



GLASS EXPANSION

Quality By Design

Instructions for the Elegra Dual Humidifier



INS-0258

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The Elegra Dual Humidifer is supplied with:

Part Number	Description
70-803-1240	Elegra Dual Channel Argon Humidifer
70-803-1505	Nebulizer Gas Line with 2 Ratchet Fittings
70-803-1279	Make-up Gas Line with Ratchet and UniFit Connectors
70-803-1042	Ratchet Plug
EL-1	EzyLok Kit (1 or 2 pieces)

And 2 of the following instrument gas lines depending upon the instrument type:

Part Number	Description
70-803-0969	DC Fitting Type 11 with Ratchet Connector
70-803-1086	DC Fitting Type 12 with Ratchet Connector
70-803-1070	DC Fitting Type 21 with ratchet connector
70-803-1049	DC Fitting Type 22 with Ratchet Connector
70-803-1449	DC Fitting Type 23 with Ratchet Connector
70-803-1105	DC Fitting Type 13/31 with Ratchet Connector
70-803-1311	DC Fitting Type 41 with Ratchet Connector

Elegra Dual Humidifier Diagram



Assembly of the Elegra Dual Humidifier

Initial filling with water

To fill the Elegra humidifier, unscrew the top cap and place it aside. The membrane coil will remain attached to the cap. Take care not to damage it, particularly when screwing the cap back on. Fill the reservoir with deionized water to just below the blue line (see section below 'Replenishing the water reservoir'). Push the membrane into the reservoir and then loosely screw the cap on until you feel it stop. Tighten it one quarter of a turn further. This will ensure an adequate seal. Do not over-tighten.

Installation of the gas inlet

For Elegra models with instrument-specific gas connector: Push the gas connector directly into the nebulizer gas port on the spectrometer or the auxiliary/make-up gas port as required. (Figure 1)



Figure 1 - Gas line [70-803-1105](#) shown as example.

For other ICP models: Use the EzyLok connector to join the Elegra's instrument gas line to your spectrometer's auxiliary/make-up gas tubes. (Figure 2)

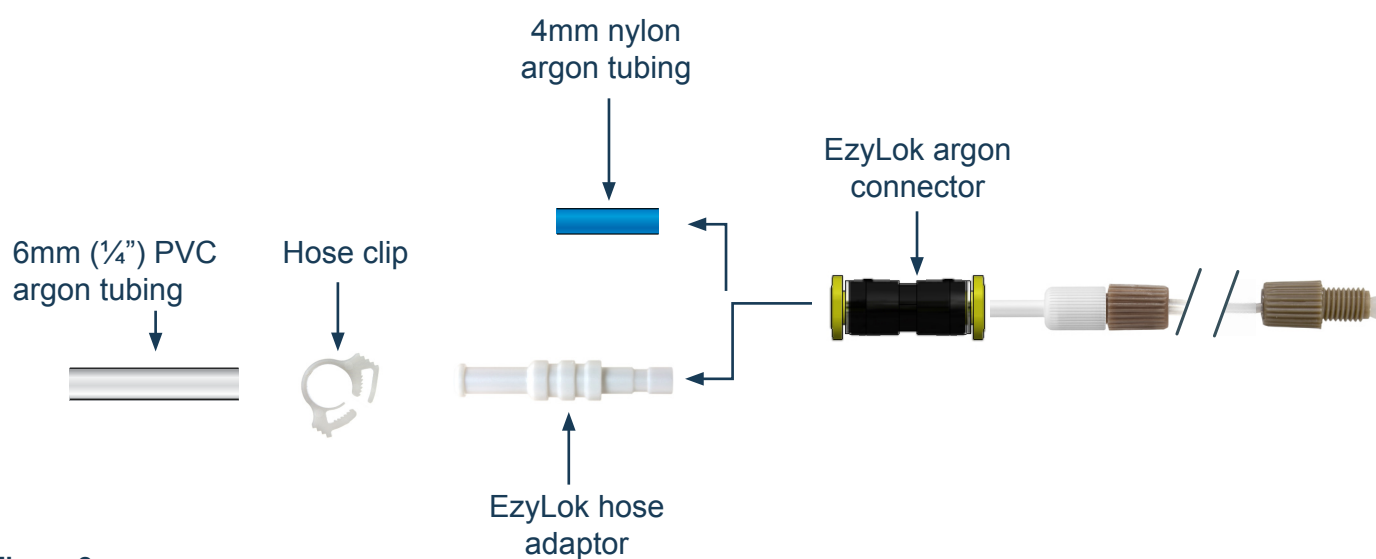


Figure 2



Figure 3

Installation of the nebulizer gas outlet

Two alternative tubes are supplied for the gas outlet to the nebulizer. For nebulizers with a ratchet fitting, use the tube with a ratchet fitting on both ends (p/n [70-803-1505](#)). For other nebulizers use the tube with a ratchet fitting on one end and an EzyLok fitting on the other (p/n [70-803-1105](#)). In either case connect the ratchet fitting to the gas outlet marked “OUT” that is parallel to the “IN” port connected to your instrument’s nebulizer gas port.

Connect the other end to the nebulizer gas inlet using the ratchet fitting (for [70-803-1505](#)) or the Ezylok kit (for [70-803-1105](#)).



Figure 4

Installation of the auxiliary/make-up gas outlet

When using the second channel to humidify auxiliary/make-up gas, use either the gas line with UniFit connector ([70-803-1279](#)) or the general-purpose gas line ([70-803-1105](#)) and EzyLok kit (EL-1). In either case, connect the ratchet end (Figure 1) to the “OUT” port parallel to the “IN” port used for auxiliary/make-up gas. If using [70-803-1279](#), connect the UniFit connector directly to the auxiliary/make-up port of your sample introduction system. If using [70-803-1105](#), use the EzyLok kit to connect to the auxiliary/make-up gas line (Figure 2).

Operating the dual humidifier

Once installed, the gas lines will be humidified. Disconnect channels as required to stop humidification. If you are using one channel only, it is recommended to use the plugs supplied (p/n [70-803-1042](#)) to block the other channel.



Figure 5

Assembly of the membrane for the Elegra

Hold the Elegra cap with rotating female Luer lock assembly facing outwards. Insert one end of the membrane firmly into the Elegra cap outlet whilst rotating female Luer lock in the direction of the arrow (Figure 7). Now repeat to secure the other end of the membrane.

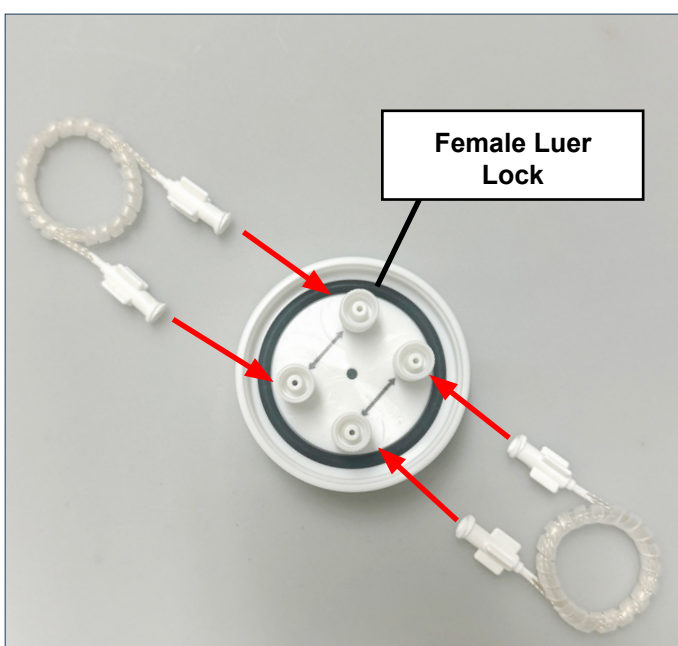


Figure 6

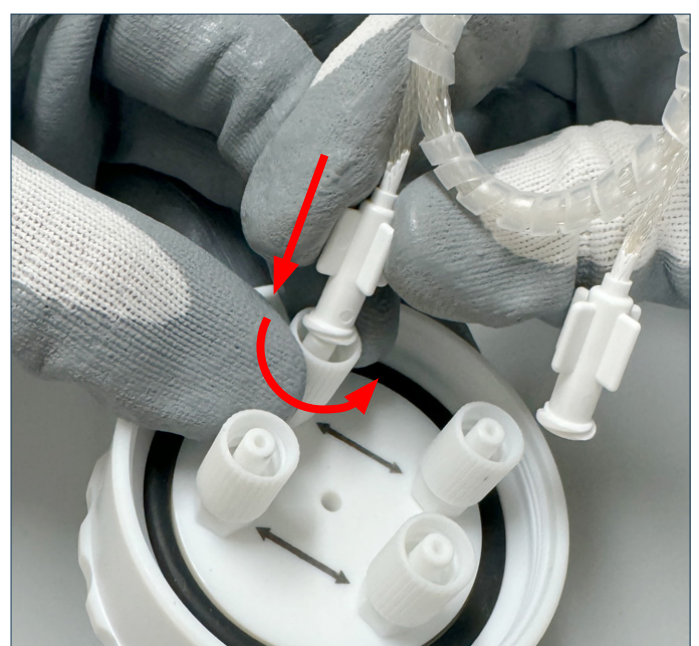


Figure 7

Replenishing the water reservoir

When the water level drops below the red line on the reservoir, the performance of the humidifier could suffer. Shut off the plasma and disconnect the nebulizer and gas lines from the instrument. Unscrew the cap and fill as per initial filling procedure.

Elegra Maintenance

We recommend regularly changing the deionized water in Elegra and flushing the Elegra membrane with deionized water. If you are not going to use Elegra for an extended period of time, keep the membrane dry.



Figure 8

Consumables list:

Part Number	Description
70-803-1279	Make-up Gas Line with Ratchet and UniFit Connectors
70-803-1505	Nebulizer Gas Line with 2 Ratchet Fittings
EL-1	EzyLok Kit
QSM-4	EzyLok Connector for 4mm Tubing
70-808-0735	EzyLok 6mm Hose Adaptor
70-803-1042	Ratchet Plug
70-803-2007	Elegra Dual Argon Humidifier Cap Assembly
70-803-1257	Elegra Reservoir
70-V-225	O-ring for Capricorn or Elegra Cap (PKT. 3)
50-100-1636	O-ring Removal Tool
70-803-1286	Elegra Membrane
70-803-1581	Elegra Mount
70-803-1229	Elegra Humidifier Housing

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