

## NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2]

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### Warning

- Before removing the SRS air bag system-related parts, always disconnect the negative battery cable terminal and wait for 1 min. or more to allow the back-up power supply to deplete its stored power. (See AIR BAG SYSTEM SERVICE WARNINGS.)

### Caution

- With the battery connected and the ignition switched ON, or if servicing is performed for a long period (10 min or more) with the ignition switched off.

### Required procedure after negative battery cable terminal disconnection/connection

System name	Conditions after disconnecting the negative battery cable terminal	Required procedure		Reference
		Before disconnecting negative battery cable terminal	After connecting negative battery cable terminal	
Power window system	Reset to initial setting and auto-function is disabled.	—	Perform the power window system initial setting.	(See POWER WINDOW SYSTEM INITIALIZATION PROCEDURE.)
Sunroof system	Reset to initial setting and function is disabled.	—	Perform the sunroof system initial setting.	(See SUNROOF SYSTEM INITIALIZATION PROCEDURE.)
Clock and audio	Clock display and audio system memory are reset.	Verify the setting content.	Set the verified content before disconnecting negative battery cable terminal.	—
i-stop system	Specified information in the PCM cleared and the i-stop does not operate normally.	Verify PID "BATT_SOC" value and record. *1	Perform battery condition initial setting (i-stop setting). *2	(See BATTERY CONDITION INITIALIZATION SETTING (i-stop SETTING) [SKYACTIV-D 2.2].)
Tire pressure monitoring system (TPMS)	The tire pressure monitoring system detection accuracy decreases.	—	Perform the tire pressure monitoring system initialization.	(See TIRE PRESSURE MONITORING SYSTEM INITIALIZATION PROCEDURE.)

\*1 : Because the "BATT\_SOC" value before disconnecting the negative battery cable terminal is required for the battery condition initial setting (i-stop setting), record the "BATT\_SOC" value before disconnecting the negative battery cable terminal.

\*2 : For vehicles with i-stop, if the negative battery cable terminal is disconnected and re-connected, battery condition initial setting (i-stop setting) must be performed.

### Negative Battery Cable Terminal Disconnection

1. Connect the M-MDS to the DLC-2.
2. Switch the ignition ON (engine off).
3. Verify the "BATT\_SOC" value using the M-MDS data logger function. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].)
4. Record the "BATT\_SOC" value.
  - "BATT\_SOC" value is less than 75%
    - Inspect the battery. (See BATTERY INSPECTION [SKYACTIV-D 2.2].)
  - "BATT\_SOC" value is 75% or more
    - Go to the next step.
5. Switch the ignition off.

### Caution

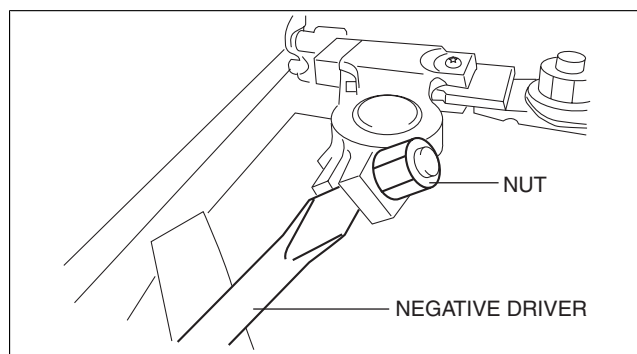
- If the nut for the current sensor is loosened with the negative battery cable terminal connected to the battery, excessive torque will be applied to the negative battery cable terminal and the battery terminal will be damaged. When removing the negative battery cable terminal and current sensor, be careful not to damage the battery terminal.
- Be careful not to contact the positive battery cable terminal.

6. Disconnect the current sensor connector.

### Note

- The positive battery cable nut cannot be removed to prevent it from falling off.

7. Disconnect the negative battery cable terminal.
- When disconnecting the plastic deformed negative battery cable, expand the gap of the negative battery terminal using a flathead screwdriver, and remove the nut.



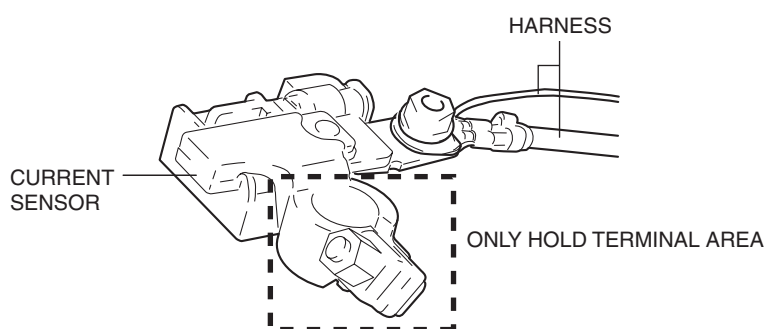
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## Negative Battery Cable Terminal Connection

### Caution

- Connect the negative battery cable before connecting the current sensor connector. If the current sensor connector is connected first, the PCM may mistakenly recognize a signal from the current sensor and learn the battery condition incorrectly.
- Verifying the tightness while holding the current sensor may apply excessive force to the terminal and the terminal could loosen, causing poor engine starting. When verifying the tightness of the negative battery cable terminal, only hold the terminal area, not the current sensor.

### VERIFICATION OF NEGATIVE BATTERY CABLE TERMINAL TIGHTENING



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1. Perform battery condition initial setting (i-stop setting). (See BATTERY CONDITION INITIALIZATION SETTING (i-stop SETTING) [SKYACTIV-D 2.2].)

### Note

- Connection of the negative battery cable terminal and the current sensor connector will be done in the battery condition initial setting (i-stop setting) procedure.

2. Perform services not related to i-stop control which are required after connecting the negative battery cable terminal. (See Required procedure after negative battery cable terminal disconnection/connection.)