THM 4L30-E

DIAGNOSTIC TROUBLE CODE RETRIEVAL AND DEFINITION FOR TROOPER, RODEO, ACURA SLX AND PASSPORT "ONLY"

1990-1991 TROOPER AND 1991-1992 RODEO "ONLY"

For Trouble code retrieval, locate Diagnostic 2 connector shown in Figure 2 (***White*** for Trooper and ***Black*** for Rodeo). Jump the connector as shown in Figure 2 and refer to Figures 8-10 for code definitions. The "Check Trans" lamp flash patterns for normal operation, and when DTC's are set, are shown in Figure 1.

1992-1993 TROOPER AND 1993 RODEO "ONLY"

For Trouble code retrieval, locate Diagnostic 1 connector shown in Figure 3. Jump the connector between terminals 1 and 3, as shown in Figure 3 and refer to Figures 8-10 for code definitions. The "Check Trans" lamp flash patterns for normal operation, and when DTC's are set, are shown in Figure 1.

1994 TROOPER, RODEO AND PASSPORT "ONLY"

For Trouble code retrieval, locate Diagnostic 2 connector shown in Figure 4. Jump the connector as shown in Figure 4 and refer to Figures 11 and 12 for code definitions. The "Check Trans" lamp flash patterns for normal operation, and when DTC's are set, are shown in Figure 1.

1995 TROOPER, RODEO AND PASSPORT "ONLY"

For Trouble code retrieval, locate Diagnostic 2 connector shown in Figure 5. Jump the connector as shown in Figure 5 and refer to Figures 11 and 12 for code definitions. The "Check Trans" lamp flash patterns for normal operation, and when DTC's are set, are shown in Figure 1.

1996-1997 TROOPER AND ACURA SLX "ONLY"

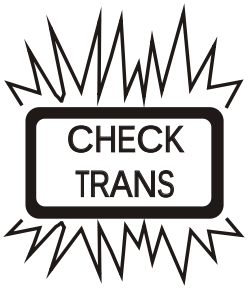
For Trouble code retrieval, locate the 16 pin ***OBD-II*** connector as shown in Figure 6. Connect a scan tool as this is the only way to retrieve trouble codes. Refer to Figures 13 and 14 for code definitions.
The "Check Trans" lamp will be flashing if codes are stored in memory.

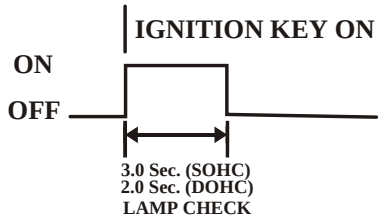
1996-1997 RODEO AND PASSPORT "ONLY"

For Trouble code retrieval, locate the 16 pin ***OBD-II*** connector as shown in Figure 7. Connect a scan tool as this is the only way to retrieve trouble codes. Refer to Figures 13 and 14 for code definitions.
The "Check Trans" lamp will be flashing if codes are stored in memory.

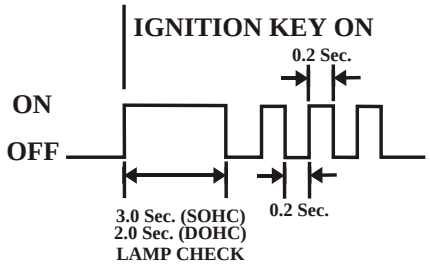
STEP 1

"NORMAL" CHECK TRANS LIGHT OPERATION





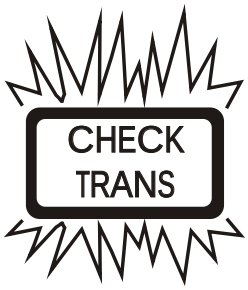
CHECK TRANS LIGHT OPERATION
"WHEN DTC'S ARE SET"

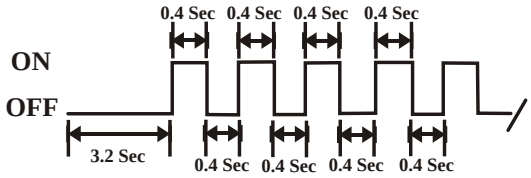


STEP 2

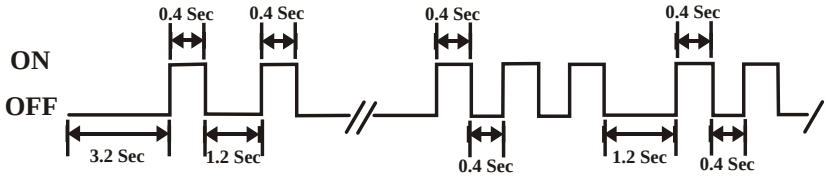
CONNECT JUMPER WIRE TO DIAGNOSTIC CONNECTOR FOR YOUR VEHICLE APPLICATION. "CHECK TRANS" LIGHT WILL FLASH AS FOLLOWS:

CONTINUOUS EVEN FLASH = *"NO CODES"*





DTC 11 **DTC 32**

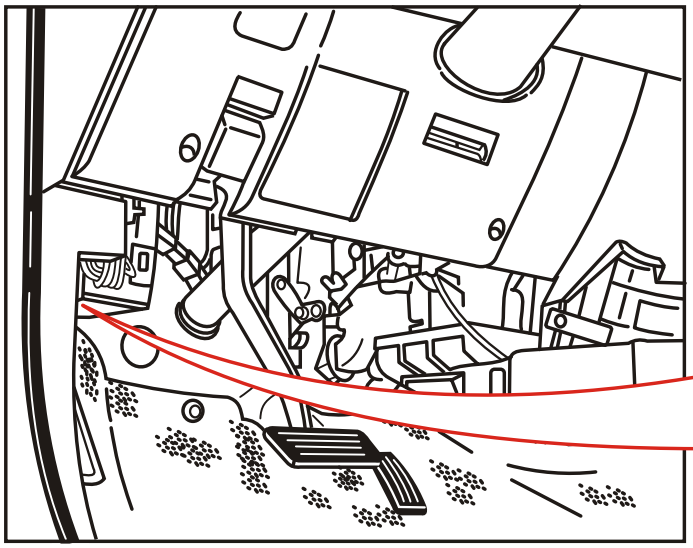


NOTE: EACH DIAGNOSTIC TROUBLE CODE WILL REPEAT 3 TIMES IN NUMERICAL ORDER

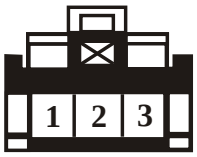
NOTE: A DTC 12 (NO DITRIBUTOR REFERENCE) IS NORMAL IF TROUBLE CODES ARE ACCESSED WITH THE ENGINE "OFF".

Figure 1

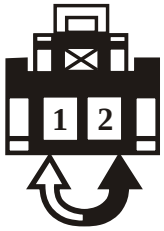
90-91 TROOPER AND 91-92 RODEO *"ONLY"*



DIAGNOSTIC 1 CONNECTOR (TECH-1 USE ONLY)



DIAGNOSTIC 2 CONNECTOR



JUMP TERMINALS 1 & 2 OF DIAGNOSTIC 2 CONNECTOR FOR CODE RETRIEVAL
"White" Connector on Trooper
"Black" Connector on Rodeo

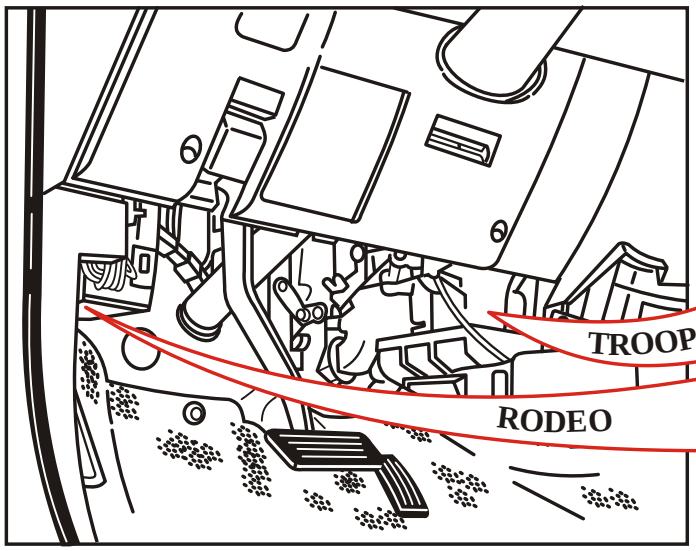
DIAGNOSTIC CONNECTOR LOCATION IS BY THE TCM FOR TROOPER, AND EITHER BY THE TCM FOR RODEO, OR TAPED NEAR THE LEFT SPEAKER.

DIAGNOSTIC 2 WIRE COLORS

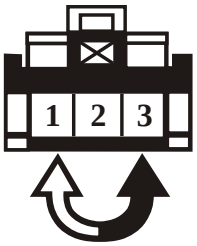
TERMINAL	WIRE COLOR
1	YEL/BLK
2	BLACK

Figure 2

92-93 TROOPER AND 93 RODEO *"ONLY"*



DIAGNOSTIC 1 CONNECTOR



JUMP TERMINALS 1 & 3 OF DIAGNOSTIC 1 CONNECTOR FOR CODE RETRIEVAL

DIAGNOSTIC CONNECTOR LOCATION IS BEHIND THE CENTER CONSOLE ON TROOPER AND BY THE TCM ON RODEO

"TROOPER" DIAGNOSTIC 1 WIRE COLORS

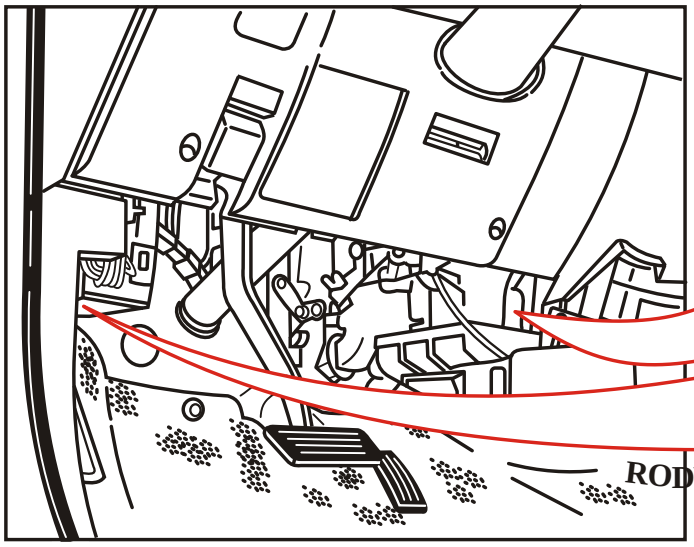
TERMINAL	WIRE COLOR
1	YELLOW/BLACK
2	WHT/RED (92) WHT/GRN (93)
3	BLACK/GREEN

"RODEO" DIAGNOSTIC 1 WIRE COLORS

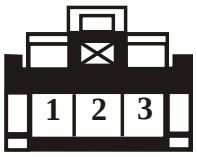
TERMINAL	WIRE COLOR
1	YELLOW/BLACK
2	WHITE/RED
3	BLACK

Figure 3

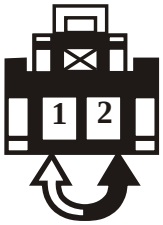
94 TROOPER, RODEO AND PASSPORT *"ONLY"*



DIAGNOSTIC 1 CONNECTOR (TECH-1 USE ONLY)



DIAGNOSTIC 2 CONNECTOR



TROOPER JUMP TERMINALS 1 & 2 OF DIAGNOSTIC 2 CONNECTOR FOR CODE RETRIEVAL

RODEO DIAGNOSTIC CONNECTOR LOCATION IS BEHIND CONSOLE ON TROOPER AND BY TCM ON PASSPORT AND RODEO

TROOPER DIAGNOSTIC 2 WIRE COLORS

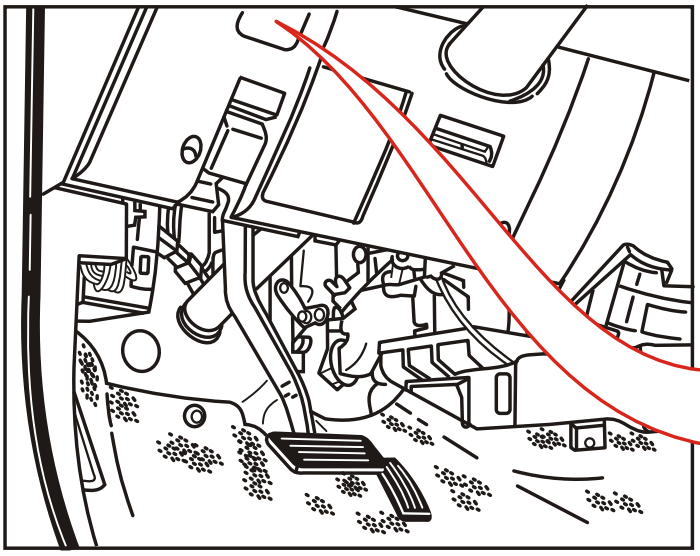
TERMINAL	WIRE COLOR
1	YELLOW/BLACK
2	BLACK/GREEN

PASSPORT/RODEO DIAGNOSTIC 2 WIRE COLORS

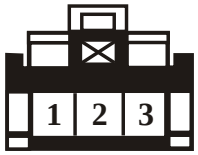
TERMINAL	WIRE COLOR
1	YELLOW/BLACK
2	BLACK/ORANGE

Figure 4

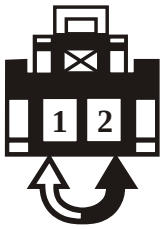
95 TROOPER, RODEO AND PASSPORT *"ONLY"*



DIAGNOSTIC 1 CONNECTOR (TECH-1 USE ONLY)



DIAGNOSTIC 2 CONNECTOR



JUMP TERMINALS 1 & 2 OF DIAGNOSTIC 2 CONNECTOR FOR CODE RETRIEVAL

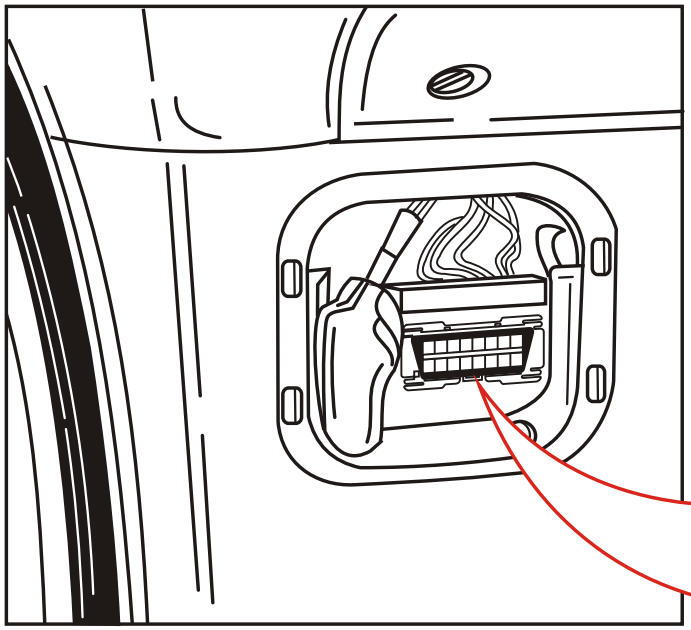
DIAGNOSTIC CONNECTOR FOR TROOPER, RODEO AND PASSPORT LOCATED BEHIND ACCESS DOOR

TROOPER,PASSPORT AND RODEO DIAGNOSTIC 2 WIRE COLORS

TERMINAL	WIRE COLOR
1	YELLOW/BLACK
2	BLACK/ORANGE

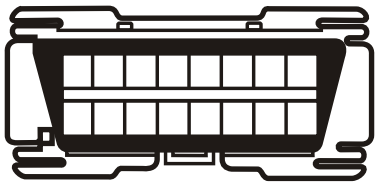
Figure 5

96 TROOPER AND ACURA SLX *"ONLY"*



SCAN TOOL IS *MANDATORY* FOR CODE RETRIEVAL

16-PIN OBD-II CONNECTOR

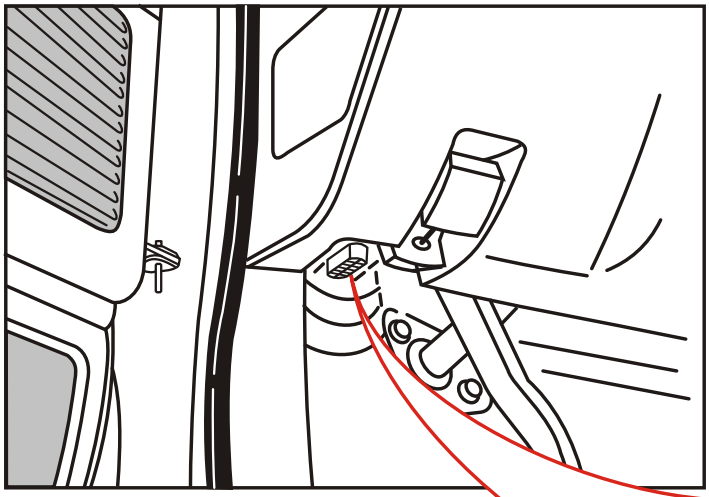


DIAGNOSTIC CONNECTOR FOR 1996 TROOPER AND ACURA SLX LOCATED BEHIND ACCESS DOOR IN LEFT KICK PANEL

DIAGNOSTIC CONNECTOR FOR 1997 TROOPER AND ACURA SLX LOCATED BEHIND ACCESS DOOR ON DASH IN FRONT OF LEFT KNEE

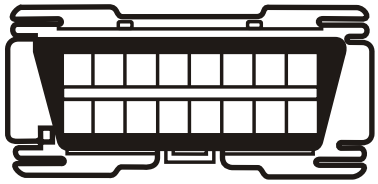
Figure 6

96-97 RODEO AND PASSPORT *"ONLY"*



SCAN TOOL IS *MANDATORY* FOR CODE RETRIEVAL

16-PIN OBD-II CONNECTOR



DIAGNOSTIC CONNECTOR FOR RODEO AND PASSPORT LOCATED UNDER DASH NEAR HOOD RELEASE

Figure 7

TROUBLE CODE	1990-1993 MODELS ONLY DESCRIPTION
17	**1-2/3-4 Shift Solenoid shorted to ground.** --The TCM sensed low voltage at the solenoid when the solenoid was switched "ON".
21	**Throttle Position Sensor voltage is too high.** --The TCM read Throttle Position Sensor voltage greater than 4.9 volts. --The Throttle Position Sensor, or wiring, may have been signaling a throttle position value of 100%.
22	**Throttle Position Sensor voltage is too low.** --The TCM read Throttle Position Sensor voltage less than 60 mv. --The Throttle Position Sensor, or wiring, may have been signaling a throttle position value of 0%.
23	**Engine Coolant Switch voltage is too high.** --The TCM read voltage high from the Engine Coolant Switch when the engine should have been warm (Over 20 minutes running time). --The TCM will not allow torque converter clutch operation. --Under normal operating conditions: Cold = high voltage (Switch Open) Warm = low voltage (Switch Closed)
25	**1-2/3-4 Shift Solenoid is open or shorted to battery voltage.** --The TCM sensed high voltage at the solenoid when the solenoid was switched "OFF".
26	**2-3 Shift Solenoid is shorted to ground.** --The TCM snesed low voltage at the solenoid when the solenoid was switched "ON".
28	**2-3 Shift Solenoid is open or shorted to battery voltage.** --The TCM sensed high voltage at the solenoid when the solenoid was switched "OFF".
29	**TCC Solenoid is shorted to ground.** --The TCM snesed low voltage at the solenoid when the solenoid was switched "ON".
31	**Engine Speed Sensor circuit is open.** --The TCM read 0 pulses from the Engine Speed Sensor when the throttle opening was greater than 12 percent and the vehicle speed was greater than 19 mph (30 kp/h).
32	**Force Motor (EPC) circuit is open.** --The TCM read a Force Motor current draw less than 95 mA (.095A).
33	**Force Motor (EPC) circuit is shorted to battery voltage.** --The TCM read a Force Motor current draw greater than 1.5A..
34	**Band Apply Solenoid is open or shorted to battery voltage.** --The TCM sensed high voltage at the solenoid when the solenoid was switched "OFF".
35	**Band Apply Solenoid is shorted to ground.** --The TCM sensed low voltage at the solenoid when the solenoid was switched "ON".

Figure 8

TROUBLE CODE	1990-1993 MODELS ONLY (Continued) DESCRIPTION
36	**TCC Solenoid is open or shorted to battery voltage.** --The TCM sensed high voltage at the solenoid when the solenoid was switched "OFF".
39	**Transmission Speed Sensor circuit is open.** --The TCM read 0 pulses from the Vehicle Speed Sensor when the engine speed was greater than 3000 rpm and the gear selector mode switch identified D, 3, 2, or L.
41	**Gear Error (May store additional codes 17, 25, 26, 28, 31, 39, or 46).** --When the engine speed was greater than 3500 rpm, the TCM read a vehicle speed which was too high for the coresponding gear.
43	**Ground Control Solenoid (TCM Internal Relay).** --The TCM read a change after reset.
46	**Downshift Error (May store additional codes 31, or 39).** --For any downshift (4-3, 3-2, 2-1), the engine rpm was above a predetermined speed.
48	**Low supply voltage.** --The TCM read a supply voltage less than 9 volts.
49	**High supply voltage.** --The TCM read a supply voltage greater than 16 volts.
55	**EPROM failure.** --TCM internal failure. Replace Transmission Control Module (TCM).
56*	**Mode Switch position is incorrect, or TPS is open.** --The TCM read a vehicle speed greater than 62 mph (100 km/h) when the gear selector mode switch identified Reverse. --The TCM read a throttle position greater than 20 percent and engine speed less thsn 3000 rpm, when the gear selector mode switch identified Park or Neutral.
65	**Transmission Oil Temperature sensor is open.** --The "Winter Program" could not be activated. --The TCM read 5 volts.
66	**Transmission Oil Temperature sensor is shorted.** --The TCM read 0 volts.
77	**Kickdown Switch is shorted, or TPS is open.** --The TCM read kickdown when the throttle position sensor was less than 70 percent.
82*	**Mode Switch is in an undefined state.** The TCM read a gear selector mode other than P, R, N, D, 3, 2, or L.

*** These codes may not set on early Trooper models.**

FOR "SPECIAL NOTE" ON 1990-1993 MODELS, SEE NEXT PAGE.

Figure 9

SPECIAL NOTES FOR
1990-1993 MODELS ONLY

1990-1991 MODELS ONLY

NOTE: On 1990-1991 models, equipped with 2.8L engine, the engine coolant temperature must be above 68°F (20°C), for Torque Converter Clutch operation.

NOTE: On 1990-1991 models, equipped with 3.1L engine, the engine coolant temperature must be above 113°F (45°C), for Torque Converter Clutch operation.

1992-1993 MODELS ONLY

NOTE: On 1992-93 models, if road test is performed with engine coolant temperature less than 158°F (70°C), shift speeds will be delayed during light throttle application and occur at a slightly higher speed.

NOTE: On 1992-1993 models, engine coolant temperature must be greater than 158°F (70°C) for TCC operation. The TCC operates in 2nd gear kickdown when engine coolant temperature is greater than 158°F (70°C). The TCC operates in 2nd, 3rd and 4th gear when transmission fluid temperature is greater than 284°F (140°C). If the transmission oil temperature is above 293°F (145°C), the "CHECK TRANS" light will be constantly ON, (Not Flashing), and goes off again when TOT is below 257°F (125°C).

Figure 10

TROUBLE CODE	1994-1995 MODELS ONLY DESCRIPTION
11	OUTPUT SPEED SENSOR SIGNAL FAILURE
13	ENGINE SPEED SENSOR SIGNAL FAILURE
*15	TRANSMISSION OIL TEMPERATURE SENSOR OPEN OR SHORTED TO VOLTAGE
*16	TRANSMISSION OIL TEMPERATURE SENSOR SHORTED TO GROUND
21	THROTTLE POSITION SENSOR OPEN OR SHORTED TO BATTERY VOLTAGE
22	THROTTLE POSITION SENSOR SHORTED TO GROUND
23	THROTTLE POSITION SENSOR CIRCUIT OPEN
25	SUPPLY VOLTAGE TOO LOW (LESS THAN 9 VOLTS)
26	SUPPLY VOLTAGE TOO HIGH (GREATER THAN 16 VOLTS)
31	1-2/3-4 SHIFT SOLENOID OPEN OR SHORTED TO GROUND
32	2-3 SHIFT SOLENOID OPEN OR SHORTED TO GROUND
**33	TCC SOLENOID CIRCUIT OPEN OR SHORTED TO BATTERY VOLTAGE
34	BAND APPLY SOLENOID CIRCUIT OPEN OR SHORTED TO GROUND
35	FORCE MOTOR SOLENOID CIRCUIT OPEN OR SHORTED TO GRND OR VOLTAGE
36	SHIFT SOLENOID CIRCUIT OPEN OR SHORTED TO GROUND
37	TORQUE MANAGEMENT SERIAL LINE FAULTY
41	1-2/3-4 SOLENOID CIRCUIT SHORTED TO BATTERY VOLTAGE
42	2-3 SHIFT SOLENOID CIRCUIT SHORTED TO BATTERY VOLTAGE
*43	TCC SOLENOID CIRCUIT SHORTED TO GROUND
44	BAND APPLY SOLENOID CIRCUIT SHORTED TO BATTERY VOLTAGE
46	SHIFT SOLENOID CIRCUIT SHORTED TO BATTERY VOLTAGE
*51	ENGINE COOLANT SWITCH SHORTED TO GROUND, VOLTAGE, OR OPEN
*52	KICKDOWN ALWAYS ON OR SHORTED TO GROUND
*53	MODE SWITCH IN "P", "N" OR "R" BAD POSITION
54	MODE SWITCH, ILLEGAL POSITION

***** *No "CHECK TRANS" light and transmission will not enter "Limp Mode" when DTC is set.*

****** *Flashes "CHECK TRANS" light on instrument panel, but will not enter "Limp Mode" when DTC is set.*

NOTE: If road test is performed with engine coolant temperature less than 158°F (70°C), shift speeds will be delayed during light throttle application and occur at a slightly higher speed.

NOTE: Engine coolant temperature must be greater than 158°F (70°C) for TCC operation. The TCC operates in 2nd gear kickdown when engine coolant temperature is greater than 158°F (70°C). The TCC operates in 2nd, 3rd and 4th gear when transmission fluid temperature is greater than 284°F (140°C). If the transmission oil temperature is above 293°F (145°C), the "CHECK TRANS" light will be constantly ON, (Not Flashing), and goes off again when TOT is below 257°F (125°C).

1994-1995 CODES CONTINUED ON NEXT PAGE

Figure 11

TROUBLE CODE	1994-1995 MODELS ONLY (Continued) DESCRIPTION
*55	BRAKE SWITCH OPEN, OR SHORTED TO GROUND
*56	BRAKE SWITCH SHORTED TO BATTERY VOLTAGE
61	GEAR ERROR
62	DOWNSHIFT PROTECTION
63	EPROM CSUM FAILURE
*64	TCC VALVE STUCK ON (1994 MODELS ONLY)
*65	TCC VALVE STUCK OFF (1994 MODELS ONLY)
82	SHIFT OR BAND APPLY SOLENOIDS FAULTY DURING DRIVING

***** *No "CHECK TRANS" light and transmission will not enter "Limp Mode" when DTC is set.*

****** *Flashes "CHECK TRANS" light on instrument panel, but will not enter "Limp Mode" when DTC is set.*

NOTE: If road test is performed with engine coolant temperature less than 158°F (70°C), shift speeds will be delayed during light throttle application and occur at a slightly higher speed.

NOTE: Engine coolant temperature must be greater than 158°F (70°C) for TCC operation. The TCC operates in 2nd gear kickdown when engine coolant temperature is greater than 158°F (70°C). The TCC operates in 2nd, 3rd and 4th gear when transmission fluid temperature is greater than 284°F (140°C). If the transmission oil temperature is above 293°F (145°C), the "CHECK TRANS" light will be constantly ON, (Not Flashing), and goes off again when TOT is below 257°F (125°C).

Figure 12

1996-1997 MODELS ONLY				
TROUBLE CODE	**DESCRIPTION**	**DTC TYPE**	**CHECK ENGINE**	**CHECK TRANS**
P0218	**Transmission Fluid Over Temperature**	**D**		
P0560	**System Voltage Malfunction**	**D**		
P0705	**Transmission Range Switch (Mode Switch) Illegal Position**	**D**		
P0706	**Transmission Range Switch (Mode Switch) Performance**	**D**		
P0711	**Transmission Fluid Temperature (TFT) Sensor Circuit -- Range/Performance**	**D**		
P0712	**Transmission Fluid Temperature (TFT) Sensor Circuit Low Input**	**D**		
P0713	**Transmission Fluid Temperature (TFT) Sensor Circuit High Input**	**D**		
P0719	**TCC Brake Switch Circuit High (Stuck On)**	**D**		
P0722	**Transmission Output Speed Sensor (OSS) Low Input**	**A**	**ON**	**Flash**
P0723	**Transmission Output Speed Sensor (OSS) Intermittent**	**A**	**ON**	**Flash**
P0724	**TCC Brake Switch Circuit Low (Stuck Off)**	**D**		
P0730	**Transmission Incorrect Gear Ratio**	**C**		**Flash**
P0742	**Torque Converter Clutch Circuit (Stuck On)**	**A**	**ON**	**Flash**
P0748	**Pressure Control Solenoid (PCS) (Force Motor) Circuit Electrical**	**C**		**Flash**
P0751	**Shift Solenoid A Performance Without Input Speed**	**B**	**ON**	**Flash**
P0753	**Shift Solenoid A Circuit Electrical**	**A**	**ON**	**Flash**
P0756	**Shift Solenoid B Performance Without Input Speed**	**B**	**ON**	**Flash**

TYPE	DEFINITION
A	***Emission related, turn on MIL (Check Engine) and flashing Check Trans on 1st failure.***
B	***Emission related, turn on MIL (Check Engine) and flashing Check Trans after two consecutive trips with a failure.***
C	***Non-emission related, flashing Check Trans on 1st failure.***
D	***Non-emission related, no warning lamps.***

1996-1997 CODES CONTINUED ON NEXT PAGE

Figure 13

1996-1997 MODELS ONLY (Continued)				
TROUBLE CODE	**DESCRIPTION**	**DTC TYPE**	**CHECK ENGINE**	**CHECK TRANS**
P0758	**Shift Solenoid B Circuit Electrical**	**A**	**ON**	**Flash**
P1790	**ROM Transmission Side Bad, Check Sum**	**A**	**ON**	**Flash**
P1792	**EEROM Transmission Side Bad, Check Sum**	**A**	**ON**	**Flash**
P1835	**Kick Down Switch Always ON**	**D**		
P1850	**Band Apply Solenoid Malfunction**	**D**		
P1860	**TCC/PWM Solenoid Electrical**	**A**	**ON**	**Flash**
P1870	**Transmission Component Slipping**	**A**	**ON**	**Flash**

TYPE	DEFINITION
A	***Emission related, turn on MIL (Check Engine) and flashing Check Trans on 1st failure.***
B	***Emission related, turn on MIL (Check Engine) and flashing Check Trans after two consecutive trips with a failure.***
C	***Non-emission related, flashing Check Trans on 1st failure.***
D	***Non-emission related, no warning lamps.***

NOTE: If road test is performed with engine coolant temperature less than 158°F (70°C), shift speeds will be delayed during light throttle application and occur at a slightly higher speed.

NOTE: Engine coolant temperature must be greater than 158°F (70°C) for TCC operation. The TCC operates in 2nd gear kickdown when engine coolant temperature is greater than 158°F (70°C). The TCC operates in 2nd, 3rd and 4th gear when transmission fluid temperature is greater than 284°F (140°C). If the transmission oil temperature is above 284°F (140°C), the "CHECK TRANS" light will be constantly ON, (Not Flashing), and goes off again when TOT is below 266°F (130°C).

Figure 14