



INSTRUCTION BULLETIN

No. 9012969
Machine: T17
Published: 07-2016
Rev. 01

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 9020057 / 9020206 (T17 machines NA serial numbers 000000-010999 / EU serial numbers 0000-0330) / 9014962 / 9014963 (T17 machines NA serial numbers 011000- / EU serial numbers 0400-)**

SYNOPSIS:

This kit contains the parts needed to install a sweeping side brush or dual sweeping side brush kit onto T17 scrubbers.

Please follow step-by-step instructions.

Machine must be factory equipped with side brush harness kit (PREP KIT, SIDE BRUSH HARNESS [T17] - 9020047) to install the sweeping side brush(es).

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2.5 hours - single sweeping side brush / 3.5 hours - dual sweeping side brushes)



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:

1. Completely empty both the solution tank and the recovery tank.

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

2. Disconnect the battery cable from the machine.



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

3. Place chocks behind both rear tires.

4. Jack up the front end of the machine. Place jack stands under the front end of the machine, and lower the machine onto the jack stands.

FOR SAFETY: When servicing machine: block machine tires before jacking machine up, jack machine up at designated locations only. (support machine with jack stands), use hoist or jack that will support the weight of the machine.

NOTE: Refer to MACHINE JACKING in the MAINTENANCE section of Operators Manual for additional information pertaining to safely jacking up the machine.

INSTALLATION:

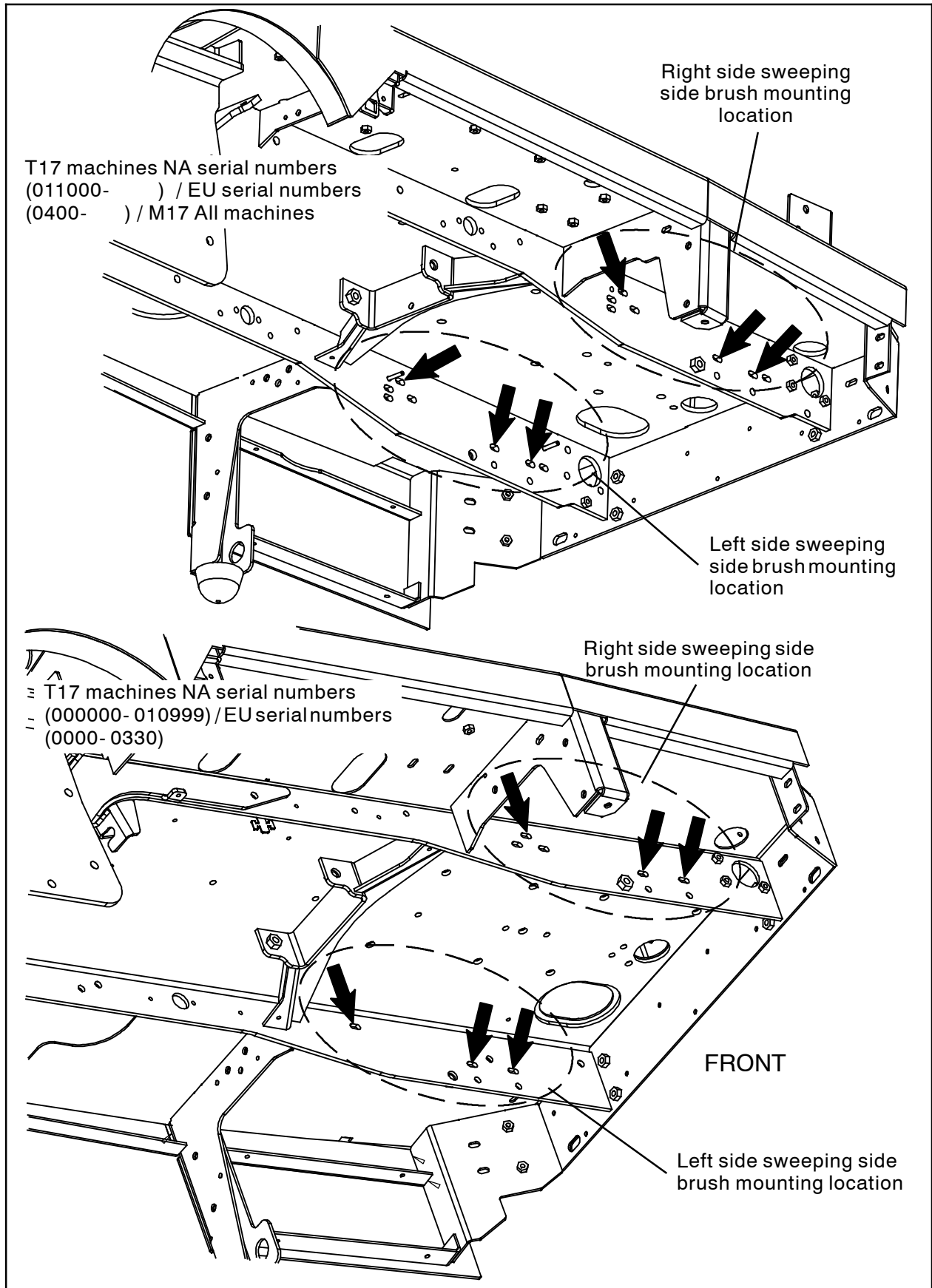


FIG. 1 - Sweeping Side Brush Mounting Locations

1. Remove any parts and components from the machine necessary to install the sweeping side brush assembly onto the machine.
2. Cut the cable ties securing the side sweep harness connector ends for the right and / or left sweeping side brush so the connectors can be connected to the sweeping side brush actuator(s) and side brush drive motor(s).
3. Use three M8 SEMS hex screws to install the right sweeping side brush assembly onto the frame of the machine. (Fig. 1 / Fig. 2)
4. Connect the side sweep harness to the right sweeping side brush drive motor and actuator. (Fig. 2 / Fig. 11)
5. Use three M8 SEMS hex screws to install the left sweeping side brush assembly onto the frame of the machine. (Fig. 1 / Fig. 4)
6. Connect the side sweep harness to the left sweeping side brush brush drive motor and actuator. (Fig. 4 / Fig. 11)
7. Reassemble all parts removed to install the sweeping side brush(es) back onto the machine.
8. Use four M8 SEMS hex screws to install a side brush cover(s) onto the right sweeping side brush assembly and / or left sweeping side brush assembly. (Fig. 3 / Fig. 5)
9. Install a brush onto the right sweeping side brush assembly and / or left sweeping side brush assembly. Use a cotter pin to secure the brush(es) onto the sweeping side brush assembly(ies). (Fig. 3 / Fig. 5)
10. Raise the machine slightly off the jack stands, remove the jack stands from under the machine, and lower the machine to the floor.

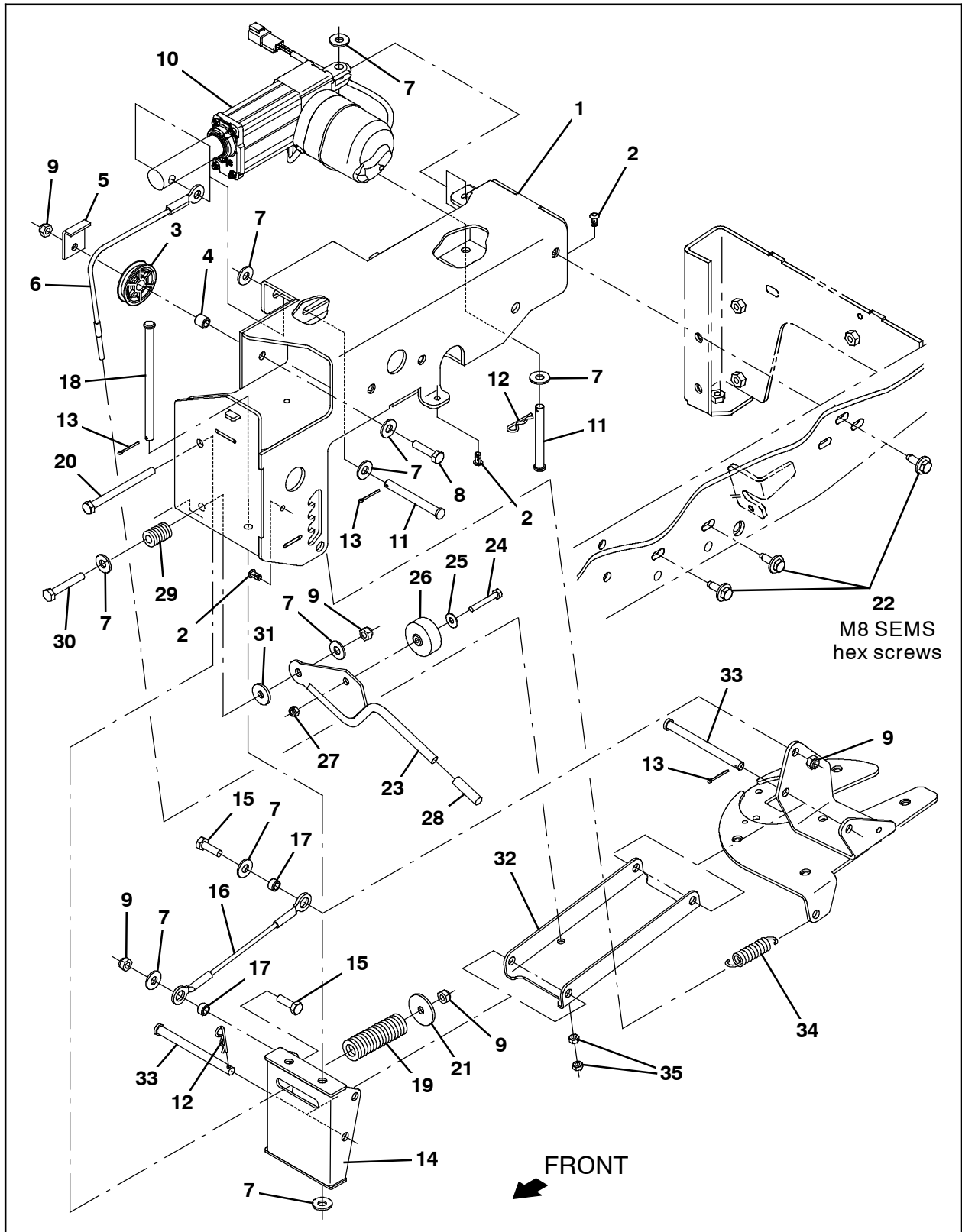


FIG. 2 - Sweeping Side Brush Lift Group, Right Side

Ref.	Tenant Part No.	Description	Qty.
1	1207330	Housing Wldt, SBA, RH (Kits 9020057 / 9020206 Only)	1
1	1225432	Housing Wldt, SBA, RH (Kits 9014962 / 9014963 Only)	1
2	1071085	Clip, Tie, 0.25d, Plstc	3
3	369781	Pulley, Cable, 1.5d Nyl	1
4	222460	Sleeve, P/M, 0.32b 0.50d 0.5l [430ss]	1
5	54400	Bracket, Angle, Keeper, Cable	1
6	1205013	Cable, SS, .09d 10.35l .38eye/M6- 1.0	1
7	01685	Washer, Flat, 0.38b 0.88d .08, SS	10
8	09023	Screw, Hex, M8 X 1.25 X 35, Fl, SS	1
9	08713	Nut, Hex, Lock, M8 X 1.25, NI, SS	5
10	1201500	Actuator, 36vdc, 2.75strk, 450lb	1
11	57598	Pin, Clevis, 0.37d X 3.25l	2
12	44906	Pin, Cotter, Hair, 0.38d .093 Wir	2
13	08179	Pin, Cotter, .094 X 1.00	3
14	1204919	Bracket Wldt, Pivot, SBA (Kits 9020057 / 9020206 Only)	1
14	1225425	Bracket Wldt, Pivot, SBA (Kits 9014962 / 9014963 Only)	1
15	09010	Screw, Hex, M8 X 1.25 X 25, SS	2
16	1204774	Cable, Ss, .09d 7.87l .50eye/.50eye	1
17	222516	Sleeve, P/M, 0.32b 0.50d 0.3l [430ss]	2
18	49924	Pin, Clevis, 0.37d X 6.12l	1
19	1209244	Spring, Compr, .98od 2.5l	1
20	386299	Screw, Hex, M8 X 1.25 X 100, SS	1
21	379829	Washer, Flat, 0.34b 1.50d .12, Stl, PI	1
22	1037346	Screw, Hex, M8 X 1.25 X 25, 9.8, SEMS	3
23	1205016	Lever Wldt, Adj, SBA	1
24	33930	Screw, Hex, M6 X 1.00 X 40, SS	1
25	01684	Washer, Flat, 0.27b 0.69d .05, SS	1
26	01847	Wheel, 01.6d 0.72w 0.21b	1
27	08712	Nut, Hex, Lock, M6 X 1.00, NI, SS	1
28	1208858	Cover, Handle	1
29	81672	Spring, Cmpr, 0.37id X Flat Wir, 1.0l	1
30	49694	Screw, Hex, M8 X 1.25 X 50, SS	1
31	1017218	Washer, Flat, 0.32b 1.00d .12, SS	1
32	1204396	Bracket, Arm, SBA	1
33	59672	Pin, Clevis, 0.37d X 4.50l	2
34	15047	Spring, Extn, 0.62od 0.08wir 03.0l	1
35	07785	Nut, Hex, Std, M6 X 1.00, SS	2

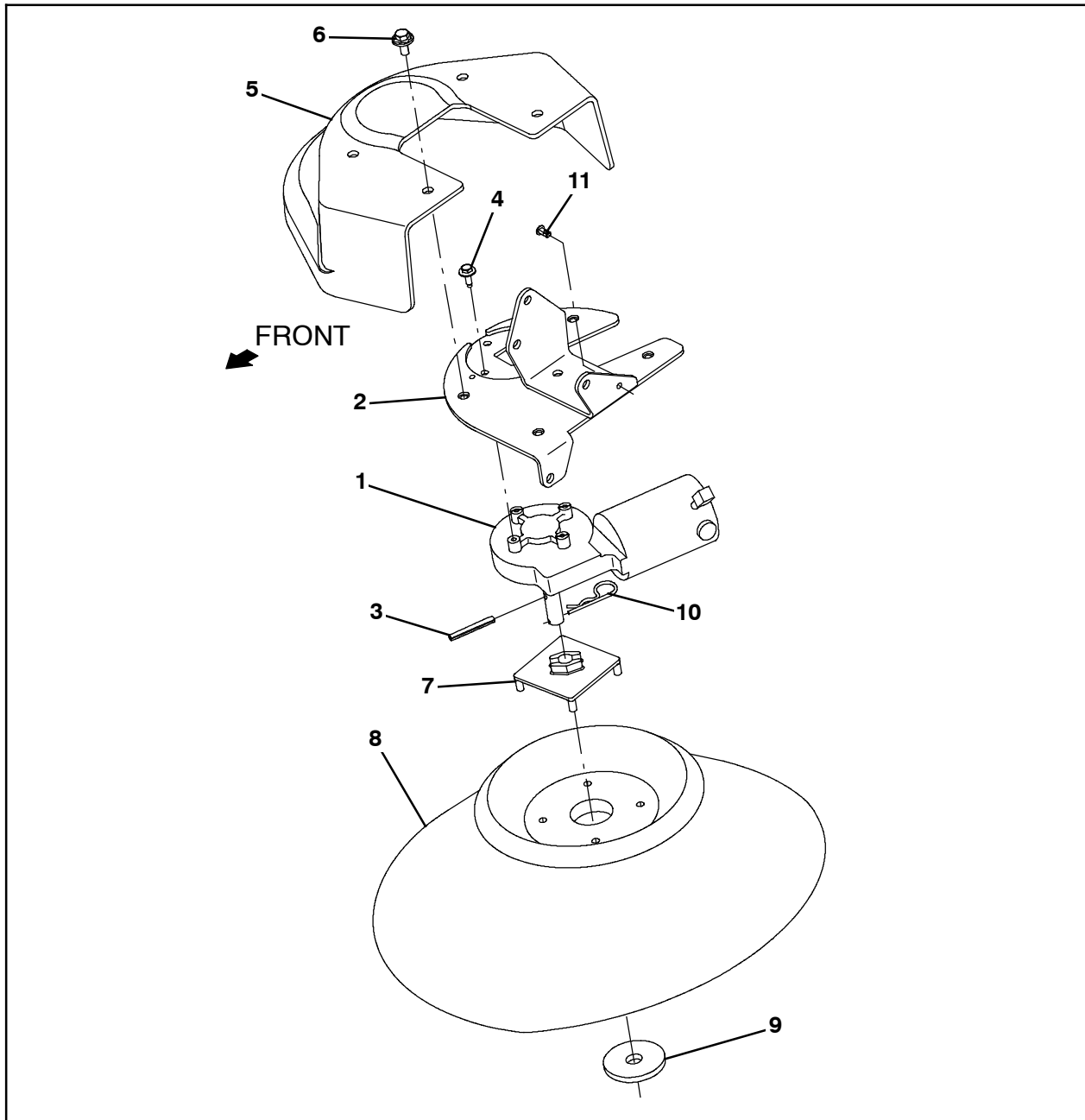


FIG. 3 - Sweeping Side Brush Drive Motor Group, Right Side

Ref.	Tennant Part No.	Description	Qty.
1	1212824	Motor, Ele, 36vdc 0.08hp 0068rpm Gear RH	1
2	1207139	Bracket Wldt, Mtg, Motor, SBA	1
3	11398	Pin, Roll, .250d X 2.00l, .250/.256	1
4	1040467	Screw, Hex, M6 X 1.00 X 20, 9.8, SEMS	4
5	1207412	Cover, Sidebrush, Sweeping	1
6	1020341	Screw, Hex, M8 X 1.25 X 20, SS, SEMS	4
7	1017441	Plate, Adapter, Brush	1
8	87419	Brush, Disk, Swp, 19.0d, Pyp	1
9	1017802	Washer, Flat, 0.66b 2.50d .19, SS	1
10	02942	Pin, Hair, Cotter, 0.62d .120 Wir	1
11	1071085	Clip, Tie, 0.25d, Plstc	1

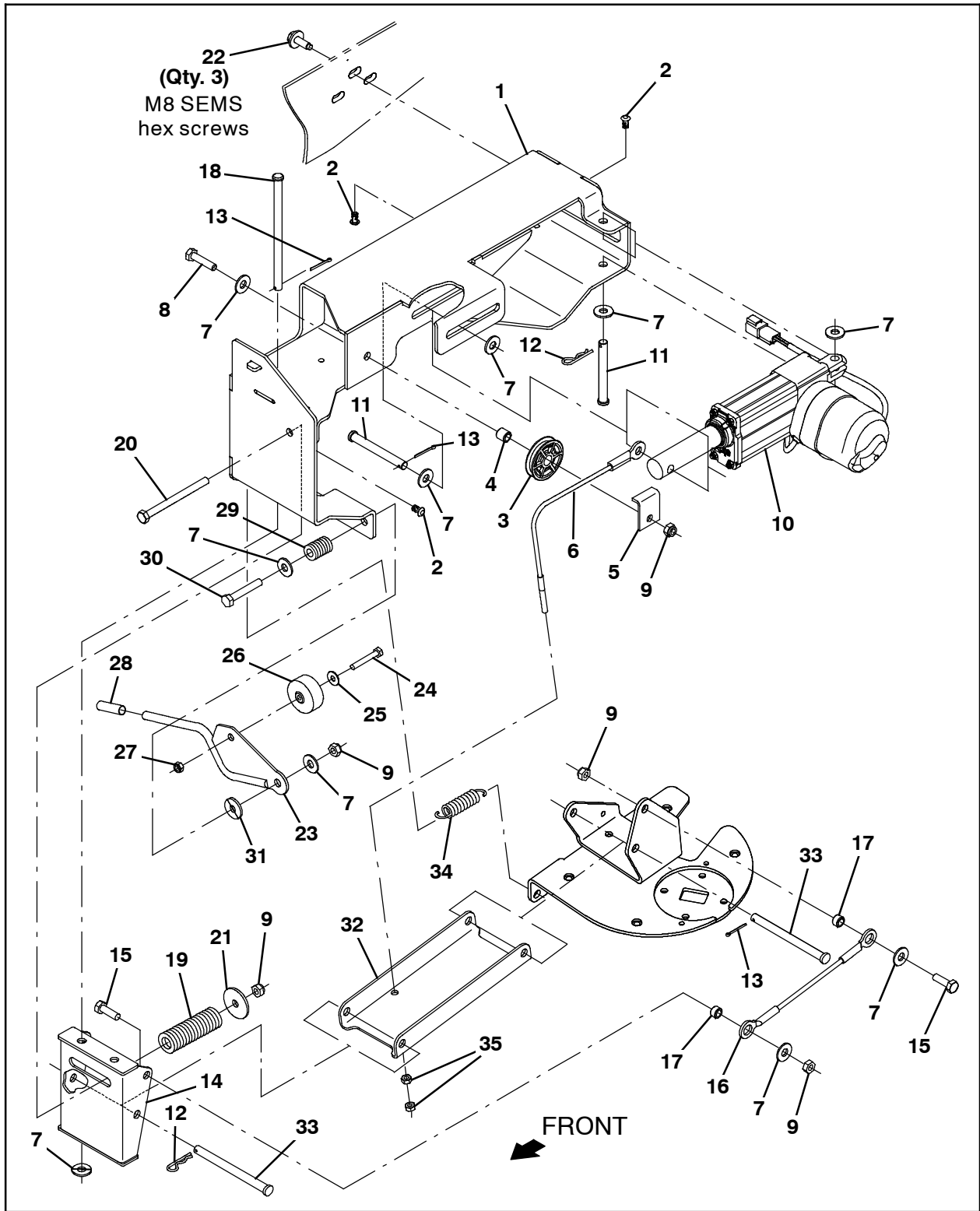


FIG. 4 - Sweeping Side Brush Lift Group, Left Side

Ref.	Tenant Part No.	Description	Qty.
1	1207554	Housing Wldt, SBA, LH (Kits 9020057 / 9020206 Only)	1
1	1225423	Housing Wldt, SBA, LH (Kits 9014962 / 9014963 Only)	1
2	1071085	Clip, Tie, 0.25d, Plstc	3
3	369781	Pulley, Cable, 1.5d Nyl	1
4	222460	Sleeve, P/M, 0.32b 0.50d 0.5l [430ss]	1
5	54400	Bracket, Angle, Keeper, Cable	1
6	1205013	Cable, SS, .09d 10.35l .38eye/M6- 1.0	1
7	01685	Washer, Flat, 0.38b 0.88d .08, SS	10
8	09023	Screw, Hex, M8 X 1.25 X 35, FI, SS	1
9	08713	Nut, Hex, Lock, M8 X 1.25, NI, SS	5
10	1201500	Actuator, 36vdc, 2.75strk, 450lb	1
11	57598	Pin, Clevis, 0.37d X 3.25l	2
12	44906	Pin, Cotter, Hair, 0.38d .093 Wir	2
13	08179	Pin, Cotter, .094 X 1.00	3
14	1204919	Bracket Wldt, Pivot, SBA (Kits 9020057 / 9020206 Only)	1
14	1225425	Bracket Wldt, Pivot, SBA (Kits 9014962 / 9014963 Only)	1
15	09010	Screw, Hex, M8 X 1.25 X 25, SS	2
16	1204774	Cable, Ss, .09d 7.87l .50eye/.50eye	1
17	222516	Sleeve, P/M, 0.32b 0.50d 0.3l [430ss]	2
18	49924	Pin, Clevis, 0.37d X 6.12l	1
19	1209244	Spring, Compr, .98od 2.5l	1
20	386299	Screw, Hex, M8 X 1.25 X 100, SS	1
21	379829	Washer, Flat, 0.34b 1.50d .12, Stl, PI	1
22	1037346	Screw, Hex, M8 X 1.25 X 25, 9.8, SEMS	3
23	1205016	Lever Wldt, Adj, SBA	1
24	33930	Screw, Hex, M6 X 1.00 X 40, SS	1
25	01684	Washer, Flat, 0.27b 0.69d .05, SS	1
26	01847	Wheel, 01.6d 0.72w 0.21b	1
27	08712	Nut, Hex, Lock, M6 X 1.00, NI, SS	1
28	1208858	Cover, Handle	1
29	81672	Spring, Cmpr, 0.37id X Flat Wir, 1.0l	1
30	49694	Screw, Hex, M8 X 1.25 X 50, SS	1
31	1017218	Washer, Flat, 0.32b 1.00d .12, SS	1
32	1204396	Bracket, Arm, SBA	1
33	59672	Pin, Clevis, 0.37d X 4.50l	2
34	15047	Spring, Extn, 0.62od 0.08wir 03.0l	1
35	07785	Nut, Hex, Std, M6 X 1.00, SS	2

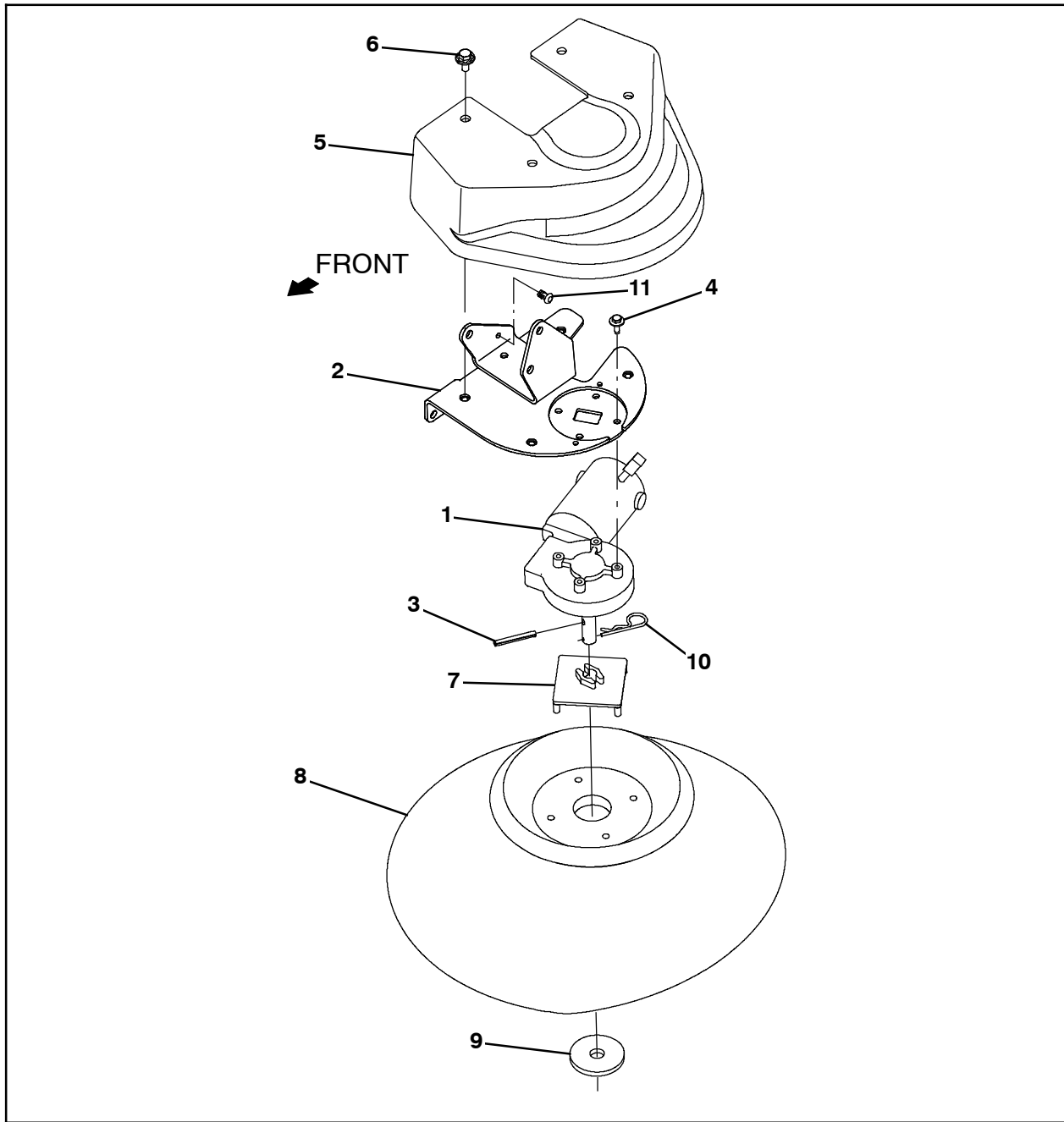


FIG. 5 - Sweeping Side Brush Drive Motor Group, Left Side

Ref.	Part No.	Description	Qty.
1	1212823	Motor, Ele, 36vdc 0.08hp 0068rpm Gear LH	1
2	1207559	Mount Wldt, Motor, SBA	1
3	11398	Pin, Roll, .250d X 2.00l, .250/.256	1
4	1040467	Screw, Hex, M6 X 1.00 X 20, 9.8, SEMS	4
5	1207412	Cover, Sidebrush, Sweeping	1
6	1020341	Screw, Hex, M8 X 1.25 X 20, SS, SEMS	4
7	1017441	Plate, Adapter, Brush	1
8	87419	Brush, Disk, Swp, 19.0d, Pyp	1
9	1017802	Washer, Flat, 0.66b 2.50d .19, SS	1
10	02942	Pin, Hair, Cotter, 0.62d .120 Wir	1
11	1071085	Clip, Tie, 0.25d, Plstc	1

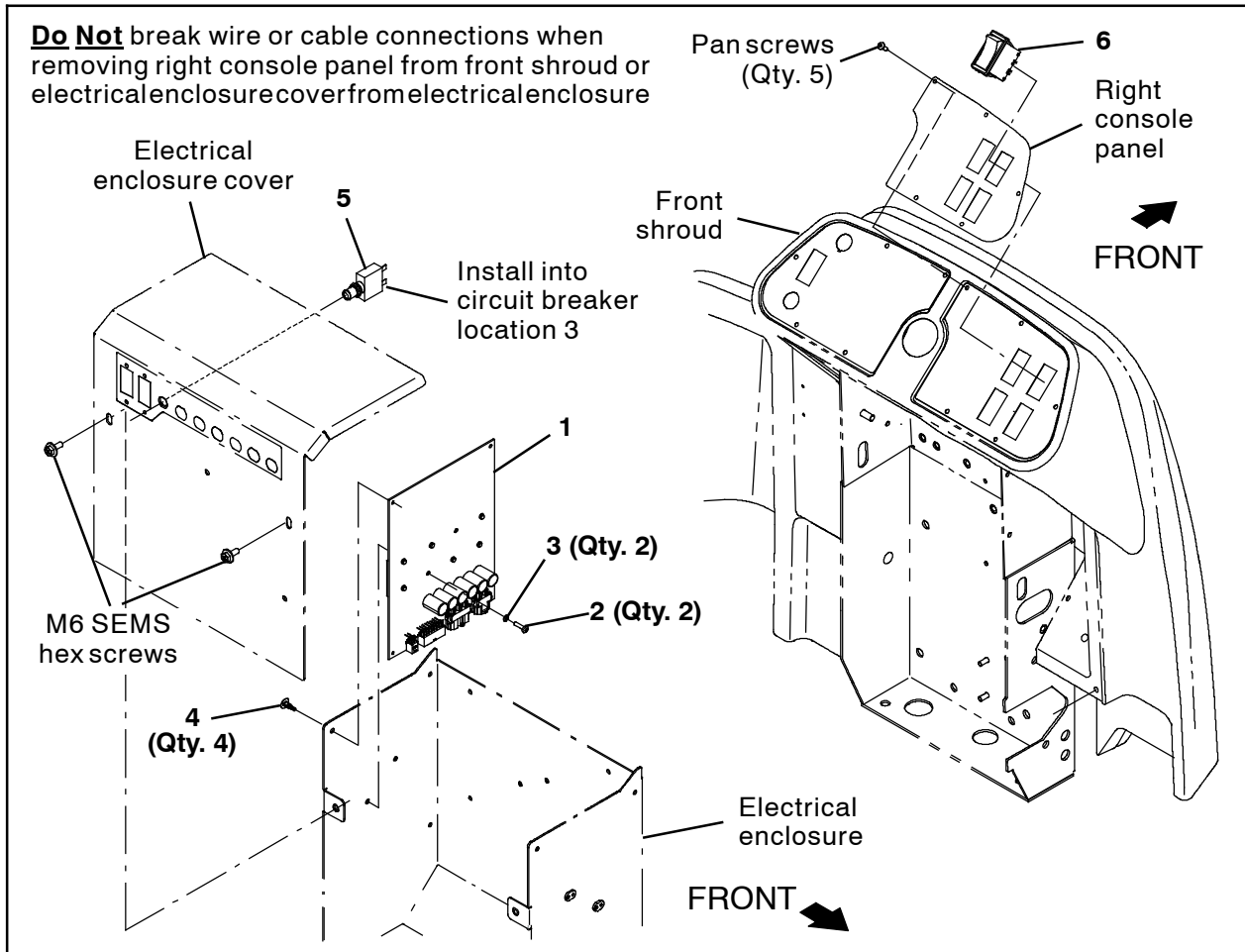


FIG. 6 - Sweeping Side Brush Electrical Group

Ref.	Part No.	Description	Qty.
1	9020229	Circuit Board Kit, H20, Afmkt [T17]	1
2	06926	Screw, Pan, Phl, M4 X 0.70 X 10, 4.8	2
3	1202860	Washer, Flat, 0.17b 0.31d .03, Nyl	2
4	1210399	Stand- Off, Circuit Board [0.25"]	4
5	383723	Circuit Breaker, 20.0a, Resettable	1
6	397889	Switch, Rocker, Dpst, On / None / On	1

11. Remove the pan screws holding the control panel to the front shroud and set the hardware aside. (Fig. 6)
12. Carefully pull the control panel from the front shroud. Do not break any wire connections when pulling the panel from the shroud. (Fig. 6)
13. Remove the hole plug from the control panel. Discard the hole plug. (Fig. 6)
14. Orient the switch (14) so the text on the switch is to the right side of the machine (like the other switches) and insert the switch into the control panel.(Fig. 6 / Fig. 7)

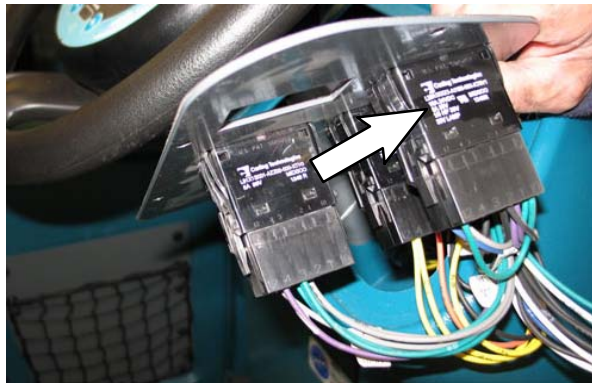


FIG. 7

15. Connect the side sweep harness to the rocker switch (12). (Fig. 6 / Fig. 11)
16. Reinstall the control panel onto the front shroud. (Fig. 6)
17. Remove both SEMS M6 hex screws securing the electrical enclosure cover to the electrical enclosure. Set the SEMS M6 hex screws aside. (Fig. 6)

NOTE: To avoid damaging electronic components, a static ground strap must be worn at all times while handling / installing the circuit board (1) onto the machine. Attach the other end of the static ground strap to the machine chassis.

18. Carefully remove the electrical enclosure cover from the electrical enclosure and position the electrical enclosure cover out of the way. **Do Not** break or damage wires / wire connections when removing the electrical enclosure cover from the electrical enclosure. (Fig. 8)

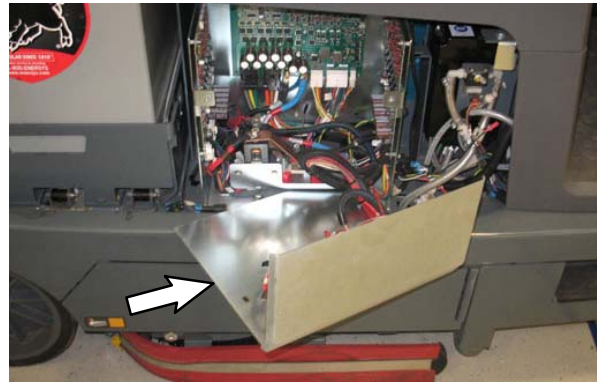


FIG. 8

19. Install the four standoffs onto the electrical enclosure. (Fig. 6)
20. Install the circuit board onto the four standoffs installed into the electrical enclosure in the previous step. (Fig. 6)
21. Use two M4 pan screws and two nylon flat washers to secure the circuit board onto the electrical enclosure. **Do Not** over tighten the M4 pan screws. Over tightening the M4 pan screws could damage circuit board. (Fig. 6)
22. Connect the side sweep harness to the circuit board (12). (Fig. 9 / Fig. 11)

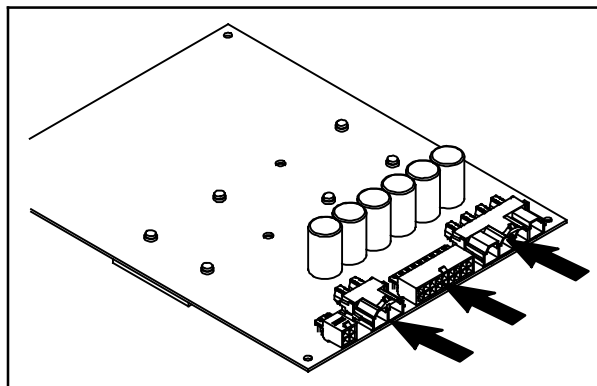


FIG. 9

23. Connect the side sweep harness ground lead to the machine ground located inside the electrical enclosure. (Fig. 11)

24. Connect the main wire harness CAN BUS lead to the circuit board (12). (Fig. 10 / Fig. 12)

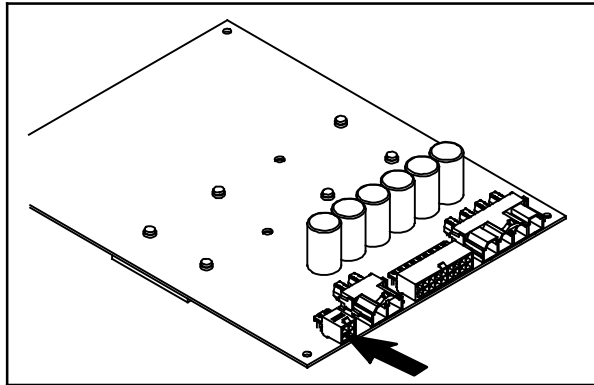


FIG. 10

25. Reinstall the electrical enclosure cover onto the electrical enclosure. (Fig. 6)
26. Reconnect the battery cable to the machine.
27. Start the machine, place machine into configuration mode, and reconfigure the machine for the sweeping side brush(es). Refer to the T17 Service Manual for instructions / information for accessing configuration mode and reconfiguring the machine.
28. Start and test the machine. Drive the machine and operate the sweeping side brush(es) to ensure the brush(es) function(s) properly.

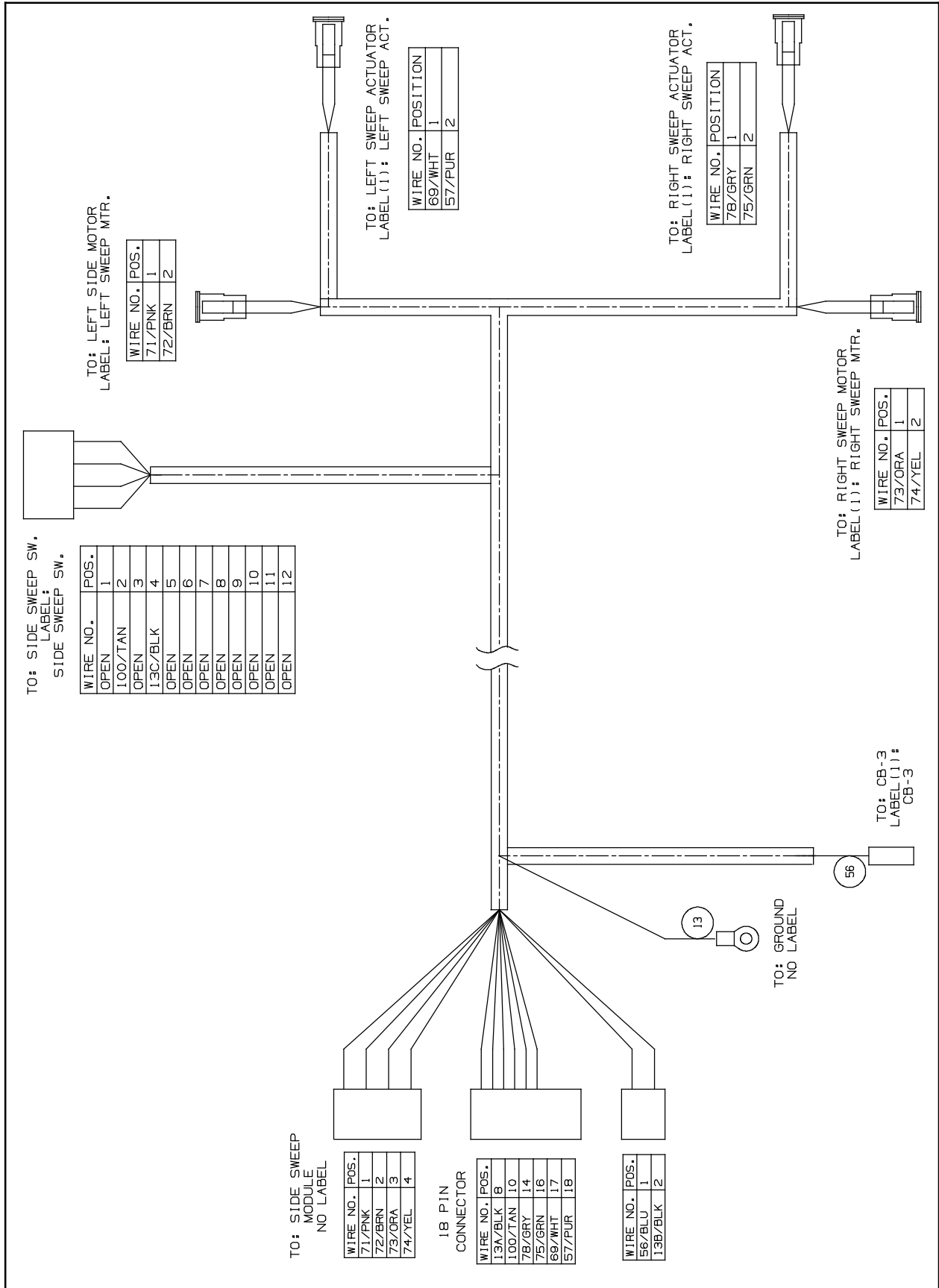


FIG. 11 - Sweeping Side Brush Wire Harness Group - Must Be Factory Installed

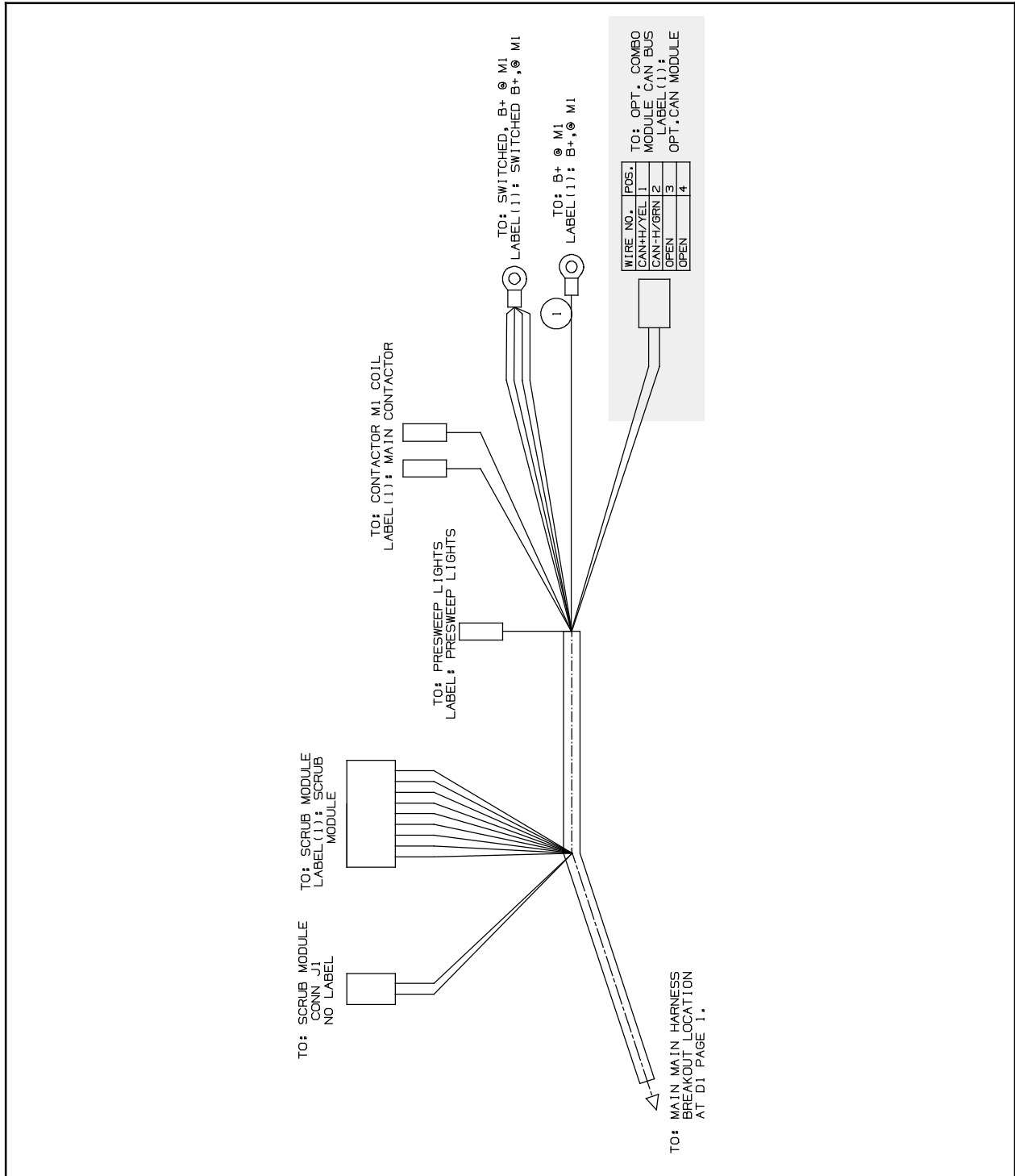


FIG. 12 - Machine Main Wire Harness CAN BUS Lead

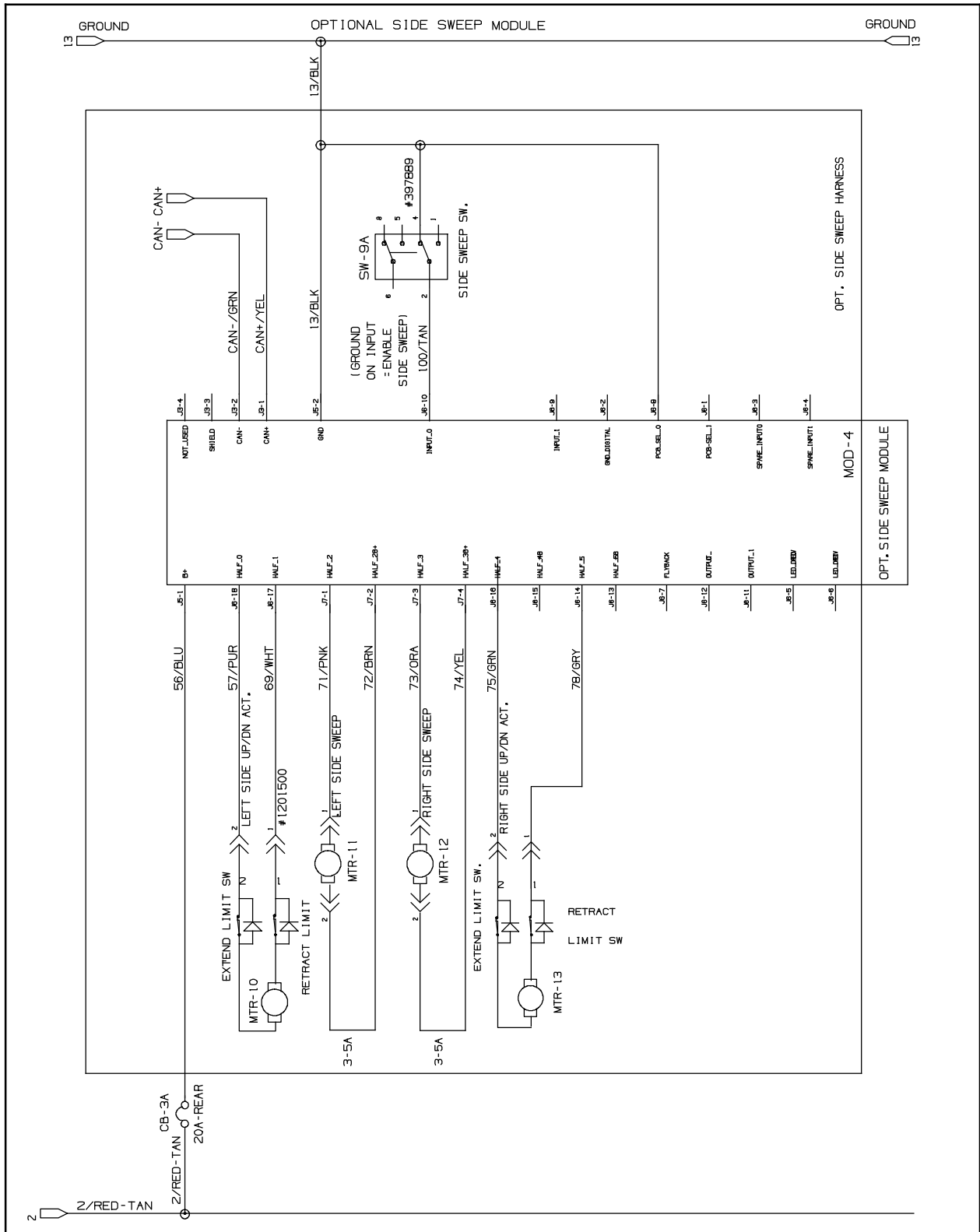


FIG. 13 - Schematic

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