



SPC6350 AC Mains Transient Affect

This document explains how AC mains transients can affect the SPC6350 PSU and also on how to avoid the issue.

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1. Issue Description

The SPC6350 PSU can potential fail due to the main regulator controller chip getting damaged due to AC mains transients.

This can be identified by the PSU outputs reading 0vDC, the monitoring I/O module not powering up and the SPC Controller not having power supplied to it from the main PSU.

2. Issue cause

- ***AC Mains transients***

The issue can occur when the SPC6350 PSU is power cycled. In very rare cases, mains transients/surges can damage the controller chip and the main regulator can no longer functions correctly.

3. Recommendations

- ***Power cycle SPC controller only.***

Avoid power cycling the main PSU board when making changes only to the SPC Controller. To remove power from the SPC controller, remove terminal A1/OV. These leads power the SPC controller via its battery leads.

Also, remove connector CN17 on the main PSU board.

- ***Prevention - Add Varistors to the AC Mains spur***

Add two varistor components (part number B72220S0271K101) to the fuse spur on the fuse protected side (transformer side).

Place the first varistor between L and E and the second varistor between N and E. Cut the metal leads of the varistors to be as short as possible to minimise exposed metal leads. See Fig 1 below for guidance.

Do not do this when the mains supply is connected. Only carry this out after the mains supply has been completely isolated from the SPC6350 cabinet.

Only after adding in the two varistors, should you turn on the mains supply to the SPC6350 cabinet.

SUPPORT INFORMATION

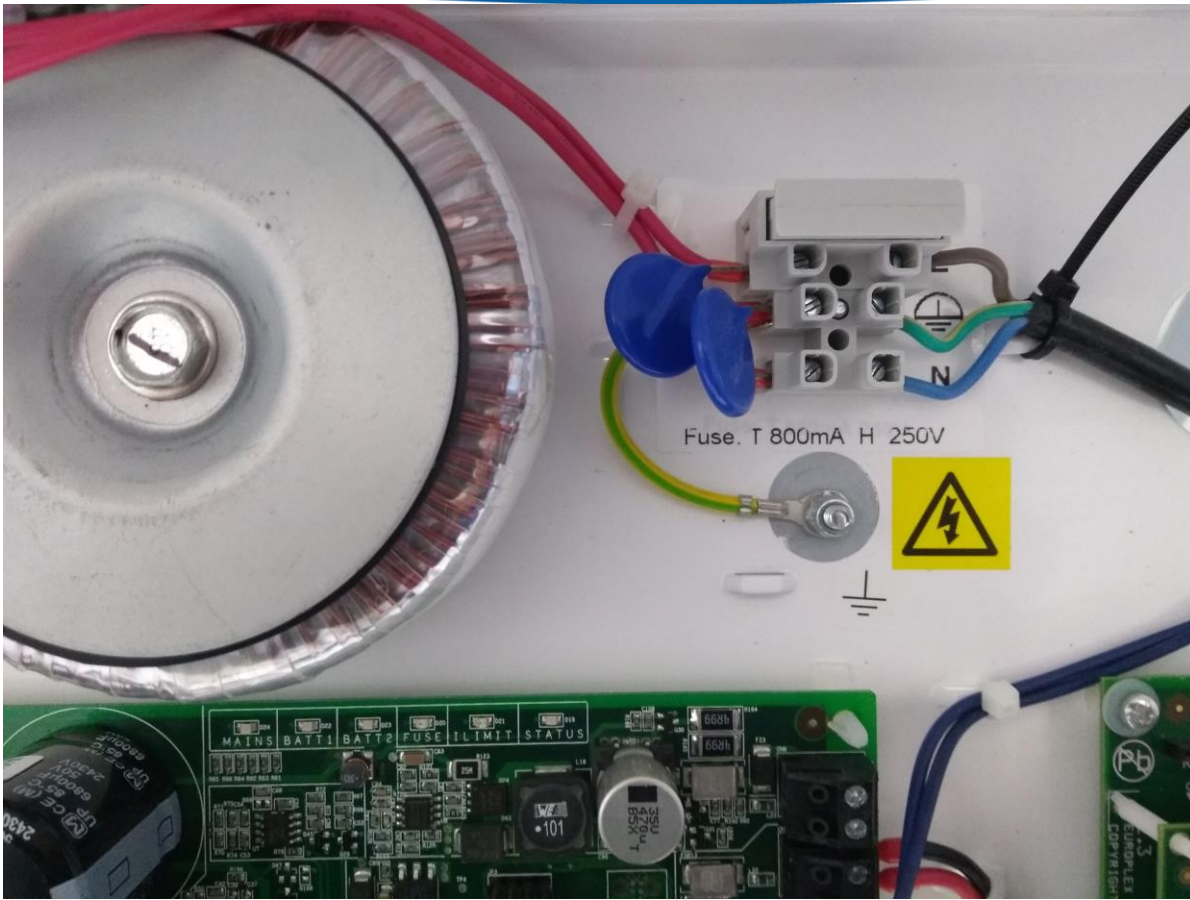


Fig 1.

SUPPORT INFORMATION



If you have any questions, please contact our Technical Competence Centre.
Contact details can be found on our website.

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