

04-020C

23 March, 2012

M100E IZS RETROFIT

I. PURPOSE:

To provide instructions on how to install the “Internal Zero/Span” option into an M100E analyzer

II. TOOLS:

9/16” Wrench
7/16” Wrench
Flat Tip screwdriver
Phillips screwdriver

III. PARTS:

KIT000212



The electronics used in T-API analyzers are sensitive to Electrostatic Discharge (ESD). When working on any T-API device, please ensure that you are properly grounded prior to handling or touching any electronic circuitry in the analyzers! For more information on how to protect sensitive components from ESD during handling, please contact T-API customer service and ask for the ESD Service note number 03-022A.

M100E IZS RETROFIT

04-020 Rev C (DCN 6412) 03/23/2012

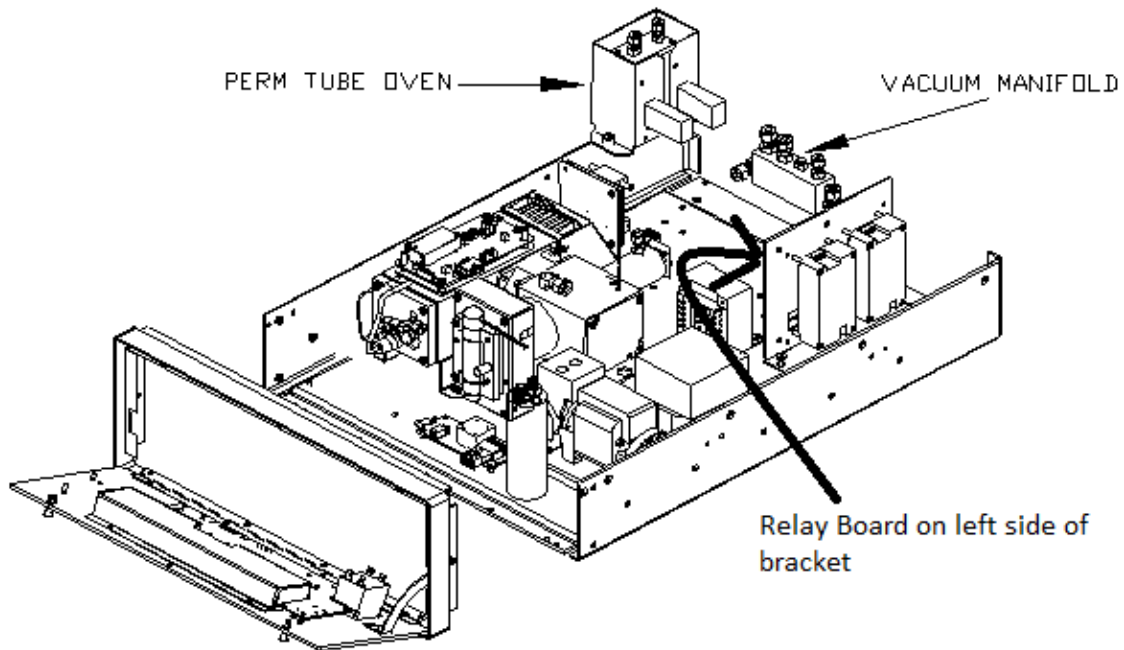
Page 1 of 8

PRINTED DOCUMENTS ARE UNCONTROLLED

PROCEDURE:

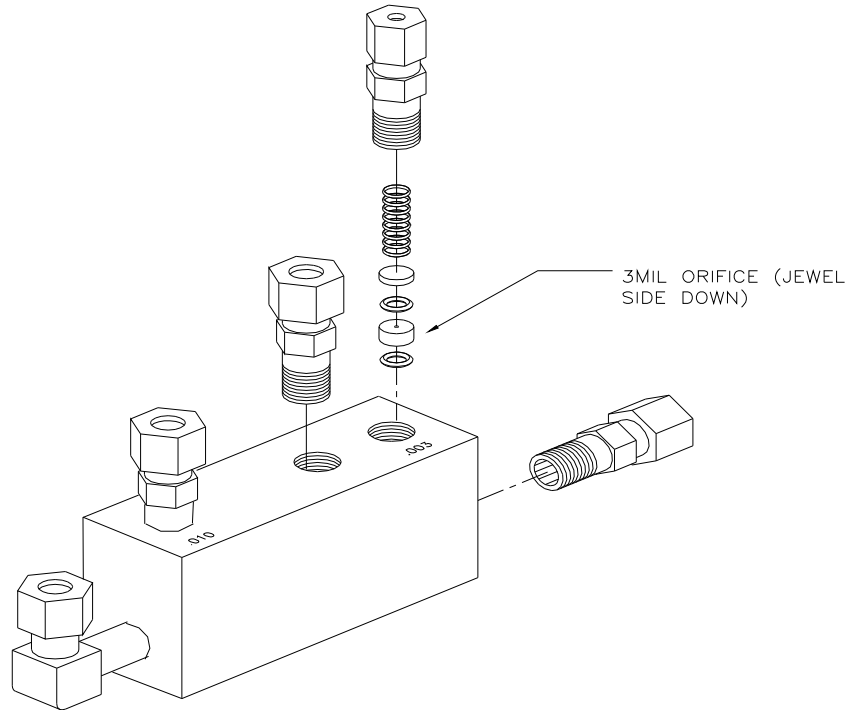
1. Remove power from the instrument and remove the top cover.
2. Refer to FIGURE 1 for positioning of the IZS perm tube oven.
3. Install the IZS assembly using a flat tipped screwdriver and tightening the captive screws.
4. Locate the vacuum manifold in FIGURE 1

FIGURE 1



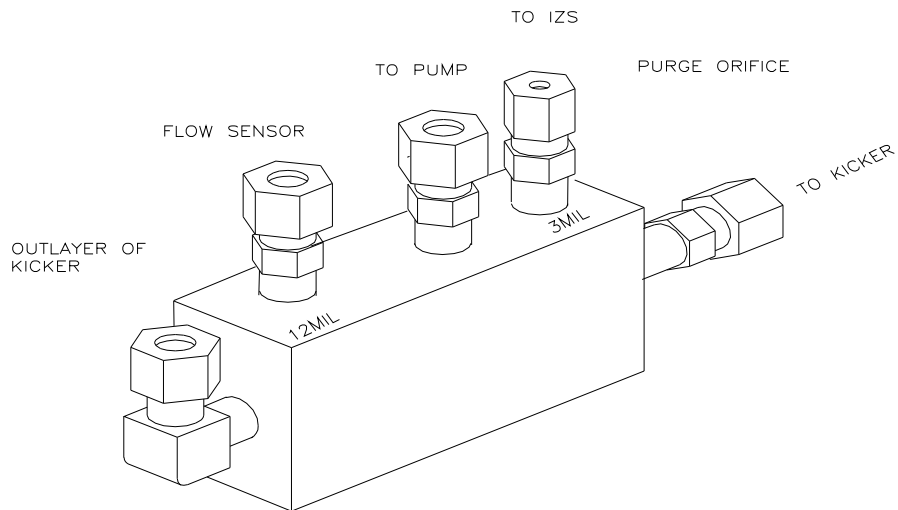
M100E IZS RETROFIT
04-020 Rev C (DCN 6412) 03/23/2012
Page 2 of 8
PRINTED DOCUMENTS ARE UNCONTROLLED

FIGURE 2



5. Install the 3mil purge orifice and other fittings contained in the KIT into the vacuum manifold as shown in FIGURE 2
6. Take the tubing from the KIT and refer to FIGURE 3 and 4 as a guide for connecting the tubing.

FIGURE 3



M100E IZS RETROFIT
 04-020 Rev C (DCN 6412) 03/23/2012
 Page 3 of 8
 PRINTED DOCUMENTS ARE UNCONTROLLED

FIGURE 4 TOP VIEW

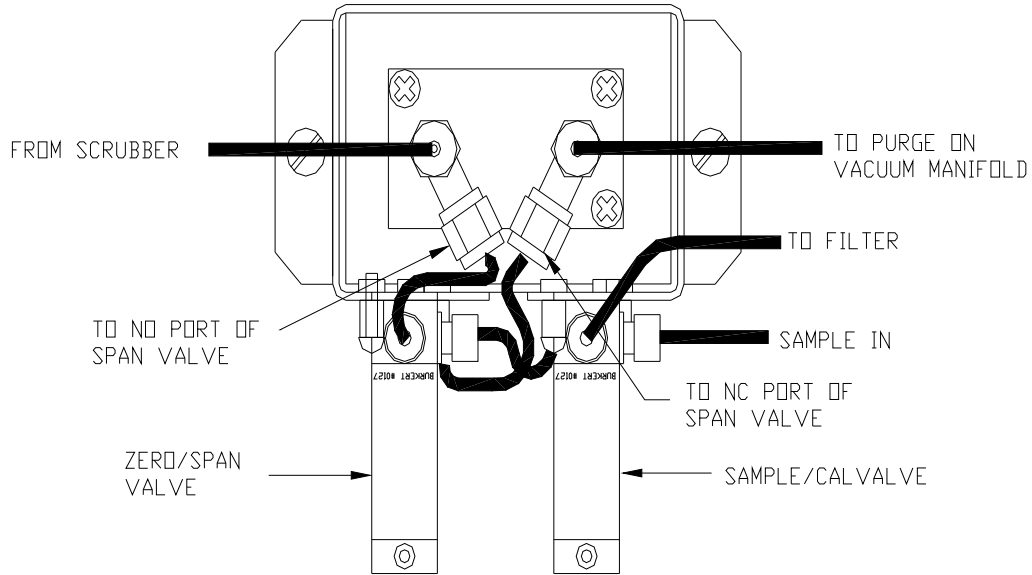
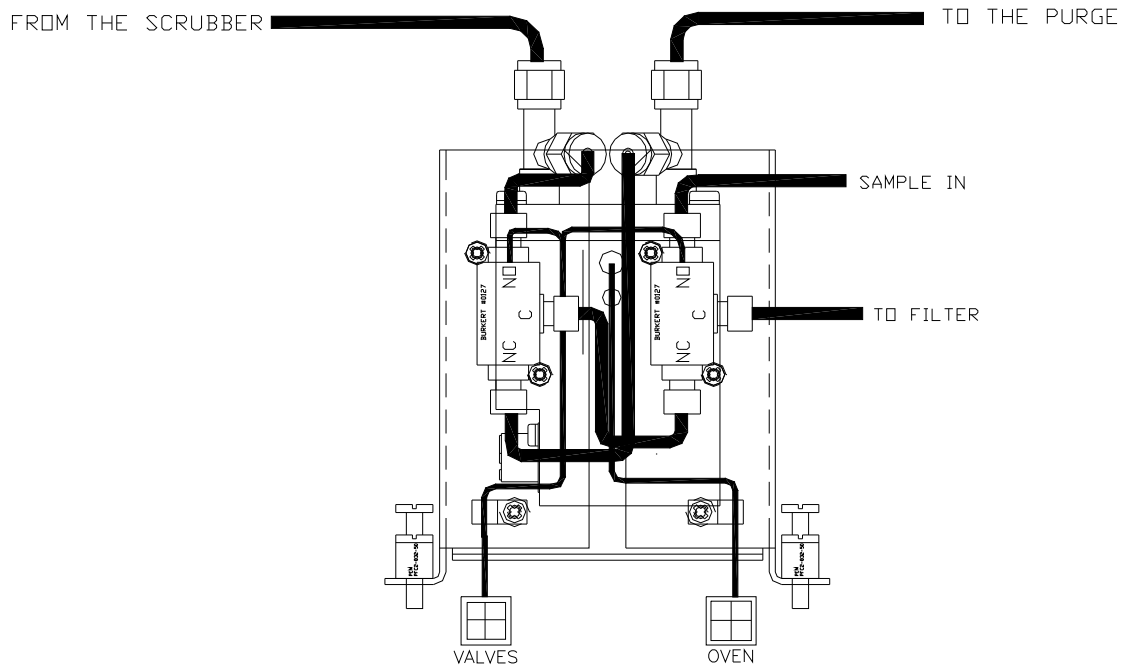


FIGURE 4 FRONT VIEW



ZERO/SPAN VALVE CONNECTIONS
 NO - IZS HOUSING
 NC - IZS HOUSING
 C - SAMPLE/CAL VALVE NC PORT

SAMPLE/CAL VALVE CONNECTIONS
 NO - SAMPLE IN
 NC - ZERO SPAN VALVE C PORT
 C - SAMPLE FILTER

M100E IZS RETROFIT
 04-020 Rev C (DCN 6412) 03/23/2012
 Page 4 of 8
 PRINTED DOCUMENTS ARE UNCONTROLLED

7. Take the Zero Air Canister and the Zero Air Canister Clips contained in the kit and install the parts onto the rear panel of the analyzer as shown in FIGURES 5, 6 and 7 below.

FIGURE 5

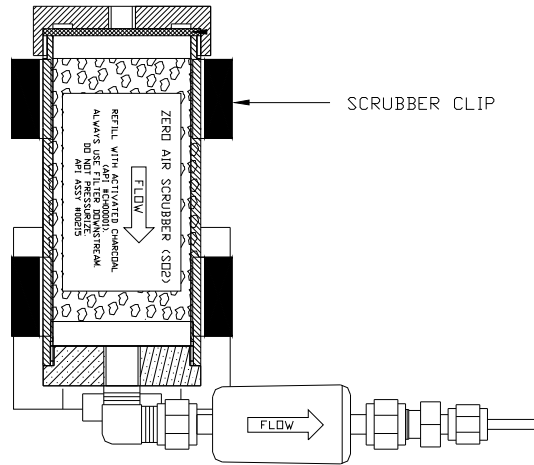
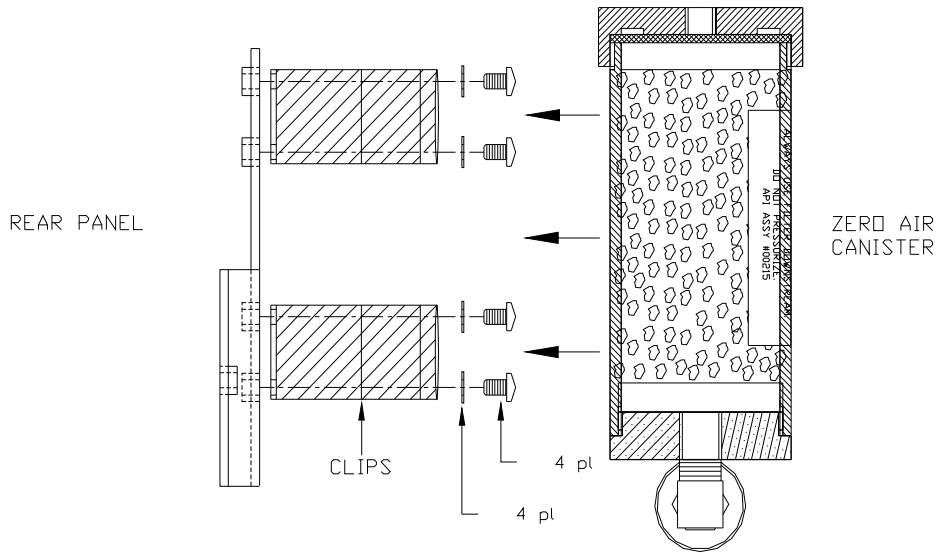
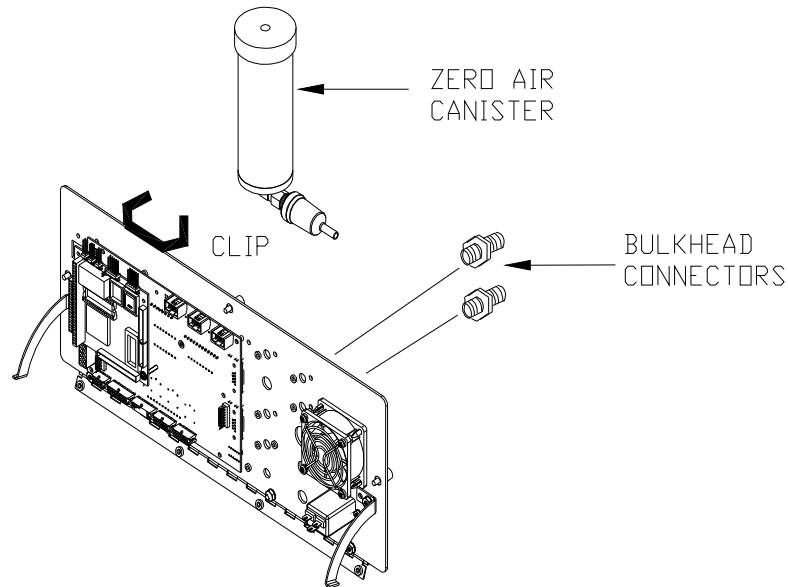


FIGURE 6



M100E IZS RETROFIT
 04-020 Rev C (DCN 6412) 03/23/2012
 Page 5 of 8
 PRINTED DOCUMENTS ARE UNCONTROLLED

FIGURE 7



8. Remove the bulk head fittings from the KIT and connect them to the rear panel one on the ZERO AIR IN port and the other on the SPAN IN port. Refer to FIGURE 7 above.
9. Locate the Relay board in the back right hand portion of the analyzer, See FIGURE 1. Locate relay slot K4. If there isn't a relay in the slot, take the black relay (RL0000015) from the kit and install it into relay slot K4.
10. Once all the tubing and wires have been connected then you must enable the IZS factory option.
11. From the main menu press SETUP enter password 929-ENTR-MORE-DIAG-NEXT until you get to FACTORY OPTIONS. Press ENTR and then NEXT until you get to IZS:OFF. Enable the IZS by pressing the OFF button. The IZS should now be turned on press ENTR and then EXIT back out to the sample menu.
12. You should now have CAL, CALS, and CALZ displayed on the front panel.
13. Power cycle the instrument.
14. Leak check the instrument. Refer to LEAK CHECK PROCEDURE.

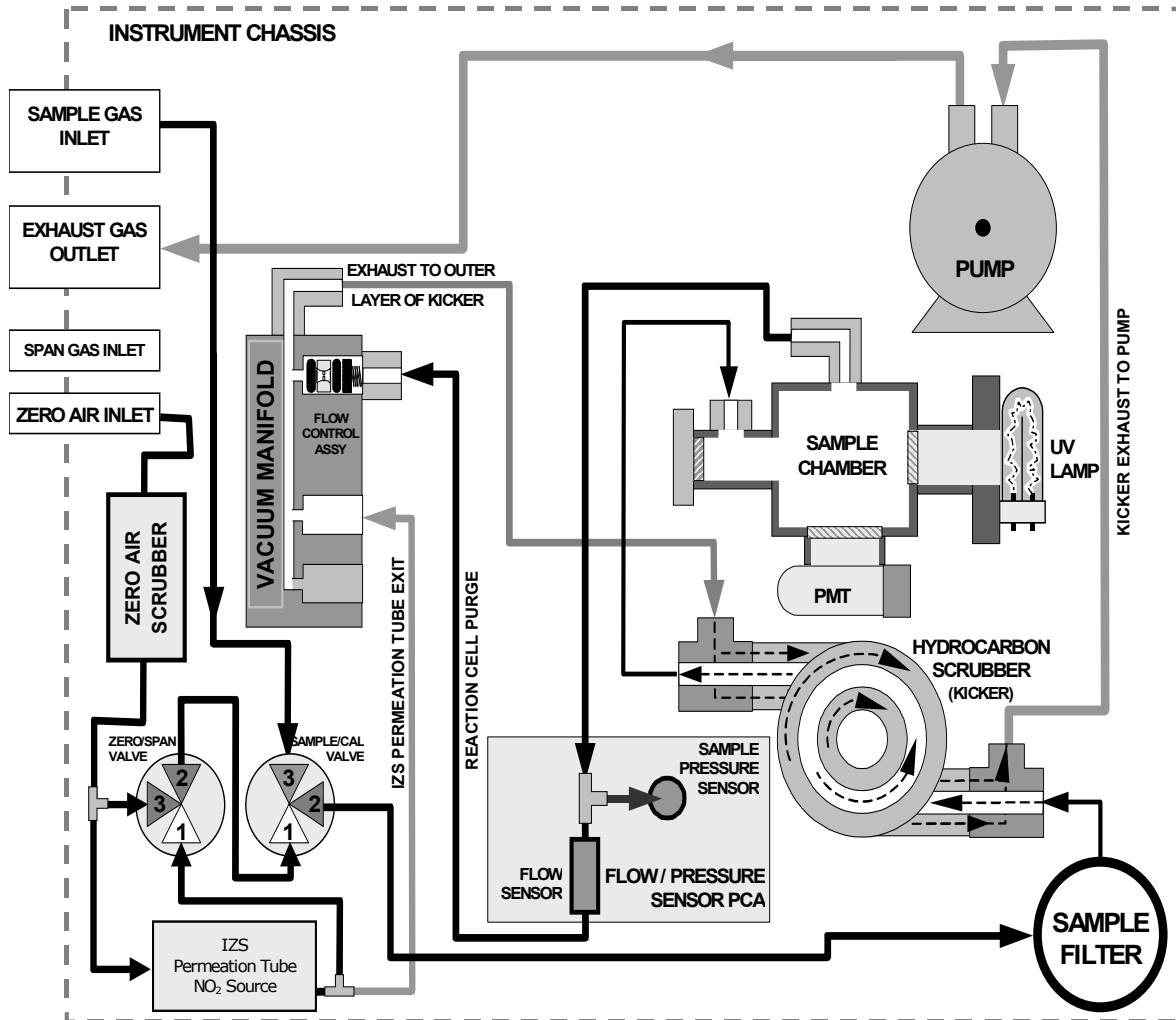
M100E IZS RETROFIT

04-020 Rev C (DCN 6412) 03/23/2012

Page 6 of 8

PRINTED DOCUMENTS ARE UNCONTROLLED

M100E PNEUMATIC DIAGRAM w/IZS



M100E IZS RETROFIT

04-020 Rev C (DCN 6412) 03/23/2012

Page 7 of 8

PRINTED DOCUMENTS ARE UNCONTROLLED

LEAK CHECK PROCEDURE

1. Bypass the pump.
2. Cap the sample inlet.
3. Cap the Zero Air port at the charcoal scrubber.
4. Attach a pump and a valve cutoff to the exhaust port.
5. Enter the CALS mode. (Ensure that there isn't a perm tube in the oven.)
6. Monitor the sample pressure reading on the front panel. The pressure should pull down to < 10"HG.
7. Turn the valve on the exhaust port to hold the vacuum in the instrument.
8. Remove the cap from the Zero Air inlet port.
9. Monitor the Sample Pressure on the front panel. The Sample Pressure reading should not increase more than 1" for every 5 minutes. If the pressure increases more than 1" then you have a leak in the IZS system. Find the leak and then repeat steps 5-8 until the Sample Pressure reading meets the above specification.
10. If there are no leaks then exit the CALS mode, disconnect the pump and the valve from the exhaust port and reconnect the internal pump. Remove all the caps.
11. The instruments IZS is ready for use.

If you have any questions or concerns regarding this service note please contact the TAPI Customer Service Department.

Phone: 800-324-5190

Email: api-customerservice@teledyne.com

M100E IZS RETROFIT

04-020 Rev C (DCN 6412) 03/23/2012

Page 8 of 8

PRINTED DOCUMENTS ARE UNCONTROLLED