

	Doc or ECO #:	ECO-PN4-003-004	Date:	2/16/2018	Author:	CH
	Rev. #:	C				
Pro4 Power Supply C7 Replacement and Thermistors Retention	Engineering Approval:	AEG	Date:	4/6/2018	Quality Approval	DO

P/N #:	PN4-003	Effective Date:	February 1, 2018
Title:	Pro4 Power Supply C7 Replacement and Thermistors Retention		

1.0 Purpose / Summary

Capacitor C7 on Pro4 power supply was replaced and inrush current limiter thermistors were secured to the PCB to increase reliability.

2.0 Parts Affected

Part Number	Notes	Removed	Added	New	Modified
PN4-003	Circuit Board Panel Power Supply 5/12/24/74 V DC (Pro 4)	☐	☐	☒	☐
7130K32	Cable Tie 8" Black	☐	☒	☐	☐
52334	Loctite 596 Red High Temperature RTV Silicone	☐	☒	☐	☐

3.0 Detail

Multiple Pro4 power supply failures have been reported by customers in the field. The root cause failure was attributed to the C7 capacitor on the power supply failing on initial power up. It was determined by engineering that the C7 capacitor being used on the Pro4 power supply was underrated and therefore failing on power up. As a long-term solution, C7 capacitor was replaced with a higher rated 250V capacitor.

To improve power supply reliability, inrush current thermistors were fixed to the PCB with a cable tie. This will prevent the thermistors from breaking off the PCB during shipping.

Both thermistors will be bent into position to secure them to the PCB with an 8" cable tie. The top thermistor leads will be isolated with sleeves and the bottom thermistor leads will be isolated with high temperature RTV [52334] to prevent any shorts in the power supply.

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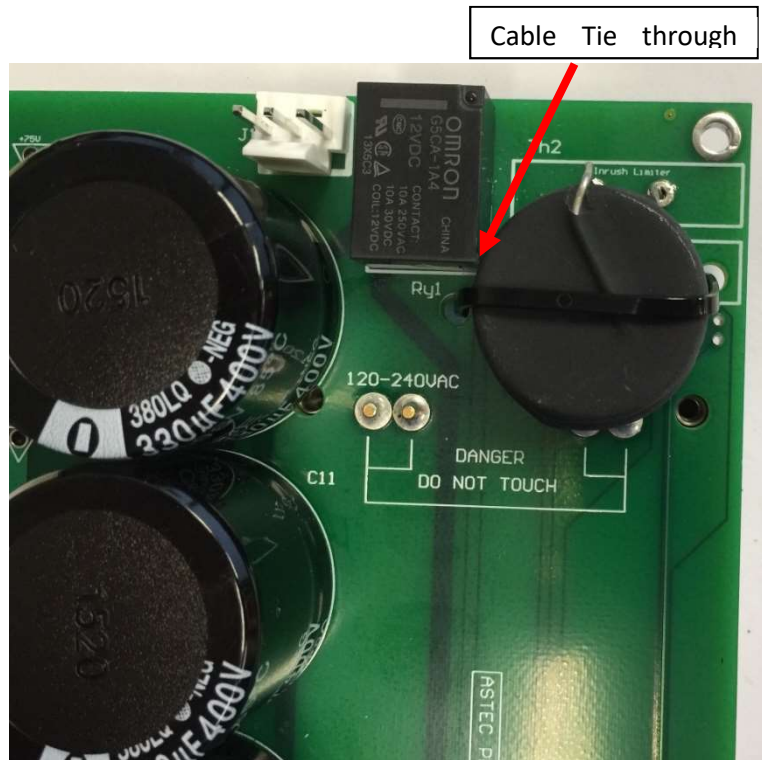
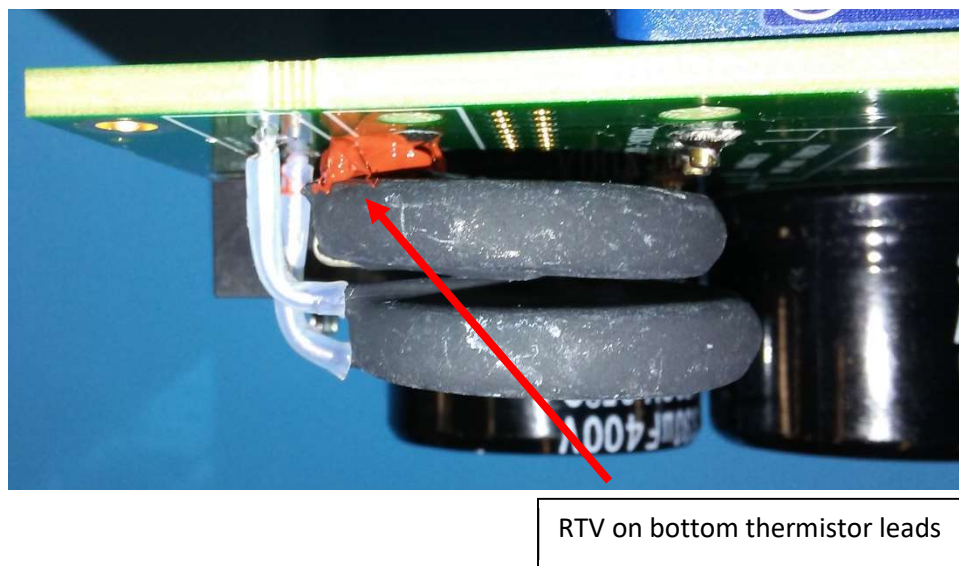


Figure 1: Thermistors fixed to the power supply PCB



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4.0 Disposition of Material

No rework of stock is necessary.

Replace power supply on incoming panels that display C7 or thermistor failures.

5.0 Action Items

Action	Department	Acknowledgement Initials
Update PN4-003 revision in Epicor	PE	CH
Reference Rev B for part number PN4-014B-ASSM	Inventory	SL
- Notify Pro4 power supply manufacturer of the changes stated above. - Provide applicable documentation to Pro4 power supply assemblers	Purchasing	NS
Inspect incoming Pro4 power supplies PN4-003 for correct C7 capacitor and fixed thermistors.	QA	DO
Replace power supply on incoming panels that display C7 or thermistor failures	Repairs	JK

6.0 Modified / Referenced Documents:

Document	Current Revision
PSU11_c.pdf	C

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7.0 Revision History

Date Revised (mm-dd-yyyy)	Location of Change (section, paragraph no., step no., etc.)	Description of Change Made	Name of Person making the Change
12/20/2017		Initial release	CH
1/22/2018		Corrected PNs for Contractor Referencing	CH
2/16/2018	Details section	Added sleeves to thermistor leads and RTV part number	CH