

HEI Distributors—Troubleshooting Guide—by Schurkey

Chevy Punch!

Magazine

Round 1 Volume 10

October 2007



They're still out there!

Features:

Field Find—'69 Pace Car
1970 Chevelle SS454
1968 Camaro
1963 Impala



Chevy Memories
with Doug Marion
Road Trips

Online at ChevyPunch.com

Online Performance Ltd

October 2007

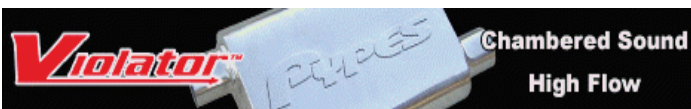
In This Issue

- 4 '69 Camaro Pace Car
- 8 HEI Troubleshooting Guide
- 14 HEI Part Numbers
- 15 Sleeping Beauty—63 Impala
- 18 From the Forums
- 19 Chevy Memories
- 21 '70 Chevelle SS454
- 24 1968 Camaro
- 26 The Fraud Squad
- 27 Stolen Alert

Mantown Garage—'70 SS 454



American Autowire



GROUND UP

Your #1 Source

THE ULTIMATE SOURCE FOR HIGH QUALITY
DETAILING AND RESTORATION PARTS



1964-1972 Chevelle



1967-1969 Camaro



1970-1981 Camaro



1962-1972 Nova

IN YOUR CORNER



This issue is a couple pages smaller than the last one and it got me thinking about what else you would like to see included in the Punch. We are open to suggestions via email or the forums.

After giving this a bit more thought, it struck me that although we are under 30 pages, if you add in the typical full page advertising of 30-40% (that seems to be common) or blinking bouncing popups, this would be closer to 40 pages and that's pretty dang good for a free monthly magazine. OK, I feel better now. We do provide some small banners to those companies that help support the websites. If you order from them, please be so kind as to make mention of seeing their ad.

We are thinking of the direction to take the Punch in 2008. As some of you may know this is an expanded monthly newsletter for the supporting members of Team Chevelle and Team Camaro and has been made available to everyone. The Punch is downloaded thousands of times each month although the feedback and discussion about the issues are somewhat quiet on the forums. This has us wondering if the intended audience are the members or casual visitors who surfed in here. The goal has always been to share the passion and knowledge of the hobby amongst everyone who is interested, so it's a point of discussion this fall.

The above being said, we are lucky to have talented members like Schurkey who is sharing the best resource about HEI's that I've seen. There are still another half dozen pages to come. If you don't learn something new from reading his articles, I'll be surprised. Bryan Shook will be back next month with "The State of the Hobby" featuring a judgment with regards to a misrepresented vehicle in Indiana. It's also a real treat to have Doug Marion in our mailbox with articles and suggestions. I never imagined something that cool would ever happen.

Hylton Jorssen joins the Punch this month with the "The Fraud Squad". He has been instrumental in uncovering and bringing scammers who used our sites to justice. His introduction is in this issue and he starts off next month with a discussion about Trim Tags. I'm really looking forward to this new feature. Thanks Hylton!

We do appreciate the submitted stories and photos and hope that you consider sending in some yourself. Our "Sleeping Beauty" feature is an Impala that was never lost, but is never-the-less spending years sleeping. The "Field Find" Camaro Pace Car this month is a favorite on camaros.net where Tim first posted. I think everyone's heart beats a little faster when hearing that "they are still out there" and mine was no exception. Pulling into the cruise night on your way home with that Camaro on your trailer had to provide a grin from ear to ear. I can just imagine all the guys standing around saying "you found that where!?". I'll bet a few gallons of premium were burned up over the next week as the car guys prowled back roads looking for another hidden treasure. *As a matter of fact, we do know where another Barn Camaro was found....*

To sum up. I hope you enjoy the October issue and can take a bit of time to keep them coming by sending in stories, photos, suggestions. This is a pretty good opportunity to share your work/ideas with thousands of other hobbyists.

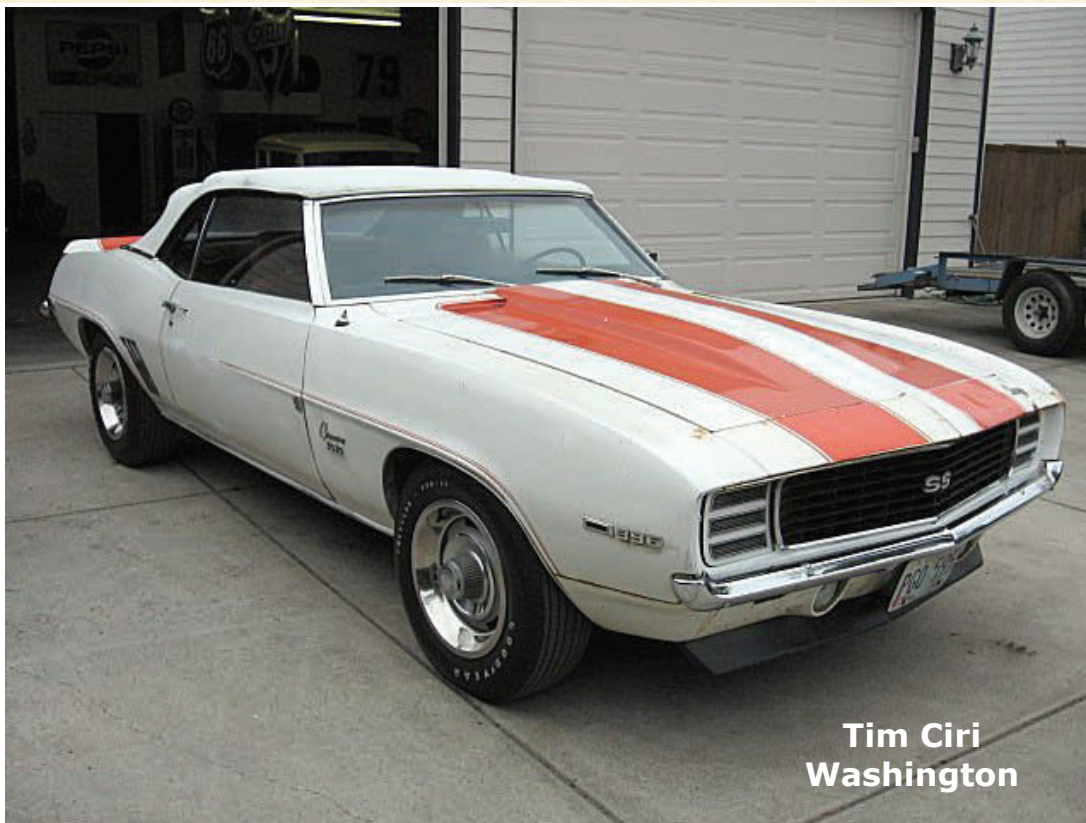


See you on the forums!

Thumbs Up!
Al McKenzie

MuscleRodz .com Quality OEM and aftermarket parts
405-735-8405 for your special interest vehicle

FINDERS



Tim Ciri
Washington

KEEPERS

Ok as the story goes, my neighbor friend (Rick Arnold) calls and tells me he found a '69 Big Block Pace Car in a field about an hour from my house while he was out bidding a remodel job. I told him if you really found a BB Pace Car, go mortgage your house and buy it. After checking with his wife she told him "I don't think so, no matter how good a barn find it is" so he passed the info to me.

I didn't believe it was going to be for real so I blew him off for a week before he convinced me to go out with him and look at it. We get out to where the cars located, in the middle of nowhere, and I ask him why are we stopping here? He said "to look at the Pace Car" - (I'm still in disbelief). The owner comes out and shows us his '69 Cortez Silver Z/28 in the garage (which is a very nice car) and then we walk outside, and in the back of his property covered with a white car cover with an owl statue for a scare crow sitting on the trunk and grass growing up

around it, was what resembled a Camaro. I thought to myself "ok maybe at least it is a Camaro" but still in disbelief of what it really could be, and then the cover comes off.....

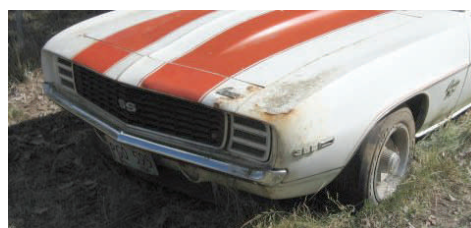


OH MY GOD! I first realize, it IS an original paint pace car, and



then my eyes go right to the front of the front fender, it says 396.

I'm in shock to say the least, but I had no idea the good stuff was still yet to come.



We pop the hood and there sits a totally unmolested ALL numbers matching 396/325 motor with the smog pump still hooked up and ZL-2 cowl induction flapper. Everything as it should be, totally amazing!!



After some further negotiating, here is the car find of my life-time as I bought it.



Ok, but now I'm ready poop my pants and loose all bodily functions, so I start quizzing the guy about how long has it been sitting here? He replies I bought the car from the original owners, who were a local family that just drove the car as a daily driver, and then parked it here after he bought it in 1987 because he didn't have room in the garage for both the Z/28 and the Pace car.

The car has some minor dents and dings he says "oh the grass grows pretty high and I might have just bumped into it with my riding lawn mower". He claimed the original owner went to the dealership to buy a new 69 Camaro coupe and all they had was this convertible on the back of the lot covered in dust because no one wanted to buy it, so when they knew he wanted a '69 Camaro they made him a sweet deal to take the Pace Car instead of waiting for the coupe he really wanted.

I asked what he wanted for the car and had to clean my pants again with the big price he asked for it, so I told him that I'd get back to him. So I log on to Camaros.net and PM "Charlie" and bounce it off him looking for advise, which he hit right on the head (of course), so back I go.

We had to tow the car out of the sellers back yard/field with his 4x4 because the Camaro had sunk into the ground and was physically stuck in place. We moved his two boats, two campers and trailers, a VW Rabbit and tore part of his fence down just to clear a path to get the car out.



Dave was nice enough to drag the Pace out of the field for me with his cherry 4X4.

I figured once it started moving it would be best just to keep going, so we pulled it out onto the street and into a nearby parking lot where I could load it safely onto



my car trailer.

Quick story: so my Dad and I are on the way home with it and pass a Wednesday night local Portland. Oregon cruise-in (usually has 800-1000 cars every Wednesday). My Dad convinces me to stop and I figured we'd get kicked out for dragging the Camaro what with it not been washed, grass still dangling off it etc. We pull in and the crowd absolutely goes wild! Here we are, dirty, sweaty and hungry from an all day job of getting the car and they have me pull up to the front of the car cruise-in next to the main stage area and people just went nuts! This sure made for a fun end to what was a long hard hot day.



My plans were to get it off the car trailer, wash it up and do some evaluating. I want to leave the car unrestored but make it run and drive again as unmolested as possible.



There are lots of beautifully restored Pacer's out there, why not leave this one original so everyone can see what they looked like from day one, minus the lawn mower damage of course.

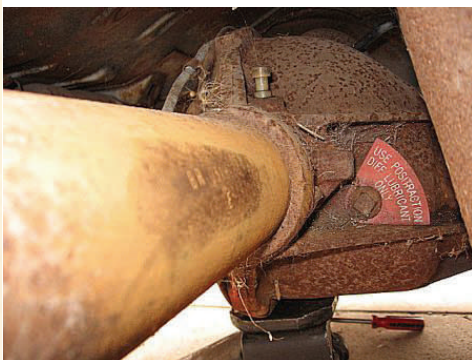
I have to tell you guys, even the day I was digging the car out of the field I was having my doubts about spending the kind of money I was for the car. I knew the Pace was a piece of history and that it deserved to be saved.



I wasn't sure financially that I was making the smartest move in the world, stepping up and paying what I did for a car that I couldn't even run or drive and was kind of an unknown as far as condition goes, ie; can't see the floor boards because cars stuck in the ground, don't know if the blocks



cracked as it's been sitting outside 17 years... and all this stuff is running through my head as I'm handing over packets of hard earned 1000 dollar bill's. I could see the originality and knew the



rarity so figured this is going to be a once in a life time chance, so I said to myself "its only money-screw it, I'm going for it, this is a big block Pace Car".

Now after getting the car home and checking it out, seeing the unbelievable rust free body, see-

ing the originality and completeness of the car and having all the great response, positive feedback, and excitement from all you guys has definitely made me feel blessed and confirmed in my mind I made the right move!



I found the cat when he was a kitten stuck in a back seat side panel of a Camaro in a wrecking yard I worked at, his name is "Chevy" and so he knows the cars literally inside and out. This picture was of him helping find some hard to get at decoding on the Pace after it arrived home! He confirmed the VIN numbers match on the block down by the oil filter.

The picture of the two guys standing by the Pace is me on the left (Good looking Shorter Italian guy "Tim") and the previous owner (tall guy "Dave") on the right.



I scrubbed the car down all day and was able to get it to start up, plus the floors boards look amazing and still have the white factory over-spray on them with no undercoating over even surface rust which makes no sense after sitting in the dirt? I plan to get the brakes working, maybe do a little more detailing under the hood but leave the car 100% alone, unrestored as a survivor car.

I know it would be worth more restored and all prettied up, but its only original once, and I think all the other flaws are just patina and give the car more character.

Thanks again all whom have responded, this is what makes this hobby such a fun way of life and worth living, I think you'll like what you see now that its cleaned up.....



Enjoy and thanks for the great website!

Keep the faith, there are still some cools cars to find out there!

Tim Ciri



HEI NO-SPARK BLUES



Authored by Schurkey

All information believed to be correct at time of writing.

Comments/suggestions? Contact schurkey@v-drivemail.zzn.com

Got the HEI No-Spark Blues?

Don't worry, be happy. HEIs are as easy as pie to fix. You don't even need kilobuck 'scopes, module testers, or computer interfaces.

The Usual Legal Disclaimers And Stuff.

This is NOT the official factory diagnostic procedure. This is shorter and simpler. It requires fewer special tools. It is a little less thorough, but a lot faster. This is not designed to locate everything that could possibly go wrong with an HEI. It will locate the common problems.

General Assumptions:

You "know which end of a screwdriver to hold onto". You've even replaced a distributor cap and rotor and timed an engine at some point in your life, and the engine ran good after you completed the job. You have basic hand tools.

You have a non-computer controlled HEI (the module has only four terminals) with the coil built into the cap. If you have a separate ignition coil, the basics are the same, but the details are a little different.

You don't have a pacemaker, 'cause we are dealing with 50,000 volts and I don't want anyone to have their ticker "vapor lock", if you know what I mean. You do not want to "catch a spark" even if you're completely healthy. It hurts, especially if you are leaning over the fender and the spark grounds through your pants zipper.

Whenever I tell you to crank the engine, I'm assuming the ignition is ON and the car has the park brake engaged and the transmission is in "Park" or "Neutral". Your necktie should not be wrapped around the fan blades.

Special Tools:

The most important special tool is a fully functional brain. Be sure yours is completely engaged. If the clutch plates of your mind are slipping, press "BACK" on your browser.

Spark tester: K-D tools 2756 (also available from Snap-On), A-C Delco ST-125, Mac ET 760H, or equivalent. Cost is about twelve dollars. Available at any well stocked auto parts store. This looks like a spark plug with an alligator clip soldered to it. Avoid the temptation to make your own. The real deal has a calibrated spark gap that will properly load the coil.

A straight spark plug boot: You'll cut it so that when you slip it over your spark tester, it extends about 1/2 inch beyond the tester.

Jumper wire: Plain old 14 gauge primary wire about three feet long, with alligator clips on each end.

12 Volt test light: A cheap one is OK, but test it every time you use it. If the wire is connected to ground, (the usual arrangement) touch the probe to a power source and make sure it lights up. HINT: Use the alternator positive terminal if it is easier to reach than the battery positive terminal. On those occasions that the wire is connected to a power source, touch the probe to ground and make sure it lights up. It's very frustrating to have to re-do an hour's work because the bulb in the test light burned out and has been giving you false readings.

10 MEGOHM (or greater) input impedance multimeter: This is required for module testing. These are getting to be very common. If your meter has a digital readout, you probably have a 10 megohm compatible meter. No harm in verifying that, though.

DIAGNOSING HEI COMPONENTS

Optional Tools:

Soldering gun rated at 450 watts: Yup, that's a big 'un.

Remote starter switch: (or a buddy to crank the engine while you're inspecting parts from over the fender) If you use a remote starter switch, be sure the ignition is ON when you're cranking during testing. You'll waste a lot of time if you crank the engine with the ignition off.



Photo 7. The tools you need to diagnose an HEI that has a 4-terminal module. (cranking buddy not shown—see "Victoria's Secret" catalog models for suggestions for a helper.)



Photo 9. Spark testers have calibrated spark gaps. HEI tester has larger gap due to recessed electrode, and requires greater voltage to fire than standard tester.

Photo 10. HEI Spark tester and cut-off spark plug boot used as a support tool.



Photo 8. Spark testers: HEI on left, points-style or Chrysler electronic on right. HEI style preferred but not absolutely required.

DIAGNOSING HEI COMPONENTS

Let's begin:

You have an engine that won't run properly, or won't run at all. When you look down the carb throat and work the linkage, you can see fuel squirt out of the accelerator pump nozzle. The engine cranks at its usual speed, indicating both a fully-charged battery and no sudden decrease in crank-compression.

STEP ONE: Verify No-Spark.

Select the easiest to reach plug wire and remove it from the plug. Connect it to the spark tester and ground the tester to any convenient chunk of nearby iron, such as a header bolt or the alternator bracket. Hint: face the sparking end of the tester so you can see it from the driver's seat.

Crank the engine with the car in "Park" or "Neutral". If you have a good spark, check the other plug wires. The HEI is OK, but perhaps your distributor cap, rotor, or some of your plug wires are defective, or your spark plugs are fouled. Repair or replace the cap, rotor, plug wires and/or spark plugs as needed. If you have no spark, test a couple other plug wires. Still have no spark? Reconnect the plug wires and go to step 2.

STEP TWO: Verify power supply to HEI.

Disconnect the power wire to the ignition coil. If the coil is built into the distributor cap, this wire will plug into the cap, at the "BAT" or "B+" terminal. Probe the connector on the power wire with the test light, or use the voltmeter set to the lowest scale that accommodates 15 volts. With the ignition ON, but not cranking, you should have within one volt of battery voltage, or a very bright test light. With the engine cranking, you should still have within one volt of battery voltage—but that voltage will be reduced due to the current draw of the starter motor. You should have a minimum of eight volts on the voltmeter or a medium brightness on the test light when cranking. Poor voltage? Repair wiring from ignition switch. If you have good voltage, reconnect power wire. Go to step three.

STEP THREE: Exploratory Surgery

If you have a coil-in-cap distributor, remove the

distributor cap and rotor from the distributor. If it makes it easier to remove the cap, you can first label and remove the spark plug wires from the cap, but leave the three small wires on the side of the cap connected, and leave the power wire connected! Flip the cap upside down. Push the "Special tool" plug boot over the spark tester, and then push the open end of the plug boot over the center post of the distributor cap. This is the post with the carbon button that rubs on the top of the rotor. The tip of the spark tester will be touching the carbon button, held in place by the cut-down rubber plug boot. Use your jumper wire to connect the spark tester to a good ground.



Photo 11. Spark tester connected to carbon button. Tester grounded with jumper cable.

If you have a separate ignition coil (inline six or four cylinder) remove the cap and rotor, but install the spark tester in the coil in place of the coil wire. Use the jumper wire to connect the tester to ground.

Make sure the advance mechanism of the distributor will clear the upside down cap. Crank the engine with the ignition ON. (Watch the distributor so you know it turns when the engine cranks—if the distributor doesn't turn, you have mechanical problems inside the engine.) This is a repeat of step one, but without the plug wires, rotor and cap in the circuit. If you now have spark, start looking at the wires, rotor and cap. Repair/replace the wires, rotor, and/or cap as needed, put everything back together, and go cruising. If you have no spark, LEAVE THE SPARK TESTER IN PLACE and go to step four or five.

DIAGNOSING HEI COMPONENTS

STEP FOUR: (Optional—only if you have the big soldering gun)

YOU ARE NOT TRYING TO SOLDER ANYTHING! IF YOU DO THIS RIGHT, THE TIP OF THE SOLDERING GUN WON'T EVEN GET HOT.

Plug in the soldering gun, and with the ignition ON, hold the body of the soldering gun as close to the pickup coil as you can. Keep your arm away from the spark tester. Pull the trigger on the gun. (One second is enough!) Look for sparks at the spark tester. This is a repeat of Step three, but with the pole piece (reluctor) out of the equation. The alternating magnetic field in the body of the soldering gun will induce voltage in the pickup coil, which should trigger the module, which should trigger the ignition coil. If the soldering gun is not big enough, or is held too far from the pickup coil, you won't induce voltage in the pickup coil and the test is invalid. (I suggest you try this on a known good system, to give you some experience with the procedure—It's a real time-saver! Then, if you have problems later with an HEI, you're familiar with the procedure, and know what to expect.) If you're sure you've done this right, and you get no spark, LEAVE THE SPARK TESTER IN PLACE and go to step five. If you get spark here and you didn't in step three, the pickup coil is defective in a way that is not common. Re-do step three to be sure.



Photo 12. Using soldering gun to induce voltage into pickup coil.

STEP FIVE: Eliminate the pickup coil.

Disconnect the two very fine wires (green and white) from the module. Connect the wire on your test light to a voltage source such as the alternator POSITIVE terminal. Touch the probe of the test light to the module terminal labeled "G". (It's the smaller of the two terminals that you disconnected the pickup coil wires from), and it's the one that had the green wire on it. (The test light will not light up on this test.) If you get no spark when you REMOVE the test light probe from the "G" terminal, go to step six or seven. If you get a spark each time you REMOVE the test light from the module, but got no sparks in the other tests, your pickup coil is defective. Replace it; connect the pickup coil wires to the module and repeat step three. If step three produces spark, the problem is fixed. Put it all back together and go cruising.

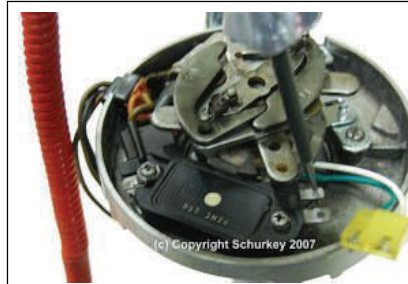


Photo 13. Using test light to trigger module.

STEP SIX: Coil primary voltage test

Unplug the connector from the "TACH" terminal on the distributor cap, if there is a connector there. Usually there isn't. Set your voltmeter to lowest voltage scale that will accommodate 15 volts DC. Connect the positive voltmeter lead to the "TACH" terminal on the distributor cap (or to the - terminal of a separate coil) Connect the negative lead to ground. With ignition ON, repeat step five, except watch the voltmeter not the spark tester. The voltage reading should read high, but spike downward when you remove the test light from the module terminal. If it does, replace the ignition coil and repeat step three. If it does not, replace module and repeat step three. If you get sparks in step three, the problem is fixed. Put it all back together and go cruising. This "should" be the end of your no-spark condition—but just in case, there's step 7.

DIAGNOSING HEI COMPONENTS

STEP SEVEN: test ignition coil.

Coil-in-cap: Remove the spark tester and all wires from distributor cap. Lift the entire cap out of the engine compartment for testing. You don't need to remove the coil from the cap.

First test: Use ohmmeter set on a "low ohms" scale. Connect between "BAT" ("B+") terminal and "TACH" (C-) terminal. (The OUTSIDE two terminals of the three parallel blades in the distributor cap.) Resistance should be very low—generally less than one ohm. If not, replace coil. If you perform this test on a coil that isn't installed in a distributor cap, you're connecting to the red wire, and to either a yellow or a white wire depending on which color your coil has.



Photo 14. Labeling of terminals. C- and TACH are connected together inside; B+ and BAT are connected together inside.

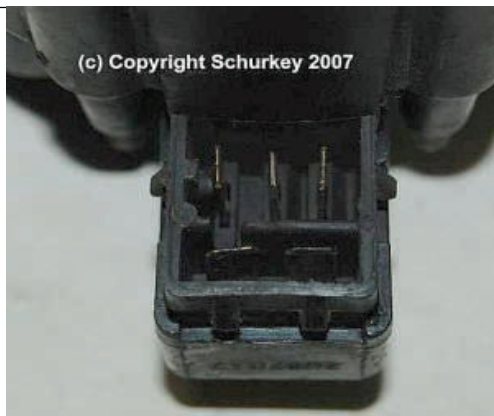


Photo 15. Three parallel blades on distributor cap. Because cap is now upside down, the three terminals from left to right are B+, GRD, and C-.



Photo 16. Testing B+ to C- (coil primary) continuity. Meter shows 0.6 ohms.

Second test—done in two parts: Use ohmmeter set to "high ohms" scale.

Part 1: Connect ohmmeter between BAT or B+ terminal and the carbon button in the middle of the cap. Read ohmmeter and remember the reading. You are looking for "some resistance"—continuity, (The actual amount doesn't matter much—but it's likely to be well over 10,000 ohms.) or "No continuity—infinite resistance". Put another way—you'll either have "some" amount of resistance; or you'll have an open circuit.

If you perform this test on a coil that isn't installed in a distributor cap, use the red wire and the terminal that would connect to the carbon button. You might expect somewhere between 5000 and 10,000 ohms of resistance (but the actual meter reading doesn't matter), or you'll have an open circuit.



Photo 17. B+ to Carbon Button. Meter shows "Open Loop" (open circuit—no continuity) (Some coils may have continuity—that's ok too.)

DIAGNOSING HEI COMPONENTS



Photo 18. Middle blade to carbon button. Meter shows 101.7 Megohms—very high resistance. Some coils will have NO continuity—open circuit. That can be OK.

Part 2: Connect ohmmeter between ground terminal (the MIDDLE one of the three parallel blades in the distributor cap) and the carbon button. Read ohmmeter (again, you're looking for "some" continuity—likely over 10,000 ohms of resistance, but the actual reading doesn't matter much—versus "no continuity—open circuit") and compare to result in Part 1.

If you perform this test on a coil that isn't installed in a distributor cap, you are connecting to the BLACK wire and the terminal that would connect to the carbon button. You may see somewhere between 5000 and 10,000 ohms but the actual meter reading doesn't matter very much.

VERY EARLY (Mid '75 and OLDER) HEI in-cap coils may not have a black wire, and you CANNOT do this part of the test on those coils—but you MUST have continuity in Part 1 if there is NO black wire. If BOTH of the readings in the second test, Part 1 and Part 2 are infinite (indicating an open circuit on BOTH Part 1 and Part 2) replace coil. It is ENTIRELY acceptable to have ONE reading—either in Part 1 or in Part 2—that shows infinite resistance—open circuit.

Separate coil: Remove spark tester and all wires from the coil.

First test: Ohmmeter set to "low ohms" scale. Connect between "BAT" ("B+" or +) terminal and "TACH" (C- or -) terminal. Resistance should be very low—generally less than one ohm. If not, replace coil.

Second test: Ohmmeter set to "high ohms" scale. Connect between the big terminal where the coil wire would go, and either the "BAT" ("B+" or +) terminal or the "TACH" (C- or -) terminal. If this test results in an "infinite" reading, (open circuit) replace coil)

If you replace the coil, repeat step five. If the coil passes both of these resistance tests, replace module and repeat step five.

Step five should produce spark, and the problem is fixed. Put it all back together and go cruising. If not, go cruising in your buddy's car to clear your head, then start from Step Two and re-check all your work, making sure you have good connections at the spark tester, test light and volt/ohmmeter. Then verify that the wiring harness that connects the module to the coil is sound.

If you're ABSOLUTELY sure that everything tests good, and you still have no spark, replace the module and retest.

In the Next Issue of Chevy Punch

Schurkey concludes with:

Common HEI Problems

Coil Interchange Guide



DIAGNOSING HEI COMPONENTS

Helpful part numbers for HEI distributors:

GM/Delco part numbers

01894379 ZZ4 distributor main shaft assembly w/ rotor.

Includes centrifugal advance. The previous number was the same but did not begin with "0" so try both numbers.

93440806 Complete "ZZ4" style HEI distributor

12167658 Connector used to connect TACH and B+ to distributor .

10456413 Melonized distributor gear for GM roller cams—standard diameter hole.
(supplied on distributor 93440806)

1950569 Distributor housing grease reservoir plastic seal

1837617 Distributor shaft washers for adjusting main shaft end play (pack of five)

D1906 Delco 4-pin module

NAPA and other aftermarket part numbers

DP109 HEI weight pins for distributors that use plastic bushings on weights

DP112 HEI oem-style plastic bushings for weights

DP114 HEI weight "stamped 106"

DP115 HEI weight "stamped 139"

DP126 HEI weight "stamped 105"

MP100 (GP Sorensen EL315) HEI yellow color code (Chevy, Caddy except Seville, Olds Toronado) V-8 pickup coil

MP101 (GP Sorensen EL310) HEI Blue (or black) color code (Olds except Toro, Buick, Caddy Seville) V-8 pickup coil

MP102 (GP Sorensen EL359) HEI clear color code (Pontiac) V-8 pickup coil

(My source for the GP Sorensen pickup coils sells them for about \$16 instead of NAPA's \$40. The GP-S ones I bought are even made in the USA!)

RR201 Coil frame ground—wire style

RR204 Coil frame ground—Stamped steel strap

RR202 Plug wire retainer ring—8 cyl.

RR230 HEI Capacitor and Harness from module to side of cap 6 ½"

RR231 HEI Capacitor and Harness from module to side of cap 10 ¾"

RR233 HEI Harness from module to cap 3 ½"

RR234 HEI Capacitor and Harness from module to side of cap 8 ¾"

TPL45 Heat sink compound for HEI modules—10 small tubes

Provided by Schurkey



David Amon—1963 Impala SS

In the spring of 1983 my father bought the car he had wanted since he graduated high school in 1963. The car was a turquoise blue 1963 Impala SS convertible. The car was purchased from the heir of the original owner of the car. It was in Wisconsin and had to be shipped all the way to the town of Clarion, PA. I was only 7 going on 8, nowhere near driving, but I instantly fell in love with the car. Over the next 4 years I will fondly remember washing and waxing the car for my dad. My grandfather who lived next door worked as a mechanic for the GM garage in town, and since my dad had to travel extensively for his job, it fell on him to do the general maintenance to the car. I used to help him out doing the dirty work like greasing it.

Around 1987 the car was being brought out less and less until it only came out for special occasions like a wedding in the family or similar activities. Then in 1990 the car was fully parked in the garage, not to move again, and forgotten by most for the time being.



In the summer of 1991 I was young, delusional, and had a driver's permit. I kept telling dad I wanted the Impala. July 24, 1991 I got my driver's license, but was a little disappointed when my dad gave me the family 78 Olds Delta 88 and bought my mom a new car to use as the family hauler. I wasn't going to let that get in my way though. After a year of cutting the grass, shoveling the snow off

the drive and walk, and helping my dad redo the kitchen in the house, all the hard work finally paid off and my dad broke down and said I could have the car in the spring of 1992.

It was less than a day before my grandfather and I had it running out in the drive and we started looking over it for items that needed attention. The convertible top had started to dry rot and the engine was blowing some smoke out the tailpipe in a light but constant stream. After doing some checking my grandfather decided that the old valve seats had finally started to burn from not having enough lead in the gas. The heads were removed and a dead mouse found in the exhaust valve. We decided it best to take the 283 all the way down and do a complete rebuild to make sure no other surprises surfaced later on down the road. The valve seats were replaced with unleaded compatible seats and new valves installed. The cylinder bores only required a light honing and new rings. All the bearings, seals, and freeze plugs were replaced with new quality GM parts. The pistons, rods, and crank were all reused. The camshaft, lifters, water pump, and valve springs were all replaced using original GM parts. The only upgrades made were a double roller timing chain and Hi flow oil pump.



My grandfather and I also put a new convertible top on the car and he managed to teach me a few more descriptive adjectives in the process. The car was washed, buffed, and a new coat of wax was put on it.

All done and ready, I was off and cruising in style. Some of the other guys at school would make fun of the old girl and call her a boat, but the girls didn't seem to mind, after all how many cars in high school parking lots could haul the whole varsity cheerleading squad in one load. Not many Camaro and Rustang owners could lay claim to that and they don't call the back seat of a 1st generation Camaro a birth control seat without good reason.

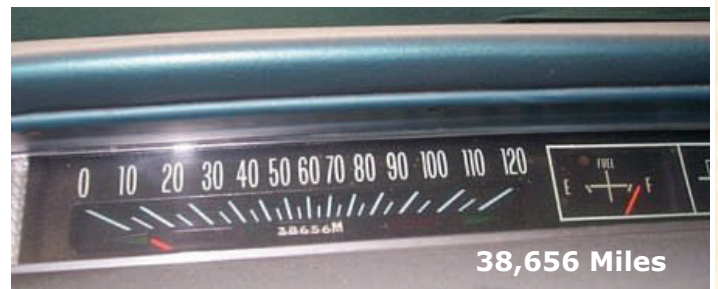


After graduation I enlisted in the Military and the old girl had to go back into storage. I drove it into the dark garage in late July of 1993. While in the military I never had a garage to keep it in, so it sat in my parents garage in Brookville, PA. When I got out of the military I had a job lined up in Arkansas, but again no garage. Then I moved back to Pennsylvania to go to college. I was living in an apartment in downtown Pittsburgh, PA again with no garage. Around this time my dad retired and my parents had made the decision to retire to Nevada as the dry heat of the desert was a lot kinder on old sore joints than the damp cold winters of Pennsylvania.



Since I still didn't have a garage or even off street parking at the time I wasn't sure what I was going to do with the car. Lucky for me the house my parents were moving too had a nice big garage and they were more than willing to let me keep the car there. I figured as long as the car stayed in a garage the dry air in Nevada was better for it than any storage area I could find at a reasonable cost here in Pennsylvania. The car got to see the light of day for a little while when it was loaded onto the trailer to make the long trip across the country.

After the trip I was able to go out and drive the car. During my last drive in the car the rear brake line blew out. I think it may have been in the same spot the safety chain on the back of the trailer had been wrapped around the rear axle. I drove it back to my parents house very slowly using the emergency brake to stop when I had to. We pulled it into the garage and that is where it has set since 1998. My father occasionally goes out and starts it up and lets it idle for a while, but that is it.



In 2001 I got married and still didn't have a garage. In 2002 my wife and I finally bought a house with a two car garage. I was hoping to have the car shipped back out to me, but realized after taking measurements that the garage was only barely long enough to park the car and it has a moisture problem.

My wife knew I was disappointed so she talked me into getting a smaller car to work on for now and learn the skills I would need to make sure the Impala gets the proper attention when I finally get the proper space and time for it.

So for now I currently have a 72 Nova SS in the garage that I am doing a sub frame off rodstoration to. The plans are currently in the works as to how we want to go about getting a garage that will allow me bring my old girl home, but it doesn't look like it will happen any time real soon. Maybe in another 3 or 4 years she can make the trip home.

This summer I got to go out and visit my parents for vacation and managed to take some pictures of how she currently sits. She is dirty, but not looking to bad for sitting. My nieces got in trouble for the dust graffiti, so hopefully that won't happen any more.



As for the "what I plan to do to it when it gets here", the general consensus I have gotten from the boards seem to follow my idea perfectly. I will keep it all stock from the original color to the original engine and AM radio. I also need to get the proper hub caps, but that can wait. She may not be the fastest car on the block when she is finally awoken, but what she lacks in speed is more than made up for in style.

I know it will make a lot of people mad to see this car sit like this, but it means so much to me to get rid of and I don't want to do any half hazard work to it or put it at risk by not having the proper storage.

David Amon
AKA: Gloryhound
Pittsburgh, PA



Specifications:

Year: 1963

Make: Chevrolet

Model: Impala SS Convertible

Engine: 283

Transmission: 2 speed power glided on the floor

Mileage: 38,656

Color: Turquoise with white top

Additional options:
Bucket seats
Center Console
SS trim

Modifications:
Hi flow oil pump
Double roller timing chain

The rest is all original and I plan to keep it that way.

From the Forums

MONKEY SEE, MONKEY DO

Posted by: Derek Keifer Derek69ss

Grease-Monkeys that is... We had my nephew for a couple days and I had to change the gear-oil in the Chevelle and set my pinion angle.

I'm not sure what Timothy was "fixing" but he did ask for a bucket to drain the oil into.



Posted by: Frank Forrest—frankf72malibu

Derek,
Car ramps work good and would be a little "safer".

Great pic. Good to see you are teaching him right.
Frank

Posted by Ron Cook—Bow_Tied

My friend John has a nice 72 Camaro.

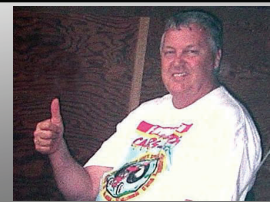
On his way home he hears some scritchng coming from under the hood and figures he has picked up a chipmunk, this is what he found:

He crawled into John's Camaro at work - at home he opened the hood and when he saw it down in the engine compartment, he went to get his camera - when he came back it was on top of the cowl. But then it got scared and crawled *into* the cowl and down beside the fender and would not come out. He left the hood open overnight with a plank for a get-away ramp and he was gone by morning!



Chevy Memories

with Doug Marion



Road Trips:

I thought it might be interesting/fun to go wayyyyyyy back

1ST-EVER "ROAD TRIP"

1956: I was 12 and had just bought a used German motorbike from a friend for \$30 - money I had saved from moving lawns. I lived in Wonder Lake, Illinois in the tulies - near the Wisconsin State Line. Things were really rural and very spread out. I had a bicycle and I also ran a lot - per doctor's orders. A neighbor kid two years younger got a brand new, red Allstate moped from his Dad. I never thought my parents would let me own/buy a motorbike. That was 52 years ago and I'm still amazed today. My ride home was only a few country miles. It was mostly rural road with one very long sweeping curve. The 49cc motorbike would do 30 mph, I was told. Well, I distinctly remember even to this very day going into the curve wide open at 30 mph and coming out at 32 mph - unscathed - a new World Speed Record. Boy were my shorts puckered up! That was a test of future things to come.

2ND "ROAD TRIP"

1959: I was 15 and a 6'0" tall string bean. I had progressed to a 5 hp, 125 cc motorcycle and was about to buy a new 500 cc Zundapp on clearance sale at a dealer 90 miles away - on the scary south side of Chicago. I traded in my Jbe German 125, my Dad loaned me the cash difference. I fully assumed/expected him to have me follow him home in his car. NOT! All he said was, "See you at home" and he drove off! I knew the Eisenhower Expressway headed west and then Highway 47 intersected it somewhere. If I took that due north for 40 miles, I would intersect Illinois Highway 120 and be 12 miles from home. Yes, I made it home - again unscathed. I never said a word to my Dad. You see, he grew up in Iowa with nothing, then worked his way through college and in WWII ended up as General Curtis LeMay's chief bombardier/Navigator just before and after Japan was burned to the ground via B-29 bombing runs. He went on to become the #2 man at the world's largest hardboard manufacturer. There were major responsibilities in being his son. Do your very best in school and don't be a whiney-butt. Show leadership - take charge! Finding my way out of the south side of Chicago at age 15 was for me, another test.



One really cool speedometer from the fifties. At the 120 mph mark, it reads "O-WOW"! This might be worth copying on your Chevy speedo, tach or ?.



The world's lowest Chevy-powered rat rod.

Chevy Memories

2006:

I'm 62. My Dad passed away in late 1999 at age 88. This road trip led me to Las Vegas, Nevada to visit Stan Harenzo, a 409 and Chevy performance pal from North Carolina via Indiana. He was Barber John Stepanek's ('63 409 SS) long-time friend. We ended up at the Rat Rod Nationals also known as "Viva Las Vegas". A ton of cool customs – mostly in primer, including vintage Chevys and V8 Chevy-powered machines.

A fun show for me because I was not recognized and could roam around enjoying myself at-will. But we then ran into George Barris and Paul LeMat (John Milner/American Graffiti). Barris knew me from my Popular Hot Rodding magazine tenure and Project X '57 years ago but LeMat does not. He is amazed that I can talk and take photos at the SAME time! Harenzo does not tell him who I am – other than a camera pro. LeMat is a cool dude. We also see the world's lowest Chevy-powered rat rod and the world's largest hood art.

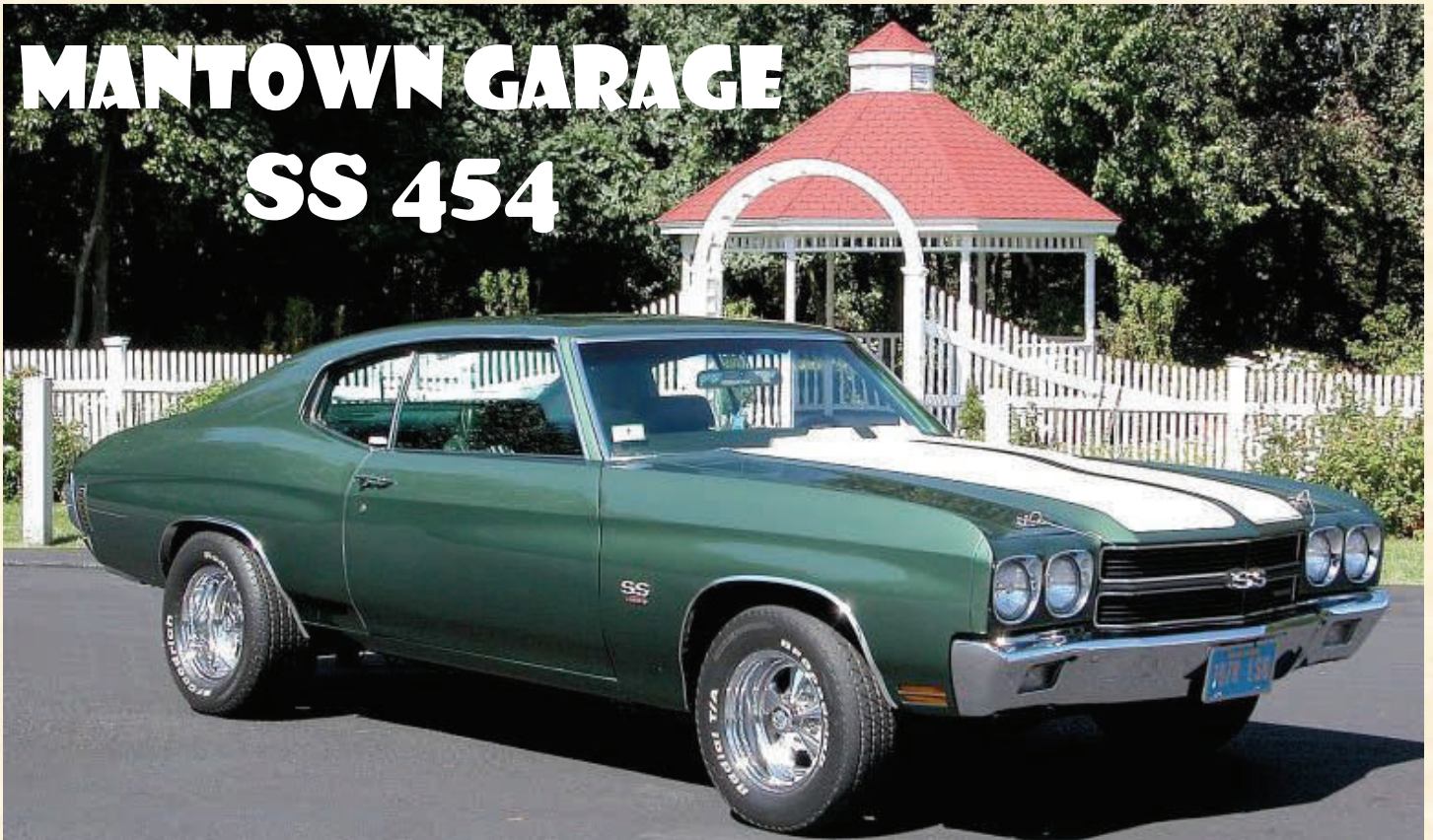


TREMEC
TRANSMISSIONS
Elite Distributor

<http://www.classicchevy5speed.com/>

MANTOWN GARAGE

SS 454



This 1970 Chevy Chevelle SS has a non-factory Chevrolet 454 cubic inch turbo jet V-8 (RPO LS6) delivering 450 horsepower with a 4BBL carburetor, dealer installed in 1982 with solid lifters and all paper work in hand.

Four speed Hurst with original style close ratio 4 speed transmission. Rear axle is posi-traction and geared at 4:10 with correct factory springs and shocks. I bought this car in 2000 after it was fully restored by a man in Bow, NH in the early 80's. I have since done some minor detail work and enjoy going to car shows and cruise nights in it. My '70 SS has won a couple of first place trophies.

This Chevelle is very fast in the 1/4 mile and is fun to drive. It also has a working 8-track player. It only has 58,000 original miles and retains the original build sheet.

There is no power steering, nothing but motor.





I built a garage to store not only my Chevelle, but also my vast collection of memorabilia, mostly Coca Cola items.

ROTATING
ASSEMBLIES

BLOCKS

CRANKS

RODS

HARMONIC
PISTONS BALANCERS

CAMS &
LIFTERS

CYLINDER
HEADS

OILING
SYSTEMS

Retro
PERFORMANCE PRODUCTS

We've Been There From the Beginning

302ci Components 327ci Components 350ci Components 396ci Components 427ci Components 454ci Components

Group Purchases by Professionals

GP

SUPERSTORE

Press releases

New items you might like to know about

We receive a number of "press releases" here and thought it might be worth passing on a few of the more interesting.

Win a Building from OldCarsWeekly.com

Old Cars Weekly Magazine and its companion website, OldCarsWeekly.com, have already given away all the items needed to fill an ultimate garage earlier this year. Now, the publishers have decided to give away the garage to put it all in -- a 24' x 24' x 10' metal garage donated by Excel Metal Building Systems.



Iola, WI ([PRWEB](#)) September 13, 2007 -- For the second time this year, one lucky Old Cars Weekly Magazine fan will drive away with an opportunity to create their very own ultimate garage.

Since Old Cars Weekly Magazine and its companion website, OldCarsWeekly.com, have already given away all the items needed to fill an ultimate garage earlier this year, the publishers decided to give away the garage to put it all in.

This time around Old Cars is giving away a 24' x 24' x 10' metal garage donated by Excel Metal Building Systems. This prize package includes a 100 percent metal building kit including all the structural framing pieces, roof sheets and hardware. All the winner will be responsible for is assembling the package in its desired location.

The new garage giveaway continues what has been a prize-filled year at OldCarsWeekly.com. In August, Gene Hudson of Toledo, Ohio, received the news that he had won the 2007 Old Cars Weekly Ultimate Garage Giveaway.

Hudson, who happens to be the proud owner of a '33 Ford street rod, received a prize package worth nearly \$12,500 including nearly everything he will need to complete his next classic car project: a classic gas station display package, body lift, welder, parts and materials, vintage shop coats, neon wall signs, and much more.

The Old Cars Weekly Garage Giveaway is open until Oct. 31, 2007, and users can enter every day at www.oldcarsweekly.com.

World Tools Announces the Introduction of the WorldPro Instant Air System

World Tools (www.worldtools.com) announces the introduction of the WorldPro™ Instant Air™ System, a compressed CO2 system that frees homeowners, contractors, and other air tool users from the hassles associated with dragging compressors and air lines from job to job.

Brampton, ON ([PRWEB](#)) September 6, 2007 -- World Tools announces the introduction of the WorldPro™ Instant Air™ System, a compressed CO2 system that frees homeowners, contractors, and other air tool users from the hassles associated with dragging compressors and air lines from job to job.

The WorldPro™ Instant Air™ system frees homeowners, contractors, and other air tool users from the hassles associated with dragging compressors and air lines from job to job. It incorporates a refillable 20 oz CO2 tank, certified Instant Air™ regulator preset to 90 psi, and coiled air line to enable users to have air tool power anywhere, anytime.

To use an air tool or accessory, just attach it to the tank via the coiled hose. CO2 is safe, non-toxic and delivers reliable pressure from start to finish. The Instant Air™ System is actually better than ordinary compressed air for pneumatic tools; since it does not create condensation or moisture, it prolongs the pneumatic tool's life.

Instant Air™ is powered by compressed CO2, which takes up just 1% of the volume of compressed air. This means that the 20 oz Instant Air™ tank delivers the same volume as a 125 lb compressed air tank! And the Instant Air™ tank is easily refillable at many retailers across North America including most paint ball stores.

With one 20 oz Instant Air™ tank the user can:

- shoot 500+ brad nails/staples, or
- shoot 100 framing nails or
- run an air ratchet for 3-1/2 minutes or
- run an impact wrench for over 2 minutes or
- inflate nine compact car tires (13") or
- blow dust out of 40 to 60 personal computers

The WorldPro™ Instant Air™ System sells for US\$189.99.



1968 Camaro



Tom Kobza
Baraboo, WI

In October of 2006 while I was searching the internet, I found a 1968 Camaro being restored. It was an auto body shop in Shawano, WI. Todd Wegner owns the shop and he calls it Quality Auto Body. I called him up to inquire about the car. He was meticulously putting the car back together from a very rusty state. When Todd bought the body, it was sitting in the owner's yard slowly deteriorating. It was definitely showing its age. It had not had a good life. It was 37 years old, what do you expect? Todd started the restoration project in fall of 2005. He had big plans for it. He purchased a big block 502 Chevy engine for it. The serpentine system under the hood was chrome. He wanted leather interior. The bottom of the vehicle was going to be painted to a showroom shine. Nothing overlooked and no detail missed.



Todd could tell I was interested. In order to make this project affordable, he was willing to customize this car for me. I asked him to switch out the 502 engine for a crate ZZ4 350 Chevy engine. Underhood chrome was kept to a minimum to keep costs down. I did opt for chrome valve covers. The car was originally going to be painted Viper Red. I liked the color, but had Todd darken the red a bit. I officially purchased the car in September of 2006.

From the Vehicle Identification Number and cowl tag I can tell this car originally had an eight cylinder engine. It was a coupe body. It was built in Norwood, Ohio and was the 157,901 car produced at that factory that year. It was built in June of 1968. The original paint color was seafrost green. The seats were standard black vinyl buckets, and the top of the car was black vinyl as well.

I tried to keep the car as stock as possible. It is not numbers matching however since the car was purchased as a shell basically. The engine is new, and a 350 was sold as an option back in 1968. Todd is putting this car back together as an SS Camaro even though we are not sure if this is what the car was originally. In 1968 the protect-o-plates and cowl tags were not as descriptive as the 1967 and 1969 Camaros. From the cowl tag you cannot tell what options were installed nor what version of car this really was when new.

I made a few modifications, but not too many. The interior contains black vinyl bucket seats just like stock. I kept the original look of the gauges, but swapped out the gas gauge for a tic-toc-tach. 1968 was the only year the tic-toc-tach was offered. I also added three gauges beneath the ash tray to monitor water temp, oil pressure, and fuel. Since there was no radio, I had a new one installed to mimic the original radio. I did not want to cut the dash for the radio. I chose American Racing wheels. 15x7 Torque Thrust II's. BFGoodrich tires were put on all four corners. 225/60R-15's. 2 1/2" Flowmaster mufflers complete the exhaust. Willwood disc brakes were put on the front, and stock drums on the back. The rearend is a 1968 although it did not come from this car originally. It was sandblasted and restored.



The clutch pack was replaced and positraction was added. 3.23 gears were used. I needed a transmission and decided to modify this from original. I used a Tremec TKO500 because it has an overdrive gear.

After putting on all new sheet metal, Todd put the car on his Kansas jack frame rack and pre-measured the body with his Shark computerized measuring system to insure accurate alignment.

When it came time to paint the car, he started with a Spies Hecker self etching product followed by three coats of sandable primer. Next came the red paint. After the red paint dries, he color sanded and buffed. Color sanding was done to achieve a mirror like finish. 800 grit sandpaper and balsam wood was used to start the sanding. He worked his way next to 1200 grit, 1500 grit, and finally 3000 grit sandpaper. Once the sanding is done, he uses three different buffing compounds to buff the panels to a high gloss.

Once the finishing process was complete, Todd started to reassemble the car paying particular attention to fit and gaps. A complete interior kit was ordered and installed along with new glass throughout. Stainless steel gas tank and brake lines get put on at this time. Complete exhaust system and drive-shaft are next in line. Once the interior and exterior parts are installed, it is time to fire the engine. It ran like a top. The flowmasters growled. It was truly amazing to see the car come back to life again after so many years of inactivity.

In June of 2007, Todd finished the restoration. Just about every nut and bolt is brand new. The roof and cowl was salvaged, seat springs repaired, painted and reupholstered, and the original front subframe still remains. Todd made this restoration a personal endeavor. He has either did the work himself or oversaw every detail of it. He has high expectations and will stop at nothing less than perfection before turning the keys over.



FREE SHIPPING!!
Tire & Wheel Packages

The Fraud Squad

By: Hylton Jorssen

So you are finally thinking about taking the plunge and getting yourself a true piece of Americana. Something that will allow you to relax and forget about the daily stresses of work, something that can allow you to enjoy life and if you choose wisely, make you a bit of money when it's time to sell. Yes a Chevy Musclicar will soon be in your driveway. It will be as easy as going down to the local Chevrolet dealership and buying a brand new car – or will it?

Unlike brand new cars, there are no guarantees from a manufacturer of any kind and sellers can be less than forthcoming about a particular car or part. Some can be downright deceiving and intentionally misrepresent the car to be something it is not. This, is what I characterize as fraud.

Welcome to The Fraud Squad. This new regular column in Chevy Punch will help you develop the skills needed to avoid becoming the victim of less than credible individuals and business on your quest to buy, repair or upgrade that dream Chevy of yours. Over the next few months, we will be covering subjects such as documentation, car history, trim tags, body swapping (re-bodying), parts fraud as well as studying cases of fraud where hobbyists have been duped out of thousands of dollars.

Some of the stories we will be bringing you are downright incredible with respect to what some criminals are doing these days. Stay tuned!

Hylton Jorssen is an Information Technology consultant whose clients include IBM, EDS, AMS and many government departments and agencies. His IT skills have been used by local and state police as well as the FBI to help arrest, charge and convict criminals who have been found guilty of fraud within the car hobby. If you have a story or would like to see a specific fraud topic covered in The Fraud Squad, contact Hylton at fraudsquad@chevypunch.com

From the mailbag:

Just wonderful :). Been a member since a year after I got my Chevelle, and just want you to know how much I appreciate chevelles.com. Thanks a bunch.

It's an endless source of just fun to read all about other guys projects and answers, and most recently Chevy Punch magazine. We were just putting the freshened motor (original 396) back into my '69 and ended up rebuilding the trans (M21) I remembered seeing the article last Feb during the winter in Chevy Punch and it had all the info I needed. :) Thanks a bunch guys.
Ron

* STOLEN ALERT *

Stolen Alert - 69 Chevelle—MO

Name: Brent Wootten
 email: brentschevelle at yahoo.com
 City: St. Louis County
 State: MO
 Phone: 314-566-0616
 Report: 07-50663
 Date: 9/10/07
 Vin: 136379A322376
 Year: 1969
 Body_Style: 2-dr Malibu



Information: My Chevelle was stolen for Roy Huffman's RV Storage in Ballwin, MO between 8/24/07 & 9/10/07. The was a bright blue metallic 2 dr Malibu sport coupe. The driver's side quarter panel between the door and the front of the wheel well had heavy damage and was painted primer grey. It also had the body side molding that ran from front to back along the lower part of the car.

I've owned this car for 13 years and was trying to save money to do a complete restoration on it. Any help recovering my car would be greatly appreciated.

Stolen Alert - 1976 Camaro—OH

Name: Dennis Counterman
 email: dcounterman at amplex.net
 City: Martin
 State: Ohio
 Phone: 4198554469
 Report: Enter Police Report # if available
 Date: 9/1/2007
 Vin: 1Q87L6L525385
 Year: 1976
 Body_Style: Camaro

Information: car was stolen from my driveway between 5:00 pm- Midnight Sept.1st



This car is a 1973 clone including the smaller rear window.

1973 front end, rear quarters and tail panel
 1996 Z28 Grey cloth seats (front and rear) and console.
 Z24 350 w/ msd distributor and 6a box

200-4r transmission

Ohio Historical plates (rear only) 454 XEF
 Car is Silver w/ Black Z28 stripes

<http://s37.photobucket.com/albums/e63/dcount61/>

contact Dennis or the Ottawa County Sheriffs Office @ 419-734-4404

Stolen Alert - 1988 IROC—TX

name: Crystal Thompson
 email: crystal_thompson_foursevens at yahoo.com
 City: Fort Worth
 State: Texas
 Phone: 834-514-7433
 Date: 9/13/2007
 Year: 1988
 Body_Style: z28 Iroc



Information: Red Chevy Iroc, Z28 T-top Camaro. Stolen off my car lot on South Cherry Lane Fort Worth, Texas on September 13, 2007 around two to three in the afternoon. Front windshield is cracked, no radio, stock wheel's and rims, Very, very loud!! The muffler is cut in half, also Transmission is out so car is loud and cool looking - just not going to go very fast, also was in process of selling it so has white shoe polish that said "88 Z28 Iroc 4800.00 plus Tax & Title as is". NEW ENGINE and EVERYTHING UNDER HOOD!!