

Service Note

Advanced Pollution Instrumentation

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REMOVAL AND REPLACEMENT OF KICKER IN M100A ANALYZER

I. <u>SCOPE</u>:

To guide you through changing the kicker in an API M100A Analyzer.

II. PARTS:

New kicker assy. API P/N 013390000

III. TOOLS:

Phillips head screw driver.

Flat tip screw driver

7/16" wrench

9/16" wrench

Diagonal cutters

IV. PROCEDURE:

- 1. Remove the analyzer from service and remove the power cord from the rear panel.
- 2. Place the analyzer on a workbench and remove the cover from the analyzer.
- 3. Remove the 1/8" and $\frac{1}{4}$ " fittings from the top of the Rcell. (See diagram page 3.)
- 4. Remove the following electrical connectors from the Rcell and pmt housing. (See diagram 4.)

UV detector preamp ribbon cable

UV detector preamp ground strap

TEC +15 Vdc

Rcell heater and thermistor connector

UV lamp power

Shutter power

J5 from motherboard

- 5. Remove the three screws from the cell that mount the cell into the analyzer, and remove the cell from the analyzer. (See diagram page 3.)
- 6. If your kicker is mounted to the bottom of the Rcell, it will come out of the analyzer with the cell. Be careful not to damage the pneumatics in the instrument if the kicker is mounted to the bottom of the cell.
- 7. Remove black 1/8" tubing from the particulate filter and cut any tie straps that might hold the kicker into the analyzer.

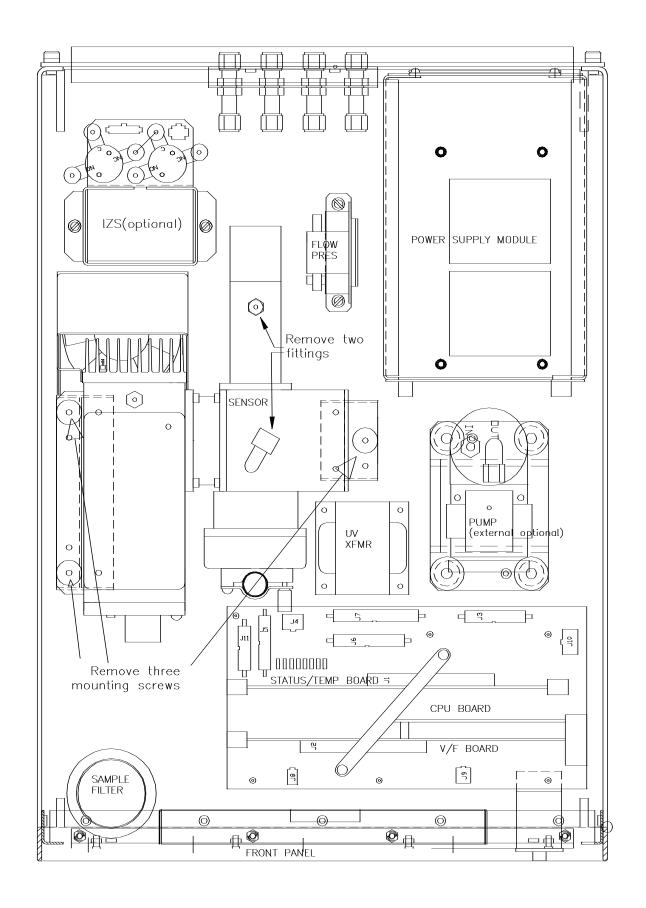
Note: DO NOT REMOVE THE BLACK 1/8" TUBING FROM THE KICKER; REMOVE THE TUBE FROM THE PARTICULATE FILTER. IF YOU DO, THE KICKER WILL BE DESTROYED.

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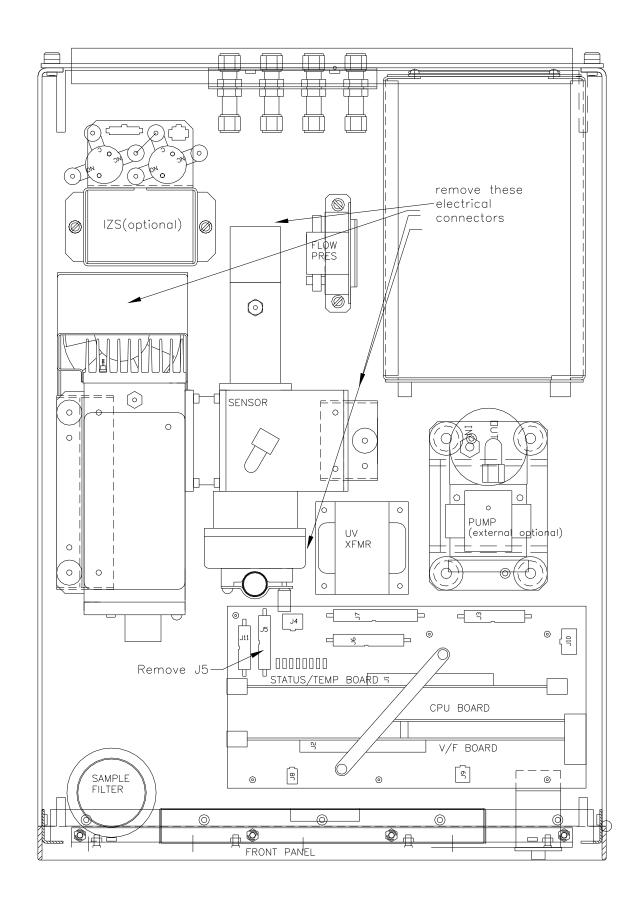
- 8. Remove the two ¼" tubes that are attached to the kicker, and remove the kicker from the analyzer.
- 9. Hook the ¼" tubes to the new kicker, and install the kicker into the chassis of the analyzer.
- 10. If your analyzer had the kicker mounted to the bottom of the cell, place your new kicker into the bottom of the analyzer and secure it into the chassis. If you can only use one screw to hold the kicker into the chassis that is fine.
- Note: MAKE SURE THAT WHEN YOU PUT THE NEW KICKER INTO THE CHASSIS THAT YOU DO NOT BIND THE KICKER TUBING AND THAT IT DOES NOT GET PINCHED WHEN YOU INSTALL THE RCELL.
- 11. Install the Rcell back into the chassis of the analyzer and secure it with the screws that you removed
- 12. Connect all of the electrical connectors to the Rcell. Make sure that you do not forget to install the ribbon cable that plugs to the bottom of the UV lamp detector, also do not forget to install the ground strap that goes from the UV lamp detector cover to the chassis. If you do not install this ground strap, you might get a very noisy analyzer.
- 13. Install the ¼" and 1/8" fittings to the top of the Rcell.
- 14. Apply power to the analyzer and turn it on.
- 15. Make sure that all of the temps/pressures and flows are correct, after about 20 minuets of running.
- 16. Allow the unit to run for 30-40 minuets and calibrate the unit as you normally would.

If you have questions regarding this procedure or any API equipment, please contact an API Customer Service representative:

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