

SYSTEM DESCRIPTION

1. POWER DOOR LOCK SYSTEM DESCRIPTION

- (a) The power door lock system locks/unlocks all doors with a one-touch operation.
- The door control switch of the master switch assembly on the driver's door and the driver's door key cylinder send lock/unlock request signals to the theft deterrent ECU through the driver door ECU using the BEAN.
 - The door control switch on the passenger door sends lock/unlock request signals to the theft deterrent ECU through the passenger door ECU using the BEAN.
 - Upon receiving request signals, the theft deterrent ECU sends these signals to the door ECUs on each door using the BEAN. The door ECUs the lock/unlock each door.

(b) Components

Components	Function
Master switch	Door control switch on master switch assembly locks/unlocks all doors.
Door control switch	Locks/unlocks all doors.
Door courtesy switch	Placed on each door. Detects door status (open or closed) and outputs data to each door ECU. Turns on when door is open and off when door is closed.
Driver door lock	- Built-in motor locks/unlocks door. - Built-in door control switch (key-linked) detects door key operation's door status (locked or unlocked) and outputs data to driver door ECU. - Built-in position switch detects door status (locked or unlocked) and outputs data to driver door ECU. This switch turns off when door is locked and on when door is unlocked. - Built-in double lock motor sets/unsets double lock system. - Built-in double lock position switch detects double lock system status (set or unset) and outputs data to driver door ECU. This switch turns off when system is set and turns on when system is unset.
Luggage door lock	Built-in courtesy switch detects door status (open or closed) and outputs data to rear J/B ECU. This switch turns on when door is open and off when door is closed.
Passenger, RL and RR door locks	- Built-in motor locks/unlocks door. - Built-in position switch detects door status (locked or unlocked) and outputs data to driver door ECU. This switch turns off when door is locked and on when door is unlocked. - Built-in double lock motor sets/unsets double lock system. - Built-in double lock position switch detects double lock system status (set or unset) and outputs data to each door ECU. This switch turns off when system is set and turns on when system is unset.
Theft deterrent ECU	Receives lock/unlock request signal and outputs lock/unlock request to each door ECU.
D, P, RL and RR door ECUs	Receives lock/unlock request signal from theft deterrent ECU and locks/unlocks each door.

(c) Functions

Functions	Outlines
Key-linked lock and unlock function	Linked with key cylinder. Locks/unlocks all doors when lock/unlock operation is possible.
Key lock-in prevention function	When key is inserted in ignition key cylinder and door lock operation is performed, all doors are unlocked.
Manual unlock prohibition function	Performing door lock operation with transmitter or key disables unlock operation by door lock control switch.
2-step unlock function	Unlocks only driver door by turning key cylinder once and unlocks other doors by turning it twice.

DIAGNOSTICS – POWER DOOR LOCK CONTROL SYSTEM

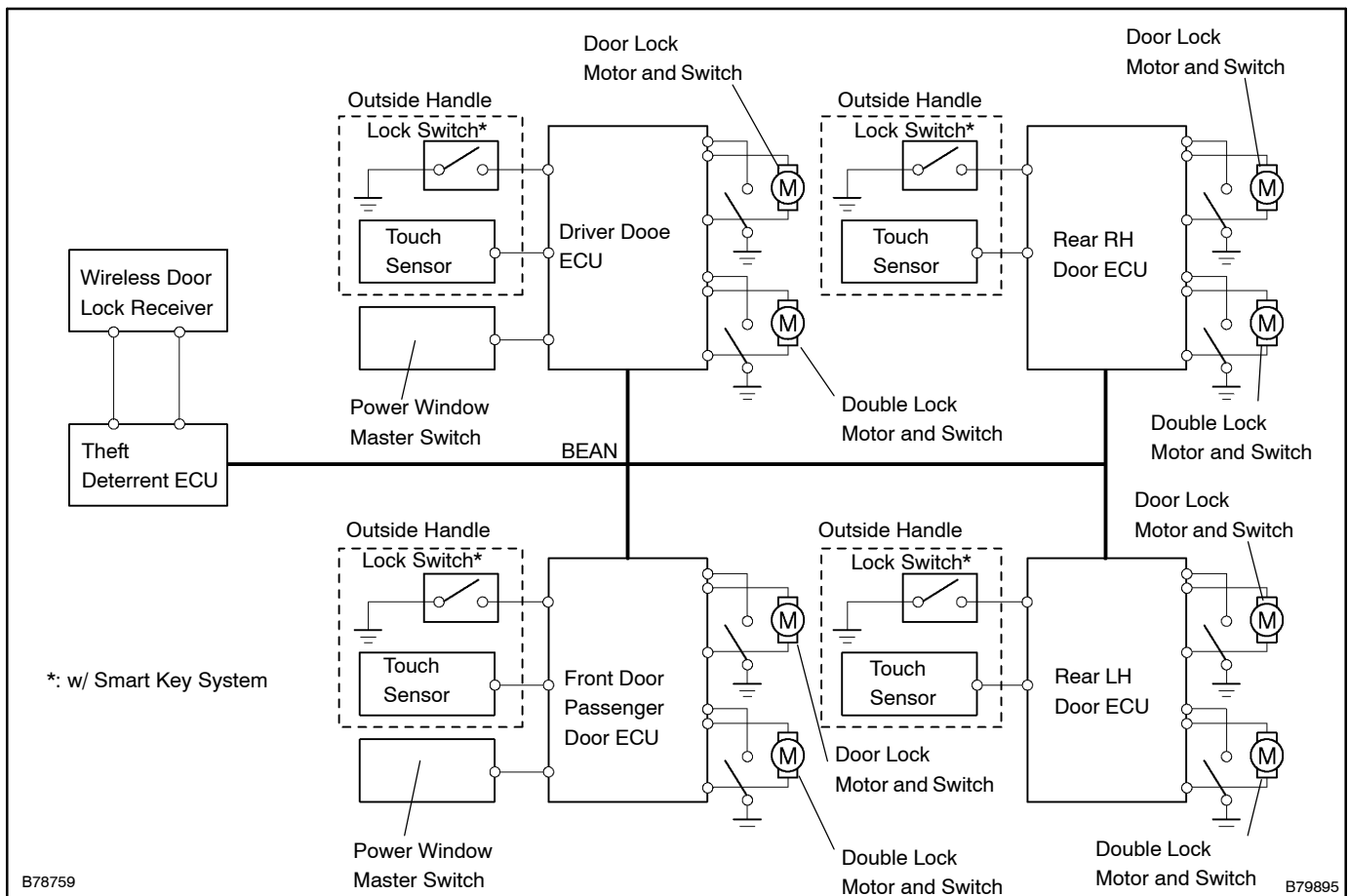
Functions	Outlines
Shift-linked automatic door lock	When conditions listed below are all met, this function causes all doors to automatically lock. • Ignition switch is turned from OFF or ACC to ON. • All doors are closed. • Shift lever is moved out of P. • Door is unlocked.
Collision door lock release	If SRS airbag system has been deployed and body ECU has detected signal that is output from airbag sensor assembly, body ECU will unlock all doors.
One-motion open	The function which enables the driver to unlock the driver door by pulling the driver door inside knob.
Double lock system*	• This system prevents doors from being opened through inside door knob's operation. Doors cannot be opened either from inside or outside of vehicle. • Pressing transmitter's LOCK switch twice within 5 seconds activates this system and locks doors. If battery of wireless remote control is depleted, only driver's door can be opened by key. However, theft deterrent system's alarm will sound. CAUTION: Doors cannot be opened from inside of vehicle. Never activate this system when someone is inside vehicle. If this system is set accidentally, press transmitter's UNLOCK switch.

*: w/ Double lock system

2. DOUBLE LOCK SYSTEM

(a) General

- The double lock system is a standard equipment on the RHD models for Europe and an optional equipment on the LHD models for Europe.
- The double lock system prevents the doors from being opened through operation of the inside door knobs. The doors cannot be opened either from the inside or the outside of the vehicle.
- To lock the doors with this system, press the transmitter's LOCK switch twice within 5 seconds. Or touch the outside handle lock switch (with the smart key in your possession) and then press it again within 2.5 seconds to activate the double lock system.



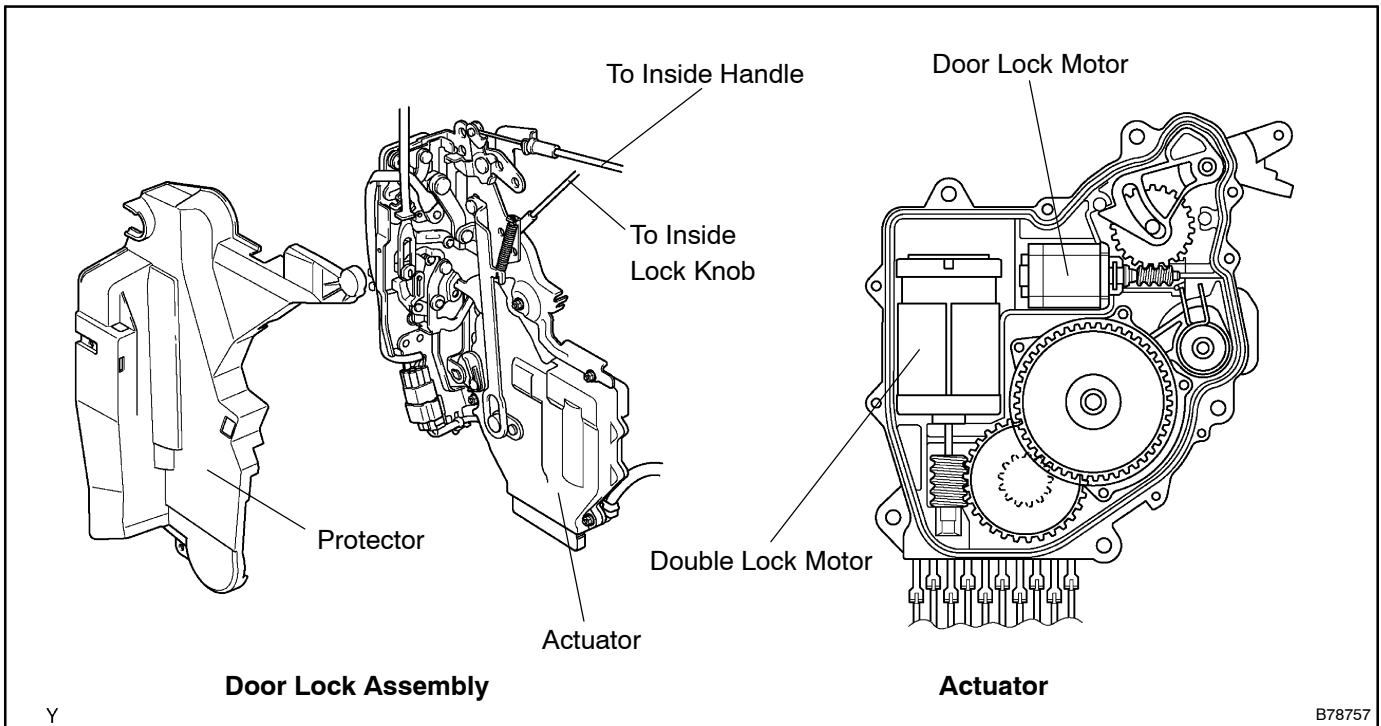
CAUTION:

The doors cannot be opened from the inside of the vehicle. Never activate the double lock system when someone is inside the vehicle.

If this system is set accidentally, press the unlock switch of the transmitter or touch the outside handle.

(b) Constuction

- (1) The actuator contains both the door lock control system and the door closer system. The double-locking motor is also used as a door closer motor so that the actuator is compact and lightweight.



(c) Operation

- When the transmitter's LOCK switch or the lock switch is pressed, the doors are locked and the double locking motor disengages the double locking bushing. As a result, if an attempt is made to unlock the door by operating the inside knob, the double locking bushing will merely mis-swing and the doors will not be able to unlocked.
- The locking/unlocking function of the double locking system is normally activated by operating the transmitter or the lock switch/touch sensor. If the battery of wireless remote control is depleted, only driver's door can be opened by the key. However, the theft deterrent system's alarm will sound.

