MOBICOOL MCF32 Compressor Cooler User Manual

Contents

MOBICOOL

MOBICOOL MCF32 Compressor Cooler

Explanation of symbols

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.

Safety instructions

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
To avoid contamination of food, please respect the following instructions:

- 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 a significant increase of the temperature in the compartments of the device.
- Clean regular surfaces that can come in contact with food and accessible drainage systems.
- 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 mold from developing within the device.

NOTICE! Damage hazard

- Check that the voltage specification on the data 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 bat-tery 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 cyclo-pentane 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.
- The device shall not to be exposed to rain.

Scope of delivery

Quantity Description

- 1 Compressor cooler
- 1 DC connection cable
- 1 AC connection cable
- 1 Operating manual

Intended use

The cooling box is suitable for cooling food. The cooling box is also suitable for use on vehicles. The cooling box is designed to be operated from a DC power supply socket of a vehicle or from an AC power supply. The cooling box is also suitable for camping use. The cooling box is intended to be used in households and similar applications such as

- staff kitchen areas in shops, offices and other working environments
- farmhouses
- clients in hotels, motels and other residential type environments
- bed and breakfast type environments
- catering and similar non-retail applications The cooling box is not suitable for:
- storage of corrosive, caustic or solvent-containing substances

This cooling box is only suitable for the intended purpose and application in accordance with these instructions. This manual provides information that is necessary for the proper installation and/or operation of the cooling box. Poor installation and/or improper operating 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.

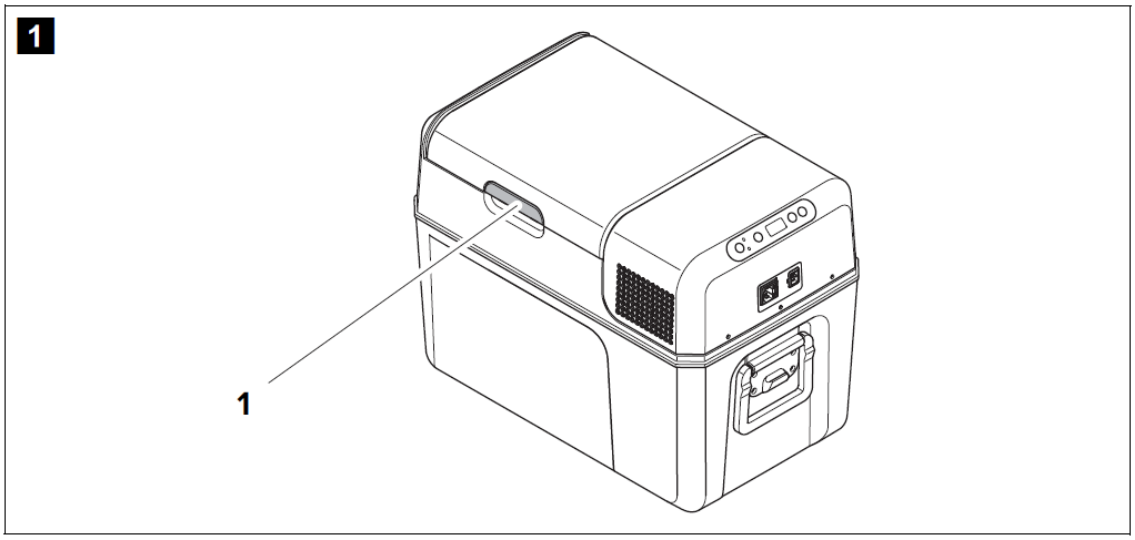
Function description

The cooling device can chill products, keep them cool. A low maintenance refrigerant circuit with compressor provides the cooling. The foamed-in-place insulation and compact compressor ensure optimum cooling. The cooling device is portable. When used on boats, the cooling device can withstand a constant heel (inclination) of 30°.

Scope of functions

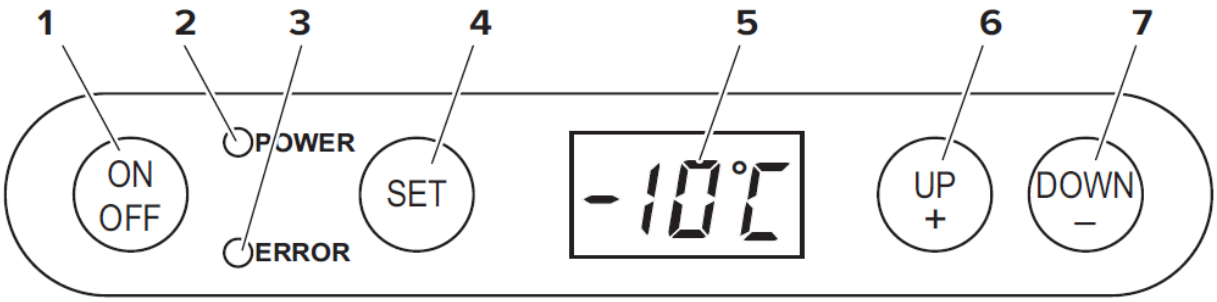
- Three-level battery monitor to protect the vehicle battery switches off automatically at low battery voltage
- Display with temperature gauge
- Temperature setting: With two buttons in steps of 1 °C (2 °F)

Operating and display elements

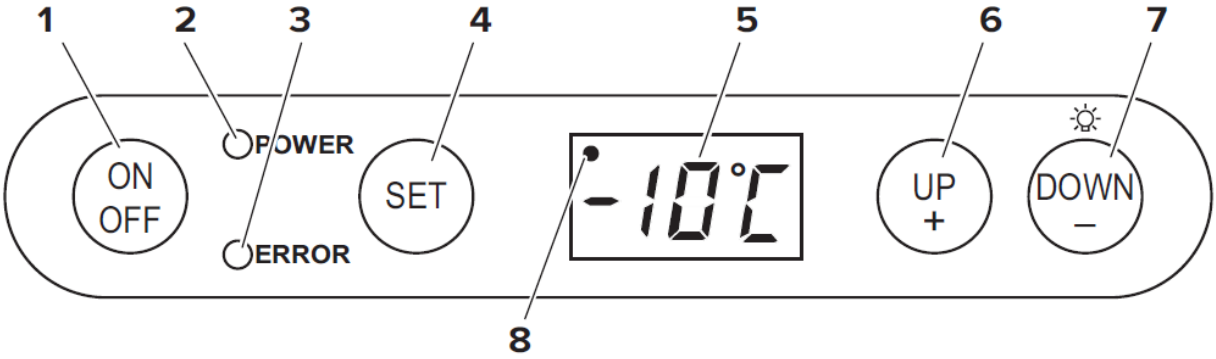


2

MCF32, MCF40, FR40

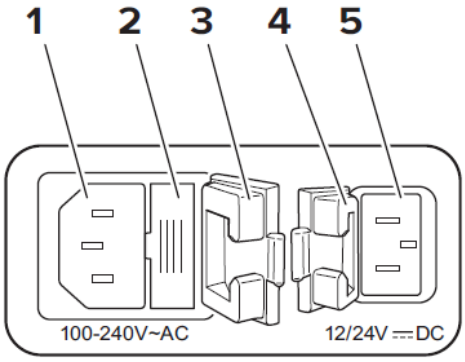


MCF60



Item	Description	Explanation
1	ON	Switches the cooling device on or off when the
	OFF	button is pressed for between one and two seconds
2	POWER	Status indication
		LED lights up green: Compressor is on
		LED lights up orange: Compressor is off
		LED flashes orange: Display switched off auto- matically due to low battery voltage
3	ERROR	LED flashes red: Cooling device is switched on but not ready for oper- ation
4	SET	Selects the input mode – Temperature setting – Celsius or Fahrenheit display – Set battery monitor
5	–	Display, shows the information
6	“+”	Press once to increase the value
7	“–”	Press once to decrease the value
8	I	**Only MCF60:** If displayed, the interior light is switched on.

3



Item Description

- 1 AC socket

- 2 Fuse holder
- 3 Cover AC socket
- 4 Cover DC socket
- 5 DC socket

Operation

Before initial use

NOTE
Before starting your new cooling device 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 mainte-nance” on page 18).

Selecting the temperature units

You can switch the temperature display between Celsius and Fahrenheit. Proceed as follows:

1. Switch on the cooling device.
2. Press the “SET” button twice.
3. Use the “+” and “–” buttons to select Celsius or Fahrenheit.

The selected temperature units then appear in the display for a few seconds. The display flashes several times before it returns to the current temperature.

Saving energy

- Choose a well-ventilated location that is protected from direct sunlight.
- Allow warm food to cool down first before placing it in the cooling device to keep cool.
- Do not open the cooling device more often than necessary.
- Do not leave the cooling device open for longer than necessary.
- If the cooler has a basket: For optimal energy consumption, position the basket according to its position on delivery.
- On a regular basis, make sure the lid seal still fits properly.

Connecting the cooling device

The cooling device can be operated with DC or AC voltage.

NOTICE! Damage hazard
Disconnect the cooling device and other consumer units from the vehicle battery before you connect the vehicle battery to a quick charging device. Overvoltage can damage the electronics of the cooling device.

For safety reasons, the cooling device is equipped with an electronic system to prevent the polarity reversal. This protects the cooling device against short-circuiting when connecting to a battery.

1. Plug the DC connection cable into the DC socket and connect it to a DC power socket.
2. Plug the AC connection cable into the AC voltage socket and connect it to an AC mains.
3. Close the covers of the sockets not in use to prevent accidentally touch-ing the sockets. This also prevents dust, water and dirt from entering the socket.

Using the battery monitor
The cooling device is equipped with a multi-level battery monitor that protects your vehicle battery against excessive discharging when the cooling device is connected to the DC power supply.
If the cooling device is operated when the vehicle ignition is switched off, the cooling device switches off automatically as soon as the supply voltage falls below a set level. The cooling device will switch back on once the vehicle battery has been recharged to the restart voltage level.

NOTICE! Damage hazard
When switched off by the battery monitor, the vehicle battery will no longer be fully charged. Avoid starting repeatedly or operating current consumers without longer charging phases. Ensure that the vehicle battery is recharged.

In “HIGH” mode, the battery monitor responds faster than at the levels “LOW” and “MED” (see the following table).

Battery monitor mode	**LOW**	**MED**	**HIGH**
Switch-off voltage at 12 V	10.1 V	11.4 V	11.8 V
Restart voltage at 12 V	11.1 V	12.2 V	12.6 V
Switch-off voltage at 24 V	21.5 V	24.1 V	24.6 V
Restart voltage at 24 V	23.0 V	25.3 V	26.2 V

Proceed as follows to select the battery monitor mode:

1. Switch on the cooling device.
2. Press the “SET” button three times.
3. Use the “+” and “–” buttons to select the battery monitor mode.

The selected mode then appears in the display for a few seconds. The dis-play flashes several times before it returns to the current temperature.

NOTE
When the cooling device is supplied by the vehicle battery, select the battery monitor mode “HIGH”. If the cooling device is con-nected to a supply battery, the battery monitor mode “LOW” will suffice.

Using the cooling device

NOTICE! Damage hazard
Place the cooling device as shown (fig. 1, page 3). If you operate the cooling device in a different position it can be damaged.\

1. Place the cooling device on a firm foundation.
2. Connect the cooling device, see chapter “Connecting the cooling device” on page 13.

NOTICE! Hazard from excessively low temperature
Ensure that only those objects are placed in the cooling device that are intended to be cooled at the selected temperature.

Press the “ON/OFF” button for between one and two seconds.

- The “POWER” LED lights up.
- The display switches on and shows the current cooling temperature.

NOTE
The temperature displayed is that of the middle of the interior. The temperatures elsewhere can deviate from this temperature.

The cooling device starts cooling the interior.

NOTE
When operating with the battery, the display switches off automatically if the battery voltage is low. The LED “POWER” flashes orange.

To avoid food waste, note the following:

- Keep temperature fluctuation as low as possible. Only open the cooling device as often and for as long as necessary. Store the foodstuff in such a way that the air can still circulate well.
- Adjust the temperature to the quantity and type of the foodstuff.
- Foodstuff can easily absorb or release odor or taste. Always store food-stuff covered or in closed containers/bottles.

Latching the cooling device lid

1. Lift the latch (fig. 1 1, page 3) and close the lid.
2. Release the latch.
   The latch audibly clicks in place and secures the cooling device lid.

Setting the temperature

1. Press the “SET” button once.
2. Use the “+” and “–” buttons to select the cooling temperature.
   The cooling temperature appears in the display for a few seconds. The display flashes several times and then the current temperature is displayed again.

Switching off the cooling device

1. Empty the cooling device.
2. Switch the cooling device off.
3. Pull out the connection cable.

If you do not want to use the cooling device for a longer period of time: Leave the lid slightly open. This prevents odour build-up.

Using the interior light (only MCF60)

1. Ensure the display shows the actual temperature.

2. Press the “–” button to switch the interior light on.
3. Press the “–” button again to switch the interior light off.

The black dot (fig. 2 8, page 3) in the upper left corner of the display indicates whether the interior light is switched on or off.

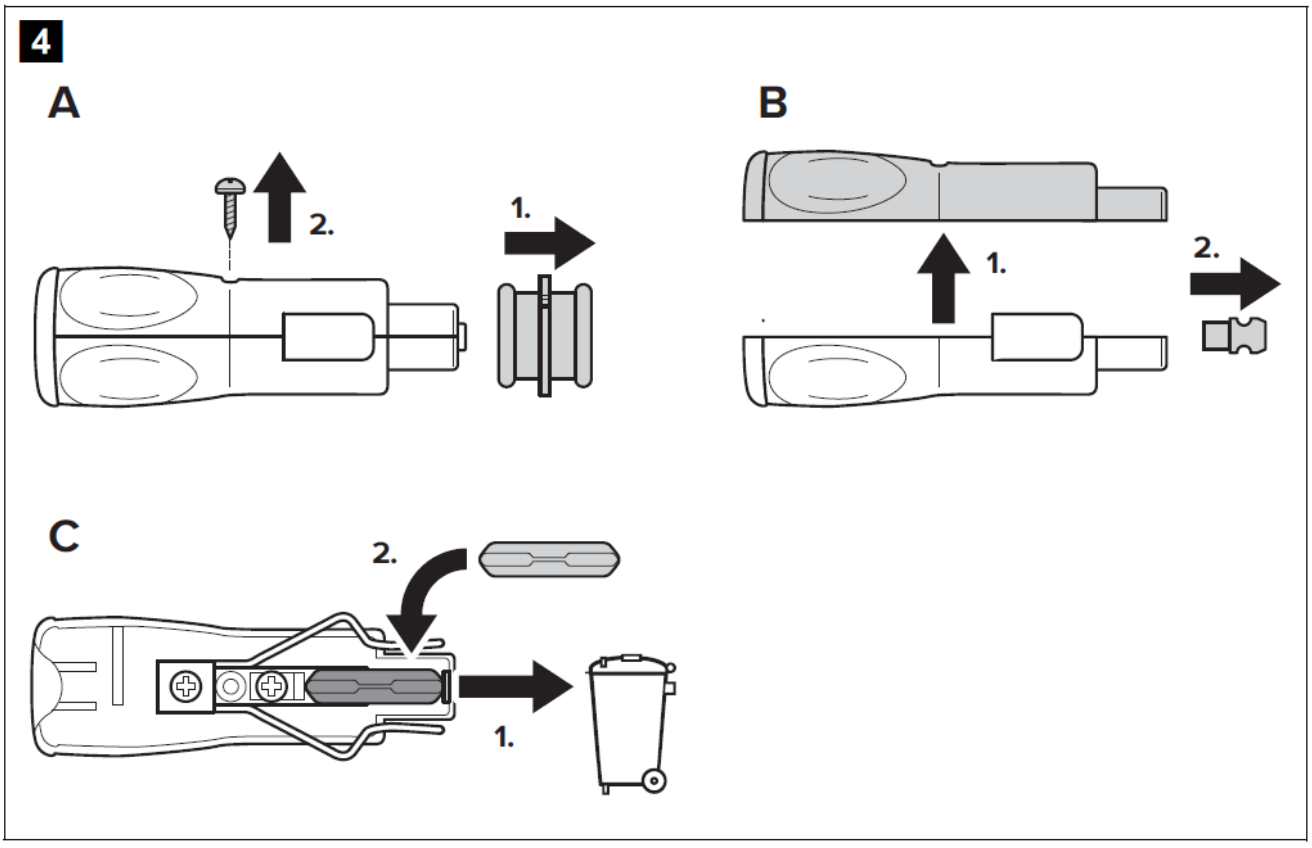
NOTE
The interior light switches off automatically after 30 minutes.

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

To defrost the cooling device, proceed as follows:

1. Take out the contents of the cooling device.
2. If necessary, place them in another cooling device to keep them cool.
3. Switch off the cooling device.
4. Leave the lid open.
5. Wipe off the defrosted water.

Replacing the fuse
Replace the fuse (8 A 32 V) as shown (fig. 4, page 4).



Cleaning and maintenance

NOTICE! Damage hazard

- Never clean the cooling device under running water or in dish water.
- Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the cooling device.
- Occasionally clean the cooling device interior and exterior with a damp cloth.
- Make sure that the air inlet and outlet vents on the device are free of any dust and dirt, so that heat can be released and the device is not damaged.

Troubleshooting

Fault	Possible cause	Suggested remedy
The cooling device does not function, “POWER” LED does not glow.	There is no voltage present in the DC power socket in your vehicle.	The ignition must be switched on in most vehicles to apply current to the DC power socket.
The cooling device does not cool (plug is inserted, “POWER” LED is lit).	Defective compressor.	This can only be repaired by an authorised customer services unit.
The cooling device does not cool (plug is inserted, “POWER” LED flashes orange, dis-play is switched off).	Voltage of the vehicle battery is too low.	Test the vehicle battery and charge it as needed.
When operating from the DC power socket: The ignition is on and the cooling device is not working and the “POWER” LED is not lit.	The DC power socket is dirty. This results in a poor electrical contact.	If the plug of your cooling device becomes very warm in the DC power socket, either the DC power socket must be cleaned or the plug has not been assembled correctly.
	The fuse of the DC plug has blown.	Replace the fuse (8 A) in the DC plug, see chapter “Replacing the fuse” on page 17.
	The vehicle fuse has blown.	Replace the vehicle’s DC power socket fuse (usually 15 A). Please refer to your vehicle’s operating manual.

Fault	Possible cause	Suggested remedy
The display shows an error message (e.g. “Err1”) and the cooling device does not cool.	The cooling device has switched off due to an internal fault.	This can only be repaired by an authorised repair centre.

Warranty

The statutory warranty period applies. If the product is defective, please contact your retailer or the manufacturer’s branch in your country (see dometic.com/dealer). For repair and warranty processing, please include the following documents when you send in the product:

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

Disposal

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

Consult a local recycling center or specialist dealer for details about how to dispose of the product in accordance with the applicable dis-posal regulations.

Technical data

	MCF32 AC/DC	**MCF40 AC/DC,** **FR40 AC/DC**	**MCF60 AC/DC**
Connection voltage:	12/24 Vg 100 – 240 Vw, 50/60 Hz		
Power consumption:	4 A (12 Vg) 2A (24 Vg)		6 A (12 Vg) 3 A (24 Vg)
	1.0 – 0.4 A (100 – 240 Vw)		

	MCF32 AC/DC	MCF40 AC/DC, FR40 AC/DC	MCF60 AC/DC
Cooling capacity:	+20 °C to –10 °C (+68 °F to +14 °F)		
Total volume:	31 l	38 l	58 l
Climate class:	N		
Ambient temperature:	+16 °C to +32 °C		
Refrigerant quantity:	40 g	42 g	58 g
CO_2 equivalent:	0.057 t	0.060 t	0.083 t
Global warming potential (GWP):	1430		
Dimensions (L x W x H):	584 x 365 x 407 mm	584 x 365 x 446 mm	680 x 440 x 470 mm
Weight:	11.4 kg	11.5 kg	18.4 kg
Test/certificates:	CE UKCA		
	E4		E9

NOTE
If the ambient temperature is above +32 °C (+90 °F), the minimum temperature cannot be attained.

- The refrigerant circuit contains R134a.
- This product contains fluorinated greenhouse gases.
- The cooling unit is hermetically sealed.

Documents / Resources

	MOBICOOL MCF32 Compressor Cooler [pdf] User Manual MCF 32, MCF 40, MCF 60, FR 40 AC DC, MCF32 Compressor Cooler, Compressor Cooler

References

- Dometic Outdoor USA - Compact solutions for Outdoor living | Dometic.com
- Find a Dealer | Dometic.com
- United States | MOBICOOL
- Contact us | MOBICOOL
- Contact us | MOBICOOL