

## Important Electrical Information

### General information

Exhibitors requiring electrical services should thoroughly read and understand the rules and regulations.

### Determine your electrical requirements

#### Equipment

- All electrical equipment is stamped or labeled with electrical ratings usually found on the back or bottom of the equipment.
- Verify voltage and either amperage or wattage from the information provided.
- Standard office and household items operate on 110/120 volt power.
- Machinery and equipment typically require 208 or 480 volt power.
- Separate outlets should be ordered for each piece of equipment.

Refer to the [Electrical Services Usage Guide](#) for wattage estimates of some common items.

#### Lighting

- Verify the wattage of the bulbs in the lights and multiply by the number of bulbs/lights.

#### Uninterrupted power (24-hour power)

- If uninterrupted power supply is required for the full duration of the show, order 24-hour power.
- Electricity is turned on 30 minutes prior to show opening and turned off 30 minutes after the show closes on show days.
- Power will be turned off immediately after final show closing.
- If power is required outside actual show hours, special arrangements should be made in advance.

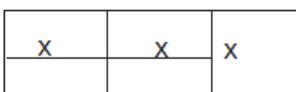
### Location of power in your booth

To accommodate possible power requirements, electrical outlets will be installed in every inline booth. When power is not being provided, an audit will be conducted by electricians and onsite charges will apply if the electrical service is utilized without an order on file.

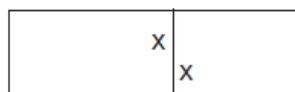
Exhibitors with hard wall displays must arrange for power to be installed inside the booth or provide access.

#### Inline and peninsula booths

Power will be installed in one location, typically on the floor somewhere along the back of the booth, as indicated in the following diagrams: (We cannot guarantee that the outlet will be specifically located in the middle.)



IN-LINE BOOTHS / PENINSULA

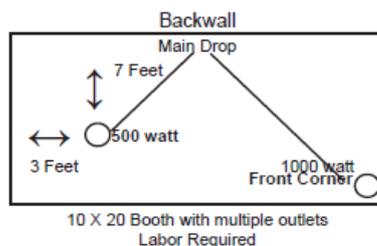
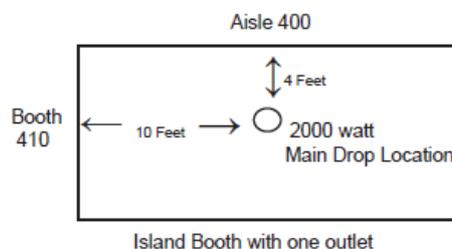


BACK TO BACK PENINSULA

If power is required in locations other than indicated above, secondary distribution will be required and billed on a time and material basis. Please order Electrical Labor and include a floor plan indicating the desired power locations.

### Island booths/multiple outlets

Floor plans are always required for Island Booths and orders for multiple outlet locations. The floor plan must indicate booth dimensions, surrounding booth numbers for orientation within the facility, each outlet location, required wattage or amperage and location for main drop. If power location in an island booth is not provided prior to show move-in, a location will be determined by Freeman to maintain delivery schedules. Relocation of the service will be charged on a time and material basis. See examples below



### Labor information

- Labor types include the following:
  - Floor work: the distribution of electrical under carpet and flooring.
  - Booth work: the distribution of electrical overhead and/or throughout the booth structure. Includes but is not limited to: mounting of plasmas / LCD monitors and lights, connection or hard wiring of all exhibitor equipment, installation of electrical headers and/or light boxes.
  - Electrician: the labor needed to connect machines to high voltage power.
- Total amperage for 120v back of booth power cannot exceed 20amps. Any orders exceeding 20amps requires labor and material charges for installation and hookup.
- Labor is required for all electrical work over and above the installation of the main power drop.
- If you require your power from overhead, additional materials and labor charges may be incurred.
- All high voltage outlets will require labor and materials for installation and hookup. High voltage outlets include but are not limited to: 208v, 220v, 240v, 480v
- Labor must be picked up at the Freeman Service Center. Charges for labor commence at time of dispatch to service the labor call.
- Labor charges will include the time for electricians to gather the necessary tools and materials for the job, have their work checked by the client and return the tools and materials to the supply area.
- Start times are guaranteed only at the start of the workday.

### Lighting information

- Single or double lights stand prices include installation along the side rails of an inline booth. Placement elsewhere will require additional labor and materials.
- Overhead quartz lights include labor and equipment to install and the first focus. Depending on the venue structure or additional restrictions, there may be additional labor and/or lift charges.

### Rates, equipment, and materials

#### Rate information

- Labor rates are based on current wage scales and are subject to change in the event of a wage increase after rates have been published.

subject to change.

- A minimum charge of one hour is applicable to all labor requests. Additional time on the same day is billed in 1/2 hour increments. Continuations to another day are a minimum of 1 hour.
- Dismantle labor will be automatically charged at 50% of the installation time and rounded to the next half hour. There is no need to order electrical dismantle labor.
- For island booths with no labor ordered, there is a 1/2 hour minimum installation charge and a 1/2 hour minimum dismantle charge.
- Power sharing is not permitted between exhibitors.
- Show site rates are applicable to all labor orders placed at show site.

### **Freeman and venue equipment and material information**

- Standard wall and other permanent building utility outlets or sockets are not part of booth space and may not be used by exhibitors unless electrical services have been ordered.
- All material and equipment provided by Freeman is for rental purposes only and remains the property of Freeman. All equipment will be removed at the close of the show by Freeman.

### **Other equipment and material information**

- All equipment regardless of power source, must comply with Federal, State and local codes as well as any applicable local recognized electrical authorities and standards. Freeman reserves the right to inspect all electrical devices and connections to ensure compliance with all codes and proper permitting. Freeman is required to refuse connections where the exhibitor wiring is not in accordance with local electrical code and permitting.
- If electrical services are ordered for LED and/or video display systems, the systems must comply to ANSI E1.50-1. This applies to ground supported and suspended LED and video display systems.
- Exhibitors' cords must be a minimum of 14-gauge 3 wire with ground and must be flat when used for floorwork. All multi-outlet devices (e.g., power strips) must have circuit protection. All exposed non-current carrying metal parts of fixed equipment, which are liable to be energized, shall be grounded. Exhibitors may supply their own 14-gauge 3 wire, extension cords and/or power strips, both of which must be grounded, and UL approved.
- Extension cords and power strips owned and used by Exhibitors must comply with the City of Chicago Electrical Code.
- Exhibitors' equipment will be modified to confirm to Freeman receptacles. If an outage is the result of an exhibitors' equipment, then a labor charge may be assessed. Labor and materials to install or change a cord cap or fix an outage will be billed on a time and material basis.
- Exhibitor provided equipment for electrical distribution or equipment connection shall require Freeman to make the final connection from Freeman's power distribution equipment to the exhibit. This is required only to ensure proper voltage and connection prior to energizing exhibits and exhibit materials.
- As an exhibitor, should you choose to provide equipment with electrical connectors to plug directly into Freeman's electrical equipment, the following list provided will ensure the proper connection:
  - 500 Watts to 2000 Watts - Standard U-Ground 15- or 20-Amp Cord Cap / 5-15P or 5-20P
  - 30 Amp 120/208 5 Wire - Hubbell Male - HBL 2811 / L21-30P
  - 30 Amp Y277 / 480 5 Wire - Hubbell Male - HBL 2821 / L22-30P
  - 60 Amp 208v & 480v GEHR Power Systems 5 Wire - Male - J560PFGP
  - 60 Amp 208v & 480v Hubbell 5 Wire - Male - HBL5607P
  - 100 Amp 208v & 480v Mini-Cam - Male Leviton 15SDM - Female 15SDF (Hots - Male Neutral & Ground - Female)
  - 200 / 400 Amp 208v & 480v Large-Cam - Male Hubbell HBL 400PT EKE - Female
  - Hubbell HBL 400CT (Hots - Male Neutral & Ground - Female)

All the above listed items may be found at your local electrical wholesale houses. Should you require additional information, please contact Freeman's electrical department.



**ELECTRICAL SERVICES USAGE GUIDE**

To assist in estimating, we recommend that you refer to the name plate or stamp usually located on the back or bottom of any electrical apparatus and order the corresponding outlet for each piece of equipment to avoid tripping/power outages during the event.

Please note that there is a minimum of 500 watts per outlet. A 500 watt (5 amp) outlet cannot be split. A 1000 watt (10 amp) outlet can only be split one time. A 2000 watt (20 amp) outlet can only be split three times.

The formula for wattage is voltage x amperage (120 volt x 1 amp = 120 watts)

Example: 5 - 100 watt light bulbs = (5 x 100 = 500 watts)

The following wattages are approximate and are provided to help you estimate your power usage.

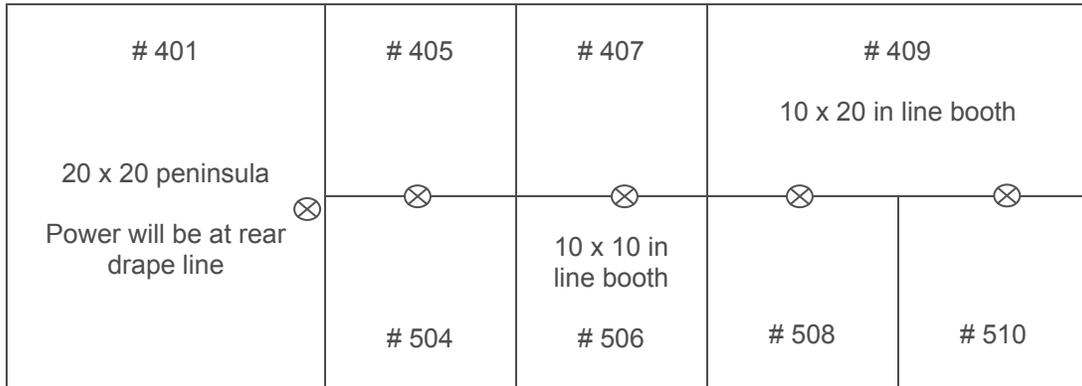
ITEM	ESTIMATED WATTAGE
Arm Lights .....	75-100
Card Reader (credit) / Lead Retrieval.....	50
Charging Furniture – Freeman Event Collection .....	500
Charging Furniture – Freeman Furnishings.....	500 per port (1000 max)
Computer.....	250-500
Computer – Laptop.....	100
Blu-Ray / DVD Player .....	50-100
Heater (Portable).....	500
Heat Press for T-Shirts .....	2000
iPhone/Android .....	20
iPad/Tablet .....	25-50
Kitchen Appliances .....	500-2000
Laminator.....	2000
LED Panels.....	500-1000
Projector .....	1000
Refrigerator (Small) .....	500
Refrigerator (Large).....	1000
Smart Reg Counter by Freeman (lit) .....	500
Steamer .....	2000
Stereo .....	100-500
Vacuum Cleaner .....	1500
Water Cooler .....	1000
TVs/Monitors .....	1000 (update television line)
Espresso Machine .....	30amp/208 volt, single phase



# SAMPLE LAYOUTS

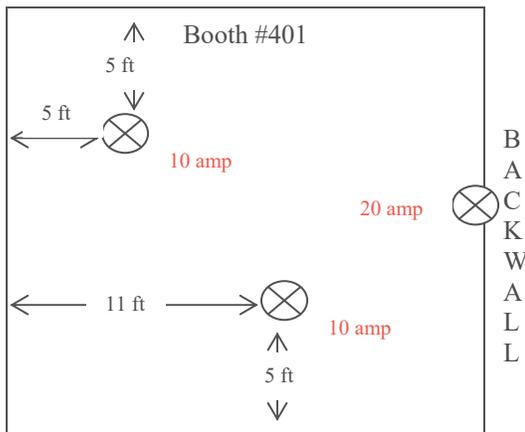
## IN LINE BOOTHS

Power is run or dropped to in line booths along the back walls or drape line of multi booth sections. The “main power locations” therefore are always located at the back of in line and peninsula booths. Outlets may not be in the exact center of the back wall. 120 volt outlets are shared by back to back booths. Example: Outlet = 

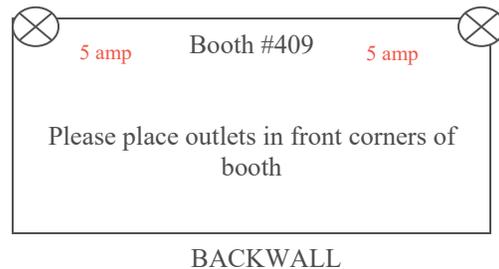


Electrical layouts are required whenever an outlet is needed at any other location within the booth except for the back wall. Exact measurements and/or comments that clearly indicate outlet locations **must be included**. Examples based on above floor plan:

20 x 20 Peninsula – Booth # 401  
Order = 2-10 amp, 1-20 amp outlets



10 x 20 In Line – Booth # 409  
Order = 2 x 5 amp outlets



## ISLAND BOOTHS

Electrical layouts are always required for island booths and **must include** the following information:

### 1. Main Drop.

Since there is no back wall in an island, the exhibitor supplies the location of the main drop, whether one or multiple outlets are ordered. When it will be the point from which power will be distributed to other outlets in the booth, a panel or other piece of electrical equipment (no larger than? x? x?) will be installed at the main drop. For this reason, it is recommended that main drops be located in a closet, under a table/desk or in another area that keeps it out of sight. Measurements must be provided to the main drop.

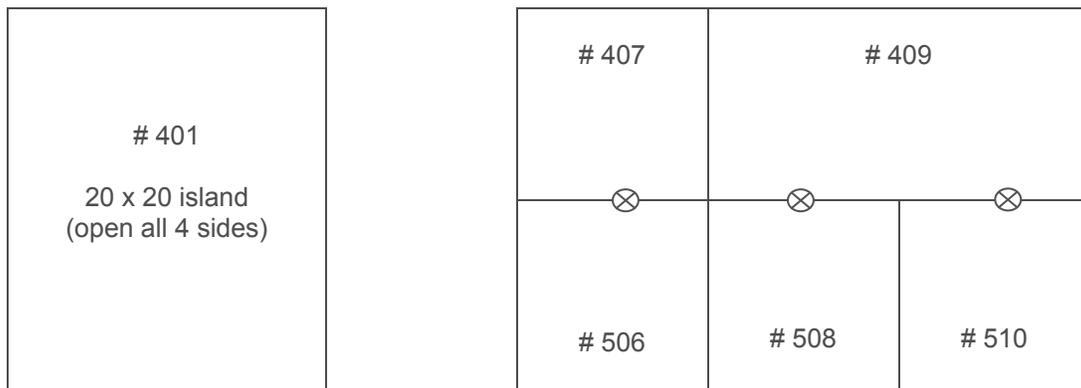
### 2. Location and load of all outlets.

Again, dimensions must be provided to all satellite outlets along with the load of each outlet. It is best to indicate voltage, phase and amperage for all outlets once an order exceeds 120 volt service.

### 3. Booth orientation.

Providing reference points such as surrounding aisle and/or booth numbers defines how an island booth is oriented to the overall show floor plan. In other words, which side is which? It is best to draw your layout relative to the show floor plan so that both are facing the same direction. Examples:

Section of show floor plan



20 x 20 Island – Booth # 401

Order = 1 x 208 volt, 3 phase, 10 amp + 120 volt, 2 x 20 amp + 2 x 5 amp outlets

