

Driver Education Chapter 3

Basic Vehicle Operation

Where Located/What is the Purpose of these items

3.1 Controls, Devices, and Instruments

Controls

Steering Wheel	Adjustable Steering Position
Shift Lever	Cruise Control—When shouldn't you use
Accelerator Pedal	Brake Pedal
Parking Brake	Shift Indicator P(Park), R(Reverse), N(Neutral) D(Drive) D1, D2

Safety, Communication and Comfort Devices

Safety Belts	Head Restraints
Inside/Outside Mirrors(Blind Spots)	Horn
Hazard Flasher Control	Turn Signal Lever
Windshield Wipers/Washers	Light Switch
Hood Release Lever	Heater, AC, Defroster(Climate Control)
Sun Visor	Seat Adjustment Lever

Instrument Panel—Gauges, warning lights, message center

Fuel Gauge(winter fuel level)	Temperature Light or Gauge
Oil Pressure Warning Light/Gauge	Alternator warning/gauge
Brakes System Warning Light	Speedometer
Tachometer	Odometer
ABS(Anti-lock Braking System)	Safety Belt Light
Air Bag Warning Light	Turn Signal Indicators
High Beam Indicator	Check Engine Light—flashing/solid

Message Center

<https://www.youtube.com/watch?v=3dx04Vz3jiI>--Video of the above
<https://www.youtube.com/watch?v=tLcyBo5Bh-0> Video of the above.

3.2 Getting Ready To Drive—Check if your vehicle is road ready?

Before Opening the Door

Keys in hand/unlock with fob/key

Check under vehicle—why?

Check around your vehicle—why?

Check Tires—why?

Check all lights—why?

Check inside your vehicle if parked on street—why?

If parked on street walk from the front of your vehicle to the door – why?

Get into Vehicle—

Check-Traffic around you before opening door—why?

1. Lock Doors and put key in ignition so you have free hands to adjust what needs adjusting.
2. Adjust head restraint, adjust seat, check mirrors and adjust.
3. Buckle-up before starting

Starting the vehicle

Parking brake should be set and shift lever in park.

Car will only start if shift is in park or neutral.

Place foot on the brake pedal to insure the car doesn't move.

Turn ignition on and hold until car starts—release ignition promptly—why?

Check Gauges, warning lights, fuel.

Check lights.

Hand Position for Controlled Steering

9/3 or 8/4 or 10/2

<https://www.youtube.com/watch?v=Y3ArlcIqmOg> 5 minutes

<https://www.youtube.com/watch?v=1gqMxU35AJU-push> pull 10 minutes

Use of Targets and the Steering Wheel

Hand over Hand--Turning

Hand to Hand—small steering adjustments

<https://www.youtube.com/watch?v=Y3ArlcIqmOg> 5 minutes

<https://www.youtube.com/watch?v=1gqMxU35AJU-push> pull 10 minutes

Putting the Vehicle In Motion

Put foot on brake pedal(hold down)

Place in Drive

Keep foot on brake pedal(hold down) release parking brake if on.

Check your path of travel before removing foot from brake. Check all around your vehicle and include mirrors..

Make Blind spot checks.

Acceleration Control

Take your foot off the brake and allow vehicle to start to move.

Continue by pressing accelerator smoothly and steadily until you can maintain your desired speed.

Braking Control

Braking Point—brake begins to slow vehicle

Constant Braking Pressure—brings vehicle to a steady stop

Wheel-lock up---vehicles without abs lock the wheels when you brake hard.

Normal Smooth Stop—releasing some brake pressure just prior to stopping.

Hard Smooth Stop—Maximum pressure without locking wheels.

ABS braking---brake will pulsate which is normal so wheels don't lock, Maintain foot pressure on the brake pedal.

Exiting the Vehicle

Keep Foot on Brake and shift to park

Set Parking Brake.

Take foot off Brake.

Turn off headlights accessories to prevent battery drain.

Take off seatbelt

Close Windows before shutting off engine.

Turn ignition off and remove key.

Check to make sure it is safe to open door.

Lock your doors(make sure you have keys).

Walk to rear of vehicle if in street—facing traffic.

3.4 Transmission Type

What does the transmission do?

Lower gears more power, higher gears more speed.

Clutch—connects the rotating shaft to the gears in the transmission

Advantage of Manual—better fuel economy, less expensive, more control over speed, less maintenance.

Disadvantage—Having to shift. One hand comes off the steering wheel. Hit the wrong gear. Inconvenient in heavy traffic.

Automatic—car shifts the speeds automatically

Semi-Automatic—clutchless manual transmission—electronics shift gears by merely moving the shift lever

https://www.youtube.com/watch?v=2rc_i7cWdUs--Automatic
Driving(10 Minutes)

<https://www.youtube.com/watch?v=yNirOSEdoUs> roundabout

https://www.dmv-test-pro.com/south-dakota-dmv-practice-test?gclid=CjwKCAjwwab7BRBAEiwAapqpTCmcLf16Y3usX_0vEjTLwVBr0WF9Vcxwkh2sVdsybrcEyiWZvtxI0hoCi0IQAvD_BwE