DTC P0819:00 [GW6A-EL, GW6AX-EL]

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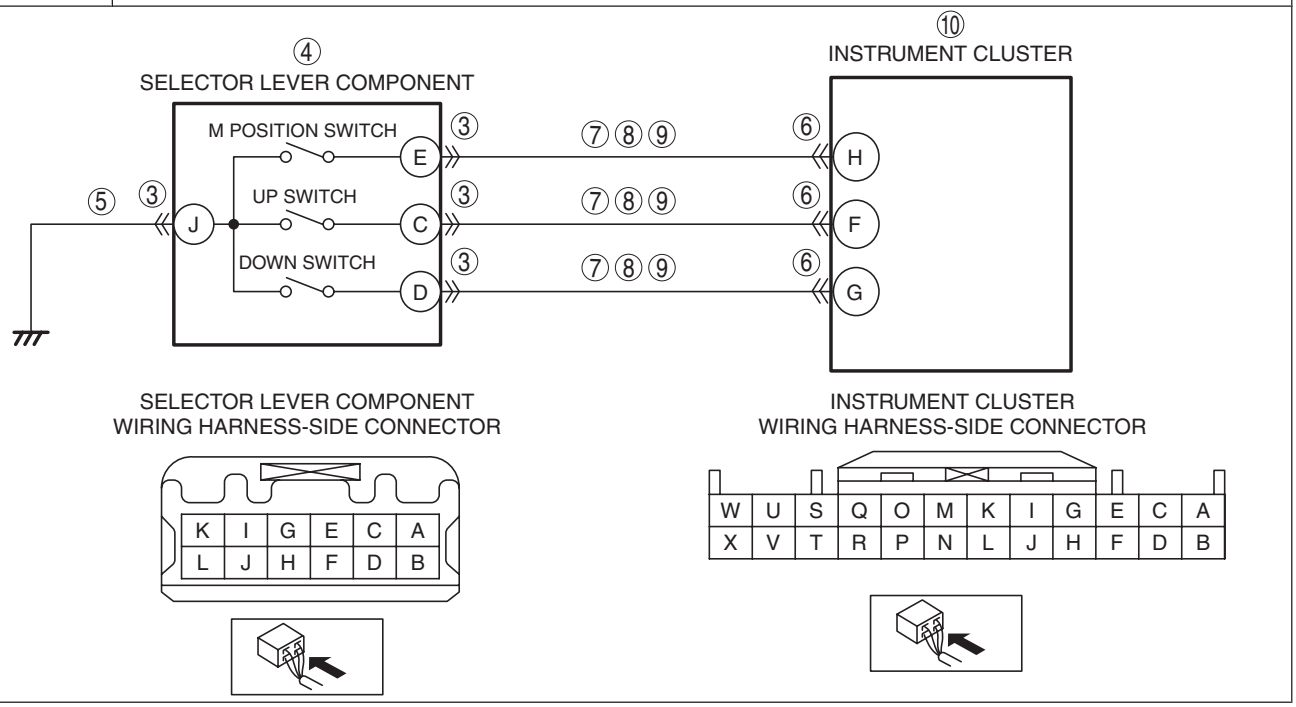
DTC P0819:00	M position switch/Up switch/Down switch signal error
DETECTION CONDITION	• Under the following conditions, any of (1) to (4) conditions occurs for **1 s**: — Engine is running. — Battery voltage is **8 V or more**. — Transaxle range sensor related DTC is not recorded. (1) M position switch signal is on even though forward oil pressure switch is on in any position other than D position. (2) M position switch signal is off even though up or down switch signal is on in D position. (3) Up switch signal is on even though M position switch signal is off in any position other than D position. (4) Down switch signal is on even though M position switch signal is off in any position other than D position. **Diagnostic support note** • The check engine light does not illuminate. • The automatic transaxle warning light does not illuminate. • PENDING CODE is available. • FREEZE FRAME DATA is not available. • DTC is stored in the TCM memory.
FAIL-SAFE FUNCTION	• Inhibits manual mode.
POSSIBLE CAUSE	• Instrument cluster DTC is stored. • Selector lever component connector or terminals malfunction • Selector lever component malfunction — M position switch malfunction — Up switch malfunction — Down switch malfunction • Open circuit in wiring harness between selector lever component terminal J and body ground • Instrument cluster connector or terminals malfunction • Short to ground in wiring harness between the following terminals: — Selector lever component terminal E—Instrument cluster terminal H — Selector lever component terminal C—Instrument cluster terminal F — Selector lever component terminal D—Instrument cluster terminal G • Short to power supply in wiring harness between the following terminals: — Selector lever component terminal E—Instrument cluster terminal H — Selector lever component terminal C—Instrument cluster terminal F — Selector lever component terminal D—Instrument cluster terminal G • Open circuit in wiring harness between the following terminals: — Selector lever component terminal E—Instrument cluster terminal H — Selector lever component terminal C—Instrument cluster terminal F — Selector lever component terminal D—Instrument cluster terminal G • Instrument cluster malfunction

DTC P0819:00	M position switch/Up switch/Down switch signal error



Diagnostic procedure

STEP	INSPECTION		ACTION
1	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • Verify related Service Information availability. • Is any related Service Information available?	Yes	Perform repair or diagnosis according to the available Service Information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
2	**VERIFY INSTRUMENT CLUSTER DTC** • Perform the instrument cluster DTC inspection using the M-MDS. (See DTC INSPECTION [INSTRUMENT CLUSTER].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [INSTRUMENT CLUSTER].)
		No	Go to the next step.
3	**INSPECT SELECTOR LEVER COMPONENT CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the selector lever component connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 11.
		No	Go to the next step.
4	**INSPECT SELECTOR LEVER COMPONENT** • Inspect the M position switch, up switch and down switch. (See M POSITION SWITCH INSPECTION [GW6A-EL, GW6AX-EL].) (See UP SWITCH INSPECTION [GW6A-EL, GW6AX-EL].) (See DOWN SWITCH INSPECTION [GW6A-EL, GW6AX-EL].) • Is there any malfunction?	Yes	Replace the selector lever component, then go to Step 11. (See AUTOMATIC TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION.)
		No	Go to the next step.

STEP	INSPECTION		ACTION
5	**INSPECT SELECTOR LEVER COMPONENT GROUND CIRCUIT FOR OPEN CIRCUIT** • Verify that the selector lever component connector is disconnected. • Inspect for continuity between selector lever component terminal J (wiring harness-side) and body ground. • Is there continuity?	Yes	Go to the next step.
		No	Refer to the wiring diagram and verify whether or not there is a common connector between selector lever component terminal J and body ground. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has an open circuit. Go to Step 11.
6	**INSPECT INSTRUMENT CLUSTER CONNECTOR CONDITION** • Disconnect the instrument cluster connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 11.
		No	Go to the next step.
7	**INSPECT SELECTOR LEVER COMPONENT CIRCUIT FOR SHORT TO GROUND** • Verify that the selector lever component and instrument cluster connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Selector lever component terminal E — Selector lever component terminal C — Selector lever component terminal D • Is there continuity?	Yes	Refer to the wiring diagram and verify whether or not there is a common connector between the following terminals: • Selector lever component terminal E—Instrument cluster terminal H • Selector lever component terminal C—Instrument cluster terminal F • Selector lever component terminal D—Instrument cluster terminal G **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to ground. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has a short to ground. Go to Step 11.
		No	Go to the next step.
8	**INSPECT SELECTOR LEVER COMPONENT CIRCUIT FOR SHORT TO POWER SUPPLY** • Verify that the selector lever component and instrument cluster connectors are disconnected. • Switch the ignition ON (engine on). • Measure the voltage at the following terminals (wiring harness-side): — Selector lever component terminal E — Selector lever component terminal C — Selector lever component terminal D • Is the voltage **0 V**?	Yes	Go to the next step.
		No	Refer to the wiring diagram and verify whether or not there is a common connector between the following terminals: • Selector lever component terminal E—Instrument cluster terminal H • Selector lever component terminal C—Instrument cluster terminal F • Selector lever component terminal D—Instrument cluster terminal G **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to power supply. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has a short to power supply. Go to Step 11.

STEP	INSPECTION		ACTION
9	**INSPECT SELECTOR LEVER COMPONENT CIRCUIT FOR OPEN CIRCUIT** • Verify that the selector lever component and instrument cluster connectors are disconnected. • Switch the ignition off. • Inspect for continuity between the following terminals (wiring harness-side): — Selector lever component terminal E—Instrument cluster terminal H — Selector lever component terminal C—Instrument cluster terminal F — Selector lever component terminal D—Instrument cluster terminal G • Is there continuity?	Yes	Go to the next step.
		No	Refer to the wiring diagram and verify whether or not there is a common connector between the following terminals: • Selector lever component terminal E—Instrument cluster terminal H • Selector lever component terminal C—Instrument cluster terminal F • Selector lever component terminal D—Instrument cluster terminal G **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has an open circuit. Go to Step 11.
10	**INSPECT INSTRUMENT CLUSTER** • Inspect the instrument cluster. (See INSTRUMENT CLUSTER INSPECTION.) • Is there any malfunction?	Yes	Replace the instrument cluster, then go to the next step. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION.)
		No	Go to the next step.
11	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC using the M-MDS. (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [GW6A-EL, GW6AX-EL].) • Perform the following procedure to ensure that the DTC has been resolved: 1. Verify that the battery voltage is **8 V or more**. 2. Drive the vehicle for **1 s or more** under the following condition: • Selector lever position: Except D position 3. Drive the vehicle for **1 s or more** under the following conditions: • Selector lever position: D position • Up switch: On 4. Drive the vehicle for **1 s or more** under the following conditions: • Selector lever position: D position • Down switch: On • Perform the DTC inspection using the M-MDS. (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [GW6A-EL, GW6AX-EL].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [GW6A-EL, GW6AX-EL].)
		No	DTC troubleshooting completed.