



FAST[®] Owner's Manual

FOR USE WITH

(NSF Std 40 & 245) **MicroFAST[®] 0.5, 0.625, 0.75, 0.9, 1.5**
(non-NSF certified) **MicroFAST[®] 3.0, 4.5, 9.0**
(ETV/EPA tested) **RetroFAST[®] 0.150, 0.250, 0.375**
NitriFAST[®] 0.5, 0.625, 0.75, 0.9, 1.5, 3.0, 4.5, 9.0
HighStrengthFAST[®] 1.0, 1.5, 3.0, 4.5, 9.0



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FAST, MicroFAST, NitriFAST, HighStrengthFAST, and RetroFAST are registered trademarks used under license.

Dear FAST[®] System Owner

Congratulations! You have a FAST[®] wastewater treatment system installed on your property.

At the forefront of green technology, the FAST[®] System by Bio-Microbics meets the highest industry treatment standards. Based on environmentally sound and simple scientific principles, the FAST[®] process is our continued commitment to improve small onsite treatment capabilities. You can take pride in knowing that, with the FAST[®] system, you will help ensure a clean environment for future generations.

Please take time to read this FAST[®] Owner's Manual, you will learn important safety precautions, review detailed information on proper use and care of your system. Designed for minimal operator attention, the FAST[®] System contains only one moving part – the blower. By consistently following a maintenance schedule and being mindful of what can go down your drains, you can enjoy the lasting benefits FAST[®] Wastewater Treatment System for decades to come.

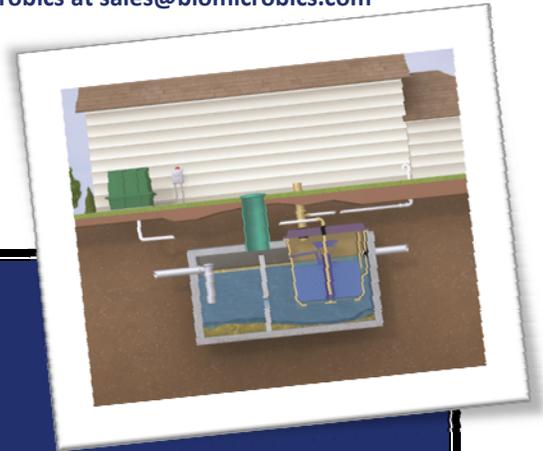
Top things you can do to prolong the life of your system:

1. Have the FAST[®] system inspected and tank pumped as necessary.
2. Keep track of the substances entering your system, please review the list of Do's & Don'ts (see other side for poster).
3. Keep the FAST[®] System operating - do not turn off the blower.
4. Care for your drain field or irrigation system (if incorporated into your FAST[®] System).

If you should desire any further assistance, please contact Bio-Microbics at sales@biomicrobics.com or call us at 800-753-FAST (3278).

Thank you again for using FAST[®]!

Sincerely, *Bio-Microbics Team*



Certified to NSF/ANSI Standard 40

NSF INTERNATIONAL CERTIFIED SYSTEMS SERVICE POLICY

All NSF (National Sanitation Foundation) Standard 40 Class I and 245 certified wastewater treatment systems (MicroFAST[®] 0.5, 0.75, 0.9, 1.5) have an initial two-year service agreement included with the system's initial purchase price (two service calls per year). The NSF service calls **ONLY** cover NSF Standard 40 certified systems; other components of the septic system are NOT covered.

If there are any deficiencies in the FAST[®] system's operation or components, the service person will notify the owner in writing and detail when these deficiencies can be fixed.

The company listed on the blower housing or control panel label performs this service. During an NSF service call, the service company shall inspect the blower for proper operation, visually inspect the system's effluent for clarity, clean the blower air filter and assure proper function of the control panel. If these service calls are not performed on your NSF certified system, or not all of the items are checked, please call Bio-Microbics at:

800-753-FAST (3278) or (913)422-0707

For continual service of NSF certified systems beyond the first two years, an extended service agreement is available through your local Distributor or current service provider. This policy should provide the same services and may include any additional service that are required by local regulation.

OWNER'S MANUAL

FOR USE WITH FAST[®] SYSTEMS:

(NSF[®] Std 40/245 cert.) MicroFAST[®] 0.5, 0.625, 0.75, 0.9, 1.5
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GENERAL INFORMATION

All FAST[®] products are ETL certified for safety (electrical, environmental, etc.). One or more of the following patents protects this process: 3,966,599; 3,966,608; 3,972,965; 5,156,742. Certified by NSF International, the MicroFAST[®] 0.5, 0.625, 0.75, 0.9 and 1.5 systems meets NSF Standard 40, Class 1 and Standard 245 certifications for wastewater treatment devices. If you have questions regarding any Bio-Microbics products, please contact us:

800-753-FAST (3278) or (913) 422-0707
e-mail: onsite@biomicrobics.com

About FAST[®]: The FAST[®] (Fixed Activated Sludge Treatment) system uses naturally occurring bacteria (biomass) to treat sewage for dispersal into the environment. This continuous process provides the biomass with waste (food) and air in a suitable environment. Dead bacteria and non-biodegradable waste settle and accumulate in the bottom of the tank for periodic removal.

The FAST[®] process consists of the treatment module and blower. The blower provides air to the system via the air supply pipe. The air supply pipe and draft tube create an air lift. The air lift mixes oxygen and waste throughout the media inside the tank. Bacteria grows on the media and digests the waste. A vent pipe expels harmless vapors created by the process.

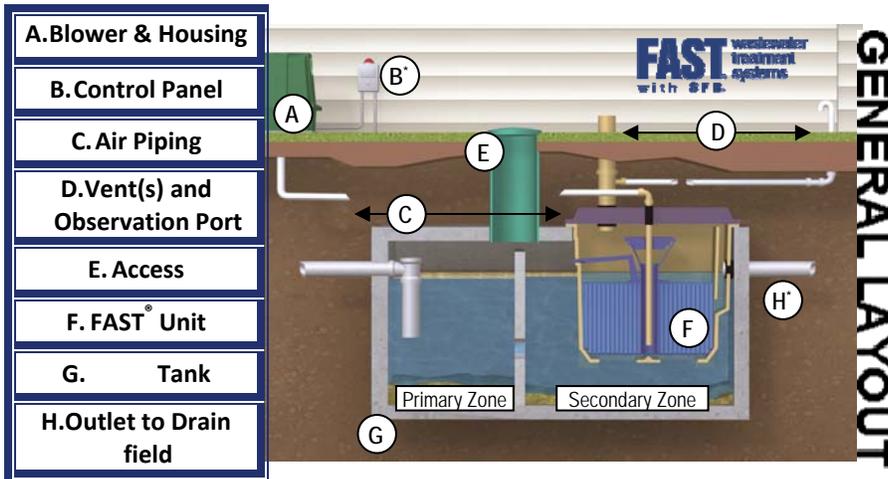
INTRODUCING SUBSTANCES INTO THE SYSTEM: While the FAST[®] wastewater treatment system will process most waste produced by the average household, introducing large amounts of substances into the system may reduce the efficiency of the system or stop the treatment process by destroying the biomass. These substances can be grouped as: prohibited substances and limited-use substances. Please refer to the "DO'S AND DON'TS" list to get familiar with **What You Can Put Down the Drain** to maximize the system's efficiency and reduce the time period between septic tank pump-outs.

In general: *IF A SUBSTANCE IS HARMFUL TO HUMANS OR IS ANTI-BIOTIC IN NATURE, IT SHOULD NOT BE PUT INTO ANY SEPTIC SYSTEM - INCLUDING FAST[®].*

IF YOU HAVE A QUESTION REGARDING THE EFFECT OF A PARTICULAR SUBSTANCE ON THE FAST[®] SYSTEM, CALL YOUR BIO-MICROBICS SERVICE TECHNICIAN.

SYSTEM COMPONENTS

The FAST[®] wastewater treatment system typically includes the following components:



***PLEASE NOTE:** Adequate pump out must be provided for primary and secondary zones. There may be ancillary equipment associated with your system: pump(s) (before and/or after the FAST[®] unit), a distribution box, a disinfection system, an irrigation system, a remote alarm, or auto dialer, etc.

WARNING

DO NOT ENTER THE SEPTIC TANK. Hazards exist in a septic system. All precautions must be followed when inspecting the system. Keep tank openings covered at all times. Failure to do so could result in severe sickness or death. Lethal gases, high voltage electricity, and other deadly hazards can be associated with the system. DO NOT use an open flame or cause a spark near a septic tank's access points. Gases emanating from septic tanks can explode if ignited or deadly if inhaled.

WARNING

Only authorized, qualified service personnel should service a septic system; open access ports; and/or open covers to a septic tank. Infectious organisms exist in a septic tank. If any contact with wastewater occurs, immediately wash and disinfect all exposed areas and contact personal physician.

MAINTENANCE & SERVICE

WARNING

Only qualified service staff should open access ports and/or covers. Infectious organisms exist in a septic tank. If any contact with wastewater, immediately wash and disinfect all exposed areas and contact personal physician. Failure to do so could result in severe sickness or death.

CAUTION

Avoid pumping down a tank after periods of heavy rain or when the ground water is likely to be above the bottom of the concrete tank. Emptying the tank under these conditions could cause the tank to float up and become dislodged.

As the FAST[®] system processes the raw domestic waste (producing sludge and sloughed-off bacteria), the dead bacteria and non-biodegradable waste settle and accumulate in the bottom of the septic tank for periodic removal. The periodic removal time interval will change depending on the size of the system and varying load conditions.

Tank Pumping Procedure: As Required by Measurement of Sludge Depth

To determine the sludge depth accurately, open up the access ports/cover(s) to the primary zone (settling compartment), insert a sludge-measuring instrument, and take samples. If sludge is 18" (inches) deep or takes up 75% of the area below the port connecting settling compartment to secondary zone (which contains the FAST system), have the tank pumped out. All stricter, applicable regulations supersede these operational directions.

Also, check the sludge depth of the secondary zone. Open the access ports/cover(s) to the secondary zone and measure sludge depth. If sludge depth in the secondary zone is greater than 14" (inches), it is necessary to pump the bio-solids out.

CAUTION

Always pump out both zones of the system even if only one zone may require it.

Continued - Tank Pumping Procedure: As Required by Measurement of Sludge Depth

1. Open the access ports/cover(s) and insert the hose. Be sure to **pump out both settling and treatment chambers** of the system.
2. Once the unit has been pumped out, **immediately refill the tank with clean water** to reduce the risk of the tank floating and to minimize the impact on treatment. Close the access ports/cover(s) making sure it is watertight.
3. **Properly dispose of the solids** in compliance with local and state regulations.

SEASONAL/INTERMITTENT USE PROPERTIES FAST[®] wastewater treatment system will function normally during short periods of inactivity, even if there is no wastewater flowing to the system. The power to the system should be left on during this time. Typical examples of extended periods of intermittent use and suggested operational procedures:

- **Summer use property** (shut down all winter) - blower should be turned off at end of summer and restarted upon return.
- **Weekend property** (used at least once every three weekends) - maintain normal operation or utilize FAST's SFR[®] blower timer feature on control panel. Consult your service provider and local regulations prior to any system changes.

Check with local regulations before attempting: If property is seldom used and blower is shut down completely for an extended period of time (i.e. summer use only), we suggest to arrange through your local service provider restarting the blower a week or two prior to returning to the property.



WARNING

Only authorized service personnel should service a septic system and its components. Deadly hazards such as lethal gases and high voltage electricity are associated with the system.



CAUTION

Introducing harmful or damaging substances into the FAST system may void the warranty.

LIMITED WARRANTY

Bio-Microbics, Inc. warrants every new residential FAST[®] system against defects in materials and workmanship for a period of two years after installation or three years from date of shipment, subject to the following terms and conditions, (Commercial FAST system for a period of one year after installation or eighteen months from date of shipment, whichever occurs first, subject to the following terms and conditions):

During the warranty period, if any part is defective or fails to perform as specified when operating at design conditions, and if the equipment has been installed and is being operated and maintained in accordance with the written instructions provided by Bio-Microbics, Inc., Bio-Microbics, Inc. will repair or replace at its discretion such defective parts free of charge. Defective parts must be returned by owner to Bio-Microbics, Inc.'s factory postage paid, if so requested. The cost of labor and all other expenses resulting from replacement of the defective parts and from installation of parts furnished under this warranty and regular maintenance items such as filters or bulbs shall be borne by the owner. This warranty does not cover general system misuse, aerator components which have been damaged by flooding or any components that have been disassembled by unauthorized persons, improperly installed or damaged due to altered or improper wiring or overload protection. This warranty applies only to the treatment plant and does not include any of the structure wiring, plumbing, drainage, septic tank or disposal system. Bio-Microbics, Inc. reserves the right to revise, change or modify the construction and/or design of the FAST system, or any component part or parts thereof, without incurring any obligation to make such changes or modifications in present equipment. Bio-Microbics, Inc. is not responsible for consequential or incidental damages of any nature resulting from such things as, but not limited to, defect in design, material, or workmanship, or delays in delivery, replacements or repairs.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. BIO-MICROBICS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO REPRESENTATIVE OR PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY OR TO ASSUME FOR BIO-MICROBICS, INC., ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS.

Contact your local distributor for parts and service.

EXTENDED SERVICE AFTER THE FIRST TWO YEARS

An Extended Service Policy is available and may be purchased through your local Bio-Microbics distributor. The extended service policy should provide the same service checks as the initial NSF service policy, sludge accumulation levels in the septic and FAST tanks, and perform any additional service required by local regulation. Extended service on NSF certified systems should be performed twice per year.

Keep for Your Records



FAST® System Serial Number: _____

System Designer Name: _____

Designer Phone: _____

Health Official Name: _____

Health Official Phone: _____

Manufacturer Name: Bio-Microbics, Inc.

Manufacturer Phone: 1-800-753-FAST (3278)

Installed By: _____

Installer Phone: _____

Maintenance Provider Name: _____

Maintenance Provider Phone: _____



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