



INSTALLATION INSTRUCTIONS

PART NUMBER	154-8259
PART DESCRIPTION	PRESSURE REGULATOR KIT
REV DATE	4/25/2002
MACHINE MODELS	PXS MODEL A ONLY

Should only be performed by a Kegel Certified Level 1 technician

TOOLS NEEDED:

Phillip Screwdriver

Drill Bit set

Wrench: 11/32, 7/16, 11/16

6" extension

Electric Drill

Center Punch

3/8 Ratchet

Small Hammer

Measuring Tape

Teflon Tape

3/4 socket

Rags



TECHNICAL NOTE

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.

Please visit our growing library of videos to see if these instructions are available!



www.youtube.com/user/KegelBowling81



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1. Drain and remove the Cleaning Supply Tank and stand the machine UP in the Transport Position.
2. Disconnect power and remove cover for Oil Pump and Motor.
3. Remove Skid Plate from the LEFT side of the machine with 7/16" wrenches, a phillips screwdriver, and an 11/32" wrench.
4. Press in on the gray collet to release the elbow fitting (attached to the Black Pressure Dampener Tube) from the Pressure Gauge Mount.
5. Release the elbow fitting (#2) from the top fitting on the right hand valve (this line runs to the calibration outlet).
6. Use a union connector to connect these two lines together to prevent oil from running all over the machine.
7. Next remove the two elbow fittings from the bottom of both valves (#2).
8. Use the other union connector to connect these two lines together to prevent oil from running all over the machine.
9. Remove the valve wires from the small gray terminal block (#4). Make a note of where each wire belongs.
10. Use a phillips screwdriver and an 11/32" wrench to remove the angle that mount the two valves on the machine (#4).
11. Wrap a clean rag around the valve assembly after removal to prevent dirt from contaminating this area.
12. Remove the two screws and clamps that secure the oil tank return hose to the floor plate.
13. Using the clamp holes in the frame, mount the template using the two 8-32 x 5/8 fasteners (provided with template).
14. Note the direction of the template, then use a center punch to mark the holes that need to be drilled.
15. Remove template and drill the holes on the floor to the proper size. Do not allow the drill to wander on the two 11/16" holes these are in a critical location.



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16. Clean up all drill shavings before proceeding to the next step.
17. Remove the brass needle valve from the left hand solenoid valve using an 11/16" wrench. Slowly turn counterclockwise to remove nipple from solenoid valve.
18. Use an 11/16" wrench to remove the gray acetal (plastic) fitting from the left hand side of the pressure gauge mount.
19. Clean threads on plastic fitting and wrap with teflon tape.
20. Thread the fitting into the left hand solenoid valve until about 3/4 of the fitting threads are in the valve. Do not over tighten this fitting since it will block off the opening to the valve.
21. Re-install valve assembly angle onto the machine. Replace the tubing clamp (#4) on the left hand mounting bolt.
22. Place the two bulkhead unions into the 11/16" holes in the floor plate. The threads should be toward the inside of the machine (#5).
23. Use a 19mm socket to tighten the connector.
24. Remove union connector from the black dampener tube and the calibration line.
25. Plug the pressure dampener tube into the left bulkhead union.
26. Plug the Calibration Line (#1) back into the top of the right hand valve.
27. Remove the union connector from the two lines taken from the bottom of the valves.
28. Plug the tank return line into the left hand valve.
29. Plug the head line into the right hand valve.
30. Insert the 1/4-20 x 1-3/4" bolt into the floor plate. The head of the bolt is inside the machine with a flat washer beneath it. Use a 1/4" flat washer and a 1/4-20 Locknut to hold the bolt to the floor. Spin a 1/4-20 nut onto the bolt next, and then place another locknut on the bolt. This gives the box a solid support to be tightened against (#6).
31. The length of tubing used inside the pressure regulator box will depend on the type of conditioner being applied. There are two different sizes (outside diameters) of tubing that can be used to control the pressure (#7).
32. Refer to the chart on Page 6 of these instructions to determine the correct fittings and tubing length needed for your machine.



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33. If using 1/4" OD tubing place the two union connectors (used to block off lines earlier) into the slots on the side of the aluminum box. The fittings are oblong in the center, so rotate them until they easily slide into the slot (#8).
34. If using 3/16" OD tubing place the two reducing union connectors that are provided into the slots on the side of the aluminum box. The fittings are oblong in the center, so rotate them until they easily slide into the slot.
35. Plug the lines into the connectors on the outside of the aluminum box and install the proper pressure regulator tubing inside the box.
36. Place the four tubing clamps on the machine (with the 8-32 x 3/8 self-tapping screws) to secure the oil lines. (Note: One clamp is no longer used where the new bulkhead union was installed.)
37. Place the pressure regulator box on the 1/4-20 bolt; place a flat washer on the box and tighten with the locking wing nut (#6).
38. Place the wiring for each solenoid valve back into its original location in the terminal block (#3). Use small wire ties if needed to secure the loose wiring.
39. Install the new modified skid plate on the mounting angle in the proper direction. Secure all three fasteners.
40. Set the machine DOWN in the operating position.
41. Open the lids for the electrical and transfer compartments.
42. Two holes need to be marked and drilled on the wall between the electrical and transfer compartment for the pressure gauge (Protect the bulkhead unions from drill debris!).
43. The gauge is mounted on an angle which mounts to another angle. This will allow you to drill in the top flange of the wall, and eliminate the need for a right angle drill to mount the gauge (#10).
44. Place the plastic fitting (1/8 FPT x 1/4" Tube) on the gauge with teflon tape.
45. Insert a 1-1/2" piece of tubing into the fitting, then plug the gray Tee Fitting into the open end of the tube.
46. Secure the pressure gauge to the thick angle with the set screw.
47. Place the angles and gauge on the top flange of the center wall toward the left hand side.



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48. Use a ruler to measure the distance between the left side plate the mounting angle. The distance should be 6-1/4" from the inside of the side plate to the left hand side of the mounting angle. This places the angle right next to the rubber grommet for the lid support.
49. With the angle sitting flush against the wall, mark to two mounting holes with a center punch.
50. Remove the angle and drill the two holes out using a 3/16" drill bit. Be careful around the wiring harness!
51. Clean up the drill shavings and insert an 8" piece of hose into the left bulkhead union and a 7" piece into the right union.
52. Insert these two hoses into the gray Tee Fitting that is attached to the bottom of the pressure gauge (#9).
53. Replace the Supply Tank and stand the machine UP in the transport position.
54. Apply power and access the TEST I/O MENU to turn the pump ON (Output # 202 for 110V and Output #103 for 220V).
55. Run pump for a few minutes and check all the lines for leaks, then turn the Pump OFF.
56. Check to make sure that the air is removed from the line for the pressure gauge.
57. Access the PUMP OUTPUT VOLUME TEST MENU and perform a calibration check and program volume check.
58. Watch the pressure gauge closely. It should run about 10 psi. Running too low is not a fatal problem as long as the calibration is consistent. If the pressure is too high, adjust the length of the tubing in the regulator box. High pressure may cause the pulse dampener tube to explode if ignored. Operate the machine and if it's operating properly replace the cover for the oil pump.



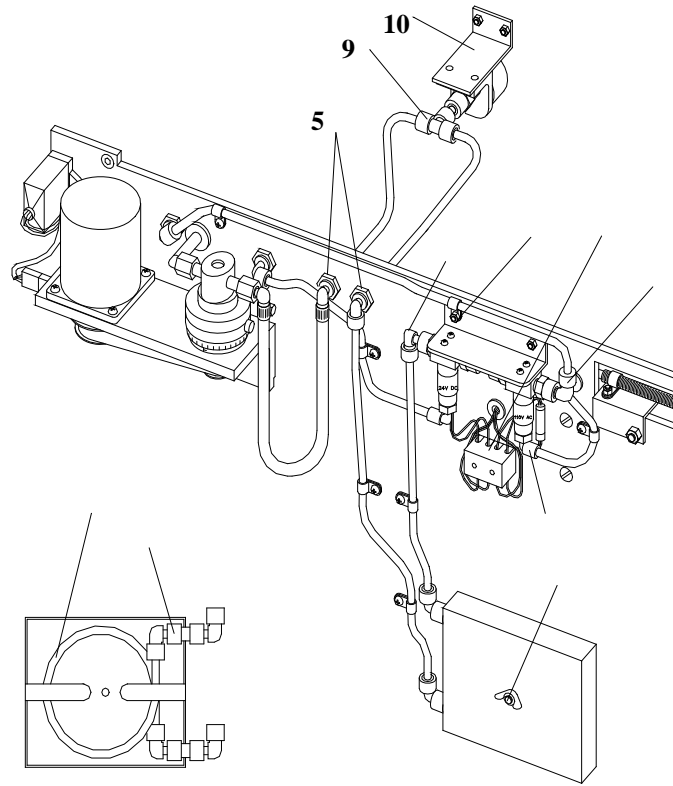
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Figure A



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