

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 numbers 9007964, 9007965, 9007966, 9007967, 9007968, 9009093**

SYNOPSIS:

These kits contain parts needed to replace steering control panel components on T16 scrubbers. Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 1 hour)

PREPARATION:

1. Park the machine on a clean level surface, turn off the machine, and remove the key.

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

2. Disconnect the battery cables from the batteries.

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

INSTALLATION:

1. Remove the hardware holding the circuit breaker panel to the machine and carefully lower the panel from the steering support. Do not break any wire connections when lowering the panel. Set the hardware aside. (Fig. 1)



FIG. 1

2. Disconnect the main wire harness from the control panel assembly harness. Cut the cable tie if necessary.
3. Loosen the two set screws securing the control panel assembly into the collar. (Fig. 2)

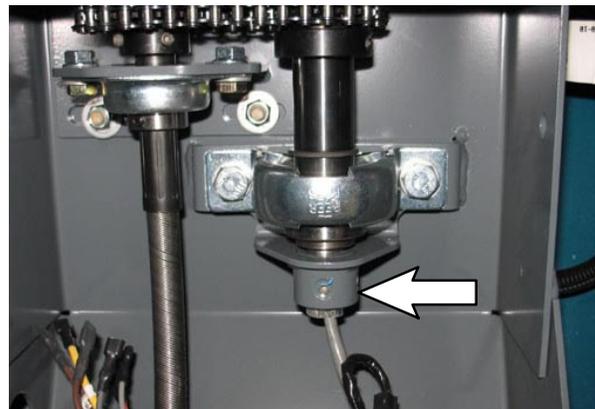


FIG. 2

4. Pull the control panel assembly from the steering wheel.
5. Remove the thrust washer from the shaft of the control panel assembly. Set the thrust washer aside.

Kit 9009093 Only: Discard the entire control panel assembly. Proceed to Step 28 to complete replacing the entire steering control panel assembly.

6. Set the control panel assembly on a soft clean surface.

7. Remove the hardware holding the touch panel/top shell to the bottom shell. Set the hardware aside. (Fig. 3/Fig. 20)



FIG. 3

8. Remove the bottom shell from the touch panel/top shell. Discard the o-ring. (Fig. 4/ Fig. 20)



FIG. 4

9. **Kit 9007967 Only:** Remove the shaft from the bottom shell. Set the shaft and hardware aside. Discard the bottom shell. (Fig. 5/ Fig. 20)



FIG. 5

10. **Kit 9007967 Only:** Install the new bottom shell (5) onto the shaft. Proceed to Step 21. (Fig. 5/Fig. 20)

11. **Kit 9007968 Only:** Remove the shaft from the bottom shell. Set the bottom shell and hardware aside. Discard the shaft. (Fig. 5/ Fig. 20)

12. **Kit 9007968 Only:** Install the new shaft (6) onto the bottom shell. Proceed to Step 21. (Fig. 5/Fig. 20)

13. Carefully disconnect the ribbon cables from the circuit board. Take care to not bend or damage the pins when disconnecting the ribbon cable connectors. (Fig. 6/Fig. 7)



FIG. 6



FIG. 7

14. Remove the hardware securing the circuit board to the touch panel/top shell. Set the hardware aside. (Fig. 8/ Fig. 20)



FIG. 8

15. Remove the circuit board from the touch panel/top shell. (Fig. 9/ Fig. 20)

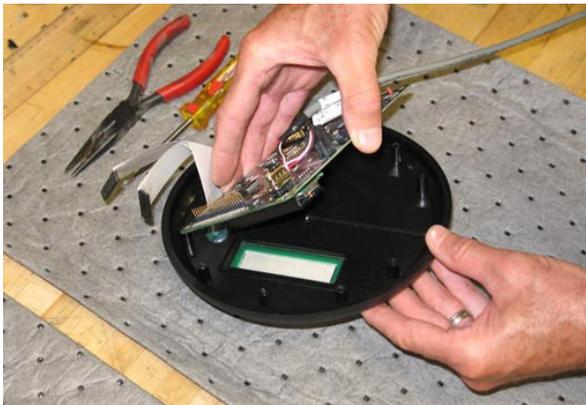


FIG. 9

16. **Kit 9007964 Only:** Discard the touch panel/ top shell and reassemble control panel assembly with new touch panel/top shell (1). Proceed to Step 21. (Fig. 9/ Fig. 20)

17. **Kit 9007965 Only:** Cut the cable tie securing the instrument panel harness to the circuit board and disconnect the instrument panel wire harness from the circuit board. (Fig. 9/ Fig. 20)

18. **Kit 9007965 Only:** Discard the circuit board and reassemble control panel assembly with the new circuit board (3). Proceed to Step 21. (Fig. 9/ Fig. 20)

19. **Kit 9007966 Only:** Cut the cable tie securing the instrument panel harness to the circuit board and disconnect the instrument panel wire harness from the circuit board. (Fig. 10/ Fig. 20)

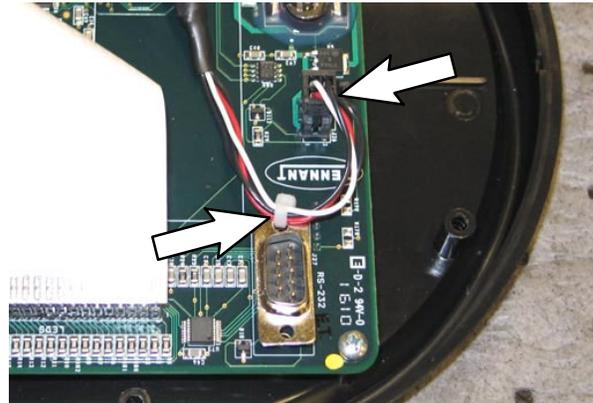


FIG. 10

20. **Kit 9007966 Only:** Connect the new instrument wire harness (4) to the circuit board. (Fig. 10)

21. **Kit 9007966 Only:** Use a cable tie to secure the instrument wire harness (4) to the circuit board. Proceed to Step 24. (Fig. 10/ Fig. 20)

22. Install the circuit board onto the touch panel/ top shell. Position the LED display on the circuit board on the clear portion of the touch panel/top shell. (Fig. 11/ Fig. 20)



FIG. 11

23. Carefully connect the ribbon cables to the circuit board. Take care to not bend or break pins when connecting the ribbon cables to the circuit board. (Fig. 12/ Fig. 13)

NOTE: If reusing circuit board, be sure the pins are straight. Straighten any bent pins before attaching the ribbon cables to the circuit board.



FIG. 12



FIG. 13

24. Position the new o-ring (7) into the recessed ring in the outer edge of the bottom shell of the control panel assembly. (Fig. 14/ Fig. 20)



FIG. 14

25. Insert the cable from the touch panel/top shell into the hole in the center of the control assembly base and slide as much of the cable as possible into the shaft so there is no excess slack inside the control panel assembly when the touch panel/top shell is installed onto the bottom shell. (Fig. 15/ Fig. 20)



FIG. 15

26. Align the tabs in the touch panel/top shell with the notches in the bottom shell and install the touch panel/top shell onto the bottom shell. (Fig. 16/ Fig. 20)

NOTE: The tabs in the touch panel/top shell must be aligned with the notches in the bottom shell so it is possible to reinstall all the hardware and the control panel is properly positioned when reinstalled onto the machine.



FIG. 16

27. Slide the thrush washer onto the shaft of the control panel assembly.

28. Slide the control panel assembly (8) into the steering assembly and down into into the collar. Align the two flat sections in the shaft of the control panel assembly with the two set screws in the collar. Ensure the control panel is properly positioned in the steering wheel. (Fig. 17/Fig. 18/Fig. 19)

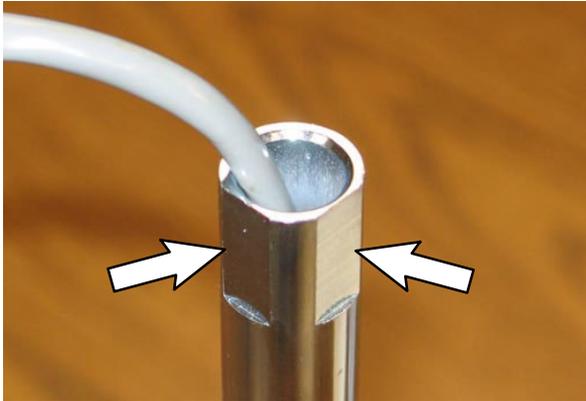


FIG. 17

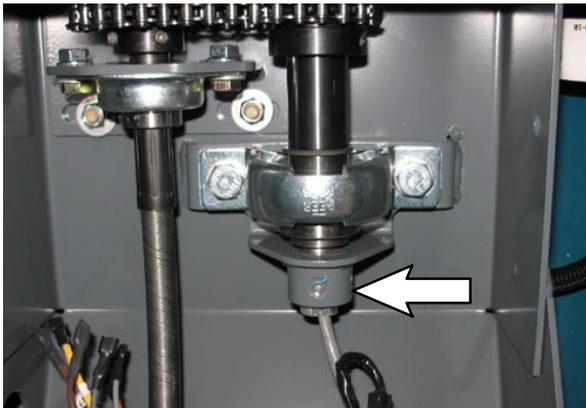


FIG. 18



FIG. 19

29. Tighten the set screws against the shaft of the control panel assembly. (Fig. 18)

30. Connect the main wire harness to the control panel assembly.

31. Reinstall the circuit breaker panel onto the machine.

32. Reconnect the battery cable to the batteries.

33. Turn on and test the machine. Operate all control panel controls to ensure they function properly.

34. Turn off the machine.

35. Proceed to Step 36 to configure the hour meter.

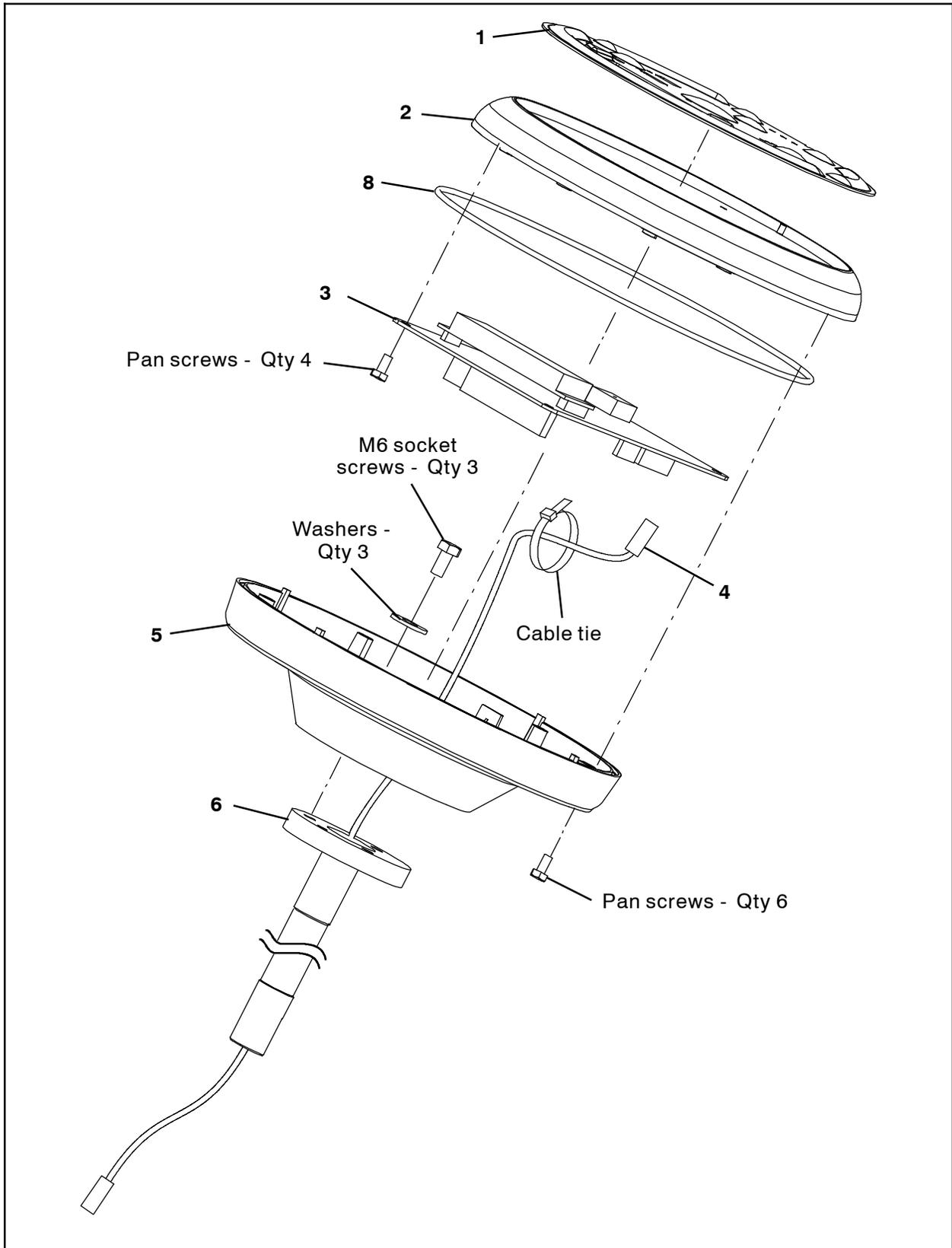


FIG. 20

36. Press and hold the configuration mode button and turn the key switch ON. Release the configuration mode button when CONFIG MODE appears on the LCD. (Fig. 21)



FIG. 21

37. Press and release the brush pressure button until configuration mode utility **C1:Disk/Cyl** appears on the LCD. (Fig. 22)



FIG. 22

38. Press and release the configuration mode button to scroll through the list of utilities until **C10:Propel H.M. XXXX.X Hrs** appears on the LCD. (Fig. 23)



FIG. 23

39. Press and release the brush pressure button to enable a change. A (<-) symbol will appear on the bottom line of the LCD to the left of the symbols (****) to be changed and a (>) symbol will appear to the right, indicating the configuration utility is now enabled. (Fig. 24)



FIG. 24

40. Press the solution decrease button (-) and solution increase button (+) to enter each digit for the password. Press the configuration mode button to move to the next digit. Password to set hour meter is 0000. (Fig. 25/ Fig. 26)



FIG. 25



FIG. 26

41. Press the brush pressure button to enter the password. (Fig. 26)

42. Observe the LCD. The **C10:Chg Prpl Hr** **XXXX.X Hrs** utility should appear on the LCD. (Fig. 27)



FIG. 27

43. Press the solution decrease button (-) and solution increase button (+) to enter each digit for the propel hour meter hours. Press the configuration mode button to move to the next digit. (Fig. 28/ Fig. 29)

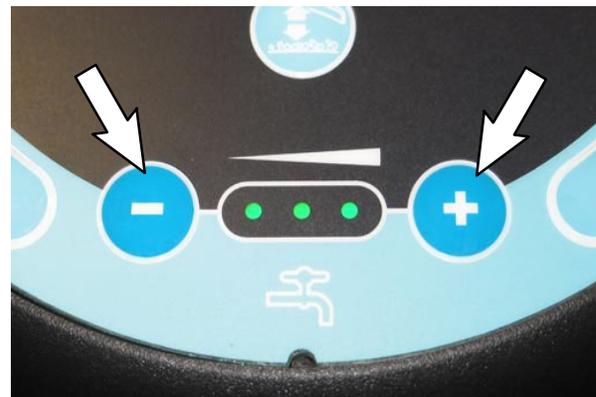


FIG. 28



FIG. 29

44. Press the brush pressure button to save the entered propel hour meter time. (Fig. 30)



FIG. 30

45. Press and release the configuration mode button to scroll through list of utilities until **C13:Scrub H.M. XXXX.X Hrs** appears on the LCD. (Fig. 31)



FIG. 31

46. Press and release the brush pressure button to enable a change. A (<-) symbol will appear on the bottom line of the LCD to the left of the symbols (****) to be changed and a (>+) symbol will appear to the right, indicating the configuration utility is now enabled. (Fig. 32)



FIG. 32

47. Press the solution decrease button (-) and solution increase button (+) to enter each digit for the password. Press the configuration mode button to move to the next digit. Password to set hour meter is 0000. (Fig. 33/ Fig. 34)



FIG. 33

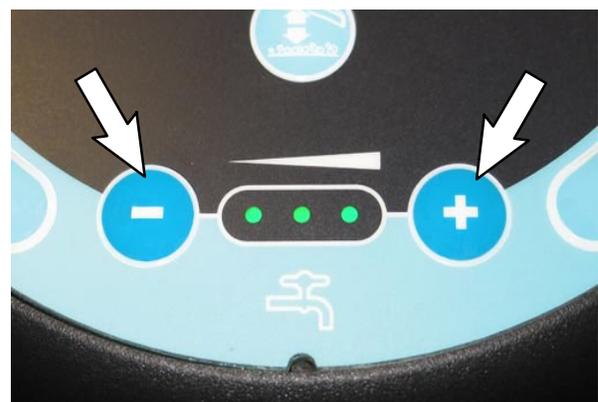


FIG. 34

48. Press the brush pressure button to enter the password. (Fig. 35)



FIG. 35

49. Observe the LCD. The **C13:Chg Scrub Hr XXXX.X Hrs** utility should appear on the LCD. (Fig. 36)



FIG. 36

50. Press the solution decrease button (-) and solution increase button (+) to enter each digit for the scrub hour meter. Press the configuration mode button to move to the next digit. (Fig. 37/Fig. 38)



FIG. 37



FIG. 38

51. Press the brush pressure button to save the entered scrub hour meter time. (Fig. 39)



FIG. 39

52. Turn the key switch OFF and then back ON to save both newly entered hour meter hours.

53. Observe the hour meter on the LCD. The time on the hour meter should be the same as the time set at the **C10:Chg Prpl Hr XXXX.X Hrs** utility. The time set at the **C13:Chg Scrub Hr XXXX.X Hrs** utility does not appear on the hour meter.

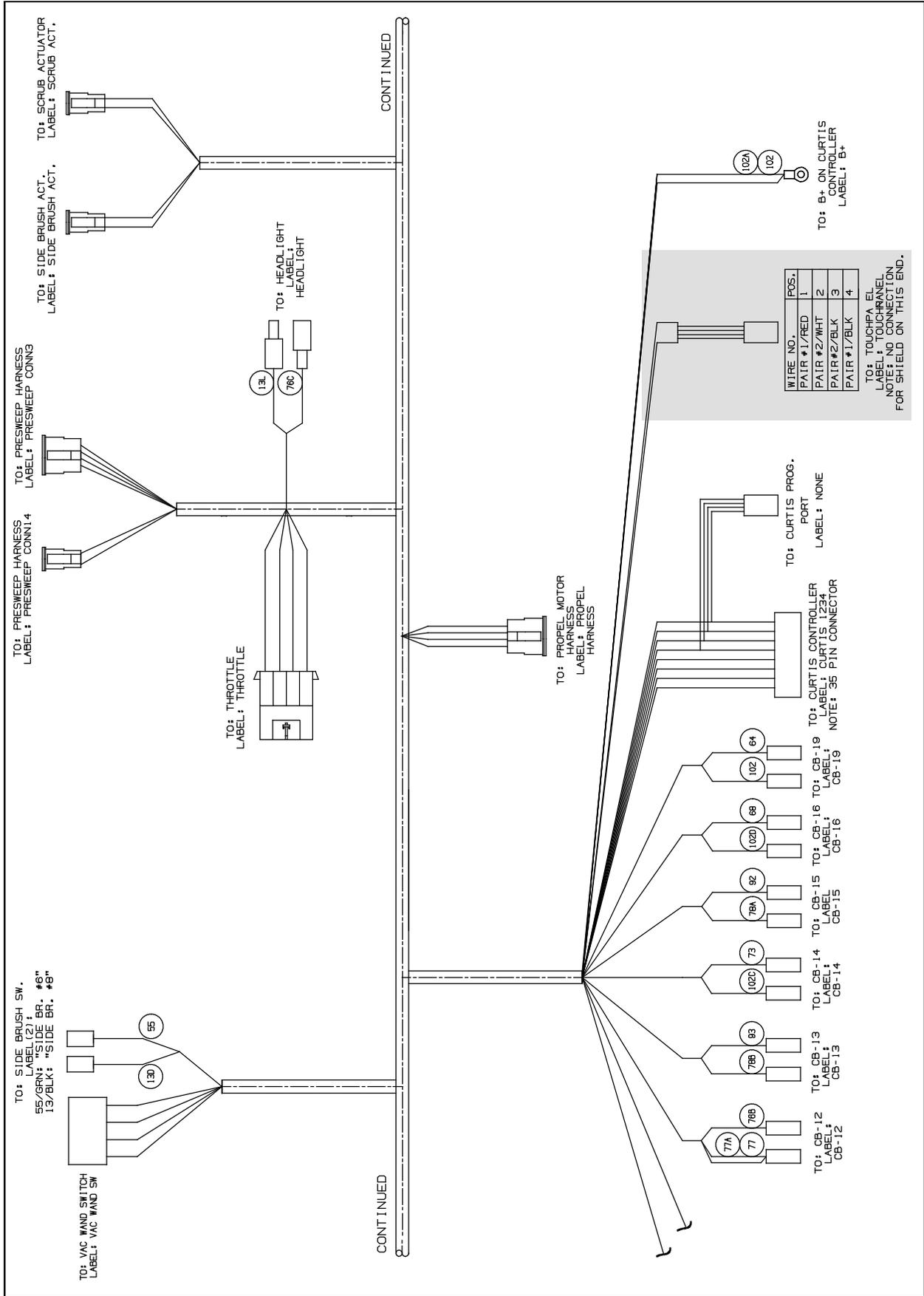


FIG. 40

Bill of Materials for Panel Assy Kit, Console, Top, CI - 9007964

	Ref.	Tennant Part No.	Description	Qty.
▽		9007964	Panel Assy Kit, Console, Top, CI	1
▲▽	1	1060106	Panel, Console, Top	1
▲▲	2	1059987	Panel, Touch, Instmt	1
▲	7	1060104	Seal, Org, .103 X 07.73ID	1

Bill of Materials for Circuit Board Assy Kit, Interface, CI - 9007965

	Ref.	Tennant Part No.	Description	Qty.
▽		9007965	Circuit Board Assy Kit, Interface, CI	1
▲	3	1056197	Circuit Board Assy, Interface	1
▲	7	1060104	Seal, Org, .103 X 07.73ID	1

Bill of Materials for Harness Kit, Wire, Instmt Panel, CI - 9007966

	Ref.	Tennant Part No.	Description	Qty.
▽		9007966	Harness Kit, Wire, Instmt Panel, CI	1
▲	4	1069841	Harness, Wire, Instmt Panl [T16]	1
▲	7	1203420	Seal, Org, .103 X 07.73ID	1

Bill of Materials for Panel Kit, Console, Bottom, CI - 9007967

	Ref.	Tennant Part No.	Description	Qty.
▽		9007967	Panel Kit, Console, Bottom, CI	1
▲	5	1060105	Panel, Console, Bottom	1
▲	7	1060104	Seal, Org, .103 X 07.73ID	1

Bill of Materials for Tube Wldmt Kit, Console, Instmt, CI - 9007968

	Ref.	Tennant Part No.	Description	Qty.
▽		9007968	Tube Wldmt Kit, Console, Instmt, CI	1
▲	6	1070859	Tube Wldt, Console, Instmt	1
▲	7	1060104	Seal, Org, .103 X 07.73ID	1

Bill of Materials for Panel Assy, Console, Instmt - 9009093

	Ref.	Tennant Part No.	Description	Qty.
▽		9009093	Panel Assy, Console, Instmt	1
▲	8	9017295	Panel Assy, Pod w/pkg	1
▲	9	1072910	Harness, Wire, Afmkt [Can Bus]*	1
▲	10	1070975	Harness, Wire, Adapter	1

**Note: The aftermarket wire harness (9) is included for testing the system if the new control panel assembly (8) is inoperable after being installed. Use the aftermarket wire harness to replace the control panel lead of the main wire harness if that portion of the main wire harness is faulty.*

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