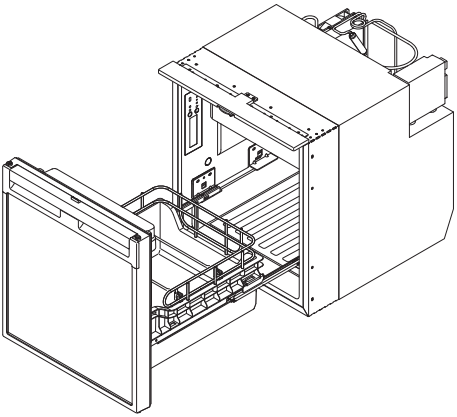
DOMETIC

REFRIGERATION
CRX



CRX 65D

EN **Compressor refrigerator**
Installation and Operating 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.

Table of contents

1 Explanation of symbols

DANGER!
Safety instruction: Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING!
Safety instruction: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION!
Safety instruction: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE!
Indicates a situation that, if not avoided, can result in property damage.

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 incorrect connection voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual

WARNING! Failure to obey these warnings could result in death or serious injury.

Electrocution hazard

- Do not operate the cooling device if it is visibly damaged.
- If this cooling device's power cable is damaged, it must be replaced to prevent safety hazards.
- This cooling device may only be repaired by qualified personnel. Improper repairs can lead to considerable hazards.

Fire hazard

- When positioning the device, ensure the supply cord is not trapped or damaged.
- Do not locate multiple portable socket-outlets or portable power supplies at the rear of the device.

Health hazard

- This device can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the device in a safe way and understand the hazards involved.
- Children shall not play with the device.
- Cleaning and user maintenance shall not be made by children without supervision.
- Children aged from 3 to 8 years are allowed to load and unload cooling devices.

Explosion hazard

- Do not store any explosive substances such as spray cans with a flammable propellant in the cooling device.

CAUTION! Failure to obey these cautions could result in minor or moderate injury.

Electrocution hazard

- Before starting the cooling device, ensure that the power supply line and the plug are dry.
- Disconnect the cooling device from the power supply
  - before each cleaning and maintenance
  - after every use

Health hazard

- Please check if the cooling capacity of the device is suitable for storing the food or medicine you wish to cool.
- Food may only be stored in its original packaging or in suitable containers.
- Opening the cooling device for long periods can cause significant increase of the temperature in the compartments of the device.
- Clean regularly surfaces that can come in contact with food and accessible drainage systems.
- Store raw meat and fish in suitable containers in the device, so that it is not in contact with or can drip onto other food.
- If the device is left empty for long periods:
  - Switch off the device.
  - Defrost the device.
  - Clean and dry the device.
  - Leave the lid open to prevent mould developing within the device.

NOTICE! Damage hazard

- Check that the voltage specification on the type plate corresponds to that of the energy supply.
- Only connect the cooling device as follows:
  - With the DC connection cable to a DC power supply in the vehicle
  - Or with the AC connection cable to an AC power supply
- Never pull the plug out of the socket by the cable.
- If the cooling device is connected to a DC outlet: Disconnect the cooling device and other power consuming devices from the battery before connecting a quick charging device.
- If the cooling device is connected to a DC outlet: Disconnect the cooling device or switch it off when you turn off the engine. Otherwise you may discharge the battery.
- The cooling device is not suitable for transporting caustic materials or materials containing solvents.
- The insulation of the cooling device contains flammable cyclopentane and requires special disposal procedures. Deliver the cooling device at the end of its life-cycle to an appropriate recycling center.
- Do not use electrical devices inside the cooling device unless they are recommended by the manufacturer for the purpose.
- Do not place the cooling device near naked flames or other heat sources (heaters, direct sunlight, gas ovens etc.).
- **Risk of overheating!**
  Ensure at all times that there is a minimum of 50 mm ventilation on all four sides of the cooling device. Keep the ventilation area free of any objects that could restrict the air flow to the cooling components. Do not place the cooling device in closed compartments or areas with none or minimal air flow.
- Ensure that the ventilation openings are not covered.
- Do not fill the inner container with ice or fluids.
- Never immerse the cooling device in water.
- Protect the cooling device and cables against heat and moisture.

3 Scope of delivery

Quantity	Description
1	Refrigerator with shelves
1	Outlet port
1	Installation and operating manual

4 Accessories

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

Description	Explanation	Ref. no.
Rectifier	Transforms an input voltage of 100 – 240 V~ to 24 V⎓, so that the refrigerator can be connected to an AC power supply.	9600000445

All accessories are available from your specialist dealer. If you have any questions, consult your specialist dealer or your service partner.

5 Intended use

The refrigerator is designed for installation in caravans and motorhomes and on boats. It is only suitable for installation in a fitted niche. Once it is installed, only the front of the appliance may be accessible

The refrigerator is only suitable for cooling, freezing and storing foodstuffs. The refrigerator is not intended for the proper storage of medicine.

CAUTION! HEALTH HAZARD
Please check if the cooling capacity of the refrigerator is suitable for storing the food you wish to cool.

The refrigerator is suitable for use with a DC voltage.

6 Technical description

The CoolMatic cooling appliances can cool products and keep them cool. Products can be deep-frozen in the freezer compartment. If the refrigerator is operated without a freezer compartment, frozen products can be stored in the short term using the fast-cooling function.

The refrigerant circuit is maintenance-free.

CRX0065D:

The **DC version** can be operated with the rectifier MPS 35 (**accessory**) on an AC network.

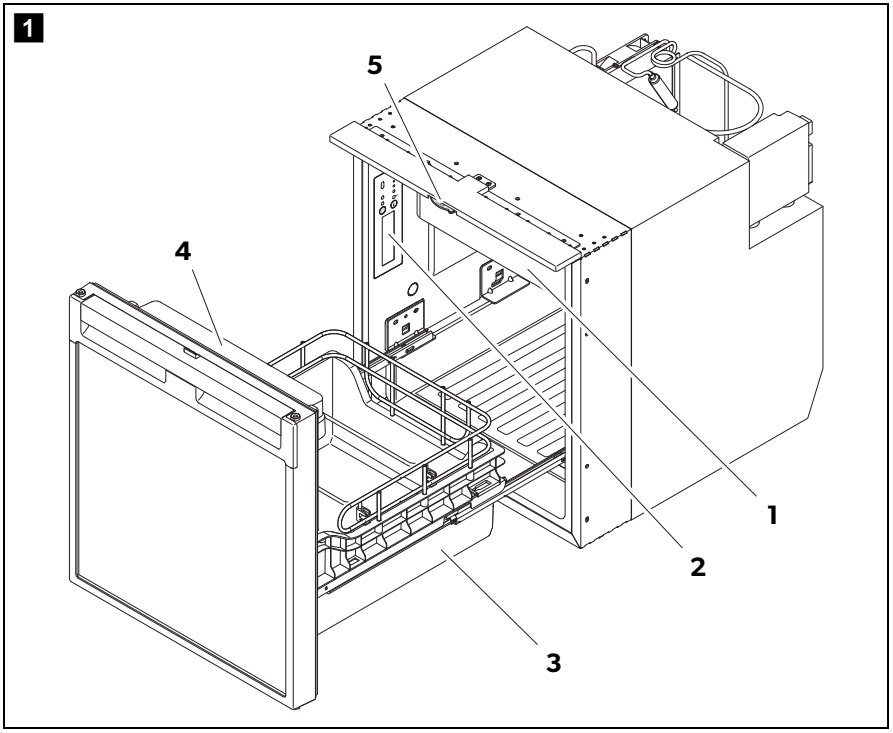
CRX1065D:

The **ACDC version** can be connected directly to the AC network using the AC plug.

When used on boats the refrigerator can be subjected to a short term inclination of 30°.

The temperature is set using the control panel on the inside left of the refrigerator. Four temperature ranges from +3 °C (37 °F) to +12 °C (53 °F), and a fast-cooling function, are available for selection.

6.1 Components



No. in fig. 1	Explanation
1	Freezer compartment (detachable)
2	Control panel
3	Refrigerator drawer
4	Compartment with lid (hinged)
5	Lock

6.2 Control elements

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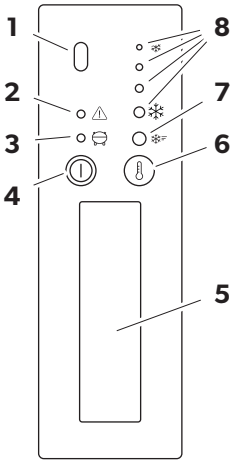


No. in fig. 2	Explanation
1	IR sensor for switching the interior light
2	LED Service display
3	LED Blue: Compressor is running LED Orange: Compressor is off
4	On/off button
5	Inner lighting
6	Temperature selection button
7	LED: Fast cooling function on
8	LEDs: Temperature levels 1 to 4

7 Installing and connecting the refrigerator

7.1 Safety instructions for installation on boats

Please note the following instructions for installation on boats:

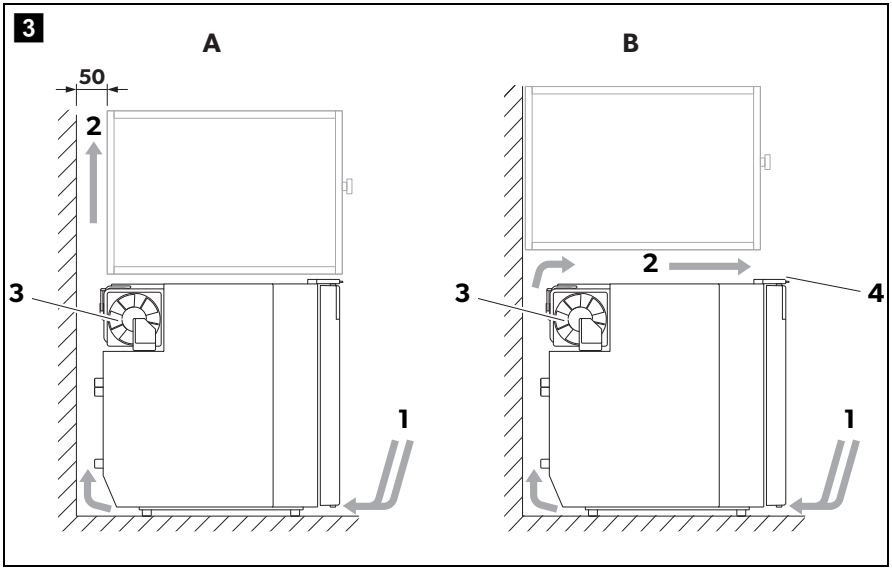
DANGER! DANGER OF ELECTROCUTION
If the appliance is powered by the mains, ensure that the voltage supply has a residual current circuit breaker.

NOTICE! DANGER OF DAMAGE

- The cooling device can withstand a short term inclination of 30°, for example on boats. When setting up the refrigerator, note that it must be fastened to take account of this. If you have any questions regarding installation, consult your specialist dealer.
- The appliance is designed for ambient temperatures between +16 °C (61 °F) and +43 °C (109 °F).

7.2 Notes on installing the refrigerator

Observe the following when installing the refrigerator:



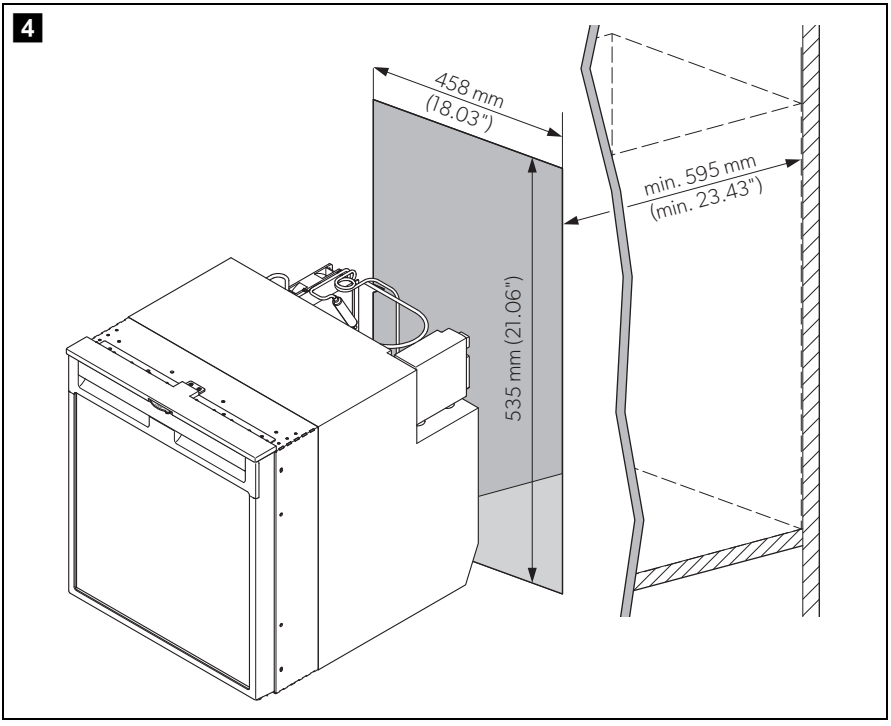
- Install the refrigerator so that the warm air produced can easily flow away (either upwards or to the sides, fig. **3**).

  Key for fig. **3**

No.	Explanation
1	Cold intake air
2	Hot waste air
3	Condenser
4	Spacing above the refrigerator if there is not sufficient air to circulate above or at the side.

- Observe the installation dimensions in fig. **4**.

4



- Keep objects clear of openings in the housing or installation structure (such as ventilation slots, etc.).

- Condensate is produced when the refrigerator is operating normally. You can either wipe up the condensate on the floor of the refrigerator in regular intervals, or drain it through an outlet in the floor of the refrigerator (see chapter "Mounting the water drain outlet (optional)" on page 13).

7.3 Mounting the water drain outlet (optional)

➤ Connect a hose with an inside diameter of 10 mm (0.4 inch) (not included) to the water drain outlet.

➤ Lay the refrigerator on its side in order to access the bottom side.

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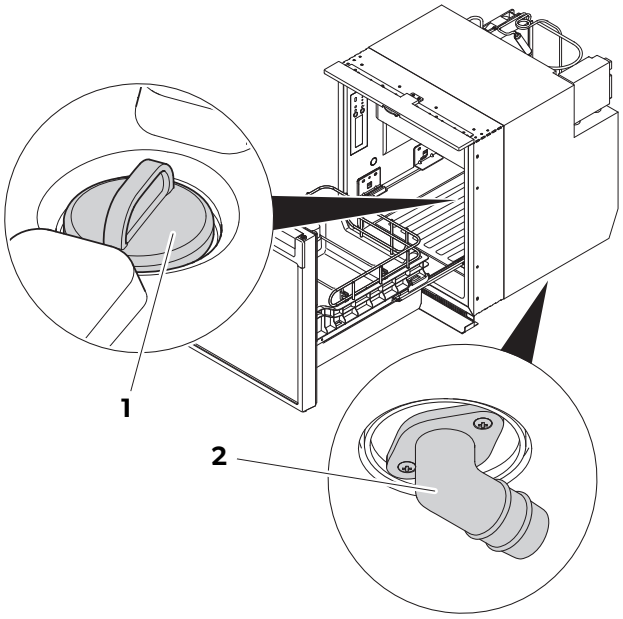


➤ Mount the water drain outlet (fig. **5** 2) aligned to the front or to the back according to the desired direction.

➤ Remove the water drain plug (fig. **5** 1) inside the refrigerator.

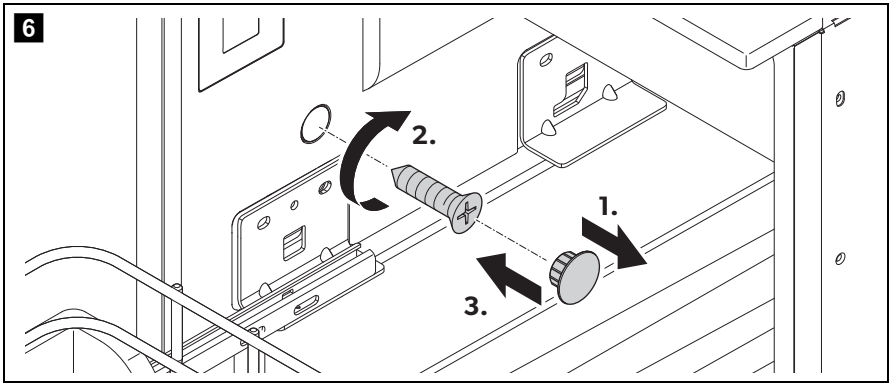
7.4 Installing the refrigerator

Proceed as follows to install the refrigerator:

➤ If you wish to drain the condensate through a hose:
Mount the outlet port (see chapter "Mounting the water drain outlet (optional)" on page 13)

➤ Undo the transport lock (chapter "Releasing the lock" on page 22).

➤ Open the refrigerator drawer.



➤ Remove the blanking plugs (fig. **6**).

➤ Push the refrigerator into the recess.

➤ Fix the refrigerator in place using suitable screws (fig. **6**).

➤ Press the blanking plugs (fig. **6**) into the openings.

7.5 Connecting the refrigerator to DC voltage

NOTICE! DANGER OF DAMAGE

- To avoid voltage drops and loss of performance, keep the connection cable as short as possible and not be interrupted. Therefore avoid additional switches, plugs or power strips.
- Disconnect the cooling device and other electric consumers from the battery before you connect the battery to a quick charging device. Overvoltage can damage the electronics of the device.

The refrigerator can be operated with a 12 V or a 24 V DC voltage supply.

For safety reasons, the refrigerator is equipped with an electronic system to prevent the polarity being reversed. This protects the refrigerator against reversed polarity when connecting to a battery and against short circuiting.

To protect the battery, the refrigerator switches off automatically if the voltage is insufficient (see table below).

	12 V	24 V
Cut-off voltage	10.4 V	22.8 V
Cut-in voltage	11.7 V	24.2 V

➤ Determine the required cross section of the cable in relation to the cable length according to fig. **7**.

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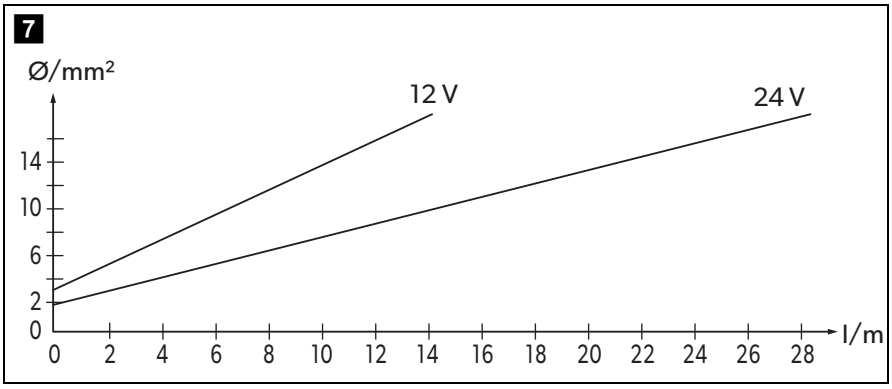
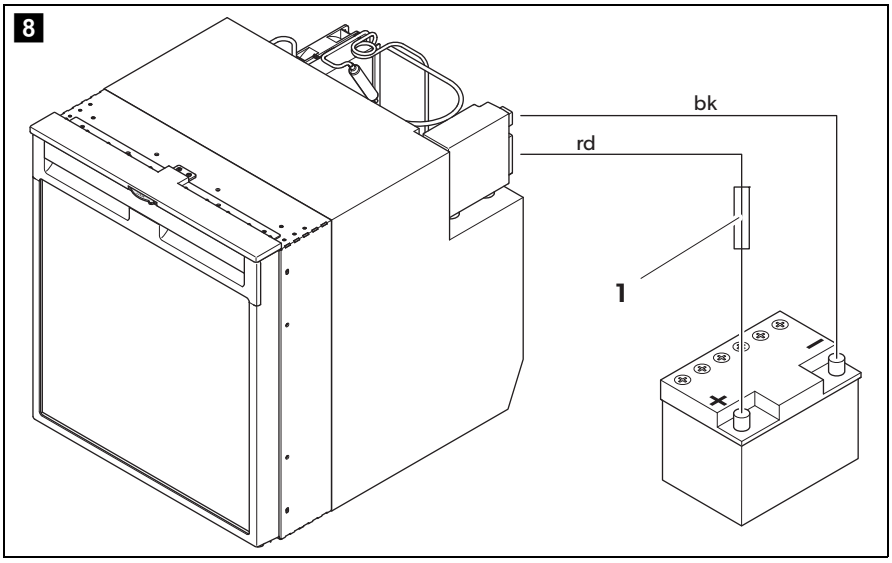


Key to fig. **7**:

Coordinate axis	Meaning	Unit
l	Cable length	m
Ø	Cable cross section	mm²

NOTICE!
Make sure the polarity is correct.



➤ Connect your refrigerator to a plug socket which is fuse-protected with at least 15 A (at 12 V⎓) or 7.5 A (at 24 V⎓) (fig. **8** 1).

➤ Connect the red cable (fig. **8** rd) to the positive terminal of the battery.

➤ Connect the black cable (fig. **8** bk) to the negative terminal of the battery.

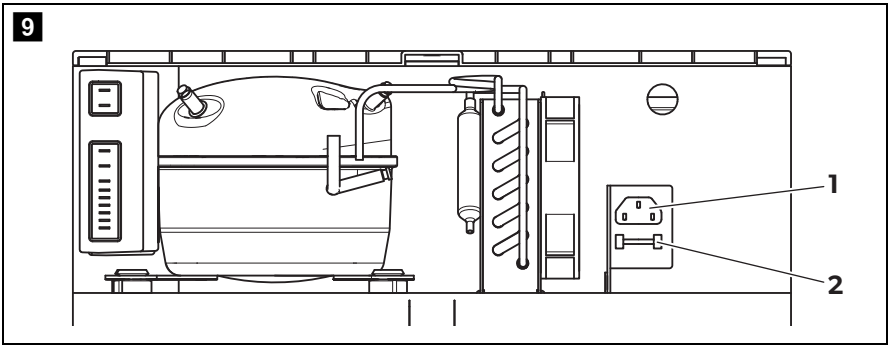
7.6 Connecting the refrigerator to AC voltage

DANGER! DANGER OF ELECTROCUTION

- Never handle plugs and switches with wet hands or if you are standing on a wet surface.
- If you are operating your refrigerator on board a boat with an AC mains connection using a shore connection, you must install a residual current circuit breaker between the AC mains supply and the refrigerator.
  Seek advice from a trained technician.

Connecting the ACDC version to AC voltage

Proceed as follows when you connect the refrigerator to the AC supply:



➤ Plug the connector into the AC socket (fig. **9** 1).

Connecting the DC version to AC voltage

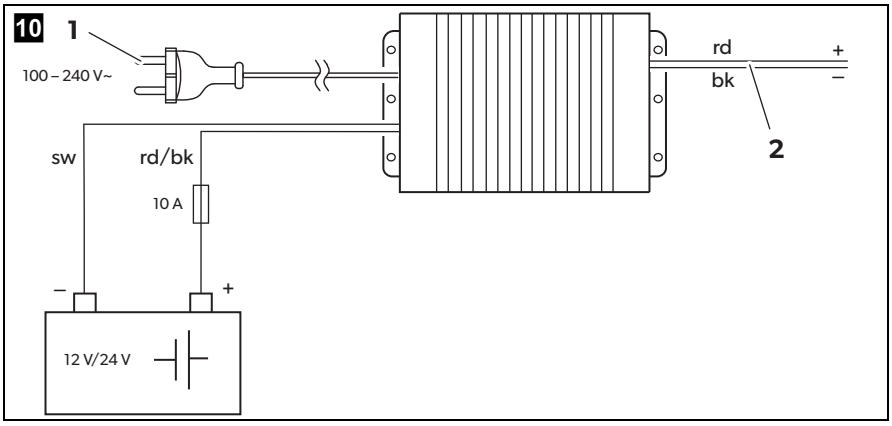
You can connect the refrigerator to 100 – 240 V~ AC power if you use the MPS 35 rectifier (**accessory**).

The MPS 35 rectifier features a priority circuit which conserves the battery connected. When an AC mains connection is used, the rectifier automatically switches from battery to mains operation.

When disconnected from the AC supply, the rectifier automatically switches back to battery operation. Mains operation via the rectifier always takes priority over battery operation.

In mains operation the output voltage of the rectifier will always be 24 V. When the rectifier is in 12 V or 24 V battery operation, the input voltage will be passed through so that the output voltage equals the input voltage.

Proceed as follows when you connect the refrigerator to the AC supply:



➤ Attach the rectifier on the back of the refrigerator.

➤ Connect the rectifier as shown in fig. **10**.

➤ Connect the refrigerator to the rectifier (fig. **10** 2):
- Red cable: positive battery terminal
- Black cable: negative battery terminal

➤ Plug the connector into the AC socket (fig. **10** 1).

8 Using the refrigerator

The refrigerator conserves fresh foodstuffs. The freezer compartment conserves frozen foodstuffs and freezes fresh foodstuffs.

NOTICE! DANGER OF DAMAGE
- Do not place any electrical devices inside the cooler. The only exceptions are devices approved for the purpose by the manufacturer.
- Ensure that food or liquids in glass containers are not excessively refrigerated. Liquids expand when they freeze and can therefore destroy glass containers.
- Food may only be stored in its original packaging or in suitable containers.
- Make sure that you only put items in the cooler which may be kept at the selected temperature.

NOTE

- Before starting your new refrigerator for the first time, you should clean it inside and outside with a damp cloth for hygienic reasons (please also refer to the chapter "Cleaning and maintenance" on page 25).
- When using the refrigerator for the first time, there may be a mild odour which will disappear after a few hours. Air the living space well.
- Park the vehicle so that it is level, especially when starting up and filling the refrigerator before setting off on a journey.
- Do not use force to press the flap of the freezer.
- Do not pull out the dividing wall if there is ice in the freezer.
- Do not remove the panel sticker when operating the refrigerator.

8.1 Energy saving tips

- Choose a well ventilated location which is protected from direct sunlight.
- Allow hot food to cool down first before you put it in the refrigerator.
- Do not open the refrigerator more often than necessary.
- Do not leave the refrigerator drawer open for longer than necessary. If the drawer is left open for more than 5 minutes, the light starts to flash.
- Defrost your refrigerator as soon as a layer of ice forms.
- Avoid unnecessarily low temperature settings.
- Clean dust and dirt from the condenser at regular intervals.

8.2 Switching on the refrigerator

NOTE

Start the refrigerator only if you are using a battery monitor or if the alternator in your vehicle provides sufficient voltage.

➤ Switch the refrigerator on by pressing the ⏻ button.

NOTE

After switching on, the refrigerator needs some time before the compressor starts up.

8.3 Setting the temperature

➤ Press the (🌡) button repeatedly until the desired temperature level is set.
The more LEDs light up above the button the lower is the temperature level.
To switch from the last level to the first level press the (🌡) button again.

NOTE
The cooling performance can be affected by:
- The ambient temperature
- The amount of food to be conserved
- The frequency with which the drawer is opened.

If the ambient temperature is at 16 °C (61 °F) to 20 °C (68 °F), set the refrigerator to at least level 2.

8.4 Setting the fast cooling function

NOTICE! DANGER OF DAMAGE
- Only use the fast-cooling function when the removable freezer compartment is **not** being used. Otherwise there is a risk that the freezer compartment becomes too cold and condensate cannot be prevented from forming on the outside of the refrigerator. The energy consumption will also increase dramatically.
- Note that bottles and other containers can burst when frozen.
- Note that it is difficult to open the refrigerator directly after closing it.

The option of operating the refrigerator using a fast-cooling function allows temperatures suitable for freezing foods to be reached.

➤ Press the (🌡) button for longer than 3 seconds.

✓ The LED above the (🌡) button lights up.

➤ Press the (🌡) button again for longer than 3 seconds to operate the refrigerator in normal mode.

8.5 Conserving foodstuffs

NOTICE! DANGER OF DAMAGE
- Do not conserve **warm** foodstuffs in the refrigerator.
- Do not place glass containers containing liquid in the freezer compartment.

NOTE
Food which can easily absorb tastes and odours, as well as liquids and products with a high alcohol content, should be conserved in air-tight containers.

You can conserve foodstuffs in the refrigerator. The time for which the food can be conserved in this way is usually stated on the package.

The refrigerator is divided in different zones with different temperatures:

- The colder zones are near the back wall.
- Observe the temperature information and best before date on the food packaging.
- Observe the following when using the refrigerator:
  - Never re-freeze products which have started defrosting or have been defrosted; consume them as soon as possible.
  - Wrap food in aluminium foil or cling film and shut in a suitable box with a lid. This ensures that aromas, the shape and the freshness will be better conserved.

8.6 Defrosting the freezer

NOTICE! DANGER OF DAMAGE
Never use mechanical tools to remove ice or to loosen objects stuck to the device. The only exceptions are devices approved for the purpose by the manufacturer.

This is how to defrost the refrigerator:

➤ Empty the contents.

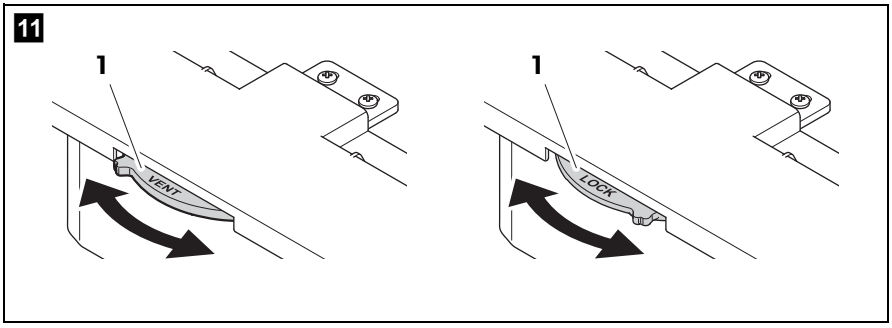
➤ If necessary, put them in another cooling device to keep them chilled.

➤ Press the ⏻ button until the refrigerator switches off.

➤ Close the door properly.

8.7 Releasing the lock

NOTICE! DANGER OF DAMAGE
Only adjust the locking mechanism when the door is open. If you use it with the door closed, you will damage the device.



The refrigerator has a locking mechanism (fig. **11** 1), which is also used to protect it during transport. The following settings are possible:

- **Lock** (turn wheel clockwise to the end stop): the drawer is locked and secured. To open the drawer, lift the handle up and pull the drawer out.
- **Vent** (turn wheel anti-clockwise to the end stop): The drawer is slightly open, but fixed in position.
  Use this position if you are not going to use the unit for a long time.

8.8 Switching off and storing the refrigerator

If you do not intend to use the refrigerator for a long time, proceed as follows:

➤ Press the ⏻ button until the refrigerator switches off.

➤ Disconnect the connection cable from the battery or disconnect the plug on the AC cable plug from the rectifier.

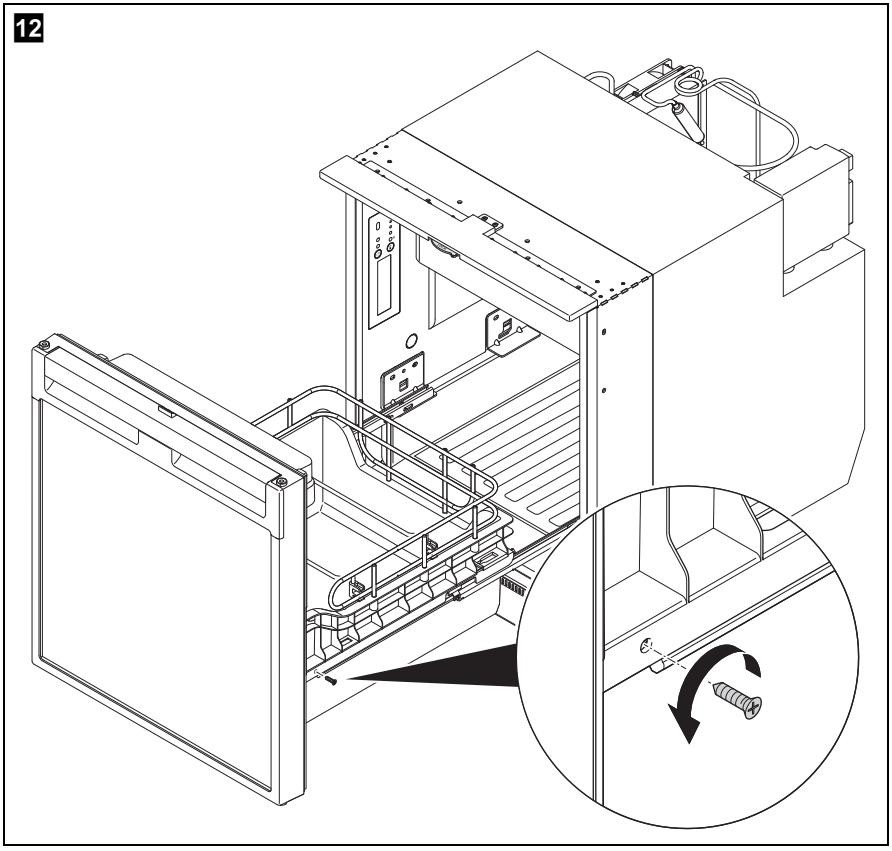
➤ Clean the refrigerator (see chapter "Cleaning and maintenance" on page 25).

➤ Turn the locking wheel (fig. **11** 1) anti-clockwise to the end stop ("Vent").

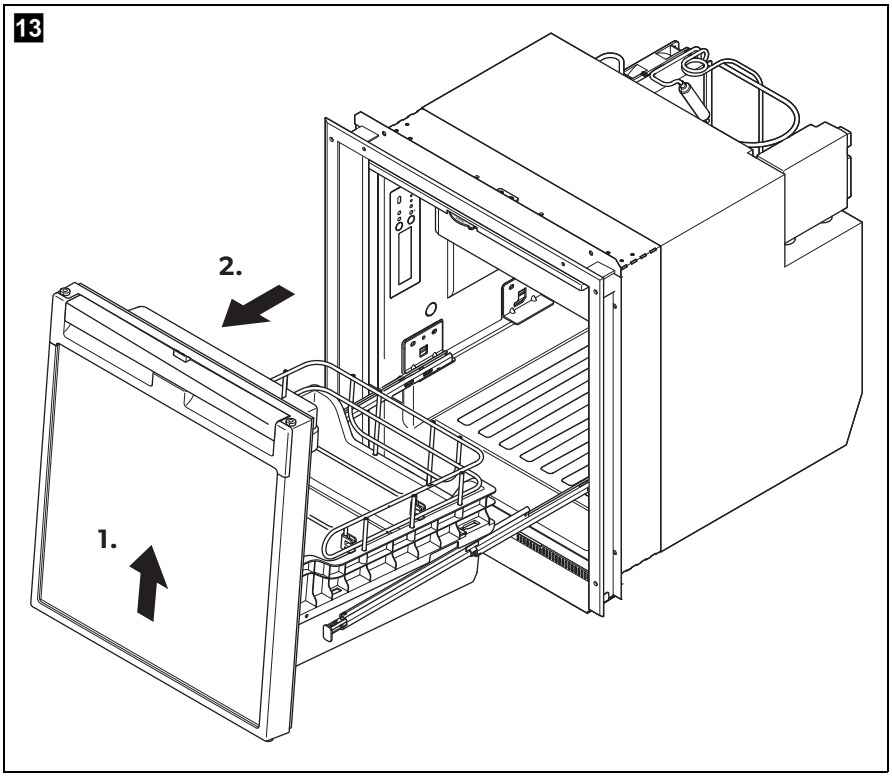
➤ Close the drawer until it latches in.

✓ The drawer stays open thus preventing smells from arising.

8.9 Detaching the refrigerator drawer



➤ Unscrew both screws (fig. **12**).



➤ Lift the drawer slightly at the front (fig. 13).

➤ Pull out the drawer all the way (fig. 13).

8.10 Change the fuse (ACDC version only)

If the fuse in the AC socket is faulty, it can be replaced.

➤ Lever the fuse compartment (fig. **9** 2, page 17) open with a screwdriver.

➤ Replace the fuse (250 V/4 A).

➤ Close the fuse compartment again.

9 Cleaning and maintenance

NOTICE! DANGER OF DAMAGE

- Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the refrigerator.
- Do not use hard or pointed tools to speed up the defrosting process.

➤ Always disconnect the device from the power supply before you clean and service it.

➤ Clean the refrigerator regularly and as soon as it becomes dirty with a damp cloth.

➤ Make sure that no water drips into the seals. This can damage the electronics.

➤ Wipe the refrigerator dry with a cloth after cleaning.

➤ Clean dust and dirt from the condenser at regular intervals.

10 Troubleshooting

The significance of the red LED (fig. 2 2, page 10)

For operational faults it illuminates several times. The number of pulses depends on the type of fault.

Each flash lasts for one quarter of a second. After the series of impulses a pause follows. The sequence for the fault is repeated every four seconds.

Number of flashes	Fault	Possible cause
1	Low Voltage	The supply voltage is outside of the set range.
2	Excessive fan current	The fan load on the electronics unit is more than 1 A.
	Too many start attempts	Too many compressor or fan starts in short time
3	The motor doesn't start	The rotor is jammed. The pressure difference in the cooling system is too high (> 5 bar).
4	Speed too low	If the cooling system is overloaded, the minimum speed of the motor of 1,850 rpm cannot be maintained.
5	Overheating of the electronics unit	If the cooling system is loaded too heavily or the temperature is set too high, the electronics can overheat.
flashes constantly	Temperature sensor errors	Temperature sensor is defective.

Compressor does not run (battery connection)

Problem	Possible cause	Remedy
$U_{Term} = 0$ V	There is an interruption in the battery – electronics connection	Establish a connection
	Main switch faulty (if installed)	Replace the main switch
	Additional supply line fuse has blown (if installed)	Replace the supply line fuse
$U_{Term} \leq U_{ON}$	Battery voltage is too low	Charge the battery

Problem	Possible cause	Remedy
Start attempt with $U_{Term} \leq U_{OFF}$	Loose cables Poor contact (corrosion)	Establish a connection
	Battery capacity too low	Replacing the battery
	Cable cross section too small	Replace the cable (fig. **7**, page 15)
Start attempt with $U_{Term} \geq U_{ON}$	Ambient temperature too high	–
	Insufficient ventilation	Move the refrigerator to another location
	Condenser is dirty	Clean the condenser
Electric circuit between the pins in the compressor interrupted	Defective compressor	Replace the compressor

U_{Term} Voltage between the positive and negative terminals of the electronics

U_{ON} Cut-in voltage of the electronics

U_{OFF} Cut-off voltage of the electronics

Compressor is not running (connected to AC supply)

Problem	Possible cause	Remedy
No voltage	Connection supply line interrupted	Establish a connection
	Main switch faulty (if installed)	Replace the main switch
	Additional supply line fuse has blown (if installed)	Replace the supply line fuse
Voltage is present but the compressor doesn't run	Ambient temperature too high	–
	Insufficient ventilation	Move the refrigerator to another location
	Condenser is dirty	Clean the condenser
Electric circuit between the pins in the compressor interrupted	Defective compressor	Replace the compressor

Poor cooling, increase in interior temperature

Problem	Possible cause	Remedy
Compressor runs for a long time/continuously	Ambient temperature too high	–
	Insufficient ventilation	Move the refrigerator to another location
	Condenser is dirty	Clean the condenser
	Faulty fan	Replace the fan
Compressor does not run often	Battery capacity exhausted	Charge the battery

Unusual noises

Problem	Possible cause	Remedy
Loud humming	A component of the refrigerant circuit cannot move freely (touching the wall)	Bend the component carefully away from the obstruction
	There is a foreign object stuck between the cooling unit and the wall	Remove the foreign object
	Fan noise	–

11 Warranty

LIMITED WARRANTY AVAILABLE AT
DOMETIC.COM/WARRANTY.

IF YOU HAVE QUESTIONS OR TO OBTAIN A COPY OF THE LIMITED WARRANTY FREE OF CHARGE, CONTACT THE DOMETIC WARRANTY DEPARTMENT:

DOMETIC CORPORATION
CUSTOMER SUPPORT CENTER
1120 NORTH MAIN STREET
ELKHART, INDIANA 46514
1-800-544-4881 OPT. 3

12 Disposal

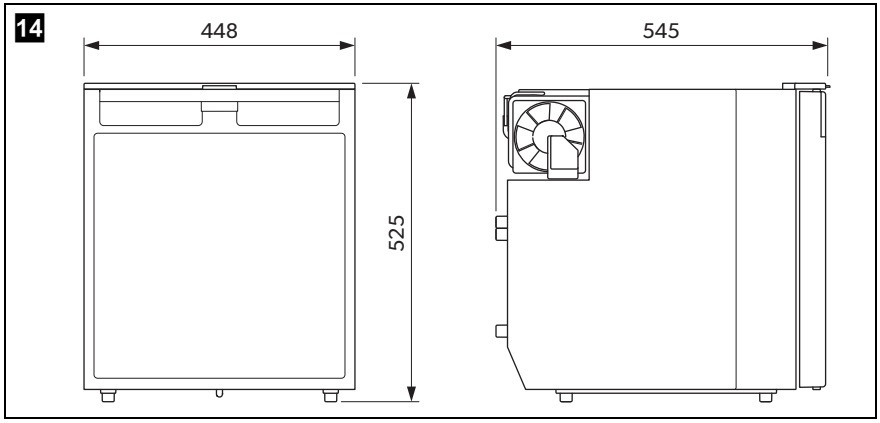
WARNING! CHILDREN BEWARE
Before disposing of your old refrigerator:
- Detach the refrigerator drawer.
- Leave storage surfaces in the refrigerator so that children cannot climb inside.

➤ Place the packaging material in the appropriate recycling waste bins wherever possible.

If you wish to finally dispose of the product, ask your local recycling centre or specialist dealer for details about how to do this in accordance with the applicable disposal regulations.

13 Technical data

	CRX0065D	CRX1065D
Refrigerator compartment storage volume:	43.5 l (1.54 cu.ft.)	
Freezer compartment storage volume:	7.0 l (0.25 cu.ft.)	
Total storage volume:	50.5 l (1.78 cu.ft.)	
Voltage:	12 V⎓ or 24 V⎓	12 V⎓ or 24 V⎓ 100 – 240 V~
Power consumption (AC):		45 W
Rated current 12 V⎓: 24 V⎓: 100 V~ : 240 V~ :	 5,5 A 2,8 A	 5,5 A 2,8 A 1,22 A 0,58 A
Cooling temperature range Refrigerator: Freezer: Fast cooling (without dividing wall):	 +3 °C (37 °F) to +12 °C (54 °F) –15 °C (5 °F) to –5 °C (23 °F) maximum –6 °C (21 °F)± 2 °C (36 °F)	
Climatic class:	T	
Relative humidity:	maximum 90 %	
Short term inclination:	maximum 30°	
Max. pressure:	LP 11 bar/HP 25 bar	
Propellant:	C_5H_{10}	
Refrigerant:	R134a	
Refrigerant quantity:	45 g (1.62 oz.)	42 g (1.48 oz.)
CO_2 equivalent:	0.06 t ((141.9 lbs)	0.06 t (132.3 lbs)
Global warming potential (GWP):	1430	

	CRX0065D	CRX1065D
Dimensions: 		
Weight:	21.5 kg (47.41 lbs)	22 kg (48.5 lbs)
Inspection/certification:	E4	c UL us LISTED

Contains fluorinated greenhouse gases

Hermetically sealed equipment

Mobile living made easy.

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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