



**RIGEL MEDICAL**  
GMC-INSTRUMENTS GROUP

## How to test defibrillators?

Defibrillator testing varies according to manufacturer, however there are set essential requirements in the current IEC 60601 standard. A defibrillator analyser must be capable of simultaneously simulating and measuring to test accurately and efficiently.

One of the key features of an AED is to ensure it is capable of differentiating and identifying shockable and non-shockable arrhythmias. An AED uses leads placed on the body to measure tiny electrical signals from the heart and determine the type of cardiac arrhythmia. A defibrillator analyser will accurately replicate these arrhythmias, to test the AEDs ability to detect rhythms and recommend a shock.

Maximum energy delivery is required during performance testing so a defibrillator analyser must cover these aspects. Defibrillators can deliver up to 360J and accuracy of delivered energy from all types of defibrillators needs to be performed in various simulated impedances (25 $\Omega$  to 175  $\Omega$  in 25  $\Omega$  steps).

Timing of defibrillator energy delivery is crucial to patient survival, which is why defibrillator analysers will now often integrate charge time tests.

If you require more help, please contact us at  
<https://www.seaward.com/gb/enquiry/>.