

VIRGINIA DEPARTMENT OF FORENSIC SCIENCE EVIDENCE HANDLING & LABORATORY CAPABILITIES GUIDE

TRACE EVIDENCE: VEHICLE LAMPS

Contact Information

If you have any questions concerning the Trace Evidence laboratory examination capabilities or evidence handling procedures, please call the Training Section or the Trace Evidence Section at the Forensic Laboratory that services your area.

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VEHICLE LAMP EXAMINATIONS OVERVIEW

Damaged lamps may provide vital information to the investigator at the scene of an accident. Thus, the physical appearance of the lamp filaments, or the remaining portion of a broken lamp filament, can often be a key factor in attempting to determine prior events.

The examination of lamps and lamp filaments, while not new, is often overlooked as a potential piece of evidence. If, during an investigation, the "on" or "off" condition of a lamp is to be determined, the investigating officer must know the correct procedure to properly and completely collect, identify, and then preserve lamp filament evidence for submission to the forensic laboratory for examination.

The fragile nature of a lamp filament requires that the investigator have a thorough knowledge of collection techniques. On occasion, it may be necessary to remove and submit the lamp fixture rather than remove the individual lamp. This procedure applies if the lamps have been broken or if the lamp base is corroded to the extent that an attempt to remove the lamp could potentially damage the filaments.

The collection of necessary lamps should be complete, according to the area of the vehicle that was damaged by the impact of the accident. If the impacted area was at the front of the vehicle, the headlamps, parking lamps and front side marker lamps should be submitted. Likewise, if the impact damage occurred at the rear of the vehicle, tail lamps, rear side marker lamps and the backup and license plate lamps should be submitted to the laboratory. Thus, the officer who collects lamp filament evidence should be certain to collect those lamps that could have a bearing on the case.

CAPABILITIES AND SERVICES

Determination if vehicle lamps were on or off at the time of and/or after a collision.

COLLECTION GUIDELINES

ITEM – Lamps from vehicles involved in an accident or hit and run.

METHOD – Once the necessary lamps and/or fixtures have been collected, they must be properly identified and packaged for submission to the laboratory. Lamps should be designated as being from the driver's or passenger's side of the vehicle. The information needed particularly for lamp filament cases is as follows:

- item description
- area of vehicle from which the lamp is removed
- make, model and year of vehicle
- date of recovery

- agency case number
- the officer's initials
- copy of the accident report
- photographs of damaged areas of vehicle

If possible, it is best to remove the entire headlamp or taillight assembly from the vehicle, mark with identifying information and submit to the laboratory with the lamps as recovered from the vehicle. Package the assembly in a box with sufficient padding for transport to the laboratory. Do not turn the lamp switch on at the incident. If the switch is already turned on, be sure to document this in your notes and indicate it on the Request for Laboratory Examination form (RFLE).

If it is not possible to submit the entire headlamp or taillight assemblies, individual small lamps may be submitted but will obviously be too small to be labeled with the necessary identifying information. Record the identifying information on the container in which the lamp is placed. Smaller lamps and exposed filaments can be packaged by nesting the base in single or several paper or Styrofoam type cups as protective enclosures to cover fragile lamp filaments or portions of broken lamp filaments. The cups should be marked with the necessary information, and when securely taped, they serve to protect this important form of physical evidence. Package in a manner to protect the filament (cover filament with materials which will prevent leakage e.g., Styrofoam cup). Do not package lamps together in a single container without appropriate protection. For example, do not place 3 unbroken tail lamps into a single plastic bag for submission without bubble wrapping each lamp. Submit all of the lamps near the damaged area of the vehicle. For example, if the front driver's side of the vehicle is damaged, submit all lamps from the front driver's side as well as the undamaged lamps from the front passenger's side of the vehicle.

DISCUSSION – The filament is the primary area of examination and must be protected. The undamaged lamps will help the examiner in the comparison process and the accident report may help in the reconstruction process. Photographs show proximity. Since the laboratory examiner, in most cases, never observes the scene or the vehicle, he/she should be furnished with adequate information related to the incident and a completed traffic report with a diagram and photographs showing the impact area. In some instances, the laboratory examiner may find it necessary to discuss certain aspects of the case with the investigating officer.