

PRE-CHECK

1. USING HAND-HELD TESTER

- (a) Hook up the hand-held tester to the DLC3.
- (b) Monitor the ECU data by following the prompts on the tester screen.

HINT:

Hand-held tester has a Snapshot function which records the monitored data.

Refer to the hand-held tester operator's manual for further details.

2. DTC CLEAR

- (a) The DTCs and freeze frame data will be erased by the hand-held tester to erase the codes.

3. DATA LIST

HINT:

According to the DATA LIST displayed by the hand-held tester, you can read the value of the switch, sensor, actuator and so on without parts removal. Reading the DATA LIST as a first step of troubleshooting is one of the method to shorten the labor time.

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) According to the display on tester, read the DATA LIST.

Standard (Body ECU):

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
KEY UNLK WRN SW	Key unlock warning switch signal/ON or OFF	ON: Key is in ignition key cylinder OFF: No key is in ignition key cylinder	-
D DOR CTY SW	Driver side door courtesy switch signal/ON or OFF	ON: Driver side door is open OFF: Driver side door is closed	-
P DOR CYT SW	Passenger side door courtesy switch signal/ON or OFF	ON: Passenger side door is open OFF: Passenger side door is closed	-
Rr DOR CTY SW	Rear door courtesy switch signal/ON or OFF	ON: Either right or left rear door is open OFF: Both right and left doors are closed	-
P LOCK POS SW	Passenger side door lock position switch signal/ON or OFF	ON: Passenger side door lock is in unlock position OFF: Passenger side door lock is in lock position	-
Rr LOCK POS SW	Rear door lock position switch signal/ON or OFF	ON: Rear door lock is in unlock position OFF: Rear door lock is in lock position	-
IG SW	IG switch signal/ON or OFF	ON: Key is in ON or START position OFF: Key is in OFF or ACC position	-
D LOCK POS SW	Driver side door lock position switch signal/ON or OFF	ON: Driver side door lock is in unlock position OFF: Driver side door lock is in lock position	-
D/L SW-LOCK	Manual door lock switch LOCK signal/ON or OFF	ON: Manual door lock switch is in lock position OFF: Manual door lock switch is in neutral position (Common to driver side and passenger side mode)	-
D/L SW-UNLOCK	Manual door lock switch UNLOCK signal/ON or OFF	ON: Manual door lock switch is in unlock position OFF: Manual door lock switch is in neutral position (Common to driver side and passenger side mode)	-
DOR KEY SW-LOCK	Key operation door lock switch signal/ON or OFF	ON: Key operation door lock switch is in lock position OFF: Key operation door lock switch is in neutral position (Common to driver side and passenger side mode)	-

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
P DOR KEY SW-UL	Key operation passenger door unlock switch signal/ON or OFF	ON: Passenger key operation door lock switch is in unlock position OFF: Passenger key operation door lock switch is in neutral position	-
D DOR KEY SW-UL	Key operation driver door unlock switch signal/ON or OFF	ON: Driver key operation door lock switch is in unlock position OFF: Driver key operation door lock switch is in neutral position	-
UNLK/KEY TWICE	Key operation driver door 2-step unlock switch signal/ON or OFF	ON: All doors are unlocked when driver side door key cylinder is turned to unlock twice (2-step unlocking function) OFF: Only driver side door is unlocked when driver side door key cylinder is turned to unlock once	-
UNLOCK/PARK	Park/neutral position switch signal/ON or OFF	ON: Ignition switch ON, vehicle speed 0 km/h and shift to any position except P position → Shift to P position → all door unlock OFF: Ignition switch ON, vehicle speed 0 km/h and shift to any position except P position	-
AUTO LOCK/SHIFT	Park/neutral position switch signal/ON or OFF	ON: Driver key operation door lock switch is in unlock position OFF: Driver key operation door lock switch is in neutral position	-
OPEN DOOR WARN	Door courtesy switch signal/ON or OFF	ON: Each door is open OFF: All door is closed	-
AUTO LOCK DELAY	Door courtesy switch signal/60s or 30s	60s: Door auto locking time is 60 sec. 30s: Door auto locking time is 30 sec.	-

Standard (Back Door ECU):

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
KEY SW(UNLK)	Back door key lock and unlock switch signal/ON or OFF	ON: Back door lock key cylinder is turned to unlock OFF: Key is in back door lock key cylinder (original position)	-
KEY SW(LOCK)	Back door key lock and unlock switch signal/ON or OFF	ON: Back door lock key cylinder is turned to lock OFF: Key is in back door lock key cylinder (original position)	-
HALF LATCH SW	Back door half latch switch signal/ON or OFF	ON: Back door is open OFF: Back door is closed	-
FULL LATCH SW	Back door full latch switch (courtesy SW) signal/ON or OFF	ON: Back door is closed OFF: Back door is open	-
DOOR HANDLE SW	Back door opener switch signal/ON or OFF	ON: Back door opener is pushed OFF: Back door opener is not pushed	-
LOCK STATUS	Back door position switch signal/UNLOCK or LOCK	UNLOCK: Back door is unlock LOCK: Back door is lock	-

4. ACTIVE TEST**HINT:**

Performing the ACTIVE TEST using the hand-held tester allows the relay, VSV, actuator and so on to operate without parts removal. Performing the ACTIVE TEST as a first step of troubleshooting is one of the methods to shorten the labor time.

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

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON.
- (c) According to the display on the tester, perform the ACTIVE TEST.

Standard (Body ECU):

Item	Test Details	Diagnostic Note
OPN DOR WRN LGT	Turn open door warning light ON/OFF (All doors are closed)	-
DOOR LOCK	Drive door lock motor at all doors LOCK/OFF	-
DOOR LOCK	Drive door lock motor at all doors UNLOCK/OFF	-