# 2014 - 2018 Corvette: Service Bulletin: #PIP5179D: Extended Crank Cold With DI (Direct Injected) Engines - (Mar 27, 2018)

## **#PIP5179D: Extended Crank Cold With DI (Direct Injected) Engines - (Mar 27, 2018)**

Subject:	Extended Crank Cold With DI (Direct Injected) Engines
Models:	2016–2018 Chevrolet Camaro
	2016–2018 Cadillac CTS-V
	2015-2018 Cadillac Escalade
	2014 - 2018 Chevrolet Corvette
	2014-2018 Chevrolet Silverado 1500 Suburban, Tahoe
	2014-2018 GMC Sierra 1500 Yukon
	with engines 4.3L, 5.3L, 6.2L RPO's LV3, L83, L86, LT1, LT4

This PI was superseded to update Model Years. Please discard PIP5179B.

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 airtemps

#### 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 buildup 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  $(-10^{\circ}\text{c }14\text{F})$  and  $(-20^{\circ}\text{c }-4\text{F})$  up to 3.5 sec

Between  $(-20^{\circ}\text{c} - 4\text{F})$  and  $(-25^{\circ}\text{c} - 13\text{F})$  up to 5 sec

Between  $(-25^{\circ}\text{c} - 13\text{F})$  and  $(-30^{\circ}\text{c} - 22\text{F})$  up to 7 sec

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

**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.

### Online URL:

https://www.corvetteactioncenter.com/tech/knowledgebase/article/2014-2018-corvette-service-bulletin-pip5179d-extended-crank-cold-with-di-direct-injected-engines-mar-27-2018-1351.html