



Countries: CANADA, UNITED STATES, PUERTO RICO
Availability: ISIS, FleetTIS
Major System: ENGINES
Current Language: English
Other Languages: NONE
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Coding Information

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Title: EGR Valve Diagnostics

Applies To: 2010 Emissions MaxxForce 11 & 13 Liter Engines

CHANGE LOG

DO NOT delete the Change Log.

Updated : 03/27/2014 : Adjusted Title 03/21/2014 - Added diagnostic step to 27-4, added EGR Valve Generation Identification steps, added change log, updated part number.

Description

- ECM shows an active or inactive SPN 27 FMI 7 or SPN 27 FMI 4
- (Use PocketMaxx or an EZ-Tech to generate a Health Report which is now required for warranty reimbursement per [WPL13-009G](#). The Health Report will include any active DTC's and will link you to the Fault Code Action Plan.)
- Check for any Open MIN's, AFC's, and Managed Repairs Prior to starting this document.

NOTE:

If NO EGR Valve Faults are present DO NOT replace the EGR Valve no repairs are required for the EGR system.

Symptoms

- Check Engine Light On
- EGR Valve Component / Circuit Fault Code

Possible Diagnostic Trouble Codes

SPN	FMI	MODULE	DESCRIPTION
27	7	ECM	EGRP does not agree with Commanded Position
27	4	ECM	EGRP Signal Out of Range Low

Parts Information

- 7092735C93 (5010696C92 if 7092735C93 is not available) KIT, EGR VALVE
- If Necessary : Harness Repair Kit Part Number : Connector TXT126870214, Wiring TXT126870120, Tools : 49304,49305

Resolution

NOTE:

- If faults 27-4 (Table 1) and 27-7 (Table 2) are both present you will need to diagnose the 27-4 fault first.
- If NO EGR Valve Faults are present DO NOT replace the EGR Valve no repairs are required for the EGR system.

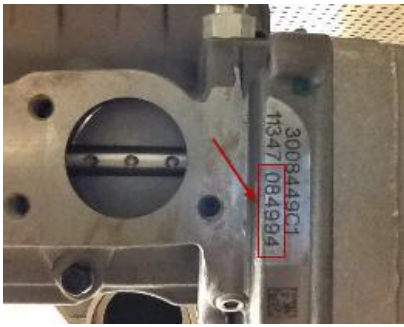
Diagnostic Steps when Fault 27-4 is present:

Diagnostic Steps (Table 1)	YES	NO
1. Check Service Portal and see if the vehicle qualifies for Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines . Does the vehicle qualify for the managed repair?	Follow Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines	Continue to Step 2
2. Verify Generation of EGR Valve : Is it an Old Generation EGR Valve? (See Serial Number Identification process Below)	Replace the EGR Valve	Continue to Step 3
3. Check the vehicle build date • Was the vehicle built BEFORE 07/01/2012?	Replace the EGR Valve wiring pigtail with splice kit from the engine terminal repair kit (TL2900024 Big Bore Terminal Replacement Kit and Manual) . Apply dielectric grease on the new terminals.	Continue to Step 4
4. Clear all faults with EST. 5. Run EGR Valve Actuator Test in ServiceMaxx. • Did the Actuator test pass?	Release the vehicle to the customer	Contact your supervisor

Diagnostic Steps when Fault 27-7 is present:

Diagnostic Steps (Table 2)	YES	NO
1. Check Service Portal and see if the vehicle qualifies for Managed Repair 2010 Emissions MF11/13 EGR Valve Inspection Guidelines . Does the vehicle qualify for the managed repair?	Follow Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines	Continue to Step 2
2. Clear all faults with EST. 3. Run EGR Valve Actuator Test in ServiceMaxx. • Does Fault 27-7 return?	Replace the EGR Valve • If the vehicle was built BEFORE 07/01/2012 you will also need to replace the EGR Valve wiring pigtail with splice kit from the (TL2900024 Big Bore Terminal Replacement Kit Manual) . Apply dielectric grease on the new terminals.	Release the vehicle to the customer

Serial Number Identification Process shown below:



The generation of the valve can be identified by the serial number (the 6 digit code highlighted in the red box in the picture above) if it starts with 1 it is considered to be an old valve (On 2010 Emissions MF11/13 only. NOT SCR equipped vehicles). If the serial number starts with a 2 it is a newer generation valve.

Note : If it starts with a 0 and has part number 5010697R1 stamped on it the EGR Valve is a New Generation. If it starts with a 0 and has part number 3008449C1 as illustrated above then it is an Old Generation EGR Valve.

Warranty Claim Submission

- **Requirement :** Include the Serial Number of the failed and new EGR Valve in the subsequent warranty claim "CCC" and the "Failed Serial #" fields (See Photo Below).
- **Requirement :** Be sure the replacement EGR Valve Serial # starts with a 2 (Serial Number location shown below).



Labor Times and Warranty Information For EGR Valve Replacement :

- Group Description: 12000
- Noun Description: 893
- **Standard Repair Time:**

Time	SRT	Chassis Model	Engine Model
2.8	N12-6893U	7600	MaxxForce 11/13
2.8	Q12-6893U	8600	MaxxForce 11/13
2.9	R12-6893U	ProStar	MaxxForce 11/13

2.8	T12-6893U	5000	MaxxForce 11/13
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Labor Times For EGR Valve Actuator Test Replacement :

<u>Time</u>	<u>SRT</u>	<u>Chassis Model</u>	<u>Engine Model</u>
<u>0.1</u>	<u>T-Time</u>	<u>All</u>	<u>All</u>

Labor Times For EGR Valve Pigtail Replacement :

<u>Time</u>	<u>SRT</u>	<u>Chassis Model</u>	<u>Engine Model</u>
<u>0.2</u>	<u>A08-2001A</u>	<u>All</u>	<u>All</u>

Labor Time For Engine Cover Removal and Installation (Use only if EGR Valve Pigtail is repaired, not for use on EGR Valve Replacement)

<u>Time</u>	<u>SRT</u>	<u>Chassis Model</u>	<u>Engine Model</u>
<u>0.8</u>	<u>A16-7555A</u>	<u>ProStar</u>	<u>MaxxForce 11/13</u>
<u>0.8</u>	<u>T- Time</u>	<u>All</u>	<u>MaxxForce 11/13</u>

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<u>Staff ID</u>	<u>Client ID</u>	<u>Comments</u>	<u>Created Date</u>
	DY30402	You received the following feedback From: dy30402 - Matthew Davidson Email Address: Matthew.davidson@summittruckgroup.com Job Classification: SE008, Service Technician Dealer: DIAMOND INTERNATIONAL Feedback: The change log looks great! Good job. Hope it's added to everything eventually!	3/21/2014 10:44:37 PM
	DY02534	You received the following feedback From: dy02534 - Derek Matthews Email Address: dmatthews@cumberlandintltrucks.com Job Classification: SE005, Service Writer Dealer: CUMBERLAND INTL TRUCKS Feedback: I believe the SRT time for this article needs to be reviewed. On every egr valve we inspect, we have to remove the heat shield, bellows, and clean the area where the number is stamped to properly identify the number. Also, the egr connectors are not available so we are having to rebuild and re-pin the connector. 1.1 hrs is not enough time to complete this repair.	3/27/2014 3:40:10 PM