

Cobra Fi2000R

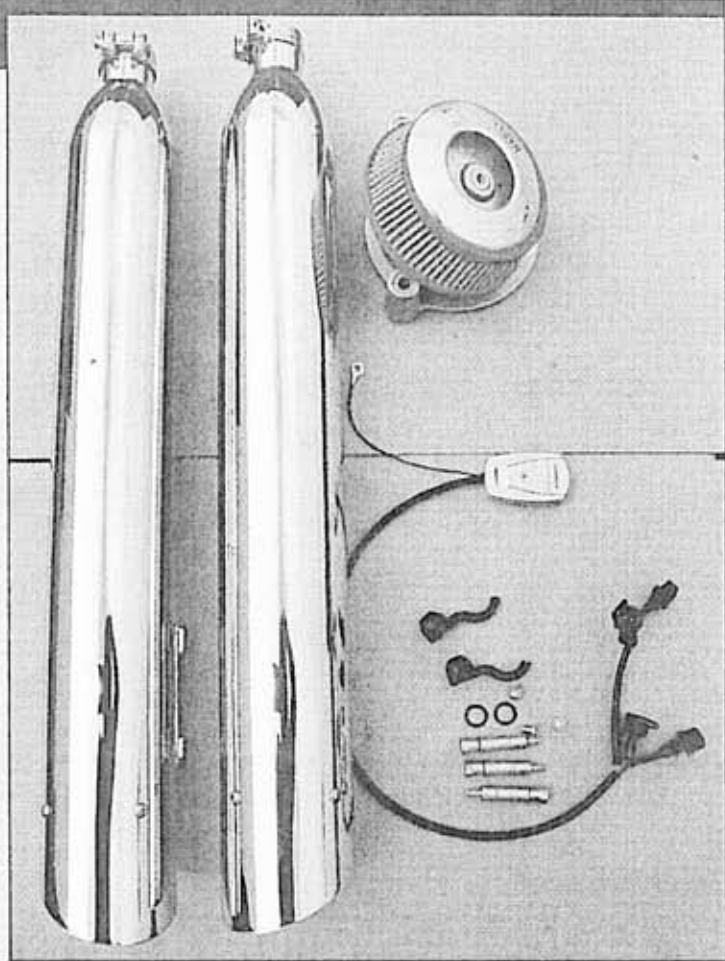
Jets You Can Adjust, Running

1 The Cobra 4-inch slash-cut glass-packed Dresser mufflers (re-packable), Cobra Fi2000R digital fuel processor with installation hardware, and Screamin' Eagle low-restriction air cleaner Stage 1 kit.

An overwhelming feeling of dread comes over most of us when the subject of fuel injection and achieving the right air/fuel mixture after installing an aftermarket performance exhaust system comes up. As more and more factory fuel-injected bikes hit the streets, there are almost as many horror stories about some poor bastard that fried his motor because it leaned out after changing the pipes and air intake.

With these thoughts in mind, we have to admit that we shared the same fears every time we contemplated upgrading the exhaust system on our '05 Road Glide. Two days before leaving for Sturgis '04, we bought the Road Glide from Harley-Davidson of Westminster with the intentions of riding it there and back in its stock configuration.

The ride to Sturgis was an excellent opportunity to break the Glide in and make future plans for soupin' it up a little bit. Upon returning from Sturgis, we started exploring our options and chose a Cobra Fi2000R digital fuel processor as the basis of our Stage 1 conversion. We liked the fact Cobra Fi2000Rs can be fine tuned with a screwdriver with the motor running. Imagine being able to change the jets on your bike's carburetor while it's running, and you will get an idea how convenient Cobra's digital fuel processor is. With this said, we think the feelings of gloom normally associated with addressing this subject should subside in most of you. We know that once we understood how easy the Fi2000R was to install and dial in, we were pretty excited. One of the problems plaguing the Road Glide on the way to Sturgis was that it would occasionally stumble leaving a traffic light or in stop and go cruising it would let a big fart. We don't know what the factory fix is for this lean condition, but we do know if a person wanted to cure this problem on a stock bike the Cobra Fi2000R would work perfect. But who would want to ride a stock bike when they could pick up some extra ponies and not compromise fuel mileage or reliability? With a fresh change of Syn3 and 4,500 miles on the clock, John Springer and Rick Botting strapped the Road Glide onto the Dynojet and made a base run. Showroom-stock, our Road Glide produced 62 hp at the rear wheel. We were now ready to install all of the components comprising a Stage 1 kit. First on the list was to install at about \$150, a Screamin' Eagle Stage 1 high-performance air cleaner and backing plate. The second task was to install a pair of Cobra 4-inch slash-cut Dresser mufflers priced at under \$400, and to tie it all in, a Cobra Fi2000R for under \$240. Rick Botting installed the Fi2000R with the factory presets left intact. The first dyno run in this configuration produced around 68 hp. For our third and final test configuration, Rick Botting, using an Infrared Industries handheld HM 5000, adjusted the green, yellow, and red pots on the Cobra Fi2000R to achieve Stoich. This strange sounding expression is used to describe a 14.7 air/fuel ratio which is considered to be the optimum air/fuel ratio for all internal combustion engines. Cobra includes with the Fi2000R advanced tuning notes that explain which of the three colored pots can be adjusted to address rideability problems such as stuttering or blubbering simply by screwing them in or out.



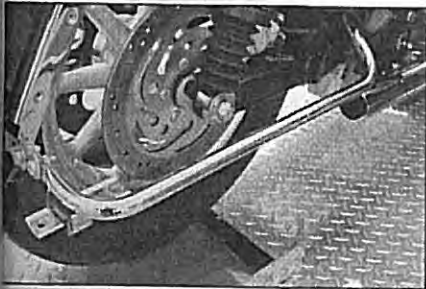
Oh yeah, and on our third pull with Rick's fine tuning complete, the Road Glide produced almost 70 hp at the rear wheels. Rick dismounted the Glide and didn't even get a chance to shut it off before we hopped on and headed for the freeway. The bike felt like it climbed to 90 mph faster than before, and it definitely had more bark in its exhaust note. But more importantly when we purposely got stuck in stop and go traffic, it had lost its irritating hiccup problem. The Cobra Fi2000R is simplicity personified and definitely lives up to its promise to eliminate annoying rideability issues associated with an improper air/fuel mixture. **HRB**

Rating Guide

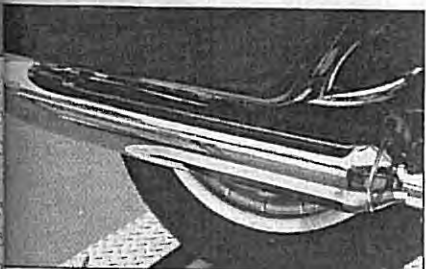
Ability		Time	
Tools		Cost	
See legend in Huff'n' the Mail			



2 First things first, our '05 Road Glide made a dyno run in its stock configuration to establish a 62hp baseline.



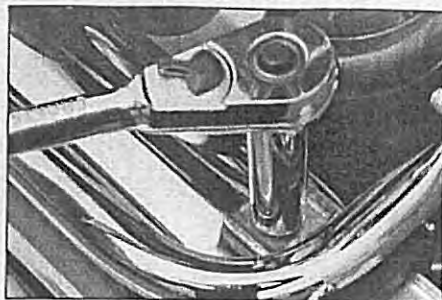
3 To gain access to the mufflers, the left and right saddlebags were removed by unlatching the two Dzus fasteners located on the bags' interior inboard side and lifted off.



4 Then it was time to remove the stock Harley mufflers. Note the chrome discoloration in the muffler's center caused by high-speed touring in a lean condition.



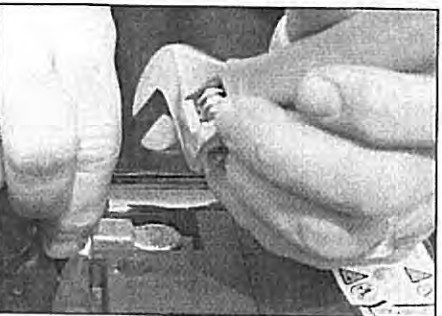
5 John loosened the muffler clamps, then in a twisting motion worked them free with WD-40 and attempted to pull them off.



6 Oops, there was a hangar bolt located at the rear of each muffler. With these removed, the mufflers slid off.



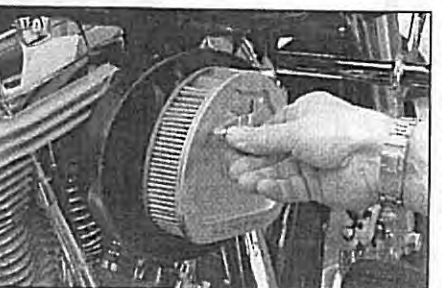
7 Rick then removed the mounting bolt from the seat and shoved it forward to remove it.



8 After a futile search for a 10mm open-end wrench, a 6-inch Crescent wrench was used to unbolt the ground cable.



9 The rear mounting bolt was removed and the tank was lifted upwards at the rear to gain more space to run the Cobra Fi2000R's wiring loom to the injector connectors. The tank's front bolts were left snug.



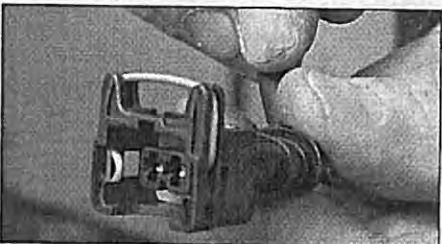
10 Rick removed the entire stock air cleaner to gain access to the injection unit.



11 It was also necessary to remove the Idle Air solenoid by removing two bolts (5/16-inch heads) and the throttle cable bracket with a number 20 Torx.



12 He then located the original H-D injector connectors...



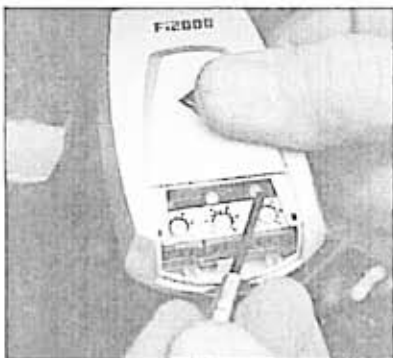
13 ...and prepared the Fi2000R connectors to interrupt the stock circuit.



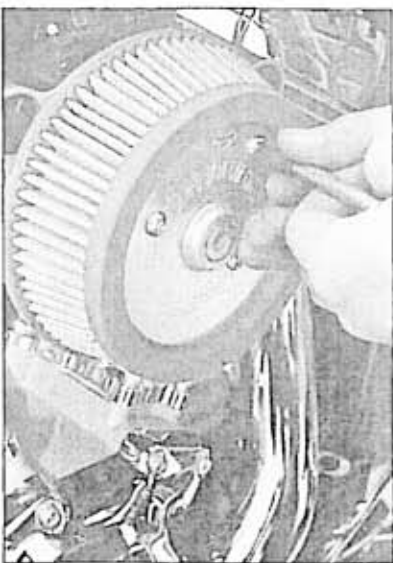
14 The Cobra Fi2000R harness is cut to length, so it can only be installed to its corresponding front or rear injector connector.



15 Rick installed the Fi2000R module with Velcro into the battery valley beneath the seat...



16 ...so it could be easily removed and adjusted with a jeweler's screwdriver. The red pot (right) is just like the main jet in a carburetor, it starts to control fuel as you open the throttle and overrides completely above 4,000 rpm. The yellow pot (middle) affects acceleration and power fuel. Small clockwise increases will eliminate hesitation or bogging created by free-flow-type air cleaners. The green pot affects idle and cruise fuel. Gradual clockwise increases will eliminate surging and uneven running while cruising in a lean condition. Also effective for bikes that back-fire when the throttle is let off, provided you do not have a blown exhaust gasket.



18 ...and high-flow air cleaner element.



17 With the F1200R installation completed, Rick installed the Screamin' Eagle backing plate...



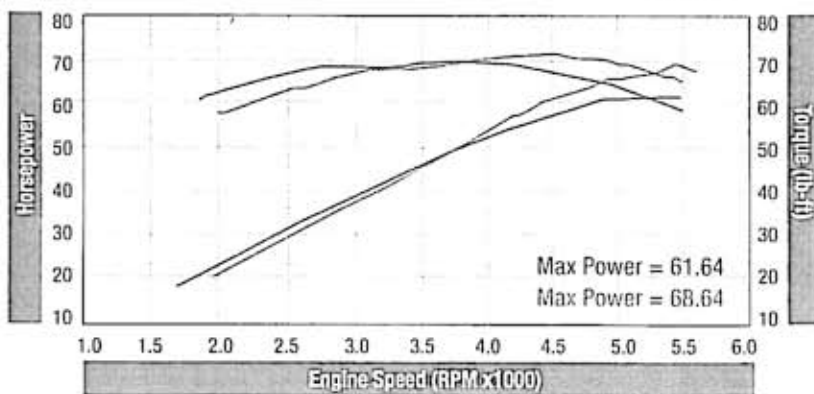
19 Rick double taped a handheld Infrared HM5000 to the dashboard...



20 ...and attached the sniffer probe to the right side muffler.



21 The Infrared HM5000 relays readings within one second. Rick blasted around the streets a few times with our F1200R Stage 1 completed and returned back to the shop proclaiming we had a 14.7 air/fuel ratio reading...Stoich! The optimum air/fuel mixture means our motor is running as efficient as possible, power and fuel mileage.



A small jump in horsepower begets a giant leap in tract ability.

→ Sources

Cobra
(714) 692-8180
www.cobrausa.com

Infrared Industries
(800) 344-0321
www.infraredindustries.com