



Drive Module Replacement Kit

Model: 5680



The original controller board p/n 397785 has been discontinued and replaced by this kit. The kit includes additional parts for proper installation. Carefully follow the installation instructions as described below.

INSTALLATION INSTRUCTIONS:

Installation Time: 1.5 Hours

Special Tools Required: Ohmmeter to adjust potentiometer

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

1. Disconnect the black (-) battery cable from battery pack.
2. Remove the two screws and the height adjustment knob from the control console housing. Lower housing to access control board (Figure 1).

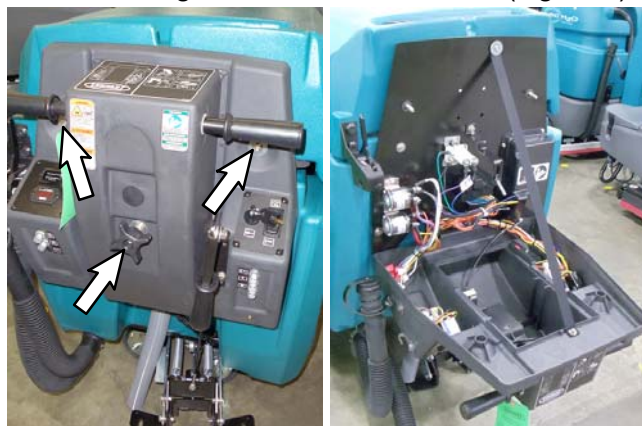


Fig. 1

3. Remove electrical cover from control board. Discard cover, it's not required with new module (Figure 2).

Disconnect the wire connections from old board and remove board from machine (two screws). Discard old board (Figure 2).

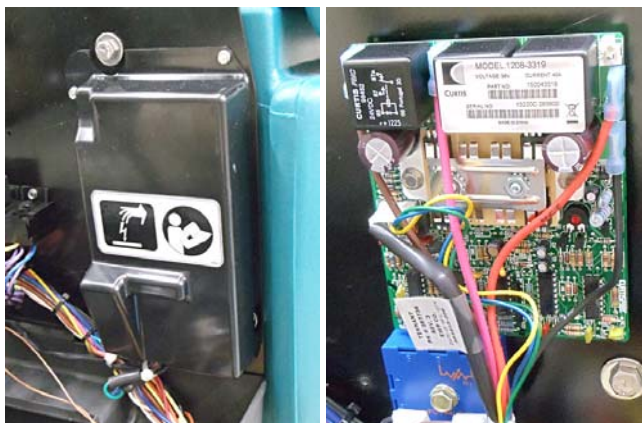
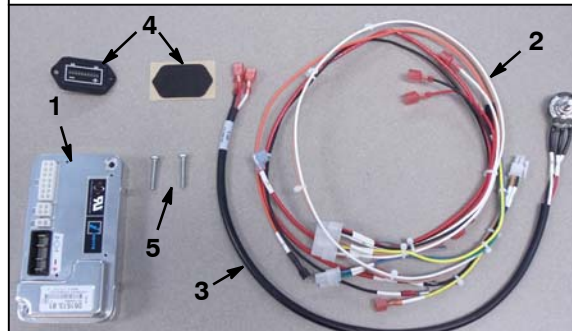


Fig. 2

9011905 Kit Contents



Ref Part No.	Description	Qty.
1 1212548	Module, Drive [D515113]	1
2 1206698	Harness, Drive, Adapter [5680]	1
3 1213069	Harness, Potentiometer	1
4 392894	Gauge, Discharge, Battery, 36v, w/gasket	1
5 1073600	Screw, Pan, m4 x 0.7 x 25, fmg	2

4. Mount the new module to panel. Using a 9/64" drill bit, drill the top mounting hole location as described. For the bottom hole, use the module as a drill template (Figure 3).

Use caution when drilling not to drill into tank.

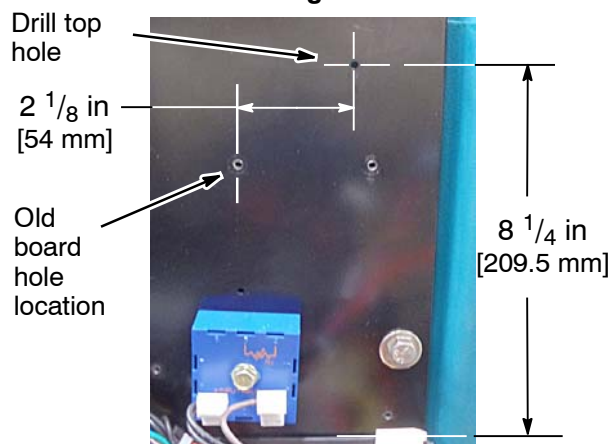


Fig. 3

Drive Module Replacement Kit INSTALLATION INSTRUCTIONS - Continued

5. Reconnect the existing harness wires to the new drive module as shown (Figure 4).

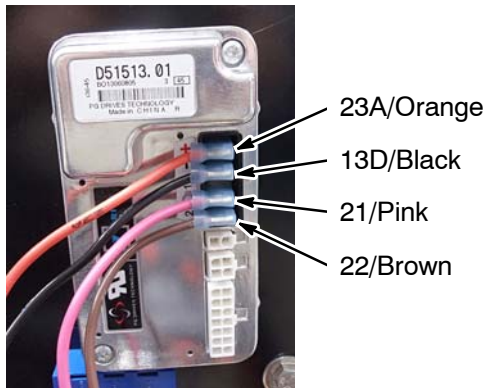


Fig. 4

6. Connect the new wire harness to the new drive module as shown (Figure 5)

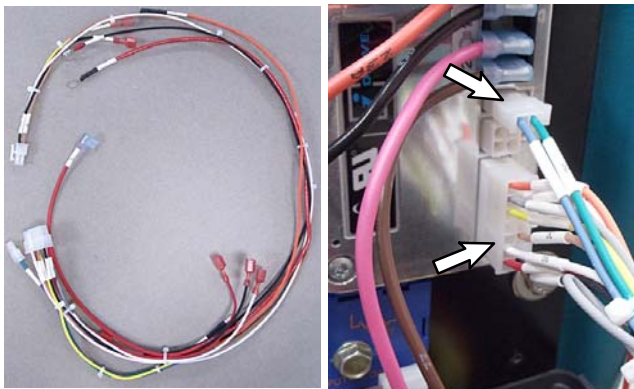


Fig. 5

7. Disconnect the three potentiometer wire connections (6/Blue, 5/Green and 4D/Yellow) and remove the old potentiometer from machine (Figure 6).

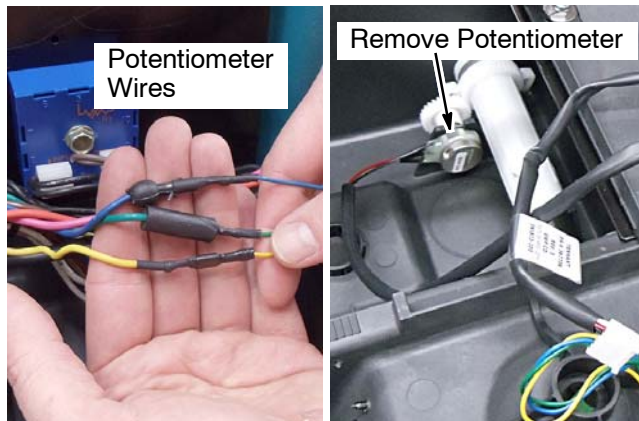


Fig. 6

8. Connect wires (36/Blue, 35/Green & 44/Yellow) from the new wire harness to the wire terminals that were disconnected in step 7 (Figure 7)

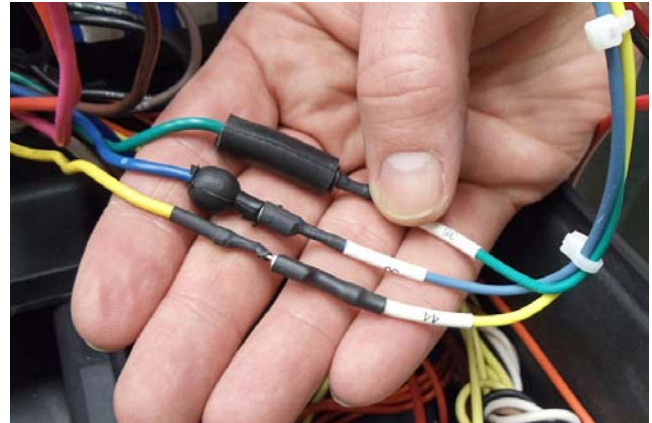
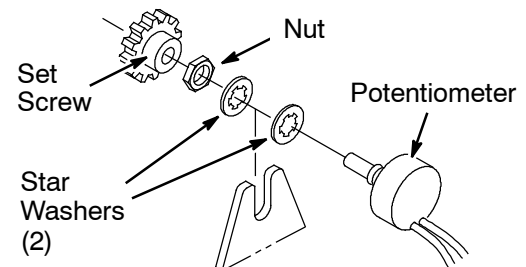


Fig. 7

9. Install the new potentiometer as shown (Figure 8). Do not tighten the nut at this time. The potentiometer will need to be properly adjusted before tightening nut. Continue on next page.



Use second star washer from old potentiometer

Fig. 8

Drive Module Replacement Kit INSTALLATION INSTRUCTIONS - Continued

To properly adjust the potentiometer, measure the potentiometer's maximum ohm value using an ohmmeter then divide the max. value by two to find the center (neutral) position (Figure 9).

Example: Maximum value 5.0K ohms $\div 2 = 2.5K$ ohms (+/- 10%) center position.

With the machine's control grips at the neutral position, rotate the body of the potentiometer up or down until the reading on the ohmmeter is at the center (neutral) position. Tighten nut.



2.5K (+/- 10%)
Center Position

Fig. 9

10. Connect the new potentiometer wire harness to the new wire harness wires (white to 39/white, red to 1B/red and black to 13AA/black) (Figure 10).

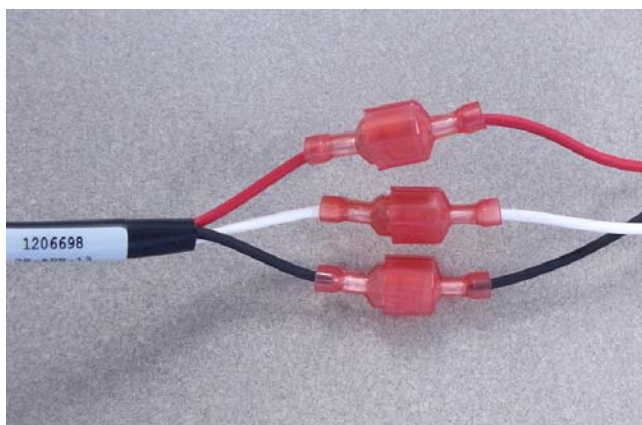


Fig. 10

11. Depending on when the machine was manufactured, the PROPEL circuit breaker may be positioned and identified as CB2 or CB3 as shown below (Figure 11). Follow the below instructions according to CB Panel configuration.

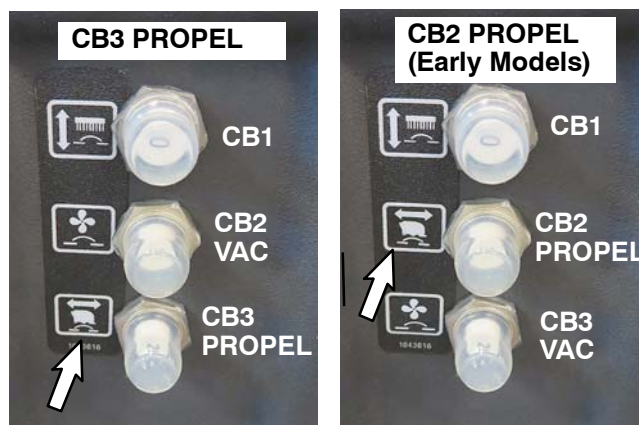


Fig. 11

For models with CB3 PROPEL, disconnect wire 2/Brown from the propel circuit breaker (CB3) and replace it with wire 1C/Red from the new wire harness as shown (Figure 12). The disconnected brown wire is not required for this kit. Wrap electrical tape around the unused terminal.

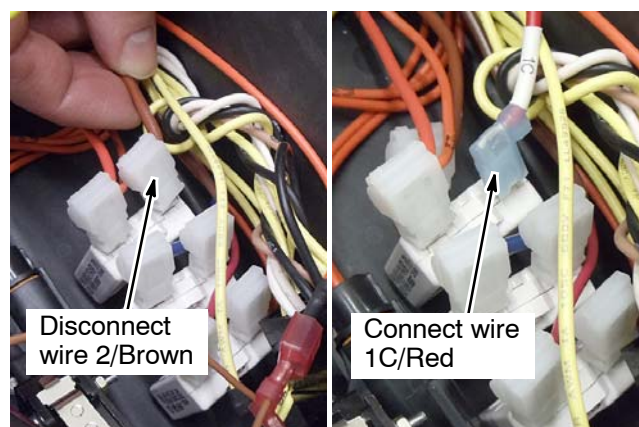


Fig. 12

For early models with CB2 PROPEL, remove wire 2A/Brown from propel circuit breaker (CB2) and replace it with wire 1C/Red from new harness (figure not shown). Also disable CB1 by removing wires 3A/3C/Orange. CB1 is no longer needed with new drive module.

Drive Module Replacement Kit INSTALLATION INSTRUCTIONS - Continued

12. Cut cable-tie to locate the charger interlock wire connections within the machine's wire harness as shown (Figure 13). Remove the electrical tape and disconnect the orange wire from blue wires.

The disconnected orange wire is not required for this kit. Wrap electrical tape around the unused terminal. The disconnected orange wire disables the 10A circuit breaker (CB1). CB1 is not required for this kit.

NOTE: For early models, if harness is not equipped with charger interlock wires as shown, refer to Step 13 NOTE.

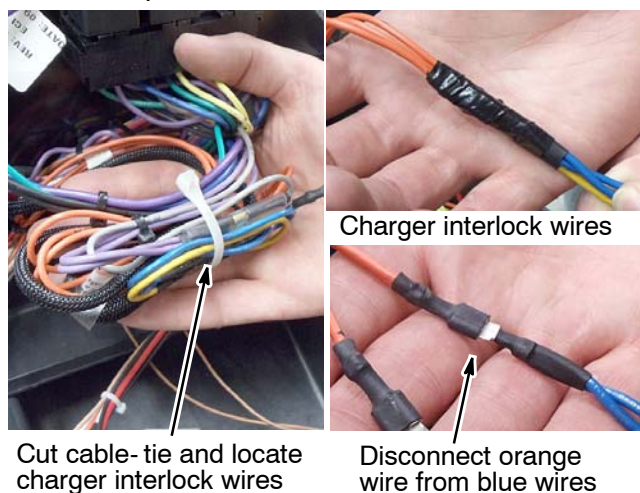


Fig. 13

13. Connect wire 33/Orange from the new wire harness to the blue charger interlock wires as shown below (Figure 14). Re-wrap wire connections with electrical tape. Re-secure the machine harness wires with cable-tie.

NOTE: For early models, disconnect wire 3B/Orange from key switch and connect wire 33/Orange from new wire harness to key switch (Figure not shown).

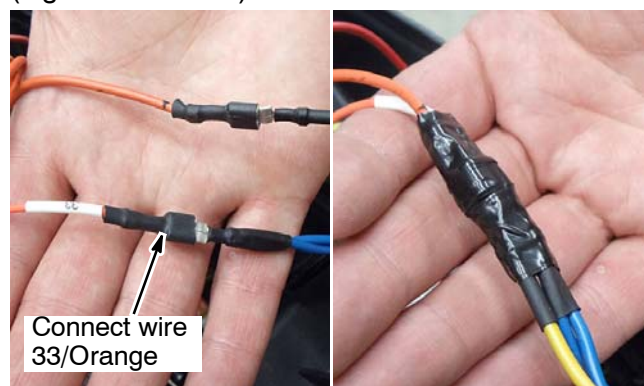


Fig. 14

14. Connect wire 13AC/Black from the new wire harness to the contactor terminal (Figure 15).

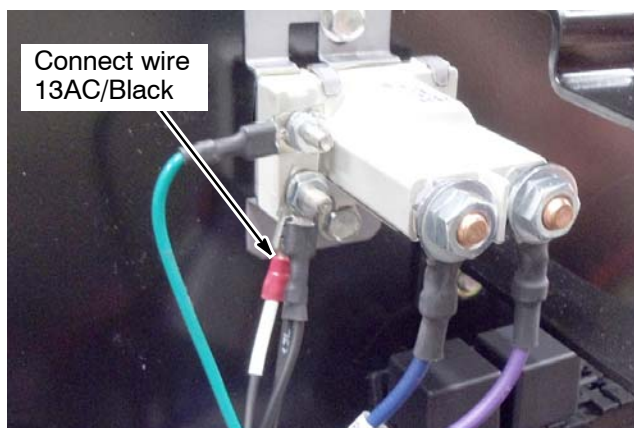


Fig. 15

15. Connect wire 1C/Red from the new wire harness to the main contactor terminal as shown (Figure 16).

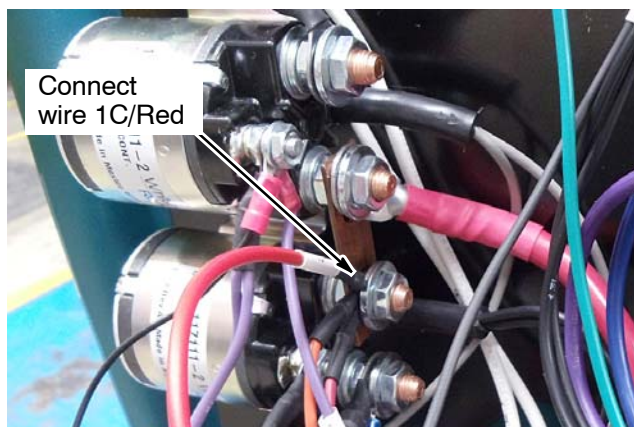


Fig. 16

16. Remove the old battery discharge indicator (BDI) from control housing (Figure 17). Save screws.



Fig. 17

Drive Module Replacement Kit INSTALLATION INSTRUCTIONS - Continued

17. Connect wires 13AB/Black and 34/Yellow from the new wire harness to the yellow and black wires that were disconnected from the old BDI (Figure 18).

NOTE: The orange wire is no longer required and can be removed from the machine.

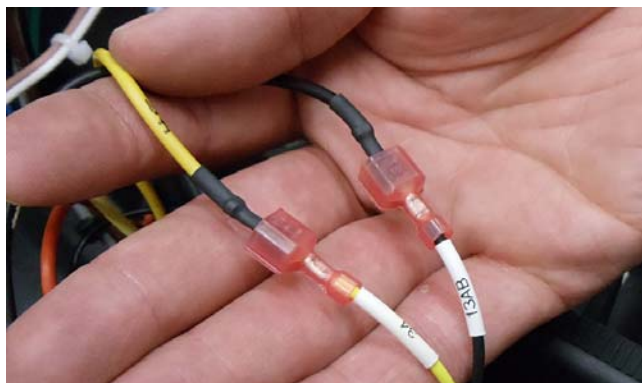


Fig. 18

18. Install the new battery discharge indicator (BDI) and connect the new wire harness as shown (Figure 19). Discard the wire harness that is packaged with the new BDI. It's not required.

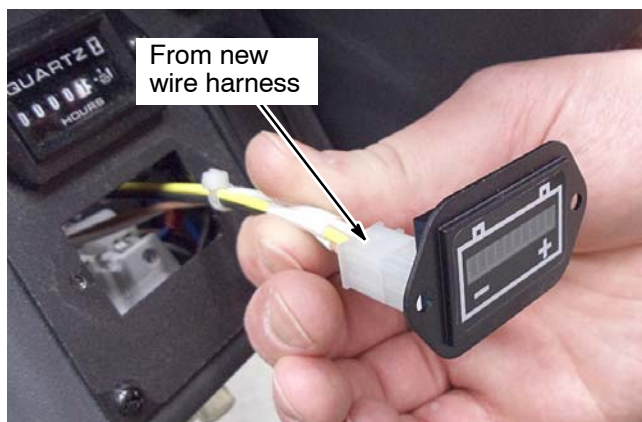


Fig. 19

19. Test machine for proper operation.

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