

USER GUIDANCE: ENVIROGARD ECO MULTIMISTER

DUST SUPPRESSION UNIT

READ ALL THE INSTRUCTIONS BEFORE USING THE APPLIANCE



GENERAL: The Eco Multimister is a 110v electric-powered dust suppression bowser with a 1100L capacity tank on a highway tow trailer. Fill the tank, plug-in a 110v power supply, and it provides:

- a mast mounted spray (20m+ range) for dust control
- a 10m Jetwash hose + Lance
- auxiliary port for additional misting lines or fog cannon.

The pump delivers 12 LPM water mist and the unit can be used out-doors or indoors.



The Eco Multimister is particularly useful where zero engine emissions are required at point of use, and in noise-sensitive environments owing to its quieter operation.

The unit can be pre-filled and towed to the location where dust suppression is required. A full tank allows approx. 90 minutes use – and constant operation is achieved by coupling a water supply to the tank auto-refill point. The highway-tow trailer is equipped with a lockable 50mm ball coupling (ring coupling is available on request), brakes & road lights.

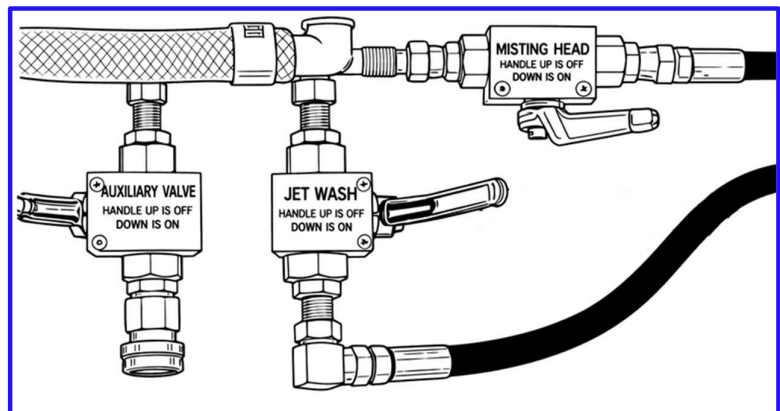
PRE-USE CHECKS / FILLING: Visually inspect the trailer, water tank, water strainer, pump, housing, hoses, jetwash lance and mast before use; if the equipment is damaged do not use it – contact the supplying hire depot.

Ensure the trailer is level and the hand brake is applied; either connect a clean water supply to the “Tank Inlet” coupling (a float-valve will stop the tank over-filling) or fill through the tank lid.

Once the tank is full ensure the lid is securely closed; the trailer may be towed to another location if required. Level the trailer within 15° using the screw jack at the front of the trailer. Ensure the handbrake is applied; if necessary, use wheel chocks as well.

OPERATING INSTRUCTIONS:

1. At the front of the unit **CLOSE** all output valves - **HANDLE UP** - to prevent water discharge when the unit is switched on (image right).
2. Connect a 110v 32A power supply using the lead provided (image overleaf). When using additional extension leads use 32A 110v cables with min. 4mm² conductor cross section & maximum total cable length of 30m (100 feet).



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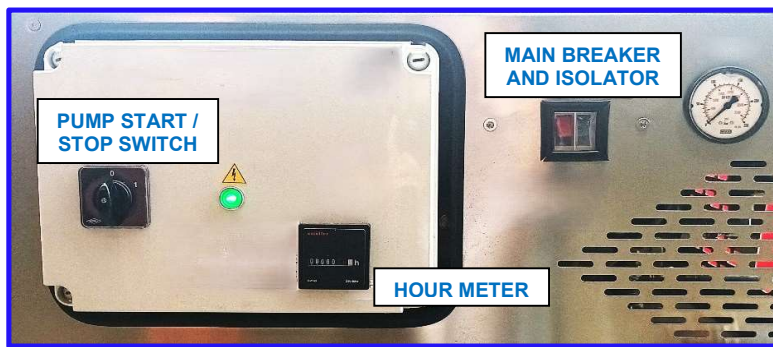
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3. On the control panel (image above right) press the main breaker / isolation switch to ON, then rotate the START / STOP switch to turn on the pump.

This equipment is equipped with dry-run protection - the pump will turn off after 30 seconds if there is insufficient water flow. To restart - first top up the water tank / clean the in-line water filter - then switch the pump OFF then ON again.

4. Once the pump is running select the output using the labelled valves at the front of the trailer (image right). Check no one is in the vicinity of the output spray before opening a valve.



5. **Jetwash:** release the jetwash lance from its stowed position on the frame; to bleed air out of the hose press the trigger on the gun until air-free water is issuing. Hold the lance in both hands when squeezing the trigger because it will “kick back”. Use only the hose, lance and nozzles supplied with the machine and do not attempt to connect or disconnect hose, lance or nozzle while pressurised.

6. **Aerial Mister:** The mister offers a choice of fan spray or turbo nozzle spray – select which you want using the changeover valve at the mast-top prior to erecting the mast.

To operate the aerial mister first check there is sufficient clearance overhead, then release the mast from its transit cradle and tilt-up to the position required; engage BOTH THE LOCK PINS and check the pins and mast are secure.

To start the spray - at the front of the trailer turn the misting head control valve to the “ON” position. If you need to change the mast tilt ALWAYS TURN OFF the spray before doing so.



7. **Auxiliary Port:** follow separate instructions for optional perimeter misting lines / cannon.
8. **TO STOP THE MACHINE:** Turn the pump switch on the front panel to ‘OFF’. On completion of use switch the main breaker on the front panel to ‘OFF’. If the equipment will be unattended it’s recommended that you lock or secure the tow coupling to discourage theft. Before relocating the trailer ALWAYS ensure the hose is securely stowed, the HP hose-end is coupled onto the trailer chassis, the gun + lance is retained in its holder, and the mast is securely stowed in its horizontal position with the locking pins secure at both the head and foot of the mast.

NEVER MOVE THE TRAILER WITH THE MAST UP !

BEFORE RETURNING TO THE HIRE COMPANY EMPTY THE TANK OF ALL WATER.

Please note that if operating under wintery conditions the unit requires the main breaker switch to remain ON for frost protection (the pump unit is equipped with a heater). In severe frost also drain water from the tank and lines.

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CAUTIONS / WARNINGS

IN EMERGENCY: SWITCH OFF MACHINE AT THE START/STOP SWITCHES ON THE FRONT PANEL AND / OR DISCONNECT 110v POWER SUPPLY CABLE

ACTIVATE JETWASH & OPEN AUXILIARY VALVE TO DISSIPATE RESIDUAL PRESSURE.

**WHEN NOT USING THE ECO MULTIMISTER - IF LEAVING IT UNATTENDED STOP THE UNIT AT THE LABELLED MAIN ISOLATOR SWITCH ON THE FRONT PANEL
TO DISCOURAGE THEFT ENSURE TOW-HITCH COUPLING IS LOCKED !**

This equipment is mobile and can be used and located in many different environments. Users are therefore reminded of the need to ensure that all tasks and locations are risk assessed before activity commences to ensure that all significant hazards are identified with appropriate precautions put in place.

The Eco Multimister is NOT for use in explosive or flammable atmospheres.

This equipment is designed for generating water mist for dust suppression & for jet washing (100 bar). This equipment ejects water at high velocity and water jets are dangerous if misused. The jet/spray must not be directed at people, animals, the machine itself, non-waterproof, fragile or electrical equipment, nor power cables. Do not attempt to couple or un-couple hoses or nozzles while the equipment is pressurised.

The equipment should be operated by an able-bodied adult competent in the use of pressure washers. This equipment must not be used by minors or anybody under the influence of drugs or alcohol. The work area should be demarcated and exclude other people from the immediate vicinity of the misting head & jetwash.

Personal protective clothing must be worn. When operating the dust suppression mast use eye protection, head protection and gloves as a minimum. Typical noise levels in-service are 69 dB(A) @ 3 metres / 75 dB(A) @ 1 metre, however water jets can generate high noise levels and produce a high impact force, so when using the jetwash lance protective clothing, boots and ear protection should be worn in addition. Some jetwash applications may generate an aerosol containing pathogens e.g., guano removal, the cleaning of animal by-products etc; the user must assess whether RPE needs to be used in this situation.

Typical noise levels in-service are 69 dB(A) @ 3 metres / 75 dB(A) @ 1 metre. The jetwash lance is equipped with a 10-metre hose so where possible undertake the cleaning activity away from persons who might be affected by the noise and overspray. If the machine is operating in a wholly or partially enclosed space from which noise cannot readily dissipate Users should consider conducting a noise survey to identify if extended mandatory hearing protection zones are required.

This equipment contains water - do not allow it to freeze!!! If the pump has frozen DO NOT attempt to start the unit; allow to thaw and inspect for damage before use. If possible, store indoors during frost; if this is not possible you can leave main breaker 'ON' and a 110v supply connected to power the frost protection heater for the Pump. Alternatively - introduce anti-freeze (25% solution) through the quick-coupling (located below the machinery platform next to the filter); this will protect down to approx - 5°C. Before next use flush with clean water and collect the antifreeze solution at the auxiliary valve for re-use (do not dispose of antifreeze to the environment).

Legionella bacteria can grow at temperatures between 20°C and 45°C, particularly in dirty or contaminated water. For this reason, always fill the bowser with cold, clean, potable (drinking quality) water only. If you will not be using the equipment for a few days drain it of water; before next use purge the equipment with clean water.

If ambient conditions are such that water temperature is sustained above 20°C consider treating the tank and flushing the equipment periodically with a sanitising agent such as Milton. The user's attention is drawn to HSE's guidance on Legionella ACoP L8; depending on your work environment and prevailing temperature it may be necessary for you to include the equipment within your Legionella management programme.

The HP pump has no user-serviceable components, however it is recommended that the pump oil is changed every 500 hours. There is an hour meter fitted to facilitate this - please contact the hire depot for service of this component.

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TECHNICAL:

DIMENSIONS:	Trailer Length 3475mm. Width 1550mm. Height 1500mm (mast folded) and 4000mm (mast erected). Highway trailer with 50mm ball coupling, over-run brakes, and highway DOT lighting. Max Authorised Mass: 1500 kg
PUMP:	Flow 12 litres / min (LPM). Max. Pressure 100 bar / 1500 psi. Output: to Jetwash lance on 10m hose <u>or</u> Aerial mister (20m + throw in still air) <u>or</u> Auxiliary feed to optional mist line or mist cannon.
HAV's:	Jetwash Lance Vibration Emission: less than $<2.5 \text{ ms}^2$

TROUBLESHOOTING

Symptom	Possible Cause	Potential Solution
Machine won't start	No power; Dry run protection activated; Tripped fuse	Check plug/cable; Top Up water tank and cycle on/off switch; Check power supply.
Low or no pressure	Water supply restricted; Air in system	Clean water filter; Bleed air out.
Machine vibrates/noisy	Low water flow; Damaged pump	Check hose for kinks/restriction; Pump service required.
Water leaks	Loose fittings; Damaged O-Rings	Tighten hoses; Replace O-rings on lances.
Motor runs for 30 seconds then stops	Insufficient water flow	Clean water filter; Top up water tank.
Motor clicks but doesn't run	Low voltage; Seized motor	Check extension cable gauge; Max cable length 30m/100ft. Use 4mm ² cross section cable.



Noise



High Pressure Water



Wear Hearing & Eye Protection

HAV'S less than $<2.5 \text{ ms}^2$

FOR MORE INFORMATION ABOUT OUR RANGE OF HIRE EQUIPMENT PLEASE SEE OUR WEBSITE

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