Purpose: To delineate requirements and practices for the provision of EMS defibrillation with the goal of increasing the survival rate from cardiac arrest.

Device: Philips HeartStart MRx Monitor/Defibrillator

Bi-phasic defibrillation allows defibrillation at a lower joule setting to be as effective as monophasic defibrillation at the traditional 200J, 200-300J, and 360J. Following the manufacturer recommendation and the approval of the Operational Medical Director, the Charlottesville-Albemarle Rescue Squad has set up the following guidelines:

I. Adult Bi-phasic Defibrillation Settings (Manual and AED):
   A. Ventricular Fibrillation/pulseless Ventricular Tachycardia
      1. Shock sequence: **150 J for every defibrillation**

II. Adult Bi-phasic Synchronized Cardioversion (Manual):
   A. Ventricular Tachycardia (with a pulse), Atrial Fibrillation, and PSVT
      1. Shock sequence: **100 J, 150 J, 200 J**
   B. Atrial Flutter
      1. Shock sequence: **50 J, 100 J, 150 J, 200 J**

III. Pediatric Bi-phasic Defibrillation Settings (AED and Manual):
   A. AED defibrillation on pediatric patients > 1 year of age
   B. Manual pediatric Bi-phasic defibrillation
      1. Shock sequence: **1-2 J/kg, 2-3 J/kg, 3-4 J/kg**

IV. Pediatric Bi-phasic Synchronized Cardioversion (Manual):
   A. Ventricular Tachycardia and SVT
      1. Shock sequence: **0.5-1.0 J/kg, 1-2 J/kg**