

# FI-8000 Scrubber Set Supplement

Document Part Number: 71-0459

Revision: D

Released: 6/20/23

## Description

The scrubber set included with the FI-8000 is intended to scrub out carbon dioxide (CO<sub>2</sub>) and moisture from the sample before it reaches the FI-8000. If the scrubbers become saturated and stop functioning correctly, the FI-8000 could be damaged. It is important to check the dehumidifier tubes regularly for signs of saturation.

The scrubber set includes:

- 1 CO<sub>2</sub> scrubber
- 2 dehumidifier tubes
- 1 hydrophobic filter
- 1 holster for scrubbers with tubing
- Screw and finishing washer for installing holster to instrument

Sample gas goes through the CO<sub>2</sub> scrubber, the two dehumidifier tubes, and then the hydrophobic filter before reaching the instrument.

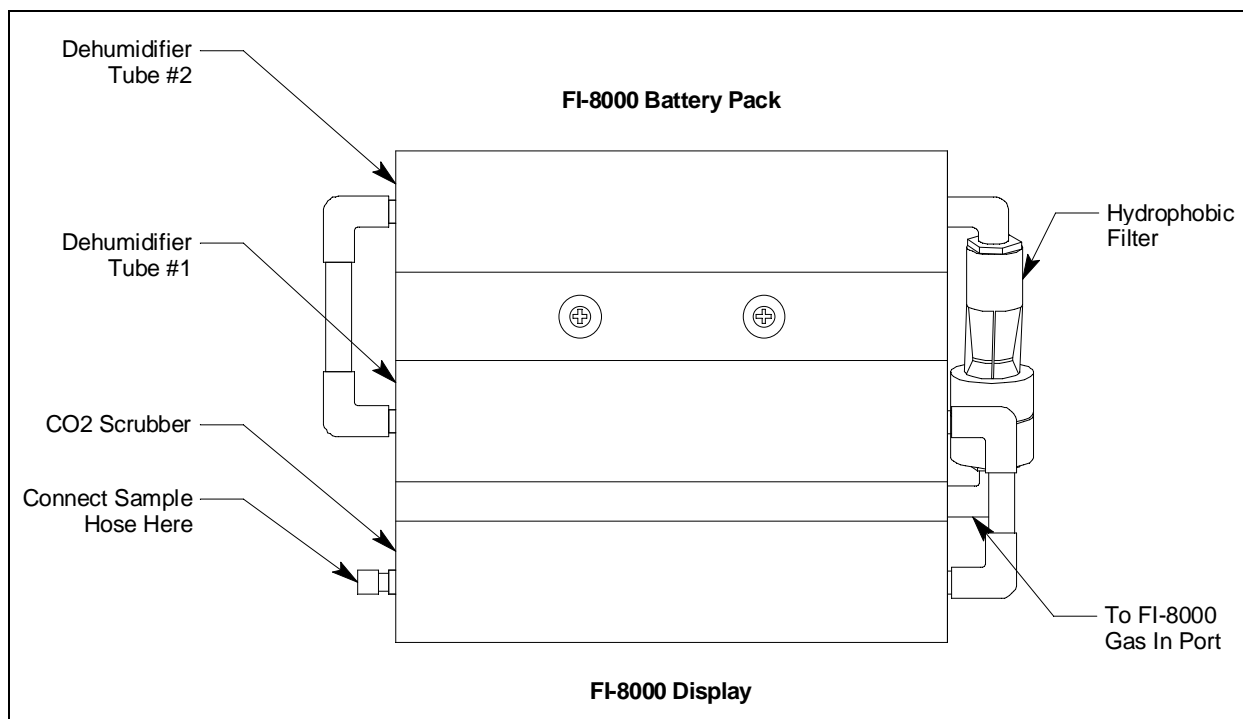
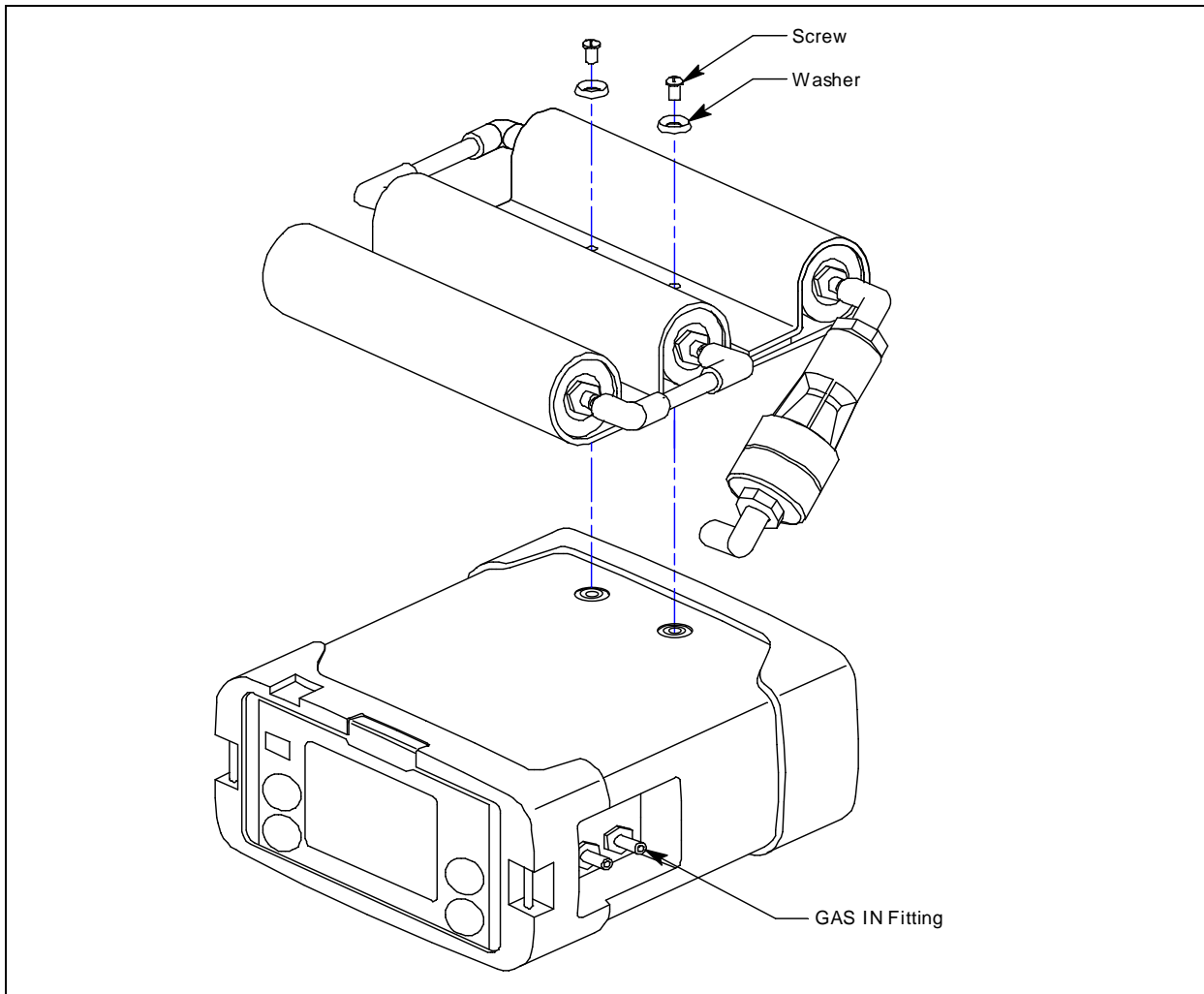


Figure 1: Component Location

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# Installation

1. Orient the scrubber holster as shown below. The FI-8000 has 2 sets of female threads. The holster is installed on the threads that are closest together. The holster should not be covering the calibration sticker. The open grey elbow should be on the same side of the FI-8000 as the GAS IN and GAS OUT fittings.



**Figure 2: Installing the Scrubber Holster**

2. Use the provided screw and finishing washer to secure the scrubber holster to the FI-8000.
3. Push the open grey elbow onto the FI-8000's GAS IN fitting.

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# Normal Operation

Connect the sample hose to the CO<sub>2</sub> scrubber's inlet. The CO<sub>2</sub> scrubber's inlet is the only fitting available for connection. All other fittings have factory-installed tubing connected to them (see Figure 1).

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## Replacing the CO<sub>2</sub> Scrubber

1. Replace the scrubber when you notice the pellets in the scrubber tube beginning to break down into powder.
2. Disconnect the tubing from the CO<sub>2</sub> scrubber.
3. Remove the CO<sub>2</sub> scrubber from the holster.
4. Discard the old CO<sub>2</sub> scrubber.
5. Install the new CO<sub>2</sub> scrubber in the holster. The CO<sub>2</sub> scrubber has an arrow on it. Make sure the direction of the arrow matches what is shown in the figure below.

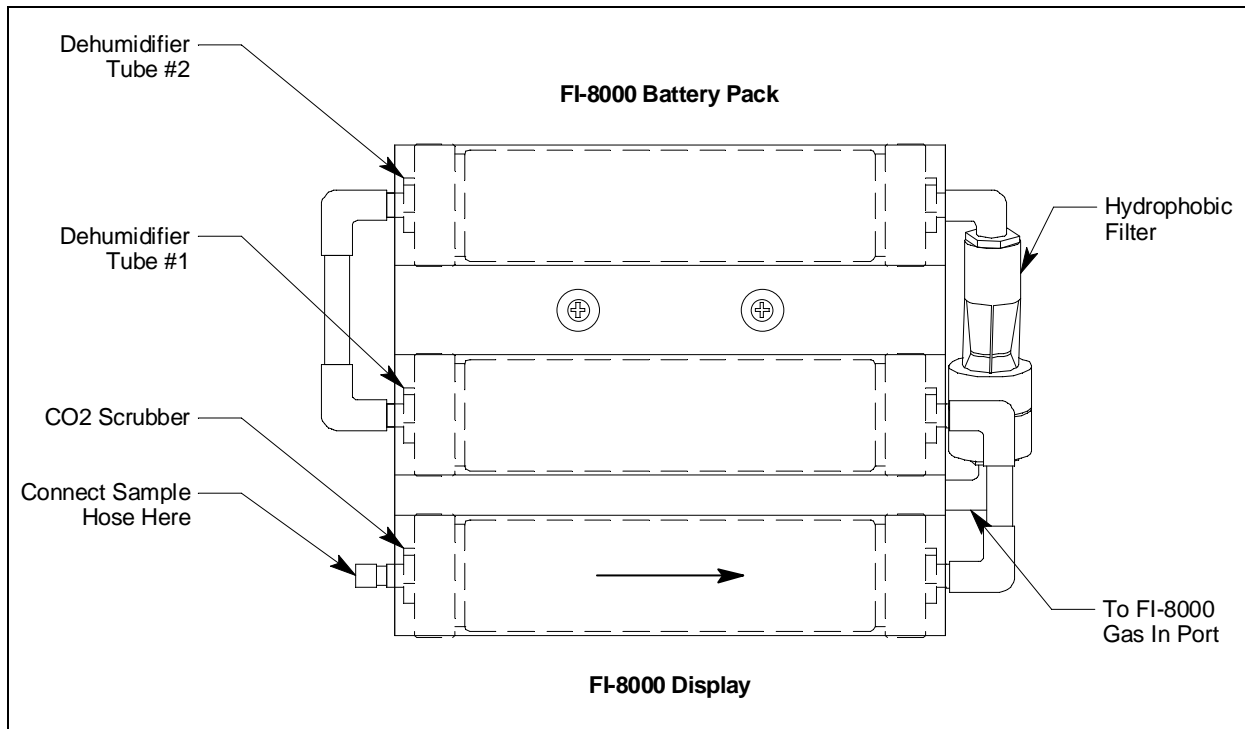


Figure 3: CO<sub>2</sub> Scrubber Orientation

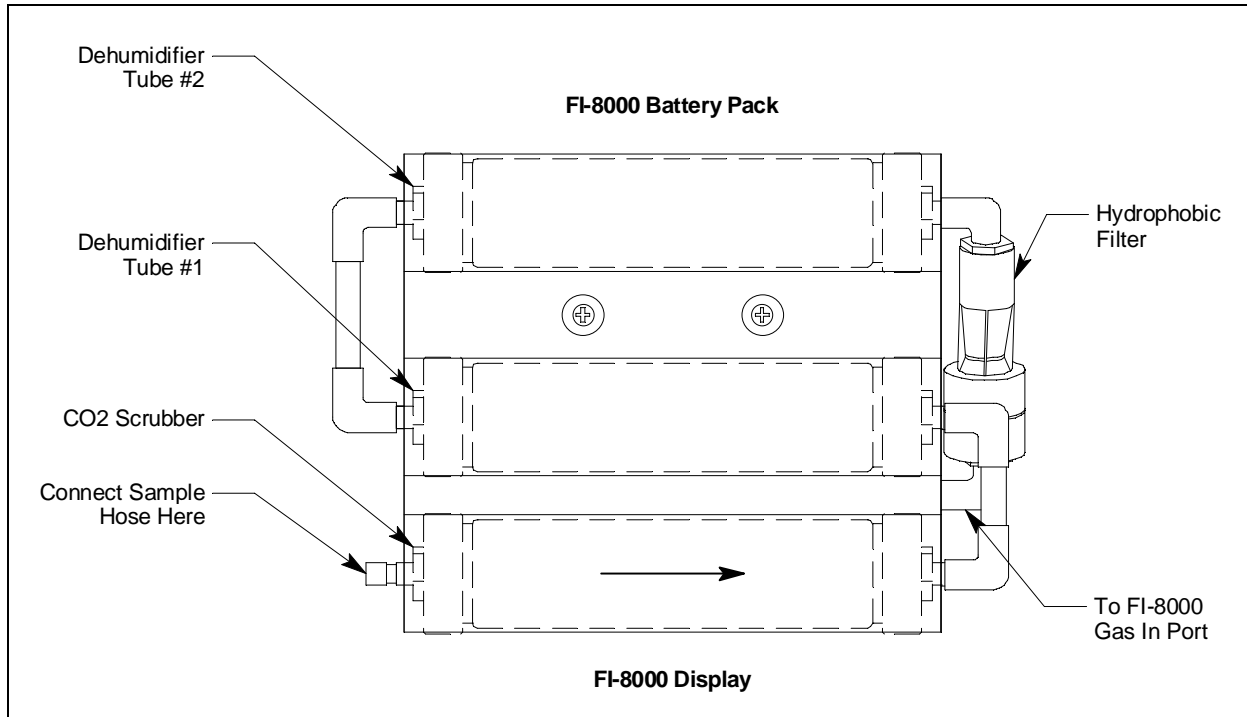
6. Reinstall the tubing connections as shown above.

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## Replacing the Dehumidifier Tube

1. The dehumidifier tubes are saturated when they look wet. Generally the first dehumidifier tube in the flow path (the middle tube in the holster) will become saturated first.
2. Disconnect the tubing from both dehumidifier tubes.

3. Remove the first dehumidifier tube in the flow path (the middle tube in the holster) from the holster.



**Figure 4: Dehumidifier Tube Locations**

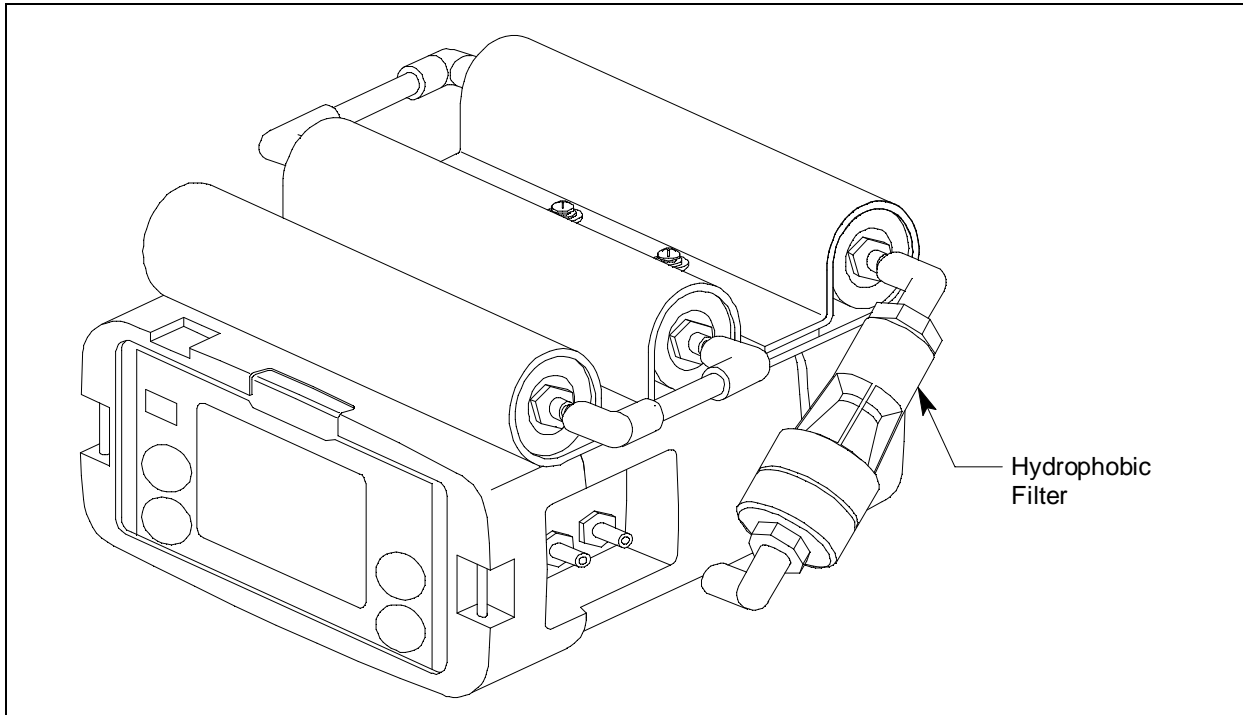
4. Discard the first dehumidifier tube.
5. Move the second dehumidifier tube to the first dehumidifier tube's spot in the holster.
6. Install a new dehumidifier tube in the second dehumidifier tube's spot in the holster. The dehumidifier tube does not have a flow direction.
7. Reinstall all tubing connections as shown above.

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## Replacing the Hydrophobic Filter

1. Replace the hydrophobic filter if it appears dirty or damaged.
2. Disconnect the grey elbows from the hydrophobic filter.
3. Discard the hydrophobic filter.

4. Install a new hydrophobic filter using the grey elbows. Be sure the filter is installed in the correct orientation as shown below.



**Figure 5: Hydrophobic Filter Orientation**

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## Parts List

Part Number	Description
10-1131RK	Screw, for attaching holster to FI-8000
11-0236	Finishing washer, #6, for attaching holster to FI-8000
20-0330	Holster, with holes and screw/finishing washer for installation
33-0186	Hydrophobic filter
33-2125	Dehumidifier tube
33-6018	CO <sub>2</sub> scrubber