The background of the slide is a photograph of a two-lane road with double yellow lines, curving through a green, hilly landscape. Several cars are driving on the road. The top half of the image is obscured by a light blue semi-transparent banner containing text.

Unit 2

Getting Acquainted with the Vehicle

ADTSEA 3.0 Curriculum

Unit 2 Overview

- Pre-entry checks
- Obscured areas around the vehicle
- Protective devices
- Location, function and operation of devices and symbols found in a vehicle

Unit 2 Overview continued

- Pre-drive procedures and enhanced mirror settings
- Vehicle reference points
- Purpose and use of vehicle owner's manual

Pre-entry Checks



- The topics covered in this video include:
 - Pre-entry checks to be made around the vehicle before entering the vehicle.

[View Pre-entry Checks Video](#)

Pre-entry Checks



Video Review

1. What should you check for before entering the vehicle?
2. Why should you check for these things before entering the vehicle?
3. Anything behind the car will be _____ in the driver's seat.
4. What do you need to know before starting to move?

Pre-entry Checks



Broken glass



Body damage



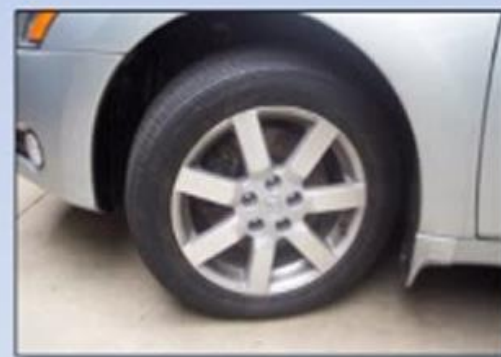
Fluid leaks



Objects



Children and pets



Tires

The Area Around the Vehicle



- The topics covered in this video include:
 - Demonstration of how to determine the area around the vehicle that cannot be seen.

View The Area Around
the Vehicle Video

The Area Around the Vehicle



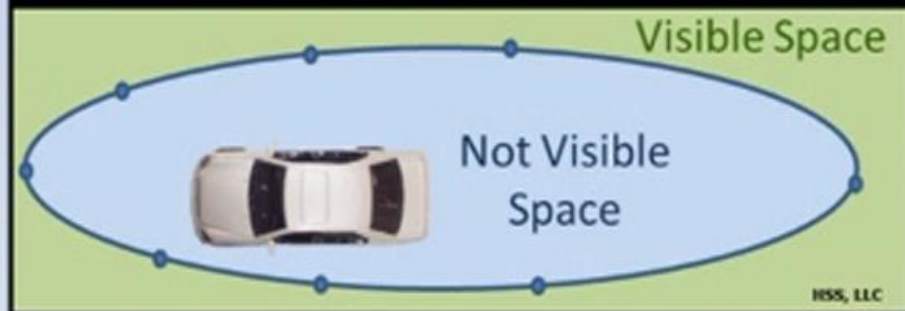
Video Review

1. What does the video demonstrate?
2. When does the student place the cone on the ground?
3. What area around the vehicle is largest?
4. How can drivers compensate for this space they cannot see?

The Area Around the Vehicle

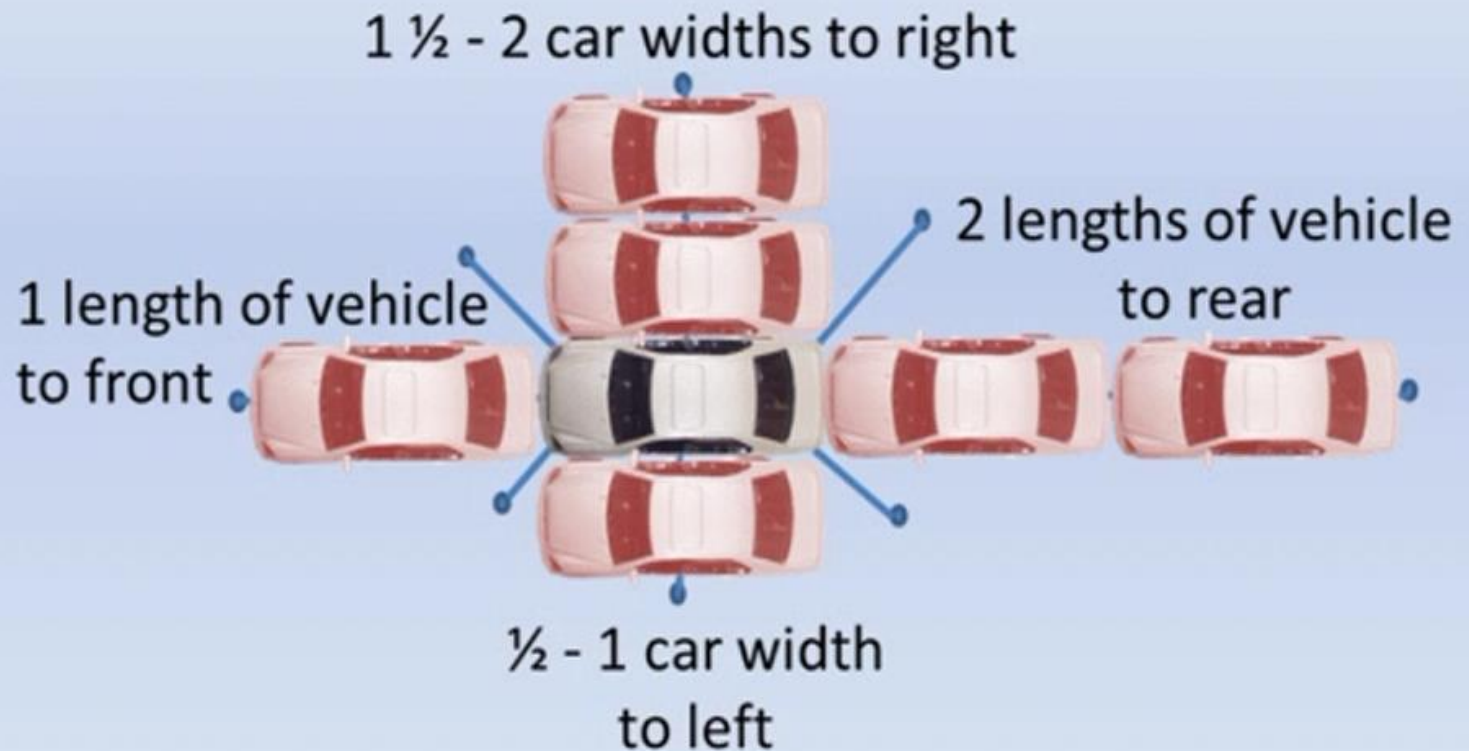
Space around the vehicle the driver cannot see when in the driver's seat due to the design of the vehicle

The Area Around The Vehicle



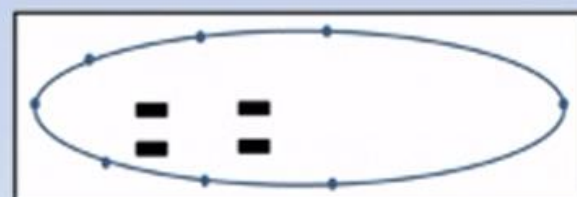
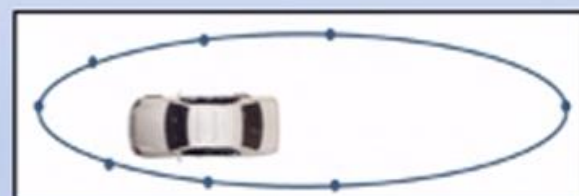
The Area Around the Vehicle

The driver can see the ground within:



Locating the Area Around the Vehicle

- Step 1 – Place markers where driver can see
- Step 2 – Draw the space area around the vehicle
- Step 3 – Mark the tire patches prior to moving the vehicle



Reducing Your Risks in the Crash



- The topics covered in this video include:
 - How to reduce the risk of injury in a crash by using safety restraints.
 - How to get the maximum benefits from safety restraints.
 - How to use safety restraints properly.
 - Where child passengers should sit in a vehicle.

View Reducing Your Risks
in the Crash Video

Reducing Your Risks in the Crash

A small icon of a computer monitor with a blue screen displaying the text "Video 2.3".

Video 2.3

Video Review

1. What offers the best protection in frontal crashes?
2. How should the driver position their seat in a vehicle?
3. How should the head restraint be positioned?
4. Where should infants and young children ride in a vehicle?

Safety Restraints

- Safety restraints include:
 - Safety belts
 - Head restraints
 - Air bags
 - Child passenger seats

Safety Belts

Slow occupant's rate of deceleration in a frontal crash and keep occupants securely in place.



Adjust for height



Lap belt snug



Shoulder belt across top of shoulder and chest with minimal slack

Head Restraints

Reduce the risk of neck injury due to whiplash from the impact of a crash.



Adjust to make contact with back of head, slightly above ears.

Air Bags (Dash and Steering Wheel)

Work with safety belts and protect against head and chest injuries.



Minimum
10 -12 inch
between
chest and
steering
wheel.



Raise seat or use
wedge-shaped
cushion.

Air Bags (Side Impact Protection)



In the sides of the seat



In the door panel

Child Passengers



Birth – 12 months

Rear facing car seat until at least 12 months, 20 lbs.



4 – 7 years

Forward facing car seat with harness until outgrow, then can ride in a booster seat.



1 – 3 years

Rear facing as long as possible, forward facing car seat at least 1-year old, 20 – 40 lbs.

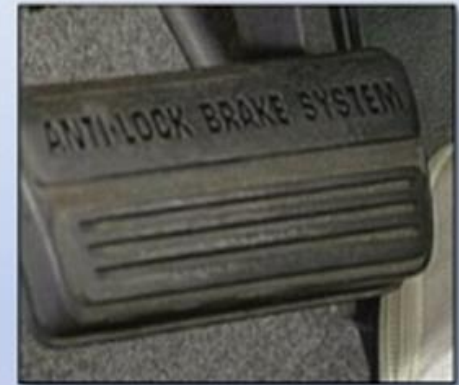


8 – 12 years

Booster seats until big enough to fit in a safety belt properly, still in back seat.

New Advances in Vehicle Safety Found Today

- All-wheel drive
- Antilock brakes
- Electronic stability control
- Telematics (i.e. OnStar)
- Tire pressure monitoring



New Advances in Vehicle Safety for Tomorrow

- Active head restraints
- Adaptive cruise control
- Adaptive headlights
- Advanced airbags
- Advanced seat belt pretensioners



New Advances in Vehicle Safety for Tomorrow

- Fatigue warning
- Forward collision warning systems
- Lane departure warning systems
- Park assist and back over prevention
- Side view assist



Getting to Know the Vehicle

Video 2.4



- The topics covered in this video include:
 - Description and location of control devices found in a vehicle, which control the speed and direction of the vehicle.
 - Description and location of secondary controls found in a vehicle used for safety, communication and comfort.

View Getting to Know
the Vehicle Video

Getting to Know the Vehicle



Video Review

1. Putting in the ignition key and turning to the ON position allows the driver to:
2. What are hazard flashers used for?

Safety, Communication, Comfort, Convenience and Control Devices



Mirrors



Safety belt



Head restraint



Horn

Safety, Communication, Comfort, Convenience and Control Devices



Turn signal lever



Door locks



Hazard flasher



Windshield wipers and washers

Safety, Communication, Comfort, Convenience and Control Devices



Headlights



Hood release



Trunk release



Heater, defroster, and air conditioner

Safety, Communication, Comfort, Convenience and Control Devices



Seat adjustment controls



Steering



Steering wheel adjustment

Safety, Communication, Comfort, Convenience and Control Devices



Gear selector lever and parking brake



Cruise/speed control



Ignition switch



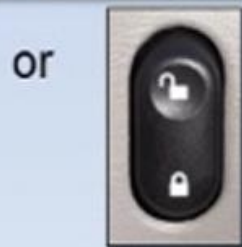
Brake and accelerator pedal

Control and Information Device Symbols

- Symbols used to identify the operation and control devices found in motor vehicles.

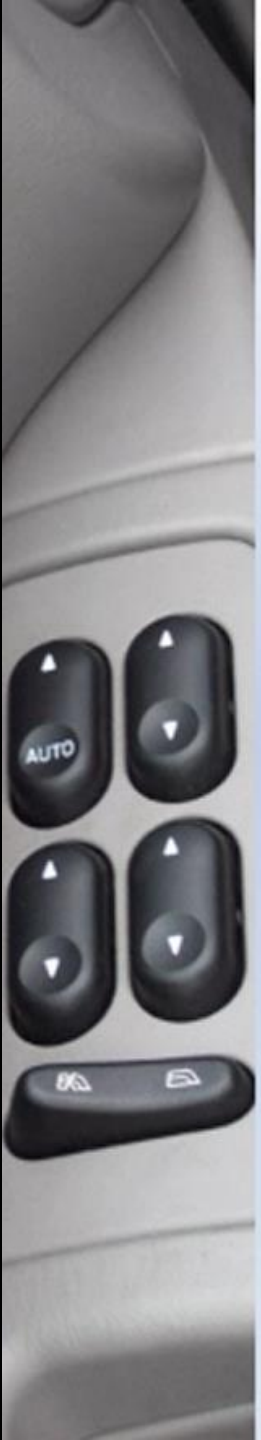


Control and Information Device Symbols



Control and Information Device Symbols

P		Q		R		S	
T		U		V		W	
X		Y		Z		AA	

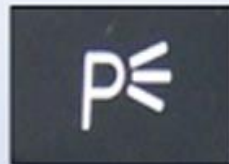


Control and Information Device Symbols

BB



CC



DD



EE



FF



GG



HH



II



JJ



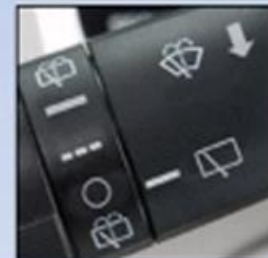
KK



LL



MM



NN



or



Pre-drive Procedures, Mirrors and Blind Spots



- The topics covered in this video include:
 - Pre-drive procedures used after entering the vehicle, including adjusting seat, head restraint and mirrors, fastening safety belt and locking doors.
 - How to properly adjust your side view and rearview mirrors.

View Pre-drive Procedures,
Mirrors and Blind Spots
Video

Pre-drive Procedures, Mirrors and Blind Spots



Video Review

1. How should the seat be positioned?
2. What is the area between the inside mirror view and what we cannot see to either side?
3. How should the outside mirrors be set?

Pre-Drive Procedures



Lock doors



Key in ignition



Adjust seat



Adjust mirrors

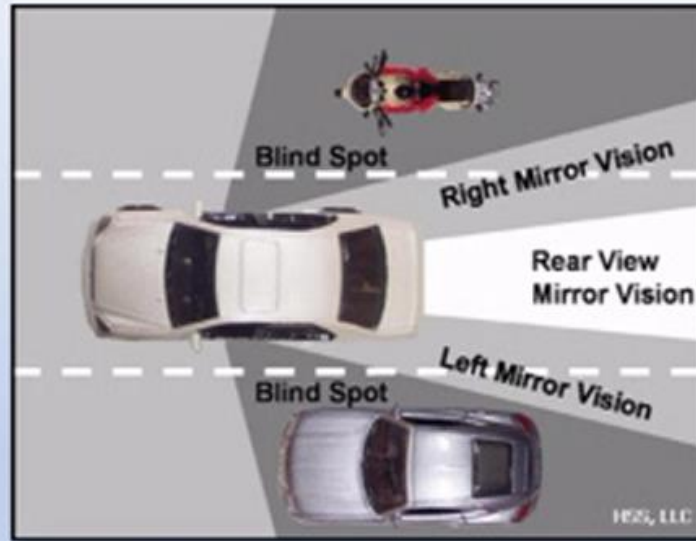


Fasten safety
belt

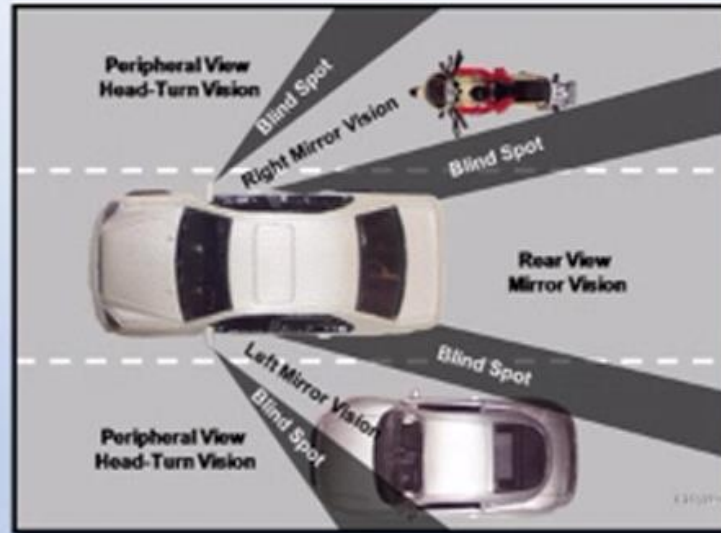


Adjust head restraint

Traditional Mirror Settings



Enhanced Mirror Settings



Setting Your Mirrors



Lean head **left** until touches window, set mirror to barely show rear edge of vehicle



Lean head **right** until center of vehicle, set mirror to barely show rear edge of vehicle

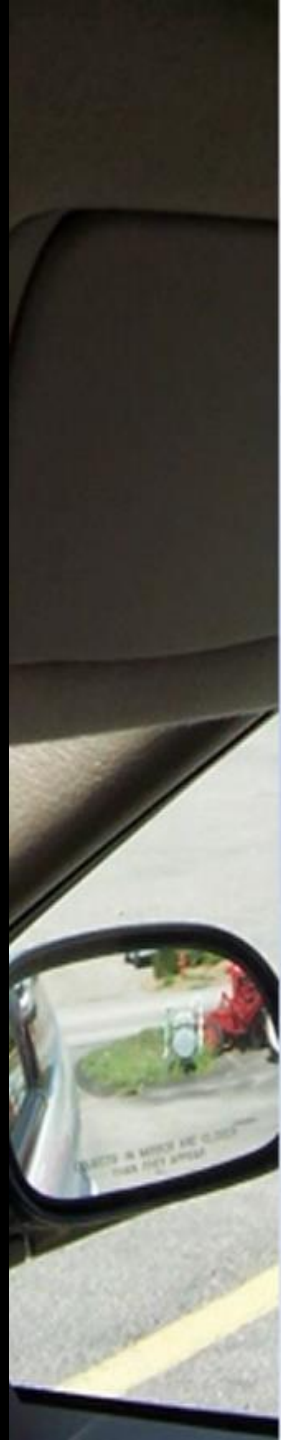
Mirror Usage

- Important to use mirrors:
 - When stopping
 - When turning
 - When changing lanes



Vehicle Reference Points

- Guide in determining position of vehicle in the roadway.
- Part of outside or inside of vehicle, that relates to some part of the roadway.



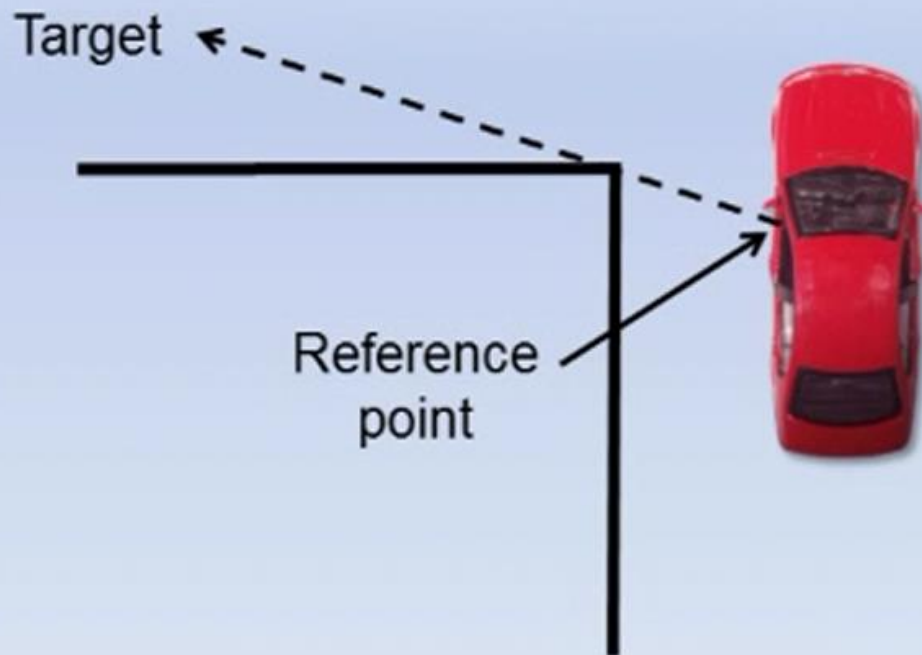
Front Reference Points

Used for stopping the vehicle, curb or line appears to run under the driver or passenger side view mirror.



Front Reference Points

Used for determining when to make left turn, curb or line appears to run under the driver or passenger side view mirror.



Rear Reference Points

Used for backing the vehicle, curb or line appears to be centered near the bottom of the rear door window.



Reference
point



Reference
point



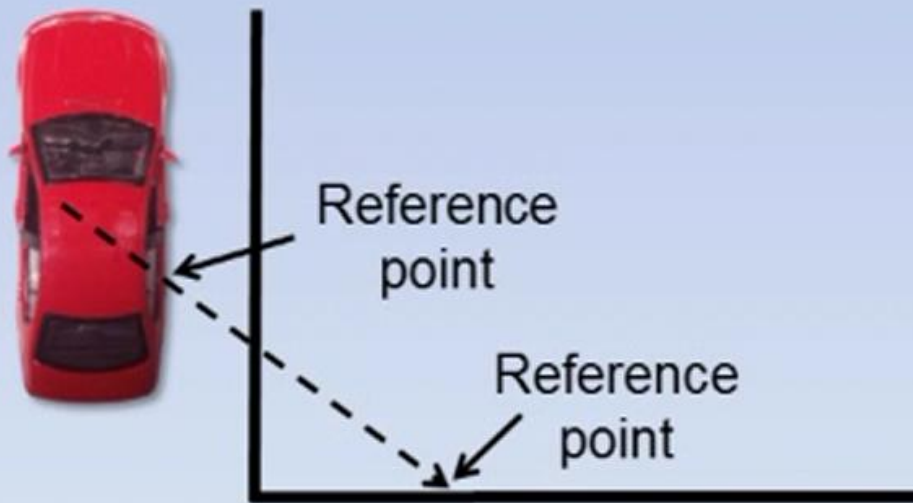
Reference
point

Reference
point



Rear Reference Points

Used for backing and turning around a corner, line will disappear in rear door window corner post.



Right Side Reference Points

Positioning vehicle 3-6 inches from right side is center of vehicle's hood.

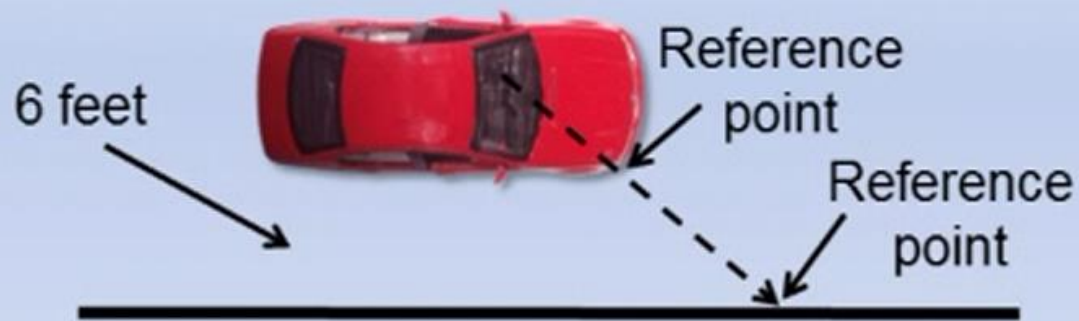


Positioning vehicle 3 feet from right side is right $\frac{1}{4}$ section of hood.



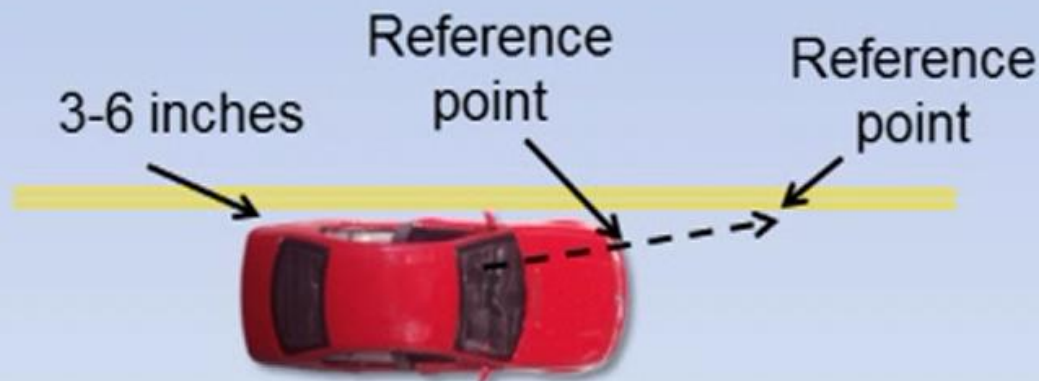
Right Side Reference Points

Positioning vehicle 6 feet from right side is right headlight.



Left Side Reference Points

Positioning vehicle 3-6 inches from left side of curb or line is 1 foot from left side or crack line between left fender and hood of vehicle.



Helpful Information in the Vehicle Owner's Manual

- Location and operation of controls, gauges, indicator lights
- Adjusting head restraints
- Safety restraints and child passenger seats
- Maintenance



Unit Review

In this unit, you learned:

- Pre-entry checks to be made around the vehicle
- The obscured areas around the vehicle
- Proper usage of protective devices
- Location, function and operation of devices

Unit Review continued

- Pre-drive procedures and mirror settings
- Vehicle reference points
- The purpose and use of the vehicle owner's manual