

Hands-On Vehicle Fire/Arson Investigation

Instructors: David West

David West is a Retired Detective, with the Kentucky State Police, specializing in Arson Investigation and Electrical Fire Analysis for the past 25 years. Mr. West's career began in the Electrical trade as a Contractor, he then became a State Certified Electrical Inspector, and used this electrical background to join the Kentucky State Police Arson Division examining electrical failures on fire scenes. He became a Police instructor, specializing in Electrical Fires and Fire Related Deaths, at the State Police Academy. His expertise has assisted State and Federal Agencies in examining electrical wiring systems, generating official reports, and testifying as an expert witness in cases.

Course Objectives:

This three (3) day training module will provide the fire/arson investigator with the practical and technical skills necessary to investigate and determine the origin and cause of vehicle fires.

This training module will provide both classroom and hands on training with practical exercises on how to conduct a systematic thorough scientific examination of the vehicle fire scene.

Attendees will be provided the necessary knowledge of vehicle design electrical systems fuel systems and their components that will be encountered during examining a motor vehicle. Including alternative fuel types. We will examine how these components can fail and or cause a fire.

Upon completion the attendees will have the knowledge and skills to:

- Demonstrate vehicle fire overview
- Demonstrate applying the scientific method for examining vehicle fires
- Understand basic vehicle design and electrical systems.
- Understand the electrical wiring used in vehicles and the presence of electrical activity on these wires.
- Demonstrate a working knowledge of safety devices fuses and breakers fusible links and cartridges.
- Demonstrate a working knowledge of how to properly document a vehicle fire scene.
- Demonstrate the knowledge of how to photograph a vehicle fire scene in a systematic manner.
- Demonstrate the knowledge of collecting evidence from the vehicle fire scene.
- Demonstrate the knowledge in accordance with National Fire Protection Association 921 Guide for fire and explosion investigation current edition and National Fire Protection Association 1033 Professional Standard Qualification for Fire Investigators.
- Demonstrate knowledge of how to obtain recall technical service bulletin information consumer complaint information, and general research information regarding vehicle fire information.
- Attendees will learn the proper techniques for personal safety documenting photographing evidence collection, and preservation including preparing a proper written report.

Day 1

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| 8:00 am -8:30 am | Registration |
| 8.30 am – 9:00 am | Vehicle Fire Overview |
| 9:30 am - 12:00 pm | Basic Vehicle Design Electrical Components (videos) |
| 12:00 pm – 1:00 pm | Lunch (on your own) |
| 1:00 pm – 5:00pm | Vehicle information continued Live burn will be |

conducted (Weather permitting)

Day 2

8:00 am - 12:00 pm Vehicle Examination documentation components
Burn Patterns, diagramming, Narrative, preparation use
Internet Research for recalls Tech Service Bullet wiring
Diagrams Consumer Complaints Collecting Samples
921 1033 FMVSS 301-305 important reference material.

12:00 pm – 1:00 pm Lunch (on your own)

1:00 pm – 5:00 pm Hands on vehicle examination and documentation
(Group Exercises)
Note: each group will be provided with the tools digital
Camera to accomplish their vehicle investigation and
examination. Note: you may bring your own camera
if you want to take pictures to keep.

Day 3

8:00 am - 12:00 pm Introduction to Hybrid vehicles and Event data recorders
Heavy equipment investigation guidelines for group
Presentations. Group presentation of hands on
Investigation and documentation.
Final Examination
Certificate presentation

