

Filament Replacement Instructions

This document describes how to replace the filament in a Mass Spectrometer Source.

To replace the filament you will need the following materials:

- Filament replacement kit (P/N 010314101) – Sold in single or three-pack
- ¼ nut driver
- Sharp scissors or clipper

The completed source assembly is shown below. Refer to figure 1.1

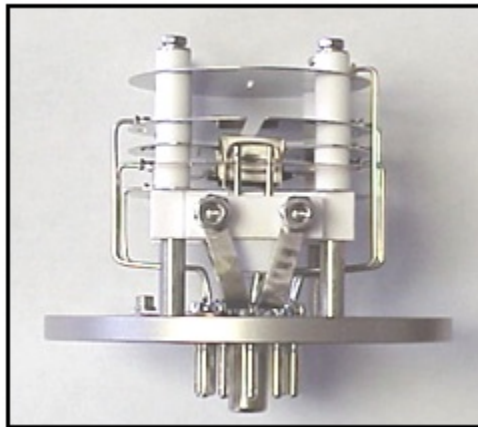


Fig 1.1

The steps for replacing the filament are described below:

1. Remove the four mounting nuts that secure each filament using a ¼ nut driver. Refer to figure 2.1
Note: There are two filaments installed on each source. Each filament uses 2x posts that attach the filament leads using 2x 4-40 nuts.

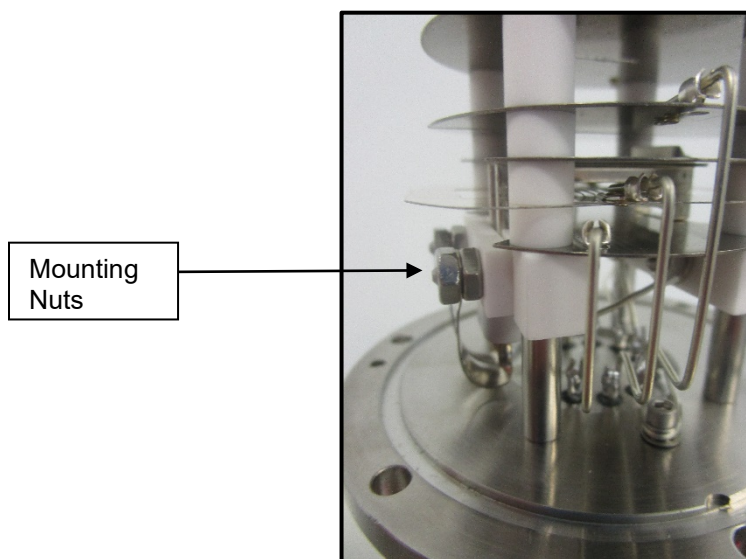


Fig 2.1

2. Once the nuts have been removed carefully remove the ceramic block and filament leads as illustrated in figure 3.1.

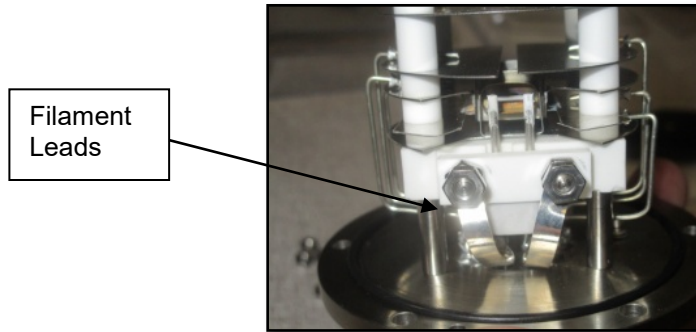


Fig 3.1

3. Notch the repeller plate at both filament locations using clippers or a sharp pair of scissors as shown figure 4.1.

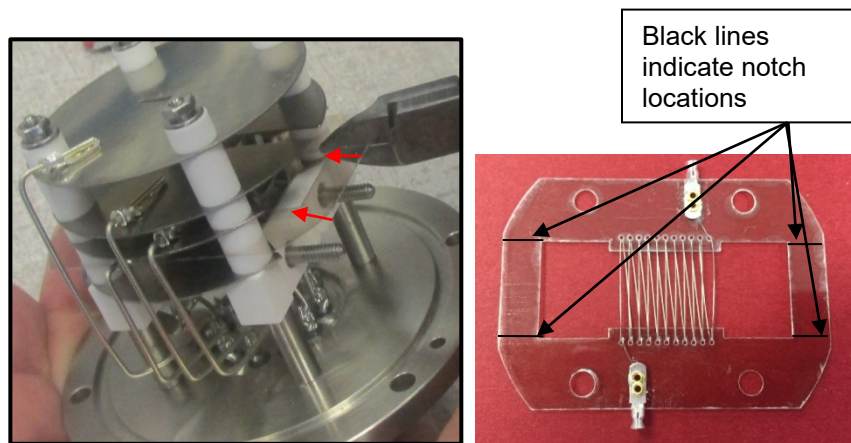


Fig. 4.1

4. Replace and adjust the filament so top edge of the filament is in the center of the slot. Refer to figure 5.1.

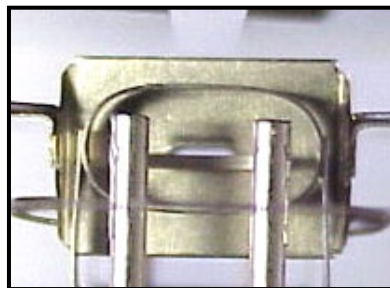


Fig. 5.1

Note: To avoid damaging the filament, make sure the filament posts are positioned in the slots provided on the ceramic block before securing.

5. Install ceramic and nuts.