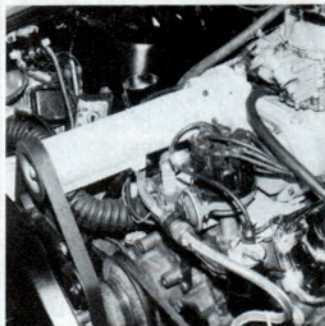


RODDIN

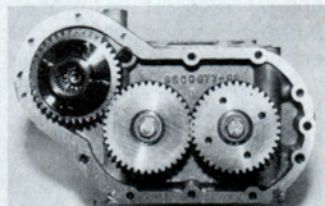
NAS-TEE

Will wonders never cease? Boyd "Hot Dogs by Floyd" Coddington—the fur-face guru of the high-tech look in street rodding—is hard at it on a high-performance hot rod. Currently under construction for owner Gary Newton of Newport Beach, California, the righteous rag-top is all wrapped up in Wescott fiberglass, and combines a chrome-moly tube frame fitted with Boyd's front and rear independent suspension, with power by "cammer" Ford. No doubt about it, fellow Fordnatics, ol' Floyd can build hot dogs, too. —G.B.

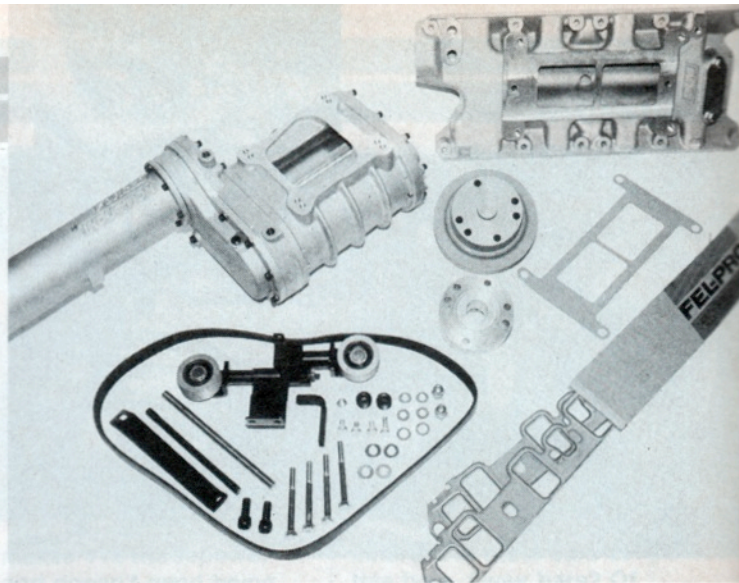
Offsetting's no Penalty



B&M's offset input shaft Ford blower kits come with all the necessary parts, including blower case, idler pulleys, intake manifold, gaskets, and necessary fasteners. Top pulleys must be purchased separately, since size differences determine the amount of boost blower will develop.



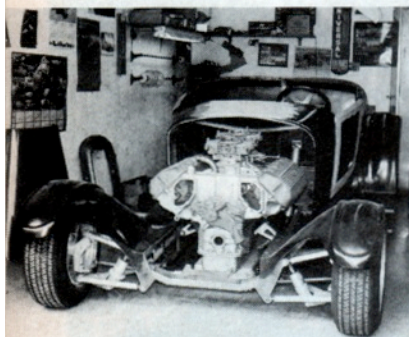
A look inside the case reveals gear drive system's simplicity. Offset input shaft gear's position allows the blower's rotors to rotate in the same direction as on conventional input shaft models. Normally, driver's side gear serves as the input on conventional-drive models.



Blower installation on Ford engines has always been difficult due to Ford's front-mounted distributors. In the past, either special flat distributor caps, distributor angle-drive adapters, or higher-than-normal blower mounting locations were required for clearance. B&M Automotive Products (9152 Independence Ave., Chatsworth, CA 91311, 818/882-6422) has now eliminated all these compromises with their new offset blower drive design, which clears even the large-cap electronic "Duraspark" distributors. Three kits are offered to fit standard deck-height Windsor engines: For conventional belt-drive engines, there's a choice of satin-finish (Kit No. 90675) or polished finish (No. 90676) kits. No. 90684, presently under development, will fit late-model Mustang/Capris with serpentine belt-drive systems.

With the kit blower displacing 144 cubic inches, boost levels from 4 to 12 pounds are said to be obtainable, depending on specific engine size and which upper pulley is selected (upper pulleys must be purchased separately).

Chevy 2.8L V6 60-degree engines used in conventional rear-wheel-drive applications and equipped with air conditioning also experience installation problems, as the compressor mount location interferes with conventional-type input shafts. To solve this problem, B&M is also producing offset kits for these engines. Other potential applications for the offset input (which can be purchased separately in addition to the specific-application kits) include Buick V6 engines.—M.D.



NEW RIVERSIDE RACEWAY

Riverside International Raceway, which announced last year that it was searching for a new site, has apparently found one in the northwest corner of Riverside County (in California), on the outskirts of the city of Corona (about 60 miles east of downtown Los Angeles). The proposed new racing facility would be part of a planned 600-acre regional park incorporating camping, equestrian, tennis, fishing, jogging, and other

areas, along with lakes, lawns, and lots of trees (a marked contrast from the present Riverside "desert course"). The track itself would comprise half of the park, and would include a 1¼-mile oval, a road course, and a dragstrip (probably on the oval front straight). However, raceway officials (as well as NHRA) have already stated that drag racing at the new facility would be limited to "one or two major events a year."

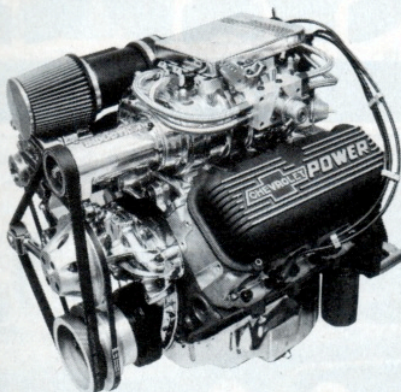
Riverside County officials fought vigorously to keep the raceway in their territory, and adjoining counties were counter-of-

fering with other enticing sites. R.I.R. officials estimate that the current track generates a regional income of \$92 to \$137 million annually. The new facility, being more centrally located to Southern California population regions, should have an even greater impact. So why are new racetracks so hard to establish, and how come existing ones keep disappearing?

Of course the major hurdle is environmental impact. The new Riverside proposal is currently in the "study" stage, and a go or no-go verdict should be in by April. Since the pro-

posed site is in a flood control basin, behind a dam on the Santa Ana River, one big question will be the stability of the land for a good-quality, smooth track. Corona is a fitting location for a new world-class raceway because of its heritage in Indy car racing. In 1913 to 1916 it was known as "The Indianapolis of the West" when the likes of Barney Oldfield, Earl Cooper, Eddie Rickenbacker, and Ralph DePalma competed in the 300-mile, AAA-sanctioned, Corona Grand Prize Race around the city's 3-mile circular Grand Boulevard. —P.G.

COMPUTER HOT



New low-profile B&M Superjection for blowers uses AirSensors' MAF and four-injector throttle body.

you a more detailed report on this test next month. In the meantime, contact Papile Performance Systems, 2500 S. Fairview, Unit P, Santa Ana, CA 92704, for more information.

HOT WIRE INJECTION

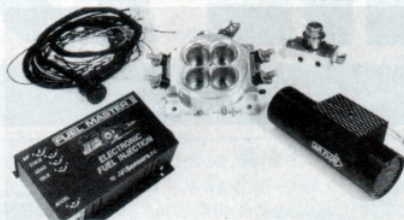
B&M/AIRSENSORS INC.

Once you begin to understand what a hot wire mass airflow sensor does, you know it obsoletes any other kind of fuel/air management for internal combustion engines. A company called AirSensors, Inc., located in Seattle, Washington, has apparently perfected hot wire anemometry to a fine state for automotive use. You have probably already seen the low-profile, four-injector, throttle-body unit made by AirSensors for B&M superchargers.

The AirSensors injector is currently a throttle-body type, using four Bosch injector nozzles in an aluminum four-throat throttle body which can be bolted onto a manifold in place of a 4-barrel carb. Besides the low-profile B&M blower unit, they also make a taller TBI for naturally aspirated applications. Direct-port units may follow.

The AirSensors injector is a stand-alone system with its own computer, which includes five trimpots so the driver can fully adjust the fuel mixture for cold, idle, load, and acceleration driving modes. This computer controls only the fuel system.

The big difference between the AirSensors system and other mass airflow systems is that it uses *only* the MAF sensor and an engine temperature sensor to operate (a pickup on the No. 8 spark plug wire determines engine speed for synchronous-mode injector firing; injectors also fire non-synchronously). There is no throttle position sensor or feedback loop. Of course,



Naturally aspirated AirSensors system uses taller throttle body and angled injectors; it bolts in place of 4-barrel carb. Sealed bonnet and tube connects MAF to TBI intake. Other major components include fuel distribution block with Bosch regulator, adjustable computer module.

this system is not designed with emission control as a primary requisite. We test-drove both supercharged and naturally aspirated versions, and found throttle response, power, and driveability to be excellent... surprising, in fact.

We will describe the AirSensors injector in more detail in a later issue. For more information now, contact B&M Automotive, 9152 Independence Ave., Chatsworth, CA 91311, who will be distributing AirSensors products.

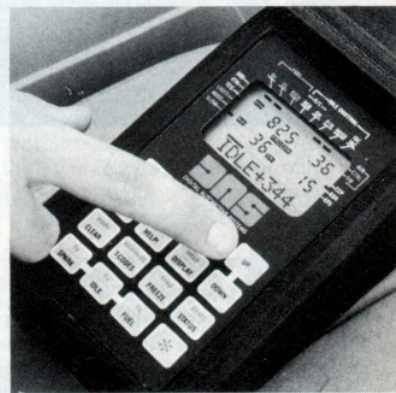
CODE BUSTER

DIGITAL AUTOMOTIVE SYSTEMS

All of this stuff sounds good—and it is—but probably the biggest news of all is the nearly incredible feat recently accomplished by a young engineer named Glen Cunningham and his small staff of co-workers. Together they have cracked the Delco/GM computer codes, and have "reverse engineered" nearly all of the GM computer systems. So, now that they know how these computers are designed and programmed, it's not difficult to figure out how to *change* the program.

Cunningham's new company, Digital Automotive Systems (7201 Garden Grove Blvd., Suite D, Garden Grove, CA 92641), is offering as its first product a hand-held engine analysis and diagnostic module called the Conquest, which plugs directly into the GM ECM in place of the PROM chip (GM engineers can't figure out how it can work this way, and Cunningham isn't telling).

Now here's the really good part. Not only will the Conquest allow you to "see" the functioning of more than 19 input and output sensors/switches at once, plus read out engine information in common units (i.e., vacuum in psi or inches of mercury or even kiloPascals), but it will also let you *change* any of the engine functions simply by pressing the keyboard. You want to change idle



Glen Cunningham demonstrates engine diagnostics of the future—from the driver's seat. His Conquest unit is a micro-computer; it plugs into PROM location of ECM, as shown. Unit allows numerous computer "modifications" while plugged in: i.e., to raise idle speed, just punch in rpm increase desired.

speed? Just call up idle rpm on the screen, then push "up" or "down." Same with spark advance or fuel mixture. It can also turn on or off any switches or sensors in the system (EGR, AIR, etc.).

This initial diagnostic unit is built to withstand the abuse of shop use, is therefore expensive, and is not designed to be permanently mounted in a vehicle. However, DAS plans to have a smaller, more affordable, on-board, "performance" model ready by this summer. With this unit you will not only be able to re-program your car's computer at will (for better performance, economy, or whatever), but you will be able to adjust for engine or chassis modifications, and to match various GM computerized induction or ignition components with different engines or chassis.

Obviously we cannot begin to fully describe this amazing new equipment in the space we have here. As we said, we are just beginning a long learning process in the field of automotive electronics. We promise we will bring you numerous updates and reports on these and other products in the coming months. Are you as excited about this new stuff as we are? **HR**