ON-VEHICLE INSPECTION

HINT:
It is normal for the cooling fan to sometimes rotate when the ignition switch is turned from ACC to ON.

1. CHECK COOLING FAN OPERATION AT LOW TEMPERATURES (Below 83°C (181°F))

(a) Turn the ignition switch ON with the A/C switch OFF.
(b) Check that the cooling fan stops.
If it does not, check the cooling fan relay and engine coolant temperature sensor, and check if there is disconnection or circuit open between them.
(c) Disconnect the engine coolant temperature sensor connector.
(d) Check that the cooling fan rotates.
If it does not, check the fuses, cooling fan relay, ECM and cooling fan, and check for short in circuit between the cooing fan relay and engine coolant temperature sensor.
(e) Reconnect the engine coolant temperature sensor connector.

2. CHECK COOLING FAN OPERATION AT HIGH TEMPERATURES (Above 93°C (199°F))

(a) Start the engine, and raise the coolant temperature to above 93°C (199°F).
HINT:
Coolant temperature is the value detected by the engine coolant temperature sensor on the cylinder head.
(b) Check that the A/C switch is OFF.
(c) Check that the cooling fan rotates.
If it does not, check the fuses, cooling fan relay, ECM, cooling fan and engine coolant temperature sensor.

3. CHECK COOLING FAN

(a) Disconnect the cooling fan connector.
(b) Connect the battery and an ammeter to the cooling fan.
(c) Check that the cooling fan rotates smoothly, and check the reading on the ammeter.
Standard amperage:
11.7 to 14.7 A
(d) Reconnect the cooling fan connector.