Initializations after Reconnecting the Battery
Quick Training Guide – QT611C

Click the ENTER button to view the Quick Training Guide.
Repair Instruction: Initialization

To find information on systems requiring initialization after reconnecting the battery, look in the General: Introduction section of the Repair Manual under: Repair Instruction: Initialization.

If there is no initialization information in the General section of the Repair Manual, then it may be necessary to test typical systems to be sure they are initialized properly. Refer to: Initialization Basics.

To find information on systems requiring initialization after replacing an ECU or other component, refer to “Repair Instruction: Initialization” or search the applicable Service Category and Section using the keyword “initialization”.

Repair Instruction: Initialization

INITIALIZATION

NOTICE:

When disconnecting the cable from negative (-) battery terminal, initialize the following system(s) after the terminal is reconnected.

The initialization procedures are below the table.

<table>
<thead>
<tr>
<th>SYSTEM NAME</th>
<th>SEE PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Window Control System (for Coupe)</td>
<td>INFO</td>
</tr>
<tr>
<td>Sliding Roof System</td>
<td>INFO</td>
</tr>
</tbody>
</table>

What Happens When the Battery is Disconnected?

When the vehicle’s battery is disconnected, some ECUs will lose information stored in their memory. In some cases, this may also occur if the battery voltage becomes low or if the battery is recharged.

After the battery is reconnected, these systems must be initialized before they can work properly.

Initialization Basics

What Happens When the Battery is Disconnected?

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Customized Settings

When the battery is disconnected, some ECUs will also lose any customized settings that may have been set and stored in their memory.

Before disconnecting the battery, make note of the owner’s customized settings and restore those settings when service is complete.

Why is Initialization Necessary?

Systems with Electric Motors

Systems with electric motors are the most common types of systems that require initialization. Some examples of ECU-controlled motors include:

- Back door closer motor
- Power seat position motor
- Power window motor
- Sliding roof motor

The ECU in such a system stores motor position information relative to the maximum open/closed position of the component it’s moving. When the ECU loses this information, it has to relearn it.

Initialization is the process that allows the ECU to learn the relative positions of the motor and the moving component.

Calibrated Systems

In some systems without motors, the ECU may still need to store information on component position. Examples:

- Compass
- Steering Lock ECU

In these types of systems, initializing the ECU with component position data may be referred to as calibration.

What Systems Require Initialization after the Battery is Reconnected?

For some vehicle models, there are no ECUs or systems that require initialization after reconnecting the battery.

For other vehicle models, the ECUs or systems requiring initialization vary. However, typical systems often needing initialization after losing power include:

- Compass
- Parking Guidance System
- Power Back Door
- Power Door Lock
- Power Seat Control
- Power Slide Door
- Power Window Control
- Sliding Roof
- Steering Lock ECU

Not all of these systems require initialization in every case. Always check the Repair Manual for the vehicle you’re servicing.
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### How Do You Initialize?

Initialization procedures vary widely depending on the vehicle model and the system, as shown in these examples.

**Note:**

These examples are for illustration purposes only. Always refer to the Repair Manual for the vehicle you’re servicing.

#### Example: 2008 Prius Power Window Initialization

If the battery has been disconnected, the “one-touch open and close” and “jam protection” functions of the driver’s door power window will be inoperative due to loss of the driver’s door power window position memory stored in the ECU. Initialization of the driver’s door power window is necessary after the battery is reconnected.

When not initialized, the power window switch for the driver’s door window will blink.

To initialize the power windows:

1. Cycle the ignition to the “IG-ON” position.
2. Push “DOWN” and hold the driver’s door power window switch to completely open the window.
3. Pull “UP” the driver’s door power window switch until the window closes, and hold it for approximately one second.

#### Example: 2011 FJ Cruiser Compass Calibration

When the battery is disconnected/ reconnected, the compass function must be recalibrated. When performing the calibration, do not operate the air conditioner, power windows, or any other electrical system.

1. Turn the ignition switch to ON.
2. Switch the mode to compass correction mode by pushing the SET button for about 2 seconds, until the zone number appears in the outside temperature display.
3. Refer to the map in the Repair Manual to determine the vehicle location and select the relevant zone number by pushing the E/M button.
4. Start the engine. Switch the mode to compass correction mode by pushing the SET button for about 2 seconds, until the zone number appears in the outside temperature display. Push the SET button again to change the mode to turn correction mode.
5. If there is sufficient space, drive the vehicle in a full circle within 2 minutes, at a vehicle speed of 5 mph (8 km/h) or lower.
6. If enough space is not available to drive in a circle, perform a four-point turn within 2 minutes, as shown in the illustration.
7. Check that the COMPASS indicator is not blinking and that the compass is displayed normally.
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What Happens If You Don’t Initialize?
Here are just a few examples of the types of malfunctions that can occur when a system or ECU is not initialized.

Remember that initialization can be required in several circumstances.

- ECU loses connection to power
- ECU is disconnected or replaced
- A system component is disconnected or replaced

After completing any vehicle service that may have affected these systems, verify they are operating properly before returning the vehicle to the customer.

<table>
<thead>
<tr>
<th>If not initialized when required:</th>
<th>Malfunctions may occur in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering Angle Sensor</td>
<td>• Parking Guidance System functions</td>
</tr>
<tr>
<td>Power Door System</td>
<td>• Power back door functions</td>
</tr>
<tr>
<td>Sliding Roof ECU</td>
<td>• Auto operation</td>
</tr>
<tr>
<td></td>
<td>• Jam protection function</td>
</tr>
<tr>
<td></td>
<td>• Operation function after ignition switch is turned off</td>
</tr>
<tr>
<td>Power Window Control System</td>
<td>• Auto operation</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Power Door Lock Control System</td>
<td>• Back door lock</td>
</tr>
<tr>
<td>Steering Lock ECU</td>
<td>• Starting system (will not start)</td>
</tr>
<tr>
<td>Power Seat Control System</td>
<td>• Power seat functions</td>
</tr>
</tbody>
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Customized Settings