

1A



## DTC P0480 (C60)

### DTC Detecting Condition and Trouble Area

| DTC detecting condition  | Trouble area  |
|--|---|
| <b>P0480 (C60): Cooling Fan Relay Malfunction</b><br>Cooling fan relay signal is not input to ECM. | <ul style="list-style-type: none"><li>Cooling fan relay</li><li>Cooling fan relay circuit</li><li>ECM</li></ul> |







### Wiring Diagram

Refer to [FI System Wiring Diagram](#).



|      |                      |    |                   |    |                  |
|------|----------------------|----|-------------------|----|------------------|
| [A]: | To side-stand switch | 2. | Cooling fan relay | 4. | Side-stand relay |
| 1.   | ECM                  | 3. | Cooling fan motor | 5. | Ignition switch  |

### Troubleshooting

| Step     | Action  | Yes  | No   |
|----------|---|--|--|
| <b>1</b> | <b>Cooling fan relay power supply circuit check</b><br>1) Turn the ignition switch OFF.<br>2) Disconnect the cooling fan relay coupler. <br>3) Check for proper terminal connection to the cooling fan relay terminal.<br>4) If connections are OK, turn the ignition switch ON.<br>5) Measure the voltage between W/R wire and ground.<br><br><br><b>Is voltage battery voltage?</b> | Go to Step 2.  | Repair or replace the W/R wire.  |
| <b>2</b> | <b>Cooling fan relay check</b><br>Check the cooling fan relay. <br><b>Is check result OK?</b>  | Go to Step 3.  | Replace the cooling fan relay.  |
| <b>3</b> | <b>Cooling fan relay drive circuit check</b><br>1) Turn the ignition switch OFF.<br>2) Disconnect the ECM couplers.    | Replace the ECM with a known good one, and inspect it again.  | Repair or replace the G/R wire.  |

- 3) Check for proper terminal connection to the ECM couplers.
- 4) If connections are OK, check the following points.
  - Resistance
    - G/R wire: less than 1  $\Omega$



- Between G/R wire and ground: infinity



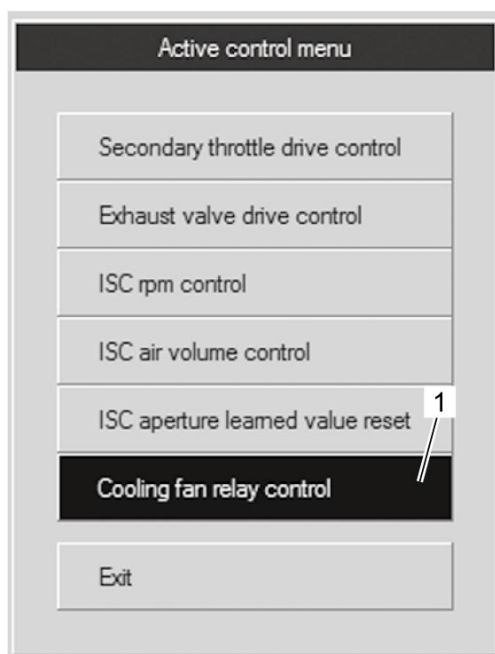
- Voltage
  - Turn the ignition switch ON.
  - G/R wire: approx. 0 V



***Is check result OK?***

## Active Control Inspection

- 1) Set up the SDS tool referring to SDS operation manual for further details.
- 2) Start the engine and run it in idling condition.
- 3) Click "Cooling fan relay control" (1).



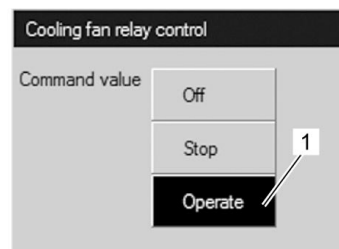
- 4) Click the "Operate" (1).  
At this time, if an operation sound is heard from the cooling fan relay and cooling fan motor are

operated, the function is normal.

**NOTE:**

**Cooling fan relay and cooling fan motor operation can be checked until the engine coolant temperature is less than 100 °C (212 °F) after starting the engine.**

| Item  | Value | Unit |  |
|---|-------|------|--|
| <input type="checkbox"/> Exhaust control valve actuator position sensor | 92    | %    |  |
| <input type="checkbox"/> Cooling fan relay                              | On    |      |  |



**5)** Click the "Stop" (1) to check the operation properly.

| Item  | Value | Unit |  |
|---|-------|------|--|
| <input type="checkbox"/> Exhaust control valve actuator position sensor | 92    | %    |  |
| <input type="checkbox"/> Cooling fan relay                              | Off   |      |  |

