## 1GR-FE EMISSION CONTROL SERVICE DATA

| Air-fuel ratio compensation system          | Voltage    | B22 (A1A+) - A28<br>(E2) | 3.3 V                       |  |
|---|------------|--------------------------|-----------------------------|--|
|   |            | B23 (A2A+) - A28<br>(E2) | 3.3 V                       |  |
|   |            | B30 (A1A-) - A28<br>(E2) | 2.9 V                       |  |
|   |            | B31 (A2A-) - A28<br>(E2) | 2.9 V                       |  |
| Fuel cut off rpm                            | Cut off    |                          | 2,500 rpm                   |  |
|   | Return     |                          | 1,400 rpm                   |  |
| Lead detection pump                         | Voltage    | A23 (VC) - A28<br>(E2)   | 4.5 to 5.5 V                |  |
|   |            | E22 (PPMP) - A28<br>(E2) | 1.425 to 4.150 V            |  |
| Vacuum Switching Valve No. 1                | Resistance | at 20 °C (68 °F)         | 26 to 30 Ω                  |  |
| Air fuel ratio sensor (Bank 1, Bank 2)      | Resistance | 1 (HT) - 2 (+B)          | 1.8 to 3.4 Ω at 20°C (68°F) |  |
|   |            | 1 (HT) - 4 (E1)          | 10 kΩ or higher             |  |
| Heated oxygen sensor No. 2 (Bank 1, Bank 2) | Resistance | 1 (HT) - 2 (+B)          | 11 to 16 Ω at 20°C (68°F)   |  |
|   | Resistance | 1 (HT) - 4 (E1)          | 10 k $\Omega$ or higher     |  |

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## **TORQUE SPECIFICATIONS**

| Part Tightened                                      | N*m | kgf*cm | ft.*lbf    |
|---|-----|--------|------------|
| Duty vacuum switching valve x Intake air surge tank | 9.0 | 92     | 80 in.*lbf |
| Ventilation valve x Cylinder head cover             | 27  | 275    | 20         |
| Heated oxygen sensor x Exhaust pipe                 | 3.9 | 40     | 35 in.*lbf |
| Air fuel ratio sensor x Exhaust manifold            | 44  | 449    | 33         |
| Negative battery terminal                           | 3.9 | 40     | 35 in.*lbf |
| Charcoal canister x Body                            | 20  | 204    | 15         |
| Charcoal canister filter No. 2 x Body               | 20  | 204    | 15         |

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