



**FIELD INSTALLATION OF THE IZS OPTION IN THE MODEL 100A ANALYZER (equipped with valves)**

**I. PURPOSE:**

This note provides instruction for the installation procedure of perm tube oven into TAPI analyzer (equipped with valves) in the field.

**II. SCOPE:**

Model 100A SO<sub>2</sub>

**III. TOOLS:**

Flat blade screwdriver  
Exacto knife  
Diagonal cutters

**IV. PARTS:**

TAPI part number 01862, M100A with valve, IZS retrofit

**V. PROCEDURE:**

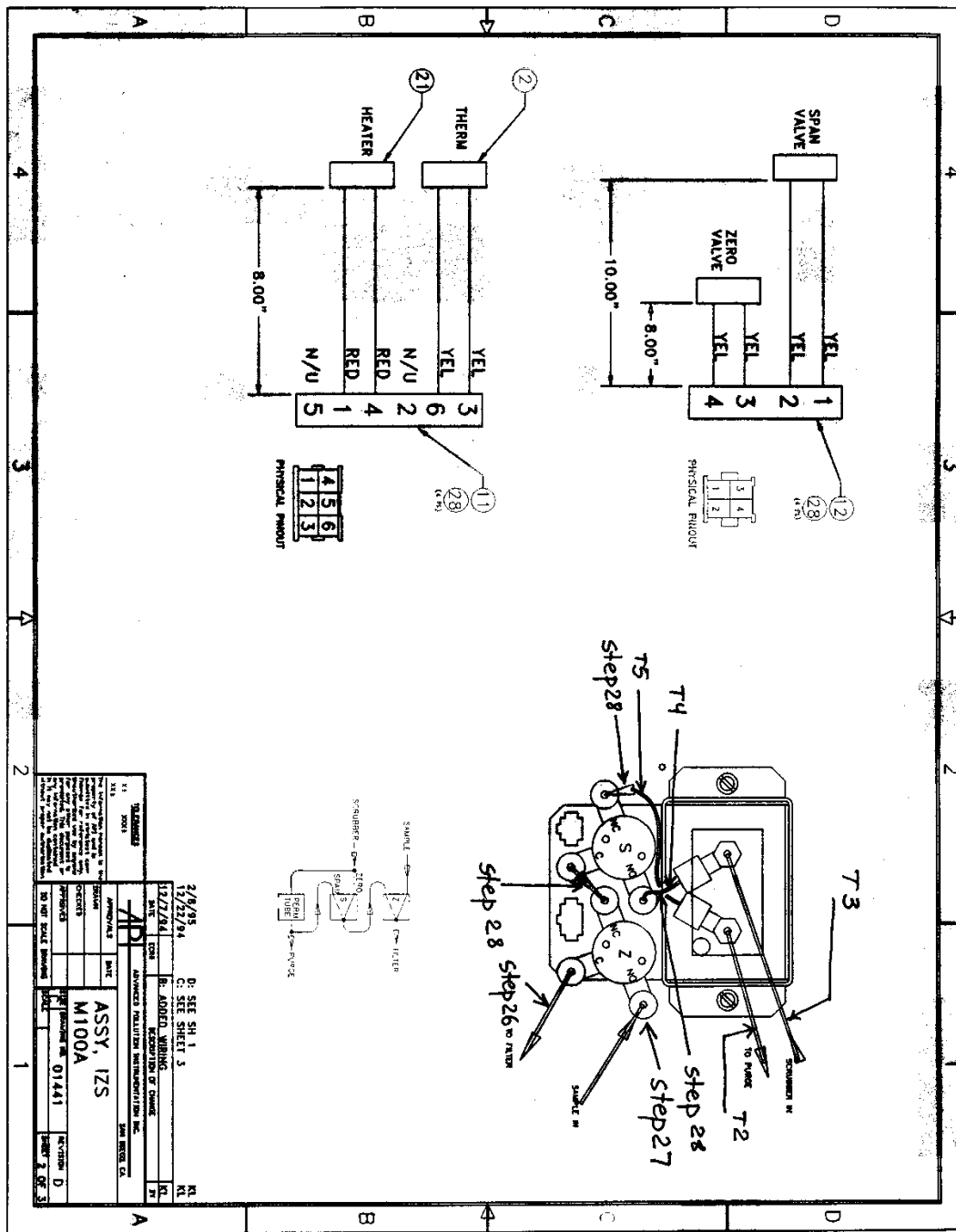
1. Drop the back of the rear panel by loosening 2 screws and lowering panel.
2. Remove all the fittings and electrical connectors from the valve assembly.
3. Loosen screws holding valves assembly into chassis.
4. Lift valve assembly up and remove it from the unit.
5. Loosen the nuts holding valves to the bracket.
6. Remove the valves from the bracket.
7. Install the valves onto the perm tube oven assembly bracket.
8. Remove the 4 pin and 6 pin connector sockets from the valve assembly.
9. Mount 4 pin and 6 pin connector sockets into perm tube oven assembly.
10. Drop oven/valve assembly into chassis.
11. Connect 4 pin valve plug to the oven/valve assembly.
12. Connect 6 pin heater/thermistor plug to the oven/valve assembly.(See drawing 01323 for reference). This connector is covered by a heat shrink.
13. Tighten 2 captive screws to bolt oven/valve assembly to chassis.
14. Loosen two screws which are holding the main manifold to the chassis.
15. Lift the main manifold up.

16. Remove the plastic plugs from the main manifold.
17. Install the flow control parts, 1/8" male pneumatic connector, 1/4" male pneumatic connects into the main manifold (see the drawing 01441, sheet 3 attached).
18. Disconnect the external kicker output fitting from the pump "suction" pneumatic connector and connect it to the elbow fitting on the main manifold, which was just installed (see drawing 01100 "step 18").
19. Connect the main manifold back to the chassis.
20. Tighten 2 screws to bolt main manifold to the chassis.
21. Take the tygon tubing with the 1/4" brass nuts (supplied with the kit as T1) and connect it between the main manifold and the "suction" of the pump (see drawing 01100 "step 21").
22. Mount the charcoal scrubber holder to the side of the unit (see drawing 01100 "step 22"). Use the screws supplied with the kit.
23. Install the charcoal scrubber into the bracket. The DFU filter side goes on the bottom.
24. Connect the output from the charcoal scrubber to the T teflon connector on the top of perm tube oven (drawing 01100 "step 24", use T3 from the kit).
25. Connect the 1/8" teflon tubing between the perm tube oven teflon connector and the main manifold (drawing 01100 "step 25", use T2 from the kit). (Note: Connect the teflon nut to the teflon connector and brass to the brass.)
26. Connect the sample filter to the "C" port of "Z" valve (drawing 01441, sheet 2, "step 26").
27. Connect the sample air inlet to the NO port of the "Z" valve (drawings 01100 and 01441, sheet 2, "step 27").
28. Connect the valves "Z" and "S" to the perm tube oven as shown at drawing 01441 "step 28". Use the 1/8" teflon tubing with the teflon fittings (tubings T4, T5 and the one which was connecting S valve C port to Z valve NC port).
29. Leak check the unit.
30. The rear most card on the motherboard is the status temp card. locate & remove the jumper that is on JP2.
31. Turn the power on.
32. Press SETUP - MORE - VARS
33. Enter password "929" and press ENTR.
34. For analyzers with AMX software go to step 37.
35. Press JUMP and enter the number "23". Press ENTR.
36. Press EDIT and enter the number "2". Press ENTR.
37. For AMX analyzers:
38. Press JUMP and enter the number 70. Press ENTR.
39. Press NEXT until you see "FACTORY\_OPT". Press ENTR.
40. You will see a number displayed above the buttons. You must add 6 to the existing number to turn on the IZS and Valves. Press ENTR.
41. Press EXIT until you are at the main menu.
42. Cycle power on the analyzer to allow it to read the Factory Options.

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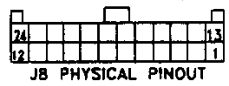
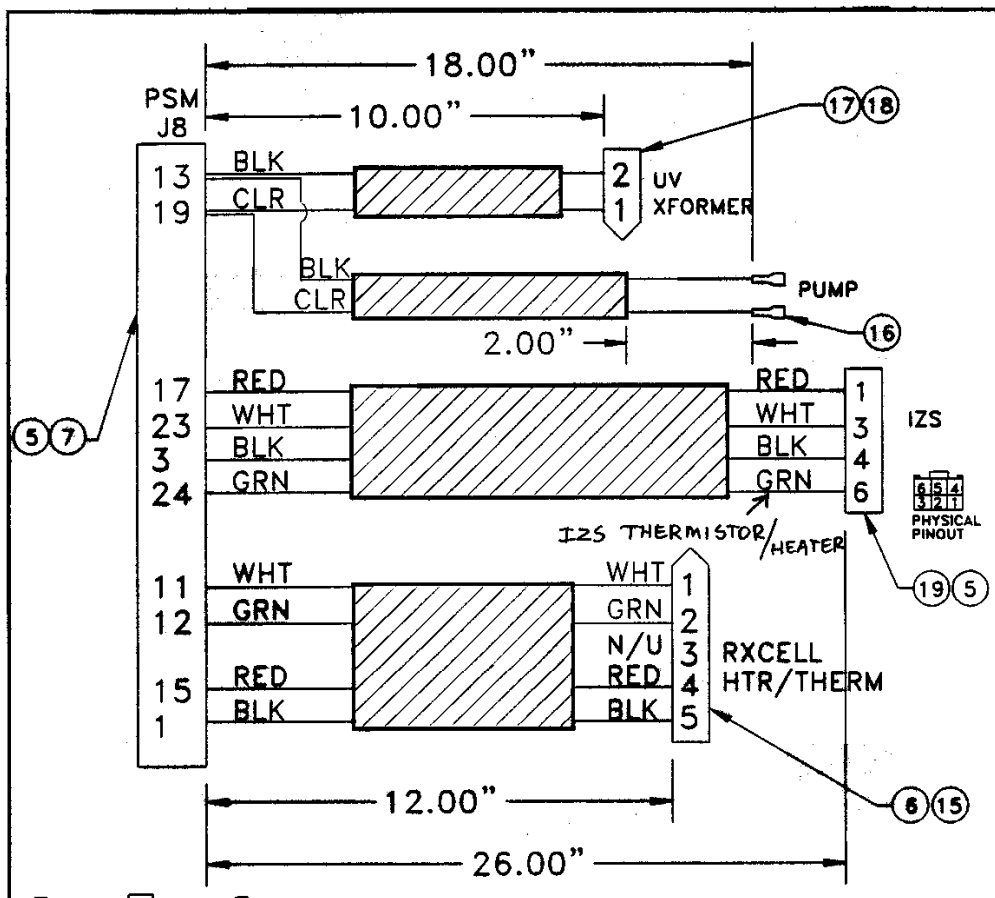
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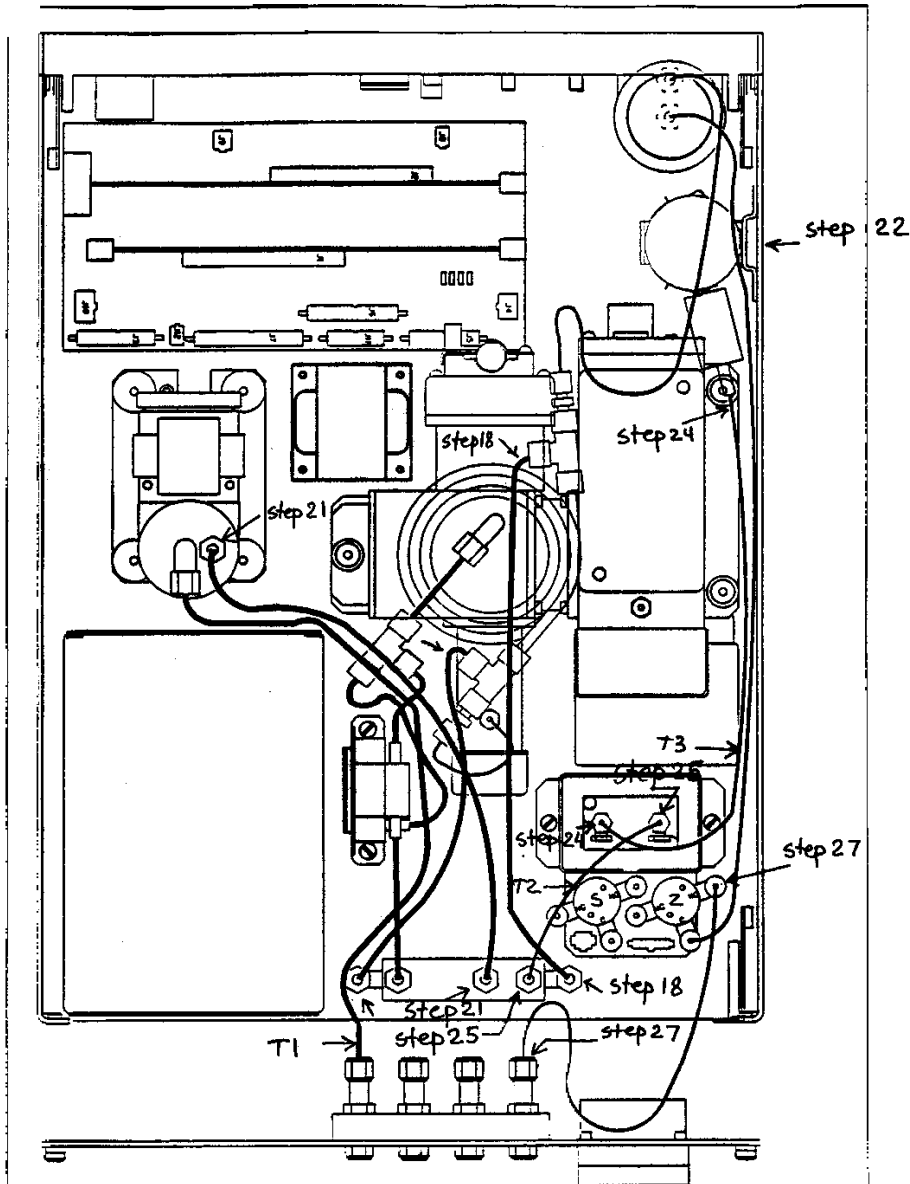


NOTE: STRIP GREY INSULATION ON ALL CABLES 1.25" AND DRESS WITH .75" OF HEAT SHRINK

2/9/95		B: PIN 17 WAS 15		KL
11/7/94		A: INITIAL RELEASE		KL
DATE	ECR#	DESCRIPTION OF CHANGE		BY
<b>API</b> ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA.				
APPROVALS		DATE	CBL, PWR DISTRIBUTION	
DRAWN		8/12/94	M100A	
CHECKED				
APPROVED		SIZE	DRAWING NO.	REVISION
DO NOT SCALE DRAWING		A	01323	B
		SCALE		SHEET 1 OF 1

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		ADVANCED POLLUTION INSTRUMENTATION INC.		SAN DIEGO, CA.	
APPROVALS	DATE	M100A PNUMATIC DIAGRAM			
DRAWN		W/ IZS			
CHECKED					
APPROVED		SIZE	DRAWING NO.	REVISION	
		B	01100	B	
DATE	ECR#	DESCRIPTION OF CHANGE	BY	DO NOT SCALE DRAWING	SHEET 2 OF 3

11/18/94	B	CHANGED KICKER PLUMBING	KL
9/28/94	AH	INITIAL RELEASE	KL

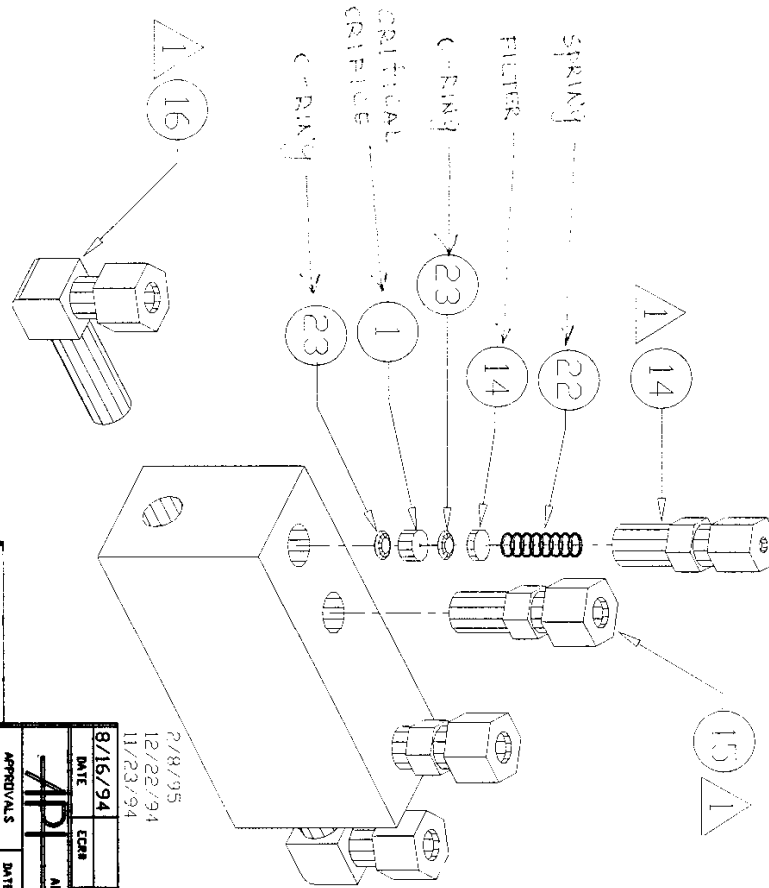
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△ USE TEFLON TAPE ON THREADS

NOTE LEAK CHECK ASSY WHEN DONE



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APPROVALS		DATE	DESCRIPTION OF CHANGE	BY
APPROVED	BRAM JH	8/9/94	INITIAL RELEASE	KL
CHECKED	JH	8/9/94		
<p>APR ADVANCED POLLUTION INSTRUMENTATION INC. SAN DIEGO, CA</p>				
DATE		DESCRIPTION OF CHANGE	BY	
7/8/95		D: SEE SH 1	KL	
12/22/94		G: ADDED LEAK CHECK NOTE	KL	
11/23/94		B: EDITS TO SHEET 2	BB	
8/16/94		INITIAL RELEASE	KL	
APPROVED		DATE	DESCRIPTION OF CHANGE	BY
APPROVED	BRAM JH	8/9/94		
CHECKED	JH	8/9/94		
APPROVED		DATE	DESCRIPTION OF CHANGE	BY
APPROVED	JH	8/9/94		
CHECKED	JH	8/9/94		
APPROVED		DATE	DESCRIPTION OF CHANGE	BY
APPROVED	JH	8/9/94		
CHECKED	JH	8/9/94		

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