



CRS Reconditioned AFS III Cartridge

202935

Instructions for Return and Operation Guide



**Document Number
995238_RevB**

Safety Notices

WARNINGS

WARNING notices must be read carefully and understood. Improper use of this product can cause harm or death to personnel and damage to property!

Recycling



For recycling contact your local CRS Sales Office or Distributor.

Warnings

WARNING



Wear safety glasses.

Leak test all fittings when using hazardous or flammable gases.

Do not use above 13.8 bar (200 psi).

Do not open filter cartridge, even after use!

Special precautions might be required when using hydrogen. Consult local regulations and your company's safety procedures.

The Advanced Filter System III is intended to remove 50 ppm or less of water from air, helium and other inert gases, nitrogen or hydrogen at flow rates of 2 L/minute or less.

Limits:	Temperature	15°C to 35°C
	Pressure	0.75 to 13.8 bar
	Gas Supply	< 50 ppm H ₂ O
	Flow Rate	< 2 L/min

Operation Manual

This operation manual applies to the following products

- CRS Advanced Filter System III,
Reconditioned Cartridge
Item No. 202935

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Reconditioned Cartridge Setup

Please read through this entire manual to familiarize yourself with the procedures for AFS III Cartridge Replacement and Spent Cartridge Return before beginning setup. Use the same degree of care as you would with any precision instrument.

1. Remove the Reconditioned AFS III Cartridge.
2. Inspect the parts. If there is any visible damage contact your supplier immediately.



Procedure Overview

1. *Before any return a Return Authorization must be obtained from CRS or your CRS Distributor. Filters that have been exposed to toxic or hazardous materials cannot be returned and must be disposed of as hazardous goods in compliance with local regulations.*
2. Replace your spent AFS Cartridge with the Reconditioned Cartridge supplied.
3. Obtain a Return Material Authorization from your supplier or CRS. Some suppliers may include the RMA with the packing material.
4. Prepare the spent AFS Cartridge for shipment (see page 8).
5. Return the spent AFS Cartridge in the inner box provided (See Page 8).

Mounting the Filter Cartridge

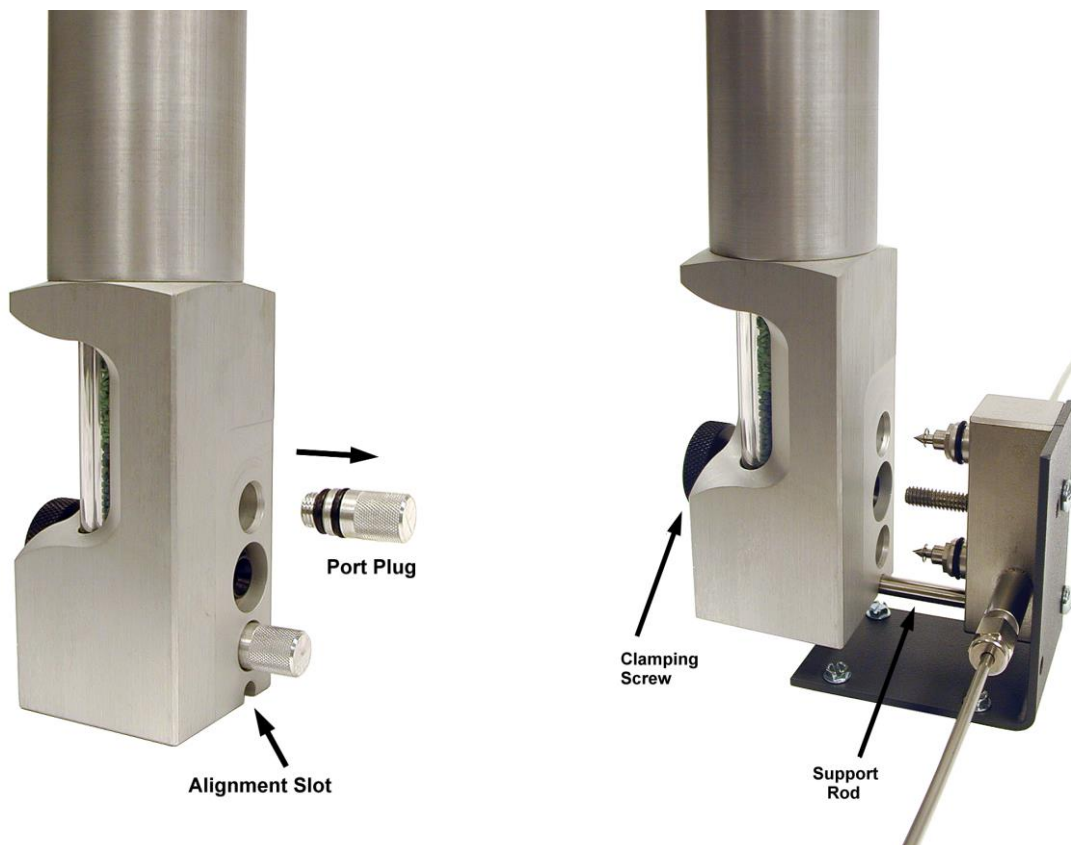
The cartridge is protected in shipping by two port plugs with O-ring seals. In addition, two internal aluminum cups limit the exposure of adsorbent during assembly, until they are pierced as the cartridge is mounted. Exposure to air of several minutes during filter installation or change will not damage the adsorbent.

1. Remove the two port plugs. Save these plugs in case the cartridge is to be returned in an exchange after the cartridge has been consumed.
2. Rest the cartridge on the bottom support rod of the manifold, and slide it forward until the two ports of the manifold slide into the sockets of the cartridge. Be careful to point the check valve needles into the port holes so that they do not scratch the back of the filter.
3. Push the cartridge forward, engage the clamping screw and tighten thoroughly.
4. Leak check the fittings.

WARNING

If you are using hydrogen or hazardous gas additional special procedures may be called for. Consult your company's safety procedures.

5. The filter cartridge is shipped full of helium, but the gas lines should still be purged with a gas flow for at least several hours after the initial installation. Moisture levels downstream of the instrument may continue to improve for several days.



Operation and Maintenance

1. The Advanced Filter System III has one visual indicators for moisture. When the blue indicator changes to light brown, indicating water contamination, the filter cartridge should be changed.



**Moisture
Indicator**



Preparing the spent cartridge for Return Shipment

WARNING

Before any return a Return Authorization must be obtained from CRS or your CRS Distributor. Filters that have been exposed to toxic or hazardous materials cannot be returned and must be disposed of as hazardous goods in compliance with local regulations.

Never open the cartridge or remove the contents!

Packaging

1. The AFS Replacement Cartridge is shipped with an outer box that can be discarded. The insert and inner AFS Box should be used to return the spent filter cartridge as shown below.



Put the spent filter in the inner sleeve of the box after installing port plugs.

Troubleshooting

Condition	Possible Cause	Recommendation
Leak	O-rings between cartridge and manifold are not leak tight.	Remove and check the manifold O-rings for dirt or scratches. Inspect the sealing surfaces on the cartridge and manifold for scratches. Replace if necessary.
Indicator changes quickly.	Leak in gas line.	Find and fix the leak.
	Contaminated Gas	Verify that the source meets specifications as listed under "Limits" on page 5. If the gas source is supplying other filters as well, check the condition of these filters. Otherwise check specification and procedures for verifying gas quality.

Support and Repair

If the AFS III Cartridge is still in the warranty period, please contact your dealer for support. If the warranty period has expired, please visit www.ChromRes.com for information about how to purchase a replacement or regenerated cartridge.



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