

BATTERY RECYCLING



BatteryHQ Batteries is dedicated to the protection of our environment and we would urge you to recycle your old batteries on every occasion.

We in the battery industry are proud of the fact that lead-acid batteries are the environmental success story of our time. More than 97% of all battery lead is recycled. Compared to 55% of aluminium soft drink and beer cans, 45% of newspapers, 26% of glass bottles and 26% of tyres, lead acid batteries top the list of the most highly recycled consumer products.

The lead-acid battery gains its environmental edge from its closed loop cycle. The typical new lead-acid battery contains 60 to 80 percent recycled lead and plastic. The recycling cycle goes on indefinitely, that means the lead and plastic in the lead-acid batteries that you use have been – and will continue to be – recycled many, many times. This makes lead acid battery disposal extremely successful from both environmental and cost perspectives.

Almost all scrap metal merchants will accept used lead-acid batteries for recycling. A collection service is available at most landfills, transfer stations, service stations and automotive workshops.

Many councils have regular collections or drop-off locations for hazardous waste. Visit your council pages on RecyclingNearYou.com.au to find out about hazardous waste services in your area.

If you are still having difficulties, we would be happy to direct you to a local recycling source in your area

Recycling a spent lead-acid battery involves five basic steps:

The battery is broken apart in a hammer mill, a machine that hammers the battery into pieces.

The broken battery pieces go into a vat, where the lead and heavy materials fall to the bottom while the plastic rises to the top. At this point, the polypropylene pieces are scooped away, and the liquids are drawn off, leaving the lead and heavy metals. Each of the materials goes into a different “stream.” We’ll begin with the plastic, or polypropylene.

PLASTIC

The polypropylene pieces are washed, blown dry and sent to a plastic recycler where the pieces are melted together into an almost-liquid state. The molten plastic is put through an extruder that produces small plastic pellets of a uniform size. Those pellets are sold to the manufacturer of battery cases, and the process begins again.

LEAD

The lead grids, lead oxide and other lead parts are cleaned and then melted together in smelting furnaces.

The molten lead is poured into ingot moulds. Large ingots, weighing about 2,000 pounds are called hogs. Smaller ingots, weighing 65 pounds, are called pigs. After few minutes, the impurities, otherwise known as dross, float to the top of the still-molten lead in the ingot moulds. The dross is scraped away, and the ingots are left to cool.

When the ingots are cool, they are removed from the moulds and sent to battery manufacturers, where they are re-melted and used in the production of new lead plates and other parts for new batteries.

SULPHURIC ACID

Old battery acid can be handled in two ways.

The acid is neutralized with an industrial compound similar to household baking soda. This turns the acid into water. The water is treated; cleaned and tested to be sure it meets clean water standards. Then it is released into the public sewer system.

Another way to treat acid is to process it and convert it to sodium sulphate, an odourless white powder that’s used in laundry detergent, glass and textile manufacturing. This takes a material that would be discarded and turns it into a useful product.