



**97-039 Rev B
2 May, 2007**

INTERMITTENT MOLY TEMP WARNINGS

I. BACKGROUND:

API has produced two different preamp cards and two different TEC driver cards for M200A and M100A analyzers. The old style preamp is PN#01105, the new style is PN#02107. The TEC board that you have, old or new, can be determined by the preamp you have, as the old style cards will not work with the new. In the case of both old and new cards, intermittent moly temp warnings may be seen. The symptom typically consists of moly temp warnings occurring, but when the moly temp is viewed, the temperature rarely or never is seen to be out of limits.

II. SCOPE:

This service note addresses troubleshooting intermittent moly temp warnings in M200A analyzers.

III. PROCEDURE:

1. Remove the cover from the analyzer.
2. Verify that the moly has a braided metal shield around the thermocouple wire going to the status/temp card. If not, the moly should be replaced by a moly with the braided thermocouple.
3. Ensure that the analyzer has been running for at least 1 hour and that the moly temperature is 315 ± 5 deg. C.
4. Measure the current through the cooler.
 - A. On the old style TEC driver board this is done by placing the + lead of the meter on TP2 and the - lead of the meter on TP3. The voltage at this point should be between .1 and .15 VDC, indicating 1-1.5 A of current.
 - B. On the new style TEC driver board this is done by placing the + lead of the meter on TP1 and the - lead on TP2. The voltage at this point should be between .1 and .15 VDC indicating 1-1.5 A of current.
5. If the voltage measured in step 4a or 4b is too high, this indicates that the cooler is either defective or not properly installed into the heat sink and cold block assy. In this case the cooler must be replaced. Order API PN# KIT000019.
6. If the above tests have passed and the problem still exists in analyzers with the old style preamp and TEC boards, you should replace these boards with the new style. API PN# KIT000011.
7. If the above tests have passed and the problem still exists in analyzers with the new style preamp and TEC boards, please contact API customer service for further assistance.