

↗ DOMETIC

REFRIGERATION

COOLMATIC



RPD50

EN

Compressor refrigerator

Installation and Operating Manual

Please read this operating manual carefully before starting the device. Keep it in a safe place for future reference. If the device is passed on to another person, this operating manual must be handed over to the user along with it.

The manufacturer cannot be held liable for damage resulting from **improper usage** or **incorrect operation**.

Contents

1	Explanation of symbols	3
2	Safety instructions	3
3	Scope of delivery	6
4	Intended use	6
5	Technical description	7
6	Setting up and connecting the refrigerator	8
7	Using the refrigerator	16
8	Cleaning and maintenance	19
9	Guarantee	20
10	Disposal	20
11	Troubleshooting	21
12	Technical data	23

1 Explanation of symbols

**DANGER!**

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

**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:

- 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

2.1 General safety



DANGER!

- On boats: If the device is powered by the mains, ensure that the power supply has a residual current circuit breaker.



WARNING!

- Have a qualified technician perform the installation in wet rooms.
- Do not operate the device if it is visibly damaged.
- If this device's power cable is damaged, it must be replaced by the manufacturer, customer service or a similarly qualified person in order to prevent safety hazards.
- This device may only be repaired by qualified personnel. Inadequate repairs may cause serious hazards.
- This device can be used by children aged 8 years or over, as well as by persons with diminished physical, sensory or mental capacities or a lack of experience and knowledge, providing they are supervised, or have been taught how to use the device safely and are aware of the resulting risks.
- Cleaning and user maintenance must not be carried out by children without supervision.
- Children must be supervised to ensure that they do not play with the device.
- Always keep and use the device out of the reach of children under 8 years of age.
- Do not store any explosive substances, such as spray cans with propellants, in the device.



CAUTION!

- Danger of crushing! Do not put your fingers into the hinge.
- Foodstuff may only be stored in its original packaging or in suitable containers.



NOTICE!

- Check that the voltage specification on the type plate is the same as that of the power supply.
- Never pull the plug out of the socket by the connection cable.
- If the refrigerator is connected to the DC socket: Disconnect the refrigerator and other electric consumers from the battery before connecting the quick charging device.

- If the refrigerator is connected to the DC socket: Disconnect the refrigerator or switch it off when you turn off the engine. Otherwise you may discharge the battery.
- The refrigerator is not suitable for storing substances which are caustic or contain solvents.
- Keep the drainage outlet clean at all times.
- Do not open the refrigerant circuit under any circumstances.
- Never transport the device in a horizontal position, so that no oil can leak out of the compressor.
- 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:
 - Avoid naked flames and sparks.
 - Air the room well.
- Set up the device in a dry location where it is protected against splashing water.

2.2 Operating the device safely



DANGER!

- Do not touch exposed cables with your bare hands. This applies especially when operating the device from the AC mains.



CAUTION!

- Before starting the device, ensure that the power supply line and the plug are dry.
- If you connect the device to a battery, make sure that no food comes into contact with the battery acid.



NOTICE!

- Do not use electrical devices inside the cooling device unless they are recommended by the manufacturer for that purpose.
- Do not place it 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 device is sufficiently far away from walls and other objects so that the air can circulate.

- Ensure that the ventilation vents are not covered.
- Do not fill the inner container with ice or fluid.
- Never immerse the appliance in water.
- Protect the appliance and the cable against heat and moisture.
- Make sure that foodstuffs do not touch the walls of the cooling area.

3 Scope of delivery

Quantity	Description
1	Refrigerator
1	Instruction manual

3.1 Accessories

Available as accessory (not included in scope of delivery):

Description	Ref. no.
Rectifier EPS100	EPS-100W
Rectifier MPS35	MPS-35

4 Intended use

The refrigerator is suitable for cooling and freezing foodstuffs. The device is also suitable for use on boats.



CAUTION! Health hazard!

Please check if the cooling capacity of the device is suitable for storing the food or medicine you wish to cool.

5 Technical description

The CoolMatic RPD 50 refrigerator is suitable for use with a 12 V --- or 24 V --- voltage and can therefore also be used for camping or on boats. It can also be connected to a 120 V $\sim$ mains supply via the EPS100W and MPS35 rectifiers.

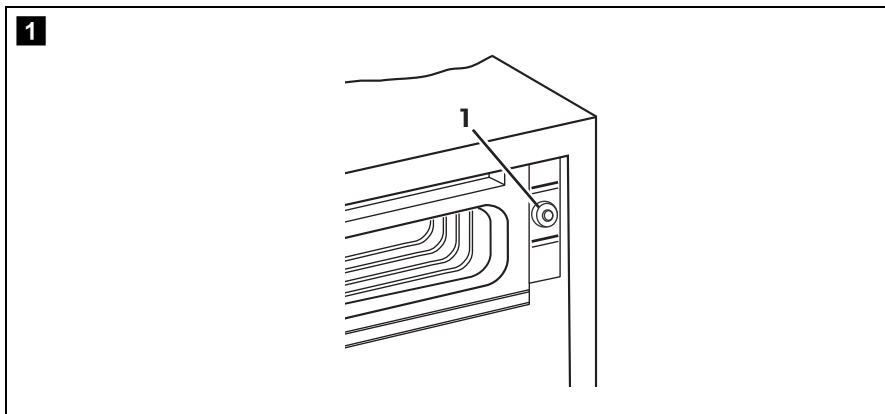
When used on boats the refrigerator can be subjected to a short-term inclination of 30°.

The refrigerator can chill products and keep them cool. Products can be deep-frozen in the freezer compartment.

All materials used in the refrigerator are compatible for use with foodstuffs.

You can use the continuously variable thermostat to set the desired temperature.

5.1 Control elements

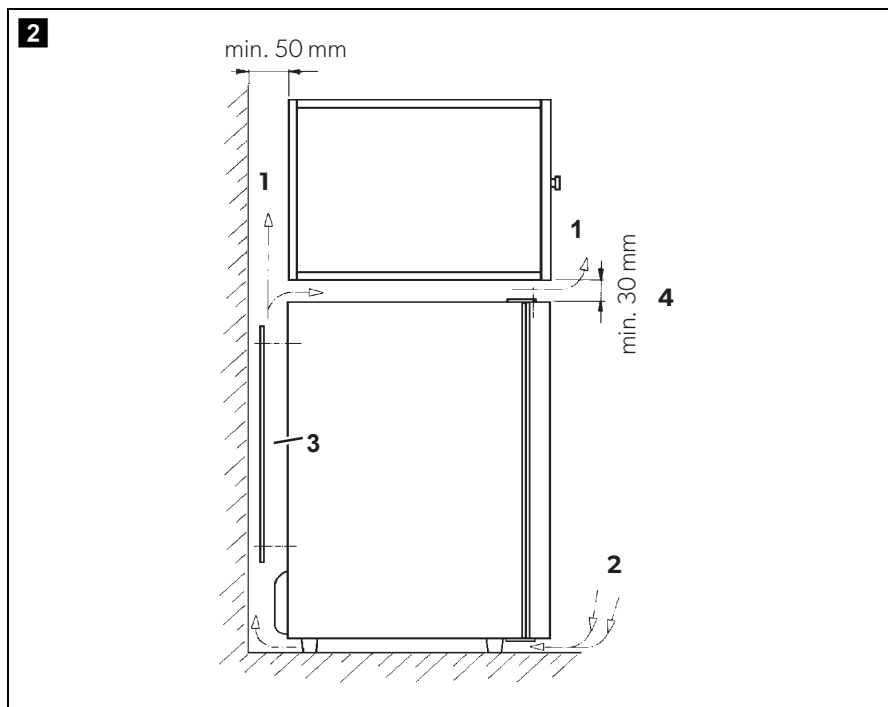


No. in fig.	1	Explanation
-------------	---	-------------

1	Temperature controller
---	------------------------

6 Setting up and connecting the refrigerator

6.1 Setting up the refrigerator



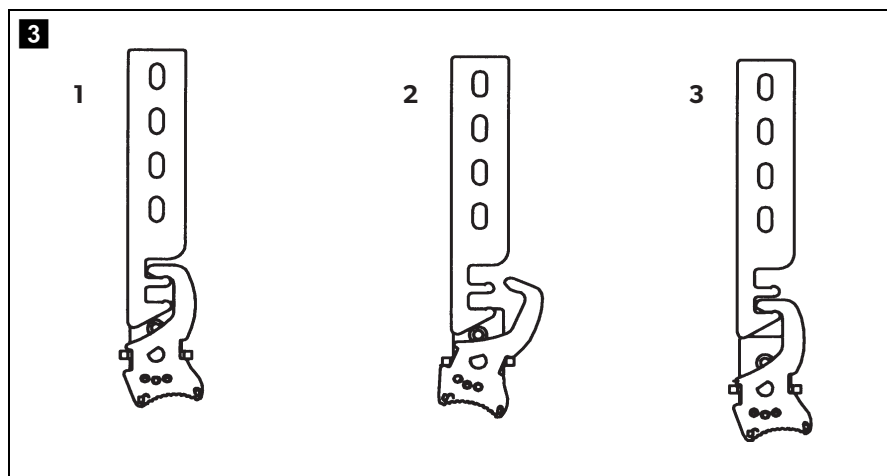
In continuous operation, the air humidity may not exceed 90 %.

Set up the refrigerator in a dry, sheltered place. Avoid placing it near heat sources such as radiators, gas ovens or hot water pipes. Do not let it stand in the full sun.

The refrigerator must be positioned so that heated air can dissipate easily. Therefore make sure there is adequate ventilation (fig. 2).

No. in fig. 2 , page 8	Explanation
1	Hot waste air
2	Cold intake air
3	Condenser
4	With cover panel 50 mm above

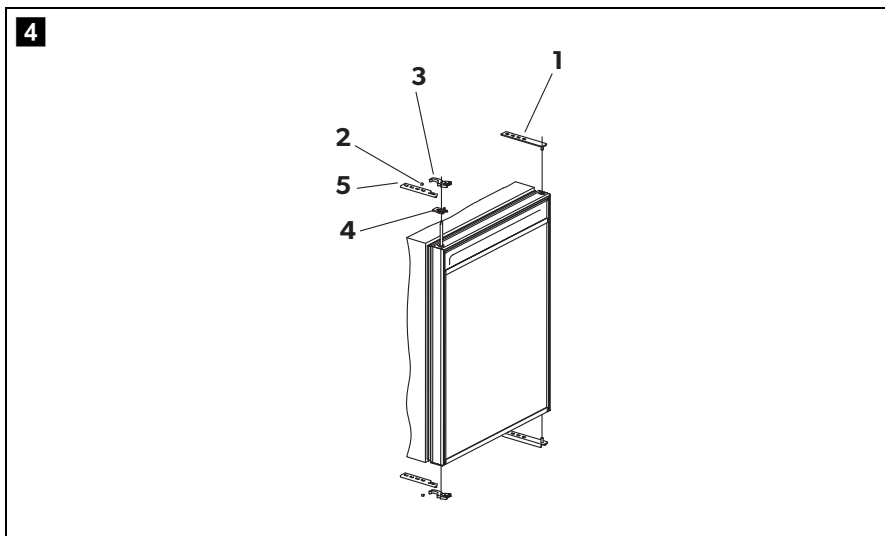
6.2 Removing the transport protection



The refrigerator has a locking mechanism to protect it during transport. The following settings are possible:

- Position 1 (transport lock): (fig. **3** 1) The door is locked and secured. To open the door, turn the bolt to position 2.
- Position 2: (fig. **3** 2) The door can be opened.
- Position 3 (VENT position): (fig. **3** 3) The door is slightly open, but fixed. Use this position, for example, if you are not going to use the device for a long time.

6.3 Changing the door hinge

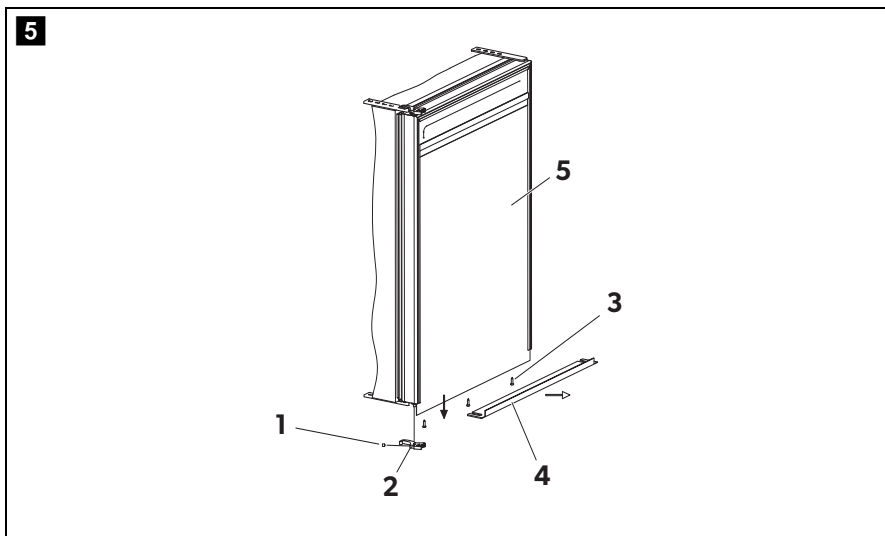


You can also change the hinge of the door, so that it opens to the left rather than the right.

To change the door hinge, proceed as follows (fig. **4**):

- Remove the upper door hinge (fig. **4** 1).
- Carefully lift out the door.
- Remove the threaded pins (fig. **4** 2).
- Pull the locking hook (fig. **4** 3) off the rod.
- Remove the locking plate (fig. **4** 4) and fit it on the opposite side.
- Pull the rod downwards and out and put it in the other side.
- Fasten the locking hook (fig. **4** 3) back on the rod.
- Detach the top and bottom lock holders (fig. **4** 5) on the left side.
- Detach the top and bottom door hinges (fig. **4** 1) on the right side.
- Fasten the top and bottom door hinges (fig. **4** 1) to the left side.
- Fasten the top and bottom lock holders (fig. **4** 5) to the left side.

6.4 Changing the decorative plate

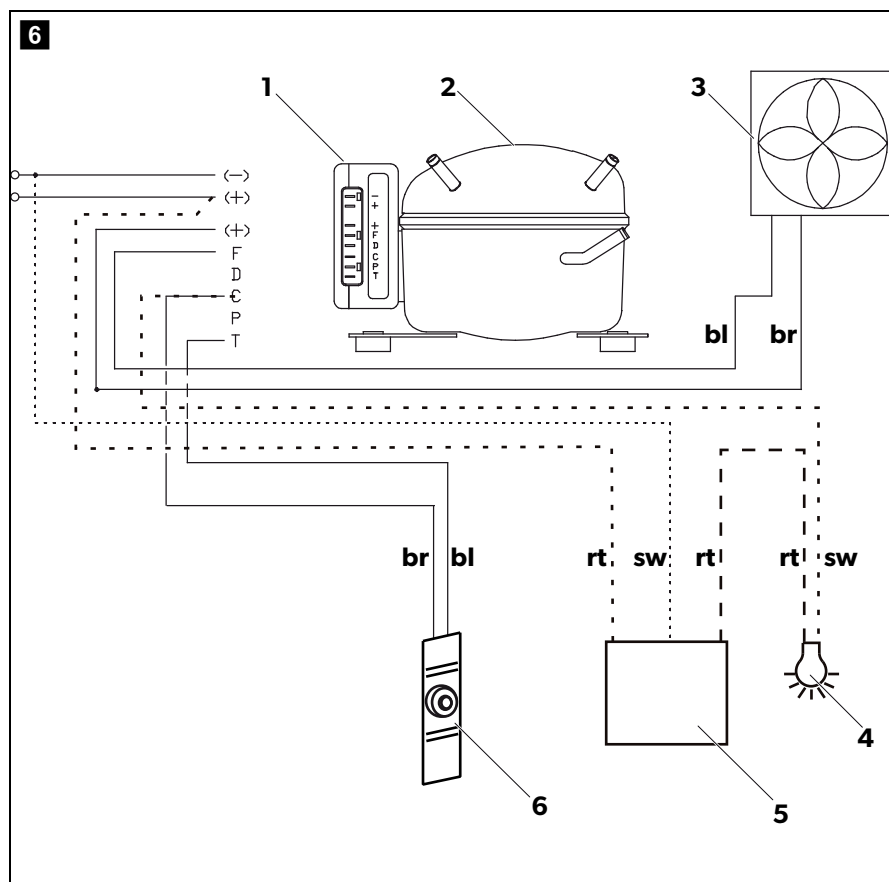


You can change the decorative plate on your refrigerator to improve the appearance.

This is how to change the decorative plate:

- Remove the screws 1 and 3 (fig. 5 1 and 3).
- Remove components 2 and 4 (fig. 5 2 and 4).
- Pull down the old decorative plate out of the door frame.
Caution: there is a risk of injury!
- Put the new decorative plate in the door frame.
- Fit the components 2 and 4 (fig. 5 2 and 4) back on the device.
- Fasten the screws 1 and 3 (fig. 5 1 and 3).

6.5 Connecting the refrigerator



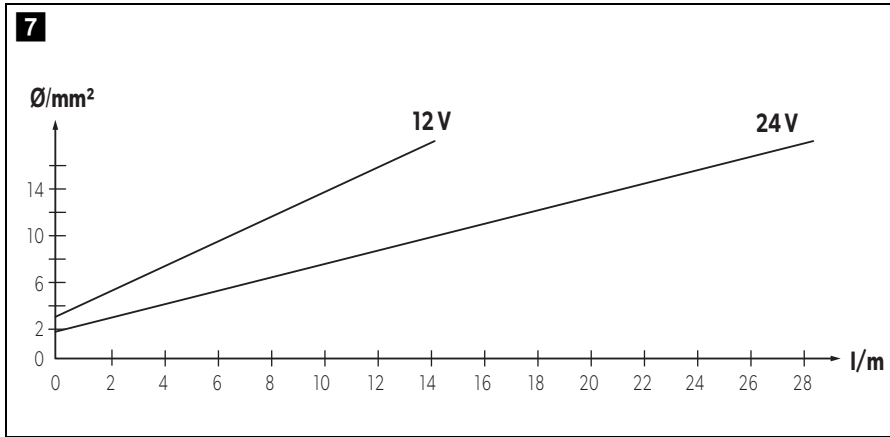
For the electrical connection, please refer to the wiring diagram (fig. **6**):

No. in fig. 6, page 12	Meaning
1	Electronic terminal rail
2	Compressor
3	DC fan (if present)
4	Interior lighting
5	Voltage controller for interior lighting (only on devices with interior lighting)
6	Mechanical thermostat

Cable colours:

No. in fig. 6, page 12	Meaning
br	Brown
gn	Green
rt	Red
sw	Black
ws	White
bl	Blue

Connecting to a battery



The refrigerator can be operated with a 12 V=== to 24 V=== voltage supply.



NOTICE!

To avoid voltage loss and therefore a drop in performance, the cable should be kept as short as possible and should not be interrupted if this is possible.

For this reason avoid additional switches, plugs or power strips.

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

Key for fig. **7**

Co-ordinate axis	Meaning	Unit
l	Cable length	m
Ø	Cable cross section	mm ²



NOTICE!

Make sure that the polarity is correct.

- Before starting up the device for the first time, check whether the operating voltage and the battery voltage correspond (see type plate).
- Connect the refrigerator
 - As directly as possible to the pole of the battery or
 - To a plug socket which is fused with at least 15 A (at 12 V) or 7.5 A (at 24 V).

**NOTICE!**

Disconnect the cooling device and other power consuming devices from the battery before connecting the battery to a quick charging device.

Overvoltage can damage the electronics of the device.

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
Switch-off voltage	10,4 V	22,8 V
Switch-on voltage	11,7 V	24,2 V

Connecting to 120 V mains supply**DANGER!**

Never handle plugs and switches with wet hands or if you are standing in a puddle.

**NOTICE!**

- If you are operating your refrigerator on board a boat with a mains connection of 120 V from the land, you must install a ground protection circuit breaker between the 120 V mains supply and the refrigerator.
Seek advice from a trained technician.
- When a refrigerator is connected with a factory-supplied 120 V connection line, the AC mains supply used must be fitted with a 4-amp fuse in phase (L).

- To operate the refrigerator on the 120 V mains, use the EPS100W or MPS35 rectifier.

7 Using the refrigerator



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 19).

7.1 Energy saving tips

- Choose a well ventilated location which is protected from direct sunlight.
- Allow warm food to cool down first before placing it in the device to keep cool.
- Do not open the refrigerator more often than necessary.
- Do not leave the doors open for longer than necessary.
- 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.

7.2 Using the refrigerator

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



NOTICE!

- Ensure that food or liquids in glass containers are not excessively refrigerated.
Liquids expand when they freeze and can thus destroy the glass containers.
- Food may only be stored in its original packaging or in suitable containers.
- Ensure that the objects placed in the refrigerator are suitable for cooling to the selected temperature

► Switch the refrigerator on by turning the knob (fig. **1** A, page 7) to the right.



NOTE

After switching on, the refrigerator requires approx. 60 s until the compressor starts up.

Setting the temperature

You can set the temperature to any level using the knob. The built-in thermostat regulates the temperature as follows:

- min. (left limit) = warmest setting
- max. (right limit) = coldest setting



NOTE

The cooling capacity can be influenced by

- The ambient temperature
- The amount of food to be conserved
- The frequency with which the door is opened.

Conserving foodstuffs

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



NOTICE!

Do not conserve **warm** food in the refrigerator compartment.
Do not place glass containers with liquid in the freezer compartment.



NOTE

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

The refrigerator compartment is divided in different zones with different temperatures:

- The colder zones are immediately over the drawers for fruit and vegetables near the back wall.
- Observe the temperature information and best before date on the food packaging.
- Observe the following when using the device:
 - Do not re-freeze products which are defrosting or have been defrosted, consume them as soon as possible.
 - Wrap food in aluminium foil or cling film and shut in in a suitable box with a lid. This ensures that aromas, the shape and the freshness are better conserved.

Defrosting the refrigerator

Humidity can form frost in the interior of the refrigerator or on the vaporiser. This reduces the cooling capacity. Defrost the device in good time to avoid this.



NOTICE!

Never use hard or pointed tools to remove ice or to loosen objects which have frozen in place.

To defrost the refrigerator, proceed as follows:

- Take out the contents of the refrigerator.
- Place them in another cooling device to keep them cool, if necessary.
- Set the knob to "0".
- Leave the door open.
- Wipe off the water resulting from defrosting or – if present – empty the collecting tray. If your device has a water drain, drain the thawed water off.

Switching off and storing the refrigerator

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

- Turn the knob to "0".
- Disconnect the power cable from the battery or pull the DC cable plug out of the rectifier.
- Clean the refrigerator (see chapter "Cleaning and maintenance" on page 19).
- Put the lock in the VENT position.
This prevents odours from building up.

Securing the refrigerator door

You can prevent the refrigerator door from being opened inadvertently.

- Put the locking mechanism on the top of the door to position 1 (fig. **3** 1, page 9).

8 Cleaning and maintenance

**WARNING!**

Always disconnect the refrigerator from the mains before you clean and service it.

**NOTICE!**

- Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the refrigerator.
- Never use hard or sharp tools to remove ice or to free objects frozen onto the device.
- Do not use any mechanical tools or any other tools to speed up the defrosting process.

- 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.
- Check the condensate drain regularly.
Clean the condensate drain when necessary. If it is blocked the condensate collects on the bottom of the refrigerator.

9 Guarantee

The statutory warranty period applies. If the product is defective, please contact the manufacturer's branch in your country (see the back of the instruction manual for the addresses) or your retailer.

For repair and guarantee processing, please include the following documents when you send in the device:

- A copy of the receipt with purchasing date
- A reason for the claim or description of the fault

10 Disposal

- 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.

11 Troubleshooting

Compressor does not run

Fault	Possible cause	Remedy
$U_{\text{Term}} = 0 \text{ V}$	The connection between the battery and the electronics is interrupted	Establish a connection
	Main switch defective (if installed)	Replace the main switch
	Additional supply line fuse has blown (if installed)	Replacing the fuse
$U_{\text{Term}} \leq U_{\text{ON}}$	Battery voltage is too low	Charge the battery
Start attempt with $U_{\text{Term}} \leq U_{\text{OFF}}$	Loose cables	Establish a connection
	Poor contact (corrosion)	
	Battery capacity too low	Replace the battery
	Cable cross section too low	Replace the cable (fig. 7, page 14)
Start attempt with $U_{\text{Term}} \leq U_{\text{ON}}$	Ambient temperature too high	–
	Insufficient ventilation	Move the refrigerator
	Condenser is dirty	Clean the condenser
	Fan defective (if installed)	Replace the fan
Electric circuit between the pins in the compressor interrupted	Defective compressor	Replace the compressor
Usage when the ambient temperature is too low	The compressor only starts up at an ambient temperature of more than +16 °C.	Only switch on the refrigerator at an ambient temperature of more than +16 °C.

U_{Term} Voltage between the positive and negative electronic terminals

U_{ON} Switch-on voltage of the electronics

U_{OFF} Switch-off voltage of the electronics

Interior temperature too low in control setting 1

Fault	Possible cause	Remedy
Compressor runs constantly	Thermostat sensor has no contact to the vaporiser	Secure the sensor
	Thermostat defective	Change the thermostat
Compressor runs for a long time	Large quantities have been frozen in the freezer compartment	–

Cooling capacity drops, interior temperature rises

Fault	Possible cause	Remedy
Compressor runs for a long time/continuously	Vaporiser iced over	Defrost the vaporiser
	Ambient temperature too high	–
	Insufficient ventilation	Move the refrigerator
	Condenser is dirty	Clean the condenser
	Fan defective (if installed)	Replace the fan
Compressor does not run often	Battery capacity exhausted	Charge the battery

Unusual noises

Fault	Possible cause	Remedy
Loud humming	A component of the refrigerant circuit cannot move freely (lies against the wall)	Bend the component carefully
	Foreign body jammed between the cooling device and the wall	Remove the foreign body
	Fan noise (if installed)	–

12 Technical data

	RPD 50
Ref. no:	9105204447
Connection voltage:	12 V== 24 V==
Connection voltage depending on version (see the type plate on the refrigerator) additionally:	120 V~
Refrigerator compartment temperature:	+10 °C to +2 °C
Freezer compartment temperature:	0 °C to max. -18 °C
Relative humidity:	maximum 90 %
Short-term inclination:	max. 30°
Capacity:	48 l
Freezer proportion:	4.6 l
Average power consumption:	45 W
Coolant quantity:	55 g
CO ₂ equivalent:	0.079 t
Global warming potential (GWP):	1430
Dimensions (W x H x D) in mm:	388 x 534 x 442
Weight:	19 kg

The coolant circuit contains R134a.

Contains fluorinated greenhouse gases

Hermetically sealed equipment

Test/certificates:



GERMANY

Dometic WAECO International GmbH

Hollefeldstraße 63 · D-48282 Emsdetten
☎ +49 (0) 2572 879-0 · 📠 +49 (0) 2572 879-300
Mail: info@dometic-waeco.de

dometic.com



AUSTRALIA

Dometic Australia Pty. Ltd.

1 John Duncan Court
Varsity Lakes QLD 4227
☎ 1800 212121
☎ +61 7 55076001
Mail: sales@dometic.com.au

AUSTRIA

Dometic Austria GmbH

Neudorferstraße 108
A-2353 Guntramsdorf
☎ +43 2236 908070
☎ +43 2236 90807060
Mail: info@dometic.at

BENELUX

Dometic Branch Office Belgium

Zincstraat 3
B-1500 Halle
☎ +32 2 3598040
☎ +32 2 3598050
Mail: info@dometic.be

BRAZIL

Dometic DO Brasil LTDA

Avenida Paulista 1754, conj. 111
SP 01310-920 Sao Paulo
☎ +55 11 3251 3352
☎ +55 11 3251 3362
Mail: info@dometic.com.br

DENMARK

Dometic Denmark A/S

Nordensvej 15, Taulov
DK-7000 Fredericia
☎ +45 75585966
☎ +45 75586307
Mail: info@dometic.dk

FINLAND

Dometic Finland OY

Mestariintie 4
FIN-01730 Vantaa
☎ +358 20 7413220
☎ +358 9 7593700
Mail: info@dometic.fi

FRANCE

Dometic SAS

ZA du Pré de la Dame Jeanne
B.P. 5
F-60128 Plailly
☎ +33 3 44633525
☎ +33 3 44633518
Mail: vehiculesdeloisirs@dometic.fr

HONG KONG

Dometic Group Asia Pacific

Suites 2207-11 / 22/F - Tower 1
The Gateway - 25 Canton Road,
Tsim Sha Tsui - Kowloon
☎ +852 2 4611386
☎ +852 2 4665553
Mail: info@waeco.com.hk

HUNGARY

Dometic Zrt. Sales Office

Kerekgyártó u. 5.
H-1147 Budapest
☎ +36 1 468 4400
☎ +36 1 468 4401
Mail: budapest@dometic.hu

ITALY

Dometic Italy S.r.l.

Via Virgilio, 3
I-47122 Forlì (FC)
☎ +39 0543 754901
☎ +39 0543 754983
Mail: vendite@dometic.it

JAPAN

Dometic KK

Maekawa-Shibaura, Bldg. 2
2-13-9 Shibaura Minato-ku
Tokyo 108-0023
☎ +81 3 5445 3333
☎ +81 3 5445 3339
Mail: info@dometic.jp

MEXICO

Dometic Mx, S. de R. L. de C. V.

Circuito Médicos No. 6 Local 1
Colonia Ciudad Satélite
CP 53100 Naucalpan de Juárez
Estado de México
☎ +52 55 5374 4108
☎ +52 55 5393 4683
Mail: info@dometic.com.mx

NETHERLANDS

Dometic Benelux B.V.

Ecustraet 3
NL-4879 NP Eetten-Leur
☎ +31 76 5029000
☎ +31 76 5029019
Mail: info@dometic.nl

NEW ZEALAND

Dometic New Zealand Ltd.

PO Box 12011
Penrose
Auckland 1642
☎ +64 9 622 1490
☎ +64 9 622 1573
Mail: customerservices@dometic.co.nz

NORWAY

Dometic Norway AS

Østerøyveien 46
N-3232 Sandefjord
☎ +47 33428450
☎ +47 33428459
Mail: firmapost@dometic.no

POLAND

Dometic Poland Sp. z o.o.

Ul. Puławska 435A
PL-02-801 Warszawa
☎ +48 22 414 3200
☎ +48 22 414 3201
Mail: info@dometic.pl

PORTUGAL

Dometic Spain, S.L.

Branch Office em Portugal
Rot. de São Gonçalo nº 1 – Esc. 12
2775-399 Carcavelos
☎ +351 219 244 173
☎ +351 219 243 206
Mail: info@dometic.pt

RUSSIA

Dometic RUS LLC

Komsomolskaya square 6-1
RU-107140 Moscow
☎ +7 495 780 79 39
☎ +7 495 916 56 53
Mail: info@dometic.ru

SINGAPORE

Dometic Pte Ltd

18 Boon Lay Way 06-140 Trade Hub 21
Singapore 609966
☎ +65 6795 3177
☎ +65 6862 6620
Mail: dometic@dometic.com.sg

SLOVAKIA

Dometic Slovakia s.r.o. Sales Office Bratislava

Nádražná 34/A
900 28 Ivanka pri Dunaji
☎/📠 +421 2 45 529 680
Mail: bratislava@dometic.com

SOUTH AFRICA

Dometic (Pty) Ltd.

Regional Office

South Africa & Sub-Saharan Africa

2 Avalon Road
West Lake View Ext 11
Modderfontein 1645
Johannesburg
☎ +27 11 4504978
☎ +27 11 4504976
Mail: info@dometic.co.za

SPAIN

Dometic Spain S.L.

Avda. Sierra del Guadarrama, 16
E-28691 Villanueva de la Cañada
Madrid
☎ +34 91 833 60 89
☎ +34 900 100 245
Mail: info@dometic.es

SWEDEN

Dometic Scandinavia AB

Gustaf Melins gata 7
S-42131 Västra Frölunda
☎ +46 31 7341100
☎ +46 31 7341101
Mail: info@dometicgroup.se

SWITZERLAND

Dometic Switzerland AG

Riedackerstrasse 7a
CH-8153 Rümlang
☎ +41 44 8187171
☎ +41 44 8187191
Mail: info@dometic.ch

UNITED ARAB EMIRATES

Dometic Middle East FZCO

P. O. Box 17860
S-D 6, Jebel Ali Freezone
Dubai
☎ +971 4 883 3858
☎ +971 4 883 3868
Mail: info@dometic.ae

UNITED KINGDOM

Dometic UK Ltd.

Dometic House, The Brewery
Blandford St. Mary
Dorset DT11 9LS
☎ +44 344 626 0133
☎ +44 344 626 0143
Mail: customerservices@dometic.co.uk

USA

Dometic RV Division

1120 North Main Street
Elkhart, IN 46515
☎ +1 574-264-2131