

NATIONAL SOLAR SAFETY WARNING

Accessing a roof with solar panels could place tradespeople, emergency services and homeowners at risk of electrocution because the generation of lethal DC voltage cannot be stopped, even after isolating the DC isolator at the switchboard and the PV isolator on the roof!

Underwriters Laboratories Inc* has found that a damaged solar array is capable of producing lethal unpredictable current paths that may include gutters, roofs, modules and flashings. Unfortunately it is impossible to visually assess if a solar array is damaged as the wiring, the underside of the panels and the junction boxes cannot be observed. The risk of electrocution then becomes real on every solar panel installation where the open circuit voltage exceeds 100VDC.

Until now, one of the major problems with solar photovoltaic (PV) systems is that there has been no safe way to isolate rooftop panels and stop the generation of potentially lethal Direct Current (DC) voltages. Even by using the latest recommended shutdown procedure or DC/PV isolators currently installed on every solar PV installation in Australia, lethal DC voltages are still generated throughout the panels and the associated wiring. If the system becomes damaged, unpredictable current paths can be created and include the roof, gutter, panels, frame, conduit and flashing (meaning these can ALL become LIVE).

Solar panels are installed in strings to form arrays. Each panel generates power - the voltage accumulates to form a string. For a conventional 1.5kw system, 8 panels rated at 40 volts DC combine to produce a potentially lethal 320 v DC.

We would like to introduce you to the Remote Solar Isolator (RSI). This unique Australian designed and manufactured product makes safe any building fitted with solar panels. It is the only system capable of removing the presence of any lethal DC voltage, therefore allowing full and safe access to the roof and solar installation for emergency services and maintenance workers, even when the sun is shining. It may be activated at the meter box or away from the solar installation just by disconnecting the grid power to the local area. The RSI is ideal for mitigating the safety concern for people exposed to solar systems impacted by floods, snow storms, bush fires and wind storms as it also removes the chance of inverter back feed.

Benefits of installing a Remote Solar Isolator are:

1. Ability to stop any lethal DC current generation.
2. Ability to turn the system off in case of emergency.
3. Provide clear indication when safe access to the roof is available for maintenance work.
4. All operations may be performed remotely without accessing the roof.
5. Can automatically shut down entire system if fire is detected.

For more information please call on (02) 49 455 500, or visit www.remotesolarisolator.com.au

*Established in 1894, Underwriters Laboratories Inc has its headquarters in Northbrook, Illinois. UL develops standards and test procedures for products, materials, components, assemblies, tools and equipment, chiefly dealing with product safety. UL also evaluates and certifies the efficiency of a company's business processes through its management system registration programs. UL is one of several companies approved for such testing by the U.S. federal agency Occupational Safety and Health Administration (OSHA).

