

2009-2013

JUICE BOX SPRAYER APPLICATOR

Owner/Operator Manual and Parts Catalog 6528 Capitol Blvd. S.E, TUMWATER, WA 98501 PHONE 1-360-490-3875 | FAX 1-360-943-8748

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INTRODUCTION

This manual has been prepared to provide you with a simple and understandable guide to the use and maintenance of the JUICE BOX SPRAYER/APPLICATOR. To keep your unit in the best working condition, carefully follow the specific maintenance and troubleshooting procedures given in this manual. Be sure everyone who uses, maintains or repairs the JUICE BOX has read, and understands, this manual.

OPTIONAL EQUIPMENT

- -Prime Valve Pressure Control & Flat Tip (Now standard on all 100FT+ hose systems)
- -Additional Hose lengths to 200 FEET.
- -48 inch brass gun/wand and tip

JUICE BOX COMPONENTS

BOX -The JUICE BOX is produced in a polyethylene box protecting the works and making a stable platform.

PRIME VALVE / PRESSURE CONTROL- All JUICE BOX SYSTEMS with 100' + hose length come with the PV / PC. This makes flushing a snap and when the flat pattern tip is employed is used to adjust spraying pressure. When used as a pressure control, the pump may run continuously. The PV/ PC can be added to any JUICE BOX in less than 10 minutes. (P/N J-302)

PUMP -The basic JUICE BOX is equipped with a 1.4 gpm (gallons Per Minute) 60 psi (Pounds per Square Inch) triplex diaphragm pump with viton and santoprene components. It is driven by a 115 VAC motor. The pump is self-priming (to 4 ft vertical) and features self- cleaning valves. That means that if the pump is flushed immediately after use, the valves will clean themselves of solutions that may dry on them and clog the pump.

OPTIONS -Larger pumps are available, with up to 100 psi and up to 4 gpm. Other configurations are possible. Please contact your dealer or the manufacturer for details.

JUICE BOX is equipped an with on-off switch and separate fuse to protect the pump. Unlike small tank sprayers, the JUICE BOX does not build pressure in a tank. Instead, the pressure is built in the line between the pump and the gun. Turn the machine on and the pump begins to run. When the pressure in the line reaches a preset pressure, the pump turns off. When you squeeze the gun trigger, the pressure in the line drops and the pump turns on again. This is called "ON DEMAND" pumping and ensures that the pump only runs when needed, thus lengthening its life.

SIPHON HOSE and FILTER -Because of the siphon hose, a JUICE BOX can go just about anywhere. It's not tied to a tank. The tube is made of a 5 ft length 3/8" nylon reinforced hose which is chemical and petroleum resistant. At the end of the hose is a weighted pickup filter. Clean the filter after each use to prevent plugging.

SPRAY HOSE -The same high quality nylon reinforced hose used for the siphon is used for the spray hose. This hose measures 50' or 100' or longer x 3/8" (your choice) and is strain relieved inside the box. Protect from high heat and sharp objects.

OPTIONS -Additional Hose: With 50 feet of hose the JUICE BOX provides over 7800 square feet of access. More can be added by your dealer. We recommend you do not exceed 150 feet maximum usable length, due to pressure drop.

SHUT-OFF GUN WAND, NOZZLE -Our shut-off gun is a light, comfortable to hold, palm-grip trigger gun equipped with a lock-on device to relieve muscle strain. The gun, (plus the wand and nozzle) is constructed of molded polypropylene has excellent chemical resistance and durability.





To the gun is fastened a 24" wand with an adjustable cone jet -nozzle at the end. Behind the nozzle, an optional 100 mesh strainer can be installed to protect the orifice from damage. The spray pattern is adjustable from a two foot cone to a 20 foot stream.

OPTIONS -Where longer wands are desirable to increase your reach (applying wall and ceiling treatments or watering and spraying hanging plants) it is advisable to change to a heavier pistol-grip trigger gun. Wands are available in 4 feet brass curved tip configurations. A variety of nozzle patterns are available to suit your particular needs. One, for ex-ample, is the flat fan nozzle useful where spraying has to be done in cracks or between plants, or when waterproofing in large quantity.

Contact your dealer or the manufacturer for more information.

SAFETY INSTRUCTIONS

Read this manual thoroughly before doing any work on or with your JUICE BOX SPRAYER/APPLICATOR. Failure to follow instructions could result in property damage and/or serious bodily injury.

- 1. **NEVER** spray flammable liquid products.
- 2. NEVER POINT THE GUN AT ANYONE OR AT ANY PART OF THE BODY. NEVER USE YOUR FINGERS TO TEST THE OUTPUT PRESSURE AT THE NOZZLE. FLUIDS UNDER PRESSURE CAN PENETRATE THE SKIN AND SERIOUS INJURY OR DEATH COULD RESULT.
- 3. NEVER ALLOW CHILDREN OR UNTRAINED ADULTS TO OPERATE THIS MACHINE.
- 4. **NEVER** allow children or animals to wander through your work area.
- 5. Keep the **JUICE BOX**, and all spraying compounds used, **OUT OF THE REACH OF CHILDREN**.

- 6. Be sure you have **adequate ventilation** when using the JUICE BOX in a confined area. If necessary, wear breathing protection or assistance devices. Safety clothing and face protection should also be worn when using the JUICE BOX. Consult spray solution supplier for specific product cautions.
- 7. Read spray solution labels carefully; observe all cautions and warnings. Failure to do so could result in dangerous exposure to toxic chemicals. Dispose of empty containers per label directions, and or local laws and codes.
- 8. **ALWAYS** request an MSDS (Material Safety Data Sheet) for the chemical product you are buying or using. Seek emergency medical treatment at once if any fluid seems to penetrate your skin, even if the wound does not appear serious. Tell the doctor exactly what fluid was injected and give him the MSDS for the chemical you were using.
- 9. Before disconnecting the spray tip from the wand or the wand from the gun, turn off the JUICE BOX pump switch and trigger the shut-off gun to relieve the pressure in the line.
- 10. **NEVER** use your mouth to blowout nozzle tips. Clean them with a nozzle brush and compressed air instead. Do not use anything metallic to clean nozzle orifices or you may change the size of the opening.



- 11. **NEVER** pull the JUICE BOX by its hose. Protect the hose from vehicular traffic and sharp objects. Be careful not to twist or kink the hose while the machine is in use. Do not use the hose if damaged. Do not use shut-off gun if there are any leaks from the packing or fittings.
- 12. **To avoid electrical shock**, do not spray solution near electrical components of the JUICE BOX, electrical fixtures or outlets, or on other electrically operated equipment When it is necessary to spray on or about such items, disconnect them from their power source and / or shut off the main circuit breaker.

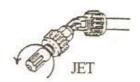
- 13. **NEVER** let spraying solution temperature **exceed 130 degrees** Fahrenheit or damage to valves will result.
- 14. Do not allow the pump to cycle on and off continuously as this will cause premature pump failure. Follow the TROUBLE-SHOOTING procedures outlined to remedy the problem if it occurs.
- 15. Whenever you flush the JUICE BOX system, dispose of the flushed solution per chemical manufacturer's directions and or local laws and codes.
- 16. Do not disassemble or alter equipment in any way as this will void the manufacturer's warranty.

If repairs are necessary, use only genuine factory repair parts supplied by JUICE BOX LLC, their designated local agent or by the component supplier.

- 17. **NEVER** leave the JUICE BOX unattended once you have started it. If you must leave, turn the power off, relieve the pressure in the system and pull the plug to prevent unauthorized use. Removing the fuse will also deter use.
- 18. If the JUICE BOX will be exposed to **temperatures below 32 degrees Fahrenheit, freeze damage may occur**. Follow the Winterizing Procedure outlined in PREVENTATIVE MAINTENANCE to prevent damage.

SETTING UP

- 1. Place the siphon tube in the spraying solution. Temperature of the solution must not exceed 120 degrees F.
- 2. Switch power switch to "ON" .The JUICE BOX runs only in an "ON DEMAND" pumping mode: the pump will run until it has built up to the selected pressure or pump shut-off pressure in the hose, it will then shutoff. Squeeze the trigger and the pump turns on again to rebuild pressure.

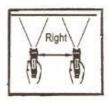




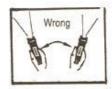
3. Spray.

Rotate the barrel of the conejet tip to the desired setting and squeeze the trigger (see Illustration). For recommendations on how to do your best job as you spray, see GENERAL SPRAYING TECHNIQUES.

- 4. When you need to change tips or solution, flip the power switch to "OFF" and squeeze the trigger gun to relieve all the pressure in the system. Then proceed with your changeover. If you need to avoid contamination, clean the system (See #3 under SHUTTING DOWN.)
- 5. If using the flat tip, adjust pressure to achieve even fan with minimal overspray. This is typically 15-25 psi at the tip for light bodied cleaners and waterproofing materials. (see technical data sheet for product used)



GENERAL SPRAYING TECHNIQUES



GENERAL SPRAYING TECHNIQUES

When making side to side spraying passes, release the trigger at the end of each pass with the gun still moving. Then, squeeze the trigger after you start your next pass. In this way, you will eliminate the overspray that occurs when your hand stops going one way and starts its opposite movement.

Under certain circumstances, such as low light levels, slanted light sources and when spraying a clear solution, the operator may be unable to tell where he has already sprayed. The result can be a wasteful (or damaging) overlap or an annoying miss. If this is a recurring problem, contact your spray compound supplier to add an inert marking chemical that will temporarily show your last spraying sweep.

Please note that most insecticide is sensitive to "Alkaline Hydrolysis". This means they break down more rapidly in water which is more basic (alkaline) then neutral (i.e., pH higher than 1.0) .Most formulations have an acidifying agent which will enable the material to buffer moderately alkaline water.

Check your water pH periodically and experiment with acidifying agents if your pH consistently measures greater than 8.0. Or use water treated by a water softener.

SHUTTING DOWN

- 1. Turn Power Switch to "OFF".
- 2. Trigger shut-off gun to relieve pressure in the system.
- 3. To clean the pump, hose, gun, wand and nozzle, place the siphon tube in a container of clean water, or manufacturers recommended neutralizing solution, and run the JUICE BOX until the water or solution is gone. Catch the rinse water and dispose of it per the manufacturer's directions. If the spraying solution is a compound which could dry inside the pump (such as an oil-based stain or silicone based waterproofing materials), it must be rinsed from the system as soon as possible. Follow the solution manufacturer's cleanup recommendations, but do not use flammable chemicals. **DO NOT USE STRONG SOLVENTS OR PAINT REDUCERS SUCH AS LACQUER THINNER, ACETONE, MEK, TOLUOL, XYLENE, OR ANY SOLVENT WITH A FLASH POINT BELOW 100 degrees F. This would cause an extremely hazardous condition to the operator and will void any and all warrantees.**
- 4. Clean the siphon tube filter with running water or solvent and a brush, as needed.
- 5. HANDWASH THE EXTERIOR OF THE JUICE BOX WITH SOAPAND WATER, RINSE THOROUGHLY, BEING CAREFUL NOT TO WET THE OFF/ON SWITCH OR FUSE HOLDER. ALSO, RINSE HOSES, GUN, NOZZLE AND ACCESSORIES.
- 6. If the JUICE BOX will be subject to freezing temperatures, refer to "Winterizing Procedure" in the PREVENTATIVE MAINTENANCE section.

PREVENTATIVE MAINTENANCE/LUBRICATION-

The pump and gun are sealed and require no lubrication.

CLEANING SPRAY TIPS AND SCREENS -Clean nozzles and screens with a tip cleaning brush, toothbrush or wooden toothpick. If you have cleaned them to solve application problems and the problem is still there, the nozzle is probably damaged and needs to be replaced. DO NOT CLEAN NOZZLES WITH ANY METAL OBJECT. This will damage the tip and change the spray pattern and flow rate.

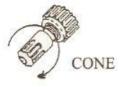
WINTERIZING PROCEDURE -Damage due to freezing is not covered by warranty. If the JUICE BOX and/or any accessories will be exposed to freezing conditions, follow this procedure:

- 1. Using the siphon tube, flush the entire system with clean water.
- 2. Mix RV Anti-freeze and water 50/50, sufficient to treat all parts of the system (at least one gallon). Insert the siphon tube, turn on the power and trigger the gun or accessory until the mixture is distributed. Collect the mixture in a suitable container as the JUICE BOX runs (The mixture may be re-used). Run the unit until the container and the pump run dry. Turn off the power. Relieve the pressure in the system and allow the mixture to drain from the hoses and accessories. Before the JUICE BOX is used the next time, all traces of the anti- freeze mixture will need to be flushed from the system.

CONEJET NOZZLE ADJUSTMENT

JET -Turning the nozzle counter-clockwise (out from the nozzle body) takes the nozzle to the JET position. In this JET position, you will get a stream capable of traveling approximately 20 feet horizontally (less vertically). DO NOT turn the nozzle too far it or will come off. See illustration.





CONE -Turning the nozzle clockwise (toward the nozzle body) takes the nozzle to the CONE position. A wide variety of cone patterns are available as the nozzle is turned. Turn the nozzle as far as possible to the clockwise position and you will get a fine mist. This CONE is formed because as the nozzle is turned clockwise, it restricts the flow, thus putting out a smaller quantity of spray with finer water droplets.

OVERLOAD FUSE

The fuse used on all JUICE BOX SPRAYERS is a slo-blow type fuse and must be replaced with same. If fuse should blow a second time, please call factory for assistance in troubleshooting. This fuse on the JUICE BOX is provided to protect the pump motor. When it has to work harder than it is rated for, it draws more amps and overheats. Left uncorrected, this will ruin the pump motor. The fuse prevents this by self-destructing when the amp draw exceeds specifications.

FUSE TROUBLESHOOTING- If you're blowing fuses in the JUICE BOX (or tripping breakers in your electrical load center) check the following:

- 1. **CONEJET** nozzle turned too far to CONE, flow restricted too much. Adjust nozzle slightly back toward JET.
- 2. The CONE pattern comes about by restricting water flow through the nozzle which, in turn, increases with pressure within the pumping system. The pressure switch may sense the restricted flow and turn off the pump motor. Then, it will cycle on again and then off again and soon. If the pump does this continuously, it can lead to premature wear. Your JUICE BOX was adjusted at the factory to prevent this cycling.

NOTE: If your set up causes the pump to cycle more than once in 2 seconds. Call JUICE BOX for help.

To replace the fuse, press in on the fuse holder cap, twist counterclockwise and lift the cap and fuse out of the fuse holder together. Replace with the same size fuse.

Replacement fuses may be purchased at any electronics parts store. If fuse continues to blow, contact JUICE BOX for further assistance.

TRIGGERJET SPRAYGUN, WAND, ADJUSTABLE NOZZLE PARTS BREAKDOWN

The TriggerJet is a lightweight hand spray gun designed for use with low pressure spray systems. Made of molded polypropylene, it has excellent chemical resistance and durability. It, however, can not be used as a hammer, crowbar, or tire chalk, and if dropped or stepped on will break. We recommend the wand be removed from the gun for transportation and storage.

Features of the TriggerJet Spray Gun

- —Replaceable viton diaphragm.
- —Trigger lock to fasten trigger in open position to relieve muscle strain.
- —Maximum operating pressure of 140 psi.

SAFETY

IT IS IMPORTANT TO RECOGNIZE PROPER SAFETY PRECAUTIONS WHEN USING A SPRAY GUN. DO NOT AIM THE TRIGGERJET SPRAY GUN AT ANY PERSON OR PART OF THE BODY. FLUIDS UNDER PESSURE CAN PENETRATE HUMAN SKIN AND CAUSE SEVERE INJURY AND OR DEATH. CHEMICALS CAN ALSO CAUSE INJURY AND BURNS.

We strongly recommend the use of appropriate safety equipment when working with potentially hazardous chemicals. This equipment includes, but is not limited to, a protective hat; safety glasses or face shield; chemical resistant gloves; long pants; long sleeved shirt; and a chemical resistant apron.

REMEMBER TO READ THE CHEMICAL MANUFACTURER'S LABEL AND FOLLOW ALL DIRECTIONS FOR USE AND DISPOSAL OF CHEMICAL AND CONTAINER.

Thoroughly clean the TriggerJet after each use.

SHURflo DIAPHRAGM PUMP

The SHURflo Diaphragm Pump operates on a positive/displacement principle. Piston stroke is determined by eccentric cam action. The pump is designed for use in transferring, circulating or spraying non-flammable liquid. It is self-priming (to 4 ft. vertical) but will not prime if the discharge lines are restricted during the priming process.

CAUTION: DO NOT allow sprayer plumbing to cause excessive stress on either the inlet or outlet port. When replacing pump fittings, always use plastic fittings at the pump ports. Fittings should be hand tightened plus 1/2 turn with a wrench.

DO NOT OVERTIGHTEN!

Recommended maximum temperature of liquids: 120 degrees F.

JUICE BOX SPECIFICATIONS

TRIPLEX DIAPHRAGM PUMP

115vac, .7 AMPS. Output: 60 psi, up to 1.4 gpm + Motor- driven positive displacement triplex diaphragm pump + Self-priming (to 4 ft, vertical) with self-cleaning valves + Pressure demand switch -pump turns on and off as spray gun is triggered ÷ Viton and Santoprene components + Rubber mounted to eliminate vibration +6 ft. supply cord and 3 In. strain relief/cord protector+ On/Off Switch and Fuse in separate fuse holder. Check with Juice Box for other pump specs.

SPRAY HOSE / TRIGGER GUN / WAND / ADJUSTABLE NOZZLE

Nylon-reinforced petroleum-resistant spray hose 50',or 100' x 3/8"), with strain relief + Palm-grip shut-off gun with trigger lock-on device, 24" wand, adjustable CONEJET nozzle (2' cone to 20' stream).

SIPBON TUBE

5' x 3/4" petroleum-resistant nylon-reinforced spray hose + Pickup filter.

BOX-POLYETHYLENE

Complete CAUTION and USE labels + Comfortable to carry + Polyethylene Box: molded-in handle, wide-track tip-resistant base.

DIMENSIONS

Weight: 60 psi 50 ft hose = 21 lbs + Can be shipped UPS (24 lbs ship weight)

Polyethylene Box -

Width: 10-1/2" = Height: 13" + Length: 20".

OPTIONS and ACCESSORIES

Fan nozzles and other nozzle patterns;

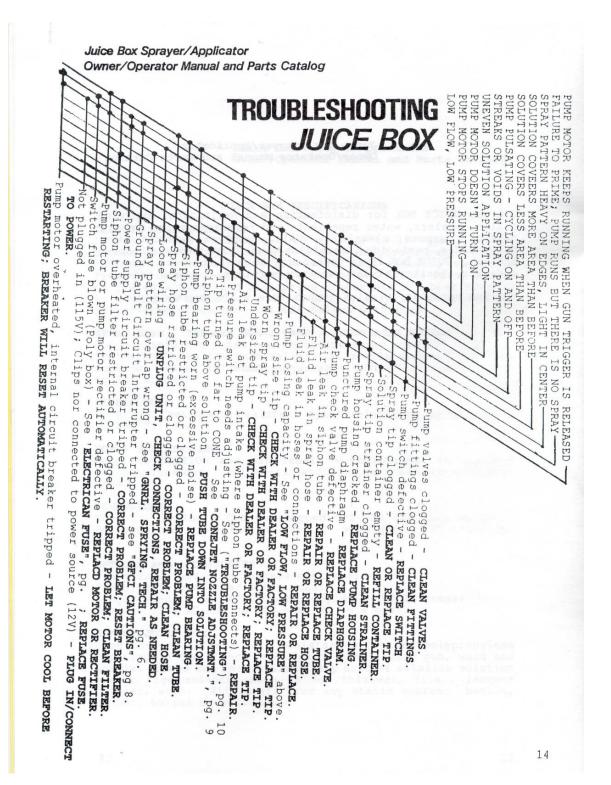
Pistol-grip and other spray guns;

Longer wands: 48" in brass;

Pumps: II5VAC; Up to 100 psi; Up to 4 gpm.

JUICE BOX USES

Uses corrosion-free, acid resistant nylon and polypropylene plumbing in the siphon tube, pump, hose, spray gun, wand and nozzle. Pumps and sprays almost any acid or alkaline solution except high solvents such as hot thinners, (i.e., lacquer, thinner, etc) .Will draft from any static source: bottle, bucket, barrel or vat.



Use the JUICE BOX for disinfecting and sanitizing; applying stains, sealers, water repellents and release agents; and for general purpose cleaning. Also applies insecticides, mildewcides, pesticides, herbicides and dormant sprays indoors and out. JUICE BOX is an indispensable tool for pest control, cleaning, janitorial and sanitary services, to name a few. Maximum spraying solution temperature: 120 degree F.

JUICE BOX LLC LIMI TED WARRANTY

Products manufactured for JUICE BOX LLC bear the following

Limited Warranty: The Original Manufacture warrants that the goods to be delivered will be of the kind and quality described in the order or contract and will be free of defects in workmanship or material. Should any failure to conform to this warranty appear within one (1) year after the initial date of delivery, the seller shall, upon notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with The Manufacturer's recommendations and standard industry practice, correct such defect by suitable repair or replacement at its own expense. This warranty is limited to repairing or replacing products: which the manufacturer's investigation shows were defective at the time of shipment by the manufacturer. All products subject to this warranty shall be brought to the attention of the seller or dealer involved for examination, repair, or replacement by the manufacturer.

This warranty is exclusive and is in lieu of any warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether expressed or implied, except of title and against patent infringement. Correction of non conformities, in the manner and for the period of .time provided above, shall constitute fulfillment of all liabilities of the manufacturer to the purchaser with respect to, or arising out of, the goods, whether based on contract negligence, strict tort or otherwise. Limitation of Liability: Repair or replacement of defective products as provided above is the sole and exclusive remedy provided here under and the seller shall not, under any circumstances, be liable for special or consequential damages such as, but not limited to, damage or loss of other property or equipment; loss of profits or revenue; cost of capital; cost of purchased or replacement goods; or claims of customers of purchaser for service interruptions. The remedies of the purchaser set forth herein are exclusive and the liability of seller with respect to any contact, or anything done in connection therewith such as the performance or breach thereof, or from the manufacturer, sale, delivery, resale, installation or use of any goods covered by or furnished under this contract whether arising out of contract, negligence, strict tort, or under any warranty or otherwise, shall not, except as expressed, provided herein, exceed the price of the goods which such liability is based.

Products manufactured by other then Seller bear the following limited warranty: Seller warranties that the goods manufactured by others will conform to the description herein stated. No other warranty expressed or implied is made; any warranty of the manufacturer is hereby assigned or transferred to the buyer. Furthermore, except for the manufacturer's warranty, if any, the products sold here under are sold as is. Seller is not liable for any incidental or consequential damages in connection with these products.

JUICE BOX LLC 6528 Capitol Blvd. S.E., TUMWATER, WA 98501

PHONE 1-360-490-3875 FAX 1-360-943-8748