



Installation Instructions

PART NUMBER	164-8215	
PART DESCRIPTION	SUB TANK UPGRADE KIT (CYLINDER)	
REV DATE	6/14/2021	
MACHINE MODELS	FLEX/FLEX WALKER	

TOOLS NEEDED	PARTS
<ul style="list-style-type: none"> Phillips Screwdriver 11/32 Socket Pliers Wire Cutters 	<ul style="list-style-type: none"> (6) - 6" Wire Ties (2) - Sub Tank Assembly (2) - Tubing Assembly Various Hardware
TECHNICAL NOTE	
<p>Please thoroughly read the instructions prior to performing the installation of this assembly. To avoid any potential problems, if at any time during the process you have a question, stop, and contact our Tech Support department at the numbers listed below.</p>	

STEPS



YOU MUST HAVE THE ABILITY TO UPGRADE THE TOUCHSCREEN AND THE PLC PRIOR TO INSTALLING THIS KIT. THIS KIT WILL ONLY WORK WITH SOFTWARE VERSION 2.4 OR GREATER.

Removal of Sub Tank Assembly

1. Drain the Sub Tanks dry and dispose of the conditioner. Power the machine off.
2. With the machine lying down in the operating position, slide the lid assembly back to cover just the PLC/Electrical panel. Slide the Oil Head assembly to the 7-Pin side of the machine.
3. Take a towel and place under the two oil fittings in the lower corner. Undo the two fittings allowing any oil left in the line to drip onto the towel. **(SHOWN RIGHT)**



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Rev. 9/20



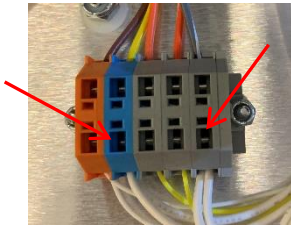


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4. Unfasten the thumbscrew at the top of the oil plate assembly (**ABOVE**) and tilt forward. You can lift the oil plate assembly up and out of the machine and lay the assembly gently on its back so that you can remove the two screws holding the cover on. (**SHOWN RIGHT**)

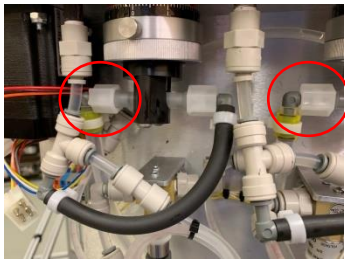


5. With the cover removed, locate the two Molex tank float plugs and unplug them. (**SHOWN RIGHT**)



6. Remove the wires for the float switch plug to the wago block on the two spots (**SHOWN LEFT**). Do this by using a small screwdriver and pressing in on the top of block and pulling on the wire. The first one is on the Blue connection located 2nd from the left. The other one is located last Grey on the far right. Remove and dispose of the wire assembly.

7. Remove the two nuts holding the vent valve assemblies. Save the clamp and hardware for reinstallation.



8. Remove the two fittings going from the bottom of the tanks to the left side of the oil pump assembly. Next, using pliers, unscrew the white knurled fastener counter-clockwise that is on the pump and pull the grey fitting out.

9. For the one on the left (**SHOWN RIGHT**), you will need to loosen the pump assembly in order to gain enough room to slide the grey fitting out of the pump.



10. Remove the 3 screws that fasten each Sub Tank to the bracket assembly. (If you have a vise, clamp the bottom of the plate assembly for easier access).



11. Once you have removed the bracket assembly, you will see there is one more tube that will need to be removed. Go ahead and remove this last tube from the fitting. You can now dispose of the two old sub tank assemblies. It is a good idea to save the hoses and fittings for possible future use.



12. Thoroughly clean the plate assembly free from conditioner and dirt.





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Installation of new Cylinder Sub Tank Assemblies

13. Inside the kit, locate the Filter labeled 'A' and the Tubing assembly labeled 'A'.
14. On the filter assembly, take the tubing with the Grey fitting on it, and route it behind the right oil control valve and up to the oil pump assembly. Push the Grey fitting into the right pump assembly and tighten the white knurled fastener with your pliers. **DO NOT OVERTIGHTEN.**
15. Locate the filter assembly labeled 'B'. Route this behind both the right and left oil control valves and up to the oil pump assembly. Push the Grey fitting into the left pump assembly and tighten the white knurled fastener with your pliers. **DO NOT OVERTIGHTEN.**
16. Tighten the two screws holding Oil Pump 'B' assembly into place.
17. Remove one of the Cylinder Sub Tanks from the kit. Take the hose assembly that is labeled 'A' and push the short tube into the top fastener on the Sub tank as shown.
18. To install the Sub tank into the 'A' position, remove the vent valve from the top of the tubing and slide the tube through the bracket assembly, reattach the vent valve assembly.
19. Fasten the Sub Tank Assembly into place using the supplied hardware.
20. Take the large tubing coming from the right side of the filter assembly and push into the bottom connector on the 'A' Sub Tank Assembly as shown.
21. Take the top hose, that has already been pushed into the top connector on the tank and push it into the open connector on the tube going to the bottom of the Oil Control valve assembly. Trim the tubing to fit.
22. Remove the remaining Sub Tank from the kit and take the hose assembly labeled 'B', push the short tube into the top of the Sub Tank just like you did in **Step 17**.
23. Fasten the tank into place on the 'B' side with the vent valve running up to the top of the plate.
24. Take the large tubing coming from the right side of the filter assembly and push into the bottom connector on the 'B' Sub Tank Assembly as shown.





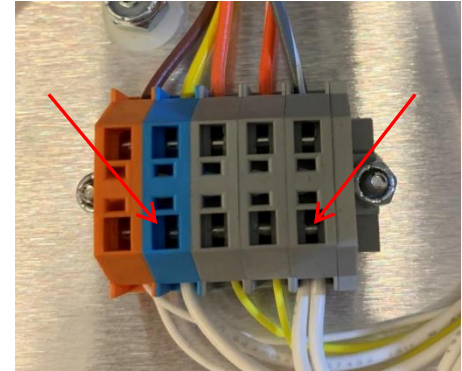
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25. Take the top hose, that has already been pushed into the top connector on the tank and push it into the open connector on the tube going to the bottom of the Oil Control valve assembly. Trim the tubing to fit.



26. Fasten the two vent valves into place using the clamps and hardware.

27. Take one of the white wires from float 'A' and one of the float wires from float 'B' and run them behind all the tubing and next to the plate. These will go into the far right terminal that is colored Grey. Cut them to length, allow some slack, and twist them together then insert them into the grey terminal.



28. Take the remaining two white wires and run them along with the other white wires over to the blue terminal second from the left.

29. Cut them to length allowing some slack. Twist the two white wires together and put them into the blue terminal.

30. Finish by using the supplied wire ties, neatly fastening the wires behind the tubing.



31. Remove the two tank clamps that are located on the bracket as well as the two rectangular spacers that go between the mounting plate and clamp. Dispose of the spacers as they will not be used again.

32. Place the cover over the Sub Tanks and fasten the clamp along with the cover into place using the **(4)** 8-32 X 5/8 screws and flat washers.





Installation Instructions

Reinstalling the Oil Plate Assembly

33. Take the plate assembly and slide down into the bottom of the compartment. Make sure you do not pinch any wires or tubing and push the wires back behind the guard to protect them from the Oil Head going back and forth.



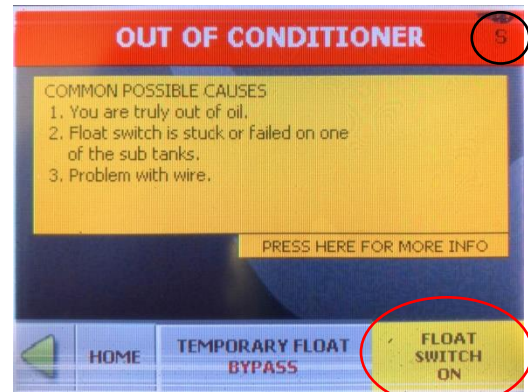
34. Add conditioner and run the pumps. Inspect for any leaks and that it is functioning properly.

Programming the PLC

35. You will now need to download Version F2.4 or greater software into the PLC as well as the Touchscreen if not already updated.



Contact Kegel Tech Support before proceeding with any update at 1-800-280-BOWL.



36. After downloading the software, you will need to change the float switch setting.
37. When this error message pops up, press, and hold the **FLOAT SWITCH ON** button until the **S** appears in the upper right corner.
38. If there was ever a reason to reverse this setting, simply press and hold the **S** while in this screen.

