



INSTRUCTION BULLETIN

No. 9045177
Machine: S16
Published: 01-2021
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 9045176**

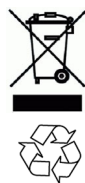
Kit installation must be performed by TennantTrue[®] service or an authorized service provider.

SYNOPSIS:

This kit contains the parts needed to install a vacuum wand kit on S16 sweepers.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Tennant Service device with Tennant Service Diagnostics software.

(Estimated time to complete: 1.5 hours)



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

PREPARATION:

NOTE: Only authorized Tennant Service Personnel can install this vacuum wand kit onto the S16 sweeper.

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

1. Disconnect the battery cable from the machine.

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

2. Remove both the left side cover and the right side covers from the machine. Set both side covers aside.

3. Open and/or remove the electrical compartment cover from the bulkhead bracket. (Fig. 1)



FIG. 1

4. Remove the front access panel from the steering channel. Set the front access panel aside. (Fig. 2)



FIG. 2

INSTALLATION:

5. Remove the cover plate from the filter box cover. Discard the cover plate and all mounting hardware. (Fig. 3)

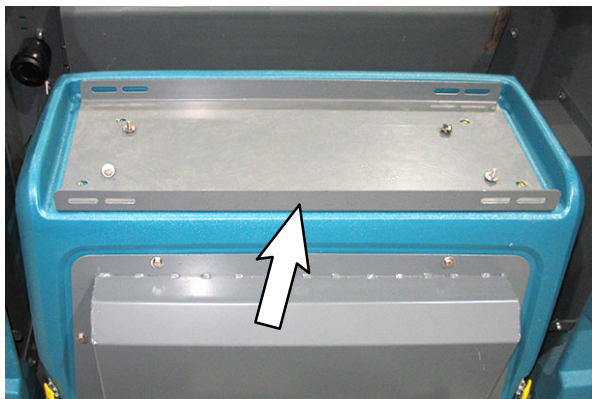


FIG. 3

6. Place the assembled vacuum wand assembly onto the filter box cover. (Fig. 3/Fig. 6)
7. Use six M6 hex screws (23) and six flat washers (24) to install the vacuum wand assembly onto the filter box cover. (Fig. 3/ Fig. 6)

8. Route the wand electric harness (49) out away from the vacuum wand assembly, across the front of the filter box cover, and down to where the main harness assembly is located. (Fig. 4)

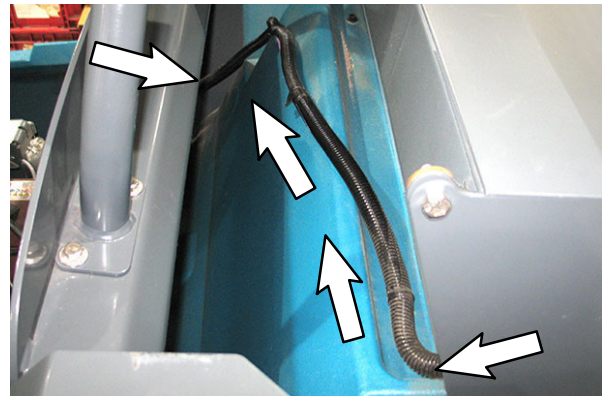


FIG. 4

9. Connect the wand electric harness (49) to the main wire harness lead located in the channel behind the batteries. (Fig. 5/Fig. 7)

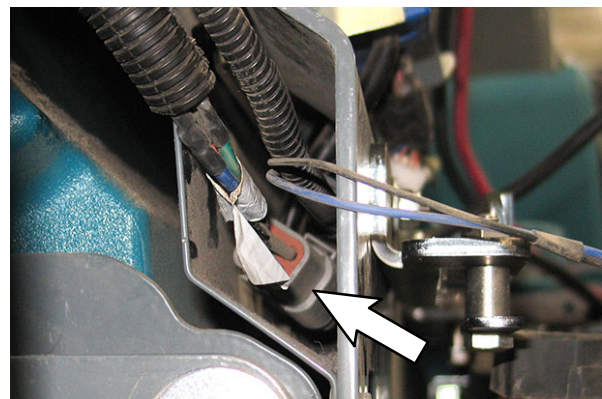


FIG. 5

10. Install one hose cuff (1) onto the filter box (22). (Fig. 6)
11. Use one M8 flanged hex nut (54) to install a ball stud (53) onto the left housing mounting bracket. (Fig. 6)
12. Remove the four M6 hex screws securing the cover pivot bracket to the filter box cover. (Fig. 6)
13. Use one M8 flanged hex nut (54) to install a ball stud (53) onto the cover pivot bracket. (Fig. 6)

14. Reinstall the previously remove M6 hex nuts to secure the cover pivot bracket to the filter box cover. (Fig. 6)

15. Install the gas spring (52) onto the previously install ball studs (53). (Fig. 6)

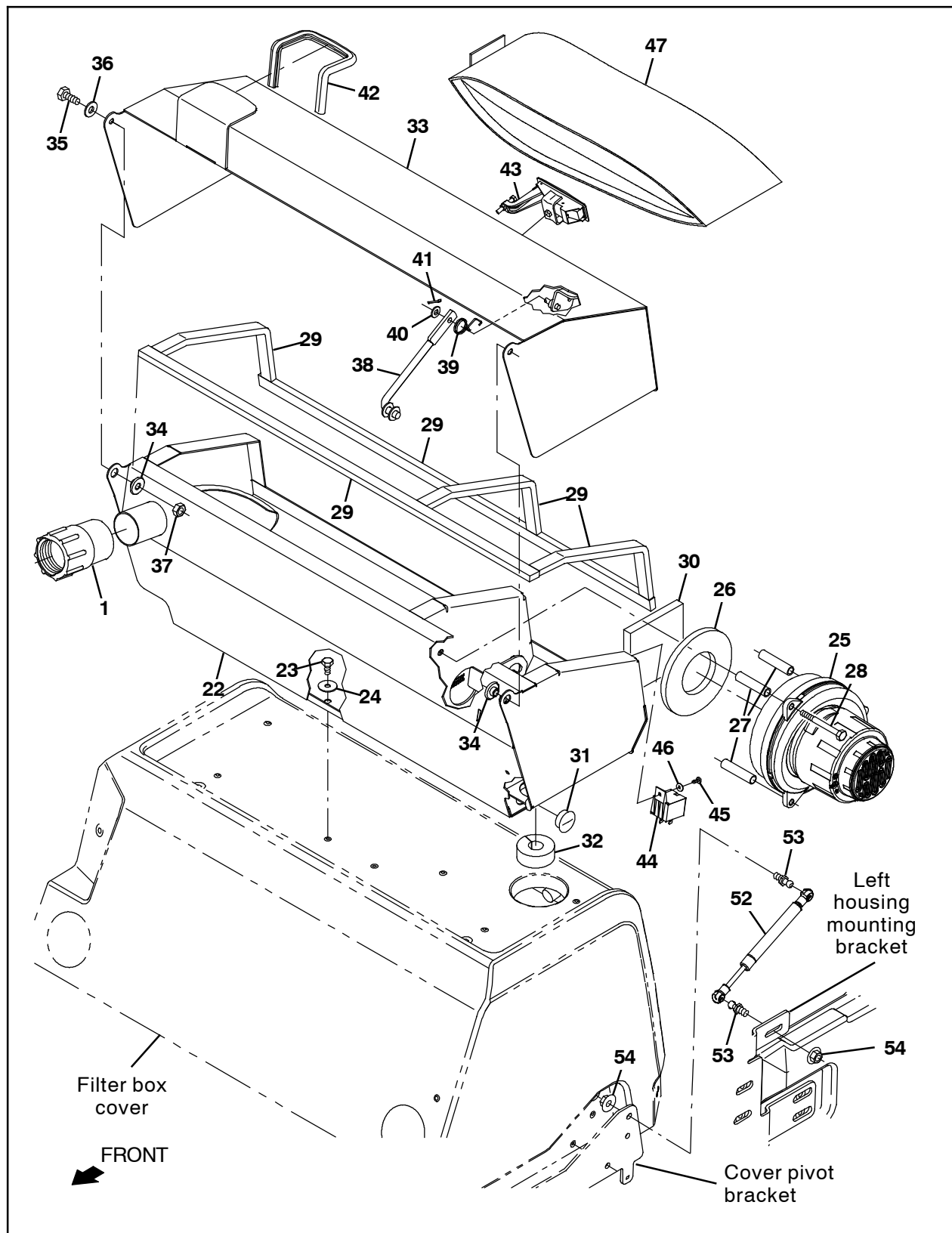


FIG. 6

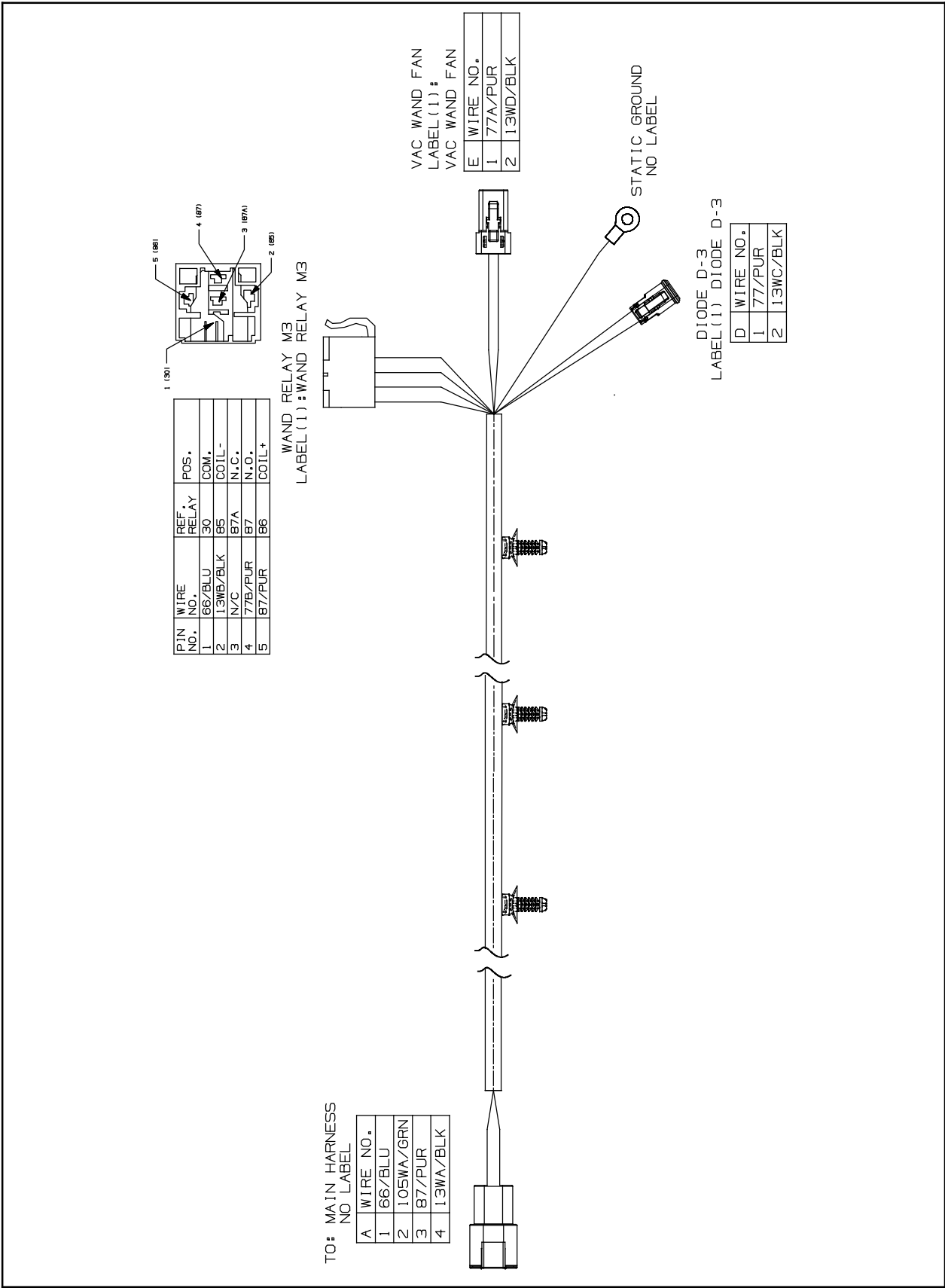


FIG. 7

16. Use two SEMS M6 hex screws (19) to install the wand mounting plate (17)/wand pivot handle (12) assembly onto the bulkhead bracket. (Fig. 8)

17. Connect the main wire harness to the micro switch (8). (Fig. 8/Fig. 13)

18. Use the wire ties (50) to secure the wand electric harness (49) to the filter box cover.

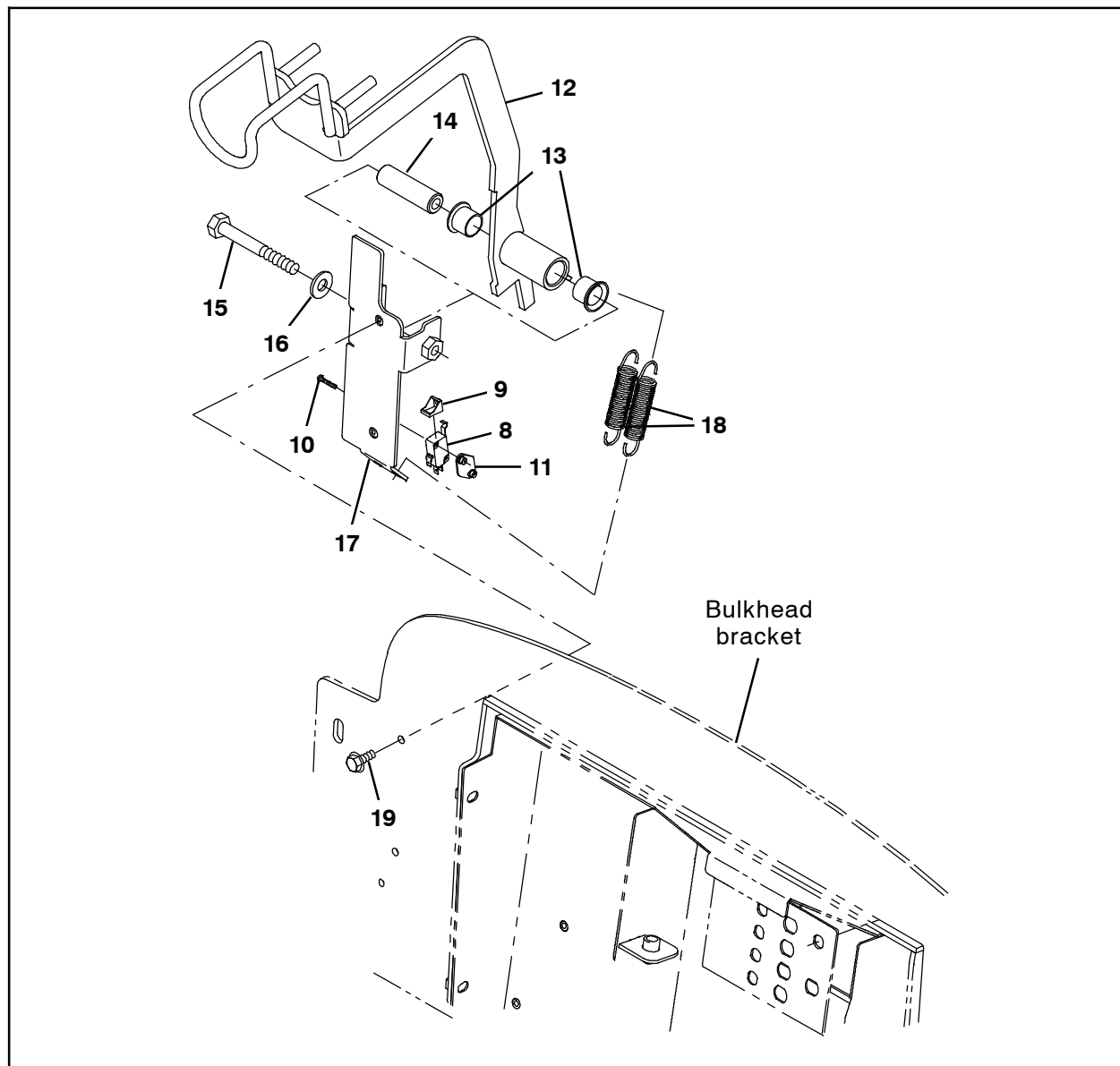


FIG. 8

19. Insert a 25- Amp circuit breaker (21) into circuit breaker location CB9 on the rear breaker bracket. (Fig. 9)

20. Connect the main wire harness to the 25- Amp circuit breaker (21) installed in the previous step. (Fig. 9/Fig. 13)

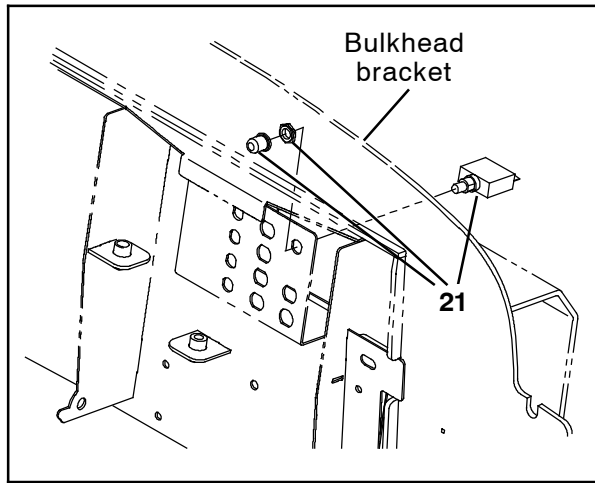


FIG. 9

21. Reinstall/close the electrical compartment cover.

22. Remove the hardware securing the control panel to the front shroud and carefully lift the control panel from the shroud. Do not break any wire or cable connections when lifting the panel from the shroud. (Fig. 10)

23. Remove the hole plug from the location where the rocker switch (48) is to be installed on the control panel. Discard the plug. (Fig. 10)

24. Insert the rocker switch (48) into the control panel. (Fig. 10)

25. Connect the main wire harness to the rocker switch (48). (Fig. 10/Fig. 13)

26. Reinstall the control panel onto the front shroud. (Fig. 10)

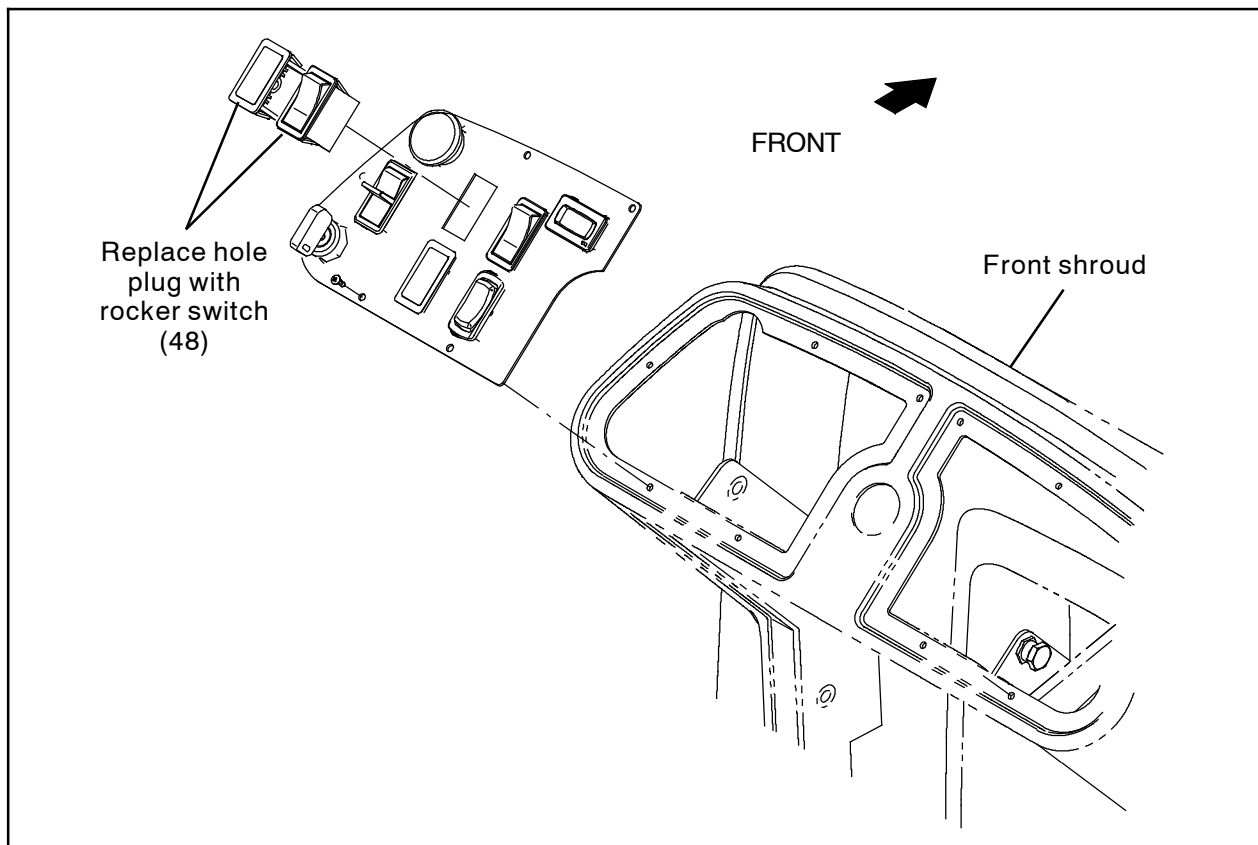


FIG. 10

27. Insert a 2.5- Amp circuit breaker (20) into circuit breaker location CB15 in the circuit breaker bracket. (Fig. 11)

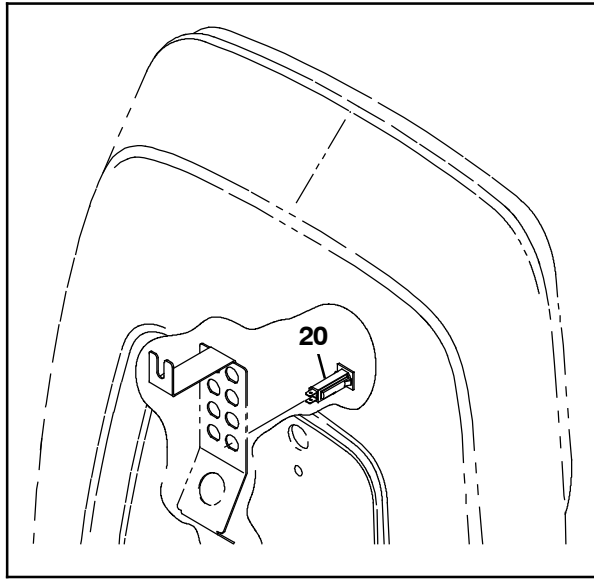


FIG. 11

28. Connect the main wire harness to the 2.5- Amp circuit breaker (20) installed in the previous step. (Fig. 11/Fig. 13)
29. Reinstall the front access panel onto the steering channel.
30. Assemble the vacuum wand assembly: Hose cuff (1), vacuum tube (3), handle grip (4), cuff (5), vacuum tube (6), and cuff (7). (Fig. 12)
31. Connect the vacuum hose (2) to the hose cuff (1) installed on the filter box (22). (Fig. 12)
32. Connect the other end of the vacuum hose (2) to the hose cuff (1) installed on the vacuum wand assembly. (Fig. 12)
33. Place the vacuum wand assembly into the vacuum wand carriage assembly. (Fig. 12)
34. Reconnect the battery cable to the machine.
35. Install the paper vacuum bag into the the vacuum wand fan compartment. (Fig. 6)
- NOTE: A Tennant Service device equipped with Tennant Service Diagnostics software is required to configure the machine with the vacuum wand option.*
36. Plug machine USB cable into service device and configure the machine for the vacuum wand option.
37. Reinstall both side covers onto the machine.
38. Test the newly installed vacuum wand assembly: Turn key switch ON, use switch to turn on vacuum wand system, lift the vacuum fan wand from the vacuum wand carriage. The vacuum fan system should activate when the wand is lifted from the carriage and turn off when the wand is returned to the carriage.

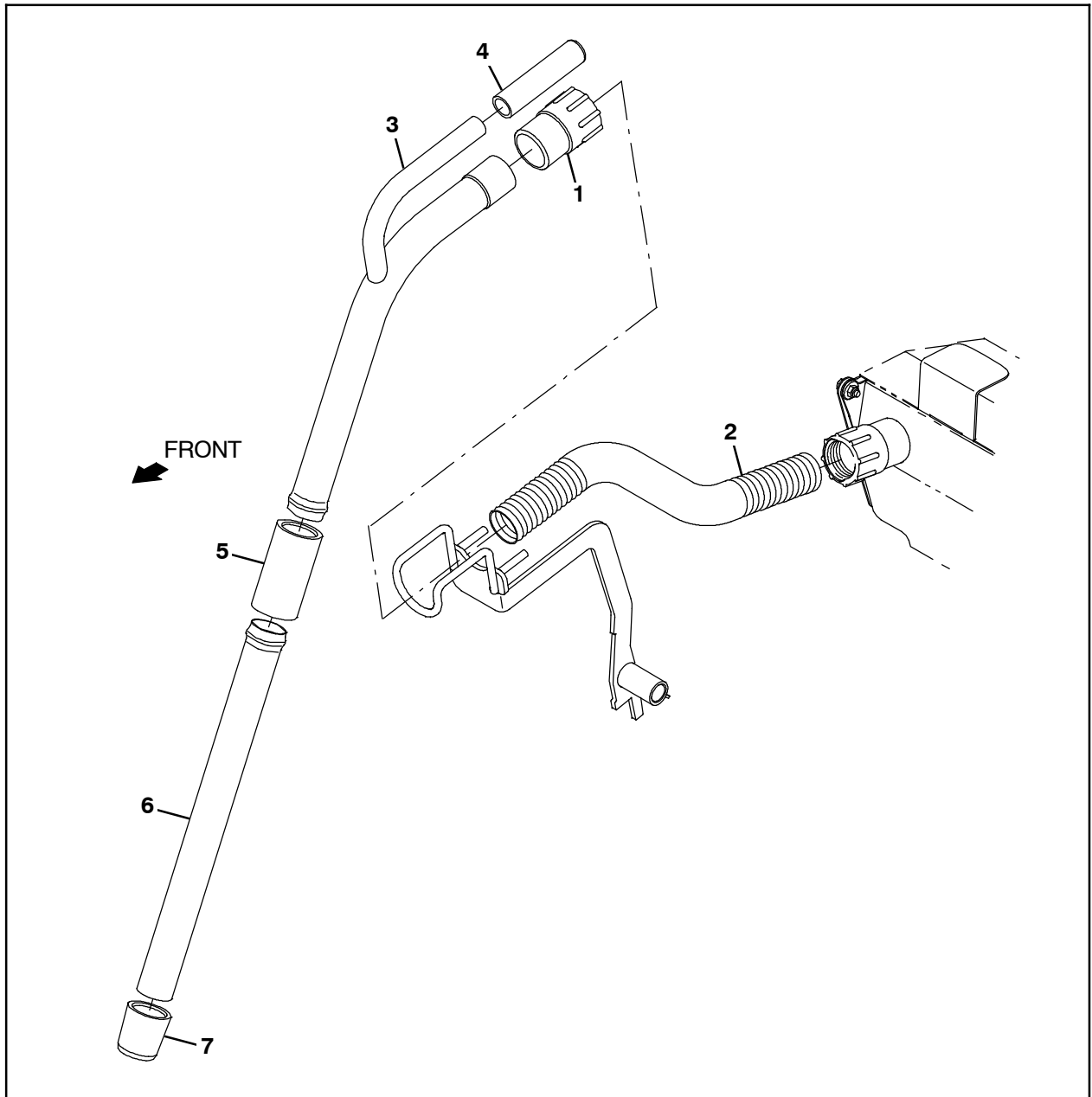
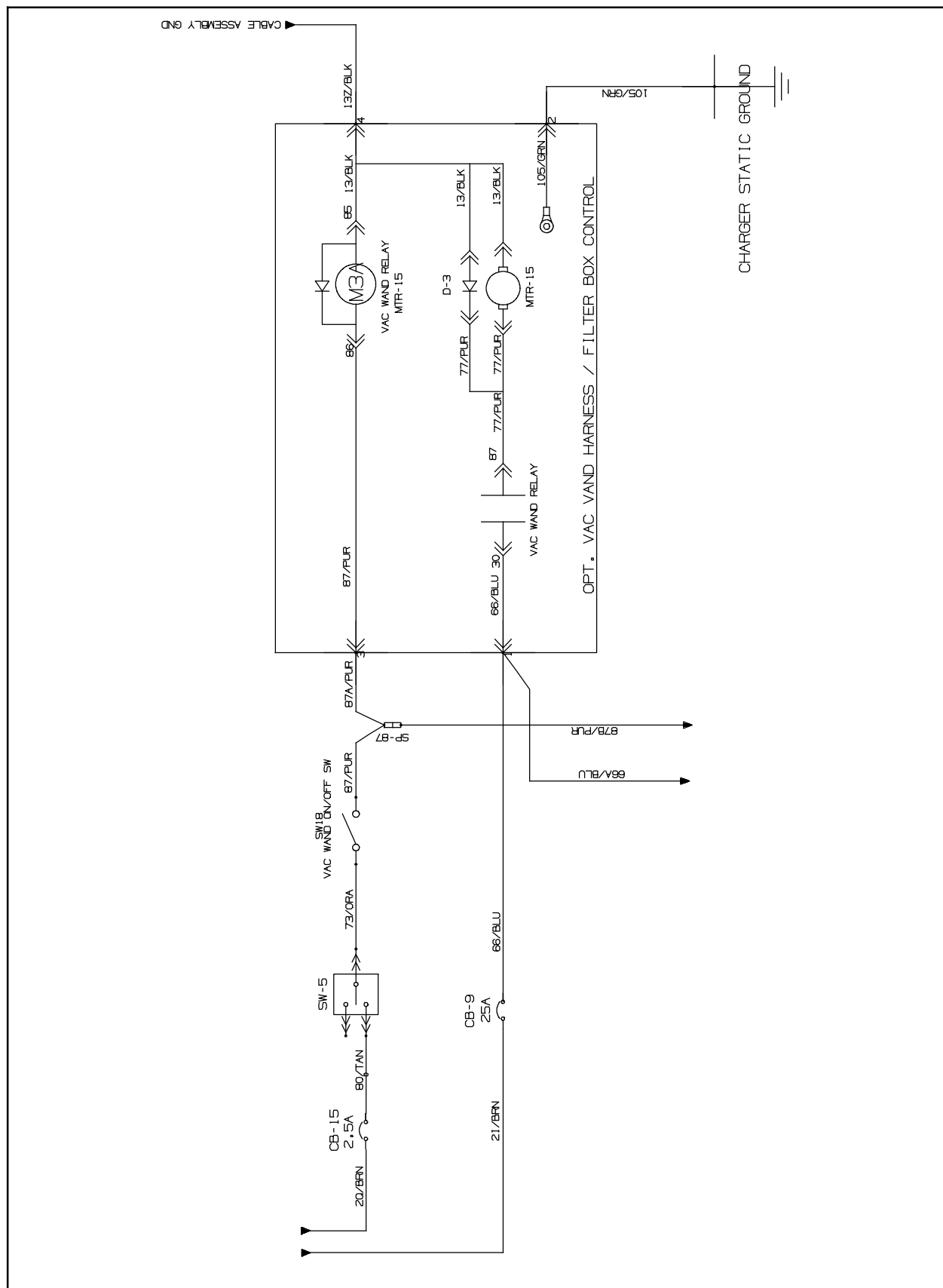


FIG. 12



Bill Of Materials For Vac Wand Kit, CI - 9045176 *

| Ref. | Tennant Part No. | Description | Qty. |
|-------------|-----------------------------|---|-------------|
| 1 | 83285 | Cuff, 2.3d Hose, 1.5id/2.3od 3.6l Blk | 2 |
| 2 | 83289 | Hose, Flex, Vacuum, 02.0d, 024.0l | 1 |
| 3 | 1248334 | Tube Wldt, Vacuum | 1 |
| 4 | 1248310 | Grip, Handle | 1 |
| 5 | 1250310 | Cuff, 1.75 Tube, 1.62id/Tpr 4.3l Blk | 1 |
| 6 | 1246570 | Tube, Vacuum, Alm | 1 |
| 7 | 80299 | Cuff, 1.7d Hose, 1.5id/Tpr 4.0l Blk | 1 |
| 8 | 1215716 | Switch, 0.1a, Spdt [Micro, Gold Contacts] | 1 |
| 9 | 600372 | Boot, Switch | 1 |
| 10 | 06923 | Screw, Pan, Phl, M3 X 0.50 X 25, 4.8 | 2 |
| 11 | 1013705 | Plate, Thread, Switch, M3 Nut, 96hr Pl | 1 |
| 12 | 1242046 | Handle Wldt, Pivot, Wand | 1 |
| 13 | 72763 | Bushing, Flng, 0.75b 0.88d 0.75l | 2 |
| 14 | 1251867 | Tube, 0.41id 0.75od 02.56l, Stl | 1 |
| 15 | 03193 | Screw, Hex, M10 X 1.50 X 90, 8.8 | 1 |
| 16 | 32492 | Washer, Flat, 0.38, Std | 1 |
| 17 | 1242048 | Plate Wldt, Mtg, Wand | 1 |
| 18 | 25737 | Spring, Extn, 0.75od 0.07wir 03.5l | 2 |
| 19 | 1034731 | Screw, Hex, M6 X 1.00 X 16, Sems, SS | 2 |
| 20 | 1064184 | Circuit Breaker, 02.5a, Resettable | 1 |
| 21 | 383724 | Circuit Breaker, 25.0a, Resettable | 1 |
| 22 | 1240661 | Filterbox Wldt | 1 |
| 23 | 11635 | Screw, Hex, M6 X 1.00 X 12, NI, SS | 6 |
| 24 | 29570 | Washer, Flat, 0.28b 1.00d .06, Stl | 6 |
| 25 | 1200149 | Fan, Vacuum, 6.6d, 036vdc, 1 Stage [Bpt] | 1 |
| 26 | 10912 | Seal, Rbr, Clsd, 0.375, 5.0d 2.5h | 1 |
| 27 | 1249927 | Tube, 0.38id 0.500d 2.19l, SS | 3 |
| 28 | 391434 | Screw, Hex, M6 X 1.00 X 80, SS | 3 |
| 29 | C460146 | Seal, Ure, 0.38, 0.75w, Adh, Bulk | 1 |
| 30 | 1247432 | Filter, Foam | 1 |
| 31 | 01493 | Plug, Hole, Rnd, 1.00h .03- .12, Blk Nyl | 1 |
| 32 | 1244419 | Seal, Foam | 1 |
| 33 | 1240961 | Cover Wldt, Filterbox | 1 |
| 34 | 80950 | Bushing, Flng, 0.32b 0.50d 0.24l, Bnz | 2 |
| 35 | 09010 | Screw, Hex, M8 X 1.25 X 25, SS | 2 |
| 36 | 01685 | Washer, Flat, 0.38b 0.88d .08, SS | 2 |
| 37 | 08713 | Nut, Hex, Lock, M8 X 1.25, NI, SS | 2 |
| 38 | 223080 | Arm Wldt, Safety, Sppt, Seat, .38d 06.5d | 1 |
| 39 | 59009 | Spring, Tors, 0.75id .06wir 02.8coil | 1 |
| 40 | 32483 | Washer, Flat, 0.25, SAE | 1 |

| Ref. | Tennant Part No. | Description | Qty. |
|------|---------------------|--|------|
| 41 | 39005 | Pin, Cotter, .094 X 0.75 | 1 |
| 42 | C460140 | Molding, Trim, PVC, .08- .11, Bulk | 1 |
| 43 | 398806 | Latch | 1 |
| 44 | 1229172 | Relay, 36vdc, 025a, Spdt | 1 |
| 45 | 06926 | Screw, Pan, Phl, M4 X 0.70 X 10, 4.8 | 1 |
| 46 | 19065 | Washer, Flat, 0.19b 0.44d .05, Pl, 08 | 1 |
| 47 | 1067452 | Bag, Vacuum, Paper [1pick=1pkg Of 10bag] | 1 |
| 48 | 397889 | Switch, Rocker, DPST, On/None/On | 1 |
| 49 | 1076422 | Harness, Ele, Wand [S16] | 1 |
| 50 | 1210807 | Wire, Tie [w/.25" Fir Tree Clip] | 5 |
| 51 | 1056982 | Diode, Ele, Plug | 1 |
| 52 | 1245866 | Gas Spring, 90lb, 3.15strk | 1 |
| 53 | 1205551 | Stud, Ball, 10mm Ball, M8x1.25 Stud | 2 |
| 54 | 07791 | Nut, Hex, Flng, M8 X 1.25 | 2 |

** NOTE: Only authorized Tennant Service Personnel can install this vacuum wand kit onto the S16 sweeper.*

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