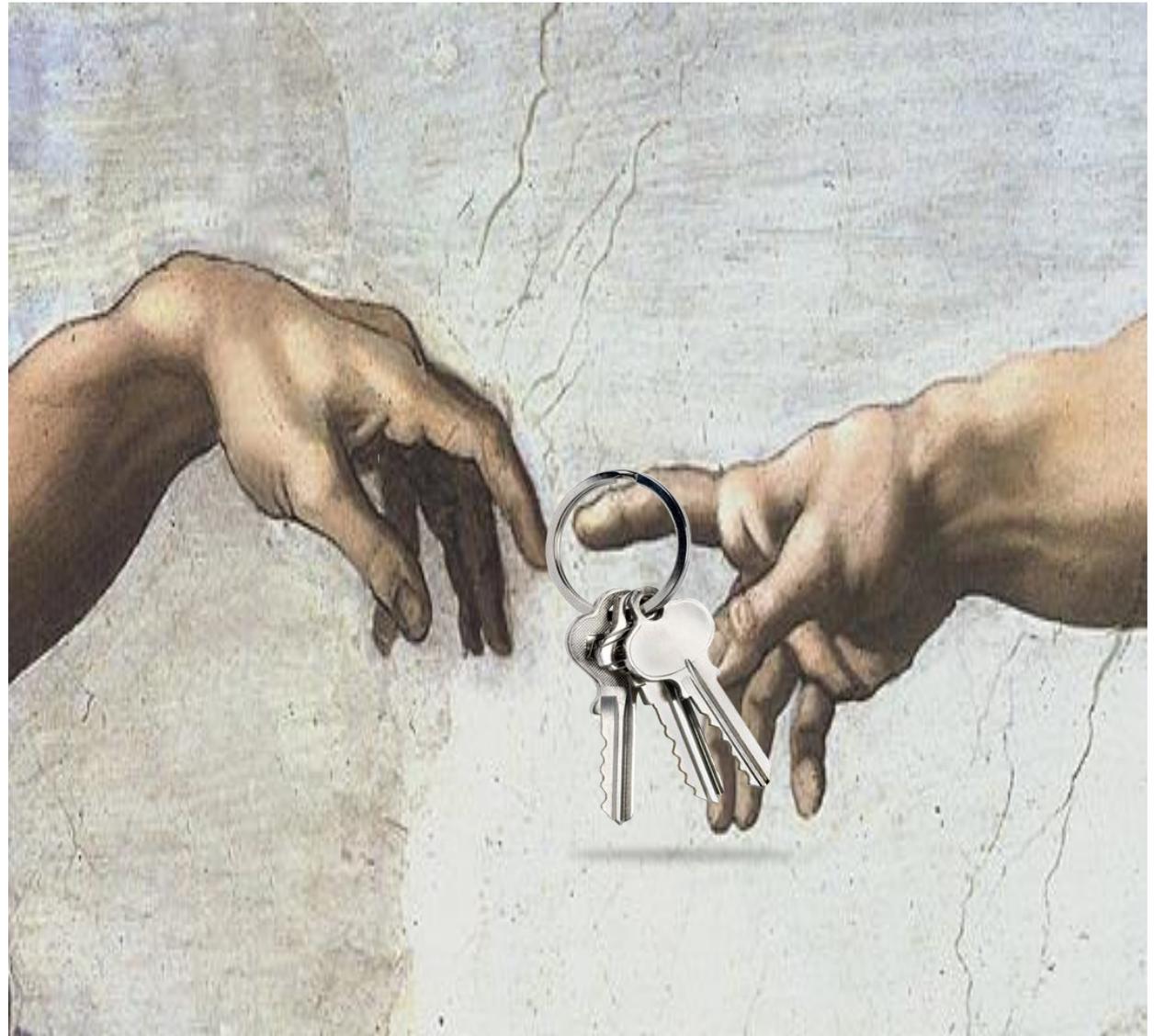


## Unit Three

# Getting Started



# Objectives For Unit Three

2

**What makes the vehicle go forward?**

**What do those lights on the dashboard mean?**

**Do I have to wear my safety belt?**

**What is a pre-entry check and why do I need to do one?**

**What information is in my owner's manual?**

# Objectives For Unit Three

3

- Student will be able to locate and describe the significance and appropriate use of vehicle equipment using owner's manual when necessary.
- Student will be able to list the necessary steps to safely enter a vehicle and prepare to drive.
- Student will be able to explain the importance of consistently using all of a vehicle's safety equipment.

# Pre-entry Checks: Why Do One?

4



# Pre-entry Check: Outside The Vehicle

5

Walk around the outside of the vehicle.  
Check for the three P's.



Pets



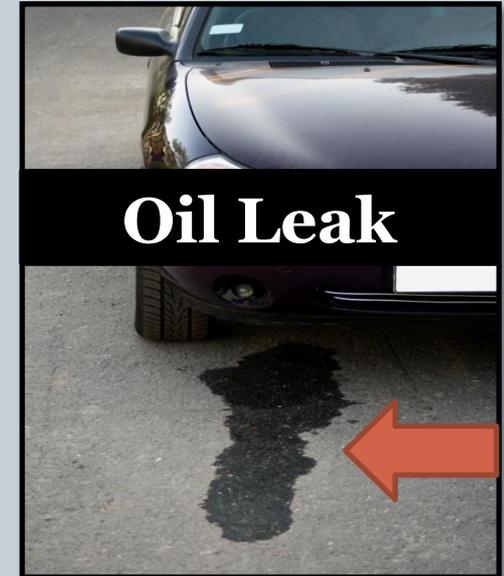
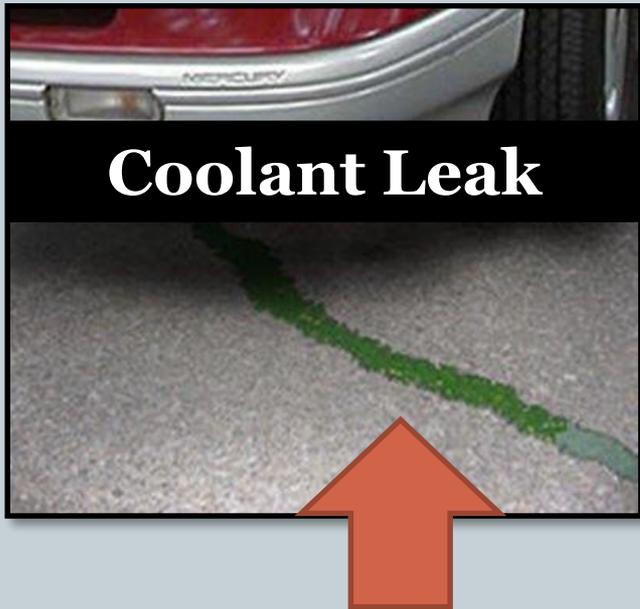
Pedestrians



Property

# Pre-entry Check: Under & Around The Vehicle

6



# Getting Started: An Overview

7

- **Lock doors.**
- **Adjust seats and head rests (restraints) for best control.**
- **Adjust inside and outside mirrors.**
- **Fasten and adjust safety belt.**
- **Make sure all passengers buckle up.**
- **Turn off and put away all your electronic devices.**



# Getting Started: Lock The Doors

8

- **Why should you lock doors?**
  - **Personal safety**
  - **Helps keep you in the car in case of a crash**



# Getting Started: Adjusting Head Restraints

9

**Fact or Fiction? Head rests or restraints are just for comfort and don't do anything for you in a crash.**

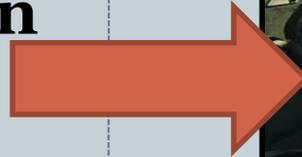


- **Where does the head restraint go?**
  - Top of the head restraint should be even with the top of the head or as high as it will go.
  - Distance from the back of the head to the restraint should be as small as possible.

# Getting Started: Adjusting Your Seat For Safety

10

**Step One: You are driving a machine, NOT sitting in a lounge chair.**



**Step Two: Make sure your lower back is as far back IN the seat as possible.**

**Step Three: Adjust the angle of the seat.**



# Getting Started: Adjusting Your Seat For Safety

11

**Step Four: Slide the seat forward to ensure your feet can easily reach the pedals.**

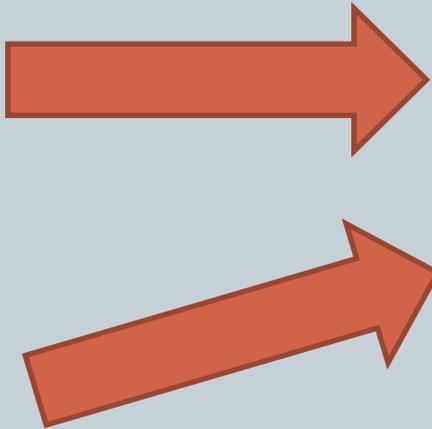
**Step Five: Reach out to the steering wheel and make sure you can reach it without having to lift yourself out of the seat. Your arms should be extended, but comfortably bent at the elbows and wrists.**



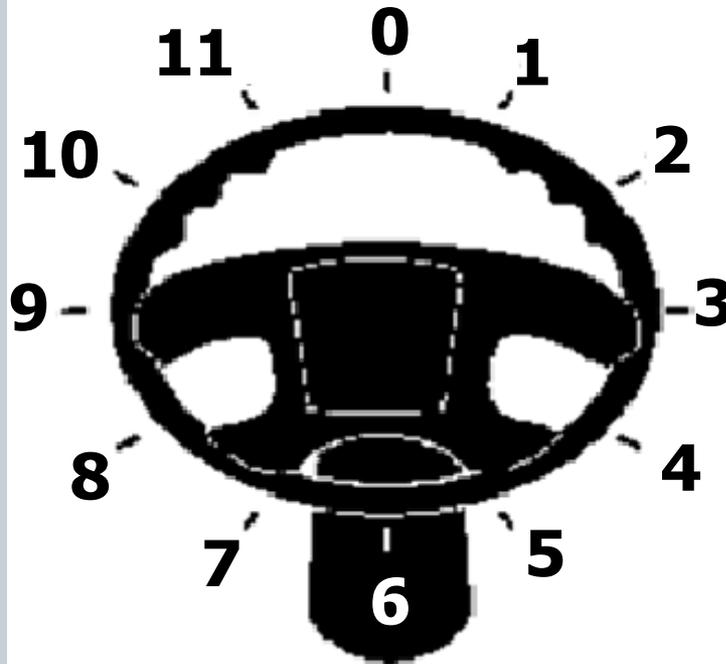
# Getting Started: Hand Position On The Wheel

12

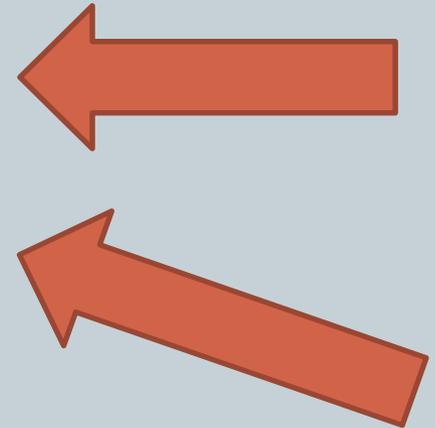
Many experts, including AAA state that having your hands at 9 and 3 is the best place to maintain control and avoid injury from airbags.



## Steering Wheel Positions



Other traffic safety professionals believe that 8 and 4 is better to maintain control and avoid injury from airbags.



# Getting Started: Adjusting Mirrors For Safety

13

## Rear View Mirror

- **Where should it be facing?**
  - Should be facing directly behind the vehicle.
  - Should allow a driver to see the entire rear view window.
- **How often should a driver check the rear view mirror?**
  - Must check several times a minute.
  - Some research says a driver should check mirrors every five seconds.
- **When MUST a driver check the rear view mirror?**
  - When changing lanes, slowing down, entering traffic from the side of a street, driving down a long, steep hill or when at a stop light.

# Getting Started: Back-up Cameras

14

## NEW TECHNOLOGY

- **Designed to minimize blind spots and avoid back over incidents.**
- **May be used on the skills test at the MVA.**
- **Do not replace head checks.**
- **Will be on all new model cars by 2018.**



View from a back-up camera

# Getting Started: Adjusting Side Mirrors

15

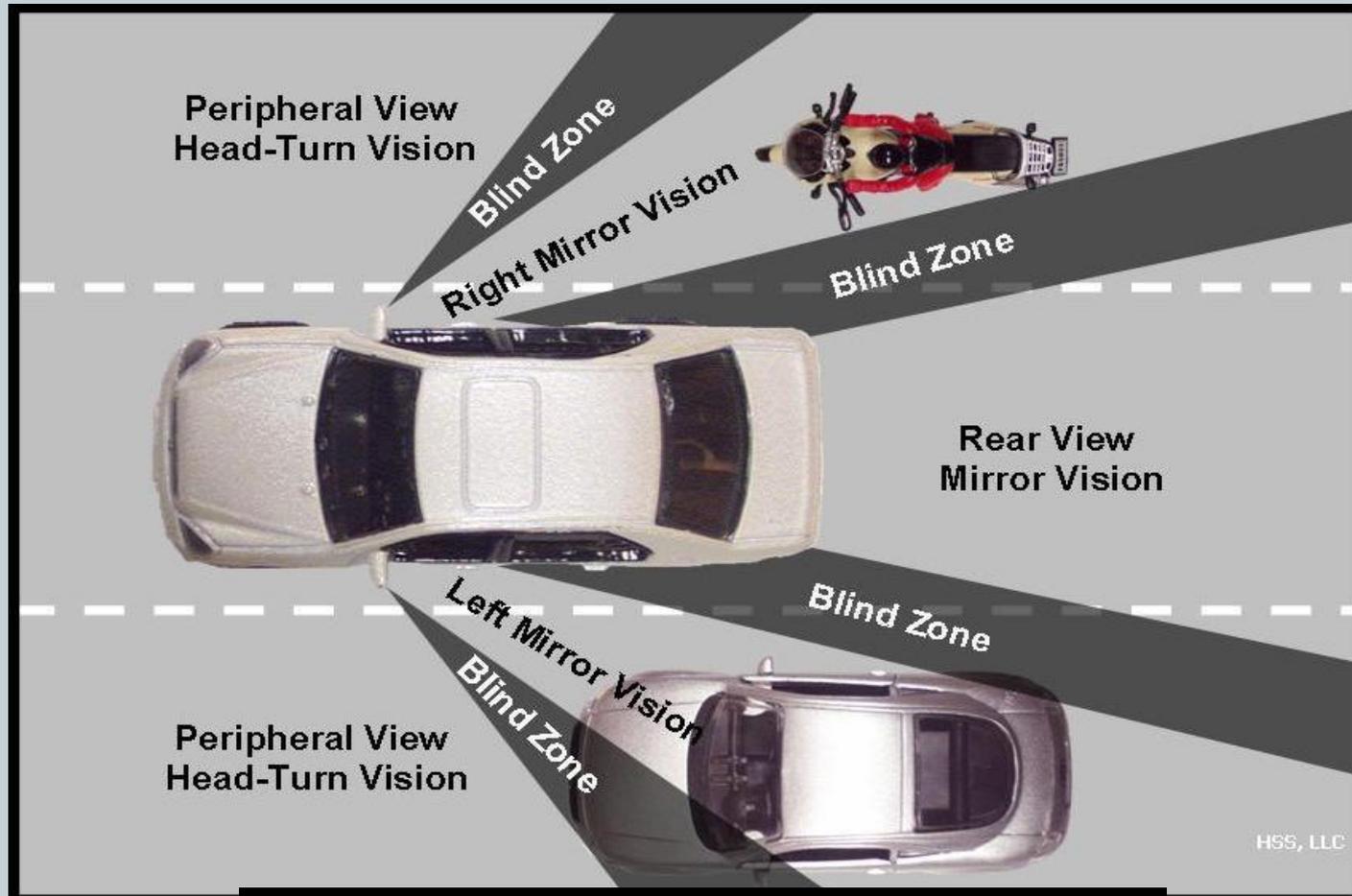
## Enhanced Mirror Settings when used correctly:

- Limit the need to complete numerous head checks.
- **DO NOT ELIMINATE NEED TO CONDUCT A HEAD CHECK.**
- Allow the area in the front of the car to stay in peripheral view when a driver does have to check side mirrors.
- Night time glare is eliminated or removed all together.

**New Drivers WILL BE REQUIRED to complete head checks when taking the MVA skills test, so it is important to get into the habit.**

# Traditional vs. Enhanced Mirror Settings

16



## Enhanced Mirror Settings

# Getting Started: Adjusting Side Mirrors

17

- ***For the driver's side mirror:***
  - Place your head against the side window.
  - Set the mirror so you can see the side of your car.
- ***For the passenger side mirror:***
  - Position your head at the middle of the car.
  - Set the mirror so you can see the side of your car.
- ***To see if your mirrors are in the right place:***
  - Watch a vehicle as it passes you.
  - It should appear in the outside mirror before it leaves the inside mirror, and it should appear in your peripheral vision before leaving the outside mirror.



# Enhanced Mirror Settings: How To Set Your Mirrors

18

VIDEO TO BE DISPLAYED  
DURING CLASSROOM  
INSTRUCTION.

# Getting Started: Seat Belts, Air Bags, And Car Seats

19

Every **12 minutes** in Maryland, someone is injured in a traffic crash.

If you're not buckled up, you could be thrown through a window, sent skidding along the pavement, or be crushed under a vehicle.



# Fact Or Fiction?

20

**I am safer if thrown clear of the car in a crash.**



**If the car catches fire or is submerged in water, I cannot get out.**



**Seat belts hurt you in a crash more than they help.**



**On average, more than 120 UNBELTED DRIVERS AND PASSENGERS are killed every year in Maryland.**



**Approximately 38 PERCENT OF DRIVERS AND PASSENGERS killed in motor vehicle crashes are unbelted.**



# **Towards Zero Death: Seat Belts**

21

**VIDEO TO BE DISPLAYED  
DURING CLASSROOM  
INSTRUCTION.**

If you are not restrained, you become an object. You are launched into the dash board, the windshield, the door or ejected and launched into space, and all of that greatly magnifies the effects of the injury.

**Dr. Thomas Scalea, Physician-in-Chief,  
R. Adams Cowley Shock Trauma**

There's a common misconception that the back seat passenger is protected. For some reason, sometimes people may feel that they don't need to wear a seatbelt and they're absolutely wrong.

**Dr. Mayur Narayan M.D., M.P.H., M.B.A.  
R. Adams Cowley Shock Trauma**

**Seatbelts work.**

**They work after you make a mistake. We know that when they're worn, and worn correctly, they will save your life and possibly prevent serious injury.**



**Montgomery County Police Captain Thomas Didone**

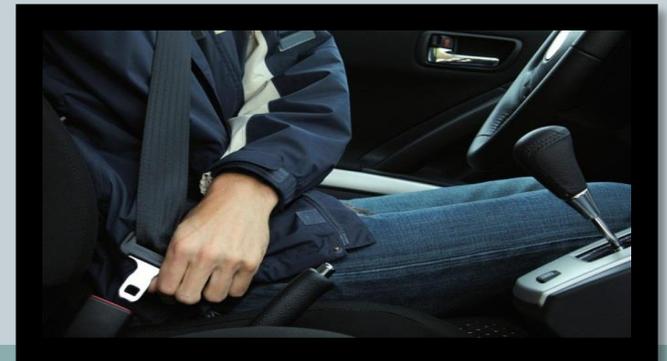
**So are you wearing your seatbelt 100% of the time?**

# Getting Started: Safety Belts, Car Seats, And Airbags

24

**Now that you know to wear a belt, how do you properly wear a safety belt ?**

- **Place lap belt snugly across hips.**
- **Adjust center post mounting for height, if vehicle is so equipped.**
- **Belt over top of shoulder and across center of chest to distribute force in the event of a crash.**
- **Keep seat back in upright position to avoid sliding out of the seat in a frontal crash.**



# Getting Started: Safety Belts, Car Seats, And Airbags



# Getting Started: Safety Belts, Car Seats, and Airbags

26



**Infant seats/rear facing as long as possible following manufacturer's instructions.**



**Forward facing seats following manufacturer's instructions.**



**Under 8 years old must be secured in a child safety seat unless the child is 4'9" (57 inches).**

**Too big for a booster?  
Under 12 years, safest if seated in back seat.**

# Seat Belts And Car Seats: The Law

27

- **According to Maryland law, who must wear a safety belt when anyone (learner's permit, provisional license, or full license) is driving?**
- **Are seat belts primary or secondary violations?**
- **What is the current penalty for not wearing a safety belt?**

# Getting Started: Air Bags

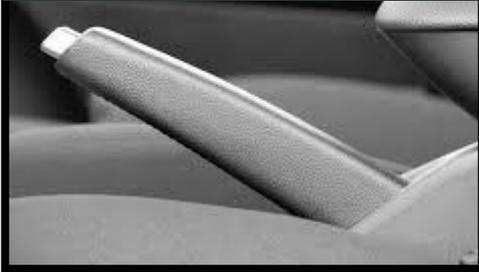
28

- **Protect against head and chest injuries.**
- **Designed to work with the safety belts, not to replace them.**
- **Should adjust seat for minimum 10 inches of clearance between chest and steering wheel.**



# Getting Started: Vehicle Control Equipment

**PARKING  
BRAKE**



**BRAKE  
AND  
ACCELERATOR PEDAL**

**STEERING  
WHEEL**



**CRUISE CONTROL**



**SHIFT LEVER**

# Vehicle Control Equipment: Steering Wheel

30

**What does the steering wheel allow a driver to do?**

- **Direct the vehicle.**
- **Maintain control of the vehicle.**
- **Newer vehicles allow driver to control Bluetooth, GPS, radio settings, and cruise control.**



# Vehicle Control Equipment: Brake And Accelerator

31

- **Accelerator Pedal**

- Located on the right corner of driver side floor.
- Allows driver to control speed by the amount of pressure applied by the right foot to the accelerator pedal.

- **Brake Pedal**

- Located to the left of the accelerator.
- Allows driver to stop vehicle.
- Stopping distance is determined by the amount of pressure driver applies and the amount of friction on the road.



# Vehicle Control Equipment: Parking Brake

32

- **Parking Brake**

- **Designed to hold a vehicle in place when vehicle is parked.**
- **May either be a pedal at the far left side or a lever on the console.**

- **My parents call the parking brake the emergency brake. Why?**

- **The parking brake usually operates using cables and not the hydraulic braking system.**
- **It can be used to help slow the vehicle if the hydraulic or ABS brakes fail.**



# Vehicle Control Equipment: Shift Lever

33

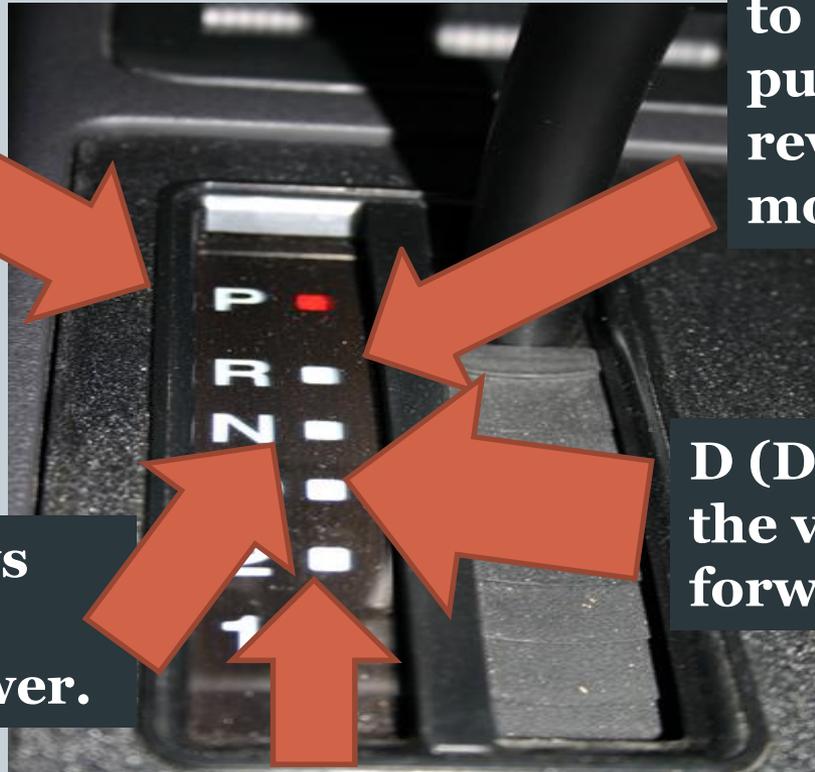
**P (Park)** – locks the transmission. The vehicle will not move in Park. You can only remove the key after you place the vehicle in P.

**R (Reverse)** – used to back up. Never put your vehicle in reverse when it is moving forward.

**N (Neutral)** – allows the wheels to roll without engine power.

**D (Drive)** – keeps the vehicle moving forward.

**2, 1 or D2, D1** – usually used when towing something or in inclement weather.



# Vehicle Control Equipment: Cruise Control

34

## Cruise Control is only used on highways.

- **Allows driver to maintain speed with having to hold down the accelerator.**
- **Should not be used in heavy traffic, or on wet, slippery roads.**
- **Each vehicle has slightly different cruise control features.**



# Vehicle Communication Devices

35



**Windshield Wipers**



**Headlight Lever**



**Headlight Switch**



**Turn Signal Lever**



**Horn**



**Hazard Flashers**

# Vehicle Comfort Devices

36



Heating and Air Conditioning

A close-up photograph of a car's climate control panel. It features three circular knobs for temperature and fan speed, a central A/C button, and a hazard light button. The panel is dark-colored with metallic accents.



Seat Warmers/Coolers

A photograph showing the front seats of a car. The seats are black with orange accents. The orange areas are illuminated, indicating they are heated or cooled.



Sound System

A photograph of a car's infotainment system. The screen displays a navigation map and other information. Below the screen are several buttons and a volume knob.



Sun Visor

A photograph of a beige sun visor. It has a small mirror on the left side and a label on the right side.

# Instrument Panel: How Your Car Communicates With You

37

**Speedometer**

**Tachometer**



**Fuel Gauge**

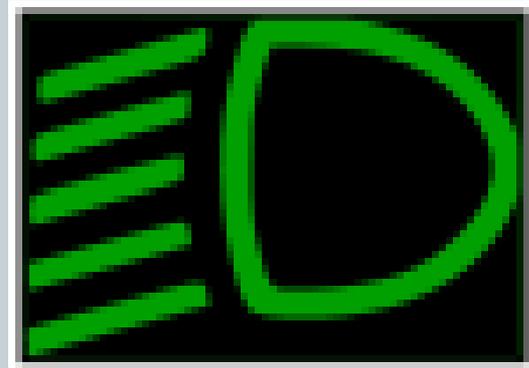
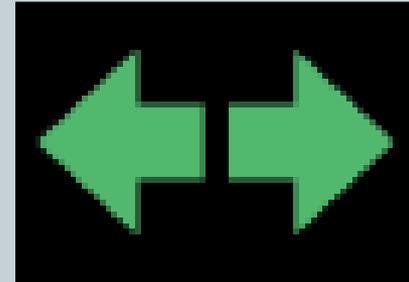
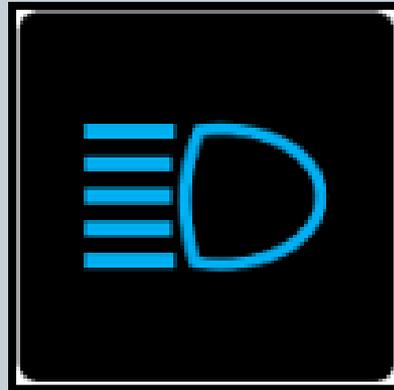
**Gear Indicator**

**Temperature Gauge**

# Instrument Panel: How Your Car Communicates With You

38

**Green or Blue Lights indicate that a system is being used currently.**



# Instrument Panel: How Your Car Communicates With You

39

Yellow or Orange lights indicate a situation that you need to address but may not be urgent.



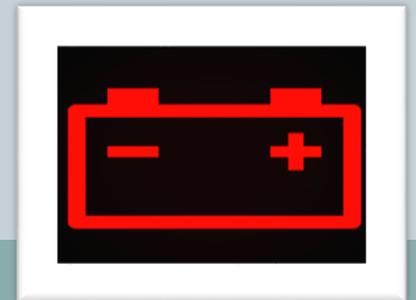
# Instrument Panel: How Your Car Communicates With You

40

**Red Lights = Dangerous Malfunction**

**Flashing Red Light = Extremely Dangerous Malfunction**

**You need to stop or get to a mechanic as soon as possible.**



# **Review for Unit Three Quiz**

- 1) What is a pre-entry check**
- 2) What are some of the things a pre-entry check is designed to find?**
- 3) What are some reasons why a seatbelt is important for safe driving?**
- 4) How should it be worn?**
- 5) What are some examples of vehicle control equipment? When is it appropriate to use that equipment?**
- 6) What is vehicle communication equipment? When is it appropriate to use?**
- 7) What is a parking brake and how does a driver use one?**
- 8) What types of gauges are found on the instrument panel? What kinds of information do those gauges provide?**
- 9) How should a head restraint be positioned?**
- 10) What does a red indicator light mean?**
- 11) What does a yellow/orange indicator light mean?**
- 12) What does a blue/green indicator light mean?**

# Breaking Away: Preview of Unit Four

42

- **How do you start your vehicle safely?**
- **How does a driver S.E.E.?**
- **What is it important for a driver to see when driving?**

**END OF UNIT THREE**