



# Service Bulletin

## PRELIMINARY INFORMATION

**Subject:** Extended Crank Cold With DI (Direct Injected) Engines

**Models:** 2014-2015 Chevrolet Corvette  
2014-2015 Chevrolet Silverado 1500 Suburban, Tahoe  
2014-2015 GMC Sierra 1500 Yukon

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

### Condition/Concern

DI (Direct Injected) Engines with concerns of extended or long crank time during cold ambient air temps

### Recommendation/Instructions

Direct Injection engines may have slightly longer cold crank times than that of port fuel engines.

Direct Injection systems run at higher pressures, and the mechanical pump on the engine must build up the required pressure before the first injection event occurs.

The below are typical Direct Injection engine crank times on GASOLINE

Start up Coolant Temperature	Crank Time
Above 10° C	up to 1.5 sec
Between 10°c (50F) and (- 10°c 14F)	up to 2.5 sec
Between (-10°c 14F) and (-20°c -4F)	up to 3.5 sec
Between (-20°c -4F) and (-25°c -13F)	up to 5 sec
Between (-25°c -13F) and (-30°c -22F)	up to 7 sec

Below -30 deg. C -22F, the recommendation is to perform an assisted start (such as use of a block heater).

**Note:** For ETHANOL fuel see PIP5174: Extended Engine Crank Times When Using E85

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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