SPECIFICATIONS 1GR-FE ENGINE CONTROL SERVICE DATA

CAMSHAFT OIL CONTROL VALVE

| Tester Connection | Condition | Specified Condition |
|-------------------|-------------|---------------------|
| 1 - 2 | 20°C (68°F) | 6.9 to 7.9 Ω |

THROTTLE BODY

| Tester Connection | Condition | Specified Condition |
|-------------------|-------------|---------------------|
| 2 (M+) - 1 (M-) | 20°C (68°F) | 0.3 to 100 Ω |

ACCELERATOR PEDAL

| Tester display | Condition | Specified Condition |
|------------------------|-----------|---------------------|
| Accel Sensor Out No. 1 | Released | 0.5 to 1.1 V |
| | Depressed | 2.6 to 4.5 V |
| Accel Sensor Out No. 2 | Released | 1.2 to 2.0 V |
| Accer Sensor Out No. 2 | Depressed | 3.4 to 4.75 V |

CRANKSHAFT POSITION SENSOR

| Tester Connection | Condition | Specified Condition |
|-------------------|-----------|---------------------|
| 1 - 2 | Cold | 1630 to 2740 Ω |
| | Hot | 2065 to 3225 Ω |

ENGINE COOLANT TEMPERATURE SENSOR

| Tester Connection | Condition | Specified Condition |
|-------------------|----------------------------|---------------------|
| 1 - 2 | Approximately 20°C (68°F) | 2.32 to 2.59 kΩ |
| | Approximately 80°C (176°F) | 0.310 to 0.326 kΩ |

KNOCK SENSOR

| Tester Connection Condition | | Specified Condition |
|-----------------------------|-------------|---------------------|
| 1 - 2 | 20°C (68°F) | 120 to 280 kΩ |

AIR FUEL RATIO SENSOR (for Bank 1)

| Tester Connection | Condition | Specified Condition |
|---------------------|-------------|---------------------|
| 1 (HT1A) - 2 (+B) | 20°C (68°F) | 1.8 to 3.4 Ω |
| 1 (HT1A) - 4 (A1A-) | Always | 10 kΩ or higher |

AIR FUEL RATIO SENSOR (for Bank 2)

| Tester Connection | Condition | Specified Condition |
|---------------------|-------------|---------------------|
| 1 (HT2A) - 2 (+B) | 20°C (68°F) | 1.8 to 3.4 Ω |
| 1 (HT2A) - 4 (A2A-) | Always | 10 kΩ or higher |

HEATED OXYGEN SENSOR (for Bank 1)

| Tester Connection | Condition | Specified Condition |
|-------------------|-------------|-----------------------------|
| 1 (HT1B) - 2 (+B) | 20°C (68°F) | 11 to 16 Ω |
| 1 (HT1B) - 4 (E2) | Always | $10~{ m k}\Omega$ or higher |

HEATED OXYGEN SENSOR (for Bank 2)

| Tester Connection | Condition | Specified Condition |
|-------------------|-------------|---------------------|
| 1 (HT2B) - 2 (+B) | 20°C (68°F) | 11 to 16 Ω |
| 1 (HT2B) - 4 (E2) | Always | 10 kΩ or higher |

SPARK PLUG

| Recommended spark | Electrode gap for new | Maximum electrode gap | Standard insulation |
|-------------------|-----------------------|-----------------------|---------------------|
| plug | spark plug | for used spark plug | resistance |

| Recommended spark plug | Electrode gap for new spark plug | Maximum electrode gap for used spark plug | Standard insulation resistance |
|------------------------|----------------------------------|---|--------------------------------|
| DENSO made: K20HR-U11 | 1.0 to 1.1 mm (0.0394 to | 1.3 mm (0.0512 in.) | $10~	ext{M}\Omega$ or higher |
| NGK made: LFR6C-11 | 0.0433 in.) | 1.3 11111 (0.0312 111.) | 10 Msz or Higher |

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