
WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/23/2008 14:10

Well as of Today I now have my Datsun running on a '7749 with \$59. :D

A few glitches to start off with like wiring the fuel pump output as a negative trigger. :oops: That's now sorted out.

I had a plug that was closed up for some reason, that helped smooth out the idle a little bit.

I'm having a bit of an issue with free rev decel. Most of the time it doesn't stall, and never stalls when only reving about 1000 RPM off idle (idle is approx 1000 to 1100 right now), but it stalls more often than not when free reving a few thousand RPM. I've made some progress on that it seems by reducing a few decel parameters, IIRC MAP delta, Throttle contribution vs throttle change and increased upper and lower decel limits. It's still stalling much more than I would like, but it's a little better and think that maybe I should start looking elsewhere at this point, just not sure exactly where. increasing the VE table in the lower RPM and MAP areas also seemed to help.

I have a coolant leak that I need to fix, seems to be from the thermostat housing itself, possibly cracked.

So far I'm pretty happy, the car hasn't ran in about 3 months, and now is running on EFI and turbo, with some help from code59. :D

Specs:

1973 Datsun 240Z

1981 or 82 280ZX 2.8L I6 (don't know exact year, this is as tracked down as I can get since the engine came already installed in the car.)

280Z (N42) EFI intake, smoothed and very minimally worked ports.

280ZXT exhaust manifold

GM 6.5 Diesel Borg Warner turbo.

30 lbs/hr injectors from a Ford Supercoupe

Non-intercooled (haven't had time to make the IC yet)

3400 56mm TB

Electronic 280Z dizzy (will be changing to DIS in the winter)

Will post pictures when I get a chance, I'm actually sitting in the car right now typing this.

Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/23/2008 20:46

To update I have driven the car a few miles now, and it seems to love fuel being thrown at it.

Currently only about 2 PSI, I haven't payed much attention to the boost gauge in throttle down situations, mostly just cruise and idle vac. I know the actuator has a 2 PSI spring in it, so it shouldn't go much above that right now, I might have it set a bit tight too. *whistles*

The car just pulls, I'm trying to alleviate some knock right now, it spiked up to over 18 degrees retard a couple times. :shock: I've since added more fuel and pulled the timing back, I need to play with the dizzy itself when I get a chance, so I can make sure what I'm seeing on the screen matches what is happening at the engine. Dizzy will be swapped out to DIS in the winter.

I've been fighting a fuel leak for the last 3 days, on the return line, where the braided attached to the original feed line, that now serves as the return, it was only 5/16". The compression adaptor I had on there didn't seal, and so I removed it and did a mickey mouse repair just to get me to Zfest tomorrow with the car. I also have a coolant leak, but it seems fairly slow and I can add water/coolant pretty easy, it's also not going to cause a fire if it leaks. ;)

So far, I'm happy with it, it's great to be driving the 240 again, it's been far too long, and now any changes can be done without disabling the car for an extended period of time. First this is an intercooler, once I fix the couple leaks I have. :)

Re: WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 08/25/2008 08:12

good to see you got it running man.

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/25/2008 08:29

Thanks man, I should have some good pictures later today, I plan to take some pictures of it at some point.

I spun the dizzy forward yesterday before leaving Z-Fest (Datsun/Nissan Z car line show), and that seemed to pull almost all of the knock I was getting out of it, and I see I'm getting about 3.5 PSIG of boost. hehehe

The car just flies, and wants to just about rip the tires off the car now, I can't wait for double digit boost levels, :D

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Re: WOOT!!!! Datsun now running on \$59

Posted by Jeff - 08/25/2008 10:05

It is fun to see this ecm being used on engines not ever intended or thought about. Even better to see that use being successful.

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Re: WOOT!!!! Datsun now running on \$59

Posted by turbodig - 08/25/2008 13:13

That's cool... I love the odd-ball applications. If it can work there, it can pretty much work anywhere.

Pics, por favor.

Dig

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Re: WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 08/25/2008 13:18

Originally posted by Six_Shooter

Thanks man, I should have some good pictures later today, I plan to take some pictures of it at some point.

I spun the dizzy forward yesterday before leaving Z-Fest (Datsun/Nissan Z car line show), and that seemed to pull almost all of the knock I was getting out of it, and I see I'm getting about 3.5 PSIG of boost. hehehe

The car just flies, and wants to just about rip the tires off the car now, I can't wait for double digit boost levels, :D

very cool man.. love to see some pics.

where was this z meet? i have two friends that are really into nissans, one 240s and the other 350z but they all love the older ones too.

i've been meaning to go up to the deals gap z meet with them one year, looks like fun.

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/25/2008 17:51

I'll post some pictures soon, I've just been relaxing tonight on the couch, surfing and watching some TV.

Z-Fest is a meet put on annually by the OZC, Ontario Z Car club of Ontario. <http://ontariozcar.com/> It's held at Christie Lake Conservation Area, just outside of Dundas Ontario. Are you friends HybridZ members?

I have a question on tuning with \$59, there's an area that I'm not sure how to tune properly right now.

I've been looking at the spark tables, and noticed that the lowest MAP value is 37 KPA, my car idles at 32 to 34 KPA according to Scanner Pro (About 22 in/hg according to my Autometer vac/boost gauge).

So does this mean that the ECM will use the lowest value at 37 KPA vs RPM for anything below that MAP value?

I only had a chance to make some small changes today, and no real change, other than a bin that the car didn't like for idle. :lol:

I'm really trying to get this tuned pretty well over the next few days, as I would like to drive it to a party which is about 3 hours away, and then to the (GF's) cottage which is about an hour past that, after the party (Don't worry no drinking and driving for me). I figure would also be a good opportunity to do some highway/milage tuning as well. :)

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/25/2008 19:04

Here are a few pictures:

The car:

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Exterior/Right%20side%20spook.jpg>

The engine:

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Under%20hood/turbo%20driver%20day%20front.jpg>

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Under%20hood/turbo%20driver%20day.jpg>

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Under%20hood/turbo%20pass%20day.jpg>

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/25/2008 19:10

I plan to change quite a few things about the set-up. A lot of it was to just get it running for Z-fest yesterday.

The biggest change that I am planning that I think will help quite a lot is the air filter location, I'm sure pulling hot air off that exhaust manifold isn't helping with the knock. :)

I also plan to change to DIS, I just didn't have time to modify the trigger wheel that I have or make the sensor mount.

I'm also hoping to have the IC built and installed within the next month, as there is a tentative dyno day coming up at a local speed shop. :)

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Re: WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 08/26/2008 15:00

Originally posted by Six_Shooter

I'll post some pictures soon, I've just been relaxing tonight on the couch, surfing and watching some TV.

Z-Fest is a meet put on annually by the OZC, Ontario Z Car club of Ontario. <http://ontariozcar.com/> It's held at Christie Lake Conservation Area, just outside of Dundas Ontario. Are you friends HybridZ members?

wow ontario sounds so far when we live down here in florida haha. but no, they arn't really the building hybrid kinda guys but the 240 guy did pick up an old mg in a track a few days ago. he's talking about trying to put a n/a ka in it. i will have to tell him to join the hybrid board if he does that.

love the pics man. very cool setup and when you do go dis, please post up how you did it. i know the info is out there somewhere but i haven't stumbled across how to switch my v8 to it. if its not that much money i'd love to.

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/26/2008 15:39

Thanks, I like it too and seems that other people do as well. :D

I wasn't sure where you were located.

As far as going DIS goes, I know how I'm going to do it on the I6.

I will be modifying the DIS wheel that my grandfather and I made that I used on my truck, to fit the Nissan crank pulley. A new bracket to hold the sensor, and then use a FWD 60 degree V6 ICM that was used from the 1987 2.8L all the way through to the 2005 3400, maybe even a year or two later than that. For testing I will also likely use the original coils, to make sure it runs, drives, etc, then work on a COP coil set-up, but still using the V6 ICM.

For the V8, you will likely need to use the Northstar ignition system and model a crank trigger similar to what it uses. There was a discussion on TGO, about whether the ICM actually uses the the cam position sensor or not.

There are also aftermarket systems that I'm sure could be integrated with \$59.

Just to show the ECM:

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Under%20hood/ECM%20and%20Wiring/ECM.jpg>

I still need to mount it, but it does the job for now. :)

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Re: WOOT!!!! Datsun now running on \$59

Posted by turbodig - 08/26/2008 21:02

What's your firing order/scheme?

You should be able to use the 3.1/2.8 V6 dis.... no cam sense necessary.
Just fab a trigger wheel.

There are some cal changes you'll need to make as well.

Otherwise, though, it should plug in.

Dig

Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 08/27/2008 05:45

Originally posted by turbodig

What's your firing order/scheme?

You should be able to use the 3.1/2.8 V6 dis.... no cam sense necessary.
Just fab a trigger wheel.

There are some cal changes you'll need to make as well.

Otherwise, though, it should plug in.

Dig

Dig, that's the plan.

The cam position sensor was in refernce to the N* DIS, and TGO discussions I have read on it.

The V6 ICM doesn't have a cam position input, just uses an extra notch for "home" signal.

I have a trigger wheel, as I said, I just need to modify it a bit to fit the Nissan crank pulley/damper, and fabricate a new sensor mount.

Re: WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/10/2008 15:42

Six_Shooter wrote:

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As far as going DIS goes, I know how I'm going to do it on the I6.

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There are also aftermarket systems that I'm sure could be integrated with \$59.

Just to show the ECM:

<http://domestic.3400z24.com/sixshooter/My%20vehicles/Datsun/Under%20hood/ECM%20and%20Wiring/ECM.jpg>

I still need to mount it, but it does the job for now. :)

is this the thread on tgo you were talking about?

<http://www.thirdgen.org/techboard/diy-prom/277616-dis-sbc.html>

i'm back to searching and wow it seems so much easier for the 6cyl guys than us v8 guys. all that n* stuff and making up crank trigger wheels with a crazy amount of teeth.

i found this one and it seems so easy. just need a 6 tooth wheel with a 7th tooth to sync up #1 cyl.

<http://www.thirdgen.org/techboard/posts/dfi-ecm/461628-92-v6-dist-motor/3646353-post3.html>

wish i could do that but with a 9 tooth and just the N* coil packs. but to much to ask i guess.

=====

Re: WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/11/2008 11:46

j91z28d1n2o wrote:

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wish i could do that but with a 9 tooth and just the N* coil packs. but to much to ask i guess.

You can, just not with the n* stuff.

Grab the ignition module off the LT5 (Zr1 motor) and build the 8+1 wheel.

There might be a way, too, with 2 4-cyl iron duke setups, but I haven't worked it all out yet.

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Re: WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/11/2008 12:25

I did read a few threads about the lt5 coils and icm but it was the zr1 guys wanting to switch to the n* stuff because of the cost of replacing their stock coils.

because of that I didn't even look up the price but I will.

I not 100% sure how the icm works, but I think it fires the coils. if they are 2 different parts. maybe a lt5 icm wired into cheap 2 4cyl coils?

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/11/2008 13:48

just to follow up with the lt5 stuff. i spend a few hours searching around. and they are very hard to find. i only found one place that even lists them. they are not just a run to napa and buy lol

the part number i found for ac delco is 1103841. but even googling that number brings up nothing. as does gmpartsdirect.com. so i don't know for sure. i got the number here.

http://www.whiteracingproducts.com/index.php?main_page=product_info&cPath=121_144_138_63&products_id=229&zenid=r3e3ml6r9v89q7sehk8m2bp935

its the only place i found with a listing and they are out of stock. but at over \$900 it really doesn't matter. the rest is pretty cheap. coils seem to be around 50\$ and the crank sensor is 17\$ at napa. so other than the ICM being nuts. it would be a sweet swap.

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/11/2008 13:52

The coils are the least of your worries... you could use the v6 coils.

The module is the expensive part... \$300+.

It's really too bad one of the aftermarket ign manus wouldn't design their boxes to accept the 7-tooth/9-tooth trigger directly... ie, no need for a module.

The logic involved is pretty simple and cheap. The high output power/voltage parts are a bit more expensive, but not crazy. What they get for an ignition box now-a-days is crazy, for what it is.

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/11/2008 14:09

if you know where i could find the lt5 icm for around \$300 it might still be worth doing.

i've read a few tech papers over the years about how a normal coil pack type of spark while slower to build, also lasts longer. where a CD box can sometimes be so quick and high powered that it blasts thru but doesn't light the mixture as well as the normal way.

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Re: WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/11/2008 16:34

That could be at least one of the threads that I've read.

I'll be wanting to add DIS to the T-bucket after I get it running with the Dizzy.

I've seen two different N* ignition systems now. The one with the 4 paired coils, that looks like the 4 cyl or 6 cyl DIS with 4 coil packs.

The other that I've seen recently on a Caddy, maybe not a N*, but it looked like one, was at least two individual ICMs, under covers on each head. Unfortunately I didn't have time to investigate deeper.

I'm going to try running my Datsun on another DIS system and see if it works or not. If it does, I can use the 8 cyl version on the T-bucket.

I'll know better closer to spring though.

Dig, I don;t understand what you're saying here:

It's really too bad one of the aftermarket ign manus wouldn't design their boxes to accept the 7-tooth/9-tooth trigger

directly... ie, no need for a module.

There would be some sort of module involved for timing control.

The GM DIS ICMs will fire without ECM control, just has static "advance" based on base ignition trigger advance.

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/11/2008 19:20

j91z28d1n2o wrote:

if you know where i could find the lt5 icm for around \$300 it might still be worth doing.

Been looking at this one...

airtex 6h1058

This comes up as the crossref for a Lt5, but it doesn't really look like an Lt5, and it doesn't really look like an N*.

Have yet to find the exact application... but it's definitely an 8-cyl.

And, it's \$50.

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/11/2008 19:27

turbodig wrote:

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Been looking at this one...

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This comes up as the crossref for a Lt5, but it doesn't really look like an Lt5, and it doesn't really look like an N*.

Have yet to find the exact application... but it's definitely an 8-cyl.

And, it's \$50.

The more I look at this, the more it looks like it's just a coil holder.... gotta look into it some more...

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Re:WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/11/2008 19:45

I tried a search for that part number, but didn't find anything.

Link to more info?

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Re: WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/12/2008 08:20

Six_Shooter wrote:

Dig, I don;t understand what you're saying here:

It's really too bad one of the aftermarket ign manus wouldn't design their boxes to accept the 7-tooth/9-tooth trigger directly... ie, no need for a module.

There would be some sort of module involved for timing control.

The GM DIS ICMs will fire without ECM control, just has static "advance" based on base ignition trigger advance.

Getting a box to understand the GM timing signal wouldn't be tough. It could even have enough brains to know about the ford system as well.

You almost get to a point of using a megaaquirt as an ignition box...

Really, though, someone could make a ton of money making a 4-6-8 configurable ignition module that ran from the 7-tooth or 9-tooth wheel and understood the GM ref and EST signal.

You could use 2 4-cyl modules if you could figure a way to integrate the EST.

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/13/2008 04:00

i'm guessing there's no chance that the ford edis can be made to work with our ecm's?

<http://www.megamanual.com/ms2/EDIS.htm>

oh and this does a good job of explaining what code changes need to be made. i'm sure some people know this, but i didn't really get it till now.

<http://www.diy-efi.org/twiki/bin/view/Gmecm/DISdist>

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/13/2008 04:11

i found this too, maybe what dig was talking about with using two 4cyl icm's

<http://www.diy-efi.org/twiki/bin/view/Gmecm/Running2DisPacksOff1Ecu>

looks like the guy didn't get it to work right thou.

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Re:WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/13/2008 08:00

I'm going to try to get the EDIS to work with my ECM on my Datsun, just to see if it will work, or more specifically what it will take to make it work, before trying it on the T-bucket. I figure the 6 cyl is a better base to start with, since I could swap the GM DIS in place for reference, or back to the dizzy that I have currently installed. Then once I can get EDIS to work on the 6 cyl it shouldn't be too difficult to get to work on the V8.

I may go and grab some of the EDIS parts today. :)

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Re:WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/13/2008 11:41

Well, I grabbed an EDIS-6 module from an Exploder, '92 IIRC.

I wasn't able to get the VR sensor, since my hands became too cold. I'll go back out another day to get one. I'm also going to test with a GM DIS Crank Position sensor to see if that will work as well. I have a few of those kicking around. ;)

I'm likely going to order the 36-1 wheel from DIYAutotune, since they have them readily available in a few sizes.

I'm going to test this on my Datsun, I may set up something on the bench first.

Always more projects. :silly:

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/13/2008 14:23

the only thread I found on tgo about the edis says they can't be made to work.

I really really hope you have some luck with it.

=====

Re:WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/13/2008 14:41

j91z28d1n2o wrote:

the only thread I found on tgo about the edis says they can't be made to work.

I really really hope you have some luck with it.

I know, that's all I found too.

No explanation as to why, or any indication of what might be needed to make it work.

From what I've read in the MegaManual documents and other information sourced from the internet in addition to how I have my test bench set up, I think it should work.

I think I'm going to mount the wheel to an electric motor that I have and see if that will allow me to test the ideas I have on the bench. I'm really hoping that it works, just for the simple fact that I want to add DIS to the T-bucket. I just think it would be very cool to have an old school rod, with new technology on an old looking intake. B)

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/13/2008 15:49

EDIS is fine up to the point where you have to feed it a timing signal. Then it sorta speaks a different language.

I've been trying to figure out a way to do what that flip flop circuit does... the real problem, is that the EST pulse that gets generated is for the *next* firing event, not the current one.

Oddly enough, the easiest thing would be a cheapie Atmega processor that took the 7/9 tooth circuit, generated a REF, and then would feed the EST pulse to the appropriate pair of LS1 coils (firing waste-spark). This wouldn't require any power circuitry at all, since the ls coils are self powered and use a trigger pulse.

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Re:WOOT!!!! Datsun now running on \$59

Posted by Hudini - 12/14/2008 17:40

I have \$59 working on a '95 3.4L Chevy V6 running the 7730 ECM and DIS in an '86 Fiero GT. The 3.4L has the 7x reluctor wheel on the crank. It would not even start using the 30# starter BIN until I adjusted the timing advance to 100*.

DIS will work but be prepared for some crazy numbers due to the way DIS figures advance for the next event, not the current one.

http://i160.photobucket.com/albums/t184/hudini_photo/dis_ring.gif

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/14/2008 17:54

yeah.. the v6 stuff seems to be pretty easy to come by.

the v8 is a pain since gm seems to have only used it on a lt5 zr1. those are rare and cost a shit ton.

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Re:WOOT!!!! Datsun now running on \$59

Posted by Six_Shooter - 12/14/2008 19:56

j91z28d1n2o wrote:

yeah.. the v6 stuff seems to be pretty easy to come by.

the v8 is a pain since gm seems to have only used it on a lt5 zr1. those are rare and cost a shit ton.

Which is precisely why I'm going to be playing with EDIS. I have several GM DIS modules and coils, that I could add to the Datsun, but what fun would that be? :lol: No I just need to prove if it will or won't work and why.

I'm also trying to come up with how dual 4 cyl modules would work, since they would fire twice as often as they need to. Due to the way the trigger wheel is set up. I had even thought about using dual trigger wheels with the notches tightened up and only on half of each wheel, and installed 180* apart, but that still wouldn't work.

The testing I've done with the JimStim on the bench connected to the GM ECM, indicates that the signals in and out of the ECM should work. The JimStim uses the same setting for "Distributor" and "EDIS" ignition trigger signal. Also disconnecting the EST wire (white) will drop any RPM input to the ECM, so it seems to be needed for the sim to function.

Time will tell. :)

I now just about have the front suspension completely reinstalled on the Jimmy, tall spindles, custom upper control arms, etc. I just need new outer bearings and maybe some rotors to roll it away to storage for the winter, so that I can get the Datsun in the garage. :)

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/15/2008 08:28

all I can say is good luck man. I hope something works.

I know there's a lot of bad info out about the n* setup. but while searching around I found a post on a fiero site about the n* icm outputting a whole bunch of setting off that one wheel. may have to do with the duel crank sensors. something like 4x 8x 24x 36x. I'd have to find it again, but if it outputs a bunch of different ones, and you just hook our ecm to the one we need. maybe we can say hook up to the 36x and run a simpler crank wheel to get the 8x we need out of the icm.

if that makes any sense.

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/15/2008 12:41

if the ford stuff don't work out for you, here's a little more on the n* stuff.

this is .zip is from jwscab at thirdgen and i found a link to a place that makes custom trigger wheels, but its in the uk lol

the n* icm has a x4 output and a x24. i have a feeling that doesn't help anything. blah

<http://trigger-wheels.com/store/index1.html?lang=en-uk&gclid=CKnH7-G1w5cCFYoH3goda20JSw>

they do seem to be running v8 rover stuff. which may be something, but no clue how hard it would be to get parts over here. or if it would even work with our ecm's. :(

i now see what most people that look into changing to coil packs on thirdgen give up pretty quickly.

http://www.code59.org/images/fbfiles/files/NorthstarDIS__Ignition.zip

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/15/2008 13:01

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the n* icm has a x4 output and a x24. i have a feeling that doesn't help anything. blah

i now see what most people that look into changing to coil packs on thirdgen give up pretty quickly.

I think the N* could be made to work, although it's a pretty complicated wheel/sensor setup. You don't need the cam sensor.

When you start pricing the parts out, it gets expensive kinda quick.

A gadget to process an 8-tooth wheel and fire LS coils would be much cheaper. It'd also be neat to have a gadget that would convert the GM EST to EDIS SAW. This would allow you to run EDIS correctly from a GM ECM. Ideally, you could have the gadget do either one, selectable.

A modification to the megajolt/jr SW so that would accept EST as an input vs. using the 'jolt's timing tables, would also get the job done.

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/15/2008 13:07

Six_Shooter wrote:

The testing I've done with the JimStim on the bench connected to the GM ECM, indicates that the signals in and out of the ECM should work. The JimStim uses the same setting for "Distributor" and "EDIS" ignition trigger signal. Also disconnecting the EST wire (white) will drop any RPM input to the ECM, so it seems to be needed for the sim to function.

Time will tell. :)

What you'll run into, is the timing/phasing of EST. While the PIP should be good, (as you say, it'll look just like the dissy), the SAW pulse that the module wants departs from GM EST.

A gadget to convert the EST output to SAW, would make everything happy.

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/15/2008 13:13

The SAW generator here is half the battle... it would just need to read the length of the EST pulse, and spit that out as SAW.

http://www.bgsoflex.com/mjl/mjl_edis_stim.html

EDIT - Clarification...

SAW is a pulse-width representation of timing- a shorter pulse results in earlier timing, a longer one, later timing.

EST is a bit different:

http://www.megamanual.com/ms2/GM_7pinHEI.htm

EST specifies not only the timing, but the dwell as well. In addition, the falling edge of EST is the firing event itself... it sorta mirrors the charge/collapse of the coil field.

To measure what EST was commanding for timing, you'd have to time the falling edge of EST in relation to the next REF pulse. Then, after subtracting out any ignition base offset, you could calc a SAW pulse and output it.

This would imply that you'd always be delivering SAW 2 pulses later, since EST is one pulse delayed already, and it'd take at least one pulse worth to do the calc.

All of this could be done within the stim circuit above, with some S/W tweaks.

Just thunkin' out loud...

Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/15/2008 14:45

edit* disregard any of that babbling. some how it must compute the time of the neg slop compared to a referance, into how long of a pulse to send to the edis?

i got nothing for that lol. your thinking out loud is so over my head its not even funny.

so in that 2nd circuit using the Motorola MC68HC908QT4 microcontroller, our ecm output which i belive is R on this pic

<http://www.megamanual.com/ms2/ew7hei.gif>

would be put into where the risistor pot is now that verys rpm? bised by some risistors/caps or something so it triggers on the down slop, then write some code to make it all work?

i'm guessing the edis figures out dwell all by itself and the ford icm to ecm is something our ecm can use?

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Re:WOOT!!!! Datsun now running on \$59

Posted by turbodig - 12/15/2008 19:46

j91z28d1n2o wrote:

edit* disregard any of that babbling. some how it must compute the time of the neg slop compared to a referance, into how long of a pulse to send to the edis?

i'm guessing the edis figures out dwell all by itself and the ford icm to ecm is something our ecm can use?

Yup. You'd have to set up one of the timers such that it would start counting on a falling EST edge, and stop counting on the next REF falling edge. This would give you ECM commanded timing (as a time period), which it could translate into SAW.

The EDIS module apparently does dwell on its own.

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/16/2008 12:35

to bad i don't remember much of anything from digital class all those years ago, but even then triggering on the neg slop only was prob more than i could pull off. wouldn't that take some kinda logic gate? setup as a latch.. random guessing at best.

you make things sound to easy dig... freaking smart people hahaha

anyways. i ran across these videos. looks like a 454 tbi motor running on the n* setup. no clue on ecms thou

<http://www.youtube.com/watch?v=zokjO2aULIM>

<http://www.youtube.com/watch?v=0w6LeLHKMRI&feature=related>

i so ran a quick search for the coilpacks and icm thru car-parts.com and there seems to be a few listed within like 20miles for around 50\$.

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Re:WOOT!!!! Datsun now running on \$59

Posted by Apples - 12/16/2008 14:43

I was looking at some LS1 info last night,
Has anyone tried using a LS1 crank sensor and reluctor wheel which has both 24x and 4x and one sensor.
I don't have a northstar dis unit to test this.
I know you can get 24x reluctor wheels for conversion from 58x when putting a L76 on a ls1 pcm.
I could be wrong but would gm change things that much if it works in a nothstar engine with two sensors adjust reluctor wheel to use one sensor with two outputs to save money.
Then again I could be way off the mark.

Apples.

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Re:WOOT!!!! Datsun now running on \$59

Posted by j91z28d1n2o - 12/17/2008 08:32

I never even thought to look.

I'll do some searching, but your saying the 24 tooth ls1 wheel is really a 32 tooth since it has the 8 odd teeth like the n*.
or it doesn't have the extra teeth yet can still output the x4 only is doing it in one sensor?

wonder how they are pulling that off. it would nice thou, even if the ls1 wheel is in the back of the crank. still easier to atleast see what the thing looks like.

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Re:WOOT!!!! Datsun now running on \$59

Posted by Apples - 12/17/2008 13:21

The LS1 reluctor wheel is two wheels in one.
I have found a picture of it.
I dont know how you get 4x looking at the reluctor wheel.
Apples. <http://www.code59.org/images/fbfiles/images/24x.jpg>

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