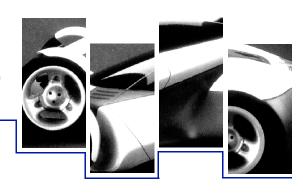
FACTS

SUMMER 19



LIGHTING: TRAFFIC SAFETY TIPS

What's the New Technology?

The headlights, taillights, and signal lights on your vehicle are safety items that allow you to see and be seen. Headlamps have a variety of shapes to provide improved aerodynamics (for better fuel economy) and styling.

Most headlamps are designed so that the owner can replace the light bulb when it burns out. Because of their small size, spare bulbs can be stored in the glove compartment. Usually, they can be replaced without special tools

INSIDE

9

- Traffic Safety
 Tips
- Replacing a Headlamp
- Auto Safety
 Hotline



U.S. Department of Transportation

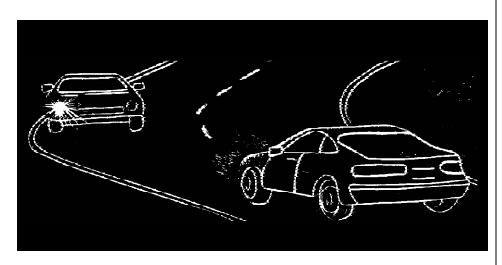
National Highway Traffic Safety Administration or the need to re-aim the headlamp. Many newer headlamps have on-vehicle aiming devices that can help maintain correct aim.

Headlamps

Replacing damaged headlamps should not be postponed even though the bulb inside still works. A cracked lens allows the accumulation of moisture and dust inside the lamp that results in loss of illumination for you and increased glare to other motorists. Also, the reflector in some lamps may deteriorate over time and result in significant loss of illumination. Even if there is no visible damage, the lamp needs to be serviced or replaced if moisture, rust, dust, or reflector deterioration is visible on the interior of the lens.

All headlamps need to be cleaned regularly, aimed properly, and the bulb or headlamp replaced promptly when burned out to provide the full level of safety for which they were designed.

Clean your headlamps when you clean your windshield. Dirt can reduce the light output as much as 75 percent. If your vehicle has plastic headlamps, be careful when cleaning. Although they are protected against abrasion, do not use scrapers or harsh cleaners which may scratch them and cause loss of illumination.



▲ Having a headlight out can be very dangerous. Artwork © 1989 Parlay International.

Keep your headlamps aimed properly. Have them checked about once a year. Also, check the aim when replacing a headlamp. Although this is not normally needed when replacing just the bulb, some of the aerodynamic headlamps need special attention when adjusting their aim. Procedures for replacing aerodynamic headlamps vary so check the owner's manual for your car.

Some headlamps require an adapter and special settings; some have the aiming hardware incorporated on the headlamp housing or mounting. If your vehicle has the hardware incorporated on the headlamp housing or mounting, the owner's manual provides the instructions you will need.

Check the owner's manual when replacing burned-out headlamps or headlamp bulbs. The owner's manual will provide you with instructions and procedures for replacing the headlamp or bulb and re-aiming it after it has been replaced. (See general instructions on next page.)

Install auxiliary lamps correctly. Make certain they are mounted securely and aimed to prevent glare in the eyes of oncoming drivers. If you are having difficulty adjusting the aim, have a service facility perform this work.

Turn Signals

When you use your turn signal, the indicator on your dashboard (usually a green arrow) should be blinking about one-to-two times per second. If it does not blink, or blinks at a faster rate, you may have a burned out bulb in one of your turn signals. A burned out bulb will affect the way the front and rear turn signals flash. For example, if your right rear bulb is burned out, the right rear lamp will remain dark, and the right front lamp may be illuminated but will flash faster than normal or not flash at all.

If you plan to use your vehicle to pull a trailer, replace your turn signal flasher unit with a heavy duty unit as the extra demand on your unit may cause it to overload. If you do not tow regularly, install the original flasher after towing because the heavy-duty unit does not give you a warning when the turn signal lamp does not work.

The Center High Mounted Stoplamp

Some vehicles have a stoplamp that is usually mounted in the rear window at the vehicle's centerline. The center high mounted stoplamp (CHMSL) is required to reduce the likelihood of being involved in a rear end collision. Drivers respond to this light faster than they respond to conventional, lower mounted brake lights because it is not easily confused with other signal lights, comes on only when the brakes are applied, is mounted on the centerline of the vehicle near the eye height of following drivers, and is more easily seen in a line of traffic.

This light is required on all passenger cars manufactured since September 1, 1985, and all light duty trucks, vans, and sport utility vehicles manufactured after September 1, 1993.

If you own a pickup truck that has a cap, make sure the cap does not block the view of the CHMSL. If it does, your cap dealer can install a supplemental CHMSL.

All Lamps

When checking lamps, be sure to check for damage: cracks, moisture, bulb failure, and missing screws. For information on the replacement bulbs, see your owner's manual. On lamps with multiple bulbs, such as tail lamps, stop lamps, or turn signal lamps, all bulbs must be operational.

Reflectors for Large Trailers

Large trailers (over 10,000 pounds) are involved in accidents when other drivers do not identify them in time to avoid a crash. Red and white reflective markings are required on the sides and rear of large trailers manufactured after December 10, 1993, to make these trailers more visible to other drivers at night. The patterns are similar to that used on railroad crossing gates. The markings will assist drivers in identifying large trailers from greater distances and reduce the number of accidents.

REPLACING A HEADLAMP

Replacing a Headlamp

When a headlamp burns out, replace it immediately for your safety and to avoid a fine.

If yours is a late-model vehicle, it should have one of these types of headlamps:

- ❖ Conventional sealed-beam unit (sealed lens and bulb).
- Halogen sealed-beam unit.
- Composite (flush fitting) headlamp that allows you to put in a small bulb instead of replacing the entire lens-andbulb unit.

Before replacing a headlamp, consult your owner's manual.

Sealed Beam Models

To replace a sealed-beam headlamp, first remove the trim covering the lamp's mounting screws. Then remove the three or four mounting screws. Take care not to loosen the two aiming screws

when removing the mounting screws. Free any corroded screws with penetrating solvent.

While holding the lamp, remove the trim ring surrounding the beam. Unplug the wire connector and plug it into the new sealed beam. Refit the trim ring. Make sure the beam works and is right side up. Replace screws and trim. Be sure to have the headlamp reaimed, as discussed below.

Other Types of Headlamps

Composite headlamps are renewed simply by replacing the bulb in back of the lens housing. Be careful to avoid getting dirt in the lens housing.

Always handle a replaceable halogen bulb by its base, not by the glass. Oil from your hands will create hot spots on the glass and cause early failure.

If you replace a bulb correctly, your headlamp aim should be undisturbed. Proper aim lets you see the road without distracting oncoming traffic. If oncoming

drivers flash their high beams at you, have your aim checked.

The best way to aim your headlamps accurately is to have a service station or dealer do it with a professional aiming device. This measures both the vertical and horizontal planes. Low cost do-it-yourself aimers are available for some types of sealed beam headlamps, but these adjust headlights only on the vertical plane and the instructions must be followed closely.

©1989 Parlay International, Reprinted with permission.

IF YOU THINK YOUR MOTOR VEHICLE HAS A SAFETY PROBLEM, WE WANT TO HEAR FROM YOU

AUTO SAFETY HOTLINE (800) 424-9393

If you think that your vehicle has a safety problem, you can assist the National Highway **Traffic Safety Administration** (NHTSA) by completing and mailing back the Vehicle Owner's Questionnaire (VOQ) included with this fact sheet, or calling the Auto Safety Hotline.

The toll-free Hotline number. (800) 424-9393, can be reached from anywhere in the United States. If you are calling from the Washington, D.C. metropolitan area, the number is (202) 366-0123. A Spanish-speaking operator is available weekdays from 8 a.m. to 4 p.m., Eastern time. The Hotline is available to the hearing impaired through a teleprinter (TTY) number, (800) 424-9153. In the Washington, D.C. area the TTY number is (202) 366-7800.

If it is determined that a safety defect exists, the manufacturer has to fix the problem at no cost to the owner.

If there are any documents relevant to your case, including copies of repair bills and letters to the manufacturer, attach them to your completed VOQ.

If you are not sure of any information requested in the VOQ, leave the box blank. But we must have the Vehicle Identification Number (VIN) to process your questionnaire. The VIN is a 17digit number that can be seen through the front windshield on the driver's side of the dash-

board. When reporting a tire problem, the DOT identification (located on the sidewall) is needed.

The VOQ asks if you authorize NHTSA to provide a copy of your report to the manufacturer. If so, check YES on the VOQ and sign and date it. When we send the report to the manufacturer, it often results in a satisfactory solution of individual problems. But NHTSA cannot order corrective action unless the vehicle or item of equipment is determined to have a defect and a safety recall campaign is conducted.

Check out our home page for information on a variety of vehicle safety topics. http://www.nhtsa.dot.gov/





U.S. Department of Transportation National Highway Traffic Safety **Auto Safety Hotline**

Vehicle Owner's Questionnaire

NATIONWIDE 1-800-424-9393 DC METRO AREA (202) 366-0123

FOR AGENCY USE ONLY								
Date Received	Od-or rt-dt od-rt up-ltr							
	Reference No.							
Day Time Telephone Number								

Admii	nist	ratio	n												┛					-	Deference	a Na	
OWNER INFORMATION (Type or Print)												1						Referenc	e No.				
Name													1										
Street	No		Apt. No													Day Time Telephone Number							
City State Zip Code ()												
•					•					•				er of your vehic od address to th		_	_	_					
Signat	ture	of O	wner														_ Da	ate	<i></i>	_/	_		
											VEHI	CL	E INFO	ORMATION									
Vehicle Ident. No. (/IN.)	•			of er's side)	Vehicle Make				Veh	icle Model		Vehicle Year			Curr	Current Odometer Reading			
Purcha	se C	ate		Deale	Dealer's Name											Na Cultiradara Gas						sel s	
☐ Ne	w [Us	ed	r	С	ity _						_	State	Zip Code ₋					ders _		☐ Fue	I Injection	
Transr	niss	ion T	ype	Anti	lock Br	akes			nt System					Cruise Control	l Dri	vetrain	Boo	dy Style	∏ Ha	atch Ba an	ıck		
☐ Manual				□ <i>\</i>	⁄es			•	erside Airbag							☐ Front ☐ Stawag ☐ Pick Up Truck ☐ Rear ☐ 4-Door ☐ Other							
☐ Automatic [_ n	□ No □ 3-Point Belt □ No										4-Wheel 2-Door								
								FAI	LED	CC	MPON	ΙE	NT(S)/F	PART(S) INF	ORN	MATION	I						
Comp	one	nt		Part Name(s)													Location Left Right Front Rear				Failed Part(s) ☐ Original ☐ Replacement		
No. of Failures				Date	e(s) of	Failu	re(s)						Manufacture Contacted?				NHTSA Previously Contacted?						
				Mileage at Failure(s)												Yes No					☐ Yes ☐ No		
								- (-)						NT INFORM e detailed infor			1			I			
Accident Fire Number Persons Injured Number of Fatalities									TE	 Estimated	Pror	erty Dar	Reported to Police										
_ Y€			No	ľ	☐ Yes	; [□ No				, ,					\$			Ū				
								INFO	RMA	TIO	N ON T	ΊR	E FAIL	.URE(S) (IF	APP	LICABI	LE)						
	То	repo	rt de f	fectiv	e or fa	iled t	tires							Manufacturer, ed for normal o				e (include	all nun	nbers	and letter	s).	
D	0	T											Manufad	cturer		Tire N	Name	•	Š	Size			
					ті	TI RE I		SIZE —	REMA	i de la companya de l	\$245155R1	5 2	A NAMUEACTU	U.S. DOT The numb of the tire and numb rim flange or on eith	er mand ers.	nay be o have up Usually side opp	n the to 1 loca osite	e inner s 11 letters ted nea e whitew	s r				

TIRE SIZE

U.S. DOT safety standard code
The number may be on the inner side of the tire and have up to 11 letters and numbers. Usually located near rim flange on side opposite whitewall or on either side of blackwall tire.

TIRE MAME

TIRE NAME

TIRE MANUFACTURER

The Privacy Act of 1974—Public Law 93-579 This information is requested pursuant to authority vested in the National Highway Traffic Safety Act and subsequent amendments. You are under no obligation to respond to this questionnaire. Your response may be used to assist the NHTSA in determining whether a manufacturer should take appropriate action to correct a safety defect. If the NHTSA proceeds with administrative enforcement or litigation against a manufacturer, your response, or a statistical summary thereof, may be used in support of the agency's action.

E,	old to show Return Address (no stamp needed) Fasten with tape or staple and mail

J.S. Department of Transportation Vational Highway Fraffic Safety Administration

00 Seventh St., S.W. Vashington, D.C. 20590

Official Business
Penalty for Private Use \$300



BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO 73173 WASHINGTON, D.C.

POSTAGE WILL BE PAID BY NATL. HWY. TRAFFIC SAFETY ADMIN.

U.S. Department of Transportation National Highway Traffic Safety Administration Auto Safety Hotline, NEF-11 HL 400 7th St., S.W. Washington, D.C. 20590 NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

