

Lamp Inspection Handbook

DRAFT

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State and Consumer Services Agency
DEPARTMENT OF CONSUMER AFFAIRS

BAR

Bureau of Automotive Repair

Official Stations and Adjusters

Preface

This Handbook is incorporated by reference into Title 16, Division 33, Chapter 1, Article 2, Section 3305, of the California Code of Regulations (CCR). It provides procedures related to the issuance of official lamp inspection certificates.

Official Lamp Stations and Adjusters shall follow these procedures when conducting an inspection for the purposes of certification.

No attempt has been made to relate the information contained in this publication to the specific design of a particular manufacturer. Nor is this publication intended to be all inclusive of lighting requirements and/or lighting system designs. Licensed Adjusters shall possess the knowledge, skills, and abilities necessary to conduct a complete and accurate lamp inspection on all vehicles accepted by the Official Lamp Station for inspection. Each Official Lamp Station must maintain access to current requirements, technical information and instruction relative to the vehicle lighting systems inspected, adjusted, and repaired by the Lamp Station.

In accordance with CCR Section 3305, all inspections, adjustments, and repairs of vehicle lighting systems, for the purposes of certification, shall be performed in official stations, by licensed adjusters, and in accordance with the following, in descending order of precedence, as applicable:

1. Vehicle Manufacturers' current standards, specifications and recommended procedures, as published in the manufacturers' vehicle service and repair manuals.
2. Current standards, specifications, procedures, directives, publications, bulletins and instructions issued by vehicle and equipment or device manufacturers.
3. Standards, specifications, and recommended procedures found in current industry-standard reference manuals and periodicals published by nationally recognized repair information providers.
4. The most current version of the Lamp Inspection Handbook.

**BUREAU OF AUTOMOTIVE REPAIR
OFFICIAL LAMP STATIONS AND ADJUSTERS**

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CHAPTER 1 – Lamp Inspection

1.0 Customer Authorization

An estimate must be provided to the customer in accordance with the Automotive Repair Act before conducting a lamp inspection. The estimate shall include the cost of the certificate. If any additional repair is needed, the repair must be authorized by the customer before performing the repair.

A publication entitled “Write It Right” is available from the Bureau of Automotive Repair (BAR) to assist in the preparation of estimates and invoices. You may find this publication on BAR’s Web site www.autorepair.ca.gov, or you may contact the local BAR field office to obtain a copy.

B&P Code § 9884.9, CCR § 3353

1.1 Vehicle Identification

Document the vehicles’ model year, make, model, vehicle identification number (VIN), license plate number, and odometer reading on the written estimate, final invoice, and certificate, as applicable.

The VIN must be permanently affixed to the vehicle. If the vehicle is not equipped with a VIN or the VIN appears to have been damaged or altered, do not conduct the inspection and refer the customer to the Department of Motor Vehicles. If the vehicle is not equipped with a license plate, indicate “none”.

1.2 Inspection Overview

Only a Licensed Lamp Adjuster in a Licensed Lamp Station may perform an official Lamp Inspection. Licensed Adjusters shall inspect the condition of the lights and reflectors and, when needed, adjust the aim of the headlights, driving lights, passing lights, and fog lights, as applicable. A partial inspection may be performed when clearing a law enforcement action.

If a station lacks the knowledge, equipment, tools, or reference information necessary to inspect a particular vehicle, the station must not accept that vehicle for inspection. Additionally, if a station lacks the expertise, equipment, tools, or reference information necessary to repair a particular vehicle, or as a matter of policy does not make certain types of repairs, the station must inform the customer of this both orally and in writing on the written estimate before conducting the inspection.

Stations and adjusters must follow all personal, shop, environmental, equipment, and vehicle safety practices.

1.3 Lighting Inspection

Inspect the condition and operation of original equipment and replacement lights and reflectors. Refer to the General Lighting Requirements in section 1.13 for more information. Lights and reflectors must be properly installed and in good working condition as designed by the vehicle or, as applicable, the component manufacturer. Do not issue a certificate for a vehicle that does not meet or is deficient of this standard. See examples of deficiencies below. Partial inspections may be performed as necessary to clear a law enforcement action; see section 1.15 for more information.

As applicable to the vehicle, the inspection shall include:

- a. Headlights (low beam, high beam, and high beam indicator)
- b. Tail lights
- c. Rear brake lights
- d. Center high mounted brake light
- e. Turn signals (right, left, and turn signal indicator)
- f. Hazard warning four-way flasher
- g. Backup lights
- h. License plate light
- i. Marker lights
- j. Parking lights
- k. Reflex reflectors
- l. Clearance lights (large vehicles)
- m. Identification lights (large vehicles)
- n. Conspicuity systems (reflective sheeting – large vehicles)

Examples of deficiencies that shall prohibit certification:

1. Inoperative or dim lights, including headlights (low beam, high beam, and high beam indicator), tail lights, brake lights, turn signals, hazard warning flashers, backup lights, or license plate light.
2. Burned out or inoperative bulb filaments or light emitting diodes.
3. Missing, damaged, contaminated (including moisture), or severely discolored or deteriorated light, and/or reflector or lenses. Colored tape or other temporary materials covering or in place of missing, damaged, discolored, or deteriorated lenses are not acceptable.

4. Any auxiliary, screens, tints, films, covers, substances or any other alteration that reduces the amount of projected or reflected light, or reduces the original area of illumination.
5. Any headlight without the Department of Transportation (DOT) symbol, or any other lighting that does not meet the DOT Federal Motor Vehicle Safety Standard installed in place of original equipment.
6. Off-road lighting configured for on-road use.
7. Improperly installed lights and/or reflectors. Installation too high or low, wrong location, upside down, not secured, secured with tape, wire, or any other method not consistent with the vehicle or the equipment manufacturer's design.
8. Wrong color light projected or reflected. Any unlighted color is acceptable, provided it meets the requirements when illuminated.

1.4 Other Lighting Systems

Other lighting not listed in section 1.3 must meet the requirements listed below. Adjusters are not required to inspect off-road lighting systems. However, do not issue a certificate if a vehicle has off-road lighting that is installed to operate with or as a substitute for required on-road lighting.

a. Front facing lights

1. Maximum Number of Lights. No more than four lights of the type listed below may project from the front of the vehicle at any one time. For example, two headlamps and two fog lights.
 - Headlights
 - Driving lights
 - Passing lights
 - Fog lights
2. Driving Lights. Driving lights shall not exceed two and shall only operate to supplement the high beam headlamps; they shall not operate with the low beams. Add-on driving lights shall be mounted no lower than 16" and no higher than 42" from the ground.
3. Passing Lights (Motorcycles only). Passing lights shall not exceed two and shall be designed to temporarily supplement the low beam headlamps for the purposes of passing another vehicle. However, passing lights may operate with the high beams. See the lamp mounting chart for proper mounting heights.

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Add-on passing lights shall be mounted no lower than 24" and no higher than 42" from the ground.

4. **Day Time Running Lights.** Day time running lights shall be connected to turn off automatically when the headlamps are turned on and shall be mounted at each side of the front of the vehicle.
5. **Fog Lights.** Fog lights shall not exceed two and may be used together with the headlights, but shall not be used as a substitute for the headlights. The headlamps must remain on when the fog lamps are illuminated. Add-on fog lights shall be mounted no lower than 12" and no higher than 30" from ground with the top edge of the lenses no higher than the top edge of the low beam headlight lenses. Furthermore, the edge of the lenses shall be at least 4" from the center of any turn signal.
6. **Diffused Lights (lights that emit very low diffused or non-glaring light).** Diffused lights shall not resemble any original lighting and shall not project red from the front nor be installed within 12" of or in a position that interferes with the visibility or effectiveness of required lighting.
7. **Color of Lights and Reflectors.** Light projected and reflected from the front of the vehicle must be white or amber, with headlights projecting white. Exceptions apply to diffused lights. Any unlighted color is acceptable, as long as it meets the requirements when illuminated.

b. Rear and Side Facing Lights

1. **Additional Lights.** When more than one additional light is mounted on the rear of the vehicle, the lights shall be at the same height and equally spaced from the vertical centerline of the vehicle.
2. **Brake Lights.** Add-on brake lights shall be mounted near the side of the vehicle or on or near the vertical centerline of the vehicle.
3. **Brake Lights / Turn Signals.** Add-on combination brake and turn signal lights shall be mounted near either or both sides of the vehicle facing the rear.
4. **Continuous Illumination.** Add-on lighting, with the exception of brake lights and lights on emergency vehicles, must project a continuous light.
5. **Flashing Brake Lights.** Flashing brake lights shall not flash more than four times and shall only flash within the first four seconds of application.
6. **Cargo Lights.** Auxiliary lights used for cargo transfer must project downward and not illuminate more than 50 feet from the back of the vehicle.

7. Diffused Lighting. Diffused or non-glaring lighting (colored lights mounted in the fender wells or under the vehicle, etc.) shall not project red from the front nor resemble any required vehicle lighting and shall not be installed within 12" or in a position that interferes with the visibility or effectiveness of required lighting.
8. Color of Lights and Reflectors. Light projected and reflected from the rear of the vehicle must be white or amber/yellow. Exceptions apply for diffused non-glaring lighting. Any unlighted color is acceptable, provided it meets requirements when illuminated.

1.5 Lifted or Lowered Vehicles

For vehicles that appear to be lifted or lowered, measure the light mounting heights. The center of the headlights must be between 22" and 54" from the ground. The center of the taillights and brake lights mounted between 15" and 72". Refer to the General Lighting Requirements in section 1.13 for more information. Do not issue a certificate for a vehicle with lights installed outside of proper mounting heights.

1.6 Salvaged / Dismantled Vehicles

A salvaged or dismantled vehicle must be equipped with the type of lighting systems with which the vehicle was originally equipped. As applicable, a Licensed Adjuster shall conduct a complete and thorough inspection of lighting systems as described throughout this handbook. Be sure that all lights and reflectors are securely mounted and are at the proper heights and angles.

1.7. Specially Constructed Vehicles

A specially constructed vehicle¹ (SPCN) must be equipped with lighting equipment as listed in the General Lighting Requirements table in section 1.13. The center high-mounted brake light is optional for SPCN vehicles.

As applicable, a Licensed Adjuster shall conduct a complete inspection of all required lighting systems as described in the preceding sections.

¹ *The California Vehicle Code (Section 580) describes a "specially constructed vehicle" as a vehicle which is built for private use, not for resale, and is not constructed by a licensed manufacturer or remanufacturer. A specially constructed vehicle may be built from (1) a kit; (2) new or used, or a combination of new and used, parts; or (3) a vehicle reported for dismantling, as required by Section 5500 or 11520, which, when reconstructed, does not resemble the original make of the vehicle dismantled. A specially constructed vehicle is not a vehicle which has been repaired or restored to its original design by replacing parts.*

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Be sure all required lights and reflectors are securely mounted on a permanent and rigid part of the vehicle, other than glazing, and are installed at the proper angles and heights. Lamps and reflectors mounted directly on curved or sloping surfaces are not acceptable if they cannot be properly aimed. Reflectors or lamps mounted on flaps, hinges, or hangers are not acceptable unless they remain in a rigid position while the vehicle is in motion.

Any aftermarket equipment must be installed in accordance with the manufacturers' requirements. If original equipment lights and reflectors designed for a particular make of vehicle are installed, they shall be mounted at the same angle as on the vehicle for which they were originally designed. The installed height and lateral spacing must be within the appropriate height and location limits listed in the General Lighting Requirements in section 1.13 or Other Lighting Systems in section 1.4. Lighting equipment that has special mounting instructions (Top, Left, Right, etc.) must be mounted in accordance with those instructions.

Pay particular attention to the operation of lighting systems. When the headlights or parking lights are turned on, the taillights, side marker lights, and license plate lights shall also be illuminated. Turn signals must self-cancel and backup lights must turn on when the vehicle is put into reverse and turn off when taken out of reverse. The hazard warning four-way flashers must illuminate from all four corners of the vehicle and operate without turning on the ignition switch or any other power source.

1.8 Headlamp Aim

Section 3305 (b) of Title 16, CCR, requires that a work area be maintained in an Official Lamp Adjusting Station for inspecting and adjusting lighting equipment. Other work may be performed in the approved area, as desired. The work area shall be within a building and shall be large enough to accommodate the motor vehicle being serviced. BAR may make an exception to these requirements by approving a work area adjacent to a building for the purposes of inspecting and adjusting equipment on buses, trucks, truck tractors, trailers, and semi-trailers. The work area shall be kept clean and orderly.

Official Lamp Stations are required to have either a headlight aiming screen or an optical aimer, but may also have a mechanical aiming device.

Licensed Adjusters shall inspect and adjust headlights and, as applicable, auxiliary driving lights, passing lights, and fog lights. Acceptable methods to verify correct headlight alignment/aim are as follows:

1. Vehicle headlight aiming device (VHAD) incorporated into the headlight system may be used, provided the vehicle has not been damaged in a collision. Preparation of the vehicle is similar to other aiming methods as far as loading and physical condition of the vehicle. Adjusters shall follow the vehicle manufacturers' procedures for using the VHAD.

2. Aiming screens may be used for all headlights and auxiliary lights. Provisions shall be made so that the screen is shaded from any background that could affect aiming functions. Refer to Appendix A, pages 20-21 of this publication for more information.
3. Optical type headlight aiming equipment² may be used for all headlights and auxiliary lights. Adjusters shall follow the equipment manufacturers' instructions to determine light applications and, as applicable, proper aim. This includes proper use, calibration, and floor slope compensation.
4. Mechanical type headlight aiming equipment² may only be used for lights manufactured with corresponding aiming pads on the lens. Adjusters shall follow the equipment manufacturers' instructions to establish proper aim. This includes, but is not limited to, proper use, calibration, and floor slope compensation.

1.9 General Headlamp Aim Specifications

Vehicle headlamps shall be adjusted in accordance with the Society of Automotive Engineers (SAE) Lighting Inspection Code, J599, or the most current SAE standard.

Visual and Optical Headlamp Aiming

High Beam Lights. The center of the high intensity zone of the lamp must be from 10 cm (4 in) up to 10 cm (4 in) down from the horizontal center line of the lamp and, from 10 cm (4 in) left to 10 cm (4 in) right of the vertical line of the lamp on a screen at a distance of 25 feet (7.6 m) from the headlamps.

Low Beam Lights. The inspection limits in the vertical direction for low beam headlights or the low beam of a dual beam headlight, shall be determined by the height of the vertical center of the headlamp from the ground as noted in Table 1. In the horizontal direction, the left edge of the high intensity zone shall be located from 10 cm (4 in) left to 10 cm (4 in) right of the vertical centerline of the light. The viewing screen shall be located at a distance of 25 feet (7.6 m) from the front of the headlamps.

² Aiming equipment must meet Society of Automotive Engineer standards as confirmed by the aiming equipment manufacturer through laboratory testing.

Table 1 – Mechanical aim headlamp vertical low-beam aim criteria

Headlamp Mounting Height	Nominal Vertical Aim	Aim Inspection Limits from Nominal Vertical Aim
22 to 26 inches (56 to 90 cm)	No offset (0' vertical)	4 in. up to 4 in. down (100 mm up to 100 mm down)
36 to 48 inches (90 to 120 cm)	2" below (50 mm below)	2 in. up to 6 in. down (50 mm up to 150 mm down)
48 to 54 inches	4 " below (64 mm below)	1.5 in. up to 6.5 in. down (40 mm up to 165 mm down)

1.10 Aiming Preparation

Before checking the headlight aim, Adjusters must inspect for the following and make necessary corrections prior to the adjusting or checking aim:

- a. Check that all tires are properly inflated to the values specified by the vehicle manufacturer.
- b. Check the functioning of, (if equipped), any "level ride" or pneumatic/hydraulic suspension. If required, run the engine during lamp aiming or inspection.
- c. Check condition of any light mounting and adjustment assemblies and when necessary, clean and lubricate adjustment screws.
- d. Clean the lenses.
- e. Check for chipped aiming pads if using mechanical aimers.
- f. Position the vehicle in the flat work area, free of depressions or other irregularities that would cause the vehicle to sit unevenly.
- g. Ensure that the vehicle is loaded as normally operated including the weight of driver in the front seat.
- h. Always refer to the aiming equipment manufacturer's operating instructions.

1.11 Final Adjustment Verification

The following steps are recommended to ensure a quality aim with all aiming methods, as applicable:

- a. After each adjustment, jar the vehicle near the light assembly to settle the aiming mechanisms and then verify aim.
- b. Re-check horizontal and vertical aim after each adjustment.

- c. The last turn of the adjusting screws should be in a clockwise direction. This will help eliminate the backlash that can occur in some aiming adjustment mechanisms.
- d. Verify the aim of a new replacement sealed beam headlight after installation since the aiming is controlled through the lens and not by the light mounting surface or housing.
- e. Recheck headlamp aim after reinstallation of bezels or other trim around headlights.

1.12 Motorcycle Aim

The aiming of motorcycle headlamps must be performed using either an aiming screen or optical aiming machine.

The motorcycle must be positioned on a flat working area with the tires between two straight rails on the floor. These rails are to be used to maintain the alignment between the front and rear wheels. If an aiming screen is used, the headlight(s) must be positioned exactly 25 feet from and perpendicular to the aiming screen. The vertical reference line on the screen must be in the same plane as the work area on which the motorcycle is placed. The motorcycle must be held in an upright position with the wheel straight ahead and the driver or the driver's equivalent weight on the seat.

If an optical aiming machine is used, it must be aligned with the guide rails on the floor and perpendicular to the machine. Always follow the aiming equipment operating instructions.

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ALL VEHICLES				
Lights/Reflectors	Location	Height (2)	Color (3)	Number
Headlights Headlight assemblies must be labeled with "DOT" indicating they meet FMVSS. (Not required on trailers).	Front	22" - 54"	White (Some DOT lights emit slight blue light)	2 or 4 or integral beam system.
Tail Lights	Rear	15" - 72"	Red	2 or more
Rear Brake Lights Brake lights may flash or pulse up to four times within four seconds of application.	Rear	15" - 72"	Red (May be Amber pre-1979)	2 or more
Center High- mounted Brake Light 1986 & newer cars, 1993 multipurpose passenger vehicle, trucks, and buses less than 80" wide 10,000 GVWR and less. (Optional for SPCN vehicles).	Rear on vertical center line	Min 34" ⁴	Red	1
Turn Signals Turn signals must self-cancel with steering rotation). (Rear signals not required on truck-tractors if the front signals are double-faced and clearly visible from the rear. (Unless originally equipped, turn signal indicators are optional for vehicles in which the turn front signals may be seen from the driver's position).	Front Rear	15" - 83" 15" - 83"	Amber Red or Amber	2 or more 2 or more
Hazard / Four-way Flasher 1966 and newer. Must operate without turning on the ignition switch or other equivalent. (Not required on trailers).	Front Rear	15" - 83" 15" - 83"	Amber front Red or Amber rear	2 or more 2 or more
Parking Lights Vehicles less than 80" wide. (Not required on trailers).	Front	15"-72"	Amber or White	2 or more
Side Marker Lights (Not required on truck-tractors).	Side near front Side near rear	15" min. 15" min.	Amber front Red rear	1 each side 1 each side
Intermediate Marker Lights (Required on vehicles 30' in length or more)	Side near center	15" min.	Amber	1 each side
Backup Lights 1969 and newer. (Not required on trailers).	Rear		White	1 or more
Lights/Reflectors	Location	Height (2)	Color (3)	Number
License Plate Light (Must illuminate	Rear		White	1 or more

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Rear Reflex Reflectors	Rear	15" - 60"	Red	2 or more
Side Reflex Reflectors (Not required on truck-tractor).	Side near front Side near rear	15" - 60" 15" - 60"	Red front Amber rear	1 each side 1 each side
Intermediate Side Reflectors (Required on vehicles 30' in length or more)	Side near center	15" - 60"	Amber	1 each side
VEHICLES 80" WIDE or WIDER				
Lights/Reflectors	Location	Height (2)	Color (3)	Number
Identification Lights (Not required on trailers or on rear of truck tractor).	High as practical front and rear.	6"-12" on center.	Amber front Red rear	3
Clearance Lights (Not required on rear of truck tractor.)	Widest point to indicate width of vehicle front and rear. May be mounted in other areas.		Amber front Red rear	2
TRUCK TRACTORS				
Lights/Reflectors	Location	Color (3)	Number	
Conspicuity Systems (5) Upper Rear Two white 12" long strips of retro reflective sheeting positioned horizontally and vertically on the right and left upper corners of the rear of the body, as close to the top as practicable, and as far apart as practical.	Rear upper corners	White	2 pair each side	
Conspicuity Systems (5) Lower Rear. (Retro reflective sheeting and/or array of reflex reflectors positioned horizontally on the rear fenders, mudflaps, mudflap brackets, if no mudflaps, on brackets behind or above tires. Reflex reflectors are not required for vehicles equipped with conspicuity systems. (Retro reflective sheeting shall be at least 3 inches from any required lamp or reflector unless of the same color as such lamp or reflector).	Rear, fenders, mudflaps	White and Red	2 each side	

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TRAILERS 80" WIDE or WIDER and a GVWR of 10,001 and GREATER				
Lights/Reflectors	Location	Height (2)	Color (3)	Number
<p>Conspicuity Systems (5) Lower Sides and Rear. Retroreflective sheeting and / or array of reflex reflectors must be affixed horizontally on the side or rear of the trailer. The sheeting shall begin and end as close to the front, rear and sides of the trailer as practical. The rear must also have sheeting across the length of the underride guard. The edge of the red reflection may not be within 3" of the edge of any required amber light. The white reflection may not be within 3" of any required amber or white light. (Reflex reflectors are not required for trailers equipped with conspicuity systems).</p>	<p>Side lower edge Rear lower edge</p>	<p>15"-60"</p>	<p>Red and White lower sides and rear. White upper rear.</p>	<p>Across side, rear, and underride protection frame.</p>
<p>Conspicuity Systems (5) Upper Rear. Two pairs of white 12" long strips of retroreflective sheeting must be positioned horizontally and vertically on the right and left upper corners of the rear of the trailer body, as close as practicable to the top of the trailer and as far apart as practicable.</p>	<p>Rear upper corners</p>		<p>White</p>	

1.13 General Lighting Requirements³

These requirements are not intended to be all inclusive. As stated in the preface of this publication, Licensed Adjusters shall possess the knowledge, skills, and abilities necessary to conduct a complete and accurate inspection for all vehicles accepted for inspection. Each Official Lamp Station must maintain access to current requirements, technical information, and instructions relative to the types and designs of lamp systems inspected, adjusted, and repaired by the lamp station.

1. All heights are measured from the level road surface to the center of the light or reflector.
2. Any unlighted color is acceptable, provided it meets requirements when illuminated.
3. Refer to Federal Motor Carrier Safety Administration (FMVCA) publications and Federal Motor Vehicle Safety (FMVSS) standard 108 for more information.

1.14 Proper Mounting

Taillights, stop lights, turn signals, and reflex reflectors must be mounted so the axis of the light beam is parallel to the longitudinal axis of the vehicle. The mounting of lights and reflectors directly on curved or sloping surfaces is not acceptable, unless they have been designed by the manufacturer to be installed at the angle in which they are installed.

When two or more lights or reflectors are required on the front or back of the vehicle, they must be installed symmetrically (same on both sides) and as far apart as practical.

1.15 Clearing a Law Enforcement Action

When a customer requests an inspection to clear a law enforcement action, a station may, at the customer's request, inspect the vehicle to the extent necessary to confirm the defects identified by the law enforcement action have been corrected. If the corrections have been completed, the Adjuster may issue a certificate of adjustment / compliance.

If a partial inspection is performed, the station shall inform the customer both orally and in writing on the final invoice of any other defective condition/s present, which came to the adjuster's attention while inspecting the vehicle for corrections needed to clear the law enforcement action.

³ Excludes Motorcycles

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The certificate and, when applicable, any law enforcement document may only be signed by the Licensed Adjuster who conducted the inspection.

A station may, with the customer's consent, perform a full lamp inspection.

1.16 Certificates of Adjustment / Compliance

A certificate of adjustment/compliance shall only be issued when the vehicle's lighting systems are found to be in good working condition as specified by the vehicle and / or component manufacturer and in compliance with the California Vehicle Code and Federal Motor Vehicle Safety Standards. A Licensed Station and Adjuster shall not issue a certificate for a vehicle that does not meet these standards. As described in section 1.15, a certificate may be issued for a partial inspection conducted to verify defects identified by a law enforcement action, after correcting any deficiencies identified on the citation.

A Licensed Station and Adjuster shall not issue a certificate for a vehicle that does not meet these standards.

Only the Licensed Adjuster who conducted the lamp inspection may sign the certificate of adjustment / compliance. By signing the certificate, the Licensed Adjuster certifies that he or she has inspected the vehicle in accordance with BAR requirements and the vehicle meets the prescribed standard.

A Certificate of Adjustment / Compliance is valid for 90 days from the date of issuance.

1.17 Inspection Results

A Licensed Station shall document the inspection results on the final invoice, including the certificate number, any deficiencies that prohibited certification, and, as applicable, descriptions of any lamp adjustment.

An inspection checklist that includes this information attached to the invoice satisfies these requirements.

LICENSING OF OFFICIAL LAMP ADJUSTING STATIONS

2.0 Official Lamp Stations

An Official Lamp Station must employ a Licensed Lamp Adjuster and must possess the tools, equipment, and reference information needed for the types of vehicles the station accepts for certification or work related to certification.

The specific and detailed requirements applicable to official lamp adjusting stations are contained in Title 16, division 33, Chapter 1, Articles 2 and 3 of the CCR. The BAR provides a Lamp Station Checklist and a Laws and Regulations publication detailing these requirements. The checklist and laws and regulations publication may be found on the BAR website www.bar.ca.gov, obtained from a BAR field office, or by calling BAR's toll free number at (800) 952-5210.

2.1 Fleet Stations

A station license may be issued to an owner of a fleet of three or more vehicles provided the station meets the requirements for the station. A fleet owned station need not display a sign or post prices but is required to maintain the necessary manufacturer's specifications and instructions only for those vehicles serviced by the fleet owned station. Such a station shall service and maintain only those vehicles owned and/or operated by the fleet.

2.2 Application for Station License

An application for Lamp Adjusting Station license is available on the BAR website at www.bar.ca.gov, or may be obtained from any BAR field office, or by calling BAR's toll free number at (800) 952-5210.

Applicants must complete the application and submit it to the BAR licensing unit with a \$10 fee to the address on the application.

Once a complete application is processed by the Licensing Unit, a BAR representative will inspect the station to verify the station meets BAR licensing requirements, including the employment of an adjuster with required tools, equipment, signs, etc. A station that passes the inspection will be issued an Official Lamp License.

2.3 Station Licensing Fees

Lamp station licenses issued by the Licensing Unit are subject to the following fees:

- a. For an initial license, including a change of ownership or class of station: \$10.
- b. For a renewal license that is renewed prior to expiration of the current license: \$5.
- c. For a duplicate of a lost, destroyed, or mutilated license: \$2.
- d. For renewal of an expired license that has not been expired for more than 30 days: \$7.50.

- e. For a replacement of a license due to a change of address or a change of name not involving a change of ownership: No Fee.

Change of Address Defined. “Change of address” means any relocation of a licensed business not involving a change in ownership or any change in the mailing address, including a change resulting from street renumbering.

Change of Ownership Defined. “Change of ownership” means any change in legal ownership of the licensed business, including the addition or deletion of partner, transfer of ownership between members of a family, or disposal of one business in favor of a similar business at a different location.

2.4 Lost, Destroyed, or Mutilated Licenses

If an official station license is lost, destroyed, or mutilated, an application with the appropriate fee may be submitted for a duplicate license. If a lost license is found following issuance of a duplicate, the original license shall then be returned to BAR.

2.5 Replacement License

In the event of a change of name, not involving a change of ownership, or a change of address of the licensed station, the license shall be returned to the Licensing Unit with an application for a replacement license. The original license will be canceled and a corrected license for the balance of the unexpired term will be issued.

2.6 License Term

Official lamp adjusting station licenses are valid for one year and may be renewed upon expiration. Stations whose license has expired and has not been renewed shall immediately cease any activity requiring a license.

2.7 License Renewal

A renewal application is normally sent to the station prior to the expiration of the license. If the station does not receive a renewal application before the station license expires, the station should contact the Licensing Unit for further instructions. **NOTE: It is the responsibility of the station owner (not BAR) to maintain the status of the station license.** The station should send the renewal application with the renewal fee of \$5 to the Licensing Unit 30 days prior to the date of expiration. If the license is allowed to expire, the station may no longer operate as a licensed station. A license will not be renewed if the application is received by the Licensing Unit more than 30 days after the date of expiration. The dealer will have to apply for a new license and send \$10, the fee for a new license, to the Licensing Unit. For more information, visit the BAR website at www.bar.ca.gov. or contact the BAR Licensing Unit at (855) 735-0462.

2.8 Station Inspections

Each official lamp adjusting station will be inspected periodically by a representative of BAR. The licensee or an authorized employee will be required to sign BAR's completed Official Station Inspection Form. A copy of the completed inspection form will be provided to the licensee. Violation of BAR regulations noted during the inspection will be brought to the attention of the licensee for immediate corrective action. Failure to correct violations may result in action to suspend or revoke the station license or in the filing of a criminal complaint against the station owner and/or adjuster.

2.9 Voluntary Surrender of Licenses

The voluntary surrender of an official station or adjuster license is subject to the provisions of Section 3308 of Title 16 of the CCR. An official station shall cease performing the functions for which it has been licensed when it no longer has the services of a licensed adjuster, or when its station license has expired or has been surrendered, suspended, or revoked.

- (a) **Loss of Services of Licensed Adjuster.** An official station that no longer has the services of a licensed adjuster shall immediately remove or cover the official station sign in accordance with section 3308(b). If such station does not employ a licensed adjuster within 60 days, the station shall surrender its official station license to the BAR. In addition, all unused certificates of adjustments bought by the station to carry out the function for which it is no longer licensed, shall be returned to BAR.
- (b) **Removal of Sign.** An official station that is no longer authorized to perform the function for which it has been licensed shall remove or cover the sign pertaining to the licensed function. A station that has a multipurpose sign shall cover those portions of the sign that pertain to the functions for which it is no longer licensed.
- (c) **Return of Certificates.** When an official station license has expired or has been surrendered, suspended, or revoked, the station shall return to the bureau all unused certificates purchased by the station to carry out the function for which it is no longer licensed.

LICENSING OF OFFICIAL LAMP ADJUSTERS

3.0 Official Lamp Adjusters

Official Lamp Adjusters' licenses are issued to persons who have shown by examination that they are qualified to test, inspect, adjust, and repair the lamps and related electrical systems on all vehicles.

3.1 Adjuster License Application

The license application is available on the BAR website at www.bar.ca.gov, or may be obtained from any BAR field office, or by calling BAR's toll free number at (800) 952-5210. Applicants must complete the application and submit it to the BAR Licensing Unit. Each application for a new or renewal license shall include a fee of ten dollars (\$10) for a new license or five dollars (\$5) for a renewal license.

If the application is submitted, the applicant may schedule the state licensing examination. A passing score on the examination is required for the issuance of an adjuster license.

3.2 License Term

Official lamp adjuster licenses issued by the BAR are valid for four years and shall expire on the last day of the adjuster's birth month; therefore, an initial license may be valid for 42 to 54 months. Subsequent licenses are valid for up to four years, expiring on the last day of the adjuster's birth month.

For more information, visit the BAR website at www.bar.ca.gov or contact the BAR Licensing Unit at (855) 735-0462.

3.3 Display of Official Licenses

As with the official station license, the license of each official adjuster employed in an official lamp adjusting station must be prominently displayed in the station under glass or other transparent covering. When any licensed lamp adjuster ceases to be employed at an official station, the adjuster's activities as a lamp adjuster shall immediately cease, and he/she shall not engage in the activity of an official lamp adjuster. Any unused certificates must remain with the Official Lamp Station and are not the personal property of the adjuster. When he/she is again employed at an appropriate official lamp adjusting station, he/she may resume his/her activity unless the term of the license has expired.

3.4 Lost, Destroyed, or Mutilated Adjuster License, or Additional Copy

An application for a duplicate license shall be submitted to the BAR Licensing Unit whenever an adjuster license is lost, illegible, or destroyed. If a duplicate is desired for an illegible or mutilated license, the original license shall accompany the application. If the license has been lost or destroyed, it shall be so noted on the application. A written examination is not required when the application is for a duplicate license. The fee for a duplicate license is \$2 each.

3.5 Renewal

BAR normally sends the renewal application to the adjuster prior to the expiration of the license. (If the adjuster does not receive a renewal form before the license expires, then he or she should contact the BAR Licensing Unit for further instructions). The adjuster should send the renewal application with a renewal fee of \$5 to the BAR Licensing Unit 30 days prior to the date of expiration.

If the license is allowed to expire, the adjuster shall no longer perform official lamp inspections.

A license will not be renewed if the application is received by the BAR Licensing Unit more than 30 days after the date of expiration. An application for a new license must be submitted along with a \$10 fee.

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APPENDIX

The use of an aiming screen requires a visual inspection of the light beam patterns and aim on a screen 25 feet in front of a vehicle. All headlamps and forward facing auxiliary lamps, including fog lights, can be aimed in this manner.

- a. Working Area. A working area at least 10 feet wide and long enough to accommodate the vehicle to be tested plus 25 feet must be designated for the use of an aiming screen. This area must be flat on a continuous plane free of surface irregularities that would affect lighting aim. The aiming screen end of the area must be shaded from background light that could affect visual aiming functions. The screen must be a non-glossy white colored material such as matte white paint or light colored canvas. Figure 2 provides a sample aiming screen. Figure 3 illustrates a method to establish the same continuous plane.
- b. Positioning Vehicle. Inspect the vehicle in accordance with the instructions under the Aiming Preparation described in Section 1.10 of this handbook. The vehicle must be positioned so that the front lights are exactly 25 feet from the aiming screen and the longitudinal axis of the vehicle is perpendicular to the plane of the aiming screen, see Figure 4.
- c. Aiming Reference Lines. A vertical reference line must be established on the screen by sighting through the rear window and across the hood using any centered body feature or rear view mirror (if centered) as sights. The spacing measured between the lamps and the vehicle centerline can be indicated on the screen to locate the vertical aiming lines directly in front of each lamp. The lights can now be checked or adjusted in accordance with the applicable tolerances shown in Figures 5 through 12. Cover lights that are not being checked or adjusted to eliminate confusion of beam patterns.

APPENDIX

Sample Aiming Screen

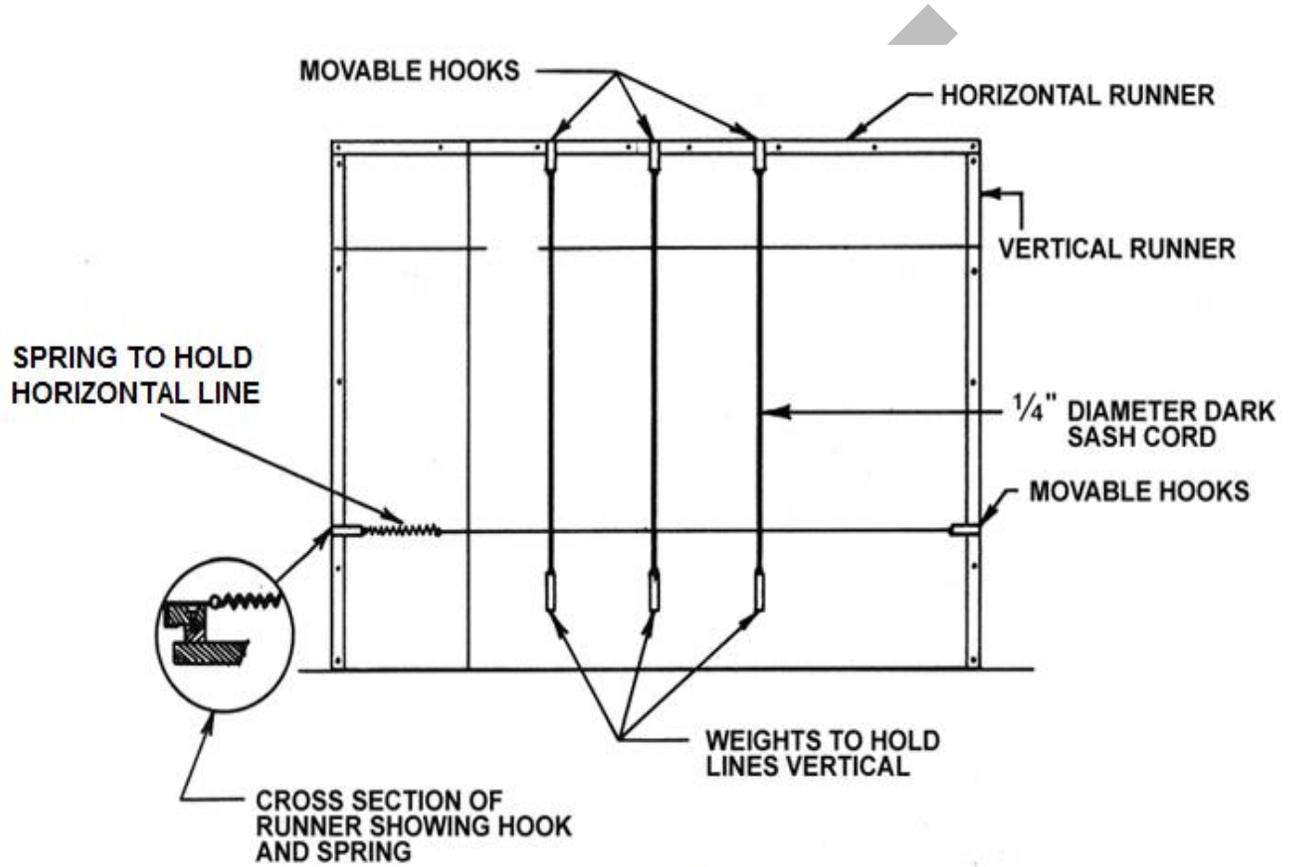


Figure 2

APPENDIX

Establishing Continuous Plane

- A. Sighting across the top of two yards sticks will establish a reference line 36" above and parallel with (same plane) the working surface. Mark the 36" reference line on the aiming screen. This mark establishes the reference from which lights are aimed.
- B. From the 36" reference mark, add marks in one inch increments below the reference mark to 6" and above the reference mark to 60".
- C. The heights of the light centers measured from the working surface can now be transferred to the corresponding heights on the aiming screen.

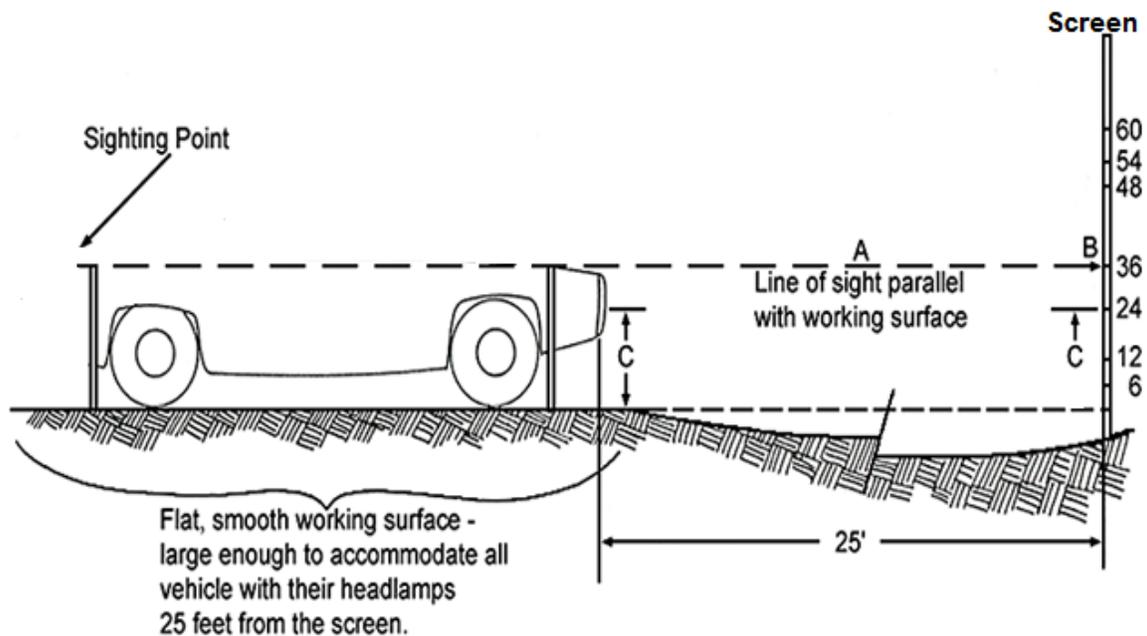


Figure 3

APPENDIX

Vehicle Position / Centerline

When a vehicle does not have an identifying feature to establish a centerline, the following procedure may be used to find center:

- A. Measure across the engine hood and mark the center. A small magnet is a good marker; however, be careful not to scratch or damage the vehicle's paint.
- B. Follow the same procedure on the rear deck of the vehicle.
- C. Position the vertical reference line on the aiming screen using the objects as sights.

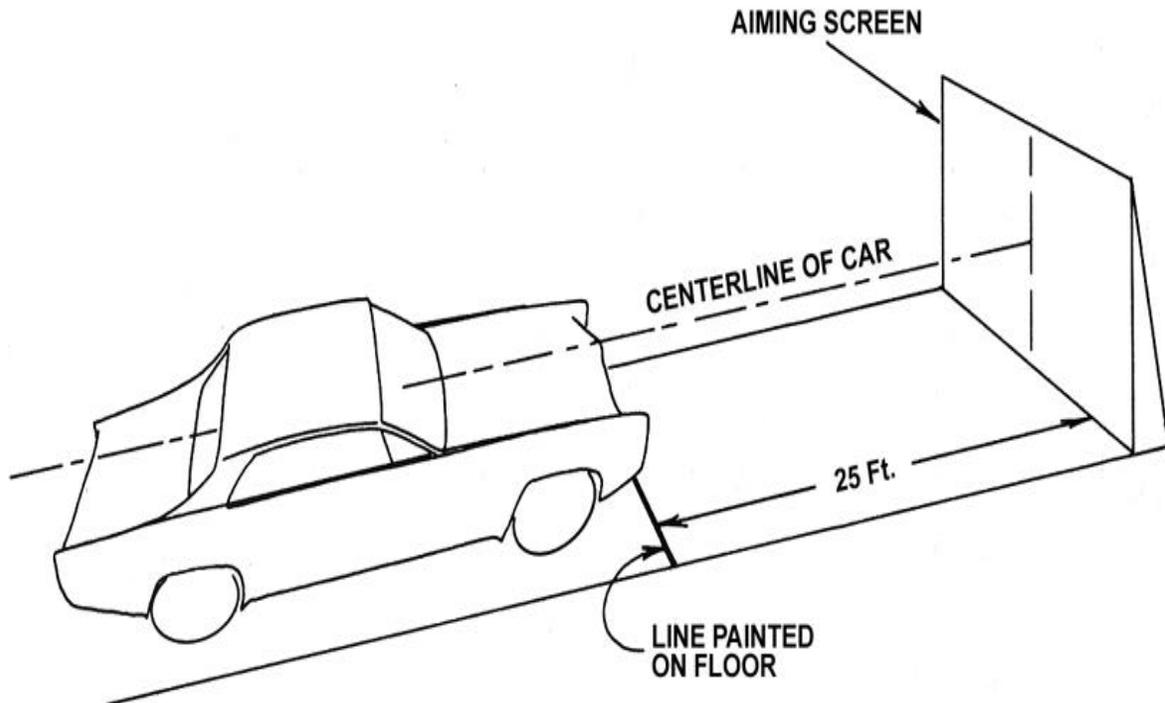
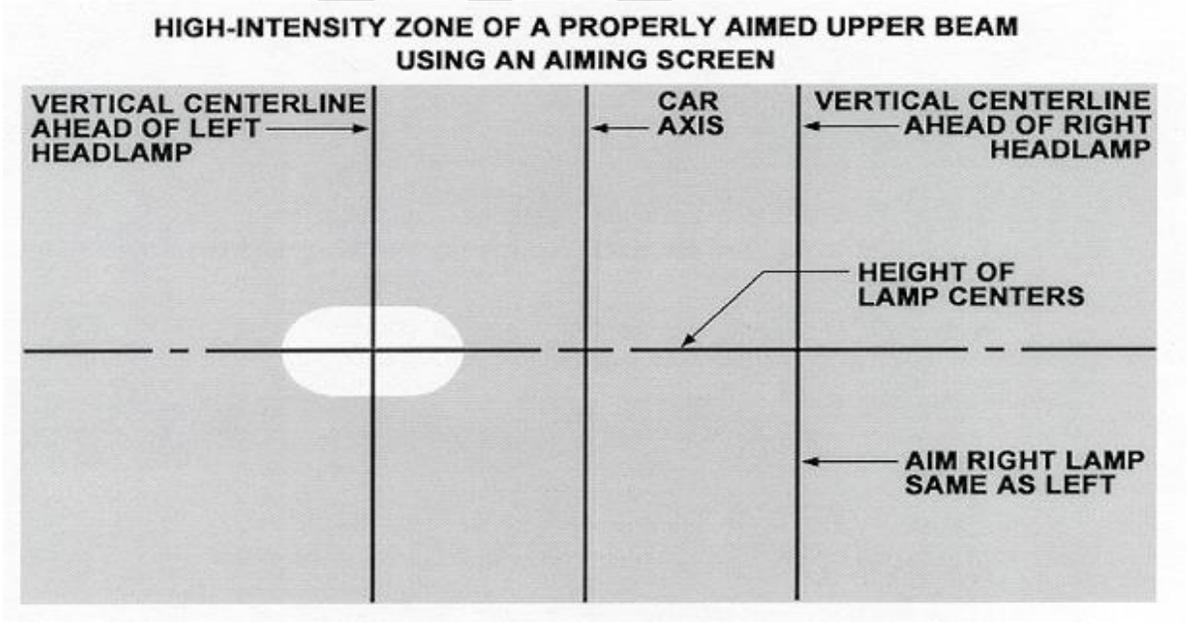
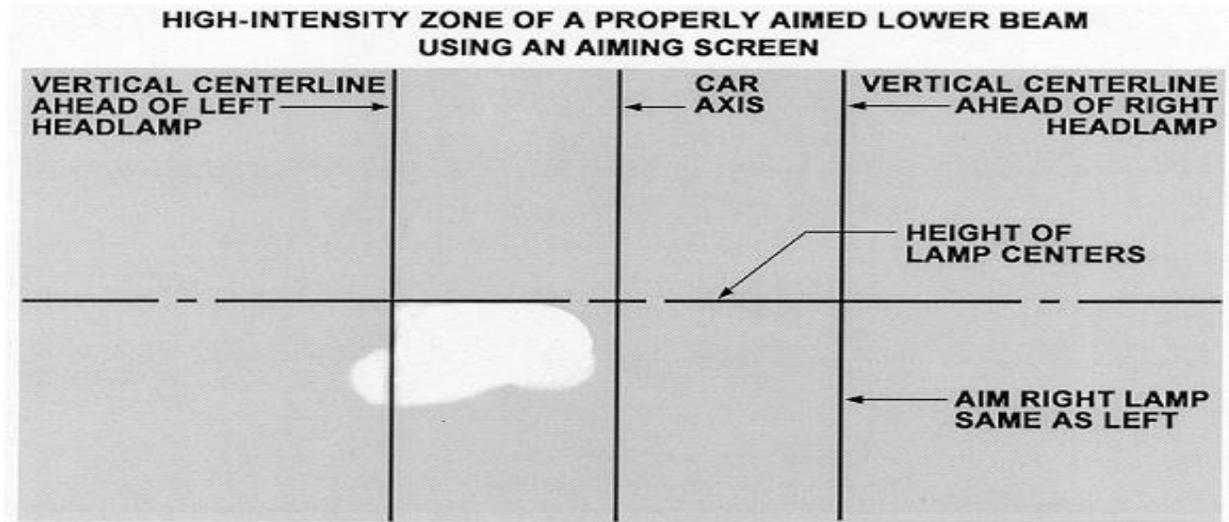


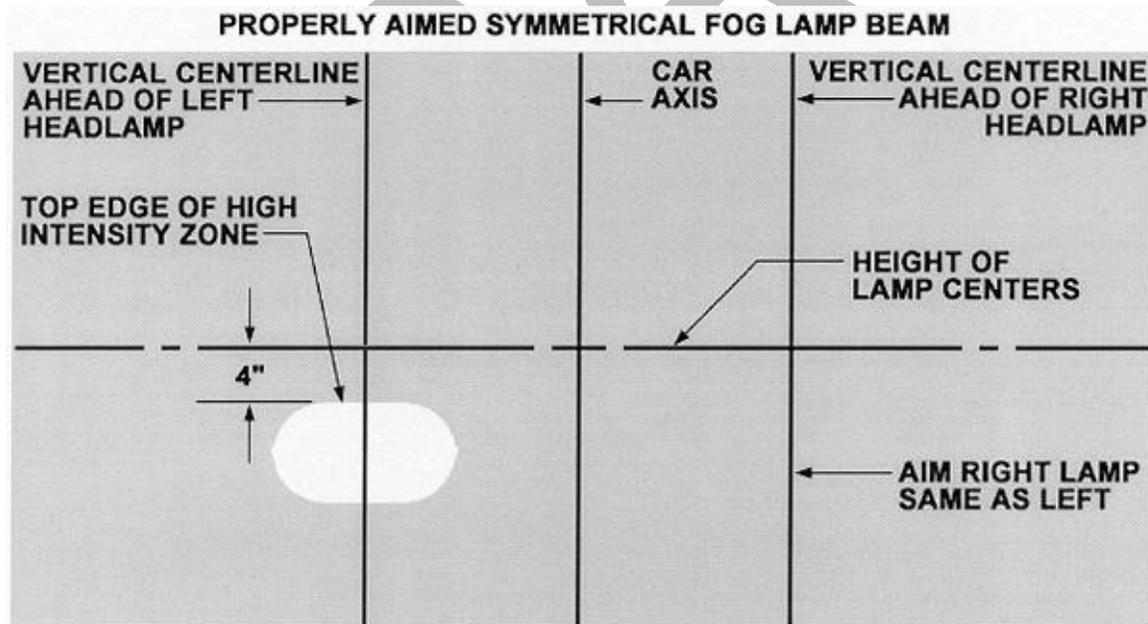
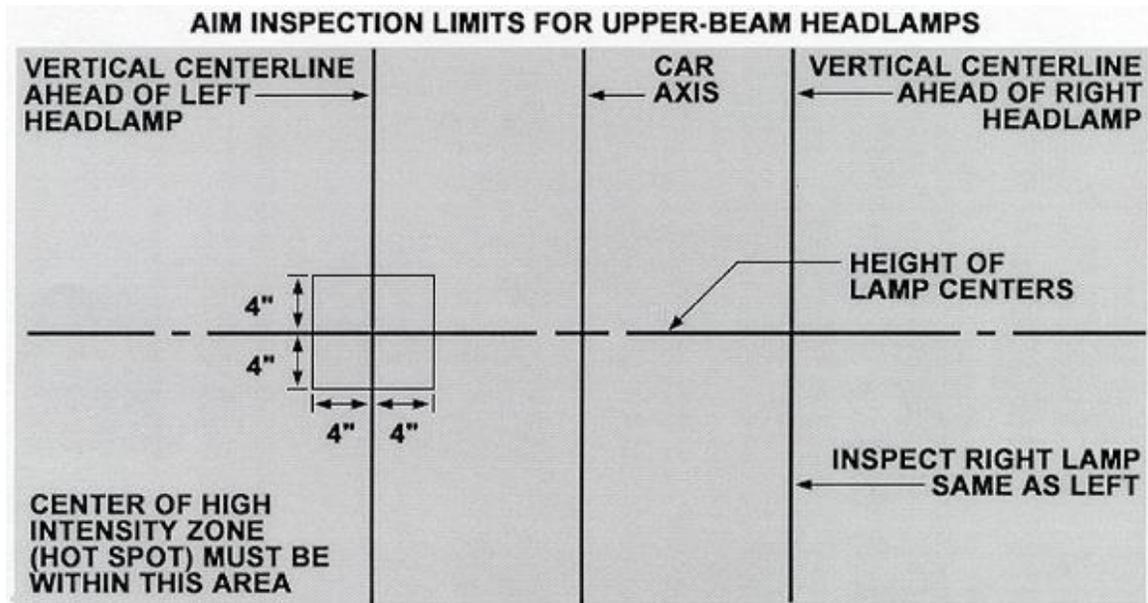
Figure 4



APPENDIX



APPENDIX



APPENDIX

