2016 - 2020 Cadillac CTS-V and CT6-V: Service Bulletin: #20-NA-038: Information on Active Fuel Management (AFM) and Dynamic Fuel Management (DFM) Usage - (Apr 8, 2021)

#20-NA-038: Information on Active Fuel Management (AFM) and Dynamic Fuel Management (DFM) Usage - (Apr 8, 2021)

Subject:	Information on Active Fuel Management (AFM) and Dynamic Fuel Management (DFM) Usage

This bulletin replaces PIP5663. Please discard PIP5663.

Brand:	**Model**:	**Model Year:**		**VIN:**		**Engine:**	**Transmission:**
		from	**to**	**from**	**to**		
Cadillac	CTS	2016	2019	—	—	6.2L (LT4)	—
	CT6	2016	2020			6.2L (LTA)	
	Escalade	2015	2021			5.3L (L83) 6.2L (L86)	
Chevrolet	3500/4500 Medium	2020	2020			6.6L (L8T)	

Duty (LCF)			
Camaro	2016	2021	6.2L (LT1, LT4)
Corvette	2014	2019	6.2L (LT1, LT4, LT5)
	2020	2021	6.2L (LT2)
Express	2018	2021	4.3L (LV1), 6.6L (L8T)
Silverado	2014	2018	4.3L (LV1, LV3)
			5.3L (L83)
			6.2L (L86)
Silverado 1500 (New Model)	2019	2019	4.3L (LV3)
			5.3L (L82, L84)
			6.2L

				(L87)
	Silverado LD	2019	2019	5.3L (L83)
	Silverado 1500	2020	2021	4.3L (LV3)
				5.3L (L82, L84)
				6.2L (L87)
	Silverado 2500/ 3500	2020	2021	6.6L (L8T)
	Suburban	2015	2021	5.3L (L83, L84)
				6.2L (L86, L87)
	Tahoe	2015	2021	5.3L (L83, L84)
				6.2L (L86, L87)
GMC	Savana	2018	2021	4.3L (LV1), 6.6L

			(L8T)
Sierra	2014	2018	4.3L (LV1, LV3)
			5.3L (L83)
			6.2L (L86)
Sierra 1500 (New Model)	2019	2019	4.3L (LV3)
			5.3L (L82, L84)
			6.2L (L87)
Sierra Limited	2019	2019	4.3L (LV3)
			5.3L (L83)
			6.2L (L86)
Sierra 1500	2020	2021	4.3L (LV3)
			5.3L (L82, L84)

			6.2L (L87)
Sierra 2500/3500	2020	2021	6.6L (L8T)
Yukon Models	2015	2021	5.3L (L83, L84) 6.2L (L86, L87)

Involved Region or Country	North America, Europe, Uzbekistan, Russia, Middle East, Iraq, Israel, Palestine, Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Japan, Cadillac Korea (South Korea), GM Korea Company, China, Taiwan, Thailand, Singapore, Philippines, Egypt, Other Africa, South Africa
Information	AFM (Active Fuel Management) To provide maximum fuel economy under light load driving conditions, the engine control module (ECM) will command the cylinder deactivation system ON to deactivate engine cylinders 1, 7, 6, and 4, switching to a V4 mode. The engine will operate on 8 cylinders, or V8

mode, during engine starting, engine idling, and medium to heavy throttle applications.

AFM – active fuel management strategy which deactivates the lifters on specific cylinders. On V8 engines, it deactivates half of the cylinders (1,7,6 and 4) and on V6 engines, it deactivates only 2 of the cylinders (3 and 6). For LTA and LT2 engines, the deactivation occurs on cylinders 2, 3, 5 and 8.

LOMA – lifter oil manifold assembly is only used on legacy AFM applications

DFM (Dynamic Fuel Management)

Dynamic Fuel Management (DFM) is recognized as active fuel management technology with the additional ability to deactivate any combination of cylinder valves for an internal combustion engine. This technology combines millisecond-accurate torque control with cylinder deactivation to optimize fuel consumption of spark ignited engines. The control of every cylinder event optimizes engine operation such that peak efficiency is obtained throughout the range of engine operation. DFM extends

cylinder deactivation to all cylinders, which allows for a large variety of firing sequences. DFM can have rotating cylinder deactivation patterns as well as fixed patterns. For rotating patterns, which cylinders are being deactivated can change with each subsequent engine cycle. Transitions between firing sequences is done in a continuous fashion, making the transitions seamless and transparent to the vehicle operator.

DFM – dynamic fuel management which can deactivate the lifter on any cylinder at any time. Unlike AFM, this can result any many different types of firing patterns, some of which are fixed patterns (like ¼, ½, ¾) and others which are rotating (like 1/5, 1/3, 2/5, 2/3). This is only available on small block engines (L84 and L87).

OCV – oil controlled valve is only used on small block engines. These provide faster response times than LOMA and are required for DFM (on L84 and L87). OCVs are also used on L82 for AFM.

Refer to the AFM/DFM Usage Chart below.

AFM/DFM Usage Chart

Vehicles	AFM VLOM	4 Cylinder Deactivation	DFM. OCV's	FDFM	None	Notes
CTS LT4	Yes	Yes	No	No	—	Always active
CT6 LTA	No	Yes	No	No	—	—
Camaro LT1	Yes	Yes	No	No	—	Automatic only. AFM not active with Manual trans
Camaro LT4	Yes	No	No	No	—	Has the hardware, Not active
Corvette LT1	Yes	Yes	No	No	—	Auto Trans active, Manual Trans active in ECO only
Corvette LT2	No	Yes	No	No	—	—
Corvette	Yes	Yes	No	No	—	Auto

LT4						Trans active, Manual Trans active in ECO only
Corvette LT5	No	No	No	No	Yes	No hardware on LT5
Escalade L83, L86	Yes	Yes	No	No	—	—
Escalade L87	No	No	Yes	Yes	—	—
Express/ Savana LV1	No	No	No	No	—	No hardware on LV1
Silverado/Sierra L83, L86	Yes	Yes	No	No	—	—
Suburban/Tahoe /Yukon L83, L86	Yes	Yes	No	No	—	—
Suburban/Tahoe	No	No	Yes	Yes	—	—

/Yukon L84, L87						
Silverado/Sierra L82	No	Yes	Yes	No	—	—
Silverado/Sierra L84	No	No	Yes	Yes	—	—
Silverado/Sierra L87	No	No	Yes	Yes	—	—
Silverado/Sierra L82, L84 with RPO YK9 Only	Yes	No	Yes	No	—	Hardware is there ECM and Software not capable
Silverado/Sierra HD L8T	No	No	No	No	—	No hardware on L8T
Silverado/Sierra LV1	No	No	No	No	—	—
Silverado/Sierra LV3	Yes	Yes	No	No	—	—
3500/45	No	No	No	No	—	No

00 Medium Duty (LCF)	hardware on L8T

Information

Note: Beginning in March 2021, most 2021 Silverado 1500 and 2021 Sierra 1500 pickups equipped with L82 MYC 6-speed and L84 MQE 8-Speed will be produced without Active Fuel Management/AFM (L82), or Dynamic Fuel Management/DFM (L84). The engines will still be equipped with the hardware, but the ECM and software will not be capable of activating this technology.

Pickups equipped with L82 MYC or L84 MQE, which are produced without AFM or DFM function, will be identified with New RPO YK9 (Not Equipped with Cylinder Deactivation).Internal components related to AFM or DFM function will be present in engines; wiring, connectors, and fuses will be present in vehicles with RPO YK9. The ECM will not be capable of activating the cylinder deactivation technology.

Parts Information

No parts are required for this repair.

Version	2
Modified	Released February 26, 2020 April 08, 2021 – Added 2021 Model Year to certain models, added

additional vehicles to AFM/DFM Usage Chart and added the Information section.

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