

HOSS

WE HELP YOU GROW YOUR OWN FOOD

FERTILIZER INJECTOR MANUAL

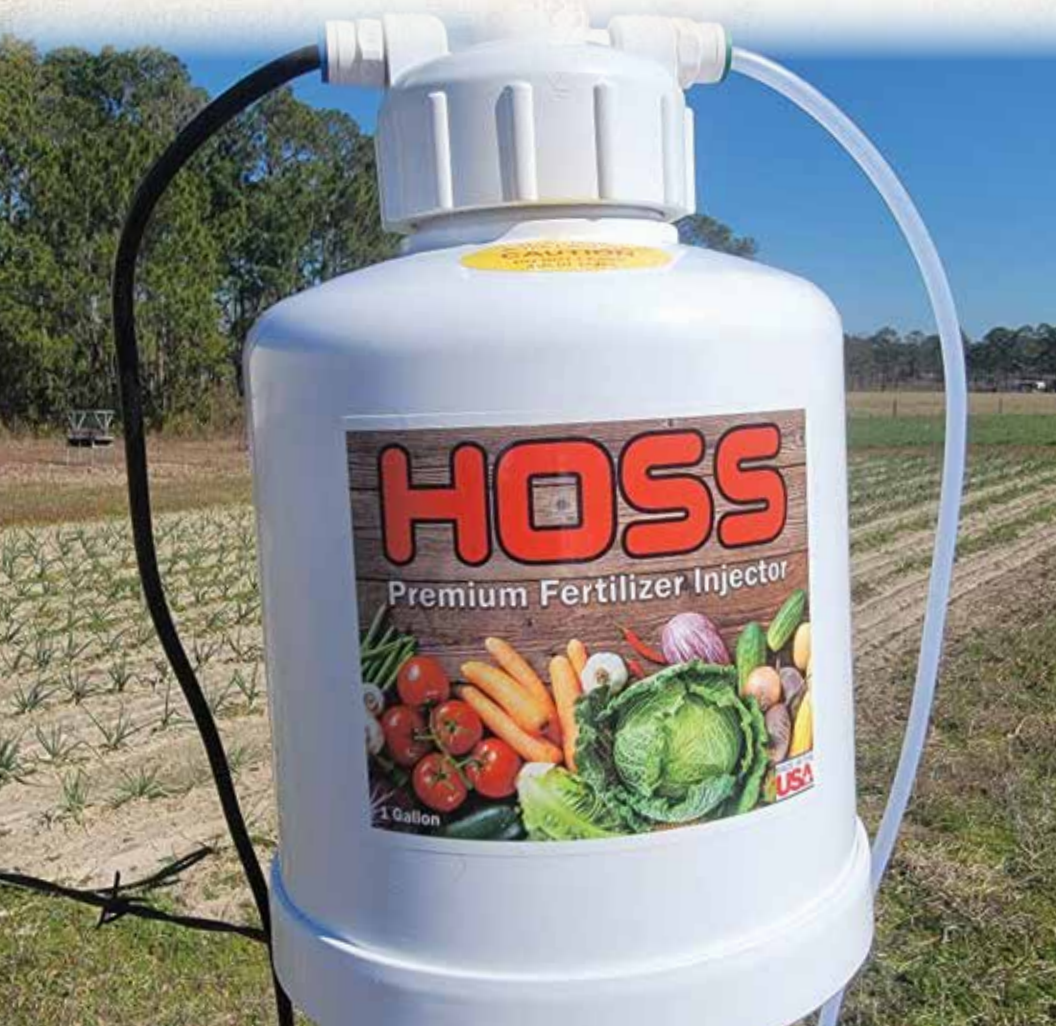


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ABOUT YOUR NEW FERTILIZER INJECTOR

1 Gallon Liquid / 8 Pounds Dry Capacity

The Hoss Fertilizer Injector allows you to feed your garden while you water, ensuring a constant proportion of fertilizer is being administered to your plants. This will save you a tremendous amount of time and energy by allowing you to water and fertilize simultaneously. The injector works great with drip irrigation systems because it puts the fertilizer at the roots of the plants — right where they need it.

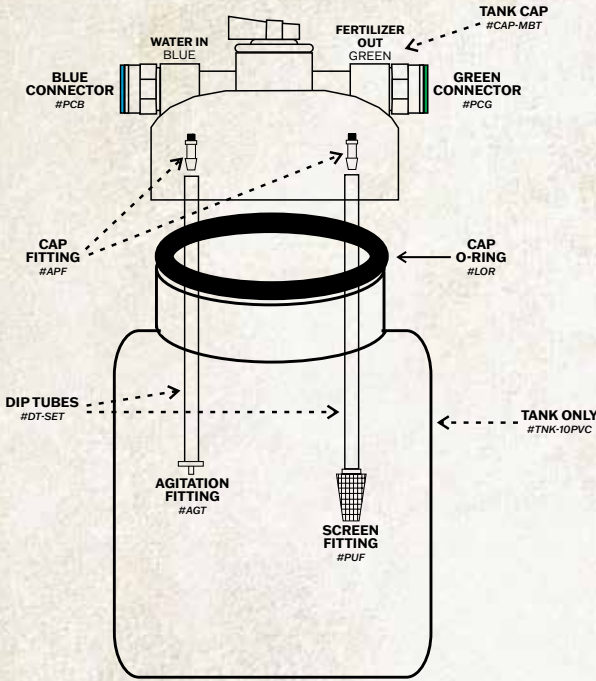
CAUTION: Installing your system improperly can cause risk of water contamination and pose health risks. Do not attach your feeder to a hose bib or sprinkler line that does not have an anti-siphon device like a back flow preventer. Back flow preventer is not included with system and is sold separately.

Do not install system into an irrigation main line before a zone valve. Do not install or leave system under constant pressure (with water on and no flow out of your garden hose or drip system) or if pressure exceeds 80 PSI. Flush hose after each use to vent chemicals and pressure. Empty tank when freezing conditions are present. Limit exposure to UV whenever possible to extend the life of the components.

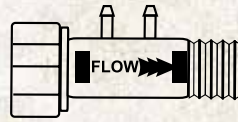
FOR ADDITIONAL INFORMATION, INSTRUCTIONAL VIDEOS,
REPLACEMENT PARTS, AND MORE, VISIT US AT
WWW.HOSSTOOLS.COM

OR CONTACT CUSTOMER SERVICE AT
1-888-672-5536 OR CUSTSERV@HOSSTOOLS.COM

TANK ASSEMBLY & PARTS LIST



INCLUDED PARTS



- (1) Brass Hose Bib Connector #3060-CG



- (1) Flo-Disc Set #K-INSKFD
1 EACH RED, BLACK, & WHITE DISC



- (2) Tubing Valves #TVLV
- (5 Ft.) Clear 1/4" Tubing #CTS
- (5 Ft.) Black 1/4" Tubing #BTS

SOLD SEPARATELY



- Back flow Preventer

The Back flow Preventer uses a vacuum-breaking system to prevent polluted water from entering your water source via back-siphoning.

FOR ADDITIONAL PARTS OR REPLACEMENT PARTS, VISIT
[hosstools.com/product-category/replacement-parts/](https://www.hosstools.com/product-category/replacement-parts/)

CAP TUBE FITTINGS: INSERT & RELEASE

The Injection System uses push connect fittings to connect the clear and black 1/4" tubing to the cap.

TO INSERT TUBING INTO CAP

STEP 1 - Insert the end of the tubing into the appropriate side (Clear to Green/Out and Black to Blue/In) by pressing into the hole/Collet. Press gently until the tubing stops.

STEP 2 - Gently tug the tubing to ensure it is securely locked into place.

TO REMOVE TUBING FROM CAP

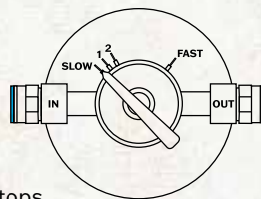
STEP 1 - Shut off pressure to the system.

STEP 2 - Apply gentle pressure to the Green or Blue Collet with your fingers.

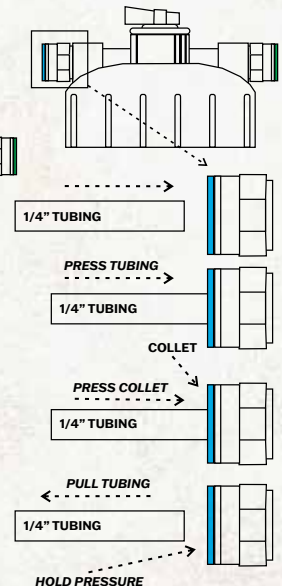
STEP 3 - While holding pressure, gently pull the tubing away from the fitting to release.

NOTE: Make sure to direct the fitting away from your face and body. A small amount of residual pressure may be in the tank and cause a momentary release of fluid.

TOP VIEW



SIDE VIEW



INSTALLING YOUR INJECTION SYSTEM

STEP 1

Determine the type of installation that is correct for your system (hose or drip) and insert the correct Flo-Disc if necessary (see “Flow Requirements Section”).

STEP 2

Install the Hose Bib Adapter in the correct position as shown in the illustrations.

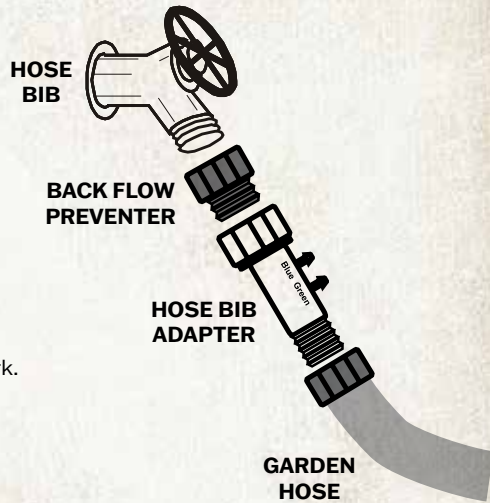
STEP 3

Attach tubing to the Hose Bib Adapter fitting. Slide the Black Tubing over the barb next to the Blue mark carefully to avoid stressing the fitting. Repeat with the Clear Tubing next to the Green mark.

STEP 4

Attach tubing to the white tank cap. Do not remove the fittings. To install press the tubing into the hole until it stops. Light pressure is required, do not stress the fittings.

GARDEN HOSE



ADDITIONAL INSTALLATION NOTES

A back flow preventer (sold separately) should be installed to use an injection system per local plumbing codes.

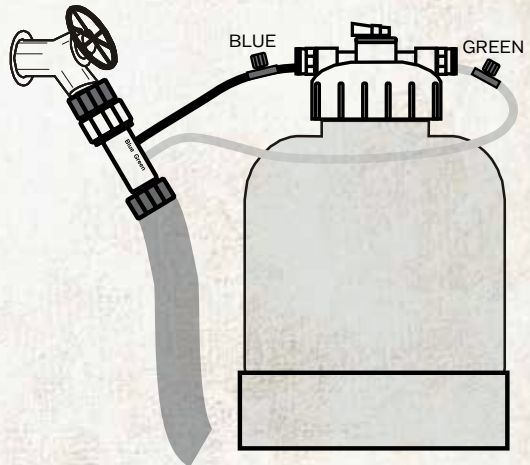
When possible the Hose Bib Adapter fitting should always be the last component installed in any configuration. Timers, filters, and pressure regulators may be installed after the Hose Bib Adapter.

The included Tubing Shut Off Valves (TVLV) may be used to shut off the unit. These can be installed in the clear and black tubing at any point. Tubing valves normally drip under pressure, this will not affect the operation of the injector.

Injector includes 5 ft of clear and 5 ft of black tubing, you may trim tubing to necessary length.

A timer may be installed before or after the hose bib connector.

COMPLETED INSTALLATION



GARDEN HOSE & DRIP SYSTEMS

Drip systems with less than 120 gallons per hour (GPH) water flow may require an Flo-Disc in order to inject solution into the drip system. There are three discs provided in the kit for these conditions.

NOTE

The Flo-Disc is not intended for pressure reduction and cannot be used for this purpose. The Flo-Disc will create a stronger bypass through the tank to speed up injection at lower water flow rates.

IMPORTANT

You must have colored fertilizer in the injector tank or food dye to adjust the system. Let the system run for a few minutes to make sure the fertilizer is not flowing before installing or changing the Flo-Disc. If there is no color in the clear tube, the system is not flowing and a more restrictive Flo-Disc is required for operation. When using a Flo-Disc, pre-dilute products 3 parts water with 1 part product (25% Strength).

White Flo-Disc - 120 to 60 gph

Black Flo-Disc - 60 to 30 gph

Red Flo-Disc - 30 to 7.5 gph

STEP 1

Estimate your water flow by multiplying the number of drip emitters on your system by their gallons per hour flow rating. (If you do not know your water flow you can use trial & error starting without a Flo-Disc. If no color is present in the clear line insert a Flo-Disc starting with the white.

STEP 2

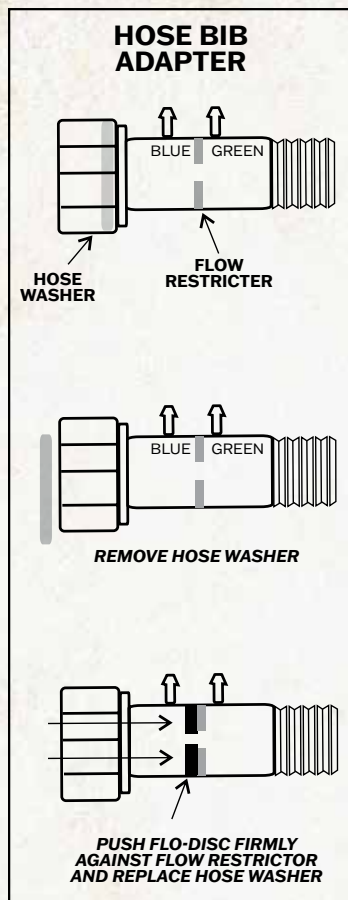
Remove the Hose Washer from the swivel nut on the Hose Bib Adapter. For easy removal, use pliers to grab the O-Ring tab or a plain end screw driver.

STEP 3

Push the proper Flo-Disc into the Hose Bib Adapter until it presses firmly against the Flow Restrictor in the center of the Hose Bib Adapter. The water flow will hold the Flo-Disc in place.

STEP 4

Replace the Hose Washer and follow steps 2 through 4 in the "Installing your Injection System" in these instructions.



ADDING FERTILIZER & FEEDING SETTINGS

1 Gallon Liquid / 8 Pounds Dry Capacity

TYPICAL COVERAGE RATES

Water Soluble Products - 1 lb per 1000 sq. ft.

Liquid Products - 2 cups per 1000 sq. ft.

Hoss Tools does not provide application recommendations for products not listed on the Hoss Tools website.

IMPORTANT:

The fertilizers sold by Hoss Tools are approved to be used in the Injector System due to their Greenhouse Quality. Not all fertilizers meet the same specifications and should be inspected thoroughly for quality before using in your injection system.

STEP 1

Add the fully concentrated product and select the appropriate cap setting based on the manufacturers recommended coverage rate. Products do not require dilution or premixing unless using a Flo-Disc or the manufacturer's recommendation.

STEP 2

Fill the tank with water until all air is out of the tank. The system will mix the products automatically when the water is turned on.

STEP 3

Screw cap onto the tank and connect tubing to the cap and Hose Bib Adapter. Cap and tubing connections are color coordinated, connect blue to blue and green to green. The tubing slides over the connectors on the Hose Bib Adapter and into the connector on the cap.

STEP 4

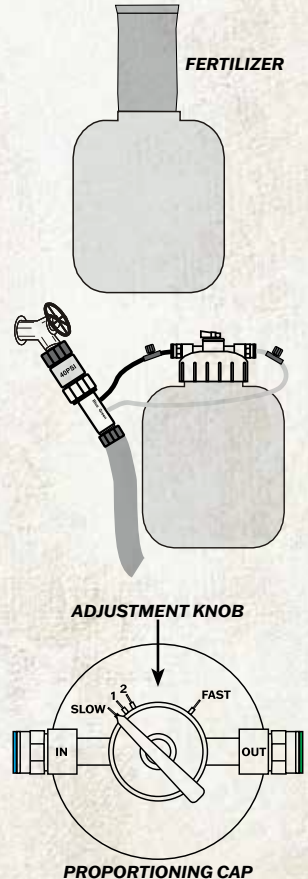
Set the flow adjustment on the proportioning cap to Fast Feed for quick feeding and to Slow Feed to feed slowly every time you water. You can also feed at these approximate rates (rates will vary due to product variations)

Slow	1000:1	2/3 tsp. per gallon
#1	500:1	1 1/3 tsp. per gallon
#2	250:1	1 Tbsp. per gallon
Fast	100:1	2 Tbsp. per gallon

TO REFILL

Shut off pressure to tank, remove tubing from the cap, remove cap from the tanks, pour the water out of the tank and go to step one above.

HOSS RECOMMENDED FERTILIZERS



ADVANCED FEEDING GUIDE

The chart below is intended to be used for a reference to assist in calibrating your injection system to other manufacturers products.

USING THE CHART

The gallons to empty at a given setting indicates the total water that will be mixed with your concentrated product before the contents are completely used. If you need to figure ounce per gallon or tablespoons, you would reference the "Gallons to Empty" section of the chart.

EXAMPLE

Fertilizer bag wants you to apply 1 tablespoon of product per gallon of water and you want to apply quickly. If you use the Fast setting, it will take 75 gallons to empty the tank. You then need to add 75 tablespoons to the tank, top off with water, and use the Fast setting until the color runs out. The same example above, but with a Flo-Disc installed, on the Fast setting the tank would run out in 19 gallons of water. To get 1 tablespoon per gallon, you would need to add 19 tablespoons to the tank and top off with water.

NO FLO-DISC / STANDARD HOSE BIB

Feed Rate	Ratio	Tank Capacity	Gallons to Empty
Slow	1000:1	1 gallon	1000 x 1 = 1000
#1	500:1	1 gallon	500 x 1 = 500
#2	250:1	1 gallon	250 x 1 = 250
Fast	100:1	1 gallon	100 x 1 = 100

WITH ANY COLOR FLO-DISC

Feed Rate	Ratio	Tank Capacity	Gallons to Empty
Slow	250:1	1 gallon	250 x 1 = 250
#1	125:1	1 gallon	125 x 1 = 125
#2	62.5:1	1 gallon	62.5 x 1 = 62.50
Fast	25:1	1 gallon	25 x 1 = 25

Notes: All feed rates are approximate and not guaranteed by Hoss Tools due to the high amount of variables resulting from differences in irrigation system configuration, product quality, viscosity, and specific gravity. Feed rates and ratios are provided for convenience only. Injection feeders should be used for general application of liquid and water soluble products only and are not marketed as a direct replacement for chemical siphon feeders.

For safe fertilizing practices Hoss Tools recommends the plants be fed at half or 50% of the manufacturers recommended amount for the first application to prevent any damage to the plants or landscape.

TROUBLESHOOTING

WHAT PRODUCTS CAN I USE WITH THE SYSTEM?

Any liquid or water soluble powder may be used in the system. Water soluble powders do not need to be dissolved to work in the system. The Injection process dissolves, mixes, and measures for you. If your product is clear you must add food coloring or dye so the product will be visible in the clear output tube.

HOW DO I KNOW WHEN THE FERTILIZER IS GONE?

When the system is operating (water flowing) the clear tube will fill with the color of your fertilizer. When the system is operating and the tube is running clear, turn the proportioning cap setting to fast, if still clear, the system is out of fertilizer.

MY FERTILIZER IS GONE BUT THE TANK IS FULL OF WATER

The Injection system will always be full of fluid since it replaces the product with fresh water utilizing a patented process to layer the incoming water over the heavier fertilizer solution. This process is similar to oil on water or whipped cream on gelatin.

HOW DO I KNOW THE SYSTEM IS WORKING?

When water is flowing through your garden hose or drip system, the color from the fertilizer will completely fill the clear tube. The color depends on the fertilizer or dye color. The color in the tube may be lighter or darker depending on how much fertilizer was put into the tank and/or the injection setting selected on the cap. If you have a full tank of fertilizer and do not see color in the clear tube with the cap set to fast, refer to the Installation and Flow Requirements sections.

MY SYSTEM IS RUNNING BUT THE LINE IS STILL CLEAR

- First check that your system has water flowing and is not just under pressure. The tube will only show color when the water is flowing.
- Make sure the tank was filled with the proper amount of fertilizer and dye was added if the fertilizer did not contain a dye. Also, confirm all air was removed from the tank by topping off with water.
- Check that the included Hose Bib Connector is installed according to the Installation section. You may need to rearrange your filter, pressure regulator, and/or timer so our injector fitting is last in the configuration.
- Check the Flow Requirements section to determine if you need a Flo-Disc or that the correct Flo-Disc was selected.
- If installed in a sprinkler line adjust the ball valve connector (CBV, sold separately) according to the instructions provided with the connector. If the system was installed in a sprinkler line and a coupling ball valve (CBV) connection was not used, one must be installed for proper function.

MY SYSTEM IS FEEDING TOO FAST

Check that you have selected the appropriate feed setting. Also, if using a Flo-Disc during installation, make sure the proper disc was selected. Any Flo-Disc will speed up the injection rate of the system. If using a coupling ball valve connection (CBV) for irrigation pipe, make sure the valve is properly calibrated. Refer to the CBV instruction manual or Hoss Tools website for further calibration instructions.

RETURN POLICY

- Hoss Tools will pay for all standard shipping costs, charge no restocking fee, and accept all returned items when the return is a result of our error.
- Unopened items within 30 days of delivery will receive 100% refund or exchange.
- Opened items within 30 days of delivery will be charged a 10% restocking fee.
- Requires proof of purchase.
- You must call for a return authorization prior to returning any product.
- Items received without authorization will not be accepted.