



Fill-Stop Automatic Dispenser



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Directions for the Fill-Stop Dispenser Valve Control

Thank you for purchasing a Fill-Stop Dispenser Valve Control for filling your maple syrup containers. This product has been designed and tried by people who make maple syrup. If a little attention is paid to setting up and using the faucet, we feel it should assist your production efforts significantly.

Power Source

The System is designed to use a 12 volt battery as its power source. A word of caution, a battery should always be connected even if a 12 volt DC Battery charger is being used. There are two reasons to use a battery with the charger:

1. The charger may not have the reserve current necessary to initiate the valve;
2. The battery acts to absorb the energy from the collapsing magnetic field when the valve closes and protects the electronic circuits from a voltage surge.

Since each valve requires 22 watts of power while it is open we suggest using a small lead-acid or NiCad Battery, similar to an electric start lawn mower or motorcycle battery.

If a metal cases dry cell is used it must be placed where it can contact a metal stand or tank to which the faucet is attached. The metal of the Faucet is electrically connected to the positive pole of the battery.

Attaching the Fill-Stop to a Tank

The valve on the faucet uses a special rubber diaphragm to make a reliable seal. It requires no pressure to open, but the top of the body of the valve must be below the lowest point in the gravity feed tank to allow the tank to drain completely.

For any dual valve unit the plumbing should be metal to energize the slave valve. If plastic is used and the slave valve doesn't function, connect a piece of wire from one control box to the other.

The valves will work in any position, so the plumbing connections can be arranged to best fit your tank and bench. If the open button does not end up in a handy location, the entire control box can be rotated on the valve stem to a better position. To position the box, simply loosed the top nut and twist the box on the stem to the most convenient position and retighten the top nut.

Since the Fill-Stop only has two positions, open and closed, a flow rate control valve should be put in line with each faucet (a simple ball valve is perfect). This allows the flow rate to be set to limit the bubbles that are formed. It also allows the faucet to be removed if necessary even with a full tank.

Cleaning for Storage

At the end of a season, the valve must be thoroughly rinsed to remove all sugar. Ten or a dozen valve operations with clean boiling water in the tank should be sufficient, but a more certain method is to remove the control box (remove the top nut and pull the box off the valve stem) and then remove the four screws holding the valve cover. Soak the valve parts and allow them to dry before reassembling. **DO NOT SUBMERGE THE CONTROL BOX.** If the control box does get wet internally, allow it to dry thoroughly before connecting power.

Operating the Fill-Stop

The first time the faucet is used in a season or after emptying the tank, it should be started with the flow control wide open. This allows all the air in the Fill-Stop to be removed and will help provide a consistent, no drip stop. Once flow is started, the flow control can be turned back to give a nice laminar flow that will create few bubbles. The flow control can then be left unchanged until the tank has again emptied.

To adjust the stopping point, place the container on a firm support and extend the probe wire into the top of the jug. For a first trial to gain experience put the point of the probe well into the container. After flow has stopped, pull the probe up successively until the desired level is obtained. Similar sized containers may be placed under the nozzle for filling in succession without readjusting the probe.

- Note, if you are using metal containers, touching the end of the probe with the can after flow has started will cause the valve to close.
- Note, the valve body and control box cover will get quite hot and care should be taken not to place a hand on them. Components inside the control box are designed to operate up to temperatures of 130 degrees C.