

T5e ec-H2O™ Kit



This kit includes the parts needed to convert a standard model over to an ec-H2O™ model.

INSTALLATION INSTRUCTIONS:

Installation Time: 4-6 Hours

Special Tools Required: None

PREPARE MACHINE FOR KIT INSTALL:

1. Drain the solution and recovery tanks.
2. Park the machine on a level surface, lower the scrub head and remove the key.
3. Remove the scrub head assembly from the machine (Figure 1).

FOR SAFETY: Before removing the scrub head assembly, disconnect the battery cables.

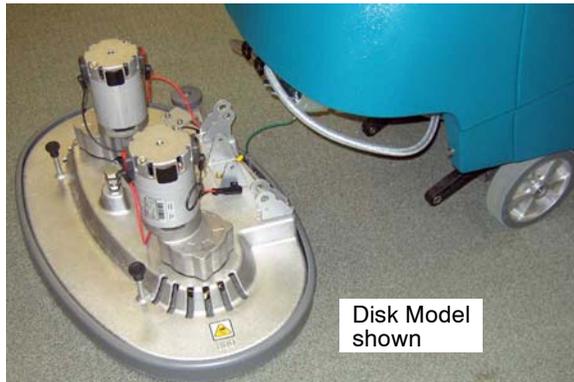


Fig. 1

4. Remove the batteries from the machine (Figure 2).

FOR SAFETY: When handling batteries, wear protective gloves and eye protection. Avoid contact with battery acid.



Fig. 2

INSTALL ec-H2O WIRE HARNESS:

1. Remove the cover the from the circuit breaker box and install ec-H2O wire harness [p/n 1055447] (Figure 3).



Fig. 3

2. Starting from inside the circuit breaker box, connect the following ec-H2O harness wires as described in steps 3, 4 and 5 (Figure 4).

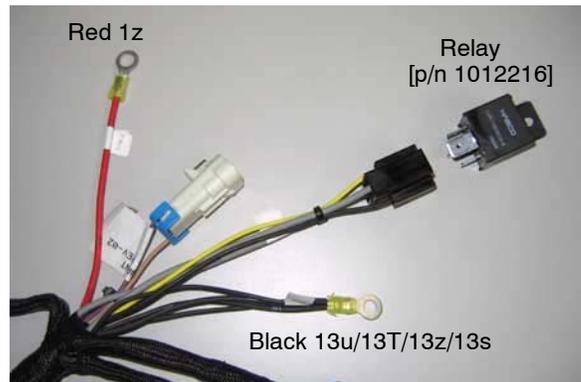


Fig. 4

3. Connect red wire (1z) to the brush contactor terminal and the black wires (13u/13T/13z/13s) to the ground stud (Figure 5).

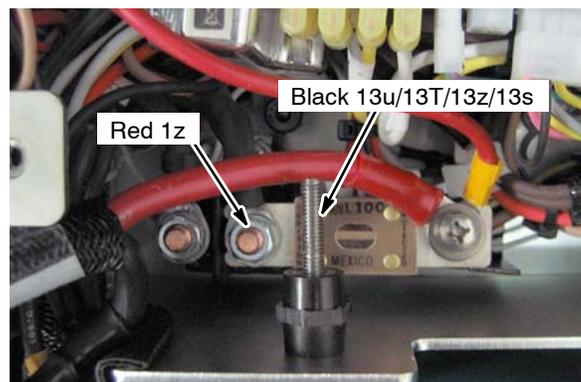


Fig. 5

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

4. Using Nut [p/n 09739], attach Relay [p/n 1012216] to the mounting stud located inside the circuit breaker box (Figure 6). Connect *ec-H2O* harness wire to relay (See Figure 4 for relay reference).



Fig. 6

5. Connect *ec-H2O* harness connector to the open connector located inside the circuit breaker box (Figure 7).

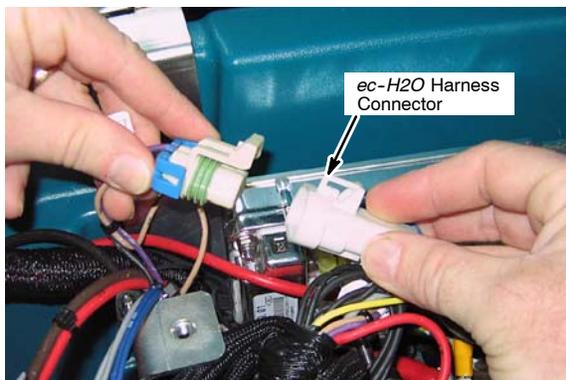


Fig. 7

6. Route the following *ec-H2O* harness wires to control console as described in steps 7 and 8 (Figure 8).

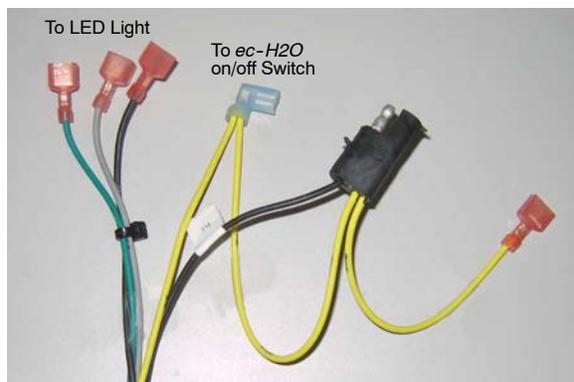


Fig. 8

7. Remove the vacuum motor cover (Figure 9).

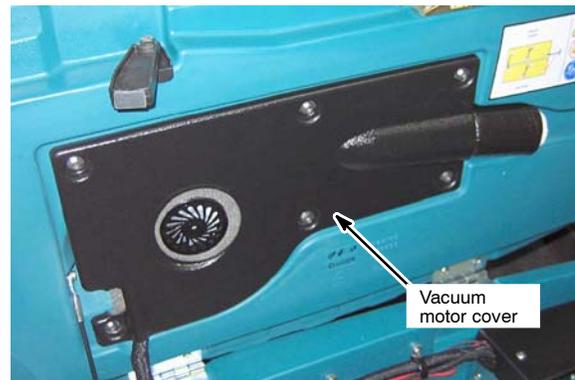


Fig. 9

8. Remove the vacuum motor and route *ec-H2O* harness wires (Figure 8) through the recovery tank harness hole and into the control console (Figure 10). Replace vacuum motor and cover.

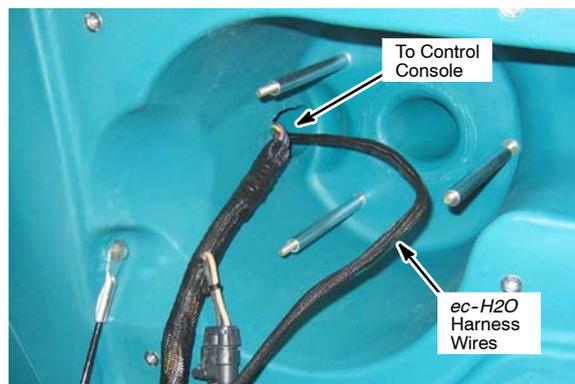


Fig. 10

9. Remove factory installed clamps and replace with larger cable clamps [p/n 606697] to secure *ec-H2O* harness (Figure 11).

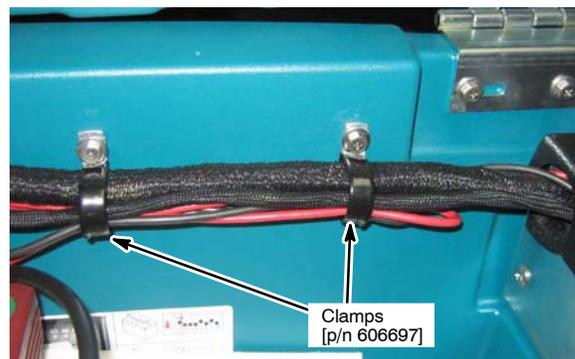


Fig. 11

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

10. Route the following *ec-H2O* harness wires (Figure 12) as described in step 11.

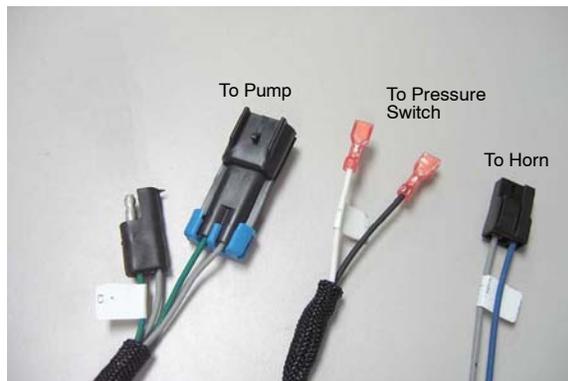


Fig. 12

11. Route the above *ec-H2O* harness wires to the scrub head assembly as shown (Figure 13).

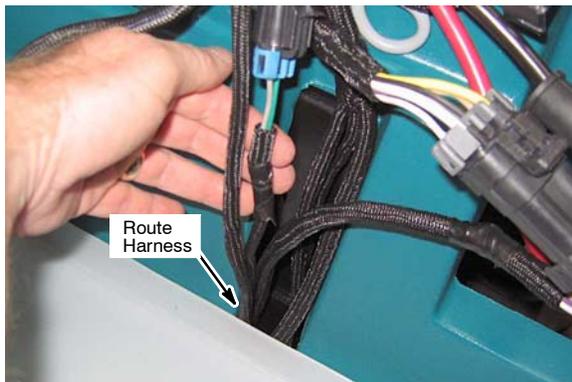


Fig. 13

12. Arrange the *ec-H2O* wire harness within the circuit breaker box as shown (Figure 14).



Fig. 14

12. Replace circuit breaker box cover (Figure 15).

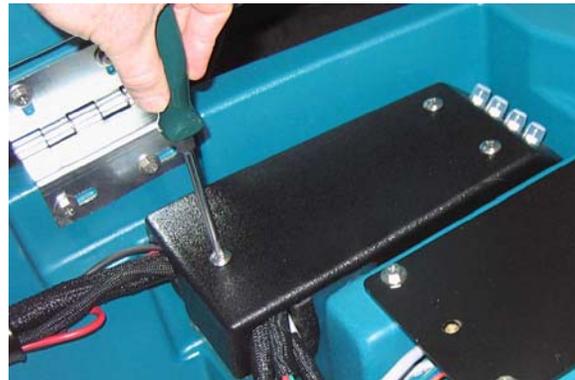


Fig. 15

INSTALL THE *ec-H2O* CONTROL CONSOLE COMPONENTS:

1. Remove the upper control panel from the control console and locate the routed *ec-H2O* harness wires (Figure 16).



Fig. 16

2. Remove the components from the upper control panel (*take note of wire connections before removing*). Using new panel [p/n 1041719] and label [p/n 1050010], re-install components (Figure 17). Install *ec-H2O* LED light [p/n 1041822] as shown.

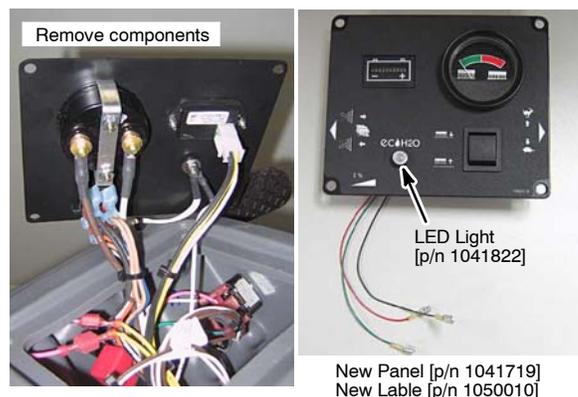


Fig. 17

T5e ec-H2O Kit INSTALLATION INSTRUCTIONS - Continued

- Connect the routed ec-H2O harness wires to the LED light (GRAY to RED, GRN to GRN and BLK to BLK) (Figure 18).

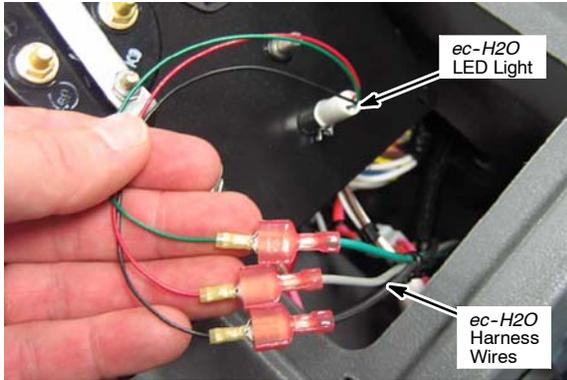


Fig. 18

- Remove the lower control panel from console (Figure 19).



Fig. 19

- Remove the components from the lower panel (*take note of wire connections before removing*). Using new lower panel [p/n 1024111] and label [p/n 1050011], re-install components (Figure 20).

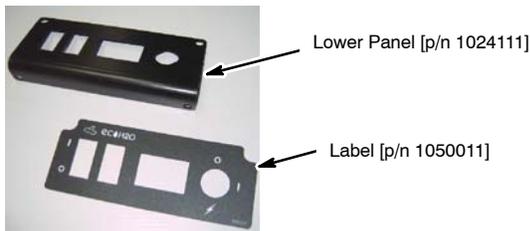


Fig. 20

- Install the ec-H2O on/off switch [p/n 130787] as shown (Figure 21).

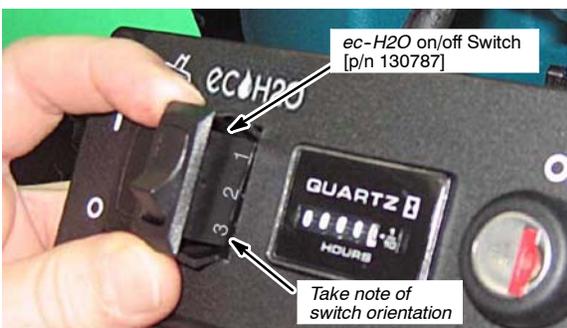


Fig. 21

- Route the remaining console wires from the ec-H2O wire harness to the lower control panel (Figure 22).

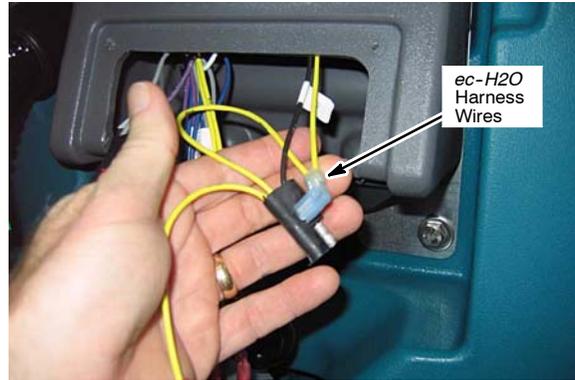


Fig. 22

- Disconnect wire 14 yellow from key switch (Figure 23).

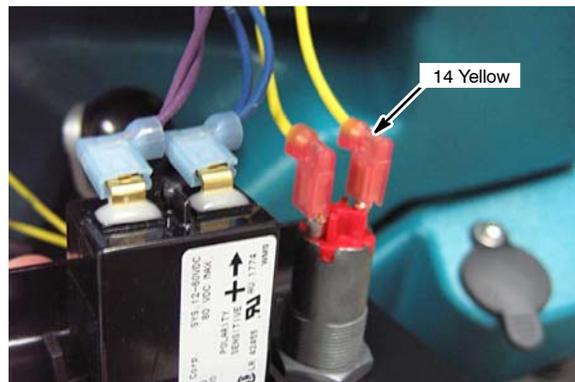


Fig. 23

- Connect ec-H2O harness wires 94/94A yellow to key switch as shown (Figure 24). Connect 94B yellow to wire 14 yellow.

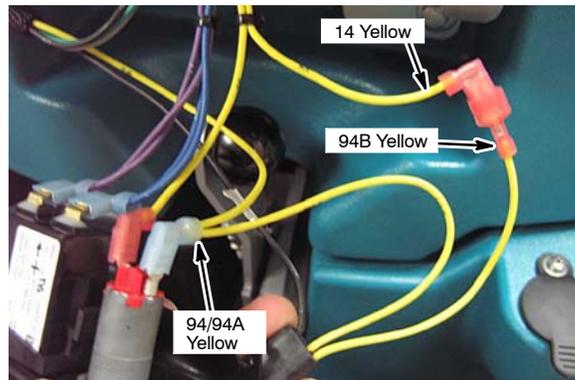


Fig. 24

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

- Connect diode [p/n 222290] to the *ec-H2O* harness as shown (Figure 25).

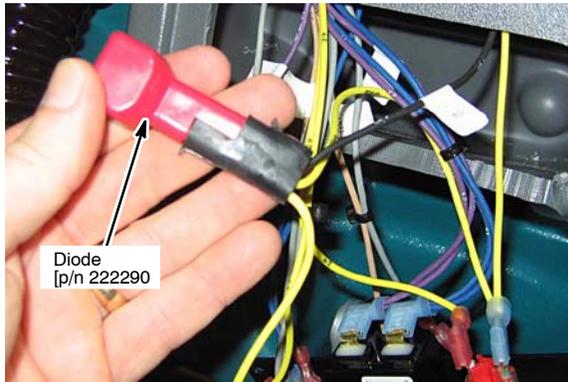


Fig. 25

- Within the lower control console wiring, locate and remove Blue Jumper Wire 36 from wires 8/8A Gray and 6/16 Blue and discard (Figure 26).

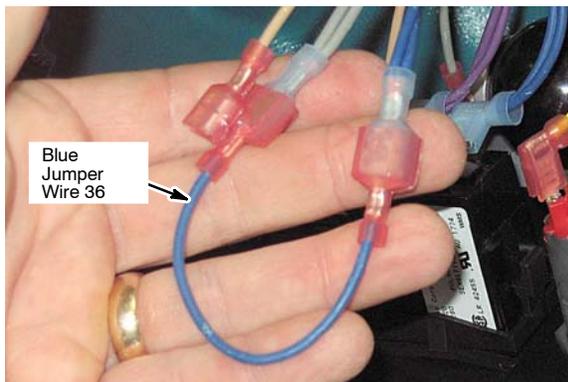


Fig. 26

- Connect wires 8/8A Gray, 6/16 Blue and 30 Tan to the *ec-H2O* on/off Switch as shown (Figure 27).

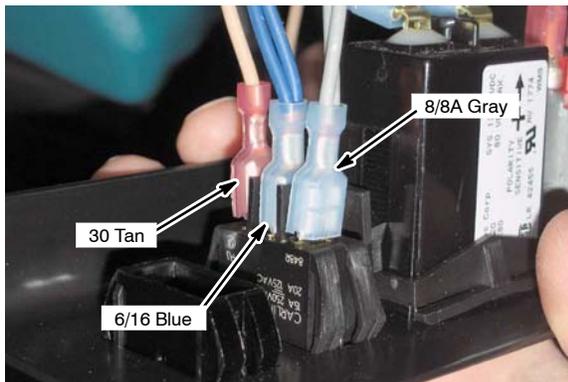


Fig. 27

- Replace the lower and upper control panels.

INSTALL THE *ec-H2O* MODULE:

- Cut the two *ec-H2O* module hoses to the specified length and set the DIP switch settings accordingly (Figure 28). Install the DIP switch grommet [p/n 1054776].

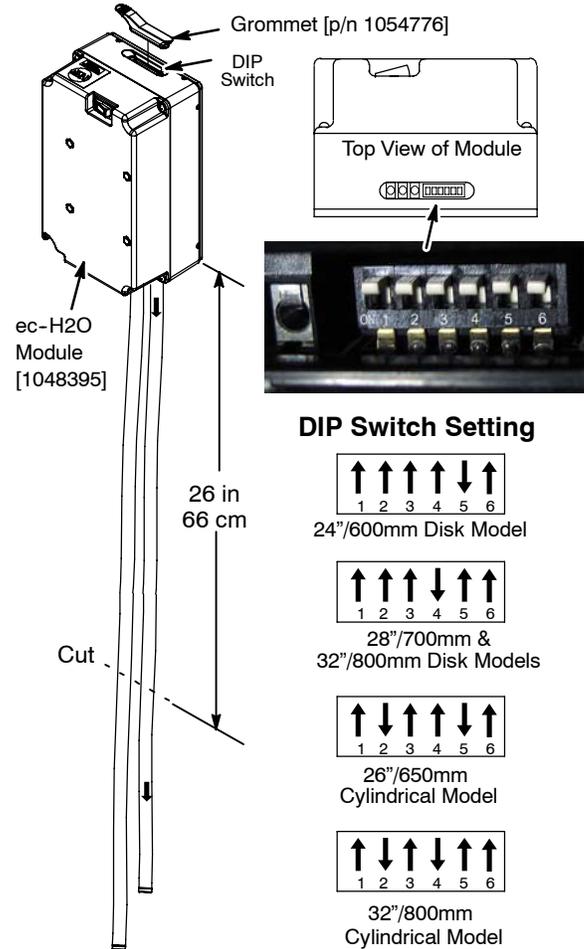


Fig. 28

- Using two m6x1.00x16 sems screws [p/n 1034731], attach the *ec-H2O* module mounting bracket [p/n 1045965] to the *ec-H2O* module as shown (Figure 29).

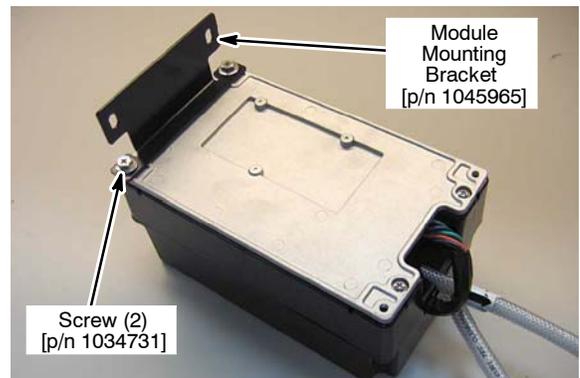


Fig. 29

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

3. Plug the the *ec-H2O* wire harness module connector into the module (Figure 30).



Fig. 30

4. Route the module hoses to the scrub head area as shown (Figure 30).

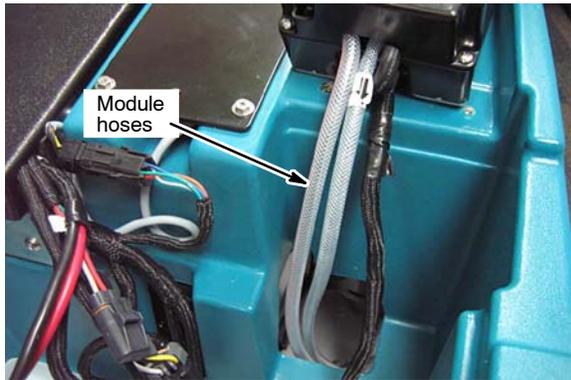


Fig. 31

5. Using two m6x1.00x16 sems screws [p/n 1034731], mount the *ec-H2O* module to the machine as shown (Figure 32).



Fig. 32

INSTALL *ec-H2O* SOLUTION SYSTEM:

1. On a level non-marring surface carefully lay the machine on its right side and remove the squeegee mount bracket (Figure 33).

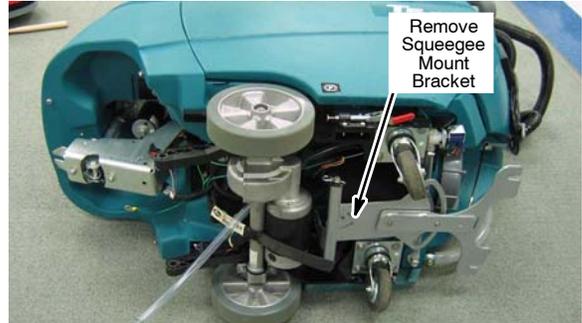


Fig. 33

2. Assemble the pump assembly as shown (Figure 34). Use a thread sealer tape on all fittings.

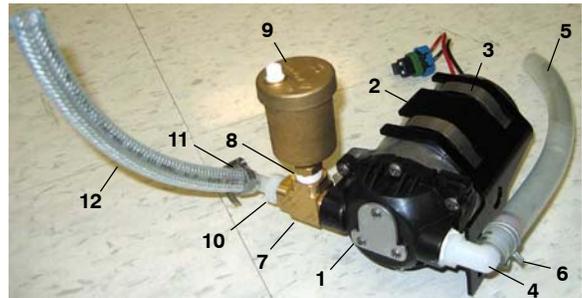


Fig. 34

Pump Assembly Parts List (Figure 34)

Ref	p/n.	Description	Qty.
1	1042495	Pump, Soltn, Ele, 24Vdc, 35psi	1
2	1023463	Bracket, Mtg, Pump	1
3	43555	Clamp, Hose, Wormdrive	2
4	1017532	Fitting, Plstc, E90, BM08/PM06	1
5	611259	Hose, Pvc, Clear, 0.50ID 0.75OD x 9.75"	1
6	607776	Clamp, Hose, Wire, .73-.77	1
7	601483	Fitting, Brs, Tee, PF06/PF06/PM06, Run	1
8	24698	Fitting, Brs, Str, PF02/PM06	1
9	1017386	Valve, Vent, Air, Float Type	1
10	1005630	Fitting, Plstc, E90, BM06/PM06, Nyl	1
11	54333	Clamp, Hose, Wormdrive, 0.31-0.88D, .31W	1
12	376720	Hose, Pvc, Brd, 0.38ID 0.60OD x 9.0"	1

3. Mount the pump assembly to the machine frame with two M6x1.00x16 hex screws [p/n 1034731] as shown (Figure 35). Route the two pump hoses as shown.

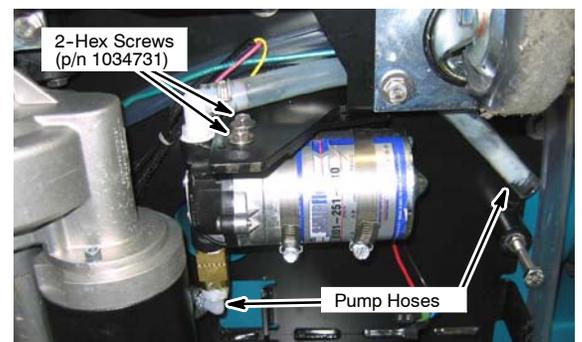


Fig. 35

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

- Cut the solution hose located between the valve and filter as described below (Fig. 36). Using the black T-fitting [p/n 63245-1] and 3 wire clamps [p/n 607776], connect the *ec-H2O* pump intake hose to cut hose as shown (Figure 36).

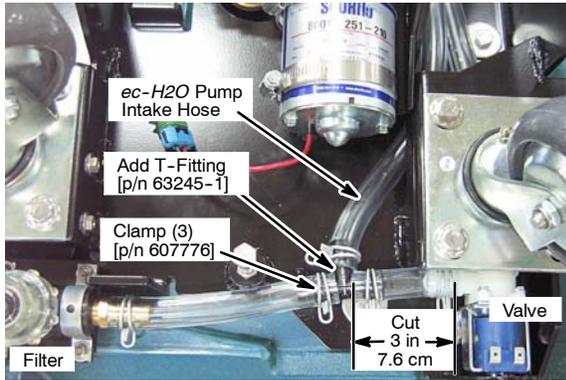


Fig. 36

- Connect the capacitor plug [p/n 1040868] to the *ec-H2O* wire harness that was routed down to the scrub head area (Figure 37).

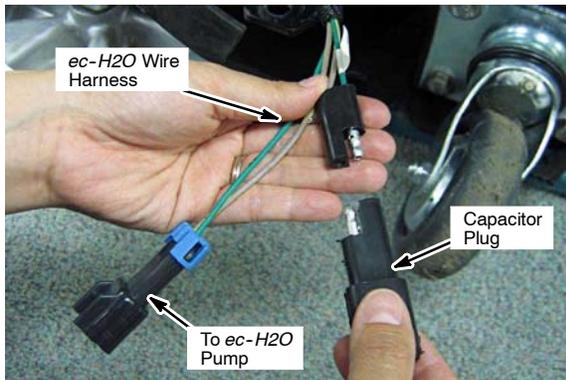


Fig. 37

- Plug the pump wire connector into the *ec-H2O* wire harness. Secure the wire connection and capacitor plug to the machine frame with a wire-tie as shown (Figure 38).



Fig. 38

- Replace the squeegee mount bracket (Figure 31) and carefully stand the machine upright.
- Install clamp [p/n 69234] and route the two *ec-H2O* module hoses as shown (Figure 39).

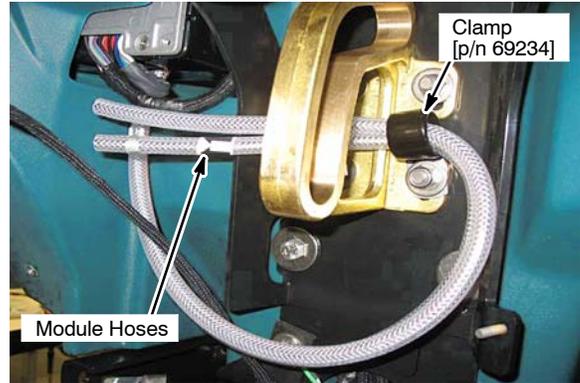


Fig. 39

- Cut the 4 ft braided hose [p/n 578227000] into the specified hose lengths as described (ref. 1, 2, 3 & 4), then assemble the following parts as shown (Figure 40). Use thread sealer tape on all fittings.

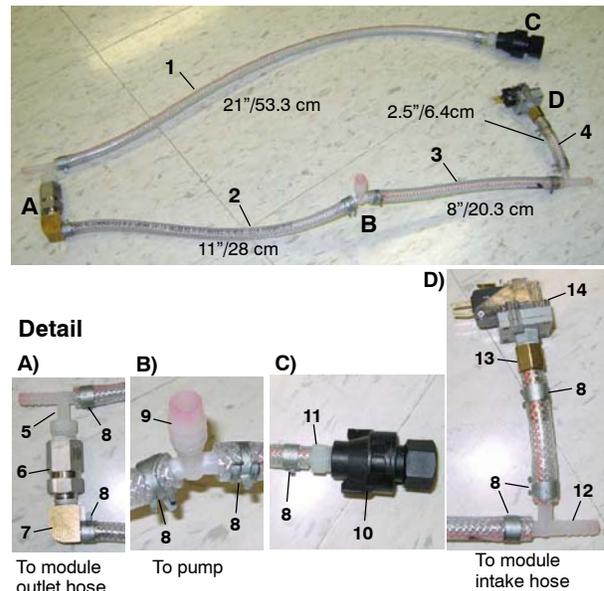


Fig. 40

ec-H2O Solution Hose Assembly Parts List (Figure 40)			
Ref	p/n.	Description	Qty.
1	578227000	Hose, Pvc, Brd, .25ID x .44OD x 21.00	1
2	578227000	Hose, Pvc, Brd, .25ID x .44OD x 11.00	1
3	578227000	Hose, Pvc, Brd, .25ID x .44OD x 8.00	1
4	578227000	Hose, Pvc, Brd, .25ID x .44OD x 2.50	1
5	607306	Fitting, Plstc, Tee, BM04/BM04/PM04, Br	1
6	1044790	Check Valve	1
7	1028773	Fitting, Brs Elbow 90, BM04/PF04	1
8	603654	Clamp, Hose, Ear	8
9	1014441	Fitting, Plst, Tee, Bm04/BM04/Bm06	1
10	1043866	Fitting Asm., Quick Disconnect	1
11	50901	Fitting, plst, Str, BM04/PM04	1
12	150713	Fitting, plst, Tee, BM04/BM04/Bm04	1
13	150520	Fitting, Brs, Str BM04/PF02	1
14	1044414	Switch, Pressure 15psi, PM02	1

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

10. Using two hose clamps [p/n 603654], connect the *ec-H2O* module hoses to the *ec-H2O* solution hose assembly (from step 9) as shown (Figure 41).

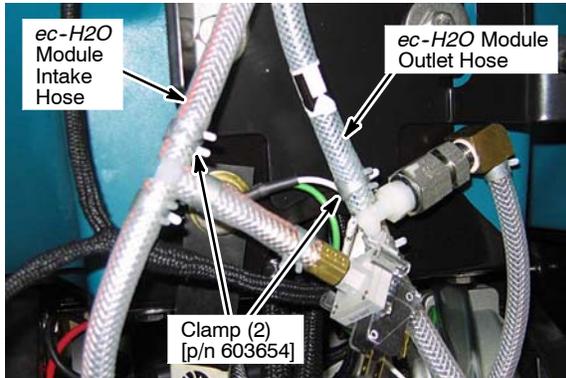


Fig. 41

11. Secure the *ec-H2O* solution hose assembly with two wire-ties [p/n 130773] as shown (Figure 42).

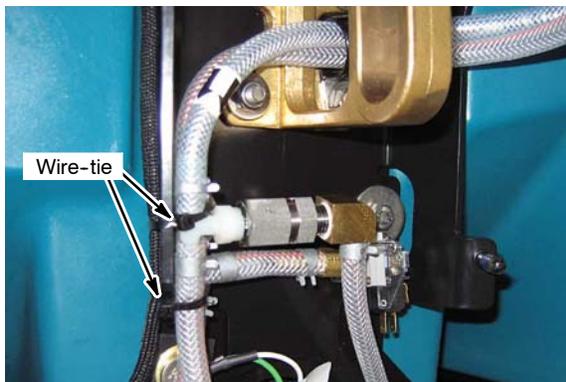


Fig. 42

12. Using a wormdrive clamp [p/n 54333], connect the *ec-H2O* pump hose to the *ec-H2O* solution hose assembly (from step 9) (Figure 43).

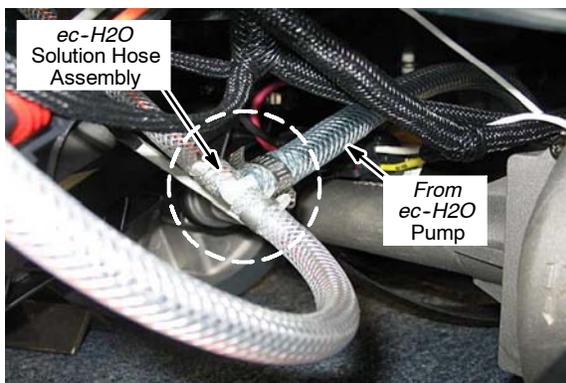


Fig. 43

13. Connect wires 13T BLK/99 WHT from the routed *ec-H2O* wire harness to the pressure switch as shown (Figure 44).

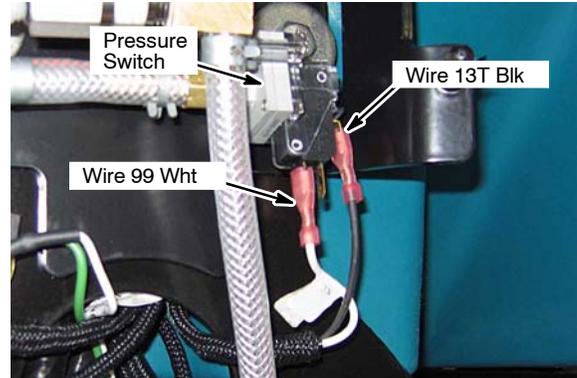


Fig. 44

14. Cut the machine's solution tank outlet hose as specified (Figure 45).

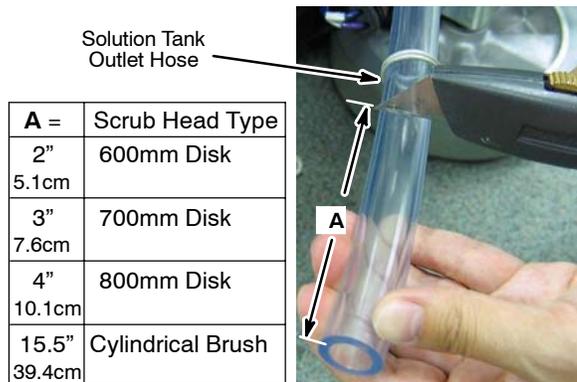


Fig. 45

15. Using T-fitting [p/n 1010791] and two wire clamps [p/n 607776], connect the quick disconnect connector from the *ec-H2O* solution hose assembly to the solution tank outlet hose as shown (Figure 46). Use a thread sealer tape.

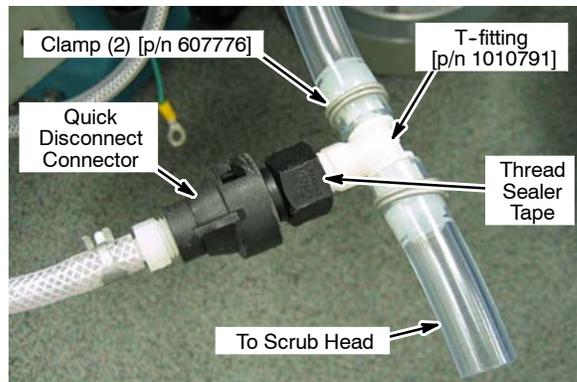


Fig. 46

T5e *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

INSTALL *ec-H2O* HORN:

1. Connect the routed *ec-H2O* wire harness to horn [p/n 1018505] as shown. Using screw and lock washer supplied with horn, attach the horn bracket [p/n 1044192] to horn (Figure 47).

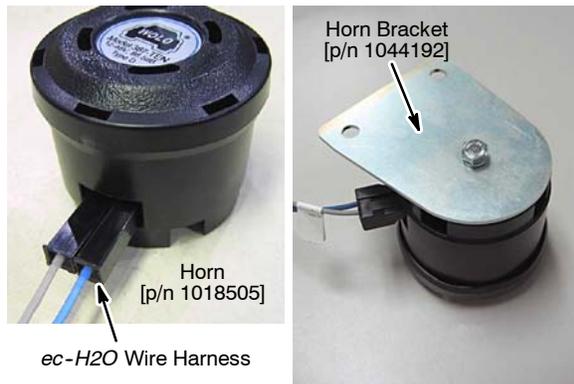


Fig. 47

2. Using two M6x1.00x16 sems hex screws [p/n 1034731], attach the horn to the machine as shown (Figure 48).

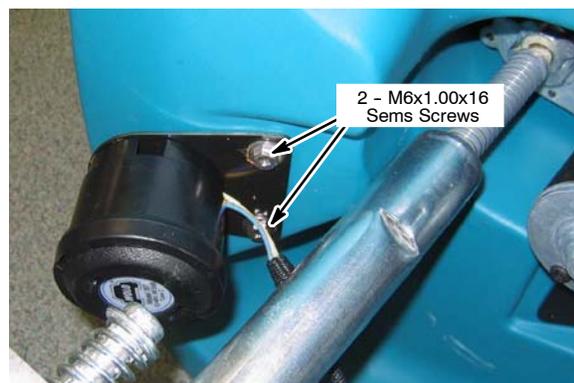


Fig. 48

3. Secure the horn wire harness with wire-tie as shown (Figure 49).

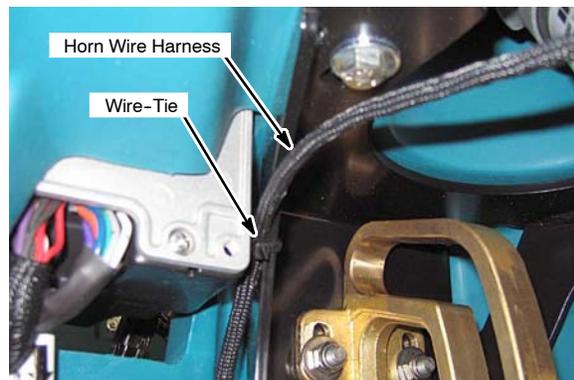


Fig. 49

4. Replace the scrub head and the batteries.

INSTALL *ec-H2O* MODEL LABELS:

Apply the new *ec-H2O* labels as described below (Figure 50).

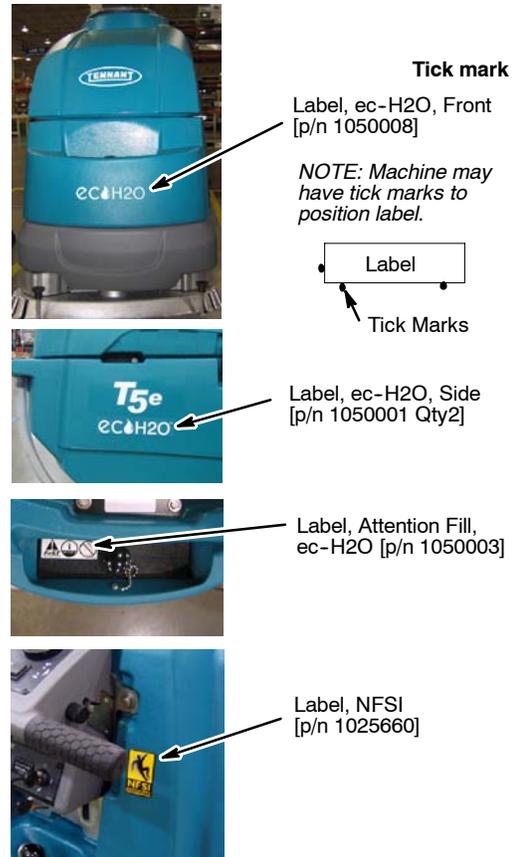


Fig. 50

OPERATE *ec-H2O* SYSTEM:

To ensure proper operation, operate the *ec-H2O* system according to T5e *ec-H2O* Operator Manual.