AS/NZS 3003:2018
(Incorporating Amendment No. 1)

AS/NZS 3003:2018

Australian/New Zealand Standard™

Electrical installations—Patient areas

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee HT-021, Wiring of Medical Treatment Areas in Hospitals. It was approved on behalf of the Council of Standards Australia on 16 February 2018 and by the New Zealand Standards Approval Board on 5 March 2018.
This Standard was published on 26 March 2018.

The following are represented on Committee HT-021:

Aged and Community Services Australia
Australian Healthcare and Hospitals Association
Australian Industry Group
Biomedical Engineering Advisory Group SA
Canterbury District Health Board
Construction Services Branch, ACT Government
Consumers Federation of Australia
Day Hospitals Australia
Electrical Regulatory Authorities Council
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Institute of Electrical Inspectors
Institute of Healthcare Engineering Australia
Institution of Professional Engineers New Zealand
National Electrical and Communications Association
New Zealand Institute of Health and Engineering
NSW Health
Waitemata District Health Board
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Additional Interests:

Australian Private Hospitals Association
Medical Technology Association of Australia

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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 Standards Australia or the New Zealand Standards Executive at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS 3003:2016.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee HT-021, Wiring of Medical Treatment Areas in Hospitals, to supersede AS/NZS 3003:2011, *Electrical installations—Patient areas*.

This Standard incorporates Amendment No. 1 (July 2019). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to specify particular requirements for electrical installations in patient areas. These requirements are additional to those specified in AS/NZS 3000 and the New Zealand *Electricity (Safety) Regulations 2010*.

A This Standard may be applied through legislative requirements. This Standard supersedes AS/NZS 3003:2011 from its date of publication. This may not be practicable in some cases, and a transition period, e.g. 6 months, may need to be arranged. For example, where work on an installation was commenced before publication of this edition, the relevant regulatory authority or electricity distributor should be consulted regarding permission for the installation to be completed in accordance with AS/NZS 3003:2011.

NZ Conformance with this Standard is deemed to be in accordance with AS/NZS 3003:2011.

New Zealand has formally consulted on the adoption of IEC 60364-7-710 and determined that the continued use of AS/NZS 3003 is the appropriate option for New Zealand.

NOTE: Refer to Report to Energy Safety, Ministry of Economic Development on New Zealand Electro-medical Area Regulation—Future options—From Standards New Zealand.

Any requirements that may be applicable only in Australia or New Zealand are indicated by the symbol **A** or **NZ** in the margin.

It is recommended that the responsible organization/entity carefully evaluate the procedures undertaken within existing installations and take steps to implement the appropriate electrical safety requirements specified in this Standard for areas that are used for cardiac-type procedures, or for procedures involving the regular use of medical electrical equipment.

Major changes in this edition include the following:

- The decisions made by the responsible organization/entity in determining patient areas need to be based on the classification of the medical procedures undertaken in each area.
- The word ‘point’ has been defined.
- The term ‘Responsible organization/entity’ has been defined.
- The term ‘electrical equipment’ has replaced the term ‘appliance’.
- The word ‘identification’ has replaced the word ‘marking’.
- The word ‘confirm’ has replaced the words ‘verified’ and ‘checked’.
- The term ‘testing and verification’ has replaced the term ‘testing and commissioning’.
- Exceptions have been included throughout this Standard.
- The responsible organization/entity is required to provide documentation outlining patient area locations and classifications.
- Patient area boundaries have been clarified in Figure 4.

- The patient areas, as determined by the responsible organization/entity, in any facility, building, institution or medical practice not wired as cardiac-protected electrical areas are required to be wired as body-protected electrical areas.
- Separation of circuits in cardiac-protected electrical areas has been clarified.
- A clause on extra-low-voltage charging sockets (including USB) has been added, see Clause 2.4.3.1.2.
- The distance required for socket-outlets within the entrance to a body-protected electrical area has been reduced to 2.0 m.
- Access to RCD controls and indicators is clarified in Table 2.1.
- Additional requirements have been included for socket-outlet labelling.
- Additional requirements have been included for socket-outlets requiring isolation switches.
- Additional requirements have been included for identification of socket-outlets protected by LPDs.
- Equipotential earthing terminals have been clarified.
- Equipotential earthing system requirements for nodes connected to the EP junction are now reflected in Figure 8.
- EP test terminals have been clarified.
- EP conductor labelling has been clarified.
- Where fixed electrical equipment rated at or above 2.0 kW is to be installed in a body-protected or cardiac-protected electrical area, the entire patient area is required to conform with this Standard.
- A clause on disability and aged care has been added, see Clause 5.3.
- A clause on reclassification of existing cardiac-protected electrical areas as body-protected electrical areas has been added, see Clause 6.2.5.3.
- Repairs within patient areas not wired as cardiac-protected or body-protected electrical areas in most cases will trigger upgrading to be in accordance with this Standard.
- An identification clause on alterations and additions within a patient area has been added, see Clause 6.2.5.
- Section 7 is now ‘Identification of patient areas’.
- Section 8 is now ‘Routine inspection and testing of cardiac and body-protected electrical areas’.
- Provisions for magnetic fields are now informative and located in Appendix H.
- Revised guidance tables have been included to illustrate requirements.

The terms ‘normative’ and ‘informative’ are used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of the Standard whereas an ‘informative’ appendix is only for information and guidance.