



### Higher Octane Gas (>91)

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Hi Scott:

You've raised some really good questions here that I'd like the opportunity to respond to as both a chip tuner and performance provider. Anyone who has glanced through our Website knows that this subject is near-and-dear to me,..... :)

As this situation is not likely to change in the future, it warrants further discussion.

- > 1) According to my gas cap lid, my car is supposed to have 93 octane.
- > Will running 91 hurt anything?

This depends. The QC of each and every batch of fuel seems to vary and in some cases of high outside air temperatures combined with high loads, 91 octane fuel will be marginal. Your knock sensing engine management system will handle some of these variations but adding some unleaded race gas for DE events would be prudent and well-advised. Non knock-sensored cars are at the greatest risk under such conditions. Most of the time in the normal street environment, you will be just fine. Single ignition cars with compression ratios over 9.5:1 can be a problem.

- > 2) Does anyone know of any stations in the South Bay Area that carry gas
- > with octane higher than 91?

Viken and others have posted local information about where to buy unleaded 100 octane race gas and I've posted an octane blending chart on our Website to help determine what you might need.

- > 3) I've thought of rechipping my car. Does anyone make a new performance
- > chip that will work effectively with 91 octane gas? Most say they require
- > 92 or 93.

Certainly, I cannot speak for other providers of performance-enhancing software, but we have several different maps for each region's fuel availability and I've revised our California software for the 91 octane fuel. For our chip customers, we are developing a device that allows you to remotely select different chips in the DME for street gas, race gas, or other special applications. Its in the works.

- > 4) Would I be dumb to add octane booster to my tank with every fill-up? I
- > assume it's not cheap, although I've never bought it.

To be honest, I would not recommend using octane boosters. First, they are not very effective and most importantly, they leave many byproducts of combustion that

really make a mess as well as attacking the elastomers in the fuel system. If you want/need more octane, blend unleaded race gas, even though its not convenient sometimes. In the long run, your car will be MUCH happier.

I hope this helps. This is not a simple issue and for the folks who drive somewhat aggressively or participate in DE events, this is something that cannot be ignored.

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Steve Weiner  
Rennsport Systems