

Foam Marker Instruction Manual

For models:

**81-FM3
81-FM3AF**

And

**4119053
4119058**



Spraying Devices, Inc.
P. O. Box 3107,
Visalia, CA. 93278-3107, USA
Tel: (559)734-5555, Fax: (559)734-5591
Email: sales@sprayingdevices.com
www.sprayingdevices.com

"Quick Foam" Marker System

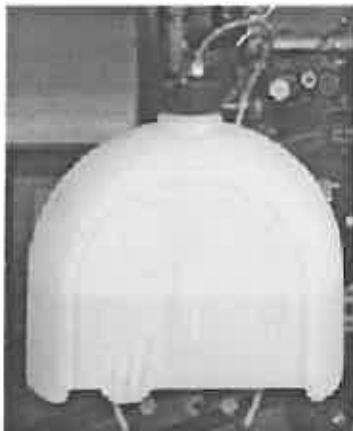
by



"Quick Foam" Marker System-mounts on all SDI spray booms and generates foam drops within several seconds of "on" activation



Optional electric all function control box with L/R operation indicator lights, on/off toggle switch and 10 amp fuse holder



The compact air compressor and control valves are located behind the 4 quart liquid solution tank with solution metering Valve.

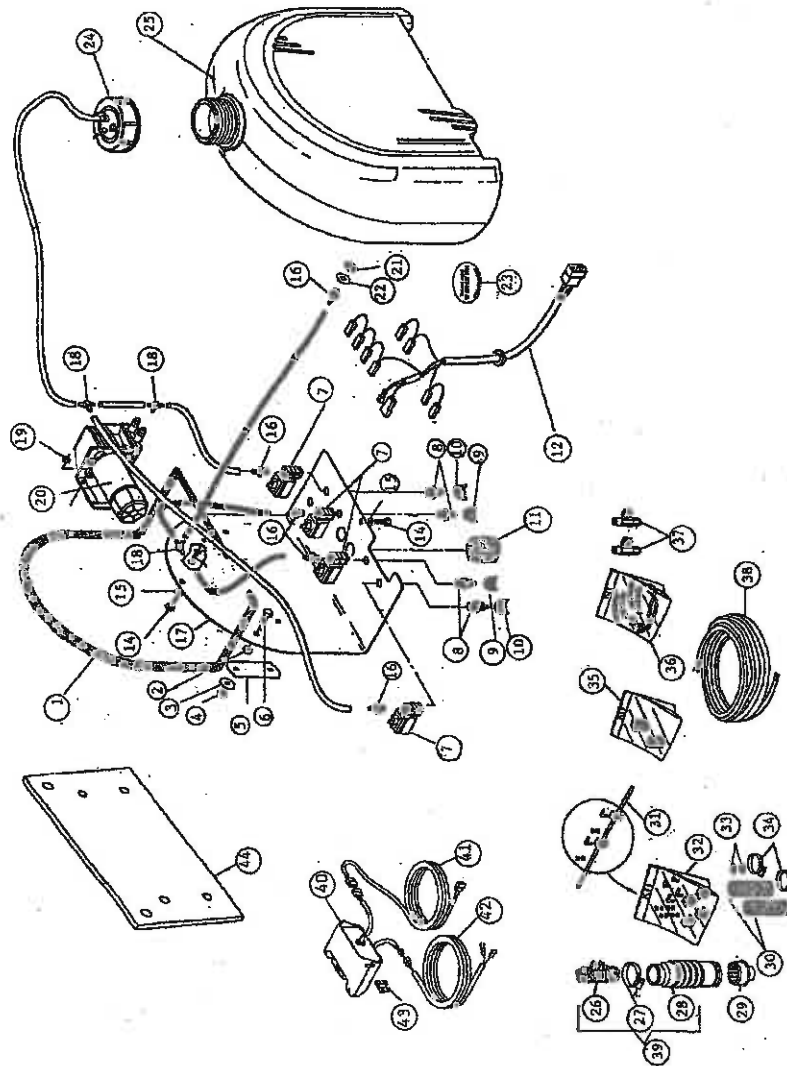


Standard control with L/R on switch



Foam generator and multi-position mounting rod.

Foam Marker Parts Illustration



Foam Marker Parts List

<u>Item No.</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty.</u>
1	61-600	Rubber Gasket	1
2	61-609	Nut	1
3	61-601	Washer	4
4	61-602	Nut M/6	4
5	61-603	Plate	2
6	61-612	Screw	4
7	61-606	Solenoid	4
8	61-127	Tubing Connector 1/8" 6.4	6
9	61-136	Blue Fly Nut	1
10	61-133	White Fly Nut	2
11	61-193	Sponge Filter	1
12	61-232	Wiring Harness	1
14	61-116	Bolt	2
15	61-115	Washer	2
16	61-660	Hose Barb	5
17	61-607	Backing Plate	1
18	61-661	Hose Barb	3
19	61-631	Lock Nut M5	2
20	61-630	Air Compressor 12 Volt	1
21	61-624	Rubber Washer	1
22	61-625	Washer	1
23	61-616	Decal	1
24	61-632	Tank Cap	1
25	61-633	One Gallon Tank	1
26	61-172	Foam Mixer	2
27	61-145	Hose Clamp 25-40	2
28	61-199	Drop Tube	2
29	61-226	Adapter/Reducer	2
30	61-187	Sponge	2
31	61-190	Support Post	1
32	61-207	Support Post Kit	1
	64-440	Vari-Clamps (Not Illustrated) Used w/61-207	4
33	61-223	Screen	2
34	61-148	Hose Clamp 32-50	2
35	61-636	Foam Kit	1
36	61-635	Accessory Kit	1
37	61-637	Flow Regulator attaches to Blue Tube.	2

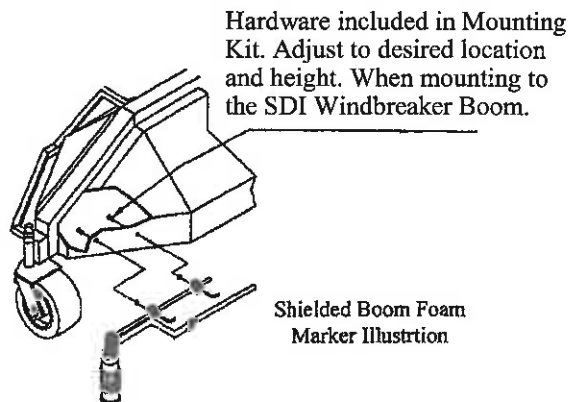
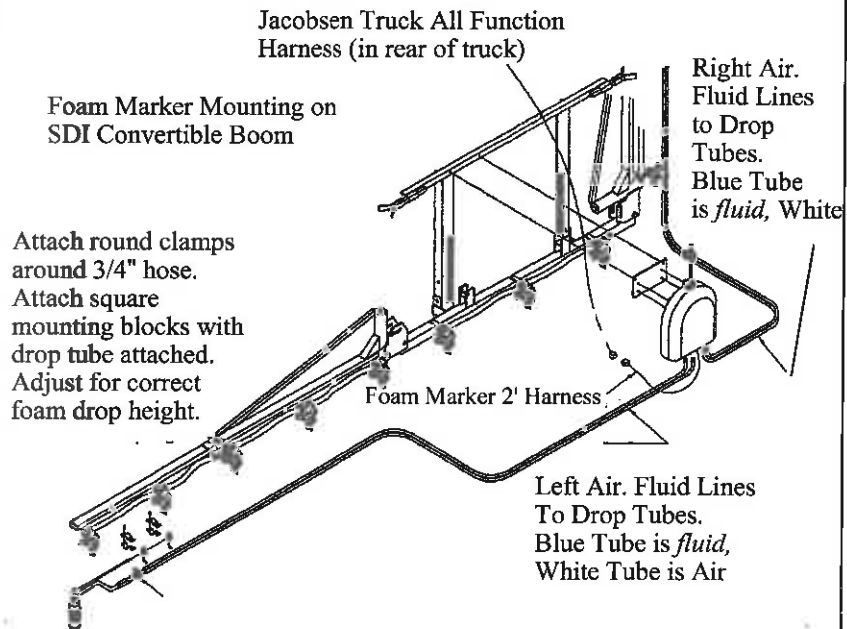
Foam Marker Parts List

<u>Item No.</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
38	61-250	Air/Liquid Tubing 50 Ft. Roll (16 Meters)	1
39	61-253	Foam Nozzle	2
40	61-259	Switch Box	1
40	61-260	On/Off/On Switch	1
41	61-235	Compressor Cable 15"	1
42	61-645	Power Cable	1
43	61-639	Fuse, 5 AMP	1
44	11-097-1	Mounting Plate	1

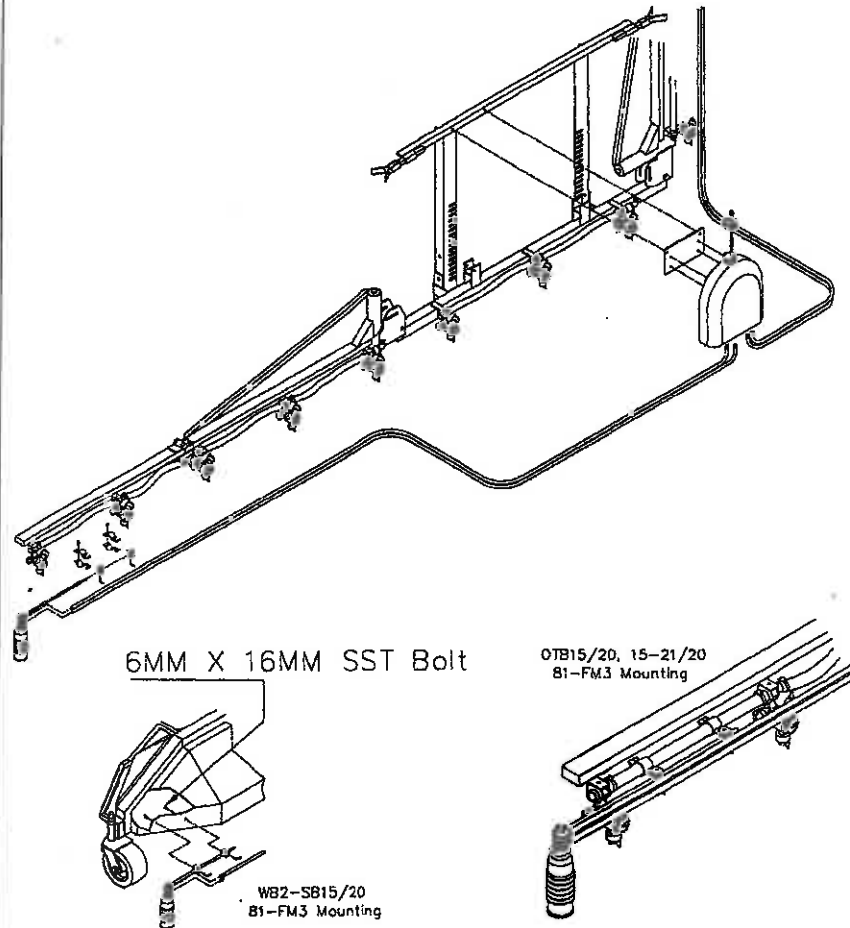
81-FM3 and 81-FM3AF—Complete System As Shown

4119053 and 4119058—Complete System as Shown, less
Items #40, 41, 42 and 43. *Use with All Function Control
And Harness.*

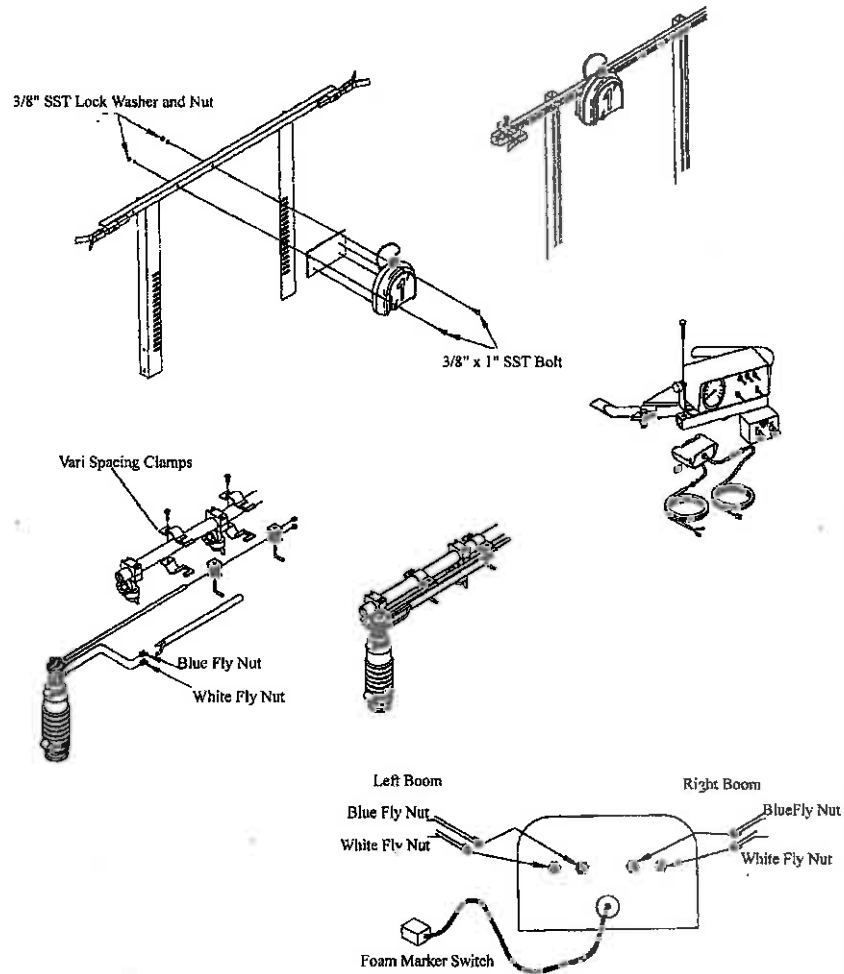
Foam Marker Basic Mounting Illustration



Foam Marker Basic Mounting Illustration



Foam Marker Basic Mounting Illustration



Set-Up and Operation Instructions

"Quick Foam" Marker Drop Spacing Chart and Instructions

Sprayer Ground Speed MPH	Distance Traveled Feet/Sec.	Seconds between drops to achieve desired spacing intervals		
		10 Ft.	20 Ft.	30 Ft.
1	1.46	6.84	13.69	20.54
2	2.93	3.41	6.82	10.23
3	4.39	2.27	4.55	6.83
4	5.86	1.70	3.41	5.11
5	7.33	1.36	2.72	4.09
6	8.79	1.13	2.27	3.41
7	10.26	0.97	1.94	2.92
8	11.73	0.85	1.70	2.55
9	13.19	0.75	1.51	2.27
10	14.66	0.68	1.36	2.04

How to use this chart: Find your estimated spray speed (see measuring travel speed). Determine the frequency of foam drop spacing required for your application. The numbers listed in the above chart correspond to the number of seconds needed between drops to arrive at the desired spacing. Since the actual numbers are not whole, you may round off to the nearest whole number for convenience.

Example: Desired spacing 20 ft., sprayer speed 4MPH. Time between foam drops to obtain desired spacing would be 3.5 seconds (approximately 17 drops per minute). You may adjust the foam drop output by turning the output control valve clockwise to open. 1-1/8th turn counter-clockwise will give approximately 1 drop every 3 seconds or 20 drops per minute.

Note: Running time on the 4 quart solution tank is 50 minutes at a rate of 20 drops per minute (1000 drops).

Example: 20 ft. boom spray width
 20 ft. foam drop spacing
 4 quarts foam solution
 9.1 acres covered and marked (4 quarts solution)

Results will vary according to your own conditions.

Set-Up and Operation Instructions-Contd.

Measuring Travel Speed

To measure travel speed, lay out a known distance in the area to be sprayed or in an area with similar surface conditions. Suggested distances are 100 feet for speeds up to 5 MPH and 200 feet for speeds 5 to 10 MPH. At the engine throttle setting and gear that you plan to use during spraying with a loaded sprayer, determine the travel time through the measured area in each direction. Average these times and use the following equation or table on this page to determine ground speed.

<u>Distance (feet) x 60</u>			
<u>Speed (MPH)= Time (seconds x 88)</u>			
Time required in seconds to travel a distance of:			
<u>Speed in MPH</u>	<u>100 Ft.</u>	<u>200 Ft.</u>	<u>300 Ft.</u>
0.5	136	272	409
1.0	68	136	205
1.5	46	92	136
2.0	34	68	103
2.5	27	54	82
3.0	23	45	68
3.5	20	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
6.0	—	23	34
7.0	—	19	29
7.5	—	18	27
8.0	—	17	26
9.0	—	15	23

Testing and Calibration

1. Add 0.4 oz. of Foam Concentrate, then fill storage tank one-half full with clear water.
2. Close the Flow Regulator (blue knob) on the tank. Re-open the Flow Regulator's blue knob approximately 1/2 turn.
3. Turn Foam Marker "ON". It will take a few minutes for the fluid to fill the lines and purge air.
4. Foam should appear in each marker. Adjust the Flow Regulator's blue knob to control the frequency of the foam drops.

Set-Up and Operation Instructions-Contd.

Operation

The operator can use trial and error to determine the foam spacing and foam dissipation rates. Use the following guidelines:

1. The exact mix ratio of foam concentrate to water influences the density of the foam and how long it stays on the ground before dissipating. Start with a 160 to 1 ratio, about 0.8 oz. per tank (128 oz.) of water. A lighter mix, 0.75 oz. per tank, will result in a "runny" foam which will dissipate sooner.
2. Once foam is mixed with water, it will lose its ability to foam after about 12 hours. Fill the tank with water and add fresh foam concentrate.

Estimating Foam Spacing

Use the following chart to estimate the approximate spacing of foam drops at varying speeds:

<u>MPH</u>	<u>Seconds between drops</u>		
	<u>10 Ft.</u>	<u>20 Ft.</u>	<u>30 Ft.</u>
2	3.4	6.8	10.5
3	2.2	4.5	6.8
4	1.7	3.4	5.1
5	1.3	2.7	4.0
6	1.0	2.2	4.0
7	1.0	2.0	3.5

"Quick Foam" Mixing Instructions

SDI's "Quick Foam" has a recommended mix ratio of 160 to 1. This provides a good consistent foam ball that is highly visible on all turf areas. However, because of weather conditions or other factors, an alternate foam consistency may be required. If the mix is altered to include more water, the foam tends to be runny and dissipates very fast. The addition of more concentrate to the mix will cause the foam to be denser and last longer. Try the recommended mix ratio prior to the alternative methods listed.

Note: If the foamer is allowed to set idle for 12 hours or more, the remaining mix in the tank should be considered plain water. The foam concentrate loses its ability to produce foam after being in suspension and therefore is subject to normal molecular breakdown. For best results, top off storage tank with water and add 0.8 oz. of concentrate to bring mix ration in tank back to 160 to 1.

Contents of
Foam Marker Package
(Included with original shipment only)

Accessory Bag Contents:

- ☐ ☐ Instructions
- ☐ ☐ Foam Concentrate
- ☐ ☐ 4 Each Vari-Spacing Clamps 3/4 Inch Pipe

Hardware Bag Contents:

- 2 Each Strut Nuts 3/8 Inch
- ☐ ☐ 2 Each 3/8 x 1 Inch Hex Bolts
- ☐ ☐ 2 Each 3/8 Inch Lock Washers
- ☐ ☐ 2 Each 3/8 Inch Hex Nuts
- ☐ ☐

Box Contents:

Accessory Bag

- ☐ ☐ Compressor/Solenoid Assembly
- ☐ ☐ 11-097-1 Plate
- ☐ ☐ 2 Foam Generator Assemblies (1 Right and 1 Left)
- ☐ ☐