



Alternators, Starters & Parts

Service Recommendations After Replacing the BSG Unit

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After installing the BSG unit in the vehicle, the following inspection and service tasks must be performed. This ensures proper system operation, prevents secondary failures, and extends component life.

1. Cooling System Check

Before starting the engine for the first time, check that the cooling system is fault-free and properly filled. Specifically, inspect: fan, radiator, coolant level, water pump (belt-driven mechanical and auxiliary electric), thermostat.

2. Cooling System Bleeding

A complete bleeding procedure of the cooling system is necessary.

- Recommended method: vacuum bleeding - more effective than diagnostic tool bleeding.
- Note: the computer procedure only covers the engine cooling circuit, not the full circuit including the BSG unit.

3. Electrical System Check

Verify the electrical installation, paying special attention to:

- condition and cleanliness of connectors and wiring harnesses,
- the 48V battery should be charged to at least 70% capacity.

Incorrect charge level may cause BSG product errors and actual risk of unit damage.

4. Drive Belt and Pulley Check

When replacing the BSG unit, inspect the condition of the multi-ribbed belt and guide pulleys.

- If worn or cracked - replacement is recommended.
- Improper tension or belt damage may cause excessive load on the BSG unit.

5. Post-Installation Diagnostic Test

After the above tasks, run a full diagnostic test using appropriate software (e.g., VCDS, ODIS).

- Check for any errors in control units.
- Verify correct communication between the BSG unit and other vehicle modules.

6. BSG Unit Calibration/Adaptation

Depending on the vehicle model and controller version, calibration/adaptation of the unit may be required.

- Information on adaptation requirements is in the Audi service documentation.

7. Start/Stop System Function Check

After installation and diagnostics, verify correct operation of the Start/Stop system. Proper system behavior should include:

- No warning messages on the dashboard - no fault indicators (e.g., "check engine," 48V battery, electrical system, or cooling system errors). Any such messages require re-diagnosis.
- Smooth switching between engine running and stop modes - the system should automatically turn off the engine when the vehicle stops (e.g., at traffic lights) and restart it when the brake pedal is released or the accelerator is pressed. This should happen without jerks, delays, or unusual vibrations.

8. Software Update

Visit an authorized Audi service center to:

- check for the latest BSG controller software availability,
- perform firmware updates that improve system stability and integration.

These service recommendations supplement the BSG unit replacement procedure. Their correct execution minimizes the risk of repeated failures and ensures proper integration of the component with the vehicle.