



Service Bulletin

TECHNICAL

Subject: Diagnostic Tips for Stop/Start and Auto Stop Operation

Attention: This Bulletin also applies to any models that may be Export vehicles.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	ATS, CTS	2014	2016			All	All

Condition	Some customers may comment on one or both of the following concerns: <ul style="list-style-type: none"> • Vehicle does not engage in Auto Stop mode. • Vehicle automatically restarts during an Auto Stop event.
Cause	Auto Stop mode is based on many factors. It is important first to verify that all conditions are met to enable Auto Stop mode.
Additional Options	Vehicles are equipped with Auto Engine Stop/Start System (RPO KL9).

Correction



Auto Stop may be deactivated if:

- Auto Stop mode is turned OFF by the driver
- Initial minimum vehicle speed during drive cycle was less than 19 km/h (12 MPH)
- Subsequent Auto Stop minimum speed required may vary from 2-10 km/h (1-6 MPH), depending on vehicle
- The Auto Stop time is greater than two (2) minutes
- Engine coolant temperature is greater than 125°C (257°F)
- Ambient temperature is less than -10°C (14°F)
- Battery temperature is less than -10°C (14°F) or greater than 55°C (131°F)
- The battery charge is low; less than 11V
- Battery state of charge is less than 73% (changes with state of health)
- The ambient engine and transmission temperatures are not at the required operating ranges

Note: Refer to the table in the Stop/Start Enable Temperature Criteria below.

- The shift lever is in any gear other than Drive. (automatic transmission)
- Transmission in neutral, clutch partially or fully depressed (manual transmission)
- Accelerator pedal is being applied
- A/C compressor request from HVAC (A/C or Defrost modes)
 - The interior comfort level has not been reached the required level for the climate control system or defog settings
 - Humidity level too high inside the passenger compartment, commanding A/C compressor ON within Vehicle Personalization Settings
 - High fan speeds
- Brake booster vacuum is less than 40 kPa (6 PSI)
- HVAC system demand is high
- HVAC defrost has been selected
- The learn procedure needs to be completed on the Battery Sensor Module
- Driver seat belt is not fastened and the driver's door is not fully closed (not applicable to vehicles in North America)

Stop/Start Enable Temperature Criteria

Ambient Temperature	-10°C (14°F)	0°C (32°F)	6°C (43°F)	12°C (54°F)	20°C (68°F)
Engine Temperature	60°C (140°F)	50°C (122°F)	40°C (104°F)	30°C (86°F)	18°C (64°F)
Transmission Temperature Range	0°C (32°F) minimum to 110°C (230°F) Maximum				

Many of the conditions that allow, or shorten, an Auto Stop are not visible or controlled by the operator. In general, skipped Auto Stop should be considered normal.

If a system malfunction is the cause for loss of Auto Stop, a diagnostic trouble code (DTC) will be set.

Stop/Start System Training

An overview course is available at the following websites:

- In the United States go to > www.centerlearning.com
- In Canada go to > www.gmprocanada.com

Course Name	Description	Course Type	Intended Audience
16040.31W	Overview of 12V Stop/Start System 2	Web	All Service Personnel

Customer Education / Unique Operating Characteristics

Customer Education

It is imperative that the customer be well informed about the unique features and operational characteristics of their vehicle equipped with Stop/Start. For the sales team to be fully prepared, they should use the Getting to Know Your Vehicle (GTK) guide (U.S. Only) as an outline when presenting the vehicle to the customer.

Additionally, service and parts leadership, service writers and technicians should familiarize themselves with these materials to avoid attempting repair of normal operating characteristics.

Diagnostic Aids

When attempting to diagnose an Auto Start or Auto Stop concern, the technician should review the Auto Start Inhibit Reason and/or Auto Stop Disable Reason lists available in the ECM. This list contains several parameters that are directly related to the Auto Start/Stop feature. They can be found in GDS 2 under ECM/Data Display.

These parameters list the current state of several parameters that can inhibit the Stop/Start feature. These parameters can be viewed while operating the vehicle on the road or on a hoist with traction control turned off, to assist in determining why an Auto Stop did not occur.

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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