05IGF–01

FREEZE FRAME DATA

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HINT:

The freeze frame data records the operating condition of the HV battery system and components at the time of detection of a DTC. It is used for estimating or simulating the condition of the vehicle when malfunction occurred.

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the power switch ON (IG).
(c) Turn the intelligent tester ll ON.
(d) On the System Select screen, enter the following menus: Powertrain / HV Battery / DTC.
(e) Select a DTC in order to display its freeze frame data.
(f) Check the freeze frame data of the DTC that has been detected.

Freeze frame data

Intelligent Tester II Display (Abbreviation)	Measurement Item/Range	Suspected Vehicle Status When Malfunction Occurs
Battery State of Charge (Battery SOC)	Battery state of charge/ Min.: 0 %, Max: 100 %	State of charge of HV battery
Delta SOC (Delta SOC)	Difference between maximum and minimum values of SOC at every battery block/ Min.: 0 %, Max.: 100 %	SOC variance
Batt Pack Current Val (IB Battery)	Current value of battery pack/ Min.: –327.68 A, Max.: 327.67 A	Charging/discharging condition of HV battery • Discharging amperage indicated by a positive value • Charging amperage indicated by a negative value
Inhaling Air Temp (Batt Inside Air)	Temperature of inhalation ambient air into battery pack/ Min.: –327.68°C, Max.: 327.67°C	Temperature of inhalation ambient air into battery pack
VMF Fan Motor Voltage (VMF Fan Voltage)	Battery blower motor voltage/ Min.: 0 V, Max.: 25.4 V	Actuation condition of battery blower motor
Auxiliary Battery Vol (Aux. Batt V)	Auxiliary battery voltage/ Min.: 0 V, Max.: 25.4 V	Condition of auxiliary battery
Charge Control Val (WIN)	Charge control wattage which is sent from battery ECU to HV control ECU/ Min.: –64 kW, Max.: 0 kW	Charge wattage of HV battery
Discharge Control Val (WOUT)	Discharge control wattage which is sent from battery ECU to HV control ECU/ Min.: 0 kW, Max.: 63.5 kW	Discharge wattage of HV battery
Cooling Fan Mode (Cooling Fan Spd)	Battery blower motor drive mode/ Min.: 0, Max.: 6	Stopped: 0 Low to high speed actuation: 1 to 6
ECU Control Mode (ECU Ctrl Mode)	ECU control mode/ Min.: 0, Max.: 4	Operating condition of HV battery
Standby Blower Request (SBLW Rqst)	Battery blower motor stop control request (standby blower)	Presence of stop control request to battery blower motor
Temp of Batt TB1 to TB3 (Batt Temp 1 to 3)	Temperature of HV battery/ Min.: –327.68°C, Max.: 327.67°C	Temperature of HV battery
Battery Block Vol–V01 to V14 (V1 to V14 Batt Block)	Battery block voltage/ Min.: –327.68 V, Max.: 327.67 V	Voltage variance among battery blocks