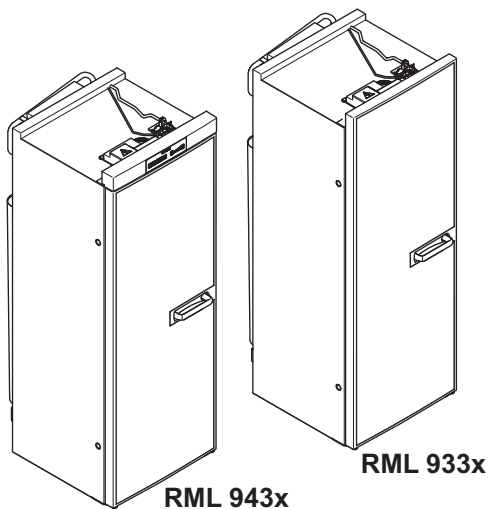


# ↗ DOMETIC REFRIGERATION 9 SERIES



RML9330, RML9331, RML9335  
RML9430, RML9431, RML9435

EN

**Absorber refrigerator**

Installation Manual



**Please read this instruction manual carefully before installation and first use, and store it in a safe place. If you pass on the product to another person, hand over this instruction manual along with it.**



**NOTE**

You can find details on the operation in the manual.

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6	Installing the refrigerator . . . . .	8
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# 1 Explanation of symbols

**WARNING!**

**Safety instruction:** Failure to observe this instruction can cause fatal or serious injury.

**CAUTION!**

**Safety instruction:** Failure to observe this instruction can lead to injury.

**NOTICE!**

Failure to observe this instruction can cause material damage and impair the function of the product.

**NOTE**

Supplementary information for operating the product.

## 2 Safety instructions

The manufacturer accepts no liability for damage in the following cases:

- Faulty assembly or connection
- Damage to the product resulting from mechanical influences and excess voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual



### WARNING!

- Never open the absorber unit. It is under high pressure and can cause injury if it is opened.
- Ensure clean and residue-free handling if silicon sealant or similar is used. There is a risk of fire if silicone filaments come into contact with hot parts or naked flames.
- Do not operate the refrigerator if it is visibly damaged.
- If the AC power cable for this refrigerator is damaged, it must be replaced by the manufacturer, customer service or a similarly qualified person in order to prevent safety hazards.
- Never use a naked flame to check the refrigerator for leaks.
- This refrigerator may only be repaired by qualified personnel. Inadequate repairs may cause serious hazards.
- Only use propane or butane gas (**not** natural gas).
- **Only operate the refrigerator** at the pressure shown on the type plate. Only use pressure controllers with a fixed setting which comply with the national regulations (in Europe EN 12864).
- Dismantle all refrigerator doors for the disposal of the old refrigerator and leave the shelves in the refrigerator to prevent accidental enclosure and suffocation.



### CAUTION!

- Danger of crushing! Do not put your fingers into the hinge.
- Before starting the device, ensure that the power supply line and the plug are dry.



### NOTICE!

- Only hold the refrigerator at the body of the refrigerator during transport. Never hold the refrigerator at the absorber unit, the cooling fins, the gas pipes, the door or the control panel.

- Make sure that the refrigerator circuit is not damaged during transportation. The refrigerant in the refrigerator circuit is highly flammable. In the event of any damage to the refrigerator circuit (smell of ammonia):
  - Switch off the refrigerator if applicable.
  - Avoid naked flames and sparks.
  - Air the room well.
- Do not install the refrigerator near naked flames or other heat sources (heaters, direct sunlight, gas ovens etc.).
- **Danger of overheating!**

Always ensure sufficient ventilation so that the heat generated during operation can dissipate. Make sure that the refrigerator is sufficiently far away from walls and other objects so that the air can circulate.
- Check that the voltage specification on the type plate is the same as that of the power supply.
- Do not open the refrigerant circuit under any circumstances.
- Only use the AC connection cable supplied to connect the refrigerator to the AC mains.
- Only use cables with a suitable size.
- Never pull the plug out of the socket by the connection cable.
- The refrigerator may not be exposed to rain.

### 3 Scope of delivery

- Refrigerator
- Ice-cube tray
- Operating manual
- Installation manual

### 4 Accessories

Available as accessories (not included in the scope of delivery):

#### Description

Fan kit for boosting the cooling capacity at high ambient temperatures

Ventilation grille

Winter cover for the ventilation grille

Divider, bottle finger (RML9430/9431/9435 only)

Shelf with safety edges (RML9430/9431/9435 only)

Door shelf locking

Bottle holder for door shelf locking

Shelf locking

All the accessories are available from specialist dealers. If you have any questions, please contact the dealer or your service partner directly.

### 5 Intended use

The RML9330, RML9331, RML9335, RML9430, RML9431 and RML9435 refrigerators are designed for installation in caravans or motorhomes. They are only suitable for cooling and storing foodstuffs. The refrigerators are not intended for the proper storage of medicine.

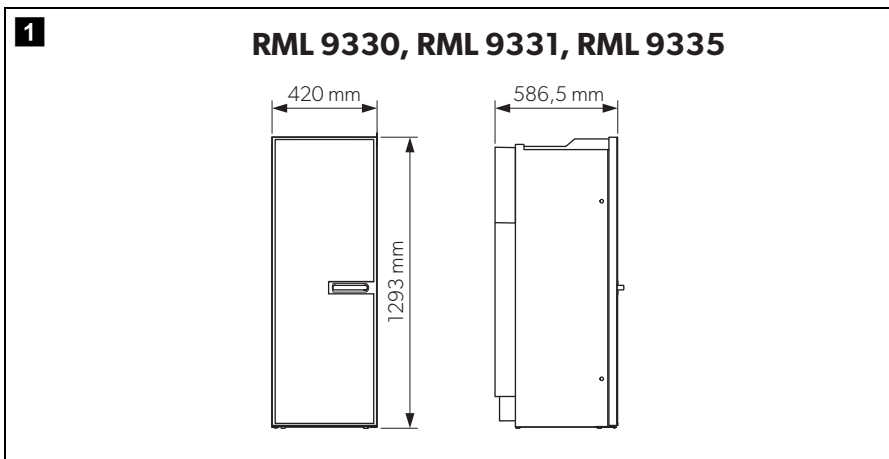
The refrigerators are designed to be operated on a DC power supply and an AC socket and can be independently powered by liquid gas (propane or butane). The refrigerators may **not** be run on natural gas or city gas.

## 6 Installing the refrigerator

### 6.1 Preparing the installation

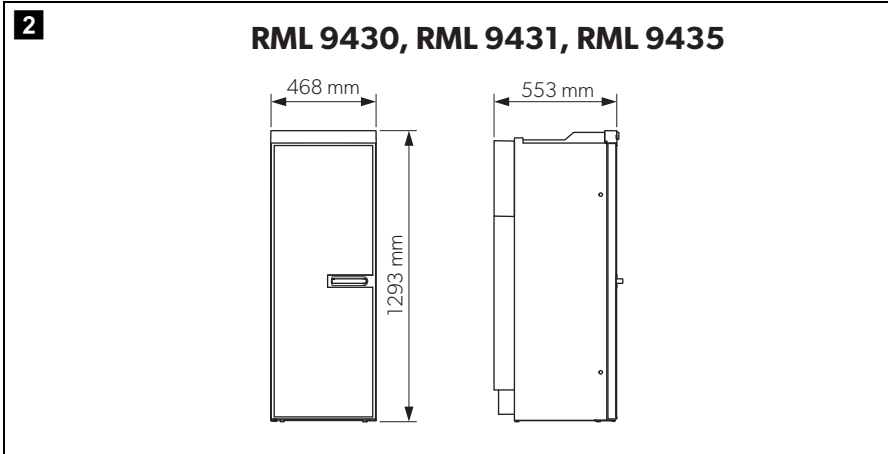
When installing the refrigerator, note the following:

- To enable the refrigerant to circulate properly, the refrigerator may not exceed an angle of 3°.  
To do this, park the vehicle on a level surface and check to see if the ice-cube tray is flat in the refrigerator.
- The refrigerator must be installed so that it is easily accessible for service work, easy to de-install and install and can be easily removed from the vehicle.
- The distance between the refrigerator and the rear wall must be min. 15 mm – max. 25 mm (fig. **5**, page 11).
- The refrigerator must be installed in a recess so that it stands firm when the vehicle is in motion. Note the following dimensions here (H x W x D in mm):

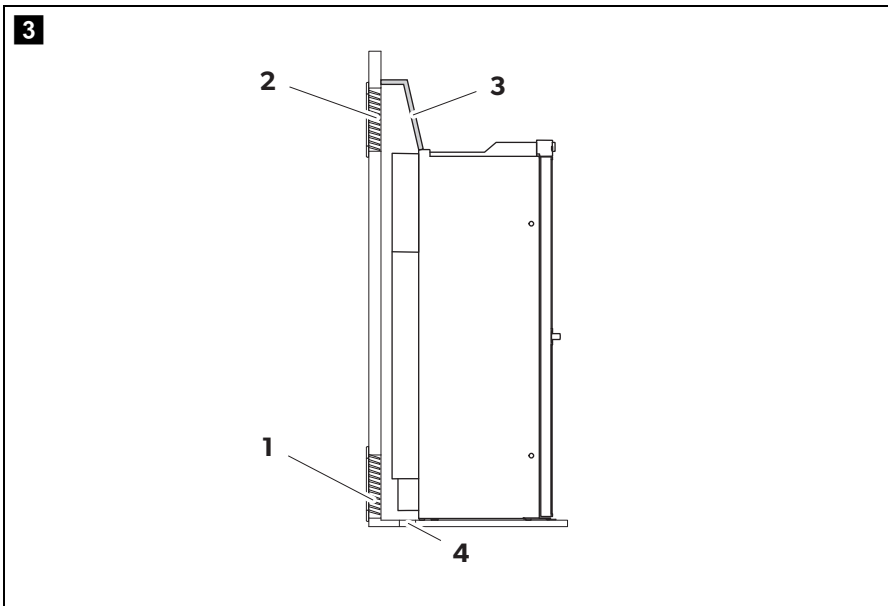


- **RML9330/9331/9335:** 1293 x 420 x 586.5 (fig. **1**)

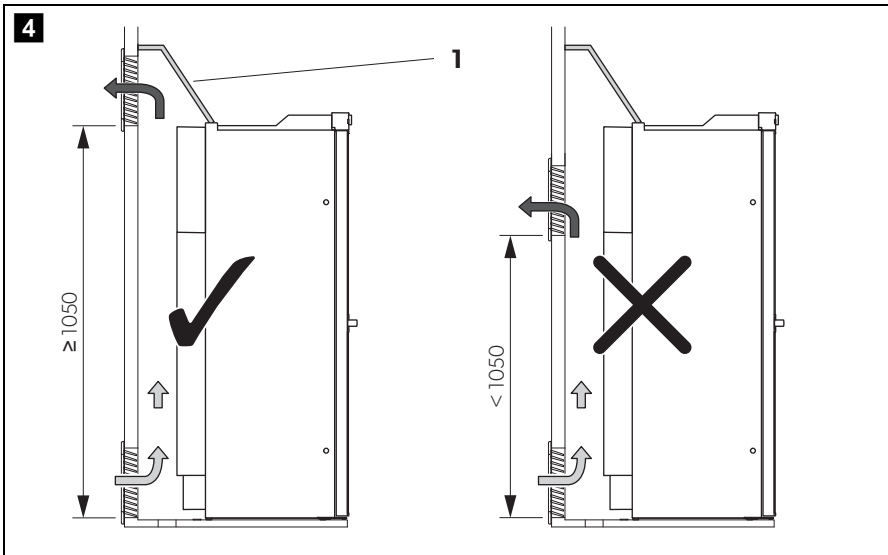




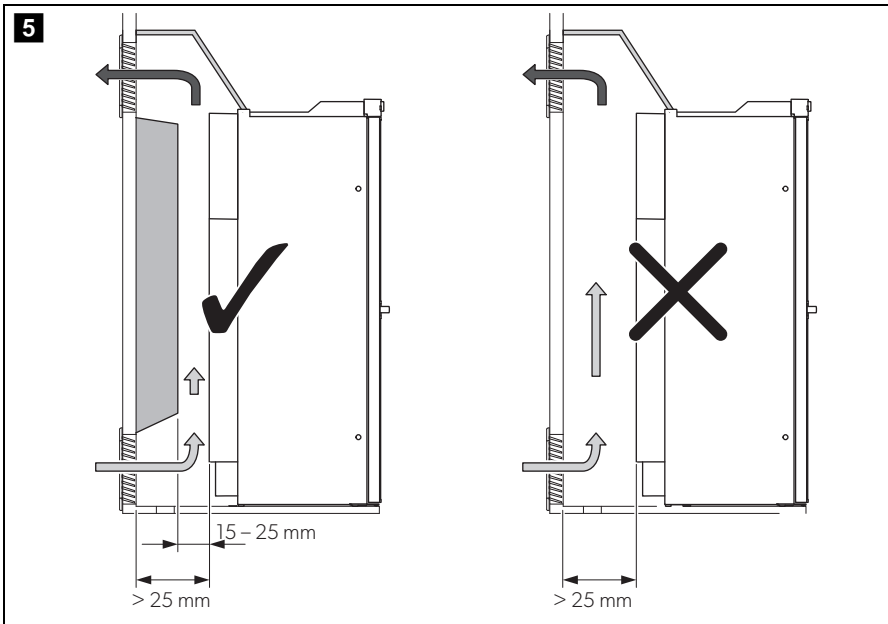
- **RML9430/9431/9435:** 1293 x 468 x 553 (fig. **2**)



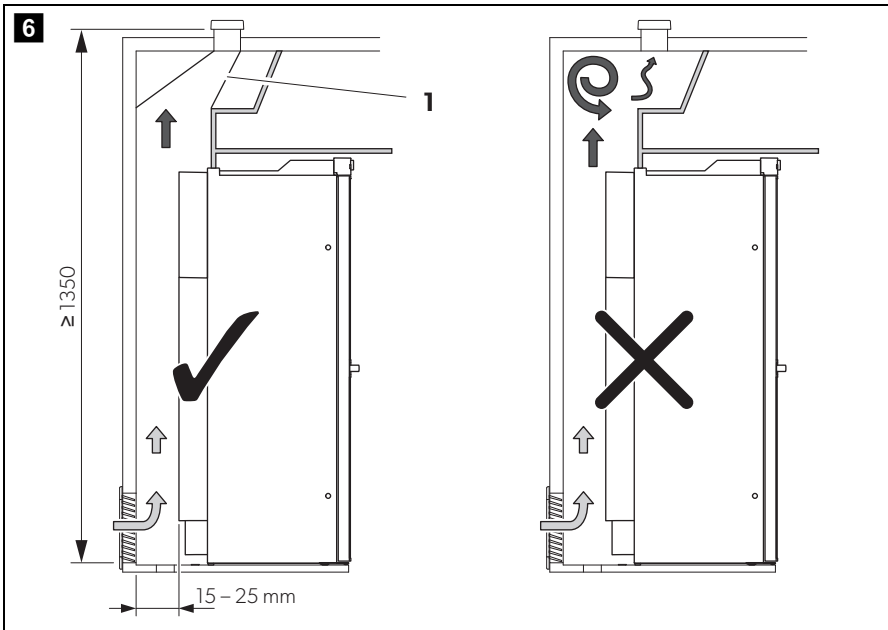
- The outer wall must be fitted with an air inlet vent (fig. **3** 1) and an outlet vent (fig. **3** 2) with ventilation grilles so that the heat generated can be easily released to the outside:
  - Air inlet vent: Fit the ventilation grille as flush as possible to the floor of the installation niche with a minimum cross-section of 500 cm<sup>2</sup>.
  - Outlet vent: fit as far above the refrigerator as possible.



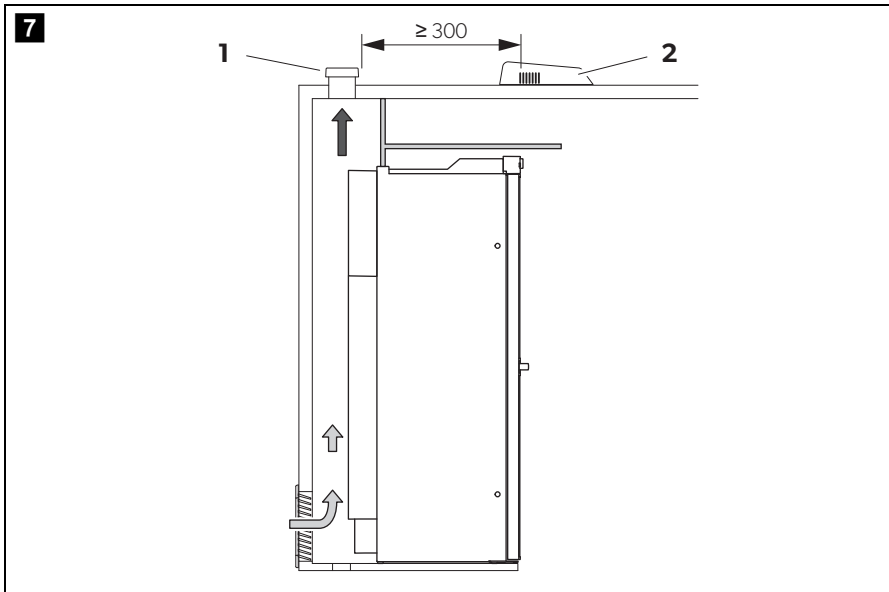
- The distance between the air inlet and outlet vents must be at least 1050 mm (fig. **4**).
- Fit a heat conduction plate (fig. **3** 3, page 9) above the refrigerator so that the heat does not accumulate in the vehicle.
- If the ventilation grille of the air inlet vent cannot be installed flush to the ground, an additional inlet vent (fig. **3** 4, page 9) must be provided in the floor for releasing leaked gas.



- A distance of more than 25 mm between the refrigerator and rear wall leads to poor performance and increases the power consumption of the refrigerator. Reduce the space behind the refrigerator to create adequate air inlet and outlet ventilation (fig. **5**). Use a ventilation plate, for example, to do this.



- If the minimum distance between the air inlet and outlet vents cannot be met, a roof vent must be installed instead of the air outlet vent.
  - The roof vent should be installed directly above the back of the refrigerator as far as this is possible. Use an air duct (fig. **6** 1) if you need to install the roof vent offset, otherwise heat will accumulate there.
  - The distance between the air inlet vent and the roof vent must be at least 1350 mm (fig. **6**).



- If a roof air conditioner is provided, the distance between the roof vent (fig. **7** 1) and the air outlet of the roof air conditioner (fig. **7** 2) must be at least 300 mm.
- The refrigerator must not be installed at the side of the air inlet and outlet vents as this leads to poor performance and increases the power consumption of the refrigerator.
- The air inlet and outlet vents must not be covered by vehicle parts (such as an open door or by installing accessories such as bicycle racks) while operating.
- Install the refrigerator so that it is protected from excessive heat, as this leads to poor performance and increases the power consumption of the refrigerator.
- The electrical installation must comply with national and local regulations. European standards: EN 60335-1, EN 60335-2-24, EN 1648-1 and EN 1648-2.
- The gas installation must comply with national and local regulations. European standard: EN 1949.
- The refrigerator must be installed in a draught-proof location in accordance with EN 1949, see chapter “Installing the refrigerator in a draught-proof location” on page 14.

## 6.2 Installing the refrigerator in a draught-proof location

Gas-powered refrigerators in caravans or motorhomes must be installed in a draught-free location according to EN 1949. This means that the combustion air is not extracted from the interior and the exhaust fumes are prevented from directly entering the living space.

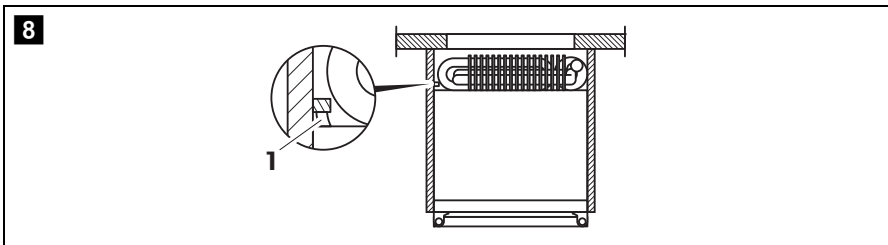
A suitable seal must be fitted between the rear panel of the refrigerator and the interior of the vehicle.



### **WARNING! Fire hazard!**

Do not use flammable materials such as silicone sealants, foam or similar for the draught-proof installation.

The manufacturer recommends using a flexible seal to ease removal and installation for maintenance purposes.



- Attach the sealing lips (fig. **8** 1) to a stop rail behind the refrigerator, for example, by using an adhesive.
- When installing, push the refrigerator against the stop rails with the sealing lips. This then seals the space behind the refrigerator to the interior of the vehicle.

### 6.3 Making air inlet and outlet vents



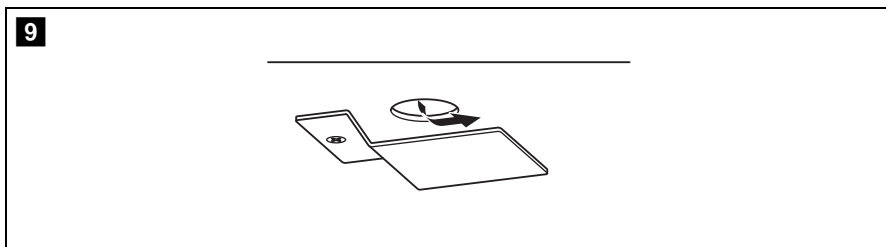
#### NOTE

At high ambient temperatures, the refrigerator can only provide its maximum cooling capacity if the optimum ventilation has been provided.

- Make an air inlet vent and an air outlet vent in the outer wall with the size of 410 mm x 249 mm. When doing so, observe the information, see chapter “Preparing the installation” on page 8.

If the ventilation grille of the air inlet vent cannot be installed flush with the floor of the niche, you need to install an inlet vent in the floor:

- Make an air inlet vent in the floor (fig. **3** 4, page 9) behind the refrigerator near the gas burner.

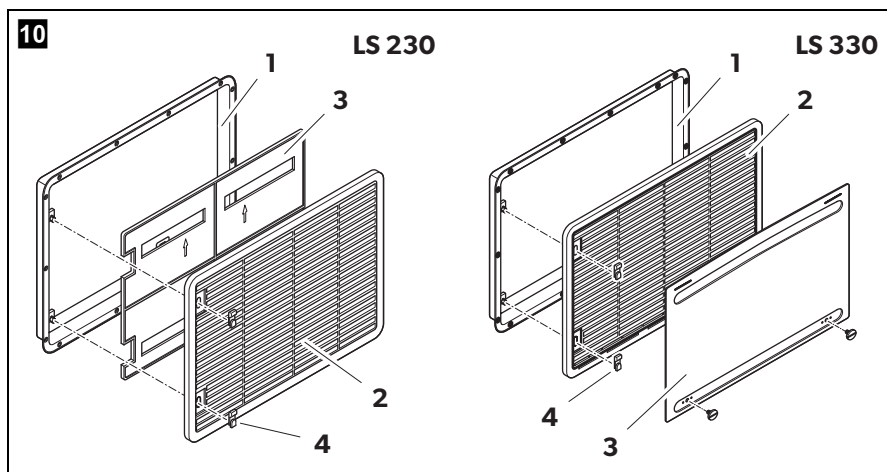


- Shield the end of the opening with a deflector to prevent sludge or dirt from getting inside while driving (fig. **9**).

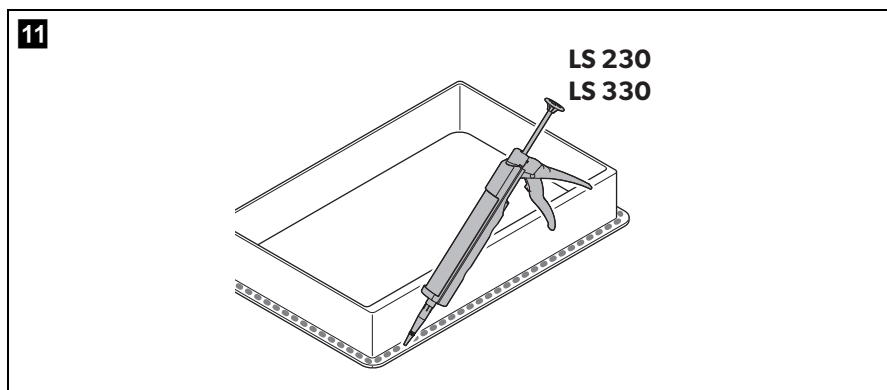
If you have to use a roof vent instead of the air outlet vent:

- Cut out a section in the roof. Refer to the roof vent instruction manual for the required dimensions. When doing so, observe the information, see chapter “Preparing the installation” on page 8.

## 6.4 Installing the ventilation grille

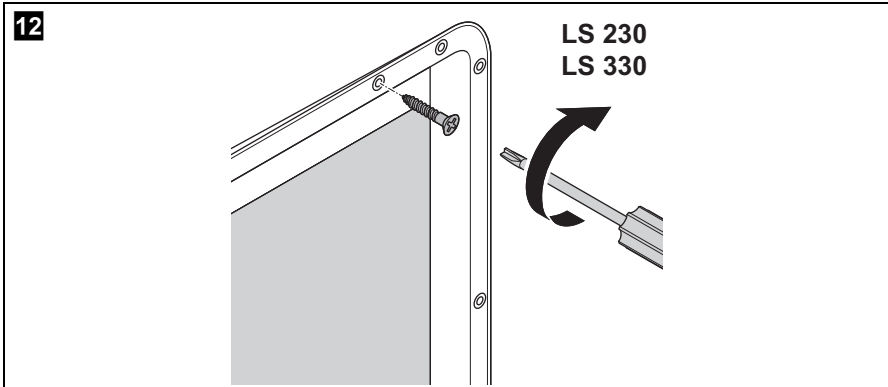


No. in fig. 10	Description
1	Installation frame
2	Ventilation grille
3	Winter cover
4	Slider

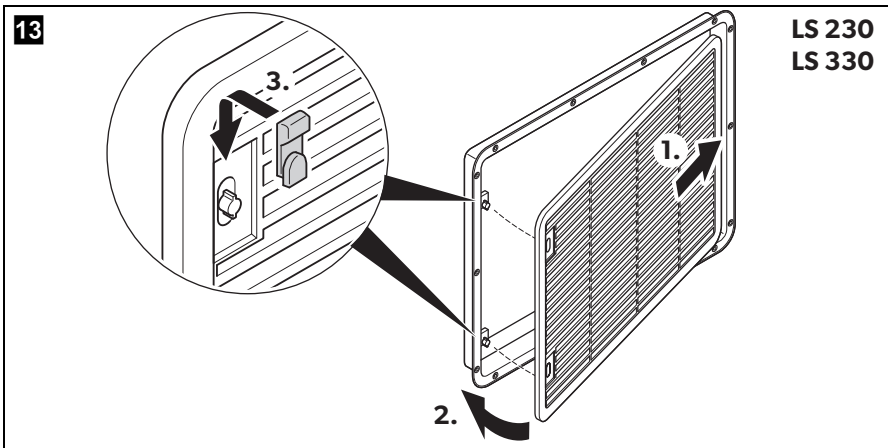


➤ Ensure the installation frame is water resistant (fig. 11).



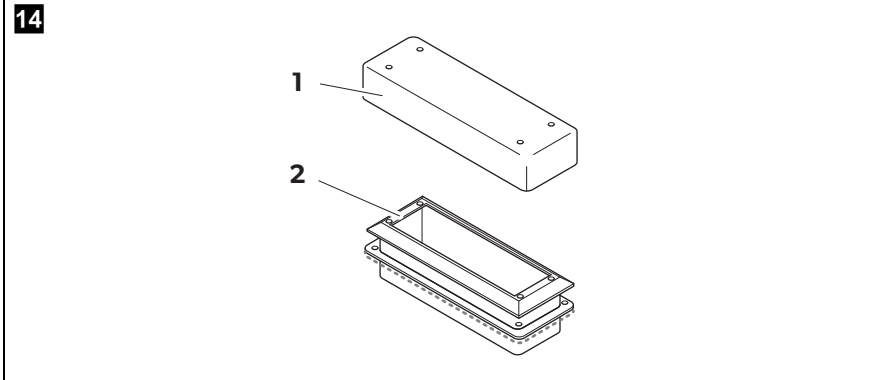


- Insert the installation frame and screw it down tightly (fig. 12).



- Fit the ventilation grille (fig. 13).
- Insert the slider and lock the ventilation grille with it (fig. 13).

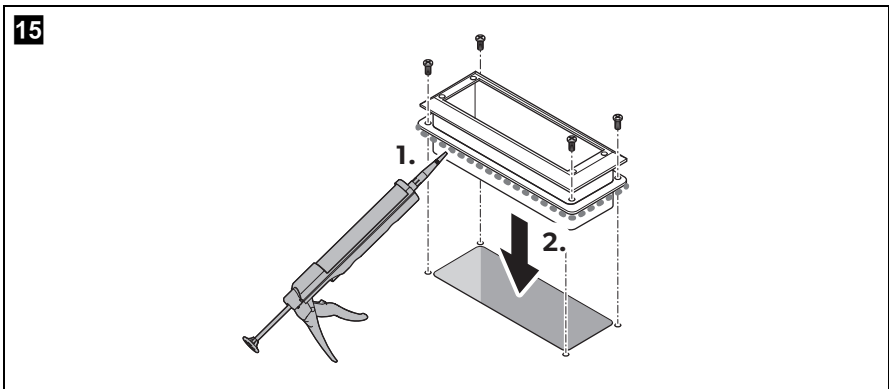
## 6.5 Install the roof vent



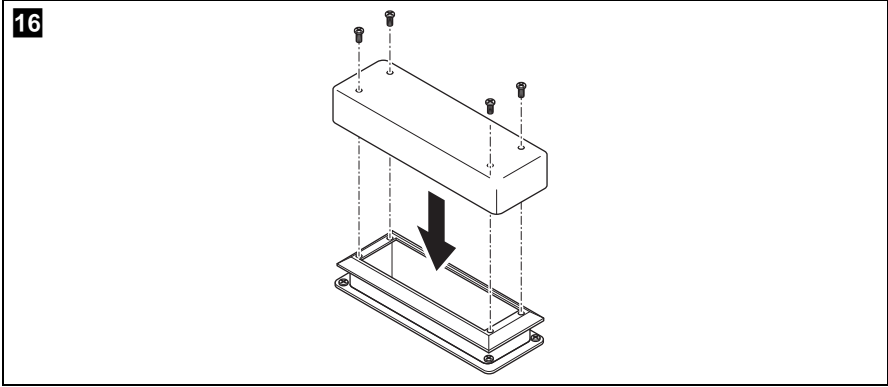
**No. in  
fig. 14**

**Description**

1	Installation frame
2	Hood

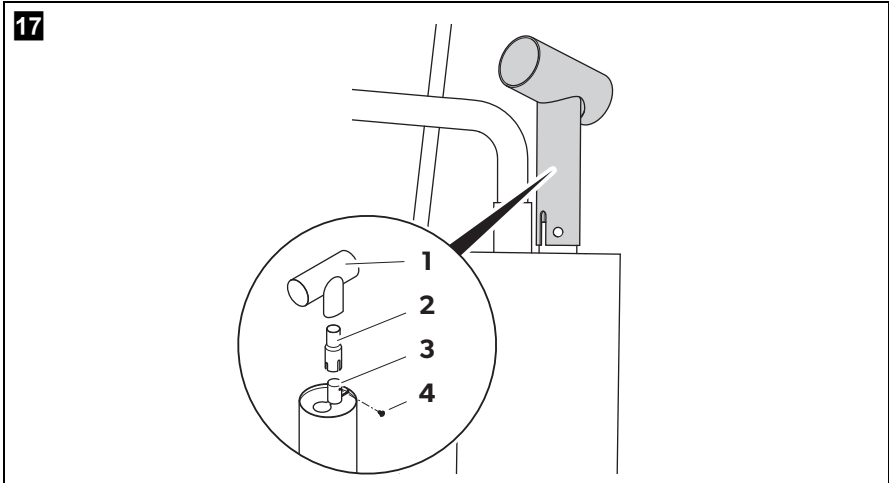


- Ensure the installation frame is water resistant (fig. 15).
- Insert the installation frame and screw it down tightly (fig. 15).



➤ Insert the hood and screw it down tightly (fig. **16**).

## 6.6 Install the flue duct



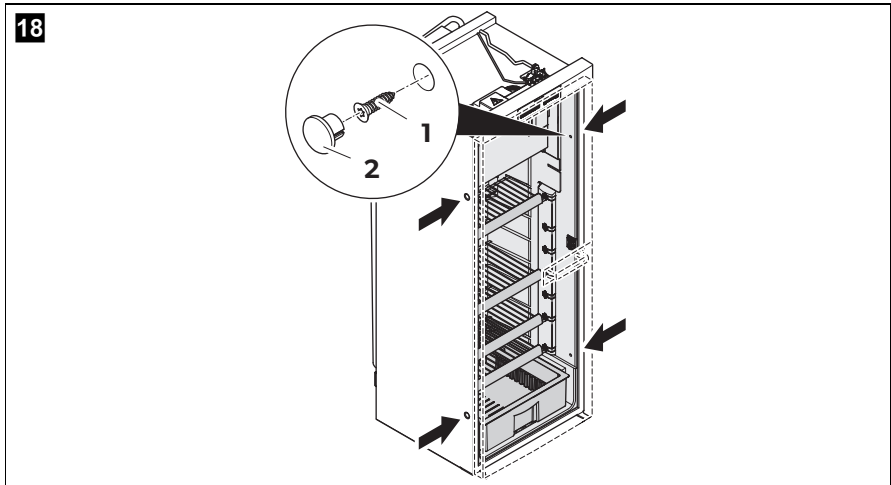
### NOTE

Do not install an additional flue stack, as this leads to poor performance and increases the power consumption of the refrigerator.

The flue duct is installed at the factory. Follow these steps when you have removed the flue duct and want to reinstall it (fig. **17**):

- ▶ Place the T-piece (**1**) on the adaptor (**2**) and the flue pipe (**3**).
- ▶ Direct the T-piece at an angle of 45° towards the rear wall.
- ▶ Attach the T-piece, adaptor and flue pipe with a screw (**4**).

## 6.7 Securing the refrigerator



### CAUTION!

Only drill through the receptacles provided, otherwise foamed components, including cables, can be damaged.



### NOTE

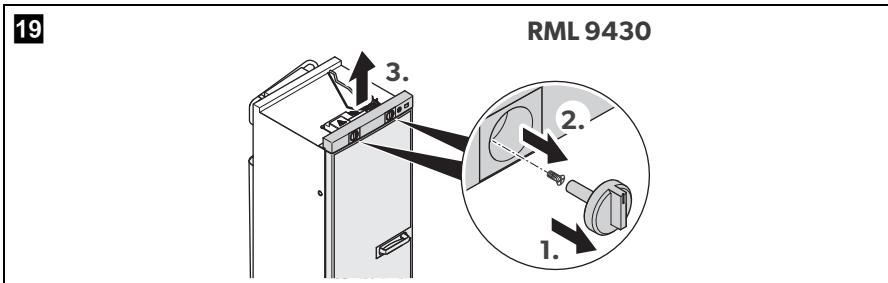
Attach the side walls or the attached strips so that the screws are tight, even when under increased loads (while driving).

Proceed as follows (fig. **18**):

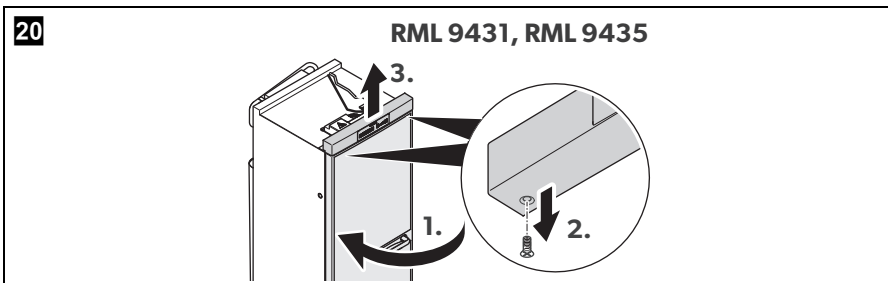
- Move the refrigerator into its final location.
- Fasten the four screws (1) through the four plastic washers in the sides of the refrigerator, and further into the wall.
- Put the caps (2) onto the screw heads.

## 6.8 Reversing the door (RML9430/9431/9435 only)

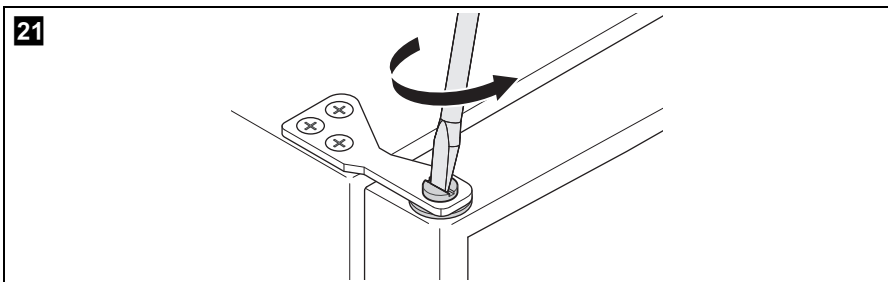
- Remove the control panel.



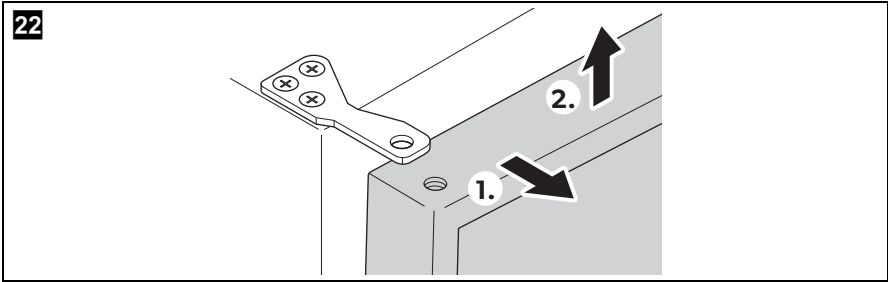
- **RML9430**: Unscrew the dials carefully and loosen the screws, (fig. **19**)



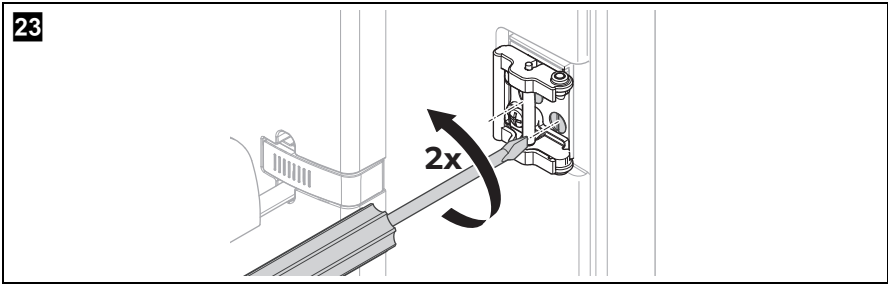
- **RML9431/9435**: Open the refrigerator door and undo the screws underneath the control panel, (fig. **20**)



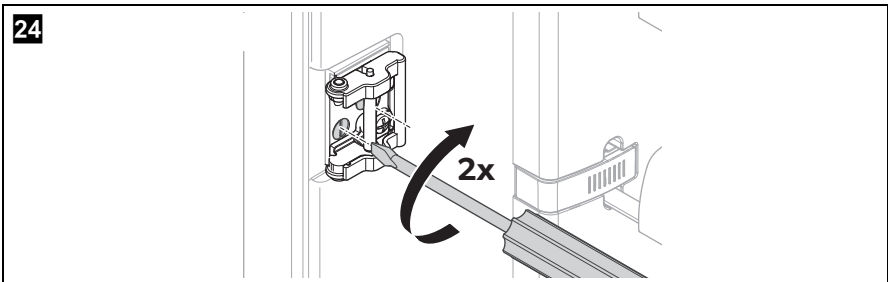
- Undo the hinge screw on the top door hinge and keep it in a safe place (fig. **21**).



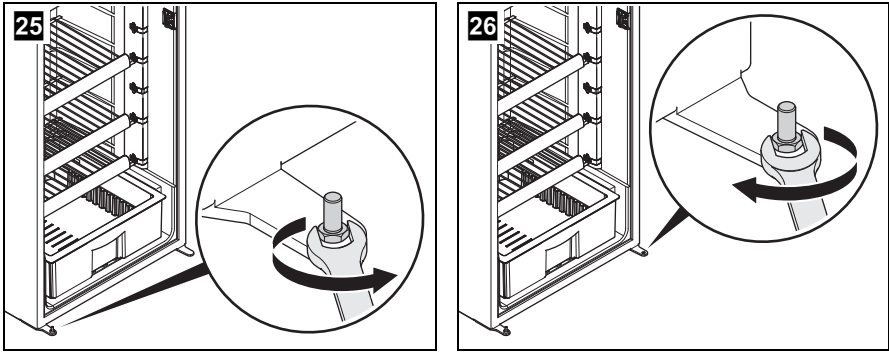
- Lift up the door and remove it (fig. **22**).



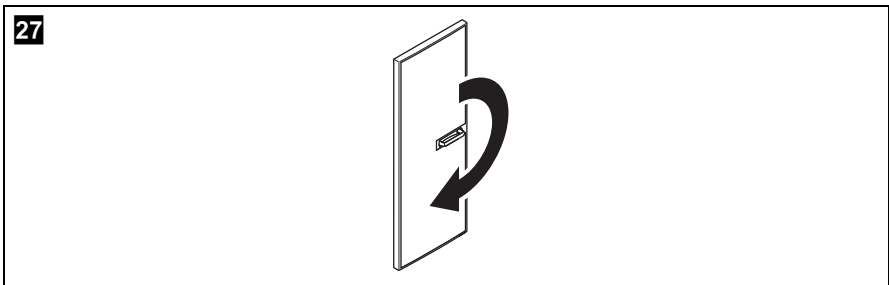
- Undo the two screws on the door lock and remove the door lock (fig. **23**).



- Place the door lock on the other side again and tighten it with the two screws (fig. **24**).



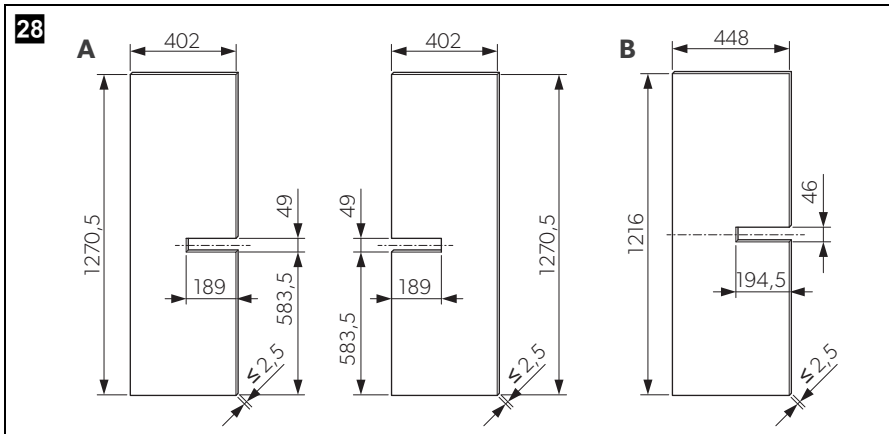
- Undo the hinge pin (fig. **25**) and position it on the other side (fig. **26**).



- Turn the door by 180° (fig. **27**).
- Place the door on the hinge pin.
- Replace the control panel and screw it down tightly.



## 6.9 Put on the door panel

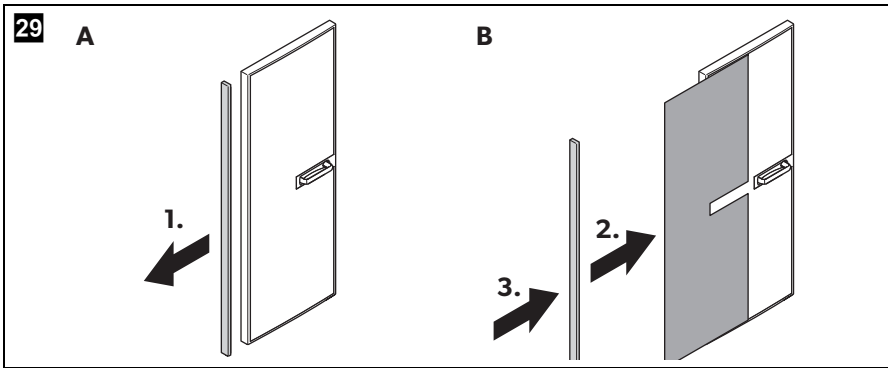


### NOTICE! Beware of damage

Only ever lay the refrigerator on its side and never on its back. Otherwise the unit may be damaged.

The door panel has the following dimensions (fig. **28**):

- RML9330/9331/9335: **A**
- RML9430/9431/9435: **B**



Proceed as follows (fig. **29**):

- Remove the door trim carefully. It is only stuck on and held by small hooks (**A**).
- Slide the new panel into the opening (**B**).
- Replace the door trim (**B**).
- ✓ The door trim is secure once it clicks into place.

If you have laid the refrigerator on its side to insert the panel:

- Wait a few minutes before you switch on the refrigerator.

# 7 Connecting the refrigerator

## 7.1 Connecting to the gas supply



### NOTICE!

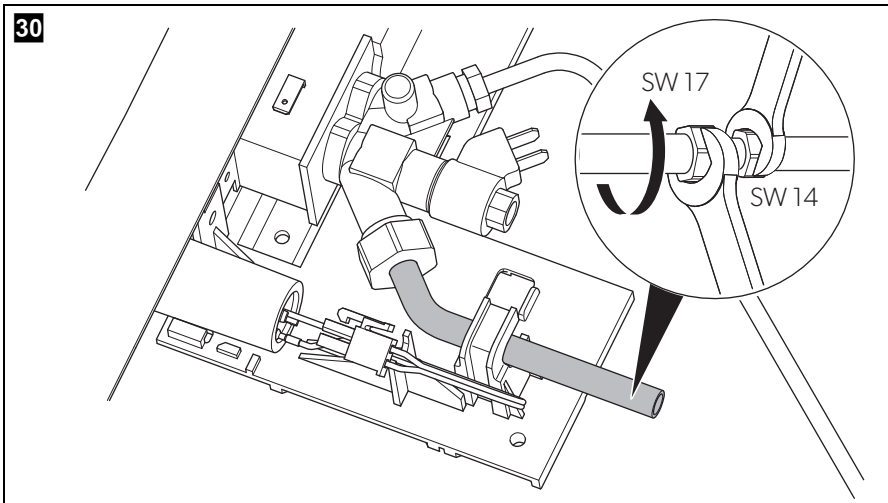
- This refrigerator may only be connected to the gas supply by a specialist in accordance with the applicable guidelines and standards.
- Only use cylinders of propane or butane gas (not natural gas or city gas) with an approved pressure reduction valve and suitable head. Compare the pressure information on the type plate with the pressure information on the pressure regulator on the propane or butane gas cylinder.
- **Only** operate the refrigerator at the pressure shown on the type plate.
- Please note the pressures which are permitted in your country. Use a DIN-DVGW-approved pressure regulator with a fixed setting:
  - The following applies for Germany: DIN EN 12864
  - The following applies for Europe: EN 732 and EN 1949



### NOTE

The refrigerator is equipped for a connection pressure of 30 mbar. Use a 50/30 mbar pressure regulator when connected to a 50 mbar system.

It must be possible to shut off the refrigerator from the gas line separately by means of a shut-off device. The shut-off device must be easily accessible.



- ▶ Connect the refrigerator securely by hand to the gas supply (fig. **30**).  
The following applies for Europe: Use a cutting ring fitting in accordance with EN 1949.  
A hose connection is not permitted.
- ▶ Have a leak test and a flame test performed in accordance with EN 1949 by an authorised specialist.  
Ensure you are issued with a certificate of inspection.

## 7.2 Connecting to 12 V $\text{---}$ and 230 V $\sim$



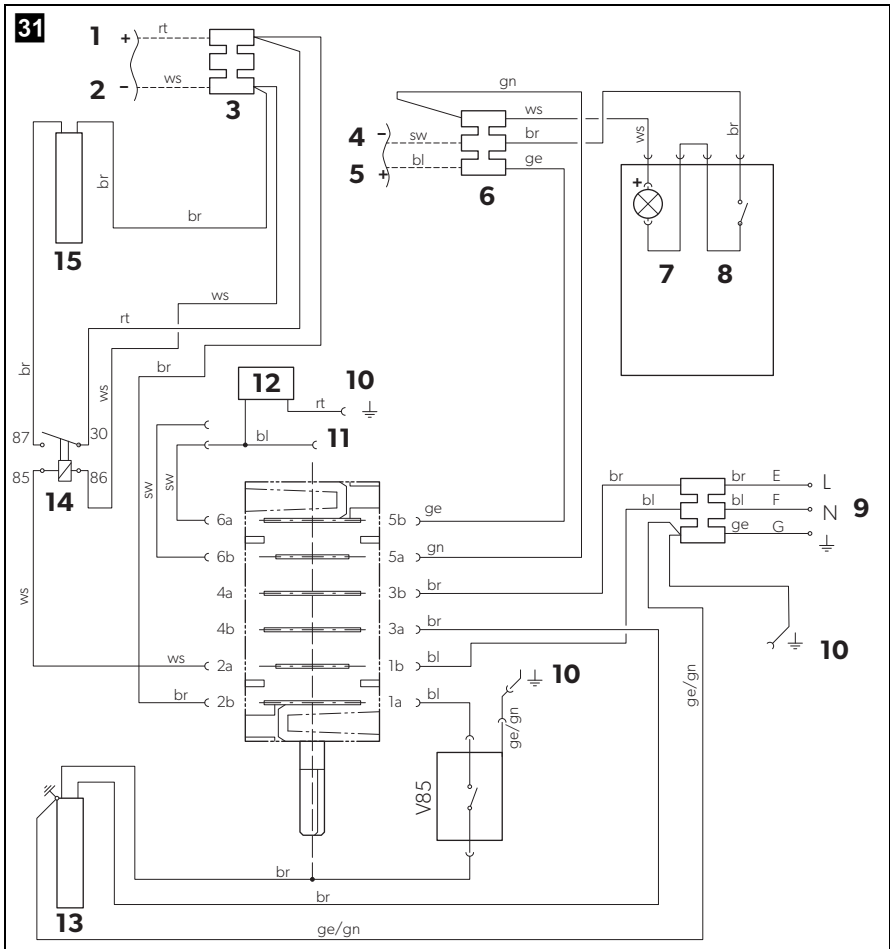
### NOTICE!

- The electrical installation and repairs may only be performed by a specialist in accordance with the applicable regulations and standards.
- According to EN 1648-1, the respective negative and positive cables of the DC connections for heating and lighting may not be joined with one another in a caravan. This can cause electrical interference or damage to electrical components.
- The inverter may only be connected by a specialist.



### NOTE

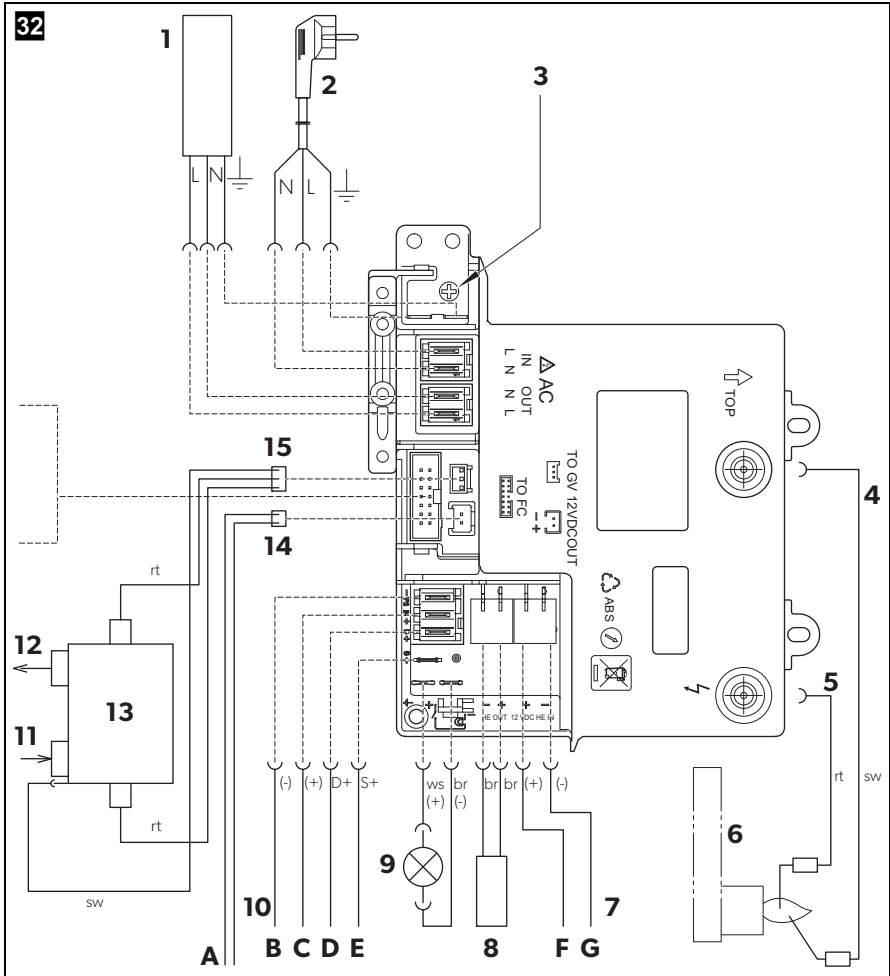
- The mains socket must be easily accessible so that you can unplug the power cord if required, thereby disconnecting the refrigerator from the power.
- The plug of the AC connection cable must not be cut off.
- The connection cables must be laid so that they do not come in contact with hot parts of the unit/burner or with sharp edges.
- Changes to the internal electrical installation or the connection of other electrical components (e.g. extra third party fans) to the internal wiring of the refrigerator will void the E1/CE approval and any claims from the guarantee and product liability.



	<b>bl</b>	<b>br</b>	<b>ge</b>	<b>gn</b>	<b>rt</b>	<b>sw</b>	<b>ws</b>
<b>EN</b>	Blue	Brown	Yellow	Green	Red	Black	White

- Connect the RML9330/9430 refrigerators as follows (fig. **31**, page 30).

<b>Item</b>	<b>Description</b>
1	Heating element positive terminal (+) DC power
2	Heating element earth terminal DC power
3	Heating cartridge terminal strip DC power
4	Lighting negative terminal (-)
5	Lighting positive terminal (+)
6	Lighting terminal strip DC power
7	LED lighting DC power
8	LED lighting switch
9	AC power connection cable
10	Earth housing (upper section)
11	Thermal power adapter
12	Galvanometer
13	Heating cartridge AC power
14	Relay 30 A
15	Heating cartridge DC power



	<b>br</b>	<b>rt</b>	<b>sw</b>	<b>ws</b>
<b>EN</b>	Brown	Red	Black	White



- Connect the RML9331/9335/9431/9435 refrigerators as follows (fig. **32**, page 32):

<b>Item</b>	<b>Description</b>
1	Heating cartridge AC power
2	AC power connection cable
3	Earth AC power
4	Ionisation
5	Ignition
6	Burner
7	Heating cartridge DC power supply
8	Heating cartridge DC power
9	LED lighting
10	Electronics DC power supply
11	Gas inlet
12	Gas outlet
13	Gas valve
14	DC power outlet
15	Gas valve supply line
A	Optional connections to DC power outlet
B	Negative terminal (-) DC permanent supply for electronics
C	Positive terminal (+) DC permanent supply for electronics
D	Connection D+
E	Connection S+
F	Heating element positive terminal (+) DC power
G	Heating element earth terminal DC power

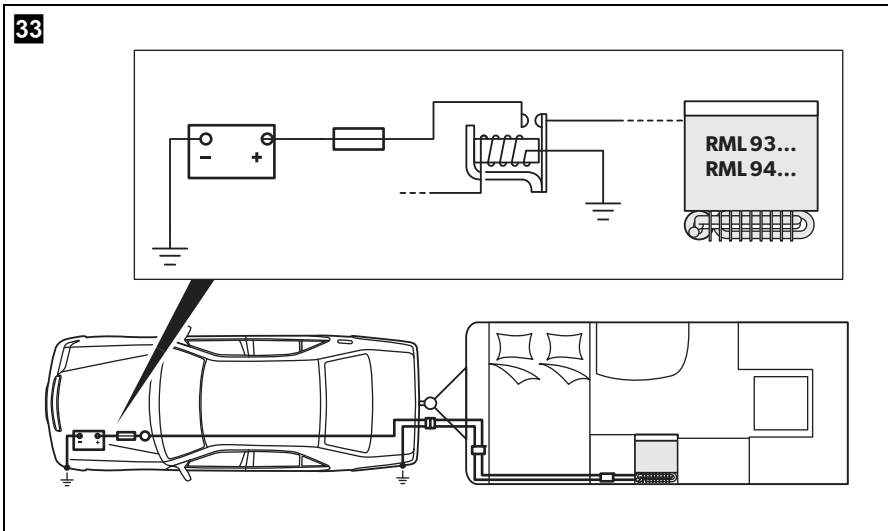
**AC power:**

- Connect the refrigerator with the mains plug to an AC socket.

**DC power:**

Please note the following cable sizes:

- < 6 m (interior): 6 mm<sup>2</sup>
  - > 6 m (interior): 10 mm<sup>2</sup>
  - Connections D+ and S+: 1 mm<sup>2</sup>
  - Cable fed via drawbar (caravans only): 2.5 mm<sup>2</sup>
- Secure the power supply line to the heating element (connection 4) with a 20 A fuse and the supply for lighting/electronics (connection 6) with a 2 A fuse.
  - Connect the heating element (connections 3 and 4) with the shortest possible cable.



- Run the cable to the heating element (connections 3 and 4) via a relay controlled by an ignition socket to prevent the battery from completely discharging if the engine is switched off accidentally (fig. **33**).
- **RML9331/9335/9431/9435 only:** Connect a 12 V continuous supply to the connection for lighting/electronics (terminals 5 and 6).

**D+ (RML9335/9435 only)**

In automatic mode, the refrigerator selects the most favourable mode available. The refrigerator is only operated with direct current when the vehicle engine is running. The electronics of the refrigerator uses the signal D+ from the light system to detect the running engine.

- Connect the D+ connection to the controls (fig. **32** D) with the respective terminal of the vehicle.

**S+ (RML9335/9435 only)**

In automatic mode, the refrigerator is first powered with DC power from the vehicle's own solar system. The refrigerator electronics uses the S+ signal of the solar charge controller to detect a solar system. The solar charge controller must have an AES output.

- Connect the S+ connection on the controller (fig. **33** E) to the respective terminal of the solar charge controller.

Suitable solar charge controllers are available from specialist dealers. The manufacturer recommends, for example:

- Büttner MT 300-S  
([www.buettner-elektronik.de](http://www.buettner-elektronik.de))
- Votronic MPP 240 Duo Digital  
([www.votronic.de](http://www.votronic.de))


## 8 Technical data

	RML9330	RML9331	RML9335
Voltage:	230 V~ / 50 Hz 12 V==		
Gross capacity:	134 l		
Ice compartment:	12 l		
Gross capacity (excluding ice compartment):	138.5 l		
Net capacity:	129 l		
Net capacity (excluding ice compartment):	133.5 l		
Power consumption:	170 W (230 V~) 170 W (12 V==)		
Power consumption:	3.2 kWh/24 h (230 V~) 340 Ah/24 h (12 V==)		
Gas consumption:	380 g/24 h		
Climatic class:	SN		
Noise emission:	0 dB(A)		
Ignition:	Manual	Automatic	Automatic
Power choice:	Manual	Manual	Automatic
Dimensions:	fig. <b>1</b> , page 8		
Weight:	37 kg		
Inspection/certification:			



**NOTE**

You can obtain the CE declaration of conformity at Dometic.

	<b>RML9430</b>	<b>RML9431</b>	<b>RML9435</b>
Voltage:	230 V $\sim$ / 50 Hz 12 V $\equiv$		
Gross capacity:	146 l		
Ice compartment:	12 l		
Gross capacity (excluding ice compartment):	151 l		
Net capacity:	142 l		
Net capacity (excluding ice compartment):	148 l		
Power consumption:	170 W (230 V $\sim$ ) 170 W (12 V $\equiv$ )		
Power consumption:	3.2 kWh/24 h (230 V $\sim$ ) 340 Ah/24 h (12 V $\equiv$ )		
Gas consumption:	380 g/24 h		
Climatic class:	SN		
Noise emission:	0 dB(A)		
Ignition:	Manual	Automatic	Automatic
Power choice:	Manual	Manual	Automatic
Dimensions:	fig. <b>2</b> , page 9		
Weight:	37 kg		
Inspection/certification:			

**NOTE**

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A complete list of Dometic companies, which comprise the Dometic Group, can be found in the public filings of:  
**DOMETIC GROUP AB** Hemvärnsgatan 15 SE-17154 Solna Sweden