

# NO.17 EXCESSIVE SHIFT SHOCK FROM N TO D OR N TO R POSITION/RANGE

B3E050319090W21

<b>17</b>	<b>Excessive shift shock from N to D or N to R position/range</b>
<b>DESCRIPTION</b>	<ul style="list-style-type: none"> <li>• Strong shock felt when shifting from N to D or N to R position/range.</li> </ul>
<b>POSSIBLE CAUSE</b>	<p>• Shift shock may worsen when the fail-safe is operating. If no DTC is output, the shift shock may worsen due to poor operation of the control valve body or sticking of the clutch.</p> <p>1. Clutch burnt (N→D: Forward clutch, N→R: Reverse clutch or low and reverse brake)</p> <ul style="list-style-type: none"> <li>• Line pressure low, high</li> <li>• TP sensor malfunction</li> <li>• Vehicle speed sensor malfunction</li> <li>• Input/turbine speed sensor malfunction</li> <li>• Shift solenoid B malfunction</li> <li>• Shift solenoid D malfunction</li> <li>• Shift solenoid A malfunction</li> <li>• Shift solenoid C malfunction</li> <li>• Pressure control solenoid malfunction</li> <li>• Accelerator cable mis-adjustment</li> <li>• Control valve body malfunction</li> <li>• Sensor GND malfunction</li> <li>• Body GND malfunction</li> </ul> <p>2. Poor hydraulic operation (Malfunction in range change)</p> <ul style="list-style-type: none"> <li>• Forward accumulator malfunction</li> <li>• Servo apply accumulator malfunction</li> <li>• Pressure switch malfunction</li> </ul> <p>3. Idle speed high</p> <p>4. Poor tightening torque of engine mount, exhaust mount</p> <p>5. Poor operation of mechanical pressure</p> <ul style="list-style-type: none"> <li>• Selector lever position disparity</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Before following the troubleshooting steps, make sure that the Automatic Transaxle On-Board Diagnostic and Automatic Transaxle Basic Inspection are conducted.</li> </ul>

## Diagnostic procedure

STEP	INSPECTION	ACTION
1	Does the shift shock occur only when the engine is cold?	Yes Go to the next step.
		No Go to Step 3.
2	Disconnect the PCM connector. Is the resistance between the ground terminal at the PCM connector and the	Yes Inspect the value at the following PCM PIDs using the WDS or equivalent. (See <a href="#">PCM INSPECTION [ZJ, Z6].</a> ) (See <a href="#">PCM INSPECTION [LF].</a> ) • TP • TFT

	body ground <b>less than 5.0 ohms</b> ?		<ul style="list-style-type: none"> <li>• TFTV</li> </ul> Repair or replace any malfunctioning parts.
		No	Repair the open ground circuit. Reconnect the PCM.
3	Perform the stall test. (See <a href="#">Stall Test.</a> ) Is the stall speed normal?	Yes	Go to the next step.
		No	Go to Step 5.
4	Inspect the value at the following PCM PID using the WDS or equivalent. (See <a href="#">PCM INSPECTION [ZJ, Z6].</a> ) (See <a href="#">PCM INSPECTION [LF].</a> ) • TR Is the PID value normal?	Yes	Overhaul the control valve body and repair or replace any malfunctioning parts. (See ATX workshop manual (FN4A-EL).) If any problem remains, overhaul the transaxle and repair or replace any malfunctioning parts. (See ATX workshop manual (FN4A-EL).)
		No	Repair or replace any malfunctioning parts.
5	Inspect the value at the following PCM PID using the WDS or equivalent. (See <a href="#">PCM INSPECTION [ZJ, Z6].</a> ) (See <a href="#">PCM INSPECTION [LF].</a> ) • TP Is the PID value normal?	Yes	Go to the next step.
		No	Repair or replace any malfunctioning parts.
6	Disconnect the PCM connector. Is the resistance between the ground terminal at the PCM connector and the body ground <b>less than 5.0 ohms</b> ?	Yes	Go to the next step.
		No	Repair the open ground circuit. Reconnect the PCM.
7	Inspect LPS PID value. Is LPS PID value normal? (See <a href="#">PCM INSPECTION [ZJ, Z6].</a> ) (See <a href="#">PCM INSPECTION [LF].</a> )	Yes	Overhaul the control valve body and repair or replace any malfunctioning parts. (See ATX workshop manual (FN4A-EL).) If any problem remains, overhaul the transaxle and repair or replace any malfunctioning parts. (See ATX workshop manual (FN4A-EL).)
		No	Repair or replace any malfunctioning parts.
8	<ul style="list-style-type: none"> <li>• Verify the test results.</li> <li>- If normal, return to the diagnostic index to service any additional symptoms.</li> <li>- If the malfunction remains, inspect the related Service information and perform repair or diagnosis. <ul style="list-style-type: none"> <li>• If the vehicle is repaired, troubleshooting is completed.</li> <li>• If the vehicle is not repaired or additional diagnostic information is not available, replace the PCM.</li> </ul> </li> </ul>		