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2006 Dodge Charger: Modern Muscle Car Power and Sweet Sports Car Handling

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- Uniquely tuned chassis components provide Dodge Charger with spirited driving characteristics
- Suspension attributes match a wide array of driving demands
- Rear-wheel-drive performance offers best in balance and control
- Charger is fortified with the latest advanced automotive technologies
- Legendary rear-wheel-drive HEMI® power offers unmatched performance

The 2006 Dodge Charger has all the makings of a new legend. In addition to its bold, provocative styling, the all-new rear-wheel-drive Dodge Charger offers true sports car performance with a high-performance suspension option, a five-speed automatic transmission with AutoStick® and modern HEMI® V-8 power.

“Our experience with high-performance engines and last year’s successful rear-wheel-drive vehicle introductions brought together two solid components for the beginning of another great vehicle — the 2006 Dodge Charger,” said Craig Love, Vice President – Rear-wheel Drive Platform Team, Chrysler Group. “Adding specially tuned chassis components completes the Dodge Charger package for enthusiast drivers.”

Uniquely Tuned Chassis

Engineers have tuned the Dodge Charger’s chassis components to provide spirited driving and handling performance to match the car’s personality.

- The suspension offered on the Dodge Charger SE and Dodge Charger SXT package is tuned to provide ‘touring’ performance on P215/65 R17 tires. This tuning offers athletic and nimble steering and handling attributes, while the ride is well-damped to minimize Noise, Vibration and Harshness (NVH). This tuning is optionally available on Dodge Charger SXT with P225/60 R18 touring tires.
- The Dodge Charger R/T provides additional performance through its tuned dampers, performance exhaust and larger P225/60 R18 touring tires.
- The most passionate driving enthusiast will be delighted with the optional Road/Track Performance Group, which offers specially tuned chassis components to offer even firmer damping and enhanced steering. This unique, Charger-specific suspension offers slightly more feedback from the road and provides an exceptional ride and handling experience. The Road/Track Performance Group includes larger P235/55 R18 Michelin MXM4 all-season performance tires, a 9-land performance steering gear and Nivomat™ self-leveling shock absorbers. A specially tuned performance exhaust and induction system, which produces an additional 10 horsepower on the HEMI V-8 engine, also is included with this performance suspension. The Road/Track Performance Group is available as an option on the Dodge Charger R/T model.
- The Dodge Charger Daytona R/T package also offers specially tuned chassis components, P235/55 R18 Michelin MXM4 all-season performance tires, 9-land performance steering gear and Nivomat self leveling shock absorbers. A unique high-performance exhaust and induction system allow the 5.7-liter HEMI to produce 350 hp with a distinctive throaty exhaust tone.

“The Dodge Charger breaks new ground by delivering bona fide performance in a four-door sedan,” said Love. “And with the Road/Track Performance Group, performance driving enthusiasts will experience the glued-to-the-road feel of this driving machine.”

Premium Features with Short- and Long-arm Front Suspension

Dodge Charger engineers included an independent Short-and Long-arm (SLA) front suspension in the car for excellent ride and handling characteristics. The multi-link SLA suspension allows bushing compliances to be tuned for a dramatic reduction in road noise, while maintaining the Charger’s dynamic handling performance. Tuned rubber

bushings at the inboard ends of the upper control arms, lateral links and tension struts provide effective sound isolation.

High upper control arms, which place the upper ball joints above the tires, provide suspension articulation that helps keep the Dodge Charger's tires perpendicular to the road during cornering for high adhesion. Lateral links and tension struts, rather than one-piece lower control arms, position the lower ends of the steering knuckles. These links attach to the steering knuckle via separate ball joints. This architecture creates a virtual pivot point for the tire, which reduces bumpiness that would otherwise be perceptible at the steering wheel.

The front engine mounts, front suspension lower control arms, stabilizer bar and steering gear all mount on cradle structures that are bolted to the body structure. These welded structures combine hydroformed steel tube side rails with stamped lateral members to provide stiffness in a lightweight assembly. This also contributes to crash energy management during frontal impacts by allowing the structure to deform in a controlled manner. The stiffness is tuned to avoid transmission of noise, vibration and harshness to the Charger's passenger compartment.

Multi-link Independent Rear Suspension

The Dodge Charger's five-link independent rear suspension with coil springs allows independent tuning of handling and ride comfort so that each can be maximized. The Dodge Charger's rear suspension complements the performance of the front suspension, resulting in a balanced ride.

The independent rear suspension system contributes to the car's excellent handling and comfortable ride by allowing independent tuning of these qualities. Multiple links maintain independent control of camber and toe during suspension movement for excellent handling. An optimum amount of camber change in the rear suspension geometry during cornering contributes to the car's excellent cornering characteristics. Multiple bushings also offer the flexibility to tune for ride and comfort. Stabilizer bar attachments to the knuckles provide maximum response to vehicle lean.

All of Dodge Charger's rear suspension components, (except coil springs and shock absorbers), mount on a steel cradle that attaches to the body structure through four large rubber mounts. This effectively isolates the passenger compartment from road and axle noise.

Premium urethane jounce bumpers provide smooth progressive engagement over sharp bumps to minimize ride harshness. Rubber upper and lower spring seat isolators and shock absorber bushings also dampen road noise and reduce harshness inside the Dodge Charger. Tuned rubber bushings at the inboard and outboard ends of the suspension links provide added isolation.

To minimize vehicle weight, knuckles, control arm and stabilizer bar links are formed from aluminum.

Rear-wheel-drive Advantages

Rear-wheel drive packaging offers many advantages over front-wheel-drive in a large sedan and is becoming a popular choice among consumers. The enthusiast rub-off from rear-wheel-drive premium brands has set the Dodge Charger apart from domestic competitors.

Dodge Charger's longer wheelbase and rear-wheel drive provide a more balanced ride and greater interior room, while a wider track offers greater stability and handling. The Dodge Charger's inherent rear-wheel-drive performance characteristics offer better traction at launch, positive weight shift to the rear wheels, more aggressive cornering and a decreased tendency to understeer.

Advanced Automotive Technologies

The all-new Dodge Charger embodies the original ideals of the rear-wheel-drive cars of the past, yet is wrapped in a provocative new form and fortified with the latest automotive technology. With the availability of the mighty HEMI V-8 engine providing 340 horsepower and 390 lb.-ft. of torque, the 2006 Dodge Charger has even more power-per-cubic-inch than its ancestors. All this power is put securely on the road with the All-speed Traction Control System (TCS) and remains planted through corners with the Electronic Stability Program (ESP). The Dodge Charger stops with the assurance of a four-wheel Anti-lock Brake System (ABS) and Brake Assist.

Electronic Stability Program (ESP)

ESP with Brake Assist is standard on all 2006 Dodge Charger models. The ESP system enhances driver control and helps maintain directional stability in turns, even on uneven surfaces, patchy snow, ice or gravel. If there is a discernible difference between what the driver asks through the steering and the vehicle's path, ESP applies

selective braking and throttle input to put the car back onto the driver's intended path.

Brake Assist detects when maximum braking is required through sensing the rate of brake application. By applying full brake pressure to all four brakes, this system improves stopping distance.
All-speed Traction Control System (TCS)

All-speed TCS enhances mobility and prevents wheel slip when accelerating on slippery surfaces. It also provides a measure of directional stability control and helps keep the car on its intended path. The system works by braking the slipping wheel in low-traction situations. However, it also can adjust the throttle control, making the vehicle less reliant on brake applications alone. State-of-the-art electronics provide a quick response time for the Dodge Charger's Traction Control System.
Anti-lock Brake System (ABS)

Four-wheel ABS keeps the Dodge Charger straight and retains steering capability while braking on slippery surfaces by preventing wheel lock-up. The state-of-the-art electronics featured on the Dodge Charger also provide a faster response time for this system.

Powerful Engine Options

Chrysler Group's modern 5.7-liter HEMI V-8 engine featuring the Multi-Displacement System (MDS) is engineered to deliver outstanding performance, improved fuel economy and reduced NVH. Available on the Dodge Charger R/T models, this engine offers Charger customers the legendary HEMI power they want with fuel economy they will appreciate.

MDS seamlessly alternates between high fuel-economy, four-cylinder mode when less power is needed and V-8 mode when more power is in demand. This increases fuel economy as much as 20 percent depending on driving conditions, without sacrificing vehicle performance.

"MDS was part of the engine's original design," said Bob Lee, Vice President – Powertrain Product Team. "This resulted in a cylinder-deactivation system that is elegantly simple and completely integrated into the engine design. The benefits are fewer parts, maximum reliability and lower cost."

Factors contributing to the success of MDS include fast electronic controls, sophisticated algorithms to control the system and the use of Electronic Throttle Control (ETC), all of which allow the Charger's HEMI engine to transparently transition from eight cylinders to four in just 40 milliseconds (0.04 seconds).

The HEMI engine also features a dual ignition — two spark plugs per cylinder — to increase peak power and torque, reduce exhaust emissions, increase fuel economy and smooth the idle. A refined combustion system and robust structure with direct-mount accessories make the engine quiet.

The HEMI engine's aluminum cylinder heads with hemispherical combustion chambers permit outstanding airflow, which leads to 340 horsepower (254 kW) @ 5000 rpm and 390 lb.-ft. torque (525 N•m) @ 4000 rpm. Dodge Chargers equipped with HEMI engines can go from zero to 60 mph in just 6.0 seconds.

Additional 10 Horses

2006 Dodge Charger R/T vehicles equipped with the optional Road/Track Performance Group add an additional 10 horses to the Charger's 340 horsepower HEMI engine for a total of 350 hp and 390 lb.-ft. of torque through a specially tuned exhaust and induction system.

The HEMI-equipped 2006 Dodge Charger Daytona R/T also offers 350 hp and a distinctive, throaty exhaust note through the addition of a high-performance exhaust system.

Standard Powerful V-6 Engine

A 3.5-liter High Output V-6 engine is available on the 2006 Dodge Charger SE and SXT models and provides an outstanding blend of performance and fuel economy. This engine provides 250 horsepower (186 kW) @ 6400 rpm and 250 lb.-ft. of torque (340 N•m) @ 3800 rpm.

An active three-plenum intake manifold assures high power and torque over the entire operating band, while electronic control of the manifold tuning valve and short-runner valves and ETC provide smooth operation with maximum performance and fuel economy.

Five-speed Automatic Transmission

Featured on all Dodge Charger models, a five-speed automatic transmission with AutoStick provides a full range of transmission performance to match a variety of driving styles, situations and road conditions. AutoStick offers the choice of a fully automatic or manually selected gear range. This transmission is mated to both the 5.7-liter HEMI V-8 and the 3.5-liter High Output V-6 Charger engines to offer all Dodge Charger customers improved performance and fuel economy.

The five-speed automatic transmission on the HEMI-equipped Dodge Chargers features an enhanced AutoStick offering a quicker, crisp shift schedule.

Compact yet robust for high-torque rating, the Charger's five-speed transmission uses highly advanced electronic shift controls for a responsive, smooth feel without harshness. The system monitors the transmission as shifts occur and adjusts the hydraulic pressure as needed.

Dodge Charger engineers selected the ratio spread from first to fifth to minimize fuel consumption and reduce powertrain noise during cruising. An aggressive first-gear ratio provides excellent launch performance and evenly spaced gear ratios provide smooth acceleration.

The 2006 Dodge Charger transmission ratios are:

- 1st – 3.58
- 2nd – 2.19
- 3rd – 1.41
- 4th – 1.00
- 5th – 0.83
- Reverse – 3.17

The Dodge Charger's five-speed transmission also uses an Electronically Modulated Converter Clutch (EMCC) to control torque converter clutch slippage. The EMCC provides partial engagement in third, fourth or fifth gears, which improves shift feel, fuel economy, driveability and cooling.

Power Rack-and-pinion Steering

Power rack-and-pinion steering has an overall ratio of 16.1:1 on all 2006 Dodge Charger models. The steering effort is varied to balance control and easy operation with responsiveness. The steering gear mounts to the suspension cradle through two spool isolators that are tuned to minimize road noise yet deliver steering responsiveness. Friction is minimized to enhance steering precision.

Engineers tuned the Dodge Charger's steering system to deliver light parking effort without compromising steering performance at speed. Pump capacity was tuned to ensure hydraulic assist during vigorous maneuvers, while hoses were tuned to minimize hydraulic noise.

For enhanced steering feel, a 9-land steering gear is included on 2006 Dodge Charger R/T models equipped with the Road/Track Performance Group and on the Dodge Charger Daytona R/T vehicles. The unique tuning provides positive feedback from the road for enthusiast drivers looking for a lower assist, high effort, performance driving experience.

Brakes

Four-wheel disc brakes are standard on Dodge Charger SE and SXT cars equipped with 17-inch wheels. These feature single-piston aluminum calipers and vented rotors in the front and single-piston aluminum calipers with solid rotors in the rear. These brakes have a larger effective radius than many competitive systems, providing excellent braking power for the Dodge Charger.

Performance four-wheel disc brakes are standard on HEMI-equipped Dodge Charger models. These feature twin-piston aluminum calipers and vented rotors in the front and single-piston aluminum calipers with vented rotors in the rear.

To reduce rolling resistance and improve fuel economy, all Dodge Charger models use low-drag calipers. New technology caliper construction allows minimal drag of the pads on the discs with low clearance to the rotors, which maintains maximum pedal feel and responsiveness. In addition, ducts in the front fascia of the Dodge Charger direct

cooling airflow to the front brakes, reducing front brake temperatures by as much as 15 percent in heavy use for enhanced performance and longer lining life. High caliper stiffness also results in firm pedal feel and linear response with increasing demand for braking effort.

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