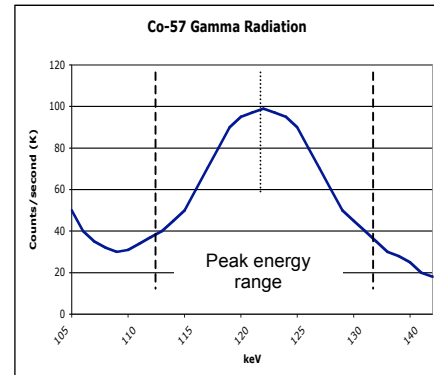


**Care Wise Medical Products**  
**C-Trak<sup>®</sup> User Guide**  
**For the Single or Dual Analyzer Systems**

### System Set-up and Calibration

1. With probe cable fixed or installed into probe, plug cable into port labeled TECHNETIUM and ensure that the selector switch is turned up to the Technetium setting (Dual models only). Turn the lower left knob to BAT to turn the system on. Check the battery readings by pressing and holding the BAT TEST button. Turn the lower left knob to RESERVE to check the back-up batteries. Both readings should be at least 6.0V, replace batteries (5 each, D-cells) if needed. Allow the probe to warm up for approximately 5 minutes.

2. Ensure that the probe is held securely against your Co-57 check source and that the source is not expired (18 months-2 years from the “birth” date stamped on the source disc). Set the Threshold dial to 112 and the Window dial to 20. (These settings ensure that you capture photons within the peak energy range for Co-57 [122keV] and disregard background scatter counts.) See Figure at right.



3. Check the Bias Voltage by pressing and holding the Bias Test switch. This is the peak operating voltage for your unique probe when the system is calibrated. For most C-Trak<sup>®</sup> probes, this voltage is between 650 and 850 Volts.
4. To Check for calibration of the system, turn the Threshold dial from 112 (the peak reading if the system is calibrated), down to 108 and either observe the meter, listen for an audible change in tone, or take a 20-second count at 112 and compare it to the count at 108. Since 108 is lower than the peak of 112, you should observe a decrease in counts and audio tone. You may have to adjust the Range Multiplier switch on the lower left to vary the intensity of the signal.

Next, increase the Threshold dial to 116 and observe as you did above. Again, since 116 is lower than the peak, you should observe a decrease in counts and audio tone. If the highest reading (or sound) is between 108 and 116, then the system is in calibration.

5. To Calibrate the system, set the Threshold to 112 and the window to 20, and ensure that the sound is turned up. Note the current Bias Voltage by pressing and holding the Bias Test switch.

To adjust the Voltage being applied to the probe use the Detector Bias (DB) adjusting screw on the back of the analyzer, lower left. Remove the cover of the DB screw with a small flat blade screwdriver. Turn the Tc-99 screw until the Bias Voltage reads around 600. (You may not be getting counts at this low setting.) Increase the voltage by turning the DB screw to the right (clockwise) until the highest peak (by meter, sound, or cps-count) is achieved. You may need to adjust the Range Selector Switch on the lower left of the Front Panel to vary the intensity of the signal.

Hint: It is easiest to adjust by sound first, since you are at the back of the analyzer, by turning the DB screw back and forth until you hear the highest pitch, then fine tune the adjustment by taking 20-second counts with the threshold set to 112, to 110 and to 114. If the peak count is not at 112, adjust the DB screw accordingly. (If the highest count is at 110, raise the voltage slightly by turning the DB screw up, to the right or clockwise. If the highest count is 114, lower the voltage by turning the DB screw down, to the left or counterclockwise.) When the peak count is at 112, the system is calibrated.

Note the Bias Voltage when the system is calibrated. This is the Voltage at which your probe and analyzer are in their most accurate performance range. You may wish to record this setting at each calibration. Remove and store the calibration check source for future use. Replace the DB screw cover.

6. To reset the system for a surgical procedure following a calibration or calibration check, readjust the Threshold to 130 and the Window to 40 (suggested settings for Technetium, some surgeons prefer other settings or may search for a different isotope). Change the timer to 10 seconds. Set the Range Selector Switch to 10x.

If at any time the system fails to calibrate, call Care Wise Medical Products at 1 888 GO C-TRAK (1-888-462-8725) for immediate technical assistance.

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C-Trak® Single/Dual Analyzer Suggested Settings:

For Calibration – Threshold: 112, Window: 20, Timer: 20 Seconds, Range: vary

For Surgery - Threshold: 130, Window: 40, Timer: 10 Seconds, Range: 10x