



GTR's Chris Balster removes the front wheel and gets down to business.

Upgraded Road Handling

EVEN NEW SUSPENSION CAN BE IMPROVED

Text and photography by Ricardo Topete

Last month, we went to work to bring some improvement to a Fox Mustang's suspension. It was a simple change with noticeable results.

All things considered, the S197 Mustang is arguably about the best all-around Mustang to date. That's not intended to disrespect any other platform, but the cars up to 2005 used the same basic design that stemmed from 1979.

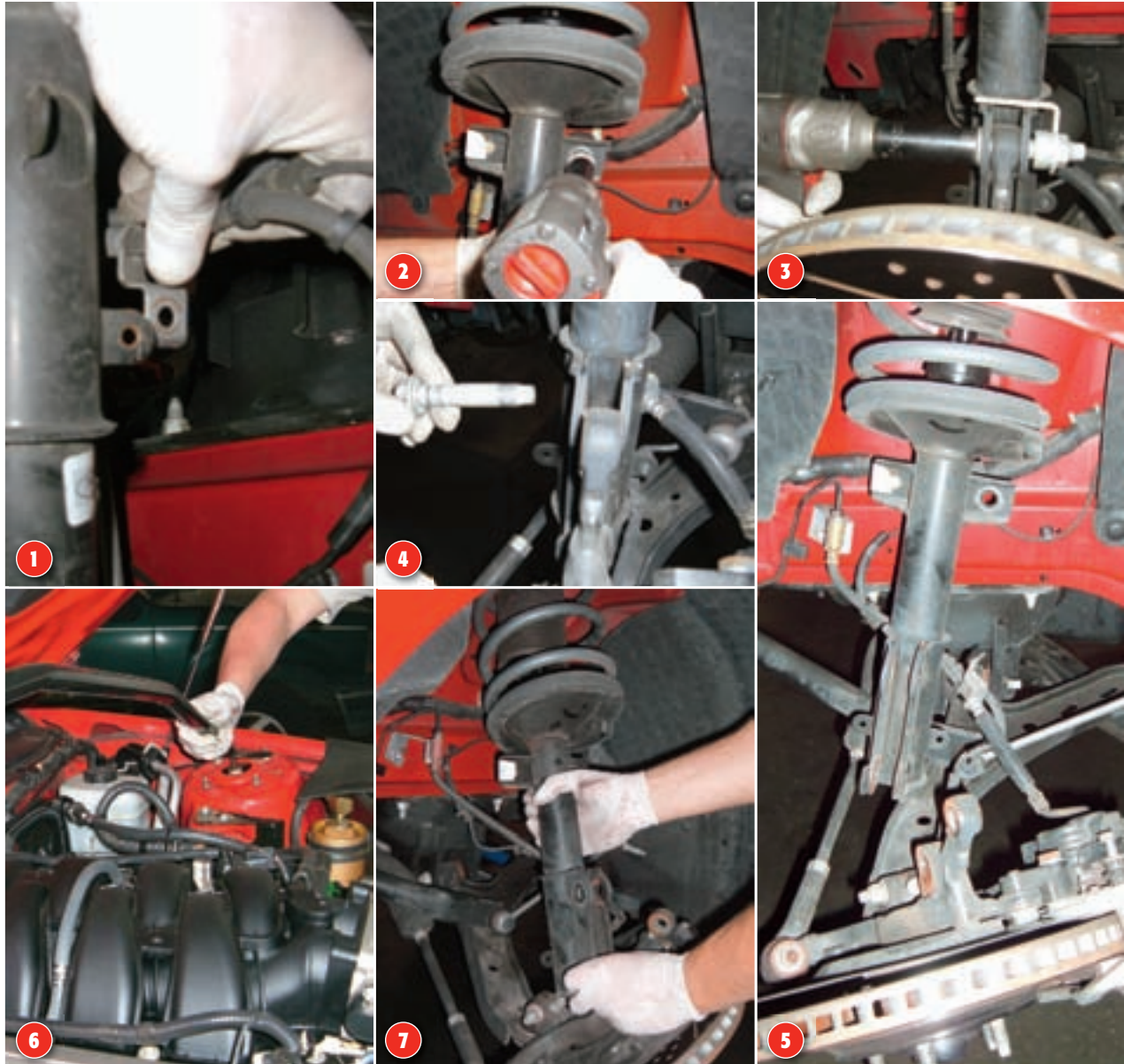
The S197 Mustang has two decades of technology improvements, which makes it tough to beat. The unique challenges of the new cars, though, can draw attention to areas of need. Suspension happens

to be one of the few. It's where the aftermarket steps up to the plate.

Based on the success we had with the Fox project, we're going to stick with Tokico's new line of D-Spec adjustable shocks and struts. Tokico is already a well-established name in the automotive world. Tokico teamed up with Ford to create unique shocks and struts for the 2001 Mustang Bullitt and the 2003-2004 Mustang Mach 1. With

hands-on experience like this, Tokico is no stranger in the Mustang market. Now, there's the D-Spec adjustable shocks and struts to give the Mustang another handling option. The D-Spec (short for dampening specific) is an "infinitely adjustable" shock/strut. This means that the D-Specs are not limited to certain predetermined "levels" of performance.

With the simple turn of a dial, the Mustang owner has changes in handling, ride quality and performance at his fingertips. This is made possible by the design, which incorporates a sophisticated piston and valve design. In short, D-Specs



1 Start by removing the 10mm bolt that secures the brake line to the strut body.

2 Next, unbolt the sway bar end link from the strut body.

3 Remove both of the strut-to-spindle bolts.

are designed to provide a wide range of ride and handling characteristics.

We're taking Ricardo Topete's 2006 GT to GTR High Performance in Rancho Cucamonga, California, to witness the transition. The car is equipped with lowering springs, some chassis modifications, bigger brake upgrades, larger wheels and tires, performance engine upgrades, and much more.

In a matter of a few hours, the car was

4 Chris is now able to slide both bolts out and free the strut from the spindle.

5 This is the view of the front suspension, which is now partially disassembled.

6 Working under the hood, remove the

out of the shop and on its way to test drives. For the do-it-yourselfer, a little more time may be required, but nothing that will keep the car in the garage long. We found the install of the S197 product was a bit more intricate than last month's Fox project, but many steps were similar to the Fox platform.

When the car left the shop, the D-Specs were near the middle setting, as recommended by Tokico. There was

four strut plate nuts. If the car is equipped with a strut tower brace, that will have to go as well.

7 Get a good grip on the strut/spring assembly in the car and carefully lower it out of vehicle.

a noticeable improvement in handling and ride-quality over stock. Next, we tightened the D-Specs to full max and were rewarded with razor-sharp handling...naturally the ride-quality suffered a bit. Lastly, we turned them to full soft and the D-Specs smoothed out the Mustang's choppy ride. It's truly a shock and strut package that is equally at home at the track, street and highway.

TECHNICAL Upgraded Road Handling



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8 Use an air gun to zap off the strut nut. It is important to note that a coil spring compressor will be required for a car with the stock factory springs. In our case, Chris doesn't need it since the lowering springs are quite a bit shorter than stock springs. Regardless of what you have, caution must still be used.

9 Carefully lift the strut bearing plate off the stock strut and save it for re-use.

10 Here's a side-by-side comparison of the stock unit and the Tokico D-Spec strut.

11 It is necessary to transfer the bump stop, dust boot, and strut bearing plate from the original equipment onto the D-Specs.



1965 66 Mustang



1967 68 Mustang



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12 Once the top bearing plate is re-installed, finger tighten the strut nut. You will do the final tightening later. Notice how the bearing plate has a "notch" that must be positioned outward towards the strut spindle mount. Chris is pointing to their proper orientation.

13 Load the spring/strut assembly back into place and line up the four studs in the strut tower holes.

14 Reuse the stock nuts and torque them to spec to support the assembly.



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15 Using an 8mm wrench and 19mm wrench, torque the top strut nut to 38-49 ft-lbs. You must never use an impact gun here, which can certainly damage the adjustment mechanism.

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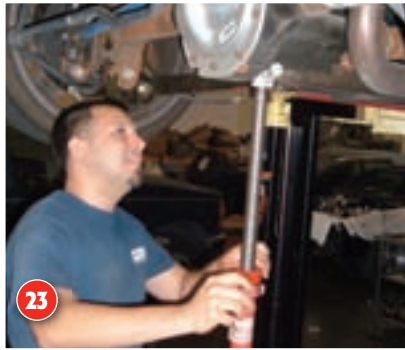
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16 Using the Tokico-supplied adjustment key, set the D-Specs to your liking by simply turning left or right. As a good starting point, we set them to the middle of the adjustment range. Should you lose the adjustment key, an Allen wrench will work just fine.

17 Thread the protective cap onto the tip of the strut shaft. This will keep dust out.

18 This is a close-up picture of the adjustment tool provided by Tokico. Keep it in the glovebox, console or toolbox.

19 Back under the car, re-install the strut-to-spindle bolts that were removed earlier.

20 Re-attach the sway bar end link to the strut body, using factory hardware.

21 This is a good time to do the final tightening of the strut-to-spindle bolts/nuts and double-check all steps previously taken.

22 The front is nearing completion. Mount the wheels, torque the lug nuts and gather the tools. It's time to direct our attention to the rear.

23 Begin the process for the rear shocks by supporting the differential with a floor jack as shown by Eli Patronas.

24 The lower shock mounting bolt will be loosened first.

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25 Next, slide the lower shock bolt out.

26 You'll need to come out from under the car for the next step. Pull back the carpet/trunk liner to access the top nut on the rear shock.

27 Loosen and remove the top mounting nut on the shock.

28 The shock can now be pulled free from the car.

29 Install the new rear shock using new supplied hardware and bushings and torque to 10 ft-lbs. Again, be certain to keep the air tools away from here.

30 Feed the lower shock bolt through the bracket and tighten. Installation is now complete! Adjust your D-Spec rear shocks in the same manner as the front strut. The halfway point is a good baseline since you can adjust infinitely from there. ■

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