EXHAUST BRAKE (C7, C9) and COMPRESSION BRAKE (C13, C15)

Brakes have one purpose in life, to convert kinetic energy – that is the energy of a moving vehicle into HEAT. Heavier vehicles, particularly at high speed, have a large amount of kinetic energy. For this reason, service brakes of large vehicles are more susceptible to overheating and fade on a long downgrade. An exhaust or compression brake (engine model dependent) can be used to assist with the motor coach deceleration and to control speed on a steep grade.

When descending a steep grade, it may be appropriate to select a lower transmission gear to maintain higher engine RPM to increase the exhaust or compression brake performance. When the speed of descent is still too fast, use the service brakes to slow down enough to select a lower gear. To increase speed, release the service brakes, use the "up arrow" and momentarily apply throttle to allow the transmission to up-shift to a higher gear, and finally turn "OFF" the exhaust or compression brake. The compression brake has a three-position (LOW, MED, HIGH) switch to modulate braking under a wide variety of road conditions.

Exhaust and Compression brakes provide greater braking performance (retarding HP) at higher engine RPM. Generally speaking, descend a steep grade in the next lower gear than would be required to climb the same grade.

DO NOT use the exhaust brake, compression brake, or cruise control on a slippery road.

An exhaust or compression brake does not lower the fuel mileage (MPG) when used for controlling vehicle speed on steep grades or to assist in stopping the coach. Keep in mind that best fuel mileage is achieved when "coasting" as much as possible before using any type of brake to bring the vehicle to a stop.

In moderate rolling hills, brake usage can materially reduce fuel economy (MPG). In rolling hills, best fuel economy is achieved by turning the exhaust or compression brake "OFF". The vehicle accelerates on descent and decelerates on the climb, but will not downshift as often or spend as much time at wide open throttle to maintain the desired cruise speed. On a downhill, let the mass of the heavy vehicle provide most of the acceleration horsepower and crest the next hill with minimum throttle. Most drivers can achieve better fuel economy by using the cruise control rather than taking over the throttle position management task.

A "Pre-select" gear is programmed from the factory. The "pre-select" gear is the target gear for slowing the coach when the exhaust or compression brake is turned "ON". Most coaches have either a 2nd or 4th gear "pre-select." When the coach is at cruise speed, and the exhaust or compression brake is engaged, the transmission shifts from 6th to 5th gear, and when the vehicle speed drops sufficiently, from 5th to 4th, and so on until the pre-select gear is reached.