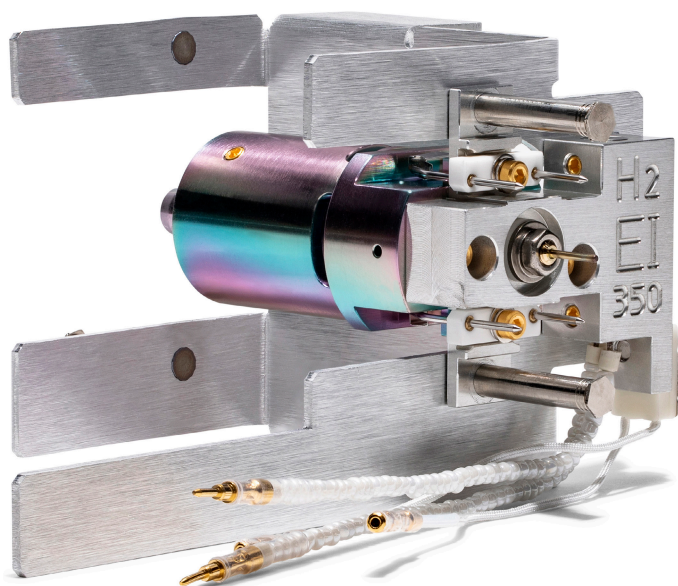


## Agilent HydroInert Source



For detailed instructions visit: [www.agilent.com/chem/hydroinert-source](http://www.agilent.com/chem/hydroinert-source)

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자세한 지침은 [www.agilent.com/chem/hydroinert-source](http://www.agilent.com/chem/hydroinert-source)를 참조해 주세요

### Warning

**No abrasive  
cleaning!**



**Do not abrasively clean the  
HydroInert source.**

- Abrasive cleaning techniques, such as alumina slurry, green sandpaper, and metal polish will eventually lead to a permanent loss of inertness.
- When hydrogen is used as a carrier gas, ionized hydrogen will help to remove material that sticks to the lenses, making manually cleaning the source unnecessary.
- Do not use helium as a carrier gas with this ion source, because manual cleaning would be required, which will lead to a loss of inertness.

## Preventative maintenance

- Depending on sample cleanliness and use, it may be necessary to replace the ceramic or Vespel components of the ion source as a maintenance item (repeller insulators, the ceramic insulating ring between the extractor lens and ion body, and the lens stack insulator).
- If performance degrades and the cause is suspected to be the ion source, it is recommended to replace the filaments and ceramic or Vespel components of the ion source.
- Longevity testing using dirty samples has shown that it is possible to contaminate the ion source in such a way that replacement of the repeller and extractor lens is required to restore performance. This requires a large number of injections and is not expected to occur under normal use conditions. Contact Agilent Online Technical Support for guidance if problems occur that maintenance of the filament and ceramic or Vespel components do not resolve.

## HydroInert ion source compatibility

Before installing the HydroInert ion source, check that the instrument hardware supports your use. The HydroInert ion source (G7078-67930 and G7006-67930) is supported on:

- 5977 Series GC/MSD single quadrupole instrument models 5977A, 5977B, and 5977C
- 7000 Series GC/TQ triple quadrupole instrument models 7000C, 7000D, and 7000E

**Note:** Diffusion pump single quadrupole instruments are not supported. A turbo pump is required. Please refer to the [Agilent EI GC/MS Instrument Helium to Hydrogen Carrier Gas Conversion User Guide](#) for more details on using hydrogen as a carrier gas.

For systems that are purchased with either the HydroInert ion source or the Extractor (Inert Plus) ion source installed, no action is required.

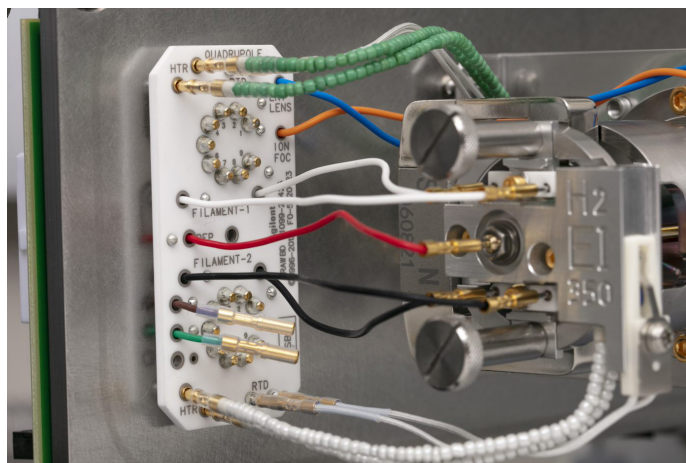
For systems sold before the introduction of the HydroInert source (such as 5977 series instruments that use a stainless steel or inert ion source), it is necessary to install the following components before use.

These components include:

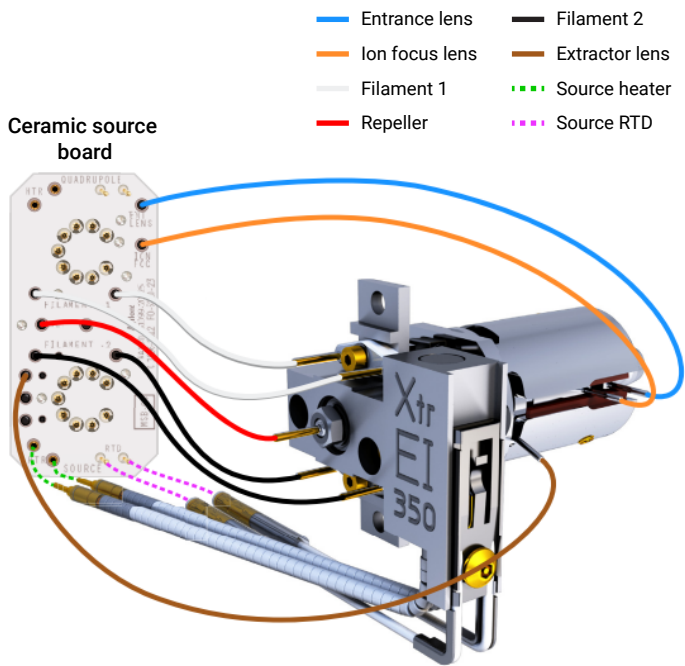
- A transfer line tip seal to electrically isolate the ion source from the transfer line
- Two wires that connect from the ceramic ion source board to the ion source
  - A green wire to control the voltage of the ion source body
  - A brown wire to control the voltage of the extractor lens

## Installation of the HydroInert ion source

### G7078-67930 and G7006-67930

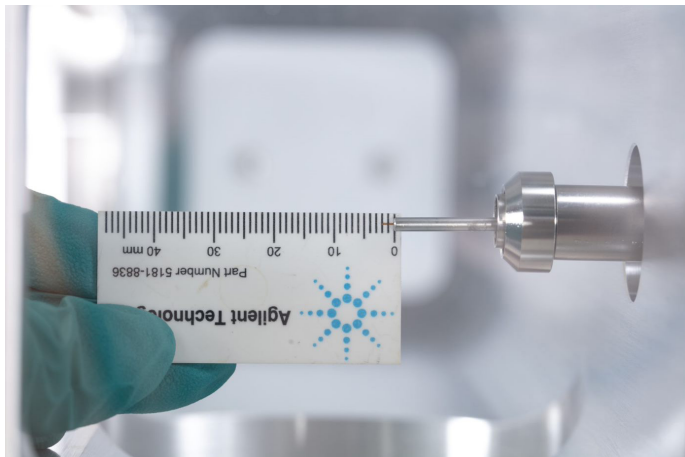


1. Cool and vent the MS system.
2. Wearing gloves, remove the ion source currently installed in the MS system.
3. Remove the HydroInert ion source from the packaging.
4. Install the HydroInert ion source into the MS.
  - a. Slide the source into the source radiator and magnet assembly.
  - b. Install the two thumbscrews to secure the source to the radiator and magnet assembly.
  - c. Reconnect all the source wires as shown in Figure 1.

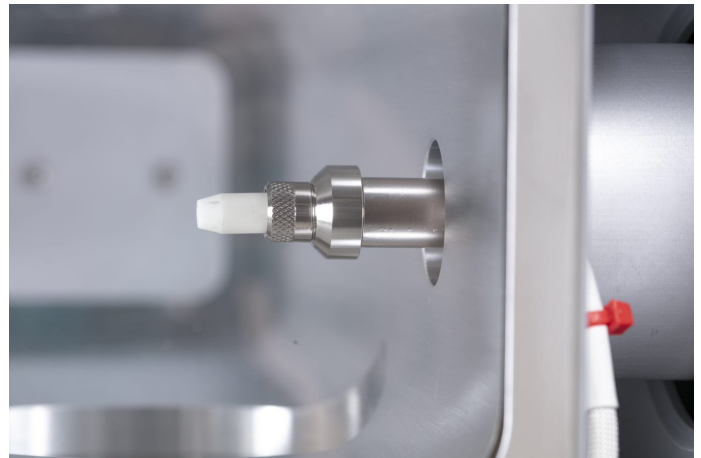


**Figure 1.** The ion source wiring is identical between the Agilent HydroInert and extractor ion source. The extractor ion source is shown. **Note:** A green wire, not shown, connects from the ceramic source board to the ion source radiator.

The ceramic tip seal and spring will be installed on the transfer line inside the vacuum manifold.

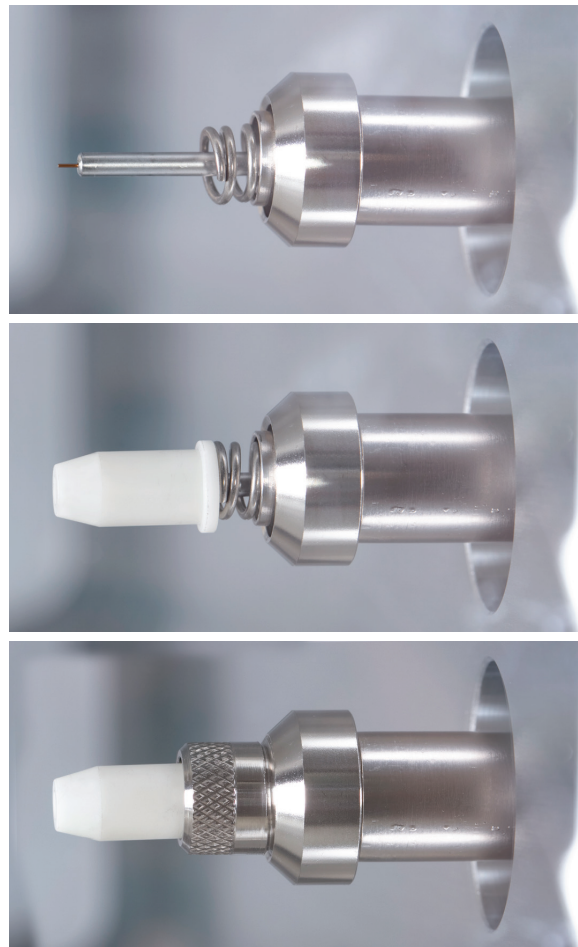


**Figure 2.** Column installation for an Agilent HydroInert source, 1 to 2 mm past the end of the guide tube.



**Figure 3.** Ceramic tip.

First, install the collar on the transfer line using the setscrew. Next, install the spring and tip seal, then slide the knurled nut onto the transfer line, and finger-tighten it (Figure 4).



**Figure 4.** Proper installation of the tip seal, spring, and cap.

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