Carbon Dioxide Self Powered Absorber - CASPA™

Fully portable, absorber unit offering rapid CO₂ removal in confined spaces.



- The unit is designed to remove carbon dioxide from an enclosed environment as part of a life support system.
- This unit is intended for emergency use.
- This unit is for trained professional use only.

Safety

- Stay calm there is no great urgency as carbon dioxide levels take hours not minutes to build up to significant levels.
- Take a note of the time the enclosed space is sealed and the number of people present time zero.
- Do not remove seals until ready to use.
- The proper number of units needs to be activated together see local emergency procedure.
- The unit contains material that is corrosive if allowed to escape.
- The unit operates with moving parts that can cause injury the fan is not normally guarded as this would restrict the airflow and reduce its primary function. Touching the fan whilst running may cause injury. An optional clip-on fan guard is available for routine use.
- The edge of the tear-off metal seals may be sharp when they have been removed.
- Keep units out of reach of children.

Operating instructions

- 1. Read all the instructions before operating the first units.
- 2. It is strongly recommended that a log of the time and number of units started is kept. A suitable form is attached.
- 3. Remove the required number of units from any transport or storage packing and place the unit(s) in a free space clear of obstructions to the inlet (top) and outlet (bottom).
- 4. Remove the outlet (bottom) seal by placing the unit on a side or inverting it. Peal off the metal seal covering by pulling steadily towards the diagonally opposite corner. (see photo 1). Discard the removed seal away from the unit so that it does not affect the airflow. (Caution the edges may be sharp).
- 5. Place the unit right way up (feet down) and remove the top seal by pealing back the tag with a steady pull towards the opposite side of the seal (see photo 2). Discard the seal away from the unit so it does not affect the airflow to or from the unit. (**Caution** the edges may be sharp).
- 3
- 6. The unit is now ready to operate. Start the unit with the switch located on the top next to the six light emitting diodes (LEDs) see photo 3. The fan unit and the timer circuit will start and all six LEDs will light (two green, two yellow and two red) initially. In some cases the unit may start in test mode, in which case the LEDs will sequentially go out at 2 second intervals and end with a single flashing red LED. If this occurs the unit can be reset to normal timer mode by switching the unit briefly off, then on again. (Caution avoid placing objects or fingers into the fan blade there is no finger guard fitted as this would reduce the airflow, which is critical to proper operation).





- 7. Once the unit is started and the fan is running the timer circuit is started and cannot be reset to zero. One of the LEDs will go out every 4 hours starting with the green LED. Switching the unit off will stop the fan and place the timer on hold. If the unit is restarted the timer will carry on from the same time it was stopped.
- 8. DO NOT SWITCH OFF THE INITIAL UNITS until they have run for at least 16 hours (2 red LEDs left) under normal conditions. It does not matter if you leave the units running till they stop (about 24 hours).
- 9. Do not stop units unless you know the carbon dioxide levels are low or you have ventilated and are leaving the enclosure.

Log sheet for CASPA $^{\text{TM}}$ carbon dioxide level control

Date:	Location:	
	Person in charge:	
Number of people present:	Volume of room: m³ (height x width x length in meters)	
Time the enclosure is sealed: (time = 0)	Change interval in hours	
Number of Initial units started - from Table I (see user manual)	- from Table 2 (see user manual)	

Time	Number of CASPA [™] units running	CO ₂ level % (if measured)	set reminder time for next change	Comments

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