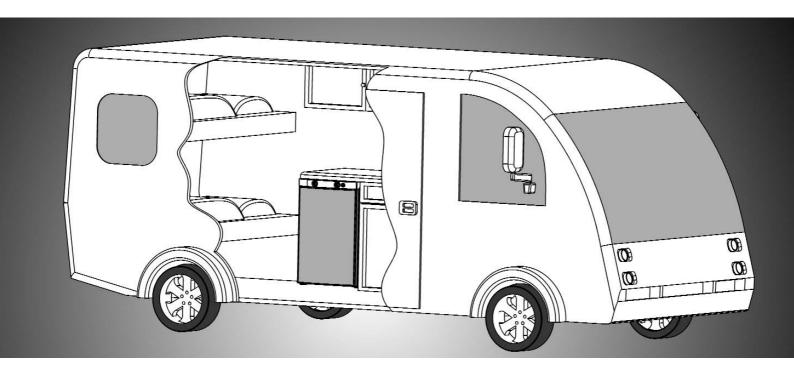
# Installation instructions

# **Absorption Refrigerator for Recreation Vehicles**

RM 8400 RM 8401 RM 8405 RM 8500 RM 8501 RM 8505 RM 8550 RM 8551 RM 8555 RMS 8400 RMS 8401 RMS 8405 RMS 8460 RMS 8461 RMS 8465 RMS 8500 RMS 8501 RMS 8505 RMS 8550 RMS 8551 RMS 8555 RML 8550 RML 8551 RML 8555 RMSL 8500 RMSL 8501 RMSL 8505





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MBA 06/2010

N 5-1

English

Type C40 / 110 822 6102 - 00

Dometic GmbH In der Steinwiese 16 D-57074 Siegen

www.dometic.com

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# **Table of contents**

1.0	General	4
1.1	Introduction	4
1.2	Guide to these operating instructions	4
1.3	Copyright protection	4
1.4	Explanation of symbols used in this manual	4
1.5	Warranty	5
1.6	Limitation of liability	5
1.7	Declaration of conformity	5
1.,	Booking of Comonnity	Ü
2.0	Safety instructions	6
2.1	Application according to regulations	6
2.2	User's responsibility	6
2.3	Working upon and checking the refrigerator	6
2.4	Operating the refrigerator with gas	6
۷.٦	Operating the reingerator with gas	U
3.0	Description of model	7
3.1	Model identification	7
3.2	Refrigerator rating plate	7
3.3	Technical data	7
0.0	Tooliinoar data	'
4.0	Installation instructions	9
4.1	Installation	9
4.1.1	Side installation	9
4.1.2	Side installation with floor-roof ventilation	10
4.1.3	Rear installation	10
4.1.4	Draught-proof installation	11
4.2	Ventilation and air extraction	12
4.3	Installing the ventilation system	13
4.4	Exhaust gas duct and installing the fume flue	14
4.5	Installation recess	15
4.5.1	Installation in the recess	15
4.5.2	Recess dimensions	16
4.6	Securing the refrigerator	17
4.7	Inserting of the decor panel	17
4.8	Gas installation	19
4.9	Electrical installation	20
4.9.1	Mains connection	20
4.9.2	Battery connection	20
4.9.3	Terminal strip	21
4.9.4	D+ and solar connection (only for AES models)	21
4.9.5	Wiring diagrams	22

# 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. In Europe, for example, gas appliances, cable routing, installation of gas cylinders, as well as approval and checking for leaks must comply with EN 1949 for liquid gas systems in vehicles.

# 1.2 Guide to these operating 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 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 GmbH, Siegen.

# 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!**

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate 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 EC Directive 44/1999/CE and 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.

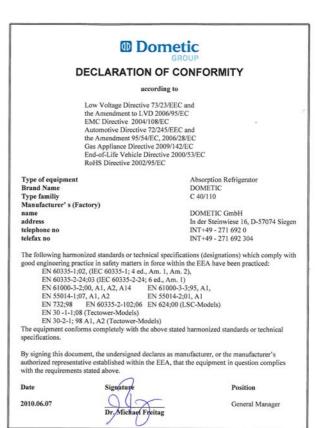
# 1.6 Limitation of liability

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
- improper modifications and interferences to the appliance
- effect of environmental influences, such as
  - temperature fluctuations
  - humidity

# 1.7 Declaration of conformity



# 2.0 Safety instructions

# 2.1 Application according to regulations

This refrigerator is designed for installation in recreation vehicles such as caravans or motorhomes. The appliance has been type-approval tested for this application in accordance with the EC Gas Directive.

The refrigerator is to be used solely for storing foodstuffs.

# 2.2 User's responsibility

Anyone operating the refrigerator must be familiar with the safe handling and understand the advice in these operating instructions.

# 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!

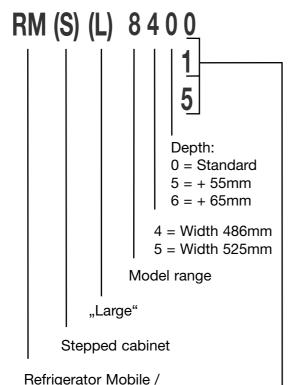
# 2.4 Operating the refrigerator with gas

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:



Mobile Absorption Refrigerator

0 = manual energy selection + manual ignition (battery igniter)

**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.

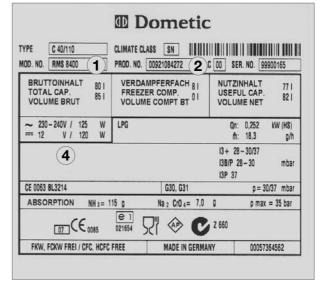


Fig. 1

- Model number
- 2 Product number
- 3 Serial number
- (4) Electrical rating details
- **5** Gas pressure

### 3.3 Technical data



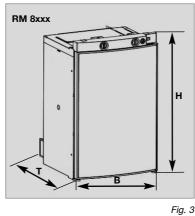




Fig. 4

2			
_			

Model Gross capacity **Dimensions** Rating details Consumption ' Net Ignition H x W x D (mm) without mains/battery electricity/gas Piezo Automat weight Depth incl. door freezer compartment over 24hrs 125 W / 120 W 80 / 8 lit. 85 lit. ca.2,5 KWh / 270 g 25 kg RMS 8400 821x486x568 RMS 8401 821x486x568 80 / 8 lit. 85 lit. 125 W / 120 W ca.2,5 KWh / 270 g 25 kg 80 / 8 lit. 85 lit. 125 W / 120 W ca.2,5 KWh / 270 g 25 kg RMS 8405 821x486x568 90 / 8 lit. 95 lit. 135 W / 130 W ca.2,4 KWh / 270 g 27 kg RM 8400 821x486x568 135 W / 130 W RM 8401 90 / 8 lit. 95 lit. ca.2,4 KWh / 270 g 27 kg 821x486x568 ca.2,4 KWh / 270 g RM 8405 821x486x568 90 / 8 lit. 95 lit. 135 W / 130 W 27 kg 90 / 11 lit. 96 lit. 125 W / 120 W ca.2,5 KWh / 270 g 26 kg RMS 8460 821x486x633 ca.2,5 KWh / 270 g 26 kg RMS 8461 821x486x633 90 / 11 lit. 96 lit. 125 W / 120 W 125 W / 120 W ca.2,5 KWh / 270 g RMS 8465 821x486x633 90 / 11 lit. 96 lit. 26 kg 125 W / 120 W ca.2,5 KWh / 270 g 90 / 9 lit. 96 lit. 26 kg 821x523x568 RMS 8500 RMS 8501 821x523x568 90 / 9 lit. 96 lit. 125 W / 120 W ca.2,5 KWh / 270 g 26 kg 90 / 9 lit. 125 W / 120 W ca.2,5 KWh / 270 g 26 kg RMS 8505 821x523x568 96 lit. 125 W / 120 W ca.2,6 KWh / 270 g 103 /12 lit. 110 lit. 27 kg RMS 8550 821x523x623 RMS 8551 103 /12 lit. 110 lit. 125 W / 120 W ca.2,6 KWh / 270 g 27 kg 821x523x623 125 W / 120 W 103 /12 lit. 110 lit. ca.2,6 KWh / 270 g 27 kg RMS 8555 821x523x623 100 / 9 lit. 106 lit. 135 W / 130 W ca.2,4 KWh / 270 g RM 8500 821x523x568 28 kg ca.2,4 KWh / 270 g RM 8501 821x523x568 100 / 9 lit. 106 lit. 135 W / 130 W 28 kg 100 / 9 lit. 106 lit. 135 W / 130 W ca.2,4 KWh / 270 g 28 kg RM 8505 821x523x568 135 W / 130 W 30 kg ca.2,6 KWh / 270 g 115 /12 lit. 122 lit. RM 8550 821x523x623 RM 8551 821x523x623 115 /12 lit. 122 lit. 135 W / 130 W ca.2,6 KWh / 270 g 30 kg RM 8555 821x523x623 115 /12 lit. 122 lit. 135 W / 130 W ca.2,6 KWh / 270 g 30 kg ca.3,2 KWh / 380 g 45 kg 179 /33 lit. 189 lit. 190 W / 170 W RML 8550 1245x525x625 ca.3,2 KWh / 380 g 45 kg RML 8551 1245x525x625 179 /33 lit. 189 lit. 190 W / 170 W 190 W / 170 W 179 /33 lit. 189 lit. ca.3,2 KWh / 380 g 45 kg RML 8555 1245x525x625 145 /28 lit. 155 lit. 190 W / 170 W ca.3,2 KWh / 380 g 40 kg **RMSL 8550** 1245x525x625 190 W / 170 W ca.3,2 KWh / 380 g 145 /28 lit. 155 lit. 40 kg **RMSL 8551** 1245x525x625 RMSL 8555 1245x525x625 145 /28 lit. 155 lit. 190 W / 170 W ca.3,2 KWh / 380 g 40 kg

RMS = stepped cabinet

Technische Änderungen vorbehalten.

Subject to technical changes.

<sup>\*</sup>Average consumption measured at an average ambient temperature of 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 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.

Installation and connection of the appliance must comply with the latest technical regulations, as follows:

- The electrical installation must comply with national and local regulations.
- The gas installation must comply with national and local regulations.
- European Standard EN 1949
- European Standards EN 60335-1,
   EN 60335-2-24, EN 1648-1, EN 1648-2
- The appliance must be installed in such a way that it is shielded from excessive heat radiation.

Excessive heat impairs performance and raises the energy consumption of the refrigerator! !



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

#### 4.1.1 Side installation

If the appliance 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. (Fig. 5, Clearance door/ventilation grille at least 25 mm). Otherwise ventilation could be impaired which causes a loss in cooling performance. Awnings are often placed at the door side of a caravan. This complicates evacuation of combustion gases and heat through the ventilation grilles (loss in cooling performance)!

(Fig.5) The air vent grilles are blocked. There must be a distance between the door and the air vents of at least 25 mm!

If the door/grille distance is between 25 mm and 45 mm, we recommend installing a **Dometic ventilation kit** (*item no. 241 2985 - 00/0*) to achieve an optimal cooling performance in high ambient temperatures.

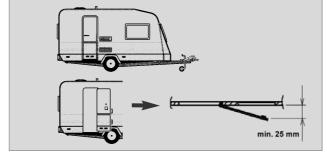


Fig. 5

(Fig. 6) The air vent grilles offer an unobstructed dissipation of heat and exhaust gas even when the door is opened.

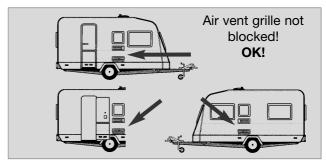


Fig. 6

# 4.1.2 Side installation with floor-roof ventilation

Proper ventilation of the refrigerator can also be achieved by lower air intake aperture in the floor and upper roof exhaust vent (see Fig. 7). A flue has to be provided between the top edge of the refrigerator and the roof ventilation which directs the hot air and the exhausts straight to the air vent in the roof.

The floor opening must have a cross section of at least 250 cm2. Protect the opening, e.g. with a baffle plate and a net, to prevent dirt from entering the gas burner. Compared to side ventilation, this ventilation method can allow more dirt to enter the rear area of the refrigerator, which makes regular maintenance of the gas burner, at least once a year, necessary.

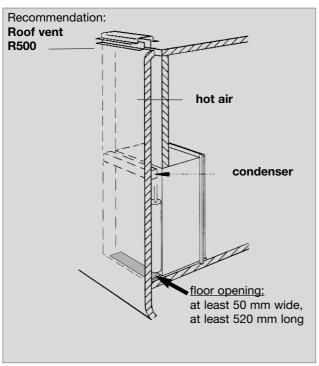


Fig. 7



With this installation method, regular maintenance of the gas burner is only possible once the device has been dismantled. It is imperative that the refrigerator be installed in a way to allow easy removal.

We therefore recommend providing an adequate access opening (service flap) for ready serviceability from the outside.

#### 4.1.3 Rear installation

Rear installation often causes an unfavourable installation arrangement, as ideal ventilation cannot always be assured (e.g. the lower ventilation grille is covered by the bumper or the rear lights of the vehicle!) (Fig. 8). The maximum cooling performance of the aggregate is actually not available.





Another unfavourable method of rear installation is to install the air intake and exhaust grilles (Fig. 10) at the side wall of the recreation vehicle. 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.

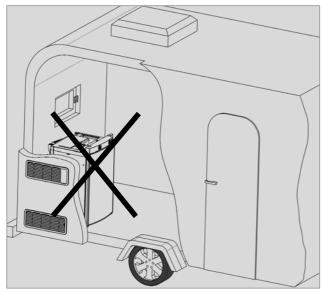


Fig. 10

## **CAUTION!**

The maximum cooling performance is not available! Do not apply this installation method, as it does not provide proper ventilation! Please refer to the description in section 4.2.

# 4.1.4 Draught-proof installation

Refrigerators in motorhomes, caravans or other vehicles must be installed in a draught-proof manner (EN 1949). 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.

# $\mathbb{N}$

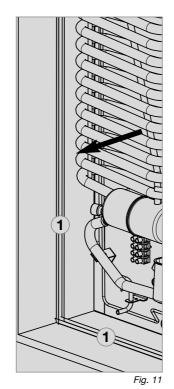
## WARNING!

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.

# **Proposal 1**

The lip seals (1) are installed at the bottom and on each side in the installation recess (Fig. 11-13). A heat deflector plate (2) is installed in the installation recess above the refrigerator. Affix the 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.



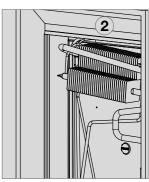


Fig. 12

Fig. 13

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.

#### **Proposal 2**

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

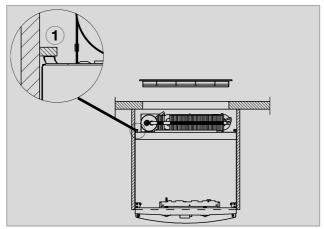
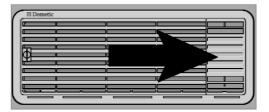


Fig. 14/15

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. This installation method allows the use of the same air vent grille **LS200** at the top and at the bottom without flue duct.

If a flue duct is nevertheless desirable, incorporate the **LS100** ventilation system with flue duct into the upper air vent opening. (*For installation, please refer to "4.4"*)



Flue duct

Fig. 16



Deviations require the consent of the manufacturer!

# 4.2 Ventilation and air extraction of the refrigerator

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.

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). The upper ventilation grille should be positioned as high as possible above the condenser (A). Install the lower ventilation grille at floor level of the vehicle, allowing unburnt gas (heavier than air) to escape directly into the open air. 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.18).

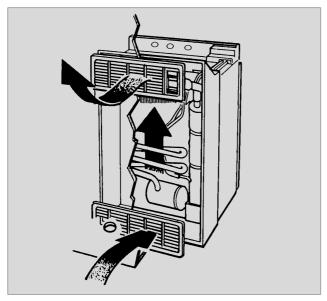


Fig. 17

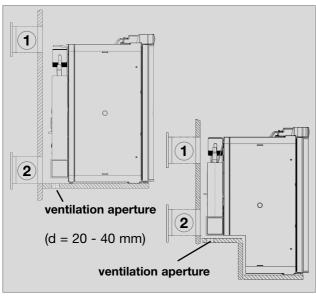


Fig. 18

- 1 ventilation grille LS 100 or LS 200
- 2 ventilation grille LS 200

The ventilation grilles must have an open cross-section of at least 250cm². This is achieved by using the Dometic L100 / L 200 absorber ventilation and air extraction system which has been tested and approved for this purpose.

# 4.3 Installing the ventilation system

The LS 100 upper vent system kit consists of the mounting frame (RS 1640), the air grille including flue gas duct (AS 1620) and the winter cover (WA120). The LS 200 lower vent system kit consists of the mounting frame (RS 1650), the air grille (AS1 630, but without flue gas duct) and the winter cover (WA130).

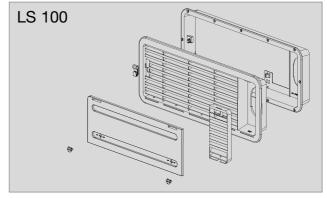


Fig. 19

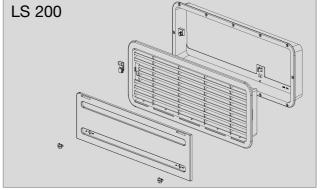


Fig. 20



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

To install the ventilation grilles, cut two rectangles (**451 mm x 156 mm**) in the outer wall of the vehicle (*for position of the cuts, see point 4.2*).

# 1

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

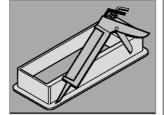


Fig. 21

## 2

Insert frame and screw into position

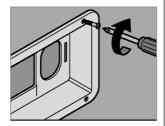


Fig. 22

# 3

Insert and lock ventilation grille.

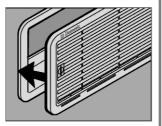


Fig. 23

# 4

Clip the insert for flue gas duct in position (only for L100 upper ventilation system kit).

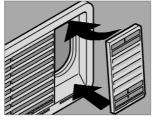


Fig. 24

# 5

Insert winter cover.

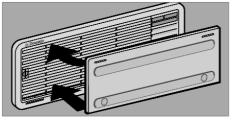


Fig. 25

# 4.4 Exhaust gas duct and installing the fume flue

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 duct system must slope in an upward direction in order to avoid a build-up of condensate. The type of exhaust gas duct shown in Fig. 26 allows the side installation of the winter cover.

## **CAUTION!**

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

Installing the standard fume flue (Fig. 26)

- **1.** Connect T-piece (E) to adaptor (F) or flue pipe (K) as required and affix with screw (G). Ensure that heat baffle (H) is lodged in the correct position.
- **2.** Insert flue pipe with cover plate (C) through the appropriate aperture in the upper frame (I) and connect to T-piece (E). If necessary, shorten flue pipe (C) to the required length.
- 3. Insert **LS 100** ventilation grille (D) into mounting frame (I) and fasten, using the locking handle on the left of the grille.
- 4. Put cap (B) on flue pipe (C).
- **5**. Insert extractor insert (A) into ventilation grille (D).

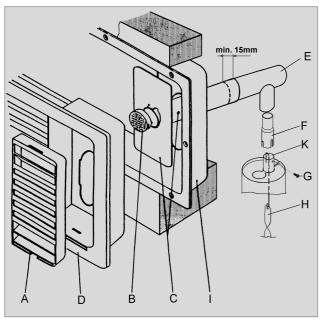


Fig. 26

## 4.5 Installation recess

The refrigerator must be installed draught-proof in a recess (also refer to Section "4.1.4"). The measurements of the recess are stated in the table below. **Step A** (Fig.31) is only required for cabinets with a step. Push the appliance far enough into the recess until the front edge of the refrigerator casing is aligned with the front of the recess. Allow a **gap of 15-20** mm between the back wall of the recess and the refrigeration unit. The floor of the recess must be level, allowing the appliance to be pushed easily into its correct position. The floor must be substantial enough to bear the weight of the appliance.

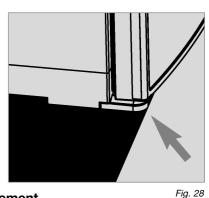
Ensure that the refrigerator is installed level in the recess.



#### 4.5.1 Installation in the recess

Note: When installing the appliance ensure that the door hinges are supported. Figure 28 shows the optimum installation of the refrigerator, whereas Fig. 29 shows the minimum requirement with the maximum clearance between installation area and end of hinge. If the installation is carried out as per Fig. 30, the hinge is not capable of supporting the possible load in the door. It is therefore essential that the maximum clearance of **40 mm** not be exceeded

### **Ideal fitting**



Minimum requirement

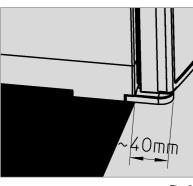


Fig. 29

#### Distance greater than 40mm



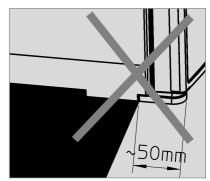


Fig. 30

# 4.5.2 Recess dimensions

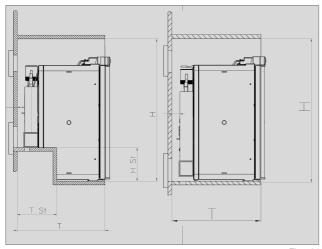


Fig. 31

Model	Height H	Width B	Depth T	Height HSt	DepthTSt
RMS 8400	825 mm	490 mm	542 mm	220 mm	235 mm
RMS 8401	825 mm	490 mm	542 mm	220 mm	235 mm
RMS 8405	825 mm	490 mm	542 mm	220 mm	235 mm
RM 8400	825 mm	490 mm	542 mm		
RM 8401	825 mm	490 mm	542 mm		
RM 8405	825 mm	490 mm	542 mm		
RMS 8460	825 mm	490 mm	607 mm	220 mm	235 mm
RMS 8461	825 mm	490 mm	607 mm	220 mm	235 mm
RMS 8465	825 mm	490 mm	607 mm	220 mm	235 mm
RMS 8500	825 mm	527 mm	542 mm	220 mm	235 mm
RMS 8501	825 mm	527 mm	542 mm	220 mm	235 mm
RMS 8505	825 mm	527 mm	542 mm	220 mm	235 mm
RMS 8550	825 mm	527 mm	597 mm	220 mm	235 mm
RMS 8551	825 mm	527 mm	597 mm	220 mm	235 mm
RMS 8555	825 mm	527 mm	597 mm	220 mm	235 mm
RM 8500	825 mm	527 mm	542 mm		
RM 8501	825 mm	527 mm	542 mm		
RM 8505	825 mm	527 mm	542 mm		
RM 8550	825 mm	527 mm	597 mm		
RM 8551	825 mm	527 mm	597 mm		
RM 8555	825 mm	527 mm	597 mm		
RML 8550	1249 mm	529 mm	599 mm		
RML 8551	1249 mm	529 mm	599 mm		
RML 8555	1249 mm	529 mm	599 mm		
RMSL 8550	1249 mm	529 mm	599 mm	220 mm	235 mm
RMSL 8551	1249 mm	529 mm	599 mm	220 mm	235 mm
RMSL 8555	1249 mm	529 mm	599 mm	220 mm	235 mm

# 4.6 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.

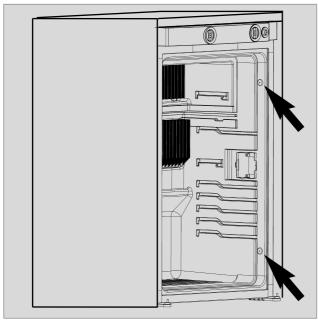


Fig. 32

## 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.

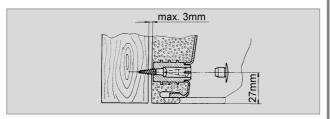


Fig. 33

# 4.7 Inserting the decor panel

#### Model RM 8xxx, RMS 8xxx

- Remove the lateral ledge (1) 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) .

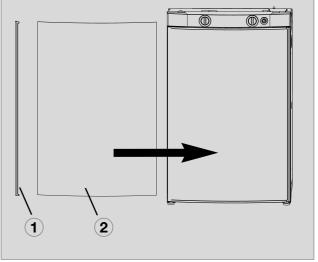


Fig. 34

## **Decor panel dimensions:**

Casing width	486 mm		
Height	Width	Thickness	
743 +/- 0.5 mm	472 +/- 0.5 mm	max. 2.2 mm	

Casing width	523 mm	
Height	Width	Thickness
743 +/- 0.5 mm	510.5 +0/- 1 mm	max. 2.2

## **Model RML 8xxx**

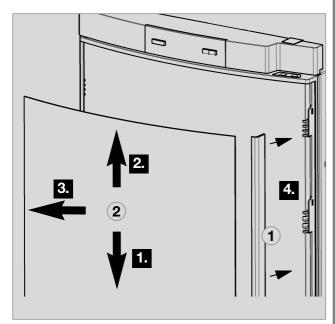
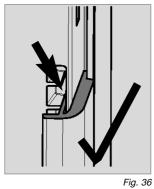


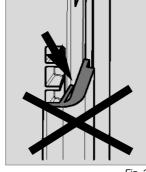
Fig. 35

3

4

# **CAUTION!**





# **Decor panel dimensions:**

Casing width 525 mm Height Width

**Thickness** 1169,5 +0/-1 mm 507,5 +0/-1 mm max. 1.7 mm

# Model RML 8xxx, frameless decor panel

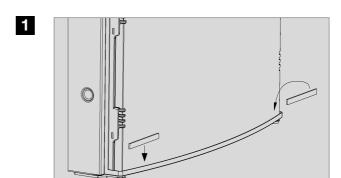


Fig. 38

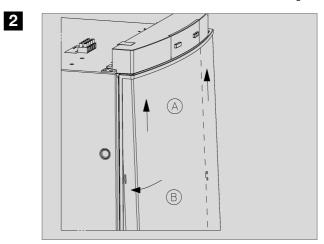


Fig. 39

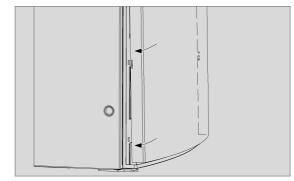


Fig. 40

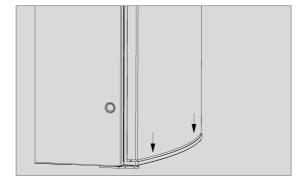


Fig. 41

### 4.8 Gas installation



#### **WARNING!**

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

\* Specialised 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 2.1
- This refrigerator is provided for installati on within liquid gas equipment in compli ance with EN1949 and must be run exclusively on liquid gas (propane, butane) (no natural gas, town gas).
- A fixed, pre-set pressure regulator complying with EN 12864 must be connected to the liquid gas cylinder.
- 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 (EN 1949, EN 732).
- 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) (EN 1949).
- The gas connection to the appliance is effected by means of (Ermeto-) olive type fitting L8, DIN 2353-ST, complying with EN 1949 (s. figure 42).
- After professional installation, a leakage test as well as a flame test have to be carried out by qualified personnel\* in conformity with EN 1949. A test certificate has to be issued.

■ 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.

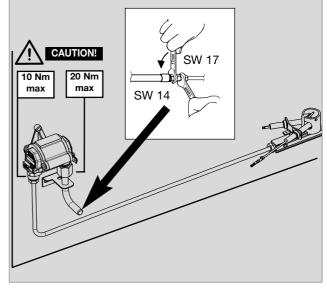


Fig. 42



Dometic refrigerators are equipped for a connection pressure of **30 mbar**. For connection to a 50 mbar gas system, use **Truma VDR 50/30 medium pressure controller**.



When using **LPG gas**, please consider that the burner needs cleaning at shorter intervals due to the gas combustion method (2 - 3 times per year recommended).

### 4.9 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.
- 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) to the internal wiring of the appliance will render the e1/ CE admittance as well as any claims from warranty and product liability void!

#### 4.9.1 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.

### 4.9.2 Battery connection

The machine's 12V connection cable is connected (observing correct polarity) to a terminal strip. The wiring for the heating element (refer to A, B wiring diagram connections; connection cable white/red) must be direct and by the shortest possible route to the battery or electric generator.

#### Cable cross sections and cable lengths:

#### Motorcaravan & Caravan (inside)

$$4 \text{ mm}^2 (RML 8xxx = 6 \text{ mm}^2)$$
 < 6 m  
 $6 \text{ mm}^2 (RML 8xxx = 10 \text{ mm}^2)$  > 6 m

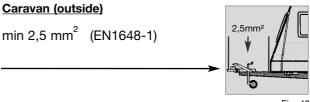


Fig. 43

#### **CAUTION!**

If the appliance is installed in a caravan the respective leads for the 12V+ and 12V- connections A/B and C/D must not be connected to each other on the caravan-side (EN 1648-1).

# Provide a 16 A fuse to protect on-board 12 V 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 (cf. page 22, connection A/B in wiring diagram) in a way to have the 12V supply only live while the vehicle ignition is switched on.

The connection C/D (interior light, electronics, cable black / violet) must be permanently provided by a 12V DC power supply to be protected by a 2A fuse.

#### 4.9.3 Terminal block

#### **Connections:**

A = Ground heating element DC

B = Positive connection, heating element DC

C = Ground electronics

D = Positive connection, electronics

D+ = Alternator signal

S+ = AES input signal from solar charge regulator

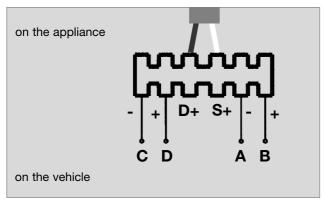


Fig. 44



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).

# 4.9.4 D+ and solar connection (only for AES models)

#### D+ - connection:

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

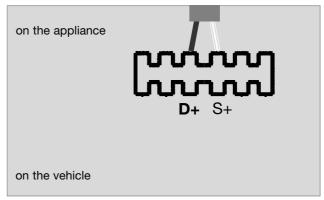


Fig. 45

#### S+ - 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** (adequate charging controllers available in selected stores). 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**.

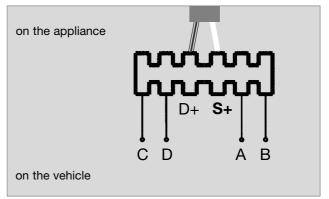


Fig. 46

#### Cable cross-sectional areas:

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

# 4.9.5 Wiring diagrams

Wiring diagram RM8xx0:

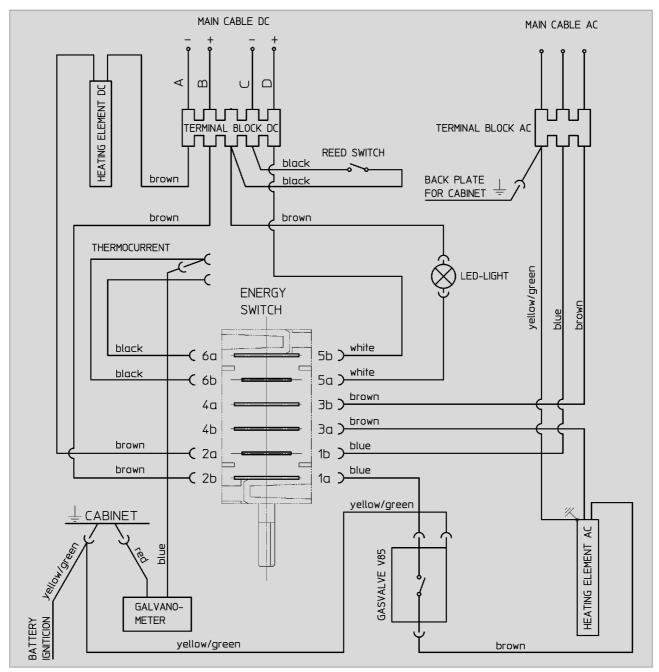


Fig. 43

# Wiring diagram RM8xx1:

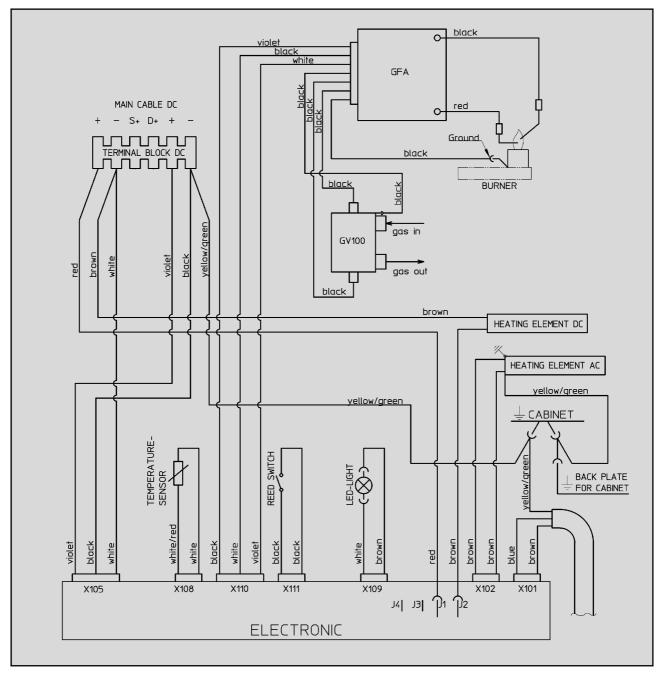


Fig. 47



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).

# Wiring diagram RM8xx5:

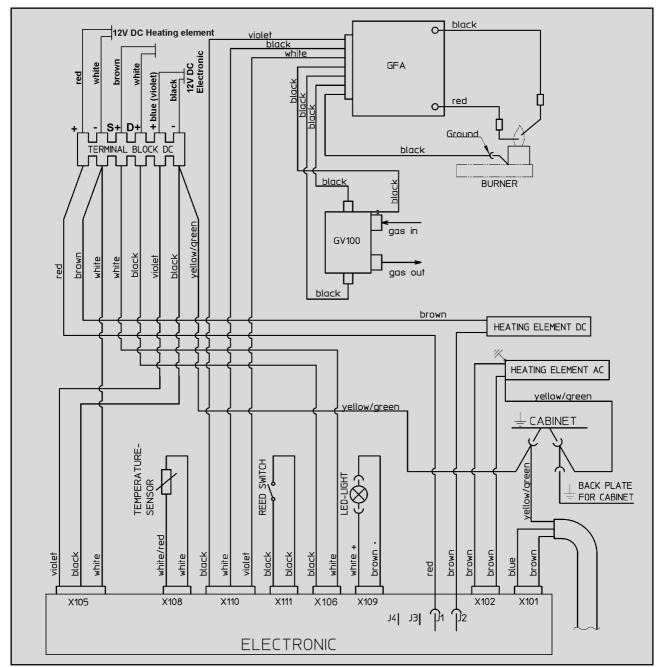


Fig. 48



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).

Installation

