

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

2009 ACCESSORIES & EQUIPMENT

Garage Door Opener - Highlander

GARAGE DOOR OPENER SYSTEM

SYSTEM DIAGRAM

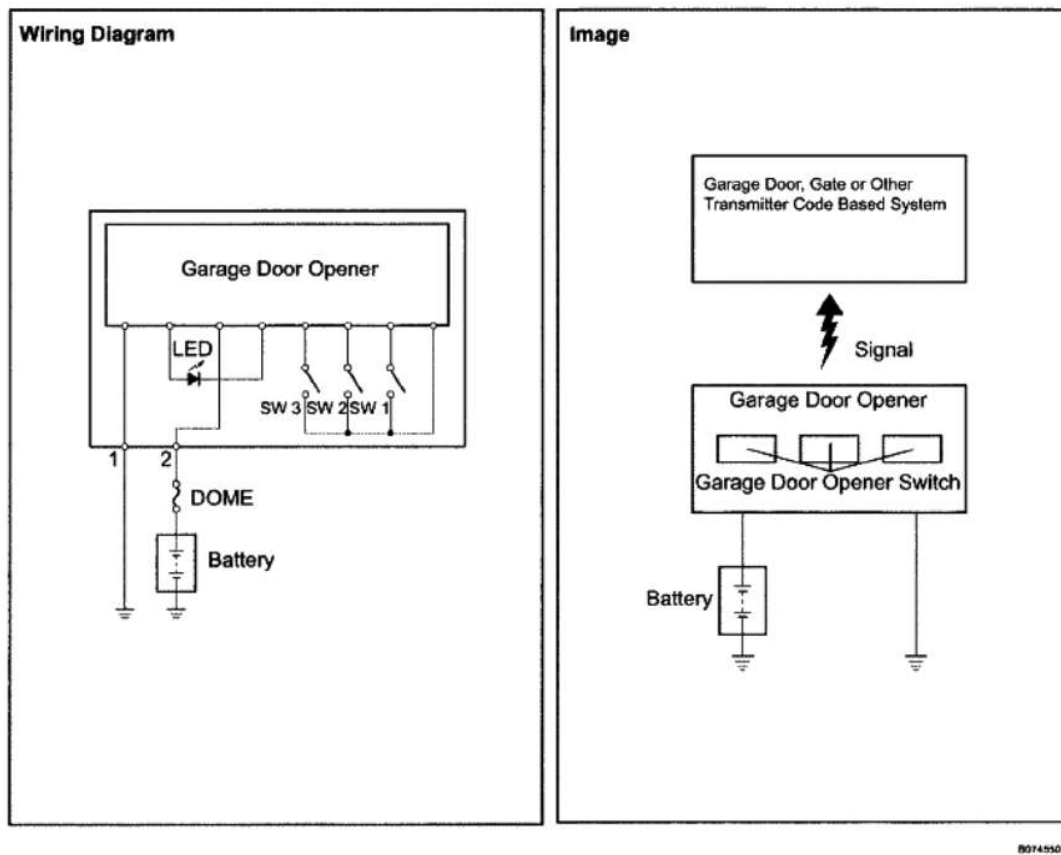


Fig. 1: Garage Door Opener System - Wiring Diagram
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

1. DESCRIPTION

- A maximum of three codes for transmitter code based systems such as garage doors, gates, and entry gates can be registered to the vehicle's garage door opener system. These stored codes can then be used to activate the transmitter controlled systems. It will not be necessary to keep the original handheld transmitters in the vehicle.

REGISTRATION

1. REGISTER TRANSMITTER CODE

HINT:

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

- The vehicle's garage door opener system records transmitter codes for systems such as garage doors, gates, door locks, home lighting systems, security systems, or other transmitter-code based systems.
 - The garage door opener system is built into the roof console box assembly. If the roof console box assembly is replaced, transmitter codes previously registered in the garage door opener system must be re-registered.
 - Ensure that the customer is aware that existing codes may be cleared from the garage door opener system while performing diagnosis of the system. All remotes required to reprogram the system should be made available at the time of inspection or repair of the garage door opener system.
- a. Re-registration of codes in the garage door opener system, (registration mode)

NOTE:

- **When programming a garage door opener system, you may operate a garage door or other device. To prevent injury, it is necessary to make sure that people and objects are out of the way of the garage door or other device.**
- **Before beginning programming of the garage door opener system, turn off the engine and remove the key from the ignition key cylinder.**
- **The garage door opener system cannot be used with openers that:**
 1. **Were manufactured before April 1, 1982.**
 2. **Do not meet Federal Safety Standards (for example, garage doors without a jam protection function).**

HINT:

- 3 transmitter codes can be registered with the garage door opener system. It is possible to register one handheld transmitter code (original transmitter) for each of the three garage door opener system switches.
 - Disconnecting the vehicle's battery will not erase the transmitter codes registered in the garage door opener system.
 - An attempt to overwrite a previously registered code may fail. In this case, the previously registered handheld transmitter code will not be erased.
 - To successfully program the garage door opener system, it may be necessary to replace the handheld transmitter battery before programming.
1. Select one of the garage door opener system switches to program.
 2. Press and hold the selected switch for 20 seconds. The garage door opener system will enter registration mode. Continue to hold this switch during steps 3 and 4.

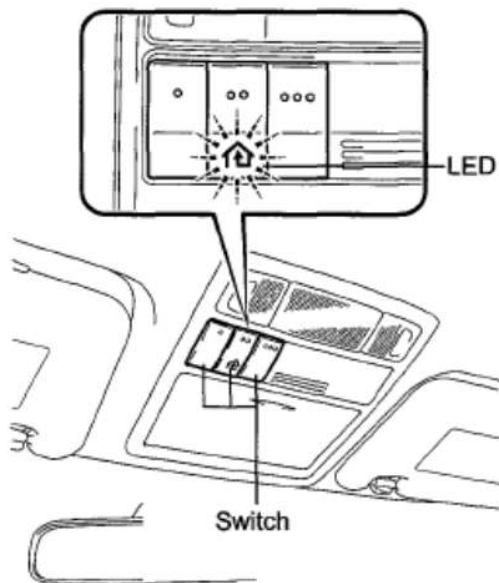
HINT:

The garage door opener system LED should stay on while holding the selected switch for the 20-second period. After entering registration mode, the LED will flash approximately 1 time per second (1 Hz). This indicates that the garage door opener system has entered registration

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

mode and is listening for a code from a handheld transmitter.



P

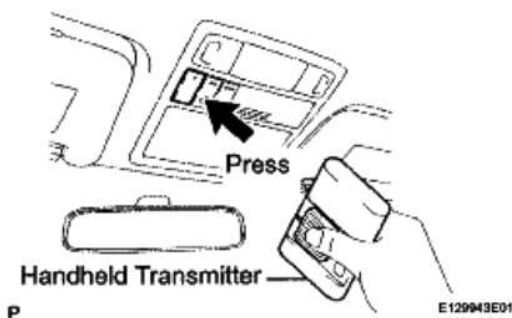
E129941E02

Fig. 2: Identifying Garage Door Opener System Switch Location
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- After the garage door opener system has entered registration mode, bring the original handheld transmitter within 2 to 9 cm (0.7 to 3.5 in.) of the garage door opener system. Press and hold the switch on the handheld transmitter. If the flashing speed of the garage door indicator light changes from the slow speed to a faster speed, proceed to step 4.

HINT:

Some handheld transmitters stop transmitting after 1 to 2 seconds. In this case, continue to hold the selected garage door opener system switch while pressing the handheld transmitter switch for two seconds at a time. Repeat the cycle of pressing and releasing the transmitter switch while monitoring for a change of the flashing speed of the indicator LED.



P

E129943E01

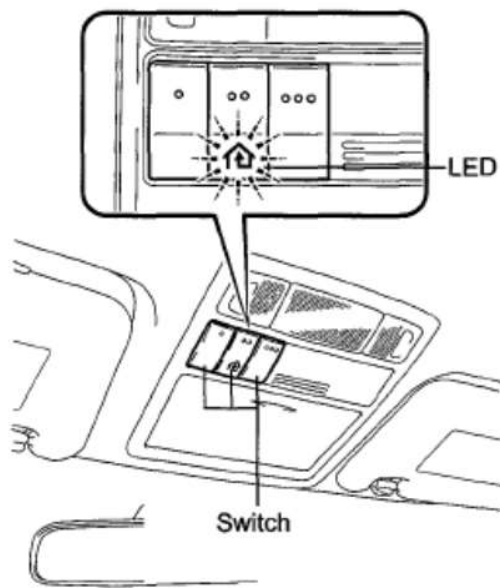
Fig. 3: Pressing And Holding Switch On Handheld Transmitter

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. When the indicator light begins to flash more rapidly, release both switches. This indicates that the garage door opener system has been successfully programmed. If the garage door opener system fails to program, review all hints before trying the programming process again.



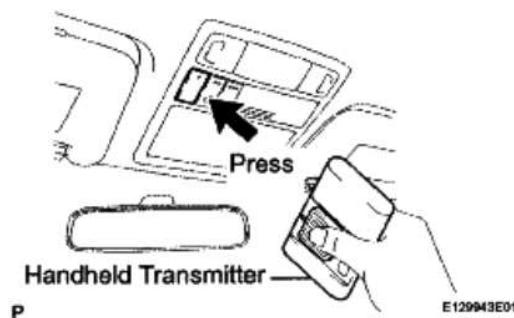
P

E129941E02

Fig. 4: Identifying Garage Door Opener System Switch Location
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

- If transmitter registration fails:
 1. The battery in the handheld transmitter may be weak or need to be replaced.
 2. The handheld transmitter and opener device to be registered may not be compatible with the vehicle's garage door opener system.



P

E129943E01

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

Fig. 5: Pressing And Holding Switch On Handheld Transmitter
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- After entering the garage door opener system registration mode, registration of the handheld transmitter code must be completed within 90 seconds. If 90 seconds have elapsed, the garage door opener system will enter low power mode.
- For first time programming it may be necessary to press and hold the two outer switches until the indicator light begins to flash rapidly. The length of time that it is necessary to hold the switches for in this case should be approximately 20 seconds.
- In some cases, the garage door indicator light may flash slowly (1 time per second (1 Hz)) as soon as the selected garage door opener system switch is pressed. This indicates that the system is ready or "listening" for a code from a handheld transmitter. Continue to hold the switch and proceed from step 3.

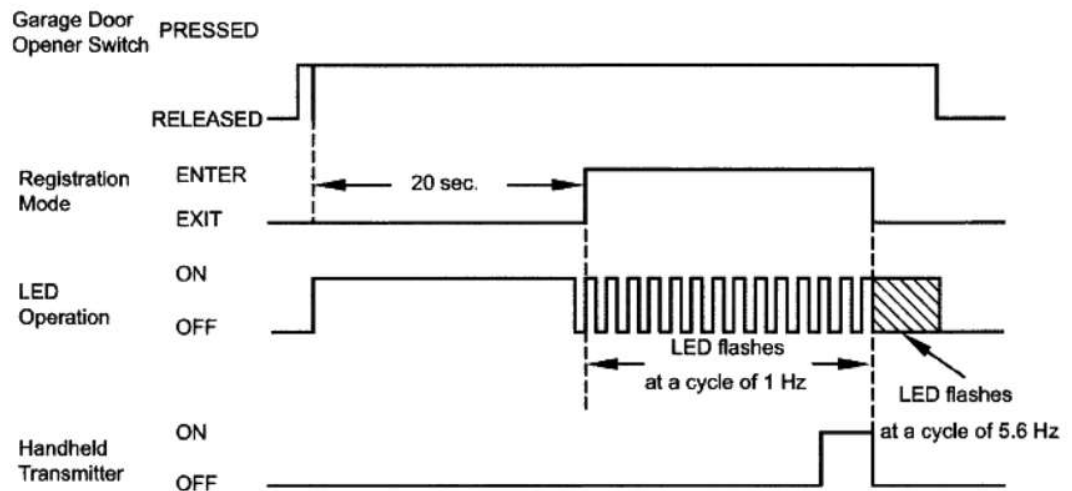


Fig. 6: Garage Door Opener Switch And Registration Mode Timing Pattern
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Erasure of transmitter codes in the garage door opener system, (clear mode)

HINT:

All three codes registered in the garage door opener system will be erased. No option exists for erasing only one transmitter code.

1. Press and hold the left and right switches of the garage door opener system for 20 seconds. The LED will begin to flash approximately 5 times per second (5.6 Hz). This indicates that the codes contained in the vehicle garage door opener system have been erased. Releasing the switches ends clear mode.

HINT:

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

- If the switches are released within 10 seconds after the transmitter codes have been erased, the system will enter registration mode immediately the next time a garage door opener system switch is pressed.
 - If the switches are held for 10 seconds or more after the transmitter codes have been erased, default codes will be set to the three switches of the garage door opener system. These default codes may in some cases be used for training an opener device that uses rolling codes.
- c. Low power mode:
1. If the garage door opener switch is stuck or held for 100 seconds or more, the garage door opener will enter low power mode to economize on power consumption. When the garage door opener has entered low power mode, the LED turns off. When the garage door opener switch is released, low power mode will end.

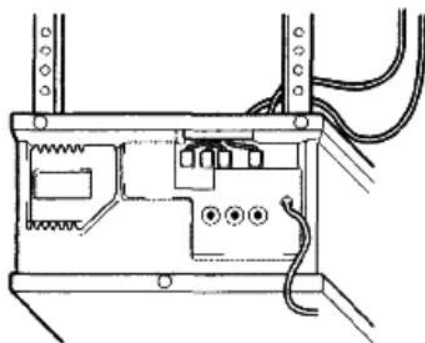
2. ROLLING CODE SYSTEMS

- a. If the handheld transmitter for the opener device (customer's garage door) being programmed uses a rolling code, it may be necessary to "train" the garage door opener device.

HINT:

- "Train" refers to causing the opener device (customer's ceiling mounted garage door opener) to recognize a non-rolling code.
 - The steps required to "train" an opener device may vary depending on the model, type, age, and manufacturer of the device.
1. Locate the "training" button on the opener device.
 2. Press the training button.
 3. Within 30 seconds press and release the vehicle's programmed "HomeLink" switch twice. Some opener devices may require the vehicle's switch to be pressed three times.
 4. The vehicle's garage door opener system should now operate the opener device.

Example:



P

E129942E01

Fig. 7: Identifying Rolling Code Systems

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

HINT:

Opener device refers to a device such as a ceiling mounted garage door opener, which is located at the customer's residence. It is necessary to read the instructions for the customer's opener device, to allow the above procedure to be performed safely and successfully. The customer should be aware that performing this procedure will result in a lowered level of security for the customer's opener device.

INSPECTION

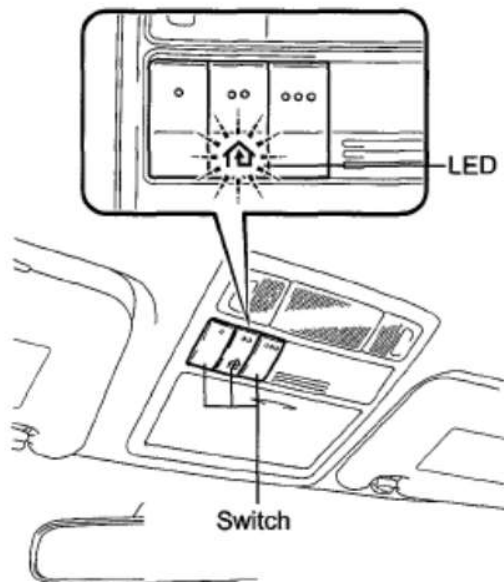
1. INSPECT GARAGE DOOR OPENER

- To inspect the garage door opener system, press each switch and check that the LED in the "HomeLink" logo illuminates as illustrated. If one or more of the switches do not cause the LED to illuminate, confirm that the fuse and the wiring to the garage door opener system unit is normal. If the fuse and wiring are normal, and the LED does not work, replace the garage door opener system unit located in the roof console box assembly.

2. INSPECT GARAGE DOOR OPENER REGISTRATION AND TRANSMITTING OPERATION

HINT:

Use the KENT-MOORE "HomeLink" tester, and the KENT-MOORE handheld transmitter for this test. First erase the customer's transmitter codes, and then register the tester's handheld transmitter code to the garage door opener system.



P

E129941E02

Fig. 8: Identifying Garage Door Opener System Switch Location
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2009 Toyota Highlander Limited**2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander**

- a. Check if the tester's handheld transmitter code was successfully registered.

HINT:

If the handheld transmitter's code cannot be registered, replace the garage door opener system unit.

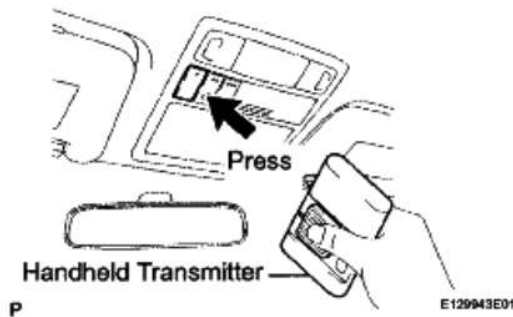


Fig. 9: Pressing And Holding Switch On Handheld Transmitter
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- b. Press the garage door opener switch that was used to copy the signal from the handheld transmitter.

Check if the "HomeLink" tester's green LED illuminates.

HINT:

If the green LED does not illuminate, replace the garage door opener system unit that is located in the roof console box assembly.

- c. When the inspection is complete, re-register the customer's handheld transmitter codes.

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

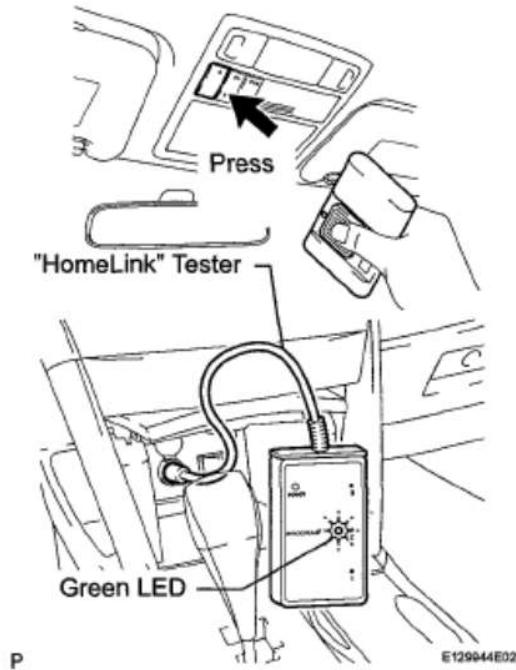
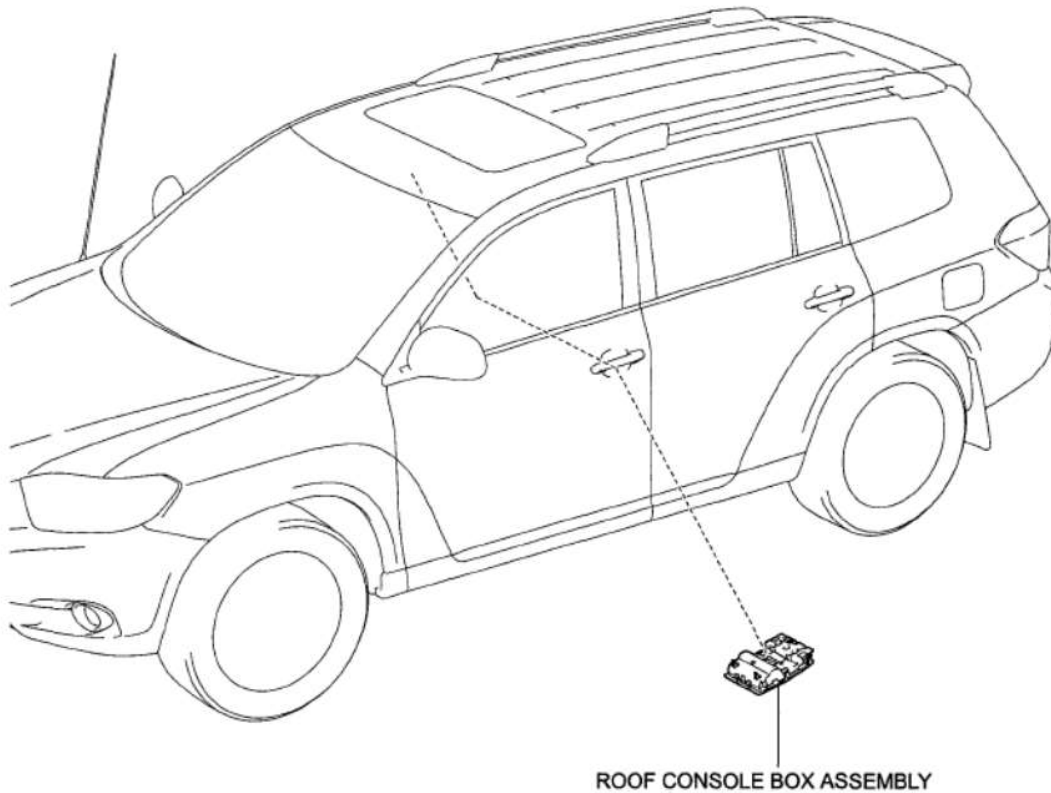


Fig. 10: Pressing Garage Door Opener Switch
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

GARAGE DOOR OPENER SWITCH**COMPONENTS**

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander



P

B172711E01

Fig. 11: Identifying Roof Console Box Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL**1. REMOVE ROOF CONSOLE BOX ASSEMBLY**

- a. Using a moulding remover, disengage the 2 clips, 3 guides, and fastener.
- b. Disconnect the connector and remove the roof console box assembly.

2009 Toyota Highlander Limited

2009 ACCESSORIES & EQUIPMENT Garage Door Opener - Highlander

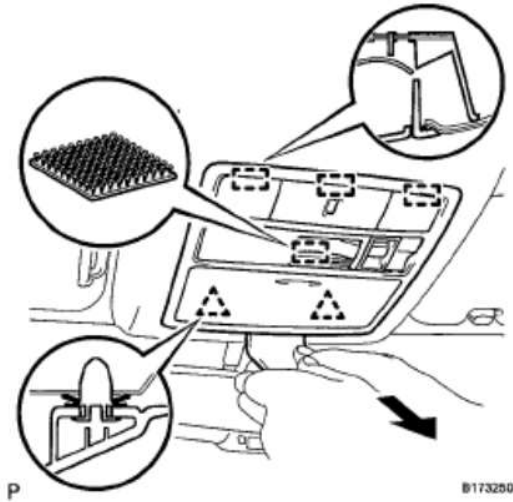


Fig. 12: Removing Roof Console Box Assembly, Clip, Claw And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

INSTALLATION**1. INSTALL ROOF CONSOLE BOX ASSEMBLY**

- a. Connect the connectors.
- b. Engage the 3 guides, 2 clips, and fastener, and install the roof console box assembly.

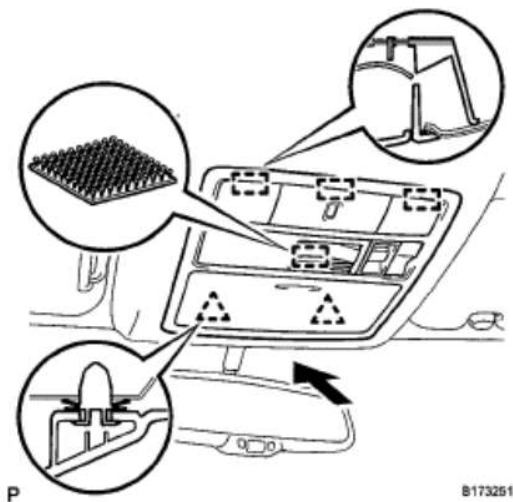


Fig. 13: Installing Roof Console Box Assembly, Clips And Guides
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.