

APPLICATION NOTE

EARTH LEAKAGE RELAY POWER UP TRIP

Electrical Protection Relays

Ampcontrol has identified that the ELD V3, ELV and ELM V2 relays may trip when re-powered within 10-15 seconds of power being removed. This can cause undesirable delays in your operation associated with resetting the relay.

TRIP CONDITION CAUSE

The earth leakage relays have an internal Super-Capacitor used to hold up the power supply during a fault as per AS2081 requirements. When the relay loses power the charge slowly drops until the relay turns off.

The trip occurs when the relay is on the cusp of turning off and power is re-applied. The following timing is measured from a fully charged internal power supply, which is achieved after around 90 seconds of power being applied, lower times would be recorded for equipment powered for less than 90 seconds.

- After losing power, re-energising after 10-15 seconds will cause a trip.
- After losing power, re-energising before 10 seconds or after 20+ seconds, the relay will power up as per normal operation.

WHAT DO I NEED TO DO

There is no safety risk however a nuisance trip may be generated under these prescribed circumstances which may inconvenience site operations.

To prevent the re-powering trip, please wait 20+ seconds before re-energising equipment after power is removed. If an installation cannot control system re-powering, it is recommended that the impact be assessed. If the severity of the impact is significant, Ampcontrol recommends that the relays be replaced or repaired where possible. Not all relays are repairable, please refer to the serial number ranges listed below to identify if a repair is possible. At the time of release of this notice, all new relays will not be affected.

- Relays Not Affected, Serial number ranges from:
 - o ELV (170447), From 2003001119
 - o ELD V3 (167259), From 2003002391
 - o ELD V3 NO CT (179721) All
 - o ELD V3 EXTD TRIP (179722), From 1906002061
 - o ELM V2 (179723), From 2003002277
- Firmware Upgradable, Serial number ranges from:
 - o ELV (170447), From 190300185832
 - ELD V3 (167259), From 1902000932
 - ELD V3 EXTD TRIP (179722), All
 - ELM V2 (179723), All.
- Recommend replacement due to hardware upgrade requirement:
 - o ELV (170447), Pre 1903001858
 - o ELD V3 (167259), Pre 1902000932

IDENTIFICATION

Relays that have been updated will have a firmware version of 8 or greater indicated on the firmware label added to the relay.

FIND OUT MORE

For more information on this product, please contact Ampcontrol Customer Service on +61 1300 267 373 or customerservice@ampcontrolgroup.com or visit the Ampcontrol website: www.ampcontrolgroup.com

DISCLAIMER

While every effort has been made to ensure the accuracy of this document at the date of issue, Ampcontrol assumes no liability resulting from any omissions or errors in this document, and reserves the right to revise content at any time.