

Beloit Daily News

New distributor cap a cross-fire winner

By SID SCHWARTZ
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CLINTON — Because builders of souped up, jacked up, high-gloss street machines care as much about how their car engines look as how they perform, Mark Madson's Cross Fire Ignition system is almost a sure-fire hit.

Hot rodders gold plate carburetors, paint and polish engine blocks, wrap hoses in shiny metal braid and chrome plate everything else. Wires are neatly clipped into position around the engine with color-coordinated brackets. But at the distributor cap, where the eight spark plug wires converge, order becomes disarray.

"You can have everything on the engine perfect, but when you get to the distributor cap, it kind of turns to spaghetti," said Madson, of Route 2 Clinton.

One day last summer Madson worked for three hours trying to untangle the pasta-like appearance of his ignition wires.

"Then a friend came over and asked when I was going to fix my wires. I decided that was it," Madson recalled.

He decided that the only way to remedy the problem was to make a new kind of distributor cap. Six months later he was finished. The result was Madson Cross Fire Ignition.

Cross Fire distributor caps look like off-the-shelf models, but inside they're different.

With some creative rewiring and

a little dielectric epoxy resin, Madson reroutes the electrical current from No. 1 terminal to No. 6 terminal and vice versa. Consequently, wires attached to the outside of the cap are switched so wires from the left side of the cap go to the left bank of engine cylinders and wires from right side serve the right bank.

"It's so simple it's hard to believe," Madson said. "The hardest part was properly insulating it so the current wouldn't short through onto its designed route."

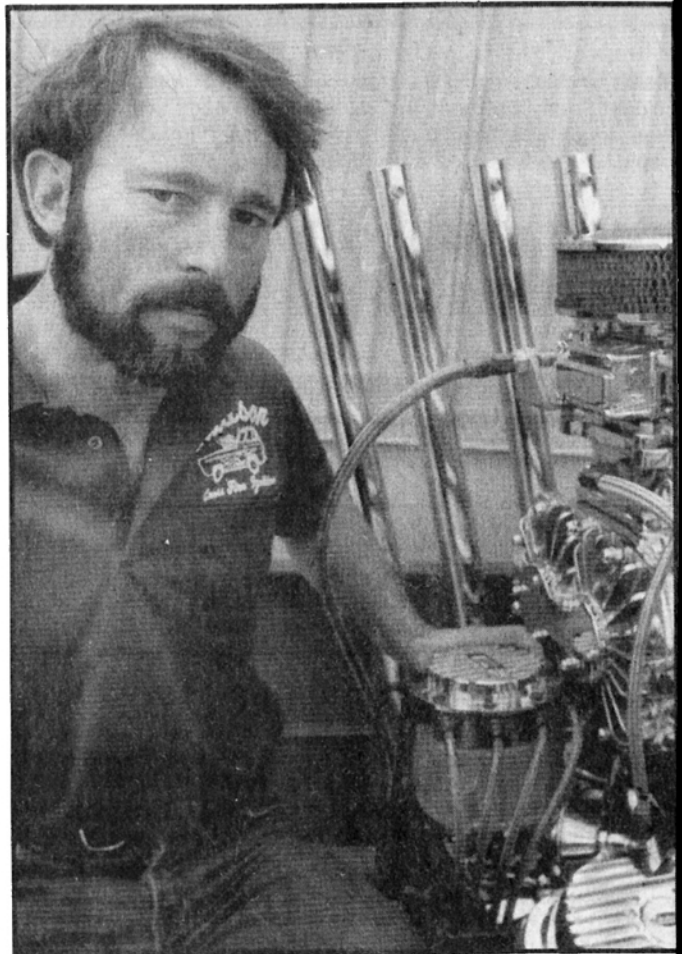
Making one Cross Fire cap for his Mad Man Madson street rod was only the first step. Altering the design so the caps could be mass produced took another half year.

To date Madson has sold about 200 of his caps and his idea has been featured in national magazines like "Street Rodder," "Hot Rod," "Streetscene" and "Street Rodder." Now he's working on getting it patented and hopes to produce the caps under contract.

Madson sold 33 caps at the Street Rod Nationals in Louisville, Ky., last month and will have some on hand when he goes to Autorama at Beloit Corp. Park on Sunday.

Although he sells the invention for \$40 each, which is \$20 more than what parts stores charge for standard caps, he said the higher price doesn't matter.

"There aren't many poor street rodders," he said. "The average street rod has \$20,000 stuck into it. What's another 40 bucks?"



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Mark Madson invented a new kind of distributor cap that untangles the spaghetti mess of spark plug wires and is popular among show car enthusiasts. He designed the first Cross Fire Ignition cap for this rear-engine pickup called Mad Man Madson.