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TO: FROM: Service Locations
 SUBJECT: Service Systems Development

Variable-Speed Fan Operation on Cascadia Vehicles

ISSUE

DDC has received complaints of engine fan on all the time in Cascadia vehicles equipped with variable-speed fans. There are settings required for proper operation and this letter shares those parameters.

REQUIRED ACTION

Using the following charts, ensure the CPC and MCM parameters are configured as listed when confronted with a complaint of fan operation in Cascadia vehicles equipped with variable- speed fans.

NOTE: It is normal for the fan to operate at idle when the truck is first started or when operating with the parking brake applied and the chassis A/C system is activated. This is intended to reduce the fan cycling while the driver is sleeping in the bunk during warm weather.

Variable speed fan operation is designed to operate at full speed capacity; in case of an overheat event or loss of communication with the MCM. To disengage the fan, the MCM sends a signal (PWM) to the fan clutch. After a long (overnight) soak time, high fan speeds may be experienced at start up for a short period of time. This is due to internal fluid equalization. Colder temperatures will affect the length of time that the Variable Speed Fan remains engaged on start up.

EPA10, GHG14 CPC

CPC Group	Parameter	Value
PGR001	CM1 Fan Source Addr1 SAE J1939	25*
PGR001	CM1 Fan Source Addr2 SAE J1939	49*
PGR006	Mode of AC Status Input	2 - AC Active Open
PGR019	Fan Vehicle Speed Threshold	0 kmh (mph)*
PGR019	Fan Vehicle Speed Enable	0 – Disabled*
PGR019	J1939 Fan Request Enable	1-CM1 from SA1 (see 001/008) and SA2 (see 001/009)
PGR019	Fan A/C Hold Time	180 sec
PGR019	Hold Time Fan	0 sec
PGR019	AC Fan Vehicle Speed Threshold	0 kmh (mph)*
PGR019	AC Fan Vehicle Speed Enable	0 – Disabled*
PGR019	PTO Enable Auto Fan Activation	0 – Disabled*
PGR019	Air Condition Enable Auto Fan	1 – Enabled
PGR019	Ramp Fan	100%/sec
PGR019	Trans Retarder Fan Percent	0%
PGR050	HDMS Transducer Enable	2 - Transducer with fan type 2

EPA10, GHG14 MCM

MCM Group	Parameter	Value
PGR001_PropValve	PWM14 Configuration	0 - No Function
PGR001_PropValve	PWM6 Configuration	5 - Fan 2
PWM6 FanConfig	Fan Type	2 - Variable Speed Fan with Fan Speed Feedback
PWM6 FanConfig	Dyn Fan Brake Enable	0 – Disabled*

NOTE: * Default values listed

CONTACT INFORMATION

Please contact the Detroit™ Customer Support Center at 800-445-1980 or email csc@daimler.com if you have any questions.