# Service Note

Advanced Pollution Instrumentation

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#### FIBER SCRUBBER RETROFIT INSTRUCTIONS FOR THE M400 ANALYZER

## I. <u>PURPOSE</u>:

To provide instructions on how to install the Fiber Scrubber Retrofit Kit in a TAPI M400 analyzer.

#### II. TOOLS:

Phillips Screwdriver
Hand Drill
0.189" Dia. Drill Bit (#12)
Center Punch
1:1 Scale Drill Template #03112 (provided in kit)
Masking Tape

#### III. PARTS:

KIT000035

### IV. PROCEDURE:

- 1. Disconnect tubing and remove the existing reference scrubber from the analyzer. Also remove plastic coated scrubber clip from the valve bracket.
- 2. With the cover off of the analyzer, turn it over on a flat work surface so the bottom of the chassis is facing up.
- 3. Lay the drill template on the underside of the chassis in the location shown in Figure 1. Carefully align the existing holes with the circles on the template and tape the template down.
- 4. Using a Center Punch, dimple the centers of the two new hole locations and remove the template.
- 5. Drill holes through the chassis at the two new locations. Carefully remove any burrs from the edges of the new holes.
- 6. Turn the analyzer back over.
- 7. Place the temp controller in the chassis as shown in Figure 4. Carefully align the existing pem nut with one hole on the bracket.
- 8. Using a Center Punch, dimple the center of the new hole location.
- 9. Drill a hole through the chassis at the new location. Carefully remove any burrs from the edges of the new hole.
- 10. Install the scrubber as shown in Figure 2. The scrubber should be held to the chassis using two(2) #8-32 screws (provided in the kit) inserted from the bottom of the chassis. Note the orientation of the fittings marked "I" and "O."

- 11. Connect the tubing to the scrubber and reference valve as shown in Figure 2.
- 12. Install the temp controller in the location shown in Figure 4.
- 13. Remove connector J7 from the front of the Power Supply Module.
- 14. Insert the two connector pins on the gray temp controller power cable into pins 4 and 8 of J7. These pins should lock into the receptacle and should not pull back out. Figure 3 shows connector J7 with the pins installed.
- 15. The red heater wires from the scrubber should connect to the connector with the red wires coming out of the temp controller.
- 16. This completes the installation. After power up, the M400 should be allowed to run for several hours and then recalibrated at zero and span.

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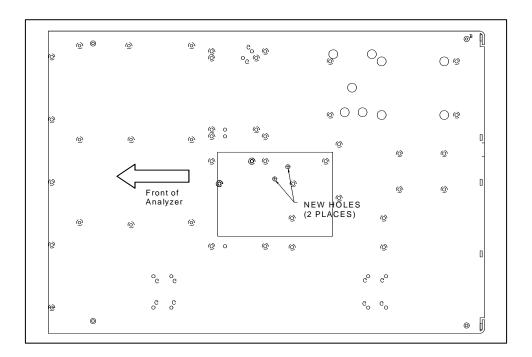


Figure 1

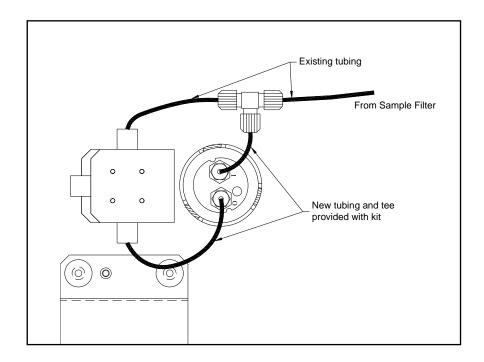
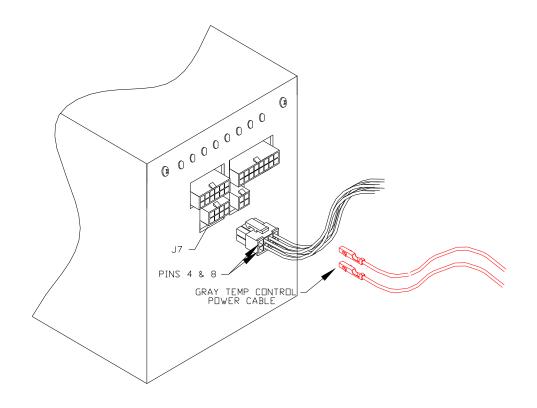


Figure 2



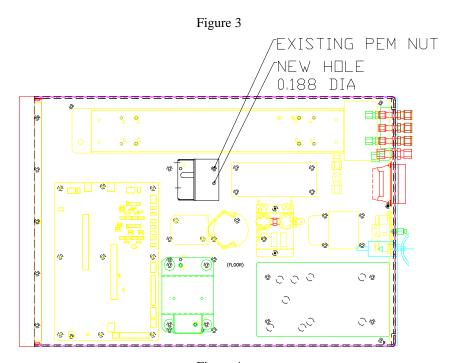
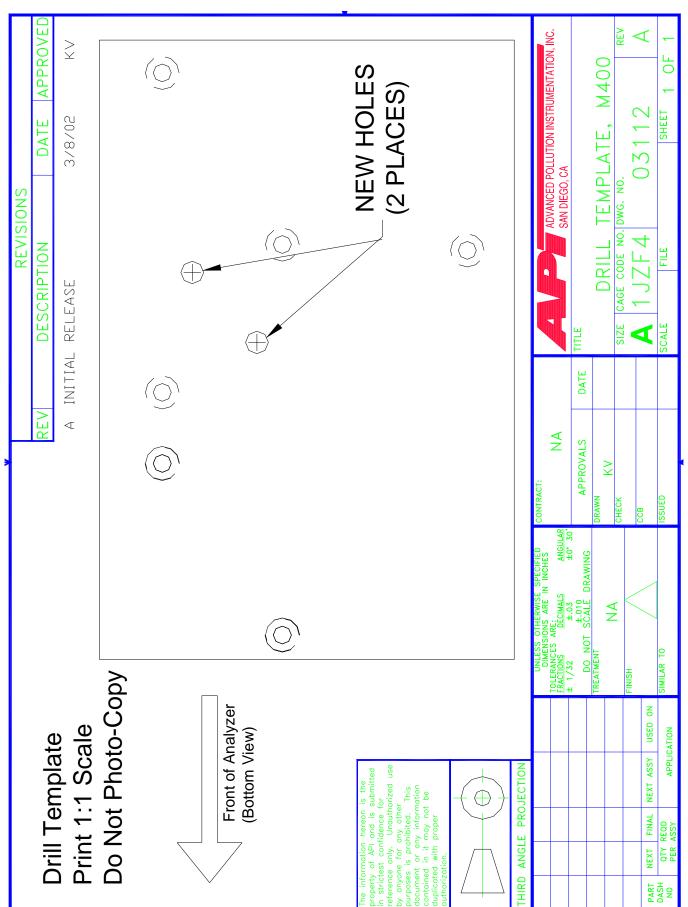


Figure 4

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