

GLOSSARY

- acceleration** An increase in speed.
- accelerator** The gas pedal; controls speed by adjusting the flow of gasoline to the engine.
- adhesion** Sticking together; in automotive terms, traction or friction.
- administrative laws** Laws that regulate driver licensing, vehicle registration, financial responsibility of drivers and vehicle owners, or minimum equipment and vehicle standards.
- advisory speed limit** A speed limit that interrupts normal driving speed for a limited time and provides guidelines for adjusting speed.
- air bag** A safety bag that automatically inflates upon impact in a collision.
- alternator** A generator that produces the electricity needed to run a vehicle and its electrical devices.
- angle parking** Parking so that a vehicle is positioned at a 30- to 90-degree angle with a curb or other boundary.
- antifreeze** A substance with a low freezing point, usually added to the liquid in a vehicle's radiator to prevent freezing.
- antilock brake system (ABS)** A braking system that is designed to keep a vehicle's wheels from locking when the driver brakes abruptly.
- antitheft device** Any device used to protect a vehicle from being stolen or entered.
- area of central vision** The area of vision directly ahead of a person.
- automatic transmission** A system that transmits power to the drive wheels. Gears are changed automatically in a vehicle with this type of transmission.
- axle** The shaft or rod connecting two opposite wheels on which the wheels revolve.
- banked curve** A curve that slopes up from the inside edge.
- battery** A unit that stores an electrical charge and furnishes current.
- beltway** A highway that passes around an urban area.
- blind spot** An area outside a vehicle that is not visible to the driver in the rearview or side-view mirrors.
- blood-alcohol concentration (BAC)** The percentage of alcohol in a person's blood.
- blowout** A sudden loss of air pressure in a tire.
- blowout skid** A skid occurring when a tire suddenly loses air pressure.
- Blue Book** A guide to the average price paid to dealers for different makes and models of used vehicles.
- brake pedal** A pedal that enables a driver to slow or stop a vehicle.
- brake system** The system that enables a vehicle to slow down and stop by means of hydraulic pressure.
- braking distance** The distance a vehicle covers from the time the driver applies the brakes until the vehicle stops.
- braking skid** A skid caused when the brakes are applied so hard that one or more wheels lock.
- carbon monoxide** A colorless, odorless, highly poisonous gas; a by-product of burning fuel.
- catalytic converter** An antipollution device, part of the exhaust system, that reduces harmful emissions.
- center of gravity** The point around which all the weight of an object is evenly distributed.
- centrifugal force** The force that tends to push a moving object out of a curve and into a straight path.
- clutch** In a vehicle with a manual transmission, a device that engages and disengages the engine and is connected to the drive shaft; the pedal by which the device is operated.
- collision** A crash; the result of one object hitting another with sudden force.
- collision insurance** Insurance that covers the cost of repairs to your vehicle even if you are to blame in a crash or are involved with an uninsured driver. It also covers repairs to your vehicle if it is damaged in a parking lot or in a parking space on the street.

color blindness The inability to distinguish between certain colors.

comprehensive insurance

Insurance that covers the cost of repairs for vehicle damage caused by anything other than a collision, such as theft, fire, explosions, natural disasters, falling objects, or vandalism.

contrast sensitivity A person's ability to see details in the driving environment in situations such as facing the glare of headlights or driving when it is dark.

controlled-access highway See **limited-access highway**.

coolant A liquid added to a motor vehicle's radiator to reduce heat.

cooling system The system that keeps the engine cool by forcing air over metal cooling vanes that surround the cylinders. It includes the radiator, overflow tank, water pump, and thermostat.

cornering skid A skid on a turn or curve.

crankshaft The shaft that is turned as the pistons move up and down in the cylinders of the engine.

crowned road A road that is higher in the center than at either edge.

cruise control A vehicle feature that allows a driver to maintain a desired speed without manually pressing the accelerator; intended for highway driving.

cylinder A part of the engine that houses a piston; most ve-

hicles have four, six, or eight cylinders.

deceleration A decrease in speed.

deceleration lane An expressway lane used for slowing down before an exit.

deductible A fixed amount of money that an insured person must pay for damages before the insurance company pays the rest, usually the first \$100, \$250, or \$500 worth of damage.

defogger See **defroster**.

defroster A heating unit that clears moisture from the inside of the front and/or rear windows and ice from the outside surfaces.

depth perception Vision that gives objects their three-dimensional appearance and that enables a person to judge the relative distance between two objects.

differential An arrangement of gears that allows each drive wheel to turn at a different speed when a vehicle goes around a curve.

directional control The ability of a motor vehicle to hold to a straight line.

directional signal A device that allows drivers to communicate their intentions to move right or left by means of a blinking light; an arm or a hand signal.

disc brake A brake in which pressure squeezes the brake pads against a flat metal wheel

disc, producing the friction needed to stop the wheel from turning.

downshift To shift to a lower gear from a higher one.

Drive The most frequently used forward gear in a vehicle with an automatic transmission.

drive train See **power train**.

drive wheel A wheel that moves a vehicle.

driver evaluation facility A special center where individuals with physical disabilities undergo a comprehensive medical assessment to determine their potential to drive.

driving under the influence (DUI) See **driving while intoxicated**.

driving while intoxicated (DWI) An offense with which drivers may be charged if their blood-alcohol concentration at the time of arrest is above a certain percent.

drum brake A brake in which fluid pressure causes the brake shoes to push against the brake lining, which then presses against the round hollow metal drum inside the wheel. This creates friction, which slows and stops the wheel's turning motion.

electrical system The system that carries electricity throughout the vehicle and consists of the battery, the alternator or generator, the voltage regulator, and wires.

electronic fuel-injection (EFI) system A system that times

and measures fuel flow and injects gasoline into the engine.

emergency brake See **parking brake**.

emergency flashers A signaling device that makes all four turn signals flash at once; used to warn other drivers that a vehicle has stopped or is moving slowly.

engine See **internal combustion engine**.

engine control module (ECM)

A computerized system that controls the electrical and other engine systems in a vehicle.

exhaust manifold A collecting system for unburned gases as they exit from the cylinders.

exhaust system The system that gets rid of waste gases and vapors from the engine and reduces the noise of the explosions within the engine cylinders.

expressway A divided highway with limited access that has more than one lane for traffic moving in the same direction; designed for high-speed travel.

field of vision The area ahead and to the left and right that can be seen when one looks straight ahead.

first aid Emergency treatment given to an injured or ill person before professional medical personnel arrive.

fixed speed limit A posted speed limit that cannot legally be exceeded.

flywheel The part of the engine that is turned by the starter and, as a result, turns the crankshaft.

following distance The time- and-space gap between vehicles traveling in the same lane of traffic.

force of impact The force with which a moving vehicle hits another object.

freeway An expressway; a highway that is not a toll road.

friction Resistance to motion between two objects when they touch.

friction point The point at which the clutch pedal and other parts of the power train begin to work together as the driver releases the clutch pedal.

fuel system A system that consists of the fuel tank, fuel pump, fuel filter, fuel-injection system, and air filter.

fuses Safety devices, usually located beneath the dashboard, that protect a car's electrical circuits from overloading.

gas pedal See **accelerator**.

gear Toothed wheels that mesh with each other to transmit motion or change a vehicle's speed or direction.

gear selector lever The lever in a vehicle with an automatic transmission that allows the driver to choose a gear.

gearshift The lever in a vehicle with a manual transmission that permits gears to be changed.

graduated driver licensing (GDL) A driver training program based on the idea that a teen with a new driver's license needs time and guidance to gain

the necessary driving experience and skills in reduced-risk settings.

gravity The invisible force that pulls all objects on Earth toward its center.

ground viewing Searching beneath parked vehicles and other objects for signs of movement.

guide sign A sign, including a route marker or destination, mileage, recreational area, or roadside service sign, used to guide and direct drivers.

hand brake See **parking brake**.

hand-over-hand steering A steering method in which the driver's hands cross when turning.

hazard flashers See **emergency flashers**.

head restraint A safety device attached to the back of the seat that is designed to prevent injury to the head and neck.

hemorrhaging Bleeding heavily.

high-occupancy vehicle (HOV) lane A lane reserved for use by vehicles having two or more occupants.

highway A main public roadway, especially one that runs between cities.

highway hypnosis A drowsy state that may occur during long hours of highway driving.

highway transportation system (HTS) A system made up of roadways, motor vehicles, and people.

hitch A device attached to the back of a vehicle to haul a trailer.

hydraulic pressure The pressure created by a liquid being forced through an opening or tube.

hydroplaning Skimming on top of a film of water.

idle To operate the engine without engaging the gears or applying pressure on the accelerator.

implied consent A law stating that any licensed driver charged with driving under the influence or while intoxicated cannot legally refuse to be tested for blood-alcohol concentration.

inertia The tendency of an object in motion to stay in motion and for an object at rest to stay at rest.

inhibitions Personality elements that stop a person from behaving without regard to possible consequences.

interchange A point at which a driver can enter or exit an expressway or connect with a highway going in another direction.

internal combustion engine The part of a vehicle that produces its power by exploding an air-fuel mixture within its cylinders.

international sign A road sign that conveys meaning through symbols, not words.

intersection The place where two or more roadways cross.

jaywalking The pedestrian practice of crossing a roadway without regard for traffic rules or signals.

jump-start To attach a vehicle's dead battery by cables to a charged battery to start the vehicle.

kinetic energy The energy of motion.

lane-use light An electronic signal mounted above a reversible lane that indicates whether the lane can or cannot be used at a particular time.

liability insurance Insurance that protects you against claims if you are at fault in a collision and helps pay for any injury or property damage you cause.

limited-access highway A highway that has fixed points of entry and exit.

lubricating system A system that reduces heat by coating the engine parts with oil; consists of the oil pump, oil pan, and oil filter.

manual shift A system in which the driver changes gears by moving the gearshift and depressing the clutch.

margin of space The amount of space that should be allowed in front of, behind, and to both sides of a vehicle, giving it room to maneuver in threatening situations.

momentum The energy of motion; the product of weight and speed.

moped A low-powered, two-wheeled vehicle most commonly driven on city streets.

mouth-to-mouth resuscitation

A method of restoring breathing to a victim.

muffler A device in the exhaust system that reduces engine noise.

multiple-lane highway A highway that has more than one lane for traffic moving in each direction.

Neutral A gear position in which the gears are not engaged and cannot transmit power.

night blindness The inability to see well at night.

no-fault insurance A system in which one's insurance company pays one's medical bills and any other costs resulting from a collision-related injury regardless of who is at fault.

odometer A device that measures distance traveled by a vehicle; its gauge.

overdrive The highest forward gear in many newer vehicles with automatic transmissions; it allows a vehicle to travel more efficiently at higher speeds. In a vehicle with a manual transmission, the fourth and fifth gears are sometimes identified as overdrive gears.

overdriving one's headlights Driving so fast at night that the driver is unable to stop within the range of the headlights.

parallel parking Parking parallel and close to the edge of the road.

Park Gear setting on a vehicle that locks the transmission.

- parking brake** The brake that holds the rear wheels. It is used to keep a parked vehicle from moving.
- parkway** A broad highway that may be limited to noncommercial vehicles.
- passive safety device** A device, such as an air bag or head restraint, that functions without the user having to operate it.
- pedestrian** A person traveling on foot.
- peer pressure** The influence of friends who are in your age group.
- perception distance** The distance a vehicle covers during the time in which its driver identifies a need to stop.
- peripheral vision** The area of vision to the left and right of the area of central vision.
- perpendicular parking** Parking so that a vehicle forms a 90-degree angle with a curb or line.
- piston** A cylinder enclosed in another cylinder within the engine. Its up-and-down movement turns the crankshaft.
- point system** A system used to keep track of traffic violations by individual drivers.
- power brakes** Brakes that make it easier to slow or stop without intense foot pressure on the brake pedal.
- power skid** A skid caused when the accelerator is pressed too hard and suddenly.
- power steering** A vehicle steering system designed so that it takes little effort to turn the steering wheel.
- power train** The parts of a motor vehicle that transmit power from the engine to the wheels; the engine, transmission, and clutch.
- push-pull-feed steering** A steering method in which the driver's hands do not cross even when changing lanes or turning.
- radiator** A cooling device that air-cools liquid pumped from the engine.
- rate of acceleration** The time it takes to speed up from a stop or from one speed to a higher one.
- rate of deceleration** The time it takes to slow down from one speed to a lower one or to a stop.
- reaction distance** The distance a vehicle covers between the time a driver identifies a situation that requires braking and the moment that the brakes are applied.
- regulatory sign** A sign that controls the flow of traffic.
- Reverse** The gear used to back a vehicle.
- reversible lane** A lane on which the direction of traffic changes at certain times of day.
- revoke** To cancel a person's license to drive a vehicle, usually for the period of a year or more, after which time the driver can apply for another license.
- right-of-way** The right of one roadway user to go first or to cross in front of another; right-of-way must be yielded to others in many situations.
- risk** The chance of injury to oneself or others and of damage to vehicles and property.
- safety belt** A restraining belt designed to protect the driver and riders in a motor vehicle; a seat belt.
- shared left-turn lane** A lane that drivers moving in either direction use to make a left turn.
- shift** To change gears by means of a mechanism; the mechanism itself.
- shock** A physical disorder often accompanying serious injury; characterized by faintness, weakness, feeling cold, and nausea.
- shock absorber** A device that cushions a vehicle's frame against the impact of bumps in the road.
- shoulder** The strip of land along the edge of a roadway, sometimes referred to as a berm.
- SIPDE process** A five-step driving strategy (search, identify, predict, decide, execute) that enables drivers to process information in an organized way.
- skid** A driver's loss of control over the direction in which the vehicle is moving.
- Smith System** A set of five principles that help drivers operate safely and defensively.
- space margin** See **margin of space**.
- spark plug** A device in an engine's cylinder that ignites the

fuel-air mixture by means of an electric spark.

speedometer A device that measures the speed of a vehicle in miles per hour or kilometers per hour; its gauge.

sport utility vehicle (SUV) A vehicle designed for a variety of uses, usually incorporating four- or all-wheel drive, and featuring increased ground clearance and a cargo area included within the interior.

steering system The system that enables a driver to turn a vehicle's front wheels.

strut A suspension unit that contains both a spring and a shock absorber.

suspend To take away a person's driver's license for a specified period of time, usually 30 to 90 days.

suspension system The system, including shock absorbers, that protects the body of a vehicle from road shocks.

tailgate To drive too closely behind another vehicle.

three-point turn A turnabout made by turning left, backing to the right, then moving forward.

threshold braking A braking technique in which the driver firmly presses the brake pedal to a point just before the wheels lock.

total stopping distance The distance covered by a vehicle from

the perception distance to the moment that the vehicle comes to a stop.

tracking Steering; keeping a vehicle steadily and smoothly on a desired course.

traction The friction between a vehicle's tires and the road surface.

traffic control signal An electronic signal, such as a colored light, used to keep traffic moving in an orderly manner.

transmission The gears and related parts that carry power from the engine to the driving axle.

tread The outer surface of a tire, with its pattern of grooves and ridges.

turnabout Any turning maneuver by which a driver moves a vehicle to face in the opposite direction.

turnpike A road, usually an expressway, that requires a driver to pay a toll.

turn signal See **directional signal**.

two-point turn A turnabout made by first backing or heading into a driveway or alley and then heading or backing into the street.

uninsured motorist insurance Protection from financial losses resulting from a collision involving a driver who does not have insurance protection or

from a hit-and-run driver; also protects you in states where no liability insurance is required.

U-turn A turnabout carried out by making a U-shaped left turn.

vertical field of vision The area extending upward and downward that allows you when driving to see traffic lights overhead and pavement markings below.

visibility The distance and area a driver can see and the ability of a vehicle or pedestrian to be seen.

visual acuity The ability to see clearly.

warning lights and gauges

Dashboard lights and gauges that provide information to the driver about the vehicle; include oil pressure, alternator, and fuel gauges and brake, safety belt, and temperature warning lights.

warning sign A sign that alerts drivers to potential dangers or conditions ahead.

warranty A written guarantee that a motor vehicle dealer will repair a vehicle, within a certain amount of time, at no charge to the customer.

yield sign A road sign at which you must slow and give the right-of-way to traffic on the crossroad or the road onto which you are merging.

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Etra/PhotoEdit; 51: Corbis; 54–55: Michael Newman/PhotoEdit; 57, 60: The Terry Wild Studio; 61: Rudi Von Briel/PhotoEdit; 62: The Terry Wild Studio; 64: Michael Newman/PhotoEdit; 65: Tim Fuller Photography; 67 (t): Bachmann/PhotoEdit; 67 (b): Mary Kate Denny/PhotoEdit; 68 (b): Sara Matthews/Visual Education; 74–75, 76–77: The Terry Wild Studio; 78: Tony Freeman/PhotoEdit; 81 (t): Michael Newman/PhotoEdit; 81 (b): Spencer Grant/PhotoEdit; 82 (t, b): Sara Matthews/Visual Education; 85: David Young-Wolff/PhotoEdit; 87 (t, bl, br): Sara Matthews/Visual Education; 89: Tony Freeman/PhotoEdit; 92 (b): The Terry Wild Studio; 96–97, 102, 104: Tony Freeman/PhotoEdit; 105 (t): Jonathan Nourok/PhotoEdit; 105 (b): The Terry Wild Studio; 106: Rudi Von Briel/PhotoEdit; 107: Michael Newman/PhotoEdit; 108 (b): The Terry Wild Studio; 112–113, 117: Sara Matthews/Visual Education; 118, 122, 125: The Terry Wild Studio; 126: Tony Freeman/PhotoEdit; 127: David Young-Wolff/PhotoEdit; 128 (b): The Terry Wild Studio; 132–133: David Doody/FPG International; 136, 137: Tony Freeman/PhotoEdit; 139: Sara Matthews/Visual Education; 142: Tony Freeman/PhotoEdit; 145 (t): John Neubauer; 145 (b): Tony Freeman/PhotoEdit; 150 (b): The Terry Wild Studio; 154–155: Tom McCarthy/PhotoEdit; 156, 157: Tony Freeman/PhotoEdit; 158: The Terry Wild Studio; 159 (l): Sara Matthews/Visual Education; 159 (r): Frank Siteman/PhotoEdit; 160: Christine Osborne/Visual Education; 161: PhotoEdit; 163 (t): Michael Newman/PhotoEdit; 163 (b): The Terry Wild Studio; 166 (b): Tony Freeman/PhotoEdit; 172–173: Michael Goodman/FPG International; 174–175: R. Way/The Terry Wild Studio; 177: Sara Matthews/Visual Education; 180: The Terry Wild Studio; 184: Sara Matthews/Visual Education; 190 (b): PhotoEdit; 194–195: The Terry Wild Studio; 196: Tim Fuller Photography; 197: PhotoEdit; 199: The Terry Wild Studio; 200: Robert Brenner/PhotoEdit; 201: PhotoEdit; 203: Tom McCarthy/PhotoEdit; 204: John Henley/The Stock Market; 205: Tony Freeman/PhotoEdit; 206: Stephen Simpson/FPG International; 207: Mason Morfit/FPG International; 208: Sara Matthews/Visual Education; 212 (b): The Terry Wild Studio; 213: Tony Freeman/PhotoEdit; 216–217: David Young-Wolff/PhotoEdit; 219: Dick Luria/FPG International; 220: Tony Freeman/PhotoEdit; 221 (t): The Terry Wild Studio; 221 (b): Sara Matthews/Visual Education; 224: Addison Geary/Stock Boston; 226 (b): Wolfgang Spunbarg/PhotoEdit; 230–231, 232: The Terry Wild Studio; 233: Tim Fuller Photography; 234: The Terry Wild Studio; 236: Tony Freeman/PhotoEdit; 239: Sara Matthews/Visual Education; 243: Robert Brenner/PhotoEdit; 244 (t): Tony Freeman/PhotoEdit; 244 (b), 245, 246 (b): The Terry Wild Studio; 247: Sara Matthews/Visual Education; 250–251: The Terry Wild Studio; 254: Paul Conklin/PhotoEdit; 256 (t): Eugen Gebhardt/FPG International; 256 (b): Sara Matthews/Visual Education; 259, 262 (t): The Terry Wild Studio; 262 (b): Tony Freeman/PhotoEdit; 266 (b): The Terry Wild Studio; 270–271: Robert Brenner/PhotoEdit; 272: David Young-Wolff/PhotoEdit; 274: Tony Freeman/PhotoEdit; 275: Tim Fuller Photography; 276: Jeff Greenberg/PhotoEdit; 277: Tim Fuller Photography; 278: David Young-Wolff/PhotoEdit; 280: Tony Freeman/PhotoEdit; 281: Sara Matthews/Visual Education; 282: Tony Freeman/PhotoEdit; 283: Michelle Bridwell/PhotoEdit; 284: Tony Freeman/PhotoEdit; 285: The Terry Wild Studio; 286: Tony Freeman/PhotoEdit; 288 (b): Jeff Greenberg/PhotoEdit; 289: Library of Congress; 294–295: David Young-Wolff/PhotoEdit; 296–297: Michael Newman/PhotoEdit; 299: Jon Feingersh/The Stock Market; 300: Benelux Press/Photo Researchers, Inc.; 303: Tony Freeman/PhotoEdit; 305 (t): Mary Kate Denny/PhotoEdit; 305 (tr): Michael Newman/PhotoEdit; 305 (b): PhotoEdit; 306, 307, 308: Tony Freeman/PhotoEdit; 310 (b): The Terry Wild Studio; 314–315: Sara Matthews/Visual Education; 316: David Young-Wolff/PhotoEdit; 317: Tony Freeman/PhotoEdit; 318: Robert Brenner/PhotoEdit; 321: Tony Freeman/PhotoEdit; 324: Sara Matthews/Visual Education; 327 (t): Tim Fuller Photography; 327 (b): Tony Freeman/PhotoEdit; 330: Sara Matthews/Visual Education; 331: David Young-Wolff/PhotoEdit; 332 (b): José Carrillo/PhotoEdit; 336–337: The Terry Wild Studio; 339 (t): Tony Freeman/PhotoEdit; 339 (b): Robert Brenner/PhotoEdit; 340: David Young-Wolff/PhotoEdit; 342, 343: The Terry Wild Studio; 345, 346: Tony Freeman/PhotoEdit; 347: Robert Brenner/PhotoEdit; 348 (b): Tony Freeman/PhotoEdit.

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