Service Note

Advanced Pollution Instrumentation

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REPLACING THE CPU IN "E" SERIES ANALYZERS

I. <u>PURPOSE</u>:

This service note provides instructions for replacing the CPU in "E" series analyzers.

II. <u>TOOLS</u>:

#2 Phillips Head Screwdriver #3 Phillips Head Screwdriver PLCC-type IC puller (optional)

III. PARTS:

New CPU board for "E" Series analyzers

IV. **PROCEDURE**:

- 1. Remove power to the analyzer
- 2. Remove top cover from the analyzer.
- 3. Lower the rear panel of the analyzer.
- 4. Locate the CPU assembly. It is mounted on the rear panel on top of the mainboard.
- 5. Remove CN3, CN4 and CN5 from the CPU. NOTE: On some older models of "E" series analyzers CN4 may not be present.
- 6. Remove the 4 screws holding the CPU to the mainboard.
- 7. Gently rock the CPU to the left and right while gently pulling the CPU toward the front of the analyzer until the connector between the CPU and mainboard separates.
- 8. Optional: Changing the FLASH IC. The Flash IC is where your current settings, DAC cals, iDAC settings, etc are stored. In order to preserve these settings you will need to move your existing FLASH IC from the old CPU to the new CPU. If the new CPU has a FLASH IC at U2, and you do not wish to move the original FLASH IC to the new CPU, skip to step of
 - A. Using the PLCC IC removal tool, remove U2 from the existing CPU. If U2 is present in the new CPU board, remove and discard it.
 - B. Verify the orientation of the FLASH IC prior to installation. Hold the FLASH IC so the lettering is right-side-up. Note the small circular depression above the lettering. This depression should point toward the CN3, CN4 and CN5 connectors on the CPU after it has been installed.
 - C. Gently insert the original flash into the U2 socket of the existing CPU by lowering it down onto the socket, then gently pushing it into the socket.
- 9. Installation of the CPU is the reverse of removal.