

EC16-031

NTB16-101

October 27, 2016

Date:

2016 TITAN XD WITH CUMMINS 5.0L; **DPF WARNING LIGHT IS ON**

APPLIED VEHICLE:	2016 Titan XD (A61)
APPLIED ENGINE:	Cummins 5.0L

IF YOU CONFIRM:

The Diesel Particulate Filter (DPF) warning light is ON

AND/OR

The Vehicle Information Display states "Exhaust Filter Overloaded See Owner's Manual For Drive Pattern"

AND

DTC P1451 (Diesel Particulate Filter System Performance) is stored in the ECM

NOTE: This DTC will not turn the MIL ON.

AND

The vehicle has less than 100 miles on the odometer.

ACTION:

- 1. Perform a stationary regeneration.
 - Go to SERVICE PROCEDURE on page 2.
- 2. Erase the DTC.

IMPORTANT: The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire SERVICE PROCEDURE as it contains information that is essential to successfully completing this repair.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Stationary Regeneration

NOTE: If the vehicle mileage is not less than 100 miles, <u>this bulletin does not apply</u>. Refer to ASIST and the Electronic Service Manual (ESM) for further diagnosis of DTC P1451.

WARNING: Exhaust system components can become hot enough during operation and testing to cause burns or ignite and melt combustible materials. The exhaust and exhaust components can remain hot after the vehicle stops moving and has been shut down. To avoid the risk of fire, property damage, burns, or other serious personal injury, allow the exhaust system to cool before beginning repairs or service. Make sure that no combustible materials are located where they are likely to come in contact with hot exhaust or exhaust components.

- 1. Select an appropriate location to service the vehicle.
 - An "appropriate location" would be where the ground surface will not burn or melt under high temperatures (such as clean concrete or gravel, not grass or asphalt) and away from anything that can burn, melt, or explode.
- 2. Make sure anything that can burn, melt, or explode is more than 1.5 m (5 ft) away from the vehicle.
 - Examples include, but are not limited to, gasoline, wood, paper, plastics, etc.
- 3. Park the vehicle securely.
 - Put the transmission in Park.
 - Apply the parking brake.
 - Set wheel chocks at the front and rear of at least one tire.
- 4. Set up a safe exhaust area.
 - Use barriers to keep people at least 1.5 m (5 ft) away from the exhaust tailpipe during stationary regeneration.
 - If indoors, attach an exhaust discharge pipe rated for at least 800°C (1,500°F).
 - Have a fire extinguisher close by.
- 5. Inspect the exhaust system.
 - Make sure there is nothing on or near exhaust system surfaces (for example, tools, shop cloths, grease, debris, etc.).
- 6. With engine speed changes during stationary regeneration, stay clear of the engine compartment.

- 7. Connect the CONSULT PC to the vehicle.
- 8. Open / start C-III plus.
- 9. Start the engine, let the engine idle.
- 10. Wait for the plus VI to be recognized.
 - The Serial No. will display when the plus VI is recognized.
- 11. Select Diagnosis (All Systems).

	CONSULT-III plus Ver Ver Back Home	VIN:-	Vehicle : - Recorded Data	Country : United States VI MI	
	Connection Statu	s	Diagnosis Menu		
Step 10:	Serial No.	Status	Diagnosis (O	ne System)	
recognized	VI 2311418	Normal Mode/Wireless connection	Diagnosis (A	Il Systems)	.p
	MI -				I
		No connection	Re/programm	ning, Configuration	
	Select VI	MI	Immobilizer		
	Application Setting	Language Setting	Maintenance		
	VDR]		
		<u> </u>			

Figure 1

12. Verify the vehicle information is correct, and then select **Confirm**.

CONSULT-III plus Ver	VIN:-	Vehic	le : -		Country : United States	
Back Home Print Screen	Screen Capture	Recorded Data	ERT 14.5V			
Diagnosis (All Select Systems)	t Vehicle Confir	m Vehicle				
Please confirm selected information touch "Change".	and touch "Confirm	n''. In case you want	to select another	vehicle,		
VIN or Chassis #		1N6BA1F42	GNXXXXXX			
Vehicle Name :		TITA	AN .		_	
Model Year		201	x			
			1/1			
					Change Confirm	Step
						12

Figure 2

- 13. Verify there are no DTCs other than DTC P1451.
 - a. If any DTCs are found stored other than P1451, STOP HERE. Diagnose and repair as needed before continuing the service procedure.
 - Diagnosis and repairs related to any stored DTCs other than P1451 are not part of this bulletin.
 - b. With no other DTCs stored, select **ENGINE**.

	Back Back Home	Print Screen	Secon And Data Diagnosis (All
	Systems)	Select	Vehicle Systems)
	All DTC	che CAN Diag	CAN DIAG SUPPORT MNTR
	Result		Detailed Information
Step	ENGINE	CRNT	P1451 DIESEL PARTICULATE FILTER SYSTEM PERFORMANCE CRNT FFD DTC Expla
	ABS	NO DTC	
	METER/M&A	NO DTC	
	ВСМ	NO DTC	
	AIR BAG	NO DTC	Print for Customer
	TRANSMISSION	NO DTC	Print
	IPDM E/R	NO DTC	Save
	1/2		010 ERASE
			Figure 3

14. Select the Active Test tab, and then select DPF Regeneration.

• If **DPF Regeneration** does not display, select the arrow button shown in Figure 4.

	Image: Streen Back Image: Streen Capture Image: Streen Mode Step Mode Image: Streen Mode<	
	Self Diagnostic Data Monitor	
Sten	Test Item MONITOR ITEM Clear	
	DPF Regeneration Monitor Menu	
	DEF System Leak Test	
	DEF Dosing Unit Override Test	
	Fuel System Leakage Test	
	DEF Line Heater Test	
	DEF Tank Heater Test	
	RTCV Hysteresis Test	
	Fuel Supply Pump Override Test	
Т	rn Start	
pag		
	Eiguro A	

- 15. After selecting **DPF Regeneration**, some items under **Monitor Menu** may already be selected automatically.
 - Make sure **DPF SOOT LOAD** is part of the selection list. Manually select as needed.
 - > Select the arrow buttons as needed to find **DPF SOOT LOAD**.
- 16. Select Start.

Back Home Print Screen S Diagnosis (All Select V	creen Mode Recorded Hit	ep ERT CALL ENGINE	
Systems) Self Diagnostic Result	r Work support	Systems) ECU ECU Identification	
Test Item DPF Regeneration	MONITOR ITEM Monitor Menu	MAIN SIGNALS	Clear
DEF System Leak Test	CC TARGET SPEED	DPF SOOT LOAD	Step 15
DEF Dosing Unit Override Test	CRUISE CNTL STAT	DEF LINE HTR STAT	
Fuel System Leakage Test	NO of ENG CYLINDERS	DEF LINE PRESS	
DEF Line Heater Test	Cylinder cutout test status	DEF LAMP STATUS	
DEF Tank Heater Test	No of def prime test attempts	DUAL VALVE FUEL CNTRL	Step 16
RTCV Hysteresis Test	Max allow def prime attempts		
Fuel Supply Pump Override Test	DEF PRIME TEST STATUS	Turn pages	
1/2		4/14	Start

Figure 5

17. After selecting **Start** (step 16), a screen similar to Figure 6 will appear.

IMPORTANT: Access all related Notes, Cautions, and Warnings by selecting the arrow buttons where shown in Figure 6.

- 18. Make sure **DPF SOOT LOAD** appears.
 - **DPF SOOT LOAD** may be on the second page.
 - > Select the arrow button to get to the second page.

19. Select Start.

NOTE:

- Once the Aftertreatment DPF Regeneration Test is started, follow CONSULT electronic service tool on screen instructions. When the test is started, the engine idle speed will be raised automatically to the required level.
- The engine will, through engine controls, operate in a manner to build exhaust heat. The turbocharger will emit a slight whining noise during this test. This is normal.
- Once the Aftertreatment DPF Regeneration Test is complete, the engine will automatically return to normal idle speed.
- Make sure the vehicle and surrounding area is monitored during regeneration. If any unsafe condition occurs, shut the engine OFF immediately.

			_			States
Back Back Print Screen	een oture Mode	ent Recorded Data	P telp	14.3V VI	MI	Step
Diagnosis (All Select Ve Systems)	hicle Con	firm Vehicle	Diagnosis (All Systems)	ENGI	NE	19
Active Test : DPF Regeneration						
Initial conditions 1. Engine Running at Idle. 2. Vehicle Stopped. During regeneration, exhaust gas temp	erature could re	each 800 C (1472 F), and exhaust	system surfa	ce	Start
				1/9		
Current status			Waitir	ig for your op	eration	Step 17
MONITOR						
DPF INLET TEMP			86	°C		
DPF DELTA PRESS SENS V			1	v		
DPF DELTA PRESS			0	kPa		
DPF OUTLET TEMP	Ston]	78	°C		
DPF SOOT LOAD	18		36	gm		
ENGINE OPER STATE		Fue	ling LSG state			
		Ste 18		2 / 2		End

Figure 6

20. Monitor **DPF SOOT LOAD**, make sure it drops to 9 grams or below (see Figure 7).

- Do not select **End** or **Stop** until C-III plus states the stationary regeneration process has "stopped" on its own.
- If the stationary regeneration needs to be stopped for any reason at any time while in progress, stop it by performing one of the following:
 - Select **End** or **Stop** on the C-III plus screen.
 - Depress the brake pedal.
 - > Depress the accelerator pedal, or
 - > Turn the engine OFF.

Ver.03F41.10				States				
Back Rome Print Screen	een ture Measuremen Mode	nt Recorded Data	13.6V VI MI	-				
Diagnosis (All Select Vel	hicle 🕨 Conf	irm Vehicle Diagnosis (All Systems)	ENGINE					
Active Test : DPF Regeneration								
Initial conditions 1. Engine Running at Idle. 2. Vehicle Stopped. During regeneration, exhaust gas tempe	erature could re	ach 800 C (1472 F), and exhaust	system surface	Sto				
			1/9					
Current status		(Command in Progress					
MONITOR								
DPF INLET TEMP		550	°C					
DPF DELTA PRESS SENS V		1	v					
DPF DELTA PRESS		1	kPa] 📕				
DPF OUTLET TEMP	Ston	560	°C					
DPF SOOT LOAD	20	6	gm					
ENGINE OPER STATE		Fueling regen		XN				
		:	2/2	End				
Figure 7								

Go to the next page.

- 21. When the stationary regeneration completes, the screen in Figure 8 will appear. Select **End**.
 - At this time, exhaust gas and exhaust surface temperatures will remain elevated for three to five minutes.
 - During the 3-5 minute period, letting the engine idle will allow the exhaust gas and surface temperatures to cool.

NOTE:

- Do not select **End** until C-III plus states the stationary regeneration process has completed on its own (see "completed" screen in Figure 8).
 - If End is selected before self-completion, C-III plus will still show the process as complete regardless of the gram count.
 - If this occurs, the vehicle will <u>not</u> be properly repaired and the stationary regeneration process will need to be performed again.

<u> </u>		ver.coP41.	. 10_				_				States	
Back	Home	Print Scree	en Screen Capture	Measurement. Mode	Recorded Data	C Help	ERT	13.7V	YI VI	× MI		
	iagnosis (All ystems)		Select Vehicle	Confirm	m Vehicle 🕨	Diagn Syst	osis (All tems)		ENGIN	IE		
Active Tes	t : DPF Rege	eneration										
Stopped												
												Step 21
												End

Figure 8

- 22. Once the stationary regeneration is complete, check for DTCs and/or engine indicator lamps for high diesel particulate soot load.
 - Erase DTC P1451 now.
 - If any active DTCs are present, follow the appropriate DTC diagnostic information in the ESM.
- 23. Close C-III plus.
- 24. Turn the ignition OFF.
- 25. Disconnect the plus VI from the vehicle.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Perform Stationary Regeneration	208D2-EZ40B	EX2NAA	HC	32	0.5 hrs.