

1A



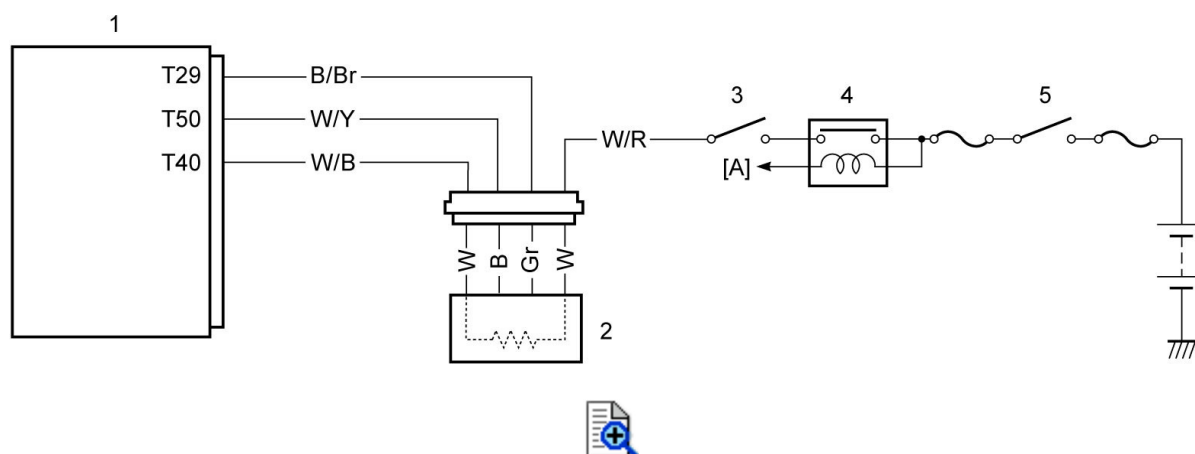
## DTC P0156 (C44)

### DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble Area
<b>P0156 (C44): HO2 Sensor #2 Circuit Malfunction</b> HO2 sensor output voltage is not input to ECM during engine operation and running condition.	<ul style="list-style-type: none"> <li>HO2 sensor #2</li> <li>HO2 sensor #2 circuit</li> <li>ECM</li> </ul>

### Wiring Diagram

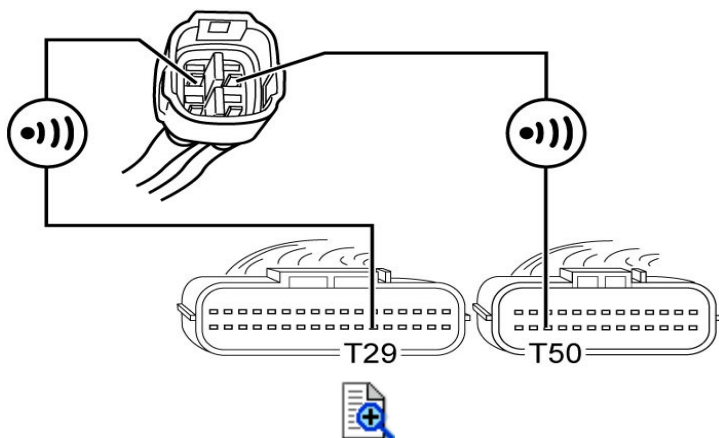
Refer to [FI System Wiring Diagram](#).



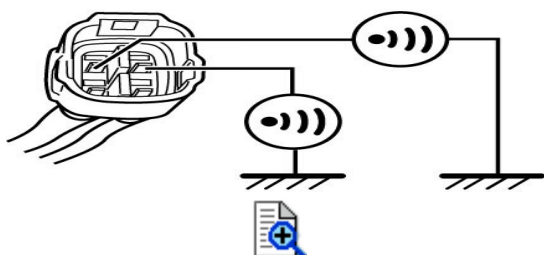
[A]:	To GP switch	2.	HO2 sensor #2	4.	Side-stand relay
1.	ECM	3.	Engine stop switch	5.	Ignition switch

### Troubleshooting (Use of SDS)

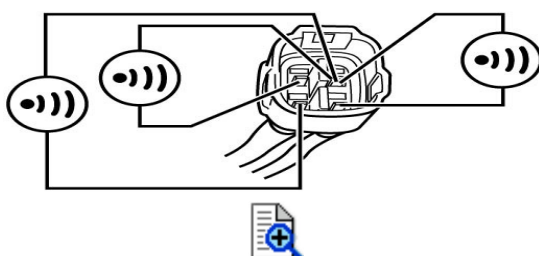
Step	Action	Yes	No
<b>1</b>	<b>HO2 sensor circuit check</b> 1) Turn the ignition switch OFF. 2) Disconnect the HO2 sensor #2 coupler and the ECM couplers. <ul style="list-style-type: none"> <li>HO2 sensor #2: </li> <li>ECM: </li> </ul> 3) Check for proper terminal connection to the HO2 sensor #2 coupler and the ECM couplers. 4) If connections are OK, check the following points. <ul style="list-style-type: none"> <li>Resistance               <ul style="list-style-type: none"> <li>W/Y wire and B/Br wire: less than 1 <math>\Omega</math></li> </ul> </li> </ul>	Go to Step 2.	Repair or replace the defective wire harness.



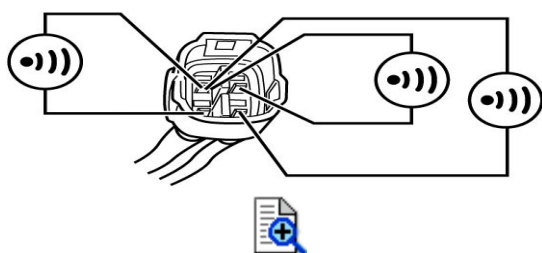
- Between each of W/Y wire and B/Br wire and ground: infinity



- Between W/Y wire terminal and other terminal at HO2 sensor coupler: infinity

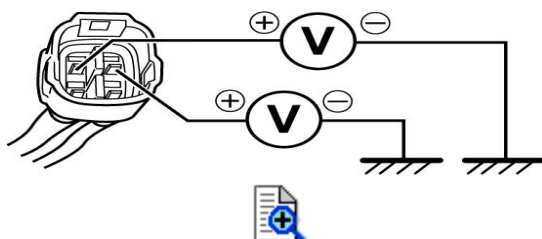


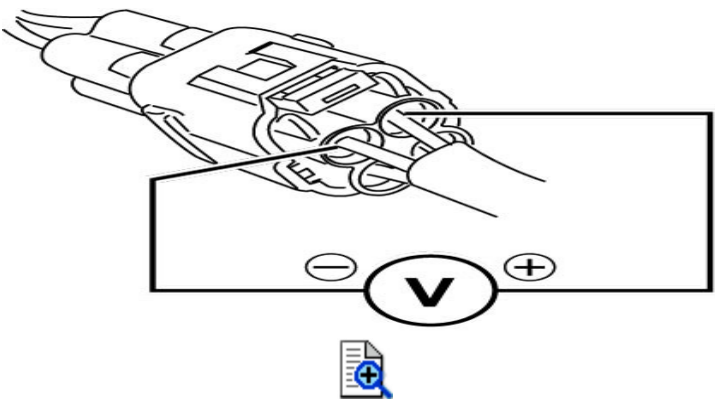


- Between B/Br wire terminal and other terminal at HO2 sensor #2 coupler: infinity




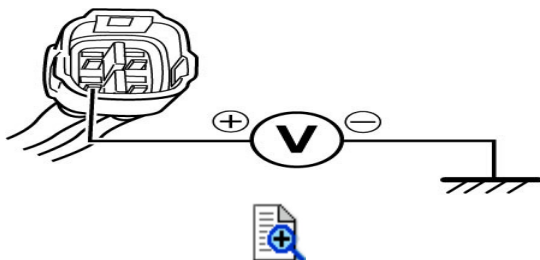
#### • Voltage

- Turn the ignition switch ON.
- W/Y wire and B/Br wire: approx. 0 V




	<b><i>Is check result OK?</i></b>		
<b>2</b>	<b>H02 sensor output voltage check</b> <ol style="list-style-type: none"> <li>1) Turn the ignition switch OFF.</li> <li>2) Connect the ECM couplers and HO2 sensor #2 coupler.</li> <li>3) Warm up the engine enough.</li> <li>4) Measure the HO2 sensor #2 voltage between the B wire and Gr wire, in idling condition.</li> <li>5) If OK, measure the HO2 sensor #2 voltage while holding the engine speed at 6000 r/min.</li> </ol>  <p><b><i>Is voltage approx. 0.6 V or less (at idle speed) and approx. 0.6 V or more (at 6000 r/min)?</i></b></p>	Replace the ECM with a known good one, and inspect it again. 	Replace the HO2 sensor #2 with a new one. 

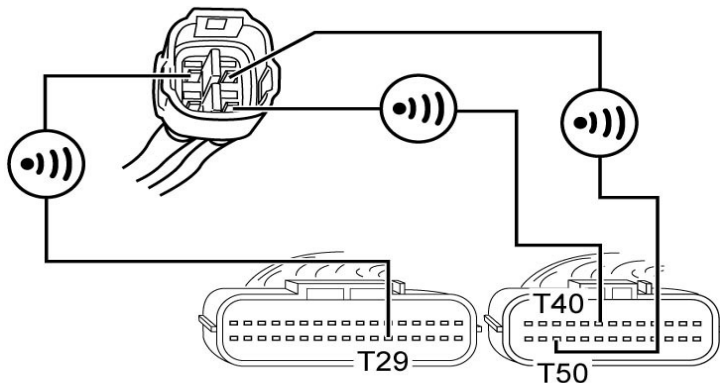
### Troubleshooting (Use of Mode Select Switch)

Step	Action	Yes	No
<b>1</b>	<b>H02 sensor heater power supply circuit check</b> <ol style="list-style-type: none"> <li>1) Turn the ignition switch OFF.</li> <li>2) Disconnect the HO2 sensor #2 coupler. </li> <li>3) Check for proper terminal connection to the HO2 sensor #2 coupler.</li> <li>4) If connections are OK, turn the ignition switch ON.</li> <li>5) Measure the voltage between W/R wire and ground.</li> </ol>  <p><b><i>Is voltage battery voltage?</i></b></p>	Go to Step 2.	Repair or replace the W/R wire.

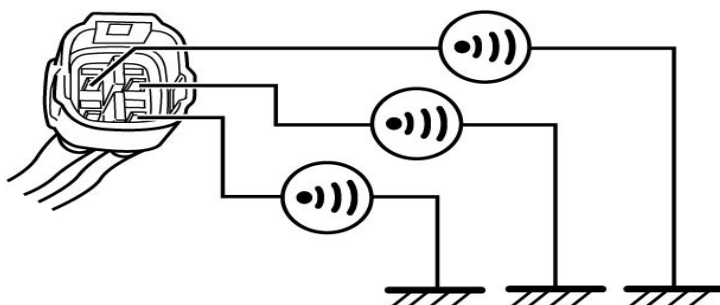
## 2

**H02 sensor circuit check**

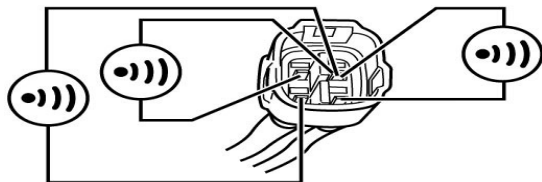
- 1) Turn the ignition switch OFF.
- 2) Disconnect the ECM couplers. 
- 3) Check for proper terminal connection to the ECM couplers.
- 4) If connections are OK, check the following points.
  - Resistance
    - W/Y, B/Br and W/B wires: less than 1  $\Omega$



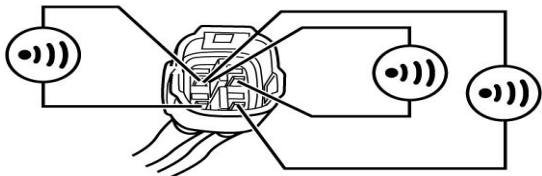
- Between each of W/Y, B/Br and W/B wire and ground: infinity



- Between W/Y wire terminal and other terminal at HO2 sensor #2 coupler: infinity



- Between B/Br wire terminal and other terminal at HO2 sensor #2 coupler: infinity

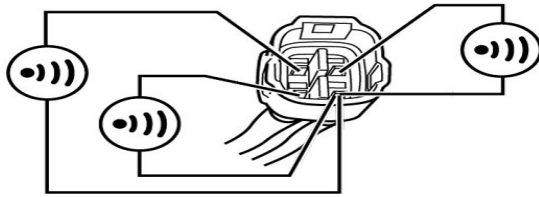


Go to Step 3.

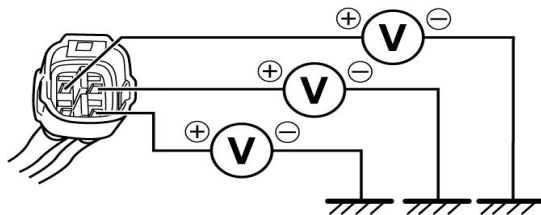
Repair or  
replace the  
defective wire  
harness.



- Between W/B wire terminal and other terminal at HO2 sensor#2 coupler: infinity



- Voltage
  - Turn the ignition switch ON.
  - W/B, W/Y and B/Br wires: approx. 0 V

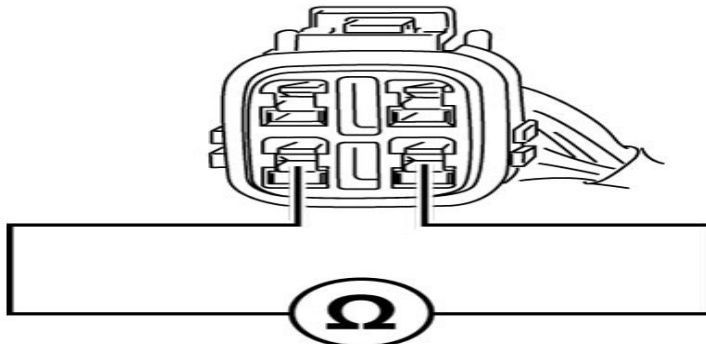


**Is check result OK?**

**3**

### HO2 sensor heater check

- 1) Turn the ignition switch OFF.
- 2) Measure the resistance between terminals.



**Is resistance 6.7 – 9.5 Ω (at 23 °C (73 °F))?**

Go to Step 4.

Replace the HO2 sensor #2 with a new one.

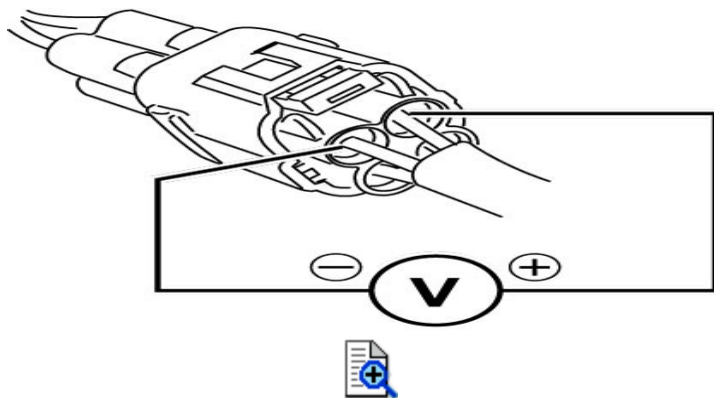
**4**

### HO2 sensor output voltage check

- 1) Connect the ECM couplers and HO2 sensor #2 coupler.
- 2) Warm up the engine enough.
- 3) Measure the HO2 sensor #2 voltage between the B wire and Gr wire, in idling condition.
- 4) If OK, measure the HO2 sensor #2 voltage while holding the engine speed at 6000 r/min.

Replace the ECM with a known good one, and inspect it again.

Replace the HO2 sensor #2 with a new one.



***Is voltage approx. 0.6 V or less (at idle speed) and approx. 0.6 V or more (at 6000 r/min)?***