# KI POWER SOLUTIONS SELECTION MANUAL

## TABLES



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. Portable power packs are needed to accommodate modern flexible spaces.

### WARNING

Ashley Duo, Axil Z, Ashley Duo Under, Dean Clamp-On, Dean In-Surface, Dean Undersurface, Dubbel, Layer Power Tower, Nacre, Node, PowerUp, RPT, Snap-In RPT, Undermounted R8, Vault and Villa power modules with 3-prong plug and Thesis and Vesta portable power packs are not intended to be series connected (daisy chained) to each other, plugged into extension cords or power strips.

### PRODUCT RECOMMENDATIONS

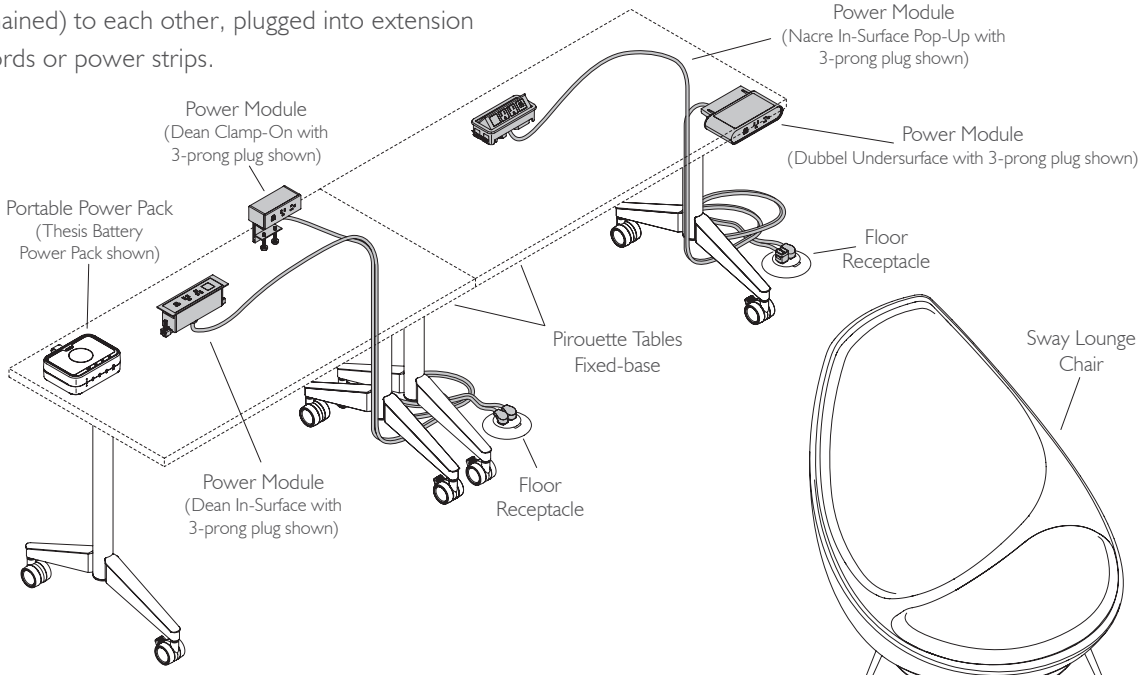
- Ashley Duo or Ashley Duo Under with 3-prong plug.
- Axil Z power module with 3-prong plug.
- Dean Clamp-On power module with 3-prong plug.
- Dean In-Surface power module with 3-prong plug.
- Dean Undersurface power module with 3-prong plug.
- Dubbel Undersurface power module with 3-prong plug.
- Layer Power Tower.
- Nacre In-Surface Pop-Up power module with 3-prong plug.
- Node In-Surface power module with 3-prong plug.
- PowerUp module with 3-prong plug.
- RPT module with 3-prong plug.
- Thesis power pack.
- Undermounted R8 power module with 3-prong plug.
- Vault power module with 3-prong plug.
- Vesta power pack.
- Villa power module with 3-prong plug.

### CHICAGO CODE

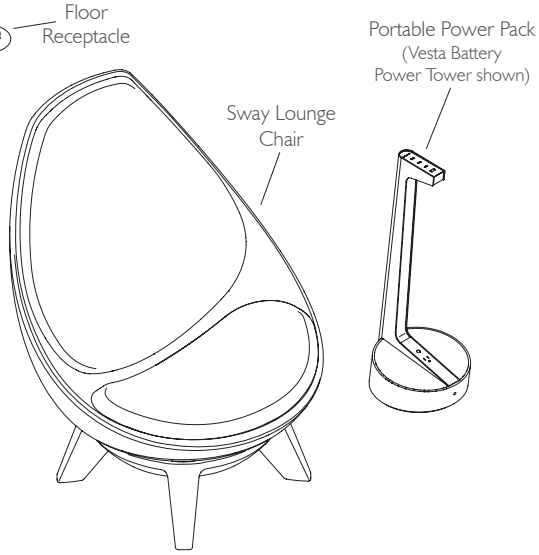
Some lightweight and frequently moved tables with specific power modules can be approved. See charts on page 42 for more information.

### NEW YORK CITY CODE

Approved.




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




Level 1 - Layer 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

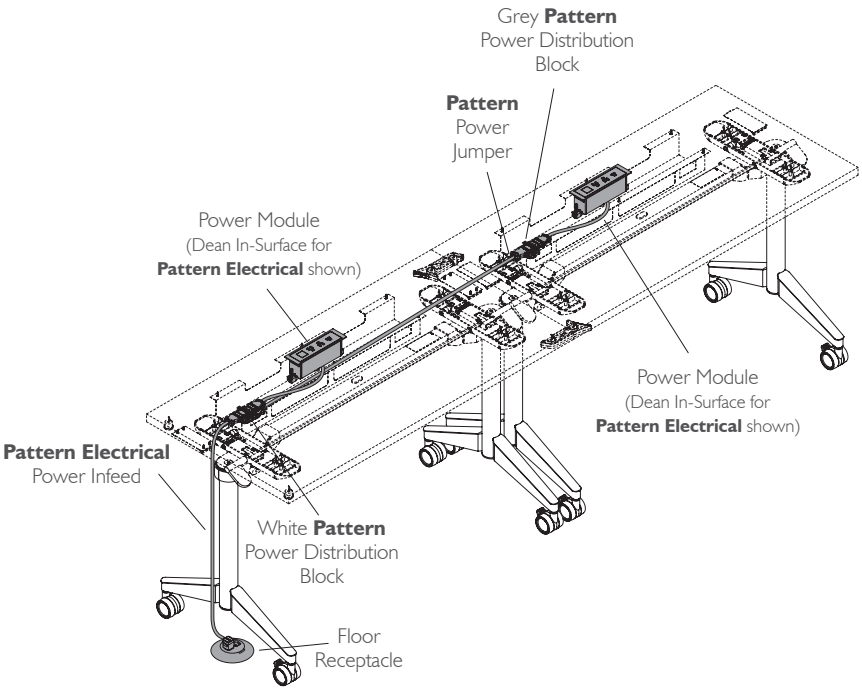
- Activ8 Electrical System installs within various table systems as well as Trellis.
- Pattern Electrical System is currently available with Connection Zone benching, InTandem table system, Pillar tables, Serenade tables, Tributaire tables, and Pirouette tables.

### CHICAGO CODE

- Some lightweight and frequently moved tables with specific power modules can be approved. See charts on page 42 for more information.
- Activ8 is not approved.

### NEW YORK CITY CODE

- Approved.




Level 2 - Pirouette Tables with Power Modules for **Pattern Electrical** (Dean In-Surface shown)

# INTRODUCTION TO
# POWER OPTIONS

## LEVEL 3

### CUSTOMER NEEDS

- Space supports larger quantity of desktop computers.
- Each circuit is rated up to 20 amps. The 6-2-2 system has six circuits. The 4-4-2 system has four circuits.
- Multi-circuit infeed will be hard wired to building power source by electrician.
- Space is not anticipated to change so furniture will be stationary.
- 10-wire rigid wireways with 10-wire duplex receptacles are attached together by use of 10-wire table-to-table jumpers.

### PRODUCT RECOMMENDATIONS

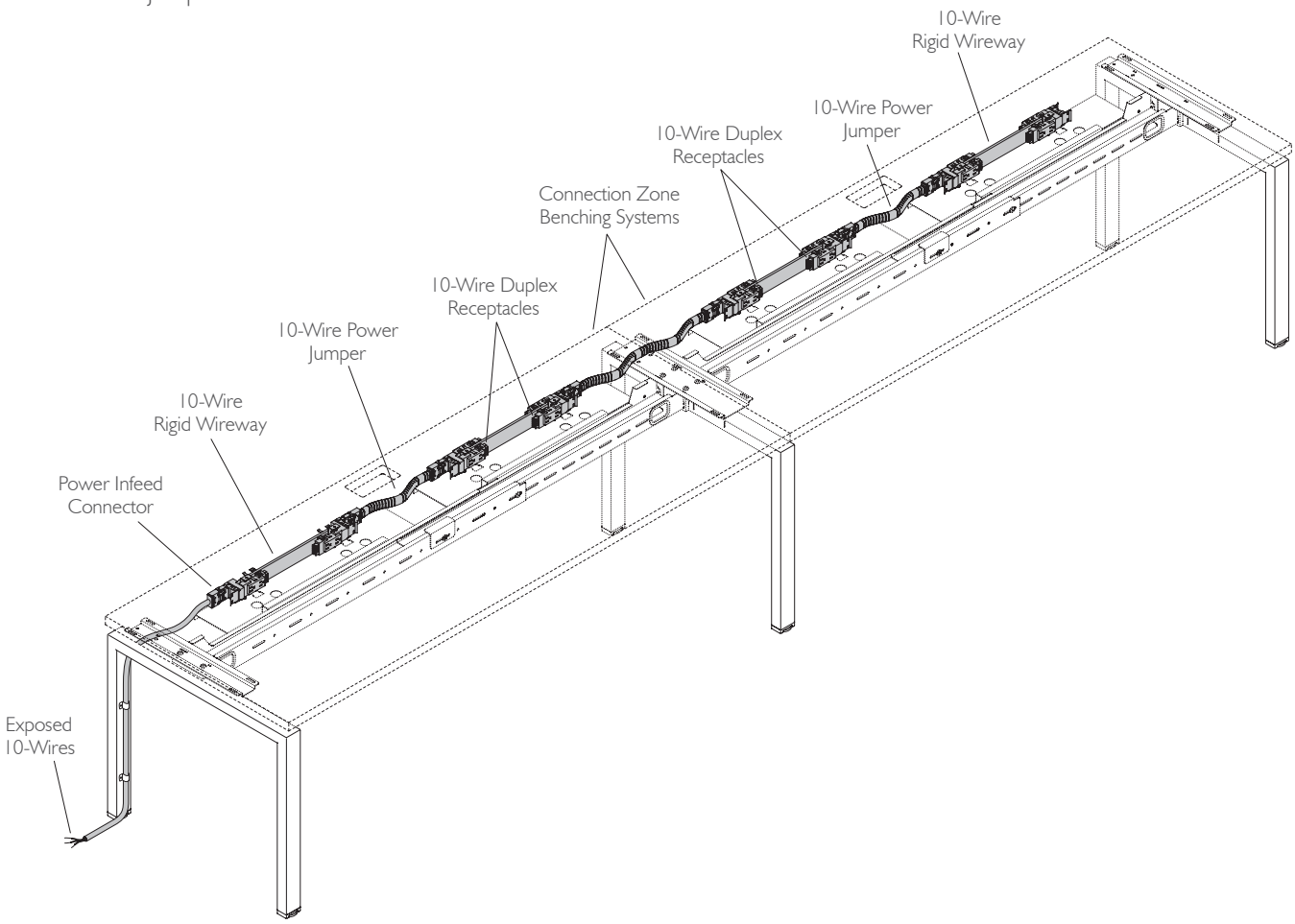
10-Wire – Installs within select powered tables (within wire trough), Connection Zone Benching or Trellis.

### CHICAGO CODE

10-Wire is not approved. Must use hardwire option.

### NEW YORK CITY CODE

Approved with New York City power infeed option.




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

# POWER DISTRIBUTION SYSTEMS
# ACTIV8 ELECTRICAL SYSTEM

### WHAT IS ACTIV8?
Activ8 is a single circuit, connectible power distribution system with a three-prong plug equipped infeed. Five 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.

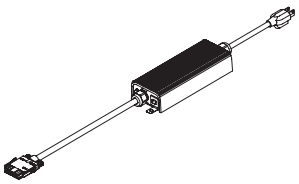
### IMPORTANT INFORMATION
- Infeed can connect anywhere in the run, it does not have to be at one end.
- All components are ordered separately. Don't forget infeeds, jumpers, and modules.
- Activ8 is not sequenced, meaning other than the infeed, the furniture doesn't have to be configured in any specific order.
- Use of a powered system, including Activ8, requires that the tables be mechanically ganged 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 eight modules (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 three or more hours at a time. See page 39 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.

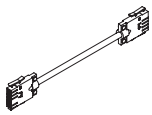
### CHICAGO CODE
- Not approved.

### NEW YORK CITY CODE
- Approved.

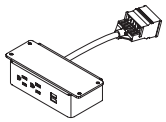
### STATEMENT OF LINE



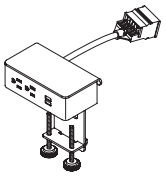
**Activ8 Electrical**
Power Infeed



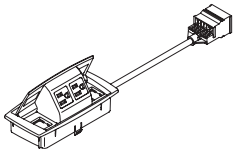
Activ8 Power
Jumper



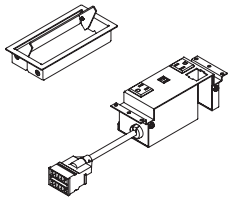
Ashley Duo Under
Power Module for
**Activ8 Electrical**



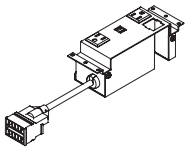
Ashley Duo
Power Module for
**Activ8 Electrical**



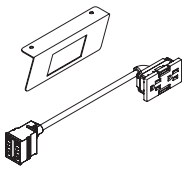
PowerUp Module
for **Activ8 Electrical**



Villa Power Module
with Cover for
**Activ8 Electrical**



Villa Power
Module for
**Activ8 Electrical**



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

POWER DISTRIBUTION SYSTEMS

# PATTERN ELECTRICAL SYSTEM

### WHAT IS PATTERN?

Pattern is a single circuit, connectible power distribution system with a three-prong plug equipped power infeed. Six module styles are available (see Statement of Line below).

### HOW DOES PATTERN WORK?

Customers simply plug the power infeed into a wall or floor receptacle. No electrician is needed. Jumpers and distribution blocks connect from table-to-table to carry power across multiple pieces of furniture.

### IMPORTANT INFORMATION

- Modules can be specified on preconfigured models or ordered separately, depending on the product (please ensure worksurface has proper cut out sizes to support modules). Jumper kits and infeed kits are ordered separately.
- Power infeed can connect anywhere in the run, it does not have to be at one end.
- Power infeed can be used in conjunction with a ground fault interrupter. GFI/GFCI receptacles are typically found in locations near water, such as kitchens, bathrooms, laboratories, break rooms, etc.
- Pattern is not sequenced, meaning other than the infeed, the furniture doesn't have to be configured in any specific order.

### IMPORTANT INFORMATION (CONT.)

- Use of a powered system, including Pattern, requires the tables be mechanically ganged together.
- Pattern requires a wire management solution. Options include horizontal Velcro managers and under-surface troughs.

### WARNINGS

- Power infeed plugs into a building receptacle.
- Pattern can connect a maximum of 10 distribution blocks and 600" (50') of jumper from the power infeed (in either direction), whichever limit is reached first.
- Pattern 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 three or more hours at a time. See page 39 for average draw amounts of unit type.
- If the room will have multiple layouts, verify building power source locations for each potential layout.

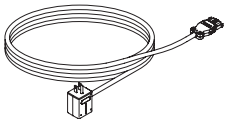
### CHICAGO CODE

Some lightweight and frequently moved tables with specific power modules can be approved. See charts on page 42 for more information.

### NEW YORK CITY CODE

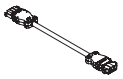
Approved.

### STATEMENT OF LINE

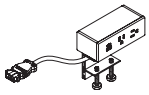


**Pattern Electrical** Power Infeed

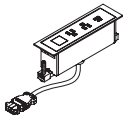
Pattern Power Distribution Block



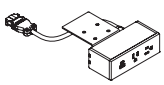
Pattern Power Jumper



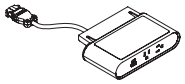
Dean® Clamp-On Power Module for **Pattern Electrical**



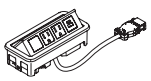
Dean® In-Surface Power Module for **Pattern Electrical**



Dean® Undersurface Power Module for **Pattern Electrical**

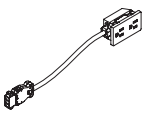


Dubbel Undersurface Power Module for **Pattern Electrical**



Nacre® In-Surface Pop-Up Module for **Pattern Electrical**

Node In-Surface Power Module for **Pattern Electrical**



Snap-In RPT Module for **Pattern Electrical**

POWER DISTRIBUTION SYSTEMS

# SINGLE CIRCUIT ACTIV8 & PATTERN ELECTRICAL SYSTEM - 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 it more efficient for CAD to provide an appropriate layout. 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 and Pattern are 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 39 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 Electrical and Dean In-Surface, Dean Clamp-On, Nacre In-Surface Pop-Up and Node In-Surface for Pattern Electrical. Below surface will use the Ashley Duo Under or RPT for Activ8 Electrical and Dean Undersurface, Dubbel Undersurface and Snap-In RPT for Pattern Electrical. |
| How many modules will be needed total and how many per surface? | Activ8 and Pattern have some limitations. Activ8 offers up to eight modules total to connect to each infeed, or extend to 40 feet, whichever comes first. Pattern offers up to ten distribution blocks to connect to each infeed, and up to 600" of power jumpers from the power infeed (in either direction), whichever comes first. Number of above surface modules will also determine the cutouts needed in the surface. |

POWER DISTRIBUTION SYSTEMS

# SINGLE CIRCUIT ACTIV8 & PATTERN ELECTRICAL SYSTEM - COMPARISON

| | Activ8 | Pattern |
|---|---|---|
| Amperage | 15-amp, single circuit.<br>*Continuous use load should not exceed 80% (12 amps). | 15-amp, single circuit.<br>*Continuous use load should not exceed 80% (12 amps). |
| Construction | Power jumper and infeed connectors built into the power modules. | Power jumper and infeed connectors (distribution blocks) are separate components. Distribution blocks do not need to be specified separately and are included with table-to-table power jumper and infeed kits. |
| System Limitations | Eight modules or 40' total of table-to-table power jumpers, whichever comes first. | Ten distribution blocks or 600" (50') of table-to-table power jumpers from the infeed, so up to 600" (50') each direction, whichever comes first. |
| Power Module Styles | • PowerUp<br>• Villa<br>• Ashley Duo Clamp-On<br>• Ashley Duo Under Surface<br>• RPT (below surface) | • Dean® Clamp-On<br>• Dean In-Surface<br>• Dean Undersurface<br>• Dubbel Undersurface<br>• Nacre® In-Surface Pop-Up<br>• Node In-Surface<br>• Snap-In RPT (below surface) |
| Infeed can Connect Anywhere in Run? | Yes | Yes |
| Table-to-Table Jumper Lengths | 29", 53", 77", 101" | 29", 53", 75", 101" |
| GFCI Compatible Infeed? | No | Yes |
| Backup System Compatible? (i.e. UPS) | No | Yes |
| Compliance Certification | UL Recognized Electrical Components (USA/Canada).<br><br>UL Listed Electrical System - when evaluated with UL Listed end product (USA/Canada). | Intertek (ETL) Listed Furniture Power Distribution Unit System (USA/Canada). |

*UL and Intertek (ETL) are both OSHA approved Nationally Recognized Testing Laboratories (NTRL's) providing certification for products in the furniture industry. Intertek evaluates products to the same safety standards as UL. Both are accepted by Authority's Having Jurisdictions (Inspectors).

**CHICAGO CODE**

Some lightweight and frequently moved tables with power modules for Pattern can be approved. See charts on page 42 for more information.

**NEW YORK CITY CODE**

Approved.

# 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.

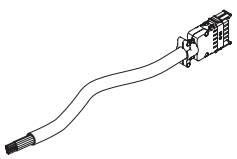
### HOW DOES 10-WIRE WORK?
An Electrician MUST install a 10-wire infeed.
Installers may install the rest of the components.
KI recommends CAD drawings for all 10-wire layouts.

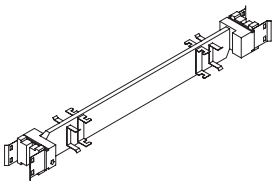
### IMPORTANT INFORMATION
- All components are ordered separately. Don't forget top or base infeeds, jumpers, wireways, and receptacles.
- 6-2-2 System (T6) is the KI system used on tables. It offers the greatest number of potential circuits (6).
- KI offers a 4-4-2 System (T4) on select products. Be 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 eight 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 pages 35, 36, 37 and 38.

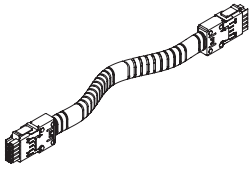
### WARNINGS
- Always get a CAD drawing and have it double checked.
- Each circuit is 20-amp rated, however continuous use load should not exceed 80%. Therefore, only load to 16 amps of draw per circuit if current is expected to continue for three or more hours at a time. See page 39 for average draw 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 35, 36, 37 and 38.
- Relocation, or disconnection, of the infeed requires an electrician.
- Three phase electrical is the only system that accommodates all six 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.

### STATEMENT OF LINE


10-Wire Power Infeed


10-Wire Rigid Wireway


10-Wire Table-to-Table Jumper


15-Amp 10-Wire 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 more efficient. 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 three or more hours at a time. See page 39 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 pages 35, 36, 37 and 38. |

# POWER DISTRIBUTION SYSTEMS
# HARDWIRED ELECTRICAL SYSTEM

**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 electrical 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.

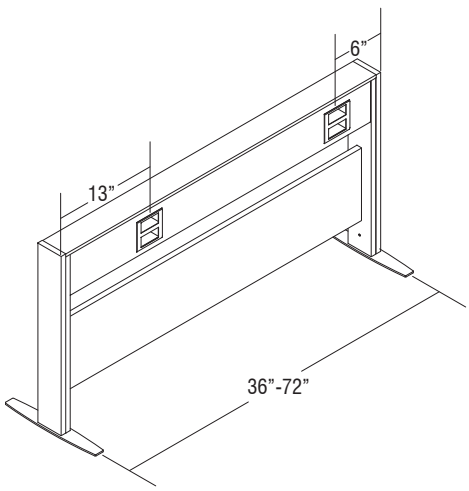
**WARNINGS**
- "Hardwired" version is available on Trellis and contains no receptacles or wires. An electrician is to supply all electrical parts except receptacle boxes (appropriate for City of Chicago electrical code).
- If 10-Wire is needed, do not specify "Hardwired", specify T6 power.
- Receptacle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

**CHICAGO CODE**
- 10-Wire and Acitv8 electrical systems are not approved. Must use Hardwired electrical system.

**NEW YORK CITY CODE**
- Approved with New York City power infeed option.

# 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 9 for 10-wire info and page 11 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
# 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 electrcial system and a power cord version with 3-prong plug (for connection to a building receptacle or to 10-wire electrical system).

The 3-prong plug is oriented on a 90 degree angle and offers modules with either 36", 108” or 180” power cords.

**WARNING**

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

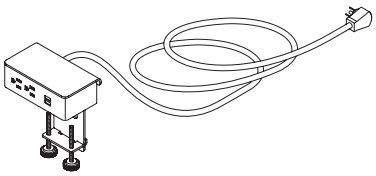
**CHICAGO CODE**

Clamp-on option approved on some tables. See charts on page 42 for more information.

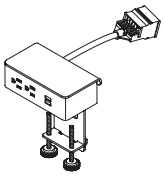
**NEW YORK CITY CODE**

Approved.

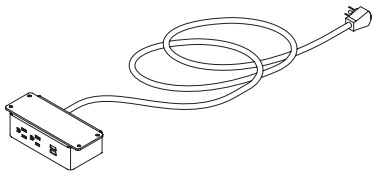
**STATEMENT OF LINE**



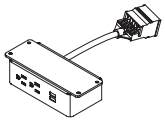
Ashley Duo Power Module with **3-Prong Plug**



Ashley Duo Power Module for **Activ8 Electrical**



Ashley Duo Under Power Module with **3-Prong Plug**

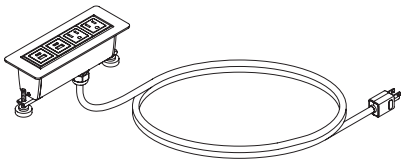


Ashley Duo Power Module for **Activ8 Electrical**

# POWER MODULES
# AXIL Z

- Axil Z is a surface mounted power module, which inserts into a worksurface cutout and mounts flush with the tabletop.
- Module features two AC simplex receptacles, two USB-A ports and two USB-C charging ports.
- Available on MyWay coffee tables and Serenade gathering tables.
- Module power cord length on MyWay coffee tables is 10' and 15' on Serenade gathering table.

**STATEMENT OF LINE**



Axil Z Power Module
with **3-Prong Plug**

**WARNING**

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

**CHICAGO CODE**

Approved on some tables. See charts on page 42 for more information.

**NEW YORK CITY CODE**

Approved.

# POWER MODULES
# DEAN

Dean is available in three styles: The KI standard "above surface clamp-on model", "in-surface model" and the "undersurface model".

The above surface 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 3 1/2" above the worksurface.

Dean in-surface is designed to fit securely into a 8.03" x 1.94" cutout.

Two power receptacles, one USB-A, one USB-C. Dean in-surface contains one opening for customer provided data jacks per module.

Dean in-surface is constructed of polycarbonate with an aluminum, powder coated faceplate.

Dean is available in two versions, one with a connector end for the Pattern electrical system and a power cord version with a 3-prong plug (for connection to building receptacle or to 10-wire electrical system).

Modules come standard with either 36", 108" or 180" cord with a 3-prong plug, or a 20" or 40" cord with a Pattern connector. The 3-prong plug is oriented on a 90 degree angle.

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

**WARNING**

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

**CHICAGO CODE**

Clamp-on option approved on some tables. See charts on page 42 for more information.

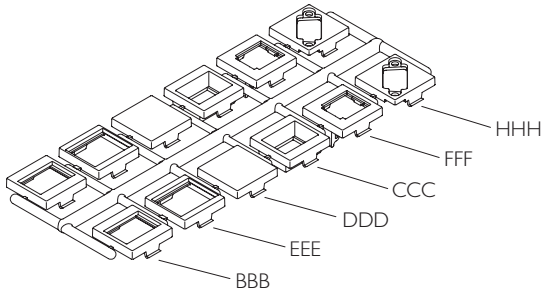
**NEW YORK CITY CODE**

Approved.

**DATA ADAPTER BRACKET TREE**

Customer selects the appropriate data plate for the phone/data jack to be used (see chart). Jacks are sold by separate companies and are not supplied with the module. The chart below is a guide listing some of the more common jacks, and not intended to be all-inclusive.

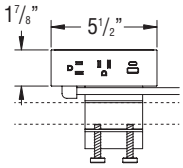
| Adapter | Manufacturer | Website |
|---|---|---|
| BBB | L-Com Keystone Modular | www.L-Com.com |
| BBB | NETCONNECT, and 110 Connect Series Modular Jack | www.Anixter.com |
| BBB | Siemon ZMAX Style | www.Siemon.com |
| BBB | Allen Tel Versa Tap Series | www.Graybar.com |
| BBB | Leviton Quick Port® Series | www.Leviton.com |
| BBB | Belden REVConnect | www.Belden.com |
| BBB | HDMI Adapter Cable | www.Byrne.com |
| CCC | Hubbell Nextspeed™ Keystone Series | www.Hubbell-premise.com |
| CCC | ADC Truenet Series | www.Anixter.com |
| DDD | Blank (no coupler/jack) | |
| EEE | Ortronics TracJack Series | www.Ortronics.com |
| FFF | Panduit Mini-Com Series | www.Panduit.com |
| HHH | Video Monitor Jack/DB-15, panel mount solder style (VGA Connection) | www.Byrne.com |



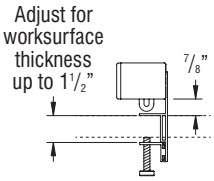

(Part # for Data Tree is #48.0738. Data Tree is automatically included with Dean In-Surface power modules.)

# POWER MODULES
# DEAN

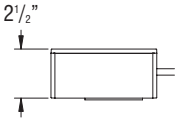
## DIMENSIONS



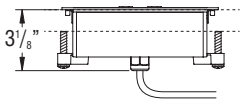

Dean Clamp-On
Power Module
(front view)



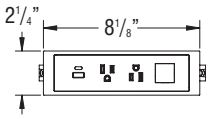

Dean Clamp-On
Power Module
(side view)



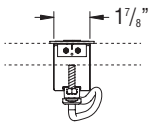

Dean Clamp-On
Power Module
(top view)



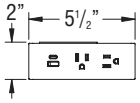

Dean In-Surface
Power Module
(front view)



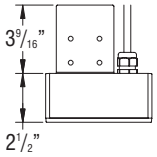

Dean In-Surface
Power Module
(top view)



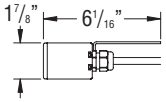

Dean In-Surface
Power Module
(side view)




Dean Underurface
Power Module
(front view)

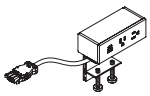



Dean Undersurface
Power Module
(top view)

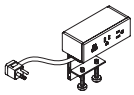



Dean Undersurface
Power Module
(side view)

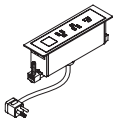
## STATEMENT OF LINE



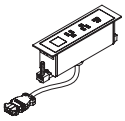
Dean® Clamp-On
Power Module for
**Pattern Electrical**



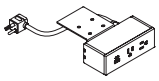
Dean® Clamp-On
Power Module with
**3-Prong Plug**



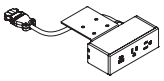
Dean® In-Surface
Power Module with
**3-Prong Plug**



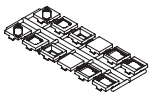
Dean® In-Surface
Power Module for
**Pattern Electrical**



Dean® Undersurface
Power Module with
**3-Prong Plug**



Dean® Undersurface
Power Module for
**Pattern Electrical**



Data Adapter
Bracket Tree
(Part # 48.0738)

# POWER MODULES
# DOUBLE ELLORA B

Double Ellora B in-surface pop-up power and data module, which when closed, is nearly flush with the tabletop. When opened, the module provides plug-in access to angled receptacles and data ports.

The Double Ellora B module is made of molded plastic with a flat cover, which can be pushed to activate a dampened, spring-loaded mechanism and flip the module open for use. Press the plastic cover to close and it snaps into place for storage.

Double Ellora B is designed to fit securely into a 9.75" x 7.88" cutout.

Two power receptacles, one USB-A, one USB-C are on each side of the power module. Double Ellora B contains one opening per side of the power module for customer provided data jacks.

Double Ellora B housing is of painted aluminum and steel. The surface and trim hinged soft-close caovers are of painted aluminum.

Double Ellora B is available in two versions, one with a connector end for the Pattern electrical system, and one power cord version with a 3-prong plug (for connection to building receptacle or to 10-wire electrical system).

Modules come standard with either 108" or 180" cord with a 3-prong plug, or a 20" or 40" cord with a Pattern connector. The 3-prong plug is oriented at a 90 degree angle.

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

**WARNING**

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

**CHICAGO CODE**

Approved on some tables. See charts on page 42 for more information.

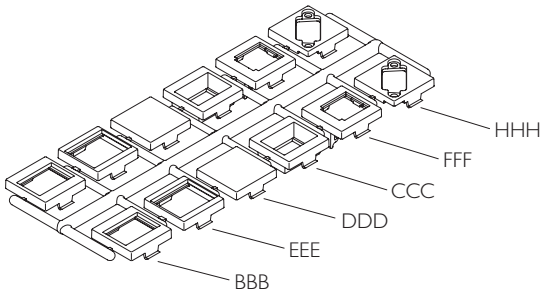
**NEW YORK CITY CODE**

Approved.

**DATA ADAPTER BRACKET TREE**

Customer selects the appropriate data plate for the phone/data jack to be used (see chart). Jacks are sold by separate companies and are not supplied with the module. The chart below is a guide listing some of the more common jacks, and not intended to be all-inclusive.

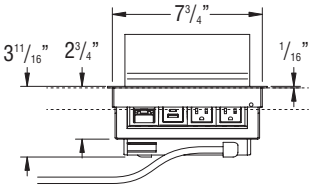
| Adapter | Manufacturer | Website |
|---|---|---|
| BBB | L-Com Keystone Modular | www.L-Com.com |
| BBB | NETCONNECT, and 110 Connect Series Modular Jack | www.Anixter.com |
| BBB | Siemon ZMAX Style | www.Siemon.com |
| BBB | Allen Tel Versa Tap Series | www.Graybar.com |
| BBB | Leviton Quick Port® Series | www.Leviton.com |
| BBB | Belden REVConnect | www.Belden.com |
| BBB | HDMI Adapter Cable | www.Byrne.com |
| CCC | Hubbell Nextspeed™ Keystone Series | www.Hubbell-premise.com |
| CCC | ADC Truenet Series | www.Anixter.com |
| DDD | Blank (no coupler/jack) | |
| EEE | Ortronics TracJack Series | www.Ortronics.com |
| FFF | Panduit Mini-Com Series | www.Panduit.com |
| HHH | Video Monitor Jack/DB-15, panel mount solder style (VGA Connection) | www.Byrne.com |



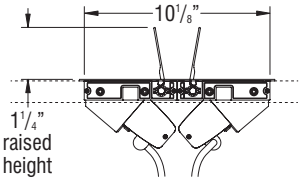

(Part # for Data Tree is #48.0738. Data Tree is automatically included with Double Ellora B In-Surface power modules.)

# POWER MODULES
# DOUBLE ELLORA B

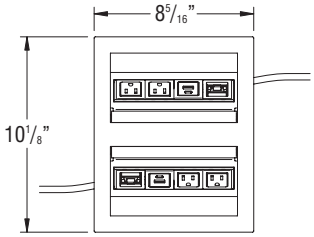
## DIMENSIONS




Double Ellora B In-Surface Pop-Up Power Module (front view)




Double Ellora B In-Surface Pop-Up Power Module (side view)




Double Ellora B In-Surface Pop-Up Power Module (top view)

POWER MODULES

# DROP-IN USB CHARGER

Features two USB charging ports in one module. Designed to snap into the universal data tree ports (in place of data) in PowerUp and Villa Power modules (see pages 25 and 31).

Two USB charging ports, 2-amps of power each.

Must be plugged into a separate power source.

Available in black only.

Cord length is 72".

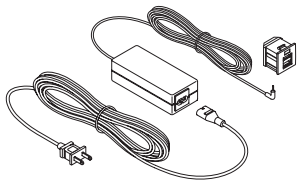
**CHICAGO CODE**

Approved.

**NEW YORK CITY CODE**

Approved.

**STATEMENT OF LINE**



Drop-In USB Charger
with **3-Prong Plug**

# POWER MODULES
# DUBBEL

Dubbel undersurface is designed to mount under the surface at the front, user side of a worksurface using two screws.

Dubbel power module includes two power receptacles, one USB-A and one USB-C connector port.

Constructed of molded plastic.

Dubbel is available in two versions, one with a connector end for the Pattern electrical system and a power cord version with a 3-prong plug (for connection to building receptacle or to 10-wire electrical system).

Modules come standard with either 36", 108" or 180" cord with a 3-prong plug, or a 40" cord with a Pattern connector. The 3-prong plug is oriented on a 90 degree angle.

**WARNING**

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

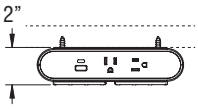
**CHICAGO CODE**

Not approved on tables.

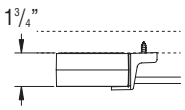
**NEW YORK CITY CODE**

Approved.

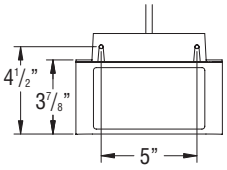
**DIMENSIONS**




Front View

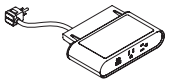



Side View

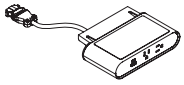



Top View

**STATEMENT OF LINE**



Dubbel Power Module with **3-Prong Plug**



Dubbel Power Module for **Pattern Electrical**

# POWER MODULES
# LAYER POWER TOWER

- Layer Power Tower is a power delivery device. It features 360° access to a total of six receptacles, two USB-A and two USB-C ports. 15-amp capacity is supported through a single 3-prong plug power source.
- Layer Power Tower 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 three or more hours at a time. See page 39 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-A charging ports (one per side).
- Two USB-C power delivery charging ports (one per side).
- Six 3-prong receptacles (three per side) provide continuous power.
- Optional device ledge with 100% recycled PET felt insert supports devices while charging.
- Overcurrent protection 3-prong plug for overload protection.
- Tether and anchor slots in the base allow user to secure the tower to the floor if stationary application is needed (tether and anchor provided by customer).
- A 108" power cord winds around the tower base.
- Unit is $37^{7}/_{8}$" tall by $14^{1}/_{2}$" at the widest point.

**WARNING**

- Layer Power Towers are not to be series connected (daisy chained) to each other, plugged into extension cords, or , plugged into power strips.

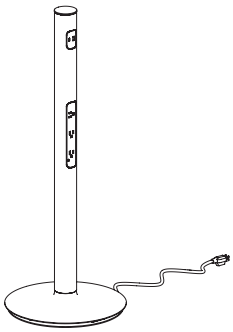
**CHICAGO CODE**

- Approved.

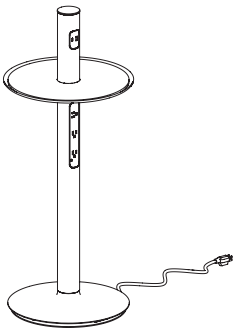
**NEW YORK CITY CODE**

- Approved.

**STATEMENT OF LINE**



Layer Power Tower



Layer Power Tower
with Device Ledge

# POWER MODULES
# NACRE

Nacre is an in-surface mounted pop-up power and 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 Nacre module is made of molded plastic with a flat cover, which can be pushed to activate a dampened, spring-loaded mechanism and flip the module open for use. Press the plastic cover to close and it snaps into place for storage.

Module fits securely in to a 6.94" x 3" cutout with .37" radius corners, still allowing removal without tools.

Two power receptacles, one USB-A, one USB-C, and one opening for customer provided data jacks per module.

Nacre is available in two versions, one with a connector end for the Pattern electrical system and a power cord version with a 3-prong plug (for connection to building receptacle or to 10-wire electrical system).

Modules come standard with either 108" or 180" cord with a 3-prong plug, or a 20" or 40" cord with a Pattern connector. The 3-prong plug is oriented on a 90 degree angle.

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

### WARNING

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

### CHICAGO CODE

Approved on some tables. See charts on page 42 for more information.

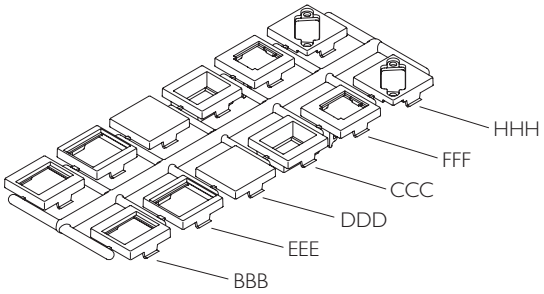
### NEW YORK CITY CODE

Approved.

### DATA ADAPTER BRACKET TREE

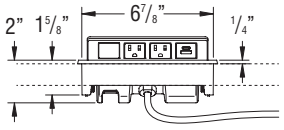
Customer selects the appropriate data plate for the phone/data jack to be used (see chart). Jacks are sold by separate companies and are not supplied with the module. The chart below is a guide listing some of the more common jacks, and not intended to be all-inclusive.

| Adapter | Manufacturer | Website |
|---|---|---|
| BBB | L-Com Keystone Modular | www.L-Com.com |
| BBB | NETCONNECT, and 110 Connect Series Modular Jack | www.Anixter.com |
| BBB | Siemon ZMAX Style | www.Siemon.com |
| BBB | Allen Tel Versa Tap Series | www.Graybar.com |
| BBB | Leviton Quick Port® Series | www.Leviton.com |
| BBB | Belden REVConnect | www.Belden.com |
| BBB | HDMI Adapter Cable | www.Byrne.com |
| CCC | Hubbell Nextspeed™ Keystone Series | www.Hubbell-premise.com |
| CCC | ADC Truenet Series | www.Anixter.com |
| DDD | Blank (no coupler/jack) | |
| EEE | Ortronics TracJack Series | www.Ortronics.com |
| FFF | Panduit Mini-Com Series | www.Panduit.com |
| HHH | Video Monitor Jack/DB-15, panel mount solder style (VGA Connection) | www.Byrne.com |

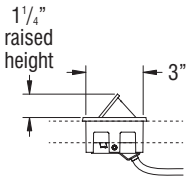



(Part # for Data Tree is #48.0738. Data Tree is automatically included with Nacre power modules.)

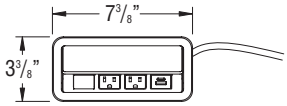
### DIMENSIONS



Front View



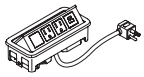
Side View



Top View

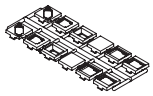
# POWER MODULES
# NACRE

**STATEMENT OF LINE**



Nacre® In-Surface
Pop-Up Power Module
with **3-Prong Plug**

Nacre® In-Surface
Pop-Up Power Module
**Pattern Electrical**



Data Adapter
Bracket Tree
(Part # 48.0738)

# POWER MODULES
# NODE

Node is a surface mounted power module that fits securely into a 3" diameter cutout, still allowing removal without tools.

Node power module includes one power receptacle and one USB-A and one USB-C charging ports.

Constructed of molded plastic housing with a powder-coat painted faceplate.

Node is available in two versions, one with a connector end for the Pattern electrical system and a power cord version with a 3-prong plug (for connection to building receptacle or to 10-wire electrical system).

Modules come standard with either 108" or 180" cord with a 3-prong plug, or a 20" or 40" cord with a Pattern connector.

**WARNING**

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

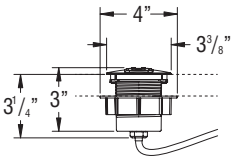
**CHICAGO CODE**

Approved on some tables. See charts on page 42 for more information.

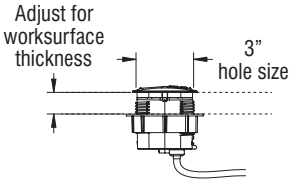
**NEW YORK CITY CODE**

Approved.

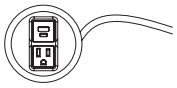
**DIMENSIONS**



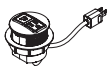
Front View



Side View


Top View

**STATEMENT OF LINE**


Node Power Module with **3-Prong Plug**


Node Power Module for **Pattern Electrical**

# POWER MODULES
# POWERUP

PowerUp is a surface mounted power and 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 electrical 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 3-prong plug is oriented on a 90 degree angle and offers modules with either 36", 108" or 180" power cords.

A drop-in USB charging port can fit into data opening – see page 19 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 plugs are not intended to be series connected (daisy chained) to each other, plugged into extension cords, or plugged into power strips.

### CHICAGO CODE

Approved on some tables. See charts on page 42 for more information.

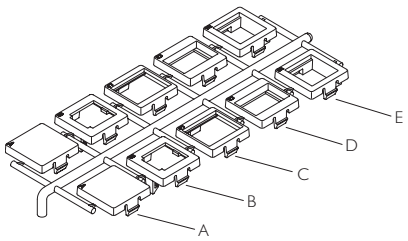
### NEW YORK CITY CODE

Approved.

### DATA ADAPTER BRACKET TREE

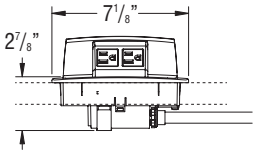
Customer selects the appropriate data plate for the phone/data jack to be used (see chart). Jacks are sold by separate companies and are not supplied with the module. The chart below is a guide listing some of the more common jacks, and not intended to be all-inclusive.

| Data Plate Letter | Opening Size | Phone/Data Jack |
|---|---|---|
| A | None | Blank |
| B | 0.635" x 0.730" | Panduit "CJ" |
| C | 0.670" x 0.929" | Ortronics "TrakJack" |
| D | 0.585" x 0.780" | Panduit "KJ" and "KJA", AMP CAT-3 and CAT-5, Hubbel "HD5", Otronics "OR-6295003-T568B" and "OR-6295004-T568A", Krone, Leviton "41108-RE5" |
| E | 0.680" x 0.710" | AT&T |

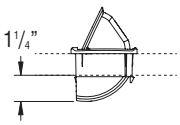



(Part # for Data Tree is #46.0151. Data Tree is automatically included with PowerUp modules, Sequence Power & Data modules and Concerto Seating with Power & Data.)

### DIMENSIONS




Front View

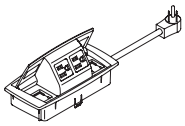



Side View

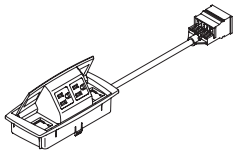

Top View

# POWER MODULES
# POWERUP

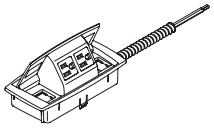
**STATEMENT OF LINE**



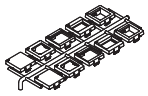
PowerUp Module
with **3-Prong Plug**



PowerUp Module
for **Activ8 Electrical**



PowerUp Module for
**Hardwire Applications**



Data Adapter Bracket Tree
(Part # 46.0151)

# 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.

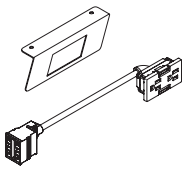
RPT modules are available with a connector to plug into the Activ8 electrical system with a RPT bracket to mount to the table.

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

**CHICAGO CODE**
Not approved.

**NEW YORK CITY CODE**
Approved.

**STATEMENT OF LINE**



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

# POWER MODULES
# SNAP-IN RPT

Snap-in RPT is a relocatable power tap (a.k.a, furniture power distribution unit), duplex 15-amp equipped power receptacle. It snaps into a rectangular cutout on undersurface wire troughs on Pirouette tables.

Two module versions are available and includes a connector to plug into the Pattern electrical system. One with a RPT bracket to mount to InTandem and the other option is 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.

Module comes standard with a 20" or 40" cord with a Pattern connector.

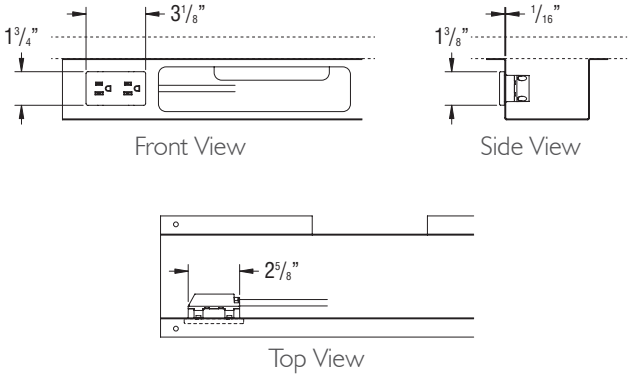
## CHICAGO CODE

Approved. See charts on page 42 for more information.

## NEW YORK CITY CODE

Approved.

## DIMENSIONS

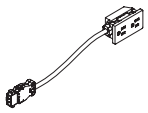



Front View

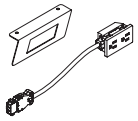
Side View

Top View

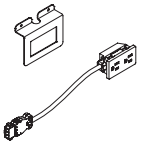
## STATEMENT OF LINE



Snap-In RPT (Relocatable Power Tap) module for **Pattern Electrical**



Snap-In RPT module for **Pattern Electrical** with Snap-In RPT bracket



Snap-In RPT module for **Pattern Electrical** with Snap-In RPT bracket (InTandem)

# POWER MODULES
# UNDERMOUNTED R8

Undemounted R8 Power Module is secured to the underside of a worksurface with four screws.

The unit features eight power receptacles.

Cord length is 12'.

Module hangs down from the surface 1" to allow easier access to plug in and unplug.

Module measures 16.3" wide by 2.3" deep by 2.8" high.

Intended for use with Toggle and/or Workup tables. Wire trough (specified separately) conveniently conceals equipment cords plugged into the R8 module.

Undermounted R8 Power Module is not intended to plug other electrical modules into it, such as Ashley Duo, PowerUp, or Villa.

**WARNING**

Undermounted R8 power modules with 3-prong plugs are not intended to be series connected (daisy chained) to each other, plugged into extension cords, or plugged into power strips.

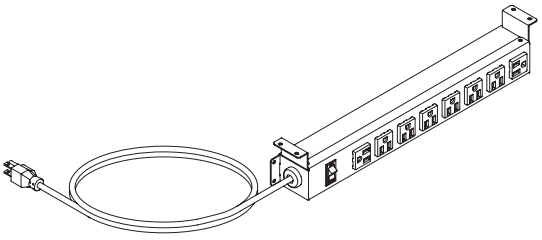
**CHICAGO CODE**

Not approved.

**NEW YORK CITY CODE**

Approved.

**STATEMENT OF LINE**



Undermounted R8 Power Module with **3-Prong Plug**

# POWER MODULES
# VAULT MODULE

Vault is a power and data module that inserts into and sits flush with the surface of the tabletop.

Vault module includes three power receptacles, three data ports, one VGA connection and one HDMI connection.

Module is opened and closed by touching red and green arrows on the surface of the module.

Power cord length is 12'.

Available with one or two modules as standard on Serenade Conference Table (with upcharge).

**WARNING**

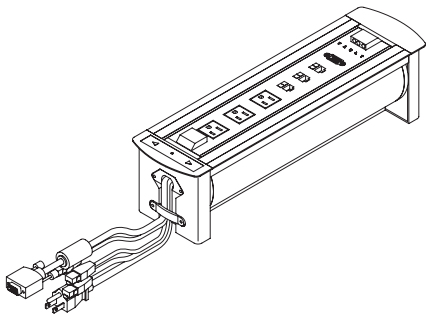
Vault power modules with 3-prong plugs are not intended to be series connected (daisy chained) to each other, plugged into extension cords, or plugged into power strips.

**CHICAGO CODE**

Not approved.

**NEW YORK CITY CODE**

Approved.



Vault Power Module
with **3-Prong Plug**

# POWER MODULES
# VILLA

Villa is a surface power module that mounts below a 6 1/4" x 3" grommet cutout. 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 electrical system and a power cord version with 3-prong plug (for connection to a building receptacle or to 10-wire electrical system).

The 3-prong plug is oriented on a 90 degree angle and offers modules with either 36", 108" or 180" power cords.

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

**WARNING**

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

**CHICAGO CODE**

Not approved.

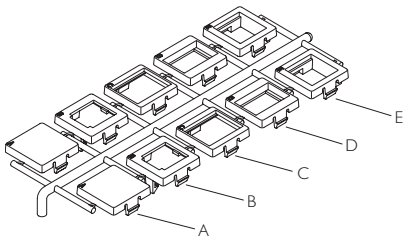
**NEW YORK CITY CODE**

Approved.

**DATA ADAPTER BRACKET TREE**

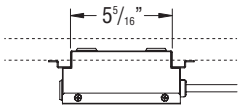
Customer selects the appropriate data plate for the phone/data jack to be used (see chart). Jacks are sold by separate companies and are not supplied with the module. The chart below is a guide listing some of the more common jacks, and not intended to be all-inclusive.

| Data Plate Letter | Opening Size | Phone/Data Jack |
|---|---|---|
| A | None | Blank |
| B | 0.635" x 0.730" | Panduit "CJ" |
| C | 0.670" x 0.929" | Ortronics "TrakJack" |
| D | 0.585" x 0.780" | Panduit "KJ" and "KJA", AMP CAT-3 and CAT-5, Hubbel "HD5", Otronics "OR-6295003-T568B" and "OR-6295004-T568A", Krone, Leviton "41108-RE5" |
| E | 0.680" x 0.710" | AT&T |

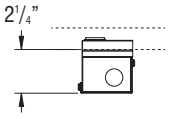



(Part # for Data Tree is #46.0151. Data Tree is automatically included with PowerUp modules, Sequence Power & Data modules and Concerto Seating with Power & Data.)

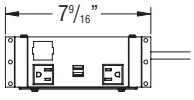
**DIMENSIONS**



Front View



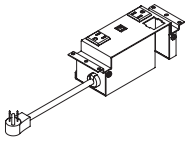
Side View



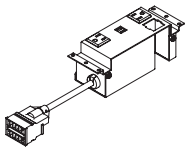
Top View

# POWER MODULES
# VILLA

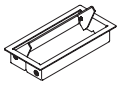
**STATEMENT OF LINE**



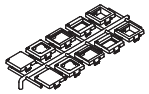
Villa Power Module
with **3-Prong Plug**



Villa Power Module
for **Activ8 Electrical**



Villa Grommet Cover



Data Adapter Bracket Tree
(Part # 46.0151)

# PORTABLE POWER PACKS
# THESIS

Thesis power pack is a system of batteries, sold in 3-packs or 5-packs which are stackable for charging.

Thesis power pack consists of four charging ports, which includes one 10-watt USB-A port, two 100-watt USB-C ports, and one 20-watt USB-C port.

LED lights indicate the charge level of the battery.

The top and bottom of each module utilizes cordless charging for the next stacked Thesis. The top of each unit incorporates 15-watt wireless charging technology for compatible devices.

One power supply cord plugged into the 100-watt USB-C port closest to the LED lights on a single Thesis module will charge a maximum of five modules in a stack.

One end of the power supply has a cord with 3-prong plug for a 120V power outlet, and on the other side has a cord with a USB-C plug delivering power into a 100-watt USB-C port of the bottom battery.

Additional power packs may be placed on top of the lowest charging module to utilize wireless 100-watt charging of all stacked modules. Other wireless chargeable devices placed on top of the unit charge at a 15-watt rating.

Thesis contains a battery with 216 watt-hours of charging capacity. A fully charged battery is capable of charging three to four laptops from 20% to 80%. The time to charge a typical office laptop (60-watt) is about one to two hours.

Thesis can charge (from 0-100%) about 18-21 average sized smart phones, 12-15 larger smart phones/small tablets, or about six larger tablets. The time to charge a typical smartphone (20-watt) is about 1-2 hours.

Note: these figures are only estimates and have not been tested by a third party. See page 39 for average draw amounts by item type.

**WARNING**

Thesis power packs are not to be series connected (daisy chained) to each other, plugged into extension cords, or, plugged into power strips.

**WARNING**

The Thesis battery is classified as UN 3480 Lithium ion battery - Class 9. Per the U.S. Department of Transportation and International Air Transportation Authority, if you plan to re-ship your Thesis battery unit you will need appropriate 49 CFR 172.704 training and paperwork for a Class 9 Fully Regulated shipment.

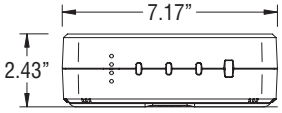
**CHICAGO CODE**

Approved.

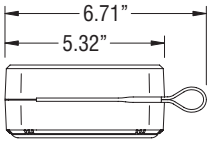
**NEW YORK CITY CODE**

Approved.

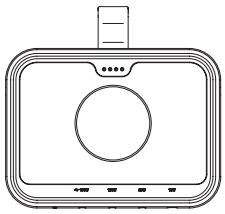
**DIMENSIONS**



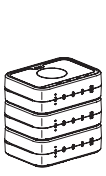
Front View

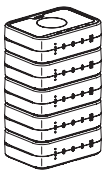


Side View


Top View

**STATEMENT OF LINE**


3-pack


5-pack

PORTABLE POWER PACKS

# VESTA BATTERY POWER TOWER

Vesta Battery Power Tower is a power delivery device. Its portable design provides mobile power where normal outlets fail to reach.

One 10-watt USB-A, two 60-watt USB-C, and one 20-watt USB-C charging port at the top of the unit.

LED lights at the top indicate the level of internal battery charge.

At the base of the unit is an outlet for 3-prong plug (110-watt maximum draw).

Charging of the internal battery is through the barrel connection port at the base of the tower utilizing the dedicated wall charger. The wall charger, with barrel connector at one end has a corded 3-prong plug for a 120-volt power outlet at the other end.

The 96-watt wall charger is capable of fully charging the depleted internal battery in six to eight hours.

Vesta contains an internal battery with 432 watt-hours of charging capacity. A fully charged battery is capable of charging seven to eight laptops from 20% to 80%. The time to charge a typical office laptop (60-watt) is about one to two hours.

Vesta can charge (from 0-100%) about 36-42 average sized smart phones, 24-30 larger smart phones/ small tablets, or about twelve larger tablets. The time to charge a typical smartphone (20-watt) is about 1-2 hours.

Note: these figures are only estimates and have not been tested by a third party. See page 39 for average draw amounts by item type.

The base includes an on/off switch and indicator light, which allows the unit to save battery life. The switch will light up blue when on and automatically turns off after five minutes without use.

The base has a built-in intelligence to prevent an overload condition. If an overload occurs, power will be switched off and the indicator light will turn red.

Wall charger can cover a length of 35 1/4".

**WARNING**

Vesta Battery Power Towers are not to be series connected (daisy chained) to each other, plugged into extension cords, or, plugged into power strips.

**WARNING**

The Vesta battery is classified as UN 3480 Lithium ion battery - Class 9. Per the U.S. Department of Transportation and International Air Transportation Authority, if you plan to re-ship your Vesta battery unit you will need appropriate 49 CFR 172.704 training and paperwork for a Class 9 Fully Regulated shipment.

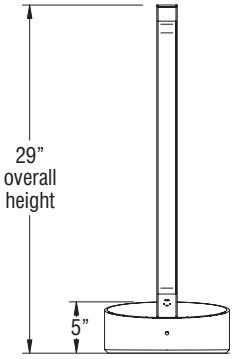
**CHICAGO CODE**

Approved.

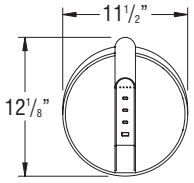
**NEW YORK CITY CODE**

Approved.

**DIMENSIONS**

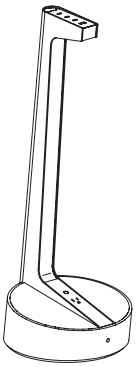


Front View



Top View

**STATEMENT OF LINE**


Vesta Battery Power Tower

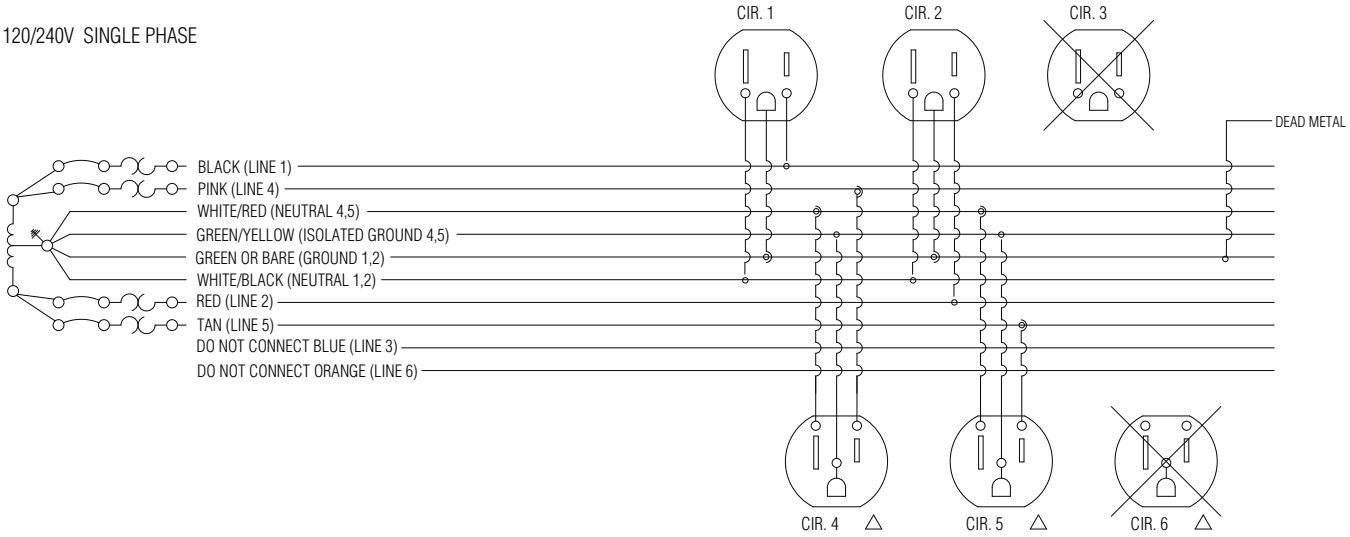
RESOURCES

# 6-2-2 CONNECTION DIAGRAMS

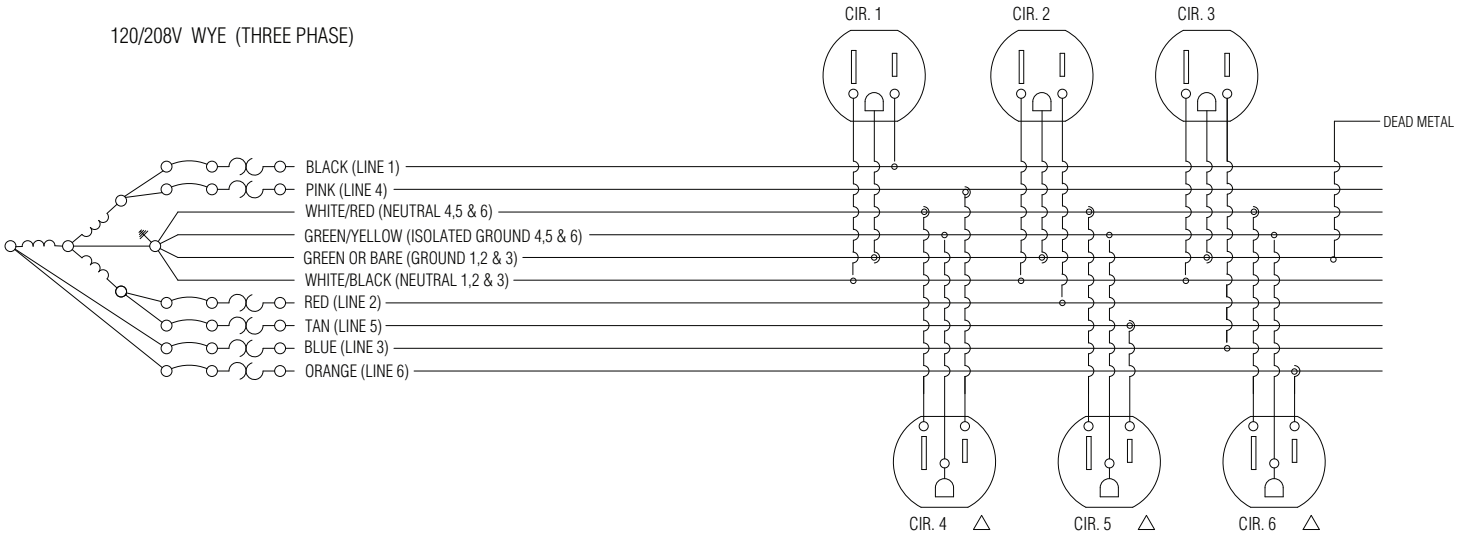
## 10-WIRE ELECTRICAL

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)

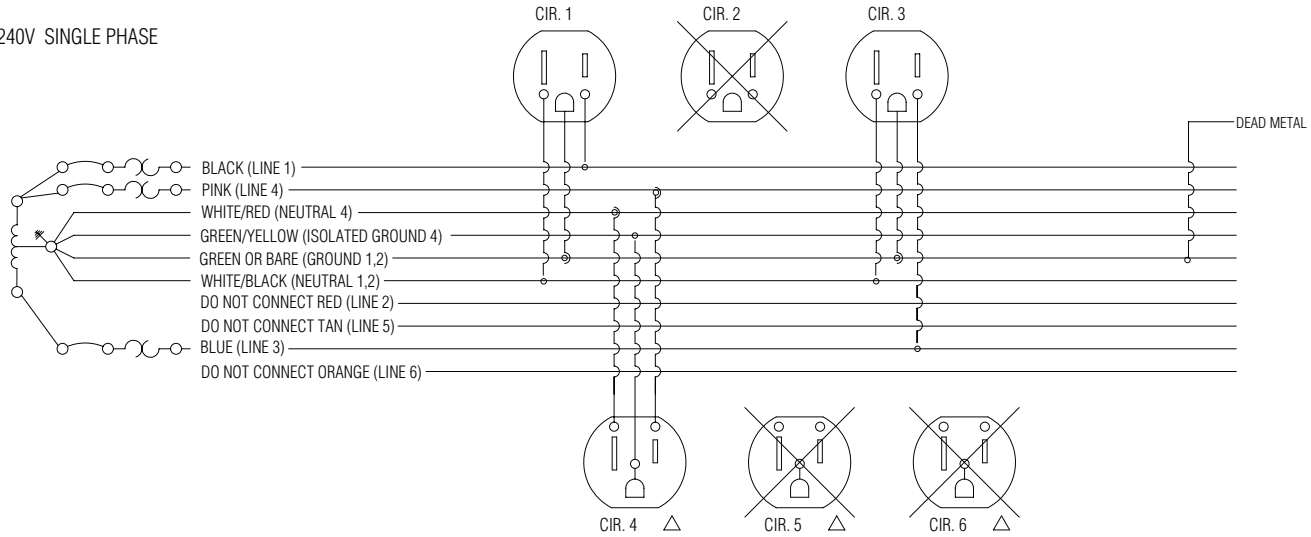


# 6-2-2 CONNECTION DIAGRAMS

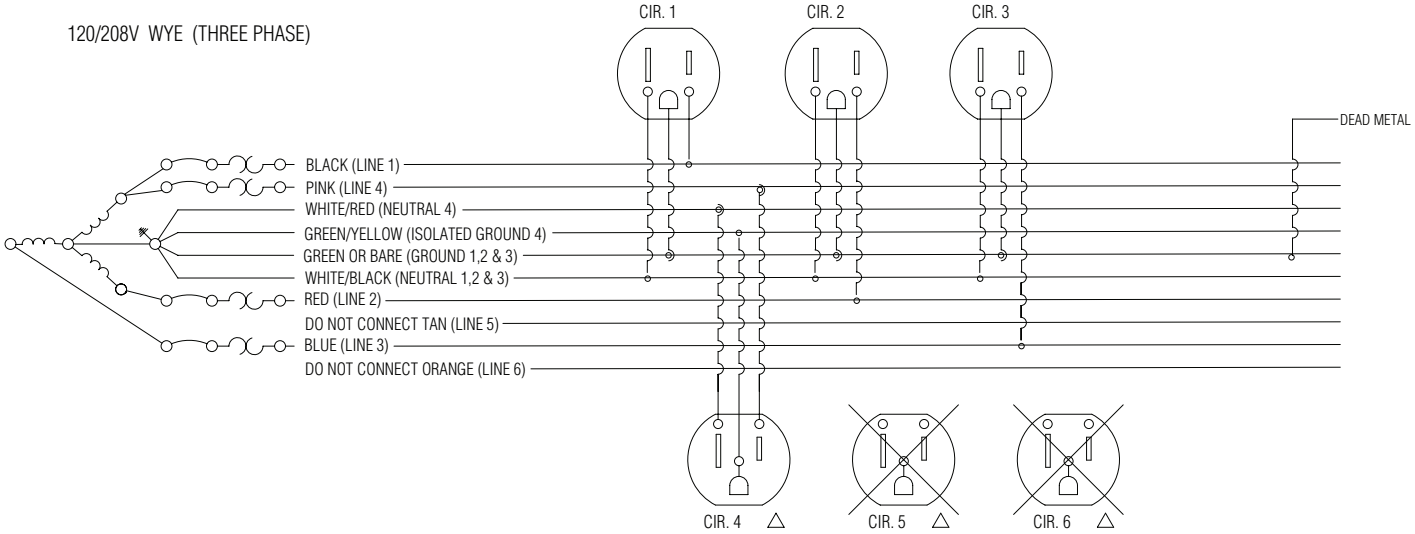
## 8-WIRE ELECTRICAL
### (10-WIRE SYSTEM BEING CONNECTED TO 8-WIRE BUILDING)

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)

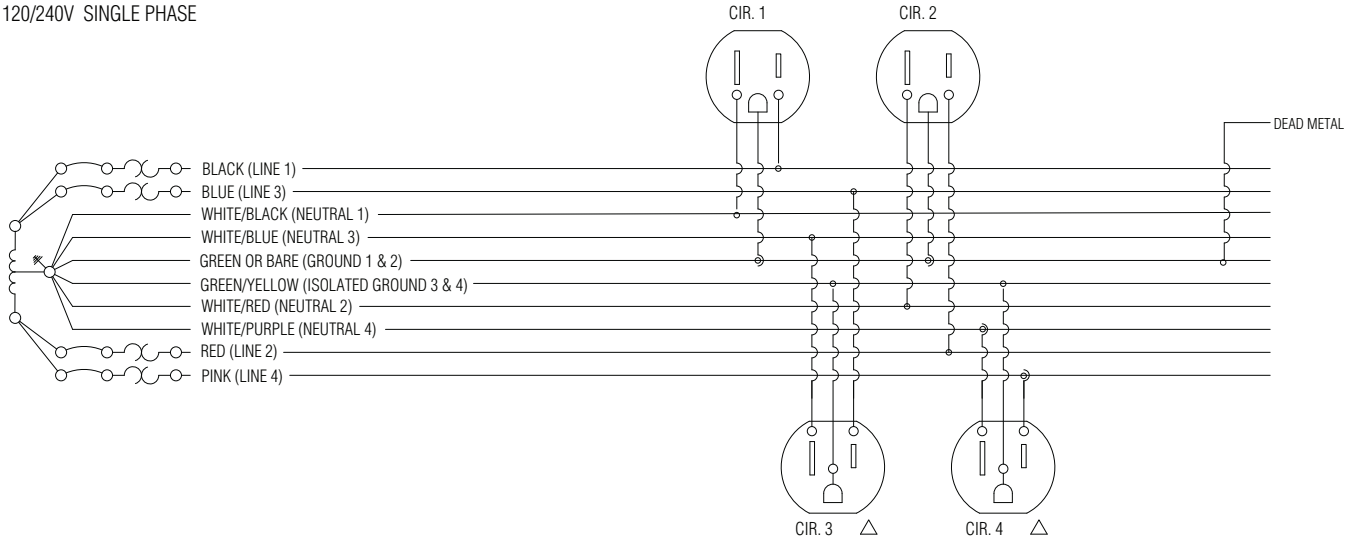


# 4-4-2 CONNECTION DIAGRAMS

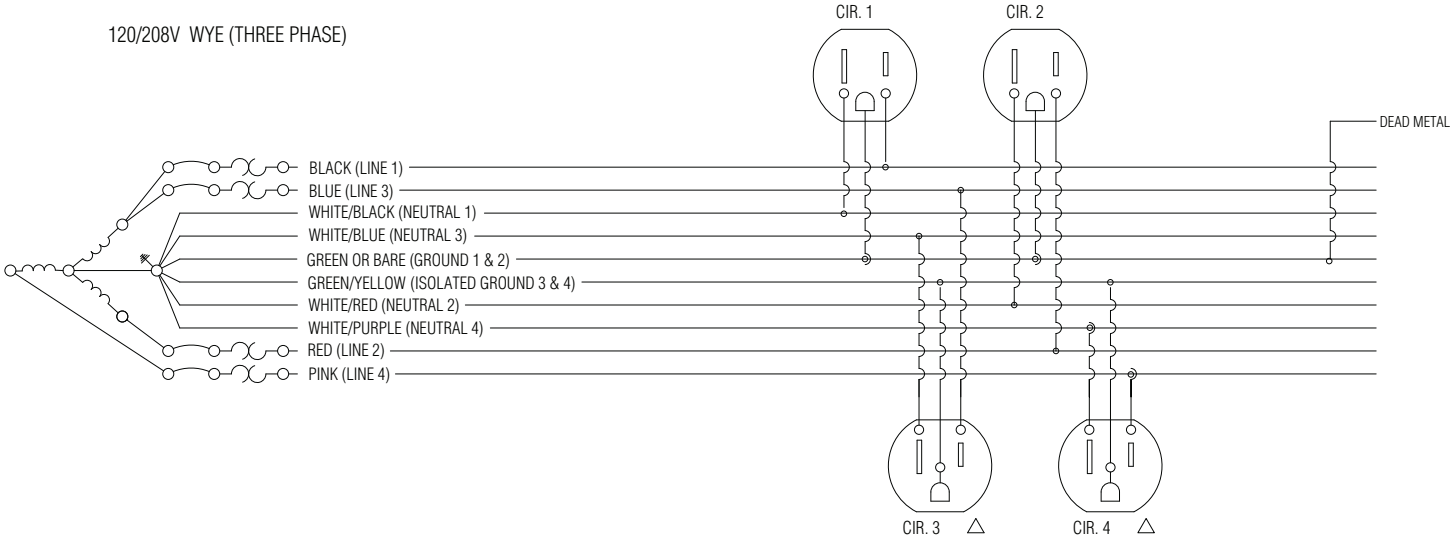
## 10-WIRE ELECTRICAL

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)

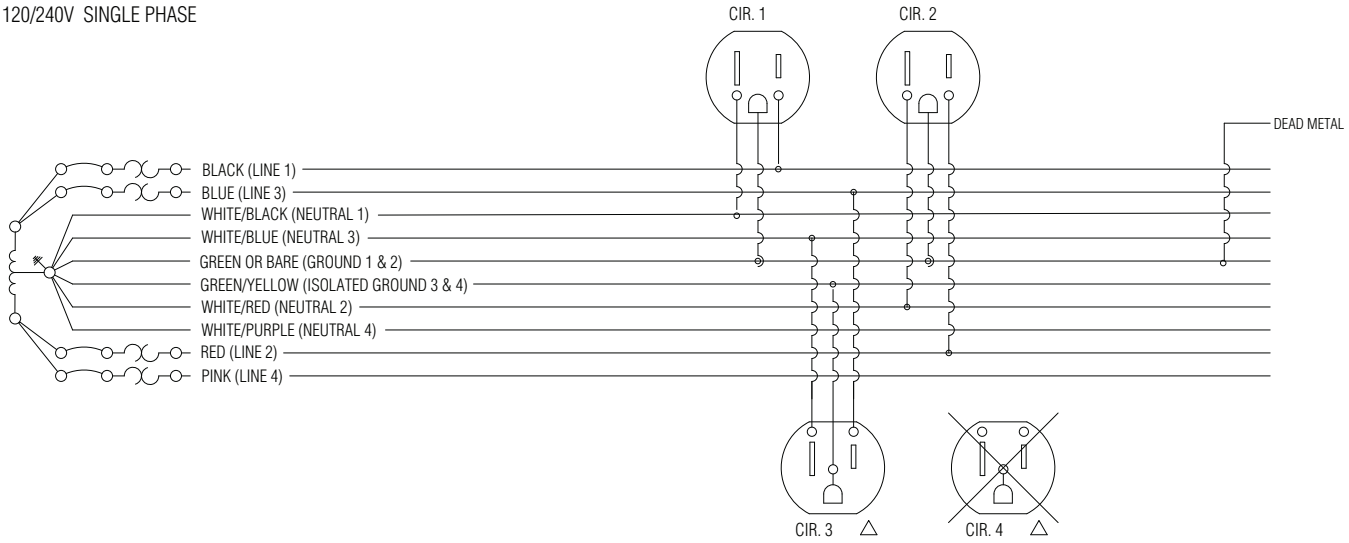


# 4-4-2 CONNECTION DIAGRAMS

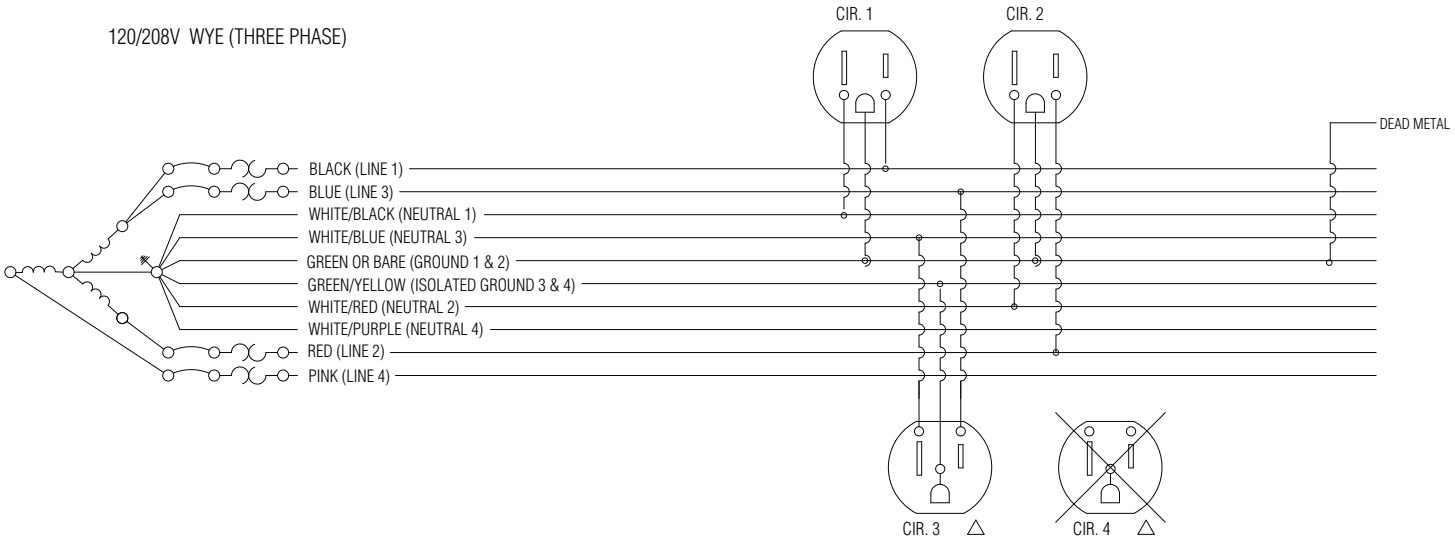
## 8-WIRE ELECTRICAL
### (10-WIRE SYSTEM BEING CONNECTED TO 8-WIRE BUILDING)

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)



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/6-2-2

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).

### 10-WIRE/4-4-2

10-wire (T4) offers up to four 20-amp circuits for a total maximum of 80 amps per infeed. Continuous use load should not exceed 80% (therefore only load to 16 amps/circuit or 64 total amps).

### ACTIV8

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 three or more hours at a time.

### PATTERN

Pattern 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 three 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) | PATTERN 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) |
|---|---|---|---|---|---|
| Connection Zone | | X | X | X | X |
| InTandem | | X | X | as a modified solution | X |
| Pillar | | X | | | |
| Pirouette | | X | | | |
| Serenade | | X | | | |
| Trellis | | | X | as a modified solution | X |

| KI PRODUCT | POWERUP (ACTIV8) | VILLA (ACTIV8) |
|---|---|---|
| Trellis | 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 and Pattern electrical 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 through 4 for examples.

# 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) |
|---|---|---|---|---|---|
| Trellis | X | X | | | X |

| KI PRODUCT | DEAN IN-SURFACE (3-PRONG PLUG & PATTERN) | DEAN CLAMP-ON (3-PRONG PLUG & PATTERN) | DEAN UNDERSURFACE (3-PRONG PLUG & PATTERN) | NACRE (3-PRONG PLUG & PATTERN) | DUBBEL (3-PRONG PLUG & PATTERN) | SNAP-IN RPT (PATTERN) |
|---|---|---|---|---|---|---|
| Connection Zone | X | | X | X | | X |
| InTandem | X | | | X | | X |
| Pillar | X | X | | X | X | X |
| Pirouette | X | X | | X | X | X |
| Serenade | 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. Power modules not listed for certain tables may be available through product modifications.
- 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 and Pattern electrical options, and Pillar which can be ordered/configured with a number of Pattern electrical 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 through 4 for examples.

RESOURCES

# KI TABLES/POWER MODULES APPROVED FOR USE IN CHICAGO

| KI PRODUCT - POWER MODULES | LISTED - LIGHTWEIGHT FREQUENTLY MOVED TABLES | |
|---|---|---|
| | Pirouette[3, 4] | Tributaire[3, 5] |
| Ashley Duo (clamp-on) (3-prong plug)[1, 2] | X | X |
| Axil Z (clamp-on) (3-prong)[1, 2] | X | X |
| Dean Clamp-On (clamp-on) (3-prong plug)[1, 2] | X | X |
| Dean In-Surface (snap in) (3-prong plug)[1, 2] | X | X |
| Double Ellora B (snap in) (3-prong plug)[1, 2] | X | X |
| Nacre In-Surface (snap in) (3-prong plug)[1, 2] | X | X |
| Node (threaded clamp) (3-prong plug)[1, 2] | X | X |
| Pattern Single Circuit Electrical System (all modules must be clamp-on/snap-in, not attached with screws)[1, 2] | X | X |
| PowerUp (snap in) (3-prong)[1, 2] | X | X |

| KI PRODUCT - POWER MODULES | LISTED - ADJUSTABLE-HEIGHT TABLES | | |
|---|---|---|---|
| | Toggle Adjustable-Height Tables | Passel Adjustable-Height Tables | WorkUp Adjustable-Height Tables |
| Ashley Duo (clamp-on) (3-prong plug)[1, 2] | X | X | X |
| Axil Z (clamp-on) (3-prong)[1, 2] | X | X | X |
| Dean Clamp-On (clamp-on) (3-prong plug)[1, 2] | X | X | X |
| Dean In-Surface (snap in) (3-prong plug)[1, 2] | X | X | X |
| Double Ellora B (snap in) (3-prong plug)[1, 2] | X | X | X |
| Nacre In-Surface (snap in) (3-prong plug)[1, 2] | X | X | X |
| Node (threaded clamp) (3-prong plug)[1, 2] | X | X | X |
| Pattern Single Circuit Electrical System (all modules must be clamp-on/snap-in, not attached with screws)[1, 2] | X | X | X |
| PowerUp (snap in) (3-prong)[1, 2] | X | X | X |

[1] Power module supply power cord shall not exceed 9 ft in length.

[2] The building receptacle (table and power module are plugged into) shall be on a separate circuit serving only the office furnishing and no other loads and shall be located not more then 12" from the office furnishing that is connected to it.

[3] Lightweight tables that are equipped with features such as wheels readily allow repositioning by users.

[4] Pirouette Listed Models. https://plmprod.corp.ki.com/KiPortal/documents/download/KI-CRT-000156

[5] Tributaire Listed Models TJJAA, TJJBA, TJJCA (fixed-height training tables - fixed-top base)
TJJLA, TJJMA, TJJNA (fixed-height training tables - nesting-top base)
TJKAA, TJKBA, TJKCA (post-leg rectangular tables)

# 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. Adjustable-height tables and lightweight/frequently moved tables with wheels/casters to allow repositioning by users are approved with certain single-circuit power modules, if certain requirements are met. See charts on page 42 for more information.

**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 three 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.

# GLOSSARY
# ELECTRICAL TERMS

**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).

**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.

# GLOSSARY
# ELECTRICAL TERMS

**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.

**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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Code KI-PG-000004R24/KI/PDF/0425