

BMW

2010-11 328i

PRECAUTIONS

Warning: Batteries produce explosive gases that may cause personal injury. Do not expose the battery to flame or sparks. Always provide adequate ventilation. Do not smoke when working near batteries. Do not place tools or any similar object on the battery.

Warning: Do not allow any battery acid to come into contact with the eyes, the skin or clothing. Wear protective clothing, gloves and eye protection. Do not tilt the battery, acid may leak from the vent hole.

Warning: If acid is splashed into the eyes, rinse them immediately for several minutes with clear water and consult a doctor immediately. Seek medical attention immediately if battery acid is accidentally swallowed. If acid is splashed onto the skin or clothing, neutralize it immediately with a soap solution and rinse with lots of water.

On vehicles equipped with Intelligent Battery Sensor (IBS), do not under any circumstances release socket-head cap screw of IBS. Do not establish any connection between the IBS and the sensor screw.

The IBS and wiring can be destroyed by mechanical strain during battery replacement. Do not use force when disconnecting the pole shoe from the battery terminal. Do not pull on the ground cable. Do not place any tools under the IBS to lever off the pole shoe. Do not use IBS connections as levers.

On vehicles with radio code, the radio code must be re-entered after disconnecting the battery. Note stored stations and restore them after connecting the battery. Stored settings of the on-board computer and clock will also be lost. All available central keys must be re-coded for vehicles with first generation infrared transmitter locking systems. DTCs may be set in some control units after battery is connected.

BATTERY Removal

Disconnect battery ground cable first, followed by battery positive cable. Do not disconnect battery leads while engine is running.

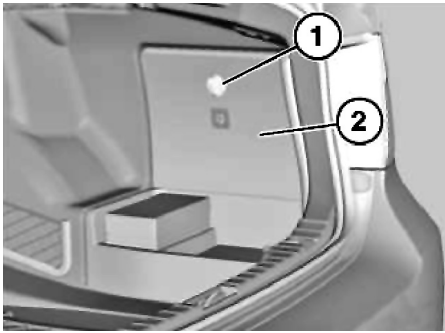
1. Verify that ignition and all other electrical loads are "OFF."
2. Lift handle and remove luggage compartment floor trim panel if equipped.

3. Turn fastener (1) 90° to left, open flap (2) in luggage compartment trim and remove, **Fig. 1**.
4. Disconnect battery ground cable. Do not pull cable or pry off IBS using force.
5. Remove mounting screws and battery to luggage compartment tray bracket.
6. Remove power distributor mounted on battery as follows:
 - a. Disconnect plug connection (1), **Fig. 2**.
 - b. Unlock plug housing (2), and release in direction of arrow, **Fig. 2**.
 - c. Lift up covers on nuts (3), **Fig. 2**.
 - d. Unscrew nuts (3), **Fig. 2**.
 - e. Disconnect plug connection (4), **Fig. 2**.
 - f. Disconnect plug connection of IBS cable (5), **Fig. 2**.
 - g. Press locking brackets (2) downwards and unclip. If required, use a screwdriver (1) to expand locking bracket (2) at lower end, **Fig. 3**.
 - h. Remove power distributor (3), **Fig. 3**.
7. Unlock positive terminal cover and remove.
8. Detach vent (1) in direction of arrow, **Fig. 4**.
9. Loosen nut (6) and detach positive battery terminal (2), then lay to one side and secure, **Fig. 4**.
10. Release threaded pin (5) and remove holder (4), **Fig. 4**.
11. Fold back both bar fasteners (3), pull battery towards rear out of battery tray, and lift out battery, **Fig. 4**.
- e. Install nuts (3) and **torque** to 133 inch lbs., **Fig. 2**.
- f. Install covers over nuts (3), **Fig. 2**.
- g. Install plug housing (2), **Fig. 2**.
- h. Connect plug connection (1), **Fig. 2**.
8. Install battery to luggage compartment tray bracket and mounting screws. **Torque** mounting screws to 71 inch lbs.
9. Connect battery ground cable. **Torque** battery cable clamp nut to 44 inch lbs.
10. Install luggage compartment trim.
11. After connecting vehicle battery, carry out the following procedure for setting steering angle:
 - a. Start engine.
 - b. Turn steering wheel to driver side until full lock is reached.
 - c. Turn steering wheel to passenger side until full lock is reached.
 - d. Turn steering wheel to center position.
 - e. Turn off engine.
 - f. Turn on ignition, verify that AFS light and "Check Control" message go out.
12. Power window initialization for front door windows must be performed after battery has been connected. Initialize power windows as follows:
 - a. Open door window glass completely.
 - b. Hold power window switch in "Open" position for 15–20 seconds.
 - c. Close door window glass completely.
 - d. After door window glass has closed completely, release switch and then hold switch in "Close" position for approximately one second.
 - e. Open door window glass completely.
 - f. After door window glass has opened completely, release switch and then hold switch in "Open" position for approximately one second.
 - g. Close door window glass completely.
 - h. After door window glass has closed completely, release switch and then hold switch in "Close" position for approximately one second.
 - i. Verify operation of one-touch control function, anti-trapping protection, and comfort function.
 - j. Repeat procedure for opposite window.
13. Install a suitably programmed scan tool, and follow manufacturer instructions to clear DTCs that may have been set when battery was disconnected.

Installation

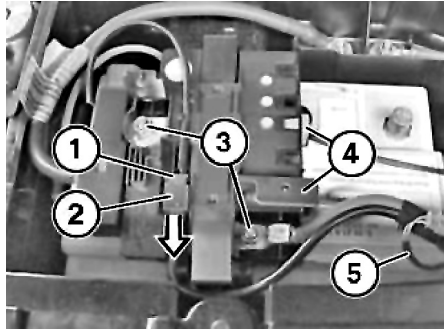
When installing a new battery in vehicles equipped with IBS, replacement battery information may need to be programmed into the vehicle data in accordance with specifications.

1. Position battery in vehicle, and verify that battery is correctly seated.
2. Install both bar fasteners (3), **Fig. 4**.
3. Install battery retaining bracket (4) and threaded pin (5), **Fig. 4**. Tighten as required.
4. Connect positive battery terminal (2), **torque** terminal nut to 44 inch lbs., and replace cover (2), **Fig. 4**.
5. Connect battery vent hose (1), **Fig. 4**.
6. Install positive terminal cover and lock in place.
7. Install power distributor as follows:
 - a. Position power distributor on battery.
 - b. Connect locking brackets (2) and lock in place, **Fig. 3**.
 - c. Connect plug connection of IBS cable (5), **Fig. 2**.
 - d. Connect plug connection (4), **Fig. 2**.



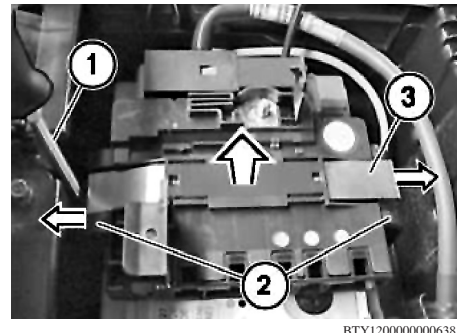
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Fig. 1 Battery cover flap removal



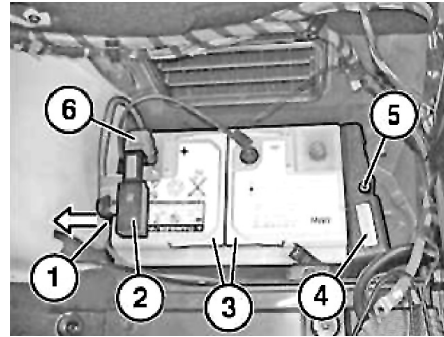
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Fig. 2 Power distributor removal



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Fig. 3 Power distributor removal



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Fig. 4 Battery removal

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