

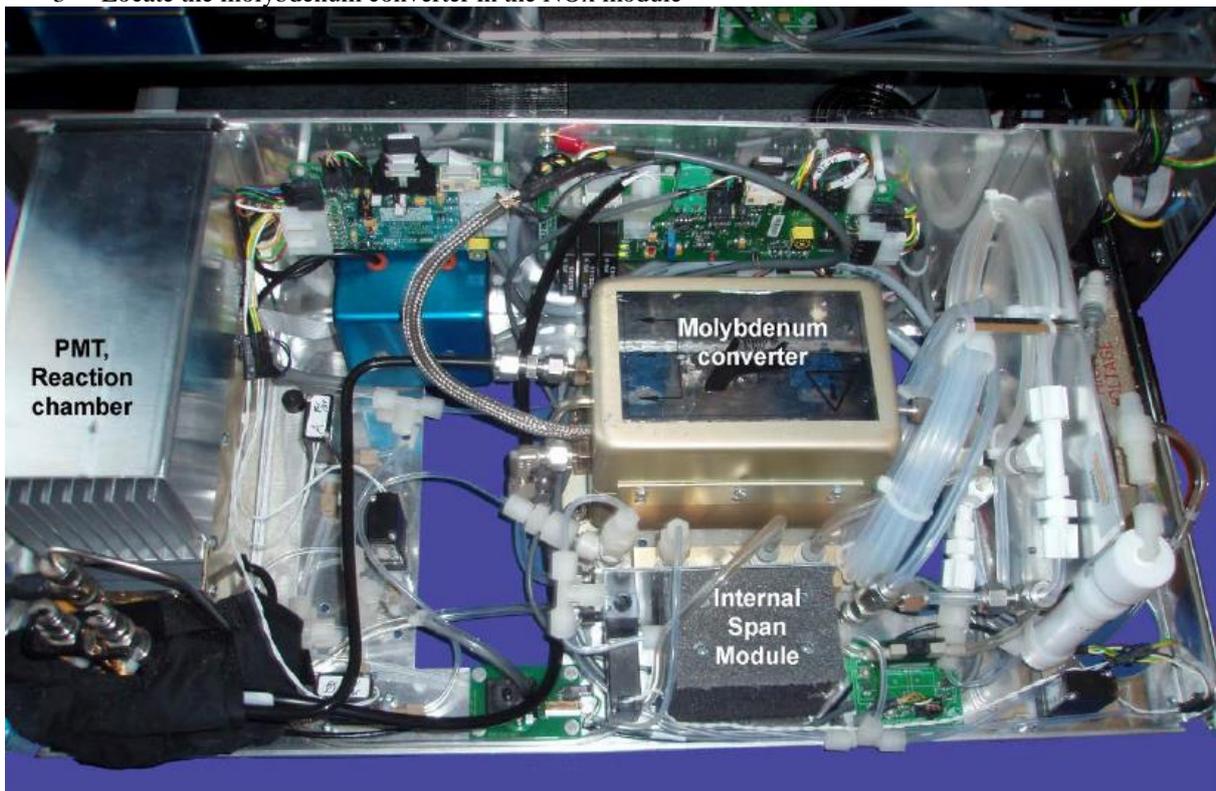
NOx module (T) – Replacing molybdenum converter

Over time, the molybdenum in the NO₂ converter oxidizes and loses its original capacity of converting NO₂ into NO, eventually resulting in a decreased converter efficiency (CE). Even though we recommend changing the converter if CE drops below 95%, the analyzer's firmware allows to adjust minor deviations of the CE from 1.000 and enables to report the true concentrations of NO₂ and NO_x. Converter efficiency is stored in the instrument's memory as a decimal fraction that is multiplied with the NO₂ and NO_x measurements to calculate the final concentrations for each. Periodically, this efficiency factor must be measured and—if it has changed from previous measurements—entered into the analyzer's memory.

- 1- Tools you need
 - wrenches: 9/16", 1/2", and 7/16" and adjustable
 - a medium Phillips screwdriver and a big flat screwdriver

- 2- Turn off and unplug the airpointer. Pull out the NO_x module drawer

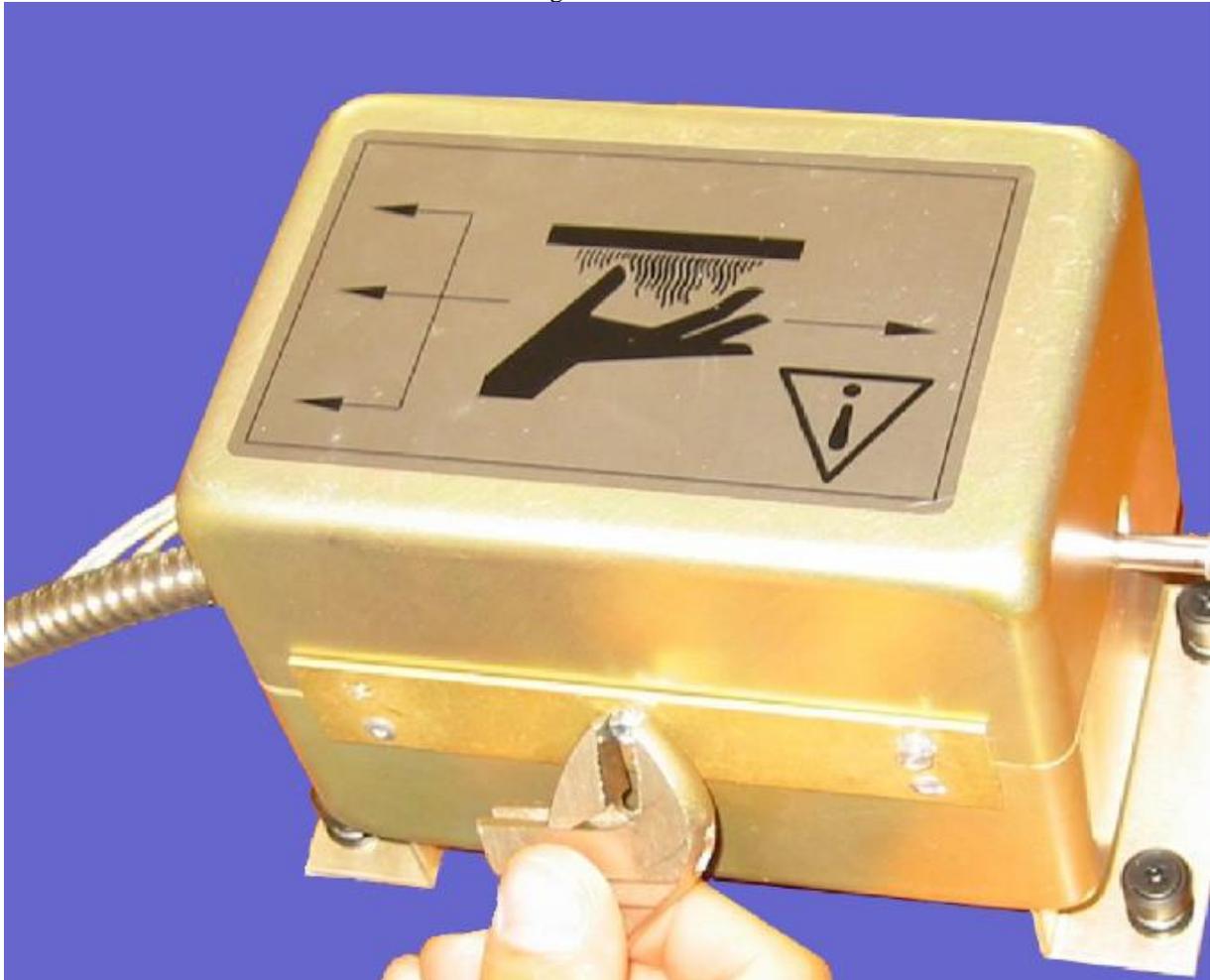
- 3- Locate the molybdenum converter in the NO_x module



! The converter operates at 325°C. Severe burns can result if the assembly is not allowed to cool. Do not handle the assembly until it is at room temperature. This may take several hours.

- 4- Disconnect the 2 electrical connections (heater and thermocouple) and the 4 pneumatic connections (2 from the molybdenum converter and 2 from the ozone destroyer)

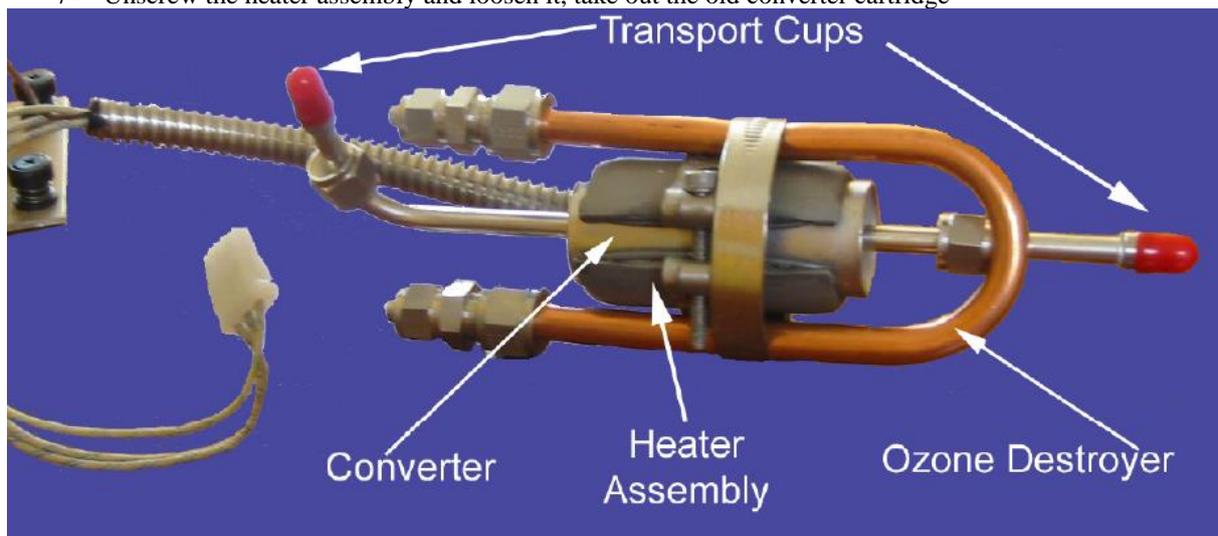
- 5- Remove the 6 screws holding the lid, then remove the top lid of the converter as well as the top layers of the insulation until the converter cartridge can be seen





6- Remove the converter assembly (cartridge + band heater) from the can. Make a note of the alignment of the tubes relative to the heater cartridge

7- Unscrew the heater assembly and loosen it, take out the old converter cartridge



8- Put the new converter cartridge in the heater assembly

- 9- Replace the converter assembly in the housing, route the cables through the holes in the can and reconnect them properly

- 10- Reattach the 4 tube fittings to the converter and replace the insulation and top lid of the can

- 11- Slide in the NO_x module and power up the airpointer

- 12- Allow the converter to burn-in for 24 hours, then recalibrate the NO_x module