

Unique fan issue after VCU replacement.



Brandon Button 52 posts since Feb 3, 2015

Unique fan issue after VCU replacement. Mar 25, 2019 2:01 PM

Hello all. Wondering if anyone has ever heard of a situation similar to this. This is a 2007 M2 with a plow and sander set up for DOT. Unit has a EPA04 MBE 900. After replacing the VCU for an issue with a false "no-charge" indicator light output, we now have a fan issue. The issue is that the fan will not work when calling for fan for coolant temp, and will trigger PWM 3+4 driver open circuit codes, sid 59 and sid 60 both fmi 5. The unique part of this issue is that the fans will work properly and have no active codes if the ambient temperature is greater than approx. 30 degrees F. If the ambient temperature is less than 30 degrees, it will be an active issue. Once ambient temperature increases, the issue is resolved. We have compared VCU and PLD parameters with multiple other units as well. We have also now installed a new PLD as well. Have programmed both VCU and PLD to proper ESN several times. We are waiting for detroit to get back to us. Any input would be appreciated!#

Update -

VIN # is Y76953

PLD software 60Cdiag version 9, VCU software 14.26 diag. version 156.

36 degrees outside today, issue will not duplicate. I am going to upload an attachment showing my configuration. My VCU Group 19 parameters are not correct it seems. Unfortunately nobody is able to tell me what they should be however. Coolant temp at 0% fan - 180C - coolant temp at 100% fan, 200C. These cant be correct. Possibly the cause of my issue? However I don't see how ambient temp would affect it. Also, in diagnostic link I do not see anything for monitoring of ambient temperature, AAT, outside air temp, etc. All it seems to be looking at in air intake temp. Not sure where to go with this...

- [3425_190325083712_001.pdf](#) 2.6 MB Preview

Tags: m2, fan, programming, program, mbe 900, mbe, pld, vcu



Talbert Simonian 1,802 posts since Nov 21, 2014

Re: Unique fan issue after VCU replacement. Mar 20, 2019 5:11 PM

I have not heard of this happening. Could there be a issue with the AAT.



Scott Trippel 3,990 posts since Dec 13, 2014

Re: Unique fan issue after VCU replacement. Mar 20, 2019 6:00 PM

I haven't experienced that issue, but every time we replace a PLD or VCU, we brace for a fan problem.



Robert Cadell Jr 2,683 posts since Nov 9, 2014

Re: Unique fan issue after VCU replacement. Mar 20, 2019 6:15 PM

Unique fan issue after VCU replacement.

I dont remember exactly and I cant look right now make sure the fan type is set right in the vcu and I think it's a parameter issue I had battled with the output 3 and 4 thing several times, look in the a and I manual also. The ambient temp sensor is in the pld again if memory serves I dont think it looked to a outside sensor for ambient temp.



[Robert Cadell Jr](#) 2,683 posts since Nov 9, 2014

Re: Unique fan issue after VCU replacement. Mar 20, 2019 6:16 PM

And unless I missed it need a vin please



[Brandon Button](#) 52 posts since Feb 3, 2015

Re: Unique fan issue after VCU replacement. Mar 22, 2019 3:39 AM

Thank you for the input here as well as in the phone Rob! I will get the VIN in here on Saturday.



[Brandon Button](#) 52 posts since Feb 3, 2015

Re: Unique fan issue after VCU replacement. Mar 22, 2019 3:43 AM

For those who replied, I'm currently in a Cascadia class this week and do not have any of the information with me unfortunately!! I'll be back and follow up with more details on Saturday with my findings. I am almost certainly in agreement that it is a parameter issue, just having a difficult time pin pointing it, as everything appears correct. The main thing I'm not sure about and do not have a good comparison on is the coolant and air intake temp threshold values for fan group in PLD.. If anybody could post a photo of these values from another epa04 unit, it would be an excellent reference that I do not have. Thanks everybody.



[Robert Cadell Jr](#) 2,683 posts since Nov 9, 2014

Re: Unique fan issue after VCU replacement. Mar 22, 2019 4:06 PM

Pull the a and I manual for your software example if its 13.14 find that manual, the version thing we discussed last night is wierd

Rob "Doc" Cadell
DTNA Master Technician
TransChicago Truck Group BFWD
Shorewood IL 60404
803 917 5397 Cell
Good Hunting - you'll find your issue



[Dwayne Parham](#) 3 posts since Feb 20, 2015

Re: Unique fan issue after VCU replacement. Mar 27, 2019 3:11 PM

Unique fan issue after VCU replacement.

Brandon,

I had the service ticket on this question at the CSC call center. Review 05M-6 for all MBE pre EPA 07 fan settings.

There is a chart that shows the proper PLD grp 4 fan temp settings. These settings are only available with a MBE reprogramming station. We were not able to duplicate the problem. It's my understanding that the problem only existed below 25F. We may not be able to address this problem until next winter. Once we can duplicate the problem a snap shot will assist in finding the problem.

Dwayne Parham

MBE Service Engineer

DTNA-Detroit



[Robert Cadell Jr](#) 2,683 posts since Nov 9, 2014

Re: Unique fan issue after VCU replacement. Mar 27, 2019 9:02 PM

Thanks for jumping in Dwayne I thought there was a letter out for this appreciate your help.

Rob "Doc" Cadell

DTNA Master Technician

TransChicago Truck Group BFWD

Shorewood IL 60404

803 917 5397 Cell

Good Hunting - you'll find your issue



[Brandon Button](#) 52 posts since Feb 3, 2015

Re: Unique fan issue after VCU replacement. Mar 28, 2019 1:15 PM

Yes Dwayne, thank you for your input on here as well as on the call center ticket. I thought it was a 2003 TS letter and I hunted around and missed it somehow! I've looked at it now, and all those values are good. I did duplicate the issue many of times, however not since I had talked with you. I road tested the unit yesterday with outside temperature at 19 degrees, and the fan came on at approx. 195 degrees F as it should with no issues. VCU group 19 coolant temp fan 0% and coolant temp fan 100% were set to 180 C and 200 C... I had been trying to figure out what those should be set to, and I did not get any definitive answers, so I changed them to match the PLD group 4 values respectively. I am not sure if this was potentially my fix as it seems to be resolved, or if the issue will return next winter. I can see that the previous values were not correct for sure, but I still cannot figure a conclusion of how ambient temperature would directly relate to these coolant temp settings. We cant always be 100% sure I suppose! Thanks for the help!



[Chris Vanboom](#) 163 posts since Nov 21, 2014

Unique fan issue after VCU replacement.

Re: Unique fan issue after VCU replacement. Nov 4, 2020 7:26 PM

The parameter list attached to this post just saved our butts! The DTNA help desk cannot supply parameter lists for MBE products prior to EPA07, and we needed to know which "SA" to set the service brake input to on an M2. Thank you for this post.