## The Actalyke® Electronic QC Simulator

An Important Advancement

Instrument

**Cross Section** 

**Detector 2** 



The magnet bound by the plunger changes its position as the ECT continues to rotate. The magnet detectors sense this motion and signal test completion, simulating an actual patient sample.

Test Well

**Detector 1** 



## The Role of Electronic Quality Control

Electronic Quality Control (EQC) devices are used to validate decentralized laboratory testing equipment and assure accurate clinical results. They complement the use of wet quality control materials, which are used to verify the performance of the reagent/system.

The focus of EQC devices encompasses not only compliance issues but accurate assessment of instrument performance.

When it comes to tube-based Activated Clotting Time (ACT) testing, there are several mechanisms that must function together to deliver reliable, accurate results. These include detector calibration, clot detection functionality, and test well rotation.

## **ACTALYKE® ECT: A New Generation**

The Helena Electronic Clotting Tube (ECT) is designed for proper challenge of all the integral mechanisms of ACT testing. It actually simulates the magnet displacement that occurs when testing a patient sample. A marked improvement over previously available ECT devices for ACT testing, the Helena ECT can be used on both Actalyke and Hemochron® instruments.

The Helena ECT houses a battery operate electromechanical acutator and a clot detection magnet. The magnet is allowed to roll within the ECT in the same manner that a magnet rolls in an unclotted ACT tube. Prior to completion of the ECT test, the actuator releases a mechanical

plunger which binds the magnet and prevents it from rolling. This mimics the displacement of the magnet during the formation of a clot in a patient sample. The ECT continues to rotate until the bound magnet reaches the clot detection trigger point. The Actalyke ECT can simulate patient sample clots at three therapeutic heparin levels, 100 seconds (normal, Level I), 300 seconds (abnormal, Level II) and 500 seconds (abnormal, Level III). These three levels verify system integrity throughout the entire reportable range of all ACT tests.

When the Helena ECT is used in tandem with the Actalyke instrument's on-board electronic self-test mode and the Actalyke Temperature Probe, every major functional aspect of the system can be validated easily, quickly, and cost-effectively. The Actalyke Temperature Probe is an optional external device for verifying and calibrating the active test temperature monitor.





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