05IK1–02

FREEZE FRAME DATA

NOTICE:

- **It is difficult to show the specified values (judgement values) clearly because freeze frame data values significantly change due to differences in measurement conditions, surroundings or vehicle conditions. Because of this reason, there may be a problem even when the values are within specifications.**
- **Turn the power switch on (IG) and park the vehicle on level ground to check the freeze frame data by using the intelligent tester II.**

(b) Connect the intelligent tester II to the DLC3.

(c) Turn the power switch on (IG) and check the freeze frame data by following the prompts on the display on the intelligent tester II.

Item	Item Description	Inspection Condition	Reference Value
Torque Sensor 1 Output	Torque sensor 1 output value/ Min.: 0 V, Max.: 5 V	1. Steering wheel is not turned (without load) 2. Turning steering wheel to right with vehicle stopped 3. Turning steering wheel to left with vehicle stopped	1. 2.3 to 2.7 V 2. 2.5 to 4.7 V 3. 0.3 to 2.5 V
Torque Sensor 2 Output	Torque sensor 2 output value/ Min.: 0 V, Max.: 5 V	1. Steering wheel is not turned (without load) 2. Turning steering wheel to right with vehicle stopped 3. Turning steering wheel to left with vehicle stopped	1. 2.3 to 2.7 V 2. 2.5 to 4.7 V 3. 0.3 to 2.5 V
Torque Sensor 3 Output	Torque value for assist control/ Min.: 0 V, Max.: 5 V	1. Steering wheel is not turned (without load) 2. Turning steering wheel to right with vehicle stopped 3. Turning steering wheel to left with vehicle stopped	1. 2.3 to 2.7 V 2. 2.5 to 4.7 V 3. 0.3 to 2.5 V
Meter Vehicle Velocity	Vehicle speed from meter/ Min.: 0 km/h, Max.: 255 km/h	1. Vehicle is stopped 2. Vehicle is driven at a constant speed	1. 0 km/h 2. No significant fluctuation
Motor Actual Current	Amount of current to motor/ Min.: –128 A, Max.: 127 A	–	–
Command Value Current	Demanded amount of current to motor/ Min.: –128 A, Max.: 127 A	–	–
Thermistor Temperature	ECU substrate temperature/ Min.: –50 °C, Max.: 205 °C	Power switch is on (IG)	–
PIG Power Supply	Power source voltage to activate motor/ Min.: 0 V, Max.: 25.5 V	Power steering is in operation	10 to 16 V
IG Power Supply	ECU power source voltage/ Min.: 0 V, Max.: 25.5 V	–	10 to 16 V
TRQ1 Zero Point Value	Zero point value of torque sensor 1/ Min.: 0 V, Max.: 5 V	Steering wheel is not turned (without load)	2.3 to 2.7 V
TRQ2 Zero Point Value	Zero point value of torque sensor 2/ Min.: 0 V, Max.: 5 V	Steering wheel is not turned (without load)	2.3 to 2.7 V
TRQ3 Zero Point Value	Zero point value of torque sensor for assist control/ Min.: 0 V, Max.: 5 V	Steering wheel is not turned (without load)	2.3 to 2.7 V

Item	Item Description	Inspection Condition	Reference Value
Motor Terminal Volt(+)	Motor terminal M1 voltage/ Min.: 0 V, Max.: 25.5 V	1. Turning steering wheel to right 2. Turning steering wheel to left	1. 10 to 16 V 2. Below 1 V
Motor Terminal Volt(–)	Motor terminal M2 voltage/ Min.: 0 V, Max.: 25.5 V	1. Turning steering wheel to right 2. Turning steering wheel to left	1. Below 1 V 2. 10 to 16 V
Number of Trouble Code	Number of detected DTCs when freeze frame data is stored/ Min.: 0 time, Max.: 255 times	–	–
Ready Status	HV system ”READY”/ OFF/ON	HV system ”READY” ⇔ Not ”READY”	ON ⇔ OFF