Industry Notification
Application Note

Product Management – Industry Notification | **IN00029 February 2026**

ELV-PRO Hardware Update

PURPOSE

The purpose of this notification is to inform users that the Ampcontrol ELV-PRO protection relay is currently undergoing a hardware development project and planned to be completed early to mid-2026.

ISSUE

A small number of ELV-PRO relays have had nuisance trips showing “System Restarted.” Ampcontrol identified the issue comes from the processor board, which is supplied by a third-party. The problem is linked to memory chips that were swapped in later hardware versions. The design change was not captured in the supplier’s relevant release documentation and as such the standard alternative design / change investigation process was not able to be undertaken by Ampcontrol appropriately.

It has been seen that the memory access interactions utilised by the software may malfunction. When this occurs, the relay would be forced into a reboot. Given the failsafe design, this causes a nuisance trip as the output contacts open when relay is de-energised. This is then reported in the event logs as a “System Restarted” event.

The solution to this involves designing a new processor board, allowing Ampcontrol to maintain design control and prevent alternative item substitution causing incompatibility issues.

HARDWARE UPDATE

The solution to the above memory utilisation fault is to change to an appropriately suited memory chip. This has resulted in a new processor board design, which, development is currently underway. The design is based on an existing product that utilises the same processor family. This in turn provides greater confidence in upgrade and suitability of component selection.

Completion of this new design is scheduled for early to mid-2026.

ITEMS AFFECTED

This phenomenon has been reported on a small number of ELV-PRO relays; however not all relays are impacted. As the design alteration was not flagged by the supplier, Ampcontrol cannot identify which relays manufactured may experience this issue.

IDENTIFICATION OF NUISANCE TRIP

The trip can be identified by accessing the relays ‘Event Logs’ page. In the list there will be a “System Restarted” fault shown. The frequency of this fault will vary between relays, see Figure 1. Note also that since there is no battery within the ELV-PRO the reported system time will reported as 30 seconds after the last trip time recorded.

DISCLAIMER

While every effort has been made to assure 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.

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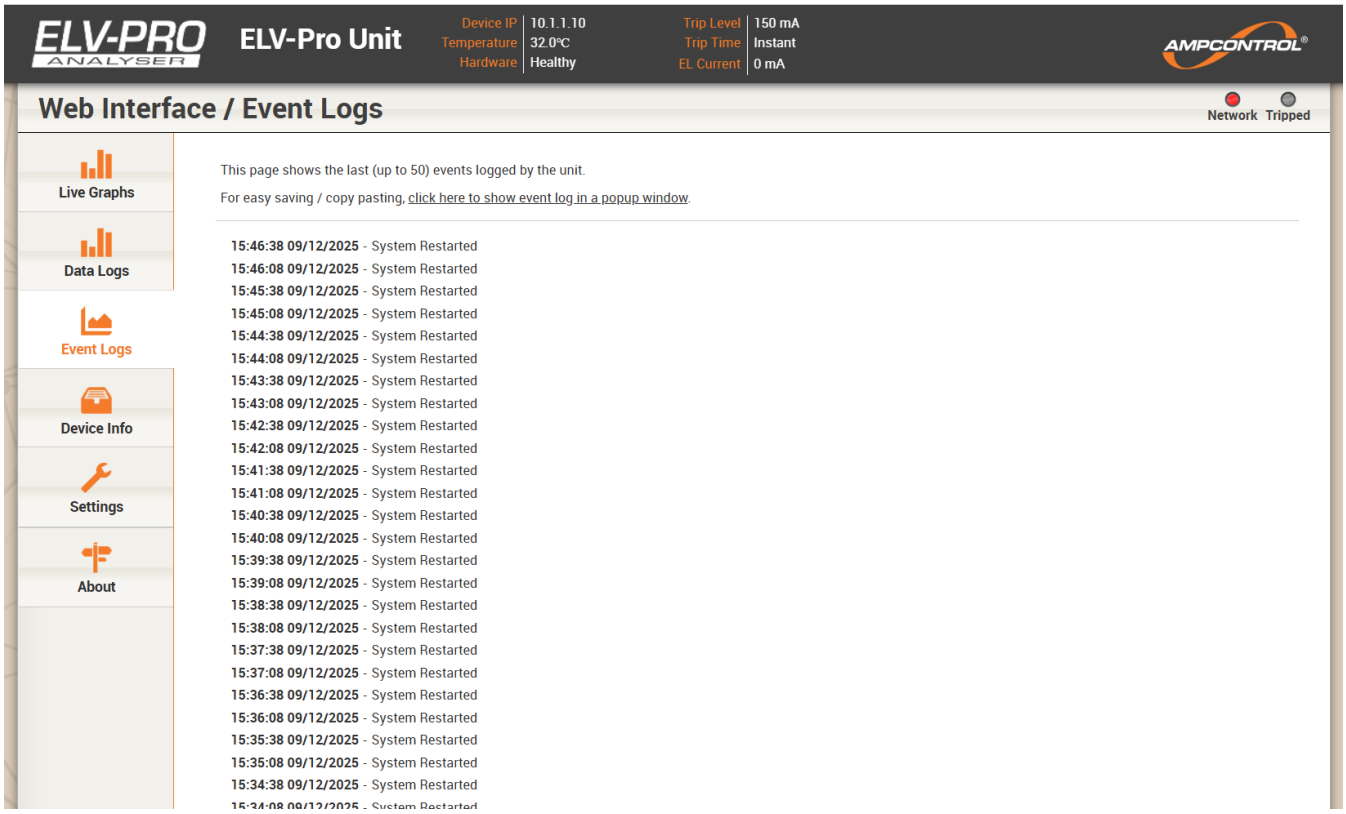

Figure 1: ELV-PRO Event Log Showing System Restarted Fault

WHAT TO DO

Once the new design has been released, users experiencing nuisance tripping, will be able to return the relay to Ampcontrol for upgrade. Until this option is available there are two recommended temporary actions:

1 - Install a Parallel ELV for protection requirements, maintaining the ELV-PRO in system for monitoring only (Removing the trip contacts from control circuit to eliminate the nuisance trips).
2 - Swap the ELV-PRO for an ELV until the ELV-PRO hardware update is complete.

The Ampcontrol ELV relay (https://ampcontrolgroup.com/resource/user-manual-elv-relay) utilises the same wide bandwidth protection capability as the ELV-PRO. The difference being that there is no graphical user interface for operators to interact with, and less data available from the ELV relay.

By installing an ELV in parallel to an ELV-PRO, the monitoring and graphical user interface functionality of the ELV-PRO can be maintained without concerns of site operations being impacted by nuisance tripping.

If there is not sufficient space for an additional toroid within the installation, or access to install a second toroid is not possible, temporarily replacing the ELV-PRO with an ELV relay is recommended.

To change the installation from ELV-PRO to ELV, the following wire changes should be made with the toroid, reset and trip contacts.

Note if a Phase CT is installed into the ELV-PRO, the CT secondary terminals should be shorted while the ELV-PRO is removed.

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1 - Power

ELV-PRO = 24 V DC, ELV = 24-110 V AC/DC

a. Positive: ELV-PRO (P3_1) to ELV (4)

b. Negative: ELV-PRO (P3_3) to ELV (5)

2 - Toroid

Both relays utilise the same series of toroids.

a. Positive: ELV-PRO (P6_1) to ELV (1)

b. Negative: ELV-PRO (P6_2) to ELV (2)

3 - Reset

Both relays require a short between terminal to action the reset.

a. ELV-PRO (P2_6) to ELV (17)

b. ELV-PRO (P6_6) to ELV (16)

4 - Trip Contacts

Contact ratings should be considered to ensure suitable for installation.

	ELV-PRO	ELV
Relay 1	250 V AC 1.6A / 30 V DC 1.6A	240 V AC 1.6A 400 VA
Relay 2	110 V AC / DC 0.2A	240 V AC 1.6A 400 VA

a. C/O Contacts (N/O / COM / N/C)

i. ELV-PRO = P1_3 / P1_1 / P1_2

ii. ELV = 8 / 9 / 10

b. N/O contacts (N/O / COM)

i. ELV-PRO = P1_5 / P1_4

ii. ELV = 6 / 7

WHAT NEXT

There Users should perform routine checks of equipment on site to check for anomalies in operation. If the above nuisance trip is observed, appropriate measures should be taken. For further design assistance on alterations, please contact the Ampcontrol Customer Service team.

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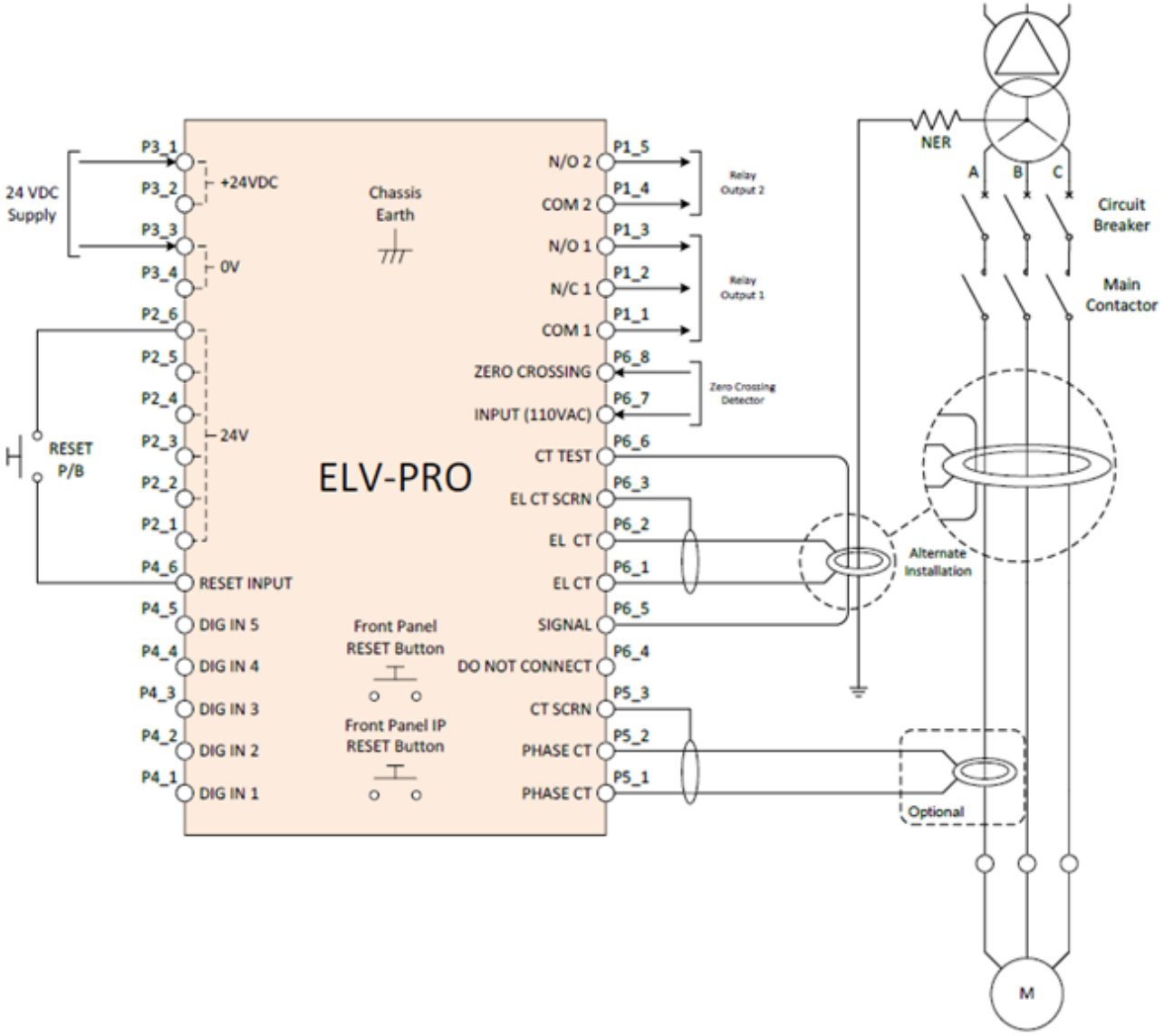
ELV-PRO Typical Wiring Installation



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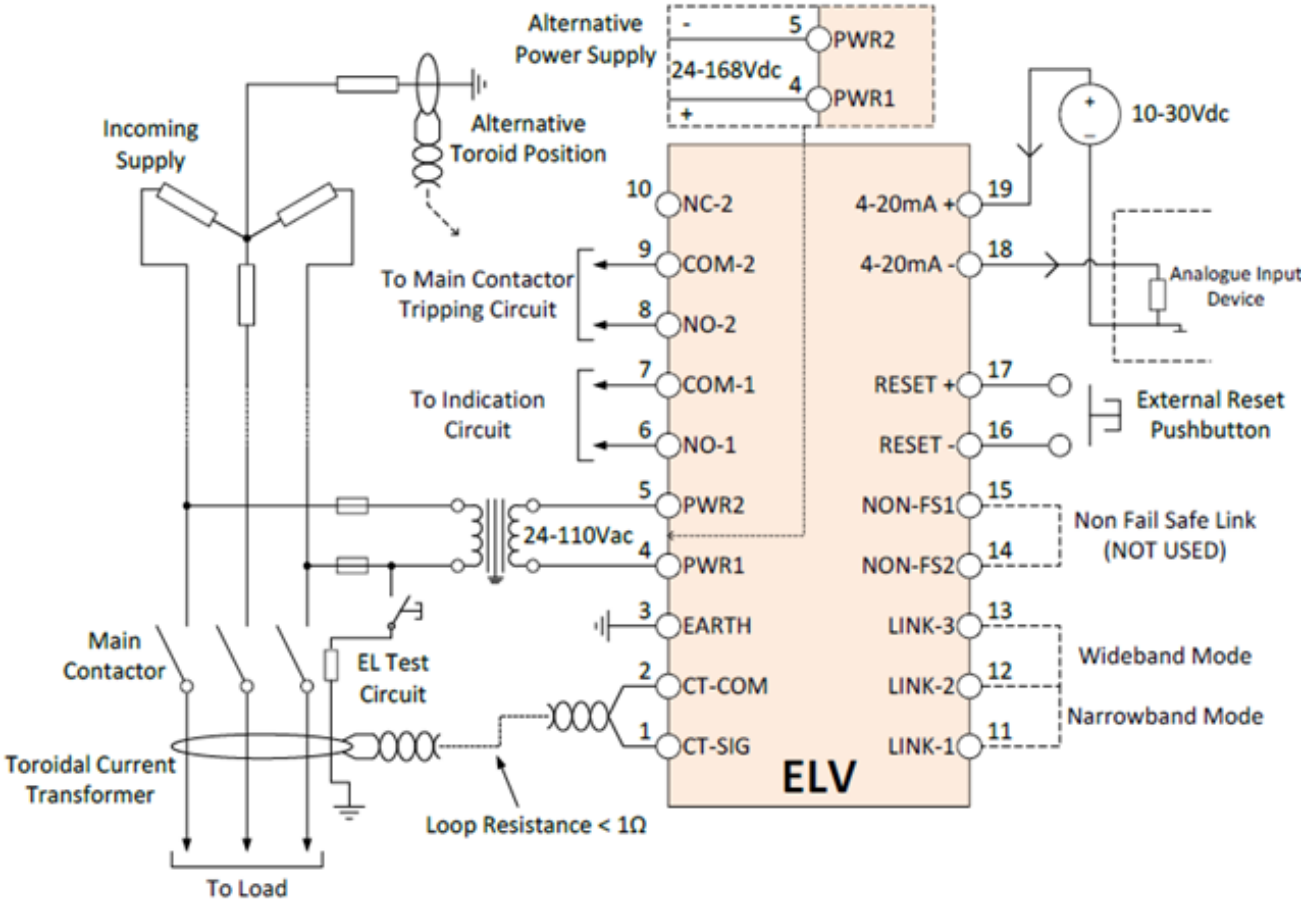
ELV Typical Wiring Installation



FIND OUT MORE

For more information on this Notification, contact Ampcontrol Customer Service on +61 1300 267 373 or customerservice@ampcontrolgroup.com

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