

End-of-Life, Take-Back and Recycling Information

Information on the prevention and management of waste batteries — Regulation (EU) 2023/1542, Article 74(1), points (a) to (f) · ATB valve-regulated lead-acid (VRLA) batteries, AGM and GEL ranges

Issued by **ATB Power Limited** · atbpower.com · info@atbpower.com

This information is provided by **ATB Power** for end-users and distributors of ATB lead-acid batteries and is accessible through the QR code marked on the battery. It applies to all ATB valve-regulated lead-acid batteries, AGM and GEL ranges.

a Your role in preventing waste: extending the life of the battery

- **Charge it correctly.** Use a constant-voltage, current-limited charger with the right profile. Per 12 V battery at 25 °C: AGM float (standby) 13.5–13.8 V, cyclic (boost) 14.4–14.7 V, maximum charge current $0.30 \times C_{20}$ A; GEL float 13.6–13.8 V, cyclic 14.1–14.4 V, maximum $0.20 \times C_{20}$ A. Use half these voltages for 6 V batteries and the per-cell figures for 2 V cells. Correct the voltage by –4 mV per cell per °C above 25 °C (+4 mV below). Never use an equalisation charge on a sealed battery.
- **Avoid deep discharge and long storage in a discharged state.** Recharge promptly after use; in storage recharge before the open-circuit voltage falls below 12.4 V (12 V battery) and at least every six months. Sulphation from prolonged discharge permanently reduces capacity.
- **Keep it cool.** The best service life is obtained at 20–25 °C. Sustained operation about 10 °C above 25 °C roughly halves float service life.
- **Keep connections clean and tight** (typical torque: M5 3–4 N·m; M6 5–6 N·m; M8 9–11 N·m) and check float voltage at every inspection. A battery that still delivers more than 80 % of its rated capacity is normally fit for continued service.
- **Re-use.** A battery removed from equipment in working condition can be tested (open-circuit voltage, capacity) and re-used in a comparable application. Repurposing and remanufacturing are not common practice for VRLA batteries; at end of life the battery is recycled and its lead recovered.

b Your role in separate collection

Under Article 64 of the Regulation end-users must discard waste batteries separately from other waste, including mixed municipal waste, at the designated separate collection points. Never dispose of a lead-acid battery in household waste, in fire or in water. The crossed-out wheeled bin on the battery is the reminder of this obligation.

c Take-back and collection points available to you

- **Free take-back by the producer.** In every EU Member State the producer of the batteries you bought — the company that first made them available in your country — takes back waste industrial and SLI batteries free of charge, without any obligation to buy a new battery (Article 61). Take-back systems cover the whole territory of the Member State.
- **Your distributor.** Distributors that supply industrial or SLI batteries take back waste batteries of the same category free of charge at or near their premises, without any obligation to buy (Article 62).
- **Collection facilities.** Authorised waste battery collection points and treatment facilities in your Member State accept lead-acid batteries. Ask your supplier or write to info@atbpower.com and we will direct you to the take-back arrangement for your country.
- **Preparation for re-use and treatment.** Collected lead-acid batteries are drained of electrolyte, broken and separated; the lead, plastics and sulphuric acid are recovered or neutralised in permitted facilities. The Regulation requires recyclers to achieve a recycling efficiency of at least 75 % by weight for lead-acid batteries from 31 December 2025 (80 % from 2030) and to recover at least 90 % of the lead from 31 December 2027 (95 % from 2031) — Annex XII, Parts B and C.

d Safety when handling waste batteries

- Keep waste batteries upright, in a dry, ventilated place, away from heat and ignition sources; do not stack them loosely or store them with metal parts.

- **Prevent short circuits:** cover or tape the terminals, remove metal jewellery, use insulated tools. A discharged battery still stores dangerous short-circuit current.
- Do not open, drill, crush, incinerate or attempt to repair the battery. Do not heat above 60 °C.
- A cracked or leaking case exposes dilute sulphuric acid: wear eye protection and acid-resistant gloves, neutralise spills with sodium bicarbonate, collect the residue for treatment, and pack the battery in a leak-proof container marked for disposal.
- Charging or fault conditions can release hydrogen: keep flames and sparks away and ventilate.
- ATB lead-acid batteries contain no lithium. Do not mix them with lithium batteries in collection containers.

e Meaning of the labels and symbols

SYMBOL / TEXT	MEANING
Crossed-out wheeled bin	Separate collection: do not discard with other waste; return to a collection point (Article 13(4)).
Pb	The battery contains more than 0.004 % lead (Article 13(5)).
CE	The manufacturer declares conformity with Regulation (EU) 2023/1542.
QR code	Access to the label information, the EU declaration of conformity and this document (Article 13(6)).
Rechargeable Sealed Lead-Acid Battery · Designed for industrial use	Chemistry and battery category (SSL start-stop batteries are SLI batteries).
Voltage · Ah @ 20-hr / 10-hr rate · Weight	Nominal voltage, rated capacity and weight.
Fire Extinguishing Agent: ABC	Use ABC dry powder or carbon dioxide; never a direct water jet.
Warning: risk of fire, explosion or burns ...	Principal safety warnings.
NONSPILLABLE	Electrolyte immobilised; not subject to dangerous goods regulations for transport when terminals are protected.

The full explanation of every mark is given in the ATB document Label and Marking, ATB-INF-2026-005.

f Substances in the battery and their impact if discarded improperly

- **Lead and lead compounds** (plates and active material) are toxic, accumulate in the body and the environment, damage the nervous system, blood and kidneys and are toxic for reproduction. Lead released from a discarded battery contaminates soil and groundwater for a long time.
- **Dilute sulphuric acid** (electrolyte, absorbed or gelled) is corrosive, causes severe burns, and acidifies soil and water when released.
- Littering, incineration or disposal as unsorted municipal waste releases these substances; separate collection and recycling keep them in a closed loop, recover the lead and plastics, and avoid emissions from landfill or incineration.

Contact: ATB Power Limited · atbpower.com · info@atbpower.com. Safety data sheet and operating manual: atbpower.com/resources.