

# NCHP Goes Goodyear

By PFM Staff

**T**he North Carolina State Highway Patrol runs the nation's largest fleet of police package Dodge Chargers. It began with the 2006 Charger, the first year for the police package, and currently have about 650 Chargers in service. By the end of 2009, the department will have nearly 1,000 police Chargers ensuring traffic safety on the highways of the Tar Heel State.

With such a large fleet, North Carolina is the state to watch for everyone else running police Chargers. The NCHP is likely to see every imaginable service and maintenance issue first, and it is the most likely to fix the issue first.

When the 2006 police Charger experienced the brake condition called "judder" and accelerated brake pad wear, Dodge Fleet worked closely with the NCHP to identify the cause and field test the solutions. That widely experienced front brake pad issue has, indeed, been completely resolved. The NCHP was instrumental in the adoption of what are essentially Dodge Charger Daytona brake pads.

As it turns out, the Charger Daytona

pads don't give up anything in real police use but produce much better pad life. Brake pad life has been extended by 30%.

The new part number for the police brake pads is #05142559AA. If you order the pads for the 2006-2007 cars, you will still get the 2008 pads. See TSB 05-001-07. The pad life has greatly increased, and the Dodge Charger still has the best braking performance of any police sedan.

The next widely experienced maintenance issue with the Charger involves replacement tires. While the Continental ContiProContact tires that come OE on the police Charger have truly excellent performance, three concerns exist. These depend on the departments involved.

In some cases, tire wear was an issue. The NCHP, for example, were experiencing just 6,000 to 8,000 miles on a set of rear tires, while the front tires were running just 10,000 to 12,000 miles. For their part, Chrysler Fleet expects 15,000 to 20,000 miles on the ContiProContact in urban police scenarios. The "Pro" passed Chrysler

Corp.'s durability and performance test for a police tire.

In other cases, the sheer availability of the Continental tire is an issue. In still other cases, the ContiProContact was locally or regionally available, but only at full retail prices. This market price was well over the national police program price of \$112 per tire, but finding a dealer to honor the program price was difficult.

For the 2006 and 2007 model years, V-rated or W-rated tires from other manufacturers simply did not exist in the size to fit the police Charger. Some frustrated police departments put lower speed-rated tires on their Chargers, a serious mistake, but almost understandable given the tire situation.

In mid-2007, the tire supply situation for the Dodge Charger totally changed. Both Firestone and Goodyear introduced pursuit-rated tires for the Charger. The Firestone version is the Firehawk GT Pursuit. This tire passed the Los Angeles County Sheriff's Department high-speed handling and durability testing.

The Goodyear version is the famous



Photo courtesy of Goodyear

Goodyear Eagle RS-A performance tire.

Eagle RS-A, used on the Ford CVPI for years. The Eagle RS-A also passed the LASD high-speed tire testing. The Eagle RS-A is a high-performance tire featuring aggressive shoulder tread blocks for enhanced handling capability and wide circumferential grooves to channel water away. Long a popular choice for police vehicles, the Eagle RS-A also has high-tensile steel belts for responsive handling and strength.

As a bonus for winter driving, the company also introduced its Eagle Ultra Grip GW3 speed-rated winter driving. The Eagle Ultra Grip GW3 is a high-performance winter tire. Features of the tire include V-TRED radial grooves, 3-D bubble-blade block interlocking system and a silica tread compound for enhanced wet and winter performance.

The NCHP conducted a two-step test of the Goodyear Eagle RS-A. The first was a review by its Training Academy Driver Training Facility staff. The second was a long-term test on two different Chargers.

In March 2008, the NCHP Training Academy tested two Chargers, one with the original equipment (OE) Continental ContiProContact tires and one with the after-market Goodyear Eagle RS-A tires. Both tires were inflated to 35 psi. The driving included the Serpentine Course, the Evasive Action Course at 30 mph, the Multi-Skill (defensive driving) Course and the High-Speed Course, which is conducted on a 1.6-mile road course.

Each of these handling tests were conducted with three phases to simulate the various loads carried by troopers: zero extra weight in the trunk; 200 pounds of weight in the trunk; and 240 pounds in the trunk of both Chargers. The NCHP instructors recorded tire

temperatures and remaining tread depth after each test phase.

The Training Academy instructors concluded that there was no noticeable difference in handling or overall performance between the Continental OE



Photo courtesy of Goodyear

Goodyear Eagle Ultra Grip GW3 winter tire.

The NCHP operates the nation's largest fleet of police Chargers.



tire and the Goodyear aftermarket tire during this dry pavement testing. They recommended that both tires be approved for use by the NCHP state troopers.

This approval led to the long-term test by two troopers, a more aggressive one who gets 6,000 to 8,000 miles on a set of ContiProContact tires and a more average one who gets 10,000 to 12,000 miles on these OE tires. For the NCHP, tire wear was the real issue with the ContiProContacts, not pricing or avail-

ability. To understand the issue, the NCHP preventative maintenance schedule must be explained.

The NCHP services the Chargers at strict 6,000 mile intervals. When the cars come in, the techs inspect the tires and make a judgment call of whether the tires will last an additional 6,000 miles to the next scheduled service. If not, of course, they are replaced, even if the wear bars have not been reached. In some cases, tires are rotated to the front where they will last longer. But in all

cases, when the Charger leaves the NCHP shop, it must be ready for another 6,000 miles, period. No coming back in 3,000 miles for tires.

The ContiProContact tire on the rear of most Chargers would last one service interval, perhaps have some tread left, but could not last two service intervals. The ContiProContact tire on the front of most Chargers would last just two service intervals, and not a mile more. In the NCHP maintenance program, just a bit more tire life, just enough life to get to the next service interval, would make a huge difference in the tire replacement expense.

On the two in-service cars used by two different troopers, the NCHP found the Goodyear Eagle RS-A had 15% to 25% better tread life than the ContiProContact. Both troopers got better tread wear with the Goodyear tires. Neither troopers noticed any difference in dry or wet performance between the Eagle RS-A and the ContiProContact.

The price per tire was only a few dollars more for the Goodyear, but the way the NCHP schedules its service, the overall tire replacement cost went way down. In essence, since the tires had to last 6,000-mile increments, a 15% to 25% improvement in actual wear, resulted in a 50% improvement in useful life. (Half the tires that wouldn't quite make the next service interval, and thus were replaced, now made it to the next interval.)

While the new police Chargers will continue to be shipped from the factory to the NCHP with ContiProContact tires, effective December 2008, the replacement tire for the Charger will be the Eagle RS-A. The NCHP Training Academy will also use the Eagle RS-A on its EVOC cars to keep a close eye on actual tread wear, tire integrity and both wet and dry performance.



*For the Charger, the NCHP is changing from Continental to Goodyear.*



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