

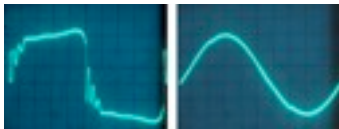


Photo courtesy Guy Holt
ScreenLight and Grip, Boston

Portable Generators in Motion Picture Production

by Guy Holt

Given the wide variety of generators manufactured for different markets, it is important to understand the benefits and drawbacks to each when it comes to their use in motion picture production. Especially since the increasing use of personal computers and microprocessor-controlled recording equipment in HD production has increased the demand for clean, reliable power on set, at a time when the trend in lighting is toward light sources (such as HMI's, Kinos, and LEDs with non-power factor corrected ballasts) that generate dirty power.



(Power waveforms of two approaches to set power. Left: AVR Genny w/ non-PFC Lights. Right: Inverter Genny w/ PFC Lights.)

The adverse effects of the harmonic distortion generated by these power supplies (illustrated above left) can take the form of overheating and failing equipment, efficiency losses, circuit breaker

trips, excessive current on the neutral wire, and instability of the generator voltage and frequency. In this article veteran gaffer Guy Holt discusses these issues in depth. He provides a detailed explanation of the issues and the technology with helpful illustrations, and offers a variety of solutions to solve location power problems. Following the prescriptions contained in this article enables the operation of bigger lights, or more smaller lights, on portable generators than has ever been possible before.

Guy Holt is the owner of ScreenLight & Grip, a lighting and grip rental company in Boston, MA renting Honda, MQ, and Crawford generators for motion picture production for 18 years. He has served as a Gaffer, Set Electrician, and Generator Operator on numerous features and television productions and has presented on Harmonics to the Electrical Department of IATSE Local 481 as part of their "Advanced Power and Generation for Set Lighting Technicians Seminar. Follow the link below to this in depth article.

http://www.screenlightandgrip.com/html/emailnewsletter_generators.html

