

IMACS Fusing and Power Supply Protection

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Scope

This Document pertains to the IMACS 600, 800, and 900.

Introduction

Power Supply Protection:

The 8901 and 8902 Power Supplies have several types of protection.

The first is an onboard fuse that protects from excessive input current.

The second is “short circuit” protection, which monitors all output voltages for shorts. In the case of a card having, for example, a +5 VDC short, the Power Supply “short circuit” protection would shut down that Power Supply until the “short circuit” was removed. If redundant Power Supplies were installed, they both would shut down.

The other Power Supply Protectors are “over power”, “over voltage”, and “over current”. These are designed to shut down the Power Supply if it has an internal failure. This will have no other effect on any other Power Supply and is designed to isolate the bad Power Supply from the Power Back plane and input.

Requirements

Power Supply Fusing:

It is important to note that Power Supply Fuses can be replaced in the field. The following is a list that outlines which IMACS parts have field replaceable fuses:

All 8916 chassis prior to REV C have a replaceable 3.0 amp 250 VAC fuse for fusing input AC.

All 8916 REV C1 chassis have a replaceable 5.0 amp 250 VAC fuse for fusing input 48 VDC.

All 8916 chassis REV D0 and higher have a replaceable 5.0 amp 250 VAC fuse for fusing –48 VDC talk battery to Back plane.

All 8916 DC chassis have a replaceable 5.0 amp 250 VA fuse for fusing input –48 VDC.

All 8916XX chassis have a replaceable 5.0 amp 250 VAC fuse for fusing –48 VDC talk battery to Back plane.

All 8918 chassis have a replaceable 3.0 amp 250 VAC fuse for input AC.

All 8918XX chassis have a replaceable 5.0 amp 250 VAC fuse for fusing –48 VDC talk battery to Back plane.

All 891920 chassis have a replaceable 5.0 amp 250 VAC fuse for fusing –48 talk battery to Back plane.

All 891930 chassis have a replaceable 8.0 amp 250 VAC fuse for fusing –48 VDC talk battery to Back plane.

The following is a list of Power Supply Fuses that cannot be replaced in the field. The entire Power supply must be returned to Zhone for repair.

The 8901 and the 8901XX AC Power supplies have an on board 2.5 amp fuse.

The 8902 and the 8902XX DC Power Supplies have an on board 4 amp fuse.

The 8903 Power Converter has an onboard 1.5 amp fuse.

The 8904 Power Converter has an onboard 1 amp fuse.

The 8905 Power Converter has an on board 3-amp fuse.

The 8906 Ring Generator has an on board 5-amp fuse.