

TO: Niles IntelliControl ICS Dealers and Sales Reps

FROM: Niles Technical Support

DATE: November 8, 2006

RE: Voltage Regulation of the IntelliControl ICS

With the release of IntelliControl ICS Tech Support has received numerous calls asking for advice as to what type of power management, if any, should be used on the system. This bulletin is intended to serve as a guide for specifying this integral part of your IntelliControl ICS system design.

The GXR2 is a unique multizone product in many ways, not the least of which is the fact that it is a very sophisticated microprocessor based controller. While Niles has gone to great lengths to design a robust and stable system we strongly recommend the use of a high quality voltage regulation device to stabilize the electrical supply to the GXR2. This will help to insure long term trouble free operation.

While standard surge devices and line conditioners offer adequate protection against catastrophic electrical surges they don't generally offer an acceptable level of protection against voltage fluctuations and "brown-out" conditions. The average line conditioner has an acceptable operational range of 90 -140 volts. This means they are not designed to initiate any type of protection until the line voltage moves outside of this operating range. While not causing any permanent damage to the GXR2, 40 -50 volt fluctuations in line voltage have the potential to "lock up" any computer microprocessor. On the other hand, a quality voltage regulator will not only provide surge suppression and line conditioning, but will supply connected components with a stable, constant 120 volts of power.

For this reason Niles recommends that you specify a voltage regulator when designing your IntelliControl ICS systems. An example would be the Furman AR-15 Series II rack mount voltage regulator.

Should you have any questions, please feel free to contact Niles Technical Support at 1-800-289-4434 between the hours of 8am and 7pm Eastern Time, Monday through Friday.