

# WELCOMING THE CONVERT

A LONGTIME MUSTANG TUNER DISCOVERS THE LS RELIGION AND STARTS PREACHING WITH A QUICK G8 GT

TEXT AND PHOTOGRAPHY BY BARRY KLUCZYK



Alternative Auto is pushing essentially stock G8 GTs solidly into the 12s without the use of nitrous or any internal engine mods.

**IF THERE'S A SURE-FIRE WAY TO KNOW THAT A NEW CAR HAS STRUCK A CHORD WITH THE PERFORMANCE MARKET, IT'S THE CROSSOVER OF ENTHUSIASTS FROM ONE BRAND TO ANOTHER.**

It happened in the early 1990s with the 5.0-liter Mustang and now, there are signs the Pontiac G8 is a brand-changing catalyst. In fact, with one professional Mustang tuner, Lidio Iacobelli, the switch to Pontiac's quick sedan is the equivalent of the Pope hanging out in a Buddhist temple.

For nearly 20 years running, the shop Iacobelli founded – Alternative Auto – on the northeast outskirts of the Detroit area, has built a strong reputation as one of the most respected Mustang tuners in the industry. And while he's hardly kicking his blue oval customers to the curb, he found the G8 was a convenient way

to explore new avenues of adventure for his business.

"The Mustang business has been super-solid, but I'm always looking for new paths to take," says Iacobelli. "I initially thought I'd try the late-model Hemis, but heard nothing but horror stories when it came to tuning – and the lack thereof for those cars. We pride ourselves at the shop for great drivability and I didn't want to tamper with that, so I looked at GM's LS-powered cars and liked what I saw."

Iacobelli took the plunge earlier this year with the purchase of a bright red G8 GT. The ink was barely dry on the paper-

work, before he drove to Uby Dragway, in the "thumb" area of Michigan, and ripped off a respectable 13.54 ET at 102 mph. That's not too shabby for a car that tips the scale at about 4,000 pounds and has only a 2.92 rear axle ratio. Of course, those 4,000 pounds and tall gear were offset by the 6.0-liter engine's 362 horsepower and a six-speed automatic equipped with an aggressive 4.03 first gear that really helps launch the car. By the way, *Car and Driver* managed only a 13.8-second quarter-mile time in their test of an essentially identical 2008 model.

With the baseline performance established, Iacobelli drove back to the





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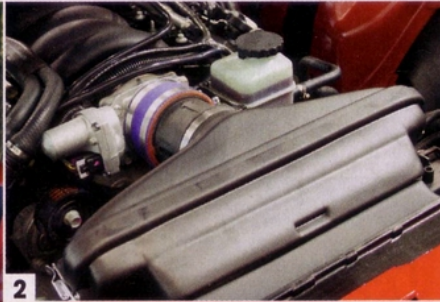
**1** Lidio Iacobelli (right) runs Alternative Auto and is a longtime Mustang tuner who recently saw the light and started working with LS-powered GM vehicles. He and one of his technicians, Jake Meisel (left), invested in their own Pontiac G8 GTs and have been working to make them quicker with targeted bolt-on parts and tuning.

**2** Intake and exhaust were the first, logical areas to approach to increase the performance of the G8 GT's 6.0-liter engine. Iacobelli started with a Vararam cold-air intake ([www.vararam.com](http://www.vararam.com)). It includes a ram air-style air scoop that increases air

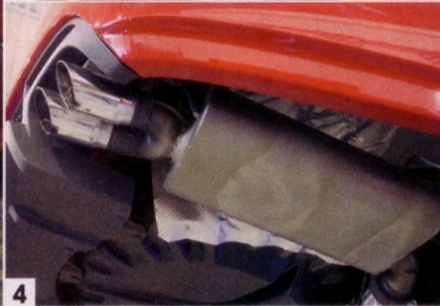
Alternative Auto shop, plugged his laptop into the OBD port and started tinkering with the shift points and timing. He was impressed with the results and the comparative ease at how the tuning was accepted by the car's controller.

Iacobelli's experience didn't go unnoticed in his decidedly Ford-blue shop, as technician Jake Meisel – after a few days of ribbing the boss – showed up for work one day in his own G8 GT. And with dueling G8s in the parking lot, it wasn't long before the Alternative team headed to the drag strip.

On their first outing with both cars – in admittedly good air – Iacobelli ripped a 13.13 ET with nothing more than his tuning and a Vararam Industries cold-



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velocity in the relatively short intake length before the throttle body.

**3** On the exhaust side, Iacobelli had a custom system built for experimental purposes. It wasn't an inexpensive system, but purposeful for his testing needs. It includes freer-flowing pipes that replace the factory resonator that accommodates the 6.0-liter engine's Active Fuel Management system (an unflattering exhaust note can occur when the engine switches to 4-cylinder mode). Cylinder cut-out isn't a concern, because Iacobelli disabled the function during tuning.

air intake: a 4/10ths improvement. Better still, Meisel's car dove into the 12s with the same intake, tuning and an SLP underdrive pulley. It went a best of 12.95 at 107 mph.

"The pulley in Jake's car clearly had an effect, but I didn't use all the tricks to squeeze more out of my car at the track," says Iacobelli. "I had nearly a full tank of gas and Jake's car was nearly empty; I didn't over-inflate the front tires and Jake's had about 50 psi; and finally, Jake's wife drove the 12.95 ET and several 13.0s. She weighs less than 110 pounds. I... uh ... weigh more than that."

After that initial track session, Iacobelli stepped up his car's combination with the immediate addition of that SLP pulley, as



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**4** Capping the exhaust system are factory tips welded to FlowMaster three-chamber mufflers. They flow well, have a good sound and, best of all, don't produce annoying drone on the highway.

**5** Iacobelli wanted more rubber for the rear wheels, but wanted to retain the stock look of his G8, so he had the factory wheels widened by one inch. The weld beads surrounding the added material are visible here. The modification brought the 19-inch wheels from eight to nine inches in width.

well as a custom exhaust system that includes FlowMaster mufflers (with the original tips welded to them) at the back end and a pair of custom, X-style pipes in place of the large factory resonator at the middle of the car. It's an experimental exhaust system and Iacobelli is tweaking it to get maximum performance.

"It's all part of the give and take of finding the best recipe for success," he says. "But with the additional tuning and exhaust changes, it was running solid 13.0s at 106 mph."

Also important, says Iacobelli, is tuning that affects the transmission's performance.

"We're putting a strong emphasis on how the Hydra-Matic 6L80 transmission





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**6** The wider rear wheels allow the G8 to lay down a wider foot print at the track. The rubber on the widened rims are BFG 295/35ZR19 g-Force T/A tires. That's two inches wider than the standard 245-series tires on the stock-width wheels. An added benefit is the wider wheels/tires fill out the fenders better, giving the car a more performance-oriented stance.

**7** Iacobelli's tuning doesn't just take the engine's air, fuel and timing into account, he also works carefully to optimize the performance of the 6L80 six-speed automatic transmission. Shift points and converter lockup points are adjusted, but Iacobelli is extremely careful with the torque management function. It's a feature that very briefly reduces torque between shifts to prevent full-power during upshifts, ensuring the longevity of the transmission. Reducing or eliminating the torque reduction can improve performance, but there's

shifts, where it shifts, lockup and torque reduction during shifting – a condition that seems to put a good hurt on the G8's

a risk it can shorten the life of the transmission.

**8** At Milan Dragway, Iacobelli heats up the g-Force tires on his G8 during an early test session. With Vararam intake, exhaust system, wider tires and some tuning, the car went low 13s. After this, he headed back to his suburban Detroit shop, Alternative Auto, to make it quicker.

**9** It worked on his employee's G8 GT, so Iacobelli swapped the crank pulley/damper for SLP Performance's underdrive pulley ([www.slp-online.com](http://www.slp-online.com)). It's an inexpensive, \$200 investment that delivers a 25-percent underdrive ratio and is worth up to 10 horsepower. It's also lighter than the stock pulley, which reduces inertia, helping to free up some of those extra horses.

**10** The torque converter is another source of experimentation, although Iacobelli hasn't quite zeroed in on the optimal stall speed. At the moment, it's looser than stock, which means it has a higher stall speed, but finding the sweet spot for a strong, effective launch will take the trial and error of more drag strip testing. Iacobelli says the changes so far haven't yielded positive results at the track, but he's working on it.

quarter-mile performance," he says.

Iacobelli has experimented, too, with a looser torque converter, having



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**11** The next big step in performance comes in a blue bottle. Iacobelli added an NOS system ([www.nosnitrous.com](http://www.nosnitrous.com)), bolting a large, 15-pound bottle in the trunk. It is positioned so that the bottle can be opened by simply pulling down the cushion in the rear seat that provides access to the trunk pass-through. For the essentially stock engine on this G8, the system is tuned to deliver an approximate 125-horsepower boost.

**12** The nitrous system is a "wet" system, meaning that nitrous and additional fuel flow through the intake manifold (which, for an LS motor usually contains only air). A dry system would add the nitrous and additional fuel "after" the intake. The nozzle for the fuel/nitrous combination is located on Iacobelli's car on the bottom side of the air intake. In the photo, you can see the fuel and nitrous feed ports that combine their flows at the nozzle.

the original unit modified by Precision Industries. A looser converter is one with a higher stall speed that enables a





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**13** Fuel mixed with the nitrous at the nozzle in the intake is plumbed directly from the fuel rail, via the factory Schrader valve. The stock fuel system is adequate for such a bolt-on system on an otherwise stock engine.

**14** Mounted inside the driver's side fender is the control system for the nitrous system. It's a sophisticated system that includes an MSD throttle position/rpm-activated window switch that activates the nitrous

between predetermined throttle position and rpm levels.

**15** Iacobelli blasts off again at Milan Dragway, with his nitrous-fed G8 running low 12s. With more tuning and development work, 11-second ETs are not out of the realm for a naturally aspirated car Iacobelli drives to work every day. With such performance delivered relatively inexpensively, it's easy to see why he parked his Mustang and got behind the wheel of a G8!

higher-rpm launch. Finding the perfect stall speed can be a tricky, trial-and-error process, particularly with the electroni-

cally controlled lockup transmissions of late-model cars. Getting it wrong means going slower.

"What I'm hoping for is that, with the new pulley, loosened converter and a few other tweaks here and there, we'll run somewhere in the 12.75 to 12.85 range," he says. "If I can nail down that performance at the track without touching the engine beyond the pulley, I think we'll have something that other G8 enthusiasts will be interested in – and that's the ultimate goal: a good, simple and affordable combination that will get them solidly in the 12s."

Iacobelli added one more bolt-on to his Pontiac to unquestionably push it into the 12s – nitrous oxide. It's a 125-horsepower, NOS universal EFI system that includes a big, 15-pound bottle in the trunk and a sophisticated, MSD "window" activation system that, essentially, turns the system on and off via the throttle position, because the engine uses an electronic throttle. That means the conventional micro-switch for a cable-operated throttle simply wouldn't work.

With a couple of test-and-tune sessions in the books, Iacobelli whittled the G8's best ET down to a laughing gas-assisted 12.03 at 116 mph. With such encouraging performance from essentially bolt-on parts and careful tuning, 11-second time slips aren't out of the question for this convert to the church of LS. Along the way, Iacobelli's path to the new religion will likely pick up more pilgrims. It's too bad, then, that catalyst for such a profound transformation is headed for excommunication from GM. ■

## SOURCES

### ALTERNATIVE AUTO

(586) 949-7505

[www.alternativeauto.com](http://www.alternativeauto.com)

### FLOWMASTER

(800) 544-4761

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