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2008 Dodge Avenger Performance Rivals Best-in-class; Available All-wheel-drive and Sport Suspension Prove a Powerful Combination

- Dodge Avenger R/T brings all-wheel drive, a sport suspension and performance steering to mid-size segment
- Three engine options give Dodge Avenger buyers exhilarating performance with excellent fuel efficiency of 30 mpg and Flexible Fuel (FFV) engine availability
- New six-speed transaxle provides quick acceleration, quiet ride

February 7, 2007, Auburn Hills, Mich. - The Dodge brand has a solid reputation for bringing bold, powerful and capable vehicles to the street, and the all-new 2008 Dodge Avenger is true to that character. A first for Chrysler Group in the mid-size segment, Avenger introduces available all-wheel drive (AWD) combined with Electronic Stability Program (ESP) with Traction Control, a sport suspension and performance steering, all of which combine to create another world-class vehicle from the Dodge brand. Avenger also packages reliability and durability with fuel-efficient powertrain options, achieving 30 miles per gallon (mpg) on the highway (32 mpg based on 2007 EPA fuel economy standards), a safe, solid structure and innovative technologies like ChillZone™ and MyGIG™, while never compromising on ride and handling.

“The proof is in the pudding,” said Larry Lyons, Vice President — Front-wheel-drive Product Team. “Avenger proves that a mid-size sedan can deliver quality, reliability, a quiet, comfortable ride, 30 miles per gallon on the highway (32 mpg based on 2007 EPA fuel economy standards), a combination of class-leading safety features and innovative technologies, and also be fun to drive.”

The front-wheel-drive 2008 Dodge Avenger is built on the Chrysler Group’s new D-segment mid-size car platform. It features a four-wheel independent front suspension with MacPherson struts and a multi-link rear suspension. Front and rear suspension crossmembers are isolated to the body to create a quiet ride, with less road noise vibration and harshness (NVH) than previous models.

Anticipating Slip Before it Happens

For the first time in the mid-size segment, Dodge is offering a Dodge Avenger R/T AWD model with a 3.5-liter V-6 engine (late availability). The all-new Dodge Avenger R/T’s all-wheel-drive system requires no driver input or control. Under most driving conditions, it is passive, and power is transmitted solely to the front wheels. However, when driving conditions get dicey and extra traction is needed, Avenger’s AWD system anticipates slip by responding to pedal position and transfers power to the rear wheels. The system contributes to good fuel economy by operating only on demand, thereby minimizing power-robbing friction and inertia. Avenger’s Electronically Controlled Coupling (ECC) AWD system is easier to calibrate, more flexible, more precise and less costly than viscous-coupling, Torsen® or gerotor systems.

“Unlike all-wheel-drive systems that rely on pumps or viscous fluids to transfer torque, the Avenger system requires no front-to-rear slippage for activation,” said Dennis Krozek, Chief Engineer—Dodge Avenger. “This allows the system to transfer torque in response to accelerator pedal position.”

If the driver, via the pedal, is asking for a lot of power, the system immediately starts clamping the ECC, transferring a high percentage of power to the rear wheels. Power is transmitted to all four wheels, which helps prevent the front wheels from slipping.

Avenger’s AWD system also uses feedback from wheel-speed sensors to determine how much torque to transfer to

the rear wheels. If the Avenger's front wheels start to slip on ice, but the rear wheels are on dry pavement, the AWD system tells the ECC to start clamping and sends even more torque to the rear wheels to minimize slippage and get the vehicle moving.

The ECC system also knows when to modulate the amount of power sent to the rear wheels. If the vehicle is traveling at highway speeds and starts to hydroplane, the system sends very little power to the rear wheels because the ECC knows the rear wheels don't need a lot of power in that situation.

"While other automakers limit AWD to helping aid traction or provide off-road capability, Avenger's all-wheel drive system also is used to influence vehicle dynamics," Krozek added. "We've calibrated the Electronic Control Module so that it controls torque to the rear wheels for improved handling in the 25-65 mph range."

When traveling faster than 25 mph, Dodge Avenger's AWD system sends torque to the rear wheels when cornering with the throttle open to make the car turn more easily, which makes the handling more neutral. This is more readily accomplished with Avenger's ECC than with viscous-coupling or gerotor systems that require some degree of front-to-rear slip to transfer torque to the rear wheels. At speeds greater than 53 mph, the control strategy provides minimal torque to the rear wheels under normal driving conditions to provide better fuel economy.

For the U.S. market, ESP with Traction Control is available on Avenger SXT and R/T models and standard on the Avenger R/T AWD model. Avenger's AWD electronic control module interfaces with ESP and Traction Control systems, allowing the ESP system to use the ECC to help gain control of the vehicle, reducing the amount of torque that the ECC transmits to the rear wheels.

Powertrains Pack Powerful Punch

2008 Dodge Avenger vehicles sold in the United States are available with three engine options that are designed to meet the needs of the diverse mid-size sedan buyer: a new fuel-efficient 2.4-liter four-cylinder World Engine, a flex-fuel vehicle (FFV) 2.7-liter V-6 engine that can run on E-85 and an available 3.5-liter V-6 engine coupled with a new six-speed automatic transaxle with Auto Stick that provides 0-60 mph performance to rival the best in the mid-size car class.

Highly fluctuating gas prices have made fuel economy a high-priority for many car buyers, and the all-new Dodge Avenger features engine options that deliver class-leading fuel economy. Dodge Avenger SE and SXT models feature a standard 2.4-liter World Engine that provides fuel economy in the city of 21 mpg (24 mpg based on 2007 EPA fuel economy standards) and 30 mpg on the highway (32 mpg based on 2007 EPA fuel economy standards), as well as solid, quiet performance. Avenger's 2.4-liter World Engine features dual variable valve timing (VVT), intake manifold flow control valves, acoustic cylinder head covers, dual counter-rotating balance shafts and an acoustic oil pan. Mated to a four-speed automatic transaxle, it produces best-in-class horsepower of 173 horsepower (129 kW) and 166 lb.-ft. (225 N•m) of torque, providing a 15 percent increase in horsepower (173 hp vs. 150 hp) and an 8 percent improvement in fuel economy compared with the 2.4-liter engine that was available in the previous model.

Avenger SXT also features an available 2.7-liter V-6 engine, which produces 189 horsepower (141 kW) and 191 lb.-ft. of torque (259 N•m) and delivers 27 mpg on the highway (30 mpg based on 2007 EPA standards), providing value- and performance-conscious consumers the power of a V-6 engine with a price that compares with the competitions' four-cylinder engines. It also provides more low-end torque (at an rpm 850 lower) compared with the 2.7-liter engine it replaces. The Avenger's 2.7-liter engine with flexible fuel capability has the ability to operate effectively on any blend of gasoline and fuel-grade ethanol up to E-85.

Dodge Avenger R/T and R/T AWD vehicles sold in the United States feature a standard a 3.5-liter V-6 engine that produces 235 horsepower (175 kW) and 232 lb.-ft. (315 N•m) of torque coupled with a new six-speed automatic transaxle that comes standard with Auto Stick. The combination of the upgraded 3.5-liter V-6 engine coupled with a new six-speed automatic transaxle delivers excellent performance and fuel efficiency, as well as quiet operation.

New Six-speed Transaxle Provides Quick Acceleration, Quiet Ride

The 2008 Dodge Avenger R/T and R/T AWD models also offer the Chrysler Group's new six-speed automatic transaxle, which provides quicker standing-start acceleration than a four- or five-speed transaxle because of a numerically higher first gear ratio. A more robust differential with increased torque capacity enhances launch performance by requiring less torque management, electronically limiting the torque that is available during the initial

stages of standing-start acceleration. Smaller steps between ratios also make for a smoother, quieter ride, as the engine speed doesn't change as often with each shift. In addition, more ratio choices, more appropriate ratios for quicker acceleration and a lower overall top gear ratio provide a quiet ride and improved fuel economy at highway speeds.

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