

Used by
Professionals

BioFeeder™ S-Series

AUTOMATIC FERTILIZER FEEDER

Installation Guide



S-2, S-5 and S-20 BioFeeder™ Systems

Applying Biofeed® products just got easy! Once installed, simply fill your BioFeeder™ each month with the recommended Biofeed® soil building fertilizer to suit your yard or landscape needs. Let your irrigation system do the rest! It's easy, and it's automatic!

Rest assured, with each watering your entire landscape from the soil up is fertilized - automatically! Experience beautiful flowers that will make your neighbors wonder, and have the naturally greener lawn, trees and shrubs that you want.....and **use less water!**

BioFeeder™ is available in 2, 5, and 20 gallon tank sizes to satisfy the nutritional needs of most residential and commercial landscapes. At a low adjustable output, you'll never "over-feed" your valuable plants, flowers or lawn, and you won't under-feed because Biofeed® products don't easily wash away. Biofeed® fertilizers undergo a series of biological changes or conversions in the soil where they feed beneficial soil microbes and support healthier plant growth.

Biofeed®
FERTILIZERS

Included with your new BioFeeder™ Fertilizer Injector System is: One (1) high-quality welded stainless steel pressure tank with screw-on cap, tubing, shut-off valves, control valve, black injector lance, drill bit, and mounting clamp.

Tools and materials required for installation:

- Electric drill (use the provided drill bit)
- Hack-saw
- Shovel

There is NO NEED to cut your plastic irrigation pipe. Follow the directions below for quick and easy installation of your new BioFeeder™ S-Series Fertilizer Injector System.

INSTALLATION PROCEDURE

1. To install your new BioFeeder™, TURN OFF THE IRRIGATION WATER at the backflow prevention device and Turn on one of the sprinkler valves to relieve the water pressure in the irrigation system.
2. Using a shovel, dig down to and around the PVC/plastic irrigation piping below ground on the down-stream side of the back-flow prevention device. Expose at least 12" of the main irrigation PVC/plastic pipe coming out of the back-flow preventer that supplies water to the sprinkler system.



Fig-A.

3. After digging to expose the PVC pipe, thoroughly clean the pipe and sand or file any burrs or raised ridges from the exposed pipe.
4. Using your power drill with the provided drill bit, drill a hole in the TOP SIDE OF THE PIPE—ONLY as in **Fig-A**.

5. Before installing the black injector lance, determine the pipe size. THOROUGHLY review the diagram in **Fig-D** to determine the EXACT CUT-OFF LENGTH of the black injector lance to fit your specific pipe size. Determine your actual pipe size and place your black injector lance on the cut-off diagram located on **Fig-D**. Mark the cut-off point, and using a hack-saw cut the black injector lance as indicated for your pipe size. Failure to follow these instructions may damage or destroy the black injector lance.

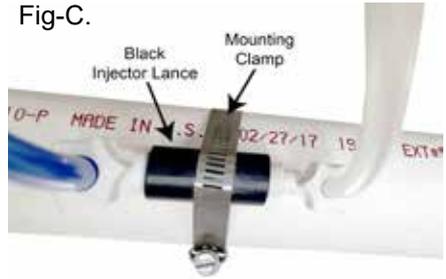


Fig-B.

6. Once the black injector lance is cut to the proper length, clean and insert it into the drilled hole in the pipe. Make sure the directional arrow located on the side of the black injector lance is pointed in the direction of water flow. **See Fig-D.** (NOTE: Water flows AWAY from the back-flow prevention device.)

- Place the provided mounting clamp around the pipe and black injector lance, and bring the ends of the mounting clamp together to begin tightening the mounting clamp in position as shown in **Fig-B**. Then, using a flat screwdriver, firmly tighten the mounting clamp around the pipe and black injector lance to compress the o-ring located under the top section of the black injector lance.

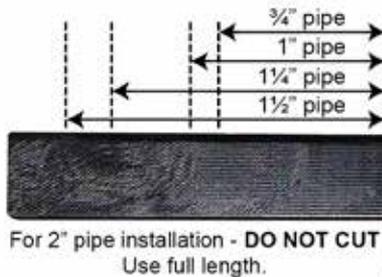
Fig-C.



- Make sure to tighten the mounting clamp sufficiently to compress the o-ring onto the pipe, and as it is tightened, keep the black injector lance in direct line with the pipe as in **Fig-C**. **DO NOT USE A WRENCH TO TIGHTEN THE MOUNTING CLAMP, AS THIS MAY OVERTIGHTEN THE MOUNTING CLAMP AND DESTROY IT.**

Fig-D. (Black Injector Lance)

For ¾", 1", 1¼", 1½" pipe installation, cut lance to the length indicated below.



- Image is shown actual-size.
To determine the correct cut position, simply lay the black injector lance over the image and mark the cut.



- Your BioFeeder™ tank may now be installed above ground in a secure location, or it may be installed below ground inside of a sprinkler valve box that is large enough to allow the tank to be removed to pour out water that remains in the tank following each feeding cycle. The tank should always be placed on level ground.
- You may back-fill with clean soil over the black injector lance and a small amount of tubing. Leave the majority of the tubing that leads to the BioFeeder™ tank exposed to allow the unit to be moved easily to empty water from the tank. We suggest that if possible, the injector be installed above the black injector lance if the irrigation main pipe is deep enough to allow for this. If it is not, then install your BioFeeder™ away from direct sunlight and as close to the installed black injector lance as possible.

11. Turn the BLUE shut-off valves located on the BioFeeder™ tank to the closed position (pointed down).
12. Open the black tank fill-cap and add your pre-selected Biofeed® fertilizer and soil conditioning product(s). Top the tank with water if necessary to remove all air.
13. Replace and hand tighten the fill-cap. Never use pliers to tighten the fill-cap. Turn on the water at the back-flow preventer and slowly open the BLUE shut-off valves on the tank to pressurize the tank.
14. Once your BioFeeder™ is filled and pressurized, slightly open the small bleeder screw located on the cap ¼ turn to let air out of the tank. Once air stops, using your fingers ONLY, re-tighten the bleeder screw. DO NOT USE PLIERS, as they will damage the bleeder screw.

Your BioFeeder™ is now ready to deliver Biofeed® fertilizers to your entire landscape — AUTOMATICALLY when the sprinkler system is operating.

REFILL PROCEEDURE

After your BioFeeder™ has been in operation for approximately 30-45 days, the fertilizer should be completely applied to the entire landscape. During operation, water enters the tank to displace the fertilizer as it flows from the tank into your irrigation system. Before adding Biofeed® fertilizer, the water must be removed by pouring it out.

For easier water removal, an optional battery-powered pump is available.

1. To empty water from the tank, turn off both of the BLUE valves by turning them to the closed position (pointed down). This shuts off the water pressure to the tank.
2. Once the BLUE shut-off valves are turned OFF, loosen the BLEEDER SCREW on the top of the fill-cap ¼ turn to release the tank pressure.
3. With tank pressure now released, remove the fill-cap and pour out the water.
4. Place the tank back into its position on level ground and add your pre-selected Biofeed® fertilizer.
5. Replace the fill-cap and hand-tighten the bleeder screw.
6. Open both of the BLUE shut-off valves.

Your BioFeeder™ is now operational and will begin applying Biofeed® fertilizer with the next irrigation cycle!

NOTE: Using NON-Biofeed® fertilizer products in your BioFeeder™ will VOID the WARRANTY.

WHY? Most liquid or water soluble fertilizer products (Chemical and/or Organic) may have an adverse reaction with acidic OR hard water, i.e. water high in Calcium, Magnesium, Iron, Sulfates, Humic Acids or other minerals. These will likely cause mineralization that may clog or corrode your BioFeeder™ tank and cause permanent damage.

Biofeed® fertilizers are specially formulated to flow freely and resist mineralization throughout your entire irrigation system.

For questions regarding installation or refilling of your BioFeeder™ Fertilizer System, please call your BioFeeder™ dealer or email customer@biofeed.com.

PLEASE READ THE WARRANTY FOR DETAILS.

BioFeeder™ S-Series Troubleshooting

| PROBLEM | SOLUTION |
|--|--|
| <p>Fertilizer will not dispense from BioFeeder™.</p> | <p>1.) Tubing or control valve may be clogged by dirt or debris. Turn off main water supply to the feeder, remove the plastic tubing nut that holds the 3/8" tubing on the black control valve and unscrew the control valve. Next, turn the control valve to the #5 setting and flush the control valve with hot water in both directions to clean. If the control valve cannot be cleaned with water, CAREFULLY insert a thin piece of wire to remove dirt or debris. BE CAREFUL to avoid scraping or damaging the small water passage in the control valve.</p> <p><i>Fertilizer will not dispense after following step 1:</i></p> <p>2.) Be sure to position the black injector lance so the arrow located on the side of the black injector lance is POINTED IN THE DIRECTION OF THE WATER FLOW. Reinsert the tubing following thorough cleaning. NOTE: If tubing is severely clogged, it is advisable to replace the tubing with the same type and size.</p> <p><i>If the above cleaning does not restore flow of fertilizer remove the black injector lance and tubing and thoroughly clean to remove mineral deposits:</i></p> <p>3.) In areas with hard or mineralized water, calcium, magnesium, iron or other deposits may cause plugging of the black injector lance, tubing or valves.* Before cleaning, turn off main water supply to the feeder. To remove tubing from the black injector lance, firmly and evenly press and hold down the gray retaining ring located on the top of the black injector lance and carefully pull out each tube. Remove the black injector lance to clean. DO NOT scrape or distort the black injector lance edges or ports. Reinstall the black injector lance as described in the Installation Procedures.</p> <p>* If mineral deposits continually build up on the black injector lance, contact us for additional components to reduce mineralization.</p> |
| <p>BioFeeder™ only flows when certain valves are turned on.</p> | <p>In some smaller irrigation systems, the rate or volume of water is not sufficient to push fertilizer into the main water line and onto the landscape. The solution is to combine 2 or more of these smaller valves together to allow a greater water flow rate through the main line to improve the performance of the BioFeeder™.</p> |
| <p>USE OF NON-BIOFEED® FERTILIZERS OR OTHER PRODUCTS MAY SEVERELY CLOG OR DAMAGE YOUR BIOFEEDER.</p> | <p>Use of Biofeed® fertilizers will help prevent sludge and scale buildup in the tank, fittings, and black injector lance. If clogging or buildup does occur, thoroughly clean before refilling.</p> |

BioFeeder™ S-Series Limited Warranty

Biofeed Solutions Inc, (BFS) as manufacturer, provides a limited warranty to consumer against defects in materials or workmanship of its automatic fertilizing systems (BFS Units, AKA BioFeeder™) and its component parts. BFS does not warrant units damaged by rough handling or improper installation not in accordance with printed instructions supplied with each unit. Further, BFS does not warrant any results, or lack thereof, or any damage caused by the application of fertilizers or supplements added to or otherwise used in a BFS unit or applied to any landscape or plant materials through the unit.

BFS warranty is limited to the purchase price paid by the original Purchaser ONLY and in no way shall BFS be held liable for other costs. BFS shall remain exempt from liability, whether based in tort or in negligence, for damage to turf grass, plants, trees and/or landscape materials, components and/or damages to buildings, irrigation piping system(s) or other structures or for any costs due to business interruption caused by the installation and use of BFS units. BFS limits its liability to repair, replace such BFS unit, or refund of the actual purchase price paid, at its sole option where allowed by law. See other limitations listed below.

Specific Warranty and Warranty Period

BioFeeder™ S-Series Models: S-2, S-5 & S-20 (UNIT) tank, cap, valves, flow control, tubing, connectors, black injector lance, and drill bit. One (1) year period from date of purchase.

Warranty Claim Process

If your BFS unit shows alleged defects in materials or workmanship that lead to failure of the unit, please email your situation to customercare@biofeed.com or call our service and support phone number at (602) BIO-FEED (246-3333) (Mon–Fri 8am to 4pm AZT). Our support team will review your situation during regular business hours and will provide instructions to correct your situation or refer you to an authorized BFS distributor/dealer for possible repair or replacement part(s), or support and assistance. If it appears that the problem noted is a possible warranty claim and we've agreed to send you the needed replacement parts, we will either fax or e-mail you a Warranty Claim Form and provide you with a Returned Goods Authorization (RGA) number. Once you receive this form, please complete the form fully and return it with the defective product along with the dated sales receipt. The Warranty Claim Form along with the RGA number assigned to you by BFS must accompany the returned product. *

Assuming the Warranty Claim Form and the dated sales receipt have been provided, BFS personnel will contact you within five to seven (5-7) business days after the receipt of the claimed item with the results of our inspection, and we will either replace the product, offer a credit, or provide an explanation as to why it does not qualify for replacement or credit.

**** Replacement parts will not be shipped nor shall a credit be issued until the defective item is returned and examined by BFS.***

Further Limitation of Liability

- Pressures of 110 PSI may damage or destroy the unit and must be avoided. Pressures in excess of 110 PSI will VOID the warranty. High temperature environments where summer temperatures may exceed 95° F (45° C) in combination with excessively high water pressures may cause the plastic fittings on the unit to weaken causing these components to fail. ALL BFS units should be located in a valve box or other suitable location and away from direct sunlight. BFS units should not be installed indoors without adequate drainage systems in place in the event of leaks or failure of the BFS units. BFS units are designed for use with Biofeed® fertilizers and soil conditioning products only. Use of other fertilizers and substances other than Biofeed® fertilizers in the BFS unit will void the warranty. Other fertilizers and supplements may cause mineral deposition and subsequent clogging and may also dramatically accelerate the deterioration of the pressure tank and/or other components within the BFS unit. Deterioration, clogging or other damage caused by the use of NON-Biofeed® fertilizers will not be covered under this warranty.
- Plastic components on BFS units may crack or break if the unit is handled roughly (such as over tightening of fittings, etc.). **ONLY HAND-TIGHTEN PLASTIC BLACK INJECTOR LANCE UPON INSTALLATION.** BFS does not warranty products that have been over-tightened, dropped, abused or damaged in transit. BFS sells replacement components should a customer need a replacement part that is not covered by this warranty.
- Failure to follow normal winterizing procedures shall void this warranty. The hydraulic effect of freezing water may weaken or damage some of the Product components. Following standard irrigation winterizing methods is advised and should be applied.

Other Specific Notices

- BFS units may not operate in irrigation systems with extremely low water flow conditions or due to improper installation. Excessive bends, tees and elbows in the irrigation system and the use of pipe reducers, except those that may be specified by BFS, may cause water turbulence in the pipe line and cause the unit to flow improperly. This is not a warranty problem, but an installation problem. See page 5 for the troubleshooting guide, or contact your authorized Biofeed® products distributor/dealer directly to assist in troubleshooting specific problems with the system.
- ALL BFS units must be installed down-stream from an approved back-flow prevention device to prevent contamination of drinking water.



Safety — Our First Concern

Because of the potential for water-main or irrigation system breaks, your BioFeeder™ should be installed on the water line that supplies all of your sprinkler control valves, and after or downstream from the back-flow prevention device that keeps your irrigation water from backing up into the city water system should a breach in the system occur.

Installation and Maintenance

All installation instructions for set up, maintenance and refilling your BioFeeder™ is included with each unit, and once it is connected simply turn on the water and it feeds your entire landscape — automatically!