

**2002 4T45-E when used with these engines: 3.1L LG8, 3.4L LA1**  
**in these cars: Malibu, GrandAm, Alero**  
**TRANSMISSION DIAGNOSTIC PARAMETERS**

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SENSED PARAMETER	FAULT CODE	ACCEPTABLE OPERATING RANGE AND RATIONALITY	PRIMARY MALF DETECTION PARAMETERS	SECONDARY PARAMETERS AND CONDITIONS	MONITORING TIME LENGTH & DTC TYPE	DEFAULT ACTIONS	PRIMARY MALF PASS CONDITION	SECONDARY PASS CONDITIONS
Transmission Fluid Overtemperature (Formerly P1812)	P0218	Detects a high transmission fluid temperature for long period of time	Trans Temp > 130° C.	No P0711, P0712, P0713 DTCs	600.0 sec Type C	Freeze Adapts FA	Trans temp ≤ 129° C. 5.0 sec	P0218 Fault Active  OR P0218 not passed This Key On
Vehicle Speed Sensor: Low Input	P0502	0 - 8000 RPM Detects low vehicle speed with large engine speed in Drive range	unfiltered Output Speed < 150 RPM	No MAP, TPS DTCs (see below) No P0716, P0717, P1810 DTCs No Engine Torque malfunction Range ≠ Park/Neutral 50 < Engine Torque < 300 ft-lb Input Speed > 1500 RPM 0 < MAP < 104.7 kPa TPS > 12.0%	3.0 sec Type B	Freeze Adapts Maximum Line pressure Output Speed calculated from Input Speed, Engine Speed, & commanded gear  FATKO	unfiltered Output Speed > 250 RPM 2.0 sec	None

MAF DTCs                    P0101-P0102-P0103  
MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs                    P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288  
  
System Voltage DTCs      P0560-P0562-P0563

Type A and Type B codes illuminate the "Service Engine Soon" lamp.  
Type C codes illuminate the "Service Vehicle Soon" or "Wrench" lamp.

FA = Fault Active  
FATKO = Fault Active This Key On

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Vehicle Speed Sensor: Intermittent	P0503	0 - 8000 RPM Detects loss of vehicle speed when vehicle is moving	Drop in unfiltered Output Speed > 1200 RPM in any Drive range	No P1810 DTC Engine Running Time since last range change > 6.0 sec +ΔVSS, loop-to-loop, < 250 RPM for > 5.0 sec	3.0 sec in all Drive ranges  Type B	Freeze Adapts Maximum Line pressure Output Speed calculated from Input Speed, Engine Speed, & commanded gear FATKO	Change in unfiltered Output Speed < 250 RPM in Drive ranges  2.0 sec VSS > 300 RPM	None
Transmission Fluid Temperature Sensor Circuit: Range/ Performance	P0711	0.24 - 5.0 V Detects unrealistically large change in TFT or value which remains constant for period of time in which a measurable change is expected	<u>Fail Case 1</u> ΔTFT < 2.25° C.  <u>Fail Case 2</u> ΔTFT > 20° C. in 200 msec	No ECT DTCs (see below) No P0502, P0503, P0716, P0717 DTCs NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec. Engine Speed > 500 RPM > 300.0 sec Vehicle Speed > 5.0 mph for 900.0 sec cumulative -40° C. < Trans Temp at startup < 21° C. TCC Slip > 120 RPM > 409.0 sec cumulative ECT > 70° C. ΔECT > 50° C. since start-up	<u>Fail Case 1</u> 80.0 sec  <u>Fail Case 2</u> Fail count > 14 within 7.0 sec  Type C	Freeze Adapts Default Trans Temp calculated from ECT, MAT, Engine Run time  FA	<u>Pass Case 1</u> ΔTFT ≥ 3.0° C. for ≥ 5.0 sec  <u>Pass Case 2</u> Fail Count = 0	Same as Fail

MAF DTCs	P0101-P0102-P0103
MAP DTCs	P0105-P0106-P0107-P0108
MAP Intermittent	P1106-P1107
ECT DTCs	P0115-P0116-P0117-P0118-P0125-P0126-P0128
TP DTCs	P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125
	P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288
System Voltage DTCs	P0560-P0562-P0563

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Transmission Fluid Temperature Sensor Circuit: Low Input	P0712	0.24 - 5.0 V Detects continuous Short-to-Ground in Transmission Fluid Temperature sensor or TFT signal circuit	Trans Temp Sensor $\leq$ 10 counts (Raw TTS $\leq$ 0.33 Volts)	No P0712 FA No P0713 FA or FATKO NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec.	10.0 sec  Type C	Freeze Adapts Default Trans Temperature calculated from ECT, MAT, Engine Run time FA	Raw TTS > 0.33 Volts  10.0 sec	P0712 Fault Active  <b>OR</b> P0712 not passed This Key On
Transmission Fluid Temperature Sensor Circuit: High Input	P0713	0.24 - 5.0 V Detects continuous Open or Short-to-Power in TFT sensor or TFT signal circuit	Trans Temp Sensor $\geq$ 251 counts  (Raw TTS $\geq$ 4.92 Volts)	No P0713 FA No P0712 FA or FATKO NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec.	400.0 sec  Type C	Freeze Adapts Default Trans Temperature calculated from ECT, MAT, Engine Run time FA	Raw TTS < 4.92 V 400.0 sec	P0713 Fault Active  <b>OR</b> P0713 not passed This Key On
Input Speed Sensor Circuit: Range/ Performance	P0716	0 - 6000 RPM Detects unrealistically large change in Input Speed in very short time	unfiltered Input Speed change > 1300 RPM	No TPS DTCs (see below) No P0502, P0503, P0717, P0751, P0752, P0753 DTCs Engine running, not at fuel cutoff TPS > 15.0% Vehicle Speed > 5.0 mph	0.8 sec  Type B	Freeze Adapts Maximum Line pressure Inhibit Shift Energy Mgt  FATKO	unfiltered Input Speed > 50 RPM Input Speed Change < 300 RPM in 0.3 sec	No loss of input speed signal DTC (P0717)

MAF DTCs                    P0101-P0102-P0103  
MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs                    P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288  
  
System Voltage DTCs     P0560-P0562-P0563

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Input Speed Sensor Circuit: No Signal	P0717	0 - 6000 RPM Detects low Input Speed with large vehicle speed	unfiltered Input Speed < 100 RPM	No P0502, P0503, P1810 DTCs PSA ≠ P/N Engine running, not at fuel cutoff Vehicle Speed > 5.0 mph	5.0 sec  Type B	Freeze Adapts Maximum Line pressure Inhibit Shift Energy Mgt  FATKO	unfiltered Input Speed > 450 RPM 2.0 sec	None
Brake Switch Circuit High (Stuck ON)	P0719	0 – 12 V Detects OPEN brake switch during accelerations	Accel count = 8	No P0502, P0503 DTCs <u>Increment Accel counter by 1 when:</u> Brake Switch is ON <b>AND</b> Vehicle Speed < 5.0 mph <b>THEN</b> 5.0 < Vehicle Speed < 20.0 mph for 3.0 sec <b>THEN</b> Vehicle Speed > 20.0 mph for 6.0 sec	Reset counter if Brake Switch state changes during test  Brake ON > 900.0 sec  Type C	None  FA	Brake Switch has been OFF for 2.0 sec	None
Brake Switch Circuit Low (Stuck OFF)	P0724	0 – 12 V Detects CLOSED Brake Switch during decelerations	Decel count = 8	No P0502, P0503 DTCs <u>Increment Decel counter by 1 when:</u> Brake Switch is OFF <b>AND</b> Vehicle Speed > 20.0 mph for 6.0 seconds <b>THEN</b> 5.0 < Vehicle Speed < 20.0 mph for 3.0 seconds <b>THEN</b> Vehicle Speed < 5.0 mph	Reset counter if Brake Switch state changes during test  Type C	None  FA	Brake Switch has been ON for 2.0 sec	None

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MAP DTCs	P0105-P0106-P0107-P0108
MAP Intermittent	P1106-P1107
ECT DTCs	P0115-P0116-P0117-P0118-P0125-P0126-P0128
TP DTCs	P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125
	P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288
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Incorrect Gear Ratio (Formerly P1871)	P0730	Detects unknown gear ratio	Ratio > 3.13 <b>OR</b> 2.23 < Ratio < 2.87 <b>OR</b> 1.71 < Ratio < 2.02 <b>OR</b> 1.07 < Ratio < 1.54 <b>OR</b> 0.71 < Ratio < 0.91 <b>OR</b> Ratio < 0.61	No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P1810 DTCs Engine running, not at fuel cutoff 0 < Engine Torque < 300 ft-lb Throttle > 15.0% Vehicle speed > 5.0 mph 0 < MAP < 104.7 kPa Range = Forward or Reverse range Transmission Temperature > 20° C. Time since last range change > 6.0 sec	7.0 sec  Type C	Freeze Adapts Maximum Line pressure  FATKO	Ratio in a defined window for 7.0 sec	Same as Fail
Torque Converter Clutch System Stuck OFF	P0741	Detects high TCC slip with TCC commanded on	TCC Slip > 200 RPM increments Stuck OFF counter  Count = 1	No TPS DTCs (see below) No P0502, P0503, P0742, P1810, P1860 DTCs Engine running, not at fuel cutoff 8.0% ≤ TPS ≤ 100.0% 20° C. < Trans Temp < 130° C. TCC locked OFF > 3.0 sec Commanded Gear > 2 Range = D4, D3, or D2 Time since last range change > 6.0 sec	6.0 sec  Type B	Inhibit TCC Freeze Adapts  FATKO	TCC Slip < 50 RPM  4.0 sec	Same as Fail

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MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs                      P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
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Torque Converter Clutch System Stuck ON	P0742	Detects lack of Torque Converter Clutch release oil pressure (Switch is CLOSED) when TCC commanded off	TCC Release Switch is closed  Count = 4	No TPS DTCs (see below) No P1860, P1887 DTCs Engine running, not at fuel cutoff TCC commanded OFF 20° C. < Trans Temp < 130° C. 12.0% ≤ TPS ≤ 100.0% Time since last range change > 6.0 sec	4.0 sec  Type A	Freeze Adapts TCC Cmd On 1-2-3-4 (not hydraulically possible in 1st)  FATKO	TCC Release Switch indicates TCC release oil is present (switch is OPEN)  3.0 sec	Same as Fail
Pressure Control Solenoid Circuit Electrical	P0748	0 – 12 V Detects continuous Open or Short-to-Ground in Pressure Control Solenoid or PCS circuit	Pressure Control Solenoid Short Bit = 1	Ignition Voltage Low timer = 0 (No Calibrations for DTC P0748)	Type C	Freeze Adapts Maximum Line pressure  FATKO	Pressure Control Solenoid Short bit = 0	System Voltage Low timer > 0 System Voltage Malfunction is clear

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MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
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TP DTCs                    P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
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Shift Solenoid A Performance  Stuck OFF	P0751	Detects 2-2-3-3 shift pattern	<u>Fail Case 1</u> Commanded 1st 1.54 < Ratio < 1.71  <u>Fail Case 2</u> Commanded 4th 0.91 < Ratio < 1.07  Count = 2	No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P0742, P0753, P0758, P1810, P1860 DTCs No Engine Torque malfunction Range = D4, D3, D2, or D1 TPS > 8.0% VSS > 150 RPM 20° C. < Trans Temp < 130° C. Engine Running, not at fuel cutoff 0.30 sec. after gear change 8.0 < Ignition Voltage < 18.0 V 150 < Input Speed < 6000 RPM 20 < Engine Torque < 300 ft-lb	<u>Fail Case 1</u> 4.0 sec  <u>Fail Case 2</u> 4.0 sec  Type B	Freeze Adapts Inhibit TCC Maximum Line pressure No 3-2 downshift > 32 mph  FATKO	<u>Pass Case 1</u> 1 <sup>st</sup> commanded 2.87 < ratio < 3.13 for 0.75 sec  <u>Pass Case 4</u> 4 <sup>th</sup> commanded 0.62 < ratio < 0.71 for 0.75 sec	20 < Engine Torque < 300 ft-lb

MAF DTCs                    P0101-P0102-P0103  
 MAP DTCs                    P0105-P0106-P0107-P0108  
 MAP Intermittent        P1106-P1107  
 ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
 TP DTCs                      P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
 P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288  
  
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Shift Solenoid A Performance  Stuck ON	P0752	Detects 1-1-4-4 shift pattern	<p><u>Fail Case 3</u> 0 &lt; Engine Torque &lt; 300 ft-lbs Commanded 2nd 2.87 &lt; Ratio &lt; 3.13</p> <p><u>Fail Case 4</u> 20 &lt; Engine Torque &lt; 300 ft-lbs Commanded 3rd 0.61 &lt; Ratio &lt; 0.72  Count = 2</p>	<p>No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P0742, P0753, P0758, P1810, P1860 DTCs No Engine Torque malfunction Range = D4, D3, D2, or D1 TPS &gt; 8.0% VSS &gt; 150 RPM 20° C. &lt; Trans Temp &lt; 130° C. Engine Running, not at fuel cutoff 0.30 sec. after gear change 8.0 &lt; Ignition Voltage &lt; 18.0 V 150 &lt; Input speed &lt; 6000 RPM</p>	<p><u>Fail Case 3</u> 4.0 sec</p> <p><u>Fail Case 4</u> 4.0 sec</p> <p>Type B</p>	<p>Freeze Adapts Inhibit TCC Maximum Line pressure No 3-2 downshift &gt; 32 mph.  FATKO</p>	<p><u>Pass Case 2</u> 2<sup>nd</sup> commanded 1.54 &lt; ratio &lt; 1.71 for 0.75 sec</p> <p><u>Pass Case 3</u> 3rd commanded 0.91 &lt; ratio &lt; 1.07 for 0.75 sec</p>	20 < Engine Torque < 300 ft-lb
Shift Solenoid A Electrical	P0753	0 – 12 V Detects continuous Open, Short-to-Ground, or Short-to-Power in Shift Solenoid A or SSA circuit (ODM)	SSA ODM feedback circuit state ≠ PCM commanded state	NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec.	<p>Fail count = 43 in sample of 50 (Total time approx 4.3 sec)</p> <p>Type A</p>	<p>Freeze Adapts Maximum Line pressure Inhibit TCC No 3-2 downshift &gt; 32 mph FATKO</p>	<p>ODM = PCM commanded state</p> <p>Pass count = 43 in sample of 50</p>	None

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MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs                    P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125

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Shift Solenoid B Performance  Stuck ON	P0756	Detects 4-3-3-4 shift pattern	<u>Fail Case 5</u> 200 < TCC Slip < 1850 RPM VSS > 160 RPM Commanded 1st 0.61 < Ratio < 0.72  <u>Fail Case 6</u> Commanded Gear = 2 0.91 < Ratio < 1.07  Count = 1	No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P0742, P0753, P0758, P1810, P1860 DTCs No Engine Torque malfunction Engine Running, not at fuel cutoff Vehicle Speed > 150 RPM 150 < Input Speed < 6000 RPM TPS > 8.0% Range = D4, D3, D2, or D1 0.30 sec. after gear change 8.0 < Ignition Voltage < 18.0 V 20° C. < Trans Temp < 130° C. 20 < Engine Torque < 300 ft-lbs	<u>Fail Case 5</u> 4.0 sec  <u>Fail Case 6</u> 4.0 sec  Type A	Freeze Adapts Inhibit TCC Maximum Line pressure Immediate 2nd Gear  FATKO	<u>Pass Case 1</u> 1 <sup>st</sup> commanded 2.87 < Ratio < 3.13 for 0.75 sec  <u>Pass Case 2</u> 2 <sup>nd</sup> commanded 1.54 < Ratio < 1.71 for 0.75 sec	20 < Engine Torque < 300 ft-lb
Shift Solenoid B Performance  Stuck OFF	P0757	Detects 1-2-2-1 shift pattern	<u>Fail Case 7</u> 20 < Engine Torque < 300 ft-lb Commanded 3rd 1.54 < Ratio < 1.71  <u>Fail Case 8</u> 0 < Engine Torque < 300 ft-lb Commanded 4th 2.87 < Ratio < 3.13  Count = 1	No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P0742, P0753, P0758, P1810, P1860 DTCs No Engine Torque malfunction 150 < Input Speed < 6000 RPM Vehicle Speed > 150 RPM TPS > 8.0% Range = D4, D3, D2, or D1 0.20 sec. after gear change 8.0 < Ignition Voltage < 18.0 V 20° C. < Trans Temp < 130° C.	<u>Fail Case 7</u> 3.0 sec  <u>Fail Case 8</u> 2.0 sec  Type A	Freeze Adapts Inhibit TCC Maximum Line pressure Immediate 2nd Gear  FATKO	<u>Pass Case 3</u> 3 <sup>rd</sup> commanded 0.91 < Ratio < 1.07 for 0.75 sec  <u>Pass Case 4</u> 4 <sup>th</sup> commanded 0.61 < Ratio < 0.72 for 0.75 sec	20 < Engine Torque < 300 ft-lb

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MAP DTCs P0105-P0106-P0107-P0108  
MAP Intermittent P1106-P1107  
ECT DTCs P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
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Shift Solenoid B Electrical	P0758	0 – 12 V Detects continuous Open, Short-to-Ground, or Short-to-Power in Shift Solenoid B or SSB circuit (ODM)	SSB ODM feedback circuit state ≠ PCM commanded state	NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec.	Fail count = 43 in sample of 50 (Total time approx 4.3 sec)  Type A	Freeze Adapts Maximum Line pressure Inhibit TCC Immediate Landing to 2nd Gear  FATKO	ODM state = PCM commanded state  Pass count = 43 in sample of 50	None
Pressure Switch Assembly Circuit Malfunction (Fail Case 1)	P1810	0 – 12 V Detects invalid Range status	Illegal PSA range	Engine running, not in fuel cutoff 8.0 < Ignition Voltage < 18.0 V	60.0 sec  Type B	Freeze adapts Assume D4 shift pattern D2 Braking Pressure  FATKO	PSA not illegal  60.0 sec	Same as Fail
Pressure Switch Assembly Circuit Malfunction (Fail Case 2) Engine Speed Transition	P1810	0 – 12 V Detects Engine Speed transitions	PSA = D2, D4, or Reverse after Start-up	<u>Run once per ignition cycle</u> NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec. No P0502, P0503 DTCs Vehicle Speed < 2.0 mph Engine Speed < 200 RPM for 0.1 sec, <b>THEN</b> 200 < Engine Speed < 600 RPM for 0.025 sec; <b>after</b> Engine Speed > 600 RPM, PSA state is reported	2.0 sec  Only at Engine Start-up  Type B	Freeze adapts Assume D4 shift pattern D2 Braking Pressure  FATKO	PSA = P\N  3.0 sec	No System Voltage Codes No Vehicle Speed Codes Vehicle Speed < 7 mph

MAF DTCs	P0101-P0102-P0103
MAP DTCs	P0105-P0106-P0107-P0108
MAP Intermittent	P1106-P1107
ECT DTCs	P0115-P0116-P0117-P0118-P0125-P0126-P0128
TP DTCs	P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125
	P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288
System Voltage DTCs	P0560-P0562-P0563

Type A and Type B codes illuminate the “Service Engine Soon” lamp.  
Type C codes illuminate the “Service Vehicle Soon” or “Wrench” lamp.

FA = Fault Active  
FATKO = Fault Active This Key On

**2002 4T45-E when used with these engines: 3.1L LG8, 3.4L LA1**  
**in these cars: Malibu, GrandAm, Alero**  
**TRANSMISSION DIAGNOSTIC PARAMETERS**

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SENSED PARAMETER	FAULT CODE	ACCEPTABLE OPERATING RANGE AND RATIONALITY	PRIMARY MALF DETECTION PARAMETERS	SECONDARY PARAMETERS AND CONDITIONS	MONITORING TIME LENGTH & DTC TYPE	DEFAULT ACTIONS	PRIMARY MALF PASS CONDITION	SECONDARY PASS CONDITIONS
Pressure Switch Assembly Circuit Malfunction (Fail Case 3)	P1810	0 – 12 V Detects mismatch between indicated Range and gear ratio	<u>Fail Case A</u> PSA = P/N Ratio < 3.11  <u>Fail Case B</u> PSA = Reverse Ratio = Drive  <u>Fail Case C</u> PSA = D4, D3, D2, or D1 Ratio = Reverse	No TPS DTCs (see below) No P0502, P0503, P0716, P0717, P0751, P0752, P0753, P0756, P0757, P0758 DTCs No Engine Torque malfunction NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec. Engine running, not in fuel cutoff Vehicle Speed ≥ 5.0 mph 0 < MAP < 104.7 kPa 10.0% < TPS < 25.0% 10 < Engine Torque < 300 ft-lbs	<u>Fail Case A</u> 5.0 sec  <u>Fail Case B</u> 5.0 sec  <u>Fail Case C</u> 5.0 sec  Continuous  Type B	Freeze Adapts Assume D4 Shift Pattern D2 Braking Pressure  FATKO	<u>Fail Case A</u> PSA = Park/Neutral Ratio > 0.72 for 5.0 sec  <u>Fail Case B</u> PSA = Reverse 2.02 ≤ Ratio ≤ 2.23 for 1.0 sec  <u>Fail Case C</u> PSA = D4, D3, D2, or D1 <b>AND</b> Ratio < 2.02 <b>OR</b> > 2.23 for 5.0 sec	Same as Fail
Maximum Adapt and Long Shift	P1811	Detects long shifts with upshift adapts at maximum	Shift time > 0.65 sec	Shift is adaptable Adapts at maximum value	2 counts  Type C	Freeze Adapts Maximum Line pressure  FATKO	Considered passed every ignition cycle	None

MAF DTCs P0101-P0102-P0103  
 MAP DTCs P0105-P0106-P0107-P0108  
 MAP Intermittent P1106-P1107  
 ECT DTCs P0115-P0116-P0117-P0118-P0125-P0126-P0128  
 TP DTCs P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
 P1280-P1281-P1282-P1283-P1285-P1286-P1287-P1288  
  
 System Voltage DTCs P0560-P0562-P0563

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Torque Converter Clutch Pulse Width Modulated Solenoid Electrical	P1860	Detects continuous Open or Short-to-Ground in TCC PWM circuit or TCC PWM solenoid	Every 100 msec, circuit is checked, FAIL counter incremented, if Open or Short detected	NOT (8.0 < Ignition Voltage < 18.0 V) < 0.5 sec. TCC Duty Cycle < 10.0% or > 90.0%	Fail Count = 43 in sample of 50 (Total time ≈ 4.3 sec)  Continuous Type A	Freeze Adapts Inhibit TCC  FATKO	Pass Count = 43 in sample of 50  Solenoid test must pass in both states	Same as Fail
Torque Converter Clutch Release Switch Circuit Malfunction	P1887	Release Switch indicates TCC not applied when PCM and TCC Slip show TCC is locked	Release Switch is OPEN  Count = 2	No P0716, P0717, P0741, P0742, P1810, P1860 DTCs Engine running, not at fuel cutoff TCC Mode = LOCKED -20 < Slip < 40 RPM PSA = D4 30 < Engine Torque < 300 ft-lb 15 < TCC Pressure < 120 psi	6.0 sec  Type B	Freeze Adapts Inhibit TCC  FATKO	Release Switch is CLOSED  3.0 sec	Same as Fail

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MAP DTCs                    P0105-P0106-P0107-P0108  
MAP Intermittent        P1106-P1107  
ECT DTCs                    P0115-P0116-P0117-P0118-P0125-P0126-P0128  
TP DTCs                      P0120-P0121-P0122-P0123-P0220-P0221-P0222-P0223-P0225-P0226-P0227-P0228-P1120-P1121-P1122-P1125  
  
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