

DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

By referring to the DATA LIST displayed on the intelligent tester, the value and status of parts such as switches, sensors and actuator can be read without removing any parts. Reading the DATA LIST as the first step of troubleshooting is one method of shortening diagnostic time.

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on.
- (c) Turn the intelligent tester on.
- (d) Select the following menu items: Chassis / ABS/ VSC/TRC / Data List.

Item	Measurement Item : Range (Display)	Normal Condition	Diagnostic Note
HB MOT RELAY	HB motor relay : ON or OFF	ON : Motor relay ON OFF : Motor relay OFF	-
SOL RELAY	Solenoid relay : ON or OFF	ON : Solenoid relay ON OFF : Solenoid relay OFF	-
IDLE SW	Main idle switch : ON or OFF	ON : Accelerator pedal released OFF : Accelerator pedal depressed	-
STOP LIGHT SW	Stop light switch : ON or OFF	ON : Brake pedal depressed OFF : Brake pedal released	-
PKB SW	Parking brake switch : ON or OFF	ON : Parking brake applied OFF : Parking brake released	-
RESERVOIR SW	Reservoir level warning switch : ON or OFF	ON : Switch ON OFF : Switch OFF	-
ABS OPERT FR	ABS operation (FR) : BEFORE or OPERATE	BEFORE : No ABS operation (FR) OPERATE : During ABS operation (FR)	-
ABS OPERT FL	ABS operation (FL) : BEFORE or OPERATE	BEFORE : No ABS operation (FL) OPERATE : During ABS operation (FL)	-
ABS OPERT RR	ABS operation (RR) : BEFORE or OPERATE	BEFORE : No ABS operation (RR) OPERATE : During ABS operation (RR)	-
ABS OPERT RL	ABS operation (RL) : BEFORE or OPERATE	BEFORE : No ABS operation (RL) OPERATE : During ABS operation (RL)	-
WHEEL SPD FR	Wheel speed sensor (FR) reading : min.: 0 MPH (0 km:h), max.: 202 MPH (326 km:h)	Actual wheel speed	Similar speed to that indicated on speedometer
WHEEL SPD FL	Wheel speed sensor (FL) reading : min.: 0 MPH (0 km:h), max.: 202 MPH (326 km:h)	Actual wheel speed	Similar speed to that indicated on speedometer
WHEEL SPD RR	Wheel speed sensor (RR) reading : min.: 0 MPH (0 km:h), max.: 202 MPH (326 km:h)	Actual wheel speed	Similar speed to that indicated on speedometer
WHEEL SPD RL	Wheel speed sensor (RL) reading : min.: 0 MPH (0 km:h), max.: 202 MPH (326 km:h)	Actual wheel speed	Similar speed to that indicated on speedometer
DECELERAT SEN	Deceleration sensor 1 reading : min.: -1.869 G, max.: 1.869 G	Approximately 0 +- 0.13G in still condition	Reading changes when vehicle bounced

Item	Measurement Item : Range (Display)	Normal Condition	Diagnostic Note
DECELERAT SEN2	Deceleration sensor 2 reading : min.: -1.869 G, max.: 1.869 G	Approximately 0 +- 0.13G in still condition	Reading changes when vehicle bounced
IG VOLTAGE	ECU power supply voltage : TOO LOW : NORMAL : TOO HIGH	TOO HIGH: 14 V or more NORMAL: 9.5 V or 14V TOO LOW: Below 9.5 V	-
SFRR	ABS solenoid (SFRR) : ON or OFF	ON: Operates OFF: Does not operate	-
SFRH	ABS solenoid (SFRH) : ON or OFF	ON: Operates OFF: Does not operate	-
SFLR	ABS solenoid (SFLR) : ON or OFF	ON: Operates OFF: Does not operate	-
SFLH	ABS solenoid (SFLH) : ON or OFF	ON: Operates OFF: Does not operate	-
SRRR (SRR)	ABS solenoid (SRRR [SRR]) : ON or OFF	ON: Operates OFF: Does not operate	-
SRRH (SRH)	ABS solenoid (SRRH [SRH]) : ON or OFF	ON: Operates OFF: Does not operate	-
SRLR	ABS solenoid (SRLR) : ON or OFF	ON: Operates OFF: Does not operate	-
SRLH	ABS solenoid (SRLH) : ON or OFF	ON: Operates OFF: Does not operate	-
SRCF (SA1)	TRAC solenoid (SRCF [SMCF]) : ON or OFF	ON: Operates OFF: Does not operate	-
SRCR (SA2)	TRAC solenoid (SRCR [SREA]) : ON or OFF	ON: Operates OFF: Does not operate	-
SRMF (SMCF, SA3)	TRAC solenoid (SRMF [SREC]) : ON or OFF	ON: Operates OFF: Does not operate	-
SRMR (SMCR, STR)	TRAC solenoid (SRMR [SMCR, STR]) : ON or OFF	ON: Operates OFF: Does not operate	-
VEHICLE SPD	Maximum wheel speed sensor reading : min.: 0 MPH (0 km:h), max.: 202 MPH (326 km:h)	Actual engine speed	Speed indicated on speedometer
MAS CYL PRS 1	Master cylinder pressure sensor 1 reading : min.: 0 V, max.: 5 V	When brake pedal released : 0.3 V to 0.9 V	Reading increases when brake pedal depressed
WHEEL DIR FR	Front right wheel direction	Wheel direction BACK: BACK, FORWARD: FORWARD	-
WHEEL DIR FL	Front left wheel direction	Wheel direction BACK: BACK, FORWARD: FORWARD	-
WHEEL DIR RR	Rear right wheel direction	Wheel direction BACK: BACK, FORWARD: FORWARD	-
WHEEL DIR RL	Rear left wheel direction	Wheel direction BACK: BACK, FORWARD: FORWARD	-
SPD SEN FR	FR speed sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
SPD SEN FL	FL speed sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
SPD SEN RR	RR speed sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
SPD SEN RL	RL speed sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
EFI COM	EFI communication open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-

Item	Measurement Item : Range (Display)	Normal Condition	Diagnostic Note
YAWRATE SEN	Yaw rate sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
DECELE SEN	Deceleration sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
STEERING SEN	Steering angle sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
ACC SEN	Accumulator pressure sensor open detection : OPN_DET or NORMAL	OPN_DET: Momentary interruption NORMAL: Normal	-
ACCELERATOR %	Different % of present accelerator	min.: 0 max.: 128	-
TORQUE	Real output torque	min.: -1024 max.: 1016	-
TEST MODE	Test mode : Normal or TEST	NORMAL: Normal mode TEST: During test mode	-
MAS CYL PRESS 1	Master cylinder pressure sensor 1 reading : min.: 0V, max.: 5V	When brake pedal released: 0.3 to 0.9V	Reading increases when brake pedal depressed
ACC PRESS SENS	Accumulator pressure sensor reading : min.: 0 V, max.: 5 V	min.: 3 V max.: 5 V	If value constant regardless of pump operation, accumulator pressure sensor malfunction suspected.
#CODES	Number of DTC recorded : min.: 0, max.: 255	min.: 0 max.: 255	-

2. ACTIVE TEST

HINT:

Performing the ACTIVE TEST using the intelligent tester allows relays and actuators to be operated without removing any parts. Performing the ACTIVE TEST as the first step of troubleshooting is one method of shortening diagnostic time.

It is possible to display the DATA LIST during the ACTIVE TEST.

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on.
- (c) Turn the tester on.
- (d) By following the prompts on the tester, perform the ACTIVE TEST.

HINT:

- The ignition switch must be turned on to proceed to the ACTIVE TEST using the intelligent tester.
- The motors stop automatically after 5 seconds of activation to prevent them from being damaged. When repeatedly activated, certain intervals are required.
- Each solenoid stops automatically after 2 seconds of activation to prevent them from being damaged, and can be operated again after a certain interval.
- Do not depress the brake pedal while only the pressure reduction solenoid valves are on.

- Do not drive 2 or more solenoids simultaneously except to operate the pressure holding solenoid valves and pressure reduction solenoid valves of each wheel.

Item	Test Details	Diagnostic Note
SFRR	Turns ABS solenoid (SFRR) ON or OFF	Operation of solenoid (clicking sound) can be heard
SFRH	Turns ABS solenoid (SFRH) ON or OFF	Operation of solenoid (clicking sound) can be heard
SFLR	Turns ABS solenoid (SFLR) ON or OFF	Operation of solenoid (clicking sound) can be heard
SFLH	Turns ABS solenoid (SFLH) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRRR	Turns ABS solenoid (SrRR) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRRH	Turns ABS solenoid (SRRH) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRLR	Turns ABS solenoid (SRLR) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRLH	Turns ABS solenoid (SFLH) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRCF (SA1)	Turns TRAC solenoid SRCF (SMCF) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRCR (SA2)	Turns TRAC solenoid SRCR (SREA) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRMF (SMCF, SA3)	Turns TRAC solenoid SRMF (SREC) ON or OFF	Operation of solenoid (clicking sound) can be heard
SRMR (SMCR, STR)	Turns TRAC solenoid SRMR (STR) ON or OFF	Operation of solenoid (clicking sound) can be heard
SOL RELAY	Turns ABS solenoid relay ON or OFF	Operation of solenoid (clicking sound) can be heard
ABS MOT RELAY	Turns ABS motor relay ON or OFF	Operation of motor can be heard
ABS WARN LIGHT	Turns ABS warning light ON or OFF	Operation of motor can be heard
VSC WARN LIGHT	Turns VSC TRAC warning light ON or OFF	Operation of motor can be heard
VSC/TRC OFF IND	Turns VSC OFF indicator ON or OFF	Operation of motor can be heard
SLIP INDI LIGHT	Turn SLIP indicator light ON or OFF	Operation of motor can be heard
BRAKE WRN LIGHT	Turns BRAKE warning light ON or OFF	Operation of motor can be heard
VSC/BR WARN BUZ	Turns skid control buzzer ON or OFF	Buzzer can be heard
STP LIGHT RELAY	Turns stop light relay ON or OFF	Observe stop light