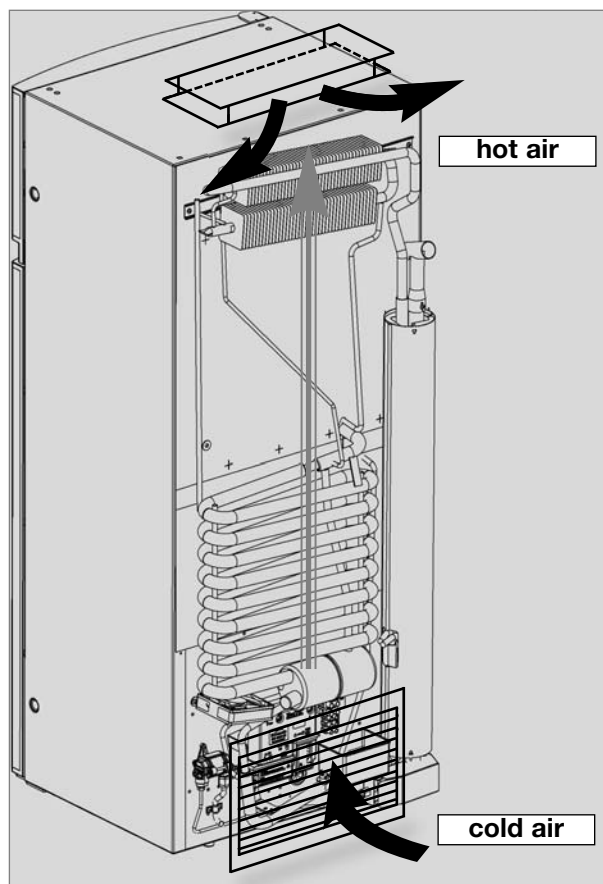
4.2.1 Principle of ventilation

Ventilation is provided for the unit by means of two apertures in the caravan wall. Fresh air enters at the bottom, extracts the heat and exits through the upper vent grille (chimney effect).



Principle of ventilation / Example with ventilation grilles

Fig. 10



Principle of ventilation / Alternative: example with roof vent

Fig. 11

4.2.2 Good and bad ventilation



Avoid installations marked with the $\ominus$ symbol. Good cooling performance is not guaranteed!

(Figures schematic)

The installation of a heat deflection plate (1) between the refrigerator top edge and the ventilation grille top edge is strictly required to guarantee the dissipation of the unit heat and thus prevent heat build-up.



Heat deflection plate



Air flow and reduction of the hollow space behind the refrigerator



Air duct



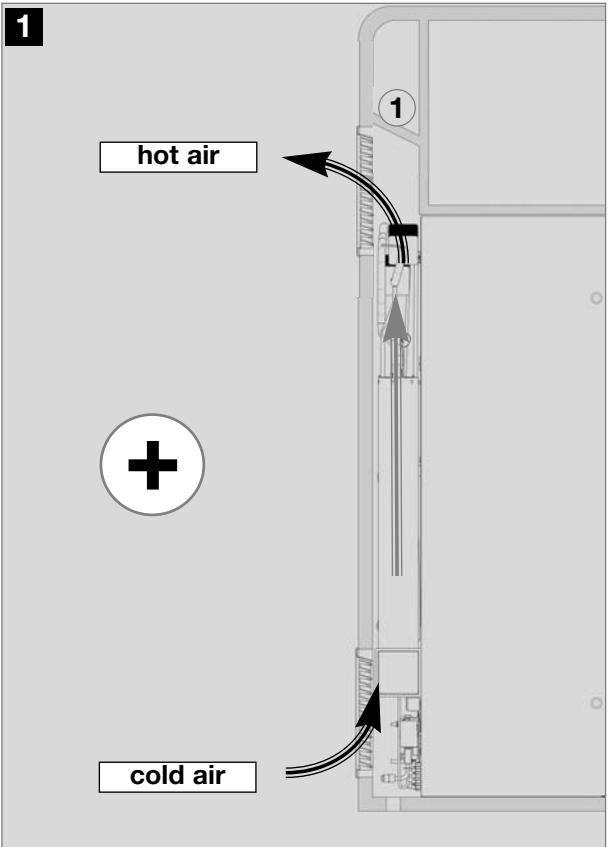


Fig. 12

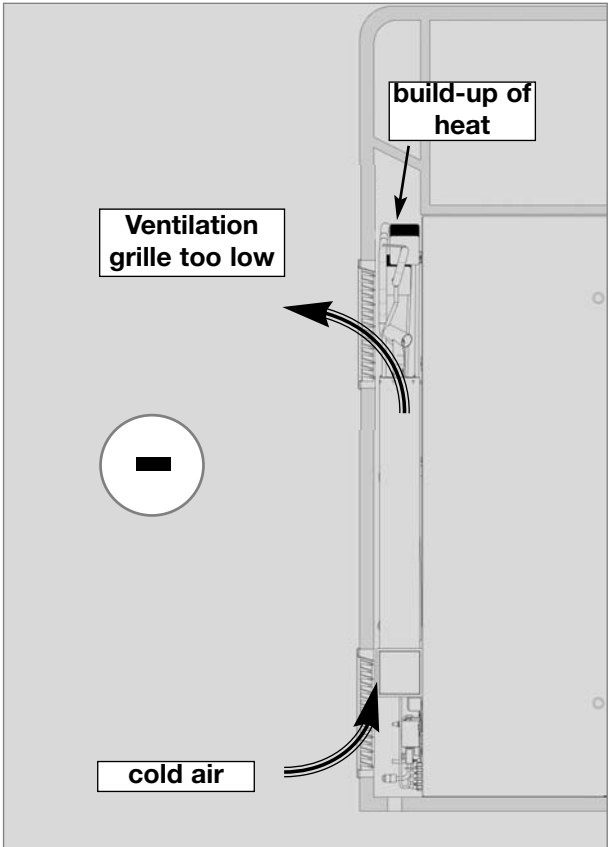


Fig. 13

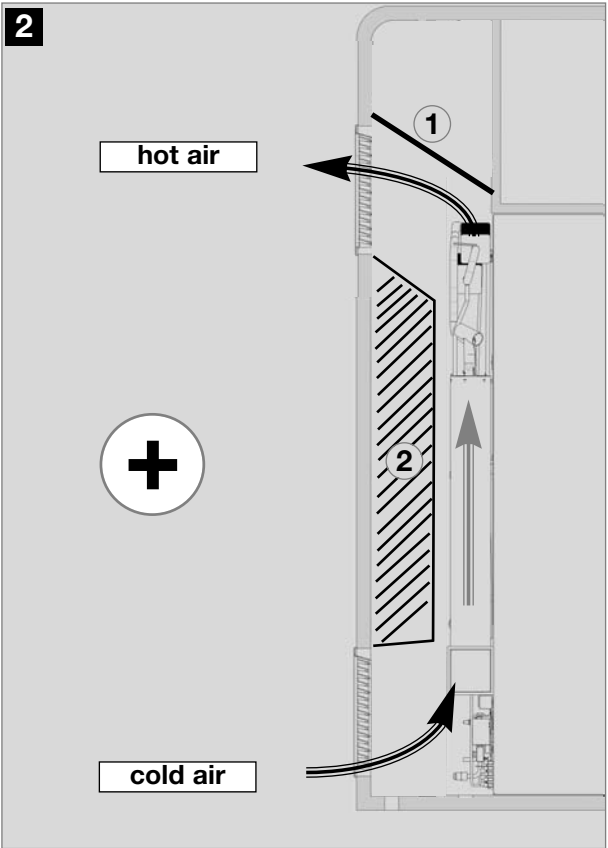


Fig. 14

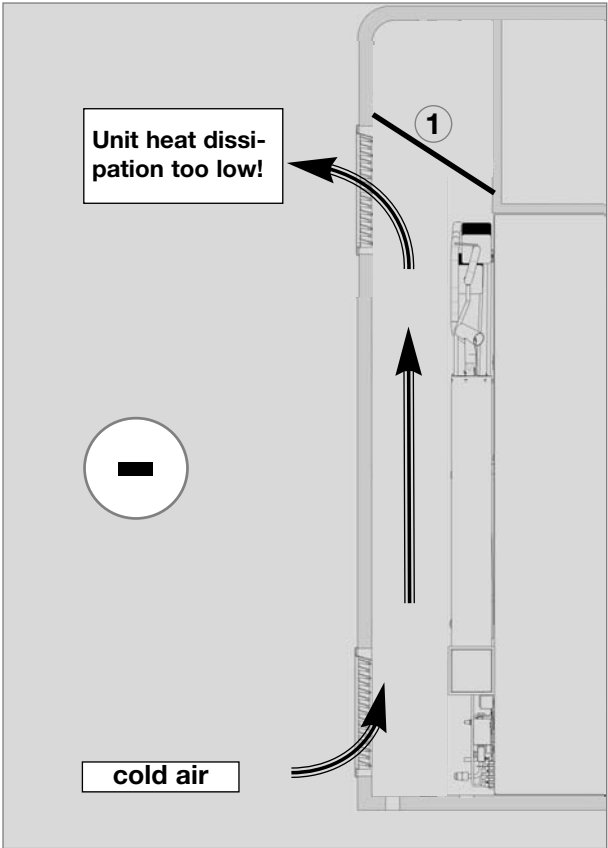


Fig. 15

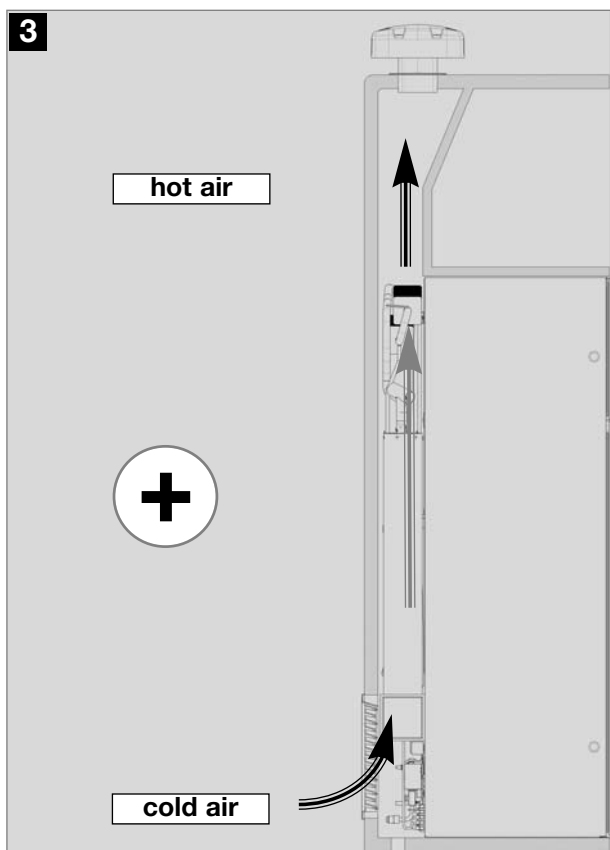


Fig. 16

CAUTION!

If a roof air conditioner with side air discharge is installed in the direct vicinity of the roof ventilator, even heat dissipation over the roof ventilator can be impaired. Ensure sufficient clearance of at least 300 mm of the roof ventilator to the air outlet of the roof air conditioner.

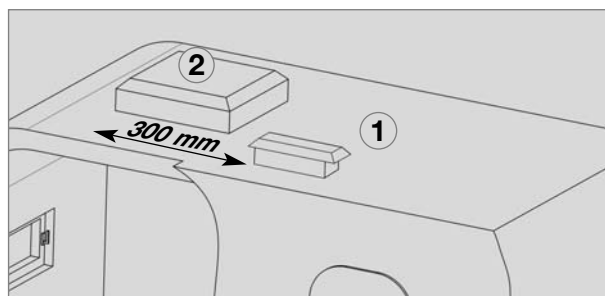


Fig. 17

- 1 Roof vent of the refrigerator
- 2 Roof air conditioner

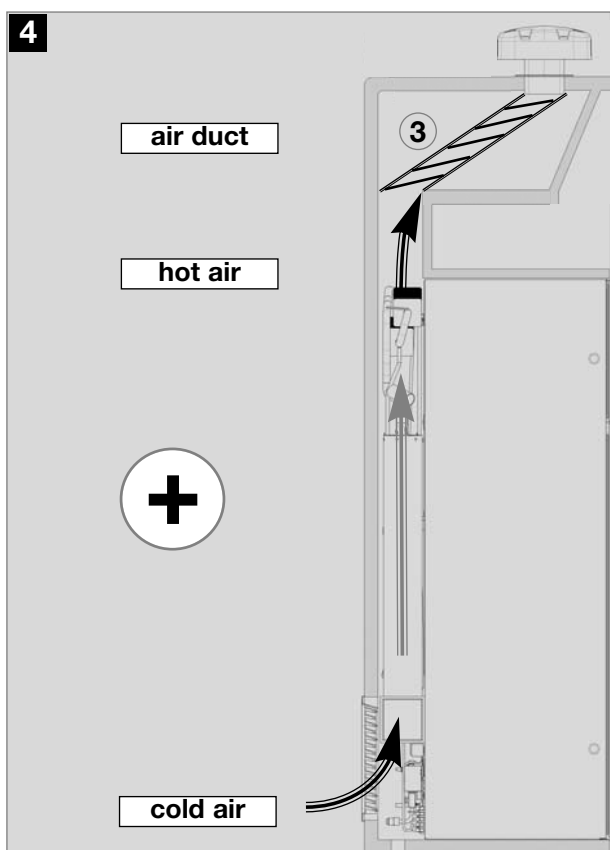


Fig. 18

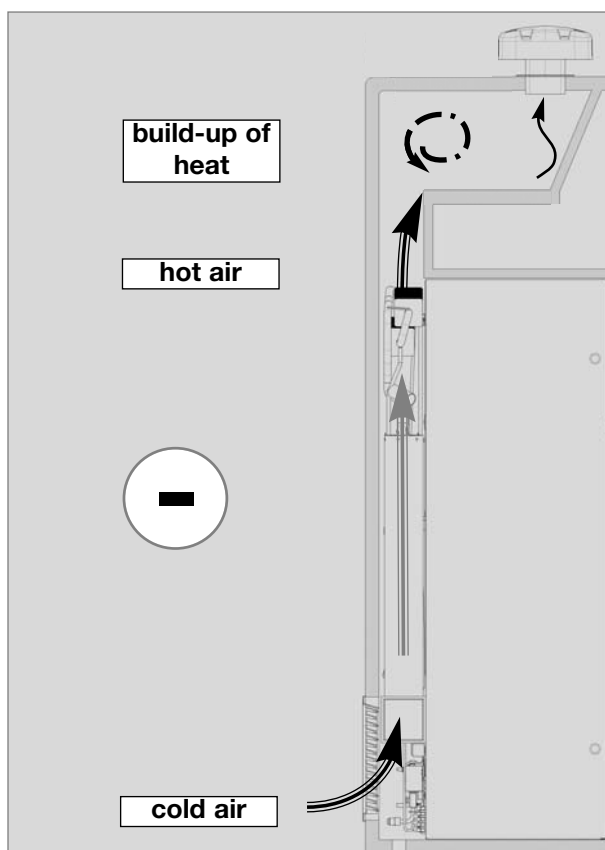


Fig. 19

4.3 Installing the ventilation system

The ventilation grilles must have an open cross-section of at least 60 sq inches (400cm²). This is achieved by using the Dometic LS 300 absorber ventilation and air extraction system which has been tested and approved for this purpose.

The upper ventilation grille should be positioned as high as possible above the cooling unit (Fig. 20).

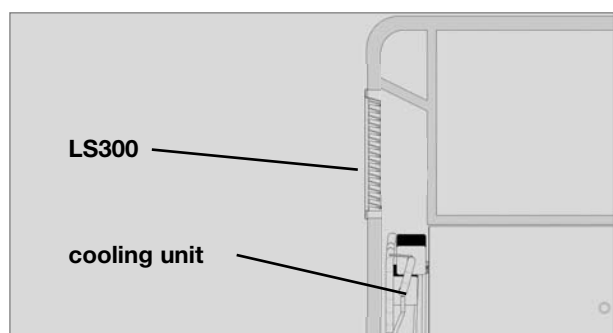


Fig. 20

Install the lower ventilation grille at floor level of the vehicle (Fig. 21), allowing unburnt gas (heavier than air) to escape directly into the open air. The gas burner must be located above the edge (1).

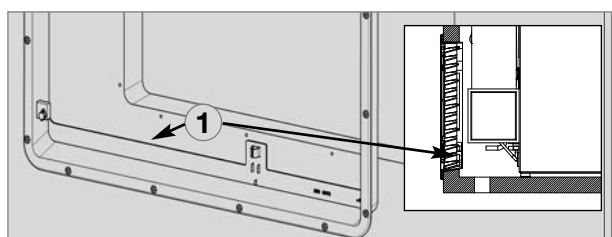


Fig. 21

Should this arrangement prove impossible, a ventilation aperture must be introduced by the manufacturer of the vehicle into the recess floor in order to avoid the accumulation of unburnt gas on the floor (Fig. 22).



Fig. 22

4.3.1 Position of the ventilation grilles

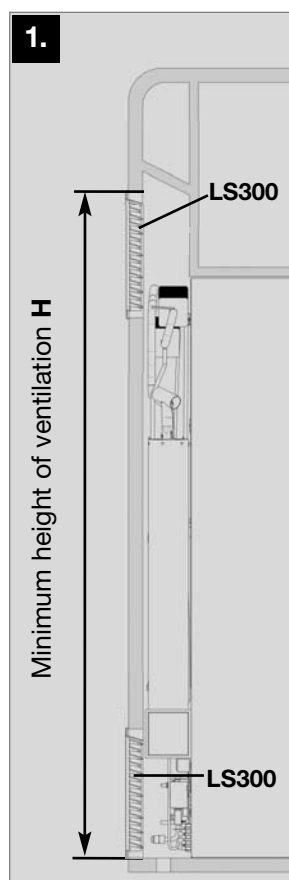


Fig. 23

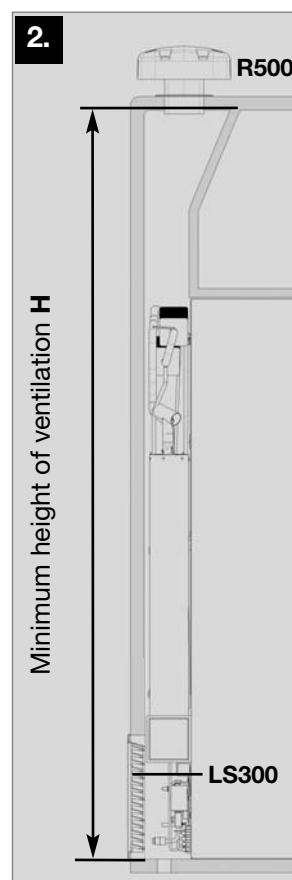


Fig. 24

Minimum height of ventilation H

1. Upper and lower vent grille LS 300 **55.12 inches (1400 mm)**
2. Roof exhaust R 500, lower vent grille LS 300 **49.21 inches (1250 mm)**



Correct mounting of the lower ventilation grille facilitates access to the connections and functional parts during maintenance.

CAUTION!

An installation other than described will reduce the cooling capacity and jeopardise the manufacturer's warranty/product liability.

4.3.2 Installation LS 330

To install the ventilation grilles, cut two rectangles **width b = 19.29"**, **height a = 9.8"** (**b = 490 mm**, **a = 249 mm**), in the outer wall of the vehicle (for position of the cuts, see Fig. 23,24).

1

Cut two rectangles in the exterior wall of the vehicle.

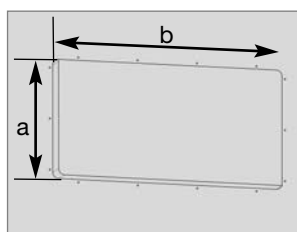


Fig. 25

2

Seal the mounting frame making it waterproof (does not apply for mounting frames with integral seal) and screw into position.

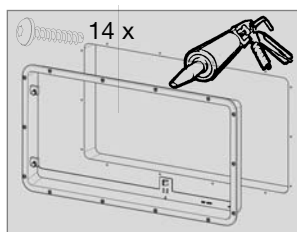


Fig. 26

3

Insert ventilation grille.

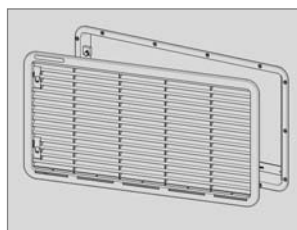


Fig. 27

4

Install locking slider.
Lock ventilation grille.

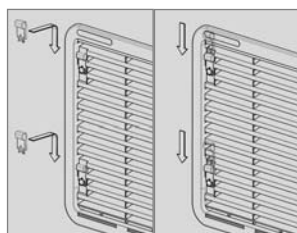


Fig. 28

Sealing of mounting frame



DANGER!

Pay attention to clean and residue-free workmanship if silicone sealing compound or similar is used elsewhere (e.g. sealing of the ventilation grille frames). There is a danger of fire if silicone threads come into contact with hot parts or an open flame.

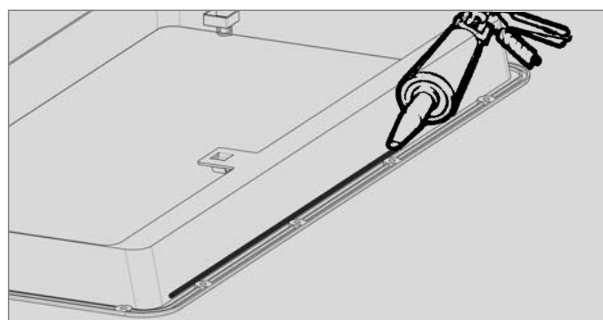


Fig. 29

4.3.3 Installing roof exhaust R 500

Measurements of roof exhaust R 500

Length	Width	Height
23.43"	8.07"	5.90"
(595 mm)	(205 mm)	(150 mm)
Roof cut out: 3.43" x 19.96"		
(87 mm x 507 mm)		

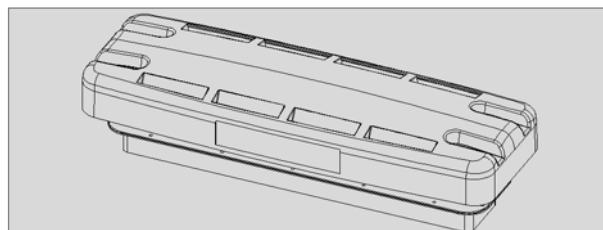


Fig. 30

1

Seal the installation bays and screw them to the vehicle roof.

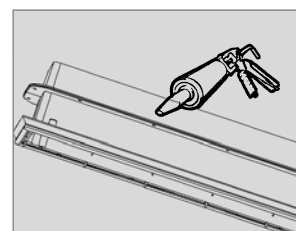


Fig. 31

2

Place the hood in position and screw it to the installation bays.

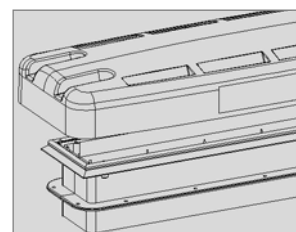


Fig. 32

4.4 Exhaust duct system

The exhaust gas duct system must be made in such a manner as to achieve a complete extraction of combustion products to the outside of living space. The flue gas is vented directly through the upper grille. Do not use any kind of aluminium flue pipe to lead the flue gas out.

The T-piece (Fig. 33) must be aligned with the exterior wall.

As it is pre-installed DO NOT change its 45° orientation.

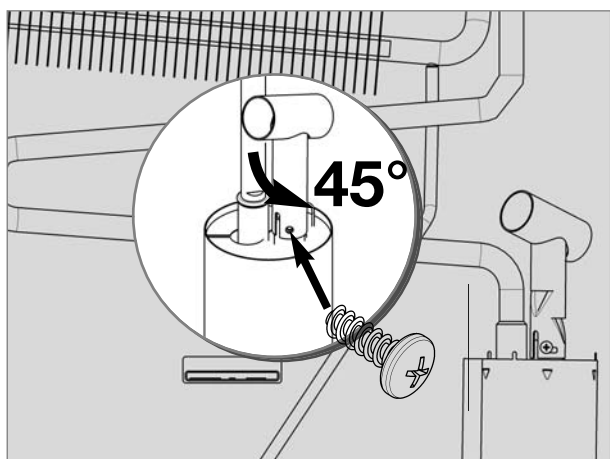


Fig. 34

CAUTION!

An installation other than described will reduce the cooling capacity and jeopardise the manufacturer's warranty/product liability.

4.5 Securing the refrigerator

In the sidewalls of the refrigerator, there are four plastic sleeves for securing the refrigerator. The sidewalls or strips attached for securing the refrigerator must be prepared to hold the screws firmly in place even when under increased load (while the vehicle is moving). Fastening screws and caps are supplied with the refrigerator.

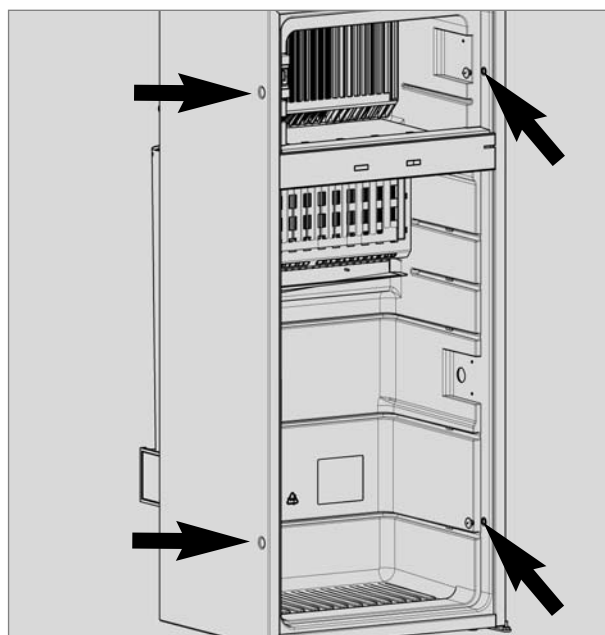


Fig. 34

CAUTION!

Always insert screws through the sleeves provided as otherwise components laid in foam, such as cables etc., could be damaged.

After the refrigerator is put in its final place, secure the screws into the wall of the recess. The screws must penetrate the casing of the refrigerator.

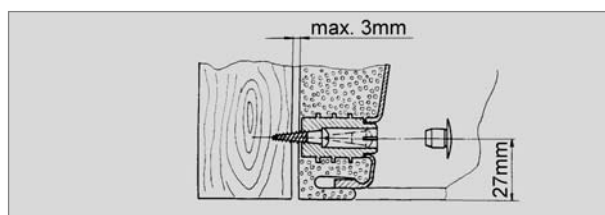


Fig. 35

4.6 Insert the decor panel

Decor panel with frame

- Remove the lateral ledge (1) from the door (ledge is attached, not screwed).
- Shift decor panel (2) away from the door and insert the new decor panel. Re-attach ledge (1).

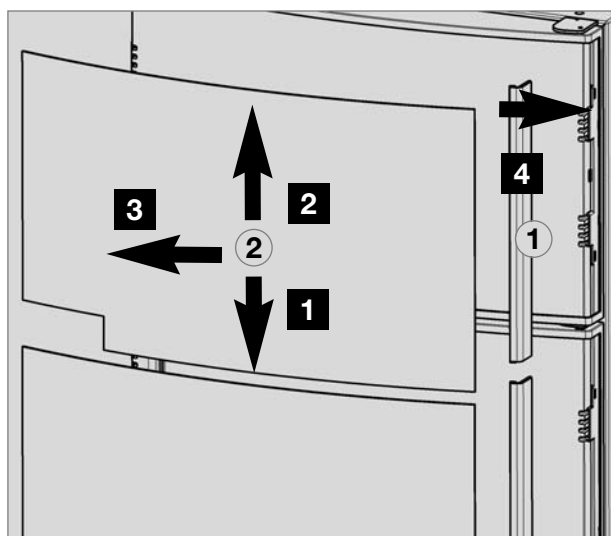


Fig. 36

CAUTION!

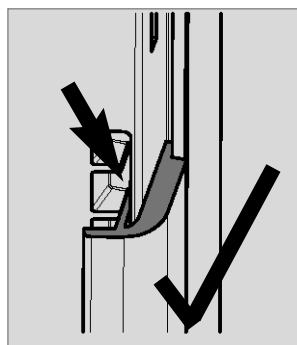


Fig. 37

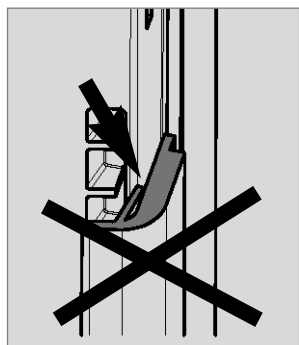


Fig. 38

Decor panel dimensions (with frame) :

Upper door

Height	Width	Thickness
11.79" +/- 0.02	20.00" +/- 0.02	max. 0.07"
299.5 +/- 0.5 mm	507 +/- 0.5 mm	max. 1.7 mm

Lower door

Height	Width	Thickness
35.73" +/- 0.04	20.00" +/- 0.02	max. 0.07"
907.5 +/- 1 mm	507 +/- 0.5 mm	max. 1.7 mm

Frameless decor panel

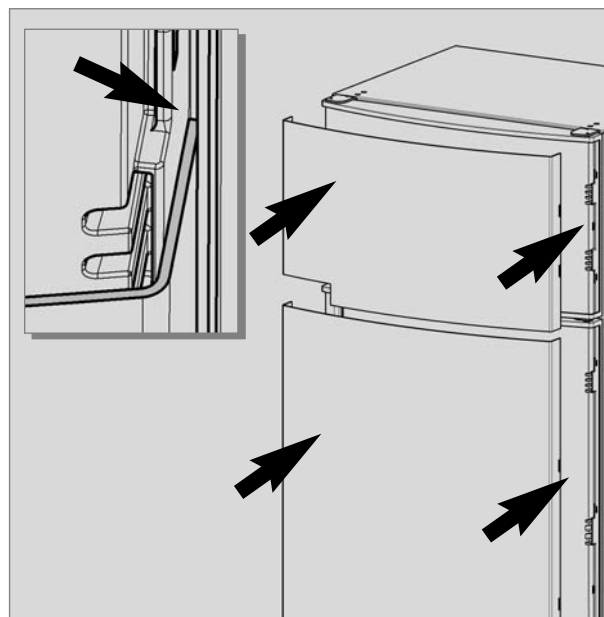


Fig. 39

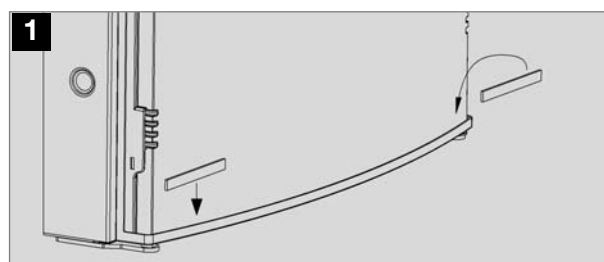


Fig. 40

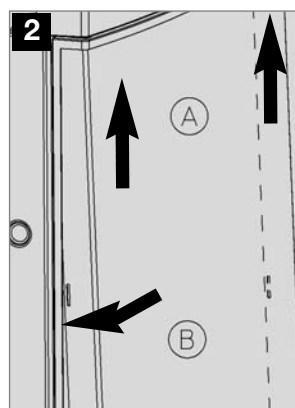


Fig. 41

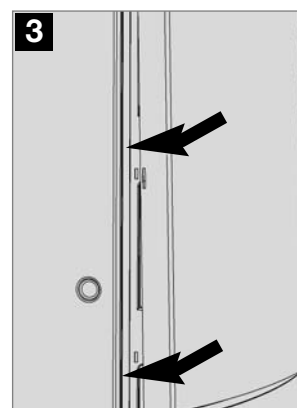


Fig. 42

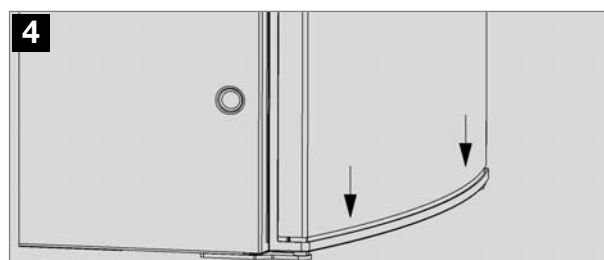


Fig. 43

4.7 Gas installation



WARNING!

The gas connection shall be carried out by qualified personnel* only.

* *Qualified personnel are accredited experts who are able, by virtue of their training and knowledge, to vouch for the correct installation and implementation of the leakage test.*

- Observe the regulations stated in section 4.1 .
- This refrigerator is provided for installation within liquid gas equipment and must be run exclusively on liquid gas (propane) (no natural gas, town gas).
- The pressure regulator must concur with the operating pressure specified on the rating plate of the appliance. The operating pressure corresponds to the standard pressure of the country of specification.
- Only one connection pressure is permissible for any one vehicle! A plate showing the permanent, clearly legible notice must be displayed in full view at the point where the gas cylinder is installed.
- The gas connection to the appliance must be installed securely and free of stress using pipe connectors and must be securely connected to the vehicle (a hose connection is not permissible) .
- The gas connection to the appliance is effected by means of suitable coupling tube fitting (s. figure 44).
- The refrigerator must be equipped with a shut-off valve allowing to cut the supply line. Such a shut-off device must be readily accessible to the user.

Hook-up to the gas supply line is accomplished at the manual gas shutoff valve, which is furnished with a 3/8" SAE (UNF 5/8" - 18) male flare connection. Always use a backup wrench when connecting the gas supply line to the gas inlet fitting.

Following proper installation, a testing for leakage and a flame test must be carried out by *qualified personnel. A certificate of testing must be issued.

Check all connections for gas leaks with soap and water. **DO NOT** use a naked flame for detecting leaks. Ignite the burner to ensure correct operation of gas valve, burner and ignition. In case the appliance fails to operate correctly after all checks have been carried out, refer to the authorised service provider in your area.

Gas connection

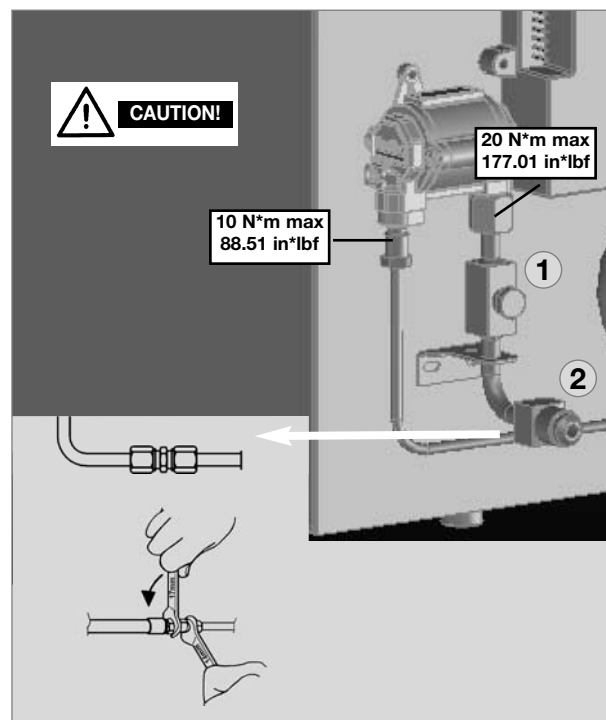


Fig. 44

- ① Testing point
- ② Connection to gas supply

Gas supply



The refrigerator must be equipped with a gas cock in the supply line to allow the supply to be disconnected. Such a cut-out device must be readily accessible to the user.

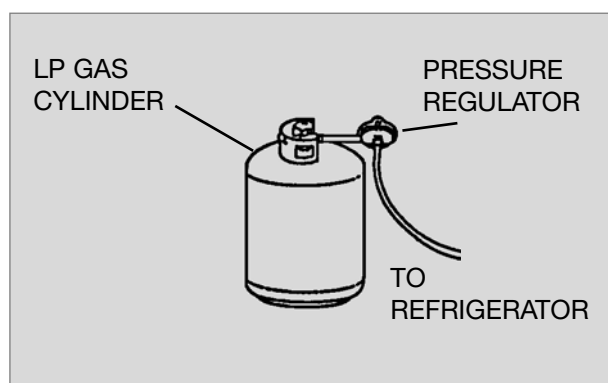


Fig. 45

The gas supply system must incorporate a pressure regulator to maintain a supply pressure of not more than 11 inches water column, static (no load). When testing the gas supply system at test pressures in excess of 1/2 psig, the refrigerator and its individual shutoff valve must be disconnected from the gas supply piping system. When testing the gas supply system at pressures less than or equal to 1/2 psig, the appliance must be isolated from the gas supply piping by closing its individual manual shutoff valve. In case detailed instructions on the installation and connection to the gas supply are required, contact your dealer or distributor.

Gas pressure

Refer to data label.

4.8 Electrical installation



WARNING!

The electrical installation shall be carried out by qualified personnel* only.

** Specialised personnel are accredited experts who are able, by virtue of their training and knowledge, to vouch for the correct installation.*

- The electrical installation must be in accordance with the national regulations of the respective countries, current edition of the NFPA 70 NEC, the CSA C22.1 Parts I & II CEC for the respective countries in which they are installed and any applicable local code.
- The installation must comply with ANS/NFPA1192 Recreational Vehicle Code and the CSA Z240 RV Series, Recreational Vehicles standards.
- The connection cables must be routed in a way to prevent contact with hot components of the unit/burner or with sharp edges.
- Changes to the internal electrical installation or the connection of other electrical components (e.g. external fan, not from Dometic) to the internal wiring of the appliance will render any claims from warranty and product liability void!

4.8.1 Mains connection

- The power should be supplied by a properly grounded socket outlet or a grounded non-detachable connection. Where a socket outlet with mains supply is used, the outlet must be freely accessible.
- Should the connection cable be damaged, have it replaced by Dometic Customer Services or by qualified personnel to avoid hazards.

We recommend leading the power supply via a board-side fuse protection.

4.8.2 Battery connection

The machine's 12V connection cable is connected (observing correct polarity) to plug-in-contacts. The wiring for the 12V heating element must be direct and by the shortest possible route to the battery or electric generator.

CAUTION!

If the appliance is installed in a caravan the respective leads for the 12V+ and 12V-connections of the electronics and the heating element must not be connected to each other on the caravan-side.

Provide a 20 A fuse to protect on-board 12V circuit. In order to ensure that the 12V power supply is shut off when stopping the engine (otherwise the battery would discharge within a few hours), perform the power supply to the heating element in a way to have the 12V supply only live while the vehicle ignition is switched on. The connection for electronics, must be permanently provided by a 12V DC power supply to be protected by a 2A fuse.

Cable cross sections and cable lengths :

Motorcaravan & Caravan (inside)

AWG 9) < 20 ft

AWG 7) > 20 ft

Caravan (outside) min. AWG 13

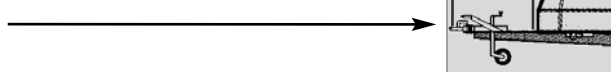


Fig. 46

4.8.3 D+ and solar connection (only for AES models)

D+ signal connection

In **automatic operation mode** the **AES** electronic system selects the most efficient energy supply. **2V DC** operation is selected only while the engine is running in order to prevent battery discharge. The electronic system uses the **D+ signal** (dynamo +) of the alternator to detect **12V DC**.

S+ signal connection:

12V DC energy can be optionally achieved by mounting solar equipment to the vehicle. The solar power equipment must be provided with a solar charging controller with **AES output**. The **S+** connection (**Solar +**) must be connected to the respective terminal of the solar charging controller (**AES output**). The electronic system uses the **S+ signal** of the solar charging controller to detect **solar 12V DC**.

Adequate charging controllers available in selected stores.

We recommend in example:

- **Buettner MT 300-S**
(<http://www.buettner-elektronik.de>)
- **Votronic MPP 240 Duo Digital**
(<http://votronic.de>)

Cable cross-sectional areas:

There are no particularly high current flows via the D+ and S+ connection; therefore no large cross-section is required for these connections. Approx. AWG 18 (1mm²) is sufficient.

4.8.4 Cable connections

For MES and AES it is compulsory to provide a permanent 12V DC supply at the terminals C/D (permanent voltage supply for functional electronics).

The power supplies for electronics and heating element are connected directly at the plug-in contacts of the electronics.

Position of the control electronics :

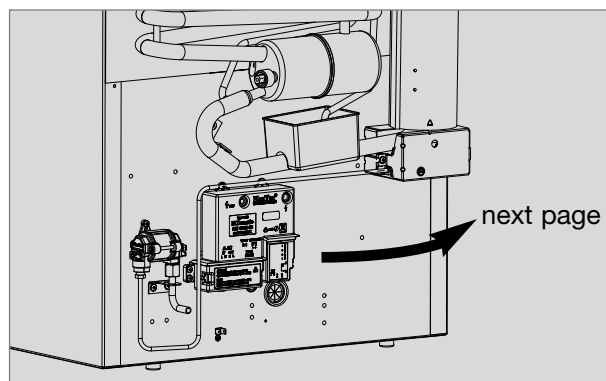


Fig. 47

Contacts at the electronics :

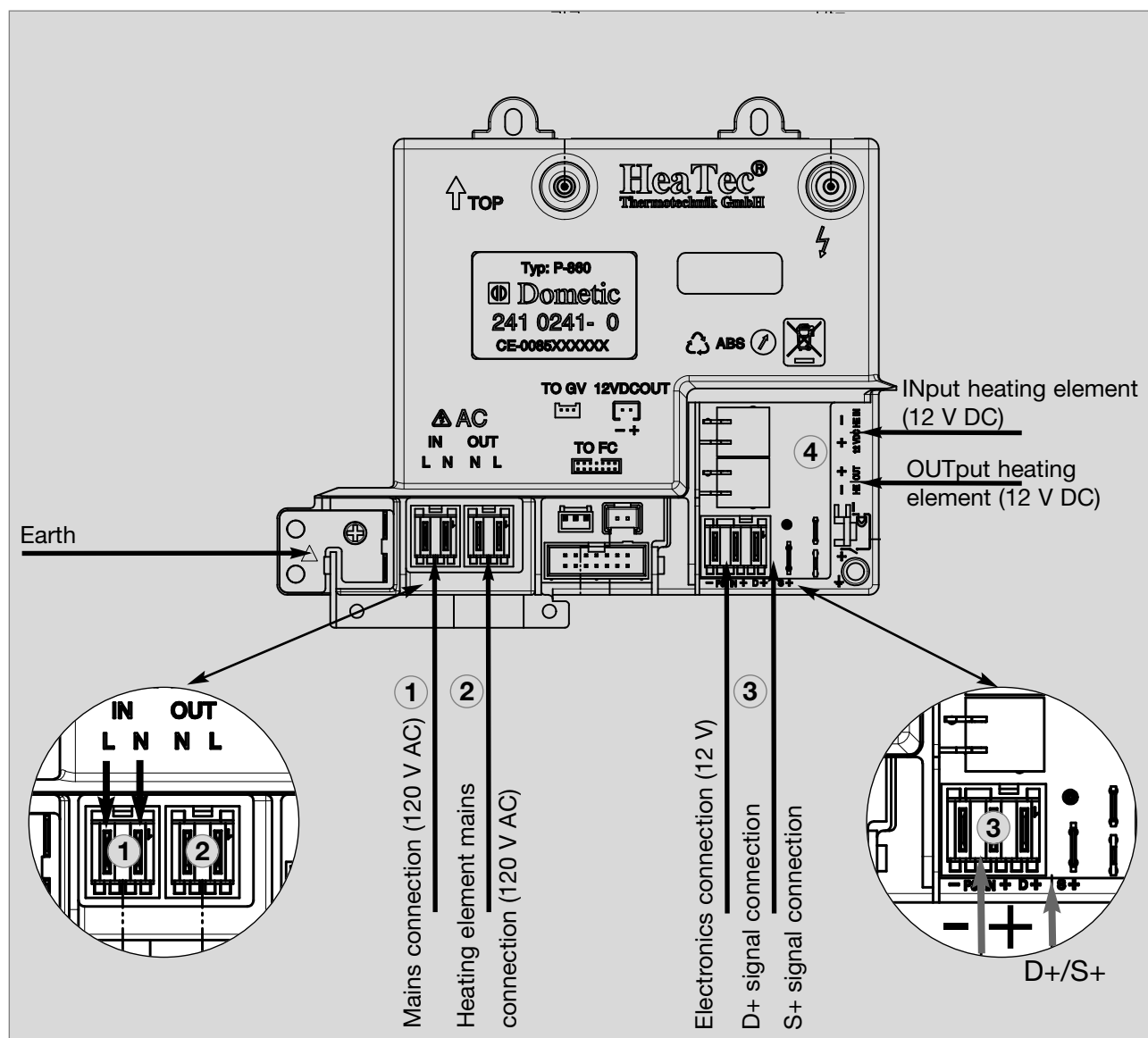


Fig. 48

Plug-in contacts (manufacturer: Stocko®)

- 1** MF 9562-002-80E
- 2** MF 9562-002-8 OC
- 3** 3-pin with D+ contact: MF 9562-003-8 30 960-000-00
2-pin : MF 9562-002-8 ON + spade connector 6.3 x 0.8
- 4** MKH 5132-1-0-200

4.8.5 Circuit diagrams

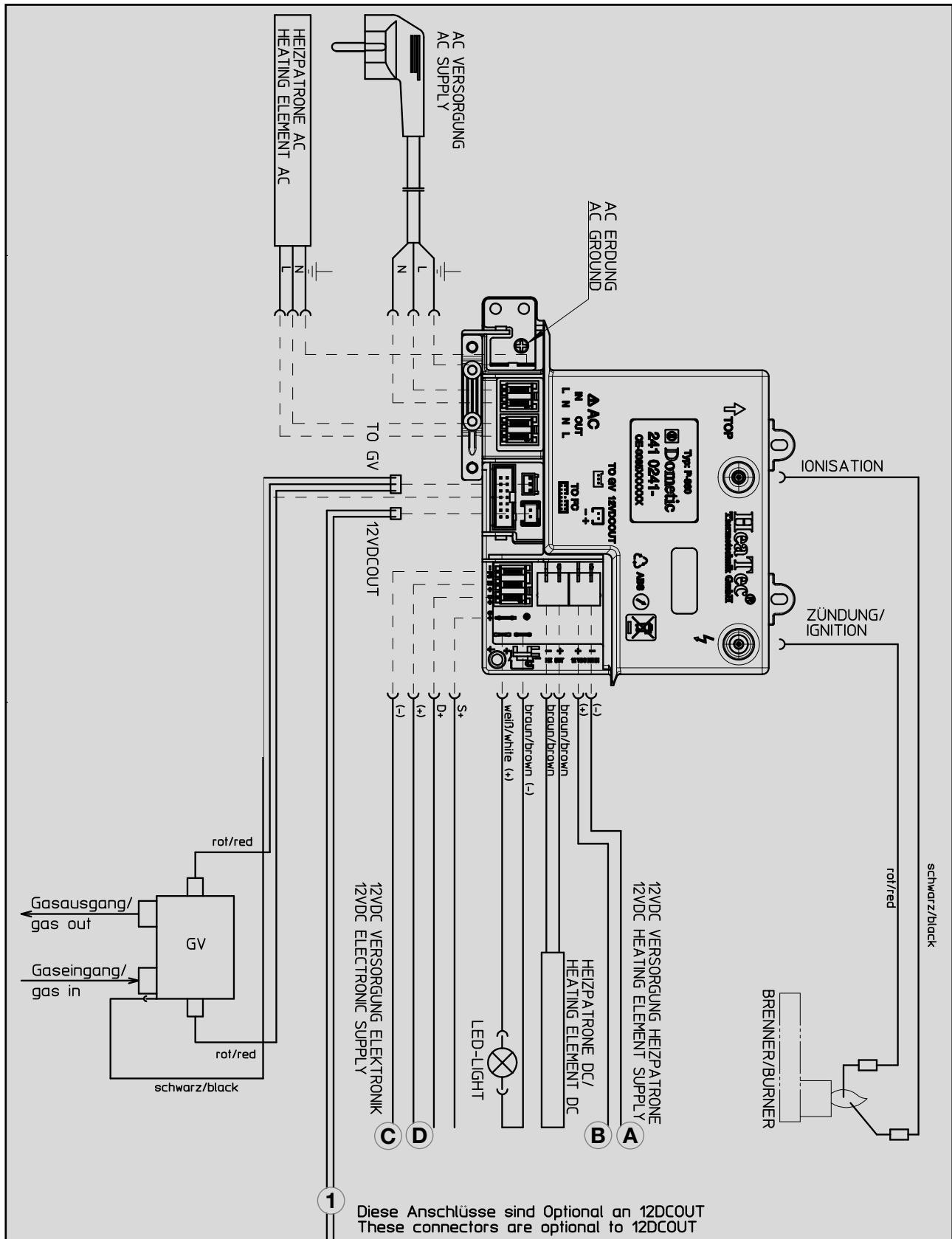


Fig. 490

Fan (optional) RMD 85x1, RMD 85x5

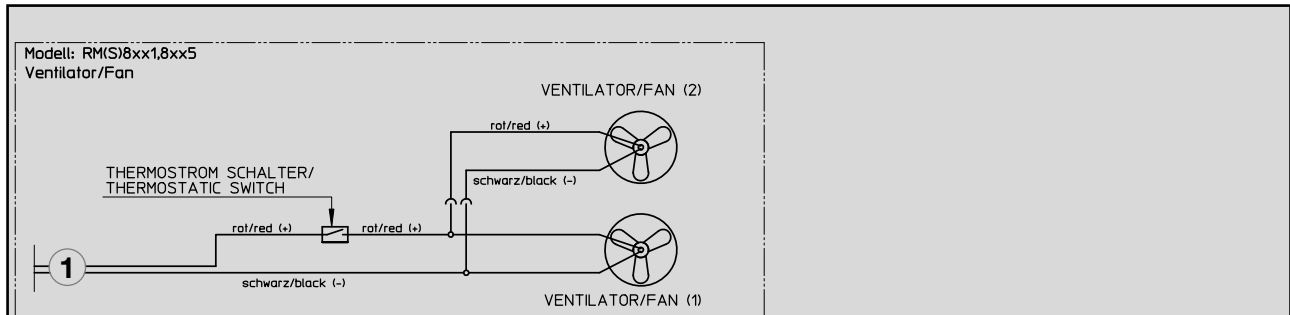


Fig. 50

- ① = 12V OUT / 12 V power supply for optional connections
- Ⓐ = Ground connection heating element 12VDC
- Ⓑ = Positive connection, heating element 12VDC
- Ⓒ = Ground connection electronics 12VDC
- Ⓓ = Positive connection electronics 12VDC



For MES and AES it is compulsory to provide a permanent 12V DC supply at the terminals C/D (permanent voltage supply for functional electronics).

