

Preventing electrical shock from power tools and electrical leads

What is the problem?

Workers using portable power tools and electrical leads that are electrically faulty or damaged.

What are the risks?

Workers may suffer electrical shock, which could result in death, heart problems, internal organ damage or burns.

What is a solution to the problem?

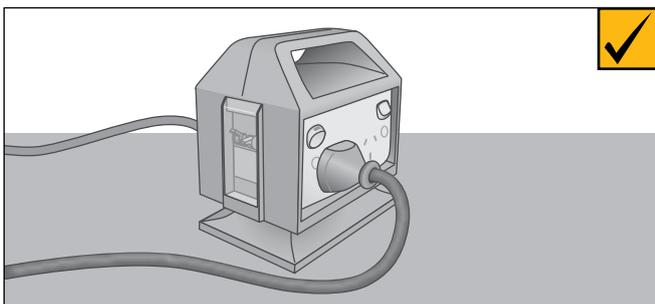
When using electrical leads and power tools:

- visually inspect prior to use – don't use equipment if it has been modified or damaged
- plug tools into socket outlets that are protected by a residual current device (RCD) or use a portable RCD (RCDs are also known as safety switches)
- plugtop type RCDs should not be fitted to power tools or equipment, as the RCD cannot be readily tested

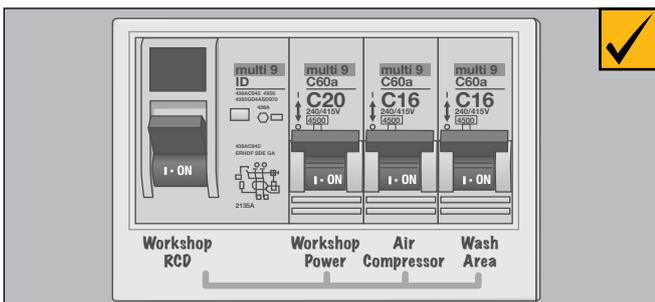
- ensure power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading
- if the circuit keeps overloading, don't increase the fuse rating as this creates a fire risk due to overheating
- arrange electrical leads so they will not be damaged. Avoid running across the floor or ground, through doorways and over sharp edges. Use lead stands or insulated cable hangers to keep leads off the ground
- don't use leads and tools in damp or wet conditions unless they are specially designed for those conditions
- to ensure RCDs continue to provide shock prevention, implement an electrical testing regime.

Note: Construction and demolition sites must comply with the requirements in AS/NZS3012 – *Electrical installations – Construction and demolition sites*.

The solutions



RCD protected portable power board.



RCD protection fitted to power circuits.

HSS0038/02/03.09

Further Information

WorkSafe Advisory Service

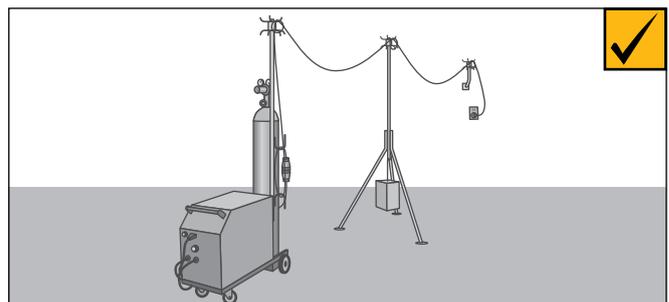
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Australian Standard

AS/NZS 3760 – *In-service safety inspection of electrical equipment*.



Extension lead run on lead stands.