



# Halton Regional Police Service Tools of the Trade (CRU)

## Major Collision Mobile Command Vehicle

In 2006, the Halton Regional Police Service purchased a new Dodge Sprinter van to be its Major Collision Mobile Command Vehicle. The Sprinter van acts as a mobile command vehicle, enabling Collision Reconstructionists to bring all the necessary equipment to the scene of an investigation.



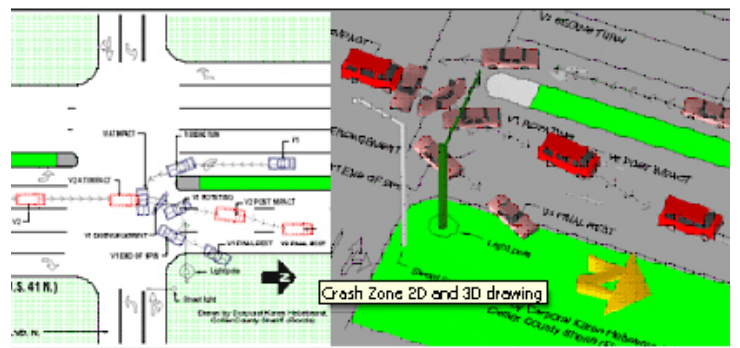
## Sokkia SRX Total Station

The SRX from Sokkia is a fully-robotic, fully-tracking and auto-pointing total station. It has on-demand target acquisition.

The SRX allows Collision Reconstructionists to forensically map an area using a single officer. The SRX has a handheld data collector that shows the Reconstructionist all the data points they have gathered. Using the total station, the Reconstructionist is able to accurately map out the entire collision/crime scene. The data is then transferred into the Crash Zone Drawing Program.

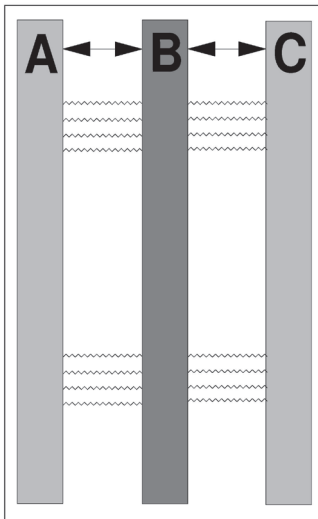
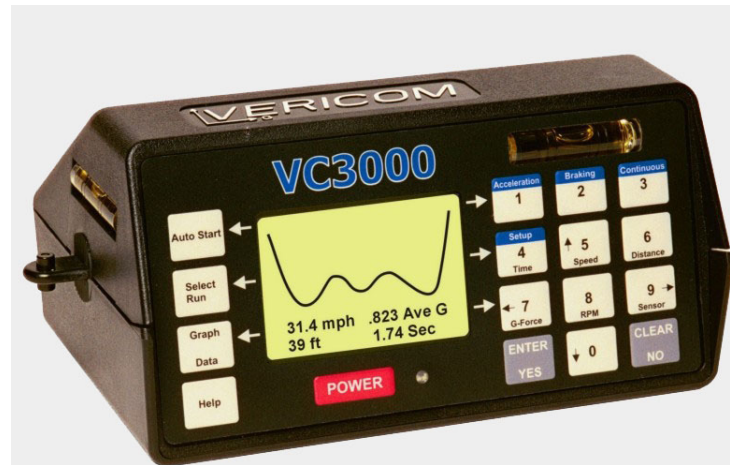
## Crash Zone Drawing Program

Once the collision/crime scene has been captured using the Sokkia SRX, the data is downloaded into the Crash Zone Drawing Program. From this data, Reconstructionists are able to produce both 2- and 3- dimensional diagrams for investigators. Built-in software assists Reconstructionists with calculation tools, making it possible to determine pre-impact and post-impact speeds from skid marks (even across different surfaces) as well as determine impact speeds.



## Vericom 3000

Applications include Traffic Accident Investigation and Reconstruction, Engineering, Bus Testing, Railcar Testing and Drag Racing to name a few. The VC3000 is one of the most modern instruments available for traffic accident investigation and reconstruction in the world.



## How an Accelerometer works

Plate "B" is a mass suspended by springs between plate "A" and plate "C". At zero G's, plate "B" is equidistant from plate "A" & plate "C". When you apply the brakes, a vehicle pulls negative Gs and "B" moves closer to "C" and farther away from plate "A". As "B" moves closer to "C", the voltage from "B" to "C" increases at the rate of one volt per G. therefore .01 volt will equal .01 G. One volt will equal 1 G. With increased speed, plate "B" moves closer to plate "A" and farther away from plate "C". When this occurs, Reconstructionists are measuring the positive acceleration of the vehicle.

For more information, contact:  
**Halton Regional Police Service**  
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*Progress Through Participation*