

## Tuning AFM

Posted by Sterling Doc - 30 Jul 2011 19:33

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One thing I haven't seen explored much online is how and why to tune the AFM. I see Joe posted up a while back on the NASA Spec boards that removing the cat as we do can mess with A/F ratios, and that there is some benefit to fixing this with an AFM tune. I'm interested in what people have found with this. What A/F ratio are we shooting for? Do you guys adjust the wiper/track, the spring tension, or the air bypass screw on the AFM? How much does a click one way or the other change things? After we've found some lean issues in local cars, I've just put an AEM A/F ratio gauge, and will log this with the Traqmate. I'm happy to share what I find, when I do start checking things out.

Thoughts & experiences?

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## Re: Tuning AFM

Posted by 944Racer72 - 01 Nov 2012 15:12

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Is that true for all model year 944s?

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## Re: Tuning AFM

Posted by RangerGress - 01 Nov 2012 15:23

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**Bottoz wrote:**

So... LongTerm FuelTrim isn't an issue, right? Nothing Wilke wrote would cause me to draw the conclusion that LTFT is meaningless. He's simply describing the open vs. closed loops maps.

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## Re: Tuning AFM

Posted by Sterling Doc - 01 Nov 2012 15:24

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I think so. It appears the change to '88 ECU was a chip & a jumper, and they can be interchanged [http://www.the944.com/88\\_to\\_86.htm](http://www.the944.com/88_to_86.htm)

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I don't see any feedback loop to the original maps, but I'm in over my head here.

BJ, Dave?

Anyone know what the difference bewteen Bosch DME 1.2 & 1.3 is, or any more input on this?

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## Re: Tuning AFM

Posted by Bottoz - 01 Nov 2012 15:25

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I'm sure LTFT is something the DME uses. But, when all power is removed after each race, then there is no LTFT stored... right?

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## Re: Tuning AFM

Posted by RangerGress - 01 Nov 2012 16:16

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### Bottoz wrote:

I'm sure LTFT is something the DME uses. But, when all power is removed after each race, then there is no LTFT stored... right?Yes. For good or ill LTFT is reset when power is removed. And I don't know how long it takes for the adaptation to return. The e36 and e46 require only seconds, but it might be a mistake to draw conclusions from later systems.

Re. Motronic 1.2 or 1.3. I think the DME became adaptable at Motronic 1.1. Thats what my e28 (80's BMW 5 series) buddies tell me.

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## Re: Tuning AFM

Posted by Sterling Doc - 01 Nov 2012 18:22

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OK, I took a look at at A/F ratios over several events. The most interesting was and enduro. I looked at A/F ratios at the start of the race, before the pitstop, and right after the pitstop (master power off). All looked stable, whithin a few tenths.

Interestingly the air fuel stayed flat through 125 MPH, when the ram air is really working, too.

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