Service Bulletin

Bulletin No.: 20-NA-038
Date: July, 2024

INFORMATION

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)	—
	CT5	2022	2024			6.2L (LT4)	
	CT6	2019	2020			4.2L (LTA)	
	Escalade Models	2015	2020			5.3L (L83) 6.2L (L86)	
		2021	2024			6.2L (L87)	
		2023	2024			6.2L (LT4)	
Chevrolet	3500/4500 Medium Duty (LCF)	2020	2024			6.6L (L8T)	
	Camaro	2016	2024			6.2L (LT1, LT4)	
	Corvette	2014	2019			6.2L (LT1, LT4, LT5)	
		2020	2024			6.2L (LT2)	
	Express	2018	2024			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 1500 - LTD (RPO J21, VIN Digit 12 = 4 or less)	2022	2022			5.3L (L82, L84) 6.2L (L87)	
	Silverado 1500 - New (RPO J22, VIN Digit 12 = 5 or greater)						
	Silverado 1500	2023	2024				
	Silverado 2500/3500	2020	2024			6.6L (L8T)	

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
GMC	Suburban	2015	2024			5.3L (L83, L84) 6.2L (L86, L87)	
	Tahoe	2015	2024			5.3L (L83, L84) 6.2L (L86, L87)	
	Savana	2018	2022			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 1500 - Limited (RPO J21, VIN Digit 12 = 4 or less)	2022	2022			5.3L (L82, L84) 6.2L (L87)	
	Sierra 1500 - New (RPO J22, VIN Digit 12 = 5 or greater)						
	Sierra 1500	2023	2024				
	Sierra 2500/3500	2020	2024			6.6L (L8T)	
	Yukon Models	2015	2024			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, Australia, New Zealand.
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.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

AFM/DFM Usage Chart

Vehicles	AFM VLOM	4 Cylinder Deactivation	DFM. OCV's	FDFM	None	Notes
CTS LT4	Yes	Yes	No	No	—	Always active
CT5 LT4	Yes	Yes	No	No	—	Only Auto Trans 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 LT4	Yes	Yes	No	No	—	Auto 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 LT4	Yes	No	No	No	—	Has the hardware, Not active
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/Yukon L84, L87	No	No	Yes	Yes	—	—
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

Vehicles	AFM VLOM	4 Cylinder Deactivation	DFM. OCV's	FDFM	None	Notes
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	—	—
3500/4500 Medium Duty (LCF)	No	No	No	No	—	No 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	4
Modified	Released February 26, 2020 Revised April 08, 2021 – Added 2021 Model Year to certain models, added additional vehicles to AFM/DFM Usage Chart and added the Information section. Revised March 16, 2022 - Added 2022 Model Year. Revised July 23, 2024 - Added 2023 and 2024 to Applicable Models and Added CT5 Information.