

DTC P2006 [ZJ, Z6]

B3E010202000W06

DTC P2006	Variable tumble control stuck close
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the mass air amount. If the actual air flow amount is below the estimated air flow amount when the following monitoring conditions are met. The PCM determines that the variable tumble control is stuck closed. <p>MONITORING CONDITION</p> <ul style="list-style-type: none"> Engine coolant temperature is 70 °C {158 °F} or more. Throttle valve opening angle is more than 75 %. Engine speed is 4,500 rpm or more. (ZJ) Engine speed is 3,500 rpm or more. (Z6) <p>Diagnostic support note</p> <ul style="list-style-type: none"> This is a continuous monitor (CCM). The MIL illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. PENDING CODE is available if the PCM detects the above malfunction condition during the first drive cycle. FREEZE FRAME DATA is available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> MAF sensor malfunction Excessive air suction of intake-air system (from MAF sensor onward) Improper intake-air system hose routing Variable tumble shutter valve stuck closed PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED • Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record the FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related service repair information availability. • Is any related repair information available?	Yes Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No Go to the next step.
3	VERIFY RELATED PENDING CODE OR STORED DTC • Turn the ignition switch off, then to the ON position (Engine off). • Verify the related PENDING CODE or stored DTCs. • Are other DTCs present?	Yes Go to the appropriate DTC inspection. (See DTC TABLE [ZJ, Z6].)
		No Go to the next step.
4	INSPECT MAF SENSOR • Inspect the MAF sensor. (See MASS AIR FLOW (MAF) SENSOR INSPECTION [ZJ, Z6].) • Is there any malfunction?	Yes Replace the MAF/IAT sensor, then go to Step 6. (See MASS AIR FLOW (MAF)/INTAKE AIR TEMPERATURE (IAT) SENSOR REMOVAL/INSTALLATION [ZJ, Z6].)
		No Go to the next step.
	INSPECT FOR EXCESSIVE AIR SUCTION OF	

5	INTAKE-AIR SYSTEM OR IMPROPER ROUTING OF INTAKE-AIR SYSTEM HOSE <ul style="list-style-type: none"> • Visually inspect hoses on intake air system for looseness, cracks or damages. • Is there any malfunction? 	Yes	Repair or replace source of air suction, then go to the next step.
		No	Go to the next step.
6	VERIFY TROUBLESHOOTING OF DTC P2006 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the WDS or equivalent. • Start the engine. • Access the ECT PID. • Warm up the engine until the ECT PID is 70 °C {158 °F} or more. • Perform no load racing at the engine speed of 4,500 rpm or more with the throttle valve opening angle more than 75 %. (ZJ) • Perform no load racing at the engine speed of 3,500 rpm or more with the throttle valve opening angle more than 75 %. (Z6) • Is the PENDING CODE for this DTC present? 	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6] .)
		No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [ZJ, Z6].) • Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See DTC TABLE [ZJ, Z6] .)
		No	DTC troubleshooting completed.