



INSTRUCTION BULLETIN

No. 340811
Machine: M20
Published: 11-2006
Rev. 00

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for **kit number 9001310**

SYNOPSIS:

This kit contains the parts needed to install a spray nozzle kit on M20 machines. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 3 hours)

PREPARATION:

1. Completely empty the recovery and solution tanks, and empty and clean the hopper. Refer to the Operators Manual for instructions.
2. Park the machine on a clean level surface.
3. Turn on the machine and raise the hopper to the fully raised position, turn off the machine, remove the key, and set the parking brake.



WARNING: Lift arm pinch point. Stay clear of hopper lift arms.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, set parking brake, and remove key.

4. Insert the safety pin into the top support hole in the hopper lift arm.



WARNING: Raised hopper may fall. Engage hopper support pin.

5. Open the front shroud, disconnect the battery cables from the battery, and remove the battery from the machine.



WARNING: Always disconnect battery cables from machine before working on electrical components.

INSTALLATION:

1. Cut a 17" section of hose from the 96" PVC hose (6). Set the remaining 79" of PVC hose (6) aside.
2. Use a hose clamp (7) to attach a 90° plastic fitting (13) and the plastic t-fitting (12) to the 17" PVC hose (6). Refer to Fig. 1.

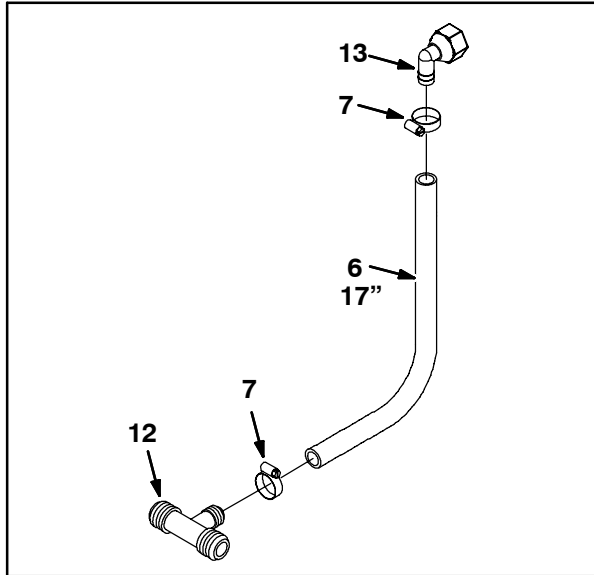


FIG. 1

3. Cut the existing 48" PVC hose 17" from the water valve assembly shown in Fig. 2.

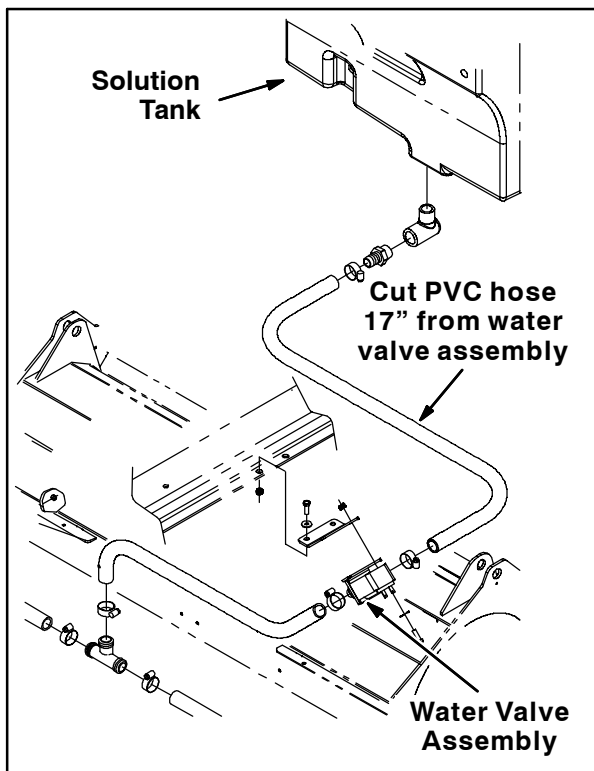


FIG. 2

4. Use two hose clamps (7) to connect the loose ends of hose cut in the previous step to the plastic t-fitting (12) already attached to the 17" PVC hose (6). Refer to Fig. 3.

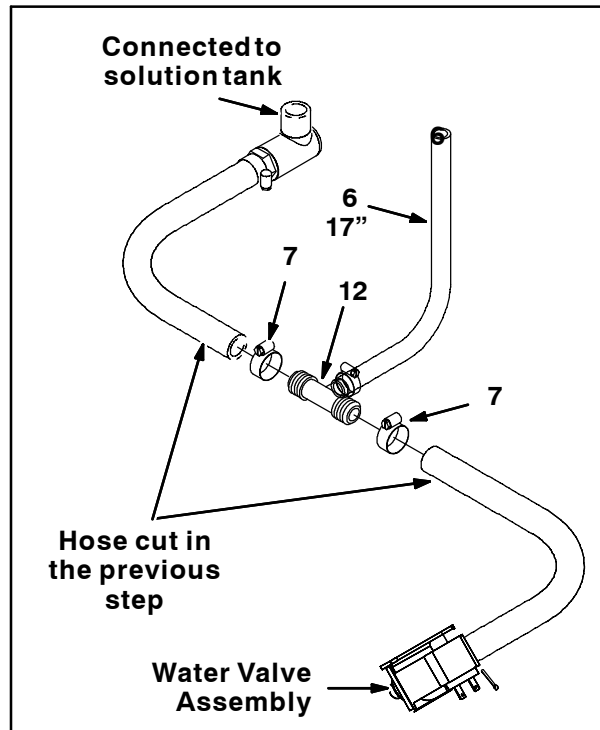


FIG. 3

5. Use two pan screws (3), two flat washers (4), and two hex nuts to install the pump mounting plate (2) onto the pump (1). Refer to Fig. 4.
6. Use two pan screws (3) and two flat washers (4) to install the pump mounting plate (2) onto frame of the machine. Refer to Fig. 4 and Fig. 5.
7. Use the 90° plastic fitting (13) to connect the PVC hose (6) to the pump (1). Refer to Fig. 4.
8. Use a hose clamp (7) to attach a 90° plastic fitting (13) onto the 79" PVC hose (6). Refer to Fig. 4.
9. Use the 90° plastic fitting (13) to connect the 79" PVC hose (6) to the pump (1). Refer to Fig. 4.

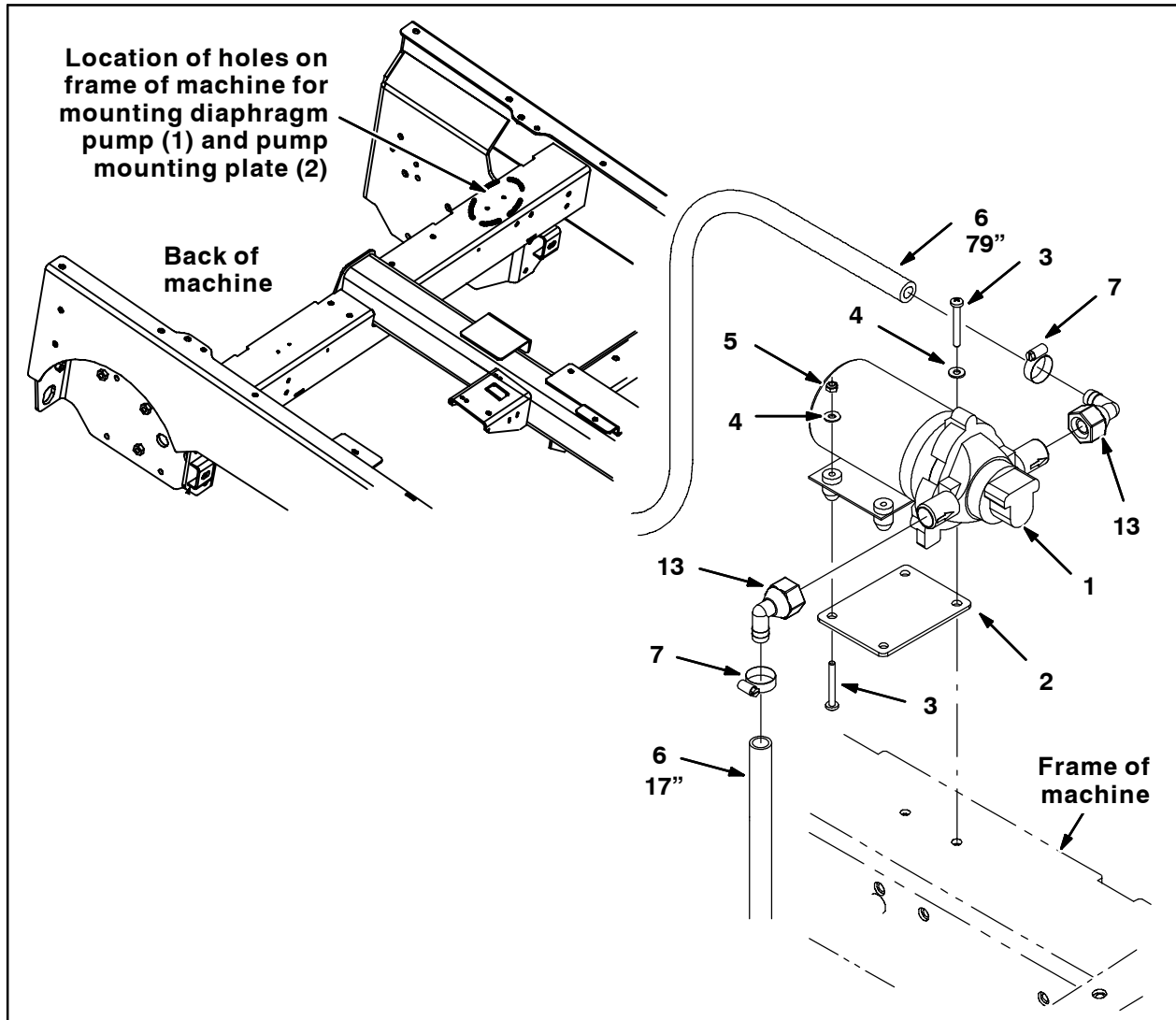


FIG. 4

10. Route the 79" PVC hose (6) under the recovery tank, around the vacuum fan, and towards the rear of the operator compartment. Refer to Fig. 5.
11. Raise and lock the operator seat open.

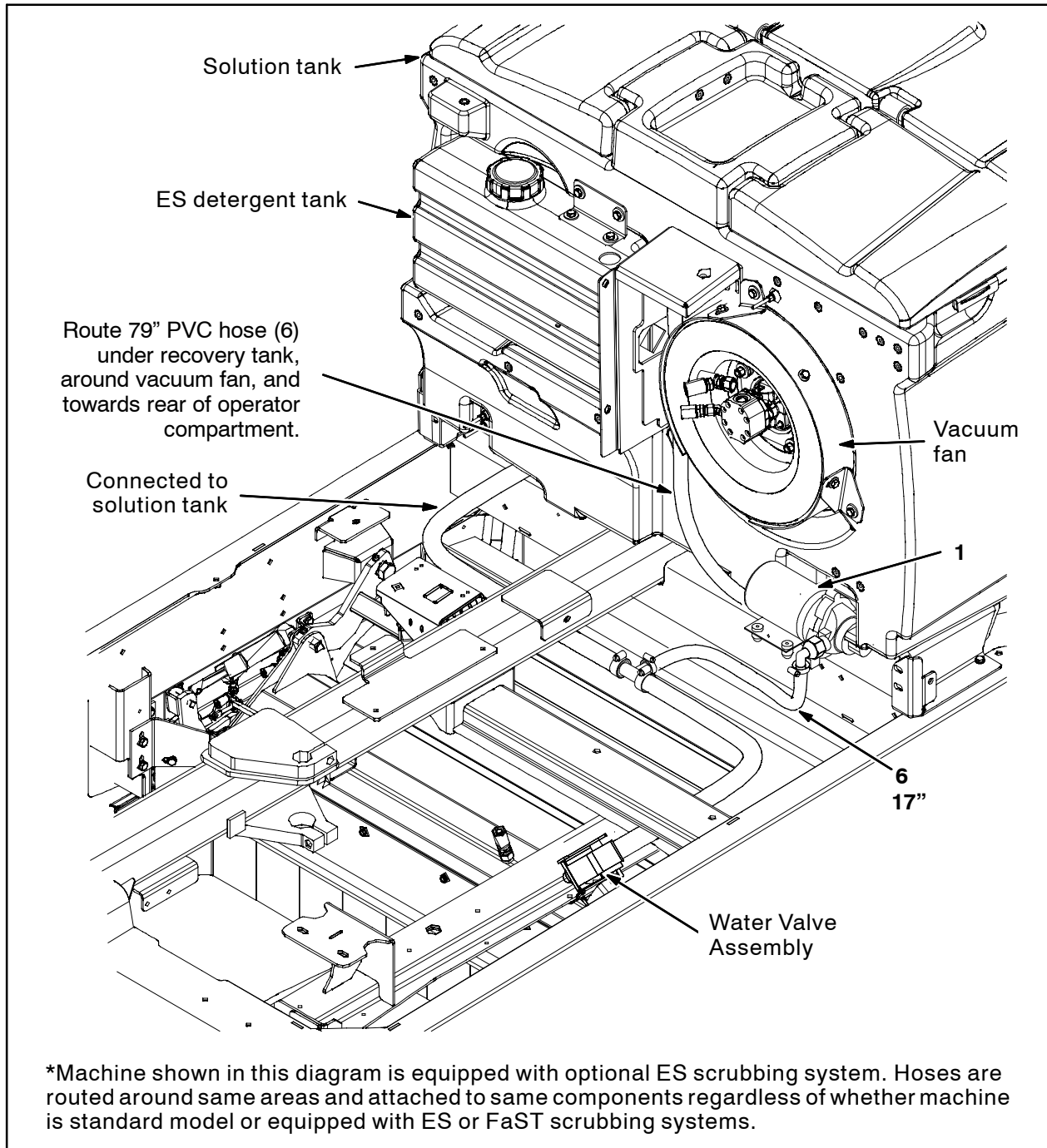


FIG. 5

12. Remove the removeable panel from the rear corner of the operator compartment. Set the panel and hardware (A) and (B) aside. Refer to Fig. 6.
13. Remove the plug from the removeable panel removed from the machine in the previous step. Discard the plug. Refer to Fig. 6.
14. Route the 79" PVC hose (6) up to the rear of the inner back corner of the operator compartment. Refer to Fig. 6.
15. Remove the lock washer and nut from straight fitting (18) and use the lock washer and nut to install the straight fitting into the rear of the operator compartment where the plug was previously located. Refer to Fig. 6.
16. Apply sealant onto the threads of the 90° plastic fitting (13) already installed on the 79" PVC hose (6) and install the fitting into the straight fitting (18) installed in the rear of the operator compartment. Refer to Fig. 6.
17. Apply sealant onto the threads at one end of the coiled water hose (8) and install the hose into the straight fitting (18) installed in the rear of the operator compartment. Refer to Fig. 6.
18. Use the saved hardware (B) to reinstall the removeable panel into the rear corner of the operator compartment. Refer to Fig. 6.
19. Use the saved hardware (A) to install the spray handle mounting bracket (11) onto the removeable panel reinstalled in the previous step. Refer to Fig. 6.
20. Thread the straight brass fitting (10) into the spray gun (9). Refer to Fig. 6.
21. Apply sealant onto the threads at the other end of the coiled water hose (8) and thread the spray gun (9), with brass fitting already installed (10), onto the coiled water hose. Refer to Fig. 6.

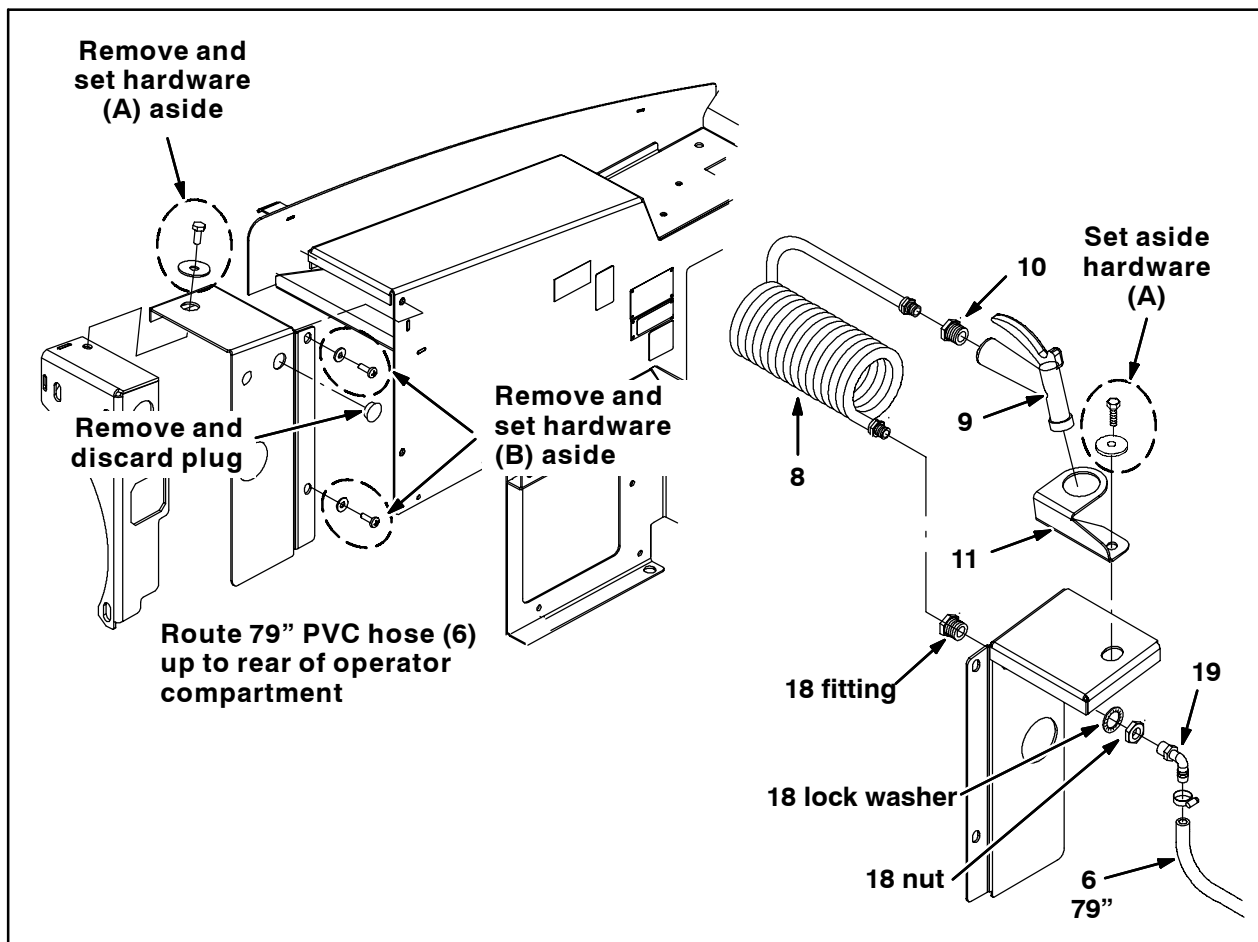


FIG. 6

22. Use existing hardware to install the relay (31) onto the steering column support bracket. Refer to Fig. 7.

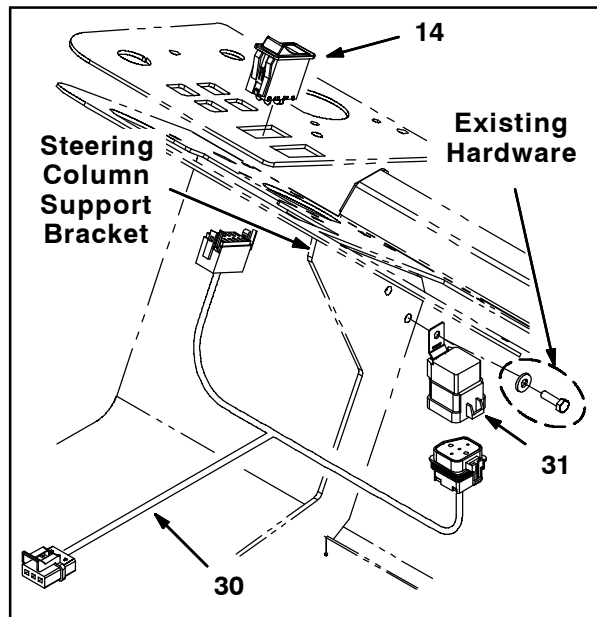


FIG. 7

23. Remove the blank from the hole in the instrument panel where spray wand switch will be installed. Refer to Fig. 7.
24. Insert the rocker switch (14) into instrument panel. Refer to Fig. 7.
25. Connect the spray nozzle harness (30) to the main wire harness. Refer to Fig. 7 and Fig. 13.
26. Connect the main wire harness to the pump (1). Refer to Fig. 13.
27. Connect the spray nozzle harness (30) to the rocker switch (14) and relay (31). Refer to Fig. 7 and Fig. 13.
28. Use two hex screws (16) and two flat washers (17) to install the spray wand mounting bracket (15) onto the recovery tank. Refer to Fig. 8.

NOTE: The spray wand mounting bracket (15) only needs to be installed if the machine is not already equipped with a bracket. Discard the new bracket or replace old existing bracket with new bracket.

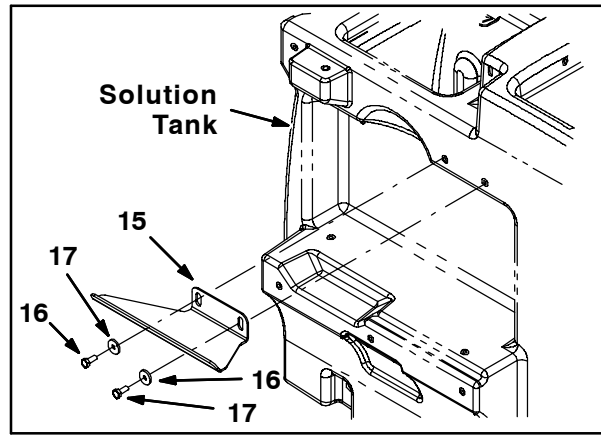


FIG. 8

29. Apply sealant onto the threads of the nozzle (28) and thread the nozzle into the wand (20). Refer to Fig. 9.

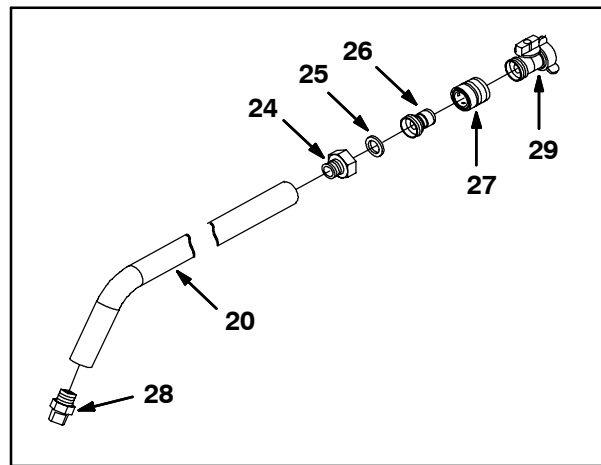


FIG. 9

30. Apply sealant onto the threads of the straight brass fitting (24) and thread the fitting into the other end of the wand (20). Refer to Fig. 9.
31. Insert the rubber flat washer (25) into the straight brass fitting (24) installed in the previous step. Refer to Fig. 9.
32. Thread the hose nipple (26) into the spray nozzle coupling (27). Refer to Fig. 9.
33. Thread the hose nipple (26) / spray nozzle coupling (27) assembled in the previous step into the straight brass fitting (24). Refer to Fig. 9.
34. Thread the shutoff valve (29) into spray nozzle coupling (27). Refer to Fig. 9.

35. Drill two 1/8" holes into the engine shroud. Refer to Fig. 10 for locations of holes drilled into the shroud.

36. Use a hex screw (22) and three flat washers (23) to install each clip (21) onto the engine shroud. Refer to Fig. 10.

37. Insert the wand (20) into the clips (21). Refer to Fig. 11.

38. Reinstall the battery and reconnect both battery cable to the battery.

39. Start the machine and test the spray nozzle and check around hose connections for leaks.

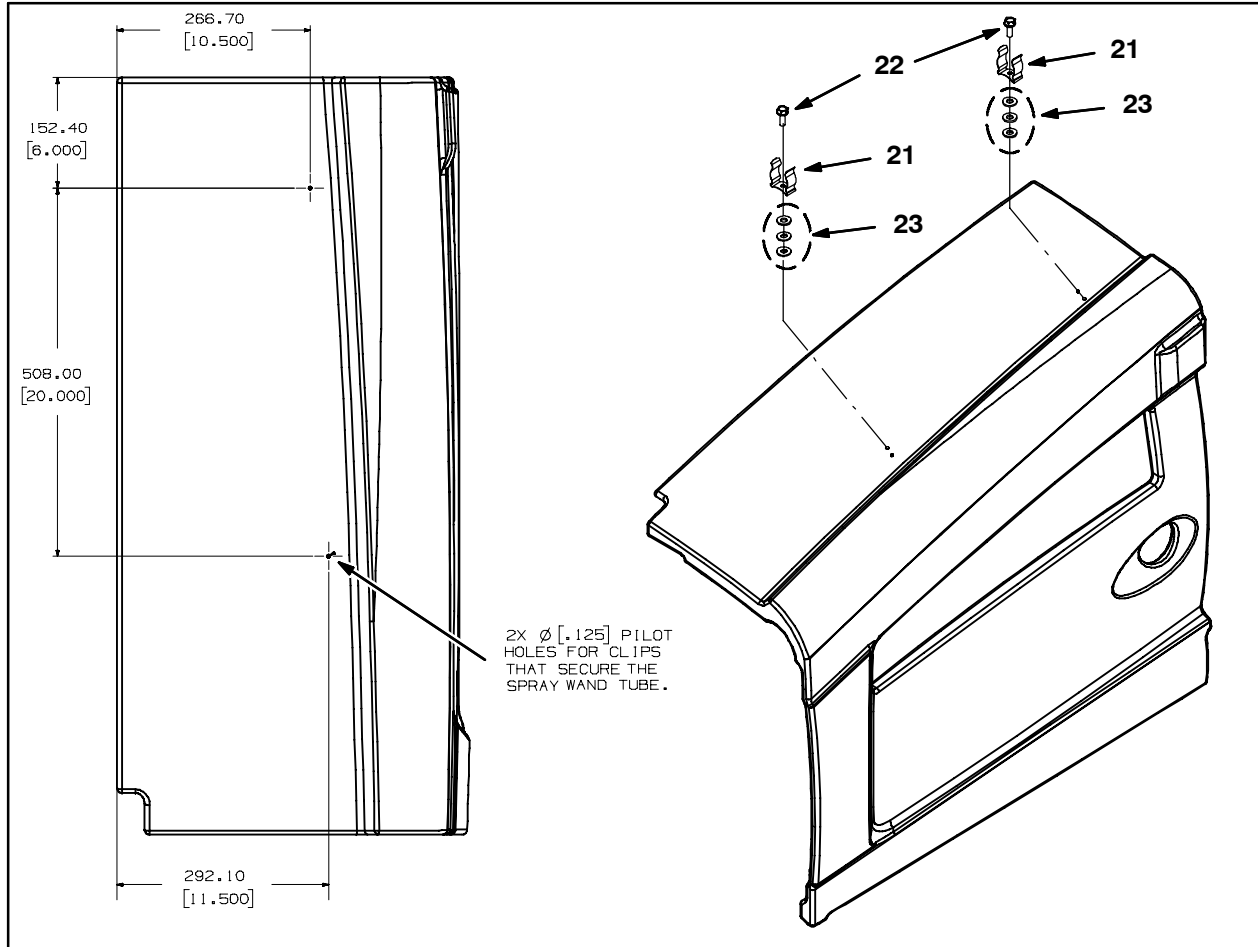


FIG. 10

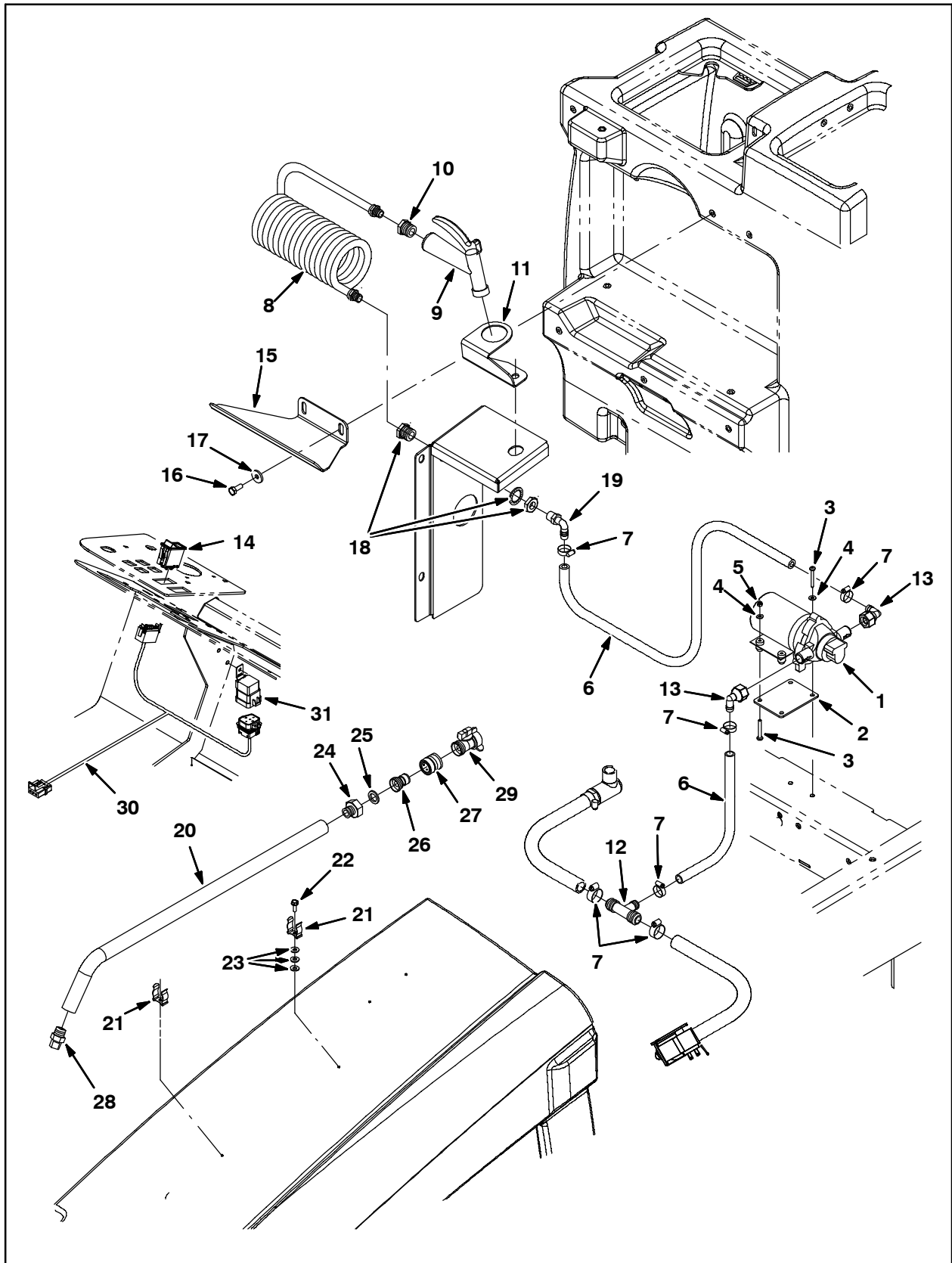


FIG. 11

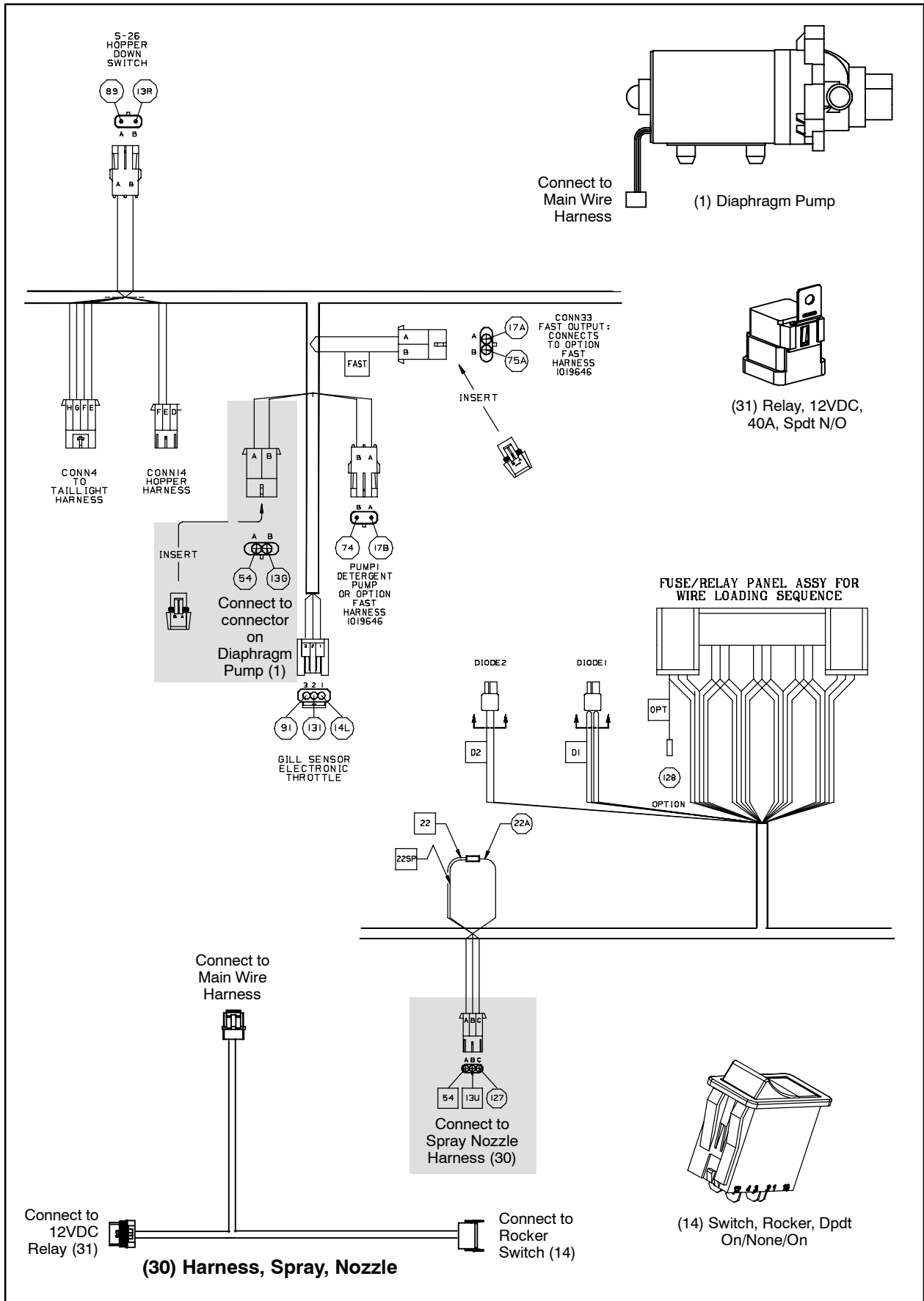


FIG. 12

Bill of Materials for Nozzle Kit, Spray, CI-9001310

Ref.	Part No.	Description	Qty.
▽	9001310	Nozzle Kit, Spray, CI	1
▲	1 1026743	Pump, Diaphragm (See Breakdown)	1
▲	2 1027007	Plate, Mtg, Pump	1
▲	3 17185	Screw, Pan, M5 X 0.8 X 40, SS	4
▲	4 01683	Washer, Flat, #10, SS	4
▲	5 09739	Nut, Hex, Lock, M5 X 0.8, NI, SS	2
▲	6 1011412	Hose, Afmkt, Pvc, Brd 0.50id 08ft	1
▲	7 63810	Clamp, Hose, Wormdrive, 0.56-1.06D, .56W	6
▲	8 1019250	Hose, Water, Coil	1
▲	9 769785	Nozzle, Spray, Gun	1
▲	10 1027976	Fitting, Brs, Str, PF06/PM12	1
▲	11 1027237	Bracket, Mtg, Spray Handle	1
▲	12 385644	Fitting, Plstc, Tee, BM08/BM12/BM12, Br	1
▲	13 1018499	Fitting, Plstc, E90, BM08/Pf08S, Swivel	2
▲	14 398500	Switch, Rocker, Dpdt On/None/On	1
▲	15 1029790	Bracket, Mtg, Spray Wand [Fast, Conv]	1
▲	16 09740	Screw, Hex, M8 X 1.25 X 20, SS	2
▲	17 1017218	Washer, Flat, 0.32B 1.00D .12, SS	2
▲	18 1027978	Fitting, Brs, Str, PF06/PF06 BH	1
▲	19 64778	Fitting, Plstc, E90, BM08/PM06	1
▲	20 1029055	Wand, Clean-Out	1
▲	21 1029057	Clip, Grip, Finger, .875-1.25	2
▲	22 20934	Screw, Hex, #10-16 X 0.62, Fmg [Ab]	2
▲	23 01683	Washer, Flat, #10, SS	6
▲	24 375321	Fitting, Brs, Str, PM08/Garden Hose	1
▲	25 01316	Washer, Flat, 0.66B 1.00D .12, Rbr	1
▲	26 1029153	Nipple, Hose	1
▲	27 1029155	Coupling, Nozzle, Spray	1
▲	28 1029156	Nozzle	1
▲	29 1029399	Valve, Shutoff	1
▲	30 1021881	Harness, Spray, Nozzle	1
▲	31 56186	Relay, 12VDC, 40A, Spdt N/O	1

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