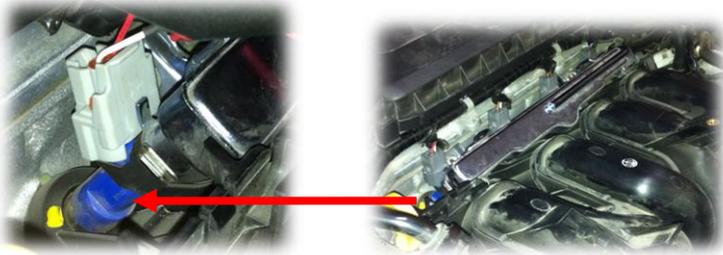


E.M.SH Ng-Tech Step by Step Gasoline / Methanol blend conversion Kit Installation Guide

Step 1

Locate the fuel injector in the intake manifold near the cylinder head.



Step 2

Disconnect the fuel injectors:



Important notice: Examine which kind of connector it is. There are 6 different connectors:



Step 3

Checking connector polarity: Connect the positive end of a multimeter to one of the pins in the female connector. Connect the negative end of the multimeter to the negative of the car. Turn the key and check if there is voltage. If there is voltage, this is the positive pin, if not check the other pin.

Please note:

- The voltage will appear for only a few seconds.
- Certain vehicles will only give out voltage to the injectors upon starting the vehicle (not only "key on"). If this is the case all the injectors should be disconnected and check the polarity once more like above but instead of "key on" it should be starting the vehicle.

Because all the injectors are disconnected the vehicle won't start.



Connect the male metal pin to the male plastic connector in a way that the red metal pin will be connected to the positive you found:



Step 4

Install the wire harness to each injector. The shortest connector should be connected to injector number 1 and so on:



In a 6 cylinder engine with 2 harnesses, make sure that in the 1st harness the shortest connector will be connected to injector 1 and in the 2nd harness the shortest connector will be connected to the injector opposite of 1.

Step 5

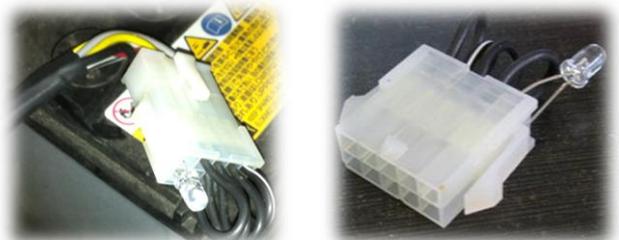
Ground wire: Connect the ground wire to the ground of the battery; make sure that the connection is well:



Step 6

Test the wire harness: Using the bridge connector, run the car on gasoline only, and see if there are any problems.

The car should run smoothly and the LED should turn on. If the car doesn't run smoothly locate the injector that is not connected well and improve the connection by repeating step 4:



Problems that may accrue: If all the injector connections are good, check the bridge connector if there are any pins not connected there. Take the car for a test drive and see that the car behaves the same as before.

Step 7

Locate a position to place NG-Tech's kit and fasten it to the body of the car. Connect the harness to the kit.

Important notice:

- Connect the conversion kit when they switch of the car is at an off position
- Do not connect the kit to the engine body nor to any surfaces that may become hot

Step 8

Connect 2 wire gauss: One to the head of plug number 1 (close to the gear) and the other to the TPS (throttle position sensor). Make sure that the connection is made using a metal wire and that the magnet is places flat and close to the surface.



Two gauss sensors



Connected to TPS



Connected to spark plug no' 1

Step 9

Tuning: Using a small screw driver tune the kit to an initial state of "2" and "8". Adjust 2 on the left side and 8 on the right side (when the white connector is on your right).



Step 10

Fill the car with M85 and fine tune the kit. Check the cars behavior and performance.

Using an emission analyzer tune the kit to the optimum condition.

Check Engine Light



There are 2 options for why a check engine light will turn on:

- Lean burn
- Misfire

Lean Burn - System Too Lean

Basically this means that an oxygen sensor detected a lean condition (too much oxygen in the exhaust). A vehicle is tuned for an air/fuel ratio of gasoline approximately 1:14.7 (1kg of gasoline needs 14.7kg of air)

Methanol has a lower air/fuel ratio of, only 1:6.5 (1kg of methanol needs 6.5 kg of air)

It means that the sensor senses that less fuel enters the engine and more oxygen is in the exhaust.

That is the reason the check engine light might turn on. This should not concern. In several cars it doesn't turn on, it depends on the car. **You will not notice any drivability problems.**

THERE IS NOTHING WRONG AND THERE IS NO DAMAGE TO THE ENGINE WHEN THE CHECK ENGINE LIGHT TURNS ON BECAUSE OF A LEAN BURN.

Misfire

A random misfire means that there is more than one cylinder with a poor connection. This is usually due to improper assembly of the male connectors or more than one connector that is not seated on the fuel injector properly.

A "CHECK ENGINE" LIGHT THAT FLASHES WILL SIGNIFY THAT THERE IS A MISFIRE CONDITION ON MOST VEHICLES.

Troubleshooting

Problem	Possible Cause	Solution
Vehicle won't start with bridge connector	Harness is not connected properly	Check all the connectors in the harness to see that they are connected properly
Vehicle won't start with bridge connector	Harness is not connected properly	If the vehicle won't start with the bridge connector please see above
	Polarity inverted	If the vehicle starts with the bridge connector please check polarity of the connectors once more on all the connectors
	Malfunction kit	Replace kit
Vehicle doesn't run smoothly	Harness is not connected properly	Check all the connectors in the harness to see that they are connected properly

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