

Australian Standard[®]

**Guide to the selection of intruder
alarm systems for road vehicles**

This Australian Standard was prepared by Committee EL/31, Intruder Alarm Equipment and Installations. It was approved on behalf of the Council of Standards Australia on 14 June 1990 and published on 17 September 1990.

The following interests are represented on Committee EL/31:

Association of Burglary Insurance Surveyors Australasia
Australian Automobile Association
Australian Electrical and Electronic Manufacturers Association
Australian Federal Police
Australian Security Industry Association
Building Owners and Managers Association of Australia
Confederation of Australian Industry
Department of Administrative Services—Construction Group
Department of Business and Consumer Affairs, N.S.W.
Department of Defence
Insurance Council of Australia
Metal Trades Industry Association of Australia
Police Department, N.S.W.
Public Works Department, N.S.W.
State Pollution Control Commission, N.S.W.
Tasmania Police
Telecom Australia
Victoria Police
Victorian Security Institute

Additional interests participating in preparation of Standard:

Federal Chamber of Automotive Industries
Manufacturing and Retailing interests

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PREFACE

This Standard was prepared by the Standards Australia Committee on Intruder Alarm Equipment and Installations to assist non-technical persons to obtain some idea of the equipment and systems which are available.

This Standard attempts to provide information on the major types of intruder alarms for road vehicles currently in use but reliance solely in this guide to the exclusion of expert advice is not recommended.

During the development of Australian Standard, AS 3749, *Intruder alarm systems—Road vehicles*, the Federal Chamber of Automotive Industries (FCAI), representing manufacturers, importer and assemblers of motor vehicles in Australia did not support the publication of the Standard in its final form and sought to have original equipment systems removed from its scope.

The FCAI has expressed some concern that the minimum system requirements of the Standard may provide a higher level of security than is necessary for all consumer needs and types of road vehicles and may be too restrictive as to the choice of options available as a basis for setting the minimum system requirements. Also, FCAI has pointed out that interior movement detectors may be difficult to install and adjust in an original equipment fitment environment.

These concerns have been recognized, however the Committee believe that the minimum system requirements specified are necessary to achieve the purposes of the Standard. The Committee in reaching their conclusions, referenced British Standard BS 6803, *Vehicle security alarm systems*, Part 1: *Specification for systems installed as original vehicle equipment*, and Part 2: *Code of practice for systems installed after vehicle marketing*, as well as International Electrotechnical Commission Draft, IEC Publication 839, *Standard for transport alarm systems—General requirements* (839-10-1-1) and *Specific requirements for motor cars* (839-10-1-2). The Standard is similar to BS 6803 and draft IEC Publication 839, however minimum system requirements are more comprehensive in keeping with the purposes of the Standard.

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FOREWORD

The purpose of an alarm system is to provide a degree of security relative to particular risks, the consumer's requirements or insurance company requirements or both.

This Standard does not give any recommendation for degree of protection for the vehicle and a prospective purchaser of a vehicle alarm system should give careful consideration to the extent and degree of protection required having regard to the nature of the vehicle to be protected, the value of its contents and the prevailing circumstances.

Comprehensive protection entails substantial expense but it should be recognized that no system is foolproof nor will it guarantee the detection of persons who are determined and experienced.

This Standard does not cover protective devices used on the steering system, transmission or gear lever. Nor does it deal with etching, central/power locking, special protection of car radios and other means of identification in the event of theft.

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Australian Standard

Guide to the selection of intruder alarm systems for road vehicles

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard provides guidance on the selection of alarm systems in road vehicles such as private cars, commercial and heavy goods vehicles and caravans. It deals with the types of equipment, the fundamental elements of which are the detector, control unit and sounding device and their installation and maintenance.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

3749 Intruder alarm systems—Road vehicles

3749.1 Part 1: Performance requirements

3749.2 Part 2: Installation and maintenance

1.3 BASIC CONSIDERATIONS/GENERAL

1.3.1 Theft prevention Every vehicle owner has the responsibility to make it difficult for thieves to enter or steal the vehicle. Although it may not be possible to ensure complete protection, steps can be taken to slow down would be thieves and frighten them off, such as—

- (a) close the windows, lock the doors and keep the keys on the person or in a secure place;
- (b) never leave wallets, credit cards, personal identification papers (such as driver's licence or registration papers) in the vehicle;
- (c) remove valuables from view by either locking them in the boot or hiding them inside the vehicle;
- (d) make sure cassette decks and radios are secure. Keep a record of their model and serial numbers (away from the vehicle) and mark them with a number for later identification;
- (e) park the vehicle in a well-lit area;
- (f) use a garage or driveway, where available; and
- (g) fit one or more theft deterrents to the vehicle.

1.3.2 Minimum requirements A vehicle alarm system should be able to detect and signal the entry or attempted entry of an intruder into the vehicle with the alarm set and as a minimum, detectors should be fitted to all doors, bonnet and boot and a glass breakage detector or an interior movement detector should be fitted.

The source of power for the vehicle alarm system will normally be the vehicle battery. However, a back-up, standby, rechargeable battery with a battery charging circuit may be provided in the event of the failure of the vehicle battery.

Visual indication and a sounding device independent of the vehicle horn, should be provided to signal the entry or attempted entry of an intruder into the vehicle.

Thus as a minimum, the vehicle should be fitted with—

- (a) an internal visible indicator to indicate that the alarm is set;
- (b) exit/entry delay (not required if a remote arming system is used);
- (c) automatic reset;
- (d) signalling devices;
- (e) detection devices fitted to cover—
 - (i) all doors;
 - (ii) bonnet;
 - (iii) boot; and
 - (iv) glass breakage or interior movement or both;
- (f) service mode to allow work on the vehicle without generating an alarm;
- (g) engine immobilization which can be via the starter or the fuel or the ignition system; and
- (h) set state return after battery disconnection and reconnection.

1.3.3 Options The vehicle may be fitted with—

- (a) passive arming;
- (b) additional signalling devices;