

# DTC C0040:24 [START STOP UNIT]

id0902p6021200

<b>System malfunction location</b>	<b>Brake switch (No.1 signal) circuit malfunction</b>
<b>Detection condition</b>	<ul style="list-style-type: none"> <li>With the ignition switched ON (engine off or on), the start stop unit detects that the brake switch No.1 signal is in the on condition for <b>3 s or more</b> continuously for a continuous <b>5 times</b> even though brake switch No.2 signal changes.</li> </ul>
<b>Fail-safe</b>	<ul style="list-style-type: none"> <li>Perform the brake switch (No.1 signal) control based on the CAN signal.</li> </ul>
<b>Possible cause</b>	<ul style="list-style-type: none"> <li>Brake switch connector or terminal malfunction</li> <li>Brake switch (No.1 signal) malfunction</li> <li>Start stop unit connector or terminal malfunction</li> <li>Short to power supply in wiring harness between brake switch terminal D and start stop unit terminal 1C</li> <li>Start stop unit malfunction</li> </ul>

## Diagnostic Procedure

Step	Inspection	Action
1	<b>INSPECT BRAKE SWITCH CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>Switch the ignition to off.</li> <li>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].)</li> <li>Disconnect the brake switch connector.</li> <li>Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection.</li> <li>Is the connector normal?</li> </ul>	Yes Go to the next step.
		No Repair or replace the connector, then go to Step 5.
2	<b>INSPECT BRAKE SWITCH (NO.1 SIGNAL)</b> <ul style="list-style-type: none"> <li>Inspect the brake switch (No.1 signal). (See BRAKE SWITCH INSPECTION.)</li> <li>Is the brake switch (No.1 signal) normal?</li> </ul>	Yes Go to the next step.
		No Replace the brake switch, then go to Step 5. (See BRAKE PEDAL REMOVAL/INSTALLATION [L.H.D.].) (See BRAKE PEDAL REMOVAL/INSTALLATION [R.H.D.].)

Step	Inspection	Action	
3	<b>INSPECT START STOP UNIT CONNECTOR CONDITION</b> <ul style="list-style-type: none"> <li>• Disconnect the start stop unit connector.</li> <li>• Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection.</li> <li>• Is the connector normal?</li> </ul>	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 5.
4	<b>INSPECT BRAKE SWITCH (NO.1 SIGNAL) CIRCUIT FOR SHORT TO POWER SUPPLY</b> <ul style="list-style-type: none"> <li>• Verify that the brake switch and start stop unit connectors are disconnected.</li> <li>• Connect 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].)</li> <li>• Switch the ignition ON (engine off or on).</li> <li>• Measure the voltages at brake switch terminal D (vehicle wiring harness side) when the ignition is switched OFF (LOCK) and ON (engine off or on).</li> <li>• Is the voltage <b>0 V</b>?</li> </ul>	Yes	Go to the next step.
		No	Repair or replace the wiring harness which has a short to the power supply, then go to the next step.
5	<b>VERIFY THAT REPAIRS HAVE BEEN COMPLETED</b> <ul style="list-style-type: none"> <li>• Reconnect all the disconnected connectors.</li> <li>• 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].)</li> <li>• Clear DTC for the start stop unit using the M-MDS. (See CLEARING DTC [START STOP UNIT].)</li> <li>• With the ignition switched ON (engine off or on), perform the work of depressing the brake pedal for <b>3 s or more</b> and then releasing it for <b>5 or more times</b>.</li> <li>• Perform the DTC inspection for the start stop unit using the M-MDS. (See DTC INSPECTION [START STOP UNIT].)</li> <li>• Is DTC C0040:24 displayed?</li> </ul>	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the start stop unit, then go to the next step. (See START STOP UNIT REMOVAL/INSTALLATION.)
		No	Go to the next step.
6	<b>VERIFY IF OTHER DTCs DISPLAYED</b> <ul style="list-style-type: none"> <li>• Are any other DTCs displayed?</li> </ul>	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [START STOP UNIT].)
		No	DTC troubleshooting completed.