

Diagnostics with Phenomenon

CONTINUOUSLY VARIABLE TRANSMISSION

47. Diagnostics with Phenomenon

A: INSPECTION

Symptoms	Faulty parts
Stall speed is low after warming-up, with select lever in "D" or "R" range.	Engine control system
Vehicle does not move despite engine speed rising up, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Engine control system • Select cable • CVTF • Secondary pressure circuit • Pulley, gear and variator chain • Forward/reverse changeover section • TCM • Control valve body • Inhibitor switch
Vehicle does not move by engine stall, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Parking mechanism • Select cable • Bearing • Forward/reverse changeover section
Excessive shock occurs at starting, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Secondary pressure circuit • Pulley, gear and variator chain
Acceleration speed from standstill is insufficient, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Control valve body • Forward/reverse changeover section
Engine speed suddenly rises up during driving, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Control valve body • Secondary pressure circuit • Primary pressure circuit
Vibration occurs during driving, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Secondary pressure circuit • Primary pressure circuit • Forward/reverse changeover section • Pulley and variator chain • Torque converter assembly • Hydraulic pressure circuit to torque converter • Control valve body
Sudden braking occurs during driving, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Secondary pressure circuit • Primary pressure circuit • Control valve body
During deceleration, lockup clutch does not disengage until just before halting, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Control valve body • Torque converter assembly
Engine stalls with vehicle at a standstill, with select lever in "D" or "R" range.	<ul style="list-style-type: none"> • Engine control system • Control valve body
Excessive lockup shock occurs during driving, with select lever in "D" range.	Control valve body
Slipping occurs at lockup, or lockup does not occur during driving, with select lever in "D" range.	<ul style="list-style-type: none"> • Control valve body • Lockup hydraulic line • Torque converter assembly
Excessive shift shock occurs when shifting the select lever from "N" range to "D" range, or from "N" range to "R" range.	<ul style="list-style-type: none"> • Inhibitor switch • Control valve body • Forward/reverse changeover section
Vehicle does not keep at standstill with select lever in "P" range, or parking cannot be released when shifting from "P" range to another range.	<ul style="list-style-type: none"> • Select cable • Parking mechanism
Select lever does not shift smoothly.	<ul style="list-style-type: none"> • Select cable • Inhibitor switch • Detent spring • Manual plate

CONTINUOUSLY VARIABLE TRANSMISSION

CVT(*TR690*)

	Page
1. General Description	3
2. CVTF	36
3. Differential Gear Oil	41
4. Variator Chain Break-in	45
5. AWD ON/OFF Switching Mode	46
6. Road Test	47
7. Stall Test	49
8. Time Lag Test	50
9. Secondary Pressure (Line Pressure) Test	51
10. Transfer Clutch Pressure Test	54
11. Automatic Transmission Assembly	56
12. Transmission Mounting System	83
13. Extension Case Oil Seal	87
14. Differential Side Retainer Oil Seal	89
15. Inhibitor Switch	92
16. Secondary Speed Sensor	99
17. Primary Speed Sensor	102
18. Front Wheel Speed Sensor	105
19. Secondary Pressure Sensor	107
20. Control Valve Body	109
21. Transmission Harness	120
22. X MODE Switch	123
23. Transmission Control Module (TCM)	125
24. CVTF Cooler (With Warmer Function)	127
25. Air Breather Hose	134
26. Drive Plate	135
27. Preparation for Overhaul	137
28. Torque Converter Assembly	138
29. Extension Case	140
30. Rear Drive Shaft	143
31. Transfer Clutch	148
32. Transfer Reduction Driven Gear	160
33. Parking Pawl	165
34. Intermediate Case	167
35. CVTF Filter	172
36. Reverse Brake Assembly	173
37. Forward Clutch Assembly	182
38. Reduction Driven Gear	202
39. Transmission Control Device	209
40. Transmission Case	213
41. Primary Pulley and Secondary Pulley	231
42. Variator Chain	246
43. Drive Pinion Shaft Assembly	247

CONTINUOUSLY VARIABLE TRANSMISSION

44.	Front Differential Assembly	269
45.	Oil Pump	287
46.	Oil Pump Chain	288
47.	Converter Case Cover	295
48.	Front Reduction Drive Gear	304
49.	Front Reduction Driven Gear	312
50.	Converter Case	320
51.	Diagnostics with Phenomenon	324