

The test chromatogram accompanying your TCD was obtained under the following conditions:

Sample: ~100 ppm blend in Helium balance  
Sample volume: 250  $\mu$ l  
Column: 10' x 1/16" x 0.040" molecular sieve 5Å micropacked  
Column flow: 6 mL/min  
Reference flow: 6 mL/min  
Column temperature: 65°C  
Detector temperature: 100°C  
Filament temperature: 230°C (a setting of 5.0)  
Carrier gas: Helium

### **Balancing the Channels using LCD Display**

The LCD display indicates the signal level from the recorder/chart output.

10. Set the recorder switch to A, and use the coarse and fine controls for Channel A to adjust the signal level to about 300 mv.
11. Set the recorder switch to B and repeat the same process to adjust the signal level to about 200 mv.
12. Set the recorder switch to A-B. The display should read about 100 mv. If the signal levels drifts below zero, readjust the A & B channels.

The detector is now ready for analytical use.

### **Balancing the Channels using Recorder/Chart Output**

10. Use the zero (or shunt) setting on the recorder to set the true zero on the recorder.
11. Set the Recorder switch to A, and use the coarse and fine zero controls for Channel A to bring the recorder pen on scale and to a position approximately 1-2 cm above zero.
12. Set the Recorder switch to B, and repeat the same process, bringing the pen to a position *half* as far above zero as the pen for Channel A.
13. Set the Recorder switch to A - B, and observe the recorder pen position. It should be above the true zero position, but below the position for Channel A. If the pen drifts below zero, readjust the A and B channels.

The detector is now ready for analytical use.

### **Balancing the Channels using Unattenuated Outputs**

10. Connect the output cable to the A connector, and use the coarse and fine zero controls for Channel A to bring the baseline signal on scale and to a position approximately 100 mV above zero.
11. Move the output cable to the B connector, and use the coarse and fine zero controls for Channel B to bring the baseline to a position half as far above zero as for Channel A (the value of A minus B).
12. Move the output cable to the A - B connector, and observe the baseline signal. It should be above the true zero position. If the signal drifts below zero, readjust the A and B channels.

The detector is now ready for analytical use.

### **Single filament mode**

The basic procedures and temperature settings described for referenced mode operation can also be applied to operation in the single filament or independent mode. Both channels must have the same carrier gas; you cannot use helium carrier in one channel and nitrogen in the other. Also be aware of the possibility of detector cross-talk when components elute from