

Road Speed Governor



[Matthew Fox](#) 11 posts since Jul 4, 2015

Road Speed Governor Nov 13, 2019 3:52 PM

I have a unit serial FE6673, ESN 06RE134425 glider with 489870 miles, that no matter what max speed setting you program it allows the unit to go past the speed on foot control only, cruise function works to spec and will not allow unit to go over set limit. "example unit is set at max road speed of 67 mph and max cruise at 67 mph, but when using just accelerator pedal unit can do over 85 mph". Looking for other things to check, so far have checked ecm configuration "pass smart is off, fuel economy is set to no over speed", have tried test ecm, have programed a test ecm to a sister serial, have verified wiring VSS wiring circuit 556 to pin E2 ecm oem connector and circuit 557 pin E3 ecm oem connector, no issues both pinned correctly, no short to ground and no pin to pin shorts. Have checked VSG wiring circuit 417 to pin D2 ecm oem connector and circuit 510 to pin D1 ecm oem connector no issues and no short to ground and no pin to pin shorts. Unit is a 3 wire TPS with remote throttle wiring going to a oem jumper, circuit 510 is jumped to circuit 592 per spec and goes to pin D1 at ecm oem connector. Have tried changing speed setting no change, Looking for any other circuits or programing to check, drawings used are D06-30389-001, A06-37544-000, A06-37295-000.

- [Detroit ESN test parameters.pdf](#) 18.3 KB Preview
- [Detroit ESN test.ddl](#) 147.5 KB Preview
- [Christanson Farms Parameters.pdf](#) 18.6 KB Preview
- [Christanson Farms.xtr.ddl](#) 1.2 MB Preview



[Scott Trippel](#) 4,094 posts since Dec 13, 2014

Re: Road Speed Governor Nov 12, 2019 11:27 PM

Still sounds like a parameter to me: Check these settings

Parameter Description Choice / Display

VEHICLE SPEED LIMIT ENABLE Enables or disables vehicle speed limiting feature. YES, NO, N/A

MAX VEHICLE SPD Sets the maximum vehicle speed in MPH. 20 MPH to (rated speed/VSS ratio)

MAX OVERSPEED LIMIT

Sets the vehicle speed above which a diagnostic code will be logged if the driver fuels the engine and exceeds this limit.

Entering a zero (0) will disable this option.

0 to 127 MPH

MAX SPEED NO FUEL

Sets the vehicle speed above which a diagnostic code will be logged if the

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vehicle reaches this speed without fueling the engine. Entering a zero (0) will disable this option.

0 to 127 MPH

The Cruise Control maximum set speed cannot exceed the Vehicle Speed Limit.

Fuel Economy Incentive will increase the Vehicle Speed Limit. When Vehicle Speed Limiting is enabled and a VSS code is logged, the engine speed in all gears will be limited for the duration of the ignition cycle to engine speed at the Vehicle Speed Limit in top gear.

A vehicle can be set up with both PasSmart and Fuel Economy Incentive, but the extra speed increments provided by the two features do not add together. For example, if Fuel Economy Incentive is set up to give 7 MPH of extra speed when the driver hits the maximum fuel economy target and the PasSmart increase is 5 MPH the resulting speed increase is 7 MPH, not 12 MPH. VSS Anti-tampering can be used to detect fixed frequency oscillators or devices which track engine RPM and produce fewer pulses per revolution than a VSS wheel. These devices are used to trick the ECM into believing that vehicle speed is low.

A VSS fault will be logged if the sensor appears to be working improperly but the vehicle speed is not zero. The engine speed in all gears will be limited for the duration of the ignition cycle to the engine speed at the Vehicle Speed Limit in top gear.

NOTE:

Enabling VSS anti-tampering for use with SAE J1939, automatic, semi-automatic, or torque converter transmissions such as Meritor ESS or Eaton Top2 may cause false codes.



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 13, 2019 1:32 PM

Thank you for the input, I went through list this morning and from what I see unit should be set 67 with no other options to allow an over speed. Unit does not log any faults when you go over the speed of 67 either, uploaded parameters currently programed to the original post.



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 13, 2019 3:52 PM

Updated Flashed ecm to test esn per Detroit and calibrated injector trim codes, only changed max cruise, max road, and vss tire size and rear axle ratio settings. Test drove and same cruise works no issues, foot will allow any speed limit, attached log file and parameter list with test esn programed to original discussion.



[Jon Cecil](#) 929 posts since Nov 25, 2014

Re: Road Speed Governor Nov 13, 2019 4:00 PM

I know you already tried a test ECM but I ran into this issue with a Colombia a while back. Same complaint, can accelerate past parameter setting which would not produce a fault code either even though the parameters

were set to. We installed a new ECM and it resolved our issue. All the same parameters were put in. What are the chances that your test ECM is faulty as well?



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 13, 2019 4:13 PM

I have installed a test ecm shop use already and no change same parameters, also a brand new ecm with same parameters, have done a test ecm with test esn and test parameters no change.



[Jon Cecil](#) 929 posts since Nov 25, 2014

Re: Road Speed Governor Nov 13, 2019 6:13 PM

Have you pulled DDEC reports to see fuel economy. If by some weird chance your Series 60 actually is getting better than 7.0 MPG, the fuel incentive could be allowing the increased speed limit like [Scott Trippel](#) had mentioned in the first post. It looks like you would only be able to increase max of 10 mph from VSS limit so max would be around 77 MPH which doesn't make sense if you are able to do 85 mph. I see the max is already set to 0 but maybe put in 1 MPH for max and see if it changes anything.



[Cromwell Smith](#) 112 posts since Nov 13, 2014

Re: Road Speed Governor Nov 13, 2019 7:53 PM

WHILE DRIVING, MONITOR VEHICLE SPEED ON DDL, DOES IT MATCH SPEEDOMETER?



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 13, 2019 8:01 PM

Yes it does match speedo, never has a drops out or freezes either.



[Chris Reed](#) 66 posts since Dec 3, 2014

Re: Road Speed Governor Nov 14, 2019 3:25 AM

Just out of curiosity, do you have a speedometer app on your phone ? Compare the speed on your phone to the speedometer in dash



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 14, 2019 1:55 PM

Yes I do and yes I have done this speedo matches gps speed.



[Pat Moran](#) 111 posts since Nov 30, 2015

Re: Road Speed Governor Nov 14, 2019 5:24 PM

Great troubleshooting and great suggestions so far.

Road Speed Governor

This is a long shot, but there are aftermarket signal generator devices out there like SafetyPass Pro that are made to defeat road speed limits. You wire them into the VSS signal and they allow the truck to run over the road speed limit by showing the ECM a speed signal equal to the RSL parameter, but allowing the truck to run faster. Perhaps someone has installed one of those devices on the vehicle?

Google up SafetyPass Pro to see their device. There are probably other similar devices out there as well.



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 15, 2019 2:55 PM

Was not aware of this product good to know, and thanks unit does not have this or any other device installed.



[Nilton Chafloque](#) 1 posts since Oct 17, 2019

Re: Road Speed Governor Nov 14, 2019 6:17 PM

I have asked a couple of people and just like @Jon Cecil their fix was on the changing to a new ECM. If the sister truck doesn't do it with the original ECM or the new one then I would eliminate that option for now. Also, have you tried swapping the TPS from both trucks and see if it changes anything? (long shot)



[Andrew Brown](#) 43 posts since Jan 16, 2015

Re: Road Speed Governor Nov 15, 2019 1:55 PM

I had a customer get a new ECM from us for a S60 and I bench programmed it for him and I opened the road and cruise thinking that's what he would want. He installed the ECM and found out they were opened up and so he hooked to it with his DDDL and tried to change it and could not get it to take either. he said the cruise would hold at 70 but the foot would go over the set speed of 70. I had him bring it back in and I found the rev's and ratios were all wrong it was something I didn't think about checking because he said it was all original to the truck and nothing was changed so I assumed it would all be ok. I changed the set the tire revs and transmission final ratio to what it was suppose to be and then changed the cruise and road speed up one mile per hour to 71 and he said it fixed the problem. I know you have already set the rev's and axle ratio but double check the transmission final ratio. From you parameter list both say 1.00 witch would suggest a direct drive transmission. The one I did also was set to 1.00 after programming but it was suppose to be .74 for a overdrive transmission.



[Matthew Fox](#) 11 posts since Jul 4, 2015

Re: Road Speed Governor Nov 15, 2019 2:57 PM

Thank you for the info, checked this out and unit was programed to top gear ratio of 1.0 changed this to spec of trans and test drove road speed working to spec no issues, speedo still reading correct. And thanks again to every one for your help and suggestions! [Jon Cecil](#) The specified item was not found. [Scott Trippel Nilton Chafloque](#)



[Andrew Brown](#) 43 posts since Jan 16, 2015

Re: Road Speed Governor Nov 15, 2019 3:43 PM

Awesome I'm glad that fixed it!!



[Josh Wilson](#) 23 posts since Nov 3, 2018

Re: Road Speed Governor Nov 18, 2019 4:37 AM

If the trans top gear ratio was incorrect that would explain why the speedo was matching what was being displayed in dddl. But if that was in fact causing the issue there's no way the speedo and dddl were reading the same speed as a gps. Am I thinking about this correctly? And why would the cruise max speed work properly because the ecm is still using top gear ratio for its calculation even when in cruise?



[Andrew Brown](#) 43 posts since Jan 16, 2015

Re: Road Speed Governor Nov 18, 2019 2:21 PM

Going off what my customer said everything did look correct with the speeds and dddl was seeing the same speed as the speedo and his Garmin and the cruise would set right at 70mph with the tranny top gear set at 1.00. I'm going say your question is the million dollar question and well over my knowledge and pay grade. It does not make any sense to me as well I would not have believed it if it hadn't happened to me.



[Mark Smith II](#) 111 posts since Nov 14, 2014

Re: Road Speed Governor Nov 21, 2019 3:06 PM

Just want to say I know this guy, y'all gotta watch out for him!

Glad you got this figured out! Sounded like a real barn burner



[Jeff Siem](#) 3 posts since Aug 30, 2018

Re: Road Speed Governor Feb 10, 2021 12:21 AM

Most likely the top gear ratio in vss settings is set wrong. I have seen that before