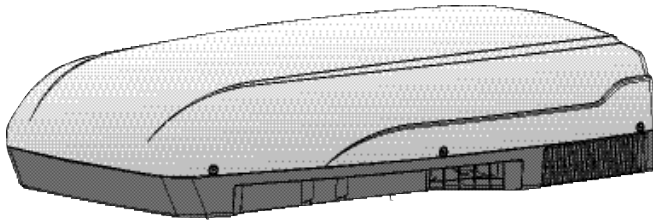


# B2200

# B1600



Operation, maintenance and installation manual  
Libretto istruzioni per l'uso, la manutenzione e l'installazione  
Betriebs-, Wartungs- und Installationsanleitung  
Manuel d'utilisation, d'entretien et d'installation  
Bedienings-, onderhouds- en installatiehandleiding  
Manual de instrucciones para el uso, mantenimiento e instalación  
Manual de instruções de uso, manutenção e instalação  
Handbok för användning, underhåll och installation  
Käyttö-, huolto- ja asennusohje  
Bruks- vedlikeholds- og installasjonsanvisning  
Betjenings-, vedligeholdelses- og installationsvejledning

 **Dometic**

---

©DOMETIC - 2007 All rights reserved - Printed in Italy

No part of this publication may be reproduced, copied or transmitted in any form or by any means without prior written permission from DOMETIC. Figures, descriptions, references and technical data in this manual are given as mere example and are not binding.

In pursuing a policy of continual product and safety improvement, DOMETIC reserves the right to make changes at any time without undertaking to give prior notice or to update this manual every time.

**Keep this document for future reference.**

---

---

## **Warranty Validity**

'The product is warranted in accordance with the enforced Law and regulations implementing the Directive 1999/44/EC.

The Manufacturer s warranty does not extend to Product failures, defects or damage arising from and/or attributable to a wrong installation.

The Consumer is entitled to let the Product be installed by an authorised dealer, not bound by Dometic.

---

## Index

<b>1</b>	<b>General informations</b>	
1.1.	Scope of the manual.....	4
1.2.	Manufacturer and air conditioner data plate.....	4
1.3.	Description of the air conditioner.....	4
1.4.	How to use the air conditioner.....	6
1.5.	Description of the controls.....	7
1.6.	Technical data.....	10
1.7.	Ordinary maintenance.....	11
<b>2</b>	<b>Installation instructions</b>	
2.1.	Packaging, unpacking and handling.....	12
2.2.	Preparing the roof opening.....	13
2.3.	Mounting the air conditioner.....	16
2.4.	Electric connection.....	18
<b>3</b>	<b>Troubleshooting, maintenance, recycling</b>	
3.1.	Troubles, causes, solutions.....	19
3.2.	Extraordinary maintenance.....	19
3.3.	Recycling.....	19
	B1600 wiring diagram .....	20
	B2200 wiring diagram .....	21
	Spare part list B1600 - B2200.....	22

Operation, Maintenance and  
Installation manual

### Air conditioner

---

Libretto istruzioni per l'uso, la manutenzione e  
l'installazione

### Condizionatore

---

Bedienungs- und  
Wartungsanleitung  
Klimaanlage

Mise en route, entretien et  
installation

### Climatiseur

---

Handleiding voor bediening,  
onderhoud en installatie

### Airconditioner

---

Manual de instrucciones para el uso, la manutención  
y la instalación

### Acondicionador

---

Livrete de instruções para uso, manutenção  
e instalação

### Aparelho de ar condicionado

---

Handbok för drift, underhåll och  
installation

### Luftkonditionering

---

Käyttö-, huolto- ja  
asennusohje

### Ilmastointilaite

---

Brugervejledning og manual  
til vedligehold og installation

### Airconditioner

---

Brugervejledning og manual  
til vedligeholdelse og installation

### Airconditioner

---

GB

I

D

F

NL

E

P

S

FIN

N

DK



# 1 General informations

## 1.1. Scope of the manual




GB

This manual has been made by the Manufacturer and it shall be regarded as part of the air conditioner.

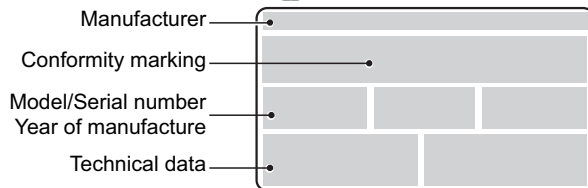
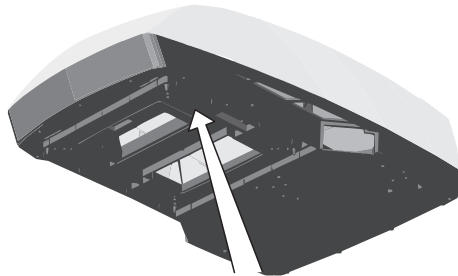
The information it contains, when complied with, ensures a correct and efficient use of the air conditioner.

The first part of this manual is for users , the second one for qualified technicians  facing the installation of the air conditioner.

To draw the readers attention to special parts of the text, the following symbols have been used:

-  This operation may result in dangers
-  Useful advice
-  Environment safety related information

## 1.2. Manufacturer and air conditioner data plate



## 1.3. Description of the air conditioner

This air conditioner has been designed and manufactured to be installed onto vehicles (i.e. camping-cars, caravans, motorhomes) to improve the temperature conditions. It supplies fresh and dehumidified air in summer and warm air in winter without, in any case, replacing the heating system of the vehicle. In both cases, temperature is set by the user.

### Fresh air - Running

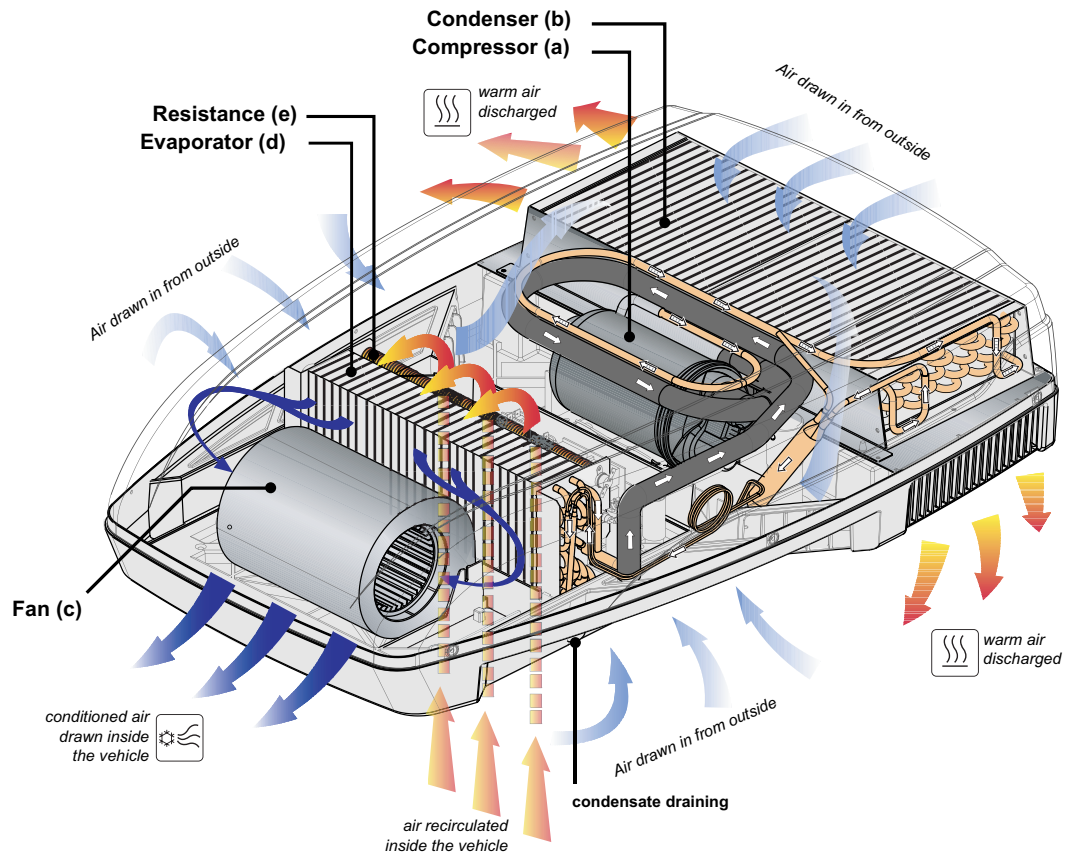
The system is inclusive of: compressor ( a ), condenser ( b ), evaporator ( d ) and refrigerant gas under pressure. According to the physical state of the refrigerant gas -i.e. liquid or gaseous, it heats or cools the components where it passes through.

Fan ( c ) forces the internal air through the cooled evaporator from where it comes out cooled down and dehumidified.

This action, protracted over the time, reduces the temperature into the vehicle.

### Warm air - Running

Ambient air is forced by fan ( c ) into an electrical heating resistance ( e ) and then recirculated inside the vehicle.



## 1.4. How to use the air conditioner

**i** The air conditioner performance can be improved by taking some simple measures.

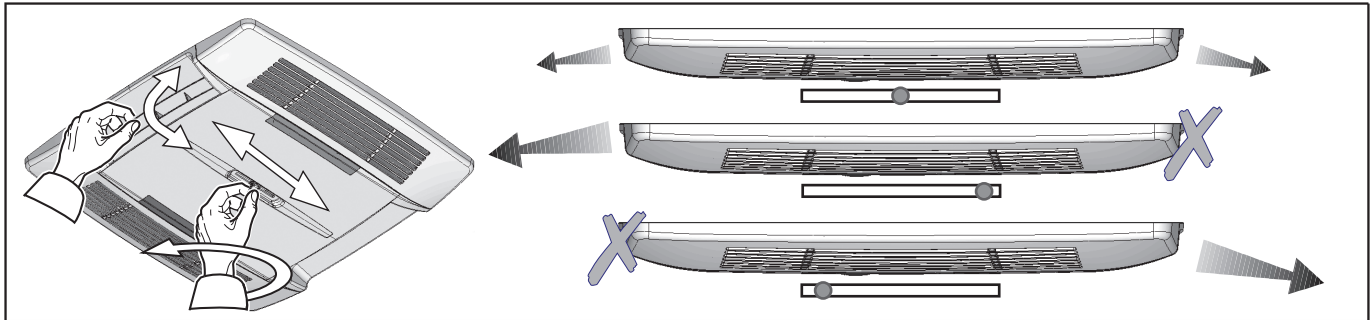
- Improve the thermal insulation of the vehicle by closing any opening and by covering any glassed surfaces with reflecting curtains.
- Avoid opening doors and windows unnecessarily.
- Select the most suitable temperature and speed.
- Properly direct the air flaps.

To prevent troubles and minimise risks for people, take the following precautions:

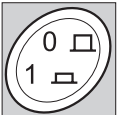
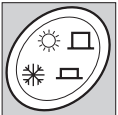


- Do not obstruct the air inlets and outlets with cloths, paper or other objects;
- Do not introduce your hands or other objects into the openings;
- Do not spray the air conditioner with water;
- Keep flammable substances away from the air conditioner.

### **Adjusting the air direction**

Position the air diffusing flaps to direct the air to the desired position. In order to balance the airflow it's necessary to rotate the center knob in anticlockwise, to choose the wished position and then rotate clockwise.



## 1.5. Description of the controls (B1600)

	<b>Main switch</b>	ON - OFF	Position <input type="checkbox"/> air conditioner ON. Position <input type="checkbox"/> air conditioner OFF.
	<b>Warm/Cold dual-switch</b>	Warm - Cold	Position <input type="checkbox"/> warm air. * Position <input type="checkbox"/> fresh air.
	<b>Thermostat</b>	Air temperature (18°C÷40°C)	By rotating the knob clockwise, temperature increases (max. 40°C) By rotating the knob and clockwise, temperature gets reduced (up to 18°C)
	<b>Fan switch</b>	Air speed	Position <input type="checkbox"/> low speed. Position <input type="checkbox"/> high speed.

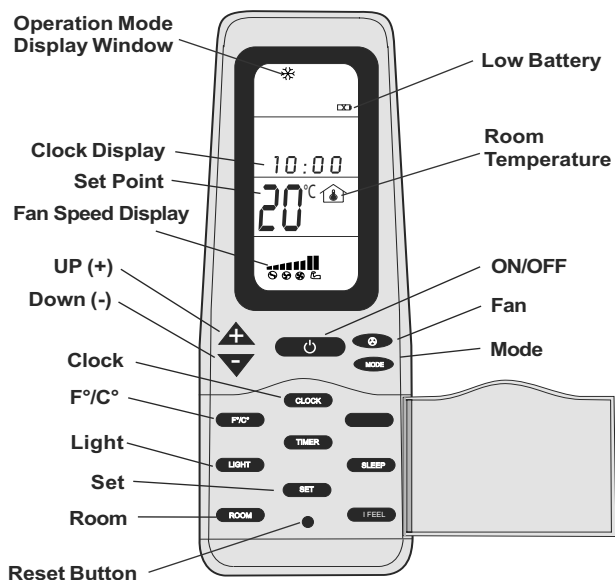
\* (only for models equipped with resistance)









## 1.5. Description of the controls (B2200)

## Remote control (B2200)

## REMOTE CONTROL

**BUTTON DESCRIPTION**

 ON/OFF	Press the ON/OFF button to start the airconditioner. When it's OFF all the symbols are OFF, except the clock and you can use the ROOM and the LIGHT buttons.
 F°/C°	Choose the temperature measurement unit between Celsius (°C) or Fahrenheit (°F). If temperature is displayed this function is enabled.
 LIGHT**	Pressing the light key the light on the airconditioner diffuser is switched on (if equipped). The light button works also when the remote control is off.
 ROOM	Pressing this button the room symbol is displayed and the local temperature is displayed instead the set point. Pressing the Room button another time the Room symbol disappear and the set point temperature is displayed instead the local one. This button works also when the remote control is off.
 CLOCK	Pressing the "CLOCK" button for a time longer than 2 seconds, it is possible to modify the "TIME SETTING", managing the UP (+) button or the DOWN (-). Press the "SET" button to confirm the modifications. After 15 seconds the new set is confirmed in any cases.
 SET	This button has two functions: 1) To confirm the TIME SETTING 2) To resend the actual operating setting

The RESET button erases all the configuration parameters to default.

\* (only for models equipped with resistance) - \*\* (only for models equipped with light)

**AUTOMATIC MODE**



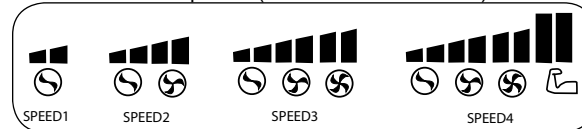
	Press the MODE button. Set to "AUTO"
	Choose the Set Point (16°C - 31°C)
In this mode the fan button is disabled. You can use the LIGHT** and ROOM button.	

**FAN MODE**



	Press the MODE button. Set to "FAN"
	Choose the Fan Speed
You can use the LIGHT** and ROOM button.	

Available Fan speeds (Cool/Heat\*/Fan Mode)



**COOL / HEAT MODE**



	Press the MODE button. Set to "COOL" or "HEAT**"
	Choose the Set Point (16°C - 31°C)
	Choose the Fan Speed
You can use the LIGHT** and ROOM	

**Low battery**  
The low battery symbol will appear in the display window when the low battery condition exists. In this case after each command, the "low voltage symbol" flickers for 2 seconds. In these 2 seconds the remote control is not able to send other commands.

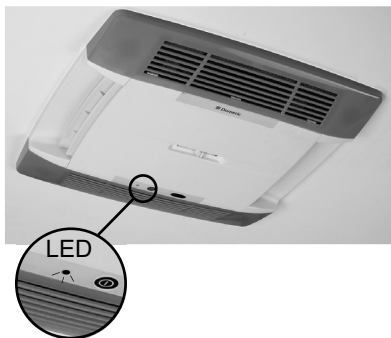
**Replace the batteries 2x1.5V AAA**

BATTERY COMPARTMENT ON BACK SIDE OF REMOTE CONTROL

\* (only for models equipped with resistance) - \*\* (only for models equipped with light)

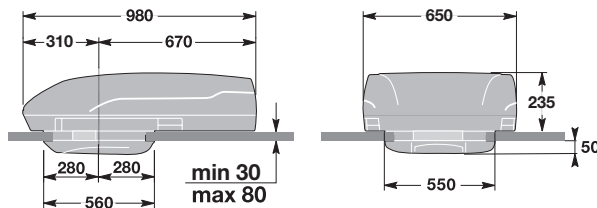
**GB**

### 1.5. Description of the led state on the airdiffuser



LED State	Description
Off	Airconditioner off
Orange	Airconditioner on StandBy (switch ON - aiconditioner is waiting for a command)
Green	Airconditioner is running
Red (fixed)	Anomaly - 230V power supply missing (12V is present)
Red (1 flick)	Anomaly - Malfunctioning of the E1 temperature probe (internal)
Red (2 flicks)	Anomaly - Malfunctioning of the E2 temperature probe (external)

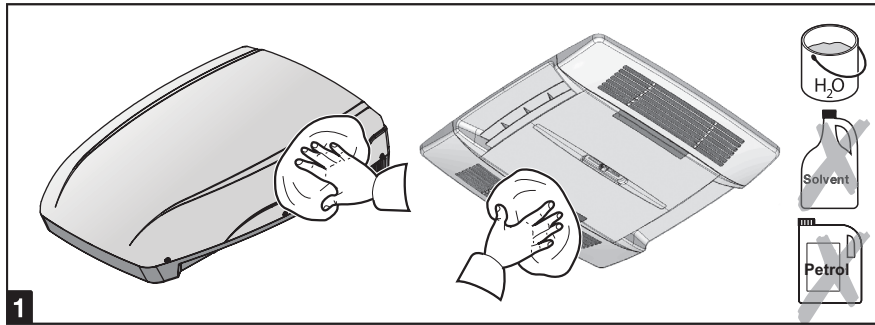
### 1.6. Technical data



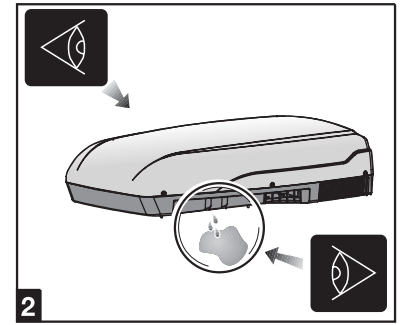
Description	Unit	Model	
		B1600	B2200
Refrigerant gas (type/quantity)		see data plate	
Refrigerating yield	Watt/h	1500*	2050*
Cooling consumption	W	650	910
Heating capacity	W	800	1200
Electrical rating	V-Hz	230-50	230-50
Protection degree	IP	X4	X4
Conditioned air volume	m <sup>3</sup> /h	310	380
Max internal volume of the vehicle (insulated walls)	m <sup>3</sup>	20	25
Weight	Kg	30	34

\* according to EN 14511

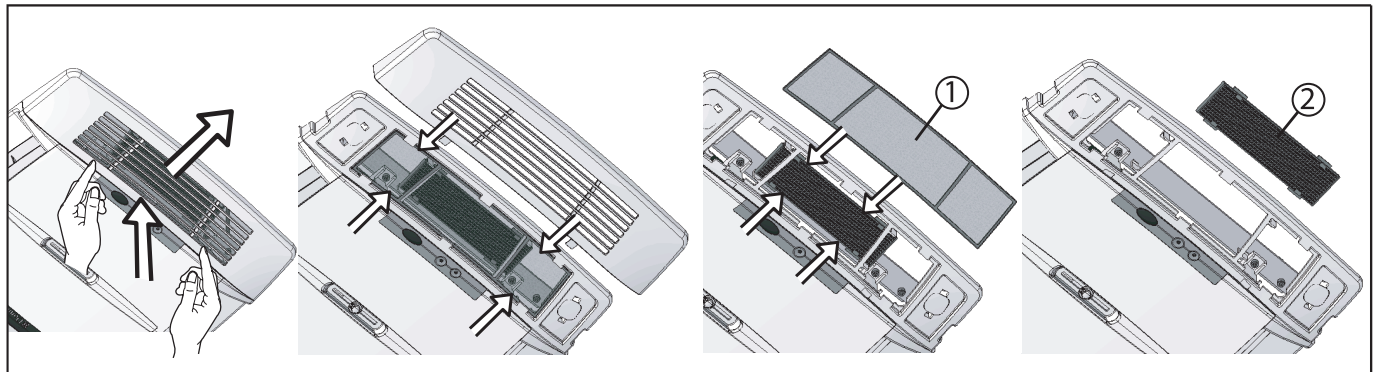
## 1.7. Ordinary maintenance



**Cleaning;** periodically clean the air conditioner and remove dust with a damp cloth. When necessary, use a mild detergent. Do not use petrol or solvents.



**Checks;** regularly check the air conditioner and make sure that the water outlet holes are not clogged.



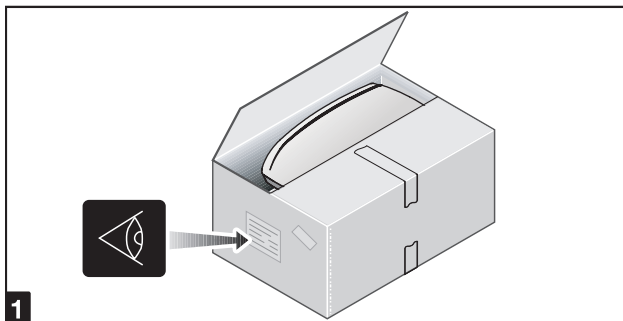
**Filters cleaning (1):** periodically carry out this operation; wash the filters with a detergent solution and allow to dry before refitting.  
**Active carbon filter (2):** It's recommended to change the active carbon filters every year.

## 2 Installation instructions

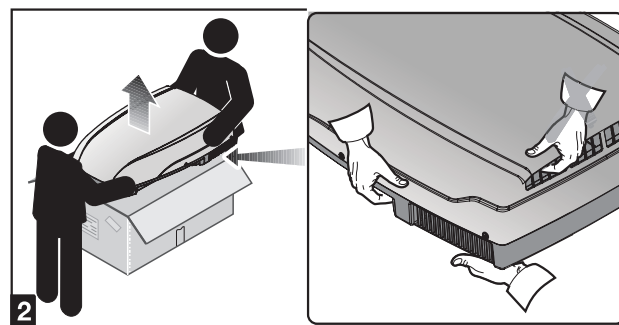
The air conditioner must be installed by skilled technicians. In addition to this requirement, the people making the unit installation must make sure that the working conditions are safe for everybody concerned.

GB

### 2.1. Packaging, unpacking and handling

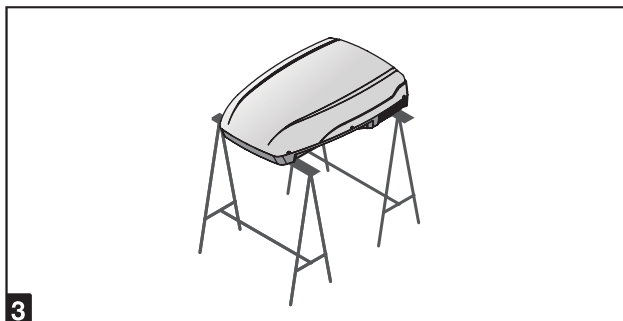


Always follow the instructions printed on the packaging.



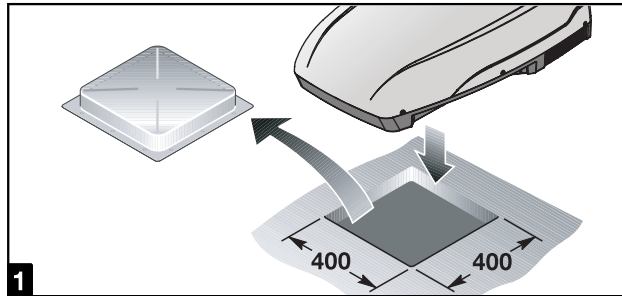
Remove the air conditioner from its packaging and make sure that it is not damaged.

**Never use the rear air openings to lift the air conditioner from its packaging**

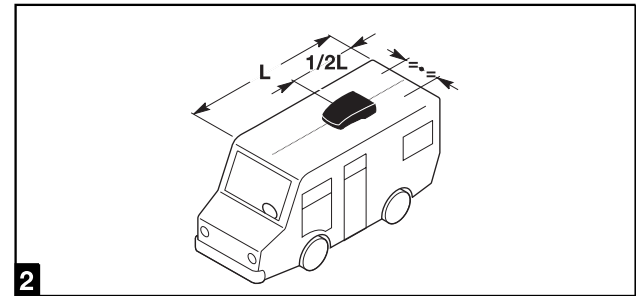
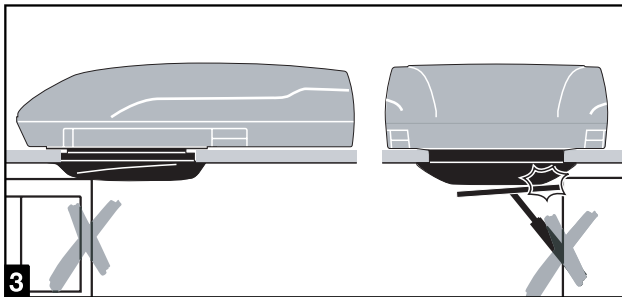


Move the air conditioner to the installation site under safe conditions.

## 2.2. Preparing the roof opening



To install the air conditioner, the roof shall have an opening of suitable sizes. It is possible to use an existing air inlet or make a new one.



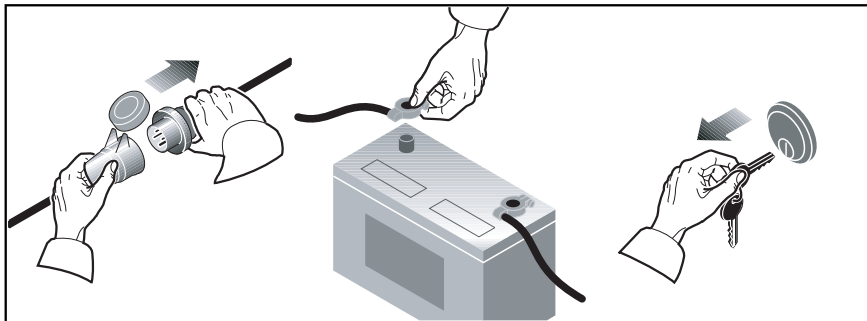
According to the vehicle dimensions and depending on the air conditioning needs, one or more units can be installed. The air conditioner must be installed right in the middle with respect to the vehicle Width and length.

Before installing the unit, make sure that the opening does not interfere with the existing furnishing (lamps, wardrobes, doors, curtains, etc.). This check allows for an easy mounting of the air conditioner and a troublefree air circulation.

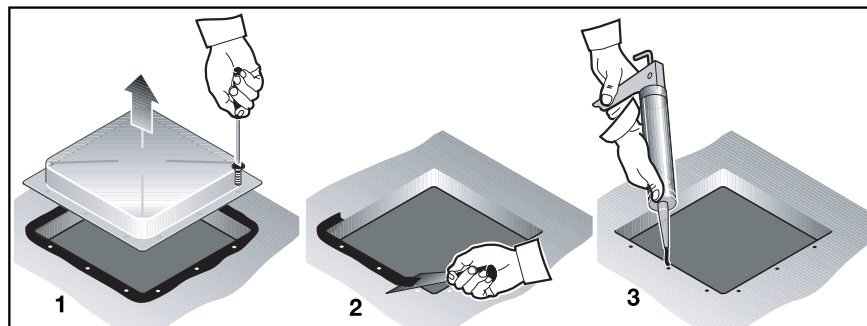
**⚠ contact the vehicle manufacturer and make sure that the roof structure can tolerate the static load and the stress transmitted vehicle, especially under running conditions. Sometimes vehicle manufacturers previously arrange areas for the unit installation weakening and/or electric cable from being cut.**

**⚠ The air conditioner should preferably be installed on a level plane. Maximum allowed inclination: 10°.**

GB

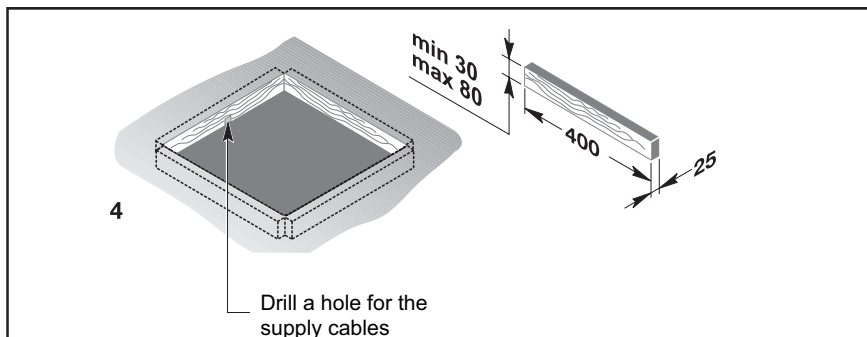
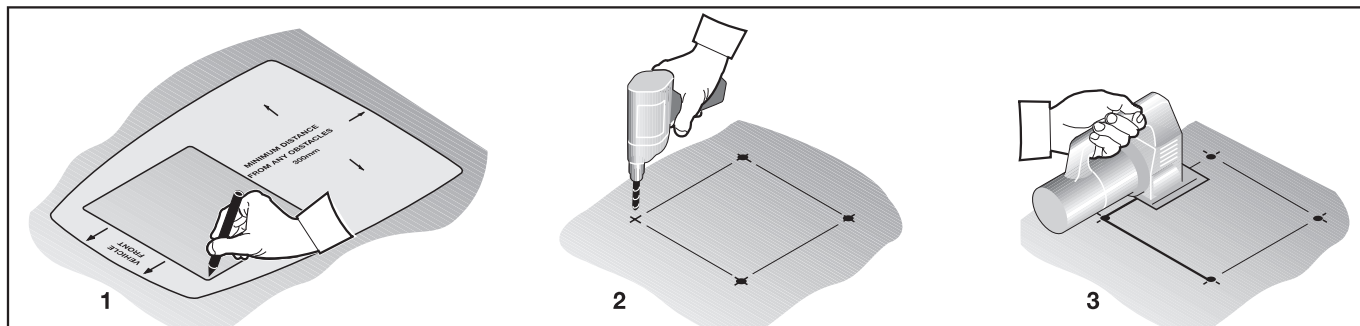


**⚠ Danger of electrical hazards.**  
Turn all power sources off



**Using an existing opening**

1. Remove the skylight cover.
2. Clean the installation opening all around by removing any adhesive residues.
3. Fill any existing screw hole or deformation with filler or silicone.

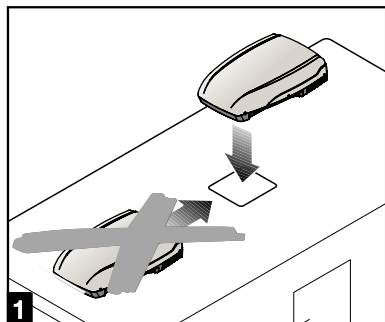


#### New installation opening

1. Using the printed cardboard template supplied with the unit, find the position and dimensions of the new opening.
2. Drill the four corners.
3. Cut by joining the previously made holes.
4. If necessary, mount a reinforcing wooden frame.

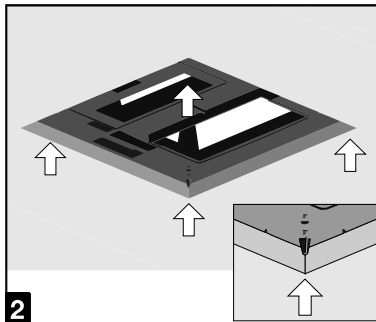


### 2.3. Mounting the air conditioner



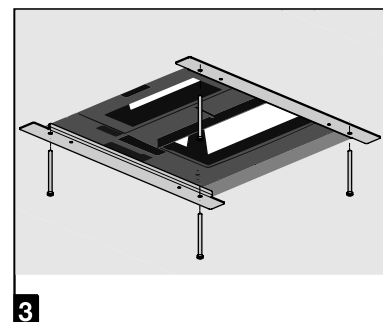
1

Set the air conditioner onto the roof opening. Never slide the air conditioner on the roof, but lift when moving it.



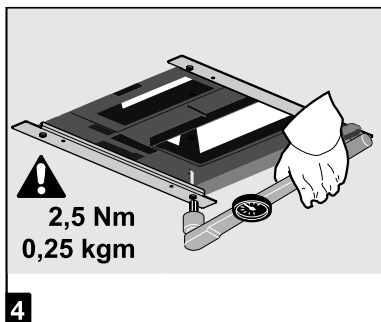
2

Note: the conical pins under the base must enter the roof openings.



3

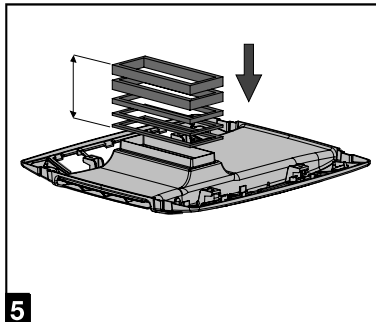
Fix the air diffuser brackets to the base using the 4 screws provided.



2,5 Nm  
0,25 kgm

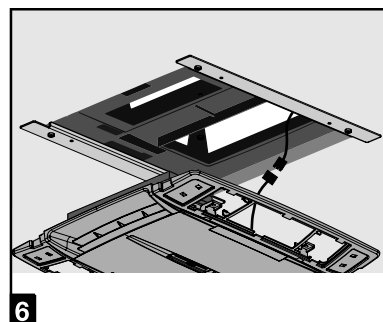
4

Always tighten to the recommended torque wrench setting. Do not overtighten!



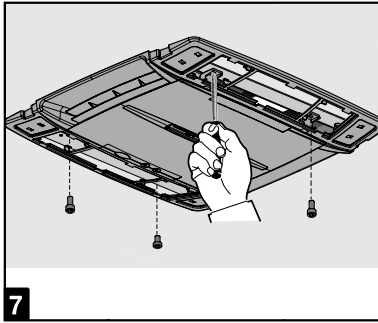
5

Mount the air diffuser linking gaskets. For correct thickness follow the table on page 19.

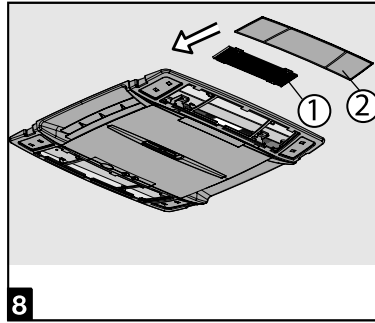


6

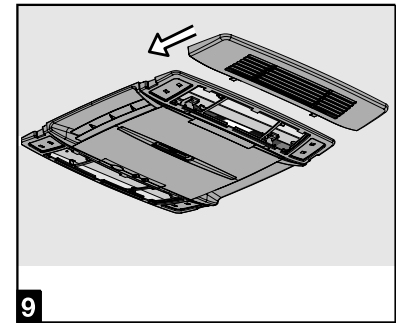
Do the electrical connection as described in paragraph 2.4.



**7** Fix the cooling unit to the brackets using the 4 screws provided.



**8** Mount the filters in the order shown in figure.

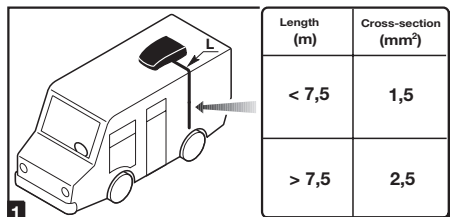


**9** Mount the filters covers.

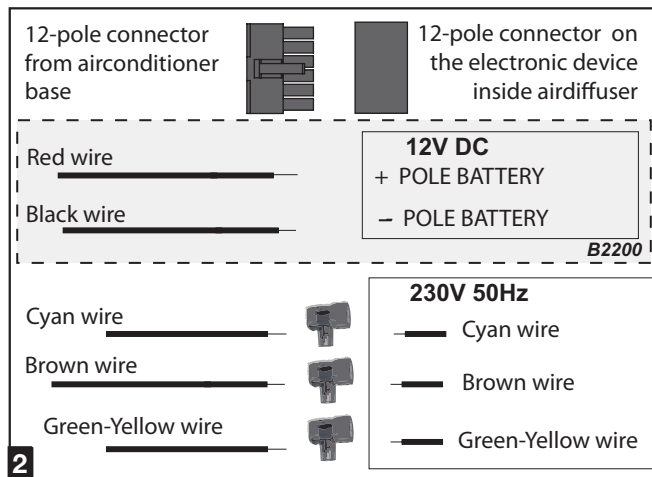
THICKNESS OF THE ROOF			THICKNESS OF THE GASKET	
		to	30 mm	10 mm
from	30	to	35 mm	15 mm
from	35	to	40 mm	20 mm
from	40	to	45 mm	25 mm
from	45	to	50 mm	30 mm
from	50	to	55 mm	35 mm
from	55	to	60 mm	40 mm
from	60	to	65 mm	45 mm
from	65	to	70 mm	50 mm
from	70	to	75 mm	55 mm
from	75	to	80 mm	60 mm

## 2.4. Electric connection

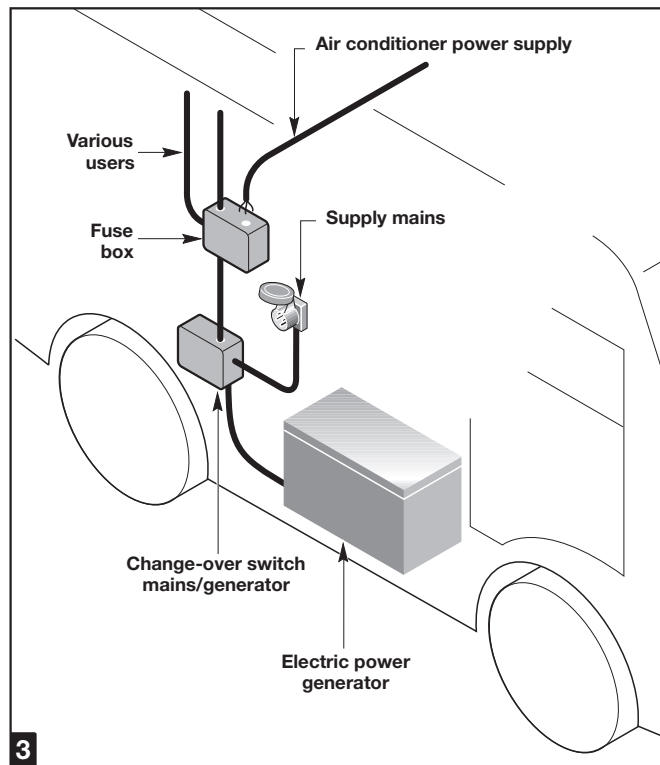
For the electric connections, always follow the national and local regulations



1 Arrange a specific electric system



2 Connect the wires to the air conditioner.



3 Connect the electric system to a circuit supplying the required power (see technical data) and fitted with a good ground system.

### 3.1. Troubles, causes, solutions

CAUSA	SOLUTION																	
	temperature less than 18°C	temperature over 40°C	check the set point temperature	defective thermal protection	switch wrongly positioned	defective heating resistance	refrigerant gas is not enough	damaged compressor	thermal exchange batteries are dirty	defective internal fan	air filter is clogged	defective external fan	water outlet holes are clogged	damaged sealing gasket	no power supply	low power supply (less than 200V)	defective capacitor	defective thermal protection
the air conditioner does not cool sufficiently	☉		☉		☉		☹	☹	☹			☹						
the air conditioner does not heat enough		☉	☉	☹	☉	☹												
no air circulation into the vehicle									☹	☉								
water leaks into the vehicle												☉	☹					
the air conditioner does not start															☉	☹	☹	☹
the air conditioner stops running																☹	☹	☹

### 3.2. Extraordinary maintenance

For the best performance of your air conditioner, have your dealer/workshop clean it thoroughly before use:

1. thermal exchange batteries
2. water outlet holes are properly cleaned.

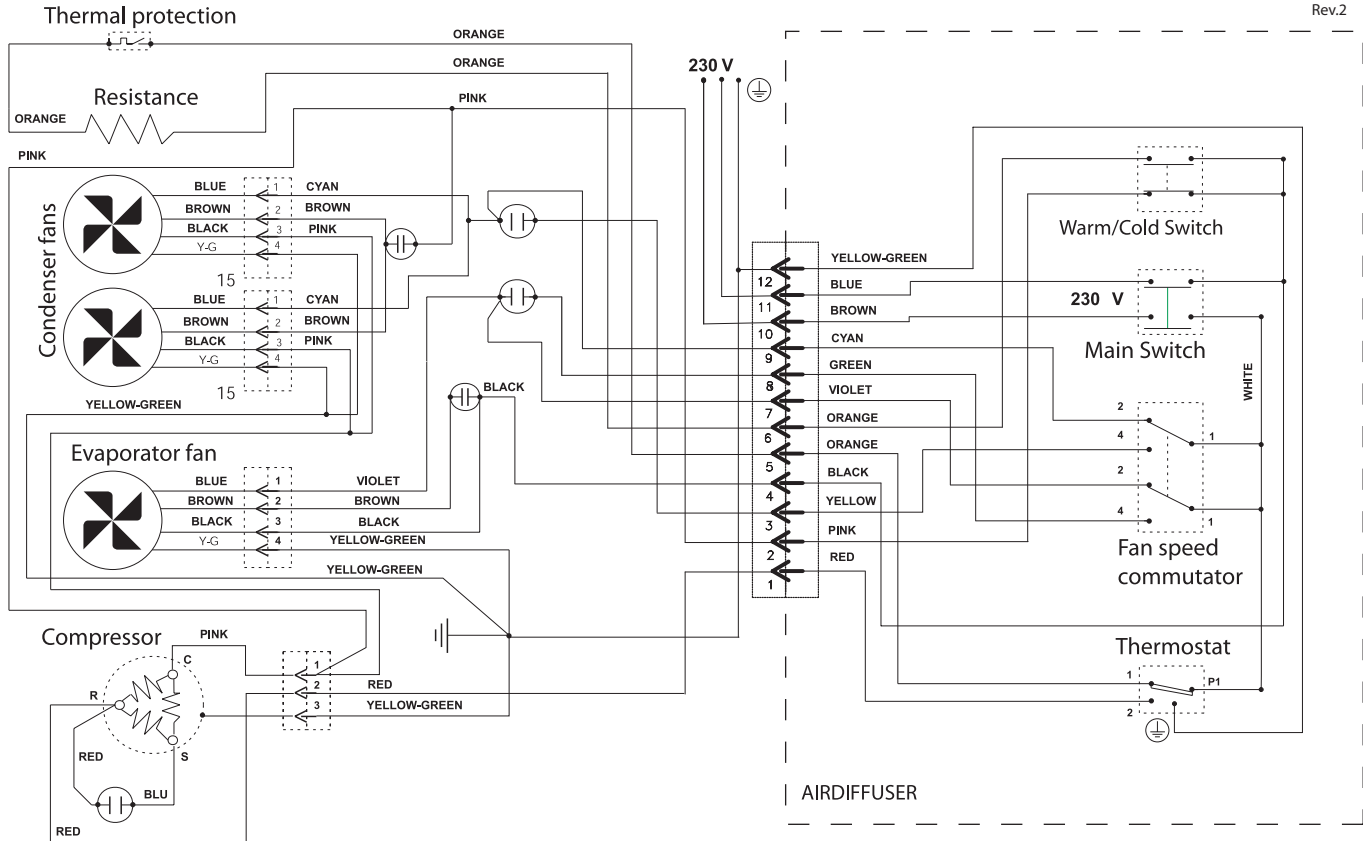
### 3.3. Recycling

Regarding disposal and recycling, follow the national or local regulations. To this end, address to the authorised environment bodies.

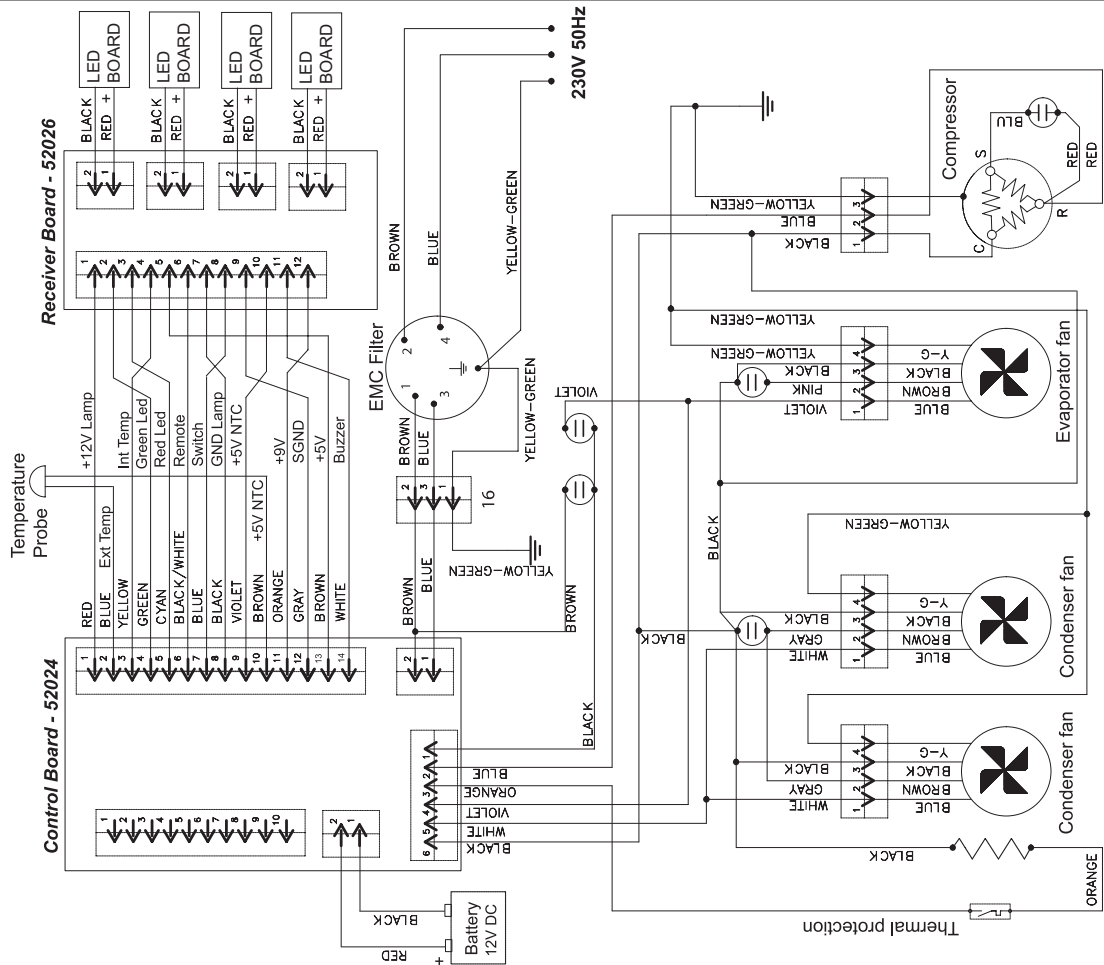
# B1600 wiring diagram

GB

Rev.2

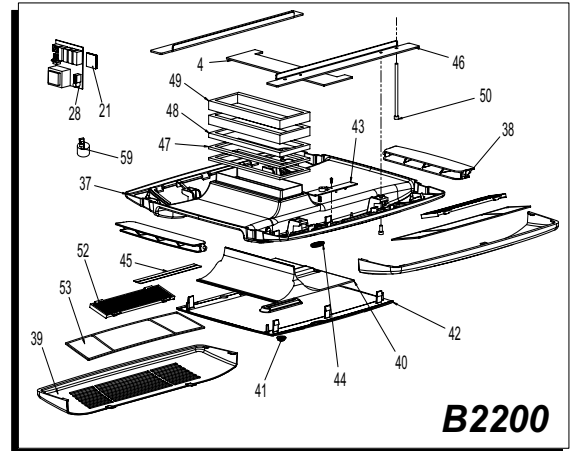
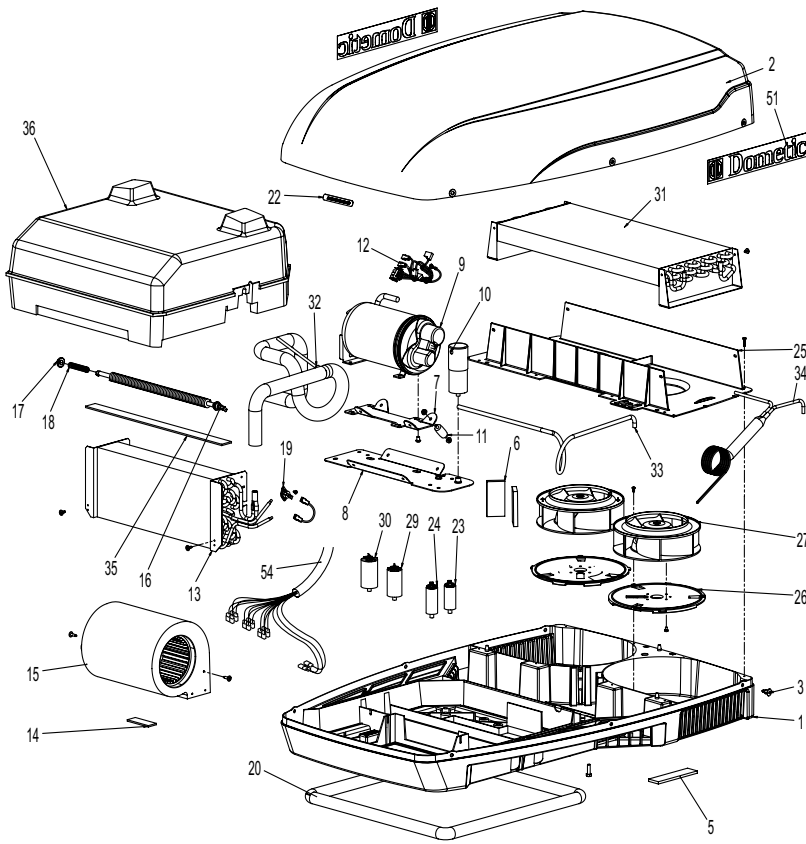


# B2200 wiring diagram

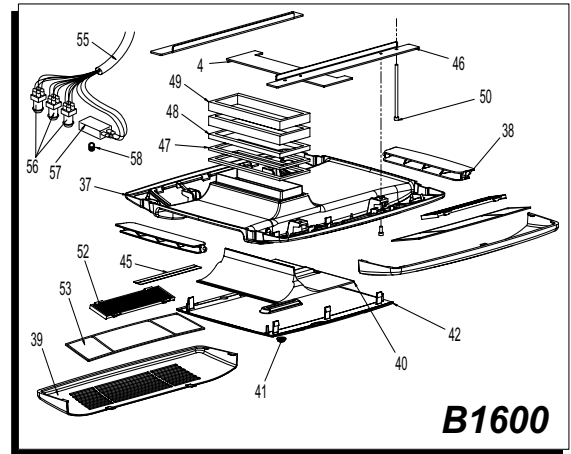


# Spare part list B1600 - B2200

GB



**B2200**



**B1600**

## Spare part list B1600 - B2200

GB

N.	DESCRIPTION
1	PAN BASE
2	COVER
3	RIVETS TWO STAGE
4	INSULATOR
5	GASKET
6	INSERTS
7	SUPPORT
8	SUPPORT
9	COMPRESSOR
10	CAPACITOR
11	VIBRATION DAMPER
12	COMPRESSOR WIRING
13	EVAPORATOR
14	GASKET
15	FAN
16	RESISTOR
17	BUSHING
18	SPRING
19	THERMAL SWITCH
20	OR GASKET
21	VELCRO
22	LABEL
23	CAPACITOR

N.	DESCRIPTION
24	CAPACITOR
25	PLENUM
26	FAN SUPPORT
27	FAN
28	RELAY BOARD
29	CAPACITOR
30	CAPACITOR
31	CONDENSER
32	PIPE
33	PIPE
34	FILTER KIT
35	GASKET
36	HEAT INSULATOR BOX
37	AIR DIFFUSER BASE
38	AIR DIFFUSING FLAP
39	GRILLE
40	DEFLECTOR SLIDE
41	KNOB
42	COVER
43	RECEIVER BOARD
44	RECEIVER COVER
45	LABEL
46	FIXING BRACKET

N.	DESCRIPTION
47	GASKET
48	GASKET
49	GASKET
50	SCREW
51	LABEL
52	ACTIV CARBON FILTER
53	FILTER
54	WIRING
55	WIRING
56	SWITCH
57	THERMOSTAT
58	KNOB
59	EMC FILTER