



LMOEM1-NT

[User Manual]

Please refer to your Parts Inventory Sheet when installing your marker.

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IMPORTANT:

YOUR SMUCKER FOAM MARKER COMES WITH A 2 YEAR MANUFACTURES WARRANTY. PLEASE SAVE YOUR RECEIPT FOR PROOF OF PURCHASE. CONTACT THE DEALER THAT YOU PURCHASES YOUR FOAM MARKER FROM WITH ANY WARRANTY ISSUES.

You can visit our smuckermfg.net website page for reference to all foam marker parts and diagrams. If you still have questions, give us a call and we can even help you locate your closest Smucker dealer.

Also, visit www.smuckermfg.net or ask your dealer about the other product lines we offer. We offer premium products at an affordable price. Take a look at our Weed Wipers, Calf Warmers, and VisionWorks camera systems for farm equipment on our website.

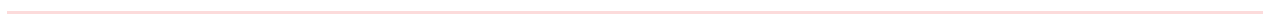
www.smuckermfg.net

www.redweeder.com

www.visionworkscameras.com

Mobile website for VisionWorks Cameras

Smucker Mobile website

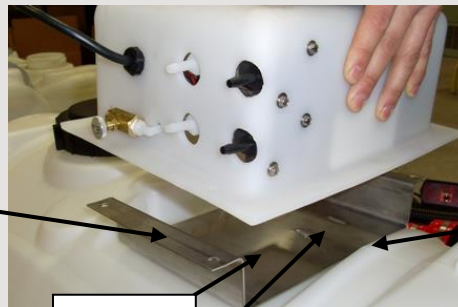


Installation Instructions

Thank you for purchasing a LandMark™ Foam Marker, it has been built to produce high-quality foam marks with minimal service. In addition to producing great foam, the LandMark™ is also capable of keeping pace with high-speed sprayers. For best results, please read and follow the installation and operating instructions below. Please refer to your Parts Inventory Sheet when installing your marker.

Step #1 Mounting your Pump Assembly

The first step is to screw your mounting bracket onto your tank with the SS Bolts & washers provided. Note: depending on your tank, you may not be able to mount your pump assembly on top of your tank, you may need to mount directly onto your sprayer, or another secure position.



Mounting
Bracket

Screw
Inserts

This is how we suggest you mount your pump assembly.

Now that your mounting bracket has been securely fastened, use 1/4" tubing (**not provided**) to run from your pump assembly (as pictured below) into your tank with an inline filter. You may need to drill a hole into your to insert your pickup line.



Place on the end of your tubing inside your tank



Run 1/4" line from here to your tank with inline filter on the end.

Finally, attach your pump assembly (LM0003-OEM-NT) to your mounting bracket with the following parts (NB5825, NBSSLO, NBSSNU).

Use all 4 bolts to mount the pump assembly (2 on each side).



Step #2 Wiring to Power & Installing Switchbox

Next, you will need to route the power lead to the operator's area and mount the switch box (EL8103) with the provided zip ties or use **your own mounting hardware**. Mount in an area that is easily accessible. Make sure that you do not allow the wire to come into contact with any sharp, hot, or moving surfaces.

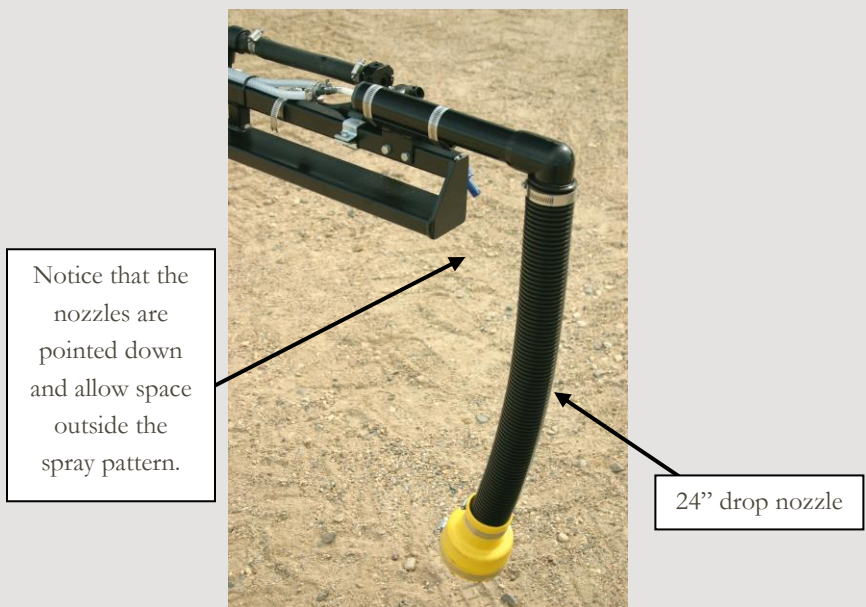


Route the power lead to a 12v power source by connecting the red wire to positive and the black wire to negative. Connecting the wires backwards will destroy your solenoids and void your warranty. To power your switchbox simply run your 24 ft. cable from the tank assembly to your **push to connect cord** on your switch box.

Note: If two 6v batteries are used, connect the red wire to the positive post connected to the starter, and the black wire to a ground. We have included a wiring schematic in your catalog and our website (FAQ) for your reference.

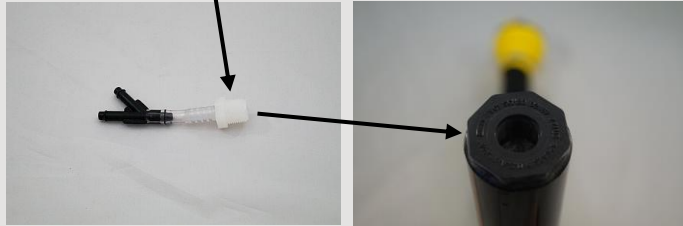
Step #3 Mounting the Foam Chambers

We recommend that you use hose clamps or a U-Bolt to attach the foam chamber/nozzle assemblies to your spray boom. Mount the chamber/nozzle assemblies so that the nozzles are pointed down. If possible, the nozzles should be outside the spray pattern. The 24" drop nozzle can be cut to a length of your choice.



Step #4 Plumbing the Liquid and Air Lines

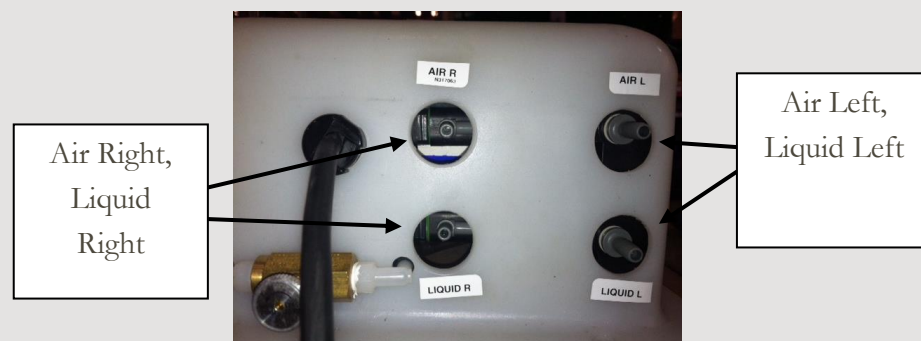
Next, screw your Y-connectors (HY14AS QTY: 2) into the insert on the foam chambers with a wrench.



Then supply 1/4" tubing lines (**not provided**) to each "Y" (air to one, liquid to the other), and run the lines along the booms frame toward the tank/compressor assembly. Cut the tubing accordingly for each line. **Make sure there is excess tubing where your spray boom folds up to prevent the lines from getting tangled.**



The white control box should be labeled, as shown in the picture below, and you must connect the 1/4" tubing (One side labeled as air line right and left, and the other one should be labeled liquid line right and left). Plug your tubing accordingly with one Y-connector having an air (Air R on tank assembly) and water (Liquid R on tank assembly) line running to it. Similarly, plug your other Y-connector with an air (Air L on tank assembly) and water (Liquid L on tank assembly) line running to it. Below you will see a picture of what you should be seeing on your control box.



Finally, secure the tubing lines along the sprayer boom with the nylon ties provided (NY108H). Be careful to not over tighten & pinch the lines with the ties provided. Make sure that your push to connect power chord is connected, and then follow our operating instructions to start making foam.

Operating Instructions

Mixing Your Foam Solution

To ensure the highest-quality foam marks, we recommend using our Field Mark® Foam Concentrate (FOC001). You can try other foam concentrates if you please, but it is very important that you do not use, “hard” water. You will get, “soupy” foam if you have hard water. We recommend using a water softener if you know have hard water. The key to making good foam with this injection marker, is having the proper ratio of soap to water by adjusting the “soap” and, “water” valves. This ratio can be affected by the water hardness and soap quality. Soft water is essential for making quality foam. When using an 80:1 foam concentrate...the factory default settings on the valves are as follows.

Factory Default settings:

Your valves on your foam marker have been pre-set to the following:

- 3 ¼ turns on the water valve
 - 3/8 turn on the soap valve
-

Starting Up Your Foam Marker

Once your machine has been powered up, flip the toggle switch to the right or the left to start making foam. Turn the marker switch on and allow the liquid pump to prime. If the liquid pump does not prime, open the priming valve until liquid starts to flow, then close the priming valve (priming valve labeled in control box). Foam solution and air will travel to one of the chambers and start generating foam. If you want to generate foam on the other side, simply flip the switch.

When the foam marker is set properly, you should be able to product quality foam at approximately 60 drops per minute. This foam should be able to stick to your hand when turned upside down. Once you are happy with where your valves are set, tighten jam nuts on both the soap and water valves.

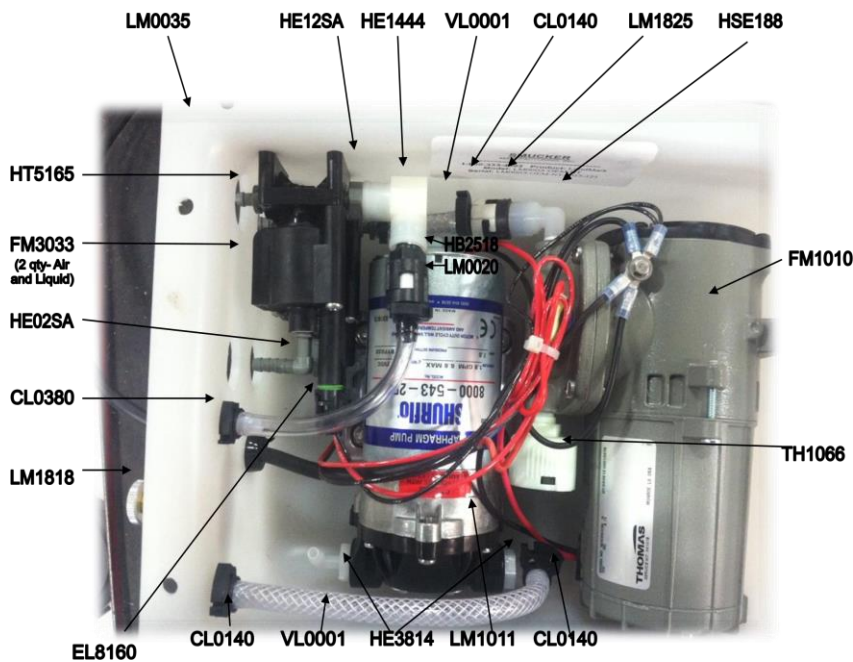
Adjusting Your Foam Marker Output

While in the field, you may choose to adjust your marker to produce foam at a faster rate. To adjust your foam output, stiffness, and volume simply adjust the brass needle valve pictured.



Note: If the needle valve is opened too far, the foam chambers will flood and produce wet, sloppy foam. You should be able to produce a drop every second if you adjust the nozzle to optimum speed. In most spraying applications this is more than enough marks per foot. You can conserve your foam by turning down the liquid flow when a desired foam consistency is achieved

Diagram of the LandMark Foam Marker components for systems build after January 2013



PART #	DESCRIPTION
CL0140	CLAMP, FOR 1/4" REINFORCED
CL0380	CLAMP, NYLON HOSE, 3/8
EL8160	WP DISCONNECT WIRE LEAD
FM1010	PUMP, FM 12V, W/FILTER
FM3033	3-WAY SOLENOID VALVE
HB2518	BUSHING 1/4" X 1/8"
HE02SA	1/4 TUBE X 1/4 HB ADAPTER ELBOW
HE1444	1/4" FPT X 1/4" FPT EL
HE3814	HE, 3/8 X 1/4
HSE188	1/8" STREET EL
HT5165	1/4 TUBE X 1/4 HB ADAPTER
LM0035	PLASTIC ENCLOSURE FOR FM, WHITE
LM1011	PUMP, LM SHUR FLO ASSY
LM1818	VALVE, NEEDLE, BRS 1/8X1/8

Maintenance Requirements

Common Filter Maintenance

There are two filters on the air pump (one felt that needs replaced when it turns black...and one sponge that can be blown out over time). There is a filter at the bottom of the tank that should be checked regularly to make sure the flow of liquid isn't being blocked...this can easily be cleaned by reaching into the tank.. Algae in the water tank may plug the water filter...if this happens, take the necessary measures to control algae growth.

Operating at Freezing Temperature

When operating in temperatures at, or below freezing, one to two cups of ethylene-glycol-based antifreeze may be added to five gallons of foam solution.

If your system will be exposed to freezing temperatures overnight...reach into your tank and pull the suction tube out to expose it to the air. Then proceed to run the system for 10-15 seconds to clear the foam solution from the pump and solenoids.

For long term storage...drain the tank of foam solution and run fresh water through the entire system. While the unit is still running, blow air through the suction tube until the system is dry. Flip the power switch to dry the other side.
