
WAECO PerfectPower

Operating Instructions

MCI-150



AUS CanSize inverter



N4213

WAECO
mobile solutions



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Please read this operating manual carefully before starting the device. Keep it in a safe place for future reference. If the device is re-sold, this operating manual must be handed over to the purchaser along with the device.

1. Notes on using the operating manual

The following symbols are used in this instruction manual:



Caution!

Safety instruction: failure to observe this instruction can cause injury or damage the device.



Caution!

Safety instruction relating to a danger from an electrical current or voltage. Failure to observe this instruction can damage the device and/or impair its function and cause injury.



Note

Supplementary information for operating the device.

- **Action:** this symbol indicates that action is required on your part. The required action is described step-by-step.

2. Safety instructions

2.1 General safety

- Only connect the device using the connecting cable to the 12 V cigarette lighter or the 12 V on-board socket of the vehicle.
- Do not connect the 240 V output of the inverter to a different 240 V source.
- Always disconnect the power supply when working on the inverter.
- Note that even after the fuse triggers, parts of the inverter remain live.
- Never pull the plug out of the cigarette lighter by the cable.
- If the cable is damaged, it must be replaced to prevent possible electrical hazards.
- Do not operate the device if it is visibly damaged.
- This device may only be repaired by qualified personnel. Inadequate repairs can lead to considerable hazards.
- Should your device need to be repaired, please contact WAECO customer service.
- Pull out the connecting cable:
 - Before cleaning and care
 - After use
- Ensure that the ventilation slots are not covered.
- Keep the inverter out of the reach of children.

2.2 Operating the device safely

- When using the device in a vehicle, make sure that it does not impair operation of the vehicle.
- Before starting the device ensure that the power supply line and the plug are dry.
- Never start the device when your hands are wet.

- Only operate the device when you or another person can attend to it.
- Do not operate the device on hot surfaces.
- Do not operate the device near flames or other heat sources (heating, direct sunlight, gas ovens etc.).
- Never immerse the device in water.
- Protect the device and the cable against heat and moisture.
- WAECO cannot be held liable for damage resulting from improper usage or incorrect operation.

3. Scope of delivery

Quantity	Description
1	Inverter with built-in connecting cable for 12 Volt cigarette lighter or 12 Volt on-board socket
1	Operating manual

4. Intended use



The cylindrical construction of the inverter makes it convenient to use inside your vehicle. Conventional car drink holders serve as an excellent storage area for the device when it is being used (see fig. 2, page 2).

The inverter can be used to generate a 240 Volt output from a 12 Volt power source. The 240 Volt output can be used to power a 240 Volt consumer unit with a power consumption of up to 150 watts.

The inverter can be used anywhere where there is a 12 V DC cigarette lighter socket. Due to the non sine wave

voltage, some devices may heat up more than usual. The maximum constant output is 150 Watts. Never connect devices that have a higher power requirement.



Note when connecting devices with an electrical drive (such as power drills and refrigerators), that they often require more power than is indicated on the type plate.

5. Technical description

The device has a compact design for portable use.

5.1 Key to the illustration on page 2

Digits	Description
A	Status LED
B	240 V AC output
C	Negative contact
D	Positive contact

6. Connection



Reversing the polarity of the the inverter will cause the fuse to blow in the 12 V plug. The 12Volt socket and the power supply must be rated to at least 15 A. Do not put in a fuse with a higher rating than 15 A.



Make sure the plug is firmly connected in the socket (see fig. 1. B, page 2). If the connection is loose, the plug may heat up.



Do not operate any consumers connected to the the device while driving the vehicle.



If you connect the device to the cigarette lighter, remember that the ignition must be turned on to supply it with power.



Always plug in the inverter into a 12 V socket first before you connect a consumer.

The device has a plug for a connection to a 12 V cigarette lighter or a 12 V on-board socket. The middle pin (see fig. 1.D, page 2) of the plug is connected to the (+) positive line, and both lateral clips (see fig. 1.C, page 2) of the plug are connected to the (-) negative line.

7. Operation



You can operate the inverter with the engine running or switched off. However, do not start the engine while the inverter is switched on, since the power supply to the 12 Volt socket is interrupted during ignition. When operating the inverter at a high load for lengthy periods, it is advisable to start the engine in order to recharge the vehicle battery.

Do not block fan end of inverter during operation as this will cause overheating. Sitting on hard flat surface is OK.

7.1 Functional check

The green status LED (see fig. 1. A, page 2) indicates that the inverter is working correctly. If the battery voltage drops under 10.5 V, the LED goes to red and stays on the device heats up excessively during operation, and the LED flashes alternatively red and green.

The device switches off :

- If a consumer is connected to the device whose power requirement is more than 150 W

The device switches off after one minute:

- if the device heats up to more than 50 °C.

If the inverter overheats, pull out the connection cable from the socket. After it cools down, you can plug the inverter back in.

8. Cleaning and care



Caution!

Before cleaning the device, pull the connecting cable out of the socket or the cigarette lighter.



Caution!

Never clean the device under flowing water or in soapy water.



Caution!

Do not use abrasive cleaning agents or hard objects during cleaning as these can damage the device.

- Clean the exterior of the device with a damp cloth.

9. Disposal

9.1 Disposing of packaging material

Do not simply throw the packaging material away. Please observe the following instructions:

- Cardboard packaging material should be disposed of in the appropriate recycling bin.
- Plastic packaging should be disposed of in the appropriate recycling bin for synthetic materials.
- Ask your local authority for the location of the recycling unit closest to you.

9.2 Disposing of the device


If you wish to scrap the inverter, take it to the nearest recycling centre or return it to your specialist dealer who will be happy to take it back for a small fee.

10. Troubleshooting checklist

Feature	Possible cause	Remedy
The device does not switch on after connection to the 12 Volt socket (the green LED does not light up).	The cigarette lighter is switched on via the ignition.	Switch the vehicle ignition on.
	The battery voltage is less than 10 V.	Charge the vehicle battery (start the engine).
	The device has overheated.	Switch off the consumer unit, allow the inverter to cool down and provide better ventilation.
	A fuse is defective (in the inverter, under the positive contact of the plug or elsewhere in the vehicle).	Have an electrician replace the fuse.

Feature	Possible cause	Remedy
The LED goes to red and stays on	The battery voltage is below 10.5V.	Charge the vehicle battery (start the engine).
The LED flashes alternatively red and green (see fig. 1 A, page 2)	When under a load, there is a poor contact in the 12Volt socket.	Clean the contacts.
	The device has overheated.	Pull the device out of the 12 V socket and allow it to cool down before you switch it on again.
The device switches on and off repeatedly.	The constant load is too high (the consumer unit high (the consumer unit has a power consumption of more than 150 Watts).	Reduce the constant load. Compare the device power with the maximum power of the inverter.
The inverter switches off when the consumer is switched on.	The starting current of the consumer unit is too high.	Compare the device power with the maximum power of the inverter.

11. Technical data

Rated input voltage:	12 V DC
Full load current input:	15 A
Constant output power:	150 W
Peak output power:	250 W
Output frequency:	50 Hz
Idle current consumption:	0.25 A
Input voltage range:	10 V - 15 V
Output voltage:	240 V
Output type:	Modified Sine wave
Low voltage shutdown:	10 V (+/-0.5V)
Maximum ambient temperature:	50 °C +/-5 °C
Fuse:	15 A
Dimensions:	Ø 66 mm x 163 mm
Weight:	480 g
Testing/certification:	 N4213

WAECO International complies
with the industrial standard DIN ISO 9001.

Versions, technical modifications and delivery options may vary.

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