
Is Mains Supply Voltage important?

Yes, in some countries and especially outside the major cities, regulation of the AC mains supply is sometimes not all that it should be. We've personally measured AC voltages of **275-280** Volts in areas that should have a mains supply specified as **220** Volts!!!

This level of over voltage impacts greatly on the reliability and short term life of all equipment, especially Power Amplifiers where the DC supply voltages and currents are much higher than in signal processors. Filter capacitors rated for **100V DC** can have upwards of **120V DC** applied to them. This is not healthy!!

In countries quoting **220VAC** Mains, some Rental Companies use Power Amplifiers rated for **240AC** operation. This gives them a degree of insurance against over voltage induced breakdown. At the small sacrifice of slightly reduced output power, this is more than compensated by not having your amplifiers go up in a show destroying puff of smoke!

If you are using a Power Generator ensure that the unit is reliably **regulated**, not an old unit whose output is dependant only on R.P.M or load. If possible, always try to use a **different** generator than the one used for the stage lighting.

Most generators have a slow response to heavy current draw suddenly dropping off, which means that when the stage lights go down at the end of a song or set, the generator takes **time** to realise that all that current is no longer being drawn. During this time the AC Voltage can **overshoot** and go high, with all the potential for damage that mains overvoltage can bring!
