



Battery Safety Operation

Personal Protective Equipment

- Basic personal protective equipment includes steel-toed safety shoes, gauze gloves or cotton gloves, and safety goggles.
- When handling the battery, use leg strength, keep your back straight, and avoid bending at the waist.
- Avoid placing hands near pinch points on the bottom and sides.
- Ensure hands and the battery surface are free from oil or other slippery substances.
- Use both hands to carry, first attempt to lift, and ensure a reliable grip.
- Confirm the battery is free from leaks and the surface is acid-free before handling; avoid tilting the battery, and handle it gently.

Battery Storage

- Store batteries in well-ventilated, dry areas.
 - Avoid metal floors or other potential metal contact surfaces in the storage area to prevent short circuits if the battery tips over.
 - Avoid contact with internal substances if the battery casing is damaged.
 - The storage area must be free from activities that may produce flames, sparks, or high temperatures, and smoking is prohibited.
 - Keep batteries away from metal objects to prevent short-circuit hazards between the positive and negative terminals.

Battery Inspection

- Wear safety goggles when inspecting the battery.
- Ensure correct polarity connection during inspection and always connect the positive terminal first, then the negative.
- Do not use test leads with exposed internal wires.
- Do not inspect the battery while it is charging.
- It is recommended to let the battery sit for 24 hours after charging before performing any inspection.



Battery Charging

- Wear gloves and safety goggles during charging.
 - The environment should be cool, well-ventilated, dry, and clean, away from sparks, and free from smoking; avoid direct sunlight.
 - Do not charge batteries of different manufacturers, models, or batches together.
 - Clean terminals, ensure correct polarity connections, and reliable contact.
 - If acid spray, overheating, or liquid shortage occurs, stop charging and identify the cause.
 - After charging, turn off the charger switch before disconnecting the battery's charging cable.
 - If charging overnight without supervision, turn off the charger and disconnect the cables, then resume charging during the day.
 - Test the battery voltage 24 hours after charging to avoid false voltage readings.



Battery Installation

- Wear safety goggles and protective gloves during installation.
- Engage the handbrake, open the windows to prevent accidents, and ensure the engine and all onboard electrical equipment are off.
- Do not replace the battery while the engine is running.
- When removing or installing the battery, disconnect the negative terminal first, then the positive terminal. During installation, connect the positive terminal first, then the negative, and ensure the positive cable does not contact any metal parts of the vehicle.
- For uninterrupted battery replacement, connect the positive terminal first, then the negative. When disconnecting, remove the negative terminal first, then the positive, and ensure the external power source is connected correctly (positive to positive, negative to negative).
- Handle the battery gently when removing or installing. Before closing the engine compartment, ensure no tools are left inside.



Emergency Handling

- Contain materials to prevent spreading; absorb small leaks with sand or vermiculite. Do not use combustible materials. If possible, neutralize spilled acid carefully with soda ash/baking soda/lime.
- Emergency personnel should wear acid-resistant clothing, boots, gloves, and face shields.
- If acid splashes into the eyes, rinse with running water for at least 15 minutes and seek medical attention promptly.
- Do not allow untreated acid to enter the sewer system. Acid disposal should comply with local regulations; consult environmental agencies for requirements.

Powering today, into tomorrow.

Thank You



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