



Australian
Communications
Authority



Electromagnetic Compatibility

Information for suppliers of electrical and electronic products in Australia and New Zealand

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Introduction

Effective radiocommunications contributes significantly to the operations of industry, commerce, safety-of-life organisations and the well-being of the community.

To deal with the problem of electromagnetic interference to radiocommunications, the Australian Communications Authority (ACA) and the Radio Spectrum Management Group (RSM) of the New Zealand Ministry of Economic Development have introduced the trans-Tasman electromagnetic compatibility (EMC) regulatory arrangements. The arrangements aim to protect the radiofrequency spectrum by introducing technical limits for emissions from electrical and electronic products.

The regulations are designed to minimise electromagnetic emissions from electrical or electronic products that could cause harmful interference to radiocommunications systems. This is becoming increasingly important with the rapid growth in the use of electronic systems and digital technology in commercial and domestic environments.

The trans-Tasman EMC arrangements consist of a set of technical standards and common regulatory processes for products supplied to the Australian and New Zealand markets. The EMC arrangements have the same legal standing in Australia and New Zealand and compliance in one country will be recognised in the other.

All products that come under the standards are subject to compliance and must be labelled appropriately. It is important that manufacturers and importers understand what is required for compliance. Accountability for compliance with the EMC regulatory arrangements lies with Australian and New Zealand suppliers and they must take responsibility for the products they place on the market.

The harmonised arrangements are an outcome of the Trans-Tasman Mutual Recognition Arrangement (TTMRA) which is an inter-Government arrangement between Australia and New Zealand. Its objective is to assist in the movement of goods and services between both countries.

Through mutual recognition and alignment of product standards, the arrangements deliver greater flexibility and lower business compliance costs to exporters on both sides of the Tasman Sea.

This booklet outlines requirements for suppliers of electrical and electronic products under the harmonised arrangements.

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EMC standards

Are you affected?

The EMC regulations apply to suppliers of a wide range of electrical and electronic products in Australia and New Zealand.

A supplier is:

- an Australian or New Zealand manufacturer who makes products for supply to the Australian or New Zealand market;or
- an importer of products intended for supply in Australia or New Zealand;or
- the authorised agent, resident in Australia or New Zealand,acting on behalf of a supplier of products to either country.

What is an agency agreement?

Where an Australian or New Zealand based manufacturer or importer or an overseas manufacturer engages the services of an agent, a written agency agreement should exist between the two parties. The ACA and RSM require that the regulatory compliance arrangements be met by either the manufacturer (or importer) or by the agent acting on their behalf.

Agency agreements help to establish a legal framework and outline the rights and responsibilities of the parties involved. A copy of this agreement should be kept with the compliance records. Further information is available on the ACA website (www.aca.gov.au/standards_compliance.htm).

What standards apply?

All electrical and electronic products that fall within the scope of the mandated standards listed in Appendix A must comply with the EMC regulatory arrangements.

The standards listed in Appendix A cover a wide range of products and deal with various technical matters associated with product performance including EMC.

The ACA and RSM have only mandated the following EMC aspects of the listed standards:

1. EMC phenomenon of emitted disturbance associated with:
 - conducted (continuous and intermittent) radiofrequency disturbance
 - radiated radiofrequency disturbance
2. test procedures and requirements associated with the EMC phenomenon.

The ACA and RSM have mandated the standards as 'in force from time to time'. This means that any changes made to the standards by the relevant standards-making bodies are automatically recognised under the EMC arrangements. However, before any changes become automatically mandatory, transitional arrangements will apply. The transitional arrangements are detailed in Appendix A.

The standards can be purchased from Standards Australia or Standards New Zealand—contact details are listed in Appendix B.

Immunity standards are not mandatory under the Australian–New Zealand regulatory arrangements. However, manufacturers are encouraged to consider immunity during their product design,especially if planning to export products,as there may be a requirement in overseas countries.

Electrical products sold in Australia and New Zealand are also required to comply with electrical safety requirements administered by other regulatory authorities. Appendix C provides contact details of the electrical regulators in New Zealand and in Australian States and Territories.

Compliance arrangements

What are the EMC compliance arrangements?

To ensure compliance with the EMC regulatory arrangements, suppliers must satisfy four basic requirements. They must:

- establish sound technical grounds for product compliance;
- make and hold a Declaration of Conformity;
- prepare and keep compliance records; and
- label the product as directed.

Under the EMC regulatory arrangements, before a product can be first supplied to the Australian or New Zealand market, the supplier must register an application with the ACA or RSM to use the C-Tick label. One application only is required, as the label and associated identification from one country will be recognised in the other.

A copy of the form is inside the back cover of this booklet and can also be downloaded from the ACA website at www.aca.gov.au/standards_compliance.htm or the RSM website at www.med.govt.nz/rsm/standards/index.html. All other documents, the Declaration of Conformity and the supporting evidence, should be made available by the supplier for audit purposes on request in writing from either the ACA or RSM.

Once these basic requirements have been satisfied, a product may be supplied in Australia or New Zealand without further approval by the ACA or RSM.

The EMC scheme defines three levels of evidence for demonstrating compliance. These levels are based on the risk of interference that may be expected from the product.

How do I know which level applies to my product?

Level 1 applies to products whose interfering emissions would have a low impact on devices using the radiofrequency spectrum. This level covers

products that only contain:

- manually operated switches or simple relays;
- brushless squirrel cage induction motors;
- conventional AC/DC transformers; or
- resistive elements.

For example, an electronic transformer, a lighting ballast or electronic lighting ballast are not low risk devices.

Level 2 applies to products whose interfering emissions would have a higher impact on devices using the radiofrequency spectrum. Examples of these products are:

- a microprocessor or other clocked digital device;
- a commutator or slip ring motor;
- arc welding equipment; or
- switched mode power supplies, lighting dimmers and motor speed controllers.

Level 3 applies to products whose interfering emissions have the highest risk of serious impact on devices using the radiofrequency spectrum. This level covers products in the industrial scientific and medical group 2 (CISPR 11). EMC compliance requirements for telecommunications terminal equipment under information technology (CISPR 22) will change from compliance level 3 to compliance level 2 from 7 November 2003.

What are the requirements of each level?

Level 1 (voluntary)

For this level, the Australian or New Zealand supplier may:

- hold a completed Declaration of Conformity; and
- hold a product description.

For Level 1 products, the requirement to obtain the above documents and label with the C-Tick compliance mark (see under Labelling requirements below) is voluntary. However, if suppliers choose to use the C-Tick mark on Level 1 products, they must comply with the arrangements by holding a Declaration of Conformity and a description of the

product. The voluntary nature of the arrangements does not exclude the products from having to meet the relevant EMC standard. Products must still meet the relevant EMC standard regardless of whether they are labelled.

Level 2

For this level, the Australian or New Zealand supplier must ensure the product complies with an applicable standard and hold compliance records containing:

- a completed Declaration of Conformity;
- a product description; and
- a test report or technical construction file (TCF).

Level 3

For this level, the Australian or New Zealand supplier must ensure the product complies with an applicable standard and hold compliance records containing:

- a completed Declaration of Conformity;
- a product description; and
- an accredited test report or TCF.

What is a Declaration of Conformity?

The Declaration of Conformity is the document signed by the Australian supplier or overseas manufacturer to certify that the product meets applicable standards. It must be signed by a person who holds a senior position in the company or organisation. The signatory should have sighted the evidence that supports the declaration and be satisfied of the grounds for compliance. The signed declaration must be made available if requested by the ACA or RSM.

A copy of the Declaration of Conformity is inside the back cover of this booklet and can also be downloaded from either the ACA website www.aca.gov.au/standards_compliance.htm or the RSM website (www.med.govt.nz/rsm/standards/index.html).

Does every product require a new Declaration of Conformity?

Each new model or product requires a Declaration of Conformity.

Where changes to a basic compliant model are not technically significant (for example, the changes are cosmetic only or do not alter the radiofrequency emission characteristics established for the basic model), then the supplier may presume compliance.

In these cases the supplier may place variants of a basic device on the market under one Declaration of Conformity. The compliance records must include a signed statement that identifies the variants, describes the changes made to the basic model and the rationale for marketing the device and variants under a single Declaration of Conformity.

Where a supplier is in any doubt as to the likely impact of proposed modifications to a device, the supplier should have the new model tested or establish a TCF for the product.

Examples of products marketed with a number of variants include lighting or personal computers, which are sold in various configurations.

All products under a single declaration must be identical to the basic device in terms of EMC. The declaration must contain the following information:

- variants identification and their similarities;
- description of changes made to the basic model; and
- explanation of rationale for marketing the products under one declaration.

Exemptions

Are there any exemptions?

In **Australia**, the EMC regulations do not apply in the following circumstances.

- Test or educational electronic equipment—any product designed or adapted for the purpose of conducting any test, measurement or study of electromagnetic phenomena in an educational, training or research establishment.
- A fixed installation comprising a combination of types of devices, components and hardware that are assembled and installed in such a way that the combination cannot be moved without a part of the combination being at least partially disassembled.
- A prototype or product to be used for exhibition and demonstration purposes, for example, at trade fairs.
- Spare parts—a component or combination of components intended for use in replacing parts of electrical or electronic products.
- Second-hand products, previously supplied either in Australia or New Zealand, but not including modified products.
- Devices that have a power consumption which does not exceed six nanowatts.
- Radiocommunications products—these are intentional radiators and are generally excluded from the EMC regulations. These products are covered by a different set of standards and compliance arrangements administered by the ACA. Some radiocommunications products have other electronic functions, and may be included on this basis. If there is any doubt contact your nearest ACA office—see Appendix F.
- Devices that are used solely for law enforcement activities by the following criminal law-enforcement agencies:
 - the Australian Federal Police;
 - a police force or service of a state or territory;
 - the National Crime Authority;
 - the New South Wales Crime Commission;
 - the Independent Commission Against Corruption of New South Wales;
 - the Criminal Justice Commission of Queensland;
 - a prescribed authority established by or under a law of the Commonwealth, a state or a territory; or
 - a body or organisation responsible to the Australasian Police Ministers' Council for the facilitation of national law enforcement support.

- Civil Aviation Safety Authority—avionics and aviation ground facilities.
- Department of Defence—devices used by the Australian Defence Force for military operations.
- Department of Transport and Regional Services—road-registered vehicles.
- Therapeutic Goods Administration—devices that fall within the jurisdiction of the Therapeutic Goods Act.

Suppliers of products regulated by these agencies should ensure that they are familiar with existing or proposed regulations for dealing with EMC. Appendix D of this booklet provides contact details for these agencies.

In **New Zealand**, the administrative components of the EMC regulations do not apply in the following circumstances.

- A product with a power consumption that does not exceed six nanowatts.
- A spare part intended for use in replacing parts of a product.
- A vehicle that is registered or capable of being registered for use on a public road.
- Military equipment or weapons systems of the New Zealand Defence Force.
- Military equipment or weapons systems of the defence force of another country operating in cooperation with the New Zealand Defence Force.
- For products under compliance Level 2:
 - a prototype for demonstration purposes;
 - a fixed installation;
 - a part that will only perform its function when incorporated in a finished product;
 - products supplied in a total quantity of less than 10 per year; and
 - battery-powered products.
- Radiocommunications products—these are intentional radiators and are generally excluded from the EMC regulations. They are covered by a different set of standards and compliance arrangements administered by the RSM (some radiocommunications products have other electronic functions and may be included on this basis, but if there is any doubt contact RSM).

Compliance records

What are compliance records?

Compliance records are a collection of documents assembled by the supplier to support the declaration that the product placed on the Australian or New Zealand market complies with the relevant standard. These records are often referred to as the 'compliance folder'.

The documents included will depend on the compliance level. They may include some or all of the following:

- test reports or TCF;
- a description of the marketed product that positively identifies it (for example, brand name or model number), possibly including a photograph and/or block diagram;
- drawings and/or circuit diagram(s); and
- a signed Declaration of Conformity.

Can I store my compliance records electronically?

Yes, providing a hard copy, in English, is produced for inspection at audit.

Where do I keep the compliance records?

All records may be held either in Australia, New Zealand or overseas once they have been examined by the supplier to establish compliance. However, the records must be made available to the ACA or RSM, for audit or investigation purposes, within 10 working days of written advice being issued by the ACA or RSM. At that time the compliance records must be available for inspection at the Australian or New Zealand business address nominated on the C-Tick application form.

How long should I keep the compliance records?

The records must be kept for five (5) years after the product ceases to be supplied in Australia or New Zealand.

What is a product description?

A product description can be any one of the following:

- ✓ a clear photograph of the product
- ✓ block diagram
- ✓ circuit diagram
- ✓ promotional material
- ✓ service manual
- ✓ operating manual or user guide
- ✓ a list of modular pieces or accessories packaged with the product
- ✓ installation manual.

A technical description can be:

- ✓ performance specifications
- ✓ other information such as PCB revision, software revision or hardware revision.

Labelling requirements

What is the purpose of the label?

The label indicates that the product complies with the applicable standard and establishes a traceable link between a product and the supplier responsible for placing it on the Australian or New Zealand market. The use of the C-Tick cannot be transferred to another party without the prior approval of the ACA or RSM.

Should my products be labelled?

Unless a product is covered by compliance Level 1, which is voluntary, a product covered by the EMC regulatory arrangements must be labelled before it can be supplied in Australia or New Zealand. The label consists of a C-Tick mark and a unique supplier identification. The C-Tick mark is only allowed to be placed on products that comply with EMC standards.



The C-Tick mark is a certification trademark registered to the ACA in Australia under the *Trade Marks Act 1995* and to RSM in New Zealand under section 47 of the NZ Trade Marks Act. The mark is only to be used in accordance with conditions laid down by the ACA and RSM.

A company or person wishing to use the C-Tick mark must make a written application to the ACA or RSM. The application form is available inside the back cover of this booklet. There is no registration fee.

Bromides and an electronic version of the C-Tick mark are available, for a nominal fee, from Standards Australia sales offices or RSM. Compliance marks can also be downloaded from either the ACA website (www.aca.gov.au/standards_compliance.htm) or the RSM website (www.med.govt.nz/rsm/standards/index.html).

Authority to use the C-Tick mark will only be issued to an Australian or New Zealand based supplier.

All products that fall under compliance Levels 2 and 3 must be labelled. If a manufacturer or importer chooses to label Level 1 products, the above labelling arrangements would also apply.

What are the acceptable methods for supplier identification?

The compliance label must include the identification of the manufacturer, importer or their agent. The options for this identification in Australia are:

- a business name and address in Australia;
- a business name registered on the national business register;
- a personal name and address in Australia of the place of business;
- an Australian company number (ACN);
- an Australian registered body number (ARBN);
- an Australian business number (ABN);
- an Australian registered trademark; or
- the supplier code number issued by the ACA (on application).

The options in New Zealand are:

- the registered name and address of the licensee;
- a New Zealand company number of the licensee;
- a New Zealand registered trademark of the licensee;
- a registered Goods and Services Tax (GST) number; or
- the supplier code number issued by the RSM (on application).

Note: If the trademark option is to be used, the supplier must hold a copy of either the Australian or New Zealand trademark registration certificate including a true representation of the trademark with their compliance records.

Label requirements

The mark to be used exactly as shown on the ACA or RSM websites. No variations are permitted.

Location: the mark and supplier identification should be a permanent feature placed on the external surface of the product as close as practical to the model identification.

If it is not practical to attach a label to the external surface of a device, due to its size or physical nature, a label may be attached in the following order:

- to the outer surface of the packaging; or if impractical
- to the instructions for use; or if impractical
- to the guarantee or certificates.

The supplier must also apply in writing to the ACA or RSM explaining why the label can not be attached to the surface of the device, advising of the intended alternative method to be used. If the explanation is acceptable, the ACA or RSM will provide written approval, which must be kept with the compliance records.

Method of marking the label shall be durably applied by any suitable means such as printing, painting, moulding, etching or engraving.

Scale: the mark shall be legible and visible to the unaided eye, no smaller than three millimetres in diameter, and the supplier identification characters must be no less than one millimetre in height.

Colour: the label may be reproduced in any colour provided that visibility is assured through either contrast with the background colour or marking in relief (for example, moulding or engraving).

The product may be labelled at any point before being supplied to the Australian or New Zealand market. The ACA and RSM recognise that it will be more cost-effective for many imported products if they are labelled at the time of manufacture rather than to apply the label at the time of marketing and distribution.

In addition, the label may be placed on promotional material associated with the product.

What if my product needs the A-Tick for telecommunications standards?



If your product is subject to the Australian Telecommunications Labelling Notice and must also meet an EMC standard, (for example, CISPR 22 for information technology) the A-Tick mark will indicate compliance with

both EMC and telecommunications requirements in Australia, but only with EMC requirements in New Zealand.

What is the Regulatory Compliance Mark?



The Regulatory Compliance Mark (RCM) is a trademark owned by Australian and New Zealand regulators. It is an alternative mark to the C-Tick for signifying EMC compliance.

Suppliers from both countries who intend to use the RCM should register with Standards Australia in accordance with AS/NZS 4417.1 and complete the application form in AS/NZS 4417.3 to notify the ACA.

The RCM is not an alternative mark to the A-Tick telecommunications compliance mark.

Compliance through testing

How do I arrange to have my product tested?

A supplier may keep compliance records and sign a Declaration of Conformity without using a test report from an accredited test laboratory for products that fall under compliance Level 2.

The test report must show:

- the tests conducted;
- the results of the tests, including test data; and
- whether the results of the tests show that the product meets the standard.

The supplier accepts total responsibility for product conformity and needs to make a commercial decision on the level of testing required. When making the decision, the supplier should keep in mind the interference potential of the product.

Where a supplier chooses to use non-accredited testing, including in-house or self-testing, to support their Declaration of Conformity, the ACA and RSM reserve the right to ask for more evidence of conformity, if considered necessary.

It is the ACA's and RSM's view that a test report from an accredited test laboratory constitutes a high confidence and low risk approach to compliance.

There are a number of companies that have been accredited by the National Association of Testing Authorities (NATA) in Australia and International Accreditation New Zealand (IANZ), for various EMC standards. Contact details for the accredited test laboratories are available from the NATA website (www.nata.asn.au) or the IANZ website (www.ianz.govt.nz).

The ACA and RSM will use NATA or IANZ accredited testing as the benchmark and, in the event of product conformity being called into question, the ACA and RSM will accept NATA or IANZ test data as final in any determination of whether the product complies.

Can I use an overseas test report?

A test report from an overseas test laboratory is acceptable where the product has been tested to the relevant standard listed in Appendix A.

Test reports from overseas laboratories must be written in English.

Do I need the original test report?

The supplier does not have to hold the original of the test report. A clear copy of the original report is acceptable.

A reproduction of the original report that has been scanned and stored electronically may also be held, but must be available on request in hard copy at the time of audit.

What products require accredited testing?

Compliance Level 3 products are required to be tested by an accredited test laboratory or a competent body. Level 3 covers equipment under group 2 of the industrial scientific and medical standard (CISPR 11).

Compliance through TCF

There are a number of overseas laboratories that have been accredited through a Mutual Recognition Agreement (MRA) with either NATA or IANZ. Suppliers should contact NATA or IANZ for current details of MRA partners or accredited laboratories.

The ACA and RSM suggest that the supplier check the accreditation of the laboratory when arranging for the testing of a product, as not all laboratories hold accreditation for all standards. Although non-accredited reports may be acceptable in most situations, they do not hold the same level of confidence as an accredited report.

What is a TCF?

The technical construction file (TCF) is an alternative route to testing for suppliers to demonstrate compliance for Levels 2 or 3.

To use the TCF route, suppliers must apply to a competent body for a technical report. A TCF can be particularly useful where:

- testing is impractical because of the physical characteristics of the product, or its location;
- products are marketed as a number of variants; or
- a supplier holds relevant technical information from a competent body.

The TCF is prepared in two parts. The first part is prepared by the supplier and should contain sufficient information for a competent body to issue a technical assessment of the product. The information may include a technical description of the product, claims by the supplier for product conformity and supporting evidence. This information is submitted to a competent body with a statement from the supplier declaring that there is no outstanding application to another competent body in respect of the product.

What does the competent body provide?

The competent body confirms claims made by a supplier in the draft TCF.

Once the assessment is completed, the competent body will issue a technical report verifying the claims made by the supplier, which will then form part of the compliance records.

The report made by the competent body does not replace the supplier's responsibility to ensure that the data in the draft TCF is correct.

If a competent body finds that the claims of the supplier for conformity of a product to the standards cannot be verified, the competent body must advise the applicant in writing of the reasons for its decision.

Competent bodies cannot issue a technical report against an application:

- where the application is not in writing; and
- where an applicant for a technical report has not provided information that is relevant to the assessment of the draft TCF.

Contact details of accredited competent bodies are available from the NATA website (www.nata.asn.au).

Enforcement

What should a TCF contain?

A TCF should contain:

- a signed statement by the competent body;
- an adequate description of the product to be marketed under the TCF;
- a technical rationale for the use of the TCF route;
- a statement of the steps taken to manage the emissions and/or susceptibility characteristics of the product, including reference to standards applied in part or in full;
- a technical description of the product;
- all technical reports relevant to the product; and
- all reports issued by the competent body.

Will the ACA or RSM inspect the compliance records?

Although the EMC regulations are based on industry self-regulation, the ACA and RSM back this up with an audit program in their respective jurisdictions. An enforcement program is a critical way of managing risk and is a commitment of the ACA and RSM to support responsible suppliers.

How does the ACA or RSM decide who is to be audited?

Suppliers are selected for audit in several ways.

These include:

- a random selection from the database;
- receipt of a written complaint;
- products identified at retail outlets;
- products identified through advertising material; or
- interference to communications.

When a supplier is selected for audit, the ACA or RSM will provide written notice to the supplier a minimum of 10 working days before the proposed date of the audit.

The auditor will examine the documents that form the compliance records. When the auditor is satisfied that all the documentation and reports are correct the supplier will be given a Satisfactory Audit Statement.

This statement does not indicate compliance of the item(s). It only means that the compliance records were complete.

Where an auditor requires further evidence of product conformity, additional information will be requested. This may range from producing additional documentation, to the submission of three randomly selected samples of the product for evaluation by an accredited laboratory nominated by the ACA or RSM. Samples for testing will only be required where compliance of the product comes into question.

Offences include:

- using the C-Tick mark without authorisation;
- supplying unlabelled products;
- supplying or labelling non-compliant products;
- making a false declaration; or
- failure to establish and maintain compliance records.

What penalties apply?

There are a range of penalties including:

- prohibiting the supply of products until an interference problem is corrected; or
- seizure and forfeiture of stock in Australia or compulsory recall in New Zealand; or
- penalties payable in lieu of prosecution in Australia or infringement offence and fine in New Zealand; or
- prosecution; or
- fines.

Who do I contact for more information?

For more information in Australia, contact your nearest ACA office (Appendix F) or the ACA's Radiocommunications Standards Team on telephone (02) 6219 5451 facsimile (02) 6219 5288 or email: emc@aca.gov.au.

To contact RSM in New Zealand, telephone 0508 RSM INFO or 0508 776 463, facsimile 09 916 4561 (telephone +64 3 962 2602 or facsimile +64 9 916 4561 from outside NZ) or email: rsm@med.govt.nz New Zealand.

If there are any changes to your contact details, please inform your nearest ACA or RSM office so that your details can be updated on the supplier database.

Appendix A:

EMC standards concordance

The ACA and RSM have mandated the following EMC aspects of the standards listed below:

1. EMC phenomenon of emitted disturbance associated with:
 - conducted (continuous and intermittent) radiofrequency disturbance;
 - radiated radiofrequency disturbance.
2. Test procedures and requirements associated with the above EMC phenomenon.

Other EMC phenomenon such as radiofrequency immunity, electrostatic discharge (ESD), harmonics, flicker and voltage fluctuations are not mandatory.

Transitional arrangements for amendments to the standards are:

- two (2) years for IEC, CISPR, AS/NZS standards at the time of publication; and
- transitional period as published in the *Official Journal of the European Union* for EN standards.

The transitional arrangement is the time period where the ACA and RSM will recognise conformity to either the earlier or later version of the same standard for products supplied to the market. When the transitional period expires, the ACA and RSM will only recognise the later version of a standard for compliance purposes with the EMC scheme.

| Product | European | International | AS/NZS |
|---|------------|---------------|-----------------|
| ISM equipment | EN 55011 | CISPR 11 | AS/NZS CISPR 11 |
| Spark ignition engines | | CISPR 12 | AS/NZS CISPR 12 |
| TV receivers and audio equipment | EN 55013 | CISPR 13 | AS/NZS CISPR 13 |
| Electrical motor-operated & thermal appliances, electric tools & similar apparatus | EN 55014-1 | CISPR 14-1 | AS/NZS CISPR 14 |
| Electrical lighting and similar equipment | EN 55015 | CISPR 15 | AS/NZS CISPR 15 |
| Information technology | EN 55022 | CISPR 22 | AS/NZS CISPR 22 |
| Generic (residential, commercial and light industry) | EN 50081-1 | IEC 61000-6-3 | 4251.1 |
| Generic (industrial environments) | EN 50081-2 | IEC 61000-6-4 | 4251.2 |
| Arc welding equipment | EN 50199 | | 3652 |
| Signalling on low-voltage electrical installations | EN 50065-1 | IEC 61000-3-8 | |
| Uninterruptible power systems (UPS) | EN 50091-2 | IEC 62040-2 | AS 62040.2 |
| Electronic taximeters | EN 50148 | | |
| Control circuit devices and switching elements proximity sensors, direct current interface for proximity sensors and switching amplifiers | EN 50227 | | |
| Measuring relays and protection equipment | EN 50263 | | |
| Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen | EN 50270 | | |
| Audio, video, audiovisual and entertainment lighting control apparatus for professional use | EN 55103-1 | | |

| Product | European | International | AS/NZS |
|--|---------------|----------------|--------|
| Sewing machines | EN 60204-3-1 | IEC 60204-3-1 | |
| Low voltage switchgear and controlgear assemblies | EN 60439-1 | IEC 60439-1 | |
| Switches for household and similar fixed-electrical installations (electronic switches) | EN 60669-2-1 | IEC 60669-2-1 | |
| Switches for household and similar fixed electrical installations (remote control switches) | EN 60669-2-2 | IEC 60669-2-2 | |
| Switches for household and similar fixed electrical installations (time-delay switches) | EN 60669-2-3 | IEC 60669-2-3 | |
| Alternating current static watt hour meters for active energy (classes 0,2 S and 0,5 S) | EN 60687 | IEC 60687 | |
| Automatic electrical controls for household and similar use (general requirements) | EN 60730-1 | IEC 60730-1 | |
| Automatic electrical controls for household and similar use (automatic electrical burner control systems) | EN 60730-2-5 | IEC 60730-2-5 | |
| Automatic electrical controls for household and similar use (automatic electrical pressure sensing controls) | EN 60730-2-6 | IEC 60730-2-6 | |
| Automatic electrical controls for household and similar use (timers and time switches) | EN 60730-2-7 | IEC 60730-2-7 | |
| Automatic electrical controls for household and similar use (electrically operated water valves) | EN 60730-2-8 | IEC 60730-2-8 | |
| Automatic electrical controls for household and similar use (temperature sensing controls) | EN 60730-2-9 | IEC 60730-2-9 | |
| Automatic electrical controls for household and similar use (energy regulators) | EN 60730-2-11 | IEC 60730-2-11 | |
| Automatic electrical controls for household and similar use (humidity sensing controls) | EN 60730-2-13 | IEC 60730-2-13 | |
| Automatic electrical controls for household and similar use (electric actuators) | EN 60730-2-14 | IEC 60730-2-14 | |
| Automatic electrical controls for household and similar use (automatic electrical water and air flow sensing controls) | EN 60730-2-18 | IEC 60730-2-18 | |
| Telecontrol equipment and systems | EN 60870-2-1 | IEC 60870-2-1 | |
| Maritime navigation equipment | EN 60945 | IEC 60945 | |
| Low voltage switchgear and controlgear | EN 60947-1 | IEC 60947-1 | |
| Low voltage switchgear and controlgear (circuit-breakers) | EN 60947-2 | IEC 60947-2 | |
| Low voltage switchgear and controlgear (switches,disconnectors, switch disconnectors and fuse combination units) | EN 60947-3 | IEC 60947-3 | |
| Low voltage switchgear and controlgear (contactors and motor starters – electromechanical contactors and motor-starters) | EN 60947-4-1 | IEC 60947-4-1 | |
| Low voltage switchgear and controlgear (AC semiconductor motor controllers and starters) | EN 60947-4-2 | IEC 60947-4-2 | |

| Product | European | International | AS/NZS |
|---|--------------|---------------|--------|
| Low voltage switchgear and controlgear (AC semiconductor controllers and contactors for non-motor loads) | EN 60947-4-3 | IEC 60947-4-3 | |
| Low voltage switchgear and controlgear (control circuit devices and switching elements) | EN 60947-5-1 | IEC 60947-5-1 | |
| Low voltage switchgear and controlgear (proximity switches) | EN 60947-5-2 | IEC 60947-5-2 | |
| Low voltage switchgear and controlgear (proximity devices with defined behaviour under fault conditions) | EN 60947-5-3 | IEC 60947-5-3 | |
| Low voltage switchgear and controlgear (DC interface for proximity sensors and switching amplifiers) | EN 60947-5-6 | IEC 60947-5-6 | |
| Low voltage switchgear and controlgear (automatic transfer switching equipment) | EN 60947-6-1 | IEC 60947-6-1 | |
| Low voltage switchgear and controlgear (control and protective switching devices) | EN 60947-6-2 | IEC 60947-6-2 | |
| Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses | EN 61008-1 | IEC 61008-1 | |
| Alternating current static watt-hour meters for active energy (classes 1 and 2) | EN 61036 | IEC 61036 | |
| Electricity metering – tariff and load control | EN 61037 | IEC 61037 | |
| Time switches for tariff and load control | EN 61038 | IEC 61038 | |
| Alternating current static var-hour meters for reactive energy (classes 2 and 3) | EN 61268 | IEC 61268 | |
| Electrical equipment for measurement,control and laboratory use | EN 61326 | IEC 61326 | |
| Residual current-operated protective devices (RCDs) for household and similar use | EN 61543 | IEC 61543 | |
| Adjustable speed electrical power drive systems | EN 61800-3 | IEC 61800-3 | |
| Specified time relays for industrial use | EN 61812-1 | IEC 61812-1 | |
| Telecommunication network equipment | EN 300386 | | |

1. The time of publication of International Electrotechnical Commission (IEC) and International Special Committee on Radio Interference (CISPR) standards can be obtained from the IEC website at: www.iec.ch/webstore. Publication information on Australian/New Zealand (AS/NZS) standards is available on the Standards Australia website:www.standards.org.au.
2. Transitional arrangements published in the *Official Journal of the European Union* are available on the website <http://europa.eu.int/comm/enterprise/newapproach/standardization/harmstds/reflist.html>.
3. The AS/NZS CISPR 11 standard for ISM contains restrictions and additional frequencies designated by Australia and New Zealand for use as fundamental ISM frequencies, for example at 918–926 MHz.

Code of Practice

The ACA and the Australian Electrical and Electronic Manufacturers Association (AEEMA) have developed a Code of Practice for Electromagnetic Compatibility of Industrial Electrical Equipment. Industry signatories to the code are committed to make available instructions to minimise radiofrequency emissions from their equipment. The code is on the AEEMA website at www.aeema.asn.au or the ACA website at www.aca.gov.au/stds_compliance/electromagnetic_compatibility/emc.htm.

Standards Australia and Standards New Zealand

All the applicable standards for the EMC arrangements can be obtained from Standards Australia or Standards New Zealand. Contact details are listed below.

Standards Australia website:
www.standards.com.au
Standards New Zealand website:
www.standards.co.nz

Australian Capital Territory

Shop 5, Gallery Level
The Boulevard, City Walk
CANBERRA ACT 2601
Telephone: (02) 6249 8990
Facsimile: (02) 6249 8989

New South Wales

Head Administration Office
286 Sussex Street
SYDNEY NSW 2000
(GPO Box 5420
SYDNEY NSW 2001)
Telephone: 1300 654 646 or
(02) 8206 6000
Facsimile: 1300 654 949 or
(02) 8206 6001
Website: www.standards.com.au

c/- Newcastle and Hunter
Business Chamber,
475 Hunter Street
NEWCASTLE NSW 2300
Telephone: (02) 4927 0499
Facsimile: (02) 4927 8721

Northern Territory

(Sales Agency)
c/- Territory
Construction Association
Lot 1450 Winnellie Road,
WINNELLIE NT 0821
Telephone: (08) 8922 9666
Facsimile: (08) 8922 9600

Queensland

232 St Pauls Terrace
FORTITUDE VALLEY QLD 4006
Telephone: (07) 3216 1355
Facsimile: (07) 3216 0277

South Australia

63 Greenhill Road
WAYVILLE SA 5034
Telephone: (08) 8373 4140
Facsimile: (08) 8373 4124

Tasmania

10 Barrack Street,
HOBART TAS 7000
Telephone: (03) 6224 2380
Facsimile: (03) 6224 4185

Victoria

19-25 Raglan Street
SOUTH MELBOURNE VIC 3205
Telephone: (03) 9693 3500
Facsimile: (03) 9696 1319

Western Australia

165 Adelaide Terrace,
EAST PERTH WA 6004
Telephone: (08) 9221 6700
Facsimile: (08) 9221 6194

Standards New Zealand

155 The Terrace
Private Bag 2439
WELLINGTON
Telephone: (04) 498 5990
Facsimile: (04) 498 5994
Website: www.standards.co.nz

New Zealand and Australian state and territory electrical regulators

Besides EMC, products often have to meet other requirements such as electrical safety. Contact details for electrical safety requirements are listed below.

New Zealand Principal Technical Advisor

Energy Safety Service
Ministry of Consumer Affairs
New Zealand
33 Bowen Street
WELLINGTON NZ
(PO Box 1473
WELLINGTON NZ)
Telephone: +64 4 472 0030
Facsimile: +64 4 473 4638
Website: www.ess.govt.nz/

Victoria

Chief Electrical Inspector
Office of the Chief Electrical
Inspector Victoria
Level 3, 4 Riverside Quay
SOUTHBANK VIC 3006
(PO Box 262 Collins St West
MELBOURNE VIC 8007)
Telephone: (03) 9203 9700
Facsimile: (03) 9686 2197
Website: www.oeci.vic.gov.au

Australian Capital Territory

Manager Electrical Installations
ACT Urban Services – BEPCON
Ground Floor
Dame Pattie Menzies House
16 Challis Street
DICKSON ACT 2602
(GPO Box 1908
CANBERRA ACT 2601)
Telephone: (02) 6207 6400
Facsimile: (02) 6207 6324

New South Wales

Manager Safety and Standards
Department of Fair Trading
New South Wales
1 Fitzwilliam Street
PARRAMATTA NSW 2150
(PO Box 972
PARRAMATTA NSW 2124)
Telephone: (02) 9895 0715
Facsimile: (02) 9895 0423
Website:
www.fairtrading.nsw.gov.au

Queensland

Director
Electrical Safety Office
Department of Industrial Relations
Queensland
3rd Floor 75 William Street,
BRISBANE QLD 4000
(PO Box LMB 2234
BRISBANE, QLD 4001)
Telephone: (07) 3237 0281
Facsimile: (07) 3406 3808
Website: www.eso.qld.gov.au

Tasmania

Chief Electrical Inspector
Office of Electricity
Standards & Safety TAS
30 Gordon's Hill Road
ROSNY PARK TAS 7018
(PO Box 56
ROSNY PARK TAS 7018)
Telephone: (03) 6233 7831
Facsimile: (03) 6233 8338

Western Australia

Director of Energy Safety
Technical & Safety Division
Office of Energy Western Australia
20 Southport Street
WEST LEEDERVILLE WA 6007
Telephone: (08) 9422 5200
Facsimile: (08) 9422 5222

South Australia

General Manager Energy
& Regulation
Office of the Technical
Regulator SA
Level 19 Wakefield House
30 Wakefield Street
ADELAIDE SA 5000
Telephone: (08) 8226 5500
Facsimile: (08) 8226 5523
Website:
www.technicalregulator.sa.gov.au

Northern Territory

Manager, Electrical Safety
Electrical Safety Unit
Planning & Building Division
Department of Infrastructure
Planning & Environment
PO Box 1860
DARWIN NT 0801
Telephone: (08) 8999 5024
Facsimile: (08) 8999 8967

Other regulatory agencies (Australia)

Products that are covered by other Commonwealth, state or territory laws which are administered by the following regulatory bodies are exempted from the EMC scheme.

Civil Aviation Safety Authority (CASA)

Any equipment fitted to an aircraft and required for the safe operation of that aircraft must be approved by CASA and must comply with certain minimum operational performance specifications.

Principal Engineer Avionics Group
Technical Specialist Section
Airworthiness Branch
Civil Aviation Safety Authority
PO Box 2005
CANBERRA ACT 2601
Telephone: 131 757
Facsimile: (02) 6217 1914
Website: www.casa.gov.au

Department of Defence

Products used by the Australian Defence Force for military operations must meet Commonwealth Department of Defence requirements, and they are exempt from the EMC arrangements.

Defence Communications
Regulatory Affairs
Headquarters Australian
Defence Force
Department of Defence
Campbell Park Offices
(Bldg 1-4-019)
CANBERRA ACT 2600
Telephone: (02) 6266 3654
Facsimile: (02) 6266 3646
Website: www.defence.gov.au

Federal Chamber of Automotive Industries

In December 1997, the Federal Chamber of Automotive Industries (FCAI), which represents vehicle manufacturers and importers in Australia, endorsed a code of practice. The code sets limits for both emissions and immunity requirements for road registrable vehicles supplied by FCAI members. Component manufacturers and suppliers of aftermarket products will need to meet the EMC regulations.

More details may be obtained from: Federal Chamber of Automotive Industries
GPO Box 313
CANBERRA ACT 2601
Telephone: (02) 6247 3811
Facsimile: (02) 6248 7673

Department of Transport and Regional Services

Motor vehicle emissions and noise standards are generally regulated by the Commonwealth Department of Transport and Regional Services.

Economic Research and Portfolio Policy Division
Department of Transport and Regional Services
GPO Box 594
CANBERRA ACT 2601
Telephone: (02) 6274 7381
Facsimile: (02) 6274 7170
Website: www.dotars.gov.au

Therapeutic Goods Administration (TGA)

The TGA specifies safety and performance requirements for all medical devices, including specific electrical safety, emissions and immunity requirements for electrically powered medical devices. There is an agreement between ACA and TGA that medical devices requiring entry in the Australian Register of Therapeutic Goods must meet TGA requirements. Products that are excluded by the TGA may fall under the ACA's EMC regulatory arrangements. For TGA guidance documents and information, suppliers should contact:

Office of Devices,
Blood and Tissues
Therapeutic Goods
Administration
PO Box 100
WODEN ACT 2606
Telephone: 1800 141 144
Facsimile: (02) 6232 8785
Website: www.health.gov.au/tga/

National Association of Testing Authorities, Australia and International Accreditation New Zealand

The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA and International Accreditation New Zealand (IANZ) has been appointed in New Zealand as accreditation bodies to accredit test laboratories and competent bodies for EMC standards.

Accredited test reports or assessments by competent bodies must carry the NATA or IANZ logo.

Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a mutual recognition agreement (MRA) with NATA or IANZ are also accepted. The report should be endorsed with the respective logo of the accreditation body.

More information is available from:

Sydney

NATA
7 Leeds Street
RHODES NSW 2138
Telephone: (02) 9736 8222
Facsimile: (02) 9743 5311

Melbourne

NATA
71-73 Flemington Road
NORTH MELBOURNE VIC 3051
Telephone: (03) 9329 1633
Facsimile: (03) 9326 5148
Website: www.nata.asn.au

New Zealand

International Accreditation New Zealand
626 Great South Road
Greenlane
AUCKLAND 1005
(Private Bag 28 908
Remuera AUCKLAND 1136)
Telephone: (09) 525 6655
Facsimile: (09) 525 2266
Website: www.ianz.govt.nz

Joint Accreditation System of Australia and New Zealand (JAS-ANZ)

Australian Office
Unit 7,6 Phipps Close
PO Box 79
DEAKIN WEST ACT 2600
Telephone: (02) 6282 5840
Facsimile: (02) 6282 6818
Email: admin@jas-anz.com.au

New Zealand Office
Level 5,22 The Terrace
PO Box 708
WELLINGTON
Telephone: (04) 474 3348
Facsimile: (04) 474 3349
Email: slowes@jas-anz.nz.co

ACA regional offices

NSW Region

(including the Canberra, Newcastle and Coffs Harbour Operations Centres)

Level 2,
55 Clarence Street
(GPO Box 5295)
SYDNEY NSW 2001
Telephone: 1300 850 115
Facsimile: (02) 9245 4099
Email: nswro@aca.gov.au

Northern Australia Region

(including the Darwin and Townsville Operations Centres)

2nd Floor
Commonwealth Centre
104 Grafton Street
(PO Box 1225)
CAIRNS QLD 4870
Telephone: 1300 850 115
Facsimile: (07) 4048 7400
Email: naro@aca.gov.au

Southern Australia Region

(including the Adelaide, Hobart and Wodonga Operations Centres)

15th Floor,
200 Queen Street
(PO Box 13120 Law Courts)
MELBOURNE VIC 8010
Telephone: (03) 9963 6988
For calls outside the Melbourne area: 1300 850 115
Facsimile: (03) 9963 6989
Email: sarov@aca.gov.au

Southern Queensland Region

(including the Rockhampton Operations Centre)

424 Upper Roma Street
BRISBANE QLD 4001
(PO Box 288
RED HILL QLD 4059)
Telephone: (07) 3247 7111
For calls outside the Brisbane area: 1300 850 115
Facsimile: (07) 3247 7100
Email: sqro@aca.gov.au

Western Australia Region

12th Floor,
Septimus Roe Square
256 Adelaide Terrace,
PERTH (PO Box 6189)
EAST PERTH WA 6892
Telephone: (08) 9461 2111
For calls outside the Perth area: 1300 850 115
Facsimile: (08) 9461 2100
Email: waro@aca.gov.au

Application to use the C-Tick mark



Instructions for completion

Print clearly. Illegible, unclear or incomplete application forms may delay processing.

Please note

It is an offence to make a false statement in connection with the operation of the *Radiocommunications Act 1992* in Australia, Penalty: 100 penalty units, and the *Radiocommunications Act 1989* in New Zealand.

Where to send the form

Send completed forms by mail or fax in Australia to:

New South Wales Region
(including Canberra, Coffs Harbour and Newcastle Operations Centres)
GPO Box 5295, Sydney NSW 2001
Tel: 1300 850 115, Fax: (02) 9245 4099

Northern Australian Region
(including Darwin and Townsville Operations Centres)
PO Box 1225, Cairns QLD 4870
Tel: 1300 850 115, Fax: (07) 4048 7400

Southern Australia Region
(including Adelaide, Hobart and Wodonga Operations Centres)
PO Box 13120 Law Courts,
Melbourne VIC 8010
Tel: (03) 9963 6988, Fax: (03) 9963 6989
Calls outside Melbourne area: 1300 850 115

Southern Queensland Region
(including Rockhampton Operations Centre)
PO Box 288, Red Hill QLD 4059
Tel: (07) 3247 7111, Fax: (07) 3247 7100
Calls outside Brisbane area: 1300 850 115

Western Australia Region
PO Box 6189, East Perth WA 6892
Tel: (08) 9461 2111, Fax: (08) 9461 2100
Calls outside Perth area: 1300 850 115

OR in New Zealand:

Compliance Officer
Ministry of Economic Development
PO Box 92-061
AUCKLAND, New Zealand
Facsimile: (09) 916 4561

Supplier details (manufacturer, importer or an authorised agent)

Name of Australian/New Zealand company

(OR PARTNERSHIP, TRADING TRUST OR INDIVIDUAL)

Australian company number (ACN), or

Australian registered body number (ARBN), or

Australian business number (ABN), or

New Zealand company number (NZCN), or

New Zealand GST number

Postal address

Street address where compliance records are accessible (IF SAME AS POSTAL ADDRESS, WRITE 'AS ABOVE')

Contact details

| | |
|-----------|-----|
| WORK | () |
| MOBILE | () |
| FACSIMILE | () |
| EMAIL | |

Declaration

I advise that it is our intention to market electrical and electronic devices in Australia or New Zealand under the C-Tick mark.

I understand that products marked with the C-Tick mark may only be marketed where a complete Declaration of Conformity relating to the products has been made and there are adequate technical grounds for making a Declaration of Conformity in the form of a test report or technical construction file.

For your information

It is an offence to make a false statement in connection with the operation of the *Radiocommunications Act 1992* in Australia and the *Radiocommunications Act 1989* in New Zealand.

Signature of supplier / agent

Date

PRINTNAME

POSITION IN ORGANISATION

Supplier's declaration of conformity

For Levels of Conformity 1,2 and 3 in Australia and New Zealand.

As required by notices under section 182 of the Australian Radiocommunications Act 1992 and section 134 of the New Zealand Radiocommunications Act 1989.



THIS COMPLETED FORM REMAINS WITH THE SUPPLIER
AS PART OF THE DOCUMENTATION REQUIRED FOR THE *COMPLIANCE RECORDS*
DO NOT RETURN TO THE ACA OR NZMED.

Suppliers details

Name (NAME OF MANUFACTURER OR IMPORTER)

**ACN, ARBN, ABN or NZCN or
NZ GST Number**

Address (ADDRESS OF MANUFACTURER OR IMPORTER)

POSTCODE

ACA/ NZMED supplier code number

Product details

Product description—brand name, model, lot, batch or serial number (IF AVAILABLE)

Standard title, number, edition and if applicable the test report number

Declaration

I hereby declare that the product mentioned above complies with the above mentioned standards and all products supplied under this Declaration will be identical to the sample identified above.

Signature of supplier/agent

Date

PRINTNAME

POSITION IN ORGANISATION