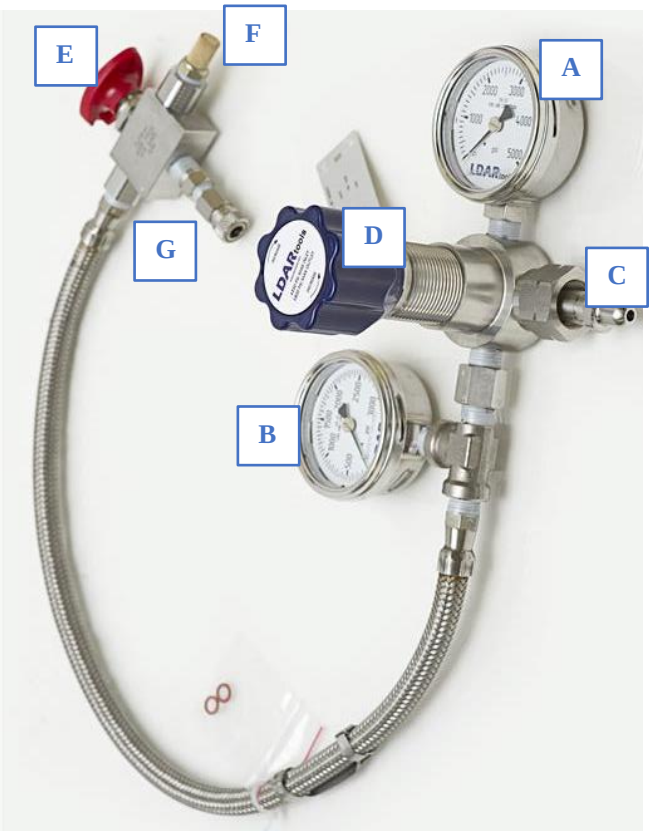
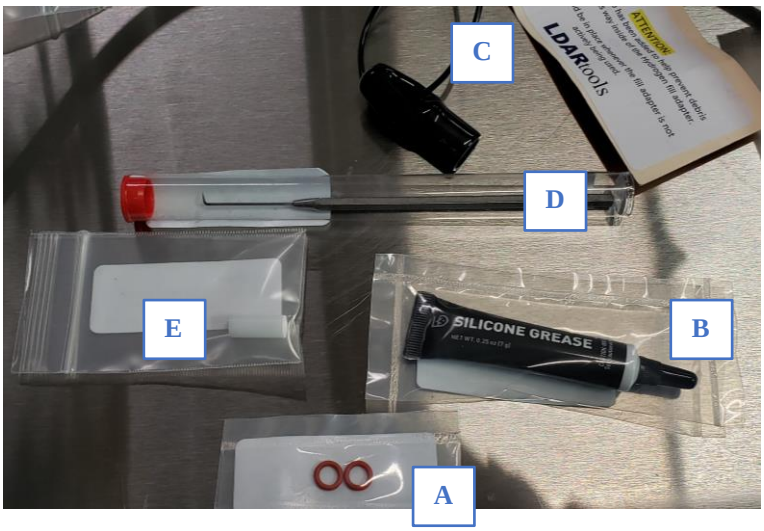
LDARtools

H2 Fill Adapter (LDAR#1260) Maintenance and Installation

Tools and Parts



Picture ID	Part Name
A	Gauge A – H2 Cylinder Pressure
B	Gauge B - Pressure in Fill Adapter Line
C	CGA-350 Fitting
D	Pressure control knob
E	Fill Valve Handle
F	Breather
G	Fill Port



Picture ID	Part Name	LDAR Part #
A	O-rings	918
B	Grease	881
C	Fill Adapter Cap and Tether	6002/1856
D	Precision Tip Pick	1861
E	Dowel Rod	1862

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Installation

1) Turn cylinder off.
2) Remove fill adapter from packaging.
3) Inspect CGA-350 fitting for debris, packing material, etc.
4) Inspect the sealing surface of the connection on the cylinder itself, it should be a clean metal surface.
5) Thread the fill adapter onto the Hydrogen cylinder and fully tighten. **NOTE**: The nut on a CGA-350 fitting is reverse threaded, so turning the nut counterclockwise will tighten the fitting.

Fill adapter adjustment

1) There are two gauges on the fill adapter.
   a) The Top gauge (A above) shows the pressure inside of the main Hydrogen cylinder.
   b) The gauge on the side (B above) shows the pressure that is in the fill adapter line.
2) Prior to opening the Hydrogen cylinder, confirm that the three-way fill valve handle (E above) is pointing towards the brass breather (F above). This closes off the fill line.
3) Open up the hydrogen cylinder, making sure to fully open the valve until it stops.
4) Slow turn the fill adapter knob (D above) to increase the output pressure of the regulator (shown on gauge B).
   NOTE: the fill adapter is fitted with a pressure relief valve. The output pressure should never be turned above 1800psi or else this relief valve will open. If this happens, turn the fill adapter knob counterclockwise to reduce the pressure.
5) Purge the line by slowly turn the red fill valve handle 10 degrees, prior to filling a phx21 or phx42 for the first time.
6) Always use the black dust cap on the fill adapter to prevent debris from getting into the connection.
   NOTE: Any dirt that is in the adapter will get forced into the analyzer's hydrogen system and could cause leaks or damage internal systems.

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Fill adapter maintenance

1) Always keep the Fill Adapter Cover (LDAR#6002 & 1856) in place when the Fill Adapter is not in use.
2) Inspect and replace the Fill Adapter o-ring (LDAR# 918) if there is any sign of wear. (We recommend replacing weekly, since this is difficult to inspect.)
3) Before each fill, verify that there is no dust or debris in the Hydrogen (H_2) fill port or in the Hydrogen (H_2) fill adapter.
4) To replace the o-ring:
   a) Turn off cylinder.
   b) Bleed the pressure in the Fill Adapter line.
   c) Use the precision pick (LDAR#1861) to remove the old o-ring.
   d) Lightly grease the new o-ring (LDAR#918) using O-ring grease (LDAR#881).
      i) Light grease means that the whole surface is coated and slightly shiny, but you can't actually see grease caked on its surface. This can be done by simply touching your finger into the silicone grease and then wiping it around the entire o-ring.
   e) Place the new o-ring on the surface of the Fill Adapter port and use the Dowel Rod (LDAR#1862) to push the new o-ring in place.
   f) Follow the procedure above for Fill Adapter Adjustment to pressurize the line.

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