



# Crop Care Foam Marker System



## Model F1500 Owners Manual

## Model F1500 Specifications

- |                               |  |
|-------------------------------|--|
| 1. <b>Power Requirements:</b> | 12 Volts DC & 8 Amps                   |
| 2. <b>Wiring Harness:</b>     | 8' power cable, 22' control cable      |
| 3. <b>Discharge Hose:</b>     | 5/8" ID x 100' vinyl hose              |
| 4. <b>Solution Tank:</b>      | 5 gallon capacity, 3 hour foaming time |

## Mounting Instructions

- 1. Marker Unit:** Choose a convenient location that is easily accessible to mount the foam marker unit. It should be mounted where it gets the least dust and dirt possible. Remember that the foamer will be considerably heavier when the solution tank is filled. Drill four 3/8" holes in the sprayer frame to match the holes in the foam marker frame.
- 2. Wiring Harness:** Connect the red wire of the power cable to a 12 volt DC positive power source. This should be done at the battery terminal or where there is at least a 15 amp power source. The black wire must be connected to a good ground or the negative terminal of the battery. Make sure you have a good power source because low power can cause many problems with the foamer. Mount the control box where it can easily be reached to control the foamer.
- 3. Discharge Tubes:** The tubes should be mounted at the end of each boom using the 1/2" bolt located on the top of the stainless elbow. A standard nozzle body clamp can be used to attach the discharge tube. Install the clamp on the boom and then insert the 1/2" bolt where the nozzle body normally mounts with a flat washer on each side of the clamp. It is important to be sure the discharge tube does not interfere with the spray pattern of the sprayer nozzles when they are spraying.
- 4. Discharge Hose:** Attach the 5/8" discharge hoses to the hose barbs on the solenoid valve and clamp with the hose clamps included. The hose is supplied in one 100' length and can be cut as need. Then route the hoses along the booms to the discharge tubes. Attach and clamp with the hose clamps. This hose may not be kinked or pinched when the boom is in the folded or unfolded position. Use the cable ties included to secure the hoses to the booms.

## Operating Instructions

Make sure all the hoses are attached and the wiring harness is plugged together. Fill the solution tank with water and then add foam concentrate according to foam specifications. Flip the control switch to the left or right side. Allow approximately one minute for the foam to reach the discharge tube. The foam discharge rate is preset and doesn't need to be adjusted. When operating in temperatures below 32 degrees, add 20% antifreeze to the solution.

## Maintenance Instructions

1. **Motor Bearings:** These are permanently lubricated ball bearings and do not require oil.
2. **Solenoid Valve:** No maintenance required
3. **Liquid Filter:** **Ref #26** Located in the tank on the end of the suction hose. Rinse daily.
4. **Orifice Disk:** **Ref #24** Located behind the screen on the end of the suction hose. Check this disk occasionally to make sure there is no dirt plugging the hole. **IMPORTANT: DO NOT operate the foamer without this orifice disk. It will result in damage to the compressor.**

## Annual System Shutdown

To avoid damage to the foamer this must be down before freezing conditions. Add ½ gallon of RV Nontoxic Antifreeze to the empty solution tank. Run the unit until both sides of the system are flushed and then store.

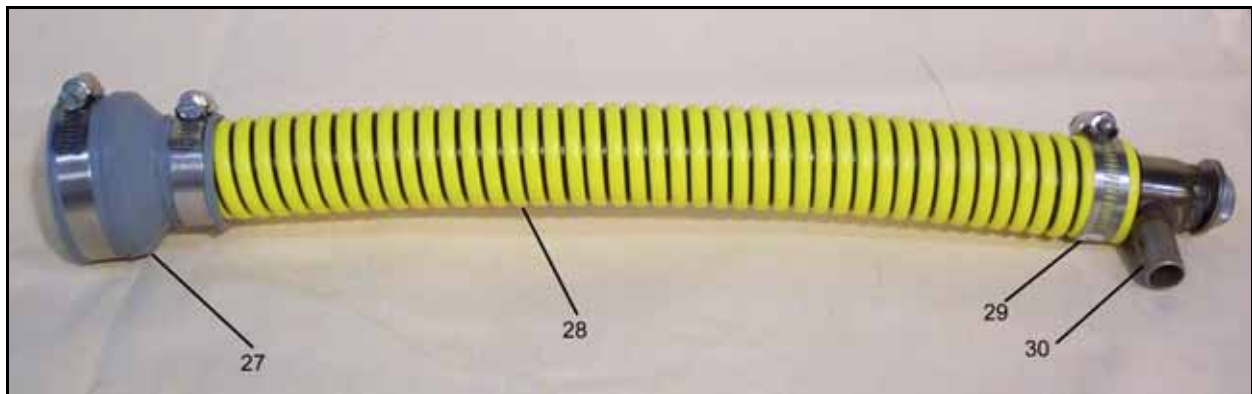
## Trouble Shooting

- **Motor won't run** -Loose wires, Blown fuse, Malfunctioning switch
- **No Foam At All**
  - Broken or bent leaf valve located inside the compressor. See compressor breakdown page 5, **Ref #6**
  - Discharge hose pinched or kinked.
  - Plugged solution orifice **Ref #24** (located in the tank at the end of the suction hose, behind the screen)
- **Foam On Only One Side** -Solenoid valve is not working. Could be low voltage to the valve, bad wiring, bad switch, burned out solenoid.
- **Low Foam Rate**
  - Partially plugged solution orifice **Ref #24** (located in the tank at the end of the suction hose, behind the screen).
  - Incorrect foam mixture. (Too much or too little foam concentrate per tank of water will result in poor foaming.)

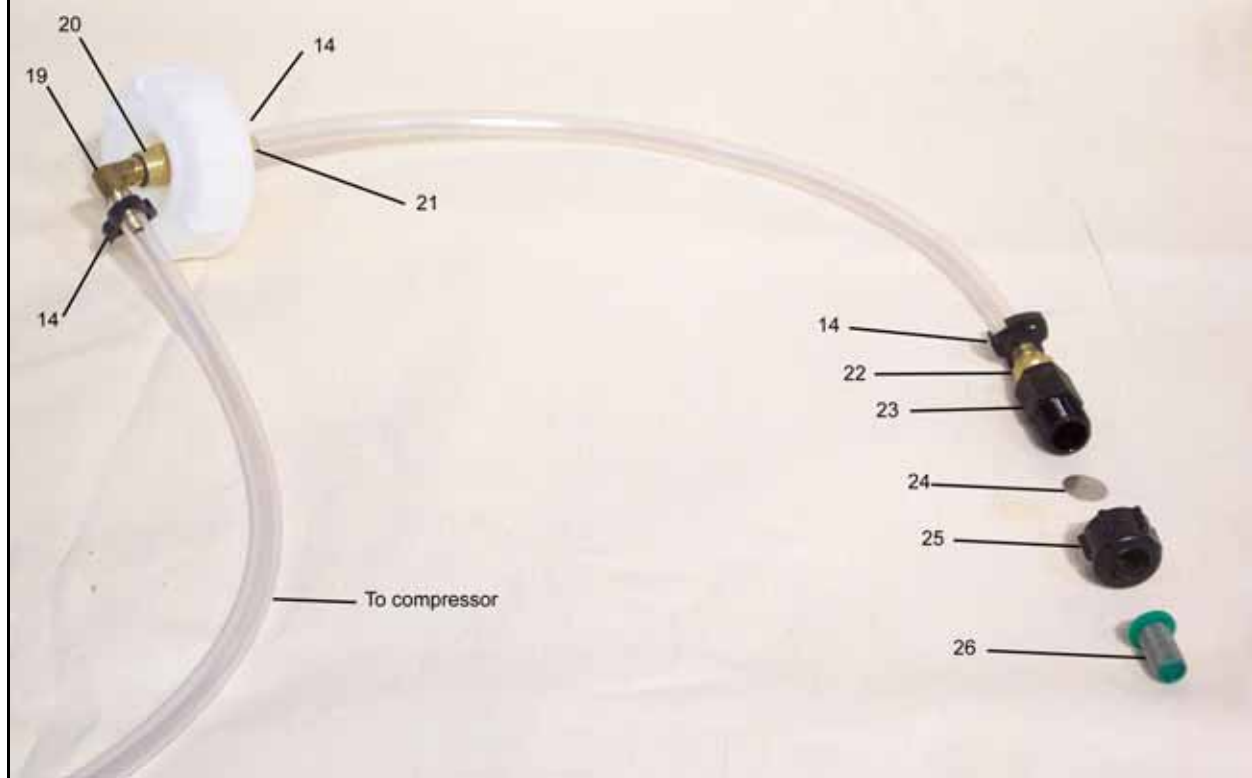
## Parts Breakdown



## F510 Drop Tube



## Solution Suction Hose



## Parts Sheet

Ref #	Part Number	Qty	Description
1	F1501	1	Main frame
1	F1502	1	Frame cover
3	F1503	1	5 gallon solution tank
4	2504B	1	Solenoid valve, 3 way, 12 volt
5	3EL1258	1	Hose barb elbow, 1/2" mpt x 5/8" hose ( <b>Left side hose attaches here</b> )
6	3EL1258	1	Hose barb elbow, 1/2" mpt x 5/8" hose ( <b>Right side hose attaches here</b> )
7	F1504	1	Mixing chamber, 1/2" ports
8	DC7300131	1	Control switch, DPDT, ON-OFF-ON, flat terminals
9	3EL1238	1	Hose barb elbow, 1/2" mpt x 3/8" hose
10	9579K66	2	Hose clamp nylon
11	EL1838BR	1	Hose barb elbow, 1/8" mpt x 3/8" hose
12	F1507	1	Wiring harness, power end with switch box
13	F1509	1	Wiring harness, foamer end
14	9579K64	4	Hose clamp nylon
15	A1814BR	1	Hose barb 1/8" mpt x 1/4" hose barb
16	22D1180-206-1002	1	Gast compressor, 12 volt
17	3M12	1	1/2" npt poly nipple
18	3SE12	1	1/2" npt poly street elbow
19	EL1814BR	1	Hose barb elbow 1/8" mpt x 1/4" hose
20	C18BR	1	1/8" pipe coupling
21	A1814BR	1	Hose barb with 1/16" air orifice, 1/8" mpt x 1/4" hose

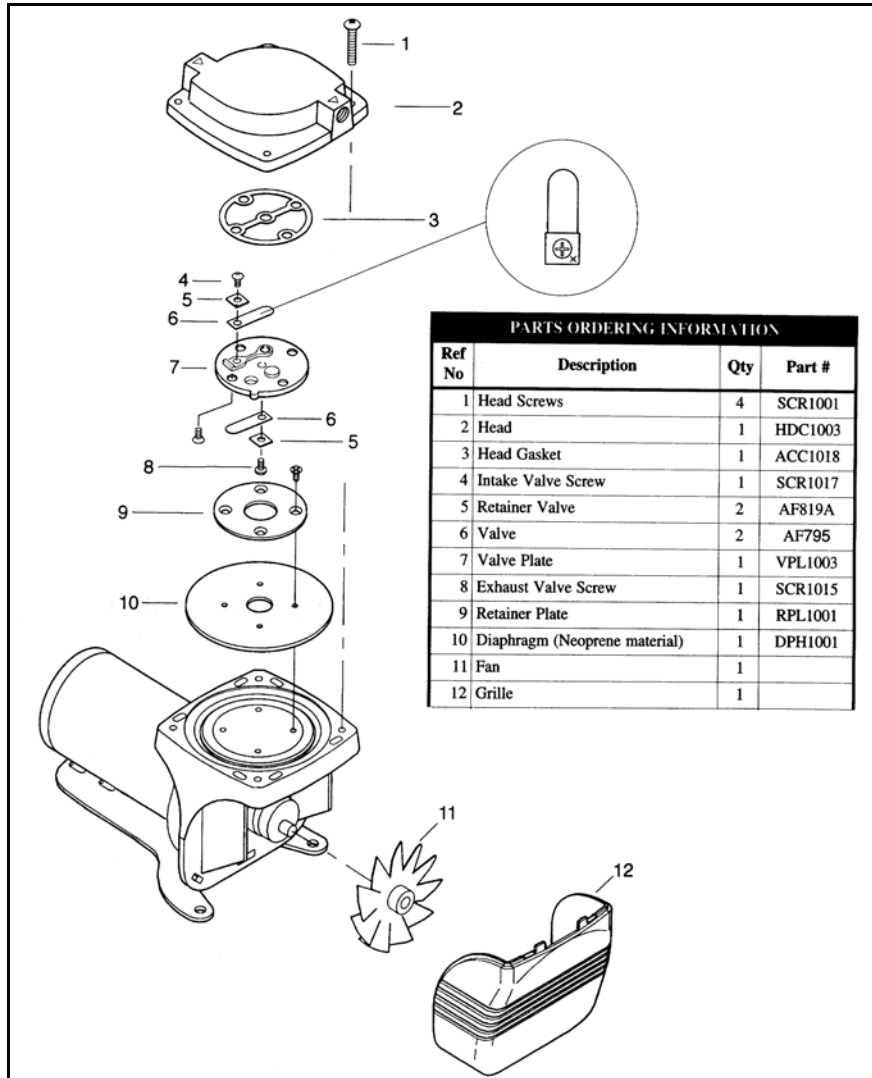
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Page 4

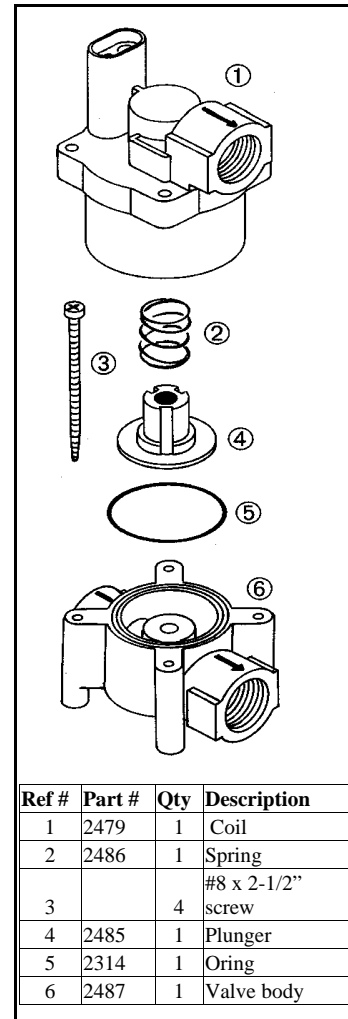
# Parts Sheet

Ref #	Part Number	Qty	Description
22	A1414BR	1	Hose barb 1/4" mpt x 1/4" hose
23	CP12094NYB	1	Orifice adapter 1/4" fpt
24	CP491640	1	Solution orifice #40
25	38027	1	Retaining cap
26	8079PP100	1	Screen 100 mesh
27	F505	2	Drop tube boot
28	3511	2	1-1/4" x 15" drop tube hose
29	6820	2	Hose clamp
30	F503	2	Drop tube elbow s.s.
	F510	2	Complete drop tube assembly #27-30

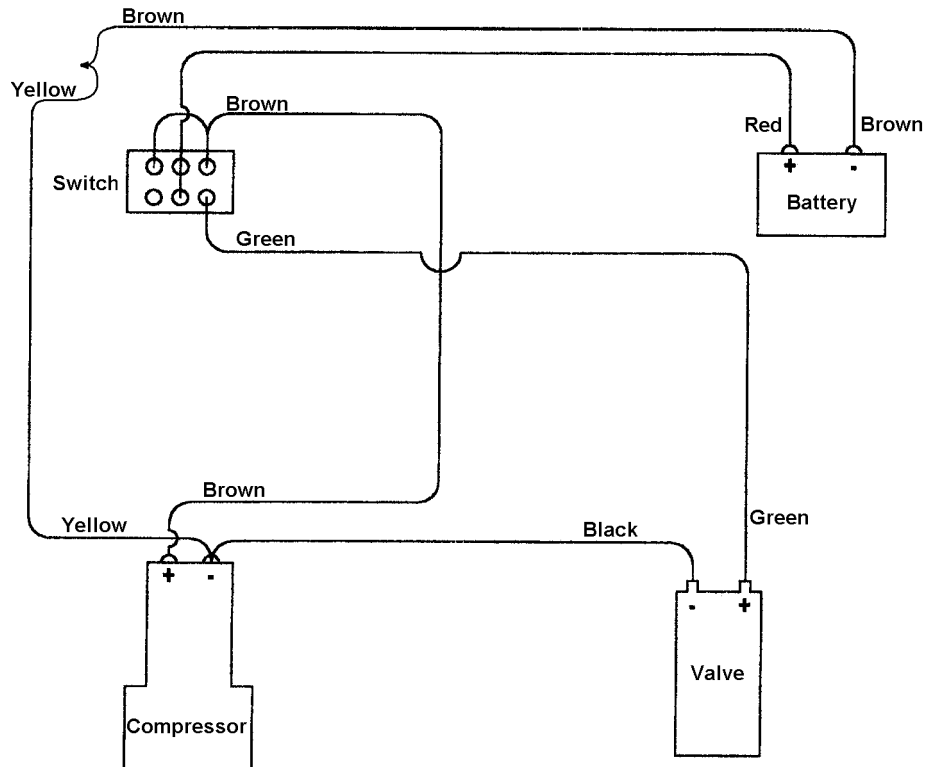
## 22D1180-206-1002 Compressor



## Solenoid Valve



# Wiring Diagram



Paul B. Zimmerman Inc.  
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