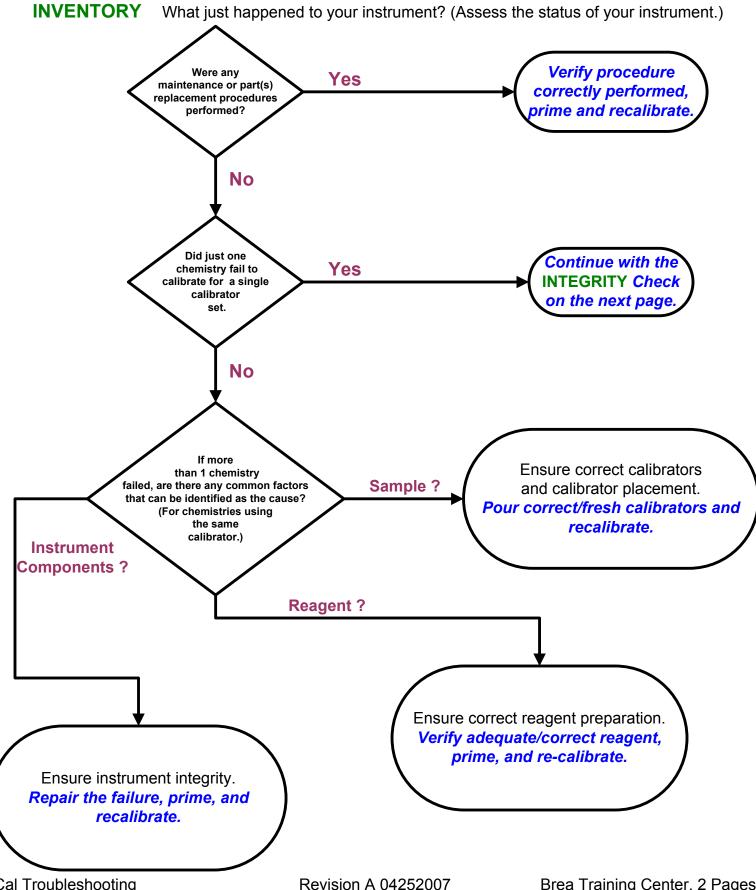
## **Troubleshooting Calibration Failures**

When a calibration attempt is unsuccessful, use the following process to troubleshoot.



Calibration Error code is	Check to see if	If so, then do this
Range (a measurement of accuracy, quality. Is the instrument detecting the concentration that it should?)	<ul> <li>Calibrators have been switched</li> <li>Reagents are:         ⇒ prepared incorrectly?         ⇒ switched or expired?     </li> <li>Hardware is malfunctioning: lamps, electrodes, stirrers, syringes aspirate, and dispense</li> </ul>	<ul> <li>Pour correct calibrators</li> <li>Replace reagent, perform reagent load/prime reagent</li> <li>Repair malfunction, adjust, replace or repair</li> </ul>
Back to Back (a measurement of precision, reproducibility. Is the instrument replicating itself using the same sample?)	<ul> <li>Bubbles are present: in calibrator, reagent lines</li> <li>Droplets of fluid are on probe tips</li> <li>Stir bars are stuck</li> <li>Syringe tips are worn</li> <li>Probes or mixers are scratched or damaged</li> </ul>	<ul> <li>Remove bubbles from calibrator, prime reagent lines</li> <li>Repair leakage</li> <li>Restore proper operation</li> <li>Replace syringe plunger rods</li> <li>Replace damaged hardware</li> </ul>
Span (a measurement of sensitivity. Is the instrument capable of differentiating sample concentrations?)	<ul> <li>Reagents have deteriorated</li> <li>Calibrator lot set points are incorrect</li> <li>Calibrators have deteriorated</li> <li>Hardware has malfunctioned: lamps, electrodes</li> </ul>	<ul> <li>Replace reagents</li> <li>Load correct calibration parameters</li> <li>Pour fresh calibrators</li> <li>Repair malfunction</li> </ul>
Range and Back to Back	Instrument has malfunctioned, stirbars, solenoids, lamps	Repair malfunction and prime
Range and Span	<ul> <li>Calibrators have been switched</li> <li>Calibrator lot set points are incorrect</li> <li>Hardware has malfunctioned: lamps, electrodes, stirrers, probes, solenoids</li> </ul>	<ul> <li>Pour correct calibrator</li> <li>Load correct calibration parameters</li> <li>Repair malfunction and prime</li> </ul>
Span and Back to Back	<ul> <li>Reagents have deteriorated or contain bubbles</li> <li>Calibrators are outdated or contain bub- bles</li> </ul>	<ul> <li>Replace reagent, perform reagent load/prime reagent</li> <li>Pour fresh calibrators</li> </ul>
Range, Back to Back and Span	Instrument performance has deteriorated	Repair malfunction and prime

**RECALIBRATE** 

Try it again. (Assess corrective steps have been performed and reattempt calibration.)

**HELP!** 

Don't know what else to do? Call the Clinical Support Center (HOTLINE).

1-800-854-3633