



T7 *ec-H2O*™ Kit



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

INSTALLATION INSTRUCTIONS:

Installation Time: 5 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 seat, battery shroud and batteries from the machine.

FOR SAFETY: When handling batteries, wear protective gloves and eye protection.

4. Remove the storage box from the battery shroud and cut the bottom of the shroud as shown (Figure 1a). Install cover bracket [p/n 1051138] into the storage box opening using two hex screws [p/n 09740], four washers [p/n 1017218] and two nuts [p/n 08713] (Figure 1b).

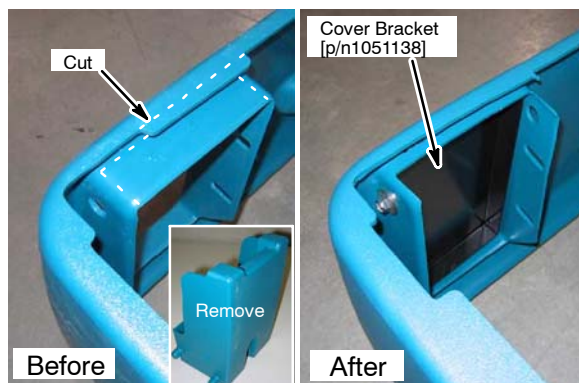


Fig. 1a

Fig. 1b

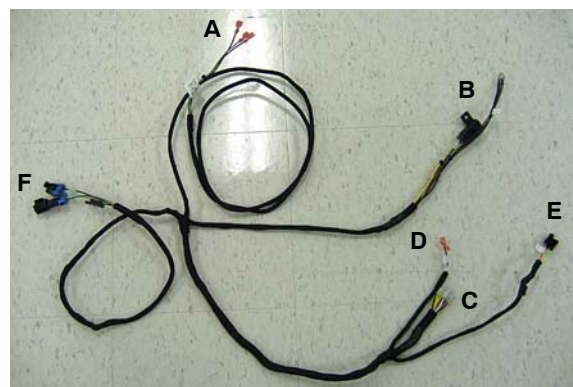
5. Remove the scrub head assembly from the machine to allow access for the *ec-H2O* pump assembly installation.
6. Remove the steering column housing (Figure 2).



Fig. 2

INSTALL *ec-H2O* WIRE HARNESS:

1. Use the below wire code diagram for reference to route the *ec-H2O* wire harness [p/n 1050394] (Figure 3).



A= *ec-H2O* LED Light
B= Control Board
C= *ec-H2O* Module
D= Pressure Switch
E= Alarm
F= Pump/Main

Fig. 3

2. Starting from inside the battery compartment, route the *ec-H2O* harness wires (A) under the solution tank and up the steering column as shown (Figure 4). Secure the harness wires within the existing wire harness clamps.

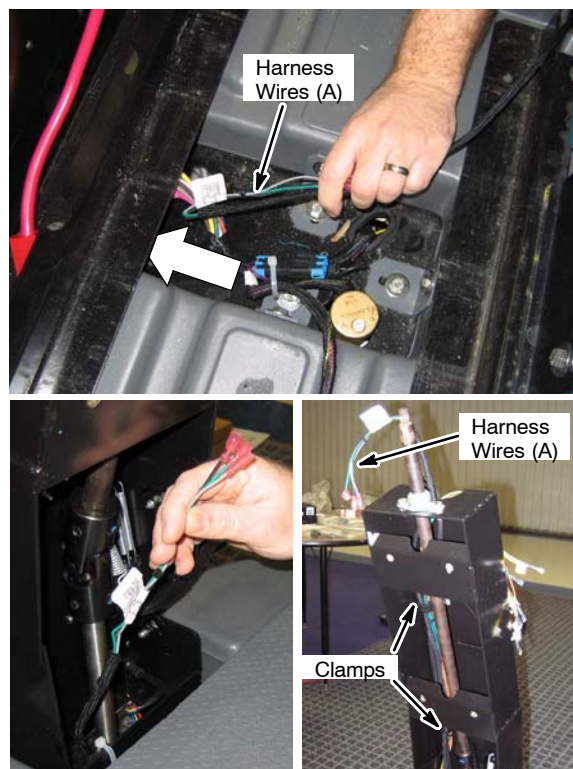


Fig. 4

T7 *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

3. Replace the steering column housing.
4. Using the new instrument panel [p/n 1050592] as a template, cut a 14 mm hole into the steering column housing as shown (Figure 5).

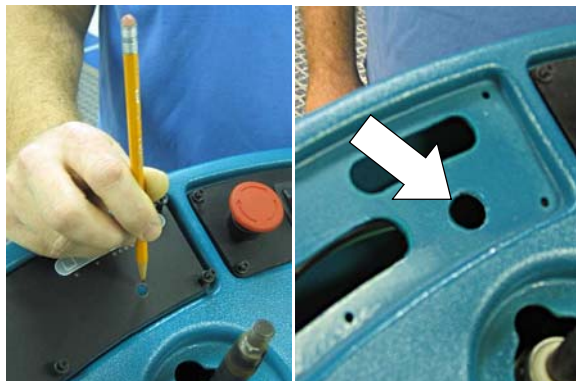


Fig. 5

5. Install the panel gasket [p/n 1052607] and the *ec-H2O* LED light [p/n 1041822] onto the new instrument panel [p/n 1050592]. Route the LED wires through the drilled hole and connect to the routed wire harness (Figure 6). Plug the main wire harness connector into the new instrument panel and fasten the panel to the steering column housing.

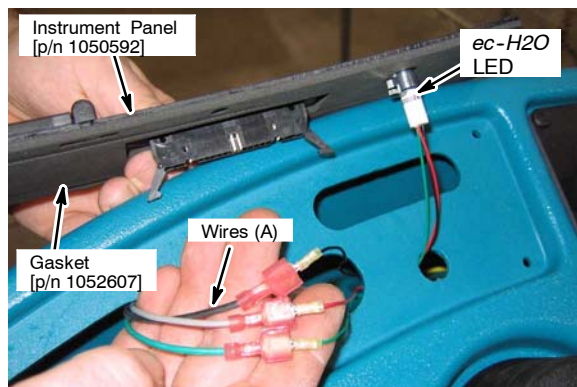


Fig. 6

6. Replace the key switch panel (Figure 7).

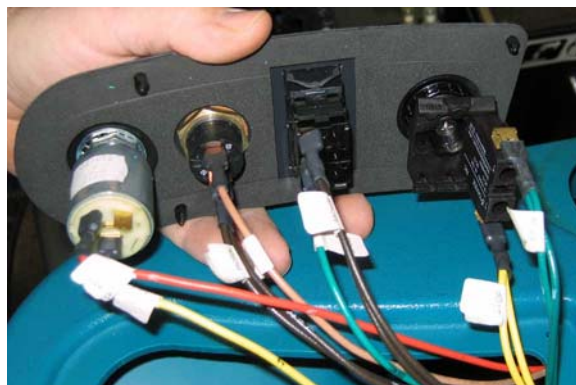


Fig. 7

7. Replace the steering wheel.

8. Route the *ec-H2O* harness wires (B) to the control board as shown (Figure 8).

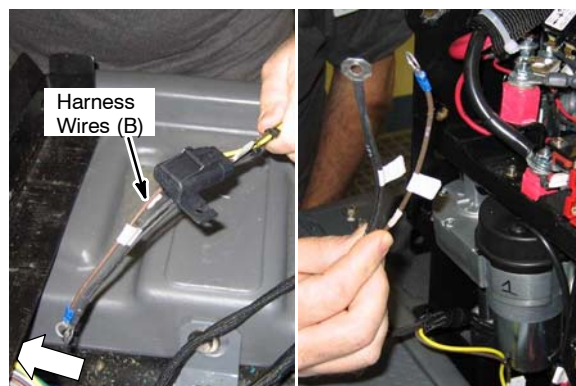


Fig. 8

9. Connect the brown wire to the main contactor and the black wire to the negative stand-off (Figure 9).

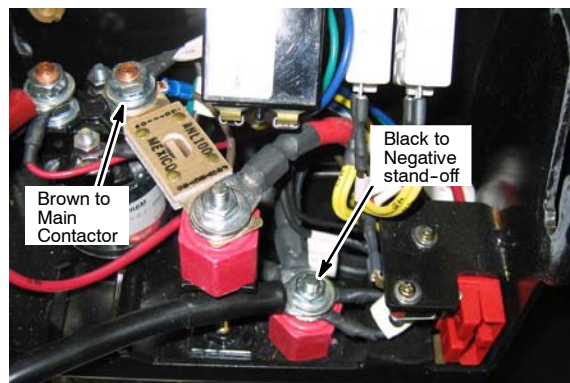


Fig. 9

10. Route the *ec-H2O* harness wires (C, D and E) as shown (Figure 10).



Fig. 10

T7 *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

11. Route the *ec-H2O* harness wires (F) down through hole as shown (Figure 11).

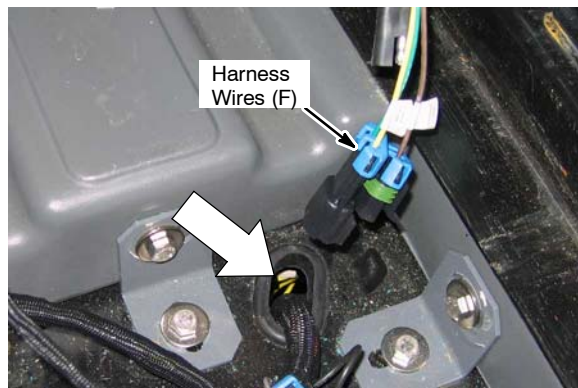


Fig. 11

12. From the bottom of the machine, route the *ec-H2O* wire harness through hole as shown (Figure 13).

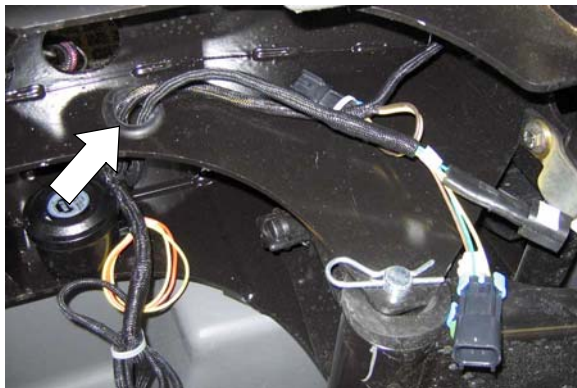


Fig. 12

13. Connect the capacitor plug [p/n 1040868] into the routed *ec-H2O* wire harness as shown (Figure 13).

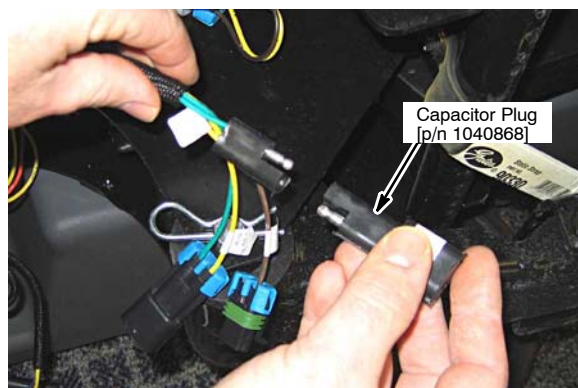


Fig. 13

14. Cut the wire-tie from the factory installed wire harness that has open connectors (Figure 14).

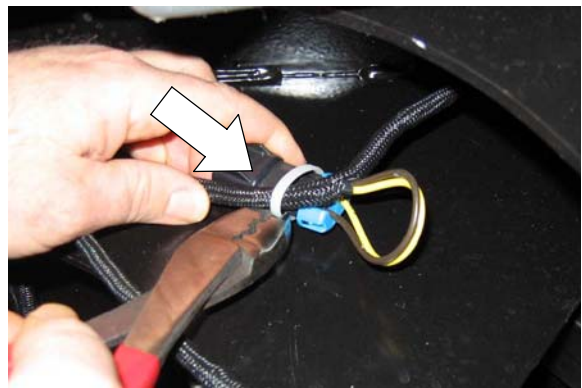


Fig. 14

15. Connect the open wire connector into the *ec-H2O* wire harness as shown (Figure 15).

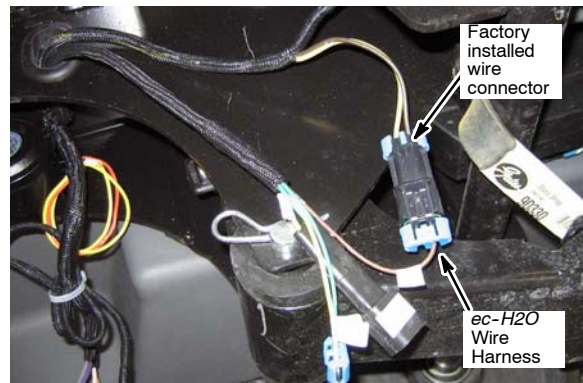


Fig. 15

T7 *ec-H2O* Kit

INSTALLATION INSTRUCTIONS - Continued

INSTALL *ec-H2O* PUMP ASSEMBLY:

1. On a non-marring surface carefully lay the machine on its right side.
2. Assemble the pump assembly as shown (Figure 16). Use a thread sealer tape on all fittings.

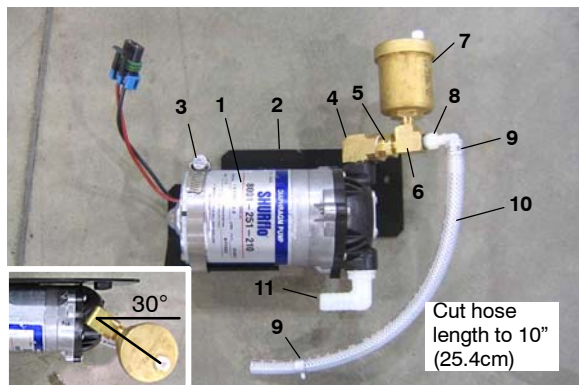


Fig. 16

Pump Assembly Parts List (Figure 16)

Ref	p/n.	Description	Qty.
1	1042495	Pump, Soltn, Ele, 24Vdc, 35psi	1
2	1014617	Bracket, Mtg, Pump	1
3	43555	Clamp, Hose, Wormdrive	1
4	24584	Fitting, Brs, E90, Pf06/PM06	1
5	24698	Fitting, Brs, Str, PF02/PM06	1
6	26426	Fitting, Brs, Tee, PF02/Pf02/Pm02	1
7	1017386	Valve, Vent, Air, Float Type	1
8	1037595	Fitting, Plstc, E90, Bm04/Pm02, Nyl	1
9	603654	Clamp, Hose, Ear, .44d	2
10	578227000	Hose, Pvc, Brd, 0.25ID 0.44OD x 3ft	1
11	64778	Fitting, Plstc, E90, Bm08/pm06	1

3. Mount the pump assembly to the machine as shown (Figure 17). Use two hex screws [p/n 09740] and two flat washers [p/n 01685].



Fig. 17

4. Connect the pump wire connector to the *ec-H2O* wire harness and secure with wire-tie (Figure 18).

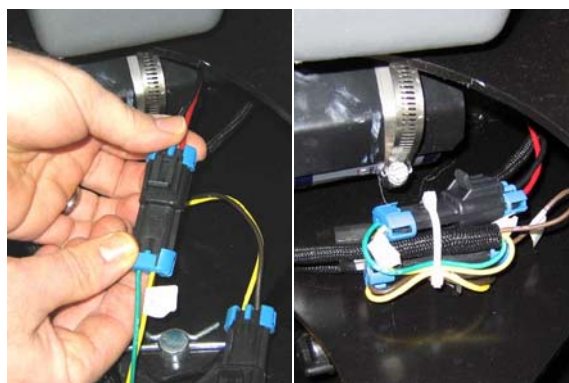


Fig. 18

5. Carefully turn the machine upright.

INSTALL *ec-H2O* SOLUTION HOSE SYSTEM:

1. Cut the two *ec-H2O* module hoses as specified (Figure 19).

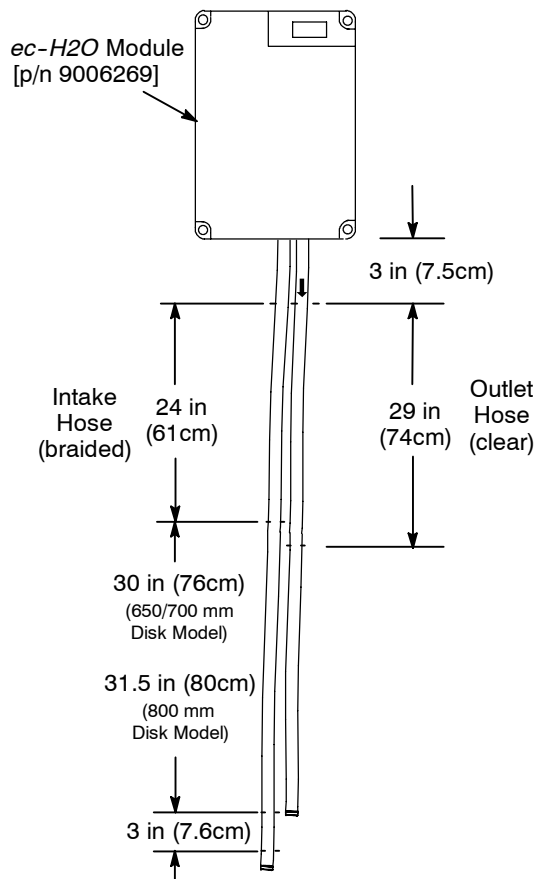


Fig. 19

T7 ec-H2O Kit

INSTALLATION INSTRUCTIONS - Continued

2. Using the 3 inch (7.6cm) piece of hose, assembly the following parts as shown (Figure 20). Use a thread sealer tape on all fittings.

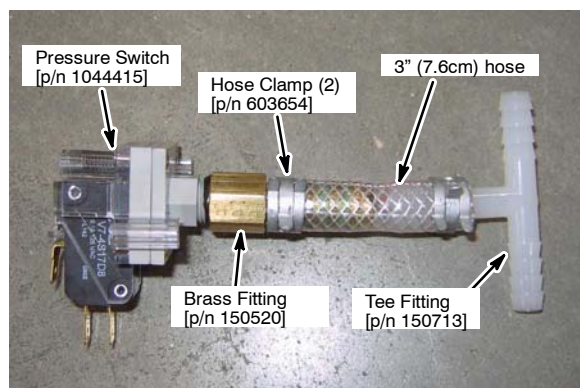


Fig. 20

3. Attach the above hose assembly to the ec-H2O module as shown. Attach fitting [p/n 1052705] to outlet hose as shown. (Figure 21)

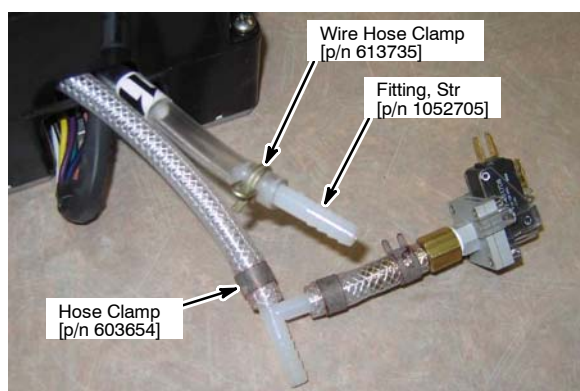


Fig. 21

4. Assemble the check valve assembly as shown (Figure 22). Use a thread sealer tape on all fittings.

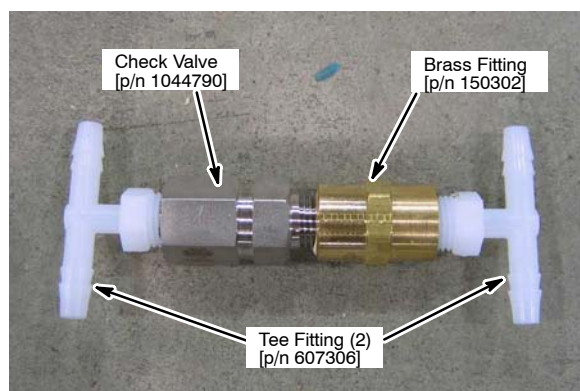


Fig. 22

5. Assemble the quick disconnect fitting assembly as shown (Figure 23). Using the remaining hose from the 3 ft kit hose [p/n 578227000], cut hose to 16 inches (40cm) in length. Use a thread sealer tape on all fittings.

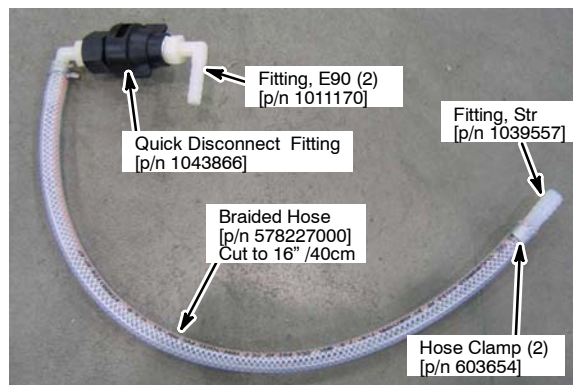


Fig. 23

6. Replace the bumper wheel bracket with the kit bracket and install a hose grip clip [p/n 1014295] on the bracket as shown (Figure 24).

NOTE: Use wheel bracket [p/n 1052198] for the 650mm disk model and bracket [p/n 1052393] for the 700mm or 800mm disk model.

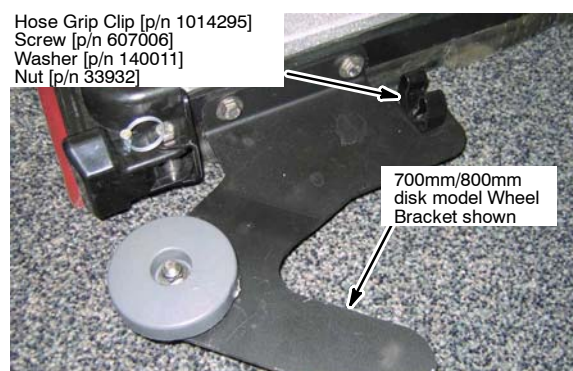


Fig. 24

7. Flip over the scrubhead and install a hose support bracket [p/n 1052298] on each pad driver as shown (Figure 25).

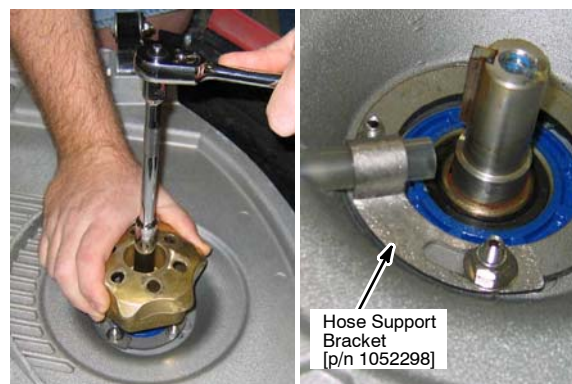


Fig. 25

T7 ec-H₂O Kit INSTALLATION INSTRUCTIONS - Continued

8. Cut off the plug from the solution tank hose and also from the manifold hose as shown (Figure 26).



Fig. 26

9. Install the second hose grip clip [P/N 10142951] on the scrubhead as shown (Figure 27). Use screw [p/n 1016520]. Do not use the screw that is packaged with the clip.



Fig. 27

10. Assemble the kit hoses on the scrubhead as shown (Figure 28).

Ref	Description
A	29" (74cm) Clear Hose
B	24" (61cm) Braided Hose
C	30" (76cm) Braided Hose (600mm Disk Model)
	31.5" (80cm) Braided Hose (700/800mm Disk Model)
D	16" (40cm) Braided Hose
E	Use Fitting [p/n 1039557] and clamps [p/n 43844 & 603654]
F	To ec-H ₂ O module
G	To pump
H	To pump [use clamp p/n 54333]

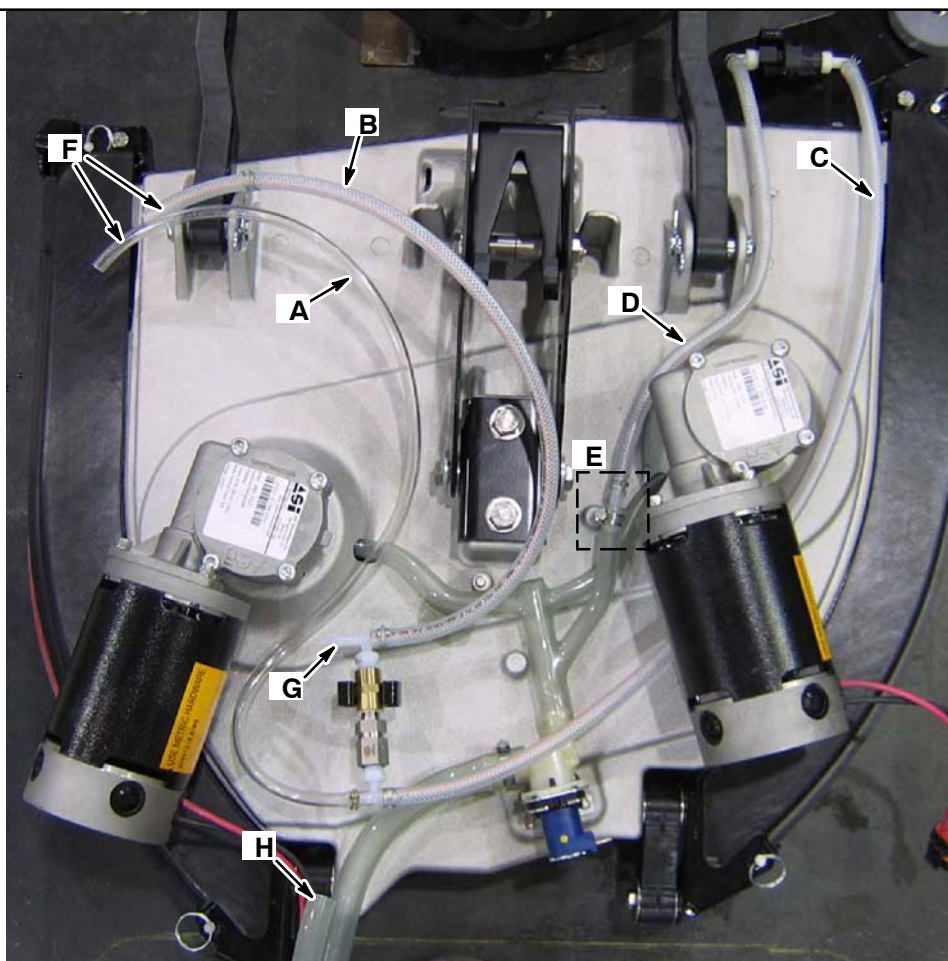


Fig. 28

T7 *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

11. Reattach the scrubhead to the machine.
12. Connect the *ec-H2O* pump hose (Figure 16) to fitting (G) (Figure 28). Use clamp [p/n 603654].
13. Connect the solution tank hose (H) (Figure 28) to the *ec-H2O* pump (Figure 29).

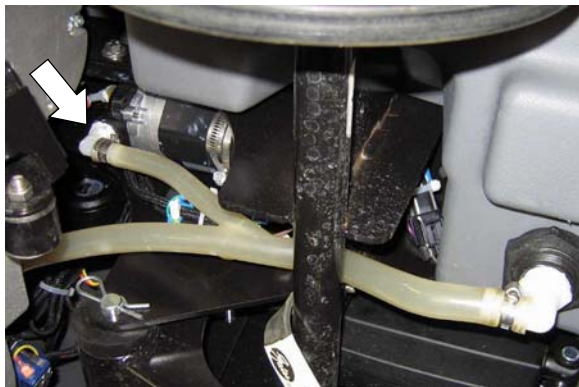


Fig. 29

ec-H2O MODULE INSTALLATION:

1. Install grommet [p/n 10632-13] as shown and route the two *ec-H2O* hoses up through the hole as shown (Figure 30).

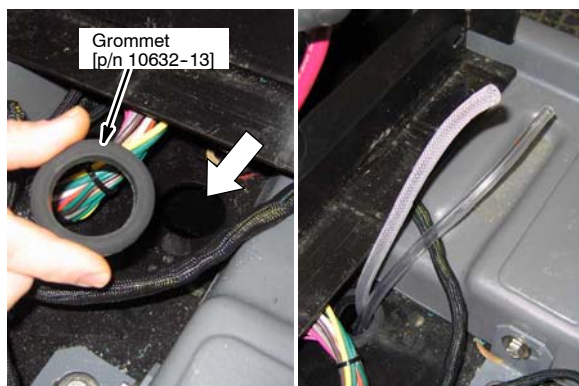


Fig. 30

2. Continue routing the two *ec-H2O* hoses as shown (Figure 20).



Fig. 31

3. Remove the two screws shown from the machine (Figure 32).



Fig. 32

4. Mount the module bracket [p/n 1050052] using two screws [p/n 09740] and two washers [p/n 01685] as shown (Figure 33).

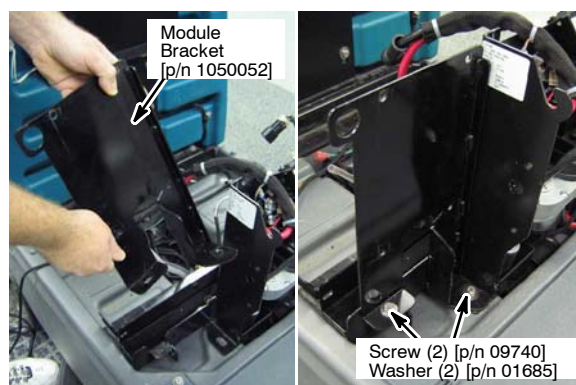


Fig. 33

5. Connect the module [p/n 9006269] to the routed hoses as shown (Figure 34).

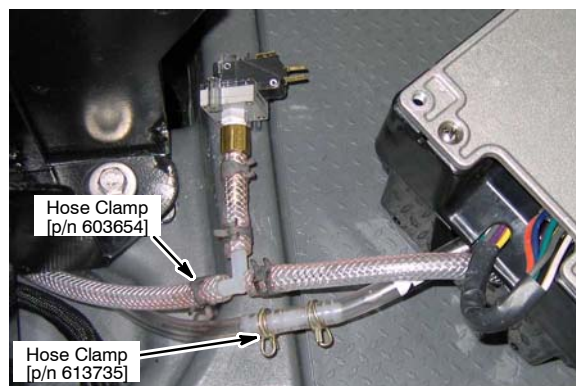


Fig. 34

T7 *ec-H2O* Kit INSTALLATION INSTRUCTIONS - Continued

6. Connect the *ec-H2O* wire harness to the module and to the pressure switch as shown (Figure 35).

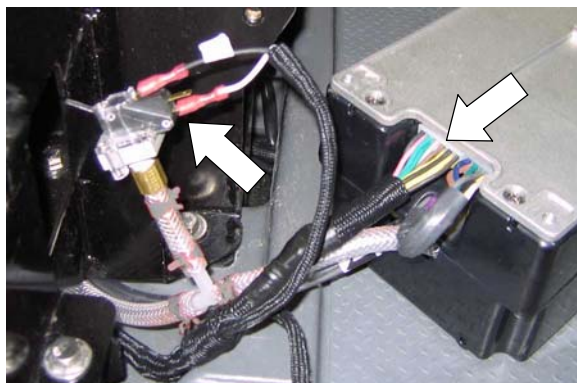


Fig. 35

7. Connect the *ec-H2O* module to the module bracket with two hex screws [p/n 1034731] (Figure 36).



Fig. 36

8. Set the module dip switches accordingly and install grommet [p/n 1050431] (Figure 37).

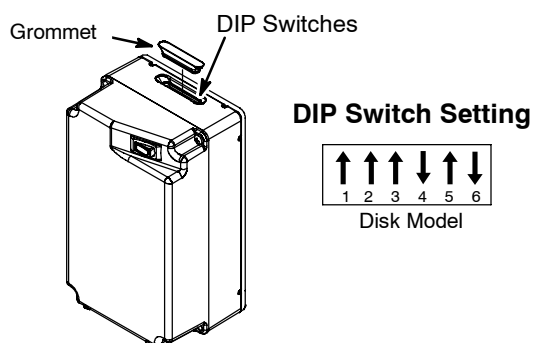


Fig. 37

9. Install the *ec-H2O* audio alarm [p/n 1052726] and connect the *ec-H2O* wire harness (Figure 38).

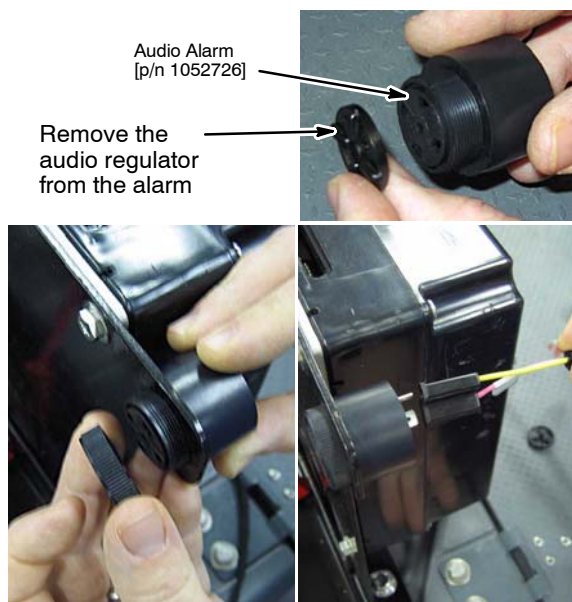


Fig. 38

10. Cut the foam adhesive strip [p/n 376784] into four 4 inch pieces (Figure 39).



Fig. 39

11. Adhere the foam strips to the bottom of seat panel as shown (Figure 37).



Fig. 40

12. Replace batteries, battery shroud and seat.

T7 *ec-H2O* Kit

INSTALLATION INSTRUCTIONS - Continued

INSTALL *ec-H2O* LABELS:

Apply the new *ec-H2O* labels on the machine as described below (Figure 41).



Fig. 41

OPERATE THE SELF-TEST MODE TO RECOGNIZE THE *ec-H2O* SYSTEM:

1. Press and hold down the *ec-H2O* button and Vacuum button (Figure 42).
2. Turn the key switch to the ON (I) position.
3. Wait 10 seconds then release the two buttons.

The self-test mode will take approximately 40 seconds to run.

After the self-test mode is complete, the *One-Step* button LED should be lit solid.

If a LED is blinking, an open wire connection was found. Check all wire connections and repeat test.

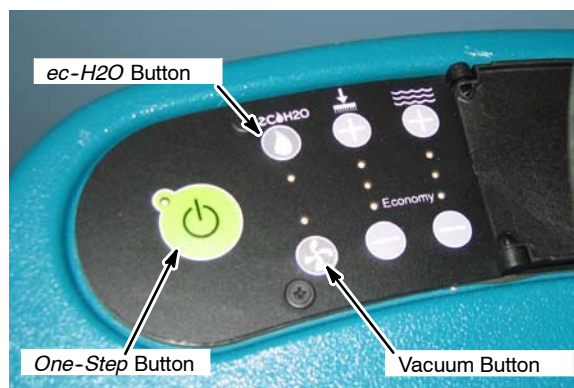
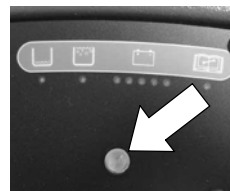


Fig. 42

OPERATE THE *ec-H2O* SYSTEM:

To ensure the *ec-H2O* system is operating properly, perform the following:

1. Fill solution tank with cool clean water (less than 70°F/21°C). Do not add any conventional floor cleaning detergents, system failure may result.
2. Turn the key to the on (I) position.
3. Press the *ec-H2O* system button to the on (I) position.
4. The *ec-H2O* system indicator light will not turn on until the propel pedal is pressed.



ec-H2O System Indicator Light

Solid Green Light =
Normal operation

Solid Red Light =
System fault

Fig. 43

5. Check all hose connections for water leaks.

If storing the machine in freezing temperatures, make sure all water is removed from the machine, including the *ec-H2O* module.