TELEDYNE Advanced Pollution Instrumentation

Service Note

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INSTRUCTIONS FOR INSTALLATION OF M400 IZS RETROFIT FOR NON-CE MACHINES

SCOPE: To install the IZS option in a Model 400 analyzer.

- **TOOLS:** 1. Philips-head screwdriver
 - 2. Pair of adjustable wrenches

PROCEDURE:

- 1. Remove and discard the critical orifice flow control module attached to the pump inlet fitting and the 1/4" tygon tubing connecting the orifice to the flow sensor on the rear panel.(Figure 1, step 1, attached).
- 2. Physically mount the IZS O3 generator tower assembly in the chassis at the location shown in Figure 2, step 2.
- 3. Physically mount the IZS charcoal zero scrubber with its associated bracket on the rear panel as shown in Figure 2, step 3.
- 4. Physically mount the sample/cal gas valve with its associated bracket on the rear panel as shown in Figure 2, step 4.
- 5. Make pneumatic connections as shown in Figure 2. **NOTE**: All the tubing upstream of the optical bench is 1/8" teflon and all the tubing downstream of the optical bench is 1/4" tygon.
- 6. Make electrical connection as follows:
 - Connect the sample/cal gas valve to existing cable harness (green /yellow wires) labeled as "SAM".
 - Connect the red heater wires from the IZS ozone generator tower to the existing gray shielded power cable labeled "IZS".
 - Connect the yellow thermistor wires from the IZS ozone generator to the existing <u>yellow wires harness</u> labeled "IZS".
 - If your option has IZS feedback, plug the cable coming from the IZS tower feedback detector into the Motherboard at J5.
- 7. Turn on the analyzer and set up the IZS for operation by performing the following :
 - If your analyzer has the standard software, enable IZS by pressing SETUP-IZSC-password(929)-MODE-IZSR (or if you do not have the feedback, SETUP-IZSC-password(929)-MODE-IZS) at the front panel.
 - If you have the feedback, make sure you activate the feedback. (SETUP-MISC-O3-GEN-FDBK-ON)
 - If the analyzer has AMX software, enable IZS by pressing SETUP-MORE-VARS-929 password-NEXT... (or JUMP 44) - until you reach FACTORY_OPT variable.

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Each bit in this variable selects a different option, as shown below. To select multiple options, add the bits together. If the analyzer has the IZS option without the feedback, set FACTORY_OPT to 2, if the feedback is installed, set FACTORY_OPT to 6.

FACTORY_OPT Variable Settings	
Decimal	Feature Description
Value	
1	Enables dilution factor (setup variable
	DIL_FACTOR)
2	Ozone generator installed
4	Ozone generator reference detector installed

- Adjust the ozone generator lamp as described in the User Manual.
- Calibrate the ozone generator as described in the User Manual.





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