# KI POWER SOLUTIONS SELECTION MANUAL

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This Power Solutions Selection Manual is intended to help KI personnel & customers to gain a general understanding of the power offerings and the options available to supplement KI furniture products. With an understanding of the customer's needs, this guide will help determine the most appropriate electrical product recommendations. For detailed specifications, use the product specific Planning Guides and/or CAD resources to generate project drawings and bills of material.

# INTRODUCTION TO
# POWER OPTIONS

Use the points below to determine the appropriate level of power needed based on the room layout and equipment needs.

## LEVEL 1

### CUSTOMER NEEDS

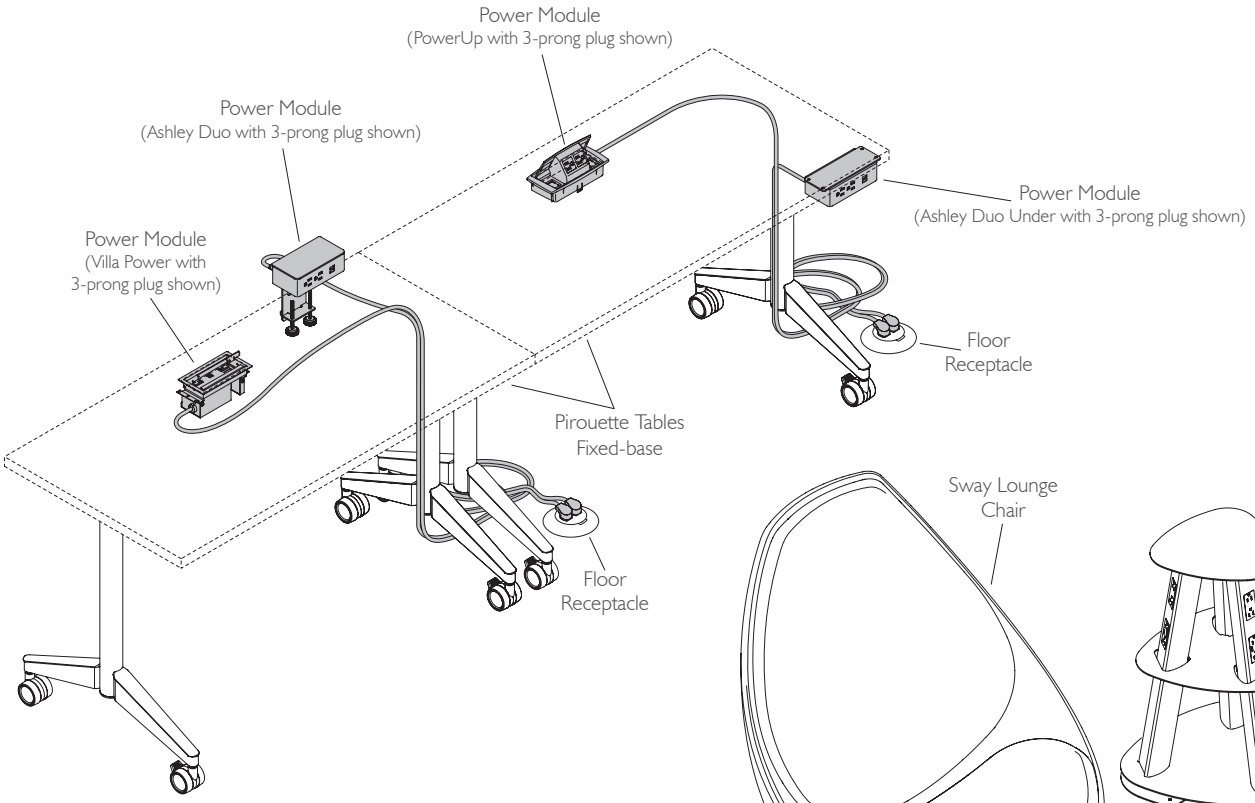
- Power is intended for occasional charging access.
- Users will need access near tabletop to plug in their equipment (laptops/tablets/phones).
- Each electrical device will plug individually into a building receptacle, or one of the 10-wire electrical system receptacles.
- Furniture to be highly flexible as space must accommodate consistent reconfigurations.

### PRODUCT RECOMMENDATIONS

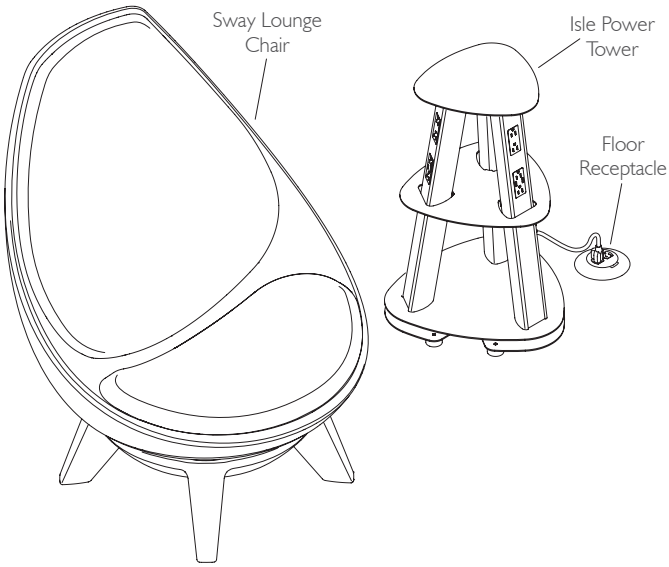
- PowerUp Module with 3-prong plug.
- Villa Power Module with 3-prong plug.
- Isle Power Tower.
- Ashley Duo or Ashley Duo Under with 3-prong plug.

### WARNING

- Ashley Duo, Ashley Duo Under, PowerUp and Villa modules with 3-prong plug are not intended to be series connected (daisy chained) to each other, plugged into extension cords or power strips.




Level 1 - Pirouette Tables with Power Modules with 3-Prong Plugs




Level 1 - Isle Power Tower & Sway Lounge Chair

# INTRODUCTION TO
# POWER OPTIONS

## LEVEL 2

### CUSTOMER NEEDS

Users will need access near tabletop to plug in their equipment (laptops/tablets).

Power infeed (3-prong plug) to plug into building receptacle or one of the 10-wire electrical system receptacles.

Single circuit infeed (15-amp) meets anticipated amp requirements.

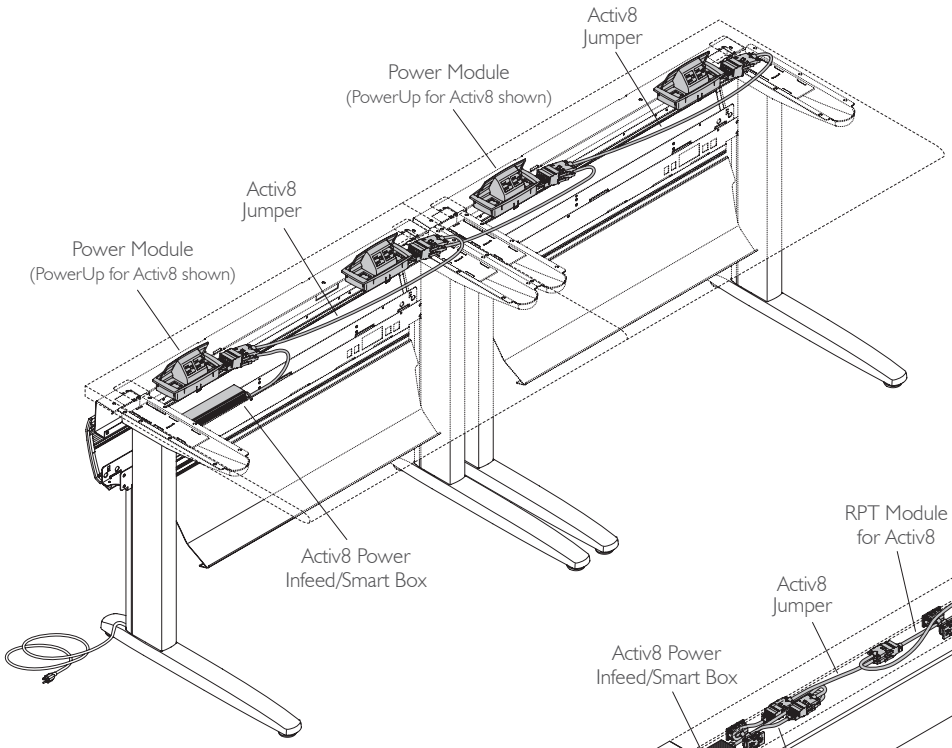
Power modules are connected together with jumpers powered from a single building receptacle.

Ganging of furniture is required, limiting the flexibility of reconfigurations.

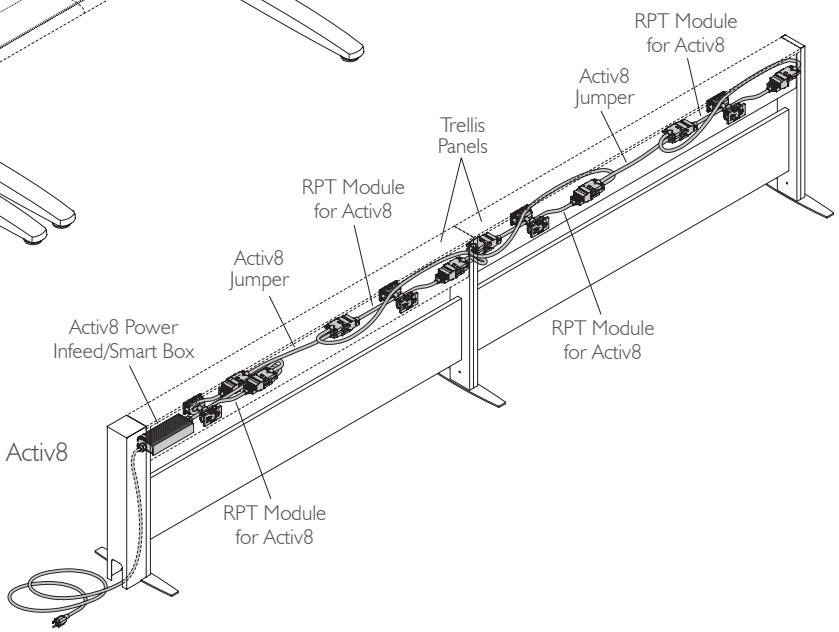
Ease of use as jumpers can be disconnected without need of installation crew or electrician.

### PRODUCT RECOMMENDATIONS

Activ8 – installs within various table systems as well as Trellis.




Level 2 - InTandem Tables with PowerUp Modules for Activ8




Level 2 - Trellis System with RPT Modules for Activ8

# INTRODUCTION TO
# POWER OPTIONS

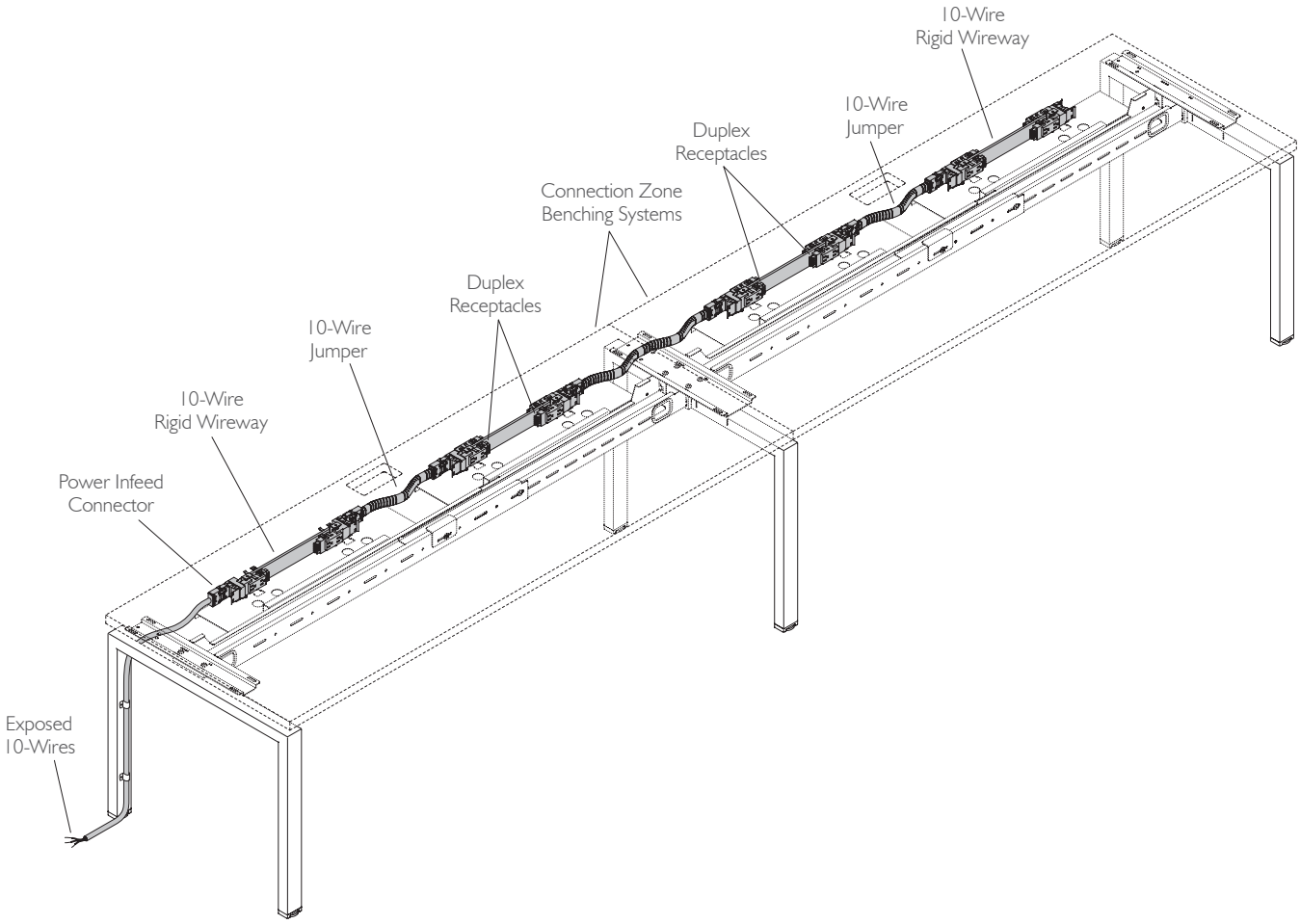
## LEVEL 3

### CUSTOMER NEEDS

- Space supports larger quantity of desktop computers.
- Total amp capacity to be more than 15 amps and less than 120 amps, per single infeed.
- Multi-circuit infeed will be hard wired to building power source by electrician.
- Space is not anticipated to change so furniture will be stationary.
- Rigid wireways with duplex receptacles are attached together by use of 10-wire table-to-table jumpers.

### PRODUCT RECOMMENDATIONS

- 10-Wire – Installs within select powered tables (within wire trough) or Trellis.




Level 3 - Connection Zone Benching with 10-Wire Rigid Wireway

# POWER DISTRIBUTION SYSTEMS
# ACTIV8

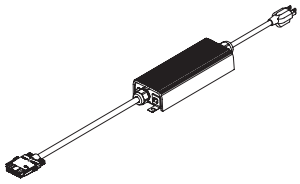
### WHAT IS ACTIV8?
Activ8 is a single circuit, connectible power distribution system with a three-prong plug equipped infeed. Four module styles are available (see Statement of Line below).

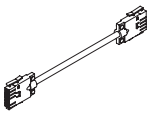
### HOW DOES ACTIV8 WORK?
Customers simply plug the power infeed into a wall or floor receptacle. No electrician is needed. Jumpers connect from table-to-table to carry power across multiple pieces of furniture.

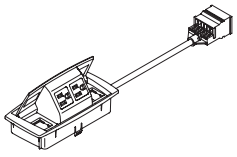
### IMPORTANT INFORMATION
- Infeed can connect anywhere in the run, it does not have to be at one end.
- All components are ordered separately. Don't forget infeeds, jumpers, and modules.
- Activ8 is not sequenced, meaning other than the infeed, the furniture doesn't have to be configured in any specific order.
- Use of a powered system, including Activ8, requires that the tables be mechanically joined together.
- Activ8 requires a wire management solution. Options include horizontal Velcro managers and under-surface troughs.

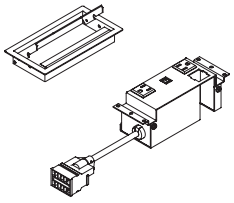
### WARNINGS
- Infeed plugs into a building receptacle.
- Activ8 infeed cannot be used in conjunction with a ground fault interrupter. GFI/GFCI receptacles are found in locations near water, such as kitchens, bathrooms, laboratories, break rooms, etc.
- Backup systems (i.e. uninterruptable power supply) may affect Activ8 functions, including devices that have built-in ground fault sensing systems.
- Activ8 can connect a maximum of 8 duplex receptacles (above and below surface) or extend 40 feet after the infeed, whichever limit is reached first.
- Activ8 is a 15-amp single circuit system, however continuous use load should not exceed 80%. Therefore only load to 12 amps of draw if current is expected to continue for 3 or more hours at a time. See page 20 for average draw amounts by unit type.
- Reconfigurations may need extra jumpers and infeeds to achieve various desired layouts.
- If the room will have multiple layouts, verify building power source locations for each potential layout.

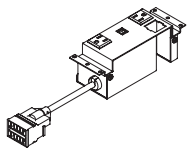
### STATEMENT OF LINE

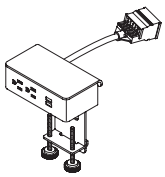

Activ8 Power Infeed/Smart Box

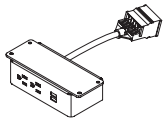

Activ8 Jumper

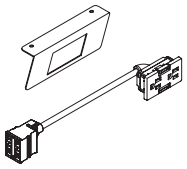

PowerUp Module for Activ8

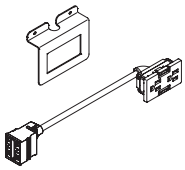

Villa Power Module with Cover for Activ8


Villa Power Module for Activ8


Ashley Duo Power Module for Activ8


Ashley Duo Under Power Module for Activ8


RPT (Relocatable Power Tap) Module for Activ8 with RPT Bracket


RPT (Relocatable Power Tap) Module for Activ8 with RPT Bracket (InTandem)

POWER DISTRIBUTION SYSTEMS

# ACTIV8 - SPECIFICATION QUESTIONS

| QUESTION | WHY WE ASK |
|---|---|
| Do you have a building drawing/shell or furniture layout? | Having a building shell to design around will make CAD work much easier. A shell should have accurate measurements and power source locations identified. |
| Where are the power sources located? | Power source locations affect the number of infeeds needed to achieve certain layouts. |
| Does the site have the ability to add more power sources? | New construction planning allows for the ability to install power sources where needed, vs. existing buildings which may or may not have the option of adding new power sources, or adding wires to existing location(s). |
| How many tables will be in the space? What sizes will they be? | The number and size of tables to be used will determine how many infeeds, jumpers, and modules will be needed, as well as jumper lengths. |
| What items will be using the power? | Activ8 is a 15-amp system, which means the maximum continuous use load is no more than 12 amps of draw to the system. Occasional use can load up to 15 amps of draw. See page 20 for average draw amounts by unit type. |
| Does the furniture's power receptacles need to be above the surface, below the surface, or both? | This will determine the type of module used. The above surface power will use Ashley Duo, PowerUp or Villa style receptacles for Activ8. Below surface will use the Ashley Duo Under or RPT for Activ8 under-surface module. |
| How many modules will be needed total and how many per surface? | Activ8 has some limitations. Up to eight modules total may connect to each infeed, or extend to 40 feet, whichever comes first. Number of above surface modules will also determine the cutouts needed in the surface. |

**NOTE**

Activ8 is not a standard option on Flatscreen Garage or Smartlift, because these tables are designed to hold desktop computers along with other mechanical devices (motor, locking control box, etc.), and in most instances the power requirements will exceed the maximum amp capacity of Activ8.

POWER DISTRIBUTION SYSTEMS

# 10-WIRE ELECTRICAL SYSTEM

**WHAT IS 10-WIRE?**

10-wire is a multi-circuit power distribution system. The infeed is wired to the building power by an electrician.

**HOW DOES 10-WIRE WORK?**

An Electrician MUST install a 10-wire infeed. Installers may install the rest of the components. KI recommends CAD drawings for all 10-wire layouts.

**IMPORTANT INFORMATION**

All components are ordered separately. Don't forget top or base infeeds, jumpers, wireways, and receptacles.

6-2-2 System (T6) is the KI system used on tables. It offers the greatest number of potential circuits (6).

KI offers a 4-4-2 System (T4) primarily for systems products. Be aware that 6-2-2 and 4-4-2 configurations require unique modular components, such as jumpers and rigid wireways. Since wires are not visible, components for both systems appear identical.

UL color coded labels either green (6-2-2) or light blue (4-4-2) are attached to components for identification.

6-2-2 and 4-4-2 modular components cannot be used together.

Some buildings may be equipped with 8 wires. The 6-2-2 wire configuration can still be used. The electrician will not power up circuits #5 and #6. Wiring diagrams to review with the electrician are on page 17, 18 and 19.

**WARNINGS**

Always get a CAD drawing and have it double checked.

Each circuit is 20-amp rated, however continuous use load should not exceed 80%. Therefore, only load to 16 amps of draw per circuit if current is expected to continue for 3 or more hours at a time. See page 20 for average draw amounts by unit type.

Each duplex receptacle is rated at 15-amps.

Always present the wiring schematics to an electrician to determine the correct 10-wire system and components to specify. Schematics are located on pages 17, 18 and 19.

Relocation, or disconnection, of the infeed requires an electrician.

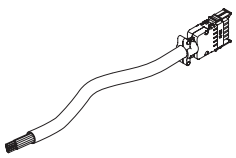
Three phase electrical is the only system that accommodates all 6 circuits of 10-wire electrical. Verify if building has single phase or three phase power.

The term "Hardwire" is often confused with other electrical systems (i.e. 10-wire) where an electrician is wiring furniture to a building electrical source. KI's Hardwire option is intended to meet City of Chicago electrical code and contains no multi-circuit electrical components.

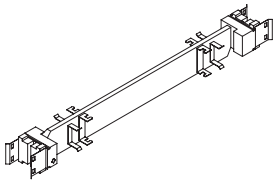
**EXCEPTIONS**

City of Chicago electrical code prohibits use of 10-wire power distribution system. Hardwire applications are available to meet this requirement. Tables specified as hardwire electrical contain no multi-circuit electrical components. An electrician must supply all electrical parts.

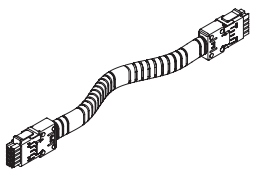
City of New York electrical code requires use of a junction box within the furniture at the infeed location. All other 10-wire electrical parts are acceptable for use, provided they have been approved for use by the City of New York Bureau of Electrical Controls.



10-Wire Power Infeed



10-Wire Rigid Wireway



10-Wire Table-to-Table Jumper



15-Amp Duplex Receptacle

POWER DISTRIBUTION SYSTEMS

# 10-WIRE ELECTRICAL SYSTEM - SPECIFICATION QUESTIONS

| QUESTION | WHY WE ASK |
|---|---|
| Do you have a building shell or layout? | Having a building shell to design around will make CAD work much easier. A shell should have accurate measurements and power source locations identified. The number and size of tables to be used will determine how many infeeds and modules will be needed. |
| Where are the power sources located? | Power may come from the floor, wall or ceiling. Power source placement affects the number of infeeds and type of infeed (base or top feed) needed to achieve desired layouts. |
| Does the site have the ability to add more power sources or additional circuits within existing locations? | New construction planning allows for the ability to install power sources where needed, vs. existing buildings which may or may not have the option of adding new power sources, or adding wires to existing location(s). |
| What items will be using the power? | Each circuit is 20-amp rated, however continuous use load should not exceed 80%. Therefore, only load to 16 amps of draw per circuit if current is expected to continue for 3 or more hours at a time. See page 20 for average draw amounts by item type. |
| Does the furniture's power receptacles need to be above the surface, below the surface, or both? | This will determine the type of module used. Above surface will use Ashley Duo, PowerUp or Villa Power modules. Below surface will use wireway mounted duplex receptacles, Ashley Duo Under or RPT modules. |
| How many duplex receptacles will be needed total and how many per surface? | Receptacle counts are necessary to ensure the correct cutouts are specified in the worksurfaces and all users and equipment will have access to required power. |
| Does the building have three phase or single phase power? | Three phase building electrical is the only system that can accommodate all six circuits available with 10-wire. Single phase can use our 6-2-2 system with fewer circuits available. See wiring diagrams on page 17, 18 and 19. |

# POWER DISTRIBUTION SYSTEMS
# HARDWIRED

**WHAT IS HARDWIRED ELECTRICAL?**

Non-powered KI furniture with cutouts for power to be added in the field. City of Chicago electrical code prohibits the use of 10-wire power distribution systems. Hardwired applications are available to meet this requirement.

**HOW DOES HARDWIRED ELECTRICAL WORK?**

Tables and other furniture are made with appropriate electrical cutouts or junction boxes. The customer's own electrician is required to supply receptacles, wires and connections.

**WARNINGS**

Tables specified as Hardwired electrical contain no receptacles or wires. An electrician must supply most of the electrical parts, and verify the integrity of the system.

The term "Hardwired" is often confused with other electrical systems (i.e. 10-wire) where an electrician is wiring furniture to a building electrical source. KI's Hardwired option is intended to meet City of Chicago electrical code and contains no multi-circuit electrical components.

## SPECIFICATION QUESTIONS

| QUESTION | WHY WE ASK |
| --- | --- |
| Where will product be installed? | Because the Hardwired electrical option is specific to the City of Chicago electrical code, we ask to confirm install locations, to be sure another electrical system would not be more appropriate. |

# POWER DISTRIBUTION SYSTEMS
# TRELLIS

**WHAT IS TRELLIS?**
Trellis is a raised power and data distribution system, used to bring power into any space that needs more receptacles and data.

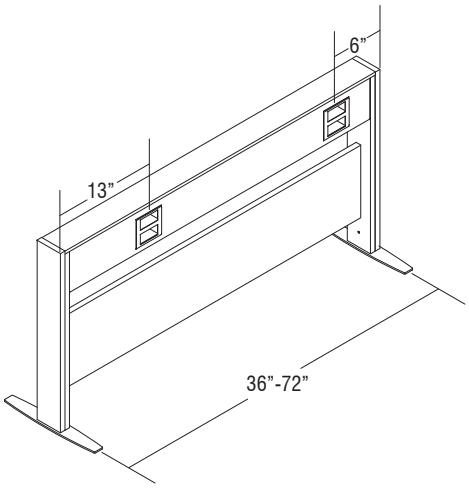
**HOW DOES TRELLIS WORK?**
Trellis can utilize the Activ8, 10-Wire, or Hardwired systems to deliver power. Trellis is essentially a stand-alone power beam.

**IMPORTANT INFORMATION**
For typicals and diagrams, please refer to the Trellis System Planning Guide.

**WARNINGS**
- "Hardwired" version is available on Trellis and contains no receptacles or wires. An electrician is to supply all electrical parts except receptacle boxes (appropriate for City of Chicago electrical code).
- If 10-Wire is needed, do not specify "Hardwired", specify T6 power.
- Receptacle cutouts are not the same for 10-Wire (T6), Activ8, or Hardwired. Be sure to specify the right style of power needed as parts are not interchangeable.

## SPECIFICATION QUESTIONS

| QUESTION | WHY WE ASK |
|---|---|
| How should this be powered? | Trellis can support 10-Wire, Activ8, and Hardwired applications (Chicago code). See page 5 for Activ8, page 7 for 10-wire info and page 9 for hardwired. |
| How many receptacles will be needed per Trellis chase? | The Trellis chase type & width will determine how many receptacles are available per side. Hardwired Electrical and 10-wire Trellis units which are 24" and 30" wide will have one opening per side, while 36" through 72" wide units of this type receive two receptacles per side. Trellis units with Activ8 which are 24" through 54" wide will have one opening per side, while 60" through 72" wide units receive two receptacles per side. |



# POWER MODULES
# POWERUP

PowerUp is a surface mounted power/data module, which when closed is nearly flush with the tabletop. When opened, the module flips up providing easy plug-in access to angled receptacles and data ports.

The PowerUp module's closed plastic cover has a finger indent on it which can be pushed to activate a dampened, spring-loaded mechanism and flip the module open for use. Press at the detent to close and it snaps into place for storage.

Module fits securely into a 6 1/4" x 3" cut out, still allowing removal without tools.

Two power receptacles and two openings for customer provided data jacks per module.

Constructed of polycarbonate with a textured finish.

PowerUp is available in three versions, one with a connector end for the Activ8 system, a power cord version with 3-prong plug (for connection to a building receptacle or to 10-wire electrical system) and a hardwired connector end version (such as for Chicago code).

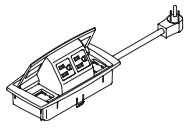
The 90 degree 3-prong plug module is available with 22", 108" or 180" long power cord.

A drop-in USB charging port can fit into data opening – see page 15 for Drop-In USB Charger (must be plugged into a separate power source).

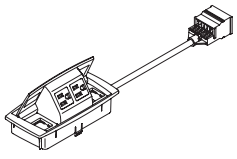
Snap-in data adaptor brackets are supplied to hold the most common data connectors. The data connectors are purchased by the customer.

**WARNING**

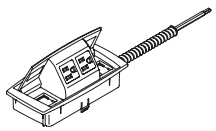
PowerUp modules with 3-prong plug are not intended to be series connected (daisy chained) to each other, plugged into extension cords or power strips.



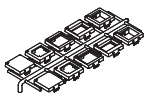
PowerUp Module with 3-Prong Plug



PowerUp Module for Activ8



PowerUp Module for Hardwire Applications



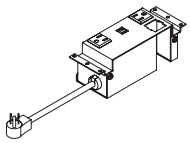
Data Adapter Bracket Tree

# POWER MODULES
# VILLA

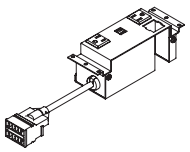
- Villa is a surface power module that mounts below a 6 1/4" x 3" grommet cut out. Receptacles are accessible when grommet cover is open.
- Villa power includes two simplex power receptacles and two USB charging ports, along with one opening for a customer supplied data jack.
- An additional receptacle is located under the module, under the worksurface on the 3-prong plug version.
- Metal grommet cover features a hinged lid. Metal grommet can be powdercoated and is available in metallic paint. Grommet fits into KI power cutout.
- Cover can be specified for use as a grommet cover only, or as a cover for the Villa module.
- Villa is available with a connector end for the Activ8 System and a power cord version with 3-prong plug (for connection to a building receptacle or to 10-wire electrical system).
- The 90 degree 3-prong plug module is available with 36", 108" or 180" long power cord.
- Snap-in data adaptor brackets are supplied to hold the most common data connectors. The data connectors are purchased by the customer.

**WARNING**

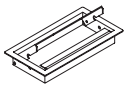
- Villa modules with 3-prong plug are not intended to be series connected (daisy chained) to each other, plugged into extension cords or power strips.



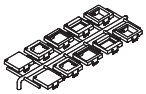
Villa Power Module with 3-Prong Plug



Villa Power Module for Activ8



Villa Grommet Cover



Data Adapter Bracket Tree

# POWER MODULES
# ASHLEY DUO

Ashley Duo is available in two designs: The "Above Worksurface Model" and "Below Worksurface Model."

The "Above Worksurface Model" is designed to install at the back side, clamping to the underside of a $^{3}/_{4}$" to $1^{1}/_{2}$" thick worksurface, presenting the unit 1.20" above the worksurface.

Ashley Duo Under, "Below Worksurface Model" is designed to mount under the surface at the front, user side of a worksurface using four screws.

Ashley Duo power includes two power receptacles and two USB charging ports.

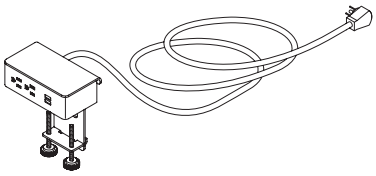
Each USB port utilizes a Smart Device Recognition Chip to monitor and independently deliver the required amperage to your devices, up to 2.1 amps each.

Ashley Duo and Ashley Duo Under power modules are available with a connector end for the Activ8 System and a power cord version with 3-prong plug (for connection to a building receptacle or to 10-wire electrical system).

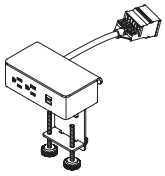
The 90 degree 3-prong plug module is available with 36", 108" or 180" long power cord.

**WARNING**

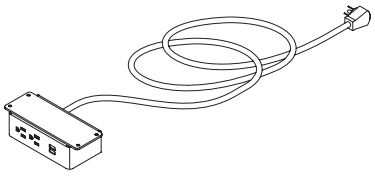
Ashley Duo and Ashley Duo Under power modules with 3-prong plug are not intended to be series connected (daisy chained) to each other, plugged into extension cords or power strips.



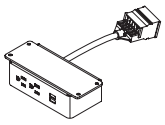
Ashley Duo Power Module with 3-Prong Plug



Ashley Duo Power Module for Activ8



Ashley Duo Under Power Module with 3-Prong Plug



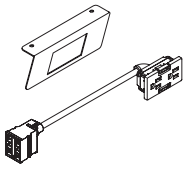
Ashley Duo Under Power Module for Activ8

# POWER MODULES
# RPT

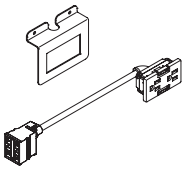
RPT Module is a relocatable power tap (a.k.a, furniture power distribution unit), duplex 15-amp equipped power receptacle. It snaps into a rectangular cutout in various brackets or KI furniture.

Two module versions are available, one with a connector to plug into the Activ8 System with a RPT bracket to mount to InTandem, and the other option is with a connector to plug into the Activ8 System with a RPT bracket to mount to all other tables.

The module is always mounted vertically into an under-surface bracket, a stanchion or trough. It may not be surface mounted horizontally.



RPT (Relocatable Power Tap) Module for Activ8 with RPT Bracket

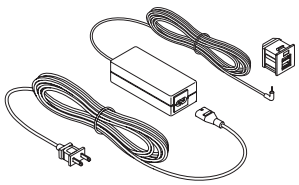


RPT (Relocatable Power Tap) Module for Activ8 with RPT Bracket (InTandem)

POWER MODULES

# DROP-IN USB CHARGER

- Features two USB charging ports. Designed to snap into the universal data tree ports (in place of data) in PowerUp and Villa Power modules see pages 11 and 12.
- Two USB charging ports, 2-amps of power each.
- Must be plugged into separate power source.
- Available in black only.
- Cord length is 72".



# POWER MODULES
# ISLE POWER TOWER

- Isle Power Tower is a power delivery device. It features 360° access to a total of 12 outlets and 6 USB ports. 15-amp capacity is supported through a single 3-prong plug power source.

- Isle Power Tower is a 15-amp system, which means the maximum continuous use load is no more than 12 amps of draw to the system. Occasional use can load up to 15 amps of draw. See page 20 for average draw amounts by item type.

- Power infeed (3-prong plug) to plug into building receptacle, or one of the 10-wire electrical system receptacles.

- Two USB charging ports per upright (6 total).

- Four 3-prong receptacles per upright (12 total) provide continuous power.

- Three shelves support devices while charging.

- Circuit breaker for overload protection.

- Metal construction ensures stability and durability.

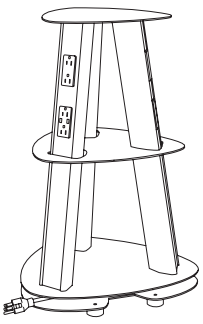
- Slots in the base allow user to secure the tower to the floor if stationary application is needed (security cable/lock provided by customer).

- A 108" power cord winds around the tower base featuring a magnetic catch to secure the cord when not in use.

- Black, Starlight Silver and Cottonwood finish options.

- Unit is 25.5" tall x 18" at the widest point.

- Designed to fit under standard height tables.

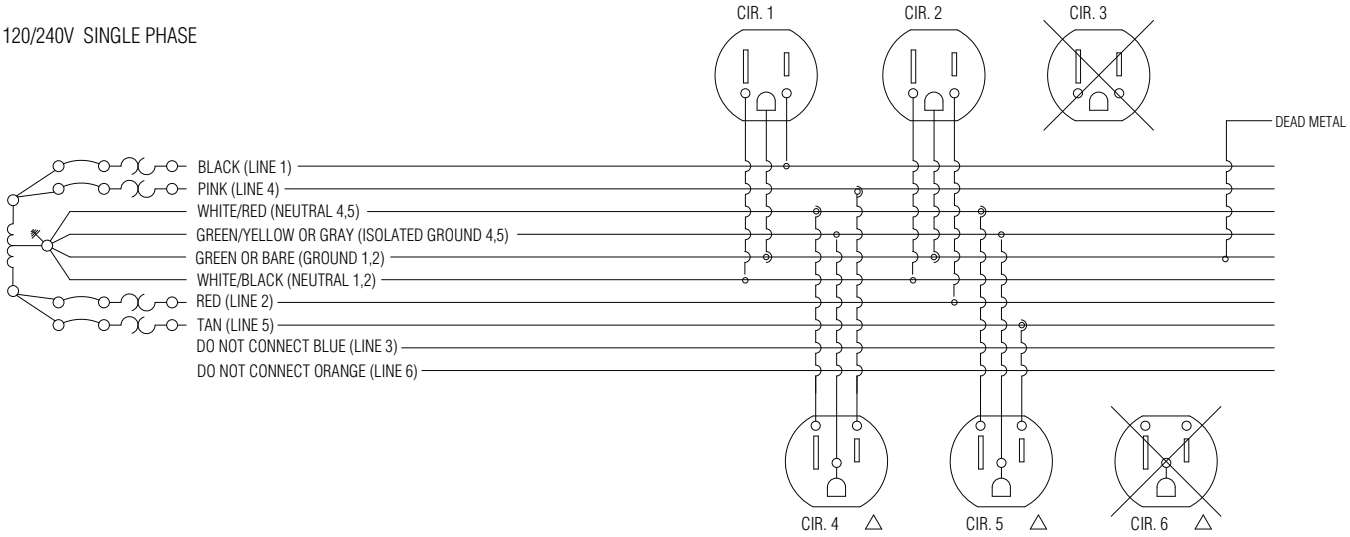


# 6-2-2 CONNECTION DIAGRAMS

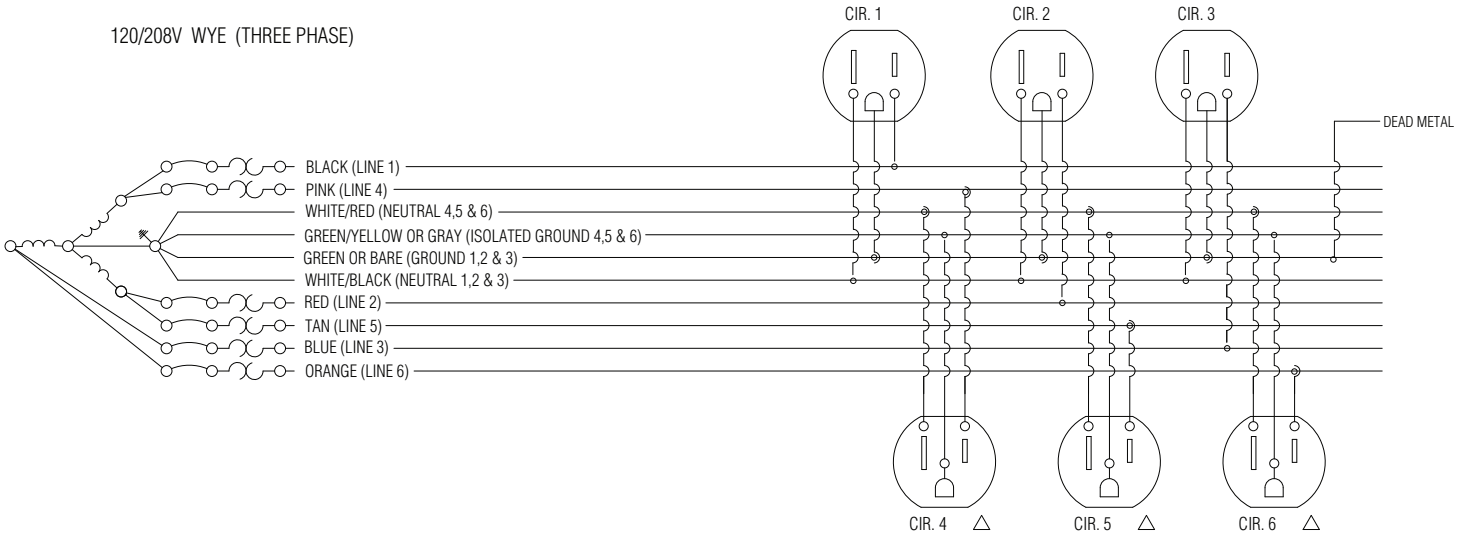
## 10-WIRE ELECTRICAL

Below are wiring schematics to be provided to customer's electrician to validate whether building power is single phase or three phase and to determine which circuits are to be used within the furniture plan.

120/240V SINGLE PHASE




120/208V WYE (THREE PHASE)

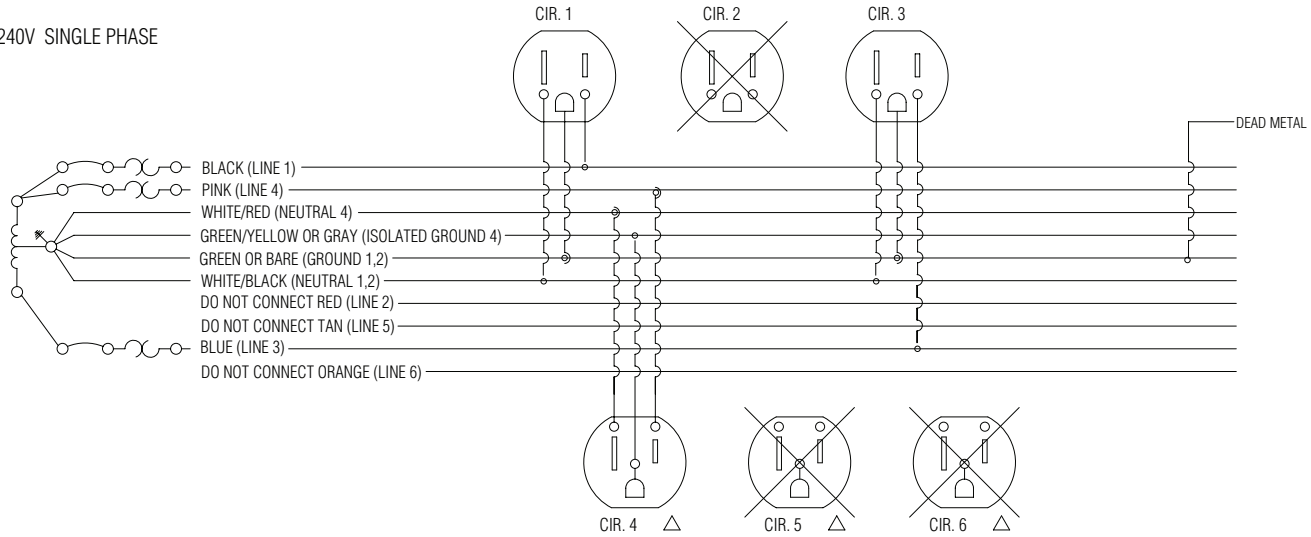


# 6-2-2 CONNECTION DIAGRAMS

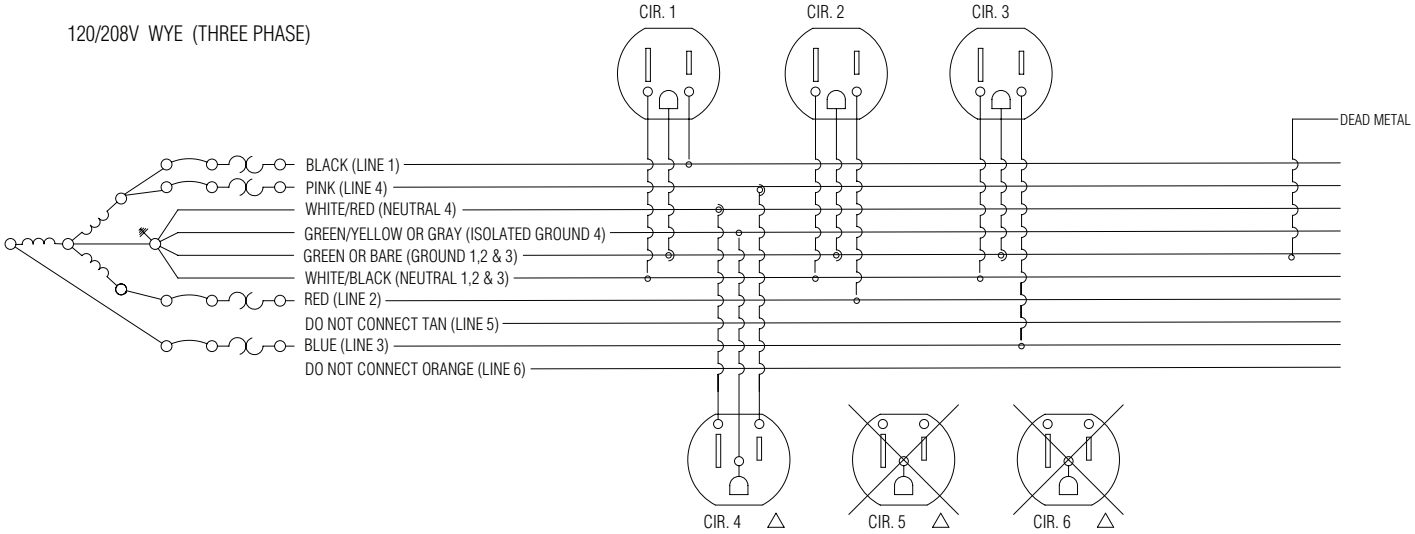
## 8-WIRE ELECTRICAL
### (10-WIRE SYSTEM BEING CONNECTED TO 8-WIRE BUILDING)

Below are wiring schematics to be provided to customer's electrician to validate whether building power is single phase or three phase and to determine which circuits are to be used within the furniture plan.

120/240V SINGLE PHASE




120/208V WYE (THREE PHASE)

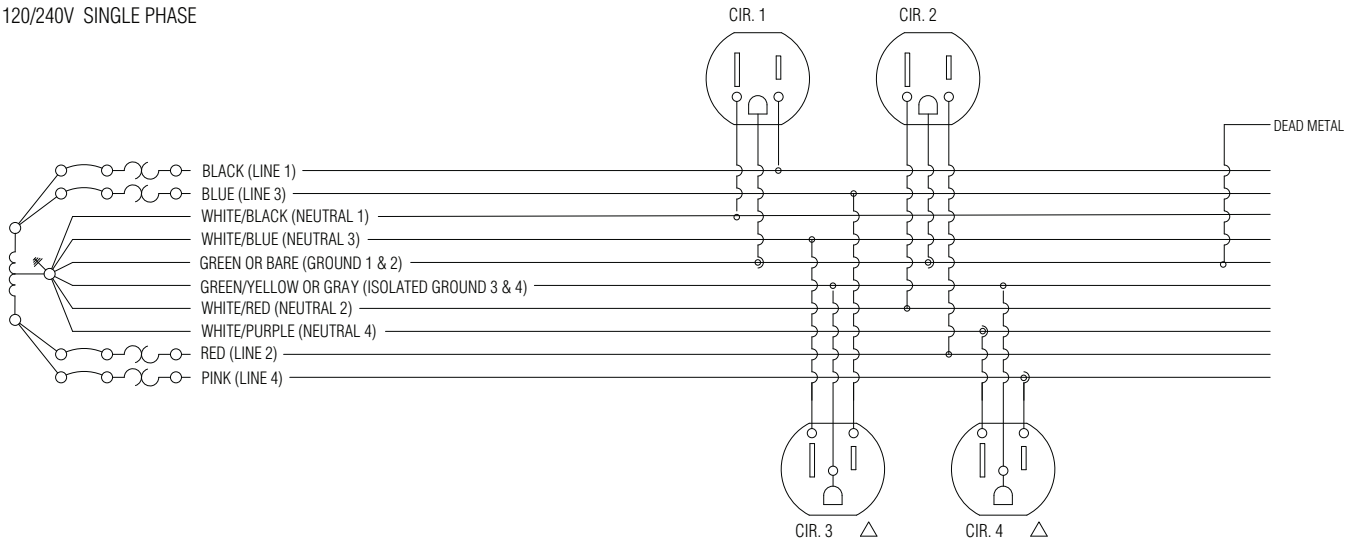


# 4-4-2 CONNECTION DIAGRAMS

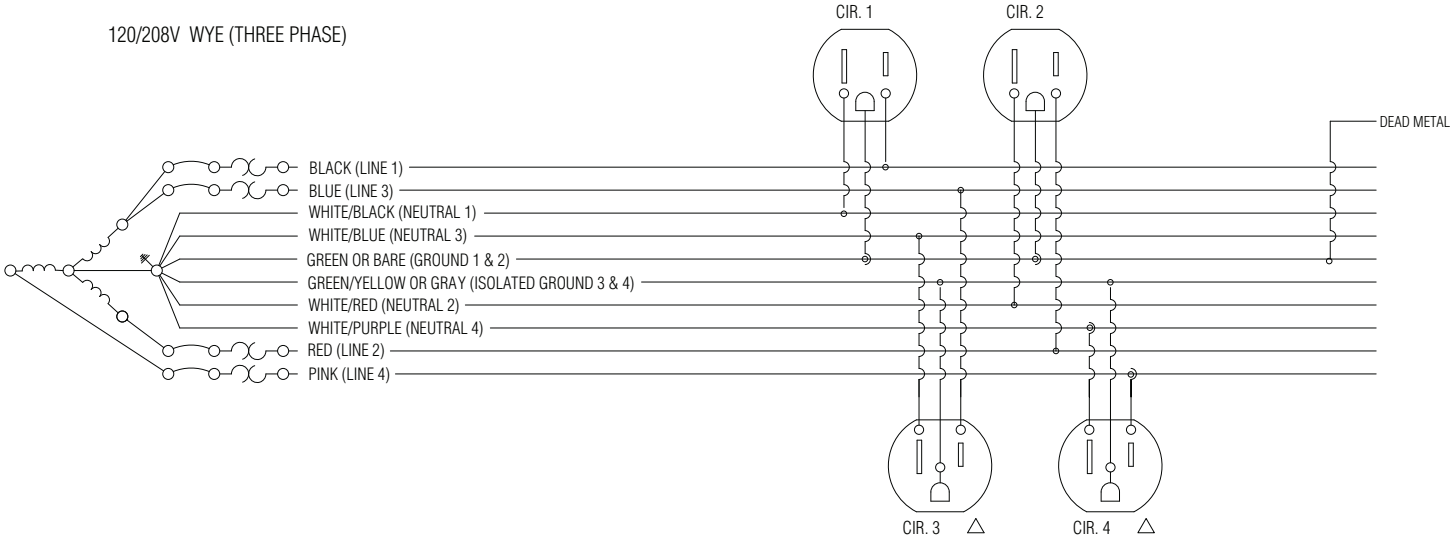
## 10-WIRE ELECTRICAL

Below are wiring schematics to be provided to customer's electrician to validate whether building power is single phase or three phase and to determine which circuits are to be used within the furniture plan.

120/240V SINGLE PHASE




120/208V WYE (THREE PHASE)



RESOURCES

# AMP DRAW RANGE BY ITEM TYPE

This chart shows the estimated amp draw for common devices. Be sure to calculate the necessary amperage needs for the space. Amp draw requirements will determine the number of infeeds and circuit receptacles needed.

| ITEM BEING POWERED | LOW END OF RANGE | HIGH END OF RANGE |
|---|---|---|
| Cell Phone | 0.15 | 0.5 |
| Laptop | 1.0 | 2.0 |
| LCD Monitor | 1.0 | 2.5 |
| Fax | 1.0 | 2.0 |
| CPU | 2.0 | 5.0 |
| Tablet | 0.5 | 1.0 |
| Printer | 4.0 | 10.0 |
| 3-way Lamp | 0.25 | 0.9 |

**NOTES TO CONSIDER**

10-wire (T6) offers up to six 20-amp circuits for a total maximum of 120 amps per infeed. Continuous use load should not exceed 80% (therefore only load to 16 amps/circuit or 96 total amps)

Activ8 offers a single 15-amp circuit. Continuous use load should not exceed 80%, therefore only load to 12 amps of draw if current is expected to continue for 3 or more hours at a time.

**CALCULATE AMPS FROM WATTS**

To calculate amps from watts, divide the watts by 120. Example: 600 watts/120 = 5 amps.

# ELECTRICAL OPTIONS BY PRODUCT

| KI PRODUCT | ACTIV8 1 CIRCUIT (15-AMP) | 10-WIRE 6-2-2 6 CIRCUIT (20-AMP) | 10-WIRE 4-4-2 4 CIRCUIT (20-AMP) | HARDWIRE (CHICAGO CODE) | POWERUP (ACTIV8) | VILLA (ACTIV8) |
|---|---|---|---|---|---|---|
| InTandem | X | X | AS CUSTOM | X | X | X |
| DataLink | X | X | AS CUSTOM | X | X | X |
| Smart Lift | | X | AS CUSTOM | X | X | X |
| Trellis | X | X | AS CUSTOM | X | X | X |
| Pirouette | X | | | | X | X |
| Flat Screen Garage | | X | AS CUSTOM | X | X | X |
| Connection Zone | X | X | AS CUSTOM | X | X | X |
| Hurry Up! | X | | | | X | X |

# ELECTRICAL ACCESSORIES BY PRODUCT

| KI PRODUCT | POWERUP (3-PRONG PLUG) | VILLA (3-PRONG PLUG) | ASHLEY DUO (3-PRONG PLUG & ACTIV8) | ASHLEY DUO UNDER (3-PRONG PLUG & ACTIV8) | RPT (ACTIV8) |
|---|---|---|---|---|---|
| InTandem | X | X | | X | X |
| DataLink | X | X | X | X | X |
| Smart Lift | X | X | | | |
| Trellis | X | X | | | X |
| Pirouette | X | X | X | X | X |
| Flat Screen Garage | X | X | | | |
| Connection Zone | X | X | | X | X |
| Hurry Up! | X | X | X | X | X |

- Many KI tables can accommodate Activ8, Ashley Duo, Ashley Duo Under, PowerUp, Villa or RPT.
- Each product line accommodates these electrical options differently.
- Tables are specified non-powered (i.e. no 10-wire) with Activ8 components ordered separately, with the exception of Pirouette which can be ordered/configured with a number of Activ8 options. Ashley Duo, Ashley Duo Under, PowerUp or Villa (3-prong plug) modules can be specified along with 10-wire or for individual use. Refer to Power Options on pages 2 thru 4 for examples.

# GLOSSARY
# ELECTRICAL TERMS

**10-WIRE**
6-2-2 (or T6): 6 hot wires, 2 shared oversized neutral wires, 2 separate ground wires (one isolated ground, and one building ground).

4-4-2 (or T4): 4 hot wires, 4 independent neutral wires, 2 ground wires (one isolated ground and one building ground).

**AMPS**
The quantity of electrical current flowing through a circuit. To calculate amps from watts, divide watts by 120.

**BEZEL**
A plastic or metal piece that frames the opening used for receptacle attachment.

**CHASE**
A plastic or metal channel used to carry wires or cables from one point to another.

**CHICAGO ELECTRICAL CODE**
Municipal electrical code for the City of Chicago. Relative to contract furniture, this code generally means all furniture is provided without modular power distribution components. Furniture is specified as "Hardwired Electrical" (absent of electrical components but ready to receive field added electrical) and electrical distribution is provided by customer's licensed electrician.

**CIRCUIT**
A complete electrical path for electrical current flowing from the building power source to the equipment being powered and back to the power source. Which requires a hot, a neutral and a ground conductor.

**CIRCUIT BREAKER**
A safety device designed to automatically stop the flow of electricity whenever a circuit becomes overloaded or faulty (shorted out).

**CONDUIT**
Tubing, available in either rigid (EMT) or flexible varieties, used to route and protect electrical wires and cables.

**CONTINUOUS LOAD**
A load where the current is expected to continue static for 3 hours or more.

**CURRENT**
The rate of electricity flow.

**DAISY CHAIN**
A wiring scheme in which multiple devices are electrically connected together from one power infeed.

**DEDICATED CIRCUIT**
A circuit with three conductors – consisting of hot, a unique neutral, and unique ground. This type of circuit greatly reduces 'noise' from other circuits, which can cause problems with sensitive equipment.

**DUPLEX RECEPTACLE**
A receptacle with two "plug-in" openings which accept two 120-volt three-prong grounded plugs.

**FLEXIBLE METAL CONDUIT**
Hollow flexible metal tubing designed expressly for holding wires or cables.

**GAUGE**
The measure of the size of a wire. The smaller the number, the thicker the wire and the higher the amperage load.

**GFI/GFCI**
(Ground Fault Interrupter/Ground Fault Circuit Interrupter) A device designed to interrupt the flow of power when an imbalance is detected between the flow and return of current.

**GROMMET**
A metal or plastic insert to line a cutout in the worksurface.

**GROUND CONDUCTOR**
The conductor of a circuit that provides safety from fire and electrical shock in cases of short circuits and other electrical problems. The conductor is physically attached and is used to conduct stray electrical current safely back to earth.

**HARD WIRE**
Connection of electrical components directly to the buildings power supply. Requires a certified electrician to install a hard wire connection. Note: Do not confuse with "Hardwired Electrical" (See Chicago Electrical Code definition).

# GLOSSARY
# ELECTRICAL TERMS

**HOT CONDUCTOR**
The conductor that carries current from the power source to the equipment. For a complete circuit, the hot conductor requires a neutral conductor to carry the current back to the power source. Hot conductors usually have black or red insulation.

**INFEED**
An electrical component that allows for the connection of power from the building source power to the furniture's electrical system.

**INTERTEK**
Intertek delivers Assurance, Testing, Inspection and Certification solutions. The Intertek ETL Mark is proof of product compliance to published industry standards. Intertek is an OSHA Recognized NRTL.

**JUMPER**
A cable used to pass power from one receptacle-carrying furniture unit to another; does not allow for receptacle attachment to itself.

**JUNCTION BOX**
A box containing connections of electrical wires and/or receptacles. Has a removable cover that must be accessible (cannot be buried in ceilings and walls). Also called a J-box.

**LIQUID-TIGHT FLEXIBLE CONDUIT**
Flexible conduit covered by an outer liquid-tight (waterproof), nonmetallic, sunlight-resistant jacket over an inner flexible core with associated couplings, connectors and fittings. Approved for the installation of electric conductors.

**MAXIMUM CONTINUOUS LOAD**
The maximum electrical current in a circuit expected to be in constant use for three hours or more. For safety considerations, a continuous load must not exceed 80% of the maximum electrical rating, per the National Electric Code (NEC).

**NEUTRAL CONDUCTOR**
The return conductor in a circuit. It usually has white insulation. More properly called the grounded conductor because it returns current to ground at the service panel.

**NEW YORK ELECTRICAL CODE**
Municipal electrical code for the City of New York. Relative to contract furniture, this code generally means electrical infeed connections must be made inside the furniture with a junction box wired by a licensed electrician. Modular electrical distribution can be used beyond the initial NY Code infeed.

**OSHA'S NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) PROGRAM**
Recognizes private sector organizations to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards. After certifying a product, the NRTL authorizes the manufacturer to apply a registered certification mark to the product.

**OVERLOAD**
To run equipment or wire in excess of its normal full-load rating.

**PIGTAIL**
A short length of individual wire(s) that is attached to an electric device. Typically refers to the building connection end of an infeed.

**POWER MODULE**
An electrical component consisting of a combination of receptacles, data ports, and/or USB ports, to make access to power convenient for the users. Usually mounted into a worksurface cutout, or under surface mounted.

**RACEWAY**
A plastic or metal channel used as a chase to run wires or cables from one point to another.

**RECEPTACLE**
A contact device installed at the outlet for the connection of an attachment plug, or for the direct connection of electrical utilization equipment designed to mate with the corresponding contact device. Labeled with the circuit number when in furniture. Receptacles are either 15-amp or 20-amp.

**RIGID WIREWAY**
Contains the wires and provides access to receptacles.

# GLOSSARY
# ELECTRICAL TERMS

**SHORT CIRCUIT**
An accidental connection between two conductors or between a conductor and ground, or some other unintended grounded surface. A short circuit creates a spark and causes the circuit breaker to trip.

**SIMPLEX RECEPTACLE**
A receptacle with one plug opening which will accept one 120-volt three-prong grounded plug. Usually used in fixed seating applications.

**SURGE PROTECTION**
Protection against a fluctuation of the circuit voltage above a normal level over a period of time.

**THREE PHASE**
Three-phase electric power is a common method of alternating current electric power generation, transmission, and distribution. It is a type of polyphase system and is the most common method used by electrical grids worldwide to transfer power.

**UL (UNDERWRITER'S LABORATORIES)**
UL certifies, validates, tests, verifies, inspects, audits, advises and educates. The UL Mark is proof of product compliance to published industry standards. UL is an OSHA Recognized NRTL.

**VOLT**
The measure of electrical potential, or the force that moves an electrical current. (Amp is the measure of electrical current).

**WATT**
The amount of power used by an electrical device. A function of volts and amperes.

**WHIP**
The bundle of wires in conduit (power infeed) that connects the building's main power supply to the electrical system.

# NOTES

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