



**GLASS EXPANSION**

Quality By Design

# Instructions for the Elegra Humidifier



INS-0255

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## The Elegra Humidifier is supplied with:

Part Number	Description
70-803-1225	Elegra humidifier
70-803-1505	Nebulizer gas line with 2 ratchet fittings
70-803-1105	Nebulizer gas line with ratchet and Type 13 fitting
EL-1	EzyLok kit

## The instrument gas line will be one of the following:

Part Number	Description
70-803-0969	Gas line for Agilent Vista/700-ES/MP-AES, Leeman or Analytik Jena ICP-MS
70-803-1105	Gas line for Agilent 5000 Series
70-803-1086	Gas line for Agilent 4500/7500
70-803-1105	Gas line for Agilent 7700/7800/7850/7900/8800/8900 or Analytik Jena ICP-OES
70-803-1070	Gas line for PerkinElmer Optima or Spectro
70-803-1049	Gas line for PerkinElmer Elan/NexION 300/350
70-803-1449	Gas line for PerkinElmer NexION 1000/2000/5000
70-803-1311	Gas line for Shimadzu
70-803-1105	Gas line for Thermo 6000/7000/PRO/Q/X Series
70-803-1105 & EL-1	Gas line for other models

## Elegra Humidifier Diagram



# Assembly of the Elegra 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. 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.

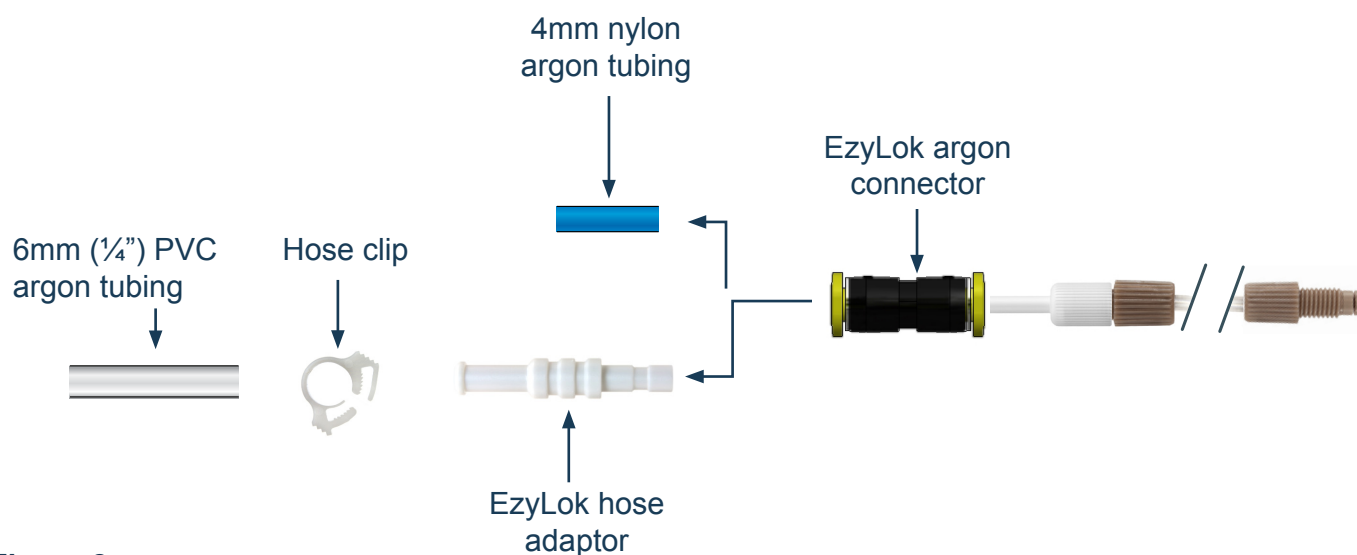
## Installation of the gas inlet

**For Elegra models with instrument-specific gas connector:** Push the gas connector directly into the nebulizer gas port on the spectrometer. (Figure 1)



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

**For other ICP models:** Use P/N [EL-1](#) in combination with P/N [70-803-1105](#) to join the Elegra's instrument gas line to your spectrometer's gas tube. (Figure 2)



**Figure 2**

## Installation of the gas outlet

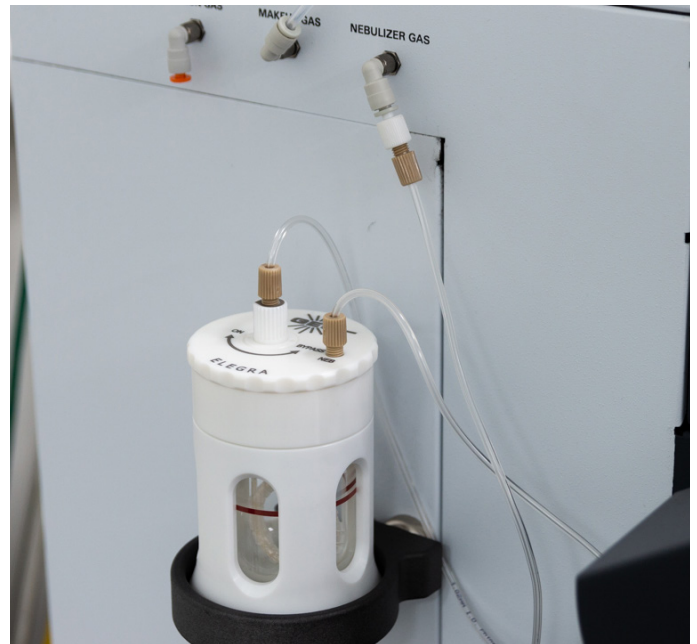
Two alternative tubes are supplied for the gas outlet to the nebulizer. For DC nebulizer models with a ratchet fitting, use the tube with a ratchet fitting on both ends (P/N [70-803-1505](#)). For other nebulizers use P/N [70-803-1105](#) in combination with P/N [EL-1](#) (Ezylok Kit). In either case, connect the ratchet fitting to the Elegra gas outlet (marked NEB on cap) as described above.

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](#)).

## Operating the humidifier

Once the reservoir is filled and gas lines connected, the humidifier is in-line.

When the inlet valve is in the ON position, the gas passes through the membrane coil and is humidified. When the valve is in the BYPASS position, the gas bypasses the membrane coil and is not humidified. The valve should be moved smoothly and quickly between the ON and BYPASS positions. The gas flow is shut off if the valve is positioned between ON and BYPASS.





## 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 2). Now repeat to secure the other end of the membrane.

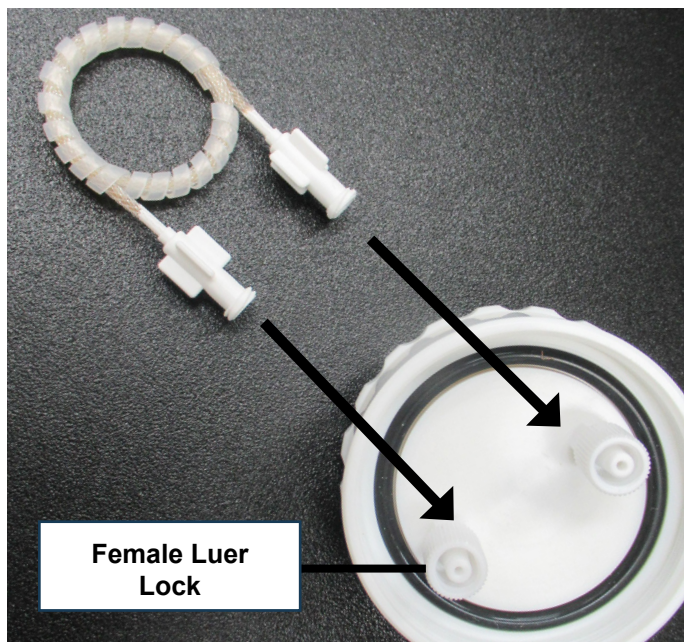


Figure 1.

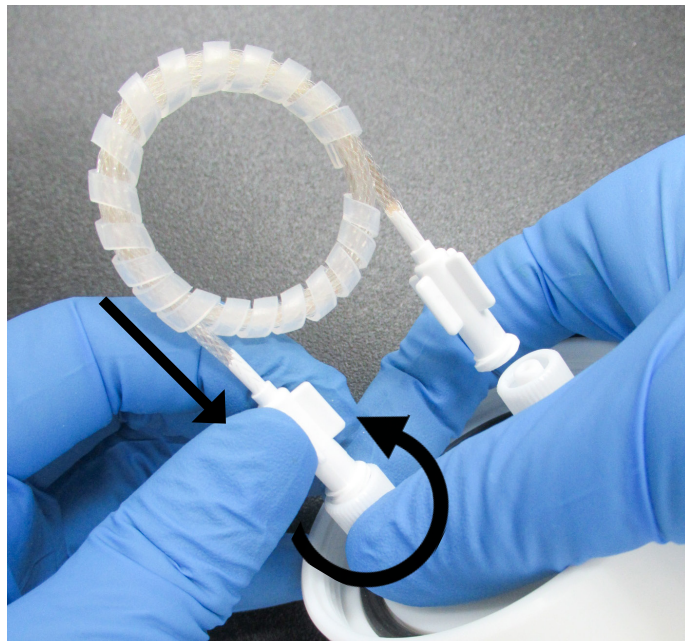


Figure 2.

## 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 the 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.



## Consumables list:

Part Number	Description
70-803-1505	Gas Line 1/4-28 x 500 Assembly
70-803-1105	DC Fitting Type 13/31 with Ratchet Connector
EL-1	EzyLok Kit
QSM-4	EzyLok Connector for 4mm Tubing
70-808-0735	EzyLok 6mm Hose Adaptor
70-803-2006	Elegra 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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