Microcool 12V

Mounting instructions and warranty

Note : Microcool may not be able to cool an entire room. This is a portable device designed to cool small areas only.

Warning : Microcool must be secured in such a way so that it cannot be easily toppled from the upright position when in use, or when stored with water in the tank. Even greater caution is required if Microcool is to be operated in a moving vehicle or boat.

Read points A to E carefully before using Microcool

A. Pour only 0.75 litres of water in the newly purchased Microcool and start it in low or medium speed (why ? Read points 10, 16, 17 & 18).
B. Do not run in high speed more than a few seconds during the running in time (why? Read points 4, 5 and 10).
C. 4 hours running in are recommended (why? Read points 4 and 5).
D. You must not re-circulate air cooled by the evaporative cooler back into the cooler. You must use outside air otherwise Microcool will not operate as a cooler but only as a fan (why? Read points 5 and 6).
E. If you intend to connect an external water supply, read points 16, 17 & 18.

Microcool has a one year warranty:

Espar guarantees for a period of one year as from the date of purchase, any Microcool which does not operate in a satisfactory way due to defective material or manufacturing. Espar‘s warranty is limited to the repair or replacement, without charge, of the defective part or parts on the condition that the unit has not been used inappropriately, treated without care or has had unauthorised repairs carried out. Espar will guarantee the complete product if it is returned in appropriate packaging to the sales point with a copy of the invoice.

Please read following instructions to ensure proper operation of Microcool.

1. How can I have cool air with a cooler?
Air will come out of the air outlets much cooler than when it enters thanks to the evaporation phenomenon.

2. Why should I choose an evaporative cooler?
Microcool is portable and can be used without the need to have the engine running.

3. What is the best way to cool an area using Microcool?
Doors and/or windows must be open and the cooler must run in high speed to force the warm air out of the area. When the inside and outside temperatures are similar, you must shut doors and windows. Read points 5 and 6 to know what should be left open.

4. Is there a priming time for a cooler?
Yes, run the cooler for an hour in low and medium speed and then empty the remaining water. Fill with fresh water and repeat two or three times.

5. How many openings do I need for appropriate cooling?
The cooler must be located close to an open window or door. In order to let the hot air out, leave another window open, otherwise a humid atmosphere will be created. **You must not re-circulate air cooled by evaporation.**

WARNING : Use a 2.5 mm² cable that goes to your cigarette lighter and a 5 Amp fuse in order to avoid overheating of the electric circuit.

6. Can I use the cooler in a van, a truck or a tractor?
You must not re-circulate air cooled by an evaporative cooler, you must get rid of humidified air by creating an airstream (open the passenger window a little and the driver window completely when at rest or in traffic jams but only have windows open a little when motoring at high speed).

7. What should be done if water comes out of the air outlets?
Do not overfill with water. Only fill between half to ¾ for the first few operations. With a new pad, there can sometimes be a small quantity of water from the outlets for 3 or 4 hours in high speed mode. Operate the cooler in low or medium speed and it will settle. Do not let water exit from the outlets continuously as this will void the warranty. (See point 5). When using the Microcool with an external water supply, the integral float will shut off the supply when the tank is between ¼ and ½ full. If the water level rises to the point where it leaks from the filler hatch or the outlets, do not use your cooler.

8. My cooler does not provide cool air at the rear of my van/camper, etc.
Use the dashboard fan as usual, keeping the windows closed. Place the cooler at the front of the dash air outlets so that it blows towards the rear of the vehicle.

9. How long can my cooler operate with water and can ice be used?
1.9 litres gives about 5 hours during the night and 2 hours during the day. Use clean domestic water. An addition of vinegar helps if water is hard. A small quantity of ice may be used in the Microcool. If you are using the internal water tank only, add 6-12 standard ice cubes using the water filling hatch, prior to filling with water. When using an external water supply, add the ice cubes before turning the water supply on. It is recommended to add a small quantity of mild disinfecting additive such as Milton's fluid or Aquatabs when filling the Microcool after every 200 hours of operation, this will avoid unpleasant smells.

10. How will I know if the cigarette lighter socket has the right cable?
Use the cooler in low or medium speed before checking the size of the cable. Use a 2.5 mm² cable and a 5 Amp fuse for high speed. If the cable is not the required size, the cigarette lighter can become so hot in high speed that you could melt some of the connecting parts. You do not often need high speed as there should be sufficient cool air on low and medium in most instances.

11. How long can I use the battery without charging it?
You should use a deep cycle battery (105 Amp / hour or more) which can be effective for between 25 to 35 hours (in low and medium speed).

12. What happens if the cooler is knocked over?
If the Microcool topples forward or to one side, water should simply spill from the outlet grills and perhaps from the filling hatch. If the Microcool topples backwards, water will spill from the air intake, however the 12 volt electric fan motor will get wet. If this occurs, try to dry the motor before switching the cooler on again. Unfortunately, if the motor becomes wet in this way, warranty will be void.

13. Will the evaporative cooler work in areas where the humidity is high?
On a hot dry day (40.5 °C) with humidity at 15% the cooler's output temperature would be 23.3 °C but with humidity at 35% the cooler's output temperature would be 28.9 °C. The lower the humidity, the more effective the cooler becomes.

14. When should I replace the evaporation pads?
The pads can be carefully washed with soap and water and rinsed with fresh clean water before re-fitting. This should be done once per year. A spare replacement pad is supplied with every Microcool. The pads used in the Microcool are not standard evaporative cooler pads, only our special self absorbing pads may be used in the Microcool.

15. Can I plug a 12 Volt cooler into a converter or AC power?
Microcool is a 12 Volt device that can be operated through a converter. You may also operate Microcool directly off a 6 Amp battery charger or converter if you want to use it in a shop, tent or spare bedroom at home. NEVER connect Microcool to an AC power supply.

16. Can I connect Microcool to an external water supply?
Yes, The easiest way to use the Microcool with an external water supply is to use the flexible 6 litre Fold-A-Carrier water tank supplied with the cooler. Fill the Fold-A-Carrier with clean fresh water, screw the filler cap into place making sure that the integrated valve is in the 'off' position. Place the Fold-A-Carrier with the filler cap at the lowest point, in a position higher than the Microcool, connect the tank to the copper connector on the side of the cooler using the flexible hose supplied. Turn the Fold-A-Carrier valve to the 'on' position. The Microcool will now self fill until the water level reaches a point between ¼ and ½ full. A float inside the Microcool will switch the water supply off automatically once the optimum level has been reached; this valve will also allow the cooler to automatically re-fill as the water is used.

17. Can I use Microcool for the first time connected to an external water supply?
Yes, using an external water supply is ideal when using Microcool for the first time because the float valve will not let the water level rise too high. Priming the cooler becomes far easier and less labour intensive if it is connected to the external water tank.

18. Can I connect my Microcool to mains water?
No, Microcool's integral float valve is not designed to withstand mains water pressure. It is acceptable to use a larger water tank if longer operating times are required. However, Microcool can operate for upto 20 hours using the 6 litre Fold-A-Carrier tank supplied.

Specifications : Microcool has 3 speeds and a weight of 1.12 kg.
The current draw on a 12 Volt model is 0.9 Amp in low speed, 1.3 Amp in medium speed and 1.6 Amp in high speed.

Main advantages:

- ***Produces cool air.***
- ***No installation required.***
- ***Simply works with water.***
- ***The warmer and drier the weather, the more efficient Microcool becomes.***
- ***Can be easily moved from one vehicle to another.***
- ***2 cool air outlets can be oriented and closed.***
- ***3 speed ventilation.***
- ***Very low power consumption.***
- ***Can be connected to an external water supply for longer running times.***

Model	Dimensions w/d/h	Dry Weight	Water Capacity	Amps@ 12v Low	Amps@ 12v Med.	Amps@ 12v High
Microcool	203mm/196mm/185mm	1.12 kg	1.9 litres including float.	0.9	1.3	1.6

Espar Ltd.,
Eastern Hangar,
Shaw Way,
Mount Batten,
Plymouth,
Devon,
PL9 9XH.
Tel 01752 491900
Fax 01752 491910