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Service Note

97-013 Rev B
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HOW TO REPLACE M200A PROM (After DAC CAL Bug Verified)

Scope:

Replacing H.9H, J.1 or J.3 Software with K.0 Software in the M200A. After the new software is installed you will need to update certain software variables through the "VARS" menu on the analyzer.

Background:

The customer has used API Service Note # 97-003 (attached) and determined that the "DAC CAL" bug exists in his/her analyzer. This service note accompanies the new prom and instructs the customer how to install the software.

Tools:

Large Flat Head Screwdriver
Small Phillips Head Screwdriver

Procedure:

1. Locate the V-F/CPU assembly. This is located in the motherboard, with the full length V-F facing you and the 1/2 length CPU between the V-F and the Status/Temp card.
2. On the right of the V-F/CPU assy, the two cards plug into a vertical back-plane assembly. This backplane is attached to the motherboard with a large Flat-Head captive screw. Use the Flat Head screwdriver to loosen the screw until it pops up.
3. Loosen the thumbscrew on the PC board hold-down and pivot the hold-down until it faces away from the front of the analyzer.
4. Grasp the V-F/CPU assy and gently lift it from the motherboard. Pivot the V-F down so that the top of the CPU faces up.
5. Locate the EPROM I.C. This is the large I.C. with the label on it. Use the large Flat Blade screwdriver to pry this I.C. from its socket, paying attention to the orientation of pin 1.
6. Install the new EPROM with K.0 software into the socket you removed the old EPROM from. Ensure no pins are bent and the orientation of pin 1 is correct.
7. Assembly is the reverse of removal.

UPDATING VARS:

In the K.0 software some of the variables have been changed from an integer to a floating point format. When you upgrade to the K.0 software in an existing analyzer, you will need to force the analyzer to store new values for these changed variables. Perform the following steps:

1. Press SETUP-MORE-VARS and the analyzer will offer you the 818 password. Change it to 929 and press ENTR.
2. Press NEXT-EDIT-ENTR-ENTR-ENTR. This stores the Sample Flow.
3. Press NEXT-EDIT-ENTR-ENTR-ENTR. This stores the O3 Flow.
4. Press JUMP and enter the number 20. Press ENTR.
5. Press EDIT-ENTR. This stores the FILT_DELTA1 variable.
6. Press NEXT-EDIT-ENTR. This stores the FILT_PCT1 variable.
7. Press NEXT-EDIT-ENTR. This stores the FILT_DELTA2 variable.
8. Press NEXT-EDIT-ENTR. This stores the FILT_PCT2 variable.
9. Press JUMP and enter the number 35. Press ENTR.
10. Press EDIT-ENTR. This stores the DA_OFFSET variable.
11. Press JUMP and enter the number 52. Press ENTR.
12. Press EDIT-ENTR. This stores the AZERO_LIMIT variable.
13. Press JUMP and enter the number 58. Press ENTR.
14. Press EDIT-ENTR. This stores the DIL_FACTOR variable.
15. Press JUMP and enter the number 72. Press ENTR.
16. Press EDIT-ENTR. This stores the BOX_SET variable.
17. Press NEXT-EDIT-ENTR. This stores the PMT_SET variable.
18. Press EXIT until you get to the SAMPLE menu.
19. Follow the procedure in the manual to re-calibrate the analyzer.