

**2005 5.3L (LM7) PARALLEL HYBRID TRUCK  
Electro Hydraulic Power Steering (EHPS) module**

**DIAGNOSTIC PARAMETERS**

2005file11\_EHPS.doc

<b>SENSED PARAMETER</b>	<b>FAULT CODE</b>	<b>MONITOR STRATEGY DESCRIPTION</b>	<b>MALFUNCTION AND THRESHOLD VALUES</b>	<b>SECONDARY PARAMETERS AND ENABLE CONDITINS</b>	<b>TIME LENGTH AND FREQUENCY</b>	<b>MIL ILLUM. TYPE</b>
Brake Pedal Position Sensor Circuit	C0277	This DTC detects an signal voltage out of range.	Raw BPP > 4.65Volts (952 counts) or Raw BP < 0.25Volts(5 counts)	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failure in a 100 test sample.  Frequency: 1 sample/5 ms Continuous	DTC Type C
Brake Pedal Position Sensor Not Calibrated	C0278	This DTC determines if the ECU has never processed a zero position learn routine on this sensor.	ECU has never received a DTM \$AE 01 OR the DTM \$AE 01 failed because sensor is out of range.	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	1 test failure in a 1 test sample.  Frequency: 1 sample/5 ms Once Per Trip	DTC Type C
Brake Pedal Position Sensor Circuit Range/Performance	C0282	This DTC determines jitter in the sensor data	BPP rate of change > 100%/25ms	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failure in a 100 test sample.  Frequency: 1 sample/5 ms Continuous	DTC Type C
Brake Pedal Position Sensor Circuit Low	C0283	This DTC detects that the wiper position is below its defined range.	BPP Output Voltage Ratio < 1.3% ( 852 counts). Note 100% = 65536 counts	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failure in a 100 test sample.  Frequency: 1 sample/5 ms Continuous	DTC Type C
Brake Pedal Position Sensor Circuit High	C0284	This DTC detects that the wiper position is above its defined range OR detects if the sensor fork is off engagement pin.	BPP Output Voltage Ratio (OVR) > 98% (64225 counts). Note 100% = 65536 counts	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts Sensor spring mechanism has not failed	67 test failure in a 100 test sample.  Frequency: 1 sample/5 ms Continuous	DTC Type C

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Brake Switch and Brake Pedal Position Sensor Correlation	C0294	Indicates that the measured brake pedal position does not match the brake switch state established by the PCM.	BPP > 20% and Brake Pedal Depressed = False OR BPP < 1% and Brake Pedal Depressed = True	Brake Pedal Position Not Calibrated DTC = FALSE Power Steering Control Module Lost Communication With Powertrain Control Module (PCM) DTC = FALSE Brake Pedal Depressed Validity = Valid Brake Pedal Depressed message is stable for 400ms BPP signal is stable for 400ms Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failure in a 100 test sample.  Frequency: 1 sample/400 ms Continuous	DTC Type C
Device Voltage Reference Output 1 Circuit	C0870	This DTC detects a supply voltage out of range.	Raw BPP > 4.65Volts (952 counts) OR Raw BP < 3.95Volts(809 counts)	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failure in a 100 test sample.  Frequency: 1 sample/5 ms Continuous	DTC Type C
Power Steering Control Module Lost Communication With Powertrain Control Module (PCM)	U1895	The DTC indicates a loss of CAN bus communication with the PCM.	PCM Message # 3 is not available on the CAN bus.	Ignition switch is in acc or run 11 volts < Ignition Voltage < 18 volts	67 test failures in a 100test sample.  Frequency: 1 sample/250 ms Continuous	DTC Type C