

# F R E E M A N

## ELECTRICAL SERVICES

### FREQUENTLY ASKED QUESTIONS

#### **How much power do I need?**

Power requirements are based first on voltage, then on the total wattage or amperage of the lighting and/or equipment to be connected.

#### 120 Volt

Any piece of equipment that plugs into a standard wall outlet found in a home or office (in North America) will require 120 volt power. The wattage or amperage of that equipment is noted on a name plate or stamp usually located on the back or bottom of the equipment. (If there is no name plate please refer to the Electrical Usage Guide for typical equipment brought to shows.) Simply add together the wattage of each piece (if power usage is rated in amps convert into watts 1 amp = 100 watts).

For lighting, simply total the wattage of the bulbs.

Add the equipment and lighting wattages together for the total power requirement. Exhibitors can order any outlet which exceeds that number. E.g. – 800 watt total requires a 1000 watt outlet but would also work with a 1500 watt outlet.

#### 208 Volt & Higher

Equipment requiring higher voltages range from heavy machinery to industrial cooking devices. It is usually rated at 208 volt but could be 220 or 230 volt. Orders may also be placed for 480 volt for heavy industrial (American), 380 volt (European), or 600 volt (Canadian).

Refer to the name plate or stamp on the bottom or back of the equipment to determine the voltage, amperage and phasing. The term wattage is typically not used with higher voltage equipment.

Examples of some name plate readings are:

1. 208 Volt, 30 Amp, Three Phase (3Ø)
2. 230 Volt, 20 Amp, Single Phase (1Ø).

Power usage for 208 or higher voltage is specific and cannot be combined. A separate connection must be ordered for each individual piece of equipment.

If 220 or 230 volt power is required, a transformer will be required to “boost” the power to the higher voltage. The transformer order is always placed in addition to, not in place of, a 208 volt order. When an order is placed for a B&B transformer it is assumed that the customer has requested the proper equipment for their machine. If a customer is inquiring about 220 or 230 volt power for their piece of equipment it should be recommended that they check with their electrician and/or engineer to determine if the unit will function properly with 208 volt power before ordering. Heating appliances will normally function fine (unless the unit has sensitive electronics). It will just take longer for the unit to heat up.

#### **What is 24 hour power?**

24 hour power is, as it sounds, power that is continually on 24 hours a day. Power is usually turned on 1/2 hour before the show opens and turned off 1/2 hour after the show closes. Exhibits requiring power to be on during non-show hours must order 24 hour power. 24 hour power is normally ordered for refrigeration equipment, aquariums and programmable items that depend on uninterrupted power. Freeman electricians will identify the 24 hour power so that in the event work must be done in the area that requires the power to be shut off, the 24 hour power booth will remain on.

### Is the price for power per day?

Outlet or connection prices are typically for an entire show.

### How many places will I have to plug in? How many things can I plug in?

For 120 volt connections, exhibitors are provided with a duplex receptacle (two sockets) much like a home or office outlet. Whether the exhibitor utilizes one or both sockets on the receptacle the total wattage of the equipment they are plugging in must not exceed their order.

Example – An order is placed for a 500 watt outlet. A track light with 4 – 100 watt bulbs is plugged in, using 400 of the 500 watts. Any lighting or equipment now plugged in to the second socket may not exceed 100 watts.

Exhibitors who require more than the two connection points should be advised to rent Freeman plug strips or provide their own to ensure that there are enough sockets to connect their equipment. Advise the exhibitor, however, that the power usage is the dictating factor not the number of places to plug in.

All orders exceeding 120 volt/20 amps provide one connection point only and usually require labor for installation.

### Can I bring my own extension cords and plug strips?

Exhibitors may use their own extension cords and plug strips/power bars under the following conditions:

- a) The equipment must be 3 wire, 14 gauge minimum with a ground.
- b) The extension cords must be flat if they are to be laid under carpet. (Labor is required to lay the cords.)
- c) All plug strips must have circuit protection.

### Can I run my extension cords under the carpet myself?

For safety reasons, exhibitors are not allowed to run any electrical wiring under carpets or where they may be concealed in the booth structure. The show's electrical contractor is liable for electrical installations and therefore must perform all floor or booth work.

### When will my power be installed?

Power will be installed before the show opens. If Freeman is allowed access to the facility early, power is normally ready the first day of move-in for exhibitors.

### Will my floorwork be completed before I arrive?

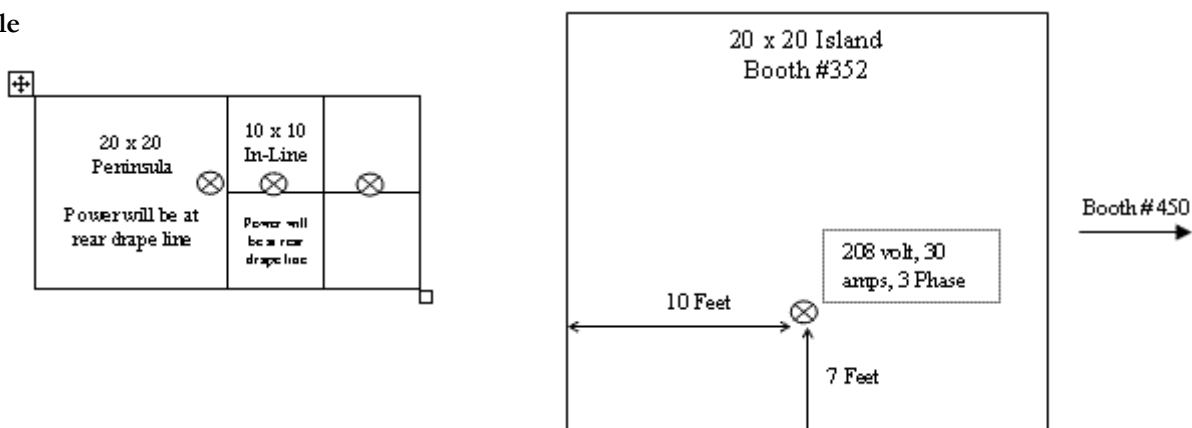
Every attempt is made to have floor work completed prior to carpet installation if the following have been received from the exhibitor:

- a) A completed electrical order form.
- b) A completed electrical labor order form which authorizes us to proceed without exhibitor supervision.
- c) A valid and authorized credit card to be kept on file for the company.
- d) A floor plan indicating the main drop location, dimensions to each power location, the power required at each location, and surrounding aisle or booth numbers to determine orientation of the booth.

### Where will my power be located?

In-line and peninsula booths will find their main power source on the floor at the rear of their booth. Island booths need to submit a floor plan noting the location and quantity of the power. The surrounding aisle or booth numbers should also be indicated to provide orientation of the booth.

#### Example

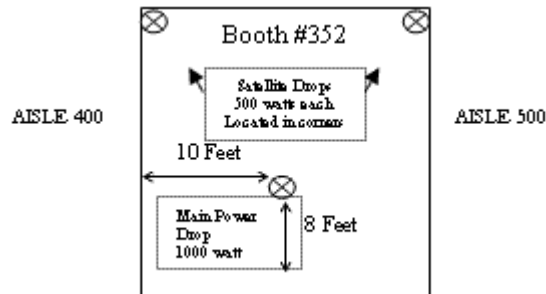


## What if I need power at another location besides the rear of my booth?

### What if I have multiple power locations?

Exhibitors requiring power at another location must submit a floor plan indicating the preferred location of the outlet(s). If multiple locations are requested, the plan should indicate which location is the main power source and the location of all other outlets with the specific power requirement for each. Satellite outlets are always distributed from a main power source. The surrounding aisle or booth numbers should also be indicated so that the orientation of the booth can be determined.

#### Example



Please advise the exhibitor that the location chosen for the main power source will have distribution equipment required to deliver power to other locations, typically a dog house, plug strip or depending on the order, a larger distribution box. The exhibitor will likely want to hide the distribution equipment under a counter or in a closet. Often the best location for a main power source depends on whether the power is dropped from the ceiling or comes from the floor.

### Where does the power come from?

Depending on the facility, the power will come from either the overhead catwalks or from floor ports. The following is a partial list of facilities and the location of their power:

Floor port power: Moscone, San Jose, Santa Clara, San Diego Convention Centers

Overhead Catwalk power: Long Beach, Anaheim, Pasadena, Las Vegas Convention Centers

### Do I need lighting?

Lighting can dramatically change the impact of an exhibit, no matter the size. Used effectively, lighting can emphasize specific areas of a booth or highlight products. Also, an exhibit will appear dark and uninviting if the surrounding booths are lit and it is not.

### Can I hang my own lights?

10 x 10 booths with pop-up displays (a display that can be assembled in less than 30 minutes) can hang their own lights and plug them in without ordering labor. If a decorating company has been contracted to install a display, a labor order is required to install the lights. Due to union contracts, no other union is allowed to install electrical equipment. Please refer to the Electrical Labor Order Form for additional information.

### Do I need to order power for my lighting?

Exhibitors ordering Freeman rental lighting do not need to order power, it is included in the rental. Exhibitors supplying their own lighting need to order power.

### Do I need to order labor to plug in my lights or equipment?

Most small booths with pop-up displays do not require labor for connection. They are welcome to plug in their own devices. Labor is required if lights or equipment need wiring or if electrical cords are to be run under the carpet or in concealed areas to ensure that all electrical codes and building rules are met.