

ON-BOARD DIAGNOSTIC FUNCTION

B3E094001072T04

- The on-board diagnostic system consists of a malfunction detection system that detects abnormalities in input/output signals, a data monitor function that reads out specified input/output signals.
- The data link connector 2 (DLC-2), which groups together all the connectors used for malfunction diagnosis and detecting/repair into a single location, has been adopted, thereby improving serviceability. Diagnosis is performed by connecting the WDS or equivalent to the DLC-2.
- In addition to DTC read-out, the WDS or equivalent is used to clear DTCs using the display screen of the diagnostic tester, and to access the PID/data monitor function, providing enhanced malfunction diagnosis and improved serviceability.

Malfunction Detection Function

- The malfunction detection function detects malfunctions in the input/output signal system of the PJB.

DTC table

DTC No.	Description	Detection condition
B1002	Auto leveling function failure	Open circuit or short to power supply in wiring harness between PJB and auto leveling control control module
B1014	Rain sensor error	Rain sensor internal malfunction
B1311	Unlock switch circuit open	Open circuit in wiring harness between PJB and driver-side door lock-link switch (unlock signal)
B1317	Battery voltage high	Input voltage from the battery is excessively high
B1318	Battery voltage low	Input voltage from the battery is excessively low
B1320	Door ajar LF circuit open	Open circuit in wiring harness between PJB and front door latch switch (driver-side)
B1328	Door ajar RF circuit open	Open circuit in wiring harness between PJB and front door latch switch (passenger-side)
B1336	Door ajar RR circuit open	Open circuit in wiring harness between PJB and rear door latch switch (RH)
B1342	ECU is faulted	PJB microcomputer malfunction
B1345	Heated backlite input circuit short to ground	Short to GND in wiring harness between PJB and climate control unit (rear window defroster switch)
B1350	Heated backlite relay short to ground	Short to GND or power supply in wiring harness between PJB and rear window defroster relay
B1447	Wiper park sense circuit open	Open circuit in wiring harness between PJB and windshield wiper motor (autostop switch)
B1472	Headlight on status switch input circuit short to ground	Short to GND in wiring harness between PJB and light switch (low beam)
B1502	Light turn signal left circuit short to ground	Short to GND in wiring harness between PJB and turn lights
B1506	Light turn signal right circuit short to ground	Short to GND in wiring harness between PJB and turn switch
B1520	Bonnet latch switch circuit open	Open circuit in wiring harness between PJB and bonnet latch switch
B1547	Power window-suspend control	Open circuit or short to power supply or GND in wiring harness

	output circuit failure	between PJB and power window main switch
B1554	Decklid release circuit short to ground	Short to GND in wiring harness between PJB and trunk lid key cylinder push switch
B1570	Headlight high beam status input circuit short to battery	Short to power supply in wiring harness between PJB and light switch (high beam)
B1572	Door ajar LR circuit open	Open circuit in wiring harness between PJB and rear door latch switch (LH)
B1607	Key illumination circuit short to battery	Short to power supply in wiring harness between PJB and key illumination
B1614	Rear wiper interval switch input circuit short to ground	Short to GND in wiring harness between PJB and rear wiper and washer switch (INT)
B1696	Auto light switch input circuit short to ground	Short to GND in wiring harness between PJB and light switch (AUTO)
B1798	Position lights switch (TNS) input circuit short to ground	Short to GND in wiring harness between PJB and light switch (TNS)
B1812	Backup light switch input circuit short to battery	Short to power supply in wiring harness between PJB and back-up light switch
B1873	Turn signal/hazard power feed circuit short to ground	Short to GND in wiring harness between PJB and hazard warning switch
B2060	Heated backlite indicator circuit failure	Short to power supply in wiring harness between PJB and climate control unit (rear window defroster indicator)
B2095	Reset switch circuit failure	Short to GND in wiring harness between PJB and driver-side door key cylinder switch (unlock)
B2096	Set switch circuit failure	Short to GND in wiring harness between PJB and driver-side door key cylinder switch (lock)
B2114	Front washer switch input circuit short to battery	Short to power supply in wiring harness between PJB and windshield wiper and washer switch (front washer)
B2175	A/C request signal circuit short to ground	Short to GND in wiring harness between PJB and climate control unit (A/C ON request)
B2177	Intruder sensor circuit failure	Intruder sensor malfunction or circuit malfunction
B2180	Front wiper switch (slow) circuit short to ground	Short to GND in wiring harness between PJB and windshield wiper and washer switch (low)
B2181	Front wiper switch (fast) circuit short to ground	Short to GND in wiring harness between PJB and windshield wiper and washer switch (high)
B2212	Panel light control circuit failure	Input voltage from the panel light control switch is excessively low or high
B2254	Front fog light switch failure	Short to GND in wiring harness between PJB and fog light switch
B2258	Headlight washer relay circuit short to battery	Open circuit or short to power supply or GND in wiring harness between PJB and headlight cleaner relay
B2259	Front wiper variable intermittent switch circuit failure	Input voltage from the windshield wiper and washer switch (INT volume or sensitivity adjustment volume) is excessively low or high
B2259	Intermittent wiper circuit short to ground	Short to GND in wiring harness between PJB and windshield wiper and washer switch (INT)
B2259	Trunk lid lock/unlock switch circuit failure	Short to GND in wiring harness between PJB and trunk lid key cylinder switch
B2264	Rear fog light switch short to ground	Short to GND in wiring harness between PJB and rear fog light switch
B2477	Module configuration failure	PJB data configuration error
B2479	Park brake switch circuit open	Open circuit in wiring harness between PJB and parking brake switch
B2555	Dome light output circuit short to battery	Short to power supply in wiring harness between PJB and interior lights

B2574	Driver door lock switch short to ground	Short to GND in wiring harness between PJB and driver-side door lock-link switch
B2665	Battery back sounder circuit failure	Short to power in wiring harness between PJB and theft-deterrent siren
B2694	Intrusion power output failure	Short to power supply or GND in wiring harness between PJB and intruder sensor
B2721	Liftgate/decklid ajar output short to ground	Short to GND in wiring harness between PJB and trunk lid latch switch/liftgate latch switch
B2840	Ambient air thermistor circuit failure	Open circuit or short to power supply or GND in wiring harness between PJB and ambient temperature sensor
B2897	Auto light relay circuit failure	Short to power supply in PJB internal circuit between microcomputer and headlight LO relay
B2898	Right turn signal indicator output failure	<ul style="list-style-type: none"> • Open circuit or short to power supply or GND in wiring harness between PJB and turn light • Turn light bulb malfunction
B2899	Left turn signal indicator output failure	<ul style="list-style-type: none"> • Open circuit or short to power supply or GND in wiring harness between PJB and turn light • Turn light bulb malfunction
B2966	Front washer switch stuck	Windshield washer switch stuck ON position
B2968	Battery back sounder circuit short to ground	Short to GND in wiring harness between PJB and theft-deterrent siren
B2973	Running light relay circuit failure	Short to power supply or GND in PJB internal circuit between microcomputer and running light relay
C1189	Brake fluid level sensor input circuit open	Open circuit in wiring harness between PJB and brake fluid level sensor
P0071	Ambient air temperature sensor range/performance	Input voltage from the ambient temperature sensor is excessively low or high
U2030	Rain sensor communication fault	Communication error to rain sensor

PID/Data Monitor Function

• The PID/data monitor function is used for optionally selecting input/output signal monitor items preset in the PJB and reading them out in real-time.

PID/data monitor item	Unit/Condition (Tester display)	Input/output part	PJB terminal	Parts No.		WDS menu									
				BP8F	BP4K	Body - Glass - Heated Backlight	Body - Instrument Panel and Console - Warning Lamps / Chimes	Body - Latching - Power Door Locks	Body - Security - Perimeter	Electrical - Climate Control	Electrical - Interior Lighting - Illuminated Entry	Electrical - Exterior Lighting	Electrical - Washer / Wiper - Front	Electrical - Washer / Wiper - Rear	Module - GEM
ACSW	On/Off	Climate control unit (A/C switch)	J-04 AF		x					x					x
ALARM1		Last alarm trigger	-		x				x						x

ALARM2	*1	Previous alarm trigger 1	-		x				x							x
ALARM3		Previous alarm trigger 2	-		x				x							x
ALARM4		Previous alarm trigger 3	-		x				x							x
AUTOLMP	On/Off	Light switch (AUTO)	J-04 AE		x		x						x			x
B_AJAR	Open/Closed	Bonnet switch	J-02 Y		x				x	x						x
BACKUPLMP	On/Off	Back-up light switch	J-01 AE	x	x								x			x
BRK_FLUID	Low/Normal	Brake fluid level sensor	J-01 AL	x	x		x									x
CBNHTR_REQ*2	On/Off	Climate control unit	J-04 X		x					x						x
CBNHTR_STS*2	On/Off	Climate control unit	J-04 A		x					x						x
CCNT_GE	-	DTC	-	x	x	x	x		x	x	x	x		x	x	x
DD_LOCK	Active/Inactive	Driver-side door lock-link switch	J-06 AC	x	x				x	x						x
DD_UNLK	Active/Inactive	Driver-side door lock-link switch	J-06 V	x	x				x	x						x
DLID_P	On/Off	Trunk lid key cylinder push switch	J-06 AB		x				x							x
DLIDLKSW	Active/Inactive	Trunk lid key cylinder switch	J-06 P		x				x							x
DLIDOPRLY	On/Off	Trunk lid unlock actuator	J-05 J		x				x							x
DLIDULKSW	Active/Inactive	Trunk lid key cylinder switch	J-06 P		x				x							x
DLLOCK_RLY	On/Off	Door lock actuator (double lock)	J-05 N	x	x				x							x
DRL_RELAY	On/Off	Running Light relay	-		x									x		x
DRLK_RLY	On/Off	Door lock actuators (lock)	J-05 AP	x	x				x							x
DRUNLK_RLY	On/Off	Door lock actuators (unlock)	J-05 Y	x	x				x							x
F_FOG_LMP	On/Off	Fog light switch	J-04 W		x		x							x		x
FOGRLY_R	On/Off	Rear fog light	J-03 W	x	x		x							x		x
GEM_VBAT	Volt	Battery	J-01 F, J-03 AP	x	x	x	x		x	x	x	x		x	x	x

HAZARD	On/Off	Hazard warning switch	J-04 AC	x	x		x									x
HBEAMSW	On/Off	Light switch (high beam)	J-04 L	x	x		x					x				x
HDLMPWASH	On/Off	Headlight cleaner relay	J-02 Z, J-01 I		x								x			x
HEADLAMP	On/Off	Light switch (low beam)	J-03 AS	x	x							x				x
IGKEY_ILLU	On/Off	Ignition key illumination	J-03 AB	x	x							x				x
INTLIGHT	On/Off	Interior Lights	J-05 U	x	x							x				x
INTR_PWR	On/Off	Intruder sensor	J-06 M		x				x							x
LBEAM_AUTO	On/Off	Headlight	J-01 C, J-01 D		x								x			x
LBEAMSW	On/Off	Headlight	J-01 C, J-01 D		x								x			x
LF_AJAR	Open/Closed	Front door latch switch (LH)	J-06 W	x	x		x	x	x		x					x
LHTURN_IND	On/Off	Turn light (LH)	J-01 AK	x	x		x									x
LHTURN_SW	On/Off	Turn switch (LH)	J-04 O	x	x		x									x
LR_AJAR	Open/Closed	Rear door latch switch (LH)	J-06 S	x	x		x	x	x		x					x
PARK_LAMP	On/Off	• Parking light • License plate light	J-01 K, J-01 AC, J-05 AS, J-05 G		x								x			x
PARK_SW	On/Off	Light switch (TNS)	J-03 I	x	x								x			x
PNLCON_SW	Ohm	Panel light control switch	J-03 AJ	x	x		x					x				x
PRK_BRK	On/Off	Parking brake switch	J-04 AB	x	x		x									x
PWM_ILLU	On/Off	Illumination lights	J-03 AI	x	x		x					x				x
PWNDW_SUSP	On/Off	Power window main switch	J-06 O	x	x											x
R_FOG_LMP	On/Off	Rear fog light switch	J-04 Z	x	x		x						x			x
RDEF_IND	On/Off	Climate control unit (rear window defroster indicator)	J-04 I	x	x	x	x								x	x
RDEF_SW	On/Off	Climate control unit (rear window defroster switch)	J-04 AD	x	x	x	x								x	x
RDEFRLY	On/Off	Rear window defroster relay	J-01 N	x	x	x	x								x	x

RESET_SW	Active/Inactive	Driver-side door key cylinder switch	J-06 AA	x	x			x								x
RF_AJAR	Open/Closed	Front door latch switch (RH)	J-06 U	x	x		x	x	x		x					x
RHTURN_IND	On/Off	Front turn light (RH)	J-01 L	x	x		x									x
RHTURN_SW	On/Off	Turn switch (RH)	J-04 K	x	x		x									x
RR_AJAR	Open/Closed	Rear door latch switch (RH)	J-06 Q	x	x		x	x	x		x					x
SET_SW	Active/Inactive	Driver-side door key cylinder switch	J-06 Y	x	x			x								x
T_AJAR	Open/Closed	Liftgate latch switch	J-06 X	x	x			x	x		x					x
TRUNK_AJAR	Open/Closed	Trunk lid latch switch	J-06 Z		x			x	x		x					x
WASH_FRT	On/Off	Windshield wiper and washer switch (washer)	J-03 B	x	x										x	x
WPFASST_FRT	On/Off	Windshield wiper and washer switch (high)	J-04 C		x										x	x
WPINT_FRT	On/Off	Windshield wiper and washer switch (INT or AUTO)	J-04 U	x	x										x	x
WPINT_REAR	On/Off	Rear wiper and washer switch (INT)	J-04 S	x	x										x	x
WPRLY_FAST	On/Off	Windshield wiper motor (high speed)	J-01 E		x										x	x
WPRLY_LOW	On/Off	Windshield wiper motor (low speed)	J-01 AO	x	x										x	x
WPRLY_REAR	On/Off	Rear wiper and washer switch (on)	J-04 R	x	x										x	x
WPRPRKSTS	Open/Closed	Windshield wiper motor (auto stop switch)	J-01 AI	x	x										x	x
WPSW_FRT	On/Off	Windshield wiper and washer switch (low)	J-04 G	x	x										x	x

*1 :

- BAT_CONN: Battery reconnection
- IGON_WOKEY: IG on without the key
- KEYCYL_UNLK: Key cylinder unlock
- LKKNOB_UNLK: Lock knob unlock
- CLKSW_UNLK: Central lock switch unlock
- RR_AJAR: Right rear door ajar
- RL_AJAR: Left rear door ajar
- PASS_AJAR: Passenger door ajar
- DRV_AJAR: Driver door ajar
- T_AJAR: Trunk/liftgate ajar
- B_AJAR: Bonnet ajar
- INTR_SENS: Intruder sensor
- BBS_TAMP: Battery backup siren tamper

*2 : With water heater system