



USE AND MAINTENANCE MANUAL

REV0 30/7/2023 PBCA0113GB

REFRIGERATED CONTAINERS

KOALA

INDEX

1. INTRODUCTION

- 1.1 Field of application
- 1.2 Consulting the manual
- 1.3 Warranty

2. CAUTION

- 2.1 General recommendations

3. USE OF THE PRODUCT

- 3.1 First Use
- 3.2 Types of refrigerated containers
- 3.3 Installation
- 3.4 Commissioning
- 3.5 EVCO Controller – EVLINK Module – EVCONNECT App
- 3.6 Loading Instructions
- 3.7 Transportation Instructions
- 3.8 Instructions for prolonged non-use
- 3.9 Koala Cables – Connections and Specifications

4. MAINTENANCE

- 4.1 Washing Instructions
- 4.2 Defrost Instructions
- 4.3 Maintenance Instructions
- 4.4 Troubleshooting
- 4.5 Procedure to Resolve E1 or E2 Errors on the Temperature Controller
- 4.6 Replacing the Protective Fuse

5. DISPOSAL

- 5.1 Packaging
- 5.2 Disposal of the product in the territory of the European Union

6. REFRIGERANT GAS

7. CERTIFICATIONS

1. INTRODUCTION

1.1 Area of application

The refrigerated containers of the KOALA line have been specially designed and built to ensure the safe transport at a controlled temperature of products that require strict compliance with the cold chain. This range of containers is the ideal solution for long-duration transports or those where it is essential to maintain precise temperature control throughout the entire transport route.

Depending on the model, Koalas are suitable for transport in:

- *cool bond* (digital thermostat adjustment range: 0°C to +10°C);
- *fresh and frozen bonding* (digital thermostat adjustment range: -30°C to +10°C or -25°C to +10°C or -18°C to +10°C);
- *cool and heated bond* (digital thermostat adjustment range: 0°C to +40°C);
- *fresh, frozen and heated bonding* (digital thermostat control range: -30°C to +40°C or -25°C to +40°C or -18°C to +40°C).

The reference ambient temperature is between +10°C and +32°C. Outside this range Claimed performance for refrigerated containers may vary.

IMPORTANT:

To ensure the proper functioning of the refrigerated containers of the KOALA line, it is essential to ensure that the ambient temperature in which they operate never exceeds 45°C. Beyond this limit, the electronics of the enclosure may suffer irreversible damage.

It is highly recommended to install ventilation towers on vehicles and vans, especially in particularly hot weather conditions, as critical temperatures could easily be reached and exceeded.

In addition, to ensure adequate ventilation of the Koalas' working environment, it is essential to leave a free space of at least 20 cm around the ventilation grilles. This will help maintain a stable and safe internal temperature when transporting cold chain sensitive products.

1.2 Consultation of the manual

This manual has been designed to provide the user with all the essential information regarding the use and maintenance of the product, in an easy and quick way. It is recommended that the manual be kept available at all times to the personnel responsible for maintenance operations and to the operators involved in the use of the product.

It is emphasized that it is important to read the operating instructions carefully before putting the product into service, in order to ensure correct use and optimal performance.

1.3 Warranty

This product is covered by a warranty against manufacturing defects for a period of 2 years from the date of purchase, provided that:

- has been used in accordance with the manufacturer's instructions,
- has not been damaged due to improper use.

Accidental damage resulting from transportation, carelessness, misuse, or failure to follow the instructions in this manual are excluded from warranty coverage. The warranty will become void in the event that the product has been repaired or tampered with by unauthorized persons.

Please contact your local distributor or MELFORM customercare@melform.com customer service for any assistance and for the supply of original spare parts.

It should be noted that KOALA is an exclusive product of MELFORM. The manufacturer reserves the right to make changes to the characteristics of the models at any time without prior notice. In addition, it is possible that there may be variations in the color shades of the product.

2. CAUTION

The product has been manufactured strictly following the latest technologies available. All the necessary requirements to ensure safe and proper operation of the appliance have been fully met.

The person in charge of the user company is advised to ensure that personnel receive adequate training, so that the container is used only for its intended purposes and correctly according to the instructions in the user manual provided. In this way, you will ensure proper handling and use of the product, optimizing performance and minimizing potential risks.

2.1 General recommendations:

- The use of the enclosure must be in accordance with the manufacturer's instructions. The function of the Koala container is to ensure that temperatures are maintained (in heated, fresh or frozen bond) during transport. Different functions or mode of use are therefore contraindicated.
- This product is intended for use by adults and trained persons only; Keep out of reach of children.
- For repairs, contact only a technical service center authorized by the manufacturer and ask for original spare parts. In any case, maintenance must only be carried out by suitably trained personnel who are informed of the risks associated with work on live systems.
- Caution: Due to continuous use, some parts of the system, such as the compressor, may have high temperatures. Take the appropriate precautions to limit the risks involved during maintenance operations.
- It is recommended to use personal protective equipment such as work gloves when opening and closing doors, in order to avoid the risk of pinching.
- Attention: there is no opening from the inside of the door; avoid the closure of people/animals inside the Koala.
- Never exceed the ambient temperature of +45°C: beyond this temperature, the electronics of the refrigerated container can suffer irreversible damage.
- Do not cover the ventilation grilles. Leave a clearance of at least 20 cm around the ventilation grids.

- Do not store the container in cold rooms: the humidity in the air damages the electronics of the container, while the low temperature solidifies the oil in the engine.
- It is recommended not to store the container at a temperature below 0°C.
- Periodically check the good condition of the container.
- Use the container only on flat surfaces.
- Switch off the refrigeration unit in the event of a tipping over or sharp tilt. Place the container back on a flat surface and wait at least 1 hour before turning the refrigeration unit back on.
- Do not operate the refrigeration unit if it has been knocked, dropped or damaged.
- Do not bring the container into contact with pointed, sharp surfaces or direct heat sources (open flames).
- Do not expose the container to splashing water, rain, bad weather or aggressive and polluting atmospheres (fumes, gases).
- Do not wash the container with steam jet appliances or under pressure.
- Do not leave the container exposed to direct sunlight.
- Do not install the container near sinks or faucets.
- Do not install the enclosure near cookers, stoves, or other heat-giving appliances.
- Do not store flammable liquids in the container.
- Any modification made after purchase to an ATP-approved container immediately voids its validity and warranty.

IMPORTANT:

The manufacturer would like to emphasize that it declines all responsibility if the user company does not comply with the accident prevention regulations in force. Please scrupulously take all required safety measures while using the product, in order to ensure a safe working environment for the personnel involved. Compliance with accident prevention regulations is essential to prevent accidents and protect the health and well-being of all operators.

3. USE OF THE PRODUCT

3.1 First Use

The container underwent a cleaning process before being shipped from the factory. However, before using the container for the first time, it is recommended to wash it in accordance with the procedures described in paragraph 4.1 "Washing instructions". This precaution will ensure maximum hygiene and ensure that the container is ready for use safely and in accordance with the specific needs of the user.

3.2 Types of refrigerated containers

KOALA refrigerated containers can be:

- integrated: the refrigeration unit is static and is integrated into the shape of the container;
- with external refrigeration unit: the refrigeration unit is fixed on the head, spine or side of the isothermal container.

The version with external refrigeration unit can be with static or ventilated refrigeration. Ventilation prevents condensation and allows for greater temperature uniformity in the container.

3.3 Installation

For information on the technical data of the KOALA in use (power supply, absorption, protection fuses) refer to the data plate indicated on the refrigeration unit and to the product sheet available on the website www.melform.com

The KOALAS can be powered with a direct current voltage of 12Vdc or with an alternating current voltage of 230Vac 50/60Hz.

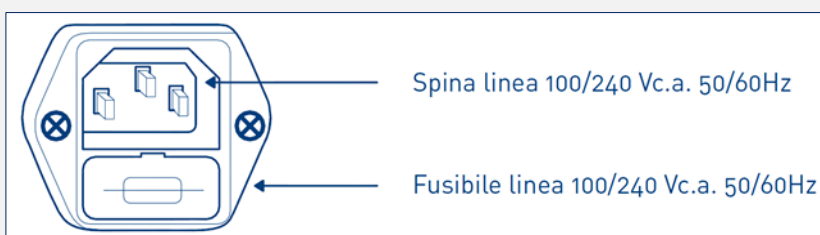
If the local mains voltage is too high or too low, the compressor will not operate and the electronics of the device may be damaged.

Depending on the version, the refrigeration unit is protected with the following fuses:

- 15 A or 25A or 30A, located near the 12VDC socket;
- 4 A, located on the 230VAC 50/60Hz socket.

Connection in alternating voltage 230VAC 50/60Hz:

- check that the plug of the power cord is suitable for the socket of the electrical system;
- Make sure that the socket is provided with an efficient earth contact and has an adequate flow rate. The electrical safety of the appliance is ensured only when properly connected to an efficient earthing system; systems that do not comply with current regulations could cause damage to property and people;
- Do not use AC/AC transformers to power the refrigeration unit.



Drawing 1: Connection plug in alternating voltage 230VAC 50/60Hz

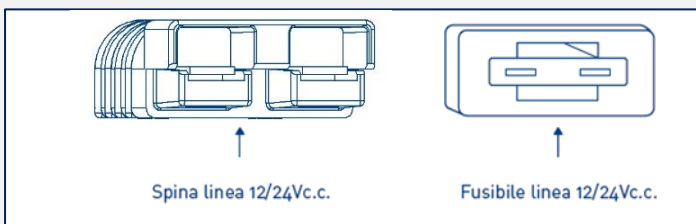
12VDC DC voltage connection:

- Use only original cables supplied by the manufacturer.
- All models are equipped with 2 cables for 12V power supply: a 2m Anderson-Anderson cable and, depending on the model, a second Anderson-cigarette lighter plug or Anderson-spade terminals;
- different connections must be evaluated and carried out by qualified personnel;

- In case of installation of several Koala containers on the same vehicle, it is recommended to consult the MELFORM customercare@melform.com Customer Service [in](#) order to correctly evaluate the absorptions and cross-sections of the power cables, to ensure the correct functionality of the system.

To avoid voltage drops and power losses:

- the cable should be as short as possible and should not be interrupted;
- avoid additional switches, plugs or junction boxes;
- the cross-section of the cable must be chosen according to its length;
- do not connect other electrical equipment to the refrigerant unit cable;
- the connection of the refrigeration unit to the coil must be direct and exclusively dedicated;
- do not use portable generators, they could cause damage caused by voltage peaks and frequency variations;
- do not use battery chargers to power the refrigeration unit;
- Maintain a free surface area around the refrigeration unit (minimum 20 cm), to ensure adequate ventilation and allow greater cooling efficiency and lower power consumption.



Drawing 2: Anderson 50A DC 12VDC connection plug

ì

3.4 Commissioning

Connection in alternating voltage 230VAC 50/60Hz:

- insert the power cord socket into the plug of the appliance (Drawing 1);
- insert the mains plug into the 230Vvac. 50/60Hz power socket;
- switch on the refrigeration unit by pressing I on the main switch 0/I (Drawing 3 - A).

12VDC DC voltage connection:

- insert the socket of the power cord into the plug of the appliance (Drawing 2);
- connect the refrigeration unit to the 12Vdc power supply;
- switch on the refrigeration unit by pressing I on the main switch 0/I (Drawing 3 - A).

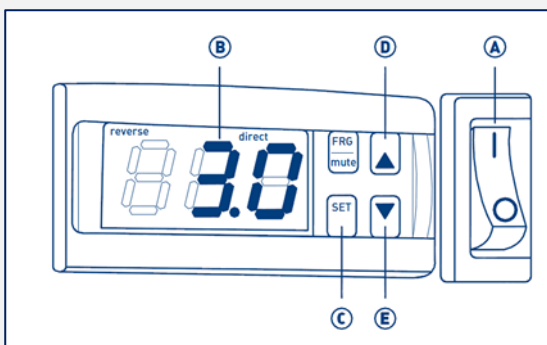
The temperature controller is programmed at the factory to a predefined set-point value depending on the Koala model, with an interval between switching the refrigeration unit off and on again at -1°C and +1°C respectively with respect to the set-point value.

To change the set-point value:

- press the SET button (Drawing 3 - C) for a few seconds: the word St1 appears on the display (Drawing 3 - B);
- release the SET button (Drawing 3 - C): the current set-point value flashes on the display (Drawing 3 - B);
- To increase the set-point value, press the UP button repeatedly (Drawing 3 - D). Each button press increases the set-point temperature by 0.1°C;
- To reduce the set-point value, press the DOWN button repeatedly (Drawing 3 - E). Each button press reduces the set-point temperature by 0.1°C;
- press the SET button again (Drawing 3 - C): the new set-point value is confirmed.

At the end of the adjustment, the actual temperature inside the container is shown again on the display (Drawing 3 - B).

When the power supply is reconnected after an interruption, the last set set-point temperature remains active.



Design 3: Temperature Controller

3.5 EVCO Controller – EVLINK Module – EVCONNECT App (Optional)

The solution involves:

- One EV3294 N3 12-24vac regulator



The EV3294 N3 12-24vac is a controller for the optimized and energy-efficient management of refrigerated units at normal, low, static or ventilated temperatures. Compact and stylish (74 x 32 mm panel, 4 capacitive touch buttons, IP65), it is compatible with the EVconnect APP.

- The EVLINK module (EVIF25TBX module with RTC +BLE+MEMORY)



The module is a data-logger for the automatic storage of historical data that does not require any programming and is powered by the controller.

The module is a Bluetooth BLE 4.0 (Bluetooth Low Energy) interface that records and transmits data to the Android Smartphone/Tablet device.

- The free EVCONNECT App for Android 4.4 devices with BLE 4.0

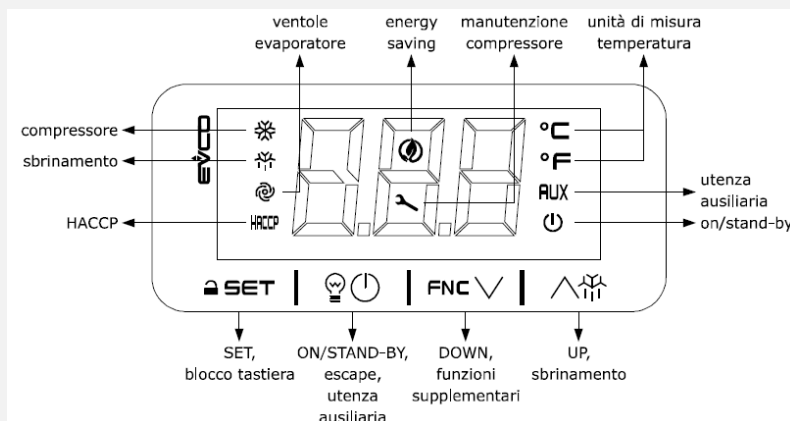
EVconnect is an APP compatible with Android 4.4 devices with Bluetooth 4.0 (BLE) or higher, which allows you to operate via Bluetooth BLE (Bluetooth Low Energy) on the EVCO EV3294 controller.

From an Android 4.4 smartphone or tablet, it is possible to download and view data recordings, also in tabular or graphic format, as well as alarms and machine statuses. The information can be exported in CSV format (e.g. for sending via email).

EVconnect, protected by multi-level access codes, allows you to intervene on the setpoint and configuration parameters of the machine. A list with an extended description of the parameters makes access to configuration operations very convenient.



- EV3294 N3 12-24vac Regulator Operation



Turning the device on/off

To turn the controller on/off, press the ON/STAND-BY button for 4 seconds.

If the device is turned on, the temperature inside the container will appear on the display.

Unlocking the Keypad

If you do not operate the keys for 30 seconds, the word "Loc" appears briefly on the display and the keypad locks automatically. To unlock the keypad, press any key for 1 second and the word "UnL" will appear on the display.

Setting the Set Point on EV3294 N3 12-24vac Regulator

The controller is factory programmed to a set point value of 0°C.

- To change the set point value, make sure the keyboard is not locked.
- Briefly press the SET button;
- To increase the set point value, press the UP button within 15 seconds. Each button press increases the set point temperature by 0.1°C;
- To reduce the set point value, press the DOWN button within 15 seconds. Each button press reduces the set point temperature by 0.1°C;
- Press the SET button to confirm the new set point value.

- How the App Works Evconnect

From the PlayStore of your Android 4.4 smartphone or tablet device, download the free EVconnect Evco App;

Once downloaded, click on the EVconnect App icon;

You are prompted to open the Bluetooth link: make the connection;

You will be asked to enter your password: enter the password "426" and confirm;

On the smartphone/tablet device, all Koala containers equipped with a Bluetooth BLE 4.0 interface module are displayed. Each refrigerated container is identified with its name and serial number (e.g.: "Koala 1300-matr.0156");

For each container, it is possible to display the setting parameters of the controller and the temperature values detected. It is possible to view an instant graph of the washed temperatures or generate exportable CSV files (e.g. for sending by email).

The App allows you to view the following functions:

- HACCP: Allows you to select a time interval (Today, Yesterday, Last 7 days, Choose Dates) and view the temperature data measured in the selected time interval. It is possible to make PDF printouts of the graphs detected and it is possible to download the data (exportable CDV files);
- MAINTENANCE: Allows you to view all the parameters of the controller, divided into Real Time, Service, Alarms, Parameters;
- REAL TIME: Allows you to view the Real Time parameters;
- ALARMS: Allows you to view the Alarm parameters.

3.6 Loading Instructions

- Open the container by using the appropriate locking levers/handle.
- The container is suitable for contact with food; It is therefore possible to insert loose or unpackaged foods
- The function of Koala containers is not to heat or cool the products, but to ensure that they are properly kept at temperature. It is therefore essential to load the products inside the container at the desired temperature.
- It is advisable to arrange the products without cardboard packaging, as they slow down the penetration of cold.
- To avoid the loss of thermal energy, it is advisable to keep the container open for the shortest possible time.
- Some Koala models allow you to transport Gastronorm-sized pans.
- Gastronorm adapters and pans are available in the catalogue.
- Close the container by using the appropriate locking levers/handle.

3.7 Transportation Instructions

- Product handling operations must be carried out exclusively by suitably trained personnel who are informed of the risks involved.
- Before handling the container, make sure the lid or door is closed.
- The loaded container can reach a considerable weight; It is therefore always advisable to lift or handle it carefully, possibly equipping yourself with specific trolleys for use. Various models of handling trolleys are available in the catalogue.
- Lift/carry the container by the handles only and never by the locking levers. If the container is lifted/carried by the locking levers, the lid can open and the container can fall to the ground.
- Move the container equipped with wheels or trolley using the appropriate handles.
- When handling the container, take the utmost care to avoid collisions with things or people.
- In the event that multiple deliveries are made using the same container, avoid prolonged openings, as a large dispersion of thermal energy is caused each time.

3.8 Instructions for prolonged non-use

In case the container is not going to be used for an extended period, do the following:

- remove all products from the container;
- switch off the refrigeration unit by pressing 0 on the main switch 0/I (Drawing 3 - A). Pull out the mains connection plug (or battery) and the socket connecting to the appliance. Store the power cord in a safe place and protect it from moisture;
- clean the container as indicated in paragraph 4.1 "Washing instructions";
- Leave the lid (the door) open for a few hours to prevent bad odors from forming.

3.9 Koala Cables - Connections and Specifications

To ensure proper operation and for the safety of the appliance, we recommend that only original cables be used. Any different connections should only be evaluated and made by qualified personnel. To avoid power losses and voltage drops, the cable should be as short as possible and should not be interrupted, avoiding the use of additional switches, plugs, or junction boxes. The choice of cable cross-section should be determined according to its length.

Below are the specifications of the recommended cables for connections to the different power supplies:

For connection to the 12VDC DC power supply (depending on the version):

- 2P cable length 2 m, cross-section 2.5 mm²
- 2P cable length 2 m, section 6 mm²
- 2P cable length 6 m, section 6 sq mm
- 2P cable length 6 m, section 10 mm²

For connection to the 230VAC 50/60Hz AC power supply:

- 3P cable length 2 m, section 0.75 mm²

In the event that more than one Koala container is installed on the same vehicle, it is recommended to consult the Melform Sales Service to correctly evaluate the absorptions and cross-sections of the power cables, in order to ensure the correct operation of the entire system. The selection and use of the right cables is essential to ensure the reliability and optimal performance of the Koala system.

4. MAINTENANCE

4.1 Washing Instructions

To ensure proper maintenance of the Koala container, it is recommended to carefully follow the following cleaning instructions:

1. Before cleaning, be sure to switch off the refrigeration unit by pressing the "0" button on the main switch 0/I (Drawing 3 - A). Next, pull out the appliance's connection plug from the mains power supply (or the battery) and store the power cord in a safe place, protecting it from moisture.
2. Clean the container inside and out using a cloth dampened with warm water. To ensure hygiene, it is advisable to always dry the container with disposable cloths or paper, avoiding the use of reusable cloths.
3. Do not use metal or synthetic scouring pads for cleaning. It is recommended to use only soft brushes with plastic or natural bristles.
4. Avoid using abrasive powders, ammonia, acids, or solvents when cleaning the Koala container.
5. You can use soapy solutions for more effective cleaning, but be sure to rinse thoroughly with clean water after applying the solution.
6. Do not use steam or pressure jet appliances to clean the container, as this may damage the appliance.
7. Take special care not to ensure that water does not get into the switch-on and dimming controls, the ventilation grilles or the appliance socket during washing.

By following these instructions, you will ensure proper cleaning and maintenance of your Koala container, helping to maintain its quality and efficiency over time.

4.2 Defrost Instructions

If the outside temperature and humidity are high and if the lid (or door) is frequently opened, a layer of frost gradually accumulates on the surface of the evaporator. Such a layer acts as an insulator, and if it exceeds a thickness of 3 mm, it can reduce cooling efficiency.

For this reason, defrosting should be carried out regularly as follows:

- remove all products from the container;
- switch off the refrigeration unit by pressing 0 on the main switch 0/I (Drawing 3 - A). Pull out the mains connection plug (or battery) and the socket connecting to the appliance. Store the power cord in a safe place and protect it from moisture;
- Leave the lid (or door) of the container open, until the frost layer has completely dissolved. Do not try to speed up defrosting with the use of heating appliances, and do not try to remove the frost layer with knives or other sharp objects;
- Dry the container with disposable cloths or paper.
- At this point, the container is ready for use.

ROUTINE MAINTENANCE

PRODUCT	PERIODICITY	CONTROL TYPE
Connection cable and mains plug	6 months	Check that they are not damaged or too aged. If not, replace it.
Seal	6 months	Check the conservative status. Replace it if it is broken or deteriorated.
Frost formation on the evaporator	Every week	If the thickness of the frost layer exceeds 3 mm, proceed with defrosting according to the instructions given in paragraph 4.2 "Defrosting instructions".

4.4 Troubleshooting

Below, in the table, are listed the main anomalies that could occur on the refrigeration unit of Koala containers, together with the possible causes and recommended actions for recovery. It is important to note that, if the product is still covered by the warranty, it is essential not to work on the refrigeration unit independently. The warranty will be void in the event that the product has been repaired or tampered with by unauthorized persons. For any problems encountered during the warranty period, please refer only to authorized and competent personnel for the necessary repair operations.

ANOMALY	POSSIBLE CAUSE	TYPE OF INTERVENTION
The refrigeration unit does not operate with 12Vdc power supply	a) Refrigeration unit not connected to the 12Vdc power supply.	a) Connect the refrigeration unit to the 12VDC power supply. Check and, if necessary, replace the 12VDC power cord.
	b) Faulty 12VDC line fuse	b) Replace the fuse on the 12VDC line, located near the 12VDC outlet (Section 4.6). Investigate the cause of the fault (probable short circuit or voltage overload).
	c) Low battery	c) Test the battery and, if necessary, charge or replace it.
	d) Main switch 0/I (Drawing 3 - A) fault	d) Check the main switch 0/I (Drawing 3 - A) and replace if necessary.
	e) Electrical wiring disconnected	e) Reset the wiring following the wiring diagram.

ANOMALY	POSSIBLE CAUSE	TYPE OF INTERVENTION
The refrigeration unit does not operate with 230Vvac. 50/60Hz power supply	a) Refrigeration unit not connected to 230V AC 50/60Hz power supply	a) Connect the refrigeration unit to the 230V AC 50/60Hz power supply. Check and, if necessary, replace the 230V AC 50/60Hz power cord.
	b) 230V AC 50/60Hz line fuse faulty	b) Replace the fuse on the 230V AC 50/60Hz line, located on the 230V AC 50/60Hz receptacle (Section 4.6). Investigate the cause of the fault (possible short circuit or voltage overload).
	c) Main switch 0/I (Drawing 3 - A) fault	c) Check the main switch 0/I (Drawing 3 - A) and replace it if necessary.
	d) Electrical wiring disconnected	d) Reset the wiring following the wiring diagram.
The refrigeration unit does not maintain the set temperature	a) Insufficient ventilation for the refrigeration unit	a) Check that the ventilation grilles are not covered.
	b) Ambient temperature too high	b) Circulate air in the compartment where the refrigeration unit is located.
	c) Evaporator covered with frost	c) Defrost as described in paragraph 4.2.
	d) Products stored at high temperatures	d) Cool the products before placing them in the container.
	e) Lid (or door) does not close properly	e) Check that the cover (or door) is closed and replace the gasket if necessary.
	f) Temperature controller not set correctly	f) Check the setting of the temperature controller and, if necessary, change the set-point (see section 3.4 "Commissioning").
	g) Faulty refrigerant system	g) Contact the after-sales service.
The temperature controller is not turned on	a) Ambient too bright	a) Dim the temperature controller.
	b) Mains connection cable/battery not connected	b) Insert the plugs into the appropriate sockets.
	c) Damaged mains connection/battery cable	c) Check the mains power cable/battery and replace if necessary.
	d) Faulty temperature controller electronics	d) Check the temperature controller and replace it if necessary.
The temperature controller flashes continuously	a) False electrical contact	a) Check that the temperature controller is properly powered.

ANOMALY	POSSIBLE CAUSE	TYPE OF INTERVENTION
	b) Faulty temperature controller	b) Check the temperature controller and replace it if necessary.
The temperature controller displays numbers outside of the standard numbering	a) Faulty temperature probe	a) Check the temperature probe and replace if necessary.
	b) Connection of the probe with the temperature controller does not comply	b) Check the connection of the probe with the regulator and reset it if necessary.
The temperature controller displays flashing errors E1 or E2	a) Unprogrammed temperature controller	a) Reprogram the temperature controller by entering the correct parameters as indicated in paragraph 4.5 "Troubleshooting E1 or E2 errors on the temperature controller".
The temperature controller is on but the compressor does not start with a 12Vdc power supply.	a) Inrush voltage less than 11V	a) Recharge or replace the battery if discharged.
	b) Incorrect cable cross-sections (inadequate extension cords)	b) Check the power cords and replace them if necessary.
	c) Temperature controller not set correctly	c) Check the setting of the temperature controller and, if necessary, change the set-point value (see section 3.4 "Commissioning").
The temperature regulator is switched on but the compressor occasionally starts with a 12Vdc power supply.	a) Inrush voltage oscillates between 11V and 11.5V	a) Recharge or replace the battery if necessary.
	b) Incorrect cable cross-sections (inadequate extension cords)	b) Check the power cords and replace them if necessary.
	c) Ambient temperature too high	c) Circulate air in the compartment where the refrigeration unit is located.
The refrigeration unit drops in temperature only by a few degrees, but it works regularly	a) Partial gas leak	a) Check the pressure and temperature inside the refrigerant circuit.
	b) Insufficient supply voltage	b) Check that the power supply is suitable.

ANOMALY	POSSIBLE CAUSE	TYPE OF INTERVENTION
The refrigeration unit has noise and strong vibrations	a) Noisy fans	a) Check the operating status of the fans and replace them if necessary.
	b) Motor unit not properly secured	b) Check that the motor unit is properly fastened and reset if necessary.
The refrigeration unit falls and overturns	a) Incorrect repositioning	a) Place the container back on a flat surface. Open the casing of the refrigeration unit, inspect the condition of the components, check the piping and electrical connections. If you do not encounter any particular problems, wait at least 1 hour before switching the refrigeration unit back on.

4.5 Procedure to Resolve E1 or E2 Errors on the Temperature Controller

Error E1: Defrost probe S2 faulty

1. Switch on the refrigeration unit and wait for the error "E1" to appear on the display, allowing the instrument to complete the switch-on phase.
2. Press the "PRG" and "SET" buttons at the same time (see Drawing 3 - C) for about 5 seconds; The value "0" will be shown on the display.
3. Set the password "22" using the "UP" key (see Drawing 3 - D).
4. Press the "SET" button (see Drawing 3 - C) to confirm the password.
5. Using the "UP" (see Drawing 3 - D) and "DOWN" (see Drawing 3 - E) buttons, display the parameter "/A2" in the "ASSISTANCE" function.
6. Once the "/A2" parameter is displayed, press the "SET" button (see Drawing 3 - C).
7. The value associated with the parameter (2) will appear on the display.
8. Using the "UP" (see Drawing 3 - D) and "DOWN" (see Drawing 3 - E) buttons, select the "0" value.
9. Press the "SET" button (see Drawing 3 - C) to confirm the "0" value set.
10. Press the "PRG" button for about 5 seconds to finish the procedure and save the changes.

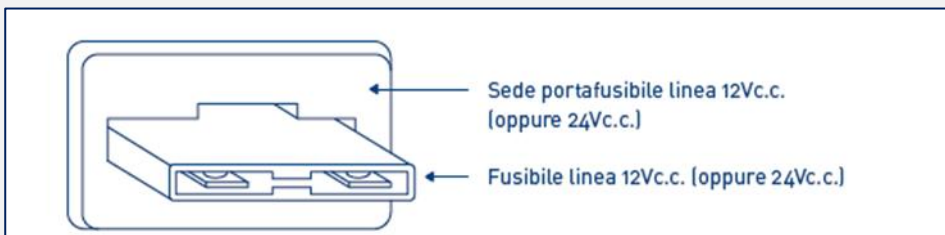
Error E2: Defrost probe S3 faulty

1. Turn on the refrigeration unit and wait for the error "E2" to appear on the display, allowing the instrument to complete the switch-on phase.
2. Press the "PRG" and "SET" buttons at the same time (see Drawing 3 - C) for about 5 seconds; The value "0" will be shown on the display.
3. Set the password "22" by pressing the "UP" button (see Drawing 3 - D).

4. Press the "SET" button (see Drawing 3 - C) to confirm the password.
5. Using the "UP" (see Drawing 3 - D) and "DOWN" (see Drawing 3 - E) buttons, display the "/A3" parameter in the "ASSISTANCE" function.
6. Once the "/A3" parameter is displayed, press the "SET" button (see Drawing 3 - C).
7. The value associated with the parameter (2) will appear on the display.
8. Using the "UP" (see Drawing 3 - D) and "DOWN" (see Drawing 3 - E) buttons, select the "0" value.
9. Press the "SET" button (see Drawing 3 - C) to confirm the "0" value set.
10. Press the "PRG" button for about 5 seconds to finish the procedure and save the changes.

4.6 Replacing the Protective Fuse

The Koala enclosure is equipped with a protective fuse (15 A or 25A or 30A, depending on the version) on the 12Vdc DC line, located near the 12Vdc plug (Drawing 2).

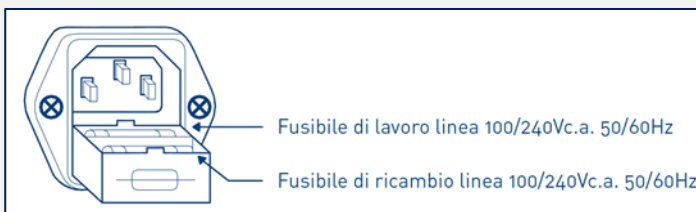


Drawing 4: 12VDC DC DC line fuse

To replace the fuse on the 12VDC line, do the following:

- pull out the plug connecting to the 12VDC line and the socket connecting to the appliance;
- remove the fuse with the help of a tool (e.g. the tip of a screwdriver);
- replace the fuse and insert it into the fuse holder;
- insert the socket for connection to the appliance and the plug for connection to the 12Vdc line.

The Koala enclosure is equipped with a protective fuse on the 4 A 230VAC 50/60Hz AC voltage line, located on the 230VAC 50/60Hz plug.



Drawing 5: 230V.c.a. 50/60Hz alternating voltage line fuse

To replace the fuse on the 230VAC line, do the following:

- pull out the plug connecting to the alternating voltage line and the socket connecting to the appliance;
- open the fuse drawer with the help of a tool (e.g. the tip of a screwdriver);
- pull out the working fuse;
- replace the working fuse with the replacement fuse (possibly also provide for the replacement of the fuse);

- close the fuse drawer;
- Insert the socket for connection to the appliance and the plug for connection to the AC live line.

5. DISPOSAL

5.1 Packaging

The packaging material (cardboard, polyethylene film) is 100% recyclable. Disposal is the responsibility of the user and must be carried out in compliance with local regulations.

5.2 Product Disposal



The product is a piece of equipment that falls within the scope of application relating to the use of electrical and electronic substances and equipment subject to specific disposal.

The legislation stipulates that discarded equipment is not disposed of in the normal municipal solid waste stream.

The crossed-out wheeled bin symbol, present on the product or on its packaging, indicates that the equipment (refrigeration unit, temperature controller) must be collected separately, in order to optimize the recovery and recycling rate of the materials that compose it and prevent potential damage to health and the environment.

It is the user's responsibility to dispose of the product by handing it over to a designated collection point for the recycling and disposal of electrical and electronic equipment.

Please note that the body of the container and the lid (or door) are made of recyclable material, and can therefore be disposed of in an environmentally friendly way.

The materials that make up the body and lid (or door) are:

- Polyethylene (inner and outer walls of the container and lid or door);
- Polyurethane (insulating material between the walls of the container and the lid or door).

For more information on proper disposal, please contact your local waste disposal authority.

6. REFRIGERANT GAS

The refrigerant gases, R134a or R452A, used in the refrigerant circuit of Koala containers comply with European regulations. The refrigerant circuit is hermetic, with no possibility of refrigerant escaping under normal operating and use conditions.

The compressor used is hermetic, designed for moving applications.

7. CERTIFICATIONS

The container has undergone rigorous certification processes that confirm its high quality and safety. The following certifications attest to the compliance of the KOALA container with the highest standards:

1. HACCP certification: KOALA containers are suitable for use in HACCP environments, ensuring food risk control and maximum hygiene safety.
2. ATP Certification: The KOALA container complies with ATP standards for road transport of perishable foodstuffs, ensuring the proper storage of goods during transport.

These certifications confirm that the KOALA container is designed and manufactured in such a way as to guarantee the highest quality and safety in the transport and storage of perishable food products.

Thank you for purchasing a MELFORM product!



Via Savigliano 34, 12030 Monasterolo di Savigliano (CN) - ITALY

Tel. +39 0172812600 – info@melform.com

www.melform.com