



## PROPELLING PREFERENCES

It seems that every manufacturer has several different configuration designs for delivering power to the wheels of your vehicle. The language used by the different carmakers can sometimes be a little confusing, so let's clear up some terminology.

**Front-Wheel Drive** - Most of today's minivans and cars have front-wheel drive. In a front-wheel drive system, power from the engine is transferred to the front tires of a vehicle. A front-wheel drive vehicle offers increased traction and safety for the average driver. With 60 to 70% of the vehicle's weight over the drive wheels, front-wheel drive vehicles provide better drivability in inclement weather and snow. But, since the front brakes and tires handle 70 % of a vehicle's braking, more frequent brake and tire inspections are recommended.

**Rear-Wheel Drive** - Most pickup trucks, sports cars, and luxury sports sedans have rear-wheel drive, in which power from the engine is transferred to the rear tires. The weight of the vehicle is more evenly distributed (50% front end - 50% back end), allowing the rear tires and suspension to work more efficiently, creating better cornering and stopping power and a smoother ride.

**All-Wheel Drive** - All-wheel drive offers the best of both worlds. In an all-wheel drive system, power is distributed to all four of the vehicle's tires, all of the time. Subaru and Audi have built their reputations on all-wheel-drive sedans and wagons. All-wheel drive passenger vehicles handle better than most front and rear-wheel drive vehicles. Both 4WD and AWD improve traction for moving on ice and snow, but they don't do anything for stopping ability. For that reason, they can build a false sense of security that leads drivers to drive too fast for road conditions and follow too closely.

**Four-Wheel Drive** - Many SUVs and pickup trucks offer four-wheel drive as standard equipment. In a four-wheel drive system, power is delivered to all four wheels, only when the driver requests it. In normal use, four-wheel drive vehicles operate on rear-wheel drive. If additional traction is required, the driver flips a lever or, in newer vehicles, pushes a button that switches the transaxle from two-wheel (rear) drive to four-wheel drive. This system is useful for improved traction at lower speeds, when there are more than a couple of inches of snow on the roads, and for off-road vehicles when one set of axles have lower traction because of uneven terrain or mud. Both 4WD and AWD improve traction for moving on ice and snow, but they don't do anything for stopping ability. For that reason, they also can build a false sense of security that leads drivers to drive too fast for road conditions and follow too closely.



One must decide what type of vehicle fits your driving needs. All wheel and four wheel drive vehicles usually tend to have a higher price tag. Fuel economy will also be lower with these vehicles due to the gross vehicle weight being more with the additional components compared to the lighter front wheel vehicle. Additional components also add to increased maintenance costs. But for driving in severe weather conditions increased traction is well worth the extra cost.

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