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Coding Information

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**Title:** Vehicle Programming Info MaxxForce 2007-2009 i6, v6, & v8

**Applies To:** MaxxForce 2007-2009 i6, v6, & v8

## CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

05/29/2025 - Initial Article Release

## Description

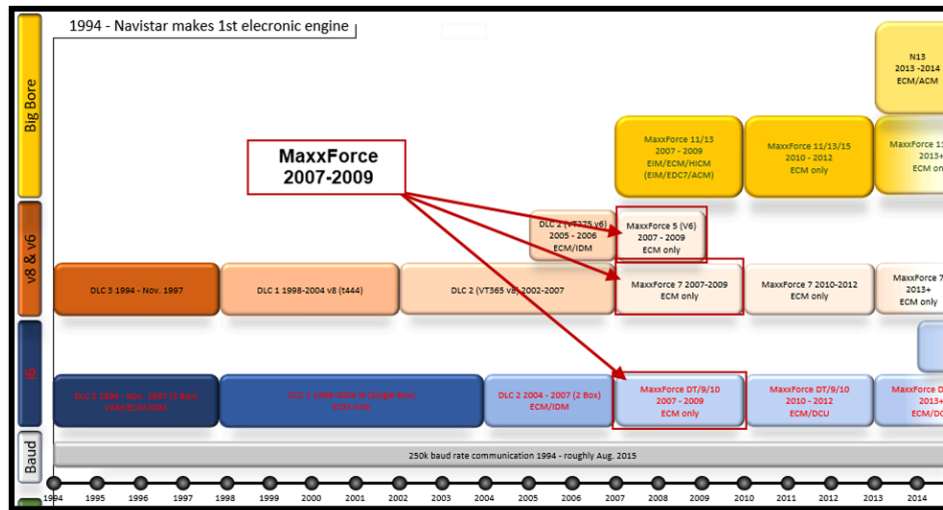
This document aims to enable technicians to:

1. Accurately identify the first generation MaxxForce medium duty engine control systems.
2. Understand the programming intricacies related to these systems.
3. Autonomously execute programming tasks without needing technical support.

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## Timeline



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## Software/Hardware Integrations

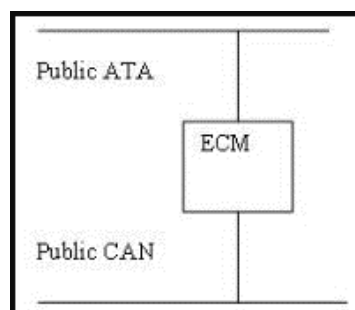
- **Navistar Engine Diagnostics (NED):** Supported. Used for diagnostics & parameter changes.
- **DLC Fleet Tool:** See [IK2600074](#) for changing Idle Shutdown Timer time & mode, service interval, and engine warning protection system. (Only works with legacy communication cables)
- **NavKal:** Supported. Used for flashing the entire ECM.
- **HeRo:** Supported.
- **DLB:** Supported.
- **360 Write Up:** Supported.
- The [programming station](#) works with this engine type.

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## How MaxxForce 2007-2009 I6, V6, & V8 ECMs Work

**ECM:** Engine Control Module. The ECM holds both the calibration and the parameters. MaxxForce 2007-2009 ECMs are dealer programmable. Both the calibration and parameters can be changed/programmed.

**Functional info:** This type of ECM can communicate on both the 1708 (ATA) & 1939 (CAN) data links. Only the 1939 data link is used for communicating with NED. NavKal uses the 1708 data link to do the "Save Request" step, and the 1939 data link to do the "Program" step.



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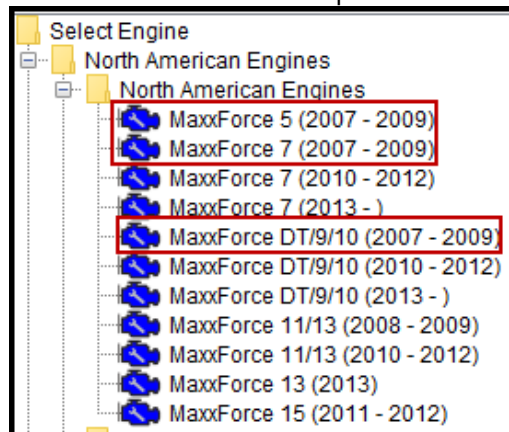
## Connecting To A MaxxForce 2007-2009 I6, V6, or V8 Engine

Engine Type: MaxxForce DT/9/10 (2007 - 2009)  
 Software Identification: PB62SKRF  
 Engine Family Rating Code: 2151  
 Vehicle Identification Number: 1HTWGAAR693145563  
 Engine Serial Number: 466HM2U3057741  
 Transmission Type: Allison MD  
 Rated Power: 285 hp  
 Total Miles: 260,916.0 miles  
 Total Fuel Used: 14,844 gal  
 Total Engine Hours: 66,741.0 hr

When NavKal connects to a 2007-2009 MaxxForce engine, you should see data similar to the screenshot above (further description is below)

Engine Type	"MaxxForce DT/9/10 (2007-2009)" (This line will show different info for the V8 or the V6 engines)
Software Identification	Will show an 8 digit calibration name
Engine Family Rating Code	(EFRC) should show a 4 digit number
Vehicle Identification Number	Will show the full 17 digit VIN
Engine Serial Number	Will shows the full 14 digit ESN
Transmission Type	Should correctly reflect the installed transmission (unless the vehicle has an Eaton automated manual transmission - then it is normal for NED to show an Allison transmission)
Rated Power	Should correctly show the rated horsepower
Total Miles	Should show correct total vehicle distance NavKal shows total miles from the ECM parameter for total miles NED shows total miles from the instrument cluster (odometer)
Total Fuel Used	Should show correct total fuel used
Total Engine Hours (not shown in screenshot above)	Should show correct total engine hours

When connecting with NED or NavKal, if you have to manually select the engine type, you will select one of the three options shown below.



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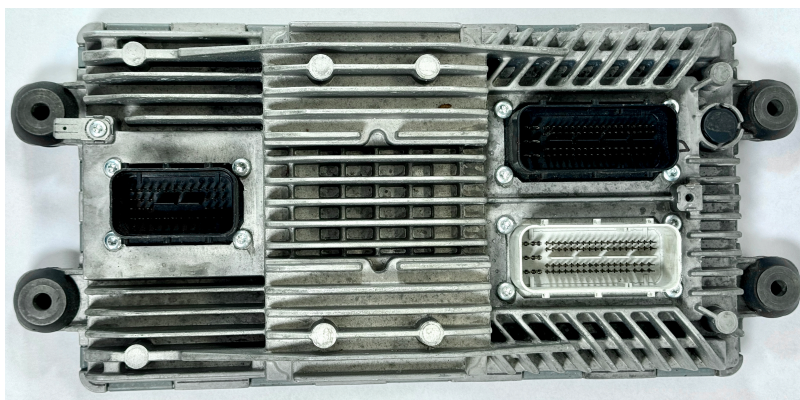
## **Source Addresses**

- The ECM broadcasts source address 0 (zero) on the 1939 data link.
- The ECM broadcasts source address 128 on the 1708 data link.
- These source addresses can be seen in the sniffer in either ServiceMaxx 1708, NED or NavKal.
- If you are using a Nexiq Communication cable, you could check the Nexiq Device Tester to see if source address 0 shows up.
- See [IK0800351](#) for more information about 1939 source addresses

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## **MaxxForce 2007-2009 Module Parts Information**

- If you need engine identification information, please see [IK2600242](#).
- SID numbers are important to consider when replacing an ECM of this era. See [TR2600003](#) for more information on ECM SID numbers
- MaxxForce 2007-2009 I6 (MaxxForce DT/9/10): Look up ECM part numbers by VIN. Should have "SID904" label
- MaxxForce 2007-2009 V6 (MaxxForce 5): Look up ECM part numbers by VIN. Should have "SID904" label
- MaxxForce 2007-2009 V8 (MaxxForce 7): Look up ECM part numbers by VIN. Should have "SID903" on label. ECM should have high voltage sticker (V8 only).



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## **MaxxForce 2007-2009 Horsepower Quotes**

Horsepower increases are supported for this engine type. Follow the process outlined in [IK2600069](#) to submit a case file for a horsepower quote. If the engine you're considering is already rated at the highest possible rating, then no increases are available. There are a few different ratings that are highest in their class. See the chart below for those highest ratings. There is no need to submit a case requesting a horsepower quote for an engine that is already at one of these rating - as there are no increases available

Compliance YR	Rating	Engine	Torque Range	Horsepower	Torque
2007	12NSV	MxF DT	Standard	230	620
2007	12NSH	MxF DT	High	300	860
2007	12NSX	MxF 9	N/A	330	950
2007	12NSN/12NSY	MxF10	N/A	350	1150
2008.5	12NUC	MxF DT	Standard	225	620
2008.5	12NUD	MxF DT	High	230	620

\*Horsepower increases are not supported for MaxxForce 5 engines.

International does not support changes from standard torque ratings to high torque ratings (and visa versa). So if you have a 2007-2009 MaxxForce DT with 12NSV, it is not possible to increase to a higher rating. If you submit a case file with this type of request, it will receive the response that there are no increases available.

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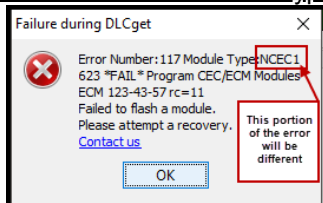
## **MaxxForce 2007-2009 Engine Swaps**

See [IK2600047](#) for information about engine swaps. Programming changes may be needed in order to accommodate an engine swap. There are some instances where International CANNOT support an engine swap. If you have any doubts about whether your engine swap will be supported by International, please start a case file with the Vehicle Programming group and we will let you know if International will support the swap. It is advisable to do this BEFORE swapping the engine. The potential negative outcome would be that you install an engine that International cannot support – then we would not be able to provide you with the correct programming.

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## **Common Programming Issues With 2007-2009 MaxxForce 11/13 Systems**

### **1. NavKal Error 117 Module type: ...623...**



- a. This error can be caused by communication from other modules interfering with NavKal's communication on the data link.
  - i. **Fix** - either pull transmission/ABS fuses, or use programming station. See [TL2900048](#) for information about the programming station.
2. NavKal Error 8 indicates that NavKal expected to see a module on the data link, but couldn't detect it

a. **Fix** - [IK2600252](#) provides troubleshooting steps and directions

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## **Additional Resources**

[RC2600001 Vehicle Programming Resource Center](#)

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