

SYSTEM DESCRIPTION

1. POWER DOOR LOCK CONTROL SYSTEM DESCRIPTION

- (a) The power door lock system locks/unlocks all the doors at once.

The master switch and the door control switch on the passenger door send "lock/unlock" request signals to the body ECU. Then, the body ECU sends these request signals to the lock motors in each door to lock/unlock all the doors at once in response to the inputs. (The BEAN is used when the master switch sends request signals to the body ECU.)

Operating the driver's door lock using a key sends request signals to lock/unlock the doors to the body ECU via the master switch. "2-step unlock function" is optional for unlocking procedures of the key-linked lock for the driver side door.

2. FUNCTION OF MAIN COMPONENT

Components	Function
Multiplex network master switch assembly	Door control switch on master switch assembly locks/unlocks all doors.
Door control switch	Door control switch on passenger side door locks/unlocks all doors.
Door courtesy switch	Placed on each door. Detects door status (open or closed) and outputs data to body ECU. Turns on when door is open and turns off when door is closed.
Driver side door lock	<ul style="list-style-type: none"> 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 body ECU. Built-in position switch detects door status (locked or unlocked) and outputs data to body ECU. This switch turns off when door is locked and turns on when door is unlocked.
Passenger side door lock and rear LH and RH door locks	<ul style="list-style-type: none"> Built-in motor locks/unlocks door. Built-in position switch detects door status (locked or unlocked) and outputs data to body ECU. This switch turns off when door is locked and turns on when door is unlocked.
Back door lock	Built-in courtesy switch detects door status (open or closed) and outputs data to body ECU and power back door ECU*. Turns on when door is open and turns off when door is closed.

HINT:

*: w/ Power back door system

3. SYSTEM FUNCTION

- (a) This system is controlled by the body ECU. The body ECU outputs signals to each door lock motor. The door lock control system in the RX400h has the following functions:

Function	Outline
Key-linked lock and unlock function	This function, which is linked with the key cylinder, can lock or unlock all the doors when a lock or unlock operation is effected.
Manual unlock prohibition function	Performing the door lock operation with a transmitter or an ignition key will prohibit the unlock operation by the door lock control switch.
Key lock-in prevention function	If you perform the door lock operation when the key is inserted in the ignition key cylinder, all the doors will be unlocked.

Function	Outline
2-step unlock function	This function is provided to unlock the driver's door by turning the key cylinder first and to unlock remaining doors by turning it the second time.
Shift-linked automatic door lock	<p>When the conditions listed below are met consecutively, this function causes all the doors to be automatically locked.</p> <ul style="list-style-type: none"> • The ignition switch is turned from the "ACC" position or off to the "ON" position. • All doors are closed. • The shift lever is moved out of P position. • Any of the doors are unlocked.
Speed-sensitive automatic door lock	<p>When the conditions listed below are met consecutively, this function causes all the doors to be automatically locked.</p> <ul style="list-style-type: none"> • Vehicle speed is higher than approximately 20 km/h (13 mph). • All doors are closed. • The shift lever position is out of P and N position. • Any one of the doors are unlocked.
Shift-linked automatic door unlock	When the ignition switch is in the "ON" position, by shifting the shift lever to P position from any position other than P, all the doors will be automatically unlocked.
Ignition switch-linked automatic door unlock	When the driver's door is closed, by turning the ignition switch from ON position to off and opening the driver's door within 10 seconds, all the doors will be automatically unlocked.
Collision door lock release	If the SRS airbag system has been deployed, and the body ECU has detected the signal that is output by the airbag sensor assembly, the body ECU unlocks all the doors.