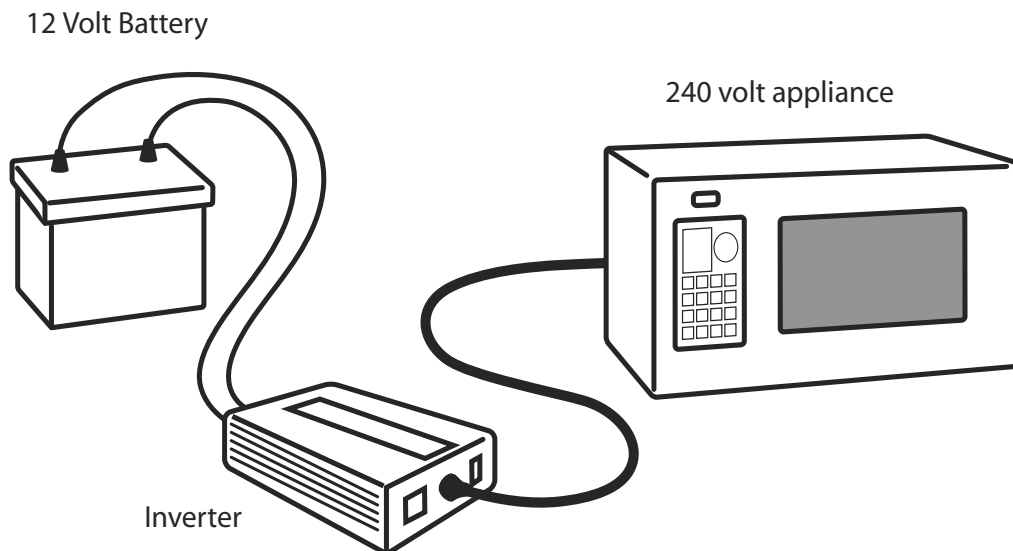


Electrical Inverters



Details

A electrical inverter is an electronic device that when connected to a 12 volt or 24 volt battery, changes the electrical characteristics to 240 volts. This enables the use of 240 volt electrical appliances.

Inverters are normally used where a 240 volt electricity supply is unavailable.

Reports have been received of incidents and a fatality (not in Tasmania) where, under certain conditions, a hazardous voltage can develop between the battery terminals and the exposed metal of electrical appliances or the inverter.

There is no national electrical standard that applies to inverters at present. Standards Australia is looking at developing requirements for inverters to address this anomaly.

Contributing Factors

- Inverters may have not been properly maintained, or may have become damaged during use.
- Inverters may have been used contrary to the design specifications or manufacturers' instructions.
- Some inverters' design do not ensure appropriate isolation between the battery and 240 volt output supply.

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Recommendations

- Electricity Standards and Safety strongly recommends that, until electrical safety requirements are developed, inverters should not be used in the workplace.
- Others users of inverters are urged to be cautious when selecting an inverter, especially those with warnings such as 'improper use can result in fatal voltages on the battery terminals, failure of the inverter, or fire'. Guidance should be obtained from the manufacturer or supplier to enable you to select a safe type for your intended use. Inquiries can also be made to Electricity Standards and Safety on 6233 7585.

If you would like further information contact Workplace Standards Tasmania on:

Telephone: **1300 366 322** (inside Tasmania) or (03) 6233 7657 (outside Tasmania)

Fax: (03) 6233 8338 Email: wstinfo@dier.tas.gov.au Internet: www.workplacesafe.tas.gov.au



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