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**Western Star
Service Bulletin**

General Information

This service bulletin describes required maintenance system parameter changes that apply to Western Star 49X vehicles with Detroit® DT12 transmissions used for line haul and severe duty applications. This service bulletin applies to vehicles built between November 2020 to May 2022. Vehicles in line haul applications receive a maintenance due warning light at around 186,000 mi (299 274 km) instead of 600,000 mi (965 400 km).

NOTE: Predictive maintenance information is used to calculate oil change frequency. Actual oil change frequency may vary depending on driving conditions.

Procedure

IMPORTANT: Make sure that DiagnosticLink® version 8.16 SP2 or later is installed on the laptop before programming the vehicle.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brake. Chock the tires.
2. Connect a laptop with DiagnosticLink to the vehicle diagnostic connector.
3. Turn the ignition key to the run position.
4. Start DiagnosticLink.
5. Go to 'Program Device' and make sure that the vehicle identification number (VIN) is correct. Then select 'Download data from server.' See [Fig. 1](#).

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A. Select 'Program Device.'

B. Verify the VIN.

C. Select 'Download data from server.'

Fig. 1, Downloading Data from the Server

6. After the server data download is complete, go to the 'Parameters' tab. In the 'All Parameters' tab, go to the 'MS01T- Maintenance System,' 'Transmission, Parameters, EEPROM.' See [Fig. 2](#).

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Parameters for CT011 cannot be edited because the device does not match the software or hardware part number contained in the Last Serviced data. Click here to open the Program Device view to reprogram these devices before attempting to make parameter changes.

The connected vehicle contains chassis devices with incompatible software versions. You will need to update these control devices using Program Device. Click here for more information.

Parameter	Part	Value	Units	Minimum	Maximum	Description
Engine, Parameters, Oil selection table, EEPROM	A0084477324-001	VCD_Engine_Parameters_Oil_selection_table EEPROM				
Oil table, Parameters, EEPROM	A0084479734-001	Default: Oil table, additional oil 238.22 (no. 27)				
Oil viscosity table, Parameters, EEPROM	A0104470264-001	Default FUSO: Oil_viscosity_table_Parameters OFF				
Parameters, record 01, EEPROM	n/a					
Parameters, record 02, EEPROM	n/a					
Rear axle 1, Parameters, EEPROM	A0204474234-001	VCD_Rear_axle_1_Parameters EEPROM				
Rear axle 2, Parameters, EEPROM	A0204474244-001	VCD_Rear_axle_2_Parameters EEPROM				
Transmission, Parameters, EEPROM	A0094477124-001	VCD_Transmission_Parameters EEPROM_mit_default_235.11				
Threshold temperature (PAR_TdEinstr_GET)	(from parent)	122	°F			Datatype: Parameters, Channel...
Prediction start (PAR_PrgStart_GET)	(from parent)	50	h			Datatype: Parameters, Channel...
Exceed limit 1 (PAR_L0201_GET)	(from parent)	104	%			Datatype: Parameters, Channel...
Exceed limit 2 (PAR_L0202_GET)	(from parent)	107	%			Datatype: Parameters, Channel...
Additional information (PAR_ZuInfo_GET)	(from parent)					Datatype: Parameters, Channel...
Oil selection table, row 01, oil number (PAR_Oil201DeN_GET)	(from parent)	2				Datatype: Parameters, Channel...
Oil selection table, row 01, maximum driving distance (PAR_Oil201fMax_GET)	(from parent)	20297.8	miles			Datatype: Parameters, Channel...
Oil selection table, row 01, maximum total time (PAR_Oil201tMax_GET)	(from parent)	1265	day			Datatype: Parameters, Channel...
Oil selection table, row 01, maximum operating time (PAR_Oil201oMax_GET)	(from parent)	6535	h			Datatype: Parameters, Channel...
Oil selection table, row 01, output position (PAR_Oil201Pos_GET)	(from parent)	0				Datatype: Parameters, Channel...
Oil selection table, row 02, oil number (PAR_Oil202DeN_GET)	(from parent)	7				Datatype: Parameters, Channel...
Oil selection table, row 02, maximum driving distance (PAR_Oil202fMax_GET)	A0074472124-001	160000.4	miles			Datatype: Parameters, Channel...
Oil selection table, row 02, maximum total time (PAR_Oil202tMax_GET)	A0074472124-001	1095	day			Datatype: Parameters, Channel...
Oil selection table, row 02, maximum operating time (PAR_Oil202oMax_GET)	(from parent)	6535	h			Datatype: Parameters, Channel...
Oil selection table, row 02, output position (PAR_Oil202Pos_GET)	A0084477324-001	0				Datatype: Parameters, Channel...
Oil selection table, row 03, oil number (PAR_Oil203DeN_GET)	(from parent)	9				Datatype: Parameters, Channel...
Oil selection table, row 03, maximum driving distance (PAR_Oil203fMax_GET)	(from parent)	7456.5	miles			Datatype: Parameters, Channel...
Oil selection table, row 03, maximum total time (PAR_Oil203tMax_GET)	(from parent)	1095	day			Datatype: Parameters, Channel...
Oil selection table, row 03, maximum operating time (PAR_Oil203oMax_GET)	(from parent)	6535	h			Datatype: Parameters, Channel...
Oil selection table, row 03, output position (PAR_Oil203Pos_GET)	(from parent)	0				Datatype: Parameters, Channel...
Oil selection table, row 04, oil number (PAR_Oil204DeN_GET)	(from parent)	10				Datatype: Parameters, Channel...
Oil selection table, row 04, maximum driving distance (PAR_Oil204fMax_GET)	(from parent)	37282.7	miles			Datatype: Parameters, Channel...
Oil selection table, row 04, maximum total time (PAR_Oil204tMax_GET)	(from parent)	1825	day			Datatype: Parameters, Channel...
Oil selection table, row 04, maximum operating time (PAR_Oil204oMax_GET)	(from parent)	6535	h			Datatype: Parameters, Channel...
Oil selection table, row 04, output position (PAR_Oil204Pos_GET)	(from parent)	0				Datatype: Parameters, Channel...
Oil selection table, row 05, oil number (PAR_Oil205DeN_GET)	(from parent)	13				Datatype: Parameters, Channel...
Oil selection table, row 05, maximum driving distance (PAR_Oil205fMax_GET)	(from parent)	37282.7	miles			Datatype: Parameters, Channel...
Oil selection table, row 05, maximum total time (PAR_Oil205tMax_GET)	(from parent)	1825	day			Datatype: Parameters, Channel...

Parameters were successfully read from the device.

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Fig. 4, Writing Parameter Changes to the Vehicle

9. Select 'OK' in the 'Confirm Parameter Send' dialog box. See Fig. 5.

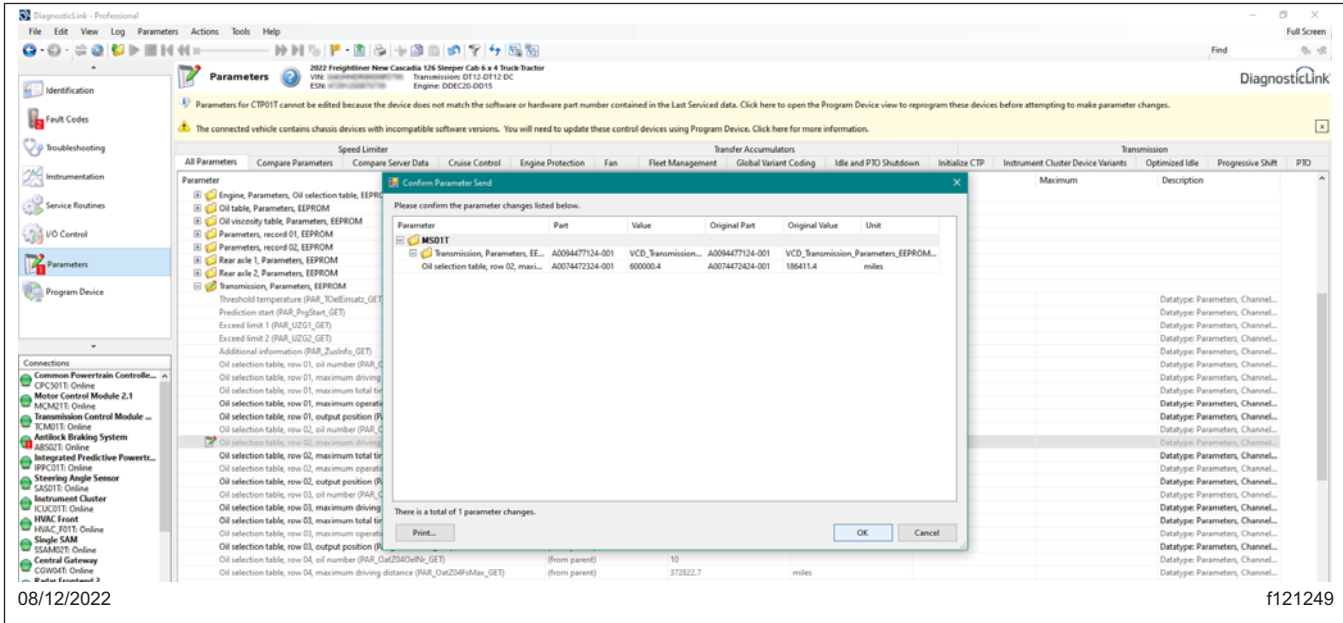


Fig. 5, Confirming Parameter Changes

10. Go to the 'Program Device' tab and select 'Unit data management' in the upper right corner. See Fig. 6.

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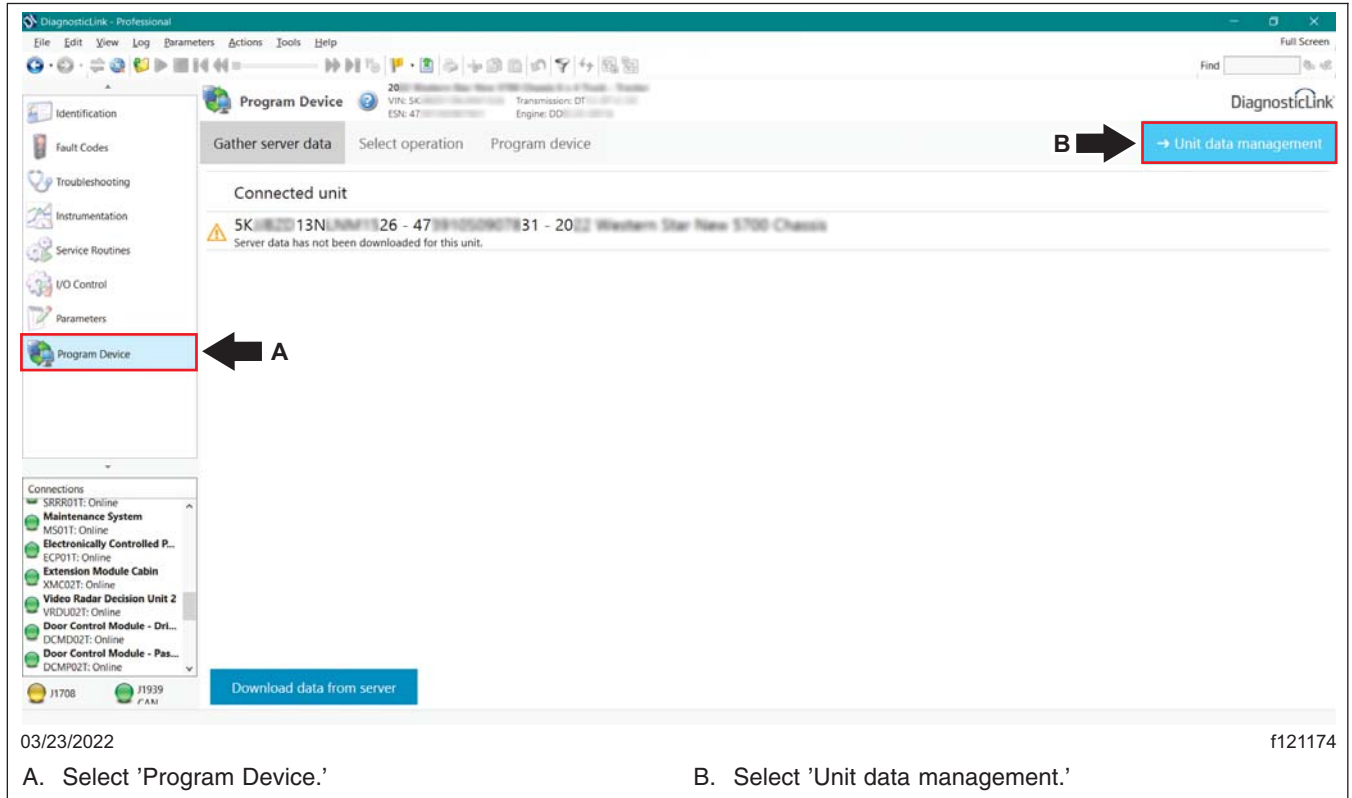


Fig. 6, Selecting Unit Data Management

- The information corresponding to the VIN should appear under 'Unit data for upload.' Select 'Connect to server' to upload the new parameters. See [Fig. 7](#).

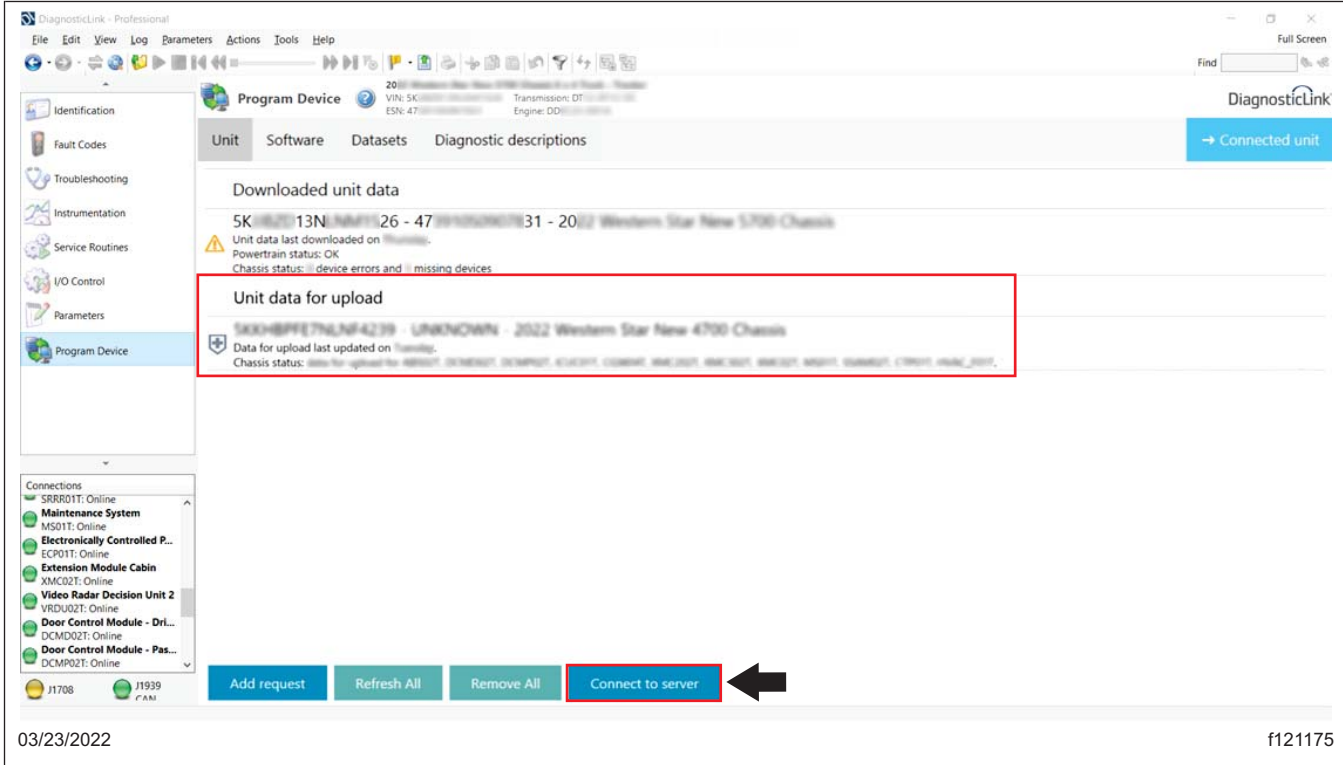


Fig. 7, Uploading the New Parameters

12. Once the parameter updates are made, disconnect from DiagnosticLink.
13. Turn the ignition key to the off position.
14. Disconnect the laptop.

Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

Normal warranty applies. See [Table 1](#) for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the *Service Bulletin #* field.

OWL VMRS Codes and Labor Allowance						
Primary Failed Part	Component Code	Cause Code	Correction Code	SRT Code	Description	Time: Hours
SOFTWARE	003-006-018	95	29	343-5021A	DT12 Oil Change Interval Parameter Update, (SBW54-087)	0.4

Table 1, OWL VMRS Codes and Labor Allowance