



**01-034C
2 May, 2007**

INSTALLING ZERO/SPAN VALVES (VA42) INTO A M400A

I. PURPOSE:

To provide instructions on how to install Zero/Span valves (VA42) into an M400A analyzer.

II. TOOLS:

Flat Tipped screwdriver

Phillips head screwdriver

7/16" wrench

9/16" wrench

III. PARTS:

KIT000147 Zero/Span valve assembly

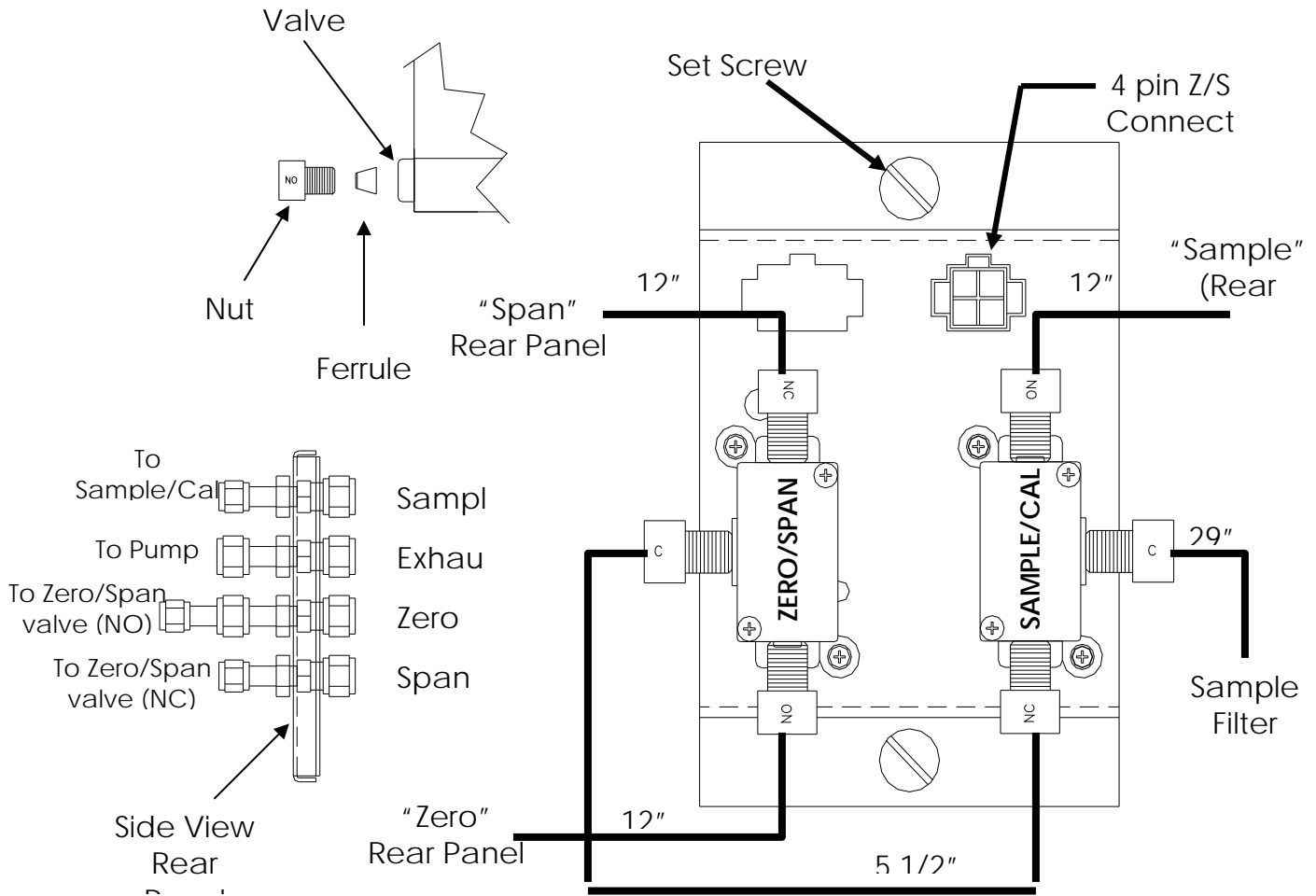
IV. PROCEDURE:

1. Power down the analyzer and unplug the power cord.
2. Remove the cover from the analyzer.
3. Locate the two mounting holes in the chassis; they are located behind the UV lamp power supply between the bench and the Power Supply Module.
4. Place the Zero/Span valve assembly into the analyzer aligning the two set screws to the two mounting holes in the chassis. Place the side with the connector towards the bench. (Shown in figure 2)
5. Tighten the two set screws using the flat tipped screwdriver. (Figure 1)
6. Take one of the 12" long tubing and plumb it from the NO port of the Sample/Cal valve to the Sample inlet port on the rear panel. (Figure 1)
7. Take another 12" long tubing and plumb it from the NC port of the Zero/Span valve to the Span inlet port on the rear panel. (Figure 1)
8. Take the remaining 12" long tubing and plumb it from the NO port of the Zero/Span valve to the Zero inlet port on the rear panel. (Figure 1)
9. Take the 5 1/2" long tubing and plumb it from the Common port (C) of the Zero/Span valve to the NC port of the Sample/Cal valve. (Figure 1)
10. Take the 29" long tubing and plumb it from the Common port (C) of the Sample/Cal valve to the Sample Filter on the front panel.
11. After all the tubing has been installed and the Z/S valve assembly is in place connect the 4-pin connector from the wiring harness labeled "Z/S" to the 4-pin connector on the Z/S valve assembly. The Z/S connector from the wiring harness should consist of 4 wires: (2) Green, (1) White and (1) Yellow.
12. Refer to Figure 3 to for completed installation of the Z/S valve assembly.
13. Once the Z/S valve assembly has been installed and plumbed correctly perform a leak check to ensure no leaks are present. . (Refer to Leak Check Procedure page 8-10 section 8.6 of the M400A Instruction manual.)

14. Next you must set the factory option bit. Do this by pressing **SETUP-MORE-VARS-ENTER**. Press **NEXT** until you come to **FACTORY_OPT**. Add 8 to the existing number and then **ENTER**. **EXIT** to the sample menu and power down the analyzer. Wait five minutes. Turn on the analyzer and verify the new Factory option bit is set.
15. The analyzer is now ready for use.

Z/S VALVE ASSEMBLY

FIGURE 1



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FIGURE 2

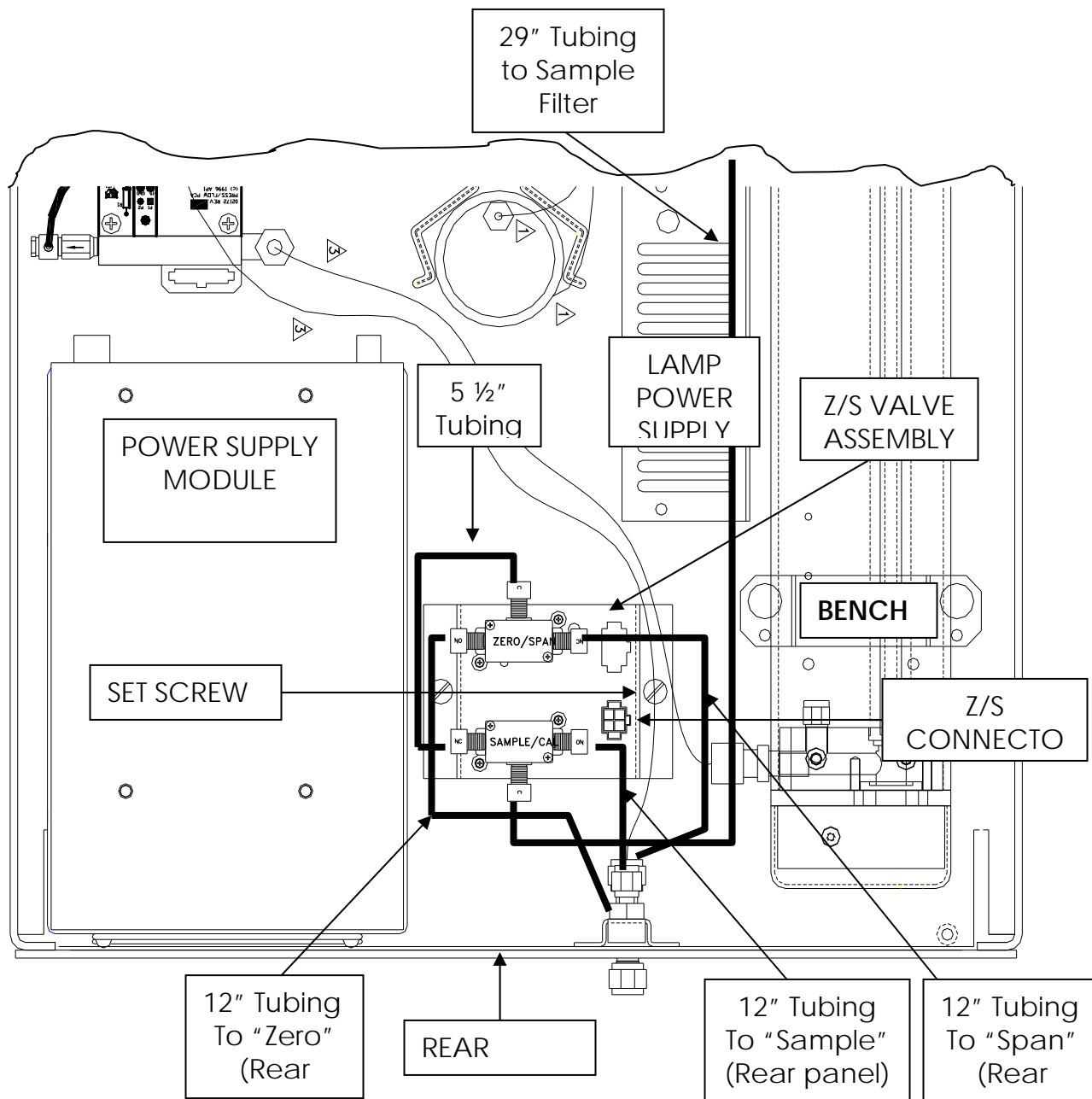
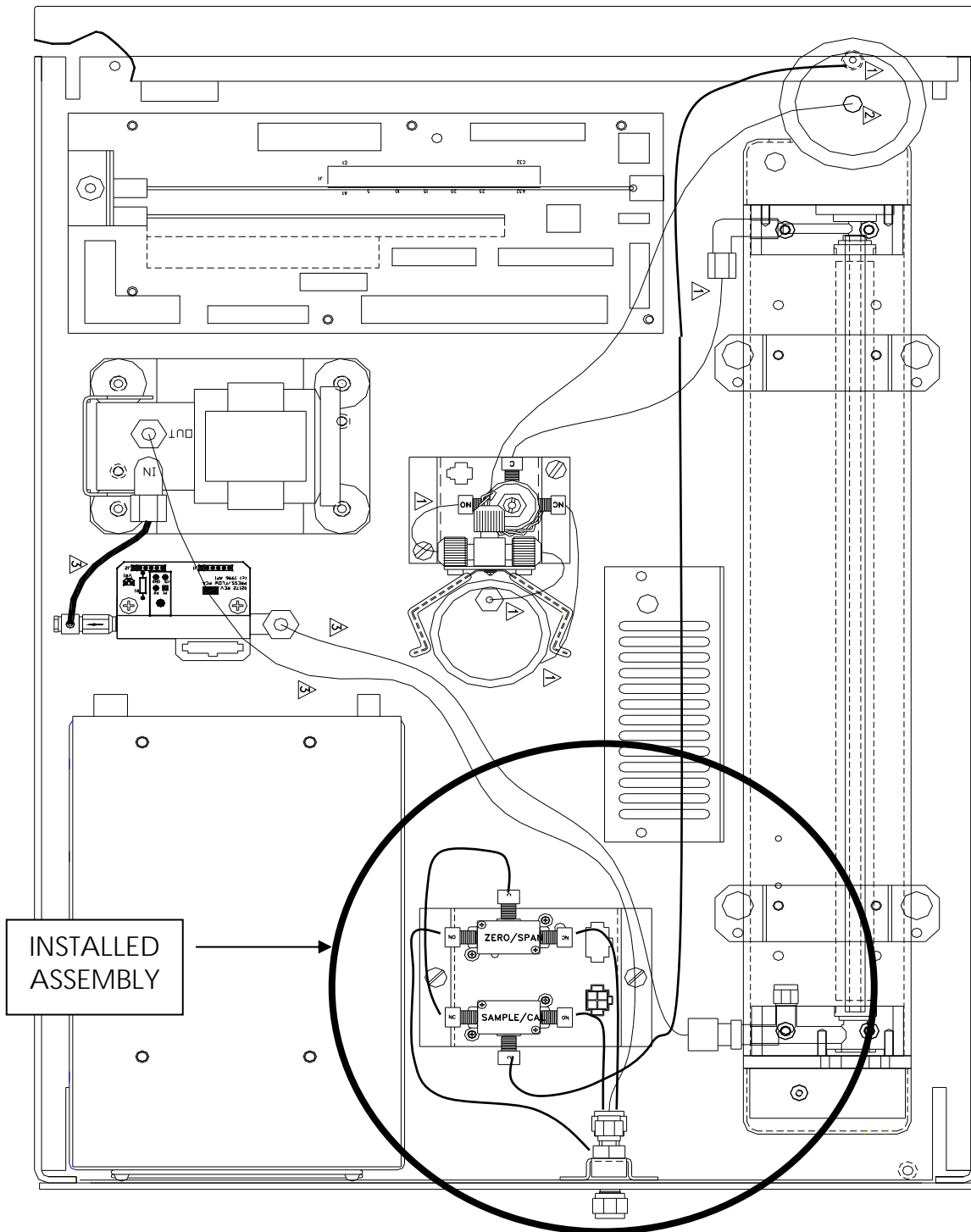


FIGURE 3



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