

Please read these instructions carefully and follow all instructions, guidelines, and warnings included in this product manual in order to ensure that you install, use, and maintain the product properly at all times. These instructions MUST stay with this product.

By using the product, you hereby confirm that you have read all instructions, guidelines, and warnings carefully and that you understand and agree to abide by the terms and conditions as set forth herein. You agree to use this product only for the intended purpose and application and in accordance with the instructions, guidelines, and warnings as set forth in this product manual as well as in accordance with all applicable laws and regulations. A failure to read and follow the instructions and warnings set forth herein may result in an injury to yourself and others, damage to your product or damage to other property in the vicinity. This product manual, including the instructions, guidelines, and warnings, and related documentation, may be subject to changes and updates. For up-to-date product information, please visit documents.dometic.com.

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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.

**NOTICE!**

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

**NOTE**

Supplementary information for operating the product.

2 Safety instructions

2.1 Using the device



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

Risk of injury

- Only use the parking cooler for the purpose specified by the manufacturer and do not make any alterations or structural changes to the device.
- Do not use the parking cooler if it is visibly damaged.
- The parking cooler must be installed safely so that it cannot tip over or fall down.
- Installation, maintenance and repair work may only be carried out by qualified personnel from a specialist company who are familiar with the risks involved and the relevant regulations.
- Do not use the parking cooler near flammable fluids and gases.
- Do **not** undo the upper cover of the parking cooler in the event of a fire. Use approved extinguishing agents instead. Do not use water to extinguish fires.

**NOTICE!****Damage hazard**

- Operating parking cooler with voltages other than those specified can result in damage to the devices.
- Do not operate the parking cooler if the ambient temperature is below 0 °C.
- Please inform your vehicle manufacturer if the height entered in your vehicle documents needs to be altered due to the installation of the parking cooler.
 - RTX1000/2000 height: 175 – 197 mm
- Disconnect all power supply lines when working on the parking cooler (cleaning, maintenance, etc.).

2.2 Handling electrical cables



NOTICE!

Damage hazard

- Use cable ducts to lay cables through walls with sharp edges.
- Do not lay loose or bent cables next to electrically conductive materials (metal).
- Do not pull on the cables.
- Attach and lay the cables in such a manner that they cannot be tripped over or damaged.
- The electrical power supply may only be connected by a specialist workshop.
- The connection to the vehicle's electrical system should be protected as follows:
 - Power supply: RTX 24 V: 40 A; RTX 12 V: 80 A
 - Voltage monitor: 2 A
- Never lay power supply lines (battery leads) in the vicinity of signal or control cables.

3 Target group



The mechanical and electrical installation and setup of the device has demonstrated skill and knowledge related to the construction and operation of automotive equipment and installations, and who is familiar with the applicable regulations of the country in which the equipment is to be installed and/or used, and has received safety training to identify and avoid the hazards involved.

4 Intended use

The parking cooler is used to supply the interior of the driver cab with cool and dehumidified air.

The parking cooler is designed for stationary use. It can be used while driving.

The parking cooler is not suitable for installation in construction machines, agricultural machines or similar equipment. They will not work properly if exposed to strong vibrations.

The parking cooler must not be installed in or instead of roof hatches that are intended or declared as emergency exits.

This product is only suitable for the intended purpose and application in accordance with these instructions.

This manual provides information that is necessary for proper installation and/or operation of the product. Poor installation and/or improper operation or maintenance will result in unsatisfactory performance and a possible failure.

The manufacturer accepts no liability for any injury or damage to the product resulting from:

- Incorrect assembly or connection, including excess voltage
- Incorrect maintenance or use of spare parts other than original spare parts provided by the manufacturer
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in this manual

Dometic reserves the right to change product appearance and product specifications.

**NOTE**

As the parking cooler uses R134a as refrigerant with a GWP > 150, there may be national restrictions for installation the parking cooler on certain vehicles. Check upfront the national requirements or contact your Dometic representative, if it is allowed to install the parking cooler on your vehicle.

4.1 **RTX1000, RTX2000**

The installation kit enables the installation of a CoolAir RTX1000 or RTX2000 parking cooler for example in a roof ventilation opening (hatch) installed by the customer in an HGV driver cab.

5 Scope of delivery

CoolAir RTX1000/RTX2000 installation kit for universal installation with bar attachment system

Item in fig. 1	Part designation	Quantity
①	Thread insert with flange M8	4
②	Thread insert with flange M6	4
③	Nut M8	4
④	Fastening holder	2
⑤	Washer 8.5 x 20	4
⑥	Spring washer M8	4
⑦	Hex screw M8 x 100	4
⑧	Spacer sleeve L = 48 mm, Ø 10 mm	8
⑨	Cover frame	1
⑩	Washer M6	4
⑪	Allen screw with cylindrical head M6 x 110	4
⑫	2.2 m insulating tape (profile: 10 x 20 mm)	1
⑬	2.2 m insulating tape (profile: 40 x 20 mm)	1
⑭	Cable binder	3
⑮	1/4" hexagon bit	1
–	Installation manual	1

6 Accessories

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

Part designation	Ref. no.
RTX 24 V: Connection cable 6 mm ² x 11 m	9100300108
RTX 24 V: Electrical fuse connection set RTX	9100300110
RTX 12 V: Electrical connection set	9620001663

7 Installation



CAUTION!

Incorrect installation of the parking cooler may place the safety of the user at risk.

The manufacturer accepts no liability whatsoever for personal injury or property damage if the parking cooler is not installed according to this installation manual.

**NOTICE! Damage hazard**

- The parking cooler may only be installed by qualified personnel from a specialist company. The following information is intended for technicians who are familiar with the guidelines and safety precautions to be applied.
- The manufacturer only assumes liability for parts included in the scope of delivery. The validity of the warranty expires if the device is installed together with third-party parts.
- Check whether the roof of the vehicle is able to support the weight of a person before climbing onto it. Ask the vehicle manufacturer about the permitted roof loads.

7.1 Notes on installation

The following tips and guidance should be followed when installing the parking cooler:

**WARNING! Electrical shock**

Before carrying out any work on electrically operated components, make sure that they are disconnected from the power supply.
Before installing the parking cooler, disconnect all connections to the vehicle battery.

- Before installing the parking cooler, check whether any vehicle components could be damaged or have their function impaired as a result of the installation.
Check the dimensions of the system to be installed (fig. **2**).
The dotted line indicates the middle of the roof hatch opening.
- The top cowl of the parking cooler can be painted (fig. **3**). The manufacturer recommends that the painting is done by a specialist paint shop.
- Before installation, check with the vehicle manufacturer whether the vehicle body is designed for the static weight of the parking cooler and the dynamic loads created by it when the vehicle is in motion. The manufacturer of the parking cooler accepts no liability whatsoever in that regard.
- If a roof cutout is required (e.g. if there is no existing roof hatch opening or the roof hatch opening is not suitable and cannot be used), it is mandatory to check with the manufacturer of your vehicle whether this is permissible and what must be observed to ensure that the vehicle's registration does not expire.
- The downward slope of the roof in forward direction in the area where the unit is installed must not be more than:
 - RTX1000: 8°
 - RTX2000: 20°
- The assembly parts supplied must not be modified during installation.

- The ventilation openings must not be covered over (minimum distance from other external attachments: 100 mm).
- Follow the vehicle manufacturer's guidelines when installing the system and establishing the electrical connections.

**NOTE**

After installation of the system, the pre-set parameters on the system software must be checked (chapter "Configuring the system software" on page 12).

7.2 Creating the opening (if necessary)

**NOTE**

To simplify the task of creating the opening, there is a template integrated in the packaging of the installation kit.

- ▶ Create an opening measuring 500 mm x 400 mm with rounded corners with a radius of R25 (fig. **6** and fig. **7**, arrow = forward direction).

**NOTE**

Dispose of all waste materials separately. When doing so, follow the waste disposal requirements applicable in your local area.

7.3 Preparing the unit

**NOTICE! Damage hazard**

When preparing the unit on the work surface, make sure it is secured against falling off.

Make sure that the work surface is clean and level to ensure that the unit is not damaged.

Proceed as follows (fig. **8**):

- ▶ Place the parking cooler on a work surface with the casing facing down.
- ▶ Screw the 4 self-tapping M6 threaded plugs into the blind holes marked "7". Use a 5 mm hexagon bit to do so.
- ▶ Screw the 4 self-tapping M8 threaded plugs into the blind holes marked "6". To do so, use the 1/4" bit supplied.

7.4 Attaching the seal for the cab roof



NOTICE! Damage hazard

Ensure that the surface where the seal between the unit and the cab roof is to be glued is clean (free of dust, oil, etc.).

- ▶ Glue the sealing strip to the cab roof (fig. **9** A). Follow the contour of the roof hatch opening. The join between the ends of the seal should be at the back.
- ▶ Apply a flexible, non-hardening butyl sealant (e.g. SikaLastomer-710) to the join between the ends of the sealing strip and to the top edge of the sealing strip (fig. **9** B).

7.5 Fitting the unit in the roof hatch



CAUTION! Risk of injury

Only install the unit in support of e. g. second person, crane, working platform. The work safety must be guaranteed at all times.

- ▶ Place the parking cooler as shown and facing forwards in the roof hatch opening (fig. **10**).



NOTE

Once the unit is in position on the vehicle roof, the seal should make contact all the way round. Only then can a reliable seal be achieved.

- ▶ Position the fixing brackets underneath the cab roof (fig. **11**). When doing so, slide the fixing brackets between the cab roof (chassis) and the roof lining (if existing).



NOTICE! Damage hazard

Do not exceed the specified tightening torque under any circumstances. That is the only way to ensure that the threaded plugs are not pulled out.

- ▶ Fix the parking cooler in place as illustrated (fig. **11**).
- ▶ Establish the required length of the M8 hexagon-head screws as follows:
Screw length = Distance between bottom edge of fixing bracket and bottom edge of unit plus 5 – 9 mm.
If necessary, shorten the hex-head screws to the size determined.

7.6 Routing the electrical power supply leads



DANGER! Explosion hazard

For EX/III and FL vehicles (according to ADR guideline), a battery master switch must be installed.



WARNING! Risk of injury

- The electrical connections may only be made by competent technical staff with the appropriate specialist knowledge.
- Before carrying out any work on electrically operated components, make sure that they are disconnected from the power supply.



NOTICE! Damage hazard

- The connection to the vehicle's electrical system should be protected by a 40 A (RTX 24 V)/80 A (RTX 12 V) fuse for the power supply and a 2 A fuse for the voltage monitor.
- The battery must be capable of supplying the required current and voltage (chapter "Technical data" on page 15).
- Route the power supply lead stressless and secure it with cable binders in appropriate intervals.

Route the power supply lead as illustrated (fig. **12**):

- The connector must be fixed to the support bracket (fig. **12 3**).
- Run the wiring loom to the main power distribution box along a route where it is protected.
- Connect the negative lead (black) for the power supply.
- Connect the negative lead (black) for the voltage monitor.
- Connect the positive lead (red) for the power supply via a fuse:
 - RTX 24 V: 40 A
 - RTX 12 V: 80 A
- Connect the positive lead (red) for the voltage monitor via a 2 A fuse.
- Connect the wiring loom to the unit and fix with a cable tie in a suitable position (fig. **12 2**).

7.7 Fixing the cover frame



NOTICE! Damage hazard

Tighten the screws carefully in order not to damage the cover frame.

- Fix the cover frame in place as illustrated (fig. **13**).

The distance "x" has to be measured again. This measure is needed to determine the spacer and screw length for the fastening of the cover frame.

Example:

- Screw length = $x + (23 \text{ to } 27)$ mm:
In case "x" is 51 mm, the suitable screw length is 75 mm
- Spacer length = $x + 9$ mm:
In case "x" is 51 mm, the suitable spacer length is 60 mm

8 Configuring the system software

Before the system is first put into operation, the control unit settings can be adjusted to suit the various installation conditions. Those adjustments must be made by the installer (fig. **5**).

Display indication	Parameter	Meaning	Factory setting
P.01	Undervoltage shut-down	The battery monitor shuts down the system at the voltage defined here.	
	RTX 24 V		22.8 V
	RTX 12 V		11.5 V
P.02	Unit for temperature display	The temperature can be displayed in °C or °F.	°C



NOTE

Configuration mode can still be activated if the undervoltage cut-out has switched off the system and only residual voltage is available.

8.1 Entering and exiting configuration mode

1. Press and hold the button.
2. Press and hold the button for longer than 3 s.
 - ✓ The display shows the symbol.
 - ✓ The parking cooler switches to configuration mode.
 - ✓ The display shows "P.01" and the symbol flashes.
3. Scroll through the menu by pressing the or button to select the desired menu item.
4. Press the button to open the desired menu item.
5. Press and hold the button for longer than 3 s to exit configuration mode.

8.2 P.01: Undervoltage shut-down

The battery monitor protects the battery against discharging excessively.




NOTICE! Damage hazard

If the unit is switched off by the battery monitor, it means the battery charge level is low. Avoid repeated starting or using electrical equipment. Make sure that the battery is recharged. As soon as the required voltage is available again, the system can be operated again.



If only the power supply voltage specified here is available to the parking cooler, the system is switched off.

1. Switch to configuration mode (chapter "Entering and exiting configuration mode" on page 12).

✓ The display shows "P.01" and the  symbol flashes.

2. Press the  button to change the setting.

✓ The current setting is displayed.

3. Use the  or  button to select the voltage level for undervoltage shut-down.

The undervoltage shut-down setting can be adjusted in 0.1 V increments:

- **RTX 24 V:** from 20.0 V to 23.5 V
- **RTX 12 V:** from 10.0 V to 11.7 V





NOTE

The level for the undervoltage shut-down should not be set any lower than the minimum battery voltage required to be able to start the engine under any conditions.

As a rule that should be no less than 22 V (RTX 24 V)/11 V (RTX 12 V).











4. Press the  button to save the setting.

✓ The set value is saved and is then applied when the system is restarted.

✓ You are then returned to the menu and can select another menu item by pressing the  or  button.

8.3 P.02: Unit for temperature display

The system can display the room temperature in °C or °F.

1. Switch to configuration mode (chapter "Entering and exiting configuration mode" on page 12).
 - ✓ The display shows "P.01" and the  symbol flashes.
2. Press the  or  button to select the menu item P.02.
 - ✓ The display shows "P.02" and the  symbol lights up.
3. Press the  button to change the setting.
 - ✓ The code for the current setting is displayed:
 - 0: °C
 - 1: °F
4. Use the  or  button to select the desired temperature unit.
5. Press the  button to save the setting.
 - ✓ The set value is saved and is then applied when the system is restarted.
 - ✓ You are then returned to the menu and can select another menu item by pressing the  or  button.

9 Technical data

	CoolAir	
	RTX1000 24 V	RTX2000 24 V
Cooling capacity	1200 W	2000 W
Rated input voltage	24 V $\overline{=}$ (20 V $\overline{=}$ – 30 V $\overline{=}$)	
Max. current consumption	5 – 25 A	5 – 29 A
Operating temperature range	+5 to +52 °C	
Undervoltage shutdown	Configurable (chapter "P.01: Undervoltage shutdown" on page 13)	
Refrigerant	R134a	
Global warming potential (GWP)	1430	
Noise emission	< 70 dB(A)	
Dimensions (L x B x H)	645 x 860 x 308 mm	
Weight	approx. 23 kg	approx. 32 kg

	CoolAir	
	RTX1000 12 V	RTX2000 12 V
Cooling capacity	1200 W	2000 W
Rated input voltage	12 V $\overline{=}$ (9 V $\overline{=}$ – 15 V $\overline{=}$)	
Max. current consumption	10 – 45 A	10 – 60 A
Operating temperature range	+5 to +52 °C	
Undervoltage shutdown	Configurable (chapter "P.01: Undervoltage shutdown" on page 13)	
Refrigerant	R134a	
Global warming potential (GWP)	1430	
Noise emission	< 70 dB(A)	
Dimensions (L x B x H)	645 x 860 x 308 mm	
Weight	approx. 24 kg	approx. 33 kg