

A vehicle that does not meet safety standards can result in some pretty dangerous scenarios. For instance, if headlights, tail-lights, or rearview mirrors are not in proper working order, head-on collisions, rear-end collisions, avoidable lane change collisions, etc. can lead to serious injuries, or even death. In this chapter we will look at a few vehicle features that are covered in the California Vehicle Code. The chapter ends with how to handle mechanical failures on the road.

10.1 Vehicle lighting requirements to operate on the road - Headlamps



Headlamps - A headlamp is a lamp attached to the front of a vehicle to light the road ahead.

CVC §24400 states: (a) A motor vehicle, other than a motorcycle, shall be equipped with at least two headlamps, with at least one on each side of the front of the vehicle, and, except as to vehicles registered prior to January 1, 1930, they shall be located directly above or in advance of the front axle of the vehicle. The headlamps and every light source in any headlamp unit shall be located at a height of not more than 54 inches nor less than 22 inches.

(b) A motor vehicle, other than a motorcycle, shall be operated during darkness, or inclement weather, or both, with at least two lighted headlamps that comply with subdivision (a).

(c) As used in subdivision (b), “inclement weather” is a weather condition that is either of the following:

(1) A condition that prevents a driver of a motor vehicle from clearly discerning a person or another motor vehicle on the highway from a distance of 1,000 feet.

(2) A condition requiring the windshield wipers to be in continuous use due to rain, mist, snow, fog, or other precipitation or atmospheric moisture.

CVC §24405 states: (a) **Not more than four lamps of the following types showing to the front of a vehicle may be lighted at any one time:**

(1) **Headlamps.**

(2) **Auxiliary driving or passing lamps.**

(3) **Fog lamps.**

(4) **Warning lamps.**

(5) **Spot lamps.**

(6) **Gaseous discharge lamps specified in Section 25258.**

(b) For the purpose of this section each pair of dual headlamp systems shall be considered as one lamp.

(c) Subdivision (a) does not apply to any authorized emergency vehicle.

10.2 Vehicle lighting requirements to operate on the road - Rear Lights



Rear Lights - Conspicuity for the rear of a vehicle is provided by rear-position lamps (also called tail lamps or taillights).

CVC §24600 states: During darkness every motor vehicle which is not in combination with any other vehicle and every vehicle at the end of a combination of vehicles shall be equipped with lighted taillamps mounted on the rear as follows:

- (a) Every vehicle shall be equipped with one or more taillamps.
- (b) Every vehicle, other than a motorcycle, manufactured and first registered on or after January 1, 1958, shall be equipped with not less than two taillamps, except that trailers and semitrailers manufactured after July 23, 1973, which are less than 30 inches wide, may be equipped with one taillamp which shall be mounted at or near the vertical centerline of the vehicles. If a vehicle is equipped with two taillamps, they shall be mounted as specified in subdivision (d).
- (c) Every vehicle or vehicle at the end of a combination of vehicles, subject to subdivision (a) of Section 22406 shall be equipped with not less than two taillamps.
- (d) When two taillamps are required, at least one shall be mounted at the left and one at the right side respectively at the same level.
- (e) Taillamps shall be red in color and shall be plainly visible from all distances within 500 feet to the rear except that taillamps on vehicles manufactured after January 1, 1969, shall be plainly visible from all distances within 1,000 feet to the rear.
- (f) Taillamps on vehicles manufactured on or after January 1, 1969, shall be mounted not lower than 15 inches nor higher than 72 inches, except that a tow truck, in addition to being equipped with the required taillamps, may also be equipped with two taillamps which may be mounted not lower than 15 inches nor higher than the maximum allowable vehicle height and as far forward as the rearmost portion of the driver's seat in the rearmost position. The additional taillamps on a tow truck shall be lighted whenever the headlamps are lighted.
- CVC §24606 states: (a) Every motor vehicle, other than a motorcycle, of a type subject to registration and manufactured on and after January 1, 1969, shall be equipped with one or more backup lamps either separately or in combination with another lamp. Any vehicle may be equipped with backup lamps.
- (b) Backup lamps shall be so directed as to project a white light illuminating the highway to the rear of the vehicle for a distance not to exceed 75 feet. A backup lamp may project incidental red, amber, or white light through reflectors or lenses that are adjacent or close to, or a part of, the lamp assembly.
- (c) Backup lamps shall not be lighted except when the vehicle is about to be or is backing or except in conjunction with a lighting system which activates the lights for a temporary period after the ignition system is turned off.
- (d) Any motor vehicle may be equipped with a lamp emitting white light on each side near or on the rear of the vehicle which is designed to provide supplemental illumination in an

area to the side and rear not lighted by the backup lamps. These lamps shall be lighted only with the backup lamps.

10.3 Vehicle lighting requirements to operate on the road - Signal Lamps or Turn signals

Signal Lamps - Turn signals—formally called "direction indicators" or "directional signals", and informally known as "directionals", "blinkers", "indicators" or "flashers"—are blinking lamps mounted near the left and right front and rear corners of a vehicle, and **sometimes** on the sides or on the side mirrors of a vehicle.

CVC §24951 states: (a) Any vehicle may be equipped with a lamp-type turn signal system capable of clearly indicating any intention to turn either to the right or to the left.

CVC §24953 states: (a) Any turn signal system used to give a signal of intention to turn right or left shall project a flashing white or amber light visible to the front and a flashing red or amber light visible to the rear.

10.4 Belts And Hoses / Filters And Fluid

Though not governed by specific vehicle codes, your car's belts and hoses are essential to the cooling, air conditioning and charging systems, and the engine. Don't take these routine replacement intervals for granted because they can break down and leave you stranded.

The timing belt keeps the crankshaft and camshaft mechanically synchronized to maintain engine timing. Whether serpentine, V-belt or fan belt (the belts on the outside of the engine), they all transmit power from the front of the engine to accessories that need to be driven, such as the air conditioning, the charging system and fans. Radiator and heater hoses carry coolant to and from the engine, radiator and heater core.

Filters and fluids: Your car's filters are important to the longevity of your car and interior comfort. Maximize your car investment by replacing filters regularly.

The oil filter traps contaminants, allowing the oil to flow through the engine unrestricted. The fuel filter separates harmful contaminants that may cause problems with carburetors or intricate fuel injectors. The air filter traps dirt particles, which can cause damage to engine cylinders, walls, pistons and piston rings. The air filter also plays a role in keeping contaminants off the airflow sensor (in fuel-injected cars). The cabin filter helps trap pollen, bacteria and dust that may find their way into a car's ventilation system.

10.5 Horns, Windows, And Mirrors

Horn - Is it a noisy nuisance or driving essential?

With proper etiquette the horn:

Can let a driver know they're fading into your lane

Alert a pedestrian who unknowingly walks into a dangerous traffic situation. For instance, if a car's reversing out of a parking spot and a pedestrian's walking straight into their path, it's ok to give a quick honk to keep both parties safe.

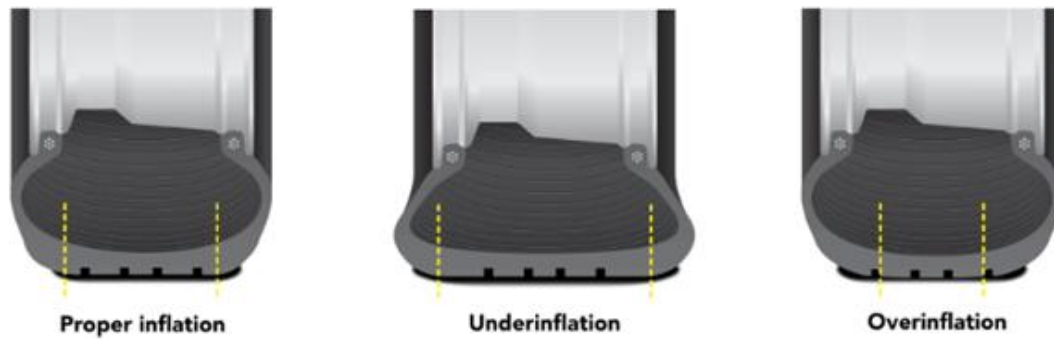
When it comes to the audibility of the car horn, CVC 27000 states: (a) **A motor vehicle, when operated upon a highway, shall be equipped with a horn in good working order and capable of emitting sound audible under normal conditions from a distance of not less than 200 feet**, but no horn shall emit an unreasonably loud or harsh sound. An authorized emergency vehicle may be equipped with and use in conjunction with the siren on that vehicle, an air horn that emits sounds that do not comply with the requirements of this section.

Windows: Per CVC 26700 (a) Except as provided in subdivision (b), a passenger vehicle, other than a motorcycle, and every bus, motortruck or truck tractor, and every firetruck, fire engine or other fire apparatus, whether publicly or privately owned, shall be equipped with an adequate windshield.

(b) Subdivision (a) does not apply to any vehicle issued identification plates pursuant to Section 5004 which was not required to be equipped with a windshield at the time it was first sold or registered under the laws of this state, another state, or foreign jurisdiction.

Mirrors: Per CVC 26709 (a) Every motor vehicle registered in a foreign jurisdiction and every motorcycle subject to registration in this state shall be equipped with a mirror so located as to reflect to the driver a view of the highway for a distance of at least 200 feet to the rear of such vehicle.

Every motor vehicle subject to registration in this state, except a motorcycle, shall be equipped with not less than two such mirrors, including one affixed to the left-hand side.



10.6 Tires

Tires (including spare): Of all the safety features on your vehicle such as anti-lock brakes, traction control, and all-wheel drive systems, your tires are one of the most important. Your tires are the only thing that connect your vehicle to the road, so it makes sense that they play such a major role in your safety on the road.

CVC § 27465 governs the legal requirements for vehicle tires. It states that (a) No dealer or person holding a retail seller's permit shall sell, offer for sale, expose for sale, or install on a vehicle axle for use on a highway, a pneumatic tire when the tire has less than the tread depth specified in subdivision (b). This subdivision does not apply to any person who installs on a vehicle, as part of an emergency service rendered to a disabled vehicle upon a highway, a spare tire with which the disabled vehicle was equipped.

(b) No person shall use on a highway a pneumatic tire on a vehicle axle when the tire has less than the following tread depth, except when temporarily installed on a disabled vehicle as specified in subdivision (a):

(1) One thirty-second ($\frac{1}{32}$) of an inch tread depth in any two adjacent grooves at any location of the tire, except as provided in paragraphs (2) and (3).

(2) Four thirty-second ($\frac{4}{32}$) of an inch tread depth at all points in all major grooves on a tire on the steering axle of any motor vehicle specified in Section 34500, and two thirty-second ($\frac{2}{32}$) of an inch tread depth at all points in all major grooves on all other tires on the axles of these vehicles.

(3) Six thirty-second ($\frac{6}{32}$) of an inch tread depth at all points in all major grooves on snow tires used in lieu of tire traction devices in posted tire traction device control areas.

(c) The measurement of tread depth shall not be made where tie bars, humps, or fillets are located.



Before you hit the road, it is important that your tires are properly maintained and are in good working condition. The more you know and understand about your tire's health, the better off you will be when driving your vehicle. Tire manufacturers recommend using the penny test to determine whether your tires are no less than 1/32 of an inch as stated in vehicle code 27465 above.

10.7 Car seats / Seat belts

Car seats: Regarding car seats, current California Law states in vehicle code 27360 that:

(a) Except as provided in Section 27363, a parent, legal guardian, or driver who transports a child under eight years of age on a highway in a motor vehicle, as defined in paragraph (1) of subdivision (c) of Section 27315, **shall properly secure that child in a rear seat in an appropriate child passenger restraint system meeting applicable federal motor**

vehicle safety standards.

Types of Car Seats at a Glance:

This chart is a quick guide on where to start your search. It's important to continue your research to learn about each seat you use.

Types of Car Seats

Age Group	Type of Seat	General Guidelines
Infants & toddlers	<ul style="list-style-type: none"> Rear-facing-only Rear-facing convertible 	All infants and toddlers should ride in a rear-facing seat until they are at least 2 years of age or reach the highest weight or height allowed by their car seat manufacturer.
Toddlers & preschoolers	<ul style="list-style-type: none"> Convertible Forward-facing with harness 	Children who have outgrown the rear-facing weight or height limit for their convertible seat should use a forward-facing seat with a harness for as long as possible, up to the highest weight or height allowed by their car safety seat manufacturer.
School-aged children	<ul style="list-style-type: none"> Booster seats 	All children whose weight or height exceeds the forward-facing limit for their car safety seat should use a belt-positioning booster seat until the vehicle seat belt fits properly, typically when they have reached 4 feet 9 inches in height and are 8 through 12 years of age. All children younger than 13 should ride in the back seat.
Older children	<ul style="list-style-type: none"> Seat belts 	When children are old enough and large enough for the vehicle seat belt to fit them correctly, they should always use lap and shoulder seat belts for the best protection. All children younger than 13 years should ride in the back seat.

(b) Except as provided in Section 27363, **a parent, legal guardian, or driver who transports a child under two years of age on a highway in a motor vehicle, as defined in paragraph (1) of subdivision (c) of Section 27315, shall properly secure the child in a rear-facing child passenger restraint system that meets applicable federal motor vehicle safety standards, unless the child weighs 40 or more pounds or is 40 or more inches tall.** The child shall be secured in a manner that complies with the height and weight limits specified by the manufacturer of the child passenger restraint system.

(c) **This section does not apply to a driver if the parent or legal guardian of the child is a passenger in the motor vehicle.**

CVC § 27363 specifically states that (a) **The court may exempt from the requirements of this article any class of child by age, weight, or size if it is determined that the use of a child passenger restraint system would be impractical by reason of physical unfitness, medical condition, or size. The court may require satisfactory proof of the child's physical unfitness, medical condition, or size and that an appropriate special needs child passenger restraint system is not available.**

(b) In case of a life-threatening emergency, or when a child is being transported in an authorized emergency vehicle, if there is no child passenger restraint system available, a

child may be transported without the use of that system, but the child shall be secured by a seatbelt.

(c) A child weighing more than 40 pounds may be transported in the backseat of a vehicle while wearing only a lap safety belt when the backseat of the vehicle is not equipped with a combination lap and shoulder safety belt.

(d) Notwithstanding Section 27360, **a child or ward under eight years of age who is four feet nine inches in height or taller may be properly restrained by a safety belt**, as defined in paragraph (2) of subdivision (d) of Section 27315, rather than by a child passenger restraint system.

(e) Notwithstanding Section 27360, **a child or ward under eight years of age may ride properly secured in an appropriate child passenger restraint system meeting applicable federal motor vehicle safety standards in the front seat of a motor vehicle under any of the following circumstances:**

(1) **There is no rear seat.**

(2) **The rear seats are side-facing jump seats.**

(3) **The rear seats are rear-facing seats.**

(4) **The child passenger restraint system cannot be installed properly in the rear seat.**

(5) **All rear seats are already occupied by children seven years of age or under.**

(6) **Medical reasons necessitate that the child or ward not ride in the rear seat. The court may require satisfactory proof of the child's medical condition.**

(f) Notwithstanding subdivision (e), a child shall not be transported in a rear-facing child passenger restraint system in the front seat of a motor vehicle that is equipped with an active frontal passenger airbag.

Children who are 8 years of age OR older must be properly secured in an appropriate child passenger restraint system or safety belt.

CVC § 27360.5 states that (a) A parent, legal guardian, or driver shall not transport on a highway in a motor vehicle, as defined in paragraph (1) of subdivision (c) of Section 27315, a child or ward who is eight years of age or older, but less than 16 years of age, without properly securing that child or ward in an appropriate child passenger restraint system or safety belt meeting applicable federal motor vehicle safety standards.

(b) Subdivision (a) does not apply to a driver if the parent or legal guardian of the child is also present in the motor vehicle and is not the driver.

Passengers who are 16 years of age and over are subject to California's Mandatory Seat Belt law. By age 16 you are responsible for putting on your own seat belt.

When can a child graduate to a booster seat?

California law does not address graduation time from a five-point harness to a booster seat. In the interest of safety, do not rush to move a child into a booster seat before they're ready. Each time you "graduate" your child to the next seat, there's a reduction in the level of protection for your child. Keep your child in each stage for as long as possible.

A child is ready for a booster seat when they have outgrown the weight or height limit of their forward-facing harnesses, which is typically between 40 and 65 pounds. Read the forward-facing car seat's owner's manual to determine height and weight limits and keep your child in a harnessed seat for as long as possible.

Children at this stage are not yet ready for adult safety belts and should use belt-positioning booster seats until they are at least 4'9" and between 8 and 12 years old. Safety belts are designed for 165-pound male adults, so it's no wonder that research shows poorly fitting adult belts can injure children. (California Highway Patrol, 2017)

Car seats and boosters provide protection for infants and children in a crash, yet car crashes are a leading cause of death for children ages 1 to 13. That's why it's so important to choose and use the right car seat correctly every time your child is in the car. (NHTSA, 2017)

Here are four things to know about buckling up:

Buckling up is the single most effective thing you can do to protect yourself in a crash

Air bags are designed to work with seat belts, not replace them

Guidelines to buckle up safely

- The lap belt and shoulder belt are secured across the pelvis and rib cage, which are better able to withstand crash forces than other parts of your body.
- Place the shoulder belt across the middle of your chest and away from your neck.
- The lap belt rests across your hips, not your stomach.
- NEVER put the shoulder belt behind your back or under an arm.

Fit matters

- Before you buy a new car, check to see that its seat belts are a good fit for you.
- Ask your dealer about seat belt adjusters, which can help you get the best fit.
- If you need a roomier belt, contact your vehicle manufacturer to obtain seat belt extenders.
- If you drive an older or classic car with lap belts only, check with your vehicle manufacturer about how to retrofit your car with today's safer lap/shoulder belts.

CVC §27315 states that (a) The Legislature finds that a mandatory seatbelt law will contribute to reducing highway deaths and injuries by encouraging greater usage of existing manual seatbelts, that automatic crash protection systems that require no action by vehicle occupants offer the best hope of reducing deaths and injuries, and that encouraging the use of manual safety belts is only a partial remedy for addressing this major cause of death and injury. The Legislature declares that the enactment of this section is intended to be compatible with support for federal motor vehicle safety standards requiring automatic crash protection systems and should not be used in any manner to rescind federal requirements for installation of automatic restraints in new cars.

(b) This section shall be known and may be cited as the Motor Vehicle Safety Act.

(c) (1) As used in this section, "motor vehicle" means a passenger vehicle, a motortruck, or a truck tractor, but does not include a motorcycle.

(2) For purposes of this section, a "motor vehicle" also means a farm labor vehicle, regardless of the date of certification under Section 31401.

(d) (1) A person shall not operate a motor vehicle on a highway unless that person and all passengers 16 years of age or over are properly restrained by a safety belt. This paragraph does not apply to the operator of a taxicab, as defined in Section 27908, when the taxicab is driven on a city street and is engaged in the transportation of a fare-paying passenger. The safety belt requirement established by this paragraph is the minimum safety standard applicable to employees being transported in a motor vehicle. This paragraph does not preempt more stringent or restrictive standards imposed by the Labor Code or another state or federal regulation regarding the transportation of employees in a motor vehicle.

(2) For purposes of this section the phrase, "properly restrained by a safety belt" means that the lower (lap) portion of the belt crosses the hips or upper thighs of the

occupant and the upper (shoulder) portion of the belt, if present, crosses the chest in front of the occupant.

(3) The operator of a limousine for hire or the operator of an authorized emergency vehicle, as defined in subdivision (a) of Section 165, shall not operate the limousine for hire or authorized emergency vehicle unless the operator and any passengers eight years of age or over in the front seat, are properly restrained by a safety belt.

(4) The operator of a taxicab shall not operate the taxicab unless any passengers eight years of age or over in the front seat, are properly restrained by a safety belt.

(e) A person 16 years of age or over shall not be a passenger in a motor vehicle on a highway unless that person is properly restrained by a safety belt. This subdivision does not apply to a passenger in a sleeper berth, as defined in subdivision (x) of Section 1201 of Title 13 of the California Code of Regulations.

(f) An owner of a motor vehicle, including an owner or operator of a taxicab, as defined in Section 27908, or a limousine for hire, operated on a highway shall maintain safety belts in good working order for the use of the occupants of the vehicle. The safety belts shall conform to motor vehicle safety standards established by the United States Department of Transportation. This subdivision, however, does not require installation or maintenance of safety belts if it is not required by the laws of the United States applicable to the vehicle at the time of its initial sale.

Seat belt use is not only required in cars, but also in buses if they are equipped with seat belts. This law states Beginning July 1, 2018, this law requires a passenger on a bus equipped with seat belts to be properly restrained by a safety belt. **This law also prohibits a parent, legal guardian, or chartering party to transport on a bus, or permit to be transported on a bus, a child who is at least 8 years of age but under 16 years of age, unless they are properly restrained by a safety belt or an appropriate child passenger restraint system that meets federal safety standards.** A violation of these provisions is an infraction punishable by a fine. This law amends CVC27318. It states:

(a) A passenger who is 16 years of age or older in a bus shall be properly restrained by a safety belt.

(b) A parent, legal guardian, or chartering party shall not transport on a bus, or permit to be transported on a bus, a child, ward, or passenger who is eight years of age or older, but under 16 years of age, unless he or she is properly restrained by a safety belt.

(c) Except as provided in subdivision (d), a parent, legal guardian, or chartering party shall not transport on a bus, or permit to be transported on a bus, a child, ward, or passenger

who is under eight years of age and under four feet nine inches in height, unless he or she is acceptably restrained by a safety belt.

(d) If it is not possible to ensure a child, ward, or passenger who is under eight years of age and under four feet nine inches in height is acceptably restrained by a safety belt because of his or her size, a parent, legal guardian, or chartering party shall either secure him or her in an appropriate child passenger restraint system that meets applicable federal motor vehicle safety standards, or if the child, ward, or passenger is under two years of age, may authorize a parent, legal guardian, or chartering party to hold him or her.

(e) (1) For purposes of this section, “acceptably restrained by a safety belt” means all of the following:

(A) The latch plate is securely fastened in the buckle.

(B) The lap belt shall be adjusted to fit low and tight across the hips or upper thighs, not the stomach area.

(C) The shoulder belt shall be adjusted snugly across the chest and the middle of the shoulder, away from the neck.

(D) The shoulder belt shall not be placed behind the back or under the arm.

(2) For purposes of this section, “properly restrained by a safety belt” means that the lap belt crosses the hips or upper thighs of the occupant and the shoulder belt, if present, crosses the chest in front of the occupant.

(3) For purposes of this section, “bus” means a bus that is equipped with safety belts, including a bus that is required to be equipped with a seatbelt assembly pursuant to Federal Motor Vehicle Safety Standard No. 208 (49 C.F.R. 571.208).

(f) Subdivisions (a), (b), (c), and (d) do not apply to a passenger that is leaving, has left, or is returning from his or her seat to use an onboard bathroom.

(g) If the bus is equipped with safety belts, the motor carrier shall maintain safety belts in good working order for the use of passengers of the vehicle.

(h) A motor carrier operating a bus equipped with safety belts shall do one of the following:

(1) Require the bus driver, before departure of a bus carrying passengers, to inform passengers of the requirement to wear the seatbelt under California law and inform passengers that not wearing a seatbelt is punishable by a fine.

(2) Post, or allow to be posted, signs or placards that inform passengers of the requirement to wear a seatbelt under California law and that not wearing a seatbelt is punishable by a

fine. The signs or placards shall be in a font type and font size that is reasonably easy to read and shall be affixed to a bus in multiple, conspicuous locations.

(i) Notwithstanding subdivision (a) of Section 42001, a violation of subdivision (a), (b), (c), or (d) is an infraction punishable by a fine of not more than twenty dollars (\$20) for a first offense, and a fine of not more than fifty dollars (\$50) for each subsequent offense.

(j) This section does not apply to a school bus described in Section 27316 or a school pupil activity bus described in Section 27316.5.

(k) This section shall be operative July 1, 2018.

10.8 Brakes



Brakes: Your car's brake system is its most critical safety system and you should check it immediately if you suspect any problems. A properly operating brake system helps ensure safe vehicle control and operation under a wide variety of conditions.

Typical Wear and Tear: Brakes are a normal wear item for any car and eventually they're going to need replacement. Avoid letting your brakes get to the "metal-to-metal" point, which usually means expensive rotor or drum replacement. Factors that affect wear include driving habits and the quality of brake pads and shoes.

Use of the parking brake: Do you need to use the parking brake (also called the emergency or handbrake) every time you park your car, even if your car is it an automatic? The answer is yes, and here is everything you need to know about the parking brake and why you should use it:

The parking brake is an essential component of your vehicle's safety system and it should be used on a regular basis - not just when the car is parked on a hill. While a parking brake is usually recognized as essential in a manual transmission vehicle, it should be considered just as important in an automatic transmission vehicle as well. When a car with an automatic transmission is put into park, a device inside the transmission called a "parking pawl" engages. A parking pawl is a metal pin that engages into a notch ring that is attached to the transmission's output shaft. When engaged, the pawl restricts the transmission's output shaft from turning. Unfortunately, parking pawls can break or possibly become dislodged. While this is not a common occurrence it can happen, and if it does your car may end up rolling down the street.

A parking brake on the other hand will hold the vehicle in place even if the parking pawl breaks or dislodges. The parking brake is a manual system that puts a stronger hold on the vehicle than simply putting it into park. When it comes to manual transmissions, the parking brake is essential. Leaving a manual transmission in gear does not lock the vehicle in place, it simply makes it harder to move, but it can still roll away. The parking brake should be engaged every single time a manual transmission vehicle is parked.

Keep in mind:

If the car is hit while parked the parking brake will provide stability to the vehicle, and in most cases will prevent it from rolling away. It is best to engage the parking brake while the brake pedal is being depressed, before shifting into park this will reduce the strain on the parking pawl. If the parking brake isn't used regularly, the cables, which are located under the car can corrode and get stuck in place. This can become a big problem, as you may not be able to use the brake or the cable will snap when you try to engage it. Do not forget to disengage the parking brake before driving, as it can damage the entire braking system.

10.9 Handling Mechanical Failures On The Road

You are driving down the highway when suddenly you have car trouble. The National Safety Council suggests the following measures when your car breaks down or has a flat tire on the highway.

At the first sign of car trouble, gently and smoothly take your foot off the accelerator. Do not brake hard or suddenly. Carefully work your vehicle toward the breakdown lane or the side of the road. If you are on an interstate, try to reach an exit. Signal your intentions to drivers behind you. If it is necessary to change lanes, watch your mirrors and the traffic around you closely.

Once off the road, make your car visible. Put reflectorized triangles behind your vehicle to alert other drivers; use your emergency flashers. If it is dark, turn on the interior dome light.

When you have a flat tire, be certain that you can change it safely without being close to traffic. If that is possible, change the tire as you normally would. Remember, safety must take precedence over your schedule or whatever other concerns you may have.

However, when the car is beyond repair, it is best to get professional help. Do not try to flag down other vehicles. Raise your hood and tie something white to the radio antenna or hang it out a window so police officers or tow truck operators will know help is needed. Don't stand behind or next to your vehicle. If the car is in the roadway, stand away from the vehicle and wait for help to arrive.

If your car is safely out of traffic, wait inside the vehicle with the doors locked. Use your cellular phone to call for help. If someone stops and offers to help, open the window slightly and ask them to call the police.

Watch for a uniformed police officer or other emergency personnel. All interstate highways and major roads are patrolled regularly. Also, some highways have special "call-for-help" phones.

It is inadvisable to walk on an interstate, especially during inclement weather. However, if you can reach a source of help on foot, without jeopardizing your physical or personal safety, try the direct approach by walking. Keep as far from traffic as possible and walk on the right side of the roadway. Never attempt to cross a multi-lane, high speed roadway. (National Safety Council, n.d.)