

DTC B2840

B3E090201072W45

DTC B2840	Ambient air thermistor circuit failure
DETECTION CONDITION	Open circuit or short to power supply or GND in wiring harness between PJB and ambient temperature sensor
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Open circuit in wiring harness between PJB terminal J-02 AD and ambient temperature sensor terminal A • Open circuit in wiring harness between PJB terminal J-02 AF and ambient temperature sensor terminal B • Short to power supply in wiring harness between PJB terminal J-02 AD and ambient temperature sensor terminal A • Short to GND in wiring harness between PJB terminal J-02 AD and ambient temperature sensor terminal A • Ambient temperature sensor malfunction • PJB malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT AMBIENT TEMPERATURE SENSOR CONNECTOR <ul style="list-style-type: none"> • Turn the ignition switch off. • Disconnect the ambient temperature sensor connector. • Inspect the ambient temperature sensor connector terminals for poor connection (such as damaged/pulled-out pins, and corrosion). • Is there any malfunction? 	Yes: Repair or replace the terminal, then go to Step 7. No: Go to the next step.
2	INSPECT PJB CONNECTOR <ul style="list-style-type: none"> • Disconnect the PJB connector. • Inspect the PJB connector terminals for poor connection (such as damaged/pulled-out pins, and corrosion). • Is there any malfunction? 	Yes: Repair or replace the terminal, then go to Step 7. No: Go to the next step.
	INSPECT AMBIENT TEMPERATURE SENSOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Inspect for continuity between following terminals: 	Yes: Go to the next step.

3	<ul style="list-style-type: none"> - PJB terminal J-02 AD (wiring harness-side) - ambient temperature sensor terminal A (wiring harness-side) - PJB terminal J-02 AF (wiring harness-side) - ambient temperature sensor terminal B (wiring harness-side) <ul style="list-style-type: none"> • Is there continuity? 	No	Repair or replace the wiring harness for a possible open circuit, then go to Step 7.
4	INSPECT AMBIENT TEMPERATURE SENSOR SIGNAL CIRCUIT FOR SHORT TO GND <ul style="list-style-type: none"> • Inspect for continuity between PJB terminal J-02 AD (wiring harness-side) and body GND. • Is there continuity? 	Yes	Repair or replace the wiring harness for a possible short to GND, then go to Step 7.
		No	Go to the next step.
5	INSPECT AMBIENT TEMPERATURE SENSOR SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between PJB terminal J-02 AD (wiring harness-side) and body GND. • Is the voltage B+? 	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 7.
		No	Go to the next step.
6	INSPECT AMBIENT TEMPERATURE SENSOR <ul style="list-style-type: none"> • Inspect the ambient temperature sensor. (See AMBIENT TEMPERATURE SENSOR INSPECTION.) • Is there any malfunction? 	Yes	Replace the ambient temperature sensor, then go to the next step. (See AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION .)
		No	Go to the next step.
7	VERIFY TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PJB memory using the WDS or equivalent. • Perform the self-test. (See PJB SELF-TEST.) • Is the same DTC present? 	Yes	Replace the PJB. (See PASSENGER JUNCTION BOX (PJB) REMOVAL/INSTALLATION .)
		No	DTC troubleshooting completed.