

electrics

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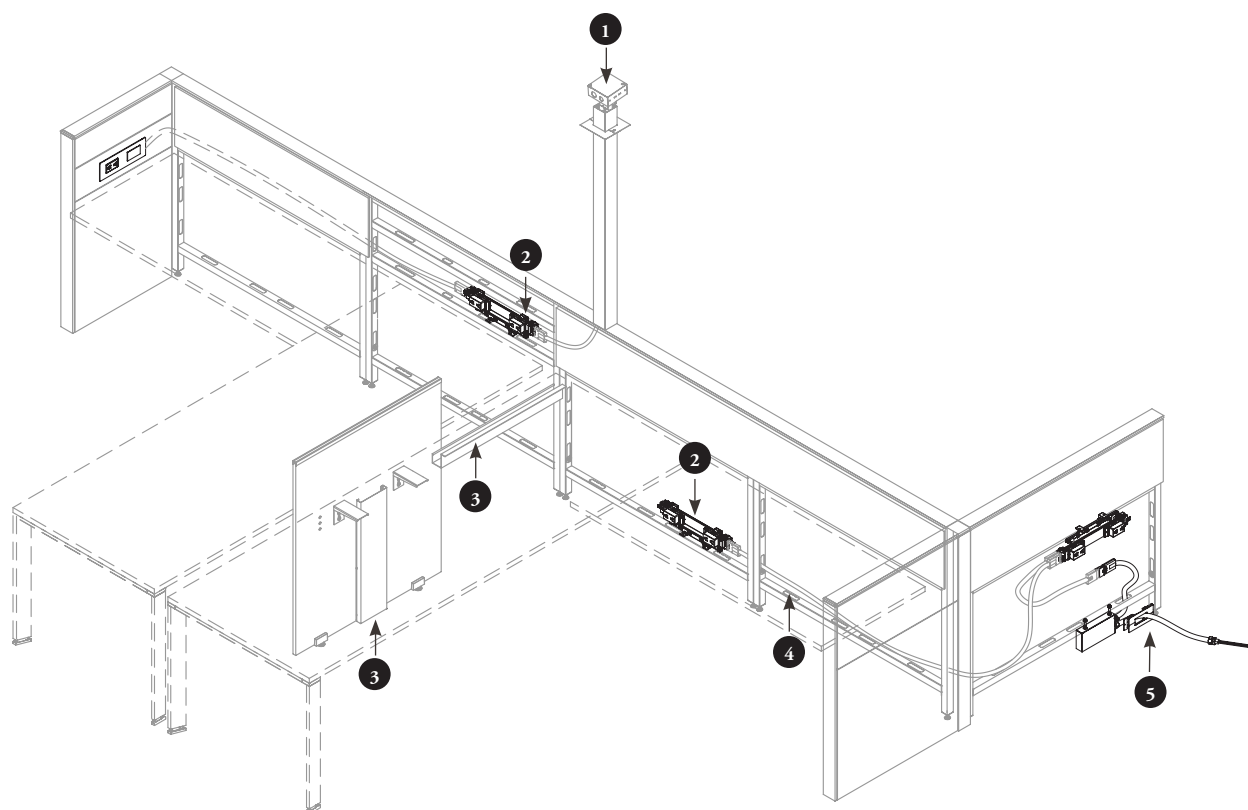
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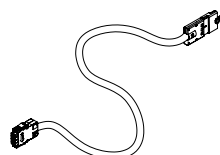
electrics & communications overview

District offers a non-directional wiring system that allows for maximum flexibility and simple reconfiguration.

Power must be turned off during all installations and reconfigurations.



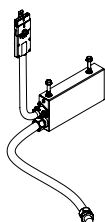
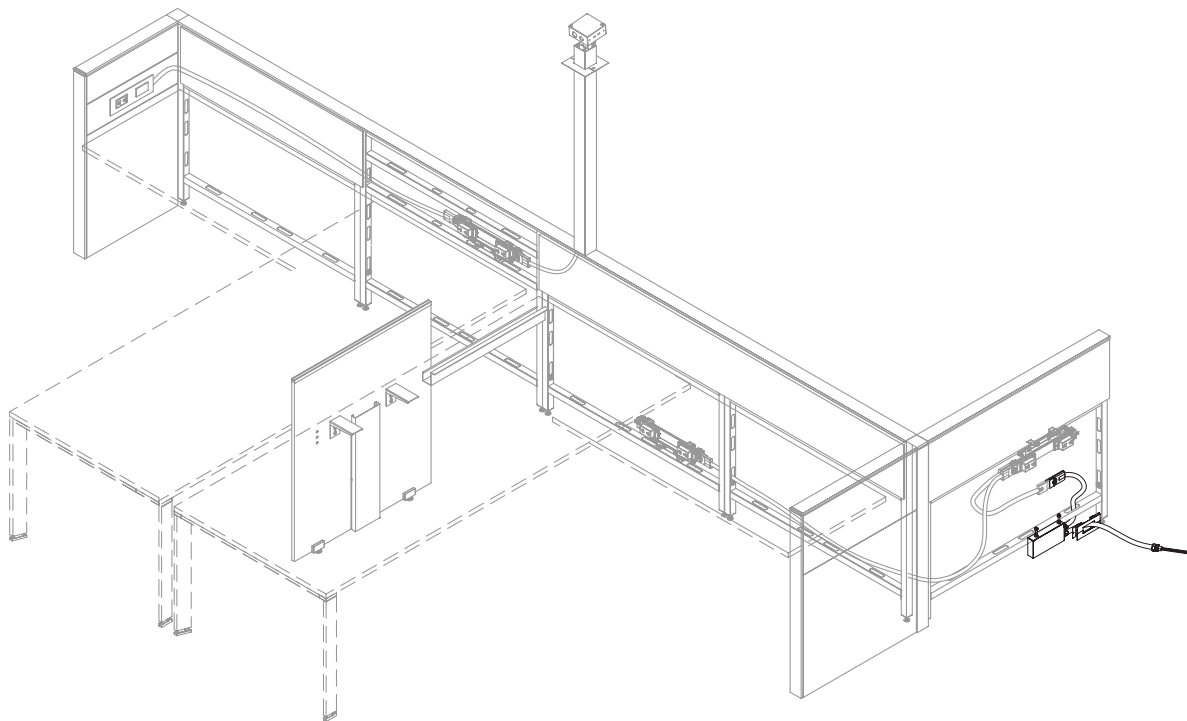
- 1 Power is provided to workstations by either a power pole or through a base feed.
- 2 Power boxes can be mounted above or below worksurface height.
- 3 When panels are **not** available for routing cables, casual wire management is available.
- 4 Power is distributed by harnesses connected by power boxes – the power box can accommodate up to four outlets, two on either side of the box, and the power can run in either direction from the box.
- 5 Power is provided to workstations by either a power pole or through a base feed.



- A compatibility harness is available to connect the new style of power with the previous version of District electrics

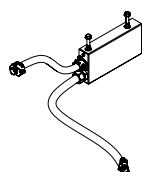
power entry basics – panel-mounted workstations

Power and communications cables enter a workstation either through a base feed or a ceiling feed. The options are detailed below. The following outlines the features of the electrical and communication components available for use in District panel environments.



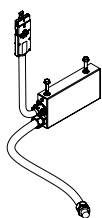
Base Feed (UNQBFR)

- A hard wired connection that supplies power into a panel from the building power source
- Both base feeds and harnesses can be used in the same panel
- Available in 8T, 7T, 8K and 7K wiring options to allow for most common Teknion wiring configurations
- Available in options for mounting into either solid fascias or metal or fabric fascias
- Available in a PVC free option
- If a base feed kit is mounted onto an elevated panel, it will be below the rail, therefore will be exposed.



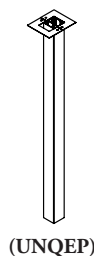
Chicago Base Feed (UNQBFRCH)

- Provides the conduit only for Chicago electricians wiring restrictions that require that all wiring and connections be supplied and connected by a licensed electrician
- Supplied with three wires for a single circuit only
- Available 72" long only
- Box painted Platinum



Split Base Feed (UNQBFSR)

- Same as the base feed except that it is hard wired to the building power supply in two places for New York City wiring restrictions
- Accommodates hard wiring within the floor monument and in the wiring junction box
- Box painted Platinum



(UNQEP)



(UNQEPR)

Power Pole (UNQEP) and End of Run Power Pole (UNQEPR)

- Used to house the ceiling feed and includes a pole divider for separating the ceiling power feed from the communications and data cables
- Available in 48", 72" and 96" heights for up to 10' ceilings
- Available in options for corner mounting and off-module mounting
- End of Run Power Pole (UNQEPR) **cannot** be installed off-module or on a corner



Ceiling Feed (UNQCFR)

- Routes power into the panel from the ceiling through the power pole
- Includes a junction box to connect to the building power supply at the ceiling
- Also connects to a power harness
- Available in 8T, 7T, 8K and 7K wiring options to allow for most common Teknion wiring configurations
- Length of the feed represents the length of the harness encased in flexible conduit – an additional 6" of cable is provided for connection the ceiling junction box

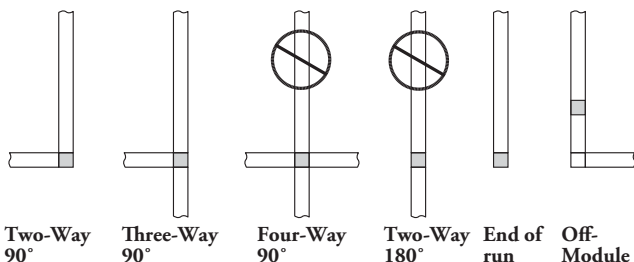


Chicago Ceiling Feed (UNQCFRCH)

- Same as ceiling feed except that there is no connector on the bottom end due to Chicago electricians wiring restrictions
- Supplied with three wires for a single circuit only

planning with power poles

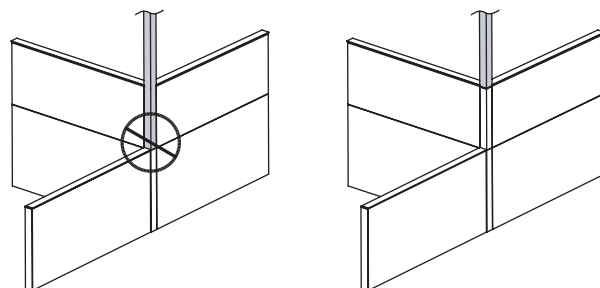
The following should be considered when planning with the Ceiling Feed Harness, Power Pole, End of Run Power Pole and Off-Module Power Pole



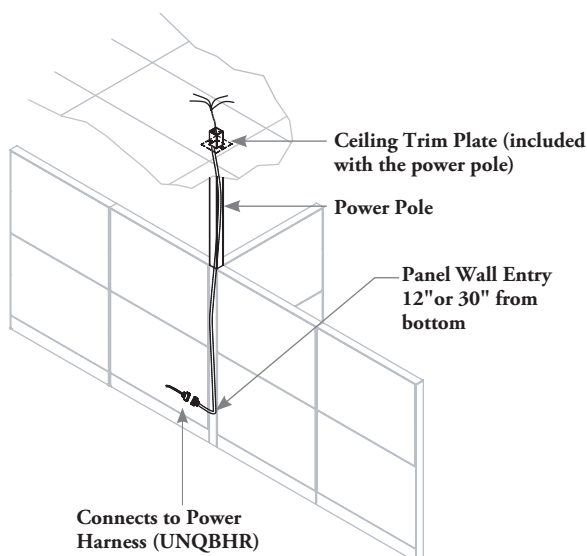
- The Power Pole can be located at Two and Three-Way 90° corners and at end of run and off-module locations

Power Poles located at corners:

- Always terminates at the top of a corner assembly
- Connectors are specified to the highest height, and then the Power Pole is installed
- **Cannot** extend below highest panel

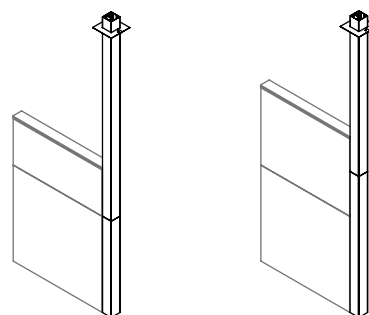


- Available in 48", 72" and 96" heights, and can be cut on site to required height
- Required height is the distance between finished ceiling height and top of the panel plus 4"
- Ceiling harness (120") is compatible for ceilings up to 10'
- Removable cover on one side gives access to the inside of the pole



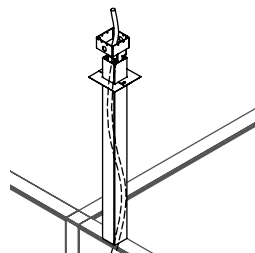
ceiling feed

- Available hardwired for building connection
- The other end of the harness is a female connection
- A power harness is required to route ceiling harness to a power box
- Chicago version must connect to a distribution box



end of run power pole

- Is typically used when no corner location is available for the Power Pole
- Available in two heights. 29" high for 29" high Panel Walls or where only below worksurface panel entry for Power Harness is required and 42" high for Panel Walls 42" or higher, entry for Power Harness can be either above or below the worksurface
- An additional Power Pole to ceiling height must be specified above that

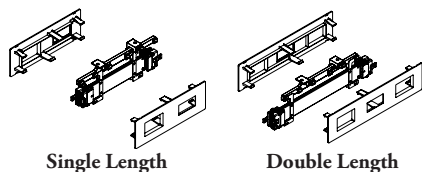
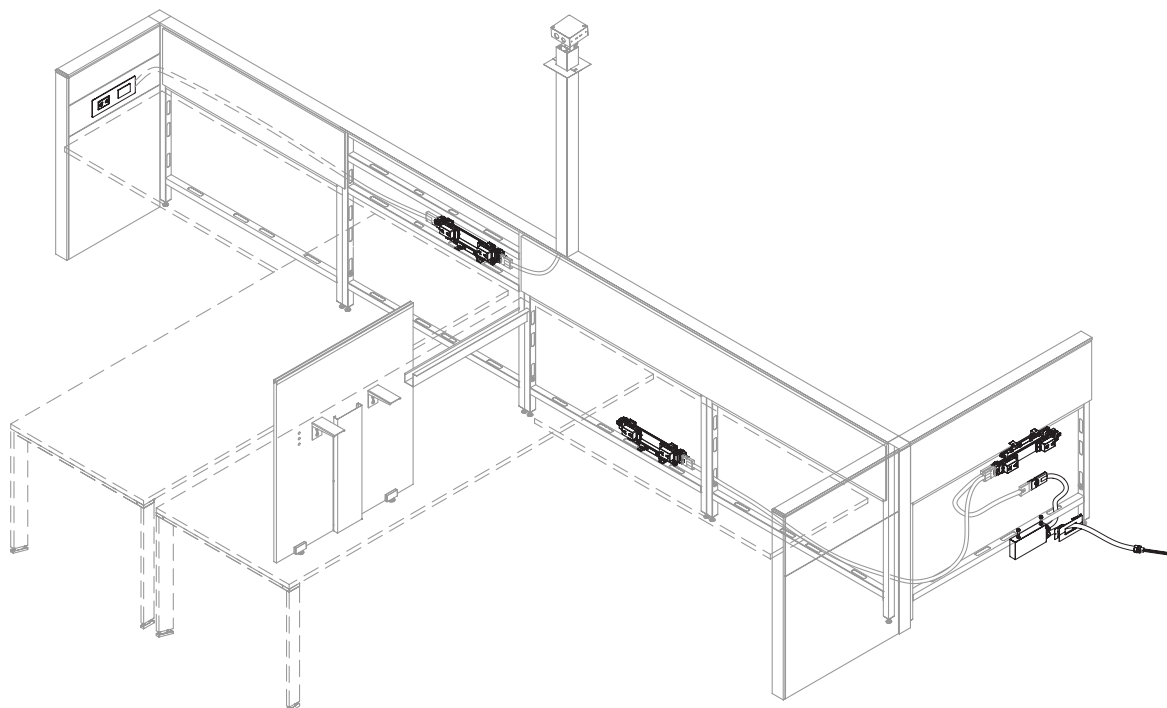


off-module power pole

- The Off-Module Power Pole Top Trim (UNTTP) is complete with a cutout to accommodate the Power Pole (ordered separately) at 9" from any Panel Wall End

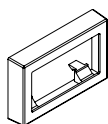
power & communications basics – panel-mounted workstations

Power can be accessed at various heights within a panel wall through the use of power boxes and receptacles.



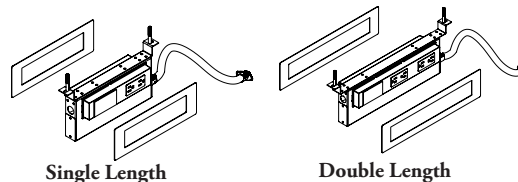
Power Box (UNQPR)

- A module for mounting receptacles (specified separately)
- Mounts to the panel frame below or above panel wall rails but does **not** clip to light block rails
- Available in single (S) or double (D) lengths – the 24" and 30" wide panels can only accommodate the single box
- Single length power box is 12" long and includes a bezel with one receptacle and one data opening
- Double length power box is 16" long and includes a bezel with two receptacles and one data opening
- Either a one-sided or back-to-back application must be specified (even though it is the same box), so that the proper amount of bezels will be included
- Available in a PVC free option



Data Extender Plate (UNQDE)

- The Data Extender Plate is placed over a communication opening to provide extended depth for data jacks which may be required in some applications. Consult your data cabling supplier for clearance requirements



Chicago Power Box (UNQPRCH)

- Same as the power box except for Chicago electrics applications
- Includes the outlets and faceplates, but does **not** include any connectors – electrical connections must be done on site by a certified electrician
- Must be specified single or double length, and one-sided or back-to-back
- When placing the Power Box at the Base (Bottom Level 1), the "U" Above Worksurface Height (Upper Fascia) mounting location should be used



Receptacle Outlet (UNQRO)

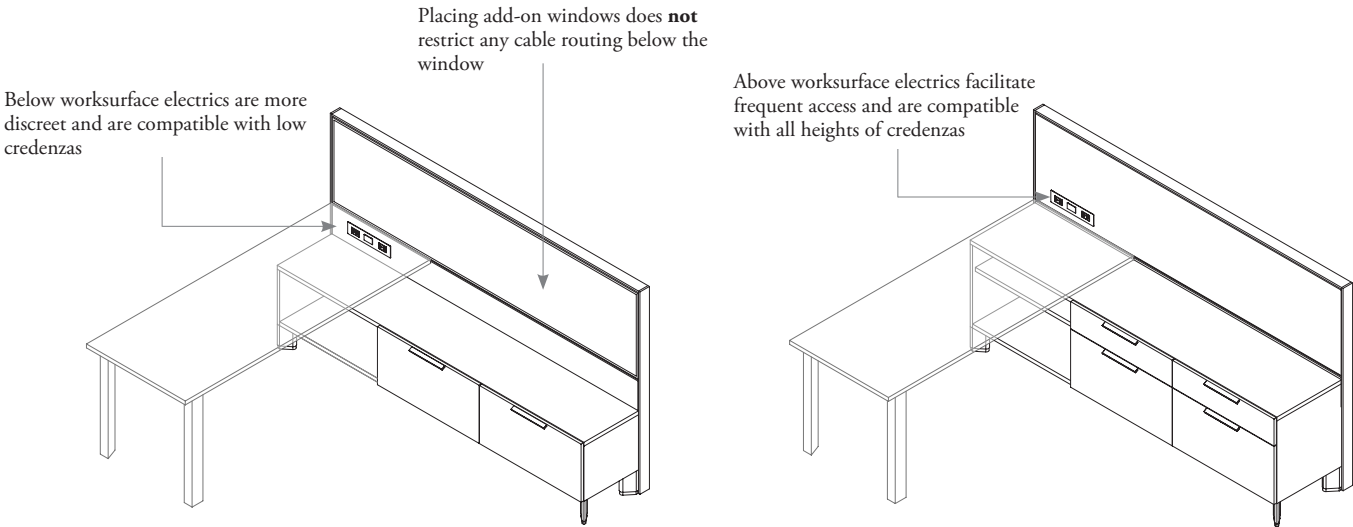
- A single duplex receptacle that slides onto the power box module to provide power
- Specified individually for maximum circuit flexibility
- Styles include Standard 15 amp, T-Slot 20 amp, Controlled 15 and 20 amp
- Outlet configurations consist of Circuit 1, Circuit 2, Circuit 3 (use 7T and 8T only), Circuit 5 (8T and 8K only), Circuit 6 (use 8K only), Circuit A (7T and 7K only) and Circuit B (7K only)

planning with power boxes & outlets

The following should be considered when planning with District power boxes and outlets.

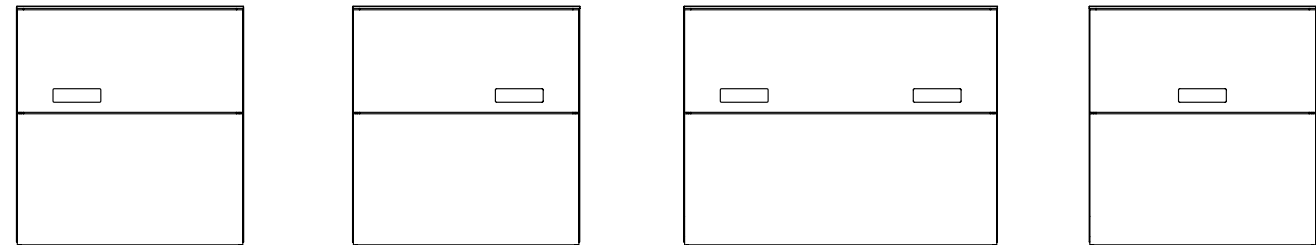
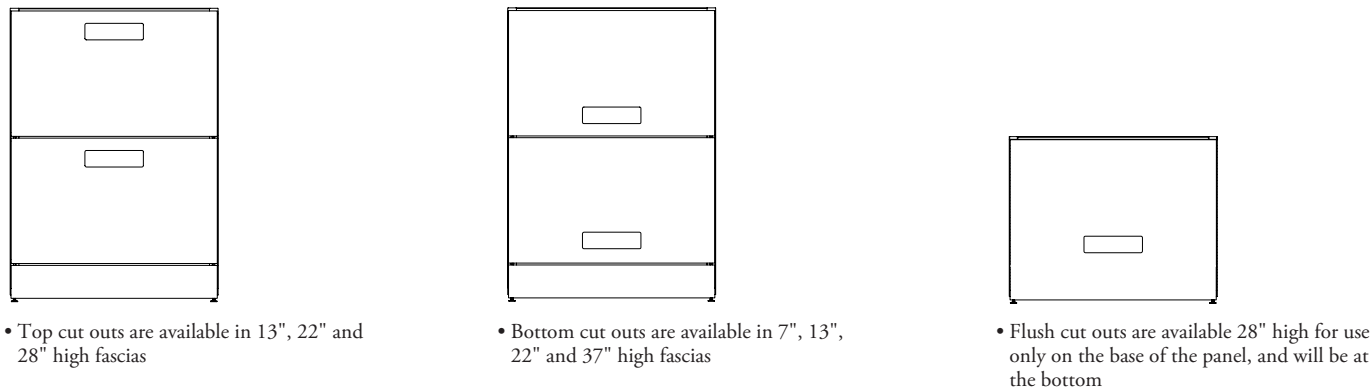
- Panel data capacity: minimum 24 cat. 5 cables at 60% fill
- Power Pole capacity: minimum 24 cat. 5 cables at 60% fill
- Frame openings for vertical routing are present on all panel frames. Each frame opening can accommodate a minimum of two harnesses

above and below worksurface power



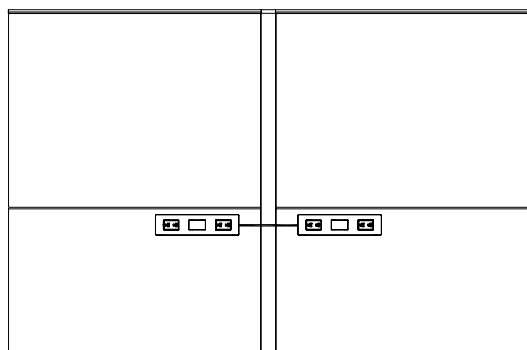
power cut out locations

- Power boxes can be placed at the top or bottom of a fascia with electrical cut outs depending on the height of the fascia

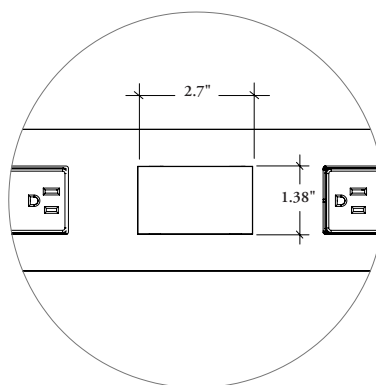


planning with power boxes & outlets (continued)

data access

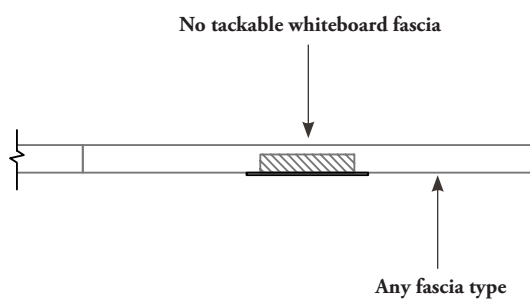


- Data access is in the center of the module and symmetrical on both sides of the panel

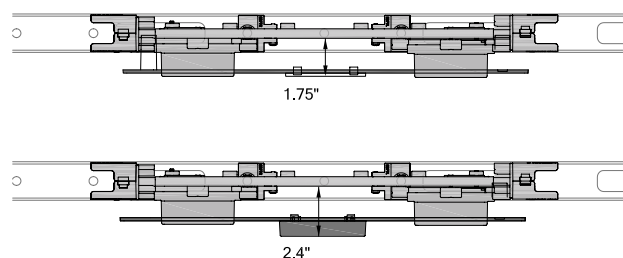


- Data access is provided in the cut outs on power/communications fascias, and on the faceplates included with power boxes
- Cut Outs will accommodate most standard communication faceplates
- The depth available for data jacks is 1.35" when using data faceplates

single-sided power



- When single-sided electrics are used, the fascia on the back side **cannot** be a D-Style fascia with a frame and clips except for the solid fascia; a slot-mounted fascia must be used to allow sufficient space for the power box

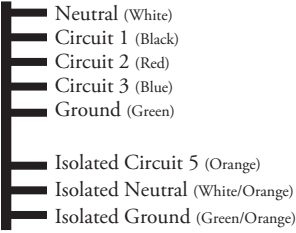
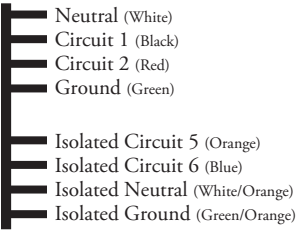
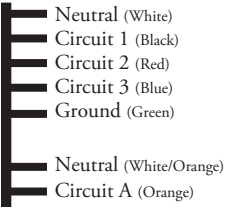
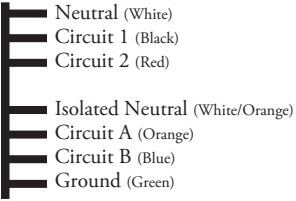


- The depth can be increased to 2" by using the Data Extender Plate (UNQED)

wiring systems

Four wiring systems are available for Interpret 8-Wire Isolated (8T), 7-Wire Non Isolated (7T), 8-Wire Dual Isolated (8K) and 7-Wire Dual Non Isolated (7K). Most common Teknion wiring configurations are achieved with these wiring systems.

For sites where Isolated Ground is not available, Teknion offers Non-Isolated Ground options for furniture wiring. The site electrician or electrical contractor/consultant can identify sites where Isolated Ground is not available. For those sites, specify Teknion 7T or 7K wiring systems.

	No. Regular Circuits	No. Isolated Circuits
8-Wire Isolated (8T) (3+1)  Neutral (White) Circuit 1 (Black) Circuit 2 (Red) Circuit 3 (Blue) Ground (Green) Isolated Circuit 5 (Orange) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	3	1
8-Wire Dual Isolated (8K) (2+2)  Neutral (White) Circuit 1 (Black) Circuit 2 (Red) Ground (Green) Isolated Circuit 5 (Orange) Isolated Circuit 6 (Blue) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	2	2
7-Wire Non Isolated (7T) (3+1)  Neutral (White) Circuit 1 (Black) Circuit 2 (Red) Circuit 3 (Blue) Ground (Green) Neutral (White/Orange) Circuit A (Orange)	4	0
7-Wire Dual Non Isolated (7K) (2+2)  Neutral (White) Circuit 1 (Black) Circuit 2 (Red) Isolated Neutral (White/Orange) Circuit A (Orange) Circuit B (Blue) Ground (Green)	4	0

wiring system/receptacles

	Wiring System			
	8T	8K	7T	7K
Regular Ground Receptacles	1, 2, 3	1, 2	1, 2	1, 2, A, B
Isolated Ground Receptacles	5	5, 6	n/a	n/a

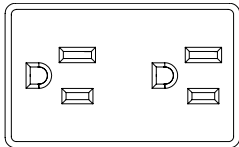
- All receptacles except Circuit 6 can be used with the 8T wiring system (**cannot** accept a 2nd Isolated Circuit)
- All receptacles except Circuit 3 can be used with the 8K wiring system (**cannot** accept a 3rd Regular Circuit)
- Circuit A is compatible with 7T and 7K. Circuit B is compatible with 7K only

wiring system/related circuit

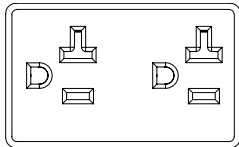
	Wiring System			
	8T	8K	7T	7K
Regular Circuit 1 Receptacle	✓	✓	✓	✓
Regular Circuit 2 Receptacle	✓	✓	✓	✓
Regular Circuit 3 Receptacle	✓		✓	
Isolated Circuit 5 IG Receptacle	✓	✓		
Isolated Circuit 6 IG Receptacle		✓		
Regular Circuit A Receptacle			✓	✓
Regular Circuit B Receptacle				✓

✓ Applicable

15 Amp



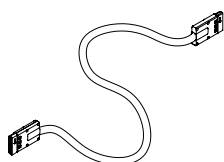
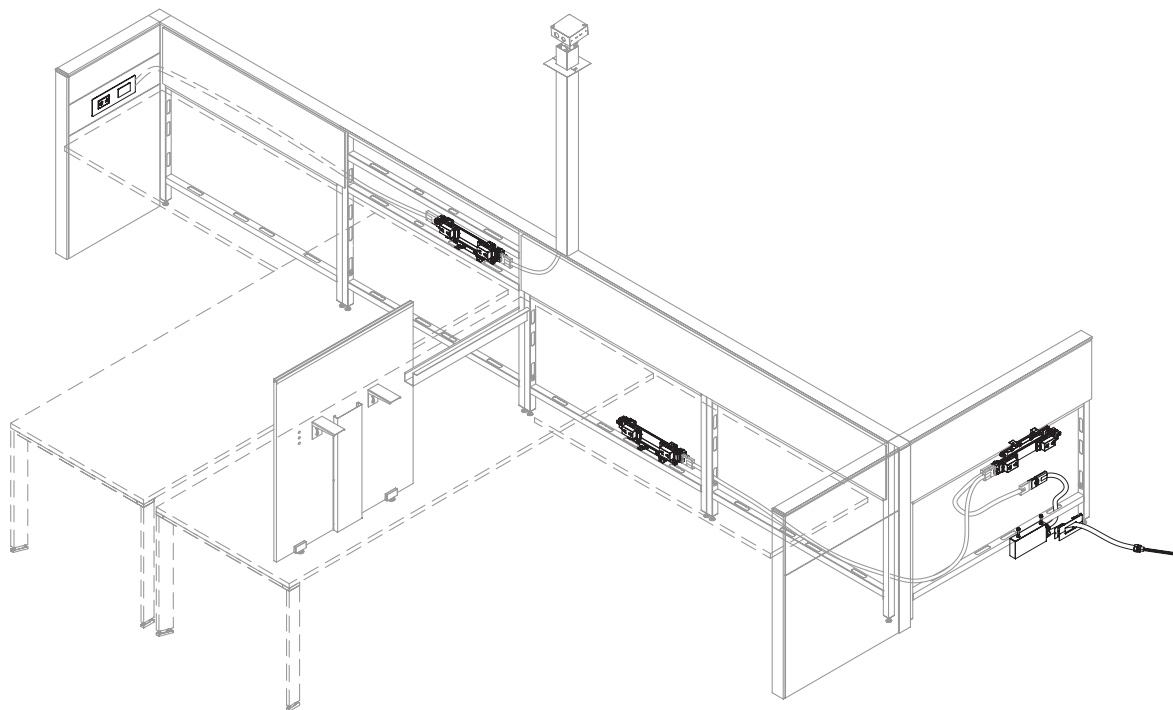
20 Amp



- Outlets are available 15, 20 amp
- The 20 Amp is only available in Black
- Outlets are available with marking indicating it is connected to a control system in both 15 and 20 amp options.

power distribution basics – panel-mounted workstations

Power is routed through panel walls with harnesses. The options are listed below.



Power Harness (UNQBHR)

- Routes power from one power box to another and is non directional
- Also connects to base feeds and ceiling feeds
- Available in various lengths from 9" to 144" and can be used within any panel
- 9", 12" and 24" conduit is mesh, providing a greater bend radius, and all conduits are oval to be able to pass between panels
- Available in a PVC free option

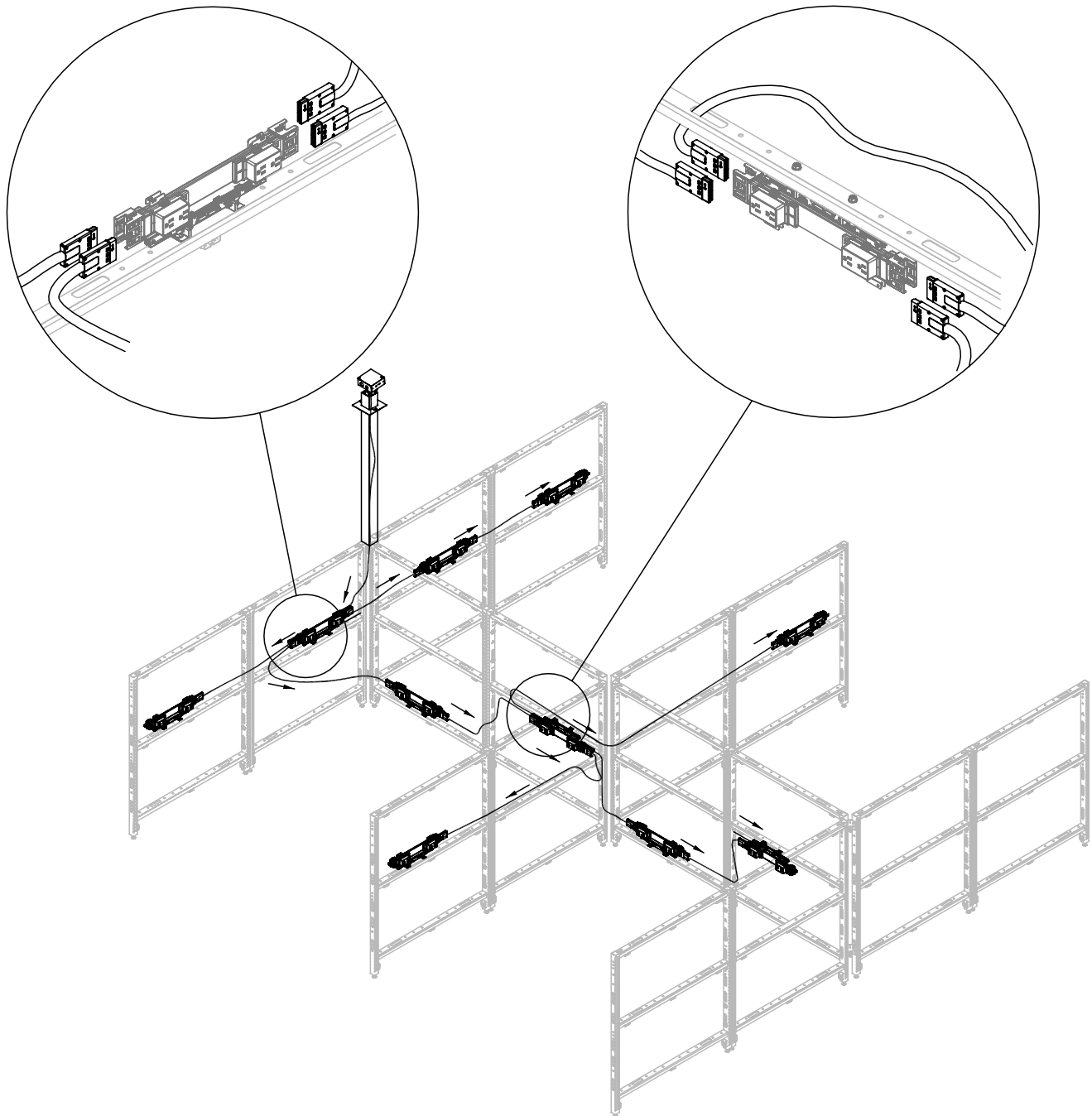


I-Connector (EWIC)

- Used to join two harnesses when a single harness length is **not** long enough

planning with harnesses

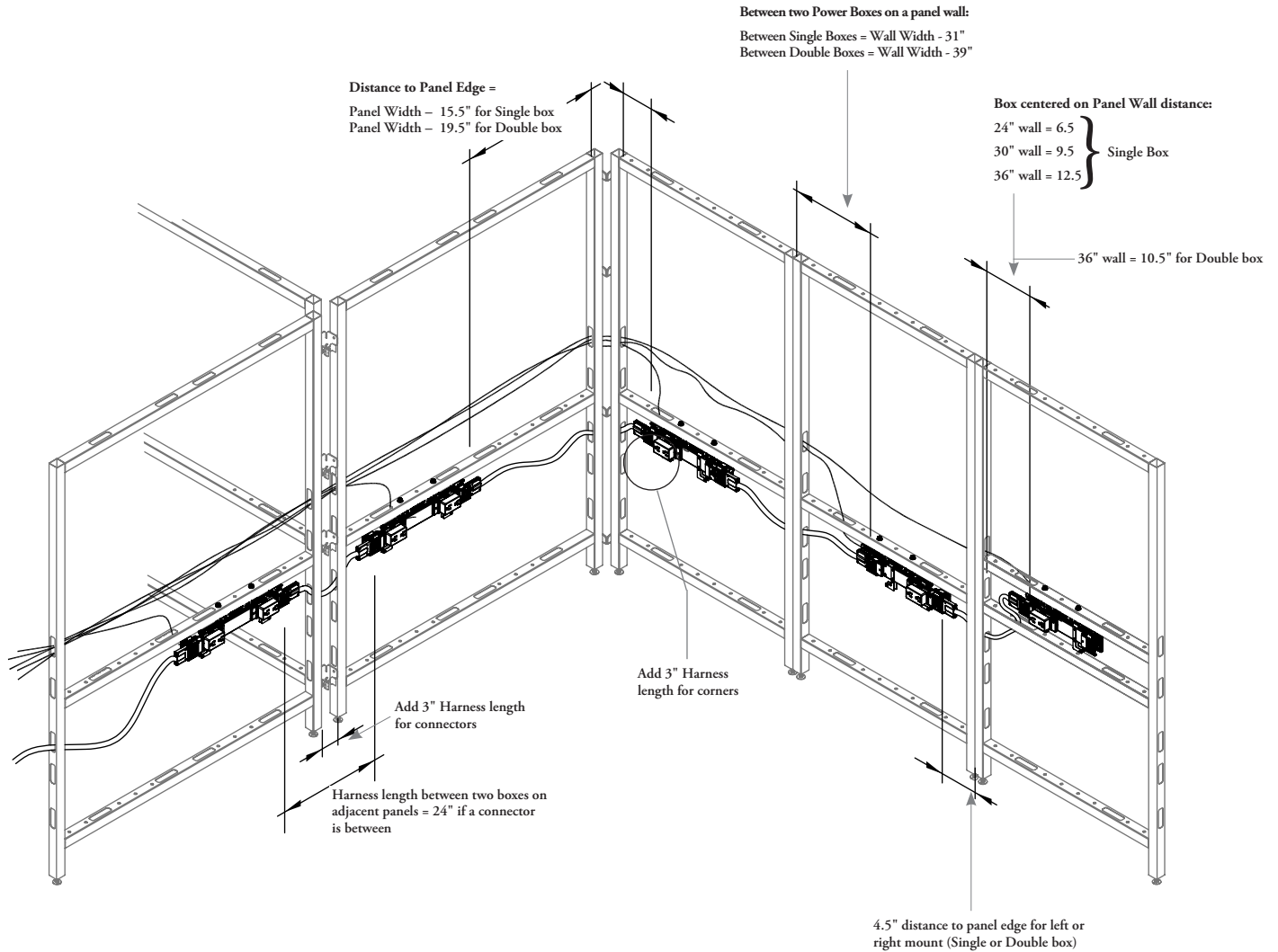
Power boxes allow for non-directional routing, so power can enter and exit from the same end of the power box. Up to four power harnesses can be used on one power box.



determining harness lengths

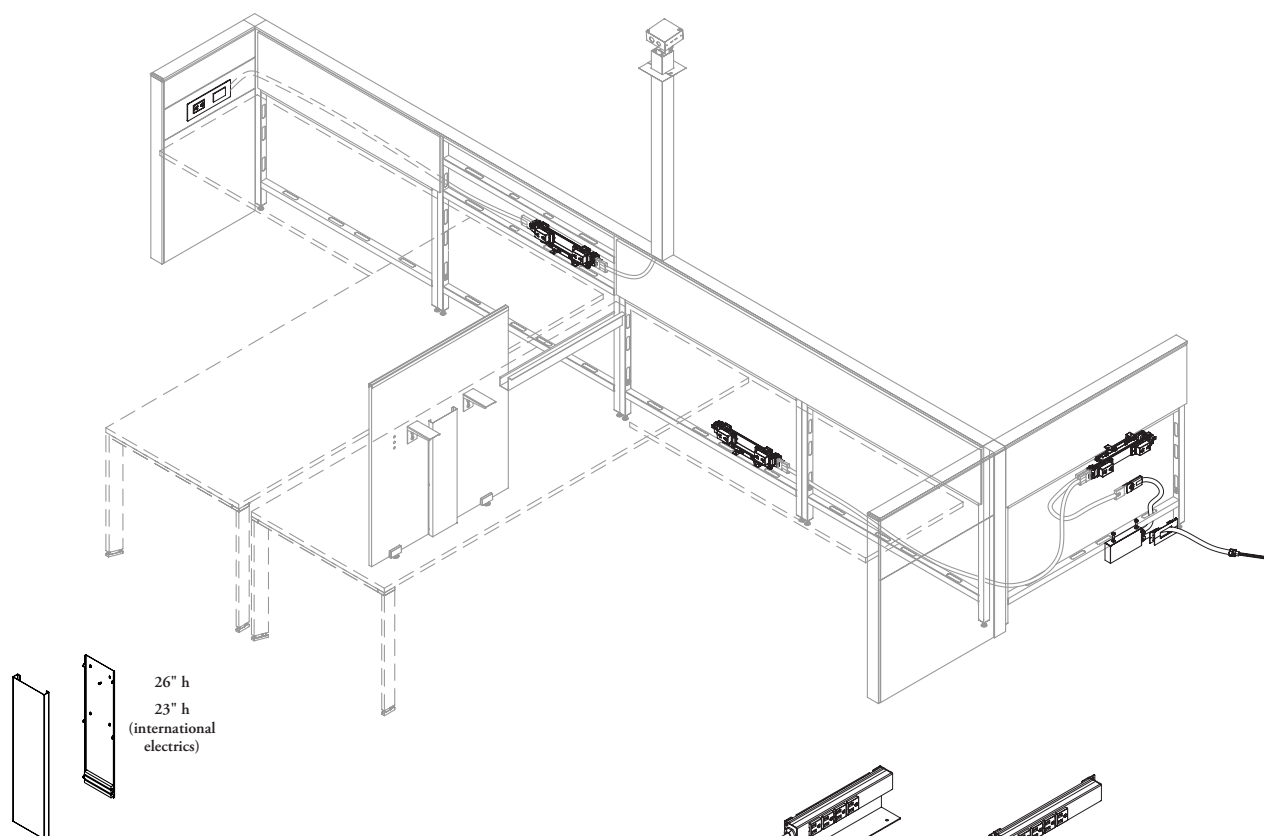
The following outlines the harness lengths required for connecting power boxes.

harness length requirements



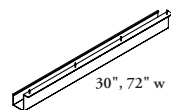
casual electrics basics – panel-mounted workstations

District offers options for adding casual power to workspaces, without the use of panels.



Vertical Cable Manager (UNVC)

- Used to conceal and route cables vertically below the desk
- Mounts to a floor screen or to storage
- Two heights to accommodate North American and International electrics
- The International version allows space to mount an International Outlet Box (VED)

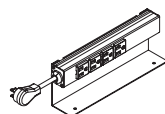


Cable Trough (UNQCT)

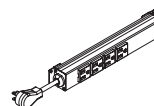
- An ABS cable trough is mounted below a worksurface to manage wires coming from the worksurface level on to Panel Wall electrics or floor monuments
- The 30" wide is the optimum size to fit between worksurface brackets

Grommets

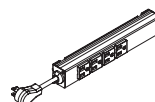
- Available as an option for workspaces, credenzas and elevated high credenzas
- Available from Complements: *Teknion's Ergonomics & Accessories Program*



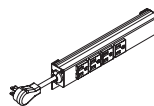
Desk Clamp with
Self-Tapping Screws



Under-Worksurface
Mount



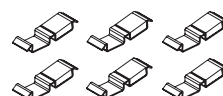
Lyft Base Mount



Accessories Element
Mount

Power Bar (YEPD)

- Available from Complements: *Teknion's Ergonomics & Accessories Program*
- Attaches to a desk or the underside of a worksurface or to a modesty panel to provide casual power
- Does **not** include data capability

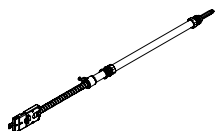
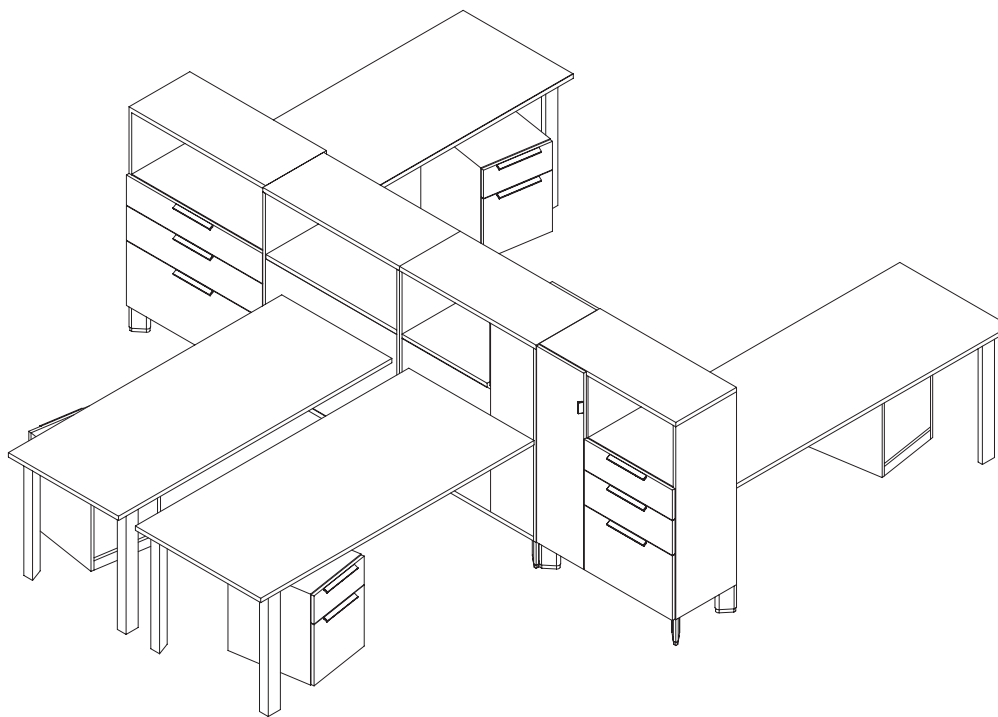


Worksurface Wire Clips (YESW)

- Available from Complements: *Teknion's Ergonomics & Accessories Program*
- Package of six undersurface cable clips that can be installed on the underside of a worksurface
- Provide two separate channels, one to run electrical and another to run communications cables
- The communications channel has a built-on soft sponge to protect the cables

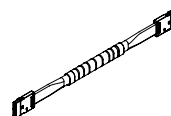
storage electrics basics

Power can be routed through elevated District storage to provide power to workstations with no panel walls.



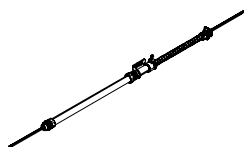
Storage Base Feed (EWBF)

- Provides power from the floor to the underside of the storage cabinet and connects to harnesses
- Available in 72" and 144" lengths in 8T, 7T, 8K and 7K wiring systems



Storage Power Harness (EWBH)

- Carries power along the base of the cabinet to power and data box in the storage unit
- Available in lengths of 24", 48", 72", 120" and 144"
- 24" length is mesh, other sizes are a hybrid of mesh and metal conduit



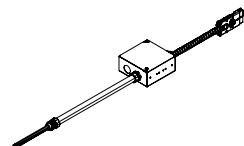
Storage Chicago Base Feed (EWBFCH)

- Same as the Base Feed (EWBF) except for Chicago electrics application
- Only the conduit is provided
- All wiring and connections must be supplied and connected by a certified electrician



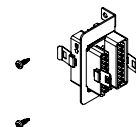
I-Connector (EWIC)

- Used to join two harnesses when a single harness length is **not** long enough



Storage Split Base Feed (EWBFS)

- Same as the Base Feed (EWBF) except it is hard wired to the building power supply in two places in New York wiring restrictions

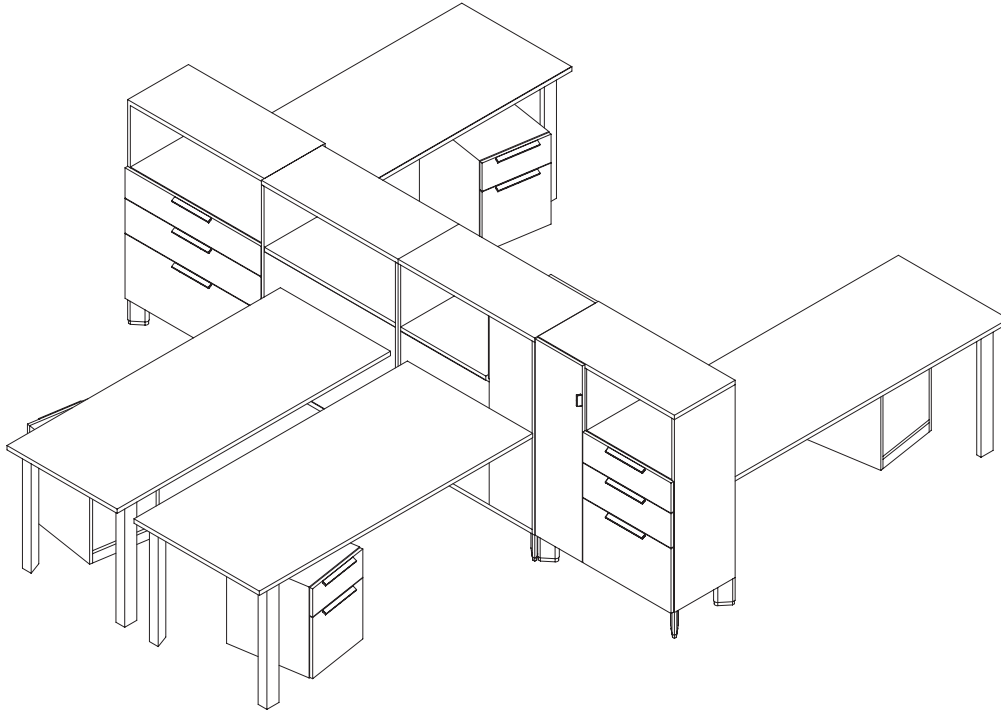


Four-Way Splitter (EWDB)

- Attaches to a harness to split power in four different directions

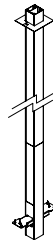
storage electrics basics (continued)

Power can be brought into the storage unit from the floor via a Base Feed or from the ceiling via a Power Pole Ceiling Feed. Build in feeds always route power and data to the underside of the elevated storage.



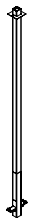
Storage Ceiling Feed (EWCF)

- Routes power to the underside of the storage cabinet from the ceiling through the storage power pole
- Can be directly connected to the Flush Mounted Power and Data (EWQP) unit once I-connector is removed



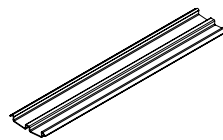
Storage Power Pole (EWEP)

- The Storage Power Pole (EWEP) can route power and data to two storage units.
- Houses the Storage Ceiling Feed and divides the ceiling feed from communication and data cables
- It is used to feed power and data to the underside of the storage units



Storage Chicago Ceiling Feed (EWCFCH)

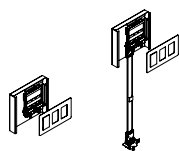
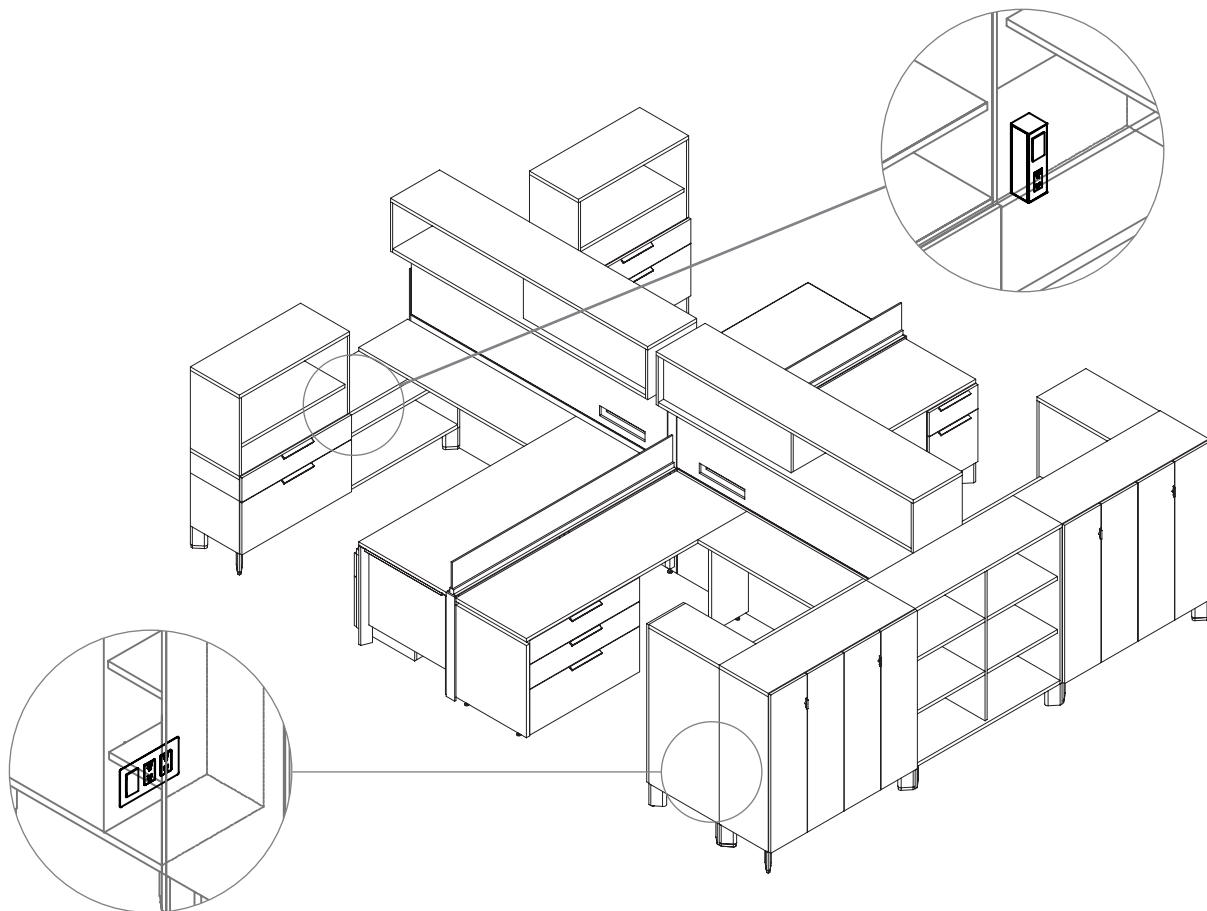
- Same as Storage Ceiling Feed (EWCF) except for Chicago electrics application
- The Storage Chicago Ceiling Feed (EWCFCH) comes with a 3-wire. No connector is found on the bottom end due to Chicago electrics wiring restrictions
- Chicago electrics wiring restrictions require that all wiring and connections be supplied and connected by a licensed electrician



Under Cabinet Wire Tray (EWWT)

- A tray for managing wires below the storage cabinet
- Available in lengths of 12", 24", 36", 48", 60", 72" and 84"
- Tray **cannot** span across two storage units. Specify at least 12" less than the width of the cabinet onto which it is being mounted

storage electrics basics (continued)

**Flush Mount Power & Data (EWQP)**

- A module for mounting receptacles (specified separately) to storage
- Mounts to the back of a storage cabinet at either base height or belt-line height
- Each unit supplies power and data access to user on opposite (backside) of cabinet

**Chicago Flush-Mounted Power Box (EWQPCH)**

- Same as Flush Mount Power and Data (EWQP) except for Chicago electrics application
- Data and communications must be sourced separately
- Chicago electrics wiring restrictions require that all wiring and connections be supplied and connected by a licensed electrician

**Storage Receptacles Outlet (EWRO)**

- A single duplex receptacle that mounts into the Flush Mount Power and Data (EWQP) unit to provide power
- Specified individually for maximum circuit flexibility
- Styles include Standard 15 amp, T-Slot 20 amp, Controlled 15 and 20 amp
- Outlet configurations consist of Circuit 1, Circuit 2, Circuit 3 (use 8T only), Circuit 5 (8T and 8K only), Circuit 6 (use 8K only), Circuit A (7T and 7K only), Circuit B (7K only)



2 Data

1 Data,
1 Duplex

2 Duplex

Cubby Power Monument (EWQPM)

- Provides access to power and data in open cubby sections of credenzas or the back cubby sections of pedestals and pedestal towers
- Cubby Power Monument must plug directly into a Four-Way Splitter (EWDB) or an I-Connector (EWIC). It plugs directly into a Storage Power Harness (EWBH).
- T-Slot 20 amp receptacle style is finished in Ebony



2 Data

1 Data,
1 Duplex

2 Duplex

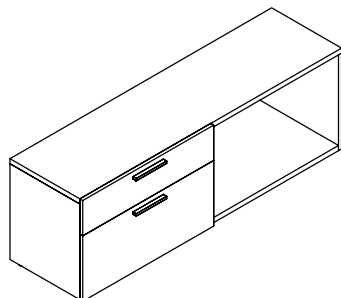
Chicago Cubby Power Monument (EWQPMCH)

- Same as Cubby Power Monument (EWQPM) except for Chicago electrics application
- T-Slot 20 amp receptacle style is finished in Ebony

planning with storage

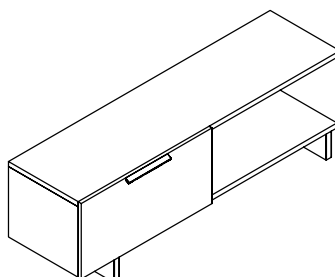
The following should be taken into consideration when planning with spine storage electrics.

electrical capability



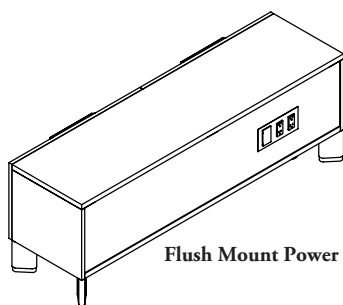
Standard, No Feet

- Standard storage has no electrics or cable management capabilities



Elevated, District Feet

- Elevated storage with District feet has no electrics or cable management capabilities



Flush Mount Power and Data (EWQP)

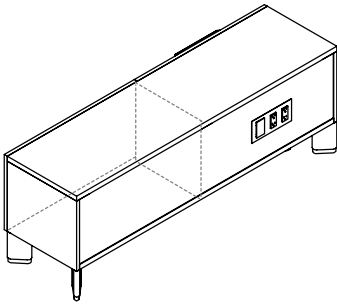
Elevated, Angled Feet

- Angled feet allow for a full electrified system by providing undersurface wire troughs and harnesses for routing power to Flush-Mounted Power and Data Boxes or the Cubby Power Monument
- Also grommets may be specified in the open cubby section for light cable management

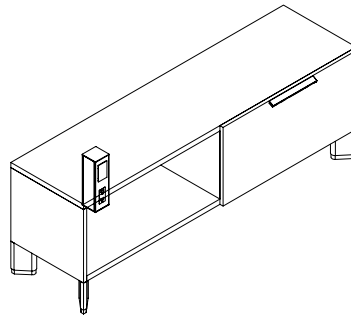
planning with storage (continued)

power locations

credenzas

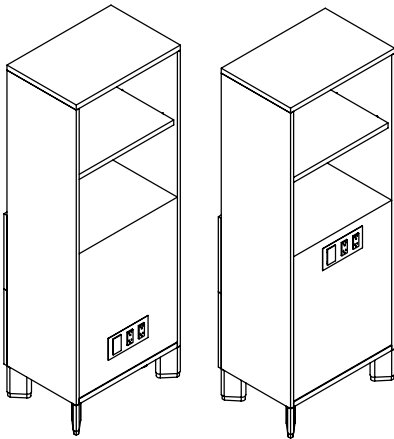


- Flush-Mounted Power and Data modules are always at base height, located behind the drawer when added to credenzas
- Base cut out must be specified when ordering the credenza

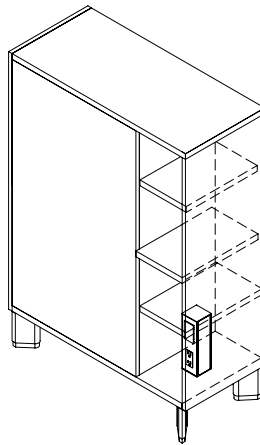


- **Cubby Power Monument (EWQPM)** can be located in the open cubby section of a credenza. It will fit into the grommet hole, therefore grommet must be selected when specifying the storage unit

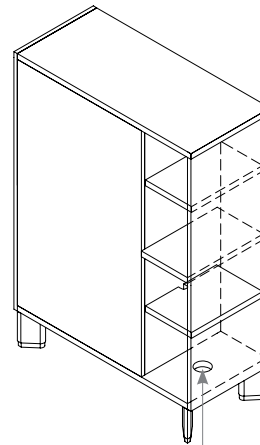
towers and lockers



- For Lateral File, Lateral Tower or Combo Tower application, Flush Mounted Power and Data modules can be mounted at base or belt-line height
- Base or Belt-line back cut out must be specified when ordering the storage unit



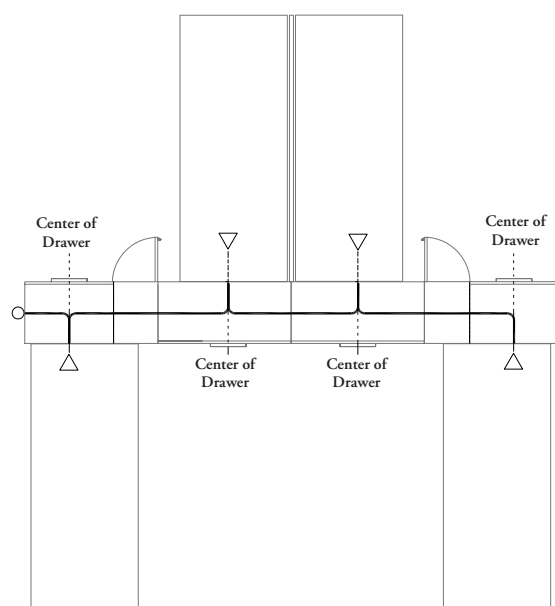
Cubby Power Monument can be mounted in grommet hole.



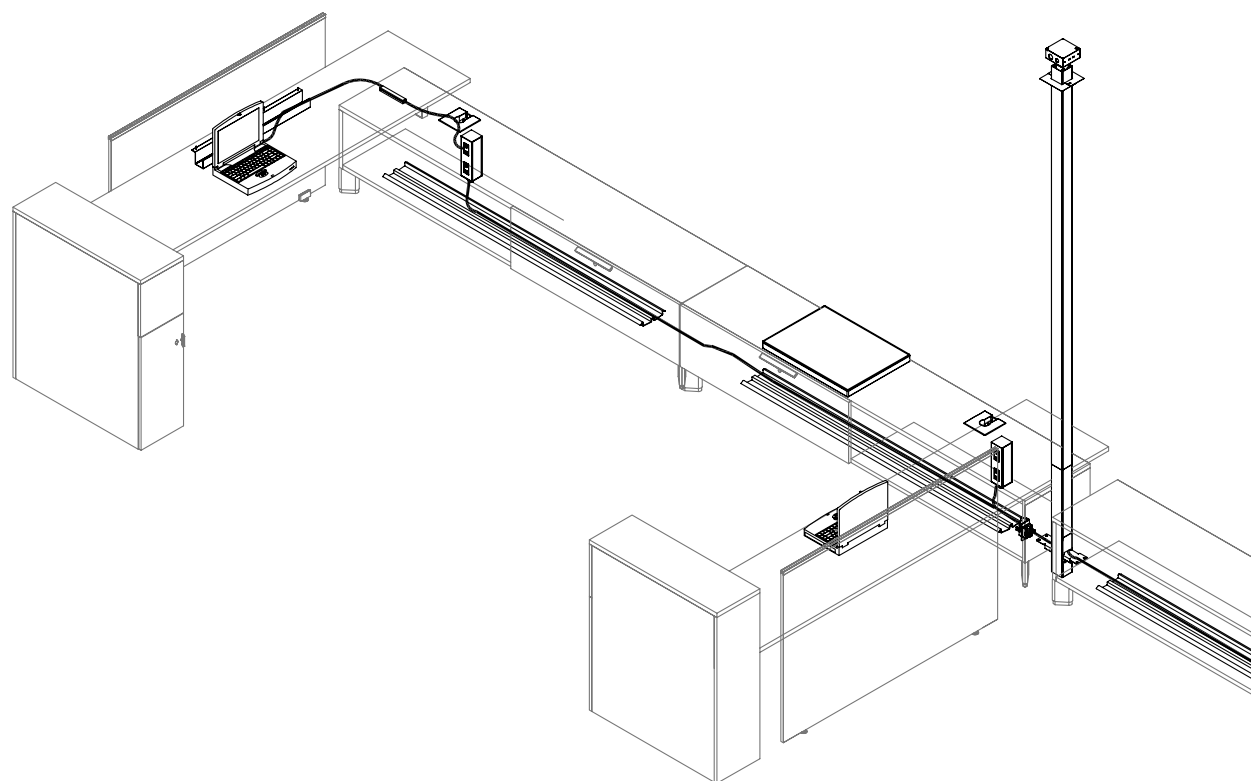
Flush-Mounted Power and Data unit can be mounted into base or belt back cut outs.

- For Single Lockers, Pedestal Towers or Pedestals with Cubby back, several options are available. Grommets can be used for casual power, or Flush-Mounted Power and Data units or Cubby Power Monuments may be used for multi-circuit power and data application

planning with storage (continued)



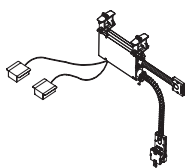
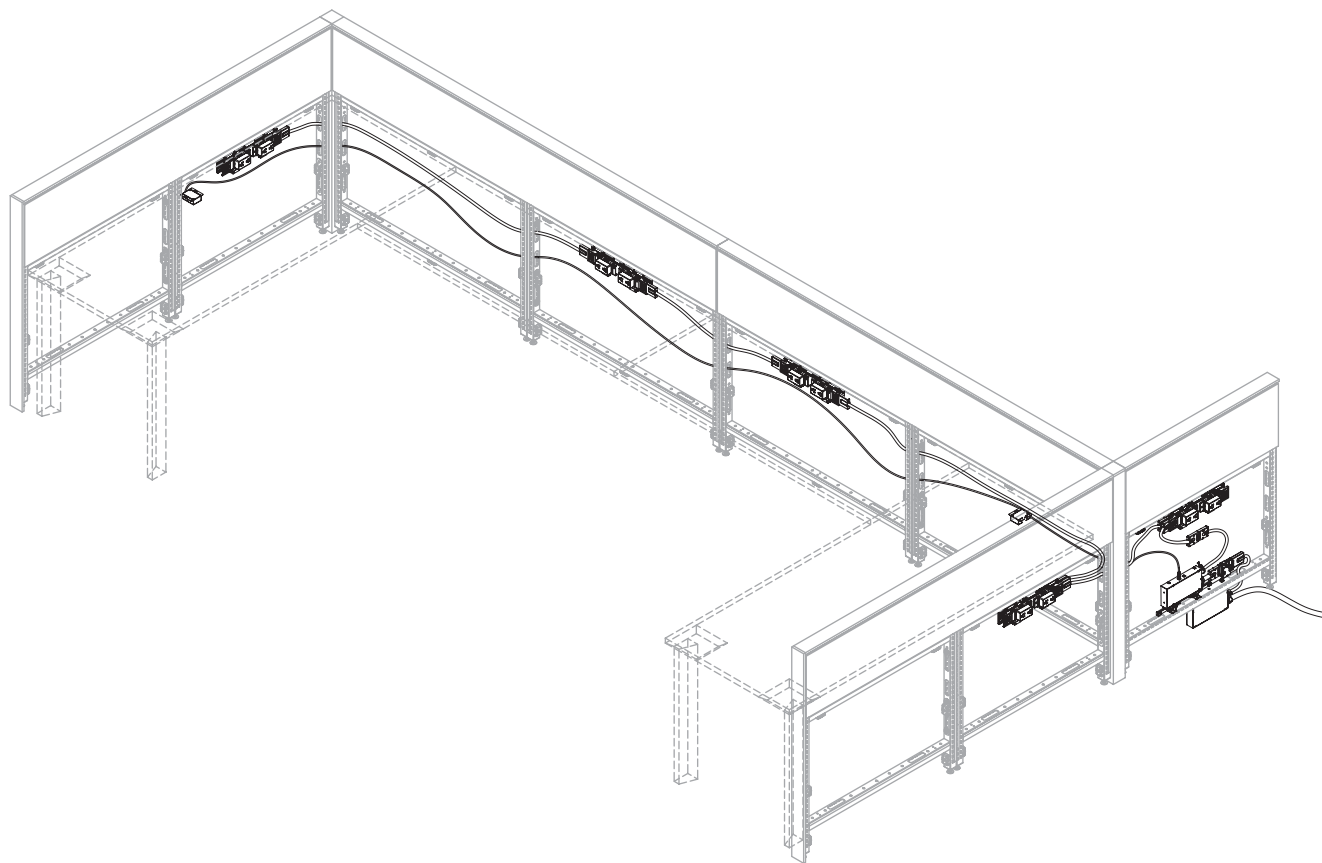
- Power does **not** have to be on one side only of a storage run – storage can be alternated to allow for maximum planning flexibility
- Flush-Mounted Power and Data (EWQP) module unit is always centered on the back of the drawer section of the unit
- To specify the correct lengths of power harness, determine the distance from the center of one cut out to the center of the next cut out, then add 24"
- Power outlets will be centered behind the filing section of a combo tower



- When planning with a low storage unit in a freestanding environment, Cubby Power Monuments can be mounted into credenzas to provide multi-circuit power and data to the workstation
- Power can be routed from the building to the storage unit through Base or Ceiling Feeds then horizontally routed under the storage units along Under Cabinet Wire Trays
- Cubby Power Monuments must plug directly into a Four-Way Splitter (EWDB) or an I-Connector (EWIC). It **cannot** plug directly into a Storage Power Harness (EWBH).
- Power Poles can feed two storage units

power conservation system basics

Furniture based solution for the controlling function that addresses the ASHRAE/Title 24 electrical requirements.



Power Conservation System (UNQPC)

- Up to two circuits can be controlled by occupancy sensors (included)
- Maximum of four sensors can be connected to each individual controlled circuit
- When using the Power Conservation System, circuits 3, 5, 6, A and B will always stay powered on (uncontrolled)
- To get individually controlled stations, specify the Power Conservation System with two sensors
- Available with option of two, four or eight sensors (Maximum of four sensors per run)
- Sensors mount to the underside of the worksurface
- A hard wired connection supplies power into a panel from the building power source

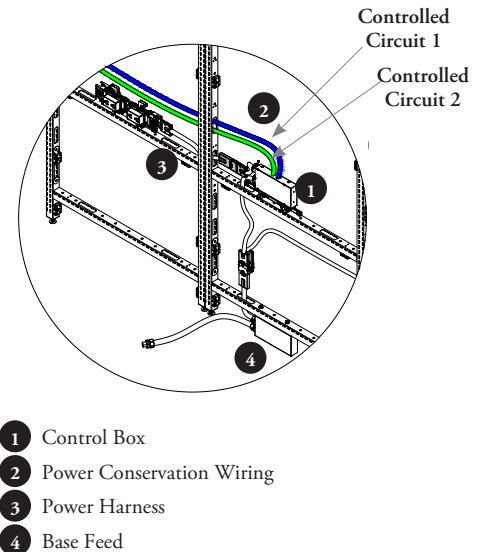
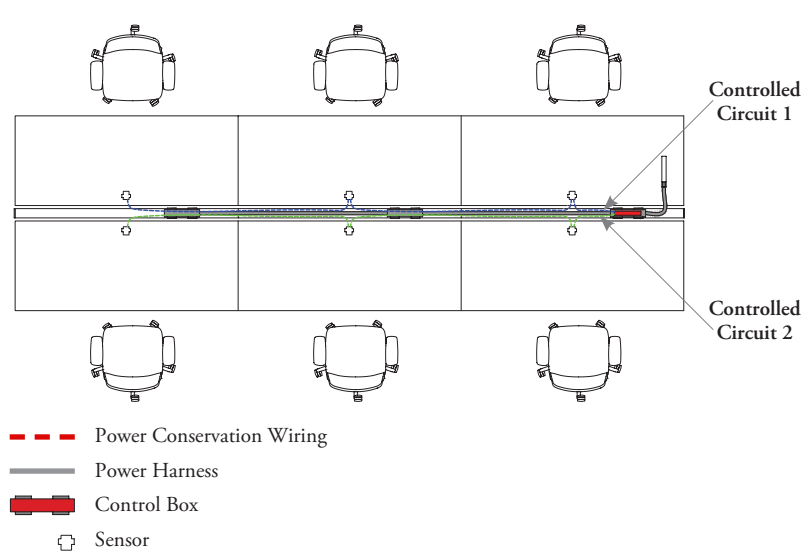
planning with power conservation system

The following should be considered when planning with the Power Conservation System.

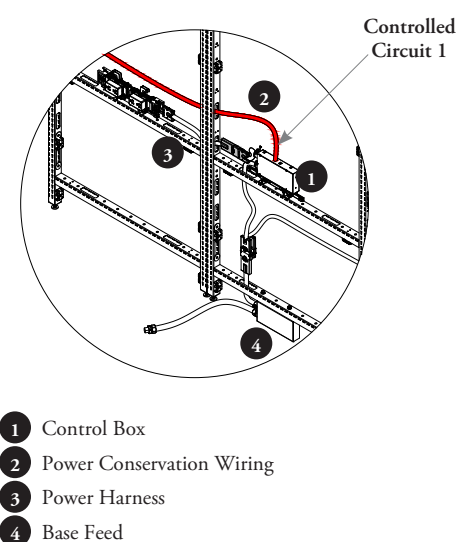
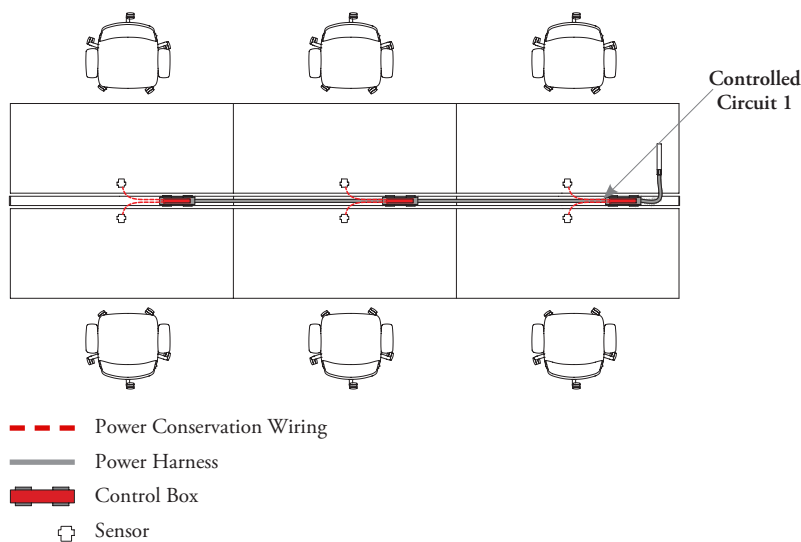
The following are two ways of planning with the Power Conservation System.

scenario A: Multiple sensor planning

The connection between two power modules only applies on the installation for four sensors and eight sensors.



scenario B: Single Sensor planning



- Always specify one sensor per workstation
- Only one controlled circuit per workstation (do not specify two controlled circuits in one single workstation)
- Do not specify mix receptacles for both circuit 1 and 2 in a single workstation
- If the control box and power module are in the same panel, the output arm from the control box can directly connect to the power module, no extra jumper required