

READ AND SAVE THESE INSTRUCTIONS

INSTRUCTION MANUAL VECTRA-JET[®] FOGGER

Models: 750510CE 750520CE



ENGLISH

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Compliance Information

Modifications of the 7505 Vectra-Jet fogger are available to comply with the following safety standards:

UL-73 (Ninth Ed.)

CSA 22.2 No 0:2001, 22.2 No 68-92:2004

IEC 60335-1:2006 (JEC-J60335; CE DIRECTIVE 2006/95/EC)

Electromagnetic Emissions

The 7505 is shielded against the generation of radio interference in accordance with EN55014, CISPR 14-1:2001 and CISPR 14-2:2001.

Compatibility with World Electrical Systems

Fogger motors and cord options (KUE-xxx) are available for most electrical supply systems and socket configurations.

IMPORTANT SAFETY INSTRUCTIONS

INSTRUCTIONS RELATING TO RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS

WARNING – When using electric appliances, follow these basic safety precautions:

- 1 Read all the instructions before using the appliance.
- 2 To reduce the risk of injury, close supervision is necessary when an appliance is used near children.
- 3 To disconnect, turn all controls to the off (“O”) position, then remove plug from outlet.
- 4 Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 5 Unplug from outlet when not in use and before servicing or cleaning.
- 5 Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or is dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair, or electrical or mechanical adjustment.

To reduce the risk of electrical shock, do not put fogger in water or other liquid. Do not place or store fogger where it can fall or be pulled into a tub or sink.

Connect to a properly grounded outlet only. See **Grounding Instructions**.

GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if there is any doubt as to whether the outlet box and the appliance is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

USER MAINTENANCE INSTRUCTIONS

We recommend that the machine be returned to an authorized Distributor or Service Center for repairs. However, users may undertake maintenance if they wish. The Instruction Manual contains information on common repair procedures.

DANGER - RISK OF ELECTRIC SHOCK. Remove electrical plug from outlet before attempting any service. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

SAVE THESE INSTRUCTIONS

SAFETY PRECAUTIONS



Do not inhale fog output. Highly atomized liquid droplets can float in the air a long time and are quickly absorbed by the lungs. Depending on the material being fogged, this could result in serious injury or death.



Do not use to apply any liquid that is hazardous to people, animals or property when atomized into small droplets. The large surface area of small droplets increases their reactivity and potential to form an explosive mixture. Be aware of potentially dangerous interactions between liquid fog droplets and other aspects of the treatment area.



Read the label of the chemical you plan to use, and follow the instructions in its “Precautions” and “Directions for Use” sections. If the label lacks this information, obtain directions for use and safety precautions **including personal protective equipment** (respirator, face mask, special clothing) from the chemical manufacturer or distributor.

Keep an intake air filter in place during use. This will help prevent dust and fog droplets from entering the unit.



Do not atomize a flammable liquid. Electric arcs produced inside the motor during normal use could ignite it.

Do not fog near an open flame.



Risk of Electric Shock – Do not expose to rain. Store indoors. Use only a properly grounded (earthed) three pin electric outlet. The ground wire is an essential safety feature of this product. Do not remove the grounding lug on the power cord. Do not use an ungrounded (“3-to-2”) plug adapter.



An extension cord, if used, must have a continuous ground wire leading to earth and an amperage rating greater than the rated current on the fogger nameplate label. Do not chain two extension cords together.

Product Overview

The Vectra-Jet™ 7505 fogger atomizes light liquids into a fog, mist or spray of small droplets. It can atomize both oil- and water-based solutions, as well as emulsions and dilute suspensions of wettable powders.

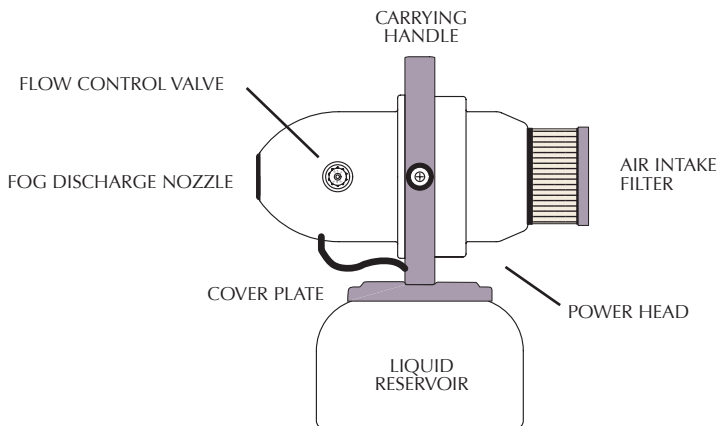
Typical uses of this machine include:

- Cleaning, sanitizing and disinfecting (applying germicides or sanitizing chemicals)
- Control of mold and mildew (applying sporicides, fungicides or anti-mildew chemicals).
- Odor control (fogging odor neutralizers, scents or masking chemicals)
- Humidification (fogging water).

The liquid flow rate determines the size of the fog droplets produced. Several factors influence liquid flow rate: the setting of the flow control valve; liquid density; liquid viscosity; and the frictional resistance of the machine's internal lines.

Viscosity and surface tension also affect fog droplet size. At a given flow, lighter liquids (with lower viscosity, or lower surface tension) make smaller droplets and finer fogs than heavier ones.

The drawing below identifies the principal components of the machine.



Description of Operation

Fogmaster foggers atomize liquids into small droplets (fog or mist) by shearing them in a highly turbulent section of the nozzle. A blower in the power head supplies air to create the turbulence.

The liquid flow into the nozzle, regulated by the control valve, determines average fog droplet size. A low rate (1-2 ounces [30-60 ml] per minute) produces a dry fog – small droplets that float extensively and diffuse widely. A larger flow rate (4-8 ounces [100-250 ml] per minute) produces progressively larger droplets (wet fog, fine mist).

Chemicals for disinfecting applications may require a dry fog (vapor phase disinfectants) or a heavier fog to wet all surfaces and maintain liquid contact for the time specified by the product label or information sheet. Fogs are useful for this application because they diffuse widely, use less chemical and speed up drying.

Measuring the Liquid Flow Rate

Adjust the angle of the nozzle for your application and adjust the liquid control valve to obtain the desired fog droplet size characteristics. It is often more convenient to fog with water to set an approximate flow rate, then make final measurements using the fogging liquid.

Remove the power head from the tank. Place power head on a suitable stand, or suspend by its handle.

Fill a graduated cylinder or jar with a measured quantity of liquid. Position the cylinder or jar so the liquid level is 6" [15 cm] below the fogger nozzle and insert the suction tube.

Operate the fogger for 60 seconds. Remove suction tube, measure remaining liquid and compute liquid consumed. This is the flow rate per minute.

For small flow rates, you may have to operate longer than one minute to get a good measurement.

Equipment Setup

Attach Air Filter

The air intake filter and cover are packed in the top of the carton. Place the filter cartridge over the bracket at the rear of the power head and hold it against the rear housing. Screw filter cover into the bracket and tighten snugly.

Install Tank Liner

Loosen tank clamps and lift power head from tank. Remove extra plastic tank liners from tank.

Open a protective plastic tank liner and position it inside the tank (new units ship with a tank liner in place). The top of the liner should extend over and outside the top lip of the tank.

NOTE: Although the stainless steel of the Vectra-Jet fogger offers a measure of protection against chemical corrosion, we nonetheless also recommend use of the plastic tank liners as an additional barrier.

Add fogging liquid to the tank (inside the tank liner). Confirm that the tank gasket is in place inside the lip of the cover plate. Put the power head on the tank and fasten clamps to secure it.

Adjust Flow Rate

Plug the fogger power cord into a **grounded (earthed)** outlet and turn power switch ON.

Adjust liquid valve for the desired fog droplet size. Push the red ring of control valve **in** to lock valve setting (**out** to release).

Operation

Add chemical solution to the liquid tank. If applying a wettable powder or suspension, remove retaining ring and screen from weighted suction tube weight. Clamp the power head in place.

Using the measured flow rate and the dosage instructions provided by the chemical label or chemical manufacturer, calculate the time required to properly fog the area. You can control fogging time manually or with a timer.

Adjust the angle of the power head for the space you are treating (point the nozzle slightly up for maximum distance).

Aim fog output towards area requiring treatment. For space fogging, select the direction of greatest clearance so fog droplets can fill the space. Droplets that hit something will condense. You can also place the machine on a model 6100 turntable.

Confirm that flow control valve is set to the desired setting, and turn on fogger.

When carrying fogger by hand, move it **gently and slowly** in a smooth arc. Sudden movements can impose excessive torque on the rapidly spinning fan blades and could cause premature blade failure.

Cleaning the Fogger

A. Normal cleanup. When fogging is complete, unclamp power head and transfer any excess chemical from the tank to an appropriate container. Operate the fogger for one minute with the valve open full to expel any liquid remaining in the fogger's internal lines.

B. Cleanup of difficult liquids. After fogging a viscous liquid, emulsion or a solids suspension, begin with a "normal cleanup" (step A). Then put suction tube into an appropriate solvent for your fogging chemical (water for water-dispersible liquids, kerosene for oil-based liquids, etc.) and operate unit for 1-2 minutes, flushing residual chemical with clean solvent. Then repeat step A.

C. Cleanup for long-term storage. Remove all liquid from tank to eliminate the potential for long term chemical attack on tank, suction tube weight, or tubing. Then follow steps A or B.

To prevent internal tubing from becoming brittle in prolonged storage, fog a few minutes with clean kerosene each 6-9 months, then clean as in step A. This will help keep tubing pliable.

Maintenance

The major components of the fogger are identified on page 6. A detailed parts list and order form is included as a separate sheet with each unit. This document is also available for download on our web site.



WARNING: Unplug fogger power cord from electrical outlet before attempting any maintenance operation.

Routine maintenance

Clean fogger after each use. Wash outside of machine with a mild detergent and wipe with a soft cloth to maintain its appearance. (**Do not immerse machine.**) Replace motor brushes when they are completely worn.

Replace intake air filter

Unscrew filter cover plate to remove filter. Install new filter and replace cover. Tighten snugly.

Cleaning the nozzle

Deposits that form on the nozzle can degrade atomization performance. Try to dissolve deposits with an appropriate mild solvent (soapy water, vinegar solution, kerosene, Lime-Away, etc.). Add about 2 inches of liquid to tank and immerse nozzle (front of power head). If this is not successful, replace nozzle assembly. **Do not use a strong acid;** it will attack the metal components. Never insert a probe into the nozzle opening; you may damage nozzle elements

Simple Setup for Maintenance

The tank gasket can help keep screws and other parts in position when you open the power head. Loosen cap nuts on housing screws slightly (do not remove). Remove rubber gasket from beneath cover plate and slide it over the rear housing, flat side first, until it touches the screw heads. Stand the power head on the filter and cover, remove cap nuts and lift front housing to expose internal components.

About motor brushes

Two graphite brushes convey electric power to the motor commutator. Brushes are a consumable item, and have a lifetime of about 650 operating hours. Operating without the air intake filter lets airborne dirt and moisture enter the motor; this can reduce brush life substantially. When brushes are worn the motor does not operate properly.

If you replace motor brushes, we recommend installing them in pairs, and using MOTOR SAVER brushes. The MOTOR SAVER brush contains an insulating pin to shut down the motor when the brush is worn, minimizing the chance that the motor will drag and scratch the commutator. Replacement brush part numbers are:

033: Brush kit (pair, MOTOR SAVER), 120 VAC.

034: Brush kit (pair, MOTOR SAVER), 240 VAC

How to replace motor brushes

Unplug power cord to prevent shock. Remove front housing (see “Simple Setup for Maintenance”) to access the motor. Identify the two motor brush housings on opposite sides at the top of the motor.

Insert a small flat blade screwdriver between the motor wire/terminal and the plastic brush housing. Gently pry terminal out, pushing it towards the commutator until it is loosened. Take care not to break the terminal contact or the wire. If the plastic brush housing is very tight, heat slightly with a hair drier or heat gun to soften before sliding the wire/terminal out. Repeat for the second brush.

Remove two Phillips head screws and retaining bracket holding one motor brush. Lift brush off motor frame and discard.

Hold replacement brush in position with the tab pointed **down**. Press the motor wire terminal (flat brass piece) partially into the brush assembly, between the brass shell and the plastic housing.

Push the brush assembly towards the commutator until the tab falls into the notch on the motor frame. Replace the retaining bracket and two screws. Then slide or pry the wire terminator securely back into the brush housing with the screwdriver.

Repeat for other brush.

Damaged power cord

If the power cord is damaged, it must be replaced with an approved cord that includes a continuous line to ground (earth). Return unit to Fogmaster or authorized importing distributor for service.



WARNING: A continuous ground (earth) line in the power cord is essential for safe operation. Do not operate machine without a continuous line to earth.

Replace motor

Excessive wear on the motor commutator will shorten brush life unacceptably. In this case, you must replace the motor (see “Simple Setup for Maintenance”). Disconnect motor wires and remove old motor. **Note the sequence and orientation of the plastic motor gaskets and metal torque ring.**

Replace motor and reinstall gaskets and torque ring in proper sequence. **The bent tab on the torque ring must face the motor and be seated in the small hole on the motor frame.**

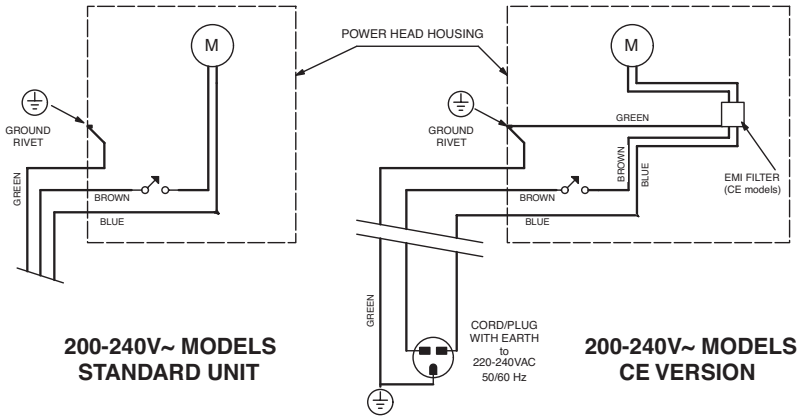
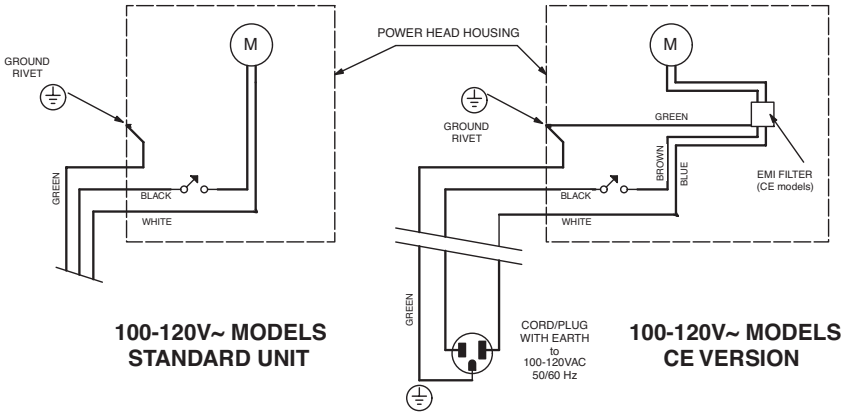
Reconnect electrical lines as shown on the circuit diagram.

Replace fan blades

Twisting the machine aggressively while it is running will cause the fan blades to flex and rub against the fan housing with a shrill, grinding noise. Repeated flexing will eventually cause the fan blades to fail; the motor will operate but not blow air.

To replace fan blade, open power head (see “Simple Setup for Maintenance”) and remove motor. Straighten the three bent tabs holding the fan housing to the motor frame. Remove fan housing and unscrew the 1/2” nut holding fan blade to motor shaft. Replace fan blade (part number = 040) and reassemble.

NOTE: You may have to remove motor brushes and the aluminum armature bracket to grip the armature so it does not rotate when you unscrew nut.



Fogger circuit diagrams

Specifications for 7505 Vectra-Jet fogger

Nozzle Technology	Counter-rotating vortex design. High turbulence in nozzle shears feed liquid into fog-sized droplets. Nozzle has no small orifices and is resistant to plugging.
Chemicals	Nozzle can atomize both oil-based and water-based liquids. Particle size distribution varies with liquid viscosity, surface tension, density and flow rate.
Approx. Range	Visible fog, oil-based, outdoor, still air 35-50 ft [10-15 m.]
Discharge Rate	0-9 oz [270 ml] /min, adjustable
Droplet Size, VMD	7-30 μ (microns), adjustable Liquid viscosity and surface tension affect droplet size.
Control Valve	Nine turn vernier w/ memory lock. Glass filled epoxy, stainless stem, Viton [®] seals
Liquid Capacity	1 gallon [4 L]
Blower Motor	1 Hp, open frame universal type motor, 50/60 Hz 120V~, 8.0A 240V~, 4.0A
Blower	Balanced fan, two stage, 20,000 rpm (no load)
Intake Filter	Cartridge type, fits over rear housing. Replace with P/N 515
Materials ^(a)	Tank - stainless steel Fittings - stainless steel Tank gasket - Buna N Tubing - Viton [®] Nozzle - Celcon [®] acetyl copolymer (Opt. HDPE) Power head housing - aluminum
Dimensions	Product: LxHxDia: 14.0 x 15.6 x 8.6 in [36 x 40 x 22 cm] Shipping Carton: 13 x 13 x 18 in [33 x 33 x 46 cm]
Shipping Weight	13 lb [5.9 kg]

(a) See also Control Valve

Warranty

This product is warranted for one year from the purchase date against defects in materials and workmanship. If you have a warranty claim, return the unit freight prepaid to The Fogmaster Corporation. We will repair or replace (at our option) the unit and return it to you.

Motor brushes and tank gaskets are not covered under warranty.

This warranty does not apply to any unit which has been: subject to misuse, neglect or accident; used for a purpose for which it is not designed; altered in any manner; serviced by unauthorized parties; or subjected to any but the specified voltage.

This warranty is limited to the original purchaser only, and does not include claims for incidental or consequential damages resulting from the non-function or malfunction of this product or for breach of any express or implied warranties.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This Limited Warranty notice replaces any other warranty or guarantee information accompanying this product or appearing in any literature referring to this product. Any implied warranties, including merchantability or fitness for a particular purpose, shall not extend beyond the warranty period.



WARNING: Chemicals dispensed by this machine may be fatal if inhaled. Always follow safety precautions and directions for use of any chemical product.

In the interest of improving internal design, operational function, and/or reliability, The Fogmaster Corporation reserves the right to make changes to the products described in this document without notice. The Fogmaster Corporation does not assume any liability that may occur due to the use or application of the product described herein.

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