

AFM problem ?

Posted by Kerry Chadderton - 10 Nov 2014 15:33

1984 N/A, stock engine, catless with Flowmaster muffler: DE car

I'm running into a weird and hard to duplicate problem. Earlier this year I upgraded to the '86 DME & AFM and added a 4° advance cam key. Engine feels great and I like the smoother idle and improved lower end torque.

I tested the AFM prior to installing using the Clarks garage and The944.com procedures. Bench performance was spotless.

In August on the way to a DE I noticed that during long highway driving at steady throttle the engine would occasionally bog and the AFR would go into the 17 to 18:1 range. WOT throttle would clear this up instantly and it would last for anywhere from 20 minutes to several hours. I cleaned the AFM connector and had no more trouble during the DE, nor the ride home.

This Friday I had another DE. I had the bog & AFR problem one time during the 3 hour trip there. I cleaned the AFM connector again but it was spotless anyway. During my first two sessions the car seemed okay but lap times were 2-3 seconds off. Then I started to pay attention the AFR. At idle the AFR would slowly work its way from 14.6 to 17.1. Snap the throttle and the process would repeat. On track WOT AFR readings varied from 13.1 to 10.8. This was worst on the last session of the day. The power was flat and the car slow.

During the 3 hour trip home the bog came a couple of times but the car is very drivable and reliable otherwise.

Before I spend hours chasing gremlins, have any of you experienced these symptoms?

=====

Re: AFM problem ?

Posted by BritRacer - 10 Nov 2014 16:29

This sounds very similar to the issues I had all weekend at the west coast championships. I did not have AFR readings, but would be driving the car for around 10mins and then the car would bog for the rest, it sounded terrible and refused to accelerate compared to normal. It would struggle to get beyond 4000

RPM.

We checked several things, replacing the rotor, cap, leads, plugs and also visually inspected the MAF and found nothing. It would start a session fine and then loss power around 10-15 mins in.

It did not seem to be matter what I did with the throttle.

=====

Re: AFM problem ?

Posted by Kerry Chadderton - 11 Nov 2014 04:09

I'm sorry to hear that you had this problem at championships. What you describe is very similar to my experience. I wish you had AFR numbers to see if you were rich, lean or something else altogether.

I just don't know where to start and I'm afraid this could be a problem that I can't duplicate on city streets. The closest track is 3 hours away.

I guess I'll start a trouble-shooting flow chart. Please follow up if you find a solution Brit. I'll do the same.

=====

Re: AFM problem ?

Posted by BritRacer - 11 Nov 2014 11:36

I am going to start going through all the possible sensor that can be tested using the methods on www.clarks-garage.com and see if any are broken. I am also going to rebuild the injectors. replace the coil and put a new cap and rotor on.

I have read several things that could cause it, ranging from the AFM, knock sensor, TPS. You name it they all seem to be able to cause this kind of thing.

If I something I will let you know.

=====

Re: AFM problem ?

Posted by 944Racer72 - 11 Nov 2014 19:44

There is no knock sensor. My experience with your symptoms is AFM. I now have a known good spare since my car is a ball of uselessness (assuming it wasn't damaged). I'm happy to loan it (to Jason as he is local) for your troubleshooting once it comes off the car.

=====

Re: AFM problem ?

Posted by BritRacer - 11 Nov 2014 19:51

Thanks Steve, that is the problem with searching the internet. There is a whole bunch of useless miss information! Thanks for saving me the time of trying to find something that does not exist.

When I got the car home, I also started hearing a ticking noise that speeds up with RPM. I am thinking I have a lot of things to do to restore my engine to the state it deserves.

=====