

# BMW

## 2010-13 128i

### 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, or 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.

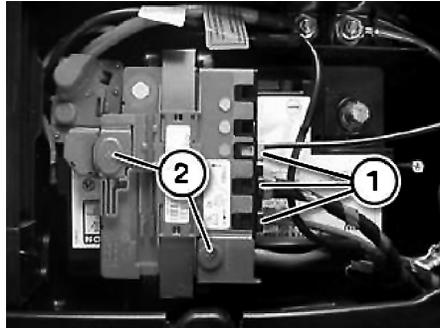
The IBS and wiring can be destroyed by mechanical strain during battery replacement. Do not use force when disconnecting the pole shoe from the battery terminal. Do not pull on the ground cable. Do not place any tools under the IBS to lever off the pole shoe. Do not use IBS connections as levers.

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. Remove luggage compartment floor trim.



**Fig. 1 Power distributor mounting fastener removal**

3. Disconnect battery ground cable. Do not pull cable or pry off IBS using force.
4. Remove trim components as required to access power distributor mounted on battery.
5. Remove power distributor as follows:
  - a. Remove mounting screws and battery to luggage compartment tray bracket.
  - b. Disconnect electrical connector (1). If required, release wiring harness fasteners from power distributor, **Fig. 1**.
  - c. Open covers and remove power distributor mounting fasteners (2), **Fig. 1**.
  - d. Unclip locking brackets (2) by pressing downward, then remove power distributor (3), **Fig. 2**.
6. Detach battery vent hose (1), **Fig. 3**.
7. Open cover (2), loosen nut, and detach positive battery terminal (3), then lay it to one side and secure, **Fig. 3**. Do not pull or pry positive battery terminal off by force.
8. Remove threaded pin (4), and remove battery retaining bracket, **Fig. 3**.
9. Remove battery towards righthand side.

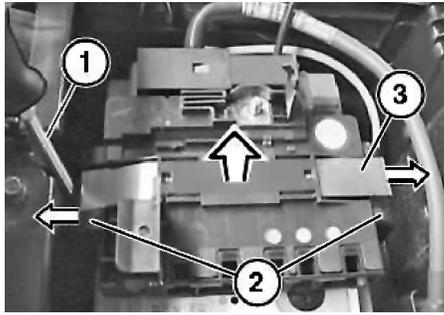
### Installation

Battery cables are routed through openings in the battery container cover. Install both battery leads so that they run at a 90° angle to the battery container.

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.

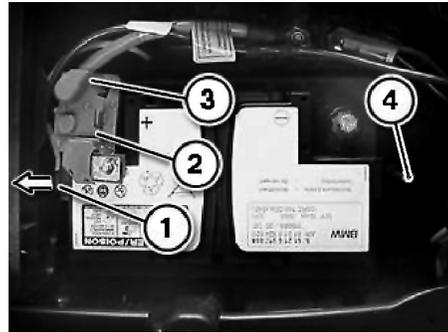
1. Position battery in vehicle.

2. Install battery retaining bracket and threaded pin (4), **Fig. 3**. Tighten as required.
3. Connect positive battery terminal, and **torque** terminal nut to 44 inch lbs.
4. Replace cover (2), **Fig. 3**.
5. Connect battery vent hose (1), **Fig. 3**.
6. Install power distributor as follows:
  - a. Install power distributor and clip locking brackets (3), **Fig. 2**.
  - b. Install power distributor mounting fasteners (2), **torque** fasteners to 133 inch lbs., and replace covers, **Fig. 1**.
  - c. Connect power distributor electrical connector (1). If removed, connect wiring harness fasteners to power distributor, **Fig. 1**.
7. Install battery to luggage compartment tray bracket. **Torque** mounting screws to 71 inch lbs.
8. Install trim components removed to access power distributor mounted on battery.
9. Connect battery ground cable. **Torque** battery cable clamp nut to 44 inch lbs.
10. Install luggage compartment floor trim.
11. Install a suitably programmed scan tool, and follow manufacturer instructions to clear DTCs that may have been set when battery was disconnected.
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.



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**Fig. 2 Power distributor removal**



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**Fig. 3 Battery removal**

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