



# INSTRUCTION BULLETIN

No. 340425  
Machine: 7100  
Published: 1-01/01  
System: OPTIONS

**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 391041

## SYNOPSIS / PROBLEM:

This kit contains the parts needed to install an Extended Scrub kit on the model 7100 scrubber.

Please follow step-by-step instructions.

## SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 3 hours)

## PREPARATION:

(Refer to FIG. 1 thru 5)

1. Check solution and recovery tanks. If tanks are not empty, drive machine to a proper solution drain. Empty 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. Drive machine to a clean and level work area. Disconnect battery cables from machine.

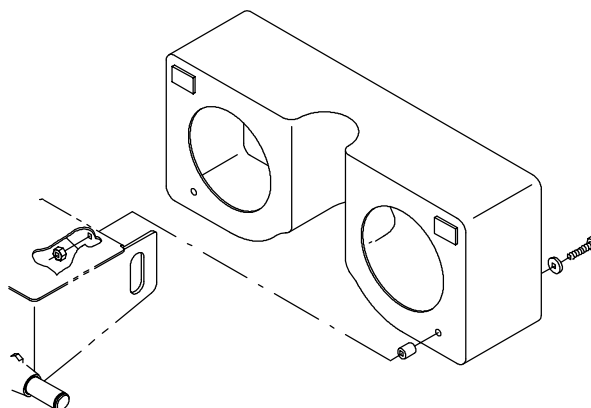


**WARNING: Always disconnect battery cables from machine before working on electrical components.**

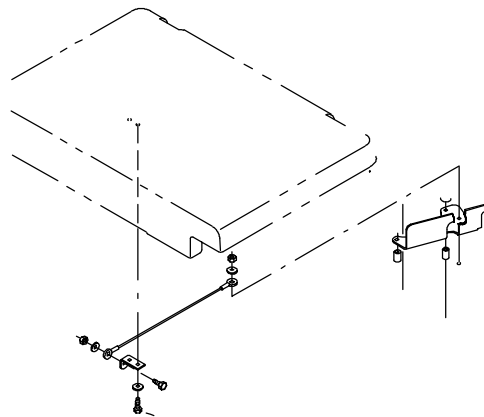
## ES™ KIT INSTALLATION:

(Refer to FIG. 1 thru 5)

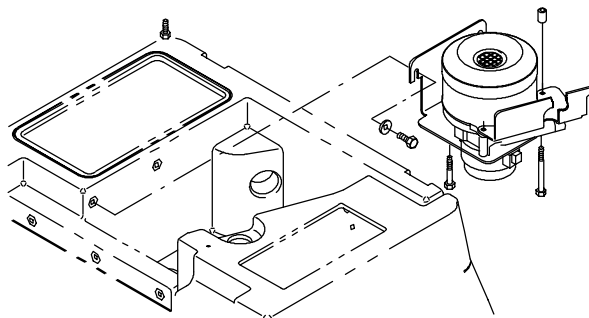
1. Disconnect, remove and set aside the drain caps and hoses from both tanks. Remove and set aside the drip shield and two mounting bolts.



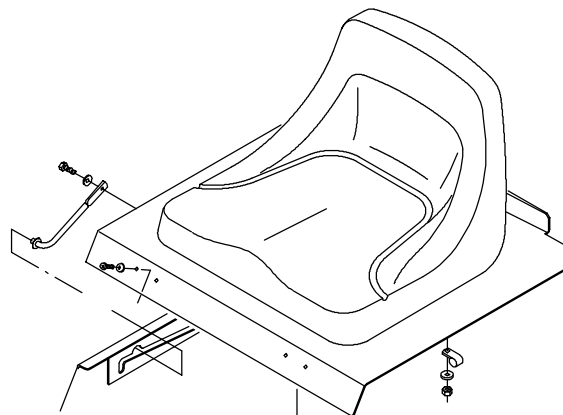
2. Remove and set aside the machine tank cover, cable and mounting bolts.



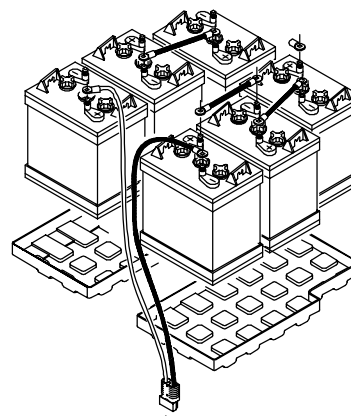
3. Disconnect the vacuum fan connector from the main harness. Remove and set aside the vacuum fan assembly and three mounting bolts. (Refer to FIG. 4 and 5)



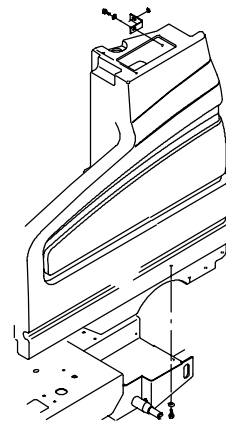
4. Lift the operator seat, and disconnect the seat pressure switch from the main harness. Disconnect the seat prop rod from the machine frame. Disconnect and remove the seat support weldment and operator's seat from the machine frame. Set the seat, weldment and mounting hardware aside.



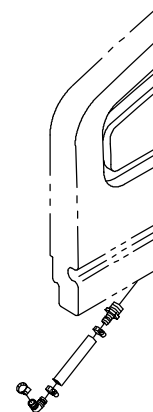
5. Disconnect the battery cables from the front and middle batteries on the left hand side of the machine. Remove the middle battery from the battery compartment and set it aside. Slide the front battery back to access the two solution tank mounting bolts in the left wall of the seat support.



6. Locate, remove and set aside two solution tank mounting bolts in the battery compartment. Locate, remove and set aside the L bracket on top and the mounting bolt under the tank, securing the solution tank to the machine. (Refer to FIG. 1)

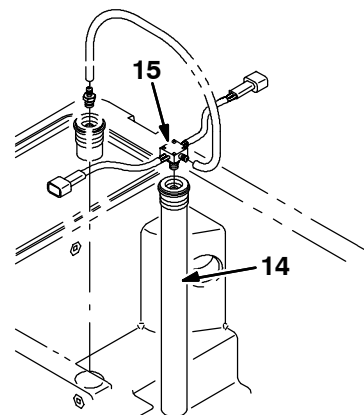


7. Disconnect 0.62 in Ø solution hose under the frame at the 90° elbow. (Refer to FIG. 1)

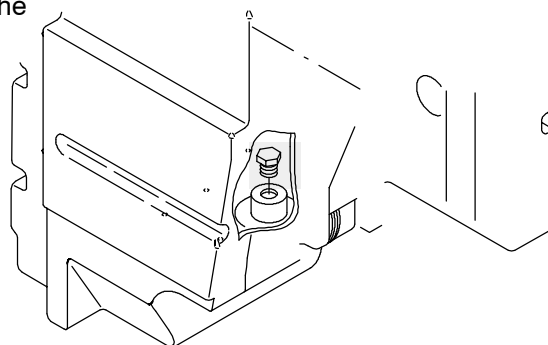


8. Remove and set aside the solution tank.

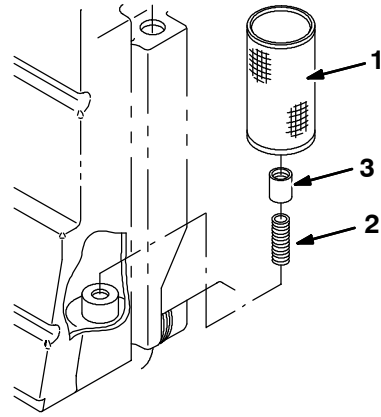
9. Install the new dual pressure switch (15) and 14" tube (14) in the recovery tank. Connect the vacuum hose to the new dual pressure switch (15). Connect the dual pressure switch (15) to 22/BRN and 13W/BLK from the main harness. (Refer to FIG. 2,4 and 5)



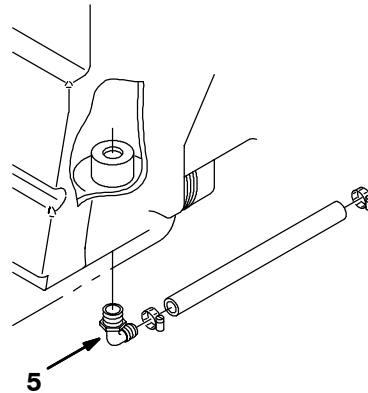
10. Remove the plastic plug from the inside bottom of the recovery tank. (Refer to FIG. 1)



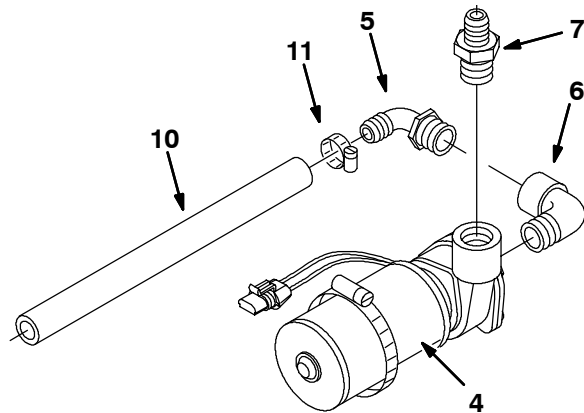
11. Install the new solution screen (1) with the male (2) and female plastic fittings (3), in the bottom of the recovery tank, in place of the plastic plug. Apply 'No more leaks' to seal the end of the male fitting going into the tank. (Refer to FIG. 2)



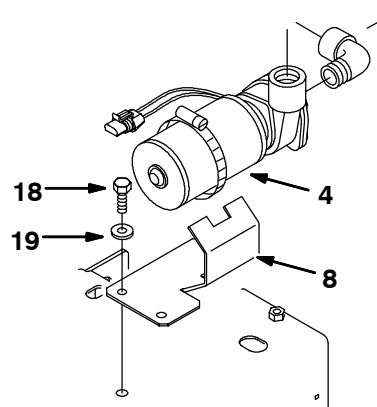
12. Apply 'No more leaks' to the threaded end of one 90° fitting (5). Thread the 90° fitting (5) into the drain hole on the underside of the recovery tank. (Refer to FIG. 2)



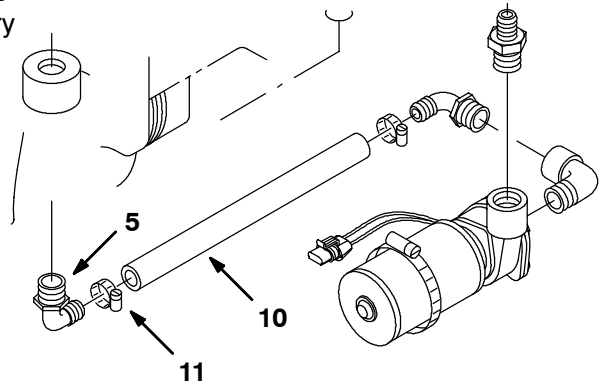
13. Apply 'No more leaks' to the end of the 90° fitting (6). Thread the 90° fitting (6) into the end of the solution pump (4). Thread the 90° fitting (5) into the open end of 90° fitting (6), using 'No more leaks' to seal the fittings. Thread the straight fitting (7) into the top side of the solution pump (4), using 'No more leaks' to seal the connection. Connect one end of the 8" braided hose (10) to the 90° fitting (5) with a hose clamp (11). (Refer to FIG. 2)



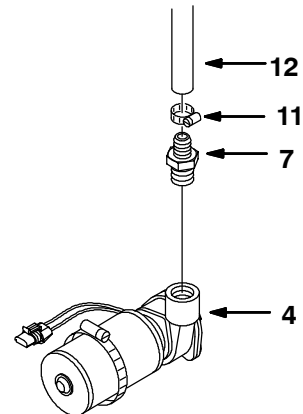
14. Mount the solution pump (4) to the rear of the machine frame with pump bracket (8), hex screws (18) and washers (19). Connect the solution pump to 23J/ORA and 31/PNK from the main harness. (Refer to FIG. 2, 4 and 5)



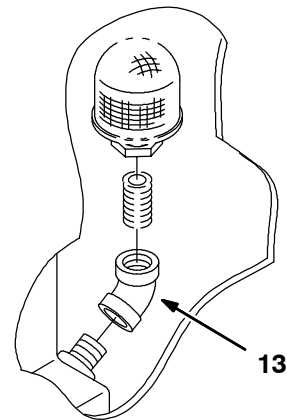
15. Connect the open end of the 8" braided hose (10) to the open end of the 90° fitting (5) under the recovery tank with a hose clamp (11). (Refer to FIG. 2)



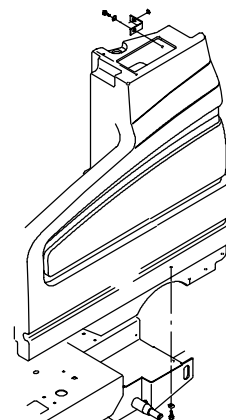
16. Connect one end of the 36" long braided hose (12) to the straight fitting (7) in the top of the solution pump (4) with a hose clamp (11). (Refer to FIG. 2)



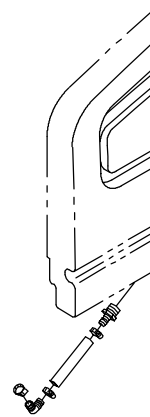
17. Disassemble the straight fittings securing the mesh filter in the bottom of the solution tank. Insert the 45° plastic fitting (13) between the straight fittings, so the mesh filter will sit level when the solution tank is remounted. (Refer to FIG. 2)



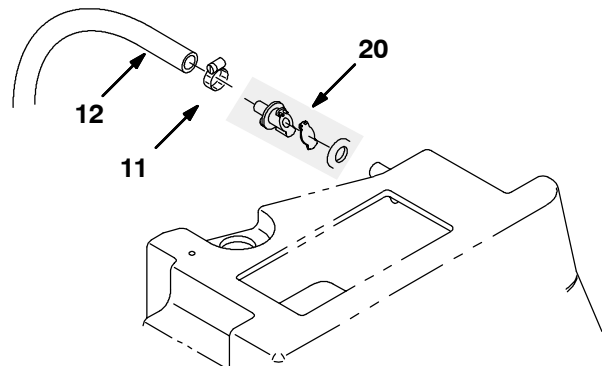
18. Remount the solution tank back onto the machine frame with set aside mounting hardware. (Check that the 0.62 in Ø hose is routed through the frame opening).



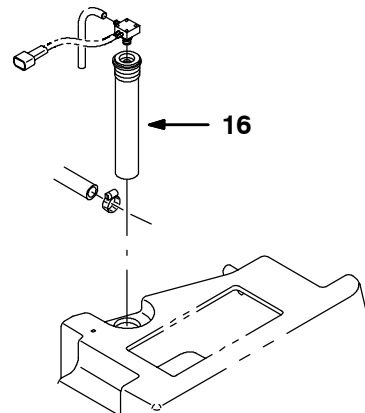
19.Reconnect the 0.62 in.  $\varnothing$  solution tank hose below the frame to elbow.



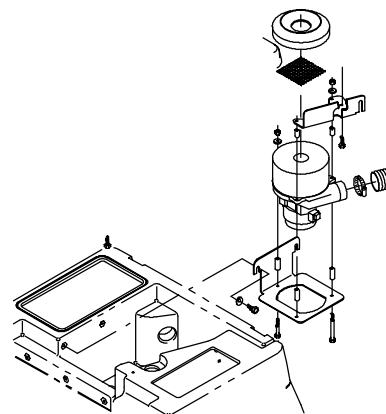
20.Remove the rubber plug 390994 covering the check valve opening in the side of the solution tank. Install the check valve (20) in the opening, so the check valve flapper will empty into the solution tank. Connect the open end of the 36" long braided hose (12) from the solution pump to the check valve, with a hose clamp (11). (Refer to FIG. 2)



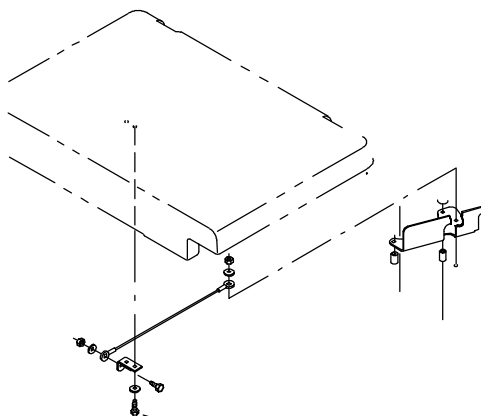
21.Remove and discard the old pressure switch assembly from the solution tank. Install the new 8" tube and switch assembly (16). Connect the switch wire BRN to main harness 35/GRN and switch wire BLK to 13Y/BLK on the main harness. (Refer to FIG. 2, 4 and 5)



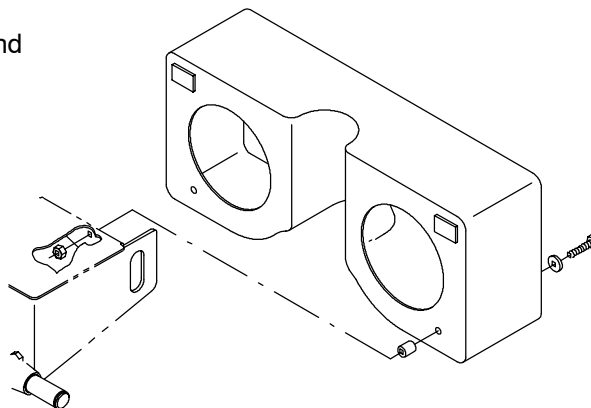
22.Reinstall the vacuum fan assembly with the three set aside mounting bolts. Reconnect the vacuum fan harness to the main harness. (Refer to FIG. 3)



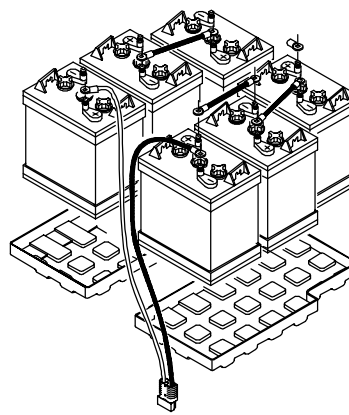
23. Replace the machine tank cover and cable with the set aside mounting bolts.



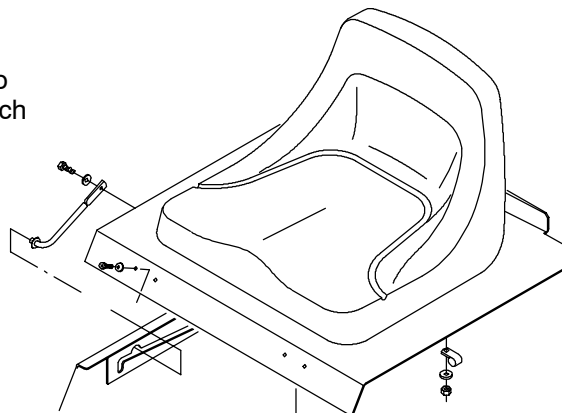
24. Replace the drip shield with the two set aside mounting bolts. Replace the set aside drain caps and hoses on both tanks.



25. Slide the battery in the middle position, back to the front of the machine. Replace the set aside battery back in the left, middle opening. Reconnect the battery cables to the front and middle batteries on the left hand side of the machine.



26. Reinstall the operator's seat, and seat support weldment with the set aside mounting hardware. Lift the operator seat, and reconnect the seat prop rod to the seat support frame, and the safety pressure switch to the main harness. Disengage the seat prop rod, and lower the operator's seat.



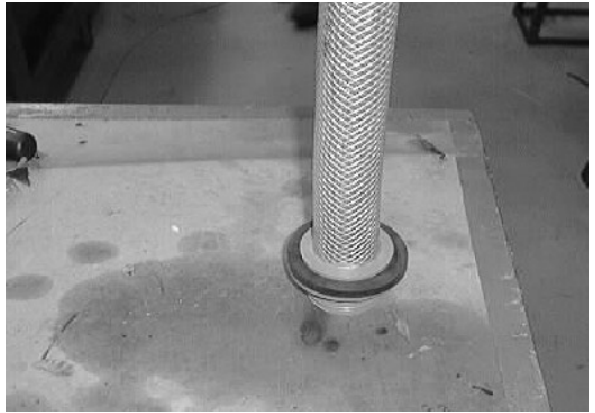
## ES™ DRAIN KIT INSTALLATION:

(Refer to FIG. 3)

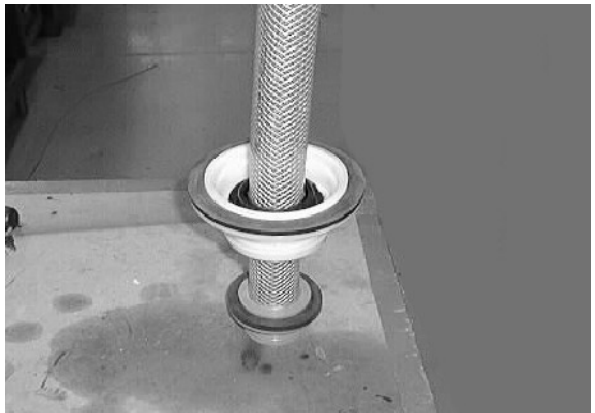
27. Mount the hose seal (10) in the center of the cover insert (11). Mount the lid gasket (8) around the edge of the cover insert (11). (Refer to FIG. 3)



28. Slide the lid gasket (16) over the hose, and onto the end of the drain hose assembly (17). (Refer to FIG. 3)

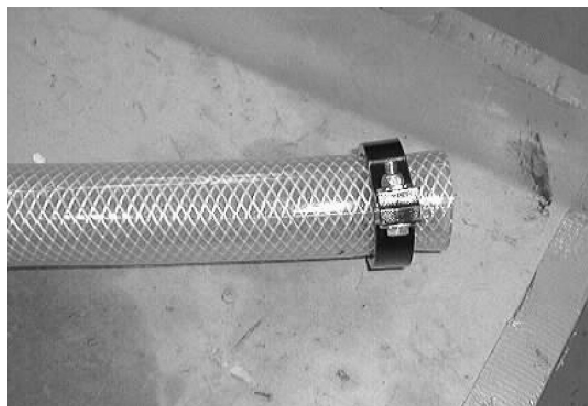


29. Install the new lid assembly onto the drain hose assembly (17). (Refer to FIG. 3)





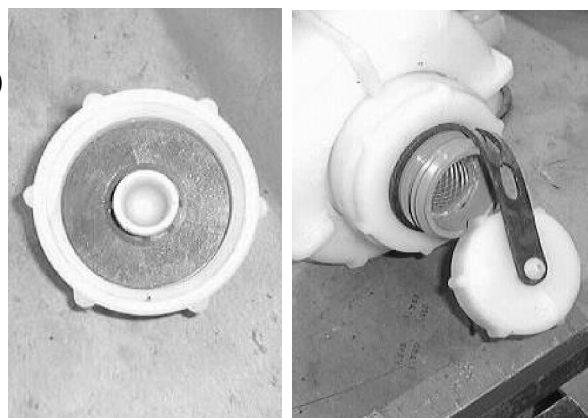
30. Mount the hose clamp (12) to the end of the drain hose assembly (17) with the hex screw (13), flat washers (14) and lock nut (15). (Refer to FIG. 3)



31. Mount the assembly cover (7) over top of the new lid assembly with the drain cap gasket (9). Thread the drain cap (6) onto the insert cover (11). Mount the cap retainer strap (5) to the drain hose (17). (Refer to FIG. 3)



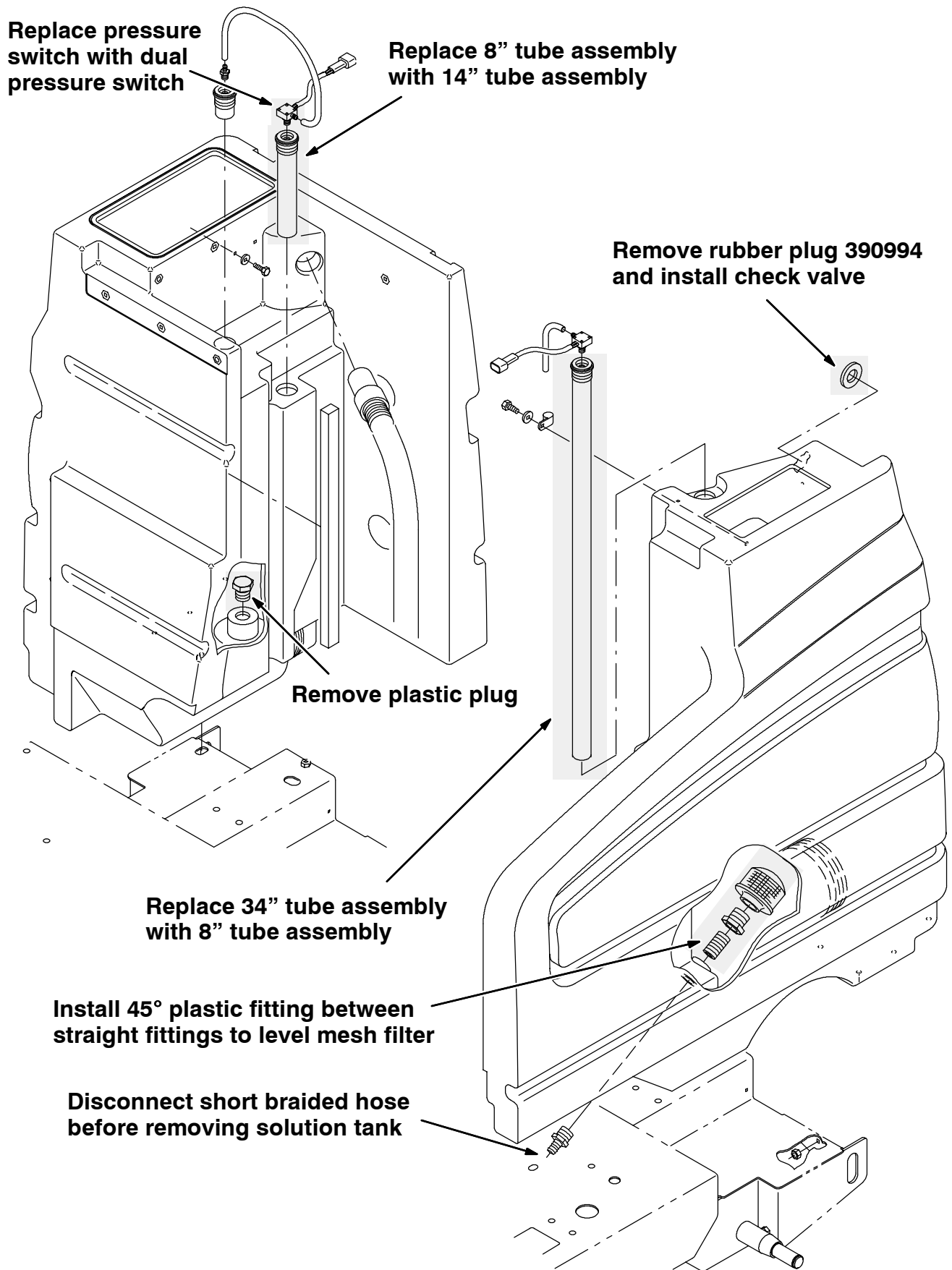
32. Mount the cap gasket (3) inside of the tank drain cap (2) with the retaining ring (4). Secure the tank drain cap to the retaining strap (5). (Refer to FIG. 3)



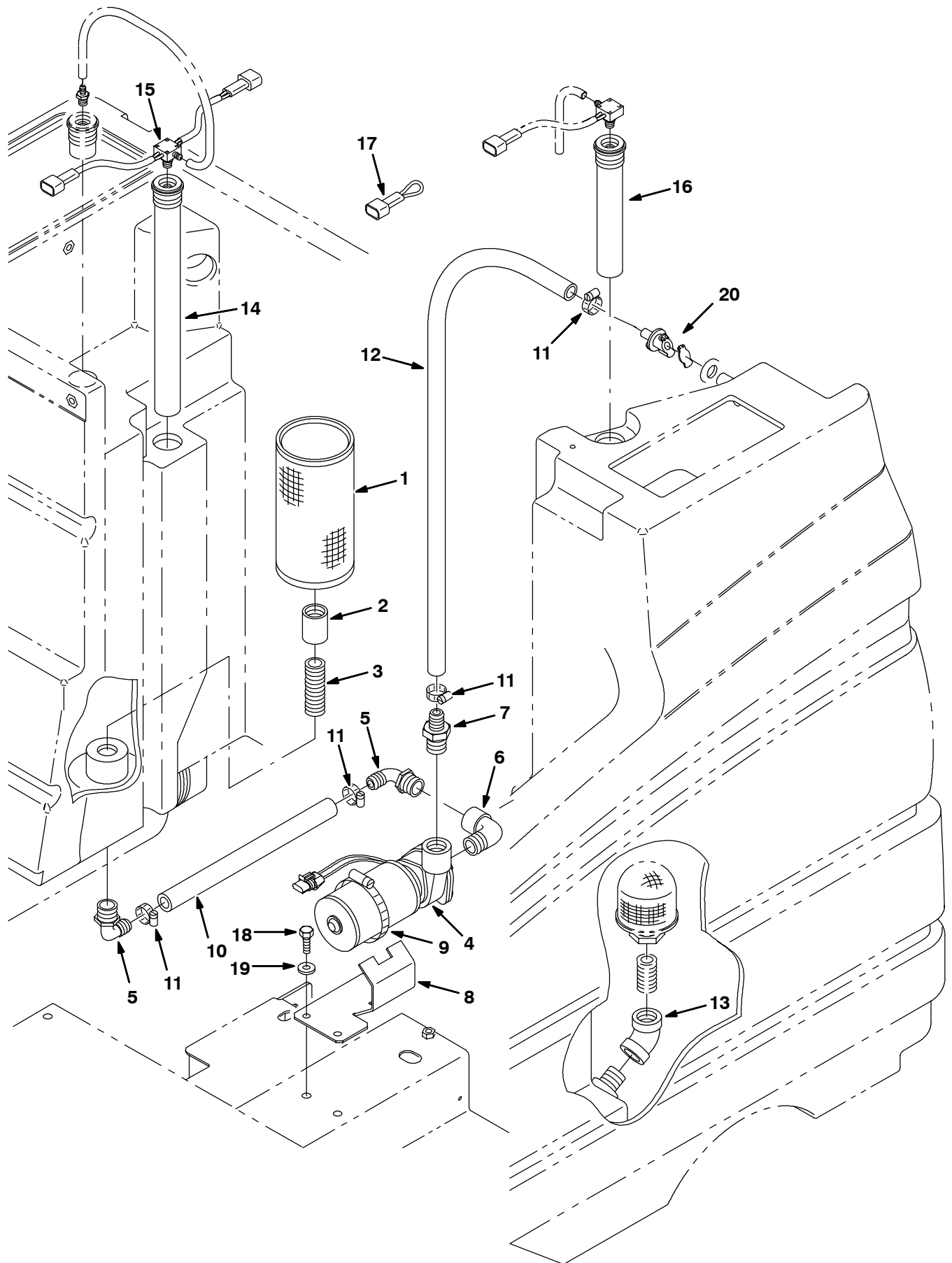
33. Close both tanks, and reconnect the battery cables to the machine. Start the machine and drive the machine to the tank filling station.

34. Turn the machine power off and fill the solution and recovery tanks accordingly.

35. Turn the machine power on, and check the scrubbing systems for proper operation.



**FIG. 1 - STANDARD SOLUTION AND RECOVERY TANK ASSEMBLY**

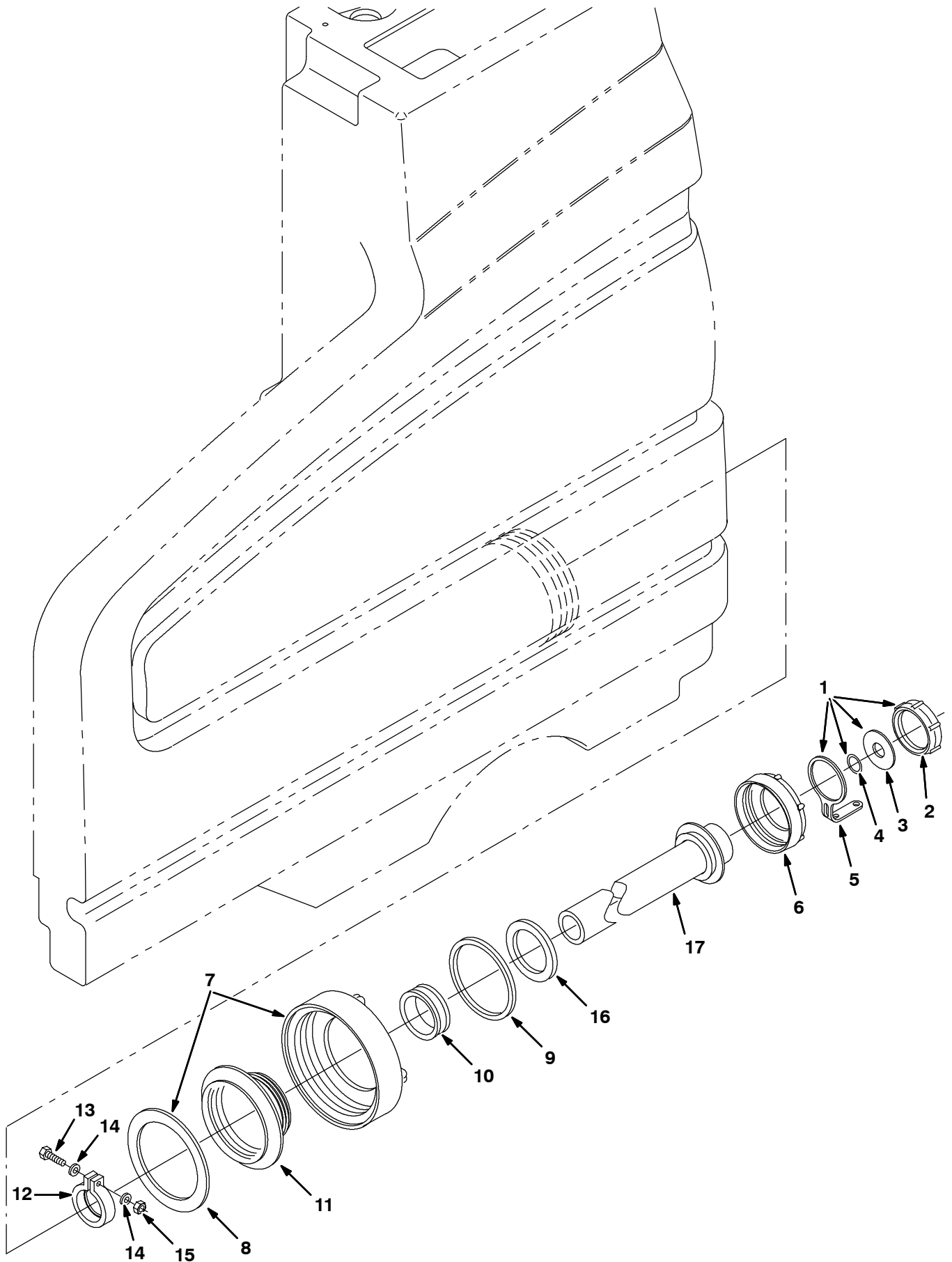


**FIG. 2 - ES™ KIT INSTALLATION**

**BILL OF MATERIALS FOR FIG. 2 ES™ KIT**

*NOTE: Extended Scrub Kit, Tennant Part Number 391041, includes; Fig. 2 and Fig. 3.*

<b>Ref.</b>	<b>TENNANT Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	10573	Screen, soltn, 20 mesh, dbl cyl	1
2	05134	Fitting, plstc, str, Pf12/Pf12	1
3	385665	Fitting, plstc, str, Pm12/Pm12 03.0l	1
4	369865	Pump, solution, impeller, 36vdc	1
5	73468	Fitting, plstc, E90, Bm10/Pm12	2
6	69785	Fitting, plstc, E90, Pm12/Pf12	1
7	365095	Fitting, plstc, str, Bm10/Pm12	1
8	391115	Bracket, pump, ES™	1
9	17188	Clamp, hose, wormdrive, 1.62-3.50d	1
10	390925	Hose, vyl, brd 0.62id 0.88od 8.0 L	1
11	63810	Clamp, hose, wormdrive, 0.56-1.06d	4
12	390797	Hose, braided, vynl, 36.0L	1
13	10575	Fitting, plstc, E45, Pf12/Pf12	1
14	385747	Tube assy, 14 inch	1
15	385730	Switch assy, dual press, 10 inch & 4 inch	1
16	385744	Tube assy, 8 inch	1
17	390620	Harness, jumper	1
18	12273	Screw, hex, M08 X 1.25 X 20, Ss, NI	2
19	01685	Washer, flt, 0.31 Ss	2
20	78842	Valve, ES™	1



**FIG. 3 - ES™ DRAIN KIT INSTALLATION**

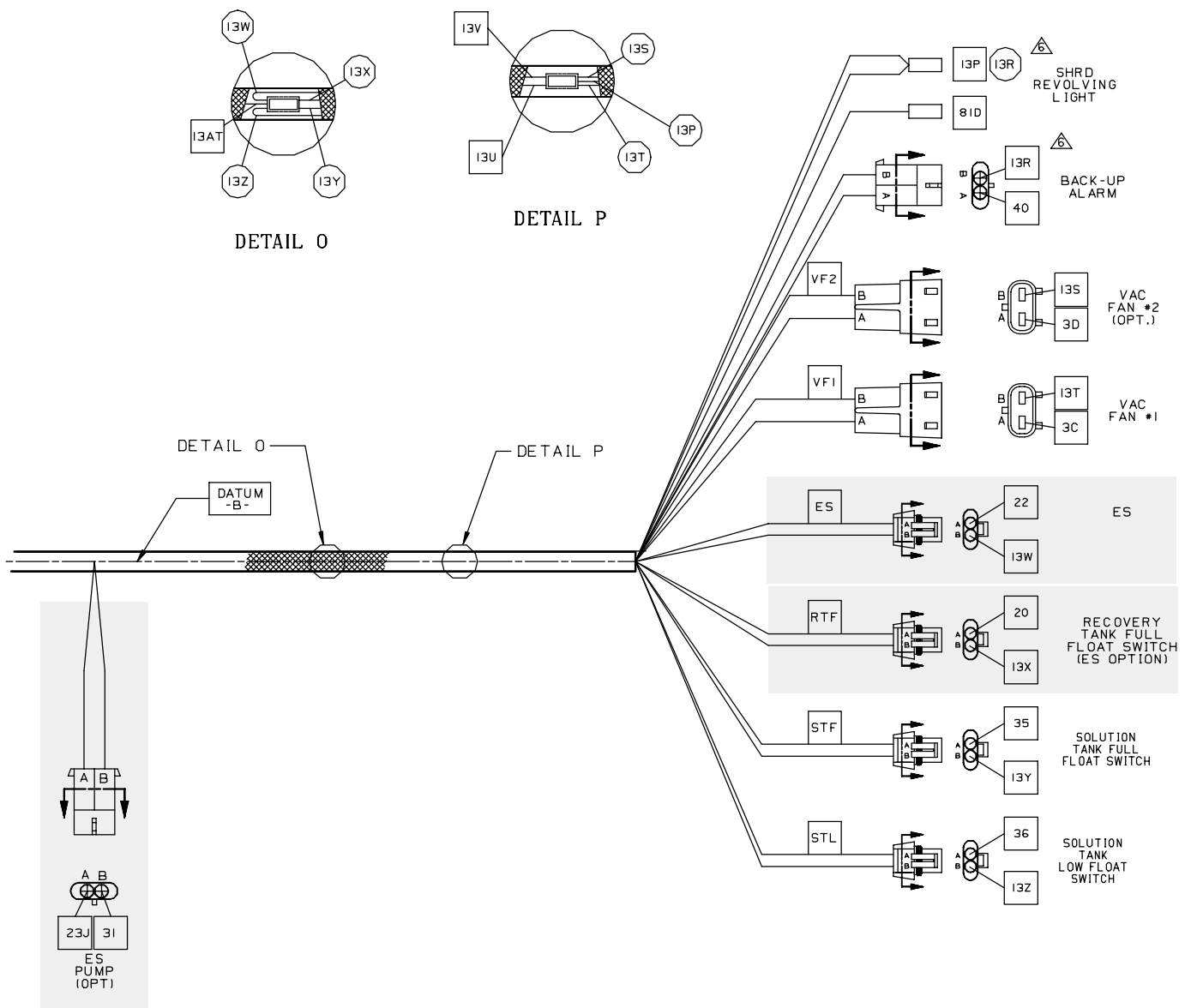
**BILL OF MATERIALS FOR FIG. 3 ES™ DRAIN GROUP**

*NOTE: Extended Scrub Kit, Tennant Part Number 391041, includes; Fig. 2 and Fig. 3.*

<b>Ref.</b>	<b>TENNANT Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	32501	Kit, cap, drain	1
2	32613	Cap, tank, drain, 2.25 thread pye	1
3	32614	Gasket, cap	1
4	32669	Ring, retaining, ext, 0.75d Ss	1
5	32508	Strap	1
6	14880	Cap, tank, drain, 3.85 thread pye	1
7	24358	Cap, tank	1
8	375200	Gasket, lid	1
9	79320	Gasket, cap, drain	1
10	41421	Seal	1
11	14864	Cover, insert	1
12	41454	Clamp, hose, plstc, 1.60d X 0.62w	1
13	12316	Screw, hex, M05 X 0.8 X 25, Ss	1
14	01683	Washer, flt, #10 Ss	2
15	09739	Nut, hex, lock, M05 X 0.8, NI, Ss	1
16	41451	Gasket, lid	1
17	390884	Hose, drain	1

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





**FIG. 5 - ES™ CONNECTIONS - 7100 WIRE HARNESS GROUP**