

AS 4086.1—1993

Australian Standard[®]

**Secondary batteries for use with
stand-alone power systems**

Part 1: General requirements

[Defence Title allocated by Codification and Standardisation Authority:
BATTERIES RECHARGEABLE
NATO Supply Classification 6140]

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Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Federation of Consumer Organizations
Australian Lead Development Association
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PREFACE

This Standard was prepared by the Standards Australia Committee on Secondary Batteries.

A distinguishing feature of stand-alone power systems is the unpredictability of and limitation on the amount of charging power available and hence on the charge-discharge cycles imposed on the battery. Batteries for use in stand-alone power systems have different requirements to those designed for use in other applications, in particular low self-discharge, long life under the charging cycle associated with stand-alone systems, and the ability to operate over a wide temperature range.

Batteries in stand-alone power systems are often supplied with power from a number of sources, such as photovoltaic arrays, wind generators, water generators and diesels, combined to form a hybrid system.

This Standard is the first part of a two-part Standard on stand-alone batteries, the two parts of which are—

- (a) this Standard; and
- (b) a proposed second part covering the installation and maintenance of stand-alone batteries.

In the preparation of this Standard reference was made to a draft Standard, Rechargeable batteries for photovoltaic solar energy systems, prepared by IEC Committee 21, Secondary Cells and Batteries.

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