DISCM 04

PRE-CHECK

Wireless function (Remote control) will not operate.

To make the vehicle be in the initialized condition.

Initialized condition is the condition when the following conditions are satisfied.

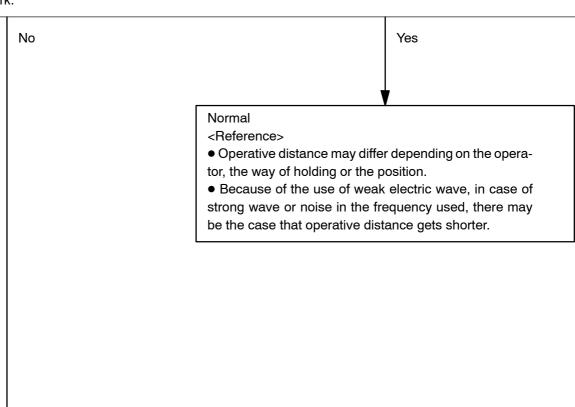
- (1) Key plate has not been inserted in the ignition key cylinder.
- (2) All the doors are closed. (Door warning light is off.)
- (3) All the doors are locked.

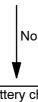
Basic function check

With a standard operation, when repeating the operations of UNLOCK switch and LOCK switch three times or more alternately, check the operation of UNLOCK – LOCK from 3rd time onward.

- Following procedures are standard operation.
- (1) Keep away approx. 1 M to the right direction from the outside handle of a driver's seat.
- (2) Point the transmitter toward the vehicle and press either of transmitter switches for about 1 sec.
- <Reference>

As of the security function, even the wireless function is normal, there may be the case that only UNLOCK operation will not work.





Transmitter battery check:

Charge the transmitter battery to a new or normal one, check UNLOCK operation of the transmitter with the standard operation.

- <Reference>
- New or normal battery is necessary.
- Battery quality can be judged by checking the remnant volume of the battery.

Yes Battery faulty.

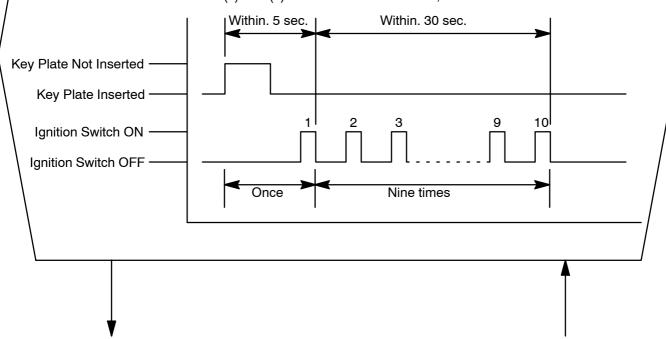
No

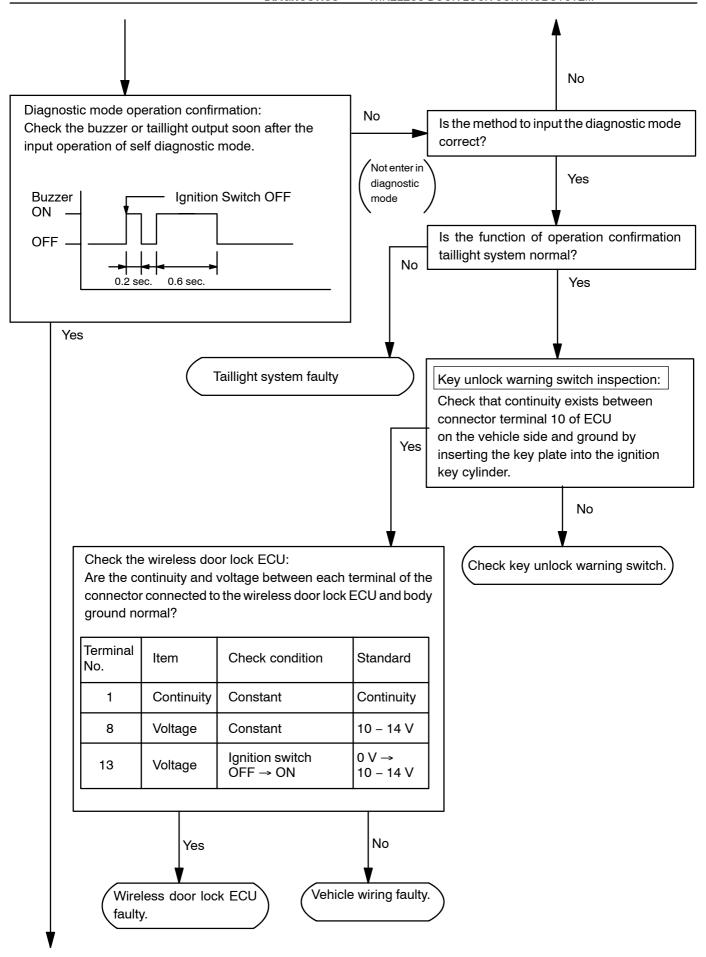
To make the vehicle be in the initialized condition.

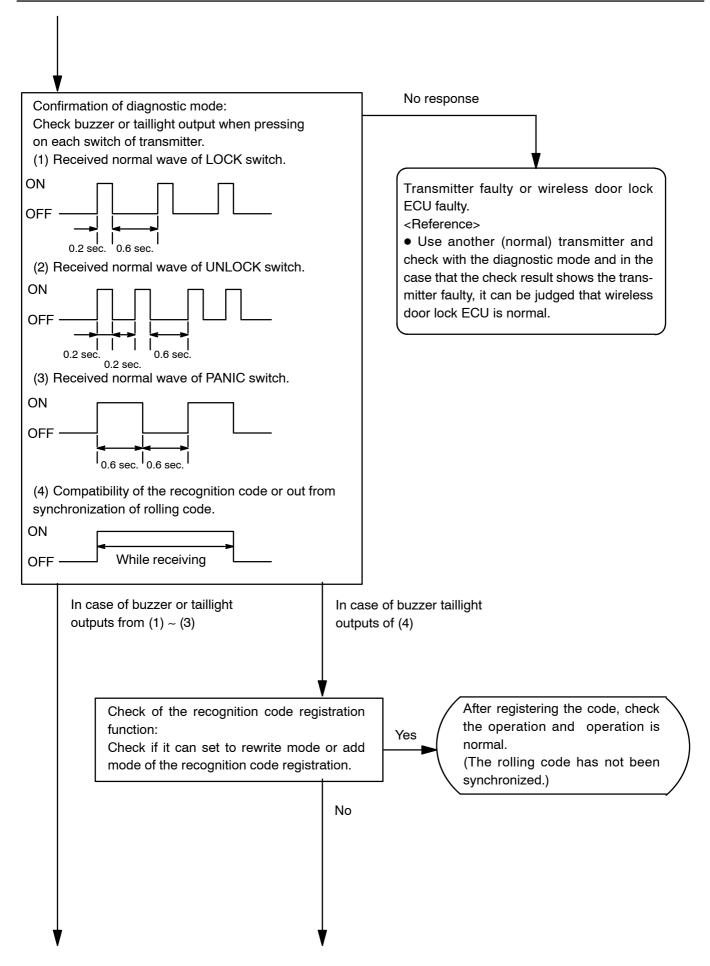
Enter diagnostic mode:

If the operation of the wireless door lock ECU is performed in the order of (1) through (2), the mode turns to diagnostic mode.

- (1) Insert the key plate into the ignition key cylinder and pull out, then insert it again and turn the ignition switch OFF \rightarrow ON \rightarrow OFF 1 time.
- (2) After completing the procedure (1) and within 30 seconds, turn the ignition switch OFF to ON to OFF nine times.
- <Reference>
- In the case that either one of (1) and (2) conditions is not satisfied, transfer to normal mode.







Are the voltage between each terminal of connector connected to the receiver and body ground and locking operation of the electric door normal?

Item	Check condition	Standard
Operation	All door is LOCK → terminal 7 is body ground	All door is UNLOCK operation
11 Voltage	Door control switch OFF → LOCK (manual switch)	0 V → 10 - 14 V → 0 V
	Door control switch OFF → UNLOCK (manual switch)	
Voltage	Ignition switch OFF → ON	0 V → 10 – 14 V
Voltage	All door is closed → either door is opened	0 V → 10 – 14 V
Operation	All door is UNLOCK → terminal 15 is body ground	All door is LOCK operation
	Operation Voltage Voltage	Operation All door is LOCK → terminal 7 is body ground Door control switch OFF → LOCK (manual switch) Door control switch OFF → UNLOCK (manual switch) Voltage Ignition switch OFF → ON Voltage All door is closed → either door is opened All door is UNLOCK →

Yes
Wireless door lock ECU faulty.

Vehicle wiring faulty.

No

Is the wave reaching range normal?

Yes

Keep away approx. 1 m from the vehicle and press the switch of the transmitter. While pressing on the transmitter switch, the buzzer should not keep working on. (If pressing on about 20 secs. auto power off function will operate.)

No

Transmitter faulty or wireless door lock receiver faulty.

<Reference>

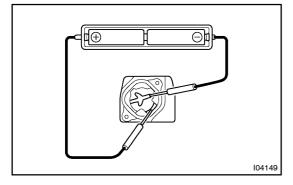
Check the wave reaching range with another transmitter (normal). When the range is normal, transmitter defection is detected, the range is not normal, wireless door lock receiver defection is detected.

1. INSPECT WIRELESS DOOR LOCK TRANSMITTER OPERATION

HINT:

Refer to "3. REPLACE TRANSMITTER (LITHIUM) BATTERY".

- (a) Using a screwdriver, remove the 2 screws and cover.
- (b) Remove the battery (lithium battery).



(c) Install a new or normal battery (lithium battery). HINT:

When a new or normal battery can not be obtained, connect 2 new 1.5 V batteries in series, connect the battery (+) to the battery receptacle side terminal and battery (-) to the bottom terminal, then apply 3 V voltage to the transmitter.

(d) In the location where is approx. 1 M away from driver's outside handle in the right direction, face the key plate of the transmitter to the vehicle, and check the transmitter operation when pressing transmission switch.

Standard:

- Remote control of vehicle door lock can be operated.
- LED lights up more than once.

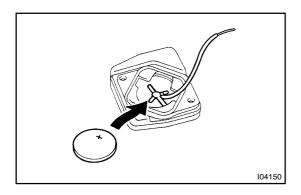
HINT:

- The minimum operation distance differs according to operator, the way of holding the transmitter, and location.
- As weak wave is used, operation distance might be shortened when noise is detected in strong wave or used frequency.
- (e) Install the battery (lithium battery).
- (f) Install a cover so that O-ring is not distorted or slipped off.
- (g) Using a screwdriver, tighten the 2 screws.

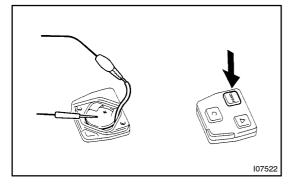
2. CHECK BATTERY CAPACITY

HINT:

- Make sure to use the LEXUS electrical tester.
- With the battery unloaded, judge can not be made whether the battery is available or not on the test.
- When the transmitter is faulty, the energy amount left in the battery might not be checked correctly.
- On the lithium battery used for the transmitter, the voltage more than 2.5 V with the battery unloaded is shown on the tester until the energy is completely consumed. Accordingly when inspecting the energy amount left in the battery, it is necessary to measure the voltage when the battery is loaded. (1.2 $k\Omega$).



- (a) Remove the screws and cover using a (+) driver.
- (b) Remove the battery (lithium battery) from the transmitter.
- (c) Connect the lead to the (-) terminal of the transmitter and install the battery.

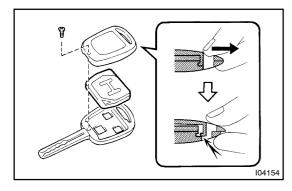


- (d) Connect the (+) tester to the (+) battery (lithium battery), and (-) tester to the lead respectively.
- (e) Press one of the transmitting switches on the transmitter for approx. 1 second.
- (f) Press the transmitting switch on the transmitter again to check the voltage.

Standard: 2.1 V or more

HINT:

- When the temperature of the battery is low, the judge can not be made correctly.
 - When the outcome of the test is less than 2.1 V, conduct the test again after leaving the battery in the place at 18 °C for more than 30 minutes.
- By auto power off function, the voltage becomes no load voltage (more than 2.5 V) condition 20 seconds after the switch was pressed.
 - Make sure to read the voltage before of it.
- High voltage might be shown 1 to 2 times after leaving the battery, judge should be made with the voltage shown at the 3rd time or later.
- (g) Disconnect the lead.
- (h) Set the battery (lithium battery) in the transmitter.
- (i) Install the cover, so that the O-ring is not distorted or slipped off.
- (j) Using a screwdriver, tighten the 2 screws.



3. REPLACE TRANSMITTER (LITHIUM) BATTERY NOTICE:

Special caution should be taken for handling each component as they are precision electronic components.

(a) Using a screwdriver, remove the screw and cover.

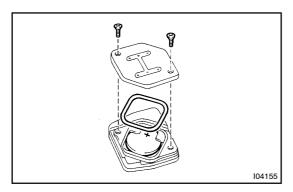
NOTICE:

Do not pry out the cover forcibly.

HINT:

Push the cover with a finger as shown in the illustration, so that there becomes clearance, then pry out the cover from that clearance.

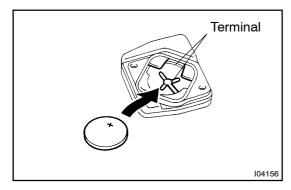
(b) Remove the transmitter.



- (c) Using a screwdriver, remove the 2 screws and cover.
- (d) Remove the battery (lithium battery).

NOTICE:

- Do not push the terminals with a finger.
- If prying up the battery (lithium battery) forcibly to remove, the terminals are deformed.



(e) Install a battery (lithium battery) as shown in the illustration.

NOTICE:

Face the battery upward. Take care not to deform the terminals.

- (f) Check that O-ring is not distorted or slipped off, and install the cover.
- (g) Using a screwdriver, tighten the 2 screws.

NOTICE:

When the shrews are tightened loosely, it might cause faulty contact of battery (lithium battery) and terminals.

- (h) Assemble the transmitter to the key plate and the cover.
- (i) Using a screwdriver, tighten the screw.

4. REPLACE DOOR CONTROL RECEIVER AND TRANS-MITTER

NOTICE:

When replacing the door control receiver and transmitter, registration of recongnition code is necessary because they are provided as single components.

- (a) Select which operation mode should be performed from the following modes.
 - Add mode
 - Rewrite mode
 - Prohibition mode
 - Confirmation mode

HINT:

- The add mode is used to retain codes already registered while you register new recongnition codes. This mode is used when adding a transmitter. However, if the number of registered codes exceeds 4 codes, previously registered codes are correspondingly erased in order, starting from the first registered code.
- The rewrite mode is used to erase all previously registered codes and register only new recognition codes.
- The prohibition mode is used to erase all registered codes and cancels the wireless door lock function. Use this mode when the transmitter is lost.
- The confirmation mode is for confirming how many recongnition codes are already registered before you register additional recognition codes.
- (b) Follow the chart on the following pages to register the transmitter recongnition code at the wireless door lock conrol receiver.

HINT:

- When procedure is out of the specified, the operation returns to normal operation.
- Maximum 4 recognition codes can be registered.

