

## Yearly Maintenance Instructions

The oil in the compressors for Ultima units must be changed once a year to ensure proper lubrication of all moving components inside the compressor pumps. Yearly routine maintenance will also extend the working life of your Ultima Silent-Surge Compressor. Aside from changing the oil yearly, we recommend the regulator filter be replaced once a year as well. Ultima Oil compressors utilize a dual filtration system to ensure that nothing but clean air flows to our dental equipment. Failure to replace the regulator filters on a timely basis can result in them not working properly as intended and will void the warranty. With proper care Ultima compressors can last upwards of 15 years or more.

Visit [www.UltimaDental.net](http://www.UltimaDental.net) to watch our video on how to change the oil on your compressor and how to replace the regulator filters. Click on the maintenance video tab on the homepage, and scroll down to the corresponding video.

There are two models of Ultima Silent Surge oil compressors. A ½ HP single pump compressor and a 1 HP dual pump compressor. These compressors may be found inside various different model dental units or be housed individually in an aluminum shell. Regardless of where its housed the oil change and regulator filter replacement procedure is the same.



½ HP Single Pump Compressor  
Part # 54070



1 HP Dual Pump Compressor  
Part # 54070



Complete Compressor Regulator Assembly  
Part # UD0142



Regulator Filter  
Part # UD0144

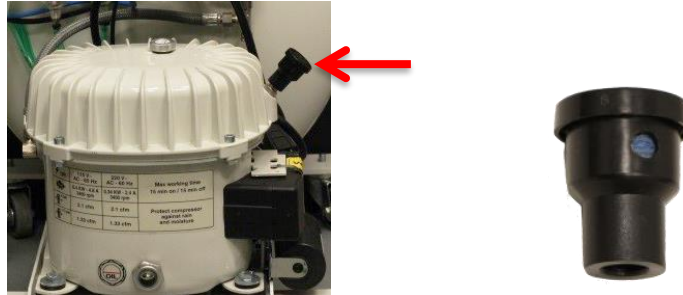


Coalescent Filter  
Part # UD0140



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1. **First remove the black air intake filter housing on the compressor pumps.**  
*Older compressors will have push on air intake filters, they will not screw on/off like the newer models do. The silver fitting for the intake filter will not be present.*



2. **Next remove the silver fitting, that attaches to the air intake filter.**  
**Use a metric 12mm wrench or socket.**



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3. **Unpack and assemble the pump that was included in the yearly maintenance kit. A small clear tubing and a large black tubing were included with the kit. They are for the oil removal pump. Connect the small clear tube to the bottom fitting of the pump and the large black tube to the top side fitting.**

Connect Large Black tubing to the top of the pump



Connect Small Clear tubing to bottom of pump

4. **Carefully snake the small tube from the pump down the air intake filter hole where you removed the silver fitting from.**



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- Place the large tube coming from the top of the pump into a suitable container for the collection and disposal of the used oil. Remove the small tubing from the air filter intake hole on the compressor once all the oil has been removed.
- Refill the compressor with brand new oil. Fill the pump(s) about  $\frac{1}{2}$  to  $\frac{2}{3}$  of the way full. Use the oil level sight glass bubble to monitor the level.



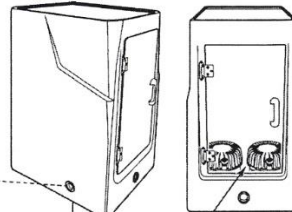
Pour New Oil Through The Compressor Pump Intake Holes



Single-Compressor Units



Double-Compressor Units

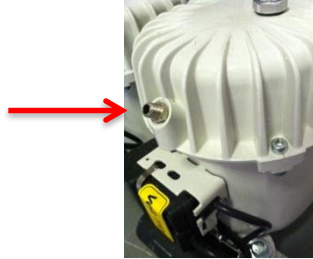


- Remove the top on the black air filter housing. Replace the older air filter elements with the new ones supplied in the yearly maintenance kit.

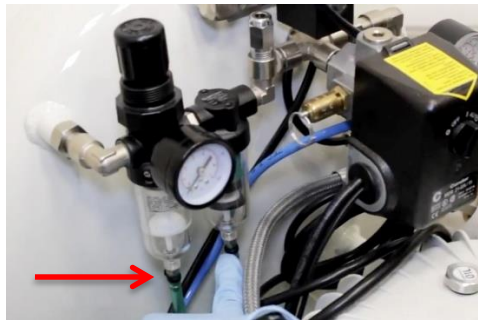


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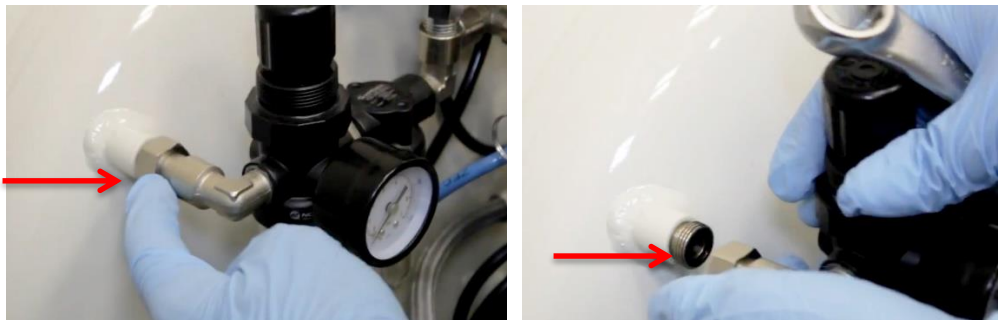
8. Screw silver fitting(s) back onto the compressor pump(s) until tight and then screw the black air filter housing back on to the silver fitting as well.



9. Wipe down, clean, and save the pump for next years' oil change.
10. To replace the compressor regulator filters, first remove all pressure from the compressor/dental unit. Next cut the zip ties from tubing on the bottom of the regulator filter housing.



11. Loose the silver hex nut coupler using a  $\frac{3}{4}$  size wrench, this will allow you to remove the entire regulator assembly.



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12. Use caution when removing the regulator assembly. Be careful not lose the black O-ring. *The regulator will leak air without the black O-ring.*



13. Once the entire regulator assembly is removed from the compressor, pull the tubing off of the filter housing. Next unscrew the filter housing to remove and replace the filters.

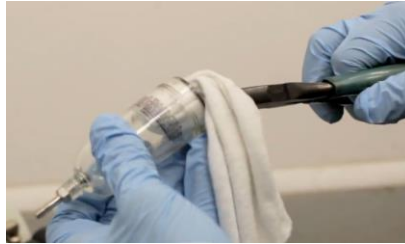


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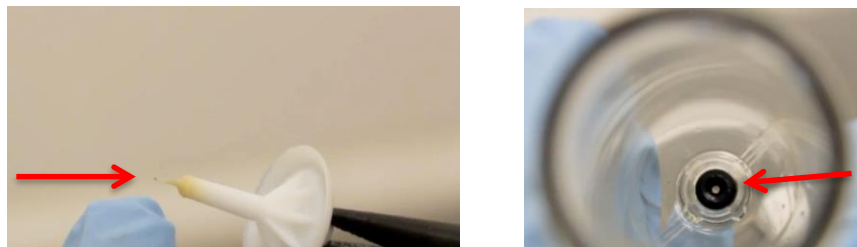
- 14. Check for fluid inside of the filter housing.** *Fluid inside the housing is a clear indication that the filters are worn and are no longer functioning as they should. Use a pair of needle nose pliers to remove the plastic umbrella inside the housing in order to empty any fluid that might have accumulated inside.*



- 15. Use a clean rag to thoroughly clean the inside of the filter housing.**



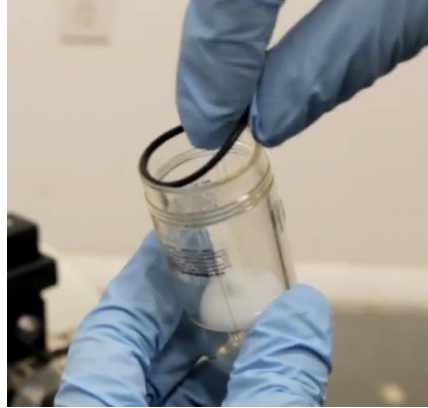
- 16. Once the inside of the filter housing has been cleaned, reinsert the plastic umbrella into the filter housing. Insert the tip of the umbrella into the black gasket on the bottom of the housing.** *If the tip of the umbrella is not correctly placed into the gasket on the bottom of the housing it will not properly seal and cause an air leak.*



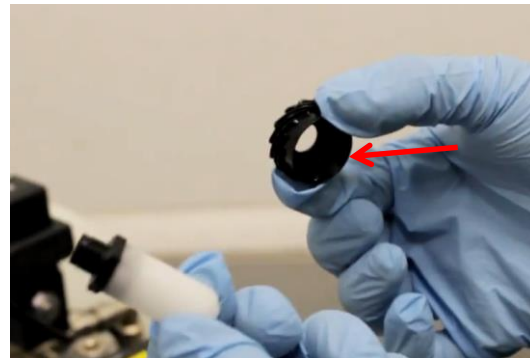
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17. Remove the old black O-ring on the top of the filter housing and replace it with the new one provided in the package.



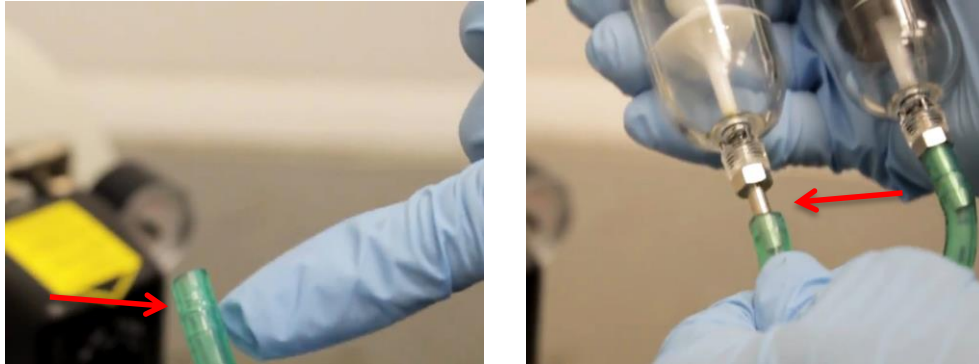
18. Unscrew and remove the regulator filter. Once removed from the entire assembly, take off the black plastic cover and clean it thoroughly with a rag. Replace the regulator filter and place the black plastic cover on top of the new filter before reinstalling it on the entire assembly again.



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19. Once the new filter has been replaced and the housing reinstalled. Give the tubing that connects onto the bottom of filter housing a fresh cut. This will allow it to grip better onto the metal barb fitting.



20. Once the tubing is reattached to the metal barb on the bottom of the filter housing, use a small zip tie to firmly secure it in place. Cut off any excess from the zip tie.



21. Repeat steps 13-20 to replace the coalescent (Green) filter on the regulator assembly.

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