

Use Reference Points

4



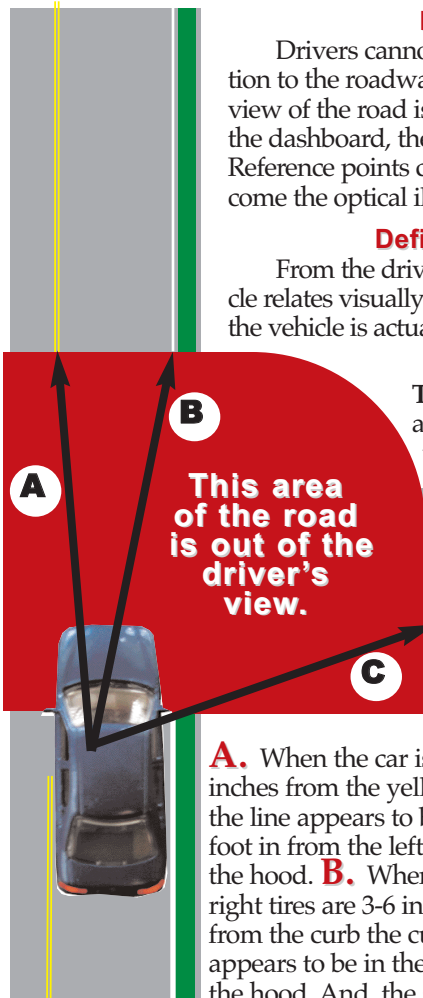
- Know within 3-6" where your car is positioned to the roadway.
- Know where the car's front and sides are in relation to intersections.

Reference Point Usage

Drivers cannot see the actual position of their car in relation to the roadway. The reason for this is that the driver's view of the road is blocked by the structures of the car, such as the dashboard, the hood of the car, and the window height. Reference points can be developed to serve as a guide to overcome the optical illusions a driver encounters.

Definition of Reference Points

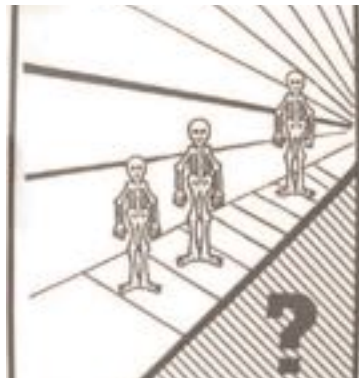
From the driver's seat, identify how some part of the vehicle relates visually to some part of the roadway to know where the vehicle is actually located.



This area of the road is out of the driver's view.

The red area, illustrated to the left, shows the amount of road to the front and sides of the vehicle that the driver is not able to see.

This is an Optical Illusion



Which skeleton is largest, which is smallest?

A. When the car is 3-6 inches from the yellow line the line appears to be one foot in from the left edge of the hood. **B.** When the right tires are 3-6 inches from the curb the curb appears to be in the center of the hood. And, the steering wheel appears to be centered between lines A and B. **C.** When the front bumper is even with the crossing curblines the curb appears to be aligned with the passenger side mirror.

Whatever your perception of the skeletons are, it will always seem correct in your mind until you have some way of proving otherwise. To prove what is correct, place the corner of a piece of paper at the bottom skeleton's heels. Then make a mark on the paper at the top of its head. You have now made a reference "tool" to compare with the others.

4 Use the Steering Wheel to Determine Road Position

An easy way to overcome the vehicle's **optical illusion** is by viewing the steering wheel as a reference to determine where the tires are positioned on the road. This photo shows that the car is in the center of the lane. Notice the equal spacing between the lane lines and the steering wheel.



According to this photo, where do you think the car's tires are positioned now? The right tires are close to the white line. Notice the greater distance the yellow line is from the steering wheel.

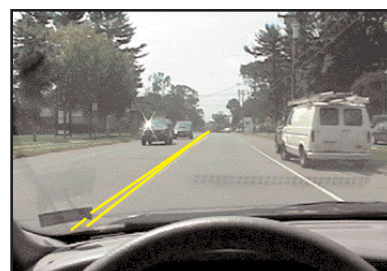


Where do you think the car is now? The tires are straddling the white line.



Reference points, once learned, provide a method of developing correct perceptions of how the vehicle fits to the roadway.

In the photo to the right, you are approaching a parked van. Where within the lane is your car? It is in the center of the lane.



In the photo to the left, we are still positioned in the center of the lane. But, looking at the van, we see an optical illusion, making our car appear closer to the van than it is actually. Reference points help eliminate the optical illusions that fool drivers.

The reference points presented in this book are shown the way most drivers will see them. They are our "standard" reference points. When attempting to discover a reference point, first use the "standard" reference point. If the "standard" reference point was accurate for you, continue to use it. If any reference point we cite in this manual varies, then make note of your "personal" reference point. It won't be more than a few inches away from the

"standard" reference point. Once you succeed, remember the correct picture of your "personal" reference point for future use.

Reference points are the tools necessary for the driver to receive accurate feedback for successful performance. If a driver parks alongside a curb perfectly, but didn't use reference points, there was no learning of what gave the perfect result. It would be difficult to repeat the same actions into the same perfect result.

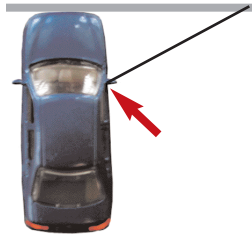


When the car is 3-6 inches away from a line to the left, the driver will see that line appear to be one foot in from the edge of the left fender, as shown by the arrow in the photo to the left.



When the car is 3-6 inches away from a line to the right, the curb will appear to be at the center of the hood. When you cannot see the hood, the curb will appear near the center of the driver's windshield wiper.

When the front of the car is even with a line, the driver will see the line appear near the passenger's side mirror, aligned with the dashboard, as shown in the photo below.



Here is the driver's view, looking out the passenger window of an SUV, when the front bumper is even with the white line. Notice how the white line appears to be aligned with the sideview mirror!

See Your Reference Points

Any driver in any vehicle can make consistently accurate decisions with the knowledge of reference points. Drive up to a line in a parking lot until the line appears as shown in the photo above. Get out of the car and see how close the front bumper is to the line. Knowing where your front bumper is when stopped at intersections can lead to better searching.

1. **The first and foremost advantage** you'll gain from the use of reference points is the ability to be consistently successful.

2. **Once reference points are learned** for one vehicle, the techniques can be applied to any vehicle.

3. **You can get into a larger vehicle** than you are accustomed to, such as a sport utility vehicle, van, truck, or motor home, and within 5 minutes be comfortable and confident maneuvering it in tight spaces.

4. **You can feel very comfortable getting into and out of tight parking spaces** with any vehicle.

5. **While driving in the right-side lane** you'll know exactly how far your car is positioned from parked cars, which will reduce the frequency of swerves when doors suddenly open.



Case Study

On a rainy afternoon, on a two-lane rural highway with guardrails, a truck was moving slowly. A vehicle to its rear began to pass it when its driver noticed an oncoming vehicle and she pulled back behind the truck. The oncoming driver, when he saw the car about to pass, slammed on the brakes, lost control of his car, and slid into the path of the truck. The car's driver was thrown into the impact and he died instantly. If he knew reference points, at the moment he saw the car appearing to pass the truck, he could have taken a steering action toward the guardrail. There was space as an escape path if that car did pass. **Factors:** no reference points, no safety belt, raining, rural road, afternoon drowsiness, guardrail, improper braking, lack of skid control, small vs. large vehicle, improper passing, not searching to target area, no headlights on.

6. With the use of reference points **you can make tight right turns** into driveways, alleys and narrow streets, without the need to swerve to the left before turning; nor will you hit the curb with the right rear tire.

7. **You can feel comfortable driving in confined areas** such as: parking garages with spiral ramps, tunnels with fast moving traffic, narrow bridges with a bus or truck approaching, and highway lanes narrowed by construction barriers.



8. **You can feel confident** and operate efficiently **while passing a jogger, bicyclist, or pedestrian** on narrow roads with the least amount of movement into oncoming traffic.

9. **While going into a curve you will be able to select the best travel path** to minimize the chances of a head-on crash. During slippery roadway conditions you will be able to get the best drive line to help reduce the chances of going into a skid.

10. **You can make the best decisions** for using the various lane positions to get maximum control of the zones to either side of the vehicle.

11. **You will be able to get reliable feedback** to tell exactly where your vehicle is within the lane, and increase your awareness for what is an okay or not okay lane position.

12. **If you use reference points to overcome optical illusions**, rather than "guessing", then you can make accurate decisions when you are not feeling right, such as when you are tired, ill, or after taking medication.