xantech Application Advisory

AA-2a(PA1235)

Assemblies Affected:	PA1235/77, PA1235X/77
Symptom:	Unit may exceed allowable rated current with a sharp AC Power ON due to Power Outages and may blow AC fuse and/or internal rail fuse. This symptom may also happen with inadequate AC Breakers (i.e. 15-20Amp service)
<i>Cause:</i>	Unit draws a very large in-rush current on power-up. This 'in-rush' current is very fast and directly after the initial Power-On, it subsides to its 'steady-state' current rating which will not exceed 8.7A under normal operating conditions.
Solution:	Install the Current Limiter Thermistor Assembly (PN#03928520-01) as outlined below. This will soften the effect of the in-rush current.
Steps:	 Caution: To install this modification, it will require removing the chassis cover exposing the internal electronics of the system. Extreme STATIC precautions will apply. Make sure the unit is removed from the AC power source and is placed in an anti static environment. Remove the AC cord from the rear of the unit and place on a properly grounded anti-static mat. Remove the 8 screws from the chassis cover: 3 on each side and 2 on the rear of the unit. Slide the top cover towards the rear of the unit and carefully lift off allowing access to the internal Power Transformer wiring Place the Heatsink Shield (Item #1) over the threaded screw holes on the side of the large heatsink (see Figure 1). Note: The Heatsink Shield and Thermistor PCA) so that the Shield is square to the Thermistor PCA and the mounting holes align properly to the Heat Sink and Thermistor PCA. Place the Thermistor PCA (Item #3) on top of the barrel spacers. Note: Make sure the connectors referenced T2 and T3 are oriented towards the power transformer as in Figure 1. Place the two 6-32x3/8" screws (Item #4) into the mounting holes and fasten the entire assembly to the Heatsink.

screws as doing so may damage the PC Board assembly.



For 110v AC PA1235 Units Continue Here: (refer to Figure 2 below)

- Remove the Brown Transformer wire (Item 6) from T6 on the Main Supply PCB Assembly and connect to T2 on the Thermistor PCA.
- 9. Remove the Black Transformer wire (Item 7) from the **NO** (Normally Open side) of Relay K1 on the Main Supply PCB Assembly and connect to T3 on the Thermistor PCA.
- Using the included blue jumper wire (Item #8), connect one end to T1 on the Thermistor PCA and connect the other end to the **NO** (Normally Open side) of Relay K1 on the Main Supply PCB Assembly.
- 11. Place the included single spade connector over T6 on the Main Power Supply PCB Assembly.

Note: Make sure all wires are securely connected to T1, T2 and T3 of the Thermistor PCA and K1 Relay of the Main Supply PCB Assembly.



Figure 1: PA1235 110AC Version and General PCB Assembly

For 220v AC PA1235-77 Units Continue Here: (refer to Figure 2 below)

8. Remove the Black Transformer wire (Item 7) from the **NO** (Normally Open side) of Relay K1 on the Main

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PA123577 VERSION

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Supply PCB Assembly and connect to T3 on the Thermistor PCA.

- Using the included blue jumper wire (Item #8), connect one end to T1 on the Thermistor PCA and connect the other end to the NO (Normally open side) of Relay K1 on the Main Supply PCB Assembly.
- 10. Place the included single spade connector over T2 of the Thermistor PCA.

Note: Make sure all wires are securely connected to T1, T2 and T3 of the Thermistor PCA and K1 Relay of the Main Supply PCB Assembly.



Figure 2: PA1235-77 220v AC Version