

SA200901 – 12/01/2009

## RCD use with portable electrical devices

### Purpose

To remind employers, employees and contractors about the potential for fatal electric shock from contact with energised (live) electrical equipment particularly industrial type battery chargers.



**Examples of Residual Current Devices (RCD's)**



**Wire in contact with bolt allowing 240-volt ac to the positive lead and clamp**



**Snap-on 6/12-volt fast charger - Model YAH167B-AUS**

### Incident

A worker received a fatal electrical shock due to inappropriate routing of wiring allowing 240 volt mains supply to come in contact with the battery charger DC output, effectively applying 240 volts AC, to the positive battery lead and clamp.

A residual current device (RCD) was not being used.

### Recommendations

- Always use a portable RCD (Residual Current Device) in conjunction with any portable electrical device.
- Only use industrial grade extension cords, the greater the distance the larger the cord.
- Regular inspection and maintenance of equipment.
- Only licensed electricians can carry out electrical work.
- Employers and owners must ensure electrical equipment is maintained so that workers are not exposed to hazards.
- Test and tag all portable electrical equipment in accordance with Australian Standard 3760:2003
- RCD's should be installed in mains power distribution board.

putting safety first >



## Legislative requirements

### [Workplace Health and Safety Act:](#)

#### **Section 55**

Employer's general statutory duty of care

#### **Section 57**

Duties in regard to workplace infrastructure, equipment and materials

### [Workplace Health and Safety Regulations:](#)

#### **Division 4 Electrical**

**Regulation 62** Electrical installations and equipment

**Regulation 65** Residual current devices

## Further information

NT WorkSafe Bulletin 05.01.01

[Electrical – Safety – Residual current devices \(RCD\) or safety switches](#)

Additional information on this issue or other safety matters is available at NT WorkSafe:

GPO Box 1722 Darwin NT 0801

Telephone: 1800 019 115 ♦ Facsimile: (08) 8999 5141 ♦ Email: [ntworksafe@nt.gov.au](mailto:ntworksafe@nt.gov.au)

Website: [worksafe.nt.gov.au](http://worksafe.nt.gov.au)