



INSTRUCTION BULLETIN

No. 340031
Machine: 8400
Published: 3-97/01
System: SCRUBBING

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you 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 CP840033

SYNOPSIS / PROBLEM:

This kit contains the parts needed to install a water spray kit on the model 8400 sweeper/scrubber. This kit was designed to clean a dusty floor without using the scrub brushes. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Hand drill, drill bit set
(Estimated time to complete: 8 hours)

PREPARATION:
(Refer to FIG. 1, 2 and 3)

1. Drain the solution and recovery tanks.

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

2. Open the battery cover and disconnect the battery cables.



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

3. Block the front tires with a wheel chock to prevent machine from rolling.

FOR SAFETY: Always block the front tires before raising the rear of machine to prevent machine from rolling.

4. Raise the rear of the machine and install jack-stands under the frame.

FOR SAFETY: Always use jack stands to prevent machine from rolling. Do not rely on scissors, automotive, or hydraulic jacks which could slip, allowing machine to fall.

5. Remove the rear squeegee assembly from the machine where it attaches to the squeegee rod ball ends.

INSTALLATION OF SWITCH AND WIRING:

(Refer to FIG. 4)

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

1. Remove and discard the existing small side panel in operators compartment.
2. Route the branch of the harness (43), with wire 4RR/YEL, down toward the area of the circuit breakers. Remove the circuit breaker panel. (four replacement plastic screws (44) are provided in this kit)
3. Route the harness (43) to the switch (41). Wire 125NN/YEL and 4RR/YEL plug on the two terminals of the switch switch.

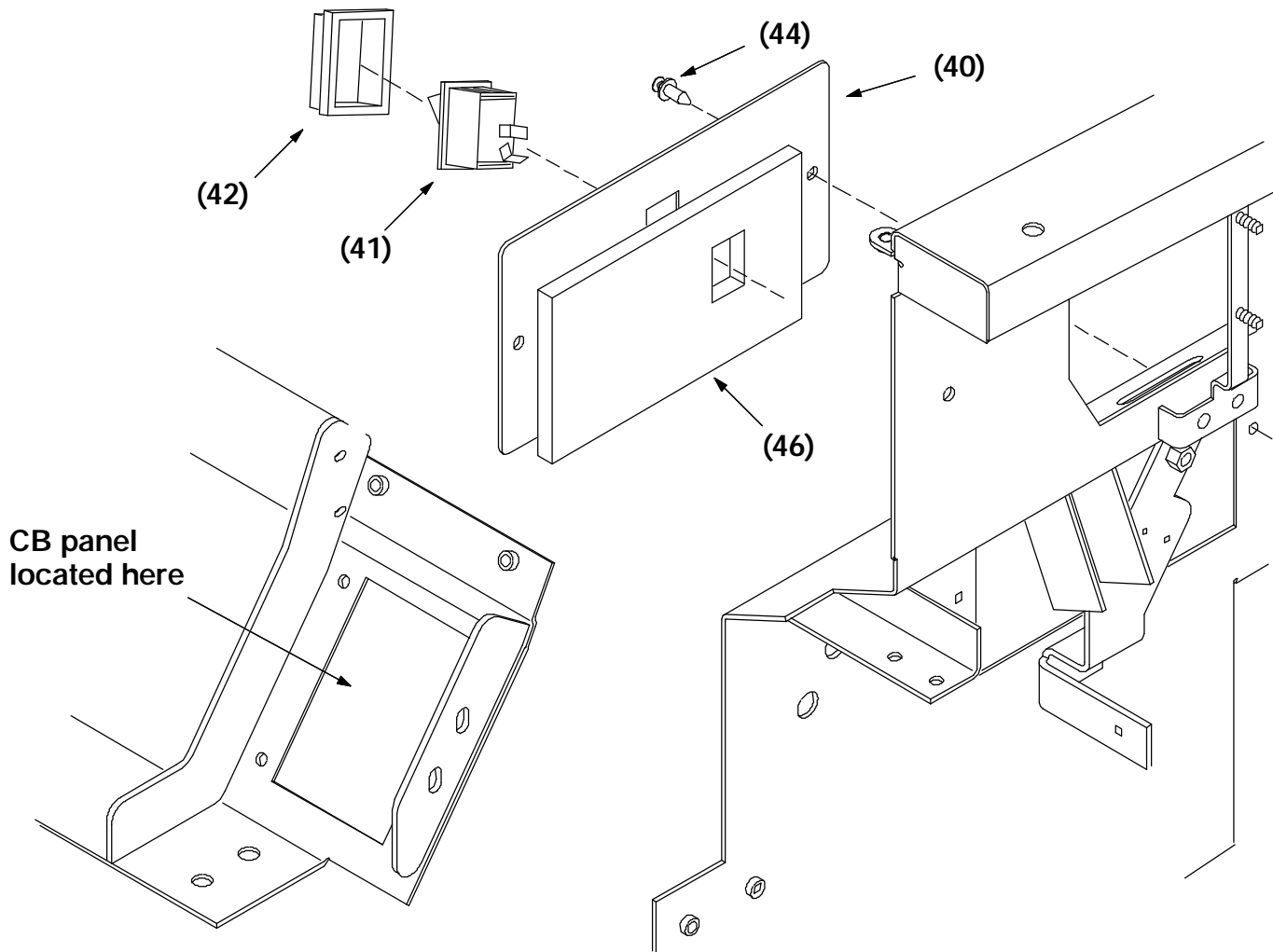


FIG. 1 - Panel And Switch

4. Install the new plate (40), insulation (46), switch (41), boot (42), and harness (43) in place of the old side panel. Use two new plastic screws (44).
5. Connect wire 4RR/YEL to wire 4A of circuit breaker # 5
6. Route the remaining harness along the back of the hydraulic tank down to the area of the 12V water pump (6).

INSTALLATION OF WATER PUMP:

(Refer to FIG. 1)

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

1. Install the two 90° plastic ftgs. (7) in the water pump (6). Orient the ftgs. according to the diagram.
2. Install the water pump (6) on the mount bracket (12) using the four M5 bolts (13), washers (15), and nyloc nuts (14). Orient the pump according to the diagram.

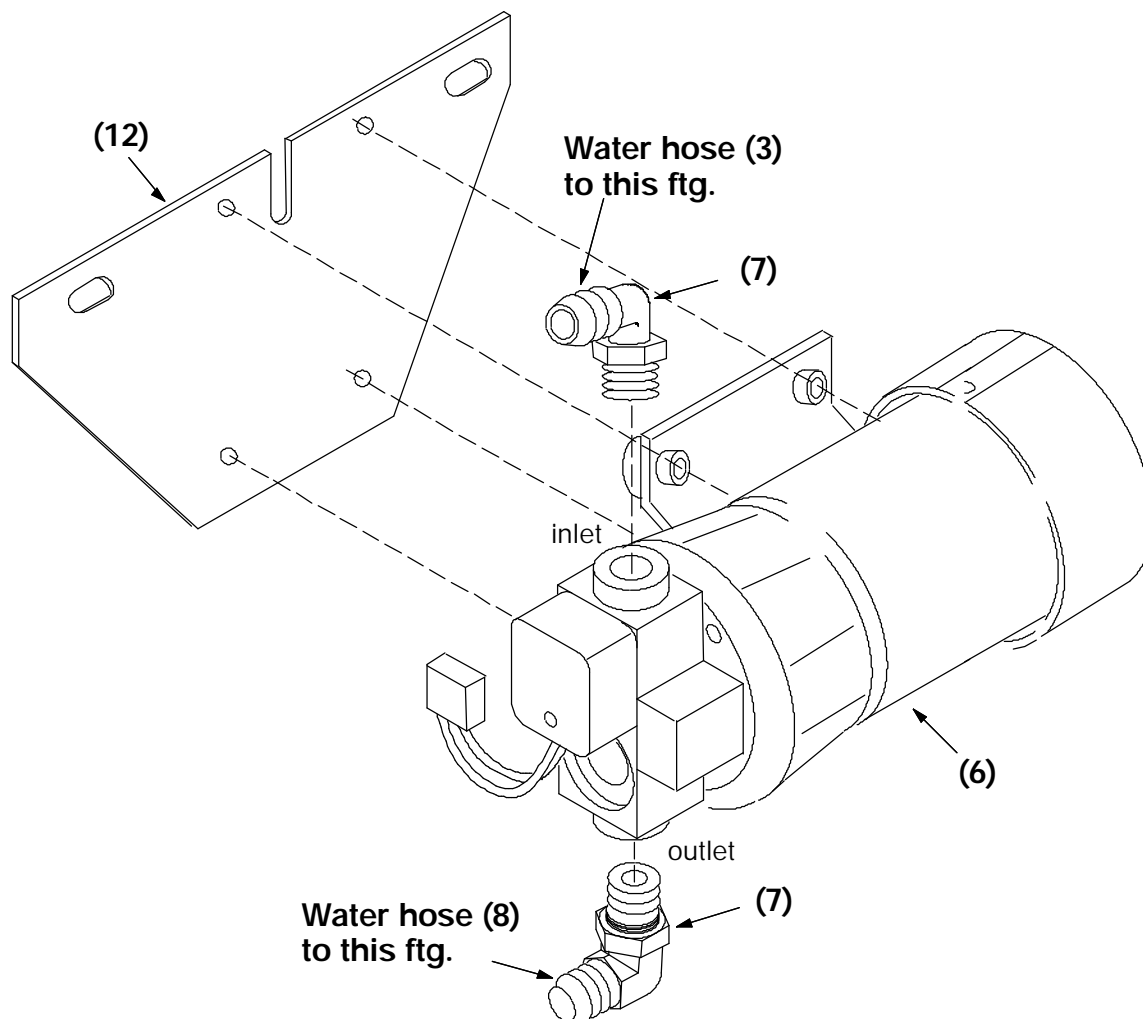


FIG. 2 - Water Pump Mount And Solution Lines

3. Position the pump and bracket assembly in the machine in the area behind the battery. Place the slots of the mount bracket over the existing bolt studs sticking through the gas tank/seat support panel. Install the two flange nuts (10) and tighten tight.
NOTE: Place the ground wire from the pump under one of the stud before installing the flange nut.
4. Install the water hose (3), coming from the plastic 90° ftg. (2), on the upper ftg. on the water pump. Use one of the clamps (5) to secure the hose.
5. The water pump electrical wiring is described in the INSTALLATION OF WIRING instructions. Connect the plug with wires 125NN/YEL and 13ZZ/BLK into the plug on the pump. Make sure to install the ring terminal of wire 13ZZ/BLK under one of the water pump attachment bolts.

INSTALLATION OF WATER SHUT OFF VALVE: (Reference photos 1 and 3)
(Refer to FIG. 2)

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

1. Locate the right hand side squeegee pivot weldment.
2. Use the dimensions in FIG. 2 to mark and drill the mount holes for the water shutoff valve (19).

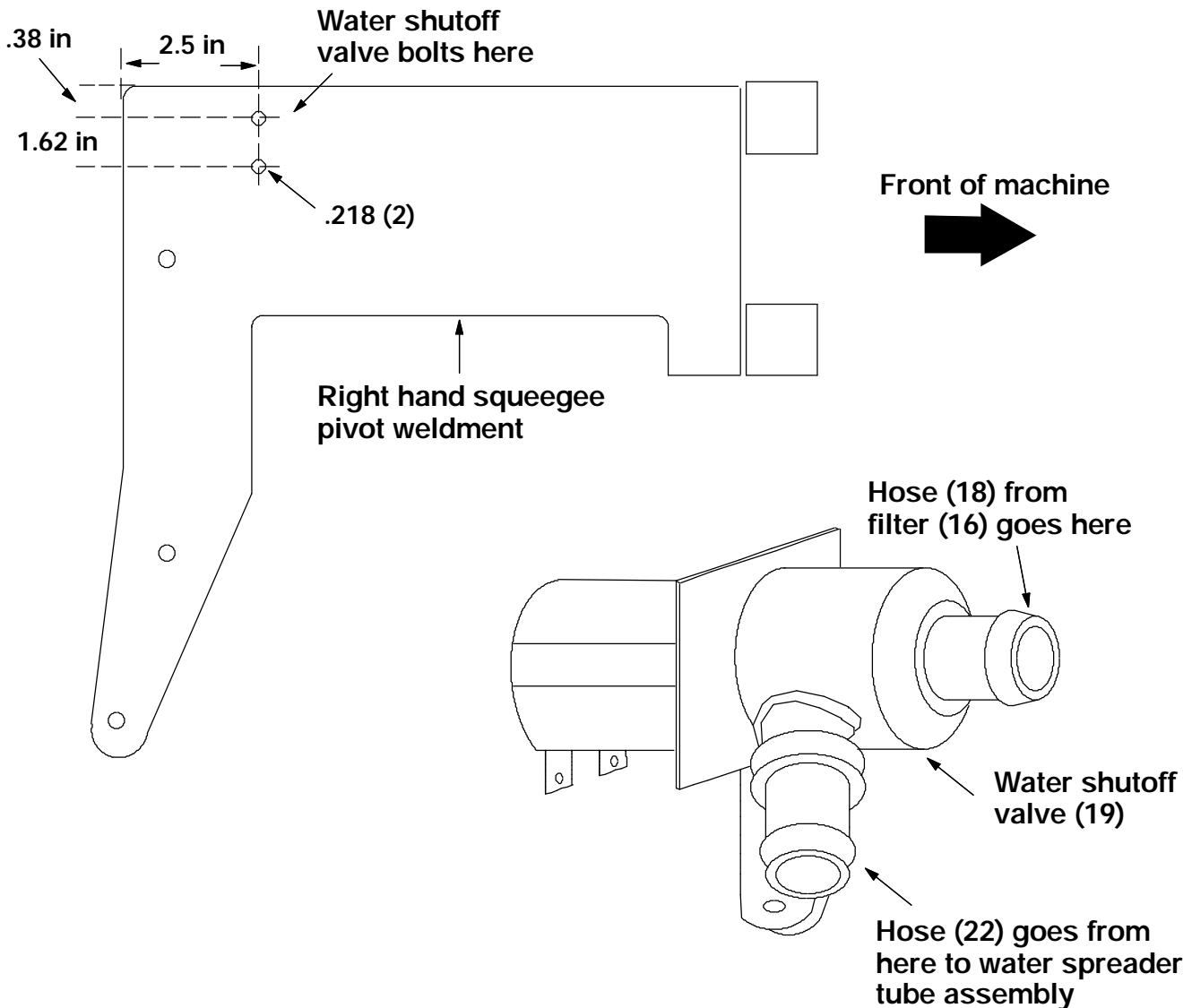


FIG. 3 - Water Shutoff Valve

3. The water valve is oriented so the inlet nipple is pointed forward and the outlet nipple is pointing down.
4. Use the two thread rollers (20) to mount the water valve (19) to the right hand side squeegee pivot weldment. Firmly tighten the screws.
5. Route the remaining portion of the electrical harness down to the area of the shutoff valve (19) and connect the wire 125PP/YEL and 13XX/BLU to the terminals on the valve.

INSTALLATION OF WATER LINES: (Reference photos 1, 2, 3, and 4)
(Refer to FIG. 3)

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

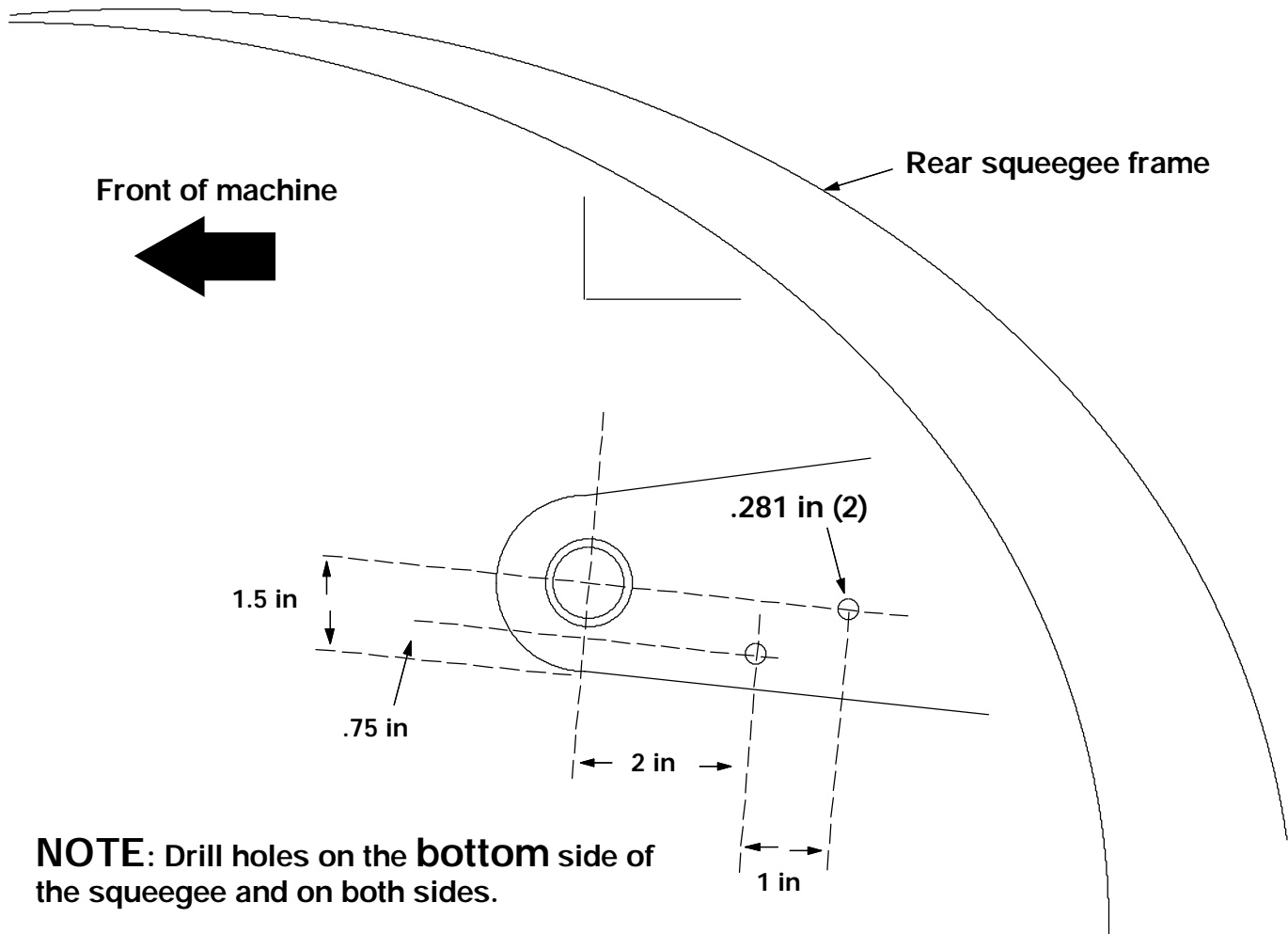
1. Go under the machine from the operators side. Locate the water line leading from the solution tank to the shutoff valve. Cut this hose approximately 5" from the end of the shutoff valve.
2. Install the 90° plastic ftg. (2) in the side of the plastic tee (1). Orient the ftg. (2) in the tee (1) so it points forward when installed in the machine.
3. Install the water hose (3) on the 90° plastic ftg. (2) using one clamp (5). Firmly tighten the clamp.
4. Position the tee/ftg/hose assembly in the cut solution line using two clamps (4). Firmly tighten the clamps.
5. Route the water hose (3) around the front of the battery until it is near the area of the right rear corner of the battery.
6. Install the water hose (3) on the top ftg. of the water pump (6) using one clamp (5). Firmly tighten the clamp.
7. Install water hose (8) and clamp (9) on the lower ftg. on the water pump (6). Firmly tighten the clamp. Route the hose (8) forward and down toward the right side squeegee pivot plate.
8. Install the other end of water hose (8) on the inlet side of the filter assembly (16) using one clamp (9). Firmly tighten the clamp.
9. Install water hose (18) on the outlet side of the filter assembly (16) using one clamp (17). Firmly tighten the clamp.
10. Install the other end of hose (18) on the inlet side of the water shutoff valve (19) using one clamp (17). Firmly tighten the clamp.
11. Install water hose (22) on the outlet side of the water valve (19) using one clamp (21). Route water hose (22) along the rear squeegee right hand upper pivot rod and along the top of the squeegee frame.
12. See step 5 of the INSTALLATION OF WATER TUBE instructions to connect the other end of hose (22).

INSTALLATION OF WATER SPREADER TUBE:

(Refer to FIG. 3)

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

1. With the squeegee frame removed from the machine and turned **upside down**, use the dimensions in FIG. 3 to mark and drill the water spreader tube bracket (34) mount holes on the bottom side of squeegee frame. (Refer to FIG. 3)
2. After the mount holes have been marked and drilled, install the two mount brackets (34) on the squeegee frame using the four thread rollers (36). Leave the screws loose for now. (Refer to FIG. 3)



NOTE: Drill holes on the **bottom** side of the squeegee and on both sides.

FIG. 4 - Water Spreader Tube Mount Bracket Hole Location

3. Mount the spreader tube assembly on the mount brackets using two clamps (35), two bolts (37), washers (39), and nuts (38). Push the tubes against the squeegee mount and firmly tighten all of the hardware. (Refer to FIG. 3) (Reference photos 5, 6, 7, 8, and 9)
4. Reinstall the squeegee on the machine.
5. Connect the water hose (22) leading from the outlet nipple of the shutoff valve (19) to the 90° ftg. in the center of the water spreader tube assembly. (Refer to FIG. 3) (Reference photo 9)
6. Use the wire ties (45) to secure the electrical harness away from any moving parts.

BILL OF MATERIALS FOR WATER SPRAY KIT CP-840033

Ref.	TENNANT Part No.	Description	Qty.
1	64740	Ftg, plastic, tee	1
2	63244-1	Ftg, plastic E90, 08BM / 08PM	1
3	SPO2541	Hose, 39 in.	1
4	11399	Clamp	2
5	54333	Clamp	1
6	SPO2003	Pump, 12V	1
7	65581	Ftg, plastic E90, 08BM / 04PM	2
8	SPO2542	Hose, 4.5 in.	1
9	54333	Clamp	2
10	07791	Nut, flange	2
11	39355	Washer, loc-int, M8	1
12	SPO2192	Bracket, pump mount	1
13	12316	Bolt, M5	4
14	09739	Nut, nyloc	4
15	33921	Washer, M5	4
16	SPO2545	Filter assembly	1
17	54333	Clamps	2
18	SPO2543	Hose, 29.75 in.	1
19	20939	Valve, water shutoff	1
20	74455	Thread roller, M6	2
21	54333	Clamp	2
22	SPO2544	Hose, 45.25 in.	1
23	63244-1	Ftg, plastic E90	1
24	79497	Ftg, plastic tee	1
25	54333	Clamp	1
26	SPO2548	Tube, 8"	2
27	SPO2546	Nozzle	2
28	SPO2547	Ftg, plastic, reducer	2
29	10575	Ftg, plastic E45	2
30	SPO2547	Ftg, plastic, reducer	2
31	SPO2549	Tube, 10"	2
32	SPO2546	Nozzle	1
33	56119	Plug, 3/8 npt	2
34	SPO2550	Bracket	2
35	40678-1	Clamp	2
36	74455	Thread roller, M6	4
37	08716	Bolt, M6x1.0x20	2
38	08708	Nut, nyloc	2
39	33922	Washer	2
40	72785	Plate	1

BILL OF MATERIALS FOR WATER SPRAY KIT CP-840033 (continued)

Ref.	TENNANT Part No.	Description	Qty.
41	65561	Switch	1
42	57807	Boot	1
43	SPO2551	Harness	1
44	72971	Screw, plastic	6
45	49266	Wire ties	6
46	77299	Insulation, acoustic	6

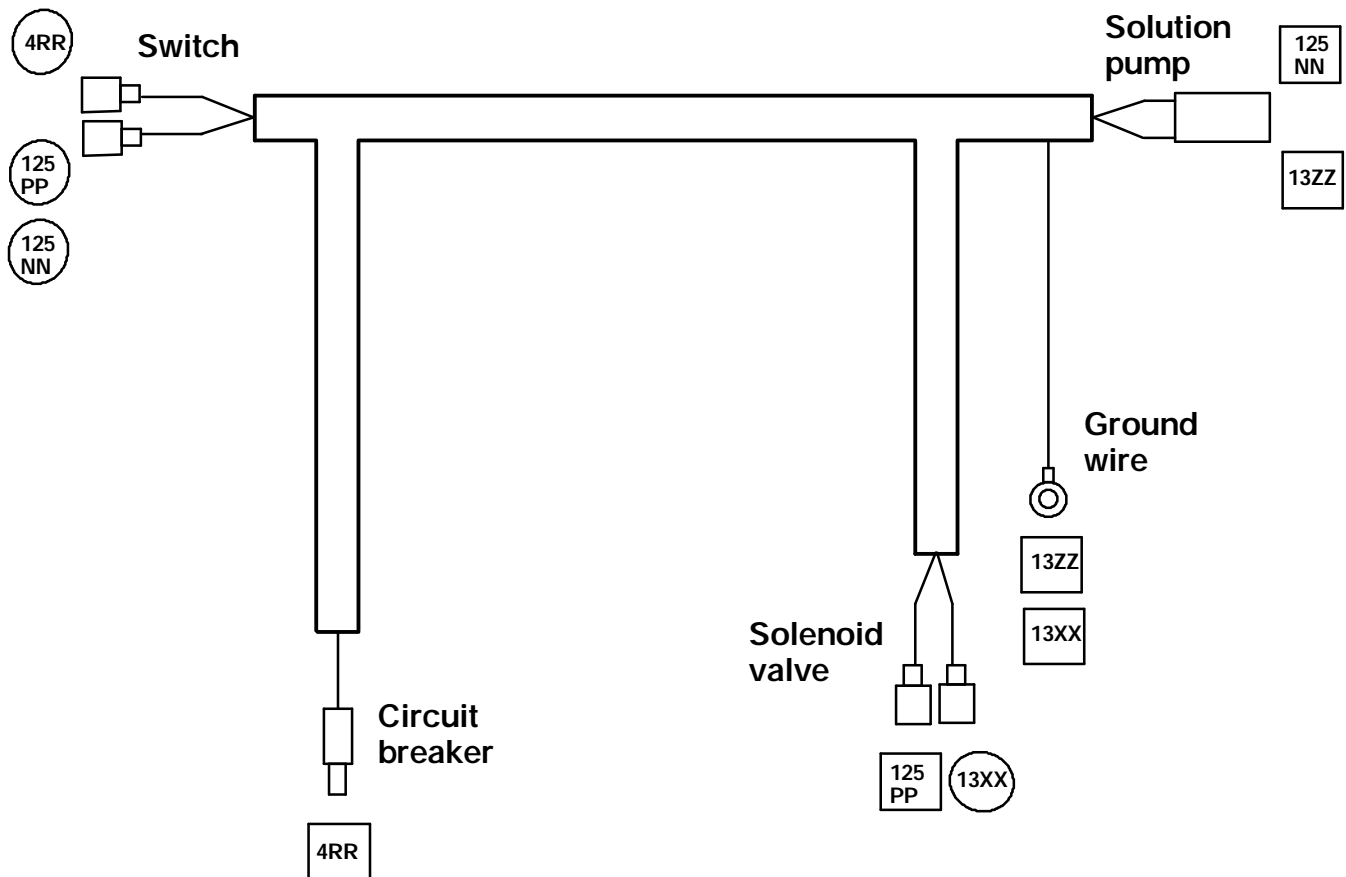


FIG. 5 - SP02551 Harness Drawing

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452