

## Section 2: Signals, Signs and Pavement Markings



### In this section you'll learn about:

- ▶ Traffic signals
- ▶ Traffic signs
- ▶ Pavement markings
- ▶ Painted curbs

**Traffic signals, signs and pavement markings** are used for traffic control to provide a smooth, orderly flow of traffic. It is important to understand and obey them. It is illegal to avoid these traffic controls by cutting through a parking lot or field.

Obey all signs and signals unless directed by a police officer; always follow the officer's direction.

### Traffic Signals

Traffic signals apply to drivers, motorcycle riders, bicyclists, moped-riders and pedestrians.

**Red light:** At a red light, come to a complete stop at the stop line or, if there is no stop line, before entering the intersection or before reaching the crosswalk. Remain stopped as long as the signal is red, unless turns are allowed.



**Right turn on red:** You may turn right while the traffic signal displays a red light. Before turning, you must come to a complete stop. Look both ways and yield the right-of-way to pedestrians and other traffic. Be sure to check for less visible vehicles such as motorcycles, bicycles and mopeds.

**You may not turn** right on red if signs are posted at the intersection that read "No Turn on Red," or if a red arrow pointing to the right is displayed.

**Left turn on red:** You may turn left at a red light if you are on a one-way street and turning left onto another one-way street while the traffic signal displays a red light. Before turning, you must come to a complete stop. Look both ways and yield the right-of-way to pedestrians and other traffic. Be sure to check for less visible vehicles such as motorcycles, bicycles, and mopeds. **You may not turn left** on red if signs are posted at the intersection that read "No Turn on Red," or if a red arrow pointing to the left is displayed.

**Red arrow:** A red arrow means you must stop if you intend to move in the direction of the arrow. You may not proceed in the direction of the arrow as long as the red arrow is displayed, unless signs are posted at the intersection that read "Right on Red Arrow After Stop" or "Left on Red Arrow After Stop." Virginia law prohibits right and left turns at red arrow lights.



Note: If you are traveling in another state, make sure you know its laws for right and left turns at red and red arrow lights.

**Flashing red light:** At a flashing red light, come to a complete stop and yield to oncoming vehicles and pedestrians. You may go when the way is clear. At a railroad crossing, you must come to a complete stop even if you don't see a train.



**Flashing red arrow:** At a flashing red arrow, come to a complete stop, yield the right-of-way to vehicles coming from the other direction and pedestrians in the intersection, and proceed in the direction of the arrow when the way is clear.

**Yellow light or arrow:** A yellow light or arrow are cautions warning that the light is about to change. If you have not entered the intersection, stop; or, if unsafe to stop, cautiously go through it. If you are already in the intersection, go through it cautiously. Do not speed up to beat the light.



**Flashing yellow light:** A flashing yellow light means slow down and proceed with caution. Flashing yellow lights are at locations with higher-than-normal hazardous conditions.



**Flashing yellow arrow:** At a flashing yellow arrow, you may turn in the direction of the arrow, if the way is clear. Yield the right-of-way to vehicles coming from the other direction and pedestrians in the intersection. Be sure to check for less visible vehicles such as motorcycles, bicycles, and mopeds. If a traffic light changes from red to flashing yellow arrow while a pedestrian is in the intersection, allow the pedestrian to cross the street before turning.

**Green light or arrow:** At a green light, you may go if the way is clear. At a green arrow, you may go in the direction of the arrow if the way is clear. If you are turning without a green arrow, you must yield the right-of-way to vehicles coming from the other direction and pedestrians in the intersection. Be sure to check for less visible vehicles such as motorcycles, bicycles, and mopeds. If a traffic light changes from red to green while a pedestrian is in the street, allow the pedestrian to cross the street before turning.



**Out of service signals:** When traffic signals are not working because of a power outage or other problem and not displaying any lights, you are required to stop, proceeding through the intersection as though it were an all-way stop. This does not apply if a law enforcement officer or other authorized person is directing traffic at the intersection, or if portable stop signs are in use.

**Lane use signals** indicate lanes where you can and cannot drive during different hours of the day.

**Red X:** Never drive in a lane marked with a red X signal.



**Yellow X or Yellow Diagonal**

**Downward Arrow:** These signals mean that you should move out of the lane as soon as safely possible.



**Green Arrow:** You are permitted to drive in a lane marked with a green arrow signal.

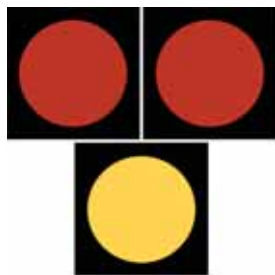


**Left-turn Arrow:** You are permitted to enter in a lane marked with a one-way or two-way arrow only to turn in the direction of the arrow.



**Pedestrian Hybrid Beacons**

**(PHBs):** PHBs appear over intersections without stoplights and alert drivers when pedestrians are at a crosswalk. One yellow light at the bottom flashes when a pedestrian activates the PHB. Next, the yellow light turns solid to alert drivers to prepare to stop. Then, the top two red lights on the PHB turn solid while a walk signal appears at the crosswalk, and drivers must stop. Lastly, while the walk signal counts down for the pedestrians, the PHB's two red lights alternate flashing, telling the driver that if the crosswalk is now clear, they may proceed with caution.



## Traffic Signs

**The color and shape of a traffic sign** communicates important information about the sign's message. In poor visibility conditions, such as heavy fog, you may be able to make out only the shape of a sign. As you approach a sign and while still distant, you may see the color long before you can read the message or see the symbol, giving you some advance information.

### Sign Colors

Sign colors help you know what the intention of the sign is.

Red used with white conveys stop, yield, do not, and no. Stop signs, yield signs, do not enter or wrong way signs, the circle and slash in a no turn sign, and the restrictions in a parking sign are examples.

Black used with white conveys regulatory information. Speed limit, do not pass, no turns are examples where the operation is regulated by law and the black and white sign would be found.

Yellow used with black conveys a warning. Curve ahead, stop ahead, overhead clearances, slippery when wet, are all examples. A specialized class of warning signs uses a strong yellow/green color with black to advise of school zone, pedestrian and/or bicyclist activities.

Green and white, blue and white, and brown and white signs are used to provide helpful information. The green sign is used to provide destination types of information, while the blue sign is used to inform regarding motorists services. The brown sign is used to advise of historical or cultural interests that might exist in the area.

Orange and black and pink and black signs are used to advise and warn in construction (orange) and incident (pink) areas. They are used with black and white signs that convey regulations that might exist only because of the construction effort or the incident.

### Sign Shapes

**Octagon (Stop):** This eight-sided shape always means stop. You must come to a complete stop at the sign, stop line, pedestrian crosswalk or curb. Wait for any vehicle or pedestrian to clear the way. At some intersections you'll find a sign beneath the stop sign that reads "All Way" or "4 Way." At these intersections all vehicles on all roads leading into the intersection must stop. If you get to the intersection at the same time as other vehicles, the driver on the left must yield to the driver on the right.



**Triangle (Yield):** You must slow down as you come to the intersection. Be prepared to stop. Let any vehicles, pedestrians or bicyclists safely pass before you proceed.



**Rectangle (Regulatory or Guide):**

Vertical signs generally give instructions or tell you the law. Horizontal signs may give directions or information.



**Diamond (Warning):** These signs warn you of special conditions or hazards ahead. Slow down and drive with caution. Be ready to stop.



**Pentagon (School Zone/School Crossing):**

This five-sided shape marks school zones and warns you about school crossings. Two signs may be used together to show the actual location of the crosswalk.



**Regulatory signs** inform you of the law; you must obey their instructions. Remember that a red circle with a slash means NO — the symbol inside the circle tells you what is prohibited.



**Speed Limit:** These signs tell you the maximum legal speed that you may drive on the road where the sign is posted when weather conditions are good. Some roads have electronic speed limit signs that change based on weather or traffic conditions. During rain, snow and ice, you may receive a ticket for driving too fast for the conditions even if you are driving at or less than the posted speed limit.



**Do Not Enter – Wrong Way:** These signs mean you cannot drive in that direction. If you drive past these signs you are going in the wrong direction and could get into a head-on crash with vehicles headed your way. Cautiously turn around.



**One Way:** Traffic flows only in the direction of the arrow.



**No Left Turn:** Left turns are against the law. In Virginia, U-turns are considered as two left turns and are illegal if this sign is posted.



**No Right Turn:** Right turns are illegal. Do not make a right turn when you see this sign.



**No U-Turn:** U-turns are illegal. Do not make a U-turn when you see this sign.



**No Turn on Red:** You may not turn on the red light. Wait for the signal to turn green.



**Do Not Pass:** This sign marks the beginning of a no passing zone. You may not pass cars ahead of you in your lane, even if the way is clear.



**Left Turn Yield on Green:** This sign is used with a traffic signal. It tells you that the traffic turning left at a green light does not have the right-of-way and must yield to traffic coming from the other direction. Stop and look for oncoming traffic, then proceed with caution.



**Keep Right:** A traffic island, median or barrier is ahead. Keep to the side indicated by the arrow.



**Lane Use Control:** These signs are used where turns are required or where special turning movements are permitted for specific lanes. Traffic in the lane must turn in the direction of the arrow.



**High Occupancy Vehicle:** These signs indicate lanes reserved for buses and vehicles with a driver and one or more passengers as specified on the sign.



**Disabled Parking:** Parking spaces marked with these signs are reserved for people with disabled parking permits.





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**Warning signs** alert you to possible hazards ahead. Slow down and watch for other pavement markings, signs, signals or work zones that may follow.

**Advisory Speed:** This sign indicates the maximum safe speed for a highway exit.



**Reduced Speed Limit Ahead:** Prepare to reduce your speed; the speed limit is changing ahead.



**Stop Ahead/Yield Ahead:** A stop sign or yield sign is ahead. Slow down and be ready to stop.



**Signal Ahead:** Traffic signals are ahead. Slow down and be ready to stop.



**No Passing Zone:** This sign marks the beginning of a no passing zone. You may not pass cars ahead of you in your lane, even if the way is clear.



**Merge:** Two lanes of traffic moving in the same direction are about to become one. Drivers in both lanes are responsible for merging safely.



**Lane Reduction:** The right lane ends soon. Drivers in the right lane must merge left when space opens up. Drivers in the left lane should allow other vehicles to merge smoothly.



**Divided Highway Begins:** The highway ahead is split into two separate roadways by a median or divider and each roadway is one-way. Keep right.



**Divided Highway Ends:** The highway ahead no longer has a median or divider. Traffic goes in both directions. Keep right.



**Slippery When Wet:** When pavement is wet, reduce your speed. Do not brake hard or change direction suddenly. Increase the distance between your car and the one ahead of you.



**Low Clearance Sign:** The overpass ahead has a low clearance. Do not proceed if your vehicle is taller than the height shown on the sign.



**Hill:** A steep grade is ahead. Check your brakes.



**Deer Crossing:** Deer cross the roadway in this area. Slow down, be alert and be ready to stop.



**Horse-Drawn Buggies:** Regularly travel in this area. Slow down and don't use the horn. State law requires motorists to pass with at least three feet of clearance when the way is clear.



**Tractors and Farm Equipment:** Regularly travel in this area. Be ready to slow down or stop. Only pass when the way is clear.



**Pedestrian Crossing:** Watch for people entering a crosswalk or crossing your path. Slow down and be prepared to stop. A second sign with an arrow may show the actual location of the crosswalk.



**Bicycle Crossing/Bike Path:** Bicycles regularly cross or ride beside traffic in this area. Drive with caution. A second sign with an arrow may show the actual location of the bike crossing.



**School Zone/School Crossing:** Watch out for children crossing the street or playing. Be ready to slow down or stop. Obey speed limits and signals from any crossing guards. A second sign with an arrow may show the actual location of the sidewalk.



**Open Joints:** Slow down. Open joints on bridges or ramps could cause a motorcyclist to lose control of the motorcycle.



**Expansion Joints:** This sign is used when a joint across lanes creates a bump or is wide enough to cause loss of traction in wet weather.



**Intersections:** An intersection is ahead. Be alert for vehicles entering the road on which you are traveling.



**Y Intersection:** You must bear either right or left ahead.



**T Intersection:** The roadway you are traveling on ends ahead at a stop sign. You must turn right or left after yielding to oncoming traffic and pedestrians.



**Roundabout:** These signs indicate a circular intersection with an island in the center is ahead. Also called traffic circles, these intersections may have one or more lanes. Entering traffic must yield the right-of-way to traffic already in the circle and travel in a counter clockwise direction.



**Right Curve – Side Road:** The road ahead curves right and a side road joins from the left within the curve. Be alert for vehicles entering the roadway you are traveling on.



**Sharp Right Turn:** Slow down and be prepared for a sharp right turn in the road ahead.



**Sharp Right and Left Turns:** Slow down and be prepared for the road ahead to turn sharply right, then left.



**Right and Left Curves:** The road ahead curves right, then left. Slow down.



**Right Curve with Safe Speed Indicator:** The road ahead curves right. Slow down to the safe speed indicated.



**Winding Road:** The road ahead winds with a series of turns or curves. On all curves, slow down for better control.



**Low Ground Railroad Crossing:** A steep slope where the railroad tracks cross the road may cause the bottom of low vehicles to get caught or drag on the tracks.



**Railroad Crossing:** Advance warning signs are placed before a railroad crossing. These signs warn you to look, listen, slow down and be prepared to stop for trains or any vehicles using the rails.



**Railroad Crossbuck:** This sign is a warning of a railroad crossing. Look, listen, slow down and be prepared to stop for trains or any vehicles using the rails. Trains may be approaching from either direction. If there is more than one track, trains may be approaching from either direction on either track.



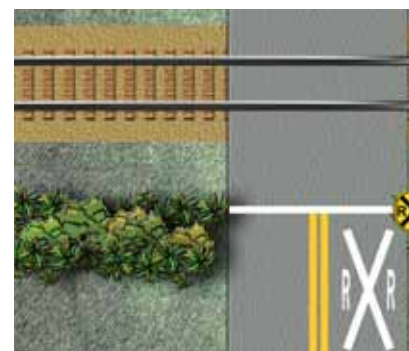
**Railroad Crossbuck and Flashing Lights:** Flashing lights may be used with crossbuck signs. Always stop when the light begins to flash and be alert for approaching trains. Do not proceed until all trains or any other vehicles using the rails have passed, the tracks are clear, and the lights are no longer flashing. Be especially alert at multi-track crossings because a second train could be approaching from the opposite direction.



**Crossbuck, Flashing Lights and Gate:** Gates are used with flashing light signals at some crossings. Stop when the lights begin to flash and before the gate lowers. Remain stopped until the gates are raised and the lights stop flashing. Do not attempt to drive around the lowered gate.



Pavement markings, consisting of an X and RR, may be painted on the pavement at the approach to some crossings. When approaching railroad tracks, be alert. Trains may approach the crossing at any time and from either direction. Unless you can clear the tracks completely, never start across the tracks. Make sure there is room for your vehicle on the other side of the tracks before proceeding.





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Note: School buses must always stop at railroad crossings, even when the lights are not flashing.

If a dangerous condition exists at a rail crossing, call the number listed on the emergency sign. This will allow the rail company to stop or reroute approaching rail traffic until the hazard is removed. Be sure to give the posted crossing number so that the hazard can be identified correctly.



If your car stalls on the tracks, don't hesitate. Get out of the car right away and run diagonally away from the tracks in the direction of the oncoming train.



**In a work zone**, the lives of highway workers depend on drivers like you obeying the posted speed limits and avoiding distractions. If you are convicted of exceeding the speed limit in a highway work zone, you may be fined up to \$500. If you are convicted of using a handheld communications device in a highway work zone, you will be fined \$250. Remember, the color orange marks a work zone and means slow down and be alert.

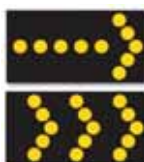
**Rough Road, Bump, or Uneven Lanes:** These signs are used when certain road conditions, such as loose gravel or road construction, affect the roadway surface and create potentially difficult conditions for motorists, especially motorcyclists.



**Road Construction Ahead – Detour:** These signs indicate a change in the traffic pattern or route ahead. Slow down. Unusual or potentially dangerous conditions are ahead.



**Flashing Arrow Boards:** Large flashing arrow boards or flashing message signs in work zones direct drivers to proceed into different traffic lanes and inform them that part of the road ahead is closed.



**Flaggers:** Flaggers are highway workers who normally wear orange or yellow vests, or yellow-green shirts or jackets. They use STOP/SLOW paddles or red flags to stop or direct traffic through the work zone, and to let other workers or construction vehicles cross the road.



**Photo Speed Enforcement:** This sign indicates that automated photo enforcement is in place for speeding in a work zone. Always obey the posted speed limit in a work zone.



### Traffic Control Devices:

Barricades, vertical signs, concrete barriers, drums and cones are the most common devices used to guide drivers safely through work zones. When driving near the devices, keep your vehicle in the middle of the lane and obey the posted speed limit. As you leave the work zone, stay in your lane and maintain your speed. Don't change lanes until you are completely clear of the work zone.



**Message Boards:** You may see portable or permanent message boards along roadways. They provide information about traffic, road, weather or other hazardous conditions. Always obey any directions posted on these message boards. For information about road conditions or road construction in advance of your trip, visit [www.virginia.gov](http://www.virginia.gov), [www.511virginia.org](http://www.511virginia.org) or call 511.

**Rumble Strips Ahead** signs warn motorists of black or orange strips placed across the travel lanes in advance of work zones, including a flagger or lane closure. Rumble strips should be slowly driven over, not swerved around.



**Slow Moving Vehicles** traveling at 25 MPH or less, such as farm equipment, horse-drawn vehicles or highway work vehicles, must display these signs when using a public highway. Be prepared to adjust your speed or position when you see a vehicle with one of these signs.



## Pavement Markings

Road markings guide and warn drivers as well as regulate traffic. Markings may be red, yellow or white. They may be used alone or in combinations. Each has a different meaning.

**Red markings** are generally not used; but, some communities do use red curbs to indicate no parking zones.

**Red reflectors** on the pavement show areas not to be entered or used. They are positioned on the road surface so that only traffic flowing in the wrong direction would observe them.

**Yellow center lines** mean two-way traffic, flowing in opposite directions.



**Broken yellow center lines** mean that passing on the left is allowed in either direction when the way ahead is clear.



**A broken yellow line alongside a solid yellow line** means that passing is allowed from the side of the broken line, but not from the side of the solid line.

Vehicles on the solid yellow line side may only cross the line to pass pedestrians, bicyclists, and riders of scooters or skateboards, when the opposite lane is clear and you can pass safely.

**Double solid yellow lines** mark the center of the road and separate traffic traveling in two different directions.

Passing is not allowed in either direction. You may not cross the lines unless you are making a left turn or passing pedestrians, bicyclists, and riders of scooters or skateboards, when the opposite lane is clear and you can pass safely.



**Broken white lines** separate lanes of traffic going in the same direction. You may change lanes with caution.



**Dotted white lines** are actually small rectangles in a series where each is closely spaced to the next. They are used to show lane assignment in intersections and interchanges where there might otherwise be a tendency to drift out of a lane or an area of intended use. Often they are used to guide two turning lanes through the intersection. Dotted white lines are also used to denote the opening of a turn lane at an intersection and entrance/exit lanes at interchanges.

Many two-lane roads in Virginia **do not have lane markings** to separate the lanes. On an unmarked two-lane road, you may pass a slow moving vehicle on the left side if there are no signs prohibiting passing. Make sure that the way is clear.

**Solid white lines** show turn lanes and discourage lane changes near intersections, interchange/on- and off-ramps, and at other locations where lane changes might be dangerous.

Solid white lines also mark the right edge of pavement. Arrows used with white lines indicate which turn may be made from the lane. Stop lines, crosswalks and parking spaces also are marked by white lines.



**White lane arrows are curved or straight.** If you are in a lane marked with a curved arrow or a curved arrow and the word ONLY, you must turn in the direction of the arrow. If your lane is marked with both a curved and straight arrow, you may turn or go straight.

**Double solid white lines** separate lanes of traffic going in the same direction. Most often they are used to designate special use lane from conventional lanes, as when used to separate a High Occupancy Vehicle lanes from the other lanes of an expressway. You may not cross these lines. You may enter the designated special use lane only where signs and markings allow.





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**Yield line** is a line of triangles extending across the roadway that may be used with a yield sign to show the point at which you must yield or stop, if necessary. A yield line is often seen at the entrance of a roundabout.



**On three-lane roads** with traffic moving in both directions, road markings show when drivers may use the center lane for making left turns or for passing.

**If the center lane is marked by a single broken yellow line on both sides**, drivers traveling in either direction may use the center lane for passing.

**If both sides of the center lane are marked by a solid yellow line and a broken yellow line**, drivers traveling in either direction may use the lane for making left turns. However, they may not travel further than 150 feet in this lane.



**A shared lane marking**, or sharrow, consists of a bicycle symbol with a double chevron arrow above it and is used on travel lanes too narrow for motor vehicles and bicycles to share side-by-side. Sharrows clarify where bicyclists are encouraged to ride in the lane and remind drivers to expect bicyclists on the road.



**Bicycle lanes** are indicated by a solid or dashed white line or green pavement markings, and a bicyclist symbol. A bicycle lane is for the preferential use of bicyclists. Drivers should not drive in the bicycle lane except when necessary to turn left or right. Before turning, check your mirrors for bicyclists that may be behind you and yield to bicycles in the lane.



**Bicycle boxes** are painted on the road at intersections. They contain a white bicycle symbol. Bike boxes and the bike lanes approaching and leaving



the box may be painted green. Drivers must stop for a red traffic signal behind all bicycle boxes, not inside the box. Bicycle riders will move into the box in front of drivers at the intersection. Right turns on red are not allowed at these intersections. If turning right on a green light, drivers must signal and yield to bicycles on the right.

### High Occupancy Vehicles (HOV)

**lanes** are marked on highways by a diamond shape in the center of the lane. HOV lanes may also be special lanes separated by a barrier or solid double white lines. During heavy traffic periods, HOV lanes are reserved for buses, vanpools, carpools, other high occupancy vehicles, motorcycles, and certain clean special fuel vehicles. Road signs show the minimum number of passengers a vehicle must carry (excluding motorcycles and clean fuel vehicles) to use the HOV lanes and the times that HOV restrictions are in effect. If the lanes are separated by a barrier, they are reversible. This means that during certain times of the day, traffic flows one way. During other times of the day, traffic flows in the opposite direction. A diamond-shaped marking may also indicate that the lane is reserved for use as a bus lane.



### Toll Plazas and Lanes

All toll facilities in Virginia accept payment using E-ZPass toll transponders. Transponders allow drivers to pay electronically without having to stop to pay with cash. If you



have a transponder, as you approach a toll plaza look for and follow signs with the purple E-ZPass logo. If you do not have a transponder, as you approach a toll plaza, look for and follow signs for cash only lanes.



Slow down as you approach toll plazas. Be extra cautious as you approach, enter, and depart toll plazas. There may be other drivers changing lanes and/or toll employees crossing the lanes.

Some toll roads have high speed lanes reserved for vehicles with E-ZPass transponders. Do not enter those lanes unless you have a transponder. However, if you do enter one of those lanes by mistake, do not stop. Stopping is unsafe and could cause a rear-end crash. Cameras will photograph the car's license plate number and the registered vehicle's owner will be billed for the toll.

**A painted curb** means that you must follow special rules to park there. Check with the locality for specific meanings. Generally, the colors on the curb mean:

**White** — Stop only long enough to pick up or drop off passengers.

**Yellow** — Stop only long enough to load or unload. Stay with your car.

**Red** — Do not stop, stand or park.

### In this section you'll learn about:

- ▶ Hand position
- ▶ Speed limits
- ▶ Stopping
- ▶ Yielding the right-of-way
- ▶ Roundabouts
- ▶ Changing lanes
- ▶ Over-correcting
- ▶ Turning
- ▶ U-turns
- ▶ Turn signals
- ▶ Maintaining a space cushion
- ▶ Searching
- ▶ Blind spots
- ▶ Sharing the road
- ▶ Backing
- ▶ Parking
- ▶ Visibility
- ▶ Lights
- ▶ Hazardous conditions
- ▶ Dangerous driving behaviors
- ▶ Traffic crashes
- ▶ Deer hazards
- ▶ Traffic stops

## Section 3: Safe Driving



**Every time** you get behind the wheel, you accept responsibility for your actions. You must obey Virginia's traffic laws, and ensure the safety of you, your passengers, and other motorists, pedestrians and bicyclists on the roadways.

### Hand Position

Sit straight but relaxed and place your hands on the steering wheel. If your steering wheel were a clock, your hands should be at the 8 o'clock and 4 o'clock positions. Hold the wheel with your fingers and thumbs. Avoid gripping it with your palms.

