DTC P0850:24 [START STOP UNIT]

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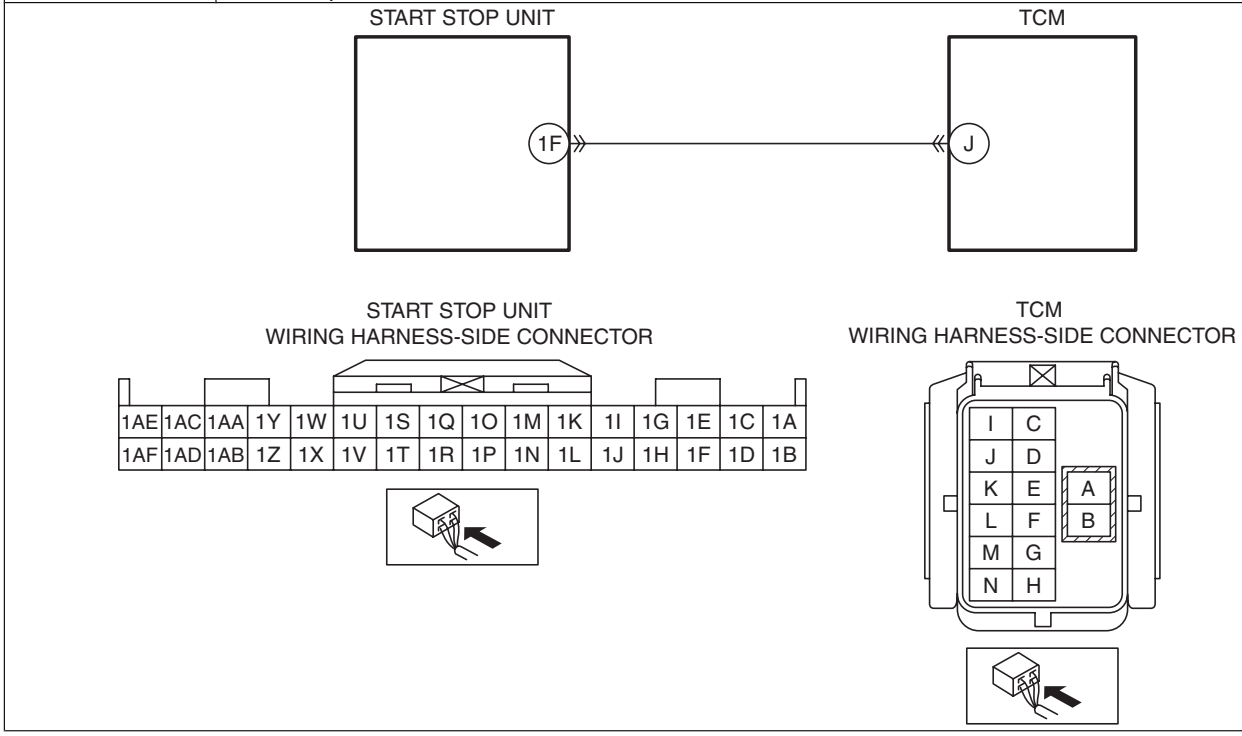
System malfunction location	**TCM circuit malfunction**
Detection condition	• With the ignition switched ON (engine off or on), it is detected that the transaxle range sensor CAN signal is other than P and N position for **1 s or more** continuously for a continuous **5 or more times** even though the TCM CAN signal is in P or N position.
Fail-safe	• Perform control of the internal signal for control of the transaxle range sensor as position other than P, N positions.
Possible cause	• TCM connector or terminal malfunction • Start stop unit connector or terminal malfunction • Short to ground in wiring harness between start stop unit terminal 1F and TCM terminal J • Open circuit in wiring harness between start stop unit terminal 1F and TCM terminal J • Transaxle range sensor malfunction • Start stop unit malfunction



Diagnostic Procedure

Step	Inspection		Action
1	**INSPECT TCM CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Disconnect the TCM connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 6.

Step	Inspection		Action
2	**INSPECT START STOP UNIT CONNECTOR CONDITION** • Disconnect the start stop unit connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 6.
3	**INSPECT TCM CIRCUIT FOR SHORT TO GROUND** • Verify that the start stop unit and TCM connectors are disconnected. • Inspect for continuity between TCM terminal J (vehicle wiring harness side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness which is shorted to ground, then go to Step 6.
		No	Go to the next step.
4	**INSPECT TCM CIRCUIT FOR OPEN CIRCUIT** • Verify that the start stop unit and TCM connectors are disconnected. • Inspect the wiring harness for continuity between start stop unit terminal 1F (vehicle wiring harness side) and TCM terminal J (vehicle wiring harness side). • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness which has an open circuit, then go to Step 6.
5	**PERFORM DTC INSPECTION AND VERIFY IF MALFUNCTIONING PART IS TRANSAXLE RANGE SENSOR** • Reconnect all the disconnected connectors. • Reconnect the disconnected negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Clear DTC for the start stop unit using the M-MDS. (See CLEARING DTC [START STOP UNIT].) • Switch the ignition ON (engine off). • Perform the following work five or more times. — Operate the selector lever to positions to other than P and N and wiat for **1 s or more**. — Operate the selector lever to positions to P or N and wiat for **1 s or more**. — Operate the selector lever to positions to other than P and N. • Perform the DTC inspection for the start stop unit using the M-MDS. (See DTC INSPECTION [START STOP UNIT].) • Is DTC P0850:24 displayed?	Yes	Replace the TCM, then go to the next step. (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [FW6A-EL, FW6AX-EL].)
		No	Go to Step 7.

Step	Inspection		Action
6	**VERIFY THAT REPAIRS HAVE BEEN COMPLETED** • Reconnect all the disconnected connectors. • Reconnect the disconnected negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Clear DTC for the start stop unit using the M-MDS. (See CLEARING DTC [START STOP UNIT].) • Switch the ignition ON (engine off). • Perform the following work five or more times. — Operate the selector lever to positions to other than P and N and wiat for **1 s or more**. — Operate the selector lever to positions to P or N and wiat for **1 s or more**. — Operate the selector lever to positions to other than P and N. • Perform the DTC inspection for the start stop unit using the M-MDS. (See DTC INSPECTION [START STOP UNIT].) • Is DTC P0850:24 displayed?	Yes	Replace the start stop unit, then go to the next step. (See START STOP UNIT REMOVAL/INSTALLATION.)
		No	Go to the next step.
7	**VERIFY IF OTHER DTCs DISPLAYED** • Are any other DTCs displayed?	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [START STOP UNIT].)
		No	DTC troubleshooting completed.