

SHIFTING

You change gears to match engine speed (rpm) to road speed. Lower gears are used for lower speeds, and higher gears are used for higher speeds.

Shifting to a higher gear: Shift up soon enough to avoid over-revving the engine (high rpm) but not so soon as to cause the engine to operate at too low an rpm (jerky or lugging motion).

Use a three-step process to shift to a higher gear:

1. **Roll off** the throttle as you squeeze in the clutch lever,
2. **Lift** the shift lever firmly as far as it will go, then release it to allow it to reset,
3. **Ease out** the clutch lever and roll on the throttle smoothly to match engine and road speed.

Shifting to a lower gear: Be sure the road speed is slow enough so you do not over-rev the engine or cause the rear wheel to skid as you release the clutch lever.

Use a three-step process to shift to a lower gear:

1. **Roll off** the throttle as you squeeze in the clutch lever,
2. **Press** down the shift lever firmly, then release it to allow it to reset,
3. **Ease out** the clutch lever as you roll on the throttle. If you roll on the throttle slightly as you ease out the clutch lever, you can help engine speed come up to road speed, making the downshift process smoother.

Shifting to a lower gear and easing out the clutch lever has an effect similar to using the brakes. This is known as engine braking. To use engine braking, shift down one gear at a time and ease out the clutch lever through the friction zone between each downshift. Coordinate the use of the clutch lever and throttle to keep the process smooth. It is possible to shift down more than one gear at a time when the clutch lever is squeezed.

When learning to shift gears, shift only when going straight. Shifting while leaned over can complicate the smooth process. Once you have learned to downshift well and gained some experience, you will have the choice to downshift more quickly by using a quick throttle blip (a quick roll-on of the throttle) before easing out the clutch lever to control the amount of engine braking and match the engine speed to road speed more smoothly.

When making a complete stop, the clutch lever must be fully squeezed to disconnect power from the rear wheel. The clutch lever remains squeezed until you are ready to start out in 1st gear.

