

# SPORT COMPACT CAR

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streetcar



# Audi442

Four doors, four-wheel drive and two turbos

BY PETER WU • PHOTOGRAPHY BY PETER WU

**It's cold and damp, the kind of day you'd write off if you were planning an afternoon's flogging.** But then cold and damp are the best conditions to show off the benefits of turbocharging and all-wheel drive.

The two-lane B-roads in this part of eastern Pennsylvania snake, slither and undulate through rolling hills and expansive farmland. They challenge you with blind crests and corners and, on this day, wet leaves on the margins leave little room for error.

At every inking of a straight, Jeremy D'Avella, the technician at PES in Ivyland, Penn., and the man responsible for putting together this 440-hp/430-lb-ft Audi, is hard on the throttle, causing the S4 to take a squat and disappear as if it were shot through a space-time continuum. As it rockets away, the trailing sounds of a heavy-breathing intake suck-

ing in huge amounts of air, compressing it, bleeding it, burning it and then spewing it out a Supersprint exhaust can be heard.

It's in the rising and falling fast esses where we start to wonder if D'Avella actually has some serious skills or if the S4 he just built is that good. He's blindingly quick and smooth while going through the turns at well over twice the posted speed limit. We keep expecting D'Avella to wrap the sedan around a tree as if re-enacting a scene from a David Cronenberg movie, but it doesn't happen. The kid's good. And the car's not bad, either.

The owner bought the car after it came off a lease. First he did the basic mods of chip tuning and a freer-flowing exhaust system to

extract easy horsepower, but then after a night of hard running with a Corvette Z-06, he started hearing noises coming from the passenger-side turbo. It was a fried K03. That's when he sent it to Jeremy and the guys at PES. From the start of the rebuild, the owner wanted to create something as close as possible to the not-available-here RS4, a car noted for its bigger balls and growth hormone bodywork. An RS4 hood, front bumper cap, front fenders and rear panels were ordered from Germany, as was an Oettinger front grille. The rear panels were tricky as they're designed for the wagon version of the A4, but Rojo Collision in New York City had done a few RS4 widebody kits before, so it wasn't much of a problem. In fact, the installation is flawless.

Inside, the new owner also spared little





expense. A Panasonic CQ VAD 9200U 7-inch screen replaces the stock head unit. Adjustments to the sound system are controlled by an Audio Control EPIC-150 remote interface. The stock 4-inch front speakers are replaced by 5.25-inch MB Quart QSD 213s in custom-made door plates. The rear speakers are also MB Quart QSD 213s of the same size. A JL Audio subwoofer is powered by a Zapco C2K-9.0x 2200-watt amp, while Zapco C2K-4.0x supplies up to 100 watts to each speaker. A Panasonic six-CD changer sits in the trunk, as

does a 7-inch Panasonic monitor. An Auto Meter boost gauge sits on the A-pillar. It's the only extraneous addition to an interior the owner wanted to keep clean and stock looking.

Don't let the body kit and big stereo fool you, this Audi is built to run. The major differences between a stock S4's 2.7-liter bi-turbo V6, which at 250 hp is grossly underdeveloped, and an RS4's version of the engine are the turbos (K03 vs. K04), a freer-breathing intake manifold and cylinder heads and more aggressive cams.

2001 AUDI S4	
<b>ENGINE</b>	
Type	: 2671 cc twin-turbocharged V6, five valves per cylinder, DOHC
External Modifications	: RS4 intake manifold, throttle body, throttle valve adaptor, fuel rail, K04 turbos, intercoolers, PES blow-off valve, cone filter intake
Engine Management Mods	: GIAC programming
<b>DRIVETRAIN</b>	
Layout	: Longitudinal front-engine, four-wheel drive
Drivetrain Modifications	: RS4 clutch
<b>SUSPENSION</b>	
Front	: Independent four-link, H&R coil-over shocks/springs, Neuspeed 24mm front anti-roll bar
Rear	: Double wishbone, H&R coil-over shocks/springs, Neuspeed 19mm anti-roll bar, Suspension Techniques anti-roll bar, Cusco strut tower brace, Energy Suspension bushings, roll bar
<b>BRAKES</b>	
Front	: Porsche 993 Turbo four-piston calipers, 322mm crossdrilled discs
Rear	: Stock 256mm ventilated discs
<b>EXTERIOR</b>	
Wheels	: Sportec Monoblock 18 x 8 in.
Tires	: 235/40ZR-18 Toyo Proxes T1-S
Body	: RS4 hood, front bumper, front fenders, rear quarter panels
<b>INTERIOR</b>	
GReddy Profec B boost controller, GReddy Turbo Timer, Auto Meter boost gauge	





For this application, PES stuck with the stock heads and cams to save money while incorporating the RS4 intake manifold and K04 turbos. A GIAC-programmed chip raises boost from .7 bar to 1.3 bar and 440cc RC Engineering injectors add the extra flow.

The intercoolers, fuel rail, throttle body and exhaust system up to the catalytic converter are stock RS4. PES added its blow-off valve, a Stage 3 mass airflow sensor housing and a cone filter intake system. Boost is controlled with a GReddy boost controller and the turbos benefit from a GReddy turbo timer. PES claims 440 hp to the crank, a figure that's 70-hp up on a stock RS4. D'Avella attributes the extra oomph to the GIAC chip's higher boost settings.

On the road, the engine shows no loss of driveability. Although the midrange isn't what we would call juicy, torque is plentiful at low revs

and the engine has a wonderful surge of thrust at the top of the tach. S4s tend to run out of breath near 6000 rpm, but this engine's power develops into a crescendo that goes all the way to 7000 rpm. It's a seamless wallop with each run to redline, and each shift is preceded by the hiss and pop of the blow-off valve and wastegate.

The power is transferred to the Sportec 18x8.5-inch wheels and Toyo Proxes T1-S tires (235/40-18) through an RS4 clutch. H&R coil-overs handle the damping duties while Neuspeed anti-roll bars (24mm front, 19mm rear) control the roll. Considering the car weighs a hefty 3,600 pounds, that's a tall order.

It'll understeer when pushed, and the body roll can be a little disconcerting until you learn to trust it. The understeer can be countered with a lift of the throttle to get the front tires to bite, or you can trail the brakes while entering

a turn to load up the tires. Powering out of the turns, you can feel all four tires going to work, providing a sure-footed composure even under slippery conditions. High-speed stability is impeccable, the car seems to become more planted as the speeds increase, which is typical of autobahn-bred sport sedans. The front brake calipers and rotors are Brembos from a 993 Turbo, while the rears are stock. Combined, they do a good job hauling down all that mass.

We later find out Jeremy is a weekend track junkie, which explains the skills. Our own time behind the wheel revealed a car that can assault the asphalt like few others—damp asphalt covered in wet leaves. And yet the car delivers the refined driving experience of a stone stock S4. Well done. ■

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