

MaxxForce[®] DT, 9, 10 (2010)

Overview: *Vehicle Setup*

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General Overview: Vehicle Setup

The Vehicle Setup feature consists of a list of all original equipment manufacturer (OEM), and customer programmable parameters, within the engine control module (ECM).

This document will address the unique vehicle setup functionality for the MaxxForce® DT, 9, 10.

Description and Operation

The vehicle setup feature reports and updates all stored vehicle setup information.

Programmable Parameters

The following programmable parameters are available with the vehicle setup feature.

Parameters indicated as customer programmable can be adjusted differently than the production assembly plant setting to meet the customer's needs. If the parameter is indicated as non-customer programmable, the parameter setting is preset from the factory and can't be changed without dealer authorization.

Parameter Value	Description	Possible Values	Cust Pgrm	Recommended Settings
Transmission Type (8200)	This parameter indicates the type of transmission equipped on the vehicle.	0: Manual Non-Isochronous 1: Manual Isochronous 2: Allison AT/MT 4: Allison MD 5: Eaton 6: Dana	NO	Varies with Vehicle Application
Two Speed Axle Enable (8000)	This parameter should be enabled if the vehicle is equipped with a 2-speed axle Note 1: This parameter can be used for a transfer case enable.	0: Disable 1: Enable	YES	Varies with Vehicle Application
Tire Revs Per Mile (8001)	This value is provided by the tire manufacturer and is used in the vehicle speed calculation	300 to 676 RPM	YES	Varies with Vehicle Application
Vehicle Speed Signal Mode (8900)	This parameter specifies the correct signal for vehicle speed. <ul style="list-style-type: none"> ▪ If set to (0) - The VSS is hardwired from the transmission output shaft. ▪ If set to (1) - The VSS signal comes from the J1587/ATA Vehicle Speed output. ▪ If set to (2) - The VSS signal comes from the Society of Automotive Engineers (SAE) J1939 transmission output shaft. 	0: Enable Hardwired OSS feature 1: Enable J1587/ATA Vehicle Speed 2: Public 1939/CAN Vehicle Speed 3: Public 1939/CAN OSS	NO	Varies with Vehicle Application
Transmission Tailshaft Gear Teeth (8007)	This parameter indicates the number of teeth on the transmission output OR transfer case shaft.	5 to 255	YES	Varies with Vehicle Application

Parameter Value	Description	Possible Values	Cust Pgrm	Recommended Settings
Rear Axle Ratio Low (8002)	This is the application specific final drive gear ratio. Note 1: This is a "low speed" gear ratio if equipped with a 2-speed axle. Note 2: If equipped with a single speed axle, then parameter (8002) and (8003) must be programmed to the same value.	2.50 to 30.00	YES	Varies with Vehicle Application
Rear Axle Ratio High (8003)	This is the application specific final drive gear ratio. Note 1: This is a "high speed" gear ratio if equipped with a 2-speed axle. Note 2: If equipped with a single speed axle, then parameter (8002) and (8003) must be programmed to the same value.	2.50 to 30.00	YES	Varies with Vehicle Application
Transmission Top Gear Ratio (8004)	The gear ratio of the highest gear in the transmission.	0.6 to 20	YES	Varies with Vehicle Application
Low Axle Ratio Pulses Per Mile Count (8005)	This parameter indicates the low axle ratio pulses per mile (PPM). This is found by multiplying the following: [Tire Revs Per Mile (8001) * Rear Axle Ratio Low (8002) * Transmission Tailshaft GearTeeth (8007)]	18,017 to 200,000 (PPM)	YES	Varies with Vehicle Application
High Axle Ratio Pulses Per Mile Count (8006)	This parameter indicates the high axle ratio PPM. This is found by multiplying the following: [Tire Revs Per Mile (8001) * Rear Axle Ratio Low (8002) * Transmission Tailshaft GearTeeth (8007)]	18,017 to 200,000 (PPM)	YES	Varies with Vehicle Application
Low Idle Engine Speed (8202)	The engine speed in revolutions per minute (RPM) at normal low engine idle speed.	650 to 750 RPM	YES	Varies with Vehicle Application
High Idle Engine Speed (8203)	The engine speed at high idle engine speed.	1,450 to 4,200 RPM	NO	Varies with Vehicle Application
Rated Engine Speed (8204)	The RPM at which the engine achieves its rated horsepower (HIP).	1,400 to 4,000 RPM	NO	Varies with Vehicle Application
Rated Horsepower (8205)	The maximum Horsepower (HP) at the "Rated Engine Speed" (8204) parameter value.	25 to 500 HP	NO	Varies with Vehicle Application
Cold Ambient Protection Enable (9400)	This parameter enables or disables the cold ambient protection (CAP) feature. <ul style="list-style-type: none"> ▪ If set to (0) – CAP will not be able to increase the engine speed. ▪ If set to (1) – CAP will increase the engine speed as required to warm-up the engine. 	0: Disable 1: Enable	YES	Varies with Vehicle Application

Definitions/Acronyms

The following terms are referenced in this document:

Acronym	Definition
CAP	Cold Ambient Protection
ECM	Engine Control Module
HP	Horsepower
PPM	Pulses Per Mile
PTO	Power Take-Off
RPM	Revolutions Per Minute
VSS	Vehicle Speed Sensor