

2015 - 2017 Corvette: Service Bulletin: #16-NA-364: Delayed Engagement After Sitting With Engine Off - Clutch Slow to Fill

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Subject:	Delayed Engagement After Sitting With Engine Off - Clutch Slow to Fill
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Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade	2015	2017				8L90 (M5U, M5X)
	ATS	2016	2017				8L45, 8L90 (M5N, M5T, M5U)
	CTS	2016	2017				8L45, 8L90 (M5N, M5T, M5U)
	CT6	2016	2017				8L45, 8L90 (M5N, M5X)
Chevrolet	Camaro	2016	2017				8L45, 8L90 (M5T, M5U)
	Corvette	2015	2017				8L90 (M5U)

	Colorado	2017	2017				8L45 (M5T)
	Silverado	2015	2017				8L90 (M5U, M5X)
	Suburban	2017	2017				8L90 (M5U, M5X)
	Tahoe	2017	2017				8L90 (M5U, M5X)
GMC	Canyon	2017	2017				8L45 (M5T)
	Sierra	2015	2017				8L90 (M5U, M5X)
	Yukon	2015	2017				8L90 (M5U, M5X)

***Involved Region or Country
Condition***

North America and N.A. Export Regions

Some customers may comment on a condition of delayed engagement when the transmission is shifted from Park to Reverse or Park to Drive after the vehicle has been sitting with the engine off. This condition may typically occur after several hours or more commonly overnight.

Customers may describe this condition as:

- Vehicle delaying into gear.
- Not wanting to move.
- Feeling like the transmission is slipping.
- Delayed engagement followed by a harsh engagement.

Operation will be normal for the subsequent engagements throughout the day and the condition will not occur until the vehicle sits

again with the engine off for several hours or overnight.

Delayed Harsh Engagement - Clutch Slow to Fill

Note: *Vehicle should only be evaluated if sitting for a minimum of 8 hours but less than 24 hours. To be measured at 50° F (10° C) and above.*

Delayed Engagement Park to Reverse or Drive is present if the time difference between Gear Selected (Pt. 1) and Transmission Input Shaft Speed reaching 0 RPMs (Pt. 2) exceeds 3 seconds. Foot is HELD on Brake during maneuver.

The slide bar on the bottom left of GDS2 Screen can be used to aid in discerning time (Pt. 2 – Pt. 1) = Delayed Engagement Time.

If the customer describes the condition as a long engagement time with a harsh or bump engagement feel when shifting the vehicle from Park to Drive or Reverse, use GDS and monitor engine RPM and the transmission Input Speed Sensor (ISS) prior to starting the engine. Start the engine with the transmission in Park. The ISS should equal engine RPM in 2 seconds or less. If the ISS takes more than 2 seconds to equal engine RPM, then follow the procedure for replacing the stator shaft support (Refer to Bulletin 16-NA-014). If the ISS is equal to engine RPM in 2 seconds or less, shift the vehicle from Park to Drive or Reverse leaving the service brake applied. The ISS should drop to zero “0” within 3 seconds; this is clutch engagement time. Recording a GDS session log can be useful in diagnosing this condition.

Note: This procedure will allow the pressures to adapt and improve the engagement time to Reverse.

For 2015 MY vehicles, disassemble the transmission and inspect the 1-3-5-6-7 Clutch (C3) for a delay into Drive and inspect the 4-5-6-7-8 Reverse Clutch (C5) for a delay into Reverse. The respective clutch plates and seals should be inspected for wear and or damage.

- If an issue is not discovered during disassembly, the transmission should be replaced. GDS should be used to confirm the actual transmission clutch

engagement time of 3 seconds or longer prior to disassembly.

For 2016-2017 MY vehicles, attempt to learn the C5 - Reverse and C3 - Drive Clutch using the following procedure:

1. Allow the transmission sump temperature to rise between 20° and 30°C (68° and 86°F).

Note: *Do NOT* apply the accelerator pedal.

2. Perform 20 Park to Reverse shifts or 20 Park to Drive shifts releasing the brake pedal with each shift allowing the vehicle to roll 5-10 feet per engagement into gear.

If the learn procedure does not correct the condition, disassemble the transmission and inspect the 1-3-5-6-7 Clutch (C3) for a delay into Drive and inspect the 4-5-6-7-8 Reverse Clutch (C5) for a delay into Reverse. The respective clutch plates and seals should be inspected for wear and or damage.

- If an issue is not discovered during disassembly, the transmission should be replaced. GDS should be used to confirm the actual transmission clutch engagement time of 3 seconds or longer prior to disassembly.

Warranty Information

For vehicles repaired under the Powertrain coverage, use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Year	Description	Labor Time
8465362	2015	2-3-4-6-8 and 4-5-6-7-8 Reverse Clutch Assembly Overhaul	Use Published Labor Operation Time
8464670	2015-2017	Transmission Inspection and Replacement	Use Published Labor Operation Time

8480318*	2016-2017	Drive Learn Procedure	Straight Time
*This is a unique Labor Operation for Bulletin use only.			
<i>Version</i>		2	
<i>Modified</i>		June 29, 2017 - Added the CT6, Colorado and Canyon models.	

Online URL: <https://www.corvetteactioncenter.com/tech/knowledgebase/article.php?id=1373>