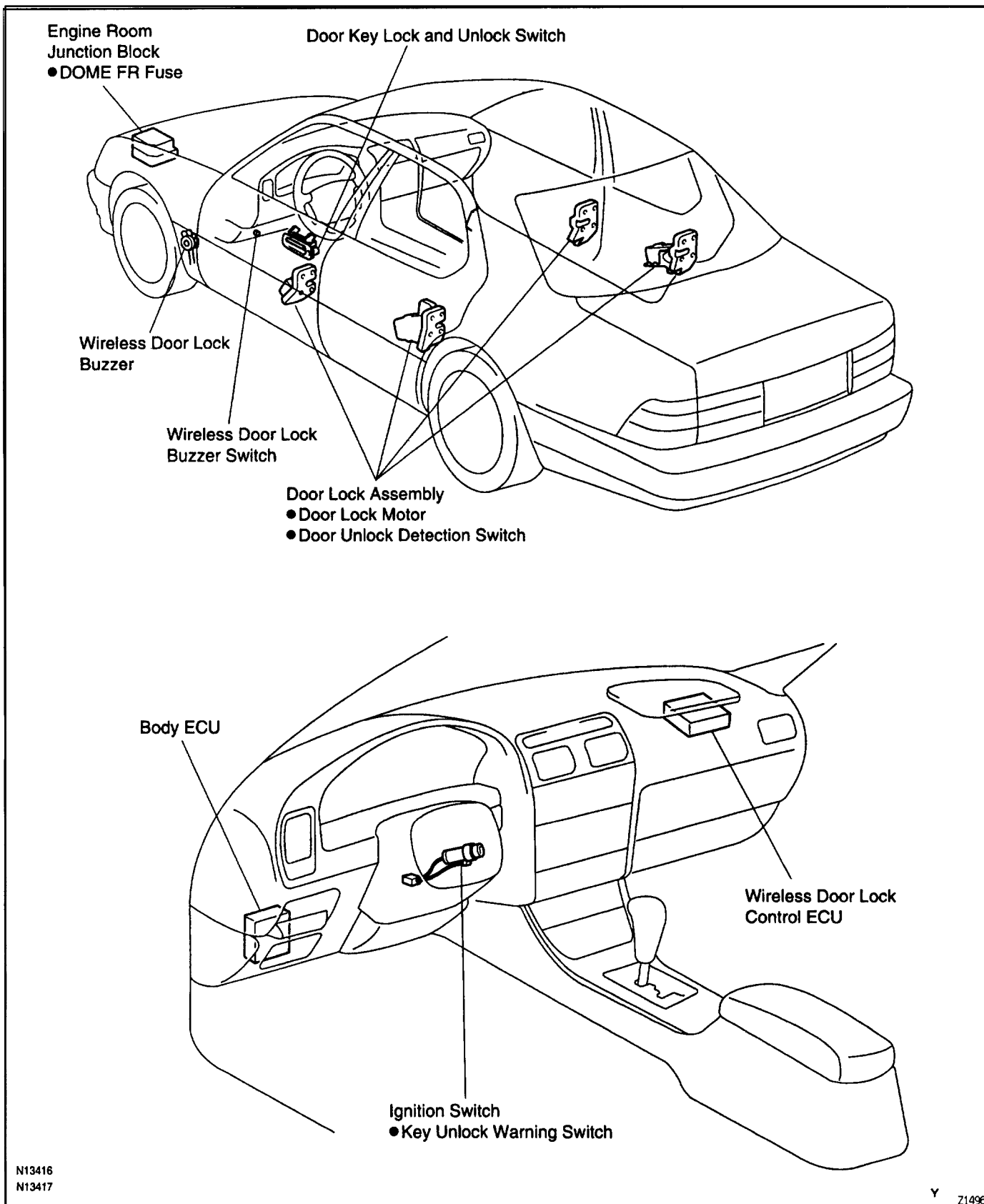


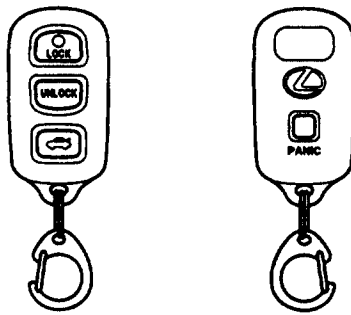
WIRELESS DOOR LOCK CONTROL SYSTEM PARTS LOCATION

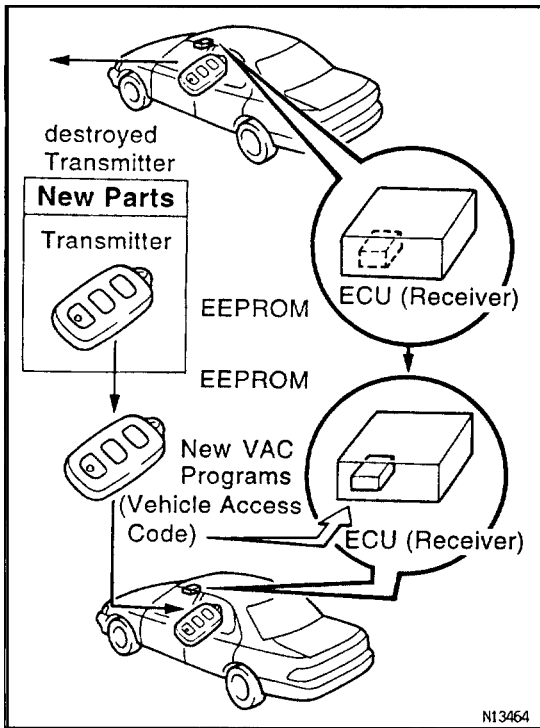
BE2H2-01



N13416
N13417

Transmitter





WIRELESS DOOR LOCK CONTROL ECU AND TRANSMITTER REPLACEMENT

BE2GA-01

Disassembly and assembly of the transmitter includes details of spare parts and replacement procedure for defective parts found through troubleshooting.

Each part is a precise electronic components so handle with care.

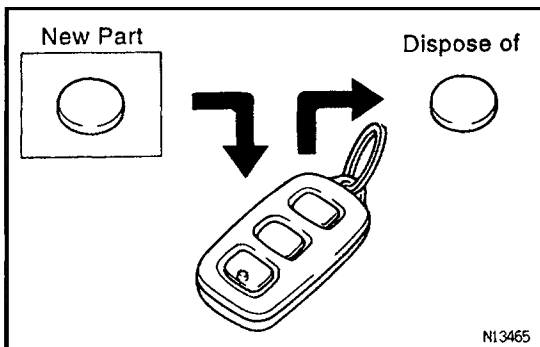
1. SPARE PARTS AND REPLACEMENT PROCEDURE FOR MALFUNCTIONING PARTS:

For malfunctioning transmitter:

- (a) Prepare a new battery.
- (b) Programs VAC (Vehicle Access Code).
- (c) Check that the door lock remote control operation works.

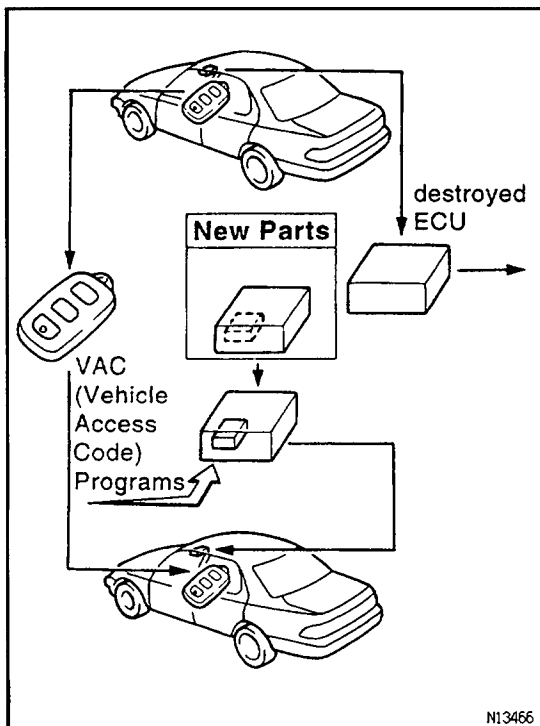
For malfunctioning battery:

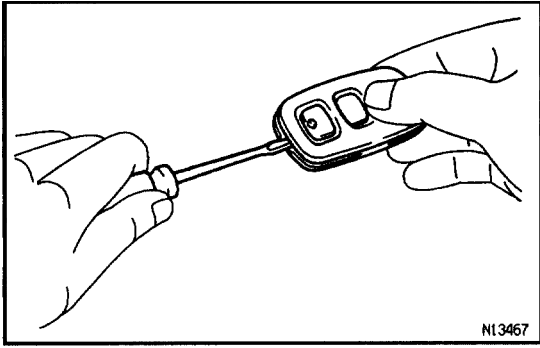
- (a) Prepare a new battery.
- (b) Remove the battery from transmitter.
- (c) Install a new battery into transmitter.
- (d) Check that the door lock remote control operation works.



For malfunctioning ECU:

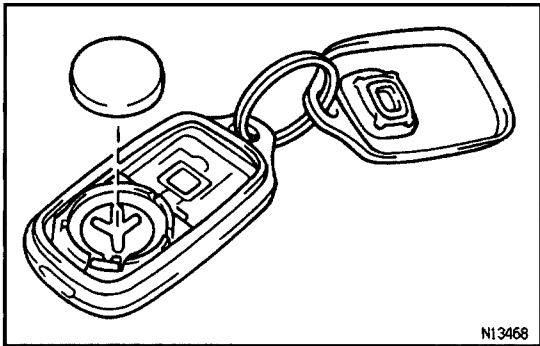
- (a) Prepare a new ECU.
- (b) Remove the battery from transmitter.
- (c) Install a new ECU in the vehicle.
- (d) VAC (Vehicle Access Code) programs.
- (e) Check that the door lock remote control operation works.





2. REPLACE BATTERY FOR TRANSMITTER

(a) Using a screwdriver, pry out the cover.



(b) Remove the battery.

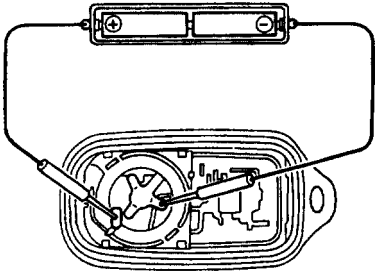
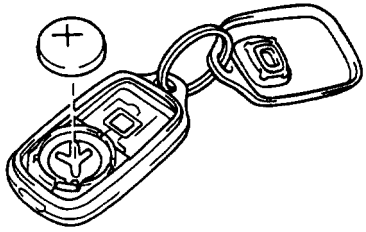
(c) Set a new battery into the transmitter.

(d) Install the cover to the transmitter.

TRANSMITTER INSPECTION

BE2GB-01

1 Transmitter battery capacity check.



N13469

Hint This inspection is not necessarily for the purpose of directly checking the capacity of the transmitter battery, but should be performed when remote control operation becomes difficult or impossible, in order to ascertain if this is caused by low battery capacity.

P (1) Using a screwdriver, pry out the cover.
(2) Remove the battery.

C (1) Connect 2 new 1.5 V dry-cell batteries in series. Connect the battery \oplus terminal to the battery receptacle side terminal and the battery \ominus terminal to the bottom terminal to provide 3 V to the transmitter.
(2) Push the wireless door lock remote control switch on the side of the transmitter body and operate the door lock by remote control.

OK Remote control operation is possible.

NG

OK

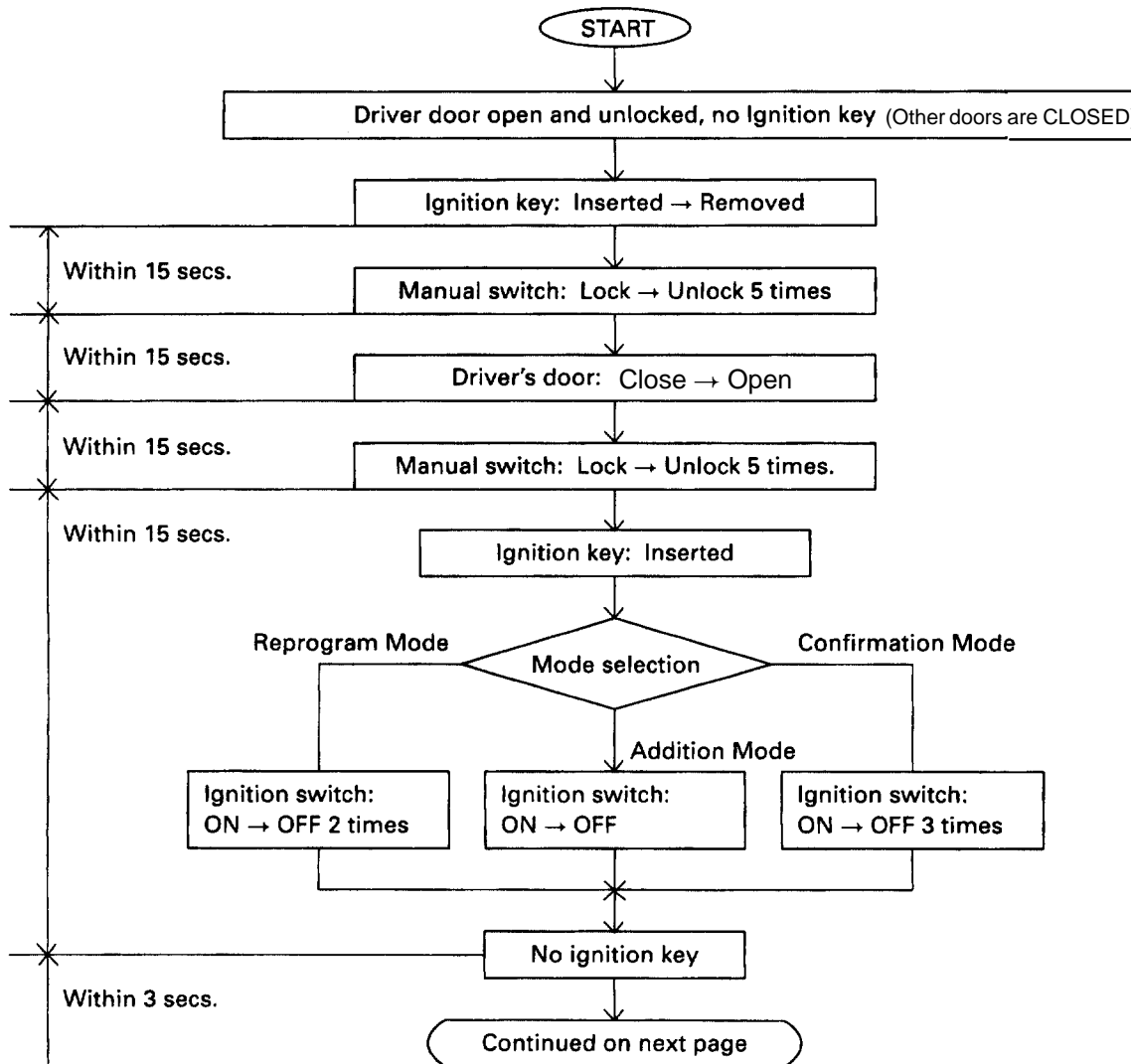
Replace the battery for transmitter
(See page [BE-186](#)).

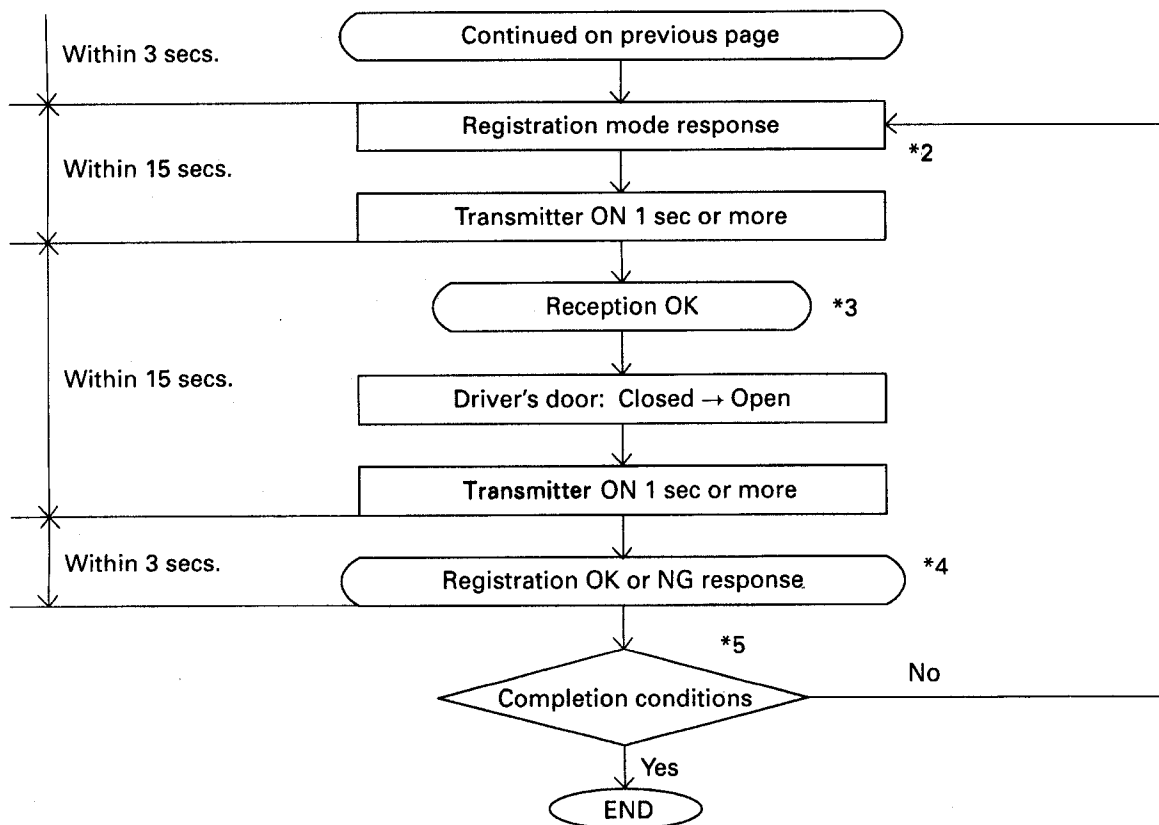
Replace transmitter and programming
(See page [BE-188](#)).

REGISTRATION OF RECOGNITION CODE

A maximum of 4 recognition codes can be registered using the following 3 modes.

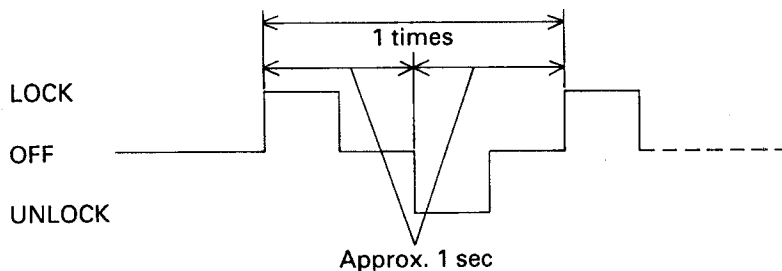
- (1) Reprogram Mode: Currently registered codes are all erased and only the new recognition codes are registered.
- (2) Addition Mode: Currently registered codes are retained, and new recognition codes are also registered.
If the number of registered codes exceeds 4, previously registered codes are erased in order, starting from the oldest code.
- (3) Confirmation Mode: The number of codes that are currently registered can be confirmed.
Register the recognition codes according to the following flow chart.





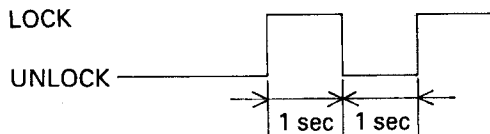
HINT:

***1. Lock → Unlock Timing for Manual Switch**

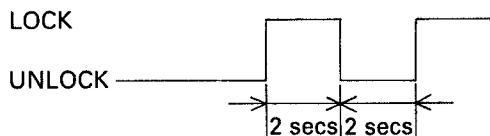


***2. Registration Mode: Lock → Unlock occurs once automatically**

- Addition Mode: Lock → Unlock occurs twice automatically
- Reprogram Mode: Lock → Unlock occurs twice automatically



- Confirmation Mode: Lock → Unlock occurs automatically the same number of times as the number of codes recorded.



- *3. Reception OK Response
 - When the transmission from the transmitter is received, lock [unlock automatically occurs once.
 - When the transmission from the transmitter is not received, there is no response.
- *4. Registration OK or NG response
 - Registration OK: Lock → Unlock automatically occurs once.
 - Registration NG: Lock → Unlock automatically occurs twice.
Registration NG occurs when the code received the first and second time do not match, or when the transmitted code is already registered.
- *5. Completion Conditions

Normal Mode is restored when any of the following conditions is fulfilled.

 - (1) 15 seconds elapses since Registration OK or NG response.
 - (2) A door is closed.
 - (3) The ignition key is inserted in the key cylinder.
 - (4) During one period in Registration Mode, 4 different codes are registered.
- *6. If the required conditions are not met during Registration Mode, Normal Mode is resumed.

TROUBLESHOOTING

BE2GC-01

This system uses the multiplex communication system, so check diagnosis system of the multiplex communication system before you proceed with troubleshooting.

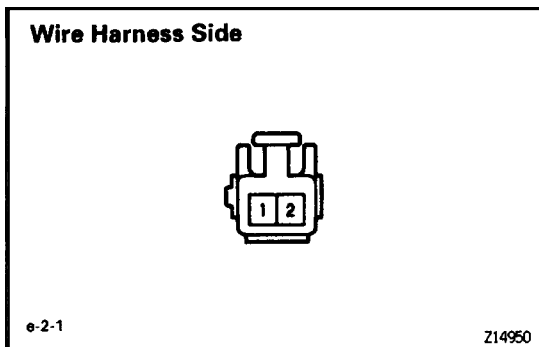
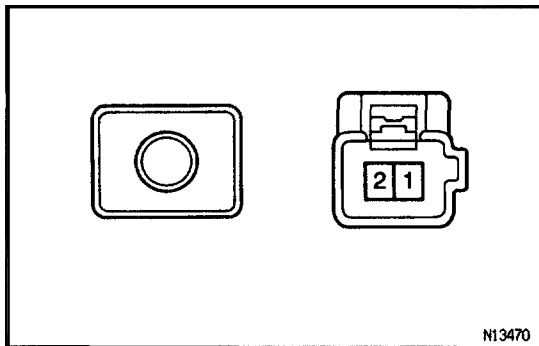
The table below will be useful for you in troubleshooting these electrical problems. The most likely causes of the malfunction are shown in the order of their probability. Inspect each part in the order shown, and replace the part when it is found to be faulty.

HINT:

- Troubleshooting of the wireless door lock control system is based on the premise that the door lock control system is operating normally. Accordingly, before troubleshooting the wireless door lock control system, first make certain that the door lock control system is operating normally.
- If the trouble still reappears even though there are no abnormalities in any of the other circuits, then check and replace the Wireless Door Lock Control ECU as the last step.

Trouble	Parts name	(See page)
All functions of wireless door lock control system do not operate.	1. DOOR Fuse 2. Wireless Door Lock Control Buzzer Switch 3. Door Courtesy Switch 4. Door Key Lock and Unlock Switch 5. Key Unlock Warning Switch 6. Wireless Door Lock Control ECU 7. Wire Harness	(BE-6) (BE-192) (BE-75) (BE-166) (BE-32) (BE-194)
Only door unlock operation is not possible (Lock operation is possible).	1. Door Key Lock and Unlock Switch 2. Door Unlock Detection Switch 3. Wireless Door Lock Control ECU 4. Wire Harness	(BE-166) (BE-173) (BE-194)
Only door lock operation is not possible (Unlock operation is possible).	1. Door Key Lock and Unlock Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-166) (BE-194)
Only key confinement prevention system function is not possible.	1. Key Unlock Warning Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-32) (BE-194)
<ul style="list-style-type: none"> • Wireless door lock function operates even when each door is opened. • Automatic lock function operates even if any door is opened within 30 seconds after all doors are unlocked by wireless door lock control system). 	1. Door Courtesy Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-75) (BE-194)
Wireless door lock functions incorrectly. (Although one door is pressed, all doors unlock.)	1. Door Unlock Detection Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-173) (BE-194)
Automatic lock operation is not possible.	1. Door Key Lock and Unlock Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-166) (BE-194)
"Lock, Unlock" function performed automatically does not operate.	1. Door Unlock Detection Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-173) (BE-194)
"Lock, Unlock" function performed automatically operates even when lock operation is continued.	1. Door Unlock Detection Switch 2. Wireless Door Lock Control ECU 3. Wire Harness	(BE-173) (BE-194)

Trouble	Parts name	(See page)
Wireless door lock operates, but the buzzer does not sound	1. Wireless Door Lock Buzzer	(BE-193)
	2. Wireless Door Lock Control ECU	(BE-194)
	3. Wire Harness	



WIRELESS DOOR LOCK CONTROL BUZZER SWITCH

BE2GD-01

1. INSPECT SWITCH CONTINUITY

Switch position	Tester connection to terminal number	Specified condition
OFF	–	No continuity
ON	1–2	Continuity

If continuity is not as specified, replace the switch.

2. INSPECT SWITCH CIRCUIT

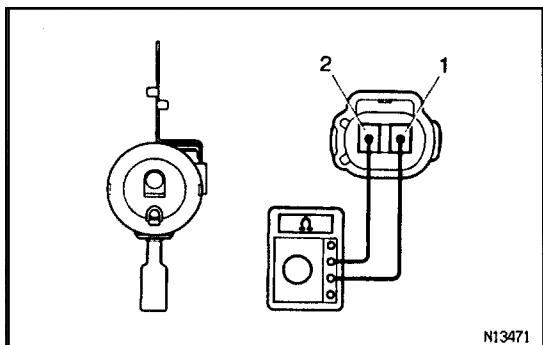
Disconnect the connector from the switch and inspect the connector on the wire harness side, as shown.

Tester connection to terminal number	Condition	Specified condition
2–*1	Constant	Continuity
1–*2	Constant	Continuity

*1: Wireless door lock buzzer

*2: Wireless door lock control ECU

If the circuit is not as specified, inspect the circuits connected to other parts.



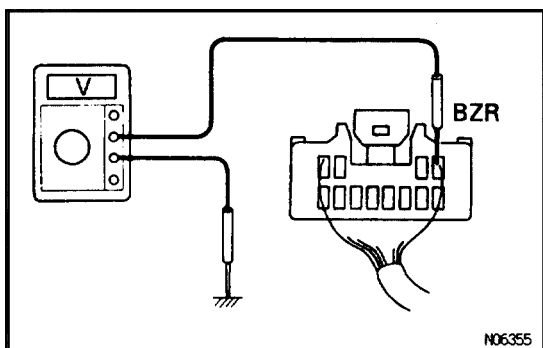
WIRELESS DOOR LOCK BUZZER INSPECTION

BE2GE-01

1. INSPECT BUZZER OPERATION

Connect the positive (+) lead from the ohmmeter to terminal 1 and the negative (-) lead to terminal 2, and measure resistance approx. 1 k Ω .

If resistance is not as specified, replace the buzzer.



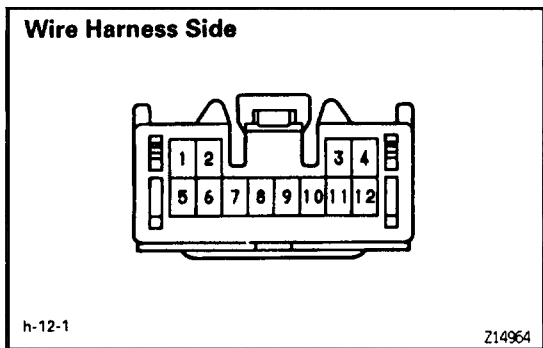
2. INSPECT BUZZER CIRCUIT

Connect the ECU connector.

Measure signal between terminal 1 and body ground, when transmitter in ON and OFF.

Door lock position	Lock	Unlock
Signal	<p>0.13 sec</p> <p>Once</p>	<p>0.13 sec</p> <p>0.25 sec</p> <p>Twice</p>

If the operation is as specified, replace the ECU.



WIRELESS DOOR LOCK CONTROL ECU INSPECTION

BE2GF-01

INSPECT ECU CIRCUIT

Disconnect the connector from the ECU and inspect the connector on the wire harness side, as shown.

Tester connection to terminal number	Condition	Specified condition
1-7	Wireless door lock control buzzer switch OFF	No continuity
1-7	Wireless door lock control buzzer switch ON	Continuity
4-*14	Constant	Continuity
5-*13	Constant	Continuity
6-*5	Constant	Continuity
8-Ground	Ignition key removed (Key unlock warning switch OFF)	No continuity
8-Ground	Ignition key set (Key unlock warning switch ON)	Continuity
9-Ground	Constant	Continuity
10-*4	Constant	Continuity
12-*3	Constant	Continuity
2-Ground	Constant	Battery positive voltage
3-Ground	Ignition switch LOCK or ACC	No voltage
3-Ground	Ignition switch ON	Battery positive voltage

*: 22 Pin connector of body ECU

If the circuit is not as specified, inspect the circuits connected to other parts.