



# Drive Your Best for DENVER'S AIR

During the DNC and beyond.

**As one of the most energy-efficient ways to travel, coaches play a critical role in making transportation environmentally sustainable and reducing America's dependence on oil.** However, it is easy for members of the public to forget these facts when they are standing next to an idling bus. Diesel exhaust can be unpleasant and harmful to drivers, passengers, and anyone else nearby—especially in a localized area with a lot of bus traffic or when a bus idles for an extended period of time.

As part of the City of Denver's "Engines Off!" anti-idling campaign and "greening" efforts for the Democratic National Convention, transportation companies are stepping up to do their part to protect our air and reduce energy consumption—and save money in the process.

**As a driver, you are on the front lines of this effort, and your driving habits can play a big part in making these efforts a success.** Fuel efficiency isn't just about what you drive, it is based a lot on how you drive: the difference between an "ok" driver and a "great" driver can be a significant difference in mpg. Most coach drivers already make an effort to reduce fuel use, but even the best and most-experienced drivers can find ways to stretch each gallon a bit farther. On the reverse side of this sheet are some of the top fuel-saving methods—making an extra effort to follow them every day can add up to big savings.



**The other great way to make a difference is to share these tips—and any others you have—with other drivers and with your passengers.** Let people know what you're doing to save gas and protect the air, and encourage them to do the same when they drive. As a professional driver, you can set an example and help educate other drivers and the public about the difference they can make through better driving practices (most regular drivers waste 1-2 tanks of gas every year by idling, and could improve their mpg by up to 30% by driving less aggressively).

## Engines OFF! D E N V E R



Sources for the information and guidelines include:

Prevost, Daimler Bus, Motor Coach Industries, Heavy Duty Trucking, Ford Motor Company, Cygnus Business Media, EPA.

Some of the top ways to save fuel and keep the air clean:

### 1) TURN YOUR ENGINE OFF WHEN YOU STOP:

#### Idling wastes fuel and is not good for the engine.

Idling uses more fuel than restarting the engine. Restarting the engine has little impact, whereas excessive idling causes significant wear and tear over time.



Modern diesels require little warm-up and cool down time (a few minutes at most). **Engine manufacturers agree: it is usually worth it to shut the engine off, even for short stops of 5 minutes or less.**

If you need to wait for extended periods in very hot weather, try to park in the shade, turn the engine off, and wait somewhere cool if you can. On occasions when you need to maintain the cabin temperature over a long stop, don't just idle the entire time you wait: shut off the engine for a least part of the time, and only idle for periods long enough to keep the temperature reasonable until it is getting near your departure time.

### 2) DRIVE SMOOTHLY & MAINTAIN AN EVEN SPEED:

#### Look ahead in traffic, accelerate/slow-down smoothly, and keep speed even.

Don't instinctively feather the accelerator to maintain speed on level pavement; remember that often the vehicle's weight alone will keep it rolling—ease off the gas and just coast when you can.

**In city driving, acceleration accounts for 50% of fuel use, and it takes 20% less fuel to accelerate from 5mph than from a complete stop.** Approach red lights slowly and try to time your arrival at the intersections just before the light turns to green.

**Smooth, even driving can improve your fuel efficiency by up to 1/3** (5-10% around town to as much as 33% for highway driving). For low mpg vehicles, a little improvement can add up fast—if you are able to boost your fuel efficiency from 6mpg to 8mpg, you can save over 40 gallons of fuel every 1,000 miles of driving.

### 3) GO THE SPEED LIMIT:

**Go the speed limit on the highway and use cruise control if you can.** Vehicles are most efficient around 55-60mph. **Every 5mph over 60 reduces fuel efficiency by about 7-10%.**



Try to cruise in the engine's "sweet spot"—the point where power and economy are highest is around 1,450 rpm for many of today's heavy diesels and about 1,600 rpm for many older engines.

**Motor Coach Industries estimates that reducing your highway speeds by 5mph and driving smooth around town can result in savings similar to paying about \$0.60 less per gallon of fuel.**

## What coach and diesel engine manufactures have to say about idling:

"On a hot summer day in Denver you will not need any time to warm up, you should be able to start the coach and proceed. Engine cool-down time is around 1 minute of idle time."

"For medium-short duration stops the engine should be shut down as much as possible, we recommend shutting off the engine as often as possible even if the stop is only for five to ten minutes. Reducing idling and fast idling are the most efficient way to obtain quick results in reducing emissions." --*Maurice Gagne, National Service Manager, Prevost*

"There's no reason to idle for extended periods of time. As a rule, you should generally never idle more than 3-5 minutes. I always remind drivers that the best way to warm up a coach and to get the cabin to a comfortable temperature is to drive for a 2-5 miles—don't start it up and idle." --*Don Jensen, Daimler Bus (maker of Setra Coaches and Detroit Diesel Engines).*

"Starting and stopping the engine is actually easier on the engine than prolonged idling." --*Brian Lindgren, Kenworth Truck Co.*

"There is no additional wear when shutting [the engine] on/off several times a day. There are benefits in fuel economy and wear/durability when shutting down rather than idling." --*Mike Powers, Product Development Manager, Caterpillar Global On-Highway.*