

Battery care & maintenance[^]

Lead acid batteries are perishable items that have a finite lifespan. Taking good care of a battery can significantly extend its service life and prevent early battery failure. Regular testing and inspection is key, ensuring maximum battery life & optimum performance.

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Examining a battery

A routine inspection at least once a month is recommended to maintain optimum performance of a battery. Use the following points as a guide when examining a battery:

1. Ensure the battery top is clean, dry, free of dirt and grime.

Dirt particles that collect on the top of the battery can become a medium for moisture. This moisture can create a conductive electrical pathway from one battery terminal to the other, increasing self-discharge and the build up sulphation. This will reduce the capacity and life of the battery.

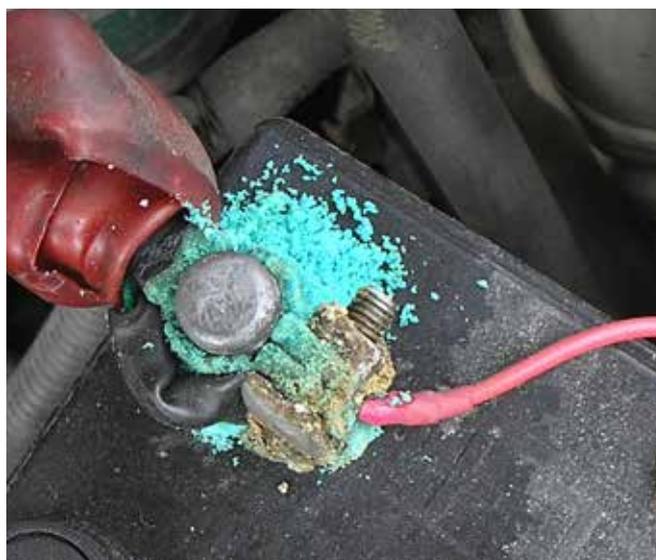
2. Inspect the terminals, screws, clamps, cables and leads for breakage, damage, corrosion or loose connections.

The battery terminals must be clean, secure and free of corrosion. If either or both terminals, including the nuts, have been tampered with or show heavy signs of corrosion, they must be replaced. Light corrosion can be addressed by cleaning the excess corrosion with warm water and an acid neutraliser, then cleaning with a terminal brush. Applying a terminal spray or a thin coating of high temperature grease to the posts and cable connections will provide added protection against corrosion and oxidation.

If there is evidence of corrosion on the cables leading to the moulded lead terminals, replace the leads. This build-up of corrosion will increase the internal resistance, causing a voltage drop that will reduce the current from the battery to the starter motor.

3. Check for any physical damage to the case or cover

Inspect the battery case for obvious signs of physical damage or warpage. A bulging case usually indicates the battery has overheated or has been overcharged. Check for signs of leakage, as stones and debris can get lodged in the battery tray and wear through the battery case.



[^]Always follow manufacturer's guidelines



REMEMBER:

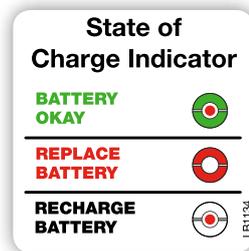
Battery acid can cause burns. Suitable hand, eye and face

protection and protective clothing must be worn at all times. It is highly recommended to wear PPE (Personal Protection Equipment) including safety glasses, chemical resistant gloves and overalls. When working with lead-acid batteries, all personal metal items such as rings, bracelets, necklaces, watches must be removed to make sure the battery terminals don't short circuit with any type of metal tool, piece of jewellery or other conductors as this will cause an explosion.

4. Check the battery's State of Charge.

Most maintainable batteries have a water indicator on top of the battery that gives an on the spot diagnosis of the battery condition. However, a more reliable way to check is with a voltmeter, to determine the stabilised voltage, or a hydrometer, to determine the specific gravity (SG) of the electrolyte. A charged 12V battery from Century Yuasa will have a stabilised voltage above 12.5 volts and an SG reading above 1.240.

When servicing an SMF (Sealed Maintenance Free) battery, check the SOC (State of Charge) Indicator to see if the battery is okay, needs to be charged or requires replacement. It is important that the battery is replaced if the electrolyte levels are low as exposed battery plates increases the risk of an internal explosion.



5. If the battery is maintainable, check if the battery has sufficient electrolyte covering the battery plates.

If topping up is required, do not over fill as the fluid levels will rise when the battery is fully charged and may overflow. Top up using distilled or demineralised water and never fill with sulphuric acid.

6. For batteries used in seasonal applications and stored long term, fully recharge the battery prior to storing.

Check the state of charge or voltage regularly. Should the voltage of a 12V battery drop below 12.5V, recharge the battery. It is important to check the battery completely before reconnecting to electrical devices.

Battery Facts & Myths: True or False?

When a vehicle is not driven regularly, the battery will go flat.

TRUE - All batteries have a self-discharge rate, which means that they will naturally lose some of their charge whether the battery is used or not. If a vehicle is not driven, the battery will become fully discharged over time. To avoid this, a maintenance charger can be connected to the battery; this will help keep the battery in good condition.

If the battery is flat, going for a drive will recharge the battery.

FALSE - It is a common misconception to think that going for a drive or idling the engine will recover a flat battery. Alternators are designed to maintain batteries close to a full state of charge. 'Surface' charging or continuous undercharging will in fact lower the capacity of the battery over time and shorten its life. To restore a flat battery's charge, use an appropriate multi-stage battery charger.



Dispose of your battery responsibly and help create a cleaner future. Simply call 1300 650 702 (Australia) or 0800 93 93 93 (New Zealand). Alternatively, visit recycleMYbattery.com.au or www.cyb.co.nz to find your nearest Battery Recycling Centre.



For more information contact your Century Yuasa representative on 1300 362 287 (Australia) or 0800 93 93 93 (New Zealand). Alternatively, visit our website www.cyb.com.au or www.cyb.co.nz

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