



July 2014



In my ongoing quest to help streamline the newsletter process, I think I have found the next opportunity: Saturday mornings. Every weekend I am usually up before everyone else. Instead of just wasting time staring at my I-phone or surfing some mind-numbing website I'm going to decorate a few pages with words and pictures and be a little productive. A few of our members have taken on this task over our 10+ years and know how difficult it can be. I think I have found a pretty good system to make it work for me, but I'll be honest.... I cheat. Most of the information I pass on comes from other sources. I still try to recap the previous month's meeting either from my own experience or info from other members, but that's about it. Typically, I include an in-depth article and populate the rest of the space with a cool tool, quick fix, etc. Though the main article is directly copied and pasted onto my blank page(s), I need to arrange it using my simple MS Word program. The other little blurbs are all my creation, though they are based on information from at least one other source. I have a great respect for those who do this for a living, I couldn't do it.

You're probably saying to yourself: great, thanks, pat yourself on the back, whatever... I have found that over the past few years of doing the newsletters (thanks to Jeff S for that year break too!) that it's hard work. I don't do it for the thanks nearly as much as just being able to help the club and the ability to create something cool and I learn a lot too. I always fancied it as more than just a newsletter, maybe leaning towards a mini-magazine. I'm not sure how many members still print out their newsletters onto paper, but our old (time, not age) members can remember when we actually mailed these out. Switching to online/mailed newsletters was a step we took back in about 2009. Not only did it save the club a little money in printing and postage, I think the visual impact has increased since we weren't able to print onto glossy paper like real magazines.

Unfortunately, we were ahead of the curve. You may have heard that Source Interlink Media is reorganizing its business and has shut down 12 of its enthusiast magazines. That means you won't be able to go pick up any of these magazines anymore: Popular Hot Rodding, Rod & Custom, High Performance Pontiac, Custom Classic Trucks, 4 Wheel Drive & SUV, Mud Life, 5.0 Mustang, Modified Mustangs & Fords, Camaro Performers, GM Hi-Tech, Import Tuner and Honda Tuning. This also means that there are some editorial and technical writers (plus photographers) who just got downsized. Some of our members either personally know or have connected with these people over the years, and I think I can speak for all of us when I say I hope those talented people land well. One positive that will come from this I think, will be more quality website content for niche enthusiasts like us. You will see more changes come when Source Interlink continues to adjust its business, but I think we are seeing the evolution of print media converting to online content just the same as newspapers have lost their share vs online and television news sourcing. On a related note, John McGann just became the Editor-in-Chief of Car Craft magazine. I'm sure you'll see him around during the show.

Chevrolet HEI Distributor Casting Number Reference

By Bobby Kimbrough

GM's High energy ignition (HEI), designed and built by the Delco-Remy division of General Motors starting in 1974. These units were used on all engines in 1975 through the mid-1980s, with several different variations over the years. Characterized by the incorporation of the ignition coil built into the distributor cap which eliminated the need for a coil wire.

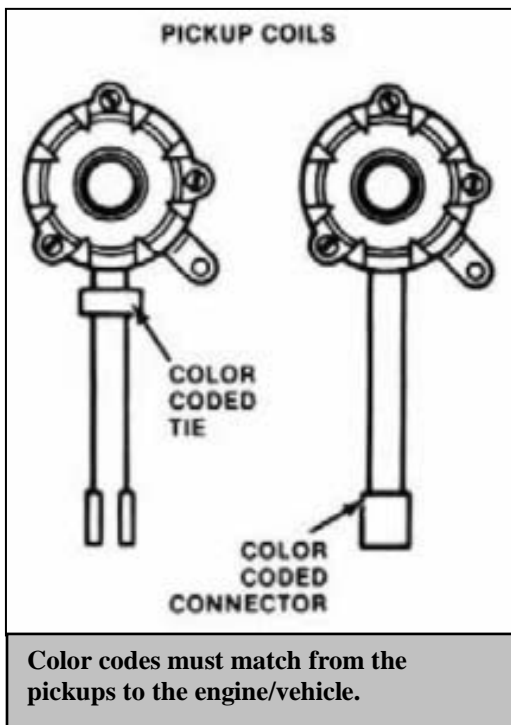
The system consists of a control module and a magnetic pickup inside the distributor housing which removed the ignition points and condenser. The control module basically performs the same function as the breaker points in a points and condenser system.

Within the General Motors supply system, the choice in HEI system type was important based on the engine that it was used in. Each GM division had its own engine design so a Chevrolet distributor would not fit on an Oldsmobile, Pontiac, Buick, or Cadillac engine or visa-versa.

While the distributors may look alike, the parts inside are not alike especially in terms of the ignition coils and the pickup coils. Ignition coils and pickup coils should be considered a matched set. Look at the color codes on each part and match the codes to each other, and to the vehicle/engine family the distributor will be used in. Failure to use the appropriate color codes may result in poor starting and misfiring at low speed.

The control module type is important as well. The control module is the heart of the HEI system. There were three basic types of HEI control modules. The four-pin control module unit, which was used on non-computer controlled, conventional carbureted engines, used mechanical timing controls (vacuum and centrifugal advance).

As the name implies, there were four-electrical terminals in the four-pin control module. Two-large terminals, one for battery voltage input and the other was the ignition coil grounding terminal. The two smaller terminals were for the pickup coil leads. These modules are the most common and are still favored by many oval track racers and street rodders on non-computer controlled engines.



The five-pin control module was introduced in 1978 and the original version included a provision for connecting a knock sensor. This evolution was an attempt at electronic timing control. There are three different versions of the five-terminal control module.

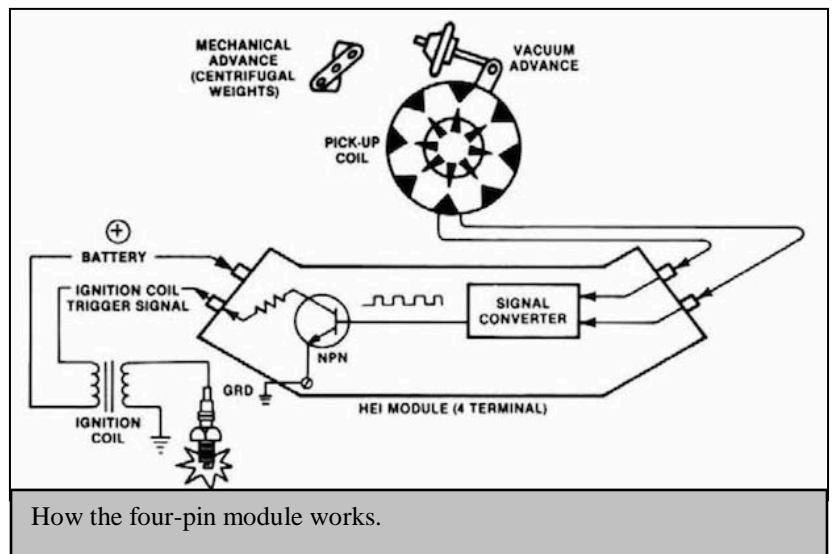
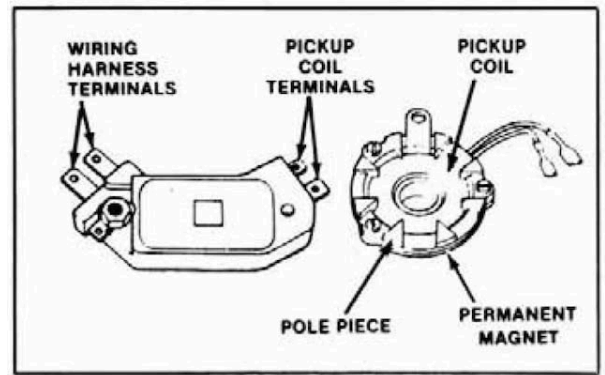
The three different types are not interchangeable.

- HEI/EMR Electronic Module Retard used a wire connected to a switch or to an electronic control package. Under certain conditions, the switch or control package will ground the wire, which triggers the retard feature built into the distributor module.
- HEI/ESC Electronic Spark Control used a knock sensor and an electronic controller. The knock sensor sends a voltage signal to the controller, which sends a voltage signal to the distributor module, activating the retard feature within the module.
- HEI/ESS Electronic Spark Selection used an outboard electronic decoder which receives voltage signals from three sources: a manifold pressure switch, the distributor pickup coil, and an engine temperature switch. The decoder processes the information and provides a voltage signal to the distributor module to adjust the amount of advance/retard.

All the five-terminal control modules are used with distributors having conventional centrifugal and vacuum advance mechanisms.

Next was the seven-pin control module which was used on computer controlled engines. Because the computer controlled the ignition timing, there were no mechanical timing control mechanisms on the distributor. These distributors cannot be used on non-computerized engines. The seven-pin control modules are referred to as HEI/EST (Electronic Spark Timing) distributors. All timing advance was pre-programmed into the computer, using information from an array of engine sensors. Base timing could be adjusted, however.

Chevy distributors have casting numbers and casting dates, which can be useful if you are trying to find out the original application the distributor was used in. The housings are date coded and stamped with casting numbers of their respective engine or vehicle application. The numbers were either stamped into an aluminum ring that was wrapped around the upper part of the distributor shaft housing, had a stamped plate riveted to the housing or was stamped into the housing itself.



Tool-Time: Test Lights

By Tim King

By far one of the simplest diagnostic tools out there when working on cars is a test light. These handy little tools help light up the situation when trying to find out electrical problems.



In its simplest form, the test light is just a light bulb that will energize when receiving power. A test light is shaped like a screwdriver, but instead of a flat head or phillips tip, they have a sharp point. The other major differences include a clear handle that holds the bulb, and a wire coming out of the handle that gets clipped to a ground. To use a test light, you simply clip the ground wire to a good ground; then with the sharp point you touch a contact, if the bulb lights up then you have power. If the bulb doesn't light up, then you don't have any power. The sharp point of the test light can also be used to puncture the casing of wires.

There is a ton of different ways to use a test light. If you want to test to see if a fuse is good, you can touch the bare metal on either side of the fuse. If only one side lights up the test light, you have a bad fuse. A test light can be used to find a broken wire as well; poke the sharp point



into the wire and when the bulb doesn't light up, you have found your break. If a tail light or any other bulb fails to light up and you're not sure if the bulb went bad or if you're not getting power, you can pop the test light probe into the connector and see if it lights up. The other ways to use it is simply just checking wires to see if they are getting power when they are supposed to, like an ignition switch or any other hot-in-run wires.

Test lights are a cheap, readily available tool that can be found at any auto parts store. For a few bucks you can have one sitting in your tool box and save yourself hours of frustration!

Every year the Chevelle grille changed. While most people can pick out the flat '64 grille or the iconic '70 grille at ease, not as many people can spot the difference in a 1966 vs 1967 grille (forward pointing corners). Even closer is the 71/72 grille change. Sure, the simple identifier is the split turn signal lenses on the corners, but what about the grille itself? In 1971 Chevy mimicked the '70 grille, keeping a horizontal bar through the center.



For 1972, the grille extended and included the headlamp buckets making it look very wide.

Cool Tool: Bulb socket brush

Surfing around the web one day, I came across a neat tool from a company called Innovative Products of America (IPA). They have come up with a special bulb socket cleaning kit for 1156/1157 bulbs. Included in their kit is a stainless socket brush, a brass socket brushes, and their electrical connection cleaner DeoxIT and an assortment of Swabbeez swabs. Useable for 5/8 and 3/4 orifices of any kind, the brushes are designed to completely clean the sides and bottom in one stroke. Made and assembled in the USA, they sell the kit for \$24.95.



Poking around the IPA website I found some other cool things they offer:



Super Hard Diamond Coated Round Micro Files
Set of 12 ranging from .030" through .120"



7-Pin trailer wire harness testers and terminal cleaner kits



www.IDthreadz.com



Upcoming shows:

(Not all are listed, see
CarShowNationals.com for more!)

7/3 Acme Speedshop 10-6pm
Veterans Memorial Park in
Richfield (66th and Chicago)

7/11 Pan-O-Prog Cruise
3pm Lakeville
www.panoprolog.org

7/12 Pan-O-Prog show 1-4pm
Downtown Lakeville

7/12 Maple Grove Days 10-4
Arbor Lakes Town Greene
Maplegrovedays.org

7/12 Under the Lights 6-10
McCarthy Auto Coon Rapids

7/18-7/20 Car Craft Summer Cruise
MN State Fairgrounds
CLUB MEETING

7/26 Mick Kieffer & Fallen Officers
Memorial Show 9-3pm
Aldrich Arena off White Bear Ave

7/27 Scavengers Show at the Mermaid

8/8-8/10 Northstar Impala Club Iron
Range Tour

**8/? CLUB MEETING DEREK AND
JENNA'S**

9/13 Anoka Cruise Finale 9-4
Anoka High School

**9/27 Cruise for Troops
Route 65 Classics Ham Lake
CLUB MEETING**

10/11 Frankensteiners Ball 9am

Club gear available at:



Anoka County Fairgrounds

Recurring shows and cruises:

Anoka cruise
Most Saturdays 5-9pm
Info: www.anokaclassiccarshow.org

St Francis City Center Mall
Fridays 5-dusk
Info: Dick Henz 763-753-1092

Ricky's Embers in Fridley
Thursdays 4-8pm - Labor Day
10% off total bill

Hastings cruise
Every other Saturday
Info: www.Hastingsdowntown-mn.com

Stillwater Cruisin' on the Croix Wednesdays 5-9pm
Info: www.discoverstillwater.com/events

North St Paul History Cruise
Fridays 6-10pm Info: www.historycruzer.com

MN Cars and Coffee AutoMotorPlex Chanhassen
1st Saturday 8-11am

Meister's Bar & Grill Shoreview
Saturdays 5-10pm



Lookout Bar & Grill Maple Grove 3rd Wednesday 6pm
15% off food, Raffle/door prize

Culvers Anoka
3rd Thursday 5/15, 6/19, 7/17, 8/21, 9/18