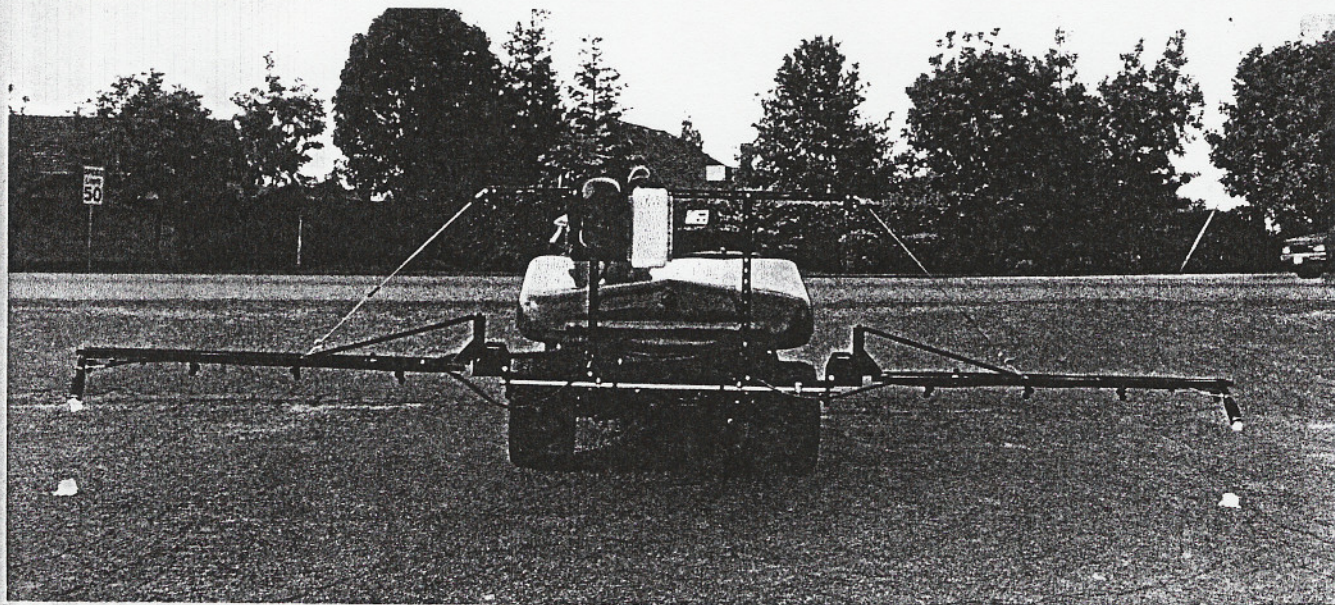
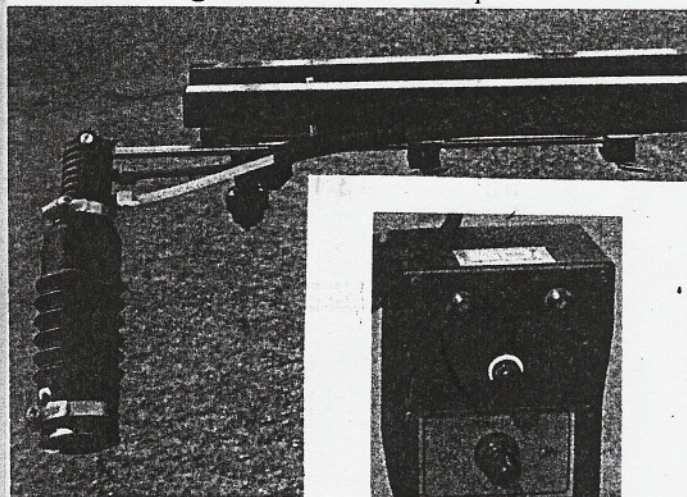


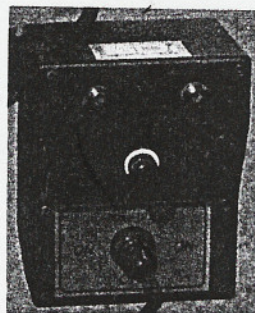
"Quick Foam" Marker System



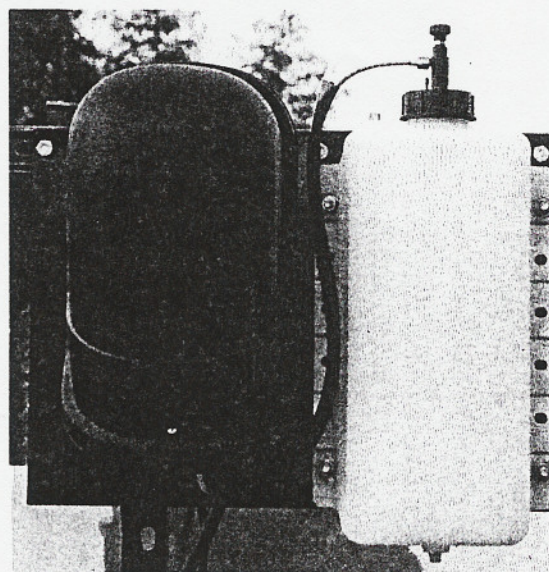
Model 81-FM2 "Quick Foam" Marker System shown in a typical mounting position on an SDI 20 Ft. Deluxe Boom. The 81-FM2 mounts on all SDI 15/20/25 Ft. Spray Booms and generates foam drops within several seconds of "on" activation.



Foam Generator and
Multi-Position Mounting
Rod.



Electric Control Box
with L/R Operation
Indicator Lights, on/off
Toggle Switch and 10
AMP Fuse Holder



Compact Air Compressor and (4) Solenoid
Control Valves located under Black Poly Cover,
6 Qt. Foam Liquid Solution Tank with Solution
Metering Valve to Control Foam Drop Spacing.

*All the benefits of the original 81-FM **plus** improved mounting and adjustment system - less weight on end of boom - solenoids replace high-maintenance check valves - new light-weight poly compressor and valve cover - redesigned solution tank-greatly simplified foam drop space adjustment now on top of tank - easier to get to - fewer parts and plumbing fittings make for a more durable and *trouble-free* foam system!*

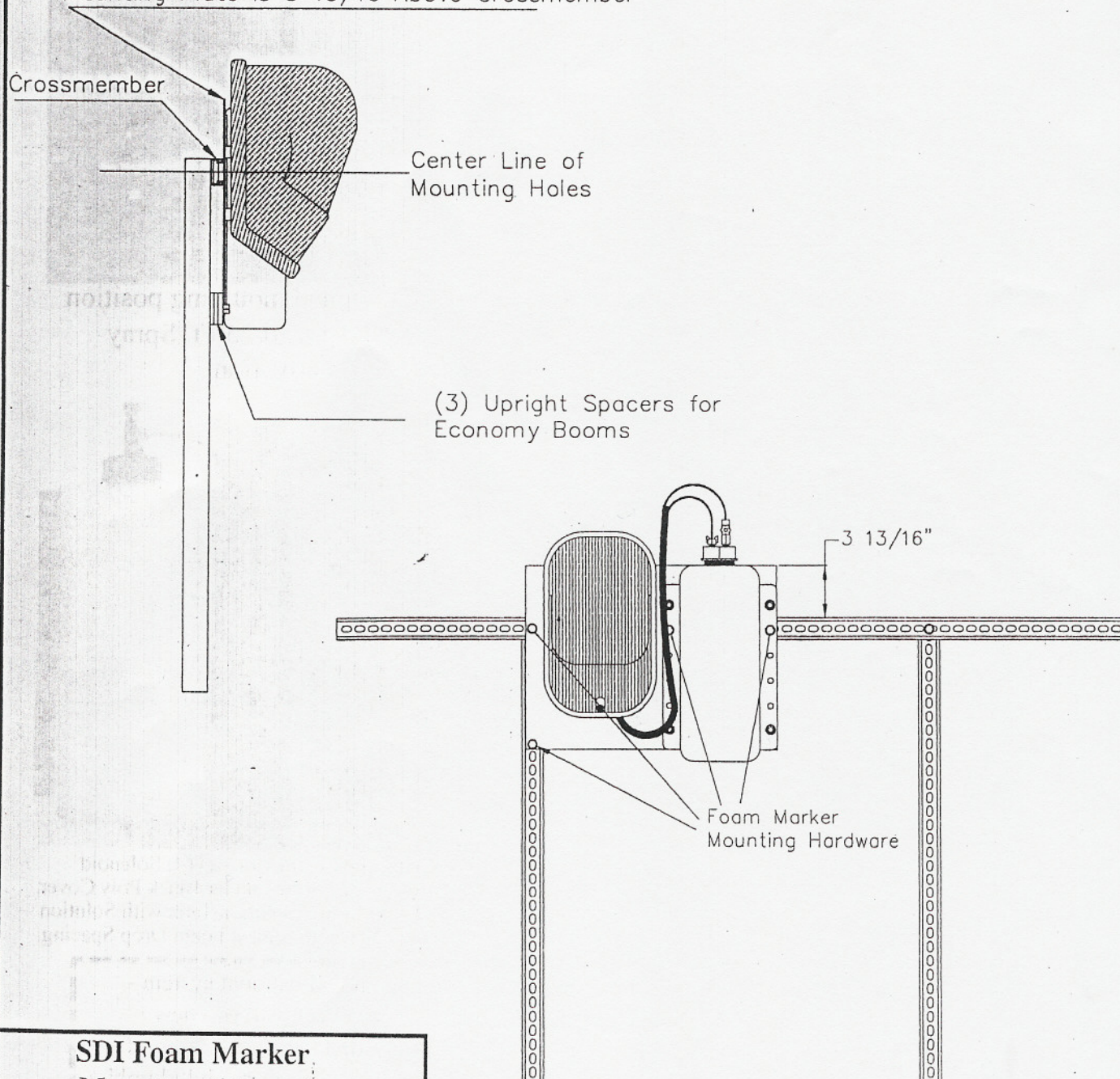
**Important Notice Regarding Foam
Marker Mounting Change on the
following Boom Models:**

*SB 15/10-1, SB 15/20-1, SB 20/20-1,
SB 25/20-1*



Foam Marker Mounting to Reinforce Mounting:

Mounting Plate is 3 13/16" Above Crossmember



**SDI Foam Marker
Mounting Change**

Rev.A 81-FM2 Mounting to Economy Booms

6/27/02

PI237/0602jj

SDI Electric Foam Marker System

Item Number	Part Number	Description	QTY
1	61-226	Reducer	2
2	61-148	Hose Clamp 32-50	2
3	61-223	Screen	2
4	61-187	Tube Sponge	2
5	61-199	Drop Tube	2
6	61-145	Hose Clamp 25-40	2
7	61-172	Foam Nozzle Inlet Body	2
8	61-190	Support Shaft, SS	2
9	61-207	Post Support & "L" Set Screw Kit	4
10	61-250	Tubing, 50 Feet	1
13	31-505	Hex Bolt 5/16 x 1-1/2", SS	1
14	61-259	Switch Box	1
15	41-512	Lock Nut 5/16", SS	1
16	61-238	Power Cable	1
17	61-235	Compressor Cable	1
18	61-247	Flow Regulator	1
19	61-202	Cap Flynut, Plastic	1
20	61-244	Cap Body	1
21	61-157	Strainer	1
22	61-241	Cap Assembly	1
23	61-166	Power Supply Socket	1
24	15-010	Tank, 6 Qt. PVC, 81-FM2	1
25	61-256	Compressor Assembly	1
26	11-097	Mounting Plate, 81-FM2	1
27	61-229	Tubing, 30"	1
28	61-217	Compressor Cover	1
29	61-109	Screw M5 x 16, SS	2
30	61-115	Washer, Zinc	2
31	32-102SS	Hex Bolt 3/8 x 3/4", SS	3
32	41-106	Channel Nut 3/8"	4
33	31-503	Hex Bolt 5/16 x 1", SS	4
34	43-502	Lockwasher 5/16", SS	4
35	41-502	Hex Nut 5/16", SS	4
36	42-502	Flatwasher 5/16", SS	5
37	39-560	Hex Bolt 6MM x 16MM, SS	4
38	64-440	Vari Spacing Clamp	4
39	61-253	Foam Nozzle Assembly	2
40	61-115	Washer, Zinc	2
41	61-136	Blue Flynut, Plastic	10

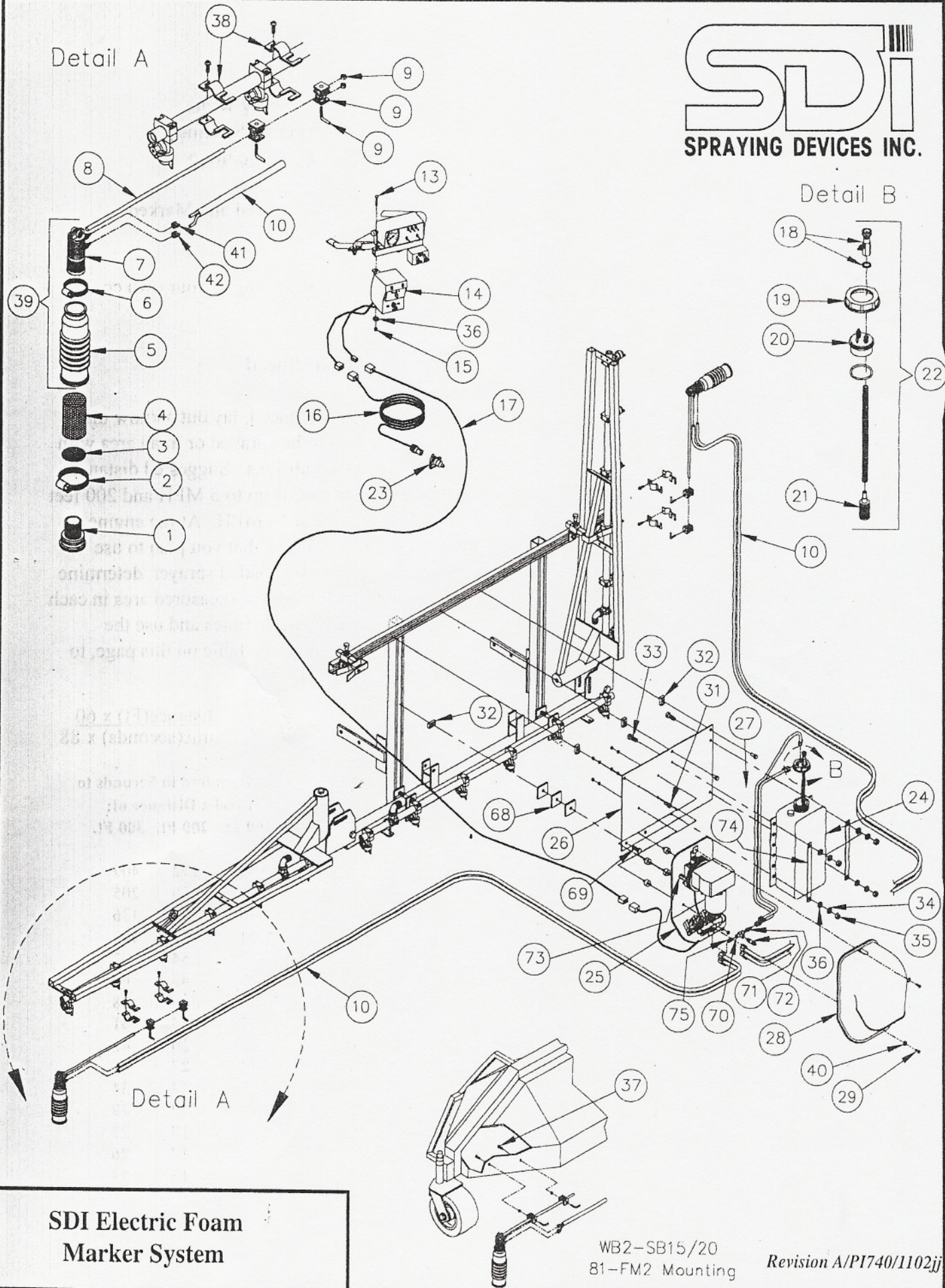
SDI Electric Foam Marker System

Item Number	Part Number	Description	QTY
42	61-133	White Flynut, Plastic	11
43	61-130	Tubing Connector 1/8" 6 x 4, Brass	6
44	61-142	Solenoid Valve 1/8" M-M-248	4
45	61-127	Tubing Connector 1/8" 6 x 6, Plastic	4
46	61-124	Screen	4
47	61-211	T-Tubing Connector 4-Way, Plastic	1
48	61-214	T-Tubing Connector 3-Way, Plastic	1
49	61-139	Tubing Connector 1/4" 6 x 4	1
50	61-232	Wiring Harness	1
51	61-193	Air Fliter, D.30	1
52	61-181	Compressor W/Motor Assembly	1
53	61-208	Compressor Plate	1
54	61-121	Fast Nut M5	2
55	61-106	Nut M6, Z inc	8
56	61-115	Washer, Zinc	8
57	61-154	Shock Absorber	4
58	61-100	Screw M6 x 12, Zinc	2
59	61-118	Washer, Zinc	2
60	61-220	Compressor Plate	2
61	61-169	Compressor Repair Kit	1
62	61-178	Brush Retainer	1
63	61-175	Brush	1
64	61-151	Ball Bearing	1
65	61-184	Electric Motor, 12V	1
66	61-163	Fuse, 10A	1
67	61-160	Fuse Holder	1
68	11-109	Spacer 81-FM2	3
69	32-505	Hex Bolt 3/8 x 1-1/2" SS	1
70	61-134	Tee 1/4" NPT, Poly	1
71	60-413	Relief Valve, 3 PSI	1
72	61-127	Tubing Connector 1/8" Plastic	1
73	61-155	Compressor Support	2
74	11-460	Seam Support	2
75	61-131	Bushing Reducer 1/8 x 1/4"	2

Detail A

SDI
SPRAYING DEVICES INC.

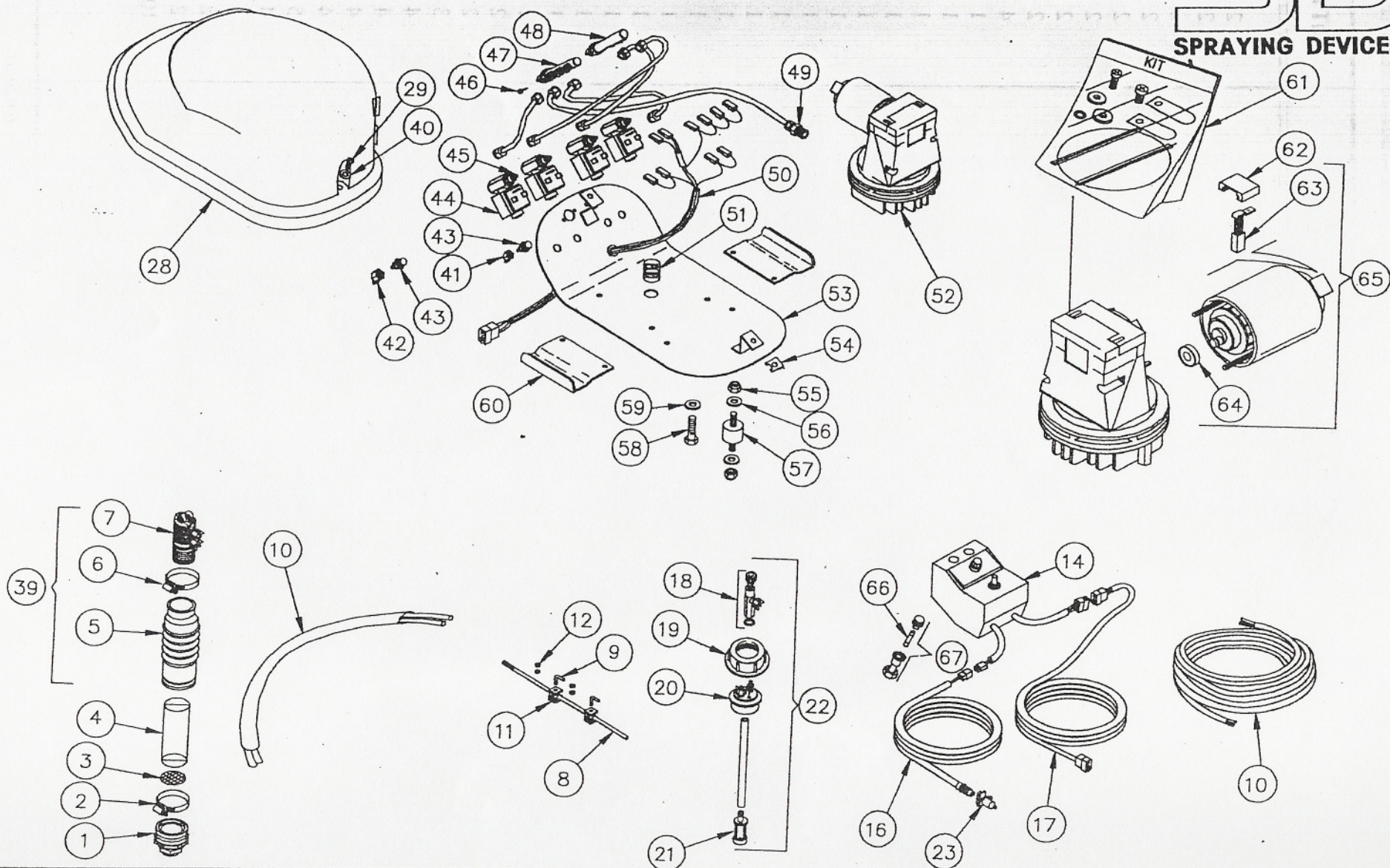
Detail B



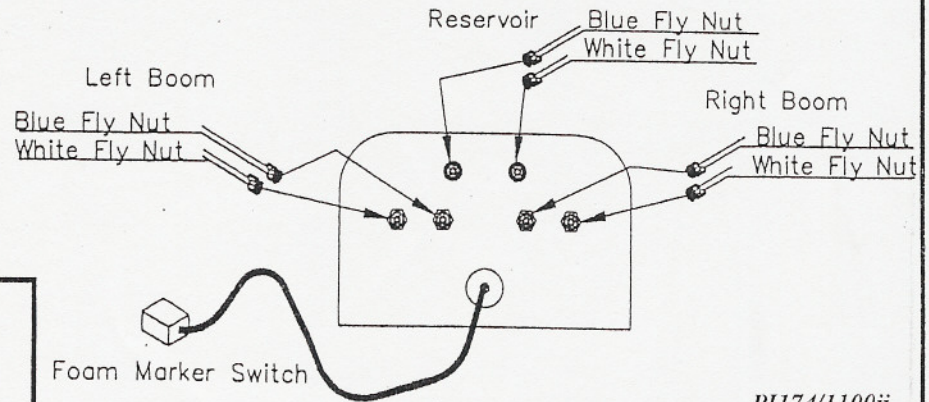
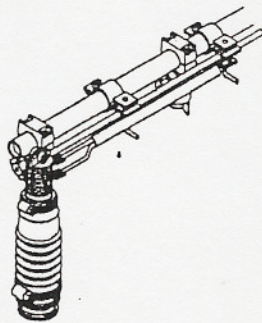
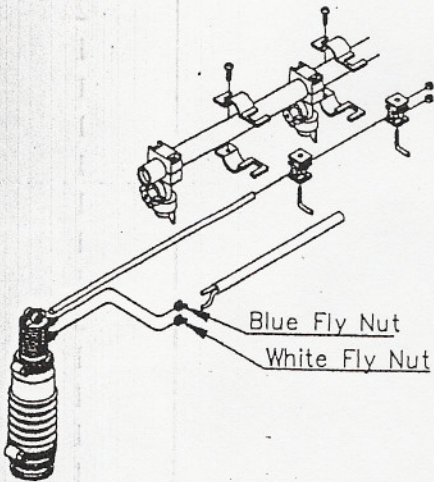
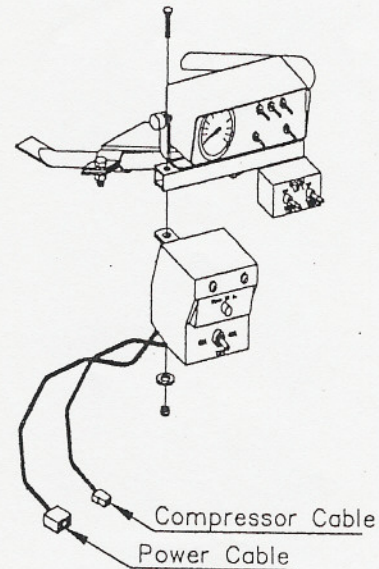
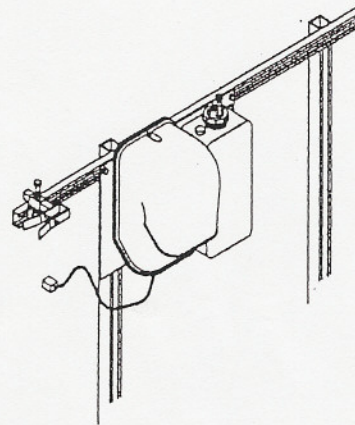
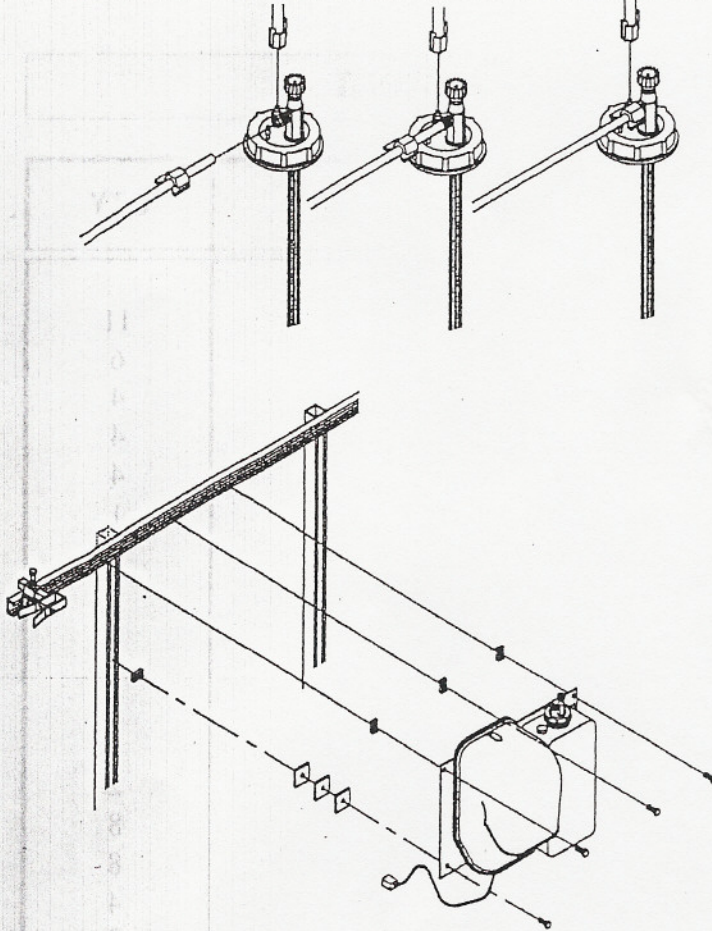
**SDI Electric Foam
Marker System**

WB2-SB15/20
81-FM2 Mounting

Revision A/PI740/1102jj



SDI Electric Foam Marker System



SDI Electric Foam Marker System

Testing and Calibration:

1. Fill the storage tank 1/2 full with clear water and then add 0.6 oz. of foam concentrate.
2. Close the fluid regulating valves on the tank. Re-open valves approximately 1/2 turn.
3. Turn both Foam Markers 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 fluid regulating valve to control the frequency of foam drops.

Operation:

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

1. The exact mix ratio to 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 1.2 oz. per tank (192 oz.) of water. A lighter mix, .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 tank with water and add fresh foam concentrate.

Estimating Foam Spacing:

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

Spacing:	10 Ft.	20 Ft.	30 Ft.
Seconds between drops:			
MPH			
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.

The best method for filling the storage tank is to put water in first and add the concentrate to the top. This prevents the formation of foam in the tank because of premature agitation of the contents.

Note: If the foamer is allowed to set idle for 12 hours or more, the remaining mix in the tank should be thought of as 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 1.2 oz. of concentrate to bring mix ratio in tank back to 160 to 1.

"Quick Foam" Marker Foam Drop Spacing Chart and Instructions:

Sprayer Ground Speed MPH	Distance Traveled Feet/Sec. at MPH	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 spacings. 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 close, or counter-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 6 quart solution tank, is 80 minutes at a rate of 20 drops per minute (1600 drops).

Example:

20 Ft. Boom Spray Width
20 Ft. Foam Drop Spacing
6 Quarts Foam Solution

14.6 Acres Covered and Marked
(6 Quarts Solution).

Results will vary according to your own conditions.

Measuring Travel Speed

To measure ground 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 from 5 to 10 MPH. At the engine throttle setting and gear that you plan to use during sprayer, with a loaded sprayer, determine the travel time through the measured area in each direction. Average these times and use the following equation or the table on this page, to determine ground speed.

$$\text{Equation: Speed (MPH)} = \frac{\text{Distance(Ft)} \times 60}{\text{Time(seconds)} \times 88}$$

Speed in MPH (Miles Per Hour)	Time Required in Seconds to Travel a Distance of:		
	100 Ft.	200 Ft.	300 Ft.
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