

Wheels: Jim of Centerville asks if he can use regular grade gasoline in his 2004 Impala SS equipped with the supercharged 3800 V-6 engine without causing any harm. He states that he likes to save money and the twenty cents a gallon difference between regular and premium makes a difference in the cost of a tank of gas.

Halderman: The correct answer is that you should use the grade of fuel recommended by the vehicle manufacturer, which in this case is premium because the engine is supercharged. Most vehicles built since the early 1990s use a knock sensor to detect if engine damaging spark knock occurs, which can happen if regular or midgrade (plus) gasoline is being used. The knock sensor signal is sent to the vehicle computer, which retards the spark advance until the knocking stops. This action by the computer will reduce the performance and fuel economy. Will this be noticed? Often, the difference in performance is not noticed, but often the fuel economy is reduced. Will it harm the engine? I doubt it. If you notice a drop in fuel economy, return to using the recommended grade.

