

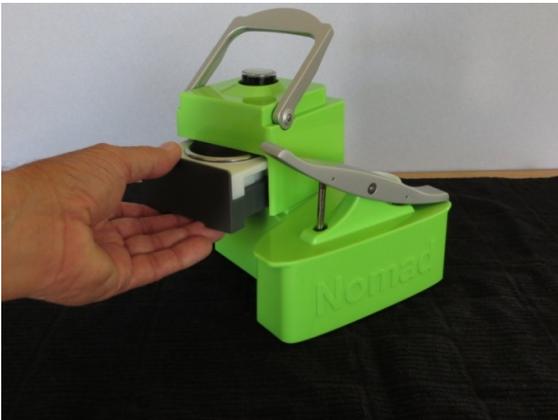
Nomad Pressure Umbrella Valve Replacement Instructions

Replacing the Nomad umbrella valve requires a few simple tools and takes 15 to 30 minutes.

1. Tools Required - Long regular size 4 point (Phillips) screwdriver, mid-sized Phillips screwdriver, diagonal cutters or blade knife, needle nose pliers, 2.5 mm metric hex wrench.



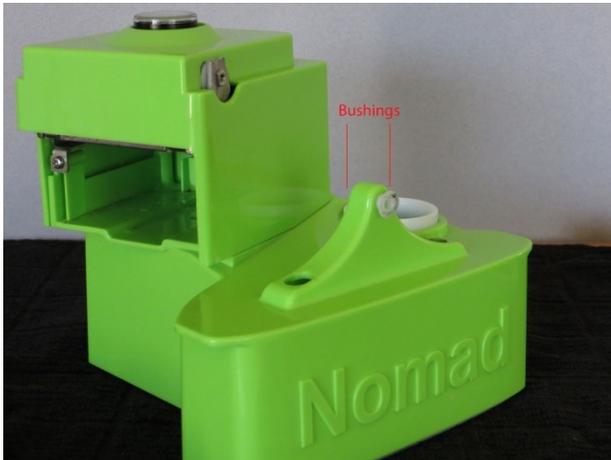
2. Dump all water out of the Nomad and remove the drawer.



3. Remove the pump lever axle screw using a metric hex wrench (2.5mm). Lift the pump lever up with the pushrods and pistons to remove them from the machine.



4. Remove the two white bushings and set aside so they don't get lost.



5. Remove the four rubber feet from the bottom, they are just pressed in place.



5. Using a long Phillips screwdriver remove the six screws holding the water tank to the case.



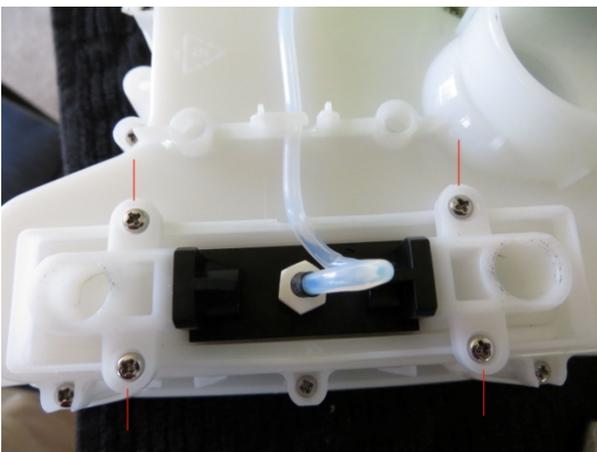
6. With all six screws removed the water tank can be removed from the case. The water tank fill spout fits tight inside a sealing O-Ring. To remove the tank grasp the green case and push down on the water tank white fill spout.



7. When the tank separates from the case the pressure tubing will still be connected to both. **Don't disconnect it.** However unsnap it from the tubing clips on the top of the tank. This will free the parts to move with respect to each other.



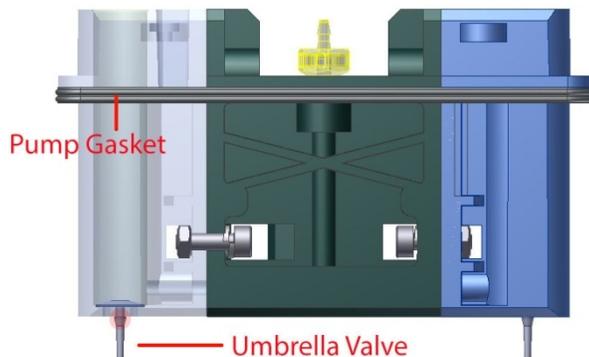
8. Remove the four screws holding the pump.



9. The pump has a tight fit gasket around it to prevent leakage. After removing the 4 screws use a screwdriver to pry under one of the pump ears to lift it up and remove it from the water tank. The tubing will remain connected to the pump outlet. Set water tank aside.



10. At the bottom of the pump where the old umbrella valve stem protrudes out of the bottom edge use diagonal cutters or a sharp knife to cut off the stem flush with the bottom. Use a small tool to push the valve up into the cylinder and a long small screwdriver to "fish" it out of the cylinder.

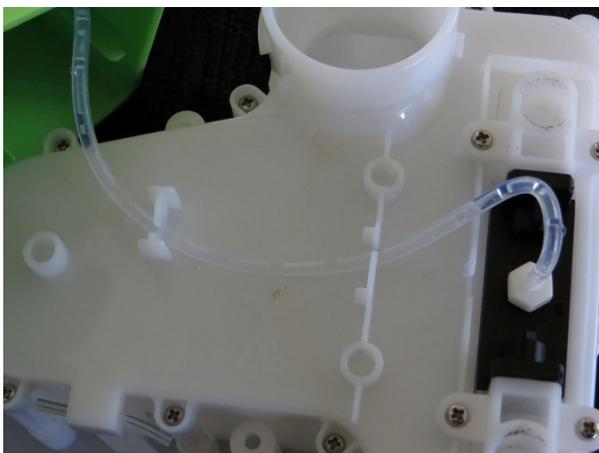


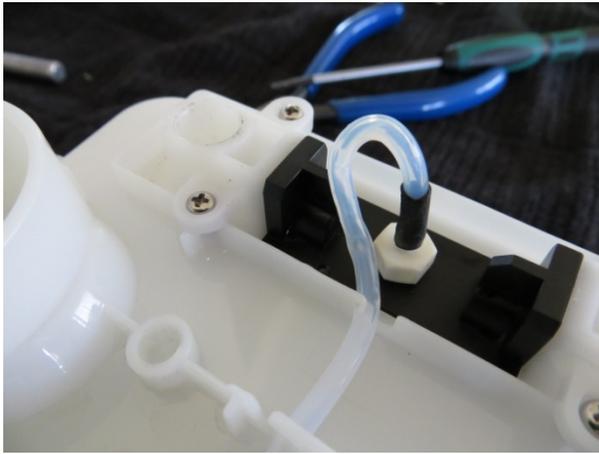
11. Invert the pump and use a long cylindrical tool to push the new umbrella valve up into the cylinder so that the umbrella valve stem protrudes through the bottom pump cylinder hole. Pull on the stem with pliers to stretch it so that the enlarged barb pulls through the hole and locks it in place. Cut the stem off slightly below the barb.



12. Replace the pump with gasket back into the water tank opening, working it side to side to seat the gasket. Make sure it is down flush with its seat and replace the four screws that hold it in place. **Note: these are self tapping screws that cut threads when they were first installed. When replacing self tapping screws it is best to put them in position and turn in the unscrewing direction until you feel a bump as the screw finds the starting thread, then turn in the screwing-in direction and it will thread into the original threads. Observing this technique will allow self tapping screws to be used many times without stripping out.**

13. Snap the tubing back into the water tank holding tabs making sure the tubing is oriented and has a curl as in the photo.

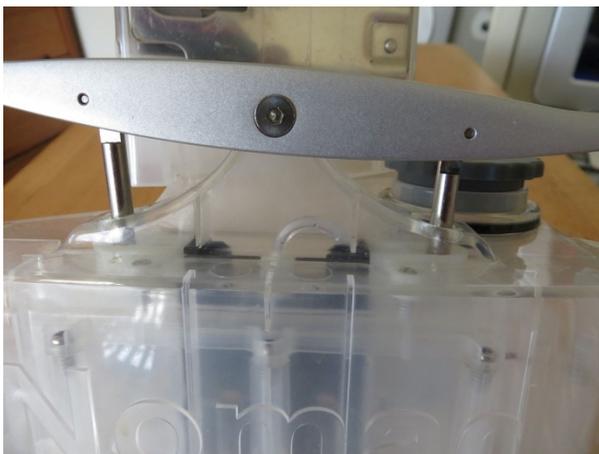


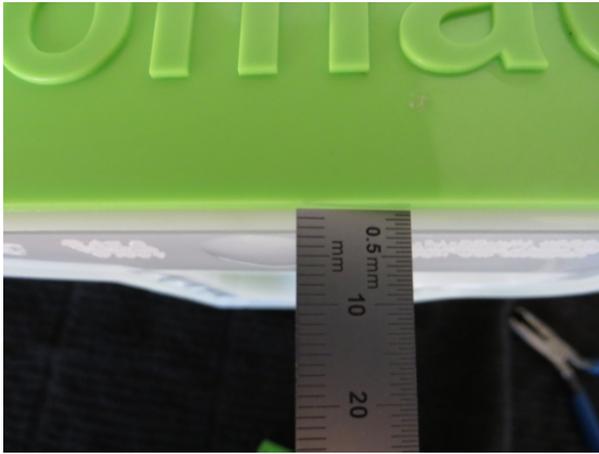


14. Make sure the water tank fill spout O-Ring is in place in the case and reassemble the water tank into the case.



15. When reassembled the tubing loop will go up into the pump lever fulcrum and the white water tank edge will protrude as in the following photos.





16. Be careful that the pump pressure tubing is not pinched during reassembly. Replace six screws that hold the case and water tank together and rubber feet. Note the advice in step 12 about replacing self tapping screws.

17. Replace the two white pump lever axle bushings. Put a drop of vegetable oil (like olive oil) on each piston O-Ring and replace the pump lever with pistons into the cylinders. **Note: The pistons should slide easily into the cylinders. If you encounter a spongy air resistance then the pump tubing is pinched and you must disassemble and reposition the tubing.** The pump lever should face with the axle hole beveled edge facing out. Replace the axle screw.

15. Replace the drawer with TCV, no coffee, add cold water and test. It will take several pumps to fill the filter basket with water but then the pressure should come easily up to 9 bars.

This completes the process