GENERATORS

WHEN DO I NEED A GENERATOR?
You will need one when electrical power is either not available or inadequate. For example, in remote areas such as deserts, mountains and forests. Older private dwellings and buildings with minimal electrical service, antiquated wiring or where the location owner does not want you using their power.

WHAT SIZE GENERATOR DO I NEED?
For most student films a small Honda-type generator (pictured above right) should be adequate. A 45 Amp (5500 Watt) “putt-putt” will generate enough electricity to run several lamps.

Keep in mind that the small Honda generators are not baffled - they are very noisy and not at all suitable when recording sound.

To determine exactly how big a generator you need you can use the formula “West Virginia”. That is, W=VxA.

Figure that a 1000 Watt lamp at the standard 110 Volts will draw 10 Amps (divide 1000 by 100 to give yourself a 10% safety factor).

Calculate how many lamps you will be using at any one time on your set. Add up the wattage and divide by 100. That will tell you how large a generator you need.

A 350 Amp generator should provide enough power to light 35 1K tungsten lighting instruments. Of course, that would be running at peak, which you don’t want to do very often – or for very long. A student film will generally not need anything larger than a 500-amp generator. By contrast large feature films will often run two 750 Amp generators to provide enough power to light their sets.

<sup>10</sup> commonly known as a “genny.”
Generators larger than 100 amps, power is distributed by larger cables using banded 2 or 4 ot Camlock connectors.

If you are using HMI or fluorescent lights there are some other considerations you have to keep in mind. To avoid “flicker” your lamps must be flicker-free – or the generator must have crystal sync to maintain a constant 60HZ (cycles/second) at 24fps.

Lamps larger than 10K will require 3-phase power. LMU’s Grip and Lighting Department does not provide any resources for 3-phase power distribution other than the required cables. You will have to rent 3-phase power distribution boxes from a 3rd party vendor.

Please makes sure you check with the L & G staff at the time of ordering equipment to confirm whether you need a generator.

**GFCI**

You must use a Lifeguard GFCI (ground-fault circuit interrupter) with the generator. You can rent one from Guardian GFCI for about $300 per week. The GFCI rental paperwork must be inspected by the Studio Operations Administrator before your Lighting and Grip order will be released.

You can rent a GFCI at a reduced student discounted rate at:

Guardian GFCI  
6850 Vineland Ave.  
North Hollywood, CA  
818-565-3550, ask for Steve Brock.

WHERE SHOULD THE GENERATOR BE PLACED ON LOCATION?

Even baffled generators make noise - they’re not completely silent. Try to park the genie in a location where a building or truck is between the set and the unit. If you’ve got to park the generator a long way from the set make sure you’ve rented enough cable and hired enough electricians. Park the generator with the noisiest part - the exhaust - pointed away from the set.

WHERE DO I GET A GENERATOR?

There are a number of rental companies in the Los Angeles area that rent sound-proofed generators as well as the smaller “putt-putts” (unsilenced generators, which are totally unsuited for sound recording - these smaller units are usually rated in watts rather than amps). Castex has smaller generators and generally deals well with students. Check LA411 for generator rental companies. The following vendors have cooperated with LMU students in the past and the LMU Risk Management Office will issue Certificates of Insurance for:

**Cinerex**

20420 Corisco Street  
Chatsworth, CA 91311-6121  
Phone (818) 882-2677  
(discounts for students)

**SMS Generators Inc**

15700 Roxford  
Sylmar, California 91342  
Phone (818) 361 2151  
Fax (818) 364-7420

WHAT DOES IT COST TO RENT A GENERATOR?

Rental rates vary depending on the size of the generator. Don’t forget to include the cost of operating (the fuel) as well as transporting the generator to and from your filming site. The average cost for a 3-day weekend is about $900 for a 500-amp generator.
WHAT ABOUT FUEL?
For purposes of budgeting, figure that a generator running at 100% capacity will burn about 4 gallons of diesel fuel an hour. The tanks on most units are large enough to accommodate a “normal” 10 to 12-hour day. Consider whether or not you will need re-fueling, who will do it; when it be done and how much will it cost.

DOES LMU INSURE GENERATORS?
Remember that the LMU insurance policy does not cover vehicles – of any kind. A truck mounted generator – or a trailer mounted, towed generator, for that matter, is considered a vehicle when in motion – and as such, is not covered by LMU. However, once stationary and functioning as a power plant, it would be covered.

Many generator rental companies will provide “drop/pickup” service at an additional charge. As long as your location is within the Studio Zone this charge will be substantially less than purchasing third party vehicle insurance.

If you need the generator at multiple locations, you will have to pay additional charges to have it moved.

HOW DO I OPERATE THE GENERATOR?
Most generators available from motion picture equipment rental houses are fully automated and relatively simple to operate. However, we highly recommend you employ and professional generator operator.

You must have a designated generator operator with direct 2-way communication to the set (i.e. walkie-talkies - NOT a cell phone). This person is not to be considered “on-set” crew. They stay with the generator monitor its operation and shut it down immediately if there is a problem.

Any delivered “tow plant” generator will come with a fire extinguisher. Locate the extinguisher BEFORE turning on the generator and place it within easy reach, outside the genie. DO NOT RUN THE UNIT WITH THE FIRE EXTINGUISHER STILL INSIDE THE ENGINE COMPARTMENT OR CONTAINED ELSEWHERE ON THE TRAILER. IT MUST BE VISIBLE AND NEARBY.

Using a generator in some locations (like the Angeles National Forest) will require that you hire a Fire Safety Officer to be on set. The issuing permit office will let you know if an FSO is needed.