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Service Note

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FIELD INSTALLATION OF THE IZS AND VALVE OPTION IN THE MODEL 200 ANALYZER

SCOPE: Installation procedure for perm tube oven and valves into API Model 200 NOx analyzer in the field.

PARTS: API part number 002730000, M200 perm tube oven with valves.

TOOLS: Flat blade screwdriver
Wire cutters
9/16 " wrench
7/16" wrench
Crosspoint screwdriver
Exacto knife

PROCEDURE:

Remove the power cord from the rear of the analyzer and remove the cover.

1. Find the bracket and attach the IZS heater control cable (relay) [part number 004670000] to the bottom of the bracket. To attach the relay, remove the paper protector on the double sided tape and press onto the bracket. See the attached diagrams 00200 and 00467.

2. Find the barrier strip near the rear of the analyzer and attach from the 00467 cable the brown wire to TB1-1 and the clear wire/shield wire to TB1-7. See the attached diagrams 00200 and 00467.

3. Find connector J2 on the motherboard and attach from the 00467 cable the 2 yellow wires into J2 pins 2 and 3. Now attach the green wire to J2 pin 8 and the purple wire to J2 pin 1. See the attached diagrams 00200 and 00467.

4. Attach the 5 pin Molex connector to the status PCB J105 located on the rear panel. See the attached diagrams 00200, 00467, and 00746.

5. Assure that the status board (located on the rear of the analyzer) has a chip installed in U7 and U16. See the attached diagram 00247, sheet 2 of 2.

6. Assure that the status board has wires and connectors going to the J103 and J104 on the status PCB. See the attached diagram 00274, sheet 2 of 2.

7. Attach the perm tube oven, valve assembly and zero air source to the rear of the analyzer. See the attached diagram, page 28 from the operators manual.

8. Attach the purge flow control to the rear of the analyzer. See the attached diagram, page 28 from the operators manual.

9. Attach the 2 cables from the valve assembly to the status board. Attach the zero valve connector to J103 of the status board and the span valve connector to J104 of the status board. Attach the cable from the perm tube oven to J105 on the status board. See the attached diagrams 00746 and page 28 from the operators manual.

10. Plumb the analyzer up per the attached diagrams 00200 and pages 25 and 28 from the operators manual.

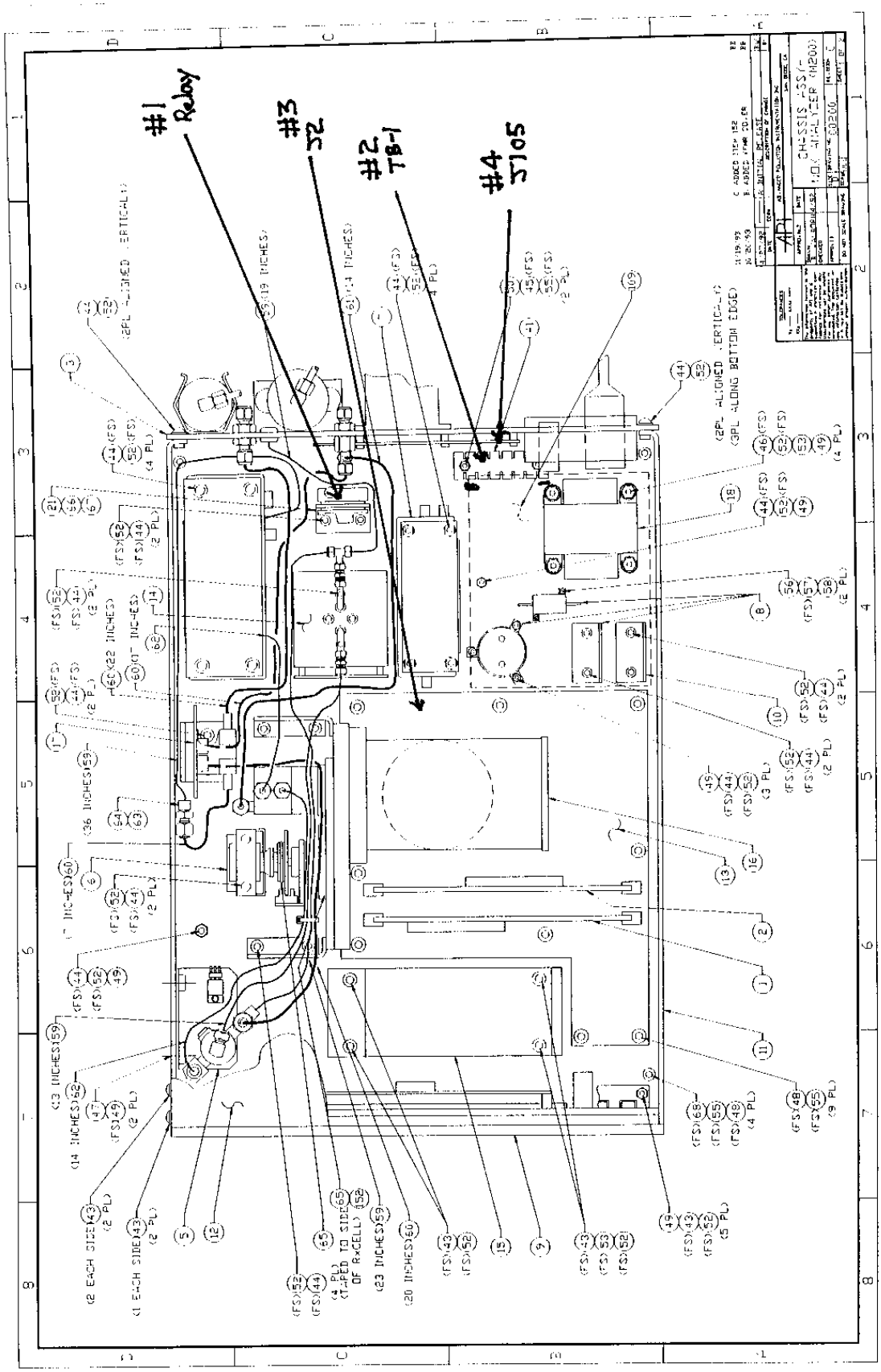
11. Perform a leak check and verify no leaks exist.

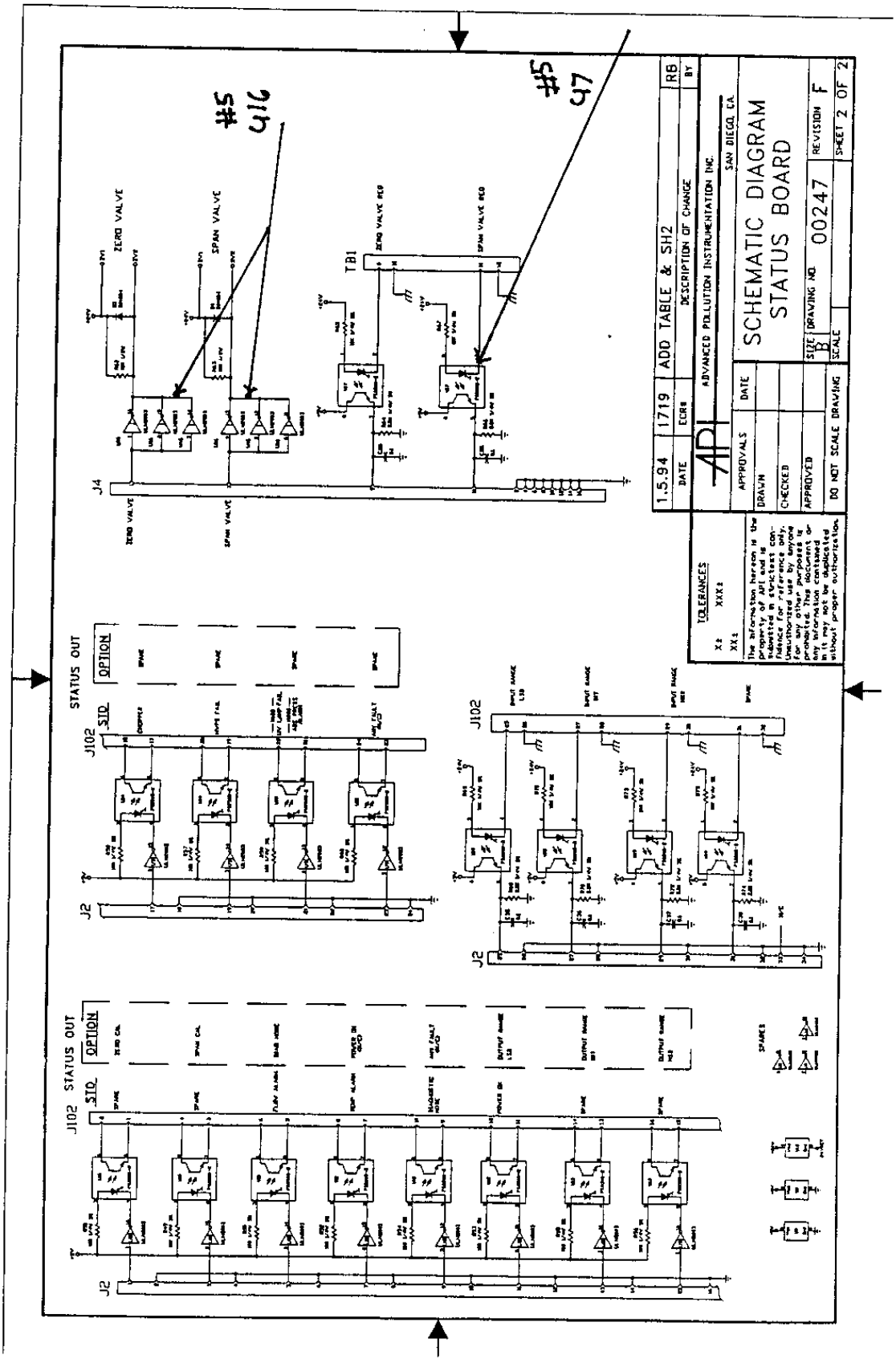
12. Power on the analyzer and go to SETUP–IZSC–MORE–IZS–ON–ENTER. Verify that the IZS oven heats up to and controls at 50°C. NOTE: Permeation tube will take 24 hours to come up to its correct value.

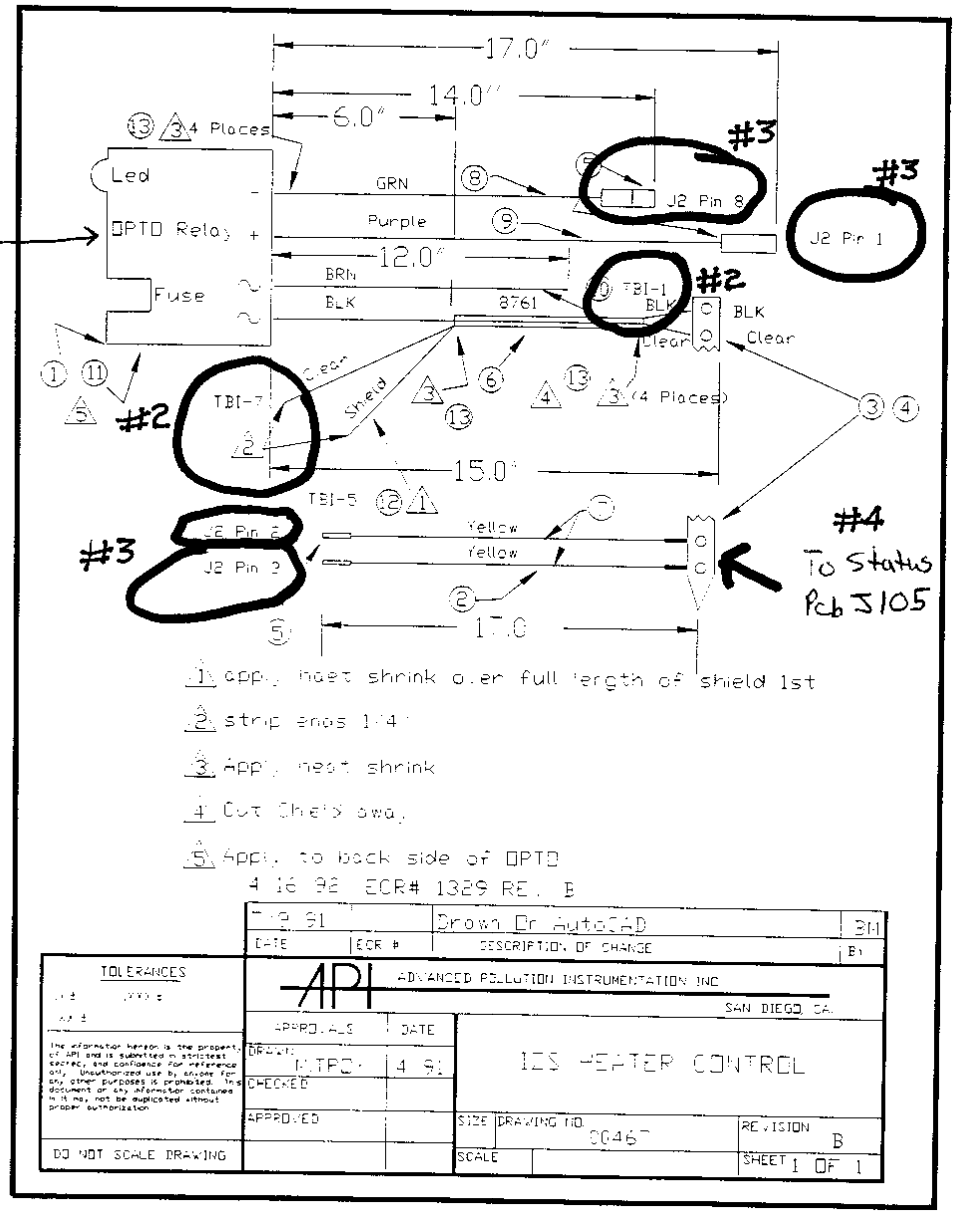
13. Measure the bypass flow and verify it is 50cc/min ± 10 cc by removing the fitting to the tee on the perm tube oven. See the attached page 28 from the operators manual.

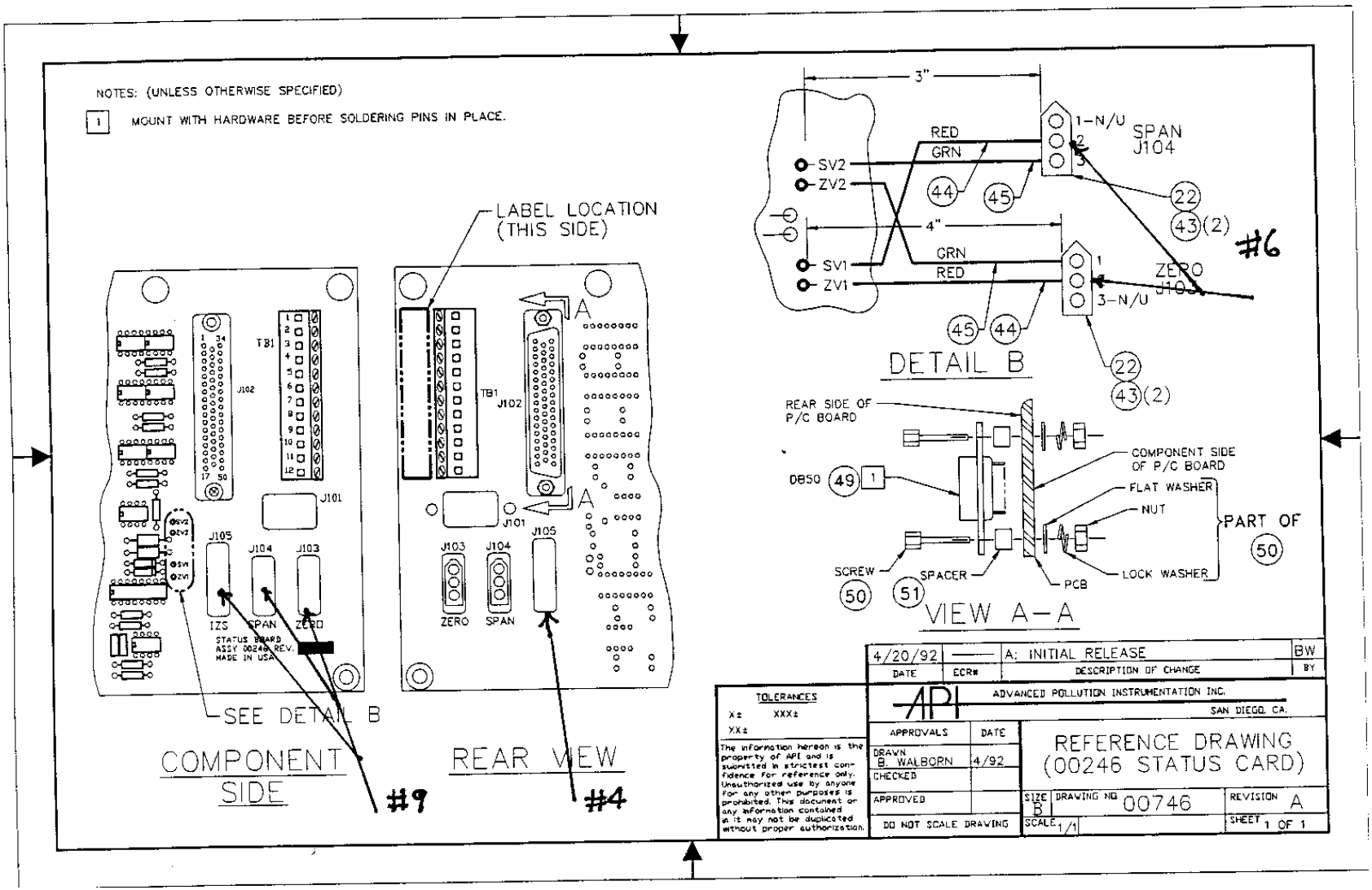
14. Install the cover and a perm tube in the oven. Allow the analyzer to warm up for 1 hour using a known source of external NO gas and proceed with the quick cal procedure in the manual.

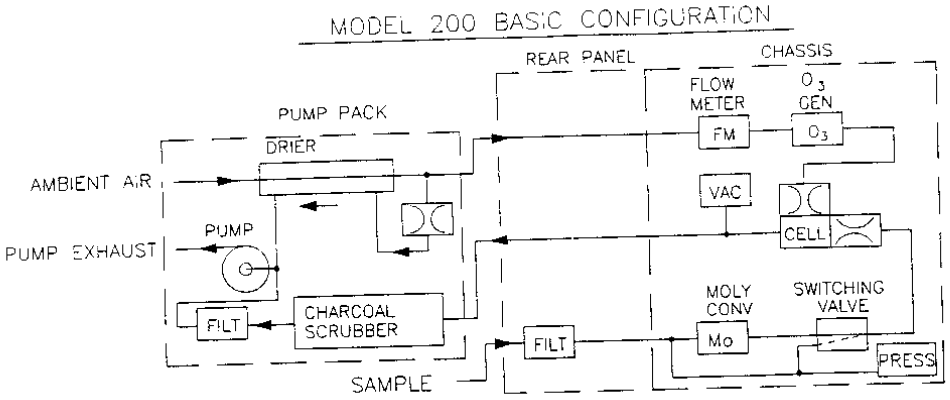
If you require any further assistance, please contact API Customer Service at 1-800-324-5190.

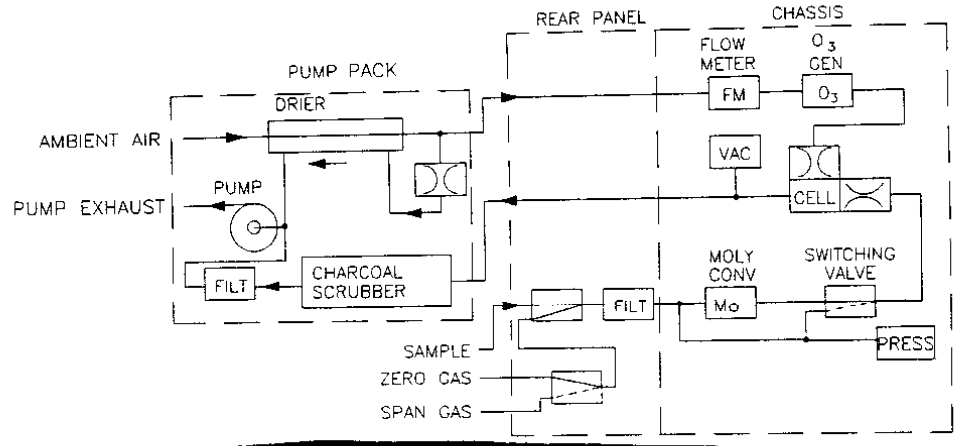












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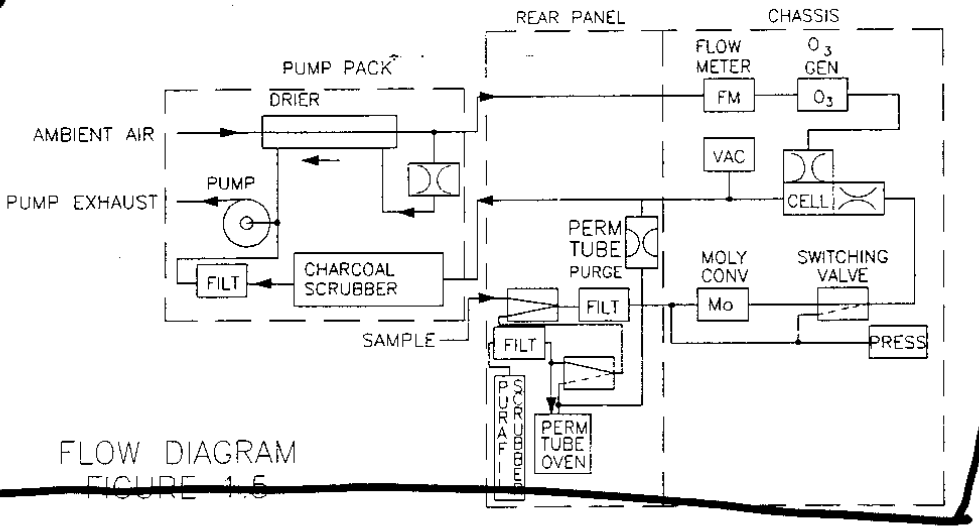
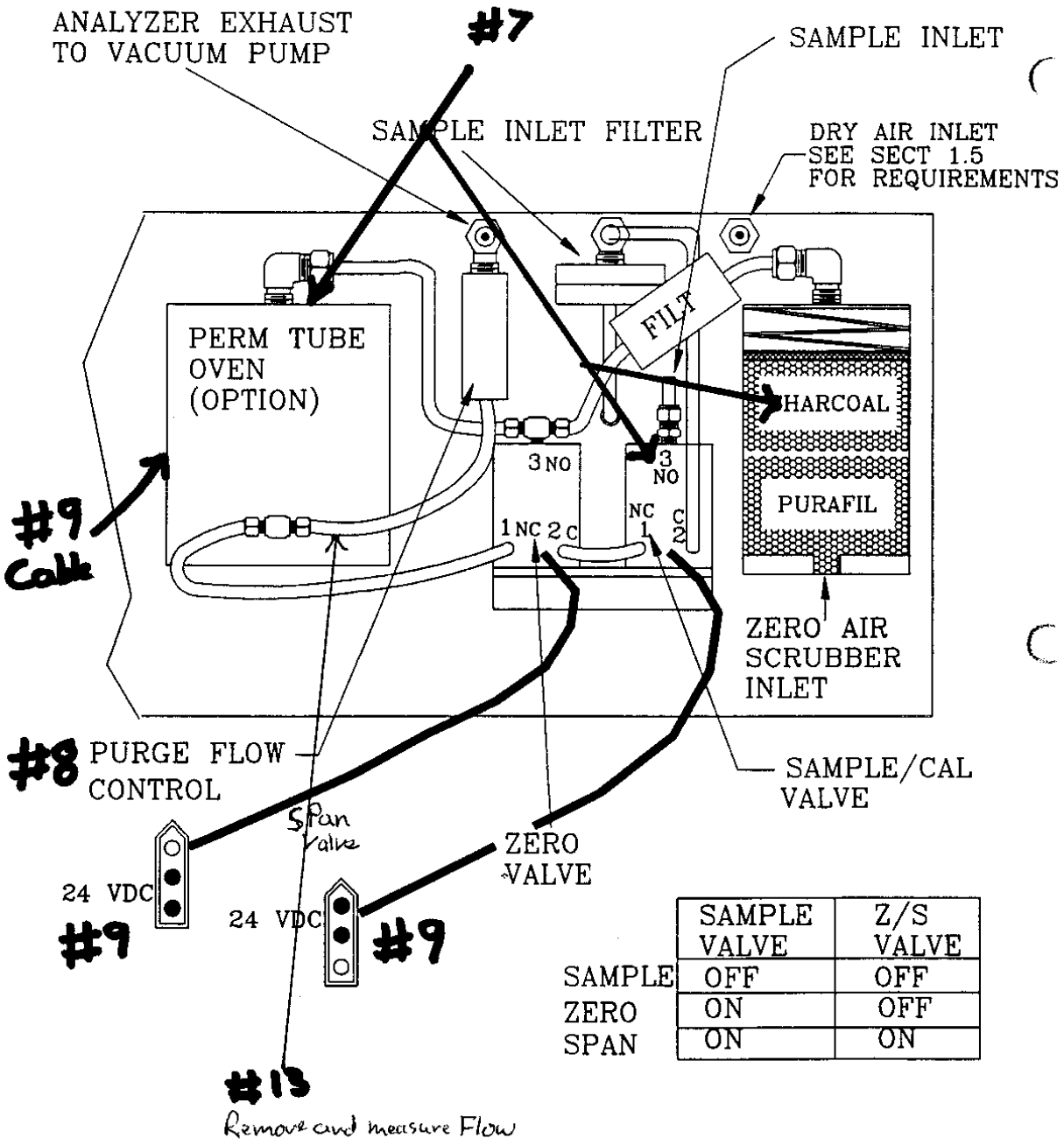


FLOW DIAGRAM
FIGURE 1-5



	SAMPLE VALVE	Z/S VALVE
SAMPLE	OFF	OFF
ZERO	ON	OFF
SPAN	ON	ON

REAR PANEL PNEUMATIC CONNECTIONS
IZS OPTION

FIGURE 1.6c