

PURPOSE:

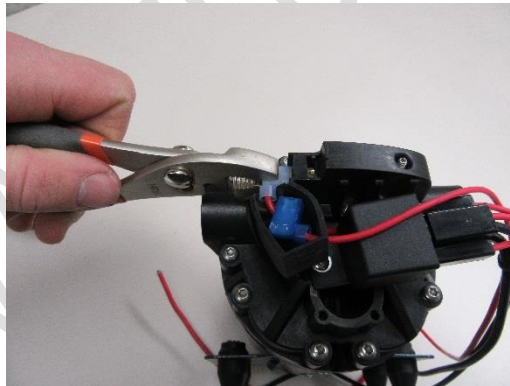
The purpose of this resource is to aid in the switching or replacing of an upper or lower housing assembly on a 7800, 5800/5900, or 7870/7970 series diaphragm pump.

TOOLS REQUIRED:

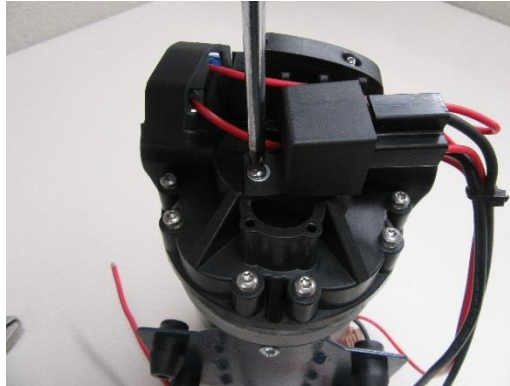
- T-20 torx driver
- P2 phillips screwdriver (If you have a 7870-series demand pump)
- Needle nose pliers (optional)

PROCEDURE:

1. Before working on pump, place it so the pump head is facing up. If this is not done there may be parts that can fall out of place making this task more difficult.
2. If you have a demand style pump you will need to remove the flag terminals from the pressure switch. They are the two red wires running from the wiring harness to the front of the pump. If you have a bypass pump you may skip this step.
 - a. If you have a 5800/5900 or 7870/7970 series, you will need to remove the switch cover grommet first. If you have a 7800 series, there is no grommet to remove.
 - b. They can be removed by pulling under most circumstances. At times it may be possible they will need to be pulled by use of a pliers.



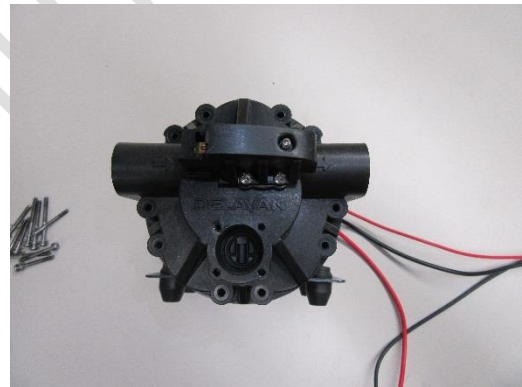
3. Once these wires are removed, if you have a 7870 or 7970 series demand pump you will need to remove the relay and wiring harness from the head using the P2 screwdriver.



- Next, using your T-20 torx bit driver loosen all the screws holding the head to the motor and set them aside for now. (10 screws if you have a 5800/5900 series or 7870/7970 series and 7 screws if you have a 7800 series). Once the screws are removed carefully lift the plastic head up off the lower housing assembly.



7800 Series Screw Removal

5800/5900 and 7870/7970
Series Screw Removal

- Once the screws are removed carefully lift the plastic head up off the lower housing assembly.

7800 Series Instructions:

If you are changing the lower housing assembly, follow steps 6-9.

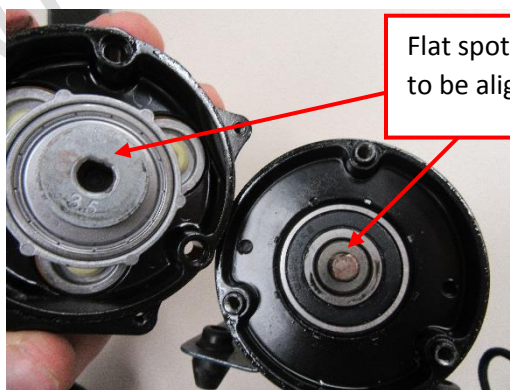
- Remove the valve plate from the top of the diaphragm and use caution to keep the valves and o ring in place.



7. Remove the lower housing assembly from the motor and set aside.



8. Take new lower housing assembly, line up the flat spot on the motor shaft with the flat spot of the cam. Make sure that the flat piece of the black lower housing plate is in line with the bottom of the motor and replace the lower housing assembly.



9. Replace valve plate.



If you are changing the upper housing assembly, follow step 10.

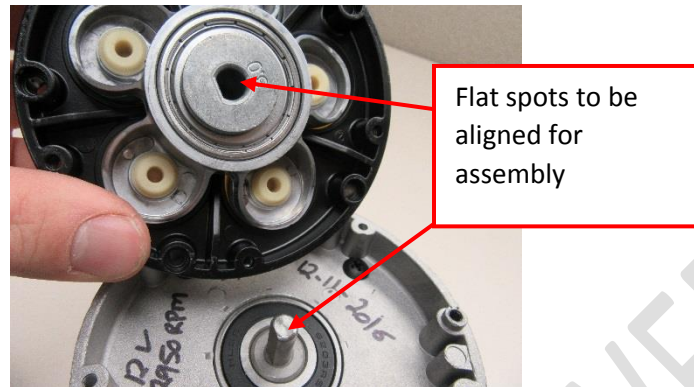
10. Grab your new upper housing assembly and place it onto the lower housing assembly carefully, taking care not to knock any valves or the O-ring out of the place on the valve plate.



5800/5900 Series and 7870/7970 Series Instructions:

If you are changing the lower housing assembly, follow steps 11-12

11. Remove the lower housing assembly from the motor and replace with new lower housing assembly. Ensure that the two flat spots on the shaft and the cam of the new lower housing assembly are lined up otherwise the lower housing assembly will not fit back onto the motor.

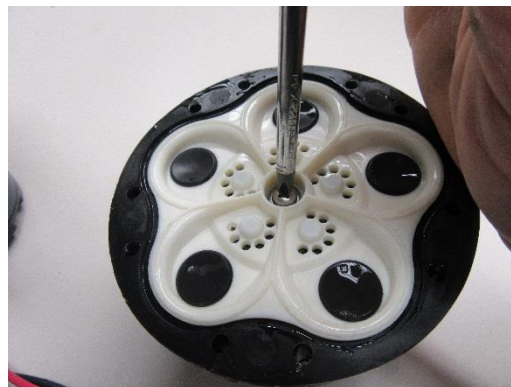


12. Place upper assembly back onto lower housing assembly.



If you are changing the Upper Housing Assembly Follow steps 13-16

13. You will need to flip the head upside down to remove the valve plate.
14. Use a P2 phillips driver while holding the head upside down to remove the phillip screw.



- a. Once the screw is removed flip the head back over while making sure to hold the valve plate tight to the head.



- b. Once the head is flipped over you can either set it down on a table (preferred) or hold it flat in your hand and lift the head up off the valve plate.



15. Next, put the new head back onto the valve plate, and while holding the valve plate tight to the head flip it over again so the valve plate is facing up and replace the screw. Make sure to sufficiently tighten.



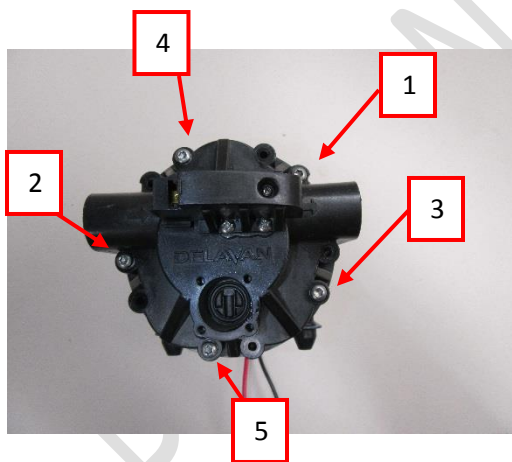
16. Once the valve plate is secured the upper housing assembly may be replaced back onto the lower assembly.

Reassembly

17. Once the upper housing assembly is placed back onto the lower housing assembly the screws can be replaced and re-tightened.
- For the 7800 series pumps, the 4 short screws will go in each of the corners and need to be tightened first, the 3 long screws are to be replaced and tightened after.

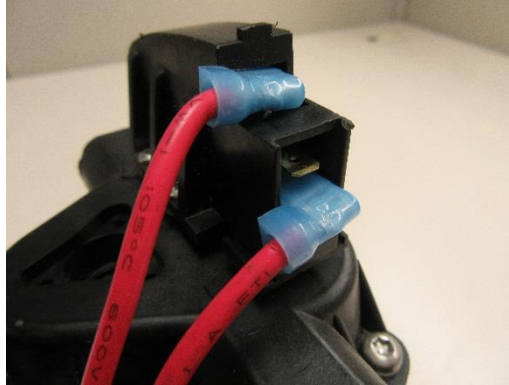


- For any other pump, insert the 5 short screws first and tighten in the order shown below in the picture. Once the short screws are tightened, insert the 5 long ones into the remaining open positions and re-tighten.



18. If you have a bypass pump your pump is ready to be used again.

19. If you have a demand you will need to reconnect the flag terminals to the pressure switch.
 - a. **DO NOT USE THE CENTER PIN TO CONNECT A FLAG TERMINAL TOO, OTHERWISE YOUR PUMP WILL NOT TURN ON.**



20. If applicable, screw the relay assembly back onto the head of your pump.

