

## TELEDYNE ANALYTICAL INSTRUMENTS

**Procedure:** Troubleshooting DC voltage level adjustments for Models 730 and 731.

1. Turn the instrument on and allow 1 to 3 hours for warm-up time.
2. Connect a zero gas to the instrument and flow the gas through the cell at 0.5 scfh.
3. After the unit has warmed up and the zero gas is flowing, do the following:
  - Record all voltages measured.
  - Switch to low range (skip this step if there is only one range).
4. Check the voltages at tp1 and tp2 and adjust the trim pots on the amplifier card (P3 and P4). To obtain the same voltage, use 400 mv at both test points.
5. Adjust P1 from the main board to obtain 5.06 volts at tp4 as given by the schematic D-51475.
6. Verify 2.53 volts at tp3
7. Check tp5 and verify 5 volts are there.
8. Adjust external zero pot to obtain 0.000 volts at top of span pot (J4-1).
9. Verify that tp6 and tp7 have 0.000 volts on them.
10. Verify 4 ma or close to that at signal output at J1-N and J1-5
11. Verify that the display reads zero.
12. Switch to high range and verify all tp voltages. (Skip this step if there is only one range.)

If you encounter any discrepancies with the voltages and are not able to resolve them contact Teledyne and provide the test point voltages for further assistance.