



MODEL M152/M252 REAR PANEL TEST POINTS

On the rear panel of the M152/252 there are a number of terminal board screws. These serve as test points and optional features. This note serves as a description of their function as well as giving specifications.

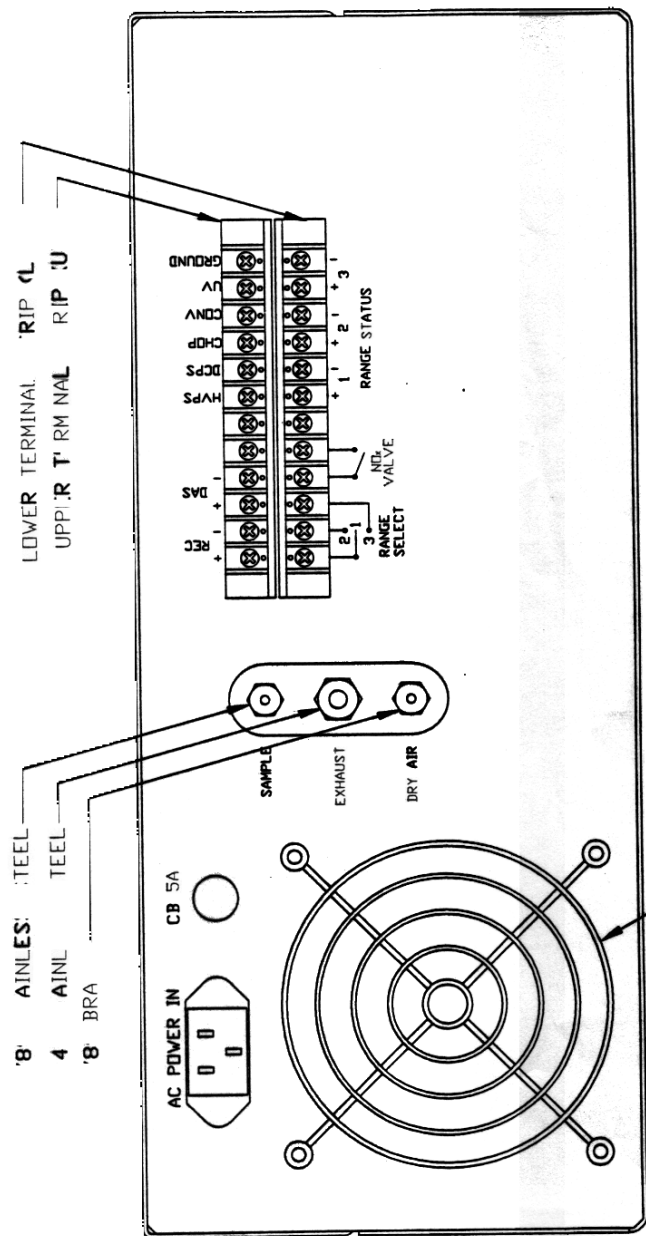
The attached drawing shows the Upper Terminal Strip (UTS) and Lower Terminal Strip (LTS).

The Upper Terminal Strip has the following connections:

- 1&2 REC output. This is a zero to five Volt (optionally may be 0-1V, 0-10V or 4-20 mA). This voltage represents concentration.
- 3&4 DAS output. See REC output.
- 5&6 Unused
- 7 HVPS. Test output should be the actual High Voltage divided by 300. Typically runs 1.66 to 2.33 which represents HVPS of 500-700VDC.
8. DCPS. Test output should be 2.5 \pm .2 VDC. If this voltage is outside of specs then the +5, +15, or -15 VDC from the DCPS is bad.
9. CHOP. Test output should be 5 \pm .3 VDC. This is 5 Volts when chopper is running. When chopper stops, this goes to 0 V.
10. CONV. This output is for M252 only. This is a voltage which represents the converter temp. For molys it must be 3.15 \pm .1 VDC. For Mini-hicons it must be 4.0 \pm .1 VDC.
11. UV. This output is for the M152 only. It matches TP25. This is the mixer card lamp voltage. It should be between 2 and 4 VDC.
12. Ground. Use this to connect the negative lead of the meter when measuring the other terminal board voltages.

The Lower Terminal Strip has the following connections:

- 1,2,3 Range select. To use this, the Remote Range option must be installed. Place the front panel range switch in RANGE 1. Shorting pins 1 and 2 here will place the analyzer in range 2. Shorting pins 1 and 3 here will place the analyzer in range 3.
- 4&5. NO_x valve. Shorting these pins will place the analyzer in NO_x mode.
6. Unused.
- 7&8. Range 1 Status. Contact closure output for Range 1.
- 9&10. Range 2 Status. See Range 1 Status.
- 11&12 Range 3 Status. See Range 1 Status.



NOTE:
 RANGE SELECT, RANGE STATUS,
 NO/NOx VALVE & -20mA ARE
 OPTIONS

REAR PANEL
 Figure 2.2

API Model 252 NO/NOx Analyzer Operator Manual