

RACERS' FAQ

Compiled by **JEFF HUNEYCUTT** | Images provided by **MALLORY IGNITION**

Stock Car Racing visits regularly with racing manufacturers to find out what questions they are most frequently asked by the average short-track racer. This month we speak with Mike Golding of Mallory Ignition, one of the top manufacturers of high-performance ignition systems.

- ▶ **DRIVELINE**
- ▶ **ENGINE**
- ▶ **CHASSIS**



Q: I was looking for a distributor and I noticed some were labeled “Ready to Run” or “Self Contained,” while others said they had to be run with a capacitive discharge ignition system. What’s the difference?

GOLDING: A self-contained distributor is just that. It is ready to hook up to a coil and run an engine. Distributors

that are labeled “for use with a CD ignition” cannot run an engine without the CD ignition because they do not have the ability to fire (or drive) a coil. These are cheaper and easier to produce in some ways. The biggest downside is that should you want or need to run the engine without a CD, you can’t.

Q: I put a new high-out-

▶ **A three-wire distributor provides a dedicated ground wire, which Mallory representatives say provides cheap insurance against grounding problems.**

put ignition system on my car, and now the engine misses. I took it back to the speed shop, got another one, and it does the same thing. What’s wrong?

GOLDING: The problem isn’t the ignition box. It is somewhere else, and that somewhere is often the spark-plug wires. Here’s what is happening. Your new high-output ignition delivers several times more current to the spark plugs, and the wires probably cannot contain it. They are leaking energy or shorting out to ground. Resistor plugs can contribute to the problem, just like corroded terminals or ill-fitting boots on the wires.

It’s like that hose you use to wash your car. When the nozzle is open and there is very little pressure actually in the hose, the nozzle only leaks a little in your hand from the connection between the hose and the nozzle. When you close the nozzle and the hose builds up pressure, it really sprays out from that bad connection and soaks you.

Q: I just put a new cap on my distributor and the car

started to miss. I took off the cap and the carbon tip inside the cap was chipped. Why? Was it a bad cap?

GOLDING: The cap was probably just fine. The method of installation was the problem. It is very important that you lower the cap straight down onto the distributor. Otherwise, the tip of the rotor catches the edge of the carbon and it chips.

Q: Why do the catalogs always say what coil to run with a particular ignition, especially with a CD ignition? Are they just trying to sell more parts?

GOLDING: Especially in the case of a CD ignition box, the coil is really an integral part of the ignition system. The box and coil are designed to work as a team. If things are incompatible, you can not only lose performance, you can also generate excess heat either in the coil or ignition box.

Q: Is it important how I mount my new coil?

GOLDING: Yes, for a couple of reasons. First of all, some coils are filled with special oil that keeps them cool inside. They are designed to have the little air space they have at the top and away from the heat-generating windings.

Mounting them the wrong way can cause them to over-heat internally.

Also, here's a helpful hint. Try to mount your coil in such a manner that the coil wire will only need to be 18 inches or less. Also, try to keep it away from heat as much as possible and in an area where there is some airflow.

Q: I just put on a new ignition box, and something doesn't feel quite right. I wired in my new one just like the other brand I had.

GOLDING: Whenever you add a new ignition box, you need to re-check the ignition timing. It will often change a couple of degrees, even if you are just going from one box to another.

Q: I noticed some distributors have two wires to hook

▼ Today's electronic systems designed to handle high-output ignitions are very reliable, but they can be damaged if you try to adjust anything involving the ignition without first disconnecting the battery.

up and others have three. Why the difference?

GOLDING: Provided that they are both complete, self-contained distributors, some distributors use a separate ground wire while others count on grounding through the housing. A separate ground wire is cheap insurance and highly recommended. Most distributors have a gasket between the housing and the engine, and the housing has O-rings. That leaves only the distributor/oil pump drive, which is coated in oil, and the distributor clamp to supply the ground.

Q: It is a pain to disconnect my battery every time I add a new ignition component. Why should I have to go through the work? I'm careful.

GOLDING: Especially when dealing with an ignition system, you have to follow the instructions. The reason is simple. If you power up a portion of the system, but not all of it, the system starts building up energy it needs to dump

somewhere. This can damage the components by dumping your high-output coil through components designed strictly to handle low voltage. So resist the urge, wire up everything according to the instructions, then hook up the power.

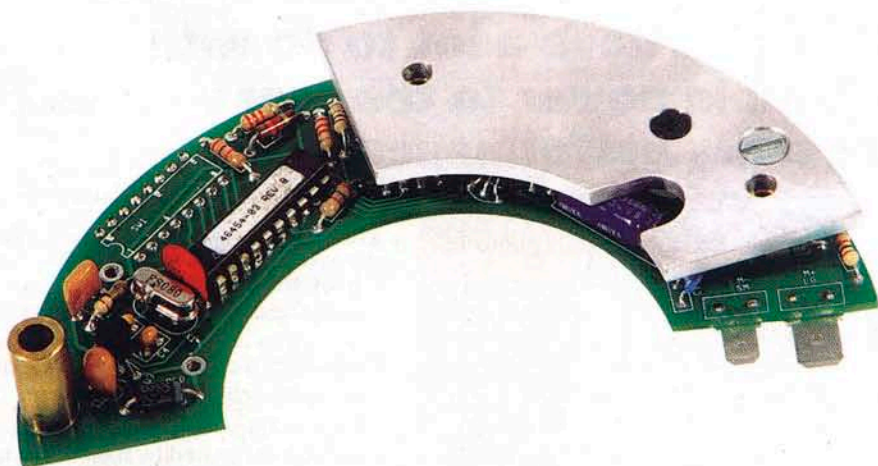
Q: I keep burning out the same ignition part over and over again. What's wrong?

GOLDING: Something else



▲ Coils are susceptible to heat. Try to mount it in a location that's protected from the worst of the engine's heat (generally, the headers) and provides a bit of airflow to help keep the coil cool.

is probably causing the part to get damaged. With the high reliability of today's electronics, you should contact the manufacturer by phone or visit the Web site when you first have a failure and find out what can be causing the problem. Most companies have troubleshooting guides that can help you find the problem, or at least give you a checking procedure to follow. If that doesn't do it, then give them a call. You'll save everyone time by having already checked the most common causes. After all, if you take two beers out of the fridge and they are hot, is it defective beer or could you have another problem? 🍺



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