NO.10 VEHICLE MOVES WHEN ACCELERATING FROM STANDSTILL ON SLOPE [SKYACTIV-D 2.2]

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10	VEHICLE MOVES WHEN ACCELERATING FROM STANDSTILL ON SLOPE
DESCRIPTION	• Vehicle slips backwards on inclined road surface when accelerating after i-stop operates.
POSSIBLE CAUSE	**Note** • MT vehicles do not have the Hill Launch Assist function from i-stop because the driver controls the brake pressure. • i-stop (engine-stop control) continues operating when shifting the selector lever from D position to N or P position while i-stop (engine-stop control) is operating, however, if the slope of the road surface is **within ±4 %**, the Hill Launch Assist (HLA) function is canceled. (ATX) **Hill launch assist function system (DSC) malfunction** • False detection of inclination angle (cannot calculate correct road slope) — Low-G (XY) sensor (built-into SAS control module) malfunction (In this case, the SAS control module records DTCs C0061:29 and C0062:29.) — Low-G (XY) sensor (built-into SAS control module) initialization malfunction • False detection of brake fluid pressure — Brake fluid pressure sensor (built-into DSC HU/CM) malfunction • Cannot maintain brake fluid pressure — DSC HU/CM malfunction • DC-DC converter system error (exceeds capacity of DC-DC converter output due to open or short circuit in wiring harness and after-market electrical part) **ATX system malfunction** • Electric AT oil pump malfunction (operation malfunction, insufficient pressure) • ATX malfunction

Diagnostic Procedure

STEP	INSPECTION	RESULTS	ACTION
1	**INSPECT EFFECT OF NON-GENUINE ELECTRICAL ACCESSORY FOR CAUSE OF MALFUNCTION** • Remove any non-genuine electrical accessory. • Verify the malfunction symptom. • Does vehicle slip backwards on inclined road surface when accelerating after i-stop operates?	Yes	The system is normal. • Explain to the customer that the vehicle slips backwards on an inclined road surface when accelerating after i-stop operates due to the effect of the non-genuine electrical accessory installed.
		No	Go to the next step.
2	**VERIFY DTC** • Retrieve the PCM, TCM, DSC HU/CM, SAS control module DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [GW6A-EL, GW6AX-EL].) (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) (See DTC INSPECTION.) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].) (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [GW6A-EL, GW6AX-EL].) (See ON-BOARD DIAGNOSIS [DYNAMIC STABILITY CONTROL (DSC)].) (See DTC TABLE.)
		No	Go to the next step.
3	**DETERMINE IF MALFUNCTION CAUSE IS HILL LAUNCH ASSIST FUNCTION OR ATX SYSTEM** • Verify the malfunction symptom on a flat road surface. • Does the acceleration lag when accelerating?	Yes	Perform the symptom troubleshooting “NO.9 ACCELERATION MALFUNCTION”. (See NO.9 ACCELERATION MALFUNCTION [SKYACTIV-D 2.2].)
		No	Brake fluid pressure sensor (built-into DSC HU/CM) or DSC HU/CM brake pressure hold function malfunction. • Replace the DSC HU/CM. (See DSC HU/CM REMOVAL/INSTALLATION.)
4	Verify the test results. • If normal, return to the diagnostic index to service any additional symptoms. (See SYMPTOM DIAGNOSTIC INDEX [SKYACTIV-D 2.2].) • If a malfunction remains, inspect the related Service Information and perform the repair or diagnosis. — If the vehicle is repaired, troubleshooting is completed. — If the vehicle is not repaired or additional diagnostic information is not available, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)		