



INSTALLATION INSTRUCTIONS

VPS201 - FLOAT SWITCH



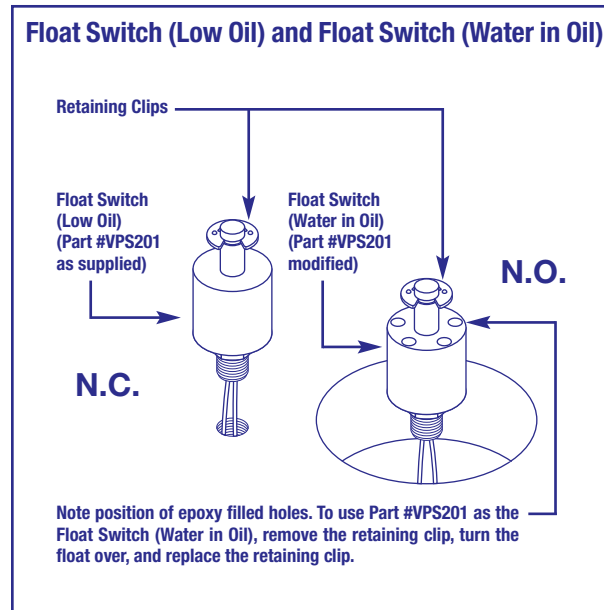
WARNING: Remove power from the Bison® vacuum unit and move vacuum unit into an open area to give yourself enough room to work.

Top Lid Removal

1. Confirm that power has been removed from the vacuum unit
2. Loosen the exhaust outlet coupling and separate it from the power unit. If the power unit is equipped with an S-Type Filter, loosen the S-Type Filter exhaust inlet coupling and remove it from the top lid.
3. Remove the oil reservoir fill cap and then the end cap of the drain line. Insert the drain line into your Disposal Bag (HCG/RPI Part #RPB838). Open the drain valve and let the oil reservoir drain completely. Close the drain valve and return the end cap to the drain line. If oil cleanup is needed, use the RPI Absorbent Pad (HCG/RPI Part #RPP958). Secure the cap on the Disposal Bag and dispose of the used oil per local City, County or State regulations.
4. Remove the (14) lid screws and save for replacement in future steps.
5. **Note:** Check the exhaust outlet and oil fill orientation before lifting the lid off. **Tech tip:** Place a piece of tape on the top deck and fold it over to the reservoir side to remind you of the proper orientation of the lid and reservoir before you lift the lid off.
6. Use a utility knife to cut the sealant bond between the lid and the oil reservoir. **Caution:** Do not pry the lid off, till you have cut through the sealant completely on all four sides. **Note:** You will also cut through the piece of tape you used to mark the proper orientation of the lid and reservoir.
7. Remove all sealant from the underside of the lid and the reservoir lip. This is very important for a tight oil seal upon reassembly.
8. Clean out all debris and wipe down the inside of the oil reservoir.

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Float Switch (Low Oil) and Float Switch (Water in Oil) Removal and Replacement



9. Disconnect the faulty switch's wires as follows:
 - A. For Bison models that have the gray box Electrols, the wires for the float switches and the moisture alarm are part of the same bundle. Cut the cable tie that is holding both float switch wires together, then mark the proper set of wires for the two float switches with some tape and leaving yourself enough wire to make a splice, cut the wires from both float switches.
 - B. For Bison models with S1 Electrols, unplug terminal plug "12DE34" from the S1 Electrols PCB. Disconnect the faulty switch's wire from the terminal plug "12DE34". For the Float Switch (Low Oil) (HCG/RPI Part #VPS201), disconnect the switch wires from terminals 1 and 2. For the Float Switch (Water in Oil) disconnect the switch wires from terminals 3 and 4.
10. Remove the retainer clip from the faulty float switch and remove the float.
11. Loosen and unscrew the faulty float switch stem and pull the float switch wires up through the opening in the reservoir base.
12. Remove the retaining clip on the replacement float, noting or marking the proper orientation of the float and then remove it from the float switch stem.

13. Apply a pipe sealant, such as Pipe Sealant 567 (HCG/RPI Part #RPA459) to the threads of the new float switch and then thread the wires through the opening and screw the float switch stem into the bottom of the reservoir base. **Caution: Do not overtighten.**
14. Correctly orient the float removed in **Step 12** and replace the retaining clip (see illustration). Verify N.O. and N.C. switch functionality.
15. Connect replacement switch wires as follows:
 - A. For Bison models with gray box Electrols, **see Step 9A.** Connect one wire from the oil switch and one wire from the water switch using a butt connector, such as RPI's Butt Connector (HCG/RPI Part #RPT011), or solder the two leads together and cover with shrink tube. Connect the remaining wire from the oil switch and water switch together. Bundle the oil and water float switch wires together using cable ties.
 - B. For Bison models with S1 Electrols, **see Step 9B.** Connect the oil switch wires to terminals 1 and 2 of terminal plug "12DE34". Connect the water switch to terminals 3 and 4 of terminal plug "12DE34". Reconnect the terminal plug "12DE34" to the S1 Electrols PCB.

Top Lid Replacement

16. Using an oil resistant sealant, such as the RPI Instant Gasket Sealant (HCG/RPI Part #RXS087), carefully apply a 1/8" bead of the gasket sealant to the reservoir lip with a generous bead around the screw holes.
17. Properly orient the top lid onto the oil reservoir. Match up the tape you applied in **Step 5.**
18. Reinstall the (14) screws removed in **Step 4** and tighten down completely. Be careful not to strip out the mounting holes.
19. Trim and remove any excess instant gasket sealant that might have oozed out between the top lid and the oil reservoir.
20. Make sure the oil drain valve is still closed and fill the oil reservoir to the proper level, approximately 5 quarts of Synthetic Oil (Mobil 1®) (HCG/RPI Part #VPL131).
21. Return the vacuum unit to its original location. Reattach the exhaust outlet or the S-Type Filter and restore power to the vacuum unit.
22. Check for proper operation and check for any oil leaks.