

## DART-100 Grid Replacement Procedure



**Turn off all power to the DART-100 and unplug the external HV cable from the outside of controller before replacing grid.**



**Be sure to turn off heater and let DART cool before attempting to replace grid. The metal heat shield and ceramic cap can become hot to the touch after long periods of use.**

Once the power is turned off and the DART has cooled down, you can remove the ceramic cap by simply unscrewing it. The cap is shown in *Figure 1* below.



**Figure 1. Ceramic Cap**

The grid is held in place with a threaded securing nut. Use a flat head screw driver to remove the nut; a 4.5mm blade is the recommended size. *Figure 2* below shows the nut being unscrewed.



**Do not apply excessive torque to the nut; this can cause severe damage to the DART cartridge. If it does not unscrew easily then do not attempt to remove it. Contact IonSense Support for assistance.**

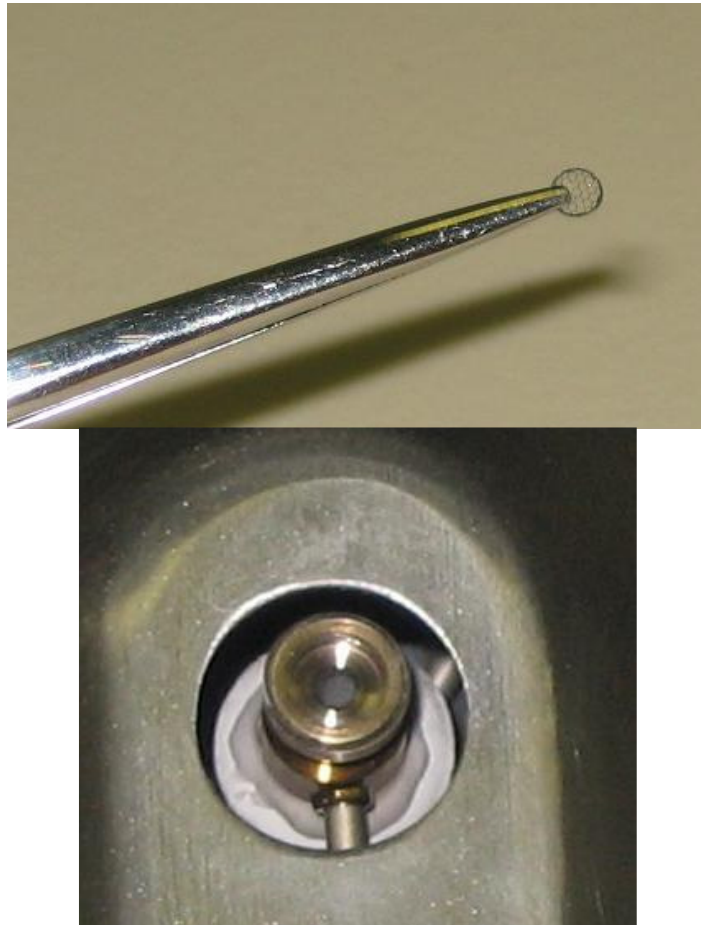


**Figure 2. Removing the securing nut**

Next, remove the Molybdenum grid already in-place by either using a pair of tweezers, or simply tipping the source upside down so it falls out. Pick up a new grid using a pair of tweezers and carefully place it in the center of the cartridge tip. Make sure it is fully resting in the counter bore that is made for the grid. See *Figures 3 and 4* below.



**Avoiding touching the grid with your bare hands, as this can cause contamination.**



**Figure 3 (Top). The grid properly picked up in tweezers  
Figure 4 (Bottom). The grid properly placed in the counter bore**

Replace the securing nut, locking the grid in snugly and centered in the hole.



**As stated before, do not apply excessive torque to nut when screwing it back into the cartridge tip.**

Lastly, replace the ceramic cap.