05IKE–01

FREEZE FRAME DATA OF ABS

1. FREEZE FRAME DATA

HINT:

- Whenever a DTC is detected or the ABS operates, the skid control ECU stores the current vehicle (sensor) state as freeze frame data.
- The skid control ECU stores the number of times (maximum: 31) the power switch has been turned from off to the On position since the last time ABS was activated. However, if the vehicle was stopped or at low speed (7 km/h (4.3 mph) or less), or if a DTC is detected, the skid control ECU will not count the number since then.
- Freeze frame data at the time the ABS operates:
  The skid control ECU stores and updates data whenever the ABS system operates.
  When the ECU stores data at the time a DTC is detected, the data stored when the ABS operated is erased.
- Freeze frame data at the time a DTC is detected:
  When the skid control ECU stores data at the time a DTC is detected, no updates will be performed until the data is cleared.

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the power switch ON (READY).
(c) From the display on the tester, select the ”FREEZE FRAME DATA”.

Intelligent tester II display	Measurement Item	Reference Value
Freeze DTC	Freeze DTC	Min.: 0, Max.: 255
Buzzer	Skid Control Buzzer	ON/OFF
Reservoir Warning SW	Reservoir level warning switch	Reservoir level warning switch ON: ON, OFF: OFF
Parking Brake SW	PKB sw	PKB switch ON: ON, OFF: OFF
Shift Lever Position	Shift SFT Position	• Fail • P, N • R • D (M) • 4 • 3 • 2 • L
VSC/TRC OFF SW	VSC OFF switch	VSC OFF switch ON: ON, OFF: OFF
Stop Light SW	Stop light switch	Stop light switch ON: ON, OFF: OFF
Operated System	SYSTEM	• ABS • VSC (TRC) • BA • HAB • FAIL SAFE • PBA • PB • NO SYS
Number of IG ON	# IG ON	0
Vehicle Speed	Vehicle speed	Speed indicated on speedometer
Steering Angle Sensor	Steering sensor	• Left turn: Increase • Right turn: Drop (Deceleration)
Yaw Rate Sensor	Yaw rate sensor	–128 to 127
Master Cylinder Sensor 1	Master cylinder pressure	0 to 5 V
Pedal Stroke Sensor 1	Stroke sensor	0 to 5.1 V
Throttle Sensor	Throttle position sensor	Release accelerator pedal: Approx. 0 deg. Depress accelerator pedal: Approx. 125 deg.

Intelligent tester II display	Measurement Item	Reference Value
Master Cylinder Grad	Master pressure sensor grade	30 tp 225 Mpa/s
Right And Left G	Right and left G	–1869 to 1869
Back And Forth G	Back and forth G	–1869 to 1869
Vehicle Speed Grad	Vehicle speed grade	–1869 to 1869
FR Wheel Cylinder	FR wheel cylinder pressure sensor	0 to 5 V
FL Wheel Cylinder	FL wheel cylinder pressure sensor	0 to 5 V
RR Wheel Cylinder	RR wheel cylinder pressure sensor	0 to 5 V
RL Wheel Cylinder	RL wheel cylinder pressure sensor	0 to 5 V
ACCUM	Accumulator Pressure Sensor	0 to 5 V
Master Cylinder Sensor 2	Master cylinder pressure sensor 2	0 to 5 V
Pedal Stroke Sensor 2	Stroke sensor 2	0 to 5 V
MTT	MTT	0 to 5 V
IG1 Voltage	Voltage value of IG1	0 to 20 V
IG2 Voltage	Voltage value of IG2	0 to 20 V
BS1	BS1	0 to 20 V
BS2	BS2	0 to 20 V
VM1	VM1	0 to 20 V
VM2	VM2	0 to 20 V
+B1	+B1	0 to 5 V
+B2	+B2	0 to 5 V
FR Target Oil Pressure	Target oil pressure (FR)	0 to 20 V
FL Target Oil Pressure	Target oil pressure (FL)	0 to 20 V
RR Target Oil Pressure	Target oil pressure (RR)	0 to 20 V
RL Target Oil Pressure	Target oil pressure (RL)	0 to 20 V
SLAFR Solenoid Circuit	Current of SLAFR solenoid	0 to 1.5 A
SLAFL Solenoid Circuit	Current of SLAFL solenoid	0 to 1.5 A
SLARR Solenoid Circuit	Current of SLARR solenoid	0 to 1.5 A
SLARL Solenoid Circuit	Current of SLARL solenoid	0 to 1.5 A
SLRFR Solenoid Circuit	Current of SLRFR solenoid	0 to 1.5 A
SLRFL Solenoid Circuit	Current of SLRFL solenoid	0 to 1.5 A
SLRRR Solenoid Circuit	Current of SLRRR solenoid	0 to 1.5 A
SLRRL Solenoid Circuit	Current of SLRRL solenoid	0 to 1.5 A
FR Wheel Speed	Front Right Wheel speed	0 to 255 km/h
FL Wheel Speed	Front Left Wheel speed	0 to 255 km/h
RR Wheel Speed	Rear Right Wheel speed	0 to 255 km/h
RL Wheel Speed	Rear Left Wheel speed	0 to 255 km/h
Capacitor Mode	Capacitor mode	ON: ON, OFF: OFF
ECB Solenoid (SCSS)	SCSS	ON: ON, OFF: OFF
ECB Solenoid (SMC2)	SMC2	ON: ON, OFF: OFF
ECB Solenoid (SMC1)	SMC1	ON: ON, OFF: OFF
Motor Relay 2	Motor relay 2	ON: ON, OFF: OFF
Motor Relay 1	Motor relay 1	ON: ON, OFF: OFF
ECB Main Relay 2	Main relay 2 for ECB	ON: ON, OFF: OFF
ECB Main Relay 1	Main relay 1 for ECB	ON: ON, OFF: OFF
Detail	Detailed code for freeze DTC	0 to 65535