

Australian/New Zealand Standard™

**Intruder alarm systems**

**Part 5: Alarm transmission systems**



## **AS/NZS 2201.5:2008**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-031, Intruder Alarm Equipment and Installation. It was approved on behalf of the Council of Standards Australia on 11 September 2007 and on behalf of the Council of Standards New Zealand on 21 September 2007. This Standard was published on 31 January 2008.

---

The following are represented on Committee EL-031:

Australian Industry Group  
Australian Security Industry Association Limited  
Australian Security Intelligence Organization  
Engineers Australia  
Insurance Council of Australia Limited  
Insurance Council of New Zealand  
NSW Police Service  
National Security Association of Australia  
New Zealand Security Association  
Victoria Police  
Victorian Security Institute

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at [www.standards.com.au](http://www.standards.com.au) or Standards New Zealand website at [www.standards.co.nz](http://www.standards.co.nz) and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

---

Australian/New Zealand Standard™

**Intruder alarm systems**

**Part 5: Alarm transmission systems**

First published as part of AS 2201.2—1978.  
Second edition 1986.  
Revised and redesignated in part as AS 2201.5—1992.  
Jointly revised and redesignated AS/NZS 2201.5:2008.

**COPYRIGHT**

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 8531 X

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-031, Intruder Alarm Equipment and Installations to supersede AS 2201.5—1992, *Intruder alarm systems*, Part 5: *Alarm transmission systems*, and requirements for signalling links in AS 2201.2—2004, *Intruder alarm systems*, Part 1: *Monitoring centres*.

The objective of this Standard is to provide a rating system for alarm transmission systems, equipment and systems using dedicated paths, switched networks and wire-free systems to ensure appropriate security systems are applied.

This Standard is Part 5 of the series, *Intruder alarm systems*, the parts of which are as follows:

## AS

- 2201 Intruder alarm systems
- 2201.2 Part 2: Monitoring centres
- 2201.3 Part 3: Detection devices for internal use

## AS/NZS

- 2201 Intruder alarm systems
- 2201.1 Part 1: Client's premises—Design, installation, commissioning and maintenance
- 2201.5 Part 5: Alarm transmission systems (this Standard)

In the preparation of this Standard, reference was made to draft IEC Publication 839, *Alarm systems*, Part 5: *Requirements for alarm transmission systems* and to UL Standards for alarm systems.

## CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE .....	4
1.2 REFERENCED DOCUMENTS .....	4
1.3 DEFINITIONS .....	4
1.4 MARKING .....	5
SECTION 2 ALARM TRANSMISSION EQUIPMENT	
2.1 EQUIPMENT REQUIREMENTS .....	6
2.2 INSTALLATION REQUIREMENTS .....	6
2.3 DOCUMENTATION .....	6
2.4 TEST REPORT .....	7
SECTION 3 ALARM TRANSMISSION SYSTEM REQUIREMENTS	
3.1 GENERAL .....	8
3.2 ALARM TRANSMISSION SYSTEM MODE .....	9
3.3 ALARM TRANSMISSION SYSTEM(S) SHARING INFRASTRUCTURE WITH OTHER SYSTEMS .....	10
3.4 TRANSMISSION TIME .....	10
3.5 ALARM SYSTEM INTERCONNECTION SUPERVISION .....	11
3.6 TRANSMISSION SYSTEM SUPERVISION .....	11
3.7 TRANSMISSION SYSTEM AVAILABILITY .....	11
3.8 SIGNALLING SECURITY .....	13
3.9 FAULT AND MAINTENANCE LOG .....	14
3.10 TESTING .....	14
SECTION 4 ALARM TRANSMISSION SYSTEM TESTS	
4.1 GENERAL .....	15
4.2 SYSTEM CONFIGURATION .....	15
4.3 TRANSMISSION TIME—NORMAL PERFORMANCE TEST .....	15
4.4 TRANSMISSION TIME—RECOVERY FROM OVERLOAD TEST .....	15
4.5 TRANSMISSION TIME—PEAK LOAD TEST .....	16
4.6 ALARM SYSTEM INTERCONNECTION SUPERVISION TEST— CATEGORY T1 AND T2 .....	16
4.7 ALARM SYSTEM INTERCONNECTION SUPERVISION TEST— CATEGORY T3 .....	17
4.8 ALARM SYSTEM INTERCONNECTION SUPERVISION TEST— CATEGORY T4 .....	18
4.9 ALARM SYSTEM INTERCONNECTION SUPERVISION TEST— CATEGORY T5 .....	19
4.10 ALARM TRANSMISSION SYSTEM SUPERVISION TEST—CATEGORY T1 ....	19
4.11 ALARM TRANSMISSION SYSTEM SUPERVISION TEST—CATEGORY T2 ....	20
4.12 ALARM TRANSMISSION SYSTEM SUPERVISION TEST—CATEGORIES T3, T4 AND T5 .....	21
4.13 TRANSMISSION SYSTEM AVAILABILITY TEST .....	21
4.14 SIGNAL SECURITY—CATEGORY S1 .....	21
4.15 SIGNAL SECURITY—CATEGORY S2 .....	22
4.16 SIGNAL SECURITY—CATEGORY S3 .....	22
4.17 SIGNAL SECURITY—CATEGORY S4 .....	23
4.18 SIGNAL SECURITY—CATEGORY S5 .....	24

## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard  
Intruder alarm systems****Part 5: Alarm transmission systems**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies the requirements for the performance, reliability and security characteristics for alarm transmission systems used as part of an intruder alarm system.

It includes requirements for the transmission of signals between an intruder alarm system in a client's premises and a monitoring centre.

**1.2 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

AS

2201 Intruder alarm systems

2201.2 Part 2: Monitoring centres

AS/NZS

2201.1 Part 1: Client's premises—Design, installation, commissioning and maintenance

3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)

AS ISO/IEC

17025 General requirements for the competence of testing and calibration laboratories

**1.3 DEFINITIONS**

For the purpose of this Standard, the definitions given in AS/NZS 2201.1 and those below apply.

**1.3.1 Aggregate path classification**

Alarm transmission system classification in Section 3 Table 3.1, which takes into account performance achievable by the implementation of multiple independent paths to improve the system in total or in part.

**1.3.2 Alarm transmission equipment**

Intermediate equipment that routes alarm signals and fault signals between an intruder alarm system and a monitoring centre.

**1.3.3 Alarm transmission system**

Configuration of components used to transfer information from an intruder alarm system installed in a client's premises to a monitoring centre.