



**APR's 320hp**

# **SUPERS4!**

[ INK & PICS Jeff Ames ]

**FASTER  
THAN A  
SPEEDING  
BIMMER,  
MORE  
POWERFUL  
THAN ANY  
HONDA,  
ABLE TO  
PASS  
LARGE LEXUS  
IN A SINGLE  
BOUND...**



**DRIVER SPECS**  
Stephen Hooks



**OCCUPATION** Owner Audi Performance Racing (APR)

**WHY THE S4?** The engine is awesome, and it provides us with our own vehicle to R&D, instead of using a customer's car. It is also a good promotional car for us.

**HOW WAS THE CAR ON THE TRACK?** Unbelievable, and awesome would probably describe it best.



**[ TECH SPEC ]**  
2000 Audi S4

**DRIVETRAIN** 30-valve DOHC V-6, 2.7L, APR Performance engine computer modifications, K&N filter, Stock twin turbochargers, APR exhaust system with twin carbon-fiber tips, stock manual six-speed tranny

**SUSPENSION** Koni double adjustable shocks, Eibach ERS springs, APR coilover kit, lowered 1.5 inches front and rear

**BRAKES** Two-piece rotors, Alcon four-piston calipers, APR custom mounting brackets, Pagid brake pads

**WHEELS & TIRES** Fikse FM-S black-anodized 18x8.5, Yokohama AVS sport 235/40/18

**BODYWORK** Carbon-fiber hood, Custom APR graphics, stock Xenon lights

**INTERIOR** Stock

**MOBILETRONICS** Stock

**SHAMELESS PLUGS** Audi Performance & Racing (APR), Eibach North America, Fikse, Koni

An APR Performance engine computer modification and an APR 3-inch exhaust system with twin carbon-fiber tips increased the horsepower to 320 at 6,200 rpm.



## Track Time

Sure, we used Road Atlanta for this story on the S4, but do you realize how much it can cost to use a racetrack? Let's say you wanted to rent out a track for yourself and maybe a few buddies. Some of the things you have to think about are insurance, standby emergency crews, and the track time itself. Tracks do vary from type and location, but here's a sample of what it would cost to flog your M3, S4 or 996.

- **Track Time**  
\$300-\$5000 a day, depending on track and time spent
- **Insurance**  
Required coverage could be as high as \$5,000,000
- **Medical**  
\$200-\$800 for two EMTs and possibly an ambulance.
- **Fire**  
\$200-\$800 for a couple of fire fighters and a fire truck

The 2000 Audi S4 is a much-anticipated addition to the Audi stable of cars. Not your everyday run-of-the-mill performance car, the S4 combines Audi's Quattro all-wheel drive with a twin K03 turbocharger intake system that produces 250 hp stock (U.S. model). The 30-valve V-6 engine is one-of-a-kind within the automotive industry, and according to Audi performance Racing (APR) its "the best Audi engine platform [upon which] to build a monster."

APR had its name on the list to receive one of the firsts Audi S4s in the USA. Much like children at Christmas time, the APR crew waited impatiently for the arrival of the S4. But unlike Christmas, when you know exactly what day it will fall on and look forward to the moment it's time to open presents, APR had no firm date for its arrival of the S4. The hang-up was when it would be released from Audi, and the dealership's best guest was always, "in a week or two".

Being the pesky magazine people that we are, Max didn't make the wait any easier. As our phone bill can attest, we called every few days and asked, "Did you get it yet, did you get it yet?" But the day finally came. Audi released the S4 and the wheels of progress were in full motion.

APR began changing the suspension, brakes, exhaust, and wheels and even had some exterior modifications planned before the car saw a full tank of gas. Since we wanted to do something big with APR's S4, the decision was made to take it over to the famous Road Atlanta raceway. Actually, our plan was for the Max editors to flog the beast on the track, but we convinced APR that our motives were strictly sincere.

The plan would be to shoot the car and put it through the paces in a controlled environment. Not wanting to get caught out in the cold, we also booked a backup date, (someone was thinking, thank God) in case we encountered bad weather.

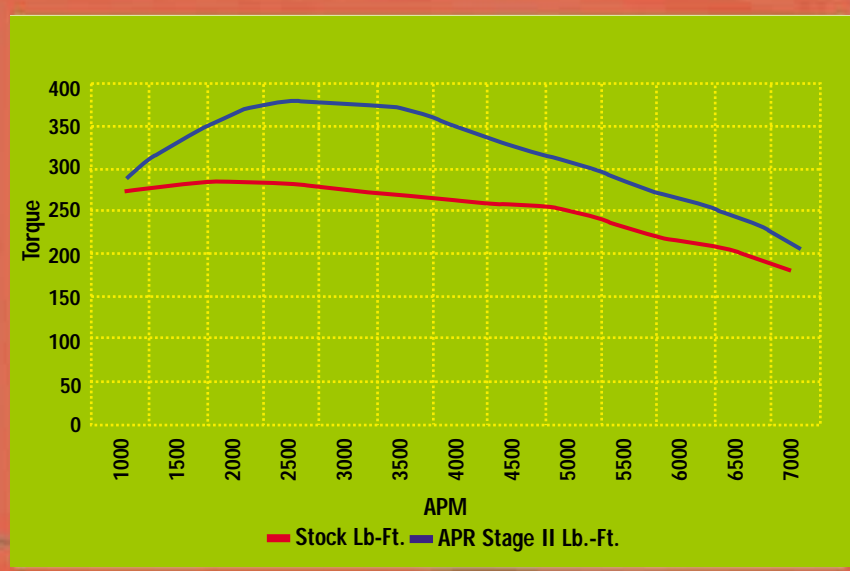


The dates were set, APR was feverishly working on the car, and everything was a go. Since this is a new car, you have to expect that not everything will go as planned. It didn't.

The day before our shoot, two of the four custom-made Fikse FM-S black-anodized 18x8.5 rims were in the hands of the APR crew, while the other two were lost in shipping, somewhere in Kentucky. Hello, backup date?

If the truth be known, this probably helped the APR crew, giving them that much more time to put the finishing touches on

"With the stock red paint, black rims, and carbon-fiber hood, the car resembled something that Darth Maul from *Star Wars: The Phantom Menace* would be driving."



## APR's 320hp Super S4



the car, especially when they wanted to make it Max perfect.

The good news is that the shipping mix-up was the only problem that APR encountered while upgrading the car. The important thing APR learned about the S4 while building it was that with the tremendous power and torque that the car produces stock, any engine modifications that produce more horsepower must be followed or preceded by bigger brakes and a suspension kit.

### More, Please

The engine mods APR performed were pretty quick and simple but produced tremendous results. An APR performance engine computer modification and an APR 3-inch exhaust system with twin carbon fiber tips increased the horsepower to 320 at 6,000 rpm. Most of the boost came courtesy of the turbo pressure increase for about 12 psi stock (0.7 bar) stock to 14.7 psi (1.0 bar). To make the necessary changes to the suspension,

APR lowered the car a total of 1.5 inches front and rear by using Koni adjustable shocks, Eibach ERS springs, and an APR coilover kit. APR added a carbon-fiber hood, weighing about three pounds.

The APR's S4 was shod with Yokohama tires, a good choice since we thoroughly put them through their paces on the 2.54-mile 12-turn Road Atlanta road course. Also a smart move on behalf of APR was upgrading the stock brake system, going with two-piece rotors (13-inch front, 10-inch rear), Alcon four-piston calipers, Pagid brake pads. The brake upgrade increased the stopping distance dramatically over the stock brake system, since the APR S4 now has a 60-0 stopping distance of 90 feet.

Our top speed on the high-speed section of the track was close to a 130 mph, governor. To give a comparison, the fastest cars in the Petit Le Mans series, which had run the same track a



couple of weeks earlier, were in the 180-mph range. Yeah, that's 50 mph, but the S4 is street-legal and has luxury sedan comfort. Combine that with the suspension work APR did, and this S4 is an on-track contender.