

Product Note

NH3 Permeation Device Instruction

To our valued customer:

In an effort to improve our product delivery, your ammonia analyzer is being shipped separately from the permeation device to prevent ammonia from accumulating in the sample system during transport and storage. This product note provides instructions for installing the permeation device into the sample conditioning system as well as related safety, removal and storage information.

Permeation device installation



This procedure is to be used by technicians trained in the maintenance of SpectraSensors' analyzers.

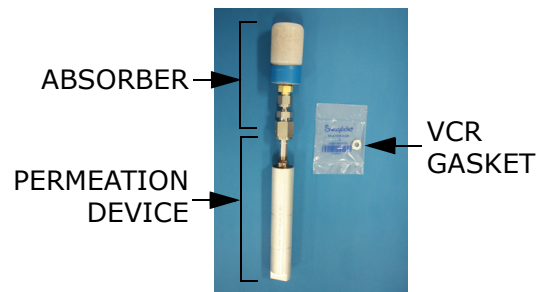
What should be included in the shipping box

The contents of the retrofit kit should include:

- Permeation device for NH3 analyzer
- VCR gasket (P/N 6100002079)
- Installation instruction

Tools and Materials

- 5/8" wrench
- 3/4" wrench



Installing the NH3 permeation device



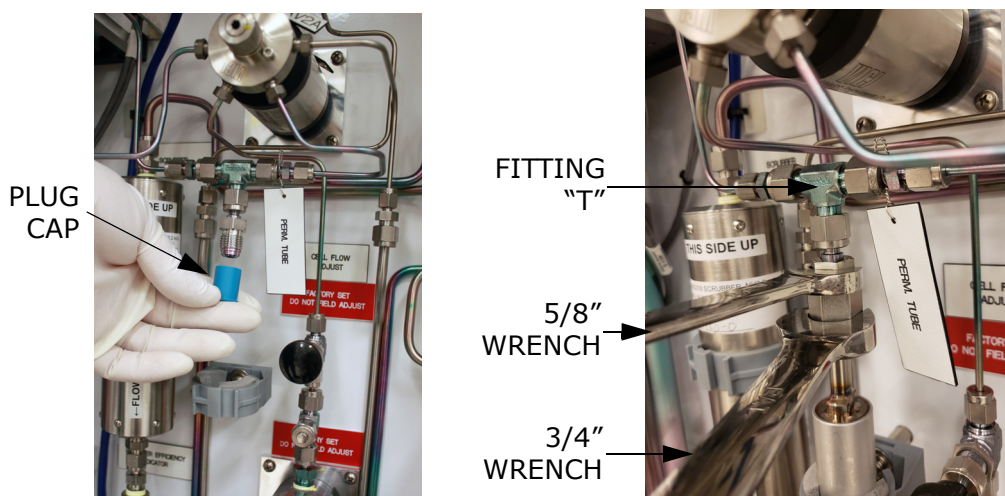
Use caution when removing the permeation device absorber. SpectraSensors recommends removing the absorber from the permeation device in a well-ventilated area, preferably outdoors. Once opened, there is no significant risk of exposure.

- 1.** Remove the permeation device with attached absorber and VCR gasket from the packaging.
- 2.** Remove the absorber from the permeation device.
- 3.** Remove the plug cap installed in the sample conditioning system for the permeation device to be installed.



Retain plug cap, absorber and packaging removed from permeation device along with these instructions for re-use in case the analyzer is temporarily shutdown for any reason. Refer to **Temporary Analyzer Shutdown** below.

4. Remove the existing gasket from the permeation device and replace with the new VCR gasket.
5. Install the permeation device into the analyzer sample conditioning system in the area provided and tighten fitting nuts.



Confirm proper support for the VCR adapter on the 'T' during installation. SpectraSensors recommends securing the VCR adapter fitting with a wrench while tightening the connection.

6. Proceed with normal start-up and commissioning instructions.

Analyzer Operation

Refer to the start-up instructions provided with your analyzer system for operational instructions related to the validation.

Temporary Analyzer Shutdown

If the analyzer needs to be shut down temporarily (for 48 hours or more), and a gas or purge flow cannot be maintained through the analyzer, follow the instructions below to remove and package the permeation device before storage.



During a temporary shutdown, SpectraSensors recommends removing the permeation device to prevent fouling of the measurement cell mirror.



Refer to the Hardware manual for instructions on shutting down the analyzer.

Removing the permeation device

1. Open the SCS door and block in the sample flow using the diaphragm valve upstream of the dryer.
2. While watching the cell flow flowmeter, allow all flow to come to zero.
3. Block in the sample cell vent to prevent backflow into the cell and permeation device.
4. Loosen the connections on the inlet and outlet of the permeation device.
5. Remove the permeation device.

Storing the permeation device

1. Attach the absorber retained from the permeation device installation to the removed permeation device.



The permeation device absorber is designed to minimize the risk for breathing potentially released ammonia.

2. Cap all inlets using the plugs retained from the permeation device installation, if possible.
3. Pack the permeation device in the original shipping packaging, if available. If the original packaging material is no longer available, the equipment should be adequately secured (to prevent excessive shock or vibration). Refer to "**Service Contact**" on page 1-3 for any questions related to packaging.
4. The packaged permeation device should be stored in a sheltered environment that is temperature controlled above -0°C (32°F), and should not be exposed to direct sun, rain, snow, condensing humidity or corrosive environments.

Service Contact

For Technical Service, refer to our website (<https://www.spectrasensors.com/contact>) for the list of local sales channels in your area.

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