



Service Bulletin

PRELIMINARY INFORMATION

Subject: Normal Characteristic - HVAC Blower Motor Slow To Respond When Turned From Off To On

Models: 2015-16 Chevrolet Colorado
2015-16 GMC Canyon

This PI was superseded to update Model year. Please discard PIT5322.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

The HVAC blower motor used on these models has a normal delay when being turned ON to any blower speed from the OFF position. When the blower motor control is moved from the OFF position to any blower speed, there is an approximate 5 second delay before the blower motor begins to increase to the selected speed setting. This blower motor is a brushless design and operates differently than past models in that it uses back electromagnetic field (EMF) to control operation.

An electromagnetic field (EMF) is a physical field produced by electrically charged objects. It affects the behavior of charged objects in the vicinity of the field. The HVAC blower motor used on these vehicles has an approximate 5 second delay on start up after manually adjusting the power knob from OFF to ON. The biggest contributor to the delay in the start time is in the motor start-up phase, where the EMF is used to synchronize the rotor, which takes approximately 3 seconds all by itself. The back EMF method requires that current flows through the motor windings at a sufficient level in order to function without error. During this phase, the motor performs some critical functions while spinning the rotor up from 20 RPM to 450 RPM, in order to get a sufficient current generated, which allows the rotor position to be synchronized with the magnetic field rotation. Once this occurs the motor starts its ramp up.

Recommendation/Instructions

This is a normal operating characteristic. No repairs or part replacements should be performed for this characteristic operation.

Customer Information

Please communicate to the customer this condition is a normal operating characteristic of their vehicle. It will not impact the designed performance or reliability of the vehicle. Please share this information with the customer, including a copy of this message.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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