

TT8247EN
November, 2018
Page 1 of 3

SUBJECT: Low Power and Early Shifts

MODELS AFFECTED: 1000/2000 Series Transmissions

Description of Complaint:

Some owners of vehicles with High Speed Spark Ignited (HSSI) engines or light vehicles with diesel engines have complained about lower power and early shifts.

Cause:

In many cases, the transmission TCM contains a calibration that does not include a predefined engine torque curve, therefore the DynActive® transmission control software must “learn” the engine’s torque curve.

Service Channel Procedure:

The vehicle should be driven, in an area in which it is safe to do so, at Wide Open Throttle (WOT) from a standstill up to **5** (Fifth Range) or **6** (Sixth Range) depending on the calibration. The WOT drive cycle should be repeated up to 10 times for the TCM to “learn” the engine torque curve.

Use the Allison DOC® software to verify if the engine torque curve was “learned” by the TCM. The Allison DOC® software will display the Engine Power Curve is Valid message in the Transmission Data column on the DTC and General screen. When the Engine Power Curve is Valid, True is displayed in the Value column. Refer to [Figure 1](#)

File | Reprogram | Induction Request | Diagnostics | Reports | Software Configuration | Help | Print Screen

F4 - Disconnect | Demo | F3 - DTC Lookup | F1 - Help | F2 - TRANSHEALTH™ | Playback | F5 - Trigger Recording | F6 - Stop Recording | Data Bus Viewer | Advanced Help

**Double-click on a DTC or Description to access the Troubleshooting Manual.
Double-click on the Failure Record field to access its details.**

DTC-Sym...	Active	Historic	Check Trans	Failure Record	Description

Clear DTC Information | Performance Complaints | Failure Records | DTC Test | View TCM/Engine Faults

TCM Information		Value	Transmission Data		Value	Units	Shift Inhibit	Current Active	History
Cal ID	B18300030D37F		Relative Accelerator Position	49.41	%				
TCM Assembly Number	L18BCD_PC_86811		Input Speed	1193	rpm				
Software Level	L18BCD_PC_86811		Turbine Speed	626	rpm				
Serial Number	BK6882A181040102		Output Speed	175	rpm				
Part Number	2956882		Attained Range	1st					
TCM Date	04-14-2018		Driver Selected Range	6th					
HCN / CCN	52 / L18BCD_PC_86811		Trans Fluid Temp	77 °F / 25 ...					
Programmed VIN	4DRBUC8N6K8254264		Ignition Voltage	13.9	V				
Engine VIN	164801		Battery Voltage	14.1	V				
This Tool S/N	VCP 2_1		Internal Mode Switch A	Open					
Last Tool S/N	VCP 2_1		Internal Mode Switch B	Closed					
Vocational Model	2500 PTS		Internal Mode Switch C	Closed					
Transmission Model	2500		Internal Mode Switch P	Open					
Main Processor Monitor S/W Level	1		Engine Coolant Temperature	Not Availa...					
Calibration Group / Active Package	354		Engine Power Curve Is Valid	True					
Translator Device	DLAWIR32								
Communication Protocol	CAN 500K Channel=1								
Version	DLAWIR32 API=4.0; DLL=...								
Tool Version Number	Version 2018.1.0 (Build ...								
Current Package	B0K-D37.PKG								

Prognostics Information | Value

Prognostics Information	Value
Prognostics Package	Enabled
Service Trans Indicator	Off
Trans Health Indicator	OK
Filter Monitor Expired	No
Oil Remaining Life	98 %

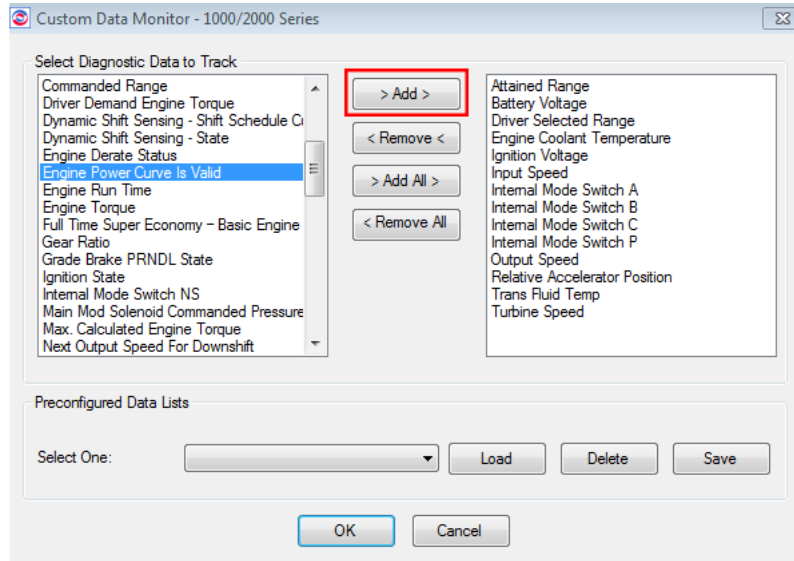
Customize Display

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Figure 1. Engine Power Curve is Valid



NOTE: If the Engine Power Curve is Valid is not shown in the Transmission Data column, select Custom Display and add Engine Power Curve is Valid. refer to [Figure 2](#).



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Figure 2. Engine Power Curve is Valid Menu

Claim Filing Procedure:

This is not an Allison Warrantable issue. This Tech Tip is a reference document only.