

ON-VEHICLE INSPECTION

1. INSPECT FOR ELECTRICAL DOOR LOCK OPERATION

- (a) Basic Function Check
 - (1) Check all doors will lock when the door control switch (for manual operation) is turned to the lock side and all doors will unlock when turned to the unlock side.
 - (2) Check all doors will lock when the driver's door is operated to be lock and all doors will unlock when operated to be unlock, by the key operation outside the vehicle.
- (b) Back Door Lock Function Check
 - (1) Check that the back door can be opened if the back door outside handle (back door opener switch) is operated with the vehicle stopped (less than 5 km/h) and all doors unlocked. Also, check that the back door can not be opened even if the handle is operated with the vehicle speed of more than 5 km/h or all doors locked.

(c) Key Confinement Prevention Function Check

NOTICE:

In order to prevent the key from confined, the inspection should be made with the driver's door glass open.

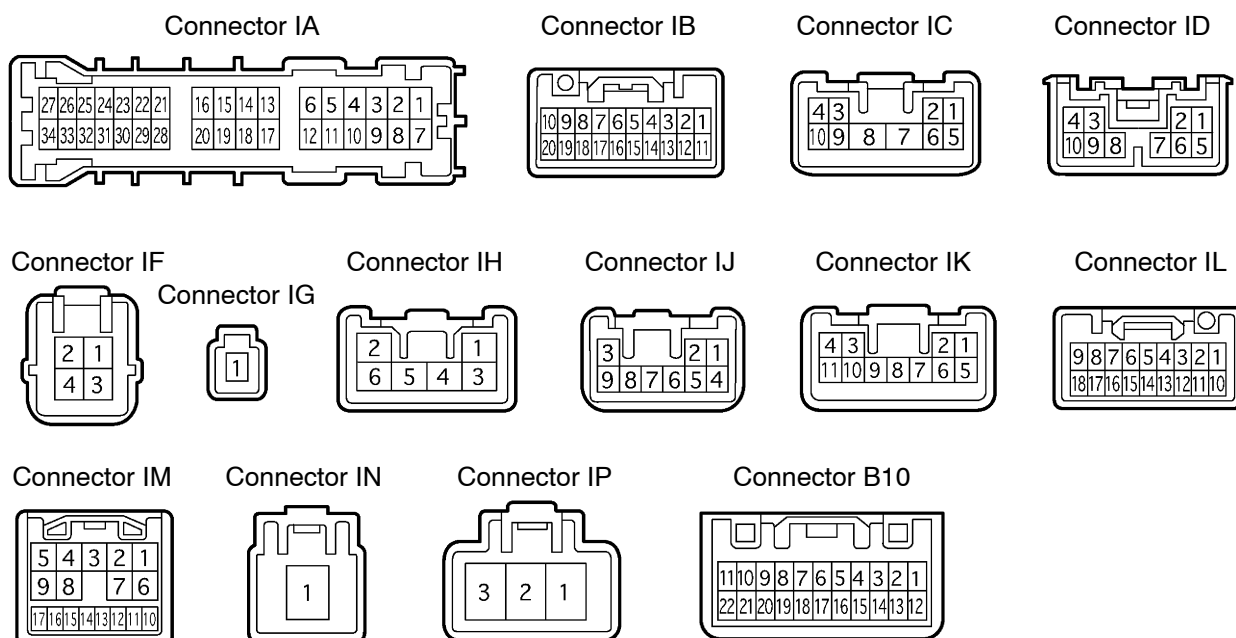
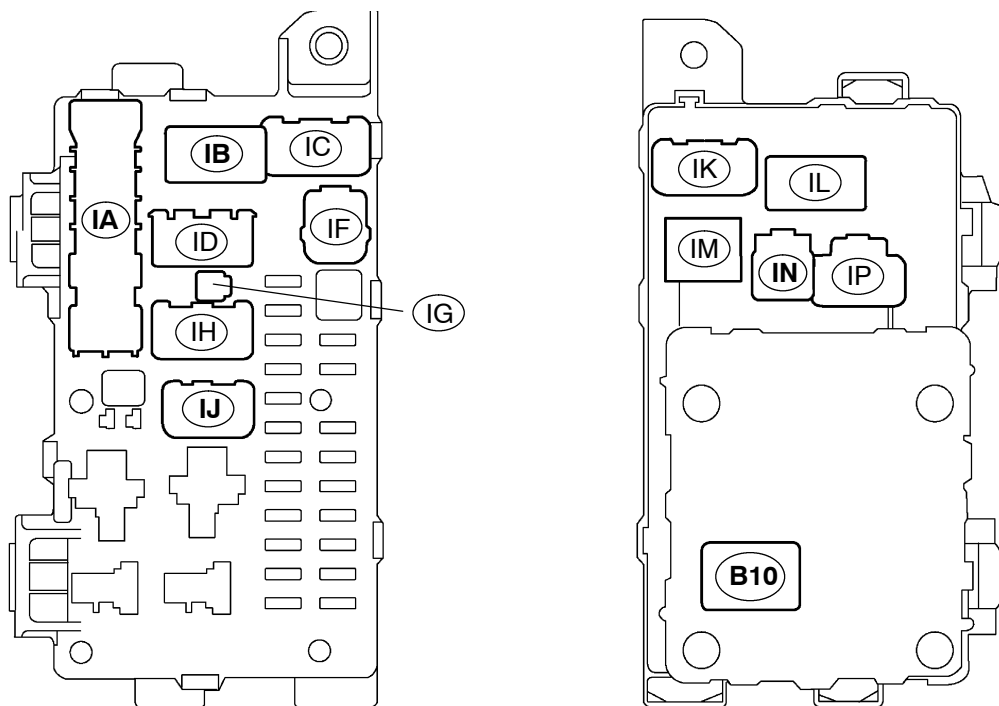
- (1) Have the ignition key inserted into the ignition switch lock cylinder.
 - (2) With the driver's door open, check all doors will immediately unlock when the door lock knob for the driver's door is turned to the lock side.
 - (3) With the driver's door open, check that all doors will immediately unlock when the door control switch (for manual operation) is turned to the lock side.
 - (4) With the driver's door open, make the driver's door lock by holding the driver's door lock knob in the lock side for 2 seconds or more and then close the driver's door. Then, check that all doors will unlock.
- (d) Security Function Check
 - (1) Close all doors with the driver's door glass open so that the door control switch can be operated outside the vehicle.
 - (2) Pull out the ignition key, open the driver's door and close lock the door without a key operation. Under this condition, check that all doors will not unlock when the door control switch (for manual operation) is turned to the unlock side outside the vehicle.
 - (3) Pull out the ignition key, close and lock the driver's door by a key operation. Under this condition, check that all doors will not unlock when the door control switch (for manual operation) is turned to the unlock side outside the vehicle.
 - (4) Pull out the ignition key, close the driver's door and lock the door by a wireless door lock operation. Under this condition, check that all doors will not unlock when the door control switch (for manual operation) is turned to the unlock side outside the vehicle.

HINT:

- Under the conditions below, check that the security function will cancel
 - Ignition switch turned ON.
 - Driver's door unlocked by a key operation.
 - Door control switch (for manual operation) turned to the unlock side after the door control knob have been unlocked manually
 - Doors unlocked by a wireless operation.
- (e) Illumination Function Check
 - (1) Make the map light switch in the DOOR position.
 - (2) Check that the map light will be on simultaneously with hall door's unlocking operation when the driver's door of all the closing doors is turned to the unlock side by a key operation.
 - (3) Map light will be off in approximately 15 seconds if a door has not been opened for a while.

2. INSPECT INSTRUMENTAL PANEL J/B (BODY ECU)

- (a) Inspect Fuse
 - (1) Inspect DOOR 25 A and ECU-B 7.5 A fuses.
- (b) Inspect Body ECU
 - (1) Disconnect connectors IA, IB, IL and B10 of the I/P J/B.
 - (2) Check the voltage and continuity of each terminal of the vehicle's connector.



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Standard:

Tester connection	Condition	Specified condition
IA-5 (KSW) – Ground	No key in ignition switch lock cylinder → Yes	No continuity → Yes
IA-9 (E) – Ground	Constant	Continuity
IL-13 (ECUB) – Ground	Constant	10 – 14 V
IB-13 (DCTY) – Ground	Driver door fully closed → Opened	No continuity → Yes
B10-22 (BDSW) – Ground	Driver door UNLOCK and back door outside handle OFF → ON	No continuity → Yes
B10-15 (LSWD) – Ground	Driver door control knob LOCK → UNLOCK	No continuity → Yes

If the condition is not as specified, it means that the vehicle malfunctions.

(3) Connect the connector and check the voltage of each terminal of the connector.

Standard:

Tester connection	Condition	Specified condition
IA-5 (KSW) – Ground	No key in ignition switch lock cylinder → Yes	10 – 14 V → 0 V
IB-20 (ACT+) – Ground	Insert key in driver door lock cylinder OFF → LOCK	0 V → 10 – 14 V → 1 V or less
IJ-1 (ACT+) – Ground	Insert key in driver door lock cylinder OFF → LOCK	0 V → 10 – 14 V → 1 V or less
IM-7 (ACT+) – Ground	Insert key in driver door lock cylinder OFF → LOCK	0 V → 10 – 14 V → 1 V or less
IJ-4 (ACT-) – Ground	Insert key in driver door lock cylinder OFF → UNLOCK	0 V → 10 – 14 V → 1 V or less
IB-10 (ACT-) – Ground	Insert key in driver door lock cylinder OFF → UNLOCK	0 V → 10 – 14 V → 1 V or less
IM-6 (ACT-) – Ground	Insert key in driver door lock cylinder OFF → UNLOCK	0 V → 10 – 14 V → 1 V or less
IB-22 (BDSW) – Ground	Driver door UNLOCK and back door outside handle OFF → ON	0 V → 10 – 14 V → 1 V or less
IA-24 (BACT) – Ground	Driver door UNLOCK and back door outside handle OFF → ON	0 V → 10 – 14 V → 1 V or less

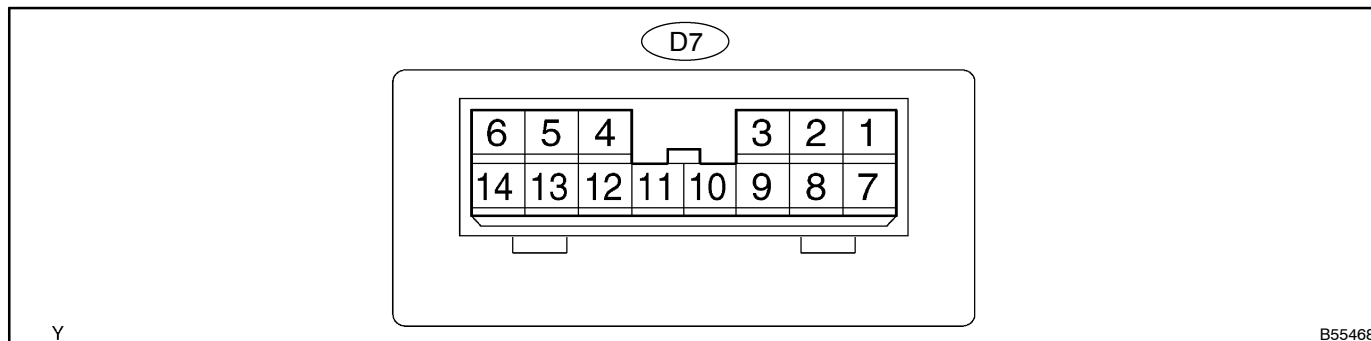
If the value is not as specified, it means the body ECU or I/P J/B malfunctions.

3. INSPECT DOUBLE LOCK DOOR CONTROL RELAY (DOUBLE LOCK ECU)**(a) Inspect Fuse**

- (1) Inspect DOOR 25 A and ECU-B 7.5 A fuses.

(b) Inspect Double Lock Control Relay

- (1) Disconnect the connector of the double lock control relay.
- (2) Check the voltage and continuity of each terminal of the vehicle's connector.

**Standard:**

Tester connection	Condition	Specified condition
1 (+B) – Ground	Constant	10 – 14 V
7 (CPUB) – Ground	Constant	10 – 14 V
14 (GND) – Ground	Constant	Continuity

If the condition is not as specified, it means that the vehicle malfunctions.

- (3) Connect the connector and check the voltage of each terminal of the connector.

Standard:

Tester connection	Condition	Specified condition
3 (ACTS) – Ground	Double Lock UNSET → SET	0 V → 10 – 14 V → 1 V or less
4 (ACTR) – Ground	Double Lock SET → UNSET	0 V → 10 – 14 V → 1 V or less
5 (DLPD) – Ground	Double Lock UNSET → SET	10 – 14 V → 0 V
6 (DLPP) – Ground	Double Lock UNSET → SET	10 – 14 V → 0 V
11 (DLPR) – Ground	Double Lock UNSET → SET	10 – 14 V → 0 V
12 (DLPL) – Ground	Double Lock UNSET → SET	10 – 14 V → 0 V

If the value is not as specified, it means the Double Lock Door Control Relay malfunctions.

(c) Inspect Communication Line

- (1) Disconnect the connectors of the double lock control relay and I/P J/P (Body ECU).

Continuity:

Tester connection (Double Lock Relay – I/P J/P)	Condition	Specified condition
9 (MPX1) ↔ F22-7 (MPX-D)	Constant	Continuity

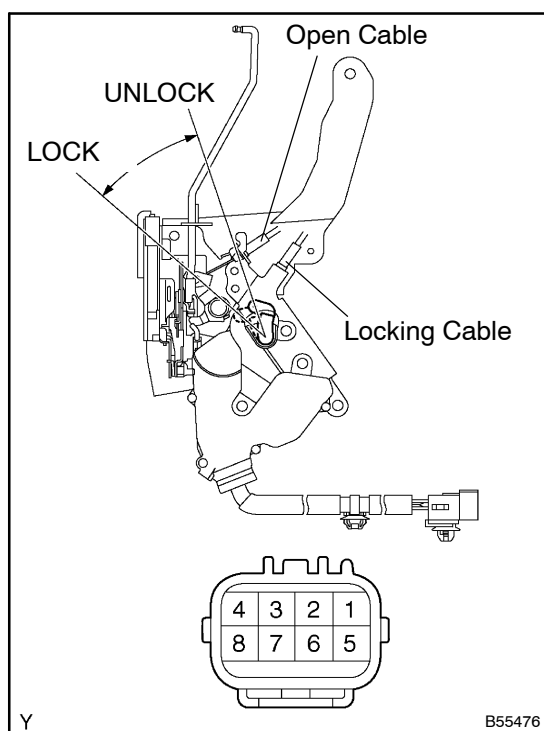
If the condition is not as specified, it means the wire harness or connector.

4. INSPECT DOUBLE LOCKING SYSTEM FUNCTION

HINT:

- In case of doing the following inspection, must open one of the windows of the doors.
 - In order to set the double locking, turn the ignition switch ON to OFF, open the driver's door and close it, then lock the door with the transmitter.
 - In case of doing the following inspection, for preventing the wrong warning, turn OFF the radar sensor. The method to turn off the radar sensor is to press the lock button of the transmitter to lock, then press the lock button again. (When the radar sensor turns OFF, "all turn signal light" flashes 5 times.) In order to turn ON the radar sensor again, press the lock button of the transmitter again. (When the radar sensor turns ON again, "all turn signal light" flashes once.) Switching from ON to OFF can be done only within 30 seconds after setting the Theft Deterrent System (locking with the transmitter).
- (a) Check that the double locking is set.
 - (1) Lock with the wireless transmitter from the inside of the vehicle.
 - (2) Check that the doors won't open from the inside of the vehicle even operating the door lock knob and inside door handle
 - (b) Check that the double locking is released (Case 1).
 - (1) Unlock with the wireless transmitter from the inside of the vehicle.
 - (2) Check that the doors will open from the inside of the vehicle by operating the door knob and inside door handle.
 - (c) Check that the double locking is released (Case 2).
 - (1) Lock with the wireless transmitter from the inside of the vehicle.
 - (2) Under this condition, insert the key into the ignition key cylinder, turn the ignition switch to ON and check that the doors will open.

If you find any abnormal symptom in the check items of (a),(b) and (c), troubleshoot according to the Problem Symptom Table.



5. INSPECT FRONT DOUBLE LOCKING SWITCH CONTINUITY

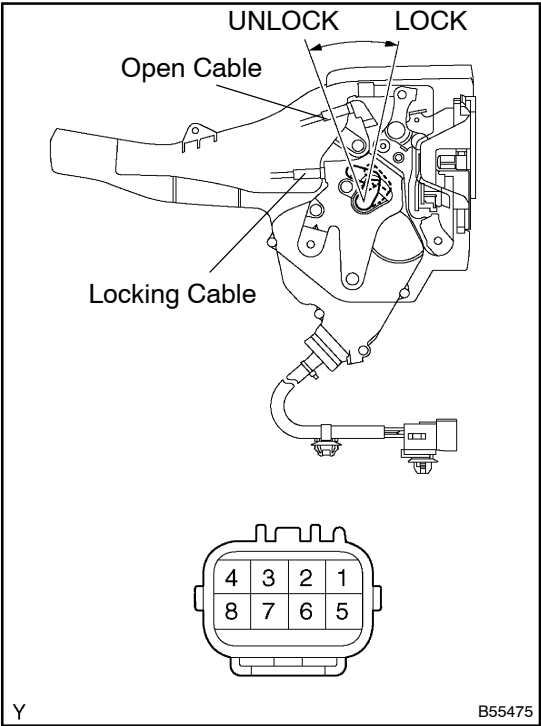
Switch position	Tester connection	Specified condition
OFF (Double Locking is released)	–	No continuity
ON (Double Locking is set)	4 – 6	Continuity

If continuity is not as specified, replace the door lock assembly.

6. INSPECT FRONT DOUBLE LOCKING MOTOR OPERATION

- (a) Set the Door Lock to LOCK position by the locking cable.
- (b) Connect the positive (+) lead from the battery to terminal 8 and negative (–) lead to terminal 7, and check that the Door Lock will not unlock by pulling the locking cable. (Locking cable must return to LOCK position by the force of spring when pulling the locking cable.)
- (c) Reverse the polarity and check that the Door Lock will unlock by pulling the locking cable.

If operation is not as specified, replace the door lock assembly.



7. INSPECT REAR DOUBLE LOCKING SWITCH CONTINUITY

Switch position	Tester connection	Specified condition
OFF (Double Locking is released)	–	No continuity
ON (Double Locking is set)	4 – 6	Continuity

If continuity is not as specified, replace the door lock assembly.

8. INSPECT REAR DEAD LOCK MOTOR OPERATION

- (a) Set the Door Lock to LOCK position by the locking cable.
- (b) Connect the positive (+) lead from the battery to terminal 8 and negative (–) lead to terminal 7, and check that the Door Lock will not unlock by pulling the locking cable. (Locking cable must return to LOCK position by the force of spring when pulling the locking cable.)
- (c) Reverse the polarity and check that the Door Lock will unlock by pulling the locking cable.

If operation is not as specified, replace the door lock assembly.