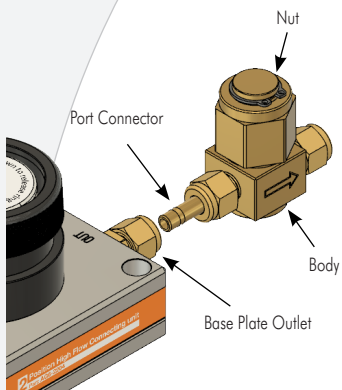


3. Particle Filter

- Special High Flow Particle Filter & other critical applications
- Nominal pore size 0.5 micron (pore size range 0.5-2)
- Filter removes 95% of particles > nominal pore size
- Housing: brass 1/4" connectors
- Particle Filter fits to High Flow base plate gas outlet



We highly recommend using a particle filter in combination with a high flow base plate.

3.1 Installing a Particle Filter

1. Ensure the nut of the Particle Filter is tight on the body.
2. The Particle Filter must connect to the gas OUT side of the base plate. The outlet of the base plate is marked by the text OUT.
3. Insert the Particle Filter with the port connector side into the outlet side of the base plate.
4. Hand-tighten the 1/4" nut of the base plate connector. After hand-tightening, tighten the nut by tool for 1 and a 1/4 turn. Ensure the Particle Filter is fixed during tightening the nut.
5. After connecting the Particle Filter to the base plate connector, check all connections on leak tightness.

3.2 Replacing a Particle Filter Cup

1. Release the pressure on the system to 0.0 bar.
2. Remove the nut, while holding the Particle Filter body by tool.
3. Exchange the old Particle Cup with the new Particle Cup.
4. Ensure the Aluminium ring is still inside the Particle Filter body.
5. Hand tight the Nut back to the Particle Filter body. After hand tight, tighten the nut by tool. Ensure the Particle Filter body is fixed during tightening the nut.
6. After tightening the nut to the body, check all connections on leak tightness.
7. Turn on the pressure of the LC-MS system.

4. Maintenance

4.1 Electronic indicator

If your filter or base plate came bundled with an electronic indicator, make sure to follow the instructions in the electronic indicator user guide on how to install and configure this indicator.

Visit www.phenomenex.com/gasmanagement for more information.

4.2 Replacement of a filter cartridge

A filter cartridge needs to be exchanged when the visual indicators start changing color, or when the electronic indicator displays a percentage of 10% or less.

4.3 Base plate maintenance

Regularly check both the big and small O-rings on the base plate for hair cracks. The slightest leak may allow moisture, oxygen and hydrocarbons to enter the system and contaminate the gas.

Rear end connectors at the base plate may never be exchanged by unauthorized personnel.

5. Overview

Zebron™ Gas Management Filters are suited for the purification of non-corrosive gases with low contamination concentrations to a better as 6.0 grade (99.99990%) purity.

Zebron™ Gas Management Filters are connected to an appropriate genuine base plate which is installed into the gas line.

6. Technical Specifications

Filter Type	Hydrocarbon/Moisture for LC/MS
Benefits	Removes water and other foreign material Removes organic compounds
Indicator color change	Yellow -> White (Moisture Indicator)
Capacity	3.5 g water ~6 g organic compounds depending on impurities
Outlet concentration (1-20 L/min flow)	< 0.1 ppm

All high flow filter cartridges are packed under Argon

Maximum pressure: 11 bar

Maximum flow: 20 L/min.

Gas quality at outlet: > 6.0

7. Disposal



Saturated filter cartridges should not be placed in household waste bins. Please check local regulations for information about the disposal of chemical waste in your area.

Never re-condition any filter cartridge: for recycling, please contact your local supplier.

8. Safety Information

- The maximum concentration of Oxygen allowed in the gas is 0.5%. (valid only for each filter packed with O₂-adsorbent and O₂-indicator)
- Maximum Gas-System pressure should never exceed 11 Bar (160 psi).
- Do not install a filter kit near or in a hot area (i.e. the hot-air exhaust at the rear of the GC).

9. Ordering Information

Zebron™ Gas Connecting Unit Base Plates

AG6-2204 Zebron Gas Management High flow 2-position connecting unit for LC-MS, 1/pk

Zebron™ Gas Management Replacement Filters

AG6-1050 Gas Filter Hydrocarbon/moisture for LC-MS, 2/pk

Zebron™ Gas Management Accessoires

AG6-1060 Zebron Gas Management Ring nut for Gas Filter, Ea

AG6-2206 O-ring replacement for gas filter baseplate, 10/pk

AG6-4120 Zebron Gas Management Electronic Indicator for Gas Filter, 1/pk

AG6-2205 Zebron Gas Management - Particle Filter for LC-MS, 1/pk

Reorder at www.phenomenex.com/GasManagement

Compliance



Terms and Conditions

Patent Pending: PCT/NL2012/050477

Subject to Phenomenex Standard Terms and Conditions, which may be viewed at www.phenomenex.com/TermsAndConditions.

Trademarks
Zebron is a trademark of Phenomenex.

FOR RESEARCH USE ONLY. Not for use in clinical diagnostic procedures.
© 2019 Phenomenex, Inc. All rights reserved.

IL67760419_W_5

Zebron™
Gas Management

LC-MS Gas Filter User Guide

**REPLACE.
REORDER.
RELAX.**

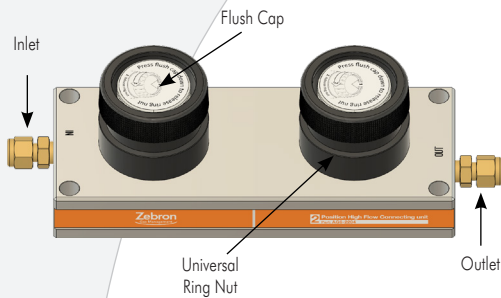


www.phenomenex.com

phenomenex®
...breaking with tradition™

1. Installation of a Base plate

A High Flow base plate has 2 parallel positions. These instructions are valid for each individual position and fitting connection on the base plate.



1.1 Important information before you start

- Never install brass connectors on stainless steel tubing to avoid leakage
- Installation of the base plate should always be done by certified personnel.
- After installation do not forget to perform a reliable leak test
- Only use original Zebtron™ High Flow base plates. Supplier warranty will be waived with use of non-original base plate!

1.2 Installation Instructions

1. Switch off the incoming gas
2. Cut the gas line using an appropriate metal tubing cutter.
3. Hand-tighten the incoming gas line tubing to the rear end-fitting marked IN at the base plate; keep the connection loose!
4. Switch on the incoming gas and flush the gas line for 10 min. with pure carrier gas at minimum pressure: 8 psi
5. Connect the incoming gas line tight to the rear end-fitting (do not over-tighten)
6. Make sure, that the flush cap and universal screw ring are well mounted on the base plate
7. Fixate the base plate with screws using the mounting holes or use an optional wall mounting bracket.
8. Install the Zebtron™ particle filter (for instructions flip page)
9. Now mount the outgoing carrier gas line to the rear end-fitting marked OUT at the base plate and your analytical system is "ready-to-go"

1.3 After base plate installation

After connection of a new base plate to the inlet gas line of the analytical system, it is recommended to flush the total system for 1/2 hour at minimum pressure: 90 psi.

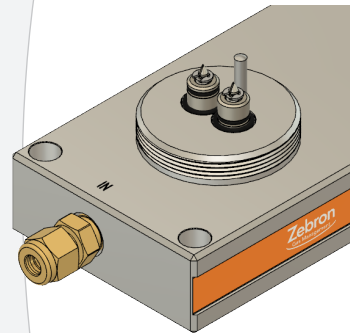
2. Installation of a Filter

2.1 Important information before you start

- The High Flow Zebtron™ LC filter system requires special high flow filter cartridges, mounting a standard filter cartridge to the High Flow base plate is not possible.
- Install filter cartridge only under low pressure (1 Bar).
- After installation do not forget to perform a reliable leak test. Always use an electronic leak detector to check for leaks. Leak detection fluids or sprays may damage the filter and contaminate your gas line.
- The white small plastic mounting plugs on the outside housing a bit above the bottom should never be removed; in case these plugs are missing, the cartridge may not be installed, but should be returned to the supplier.

2.2 Remove the flush cap and universal ring nut

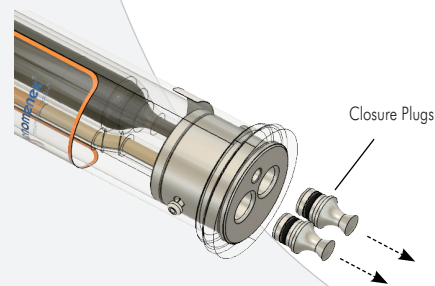
Before installing a filter make sure the base plate is properly connected to the gas line, and the system has been flushed. Remove the universal ring nut and flush cap.



As long as there is no filter cartridge connected, the base plate will automatically block the gas stream.

2.3 Remove the closure plugs

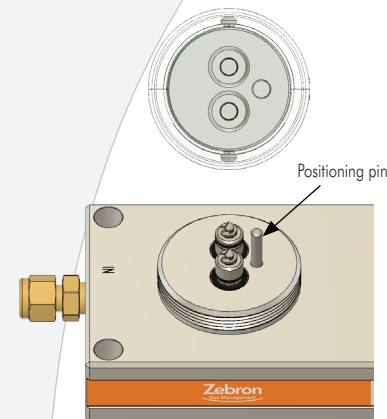
Remove the two aluminium diffusion-proof plugs from the filter cartridge Inlet and Outlet (positioned at the bottom of the filter cartridge).



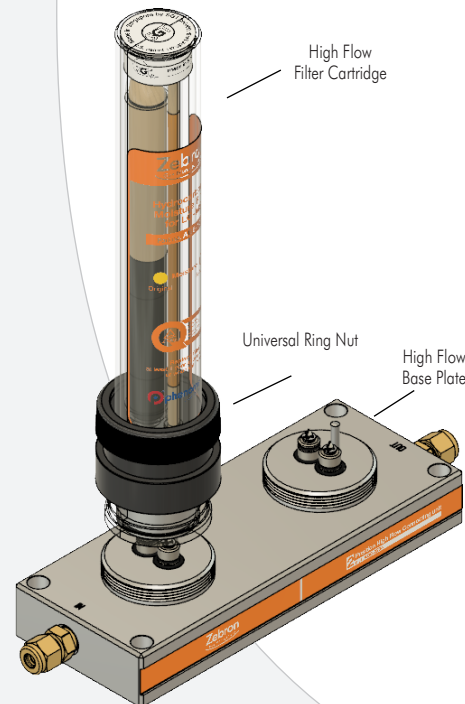
2.4 Align the filter with the base plate

Use the universal ring nut from the base plate and place it around the filter cartridge.

Align the filter cartridge with the base plate, making sure all three holes align with the two valves and positioning pin.



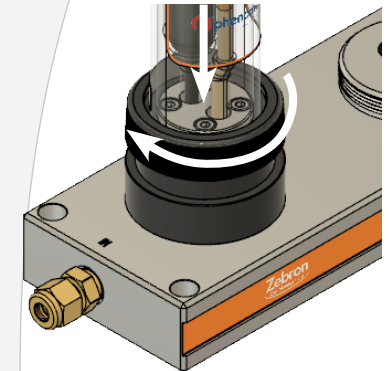
2.5 Position the filter on the base plate



2.6 Install the filter onto the base plate

While pushing the filter down on the base plate, hand-tighten the universal ring nut until the filter is firmly connected to the base plate.

- During installation of a new cartridge, torsion on the plastic outer protection tube should be avoided at any time; put your hand on top of the filter housing during installation and keep the cartridge 90 degrees upright.
- Once the filter is positioned on the base plate the PTFE seals inside the filter foot will be punctured and it is necessary to keep the filter in position by hand to prevent air entering the system.
- After installing the filter cartridge to the base plate, highly pure gas will automatically stream from the filter into the analytical system.



2.7 After filter installation

Important: Perform a reliable leak test. Always use an electronic leak detector to check for leaks. Leak detection fluids or sprays may damage the filter and contaminate your gas line.

Watch out for cracks in the inside glass tube after installation.

Flush the cartridge/whole system for 15 min. with pure carrier gas, advised pressure: 90 psi

Re-adjust the system pressure to the required pressure needed for your analytical application (Max. 11 bar, 160 psi)

2.8 Install the electronic indicator

