DTC U3004:16 [START STOP UNIT]

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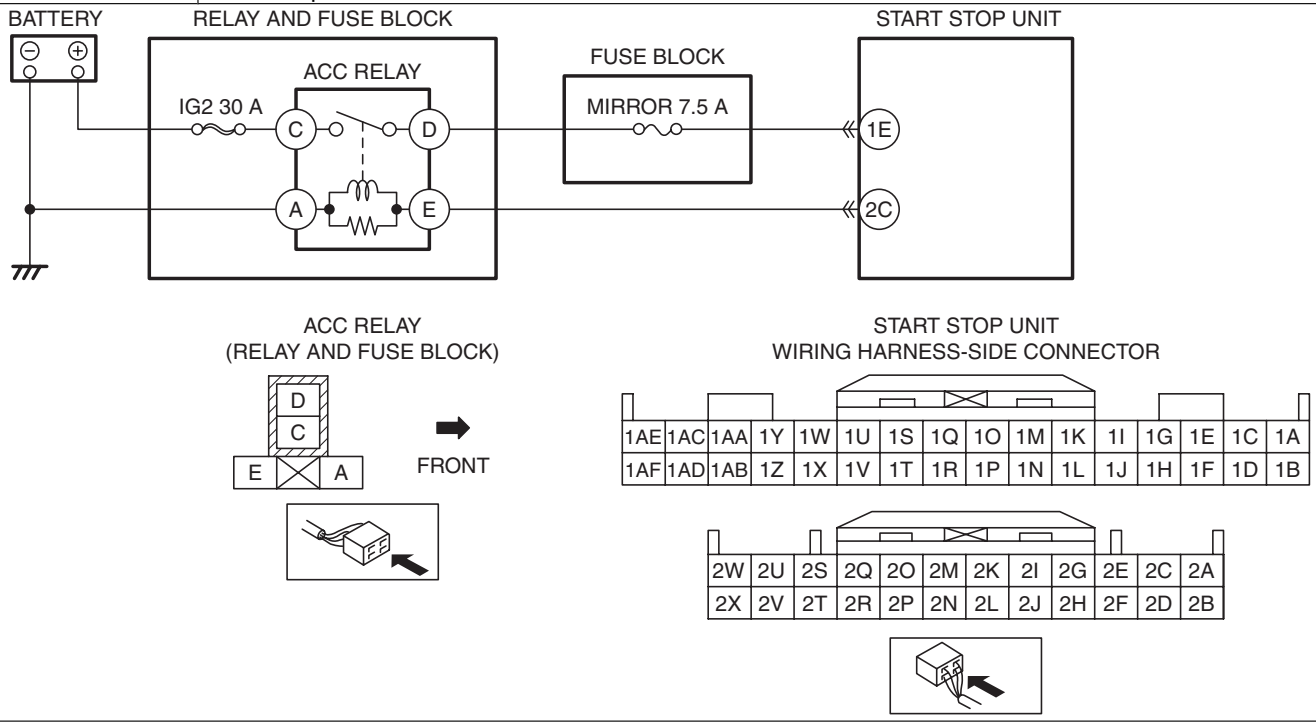
System malfunction location	**ACC relay circuit malfunction**
Detection condition	• With the ignition switched to ACC or ON (engine off or on), the start stop unit detects ACC monitor voltage of **less than 2.5 V** for **1 s or more**.
Fail-safe	—
Possible cause	• ACC relay malfunction • ACC relay power supply circuit malfunction — Short to ground in wiring harness between IG2 30 A fuse and ACC relay terminal C — IG2 30 A fuse malfunction — Open circuit in wiring harness between battery positive terminal and ACC relay terminal C • Start stop unit connector or terminal malfunction • Start stop unit power supply circuit (ACC) malfunction — Short to ground in wiring harness between ACC relay terminal D and start stop unit terminal 1E — MIRROR 7.5 A fuse malfunction — Open circuit in wiring harness between ACC relay terminal D and start stop unit terminal 1E • Start stop unit malfunction



Diagnostic Procedure

Step	Inspection		Action
1	**INSPECT ACC RELAY FOR MALFUNCTION** • 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].) • Remove the ACC relay. (See RELAY LOCATION.) • Inspect the ACC relay. (See RELAY INSPECTION.) • Is the ACC relay normal?	Yes	Go to the next step.
		No	Replace the ACC relay, then go to Step 5. (See RELAY LOCATION.)

Step	Inspection		Action
2	**INSPECT ACC RELAY POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT OR SHORT TO GROUND** • Verify that the ACC relay is removed. • 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].) • Switch the ignition to ACC or ON (engine off or on). • Measure the voltage at ACC relay terminal C (vehicle wiring harness side). • Is the voltage **B+**?	Yes	Go to the next step.
		No	Inspect the IG2 30 A fuse. • If a fuse is burnt out: — Repair or replace the wiring harness which is shorted to ground. — Replace the fuse. • If a fuse is damaged: — Replace the fuse. • If the fuse is normal: — Repair or replace the wiring harness which has an open circuit. Go to Step 5.
3	**INSPECT START STOP UNIT CONNECTOR CONDITION** • 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 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 5.
4	**INSPECT START STOP UNIT POWER SUPPLY CIRCUIT (ACC) FOR OPEN CIRCUIT OR SHORT TO GROUND** • Verify that the start stop unit connector is disconnected. • 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].) • Switch the ignition to ACC or ON (engine off or on). • Measure the voltage at ACC relay terminal E (vehicle wiring harness side). • Is the voltage **B+**?	Yes	Go to the next step.
		No	Inspect the MIRROR 7.5 A fuse. • If a fuse is burnt out: — Repair or replace the wiring harness which is shorted to ground. — Replace the fuse. • If a fuse is damaged: — Replace the fuse. • If the fuse is normal: — Repair or replace the wiring harness which has an open circuit. Go to the next step.

Step	Inspection		Action
5	**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 to ACC or ON (engine off or on) and wait for **1 s or more**. • Perform the DTC inspection for the start stop unit using the M-MDS. (See DTC INSPECTION [START STOP UNIT].) • Is the DTC U3004:16 displayed?	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	**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.