

DC Spitter Mechanism Setup and Use instructions:

Thank you for the purchase of a DC Spitter Mechanism. The following instructions will walk you step by step instruction on the setup of the spitter and integration of an optional (not included) animation controller.

Requirements:

- Air compressor with 30-120 PSI constant flow.
- 1/4" NPT female threaded air compressor fitting (nipple) that matches your current compressor's fitting.
- 110V AC power (possibly up to two outlets if used in conjunction with a haunt controller).



Safety precautions:

- Only persons with electronic wiring knowledge should modify this unit.
- All exposed wires, should be covered in heat shrink tubing and or electrical tape.
- Do not modify or tamper with wires if power supply is or has been recently been plugged in
- Do not submerge or expose valve or power supply into a wet location
- Never fill water reservoir with power supply energized
- Never exceed 120PSI
- Do not mount spitter mechanism directly into areas that could possibly spray water or air into viewer's eyes or ears.
- Use discretion and common sense during use, and keep safety and your #1 priority at all times.

If you have any questions please email DC with as much detail as possible at: sales@dcprops.com



Setting up the Spitter:

For the setup of the DC Spitter Mechanism first plan out placement of the spitter, triggering device and the valve and power supply. The power supply, controller and valve should never be used around water or in an area that is potentially exposed to water, and as an additional precautionary measure the valve should not be connected to a vessel or object or area that is electrically conductive (ie the side of a metal barrel containing or not containing water).

Incase of the possibility of contact with water or moisture the valve and or power supply should also not be allowed to lie on the ground. We strongly suggest mounting the valve to a piece of wood and if possible onto a wall; out of any possible water exposure.

With the valve and power supply configured, you can now run the spitter output (white 1/4" tubing and the connected 5/32" siphon tube up, see picture) through your prop and out of the mouth or ejection area. Next run the black 5/32" siphon tube into a water reservoir. We suggest a 1 gallon milk jug or similar container, but DO NOT use any container that held any form of cleaner, detergent, bleach or other similar harmful chemical.

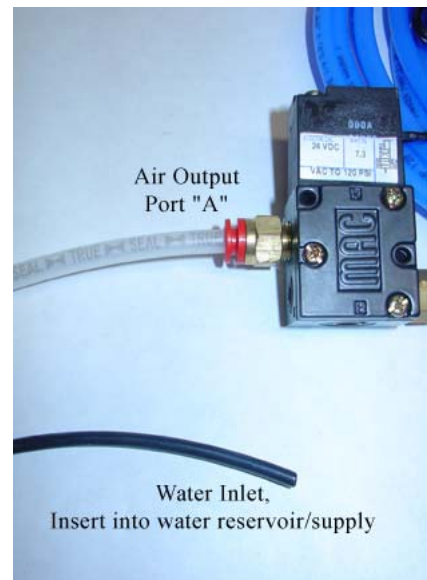


The siphon tube (and main airline) can also be shortened to limit the amount of air and water travel to the ejection tip providing a quicker response time (IE, if there is 4' of tubing coiled in front of the reservoir, cut that off). However measure twice and allow for a little slack before cutting anything.

If you are using the spitter inside a barrel that is filled with water, cut off the tubing about a foot below the water level, while the prop is in its triggered position.

The last portion of the basic setup is to add a 1/4" NPT female threaded air compressor fitting (nipple) to the 1/4" NPT push in fitting on the end of the air supply line. Thread the nipple fitting over the push in fitting, and tighten. We do not provide these with the mechanism due to the wide variety of fittings in circulation. Most common fittings are "IM" and avail in 1/4" NPT and 3/8" NPT in almost all hardware stores, or online at www.mcmaster.com or www.harborfreight.com.

With the air supply line connected to your compressor, and the valve, power supply, and tubing in place, simply plug in the power supply and within a second or two, your spitter will begin spitting a fine mist of water at your victims.



To adjust the flow of water, simply adjust the incoming PSI to the valve. The valve can run down to a minimum PSI of 30 and to a maximum of 120PSI.

Wiring in a controller:

Basic setup and integration of a “non-wired” manual trigger - (ie power cord or X-10 system):

By far the easiest (and cheapest) way to activate the valve setup is to manually plug in the power supply to a household wall receptacle. As mentioned above adding 110V to the power supply will switch the valves airflow, and extend the cylinder.

Many people do not want to manually plug in a power supply for each activation, so the next easiest option is to integrate a wireless 120V appliance/light controller (available at www.dcprops.com). For about \$40 you can wirelessly turn on and off the lifter from up to 40' away. For this setup, please follow the manufacturer's instructions for setup and triggering.

Basic setup and integration of a Push Button Trigger: (available at www.dcprops.com)

If you are using a low voltage 12-24V valve and manual triggering is preferred, a push button trigger is a great solution. To connect this type of triggering device first ensure the power supply is unplugged and had not been plugged in for at least 10 minutes; the power supply holds power, and if it is or was recently plugged in, there is a possible shock hazard.

With the power supply un-energized, take the power cord (running from the power supply to the valve) and separate (spilt apart) the two wires about a foot from the power supply. As a precaution, all wiring should be kept as far from the valve and water as possible. Once split you should be left with a solid black wire and a black wire with a white stripe.

The black wire with the white stripe is the constant and you won't touch that one. The solid black wire needs to be cut and the shielding stripped about 3/8 of an inch on each cut end. With both ends stripped, now you can connect the push button's trigger.

In the case of a DC hand held trigger (Pictured on right), you will want to connect the wire coming



from the power supply to the red wire, and the other cut side (the wire that's running to the valve) to the black wire. We strongly recommend soldering these connections, then covering all of the bare wire with heat shrink tubing and or wrapping with electrical tape. **WARNING - Only use hand held triggers with 12-24V DC setups, never integrate a hand held trigger into a 110V setup!**

With those connected, you have created a normally open circuit (switch that closes the connection turning on the valve) when the button is depressed.

Basic setup and integration of a “relayed” animation controller:

These instructions are for wiring a “relayed” controller, such as an Animation Maestro (available at www.dcprops.com). The manufacturer's instructions supersede these instructions, so read and follow those instructions and precautions prior to wiring.

To connect a “common” relayed controller first ensure the power supply is un-energized and take the power cord that is running from the power supply to the valve and separate (spilt apart) the two wires about a foot from the power supply. As a precaution, all wiring should be kept as far from the valve and water as possible.

Once split you should be left with a solid black wire and a black wire with a white stripe. The black wire with the white stripe is the constant and you won't touch that one. The solid black wire needs to be cut and the shielding stripped about 1/4 of an inch on each cut end. With both ends stripped, now you can connect the first (common) wire coming from the power supply into the “C” (constant) terminal. Next connect the wire running to the valve on the lifter into the “N/O” (normally open) terminal.



This will complete the circuit, and the controller will “close” the circuitry loop, per your program using a PIR (passive infrared) sensor, push button trigger, or switch mat (only connect ONE trigger at a time!).

Basic setup and integration of a “powered” animation controller:

These instructions are for wiring a “powered” controller, such as a Prop 1 micro controller or Sprawling Delusions Keybanger (using a 12V-24V main power supply, with 12V-24V output).

This setup uses the power supply from the controller to power the valve, so in this setup you will want to cut the power supply off about 18” away from the power supply. Keep the power supply for future use, or for powering the controller.

With the power supply removed, separate (split apart) the two wires you just cut about 3" and strip approximately ¼" off each end. As a precaution, all wiring should be kept as far from the valve and water as possible. Once split you should be left with a solid black wire and a black wire with a white stripe.

The black wire with the white stripe is the constant and will need to be connected into the "V+" or "POS" terminal. The solid black wire will need to be connected into one of the "N/O" (normally open) terminals.

This will complete the circuit, and the program you enter into the controller, will control the opening and closing of the circuit (ie start and stop of the lift).

Suggested Animation controllers:

- Animation Maestro: great for triggering 1 item, extremely easy setup and real-time programming. Available from **www.dcprops.com**.
- Animation Maestro 2: Great for triggering two items with real-time programming (ie spitter and a pneumatic solenoid valve). Available from **www.dcprops.com**.
- SD Keybanger Lite: Great for triggering up to 2 items with extremely easy setup and real-time programming. Available from **www.dcprops.com**.
- SD Keybanger: Great for triggering up to 6 items with extremely easy setup and real-time programming. Available from **www.dcprops.com**.
- Basic Wireless Remote control: Extremely easy to use and wireless up to 40'. Available from **www.dcprops.com**.
- Prop 1 Microcontroller: Great for triggering multiple items (up to 8), requires programming knowledge. Available from **www.dcprops.com**.
- GF Minibrick 4 or 8: Great for triggering multiple items (up to 8), requires programming knowledge. Available from **www.dcprops.com**

If you have any questions on these instructions or this props operation, please contact DC Design Studio at **www.dcprops.com**, **support@dcprops.com**. Please be safe and enjoy.

Thanks again for your purchase and enjoy.

DC Design Studio
P.O. Box 132
Mountain View, CA 94042
www.dcprops.com

Here are a few additional pictures clients have found helpful:

