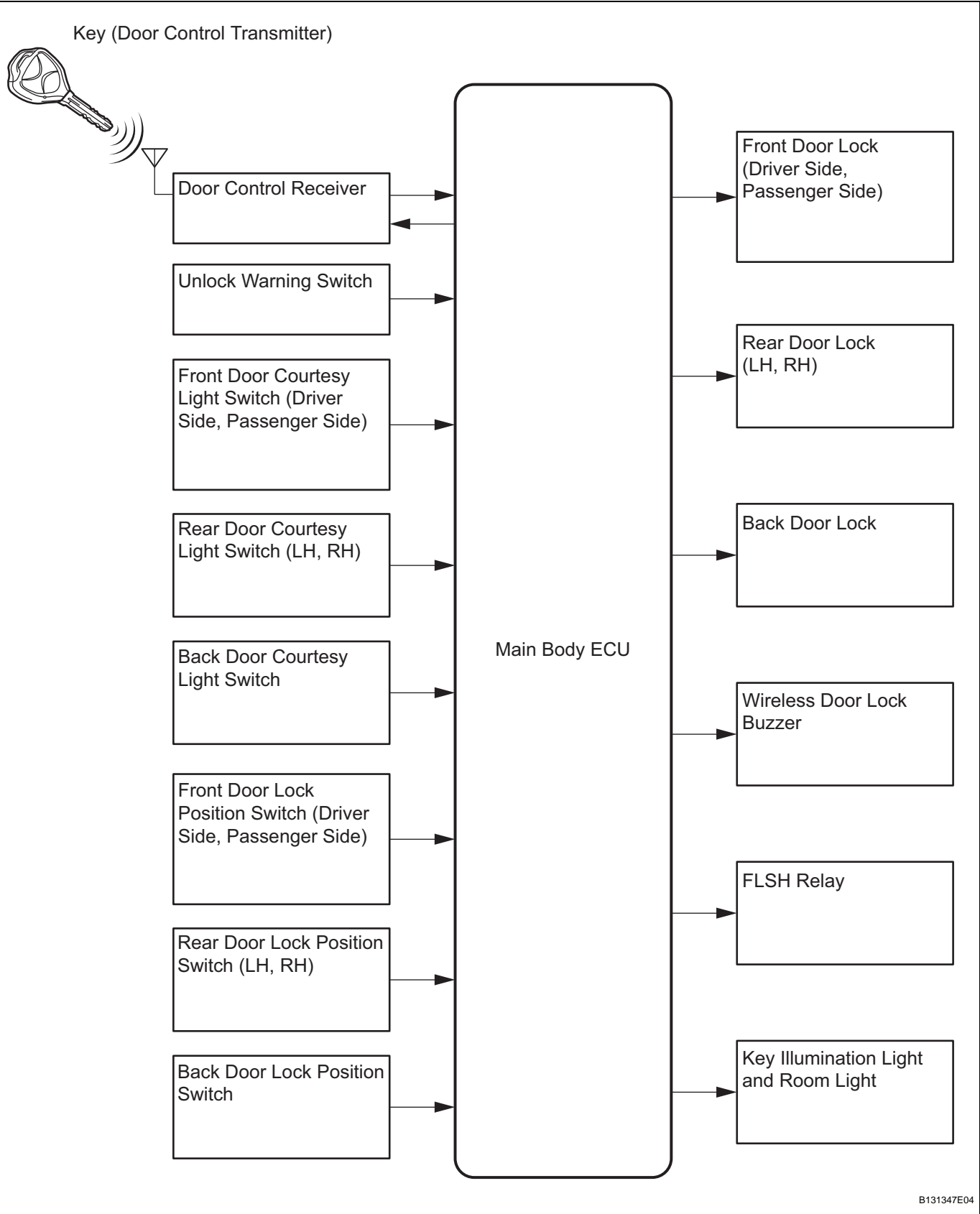


SYSTEM DIAGRAM



SYSTEM DESCRIPTION

1. WIRELESS DOOR CONTROL SYSTEM DESCRIPTION

- (a) This system locks and unlocks the vehicle's doors remotely. The wireless control system has the following features:
- The door control receiver performs the code identification procedure and the main body ECU operates the door lock control. A serial data link is provided for communication between the receiver and main body ECU.
 - A key-integrated type transmitter is used and it contains the following 3 switches: the door lock switch, door unlock switch and panic alarm switch.
 - An LED is built into the transmitter so that the battery status can be checked.

2. FUNCTION OF MAIN COMPONENTS

Components	Functions
Door control transmitter	<ul style="list-style-type: none"> • Contains LOCK, UNLOCK and PANIC switches • Transmits faint electric waves (recognition codes and function codes) to door control receiver • Illuminates indicator light (LED) during transmission
Door control receiver	Receives weak electric waves (recognition codes and function codes) from door control transmitter, and changes waves to code data
Door lock (door lock position switch)	Transmits door lock conditions of each door to main body ECU
Unlock warning switch	Detects if key is in ignition key cylinder
Door courtesy light switch	Turns ON when door is open and turns OFF when door is closed. Outputs door status (open or closed) to main body ECU.

3. SYSTEM FUNCTION

- (a) Door lock / unlock function:
 With no key in the ignition key cylinder (unlock warning switch is OFF) and all door courtesy light switches OFF, pressing the door control transmitter's LOCK / UNLOCK switch causes the transmitter to output faint electric waves. The transmitter sends a faint electrical wave to the door control receiver. The high frequency circuit built into the door control receiver demodulates the wave into code data, computes the data, and compares the data with previously registered ID codes. If the data is verified, a door lock / unlock request signal is output to the main body ECU. When the request signal is received, the main body ECU outputs a door lock / unlock control signal to each door lock. Each door lock then locks / unlocks its respective door and turns ON / OFF its door lock position switch in accordance with the signal.

- (b) Answer-back function:
The main body ECU receives the door unlock detection switch's ON / OFF signals and uses these signals to confirm if the door control operation has been completed. The main body ECU then outputs the hazard warning light control signals to flash the hazard warning lights as an answer-back indication and wireless door lock buzzer signals to cause the wireless door buzzer to sound as an answer-back.
- (c) Panic function:
When the door control transmitter's PANIC switch is pressed, the main body ECU receives the code data (recognition codes and function codes) from the door control transmitter in the same way as when the LOCK / UNLOCK switch is pressed. Upon receiving a theft deterrent alarm control signal, the ECU sends a signal to sound the security horn, and transmits several kinds of warning control signals (hazard warning light control signal, vehicle horn warning control signal, and room light control signal) in order to output a theft deterrent alarm.
- (d) The wireless door lock control system has the following functions.

Function	Outline
All door lock function	Pressing LOCK switch locks all doors
All door unlock operation (2 step unlock operation) function	Pressing UNLOCK switch twice within 3 seconds unlocks all doors after driver side door is unlocked
Answer-back function	<ul style="list-style-type: none"> Hazard warning lights flash once when doors are locked, and flash twice when doors are unlocked to indicate that operation has been completed Wireless door lock buzzer sounds once when doors are locked and sounds twice when doors are unlocked to inform that operation has been completed
Automatic locking function	If no doors are opened within 30 seconds after being unlocked by wireless transmitter, all doors are locked again automatically
Door ajar warning function	If any door is open or ajar, pressing LOCK switch will cause wireless door lock buzzer to sound for about 10 seconds
Illuminated entry function	<p>If locked doors are unlocked through wireless operation, ignition key cylinder light and room light illuminate. If one of following situations occurs, lights fade out:</p> <ul style="list-style-type: none"> Within 15 seconds, doors are not opened and doors are locked through wireless operation Within 15 seconds, key is inserted into ignition key cylinder and ignition switch is turned ON No operations or actions are performed within 15 seconds
Panic function	Pressing PANIC switch for more than 1 second sounds horn
Security function	Sends signal as rolling code
Transmitter recognition code registration function	Enables 4 modes for registering (writing and storing) transmitter recognition codes in EEPROM, built into door control receiver