

Staks open plan planning guide



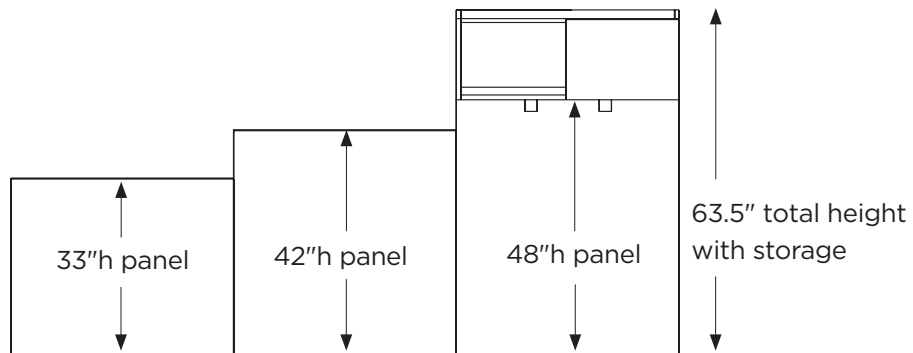
Table of contents

Wall panels	
overview	3
panel extension	4-6
panel storage	7
privacy panels	7-8
Worksurfaces	
general planning	9
Supports	
120° typicals	10
clamp plates	11
6-L2S worksurface seam support	11
cantilever overview	12
mini cantilever	13
concealed cantilever	13
worksurface to storage support	14
pedestal to wall brackets	15
full depth pedestal support	15
half round worksurface support	16
riser supports	17
Height adjustable	
height adjustable metal base support	18
height adjustable placement over storage	19
Miscellaneous	
filing capabilities	20
Electrical	
basic electrical terms	21
amp budgeting/UL codes	22
planning for Staks	23
wiring diagrams	24
2 circuit / 4 wire power	25
3 circuit / 5 wire power	26
4 circuit / 8 wire power	27-28
Chicago/NYC code/Title 24	29
data	30
power application overview	31
worksurface mounted power	32-36
panel mounted power	37
power channel	38-42

Wall panels

Overview

- Panel heights: 33"h, 42"h, 48"h
- **Note:** Additional height can be achieved with use of privacy panels and panel mounted storage. Refer to [Staks building blocks](#) for all height combinations
- LEED certificate max panel height for wall panels: 42"h
- Grain direction on panels will always run vertical
- Panel levelers allow for 1.75" of height adjustability for uneven floor
- CPGLIDE carpet glide allows for 1.5" of height adjustability for uneven floor



Wall panels

Panel extension for static desks - single panel

- **Note:** This application is for carpet or hard surface flooring
- Using standard glides, a single panel can extend past an approved support connection at any length. **Note:** Max panel width is 59" w (**Figure A**)
- **Note:** The surface to support this panel should be a minimum of 22"d.
- Approved support connections include: pedestal side, pedestal to wall bracket, or end panel (TEP models) (**Figure B**)
- End panel (TEP models) and pedestal side connections requires six connection points to support the panel. Three connection points will be below the worksurface, and three connection points will be closer to the floor. **Note:** Screw connection points will be visible when an end panel support is specified (**Figure B detail**)
- And end panel would be specified if no storage or a mobile pedestal is specified

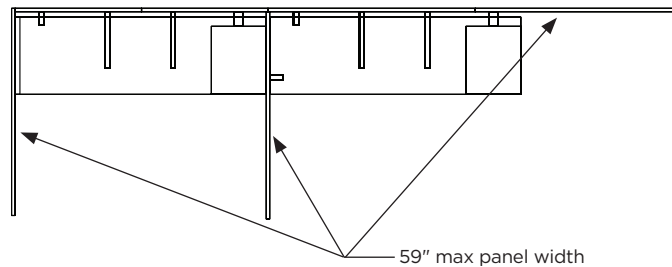


Figure A

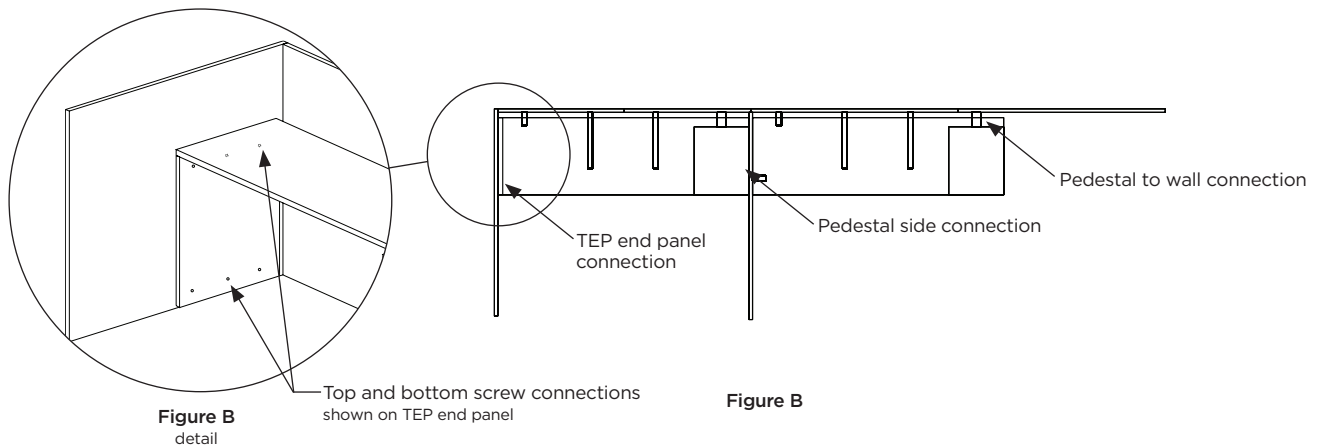
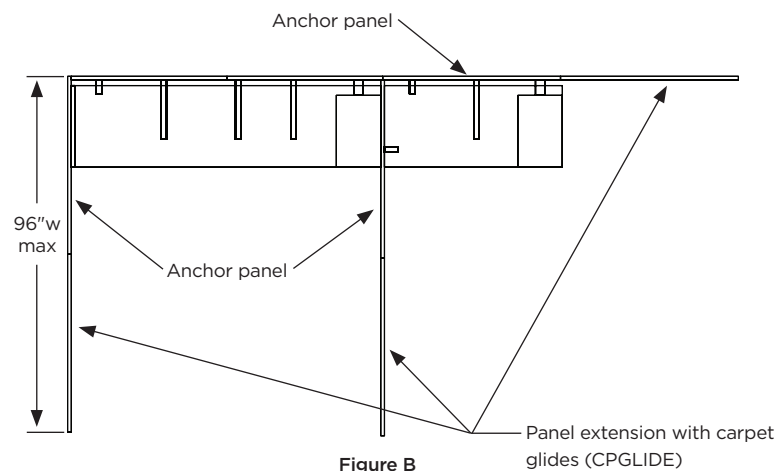
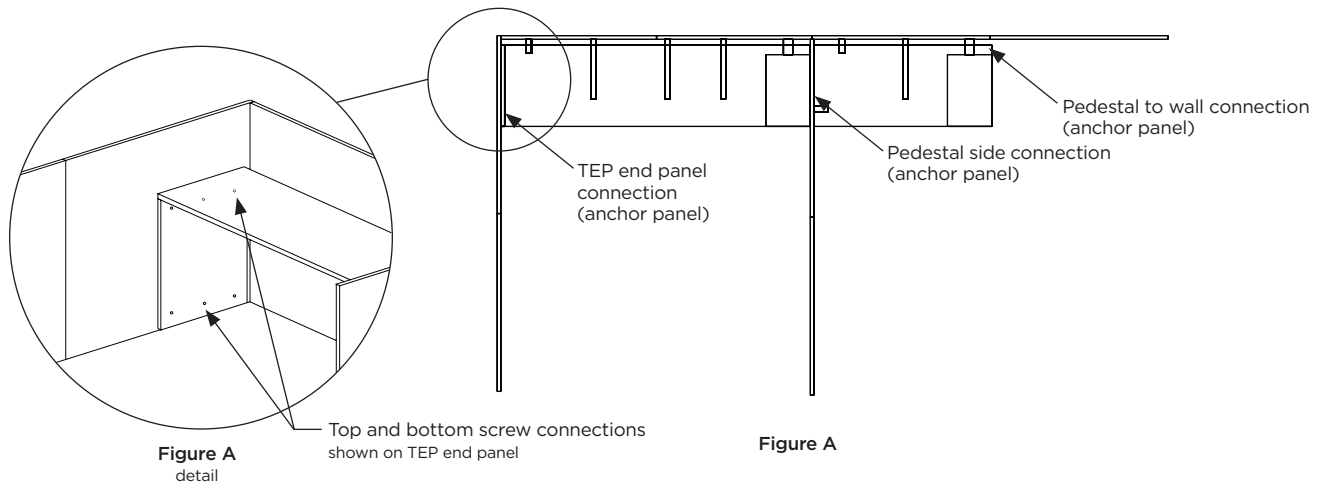


Figure B

Wall panels

Panel extension for static desks - single panel with panel extension

- **Note:** This application is for carpeted floors only. It cannot be used on hard flooring.
- Follow guidelines for supporting a single panel, this will be your anchor panel for this application. Approved connections for the anchor panel include: pedestal side, pedestal to wall bracket, or end panel (TEP models) (**Figure A**).
- **Note:** The surface to support this panel should be a minimum of 22"d.
- End panel (TEP models) and pedestal side connections require six connection points to support the first panel. Three connection points will be below the worksurface, and three connection points will be closer to the floor (**Figure A detail**).
- **Note:** Screw connection points will be visible when an end panel support is specified. An end panel would be specified if no storage or a mobile pedestal is specified.
- Using carpet glides (CPGLIDE), a second panel extension can attach to an anchor panel (**Figure B**). No additional support is required for this panel extension.
- **Note:** The max span of two panels for this application should be no more than 96" of total panel length.
- The carpet glides are specified as a pack of two, and will replace the standard glides that ship with the panel. **Note:** Only the extend panel not connected to a support is required to have the carpet gripper glides. All other panels will utilize standard glides shipped with the panel.

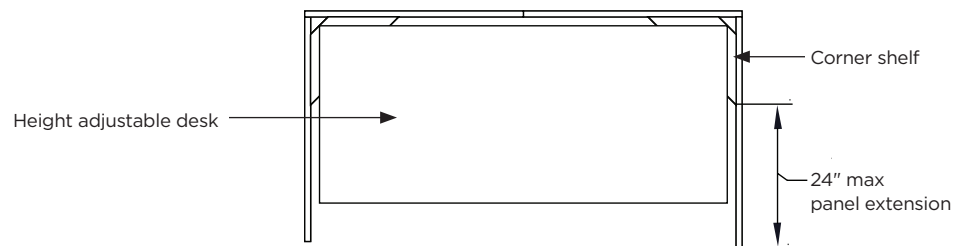


Wall panels

Panel extension for height adjustable desks

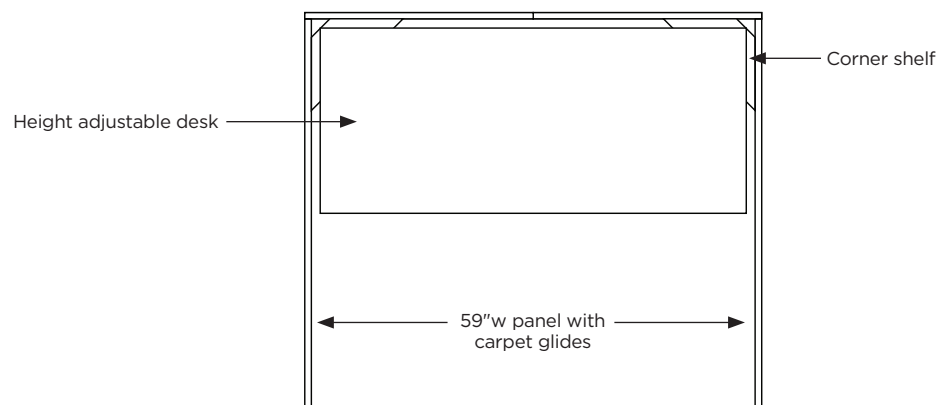
Standard glide applications

- When specifying panels perpendicular to a height adjustable desk, a panel span will be limited to 24" past the corner support shelf.
- **Note:** This will utilize the standard glide, and can be used on carpet or hard floor surfaces
- **Note:** If creating a freestanding height adjustable desk with panels as shown below, [6-HAWPB](#) leg to panel brackets are required to support the front panels



Carpet glide applications

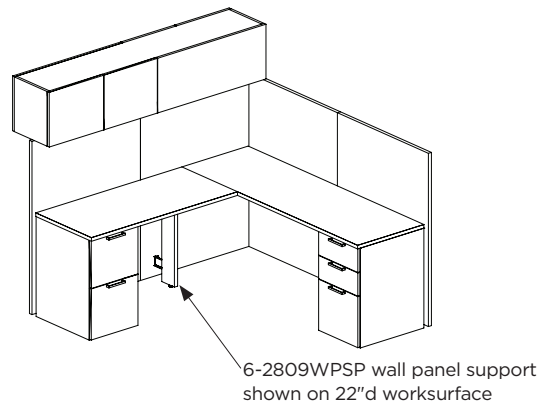
- When CPGLIDE carpet glides are added to this panel extension, the panel width can be specified up to 59"w.
- **Note:** This is for carpet applications only.
- **Note:** If creating a freestanding height adjustable desk with panels as shown below, [6-HAWPB](#) leg to panel brackets are required to support the front panels.



Wall panels

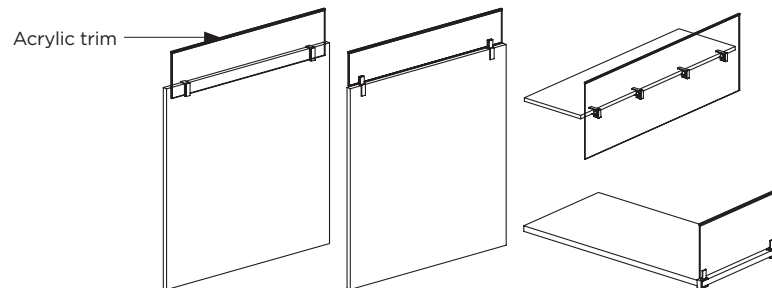
Panel storage

- Panel organizers, shelves, transaction counters are installed centered mounted on the panel using press fit brackets (PFBKT-1)
 - 56"w components and under require two brackets
 - 57"-80"w components require three brackets
 - 81"-102"w components require four brackets
- Note:** Wall panel support must be used when specifying organizers, shelves, and transaction counters. This support can take the place of a cantilever on 22"d worksurfaces, but not a clamp plate. It should not be placed directly under the seam of adjoining worksurfaces



Privacy panels overview

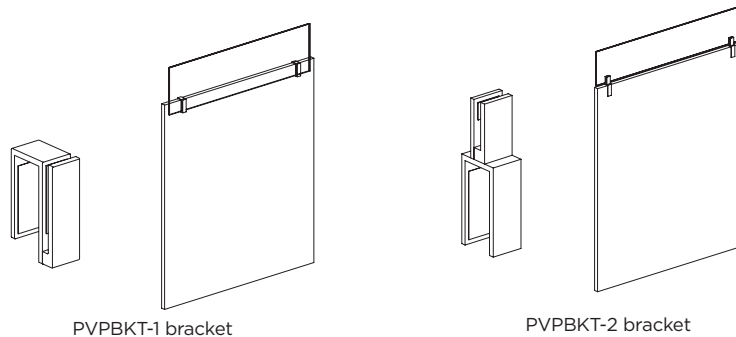
- Refer to the Staks building blocks document for all height combinations
- Available in glass or frosted acrylic
- Note:** When using acrylic privacy panels, it is recommended to use the privacy panel trim to prevent warping or bowing. Trim can be used for both panel and surface mounted acrylic dividers



Wall panels

Clamp on privacy panels

- Heights available: 8"h and 11"h
- Maximum width for glass and acrylic clamp mounted privacy panels: 71.5"w
- Can span across multiple panels
- 8"h privacy panel can only be used with PVPBKT-2 panel bracket
 - Adds 8.5" to overall panel height
- 11"h privacy panel can be used with PVPBKT-1 panel bracket and PVPBKT-2 panel bracket
 - PVPBKT-1 add 8.5" to overall panel height
 - PVPBKT-2 add 11.5" to overall panel height
- Privacy panel bracket quantity:
 - 42"w panel & under - 2 brackets
 - 43"-66"w panel - 3 brackets
 - 67"-72"w panel - 4 brackets



Routed privacy panels

- Heights available: 10"h and 13"h
- 1.5" of the privacy panel will recess into the panel route
- Adds 8.5" to panel height when 10"h privacy panel is specified
- Adds 11.5" to panel height when 13"h privacy panel is specified
- Factory machined route, cannot be added on post install
- For square corner panels the privacy panel will span centered on a panel, leaving ½" at each end (**Figure A**)
- For round corner panels the privacy panel will span centered on a panel, leaving 4 ½" at each end (**Figure B**)
- **Note:** Routed in glass cannot be specified as clear due to unfinished panel route being visible

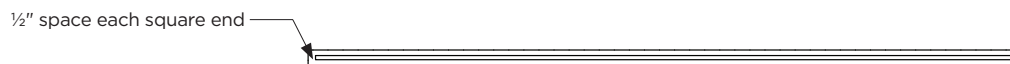


Figure A

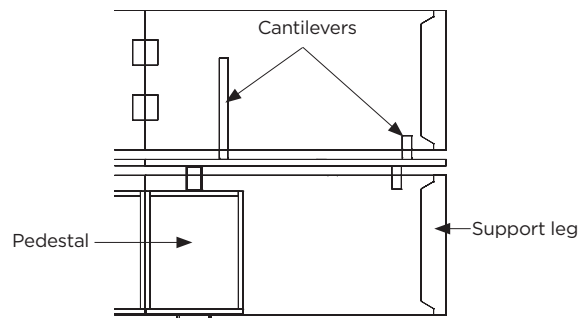


Figure B

Worksurfaces

General planning

- When used with wall panels, worksurfaces are spaced 1 ½" away from the wall panel for wire management unless otherwise specified. If flush mounting, a grommet will be needed for wire management
- Maximum unsupported work surface span: 22"w
- Worksurfaces can be supported by cantilevers, end panel, support legs, or pedestals, or other vertical supports



16"d rectangular worksurfaces

- 16"d surfaces can be used in low or desk height applications and must be used with storage for support
- Cannot be used with pedestals less than 24"w
- Pedestals that can be used:
 - Desk height worksurface:
 - Lateral, box/box/file, tray/box/file, open/box/file, open with shelf
 - Low height worksurface:
 - Box/file, tray/file, open/file, open with shelf

22"d rectangular worksurfaces

- 22"d surfaces can be used in low or desk height applications
- Desk height surfaces can be supported with legs, end panels or storage
- Low height surfaces must be supported by pedestals

30/36"d rectangular worksurfaces and non rectangular worksurfaces

- Can be used in desk height applications only
- Surfaces can be supported with legs, end panels or storage

Supports

Open plan - 120° typicals

- When creating a 120° layout, panels will not connect in the center. Instead, brackets and cantilevers will attach panels to the surfaces for stability
- **Note:** Order TOOL-3 to properly space the panels during installation
- Panel mounted overheads and privacy panels can still be used. Reference [panel storage section](#) for support rules
- The center of the surface will be supported by OWSBKT22 cantilevers (**Figure A**)
- The WSBKTC mini cantilever should be used to secure the worksurface and panels together. These brackets should be placed 3" from the ends of the panel to the edge of the bracket. Keep the brackets mounted on the same side of the panel, two are required for each panel/worksurface
- The ends of a 120° station can be supported with support bases or by mounting flush against a panel by using the SCWBKT-1 bracket as mentioned above

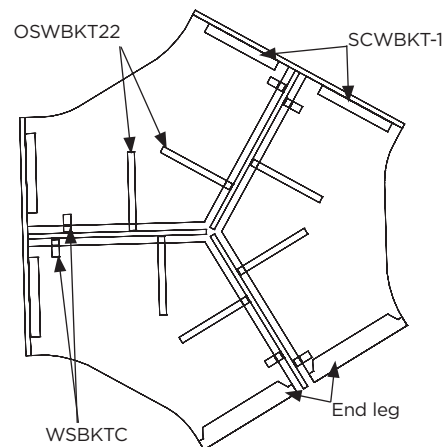


Figure A

Supports

Clamp plates

- Two adjoining worksurfaces will be connected by CP-1 clamp plates
 - Two clamp plates for 22" connections (**Figure A**)
 - Three clamp plates for 30" and 36" connections (**Figure B**)
- Quarter round surfaces should be supported with CP-1 clamp plates on both seams (**Figure C**)

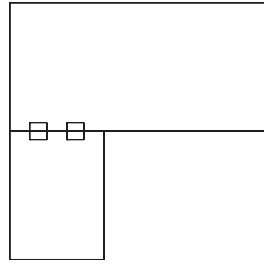


Figure A

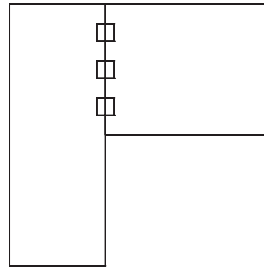


Figure B

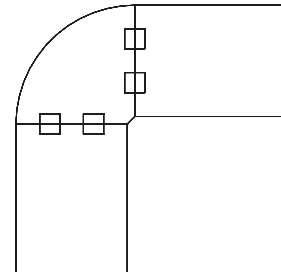
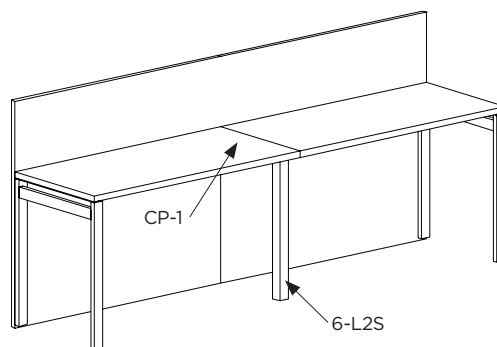


Figure C

6-L2S legs

- CP-1 clamp plates can be replaced with 6-L2S legs. This provides extra support at the seam and is most often used in longer spans where there are no pedestal supports being used. Two 6-L2S legs can replace two CP-1 brackets, or you can use one back CP-1 plate and one front 6-L2S leg at the worksurface seam.
- Note:** 6-L2S leg required at front seam of 30" and 36" d worksurfaces when pedestals are not used



Supports

Cantilevers overview

- **Note:** Max spacing between cantilevers is 22" unless the panel is secured by other vertical supports (**Figure A**)
- Cantilever brackets on the seam could interfere with the clean-seam connectors and should be avoided at all times. Move the brackets 3" to the left or right of a seam in order to avoid mounting screws from hitting the clean seam connector screws (**Figure B**)
- Brackets should not be mounted back-to-back, but instead be offset from one another by 2". This is to avoid weakening the core material and also to prevent the mounting screws from hitting each other (**Figure C**)

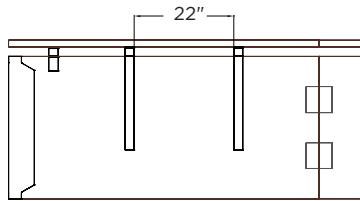


Figure A

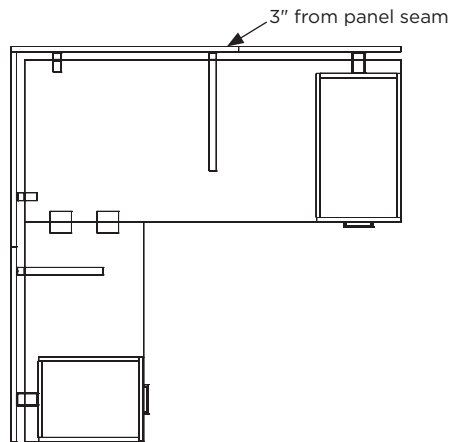


Figure B

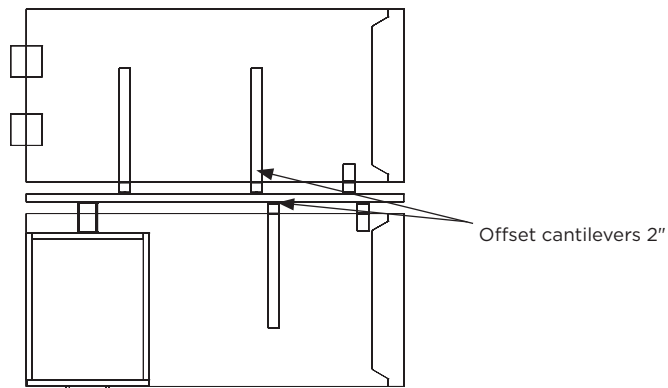
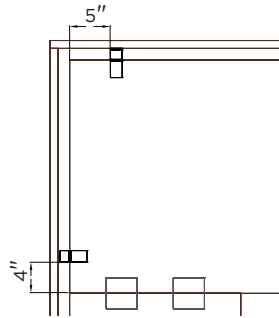


Figure C

Supports

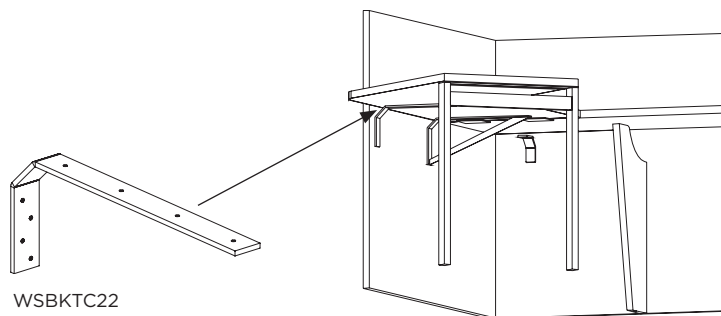
Mini cantilevers

- Worksurfaces that join to panels on the short end (22", 30" and 36" ends) shall have two mini cantilevers (WSBKTC) to support the worksurface corner. One mini cantilever is mounted 5" from the front edge of the surface to the front edge of the bracket. The second mini cantilever is mounted 4" in from the end of the surface to the edge of the bracket



Concealed cantilever

- Concealed cantilevers are to be used at the end of a worksurface and panel connection to clean up the aesthetics of the unit. i.e. at the end of a work surface supported by an H-Leg. This should not be used to replace all other standard OWSBKT cantilever brackets



Supports

Worksurface to storage connection

- Using a worksurface to storage bracket (SCWBKT) allows you to attach a worksurface to a panel (**Figure A**), tower (**Figure B**), or pedestal (**Figure C**)
 - Use one SCWBKT-2 on 16"d worksurfaces
 - Use one SCWBKT-1 on 22"d worksurface
 - Use two SCWBKT-2 on 30" and 36"d worksurfaces
- Note:** This does deface the side of the storage unit. If this is not desired, then a base, end panel or pedestal should be used to support the surface depth

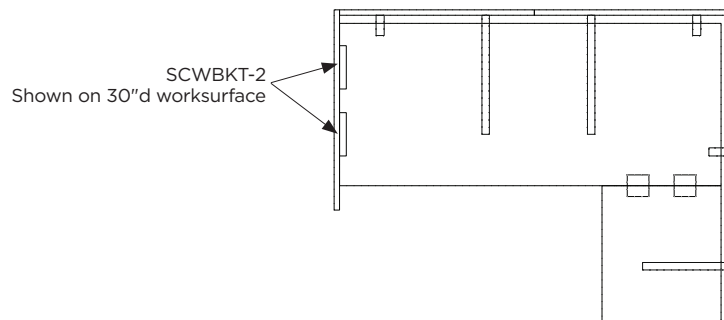


Figure A

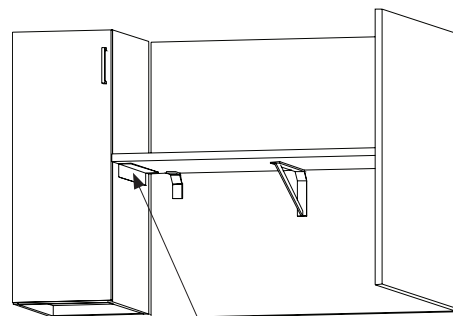


Figure B

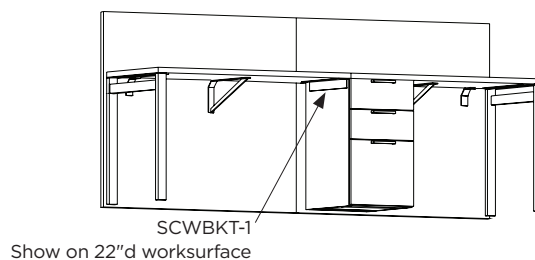


Figure C

Supports

Pedestal to wall brackets

- To be used with pedestals on worksurfaces that have a 1.5" wire management gap (**Figure A**).
- When connecting a pedestal to a panel, one the following brackets is required:
 - PEDBKT-1 Z shaped: Standard pedestal bracket
 - PEDBKT-2 L shaped: Used with open pedestals specified with hinged back panel

These brackets are used with a:

- 19"d pedestal with 22"d worksurface
- 27"d pedestal with 30"d worksurface
- 33"d pedestal with 36"d worksurface
- Brackets come as a set of 2, one bracket to be installed on top rail, one bracket to be installed on bottom rail.
- Use one set for 15.625"w pedestals and two sets for 24"-36"w pedestals (**Figure B**).

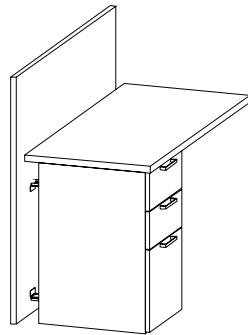
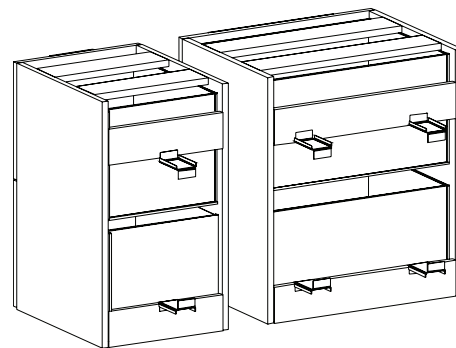


Figure A



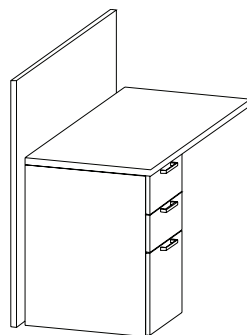
15.625"w pedestal

24"-36"w pedestals

Figure B

Full depth pedestal applications

- Pedestals placed at the end of a worksurface with panels should be full depth and have a finished back for a clean aesthetic. A mini cantilever should be placed along the panel on the inside of the pedestal to support the panel (**Figure A**).
- When specifying a 22"d pedestal flush to the wall panel, the wall panel should be attached to the pedestals using screws through the top and the bottom back support rails (**Figure B**).



22"d pedestal with wire management gap

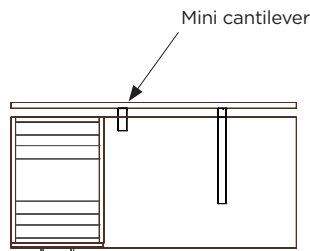
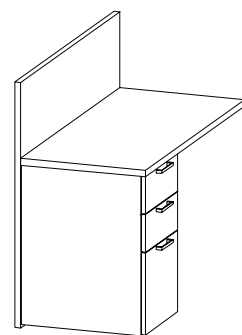


Figure A



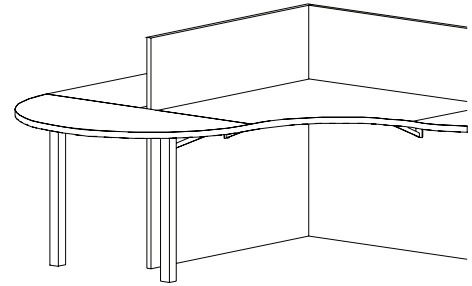
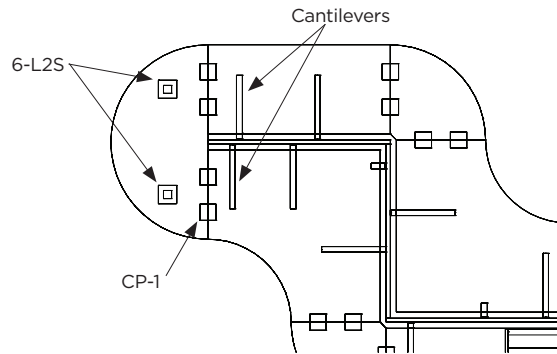
22"d pedestal flush to wall panel

Figure B

Supports

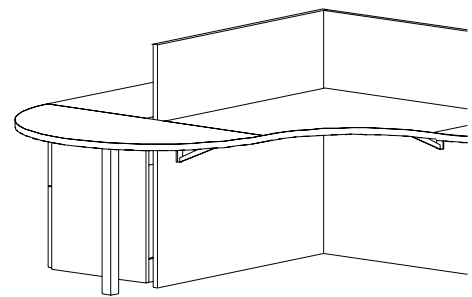
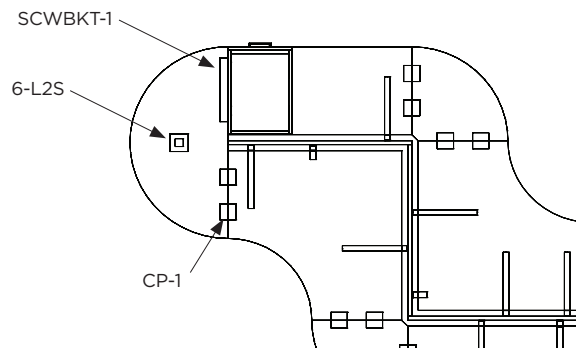
Half round worksurface with cantilevers

- When mounting a half round worksurface at the end of a run, the surface will require two 6-L2S legs as well as supporting the seams with CP-1 clamp plates and cantilevers
- The leg should be mounted 10" from the seam to the center of the legs, and 11" from the ends to the center of the leg



Half round worksurface with pedestals

- If the adjacent surfaces are supported by storage, only a single leg is required. This would be located 11" in from the edge of the surface to the center of the leg, and centered on the radius (24" from both sides) to the center of the leg. Use SCWBKT-1 to connect surface to pedestal



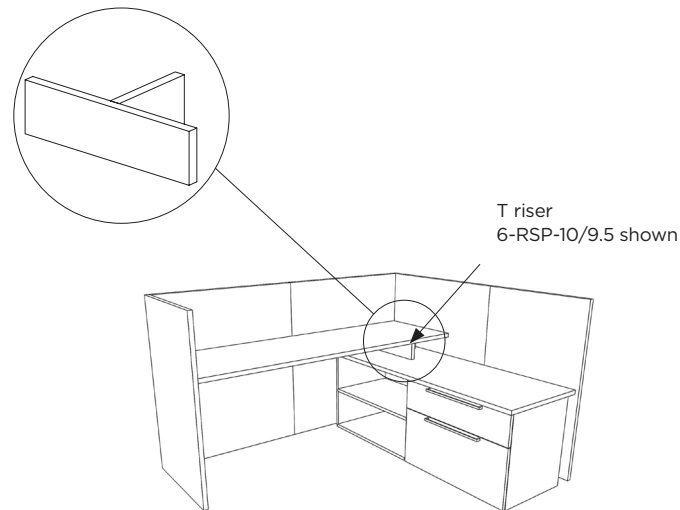
Supports

Riser support general

- Riser supports are used to support worksurface to low height, and low to bench height applications
- **Note:** Riser support is also used to go from low height to bench height as well. This option is only available with 22" deep surfaces

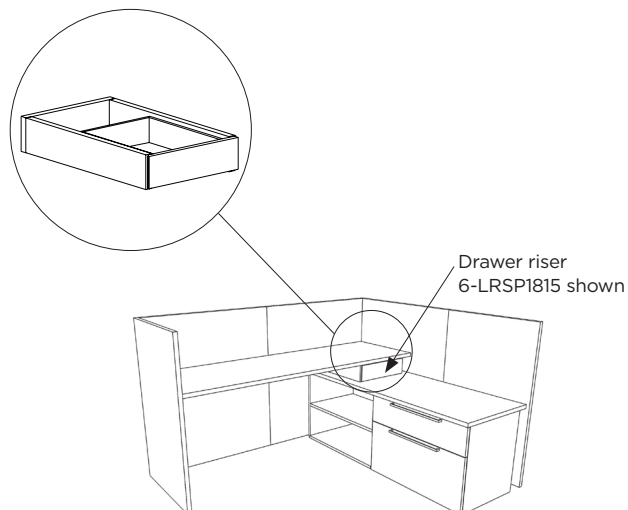
T riser support

- These supports are placed with the top of the "T" running parallel to the end (depth) of the top they are supporting, with the leg of the "T" extending toward the end of the surface (**Figure A**)
 - 6-RSP-10/9.5 - Used under a 16" deep worksurface
 - 6-RSP-10/9.5 - Used under a 22" deep worksurface
 - 6-RSP-26/9.5 - Used under a 30" deep worksurface
 - 6-RSP-32/9.5 - Used under a 36" deep worksurface



Drawer riser support

- Finger pull handed left or right (**Figure B**)
 - 6-(L/R)RSP-1815 - Used under a 22" deep worksurface
 - 6-(L/R)RSP-2615 - Used under a 30" deep worksurface
 - 6-(L/R)RSP-3215 - Used under a 36" deep worksurface



Height adjustable

Supporting height adjustable metal bases in open plan

- A 6-HAWPB height adjustable leg panel wall bracket will be used to support panels spanning in front of a worksurface using height adjustable metal legs
- Bracket attaches to metal legs and then screws directly into wall panel interior
- When using a corner shelf to support panels around a height adjustable desk, the corner shelf should be mounted at 17" AFF. If using the 6-HAWPB support brackets, they would install directly below the shelf.
- Max 24" panel extension past worksurface to maintain proper panel support (**Figure A**)
- **Note:** Panels in front of the height adjustable desk should span no more than two across, allowing a 6-HAWPB bracket to attach to each panel
- When no wing panels are specified, only height adjustable leg to panel brackets are needed to support the panels. (**Figure B**)
- When wing panels are specified, and your distance from the corner shelf to the center panel seam is less than 24"W, only corner shelves (6-2108SHLF) are required to support the panels. (**Figure C**)
- When wing panels are specified, and your distance from the corner shelf to the center panel seam is more than 24"W, both leg to panel brackets and corner shelves (6-2108SHLF) are required to support the panels. (**Figure D**)
- When leg brackets are used, worksurface maintains 1.5" wire management gap from panel
- Use with bases HA24KCRE; HA30KCRE; HA24KCSE; HA30KCSE; HA24KFRE; HA30KFRE; HA24KFSE; HA30KFSE; 6-5836HALWT; 6-7036HALWT; 6-5836HARWT; 6-7036HARWT
- Metal height adjustable bases to be used with surfaces 48"W to 72"W only. Use 24"D bases for 22"D surfaces. and 30"D for 30"D surfaces

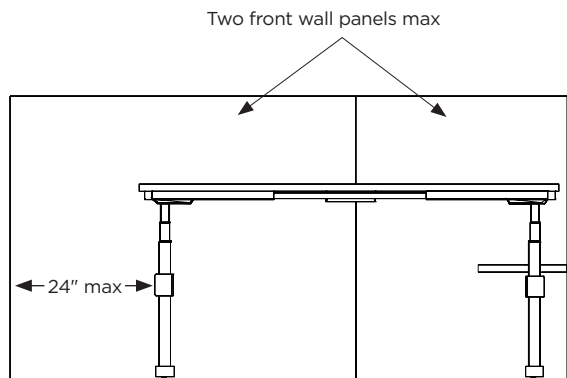


Figure A

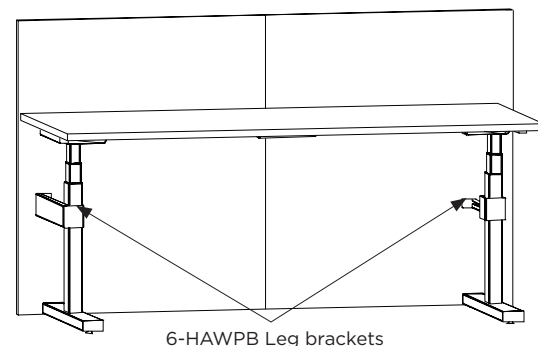


Figure B

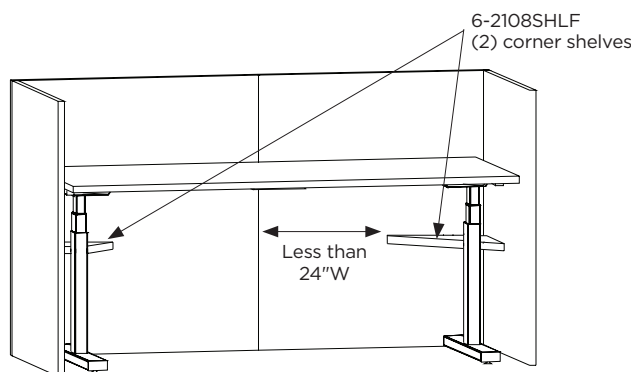


Figure C

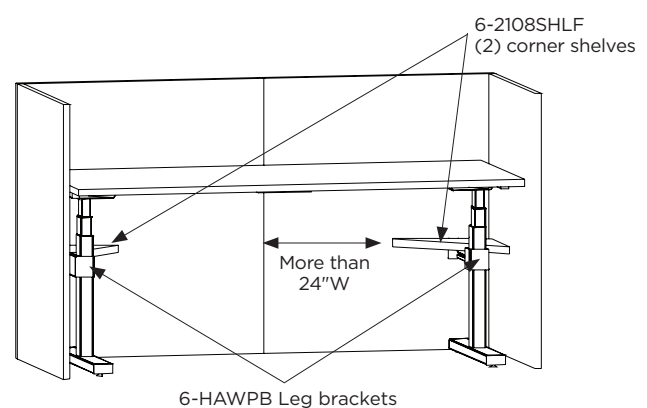


Figure D

Height adjustable

Height adjustable table placement over storage

- Staks height adjustable tables have a minimum clearance height needed should the table need to be reset. Because of this, it is important to understand placement guidelines when using height adjustable desks over storage
- In an open plan setting, where a desk could not be moved to reset the desk, the HA adjustable desk cannot be placed over low storage. Instead, it must be placed in front of the storage, so the desk is not overlapping the storage. (Figure A)
- **Note:** A height adjustable desk can be placed over bench height storage. (Figure B)
- In a private office application, where there would be space to move the desk away from the storage, a height adjustable desk **can** be placed over low height storage. A mobile pedestal can also sit under the desk. The mobile pedestal would need to be moved away from the under the desk before resetting (Figure C)

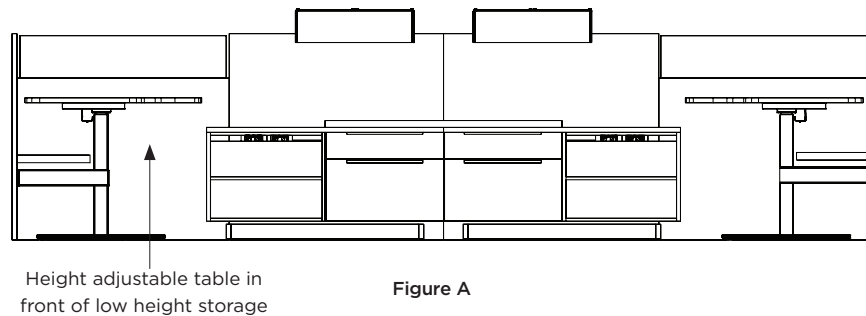


Figure A

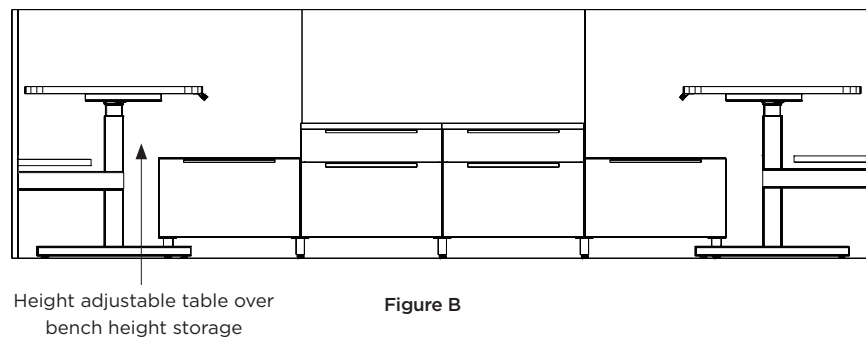


Figure B

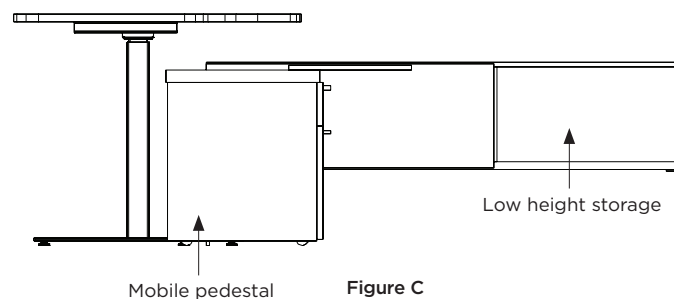


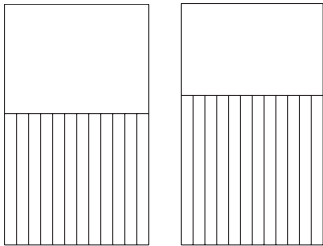
Figure C

Filing capabilities

File capacity

- All OFS filing configurations meet standard file tab clearance of 1.25" above the file frame as recommended by our file frame suppliers
- **Note:** 24"w lateral file drawers available only as side-to-side filing. 30"w and 36"w lateral file drawers available as front-to-back or side-to-side filing

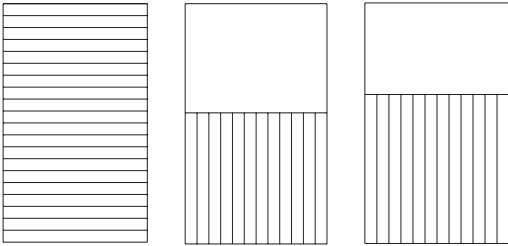
12"w pedestals



Letter
side-to-side

Legal
side-to-side

15.625"w pedestals

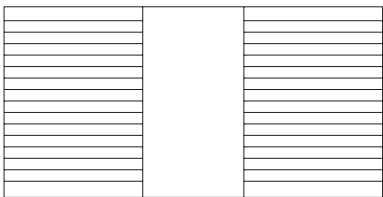


Letter
front-to-back

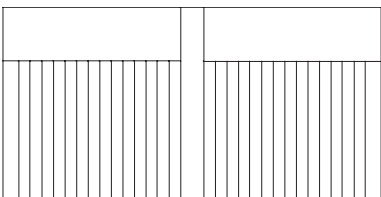
Letter
side-to-side

Legal
side-to-side

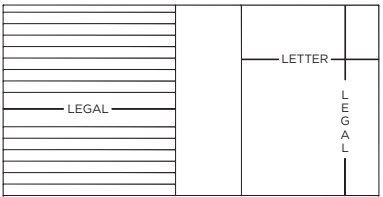
Lateral files



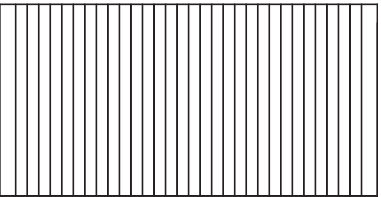
Letter
double front-to-back



Letter
double side-to-side



Legal
front-to-back



Legal
side-to-side

Electrical overview

Basic terms used when dealing with and selling electrical

Amps:

Unit of electrical measurement commonly used to rate power requirements of the equipment. For example, your laptop requires 3.36 Amps. Typical commercial electrical wall outlets are wired for 20 Amp service. Older buildings may have the older standard/ residential 15 Amp service.

Circuit:

Individual circuits feed off the main service to the building, carrying electrical power through the circuits to each room. A commercial circuit is typically rated at 15 to 20 Amps each, depending on the application or need.

Hard wire:

Electrical connection of power feed supplying furniture and equipment to building power source. Requires a certified electrician to install a hardwire connection. Usually hardwire connections are used for multiple circuit access from the power source.

Wire manager:

Wire manager is a generic term used to describe organization of electrical, voice and data cables in furniture.

Power block:

Duplex unit which holds the modular circuit receptacles.

Underwriters laboratory - UL:

The mother of all electrical standards-see special section on Byrne UL 183, Dekko UL 962 for specifics.

Jumper:

Modular link connecting power blocks/duplexes between furniture. Sometimes referred to as daisy chaining.

Hot, neutral and ground:

Terms used to describe the different types of wires used in electrical schematics.

- **Hot:** Each circuit requires a hot wire to carry the electrical power. Hot circuits can be shared or isolated.
- **Neutrals:** The neutral is also required to complete the circuit. It is the return portion of the circuit and carries the electrical power back to the ground in effect completing the circuit.
- **Grounds:** This wire is a safety net in the event a hot or neutral fails. It creates a safe path back to the ground versus sending the energy through the utility (e.g. computer).

Modular connection:

Another term used in placing of jumpers.

Power strip:

Power plug rated at 15 amps. Allow user to plug several pieces of equipment into one power tap.

Note: it is not kosher by NEC standards to daisy chain power strips.

Category 3:

Commonly used in phone equipment. Lowest rating in terms of speed of transmission of communication and therefore is not used in high-speed modem communication. Typically CAT-3 is a modular connection system.

Category 5:

High-speed communication, usually hard wired to allow maximum communication speed. CAT 5's has a rating of 100 megabytes of information transfer per second.

Electrical overview

Amp budgeting

The standard equipment found in workstations or cubicle in Corporate America consist of a Computer, Laptop, CPU Monitor, Clock Radio, Cell phone, Battery Charger, IPod, iPad, task light, calculator, and lamp. Below is a list of common items or equipment used in the modern day open plan or private office/conference rooms. These items are shown with the amount of AMPS required.

Laptop Computer/CPU (depends on size): 2-4 Amps
 Fax: 1 Amp
 Monitor: 2-2.5 Amps
 Focus Machine: 3-5 Amps
 Printer-DeskJet: 4 Amps
 Overhead Projector: 1.5-3 Amps
 Printer-LaserJet: 6.5 Amps

UL underwriters laboratory codes

There are three main standards that UL has established and apply to power distribution for the office: (Byrne) UL 183 and (Dekko) UL 962. UL 183: UL 183 standards were developed for modular components used on equipment and in our case tables. UL 183 category can be hardwired, single or multi circuit, single or three phase designs. The standard requires that the electrical system comply with UL standards, but it has no bearing on the furniture. Thus, while the electrical system is considered in compliance, it is up to the furniture manufacture to secure the electric to its product in a safe manner

Electrical overview

Planning for Staks

This planning section will help you understand how to help your clients with the correct power requirements. In most cases it comes down to asking these simple questions and then making the right recommendations.

Programming questions to ask:

1. What will each user be using in the office or open plan?
2. Are we dealing with new construction or existing building specs?
3. Where is the power in the room? Is it flexible-under floor access?
4. Will we need surface power access?
5. How will data be handled? Surface mounted or underneath the surface?
6. Are there any particular local codes or constraints to deal with, such as in NY or Chicago.
7. Is a dedicated circuit required?

The typical project will include a spec from an architect or designers drawing. These drawings will have several rectangles positioned in a creative configuration. Such creative expression often does not lend itself well to reality. That is where you come into the picture.

1. Sell standard product if you can. Sometimes customizing product or changing electric circuits will cause the table not to meet UL codes or BIFMA Standards. Understand the UL Codes we work with in.
2. Count the number of computers in each open plan and multiply by the Amps required for each computer. This will tell you how much power the row will require. The NEC has certain rules facilities must abide by. Computers in use for more than 3 hours must down load the capacity of the power supply by 20%. Therefore an eighty Amp hardwire power feed would only be rated at Sixty four amps.

OFS recommends 5 Amps of power per workstation

- 3 workstations per circuit number is the general rule
- 6 workstations per 4-wire infeed (based on 5 Amps per workstation)
- 9 workstations per 5-wire infeed (based on 5 Amps per workstation)
- 12 workstations per 8-wire infeed (based on 5 Amps per workstation)

Power types

Wiring diagrams

2 circuit / 4 wire power

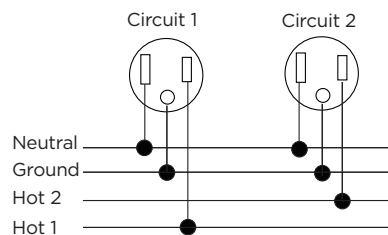
- 15 Amp outlets (Circuit 1 and 2 only)
- Worksurface or panel mounted applications

3 circuit / 5 wire power

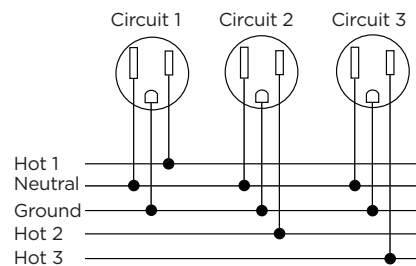
- 15 Amp outlets (Circuit 1, 2, and 3 only)
- Worksurface mounted application only

4 circuit / 8 wire power

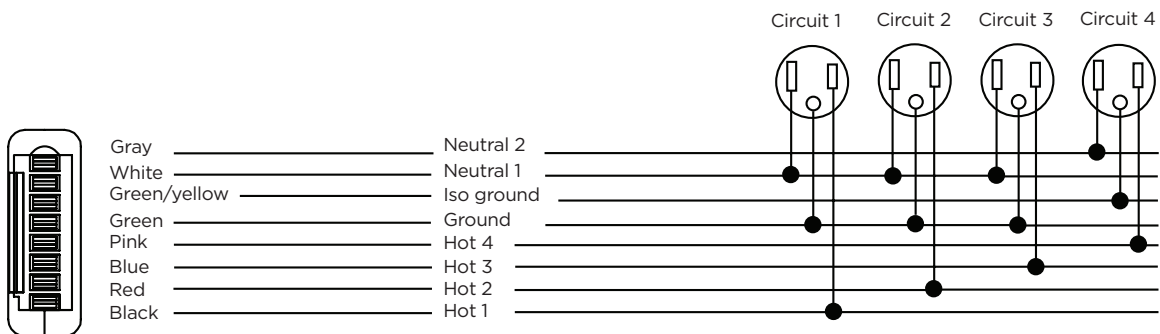
- 15 Amp outlets (Circuit 1, 2, 3, and 4. Circuit 4 is isolated and dedicated)
- Worksurface mounted, panel mounted, or power channel applications.



2 circuit / 4 wire power



3 circuit / 5 wire power



4 circuit / 8 wire power

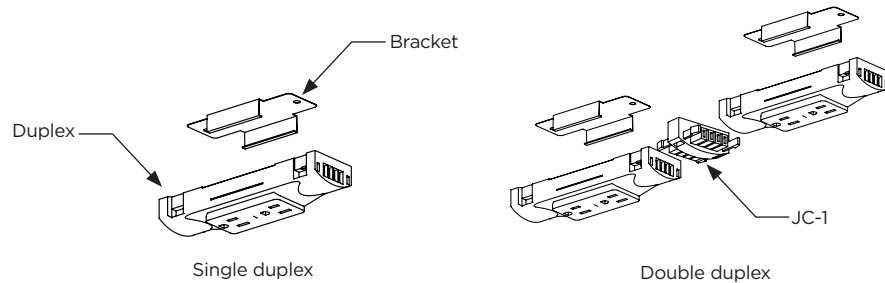
Power types

2 circuit / 4 wire power

- Used in worksurface or panel mounted applications.
- **Note:** Duplexes, jumpers, connectors, and infeeds specified separately

Mounting

- Duplexes are connected to the underside of the worksurface or panel mounted with a bracket (included).
- Duplexes sit flush to the underside of the worksurface or panel.

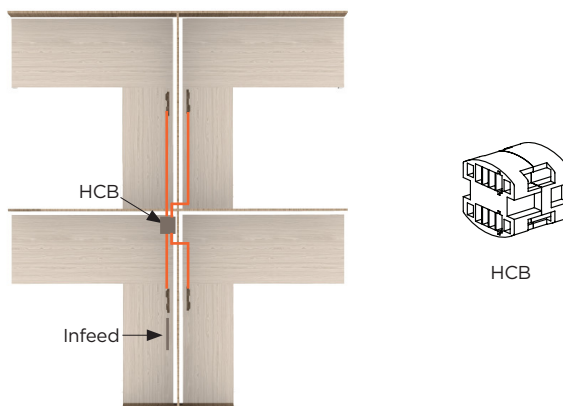


Duplexes

- Circuit I or Circuit II.
- 15 amp circuits, UL listed.
- Connection point at each end for jumper or infeed connections.
- **Note:** A double power block can be created by connecting two duplexes with a JC-1 jumper connector.

Jumpers

- Jumpers come in lengths of: 12"w, 18"w, 24"w, 30"w, 36"w, 42"w, 48"w, 60"w, and 72"w
- A HCB block connector allows junction for up to four jumpers, or three jumpers and an infeed.
- **Note:** Jumper connector should be placed evenly between power boxes, to maintain consistent jumper lengths.



Infeeds

- Types: liquid tight, metal conduit, NYC, quick disconnect, or plug and play. **Note:** Plug and play infeed limits system, must use all circuit I duplexes.
- Lengths: All infeeds are 6' long, except for quick disconnect which attaches directly to the wall.
- **Note:** When infeeds are starting between power boxes, in the middle of a station, utilize the HCB H block.

Power types

3 circuit / 5 wire

- Used in worksurface mounted applications only
- **Note:** Power box, brackets, duplexes, jumpers, connectors, and infeeds specified separately

Mounting

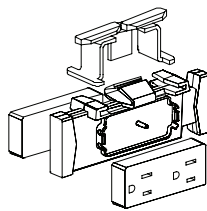
- Power blocks are connected to the underside of a surface with a PBBKTA2 bracket (specified separately). Duplexes then attach to the power blocks (specified separately).

Duplexes

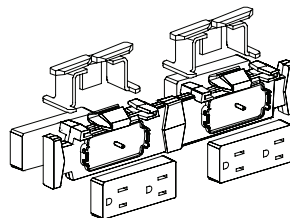
- Circuits I, II, and III
- 15 amp circuits, UL listed

Power blocks

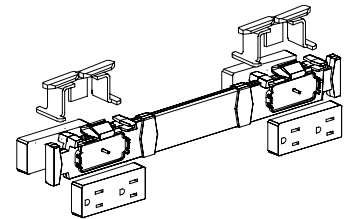
- Power block widths:
 - Single: 6"w
 - Double: 12"w
 - Extended double: 18"w, 24"w, 30"w
- All power blocks are double sided. A single power block will hold (2) duplexes. The double and extended double power block will hold (4) duplexes.
- **Note:** Duplex power box is double sided, but does not require duplexes on both sides.



Single duplex box



Double duplex box



Extended double duplex box

Jumpers

- Lengths: 12"w, 18"w, 24"w, 30"w, 36"w, 42"w, 48"w, 60"w, and 72"w
- Jumper connectors are not available for 3 circuit / 5 wire systems. If distance is greater than 72", utilize the extended duplex power block, or add an additional power block. (**Figure A**)

Infeeds

- Types: liquid tight, metal conduit, NYC, plug and play. **Note:** Plug and play infeed limits system, must use all circuit I duplexes.
- Lengths: liquid and metal infeeds are 10', NYC code and plug and play infeeds are 6' long.
- Infeed can connect directly into the power box at the end of a run (**Figure A**)
- **Note:** When infeeds are starting between power boxes, in the middle of a station, utilize the YCB5 Y connector (**Figure B**). Single side of the Y connector attaches directly into the power box end, the opposite end is a connection point for an infeed and jumper.

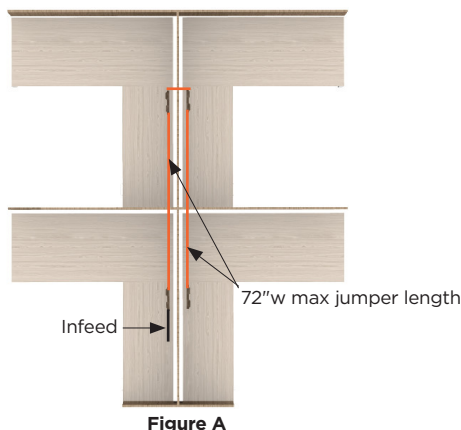


Figure A

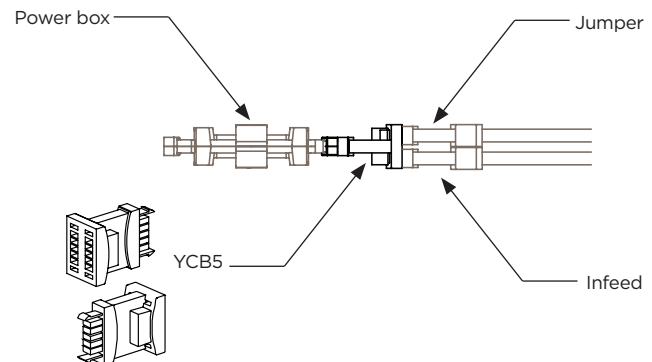


Figure B

Power types

4 circuit / 8 wire

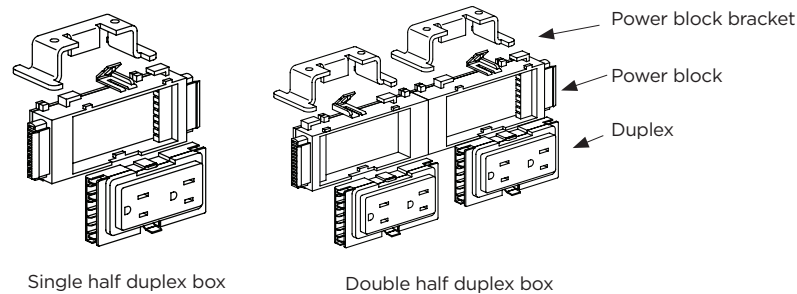
- Used in worksurface mounted, panel mounted, or power channel applications.
- Power box, brackets, duplexes, jumpers, connectors, and infeeds specified separately
- **Note:** Power channel includes power box

Duplexes

- Circuits I, II, III, and IV
- 15 amp circuits, UL listed

Worksurface mounted

- Single half and a double half power blocks are connected to the underside of a surface with a PBBKT1 bracket (specified separately). Duplexes then attach to the power block (specified separately).
- **Note:** There are also single and double power blocks, which are double sided, but are not to be used along panels in open plan applications.



Panel mounted

- Single half and a double half power blocks are connected to the underside of a surface with a PBBKT1 bracket (specified separately). Duplexes then attach to the power block (specified separately).
- **Note:** There are also single and double power blocks, which are double sided, but are not to be used along panels in open plan applications.

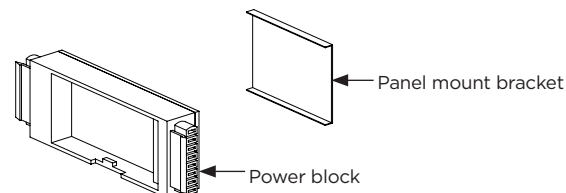


Figure ?

Power types

4 circuit / 8 wire, continued

Jumpers

- **Note:** Jumpers differ between power applications, items cannot be mixed.
- Worksurface and panel mounted jumpers: lengths from 8" w to 84" w.
- Power channel jumpers: lengths from 12" w to 120" w.
- When a span between two power blocks is greater than the longest jumper available, two jumpers can be connected together using a JC-2 jumper connector. (**Figure A**)
- A HCB2 H block allows junction connection for up to four jumpers, or three jumpers and an infeed. (**Figure B**)
- **Note:** Jumper connector should be placed evenly between power blocks to maintain consistent jumper lengths.

Infeeds

- Types: liquid tight, metal conduit, NYC, Title 24 (worksurface or panel mount applications only), quick disconnect, or plug and play. **Note:** Plug and play infeed limits system, must use all circuit I duplexes.
- Lengths: liquid and metal infeeds are 10', NYC code and plug and play infeeds are 6' long, quick disconnect attaches directly to the wall
- Infeed can connect directly into the power box at the end of a run. (**Figure A**)
- **Note:** When infeeds are starting between power boxes, in the middle of a station, utilize the HCB H block. (**Figure B**)

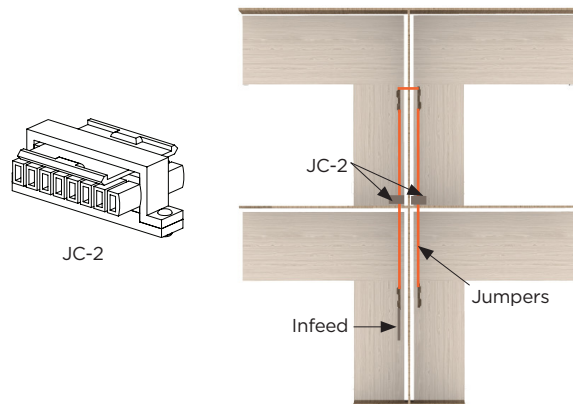


Figure A

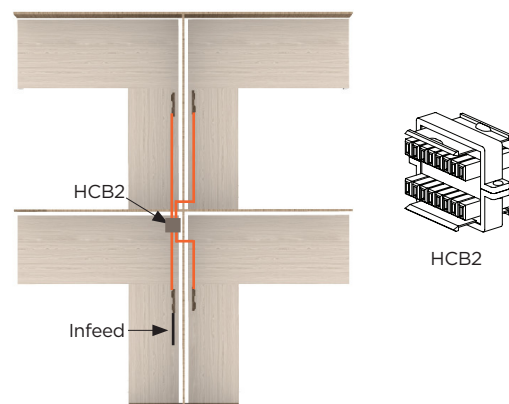


Figure B

Power types

Chicago power

- OFS does not supply power components for areas that require Chicago power code.
- Chicago electrics wiring restrictions that require that all wiring and connections be supplied and connected by a licensed electrician.
- A PWF3M120 infeed may be used if requested by the electrician.
- Electrician supplied power/junction boxes can be installed directly to Staks work panels, at any height. Recommended installation would be along the floor, or just below the worksurface.
- For power channel application, junction box will be included

New York City Code

- Infeeds available for all circuit systems.
- Concealed power components are available under premium power.

Title 24

- DPX8WCT duplexes. Duplex available as circuit I, II, III, or IV. (Circuit IV is isolated and dedicated).

Data

- Staks offers a data box (DM1) that comes with a variety of openings to accommodate a variety of inserts.
- As standard, we offer voice (RJ-5) and data (RJ-45) modules to work with these units. RJ-5 and RJ-45 would use FFF insert. **Note:** Specified separately.
- Additional modules would be supplied by the specifier or end user.
- This data box can be placed anywhere under a surface. We also offer modular desktop power units that can accommodate data ports.
- As an alternative option, the end user may wish to supply their own data items. Because of the flexibility of Staks, they would also be able to place their own units anywhere along the underside of a Staks surface.
- **Note:** The below inserts are also supplied when data is specified on a power channel.

DM1 data box



Top view



Front view



Back view

Inserts



BBB

EEE

DDD

CCC

FFF

HHH

Power application overview

- Power types include: worksurface mounted, panel mounted, concealed power
- These different options are best used in specific situations.
- Regardless of type, all power is easily accessible should maintenance be required.
- Circuit options vary by application, but include: 2 circuit/4 wire, 3 circuit/5 wire, 4 circuit/8 wire.
- A separate [data box](#) (DM1) can be installed on the underside of a static worksurface, attached to a Staks panel, or the end user may choose to supply their own. **Note:** Power channels include an option for a concealed data cutout.

Worksurface mounted (Figure A)

- Easy access power for static worksurface applications.
- Circuit types: 2 circuit/4 wire, 3 circuit/5 wire, 4 circuit/8 wire.
- Worksurface power mounts directly to the underside of a static worksurface, at the back. It is recommended to maintain a 1 ½" gap between the worksurface and wall panel for wire management. If a worksurface is flushed to the panel, a grommet would be required for surface power to access the duplex below the worksurface.
- **Note:** 2 circuit/4 wire duplex can also be panel mounted.

Panel mounted (Figure B)

- Easy access power for height adjustable worksurface applications.
- Circuit types: 2 circuit/4 wire, 4 circuit/8 wire.
- Panel mounted power is primarily used in height adjustable applications, when minimal power is required.
- 2 circuit/4 wire utilizes standard model also used in worksurface mounted application.
- 4 circuit/8 wire [PMPHBS1](#) includes a single half power block and mounting clip to mount directly to a Staks wall panel.
- Panel mounted PET wire manager is required to conceal jumpers between stations.
- The duplex can sit between two PET wire managers, or behind it.

Panel channel (Figure C)

- Concealed power can be used in static or height adjustable applications, when all power components want to be concealed.
- Circuit types: 4 circuit/8 wire, Chicago code.
- Power panels can be specified with one or two duplex cutouts. **Note:** Chicago code only available with single duplex options.

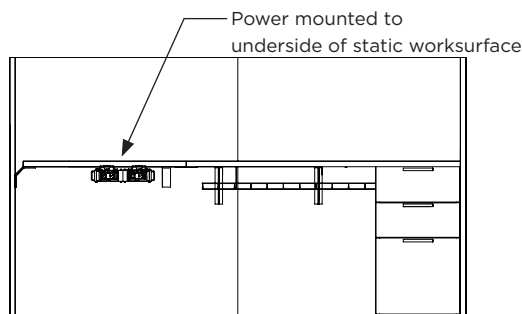


Figure A

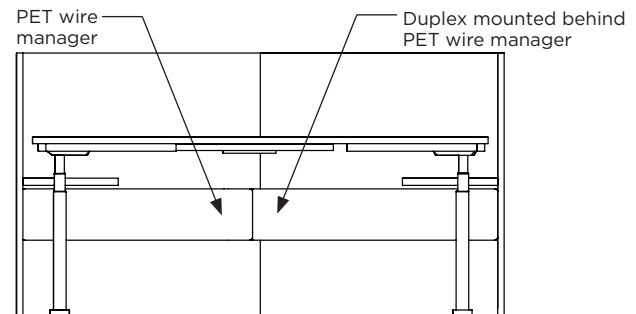


Figure B

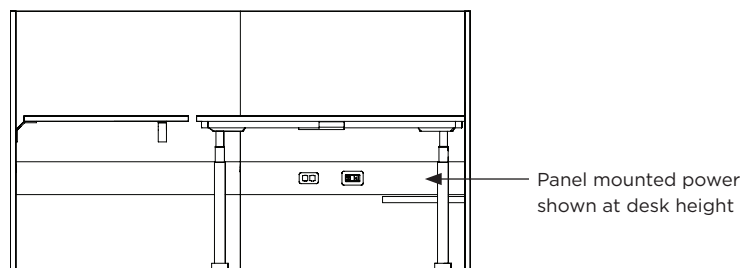


Figure C

Worksurface mounted power

General

- For 2 circuit/4 wire, 3 circuit/5 wire, or 4 circuit/8 wire applications.
- Duplexes mount to the underside of a static worksurface along the back by the spine wall using a power box and a power box bracket. **Note:** Mounting bracket will vary by power type.
- **Note:** When specifying worksurface power, at least one static worksurface must be specified.

Power block/duplex placement

- Place duplexes and power blocks in consistent location for each user to maintain equal jumper lengths.
- Recommended location for power would be along the spine wall, where the two surface seams connect. This location would be most accessible for the end user.
- Duplexes can be placed on either the main (**Figure A**) or return (**Figure B**) worksurface. This area is typically most accessible for the user.

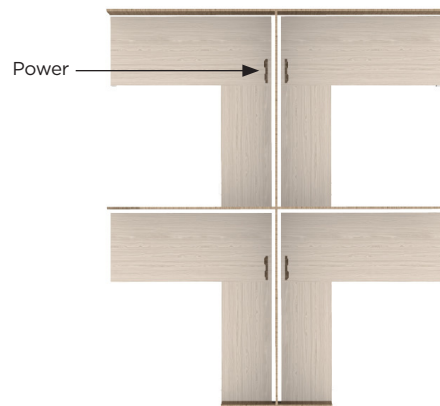


Figure A

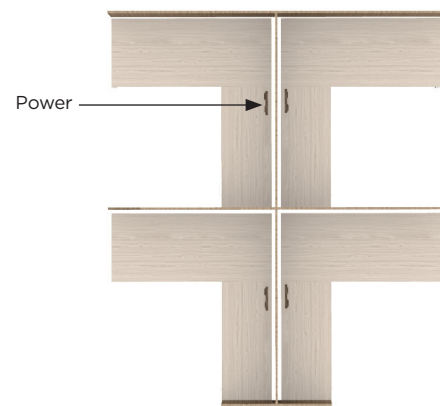
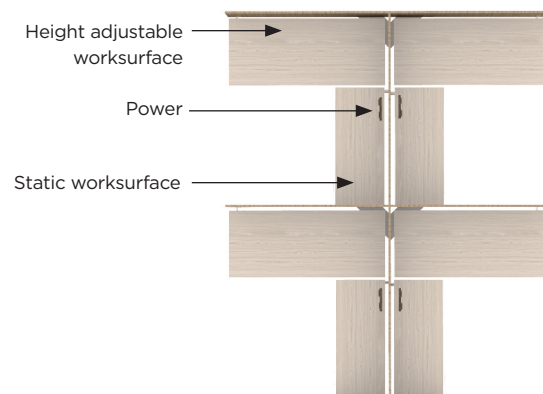


Figure B

Height adjustable worksurface applications

- Recommended location would be on a static return surface, close to height adjustable table seam.
- **Note:** Do not install power boxes on height adjustable worksurfaces. Raising the worksurface will over extend the jumpers and cause damage to power items.



Worksurface mounted power, continued

Jumper planning

- To maintain equal jumper lengths, place power blocks in same location for all users.
- When using a jumper to connect back to back power blocks divided by a spine wall, connecting jumper should 18"w. (**Figure A**)
- Max jumper length is 84"w.
- When a span between two power blocks is greater than 84"w, two jumpers can be connected together using a JC-2 jumper connector.

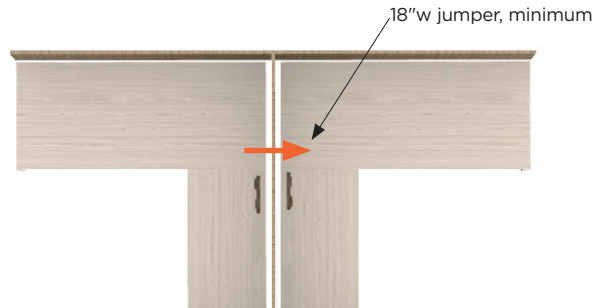
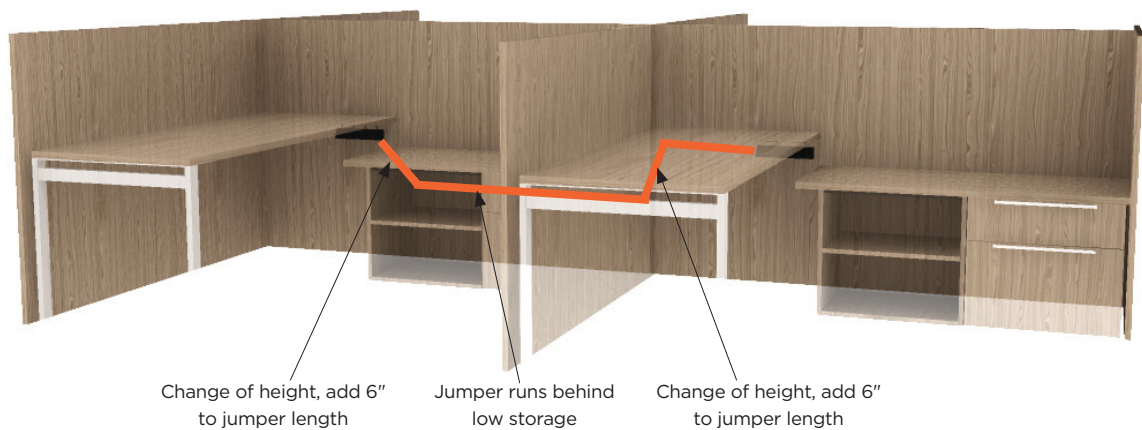


Figure A

Desk to low height jumper lengths

- When powering duplexes between desk to low height applications, a minimum of 6" must be added to the jumper length for each change of height.



Worksurface mounted power, continued

Jumper and wire management

- **Note:** Jumpers will run through panel walls by adding field cut grommet holes. Specify [DSCGB-1](#) grommet cover to conceal the raw edges of the panel cutout.
- Jumpers can be secured in a variety of ways to suit the end users needs. At minimum, jumpers can rest on cantilevers and pedestal to wall support brackets, though you may desire additional wire management items for aesthetic purposes. Refer to below wire management suggestions.

Under surface managers

- Wire baskets allow jumpers can rest within the basket, or be attached to the vertical posts or exterior of the basket using Velcro strips. The latter is suggested as to maintain wire management space with the basket for the end user. (**Figure A**)
- PET managers can conceal jumpers and cords underneath the worksurface. **Note:** There is not separation for cords and jumpers in this application.



Figure A

Cable clamps

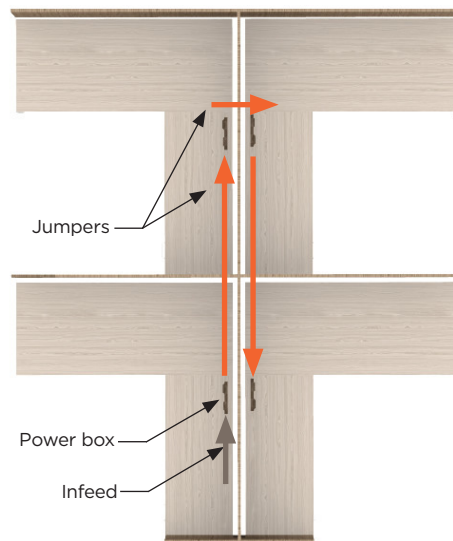
- While OFS does not supply this item, a cable clamp can be specified from a third party to manage cables. This would attach the jumper directly to the bottom of the surface.
- **Note:** Additional jumper length may be needed if jumpers are not run in a straight line. Order cable clamp diameter size based on diameter of jumper and/or cables combined.



Worksurface mounted power, continued

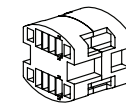
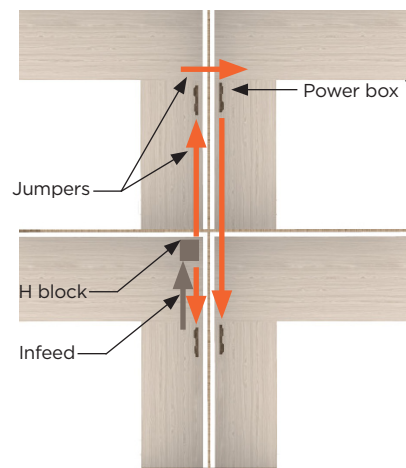
Infeed planning - end of run

- When power starts at the end of a run, the most direct way to run power is in horseshoe type layout as indicated by the arrows in the below image
- The infeed will attach to the end power box, and the jumpers will carry on in a straight line, crossing to the other side of the station through the spine panel, and then continue back down the typical

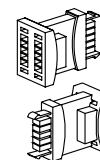


Infeed planning - middle of run

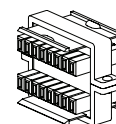
- When power starts at the middle of a run, from a floor core inside of the station, it is best to utilize an H block or Y block, and run the power jumpers to the power blocks as indicated by the arrows.
- Note:** YCB5 connects directly to the power block. See [3 circuit/5 wire](#) section
- When using an H block, the infeed will connect to one of the four connection points on the H block. A shorter jumper will connect the H block to the closest power block. A second jumper will connect the H block to the power block at the top of the station. From there, you will cross over to the next power box, and then connect the two power boxes with a longer jumper.
- Note:** Wire baskets or cable clamp should be used to help the jumper and power infeed attach cleanly under the worksurface. See [jumper](#) and [infeed](#) management sections.



HCB - 2 circuit/4 wire



YCB5 - 3 circuit/5 wire



HCB2 - 4 circuit/8 wire

Worksurface mounted power, continued

Infeed management - floor core behind pedestal

- There can be up to 4" of space behind the pedestal to the wall panel for wire management.
- This space is achieved when specifying 19"d pedestals on a 22"d worksurface, with a 1.5" wire management gap.

Infeed management - floor core under pedestal

- When a floor core and storage pedestal are in the same location, it is recommended to specify a low height pedestal on the 3.5"h metal legs. **Note:** A 90° connector is recommended for this application, and would be installed by the electrician when connecting the infeed to the floor core.

Floor core in middle of station

- When a floor core is located inside of the station where it will be viewed, a vertical wire manager is recommended to be used to cover the infeed and data cords that will run vertically from the floor core to the underside of the worksurface.



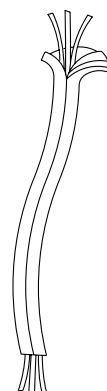
Floor core under pedestal



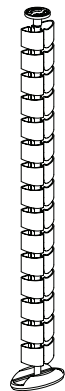
Floor core in middle of station

Vertical wire managers

- The following vertical wire managers can be used to conceal infeed and data cords that are visible inside of the station
 - WM-HA6: Fabric wire manager that secures around cords with Velcro strip. Can be field cut as needed.
 - CMV-AL: Vertebra wire manager will only house data wires and small cords, infeed would need to be secured to the exterior of this wire manager.
 - VCWM4 used for medium duty cabling.
 - VCWM5 used for heavy duty cabling.
- **Note:** CMV-AL, VCWM4 and VCWM5 connect to underside of worksurface.



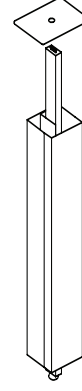
WM-HA6



CMV-AL



VCWM4



VCWM5

Panel mount

General

- For 2 circuit/4 wire or 4 circuit/8 wire applications
- Typically used with height adjustable components when there is not a static worksurface available to attach power.
- Power can be mounted along the panel at any height

Power block

- 2 circuit duplexes attach directly to the panel mount clip, no power box required. **(Figure A)**
- 4 circuit PMPHBS1 single power block includes a bracket to mount anywhere on a vertical panel. Duplex specified separately. **(Figure B)**
- Jumpers, infeeds and connectors specified separately.
- **Note:** Place duplexes and power blocks in consistent location for each user to maintain consistent jumper lengths.

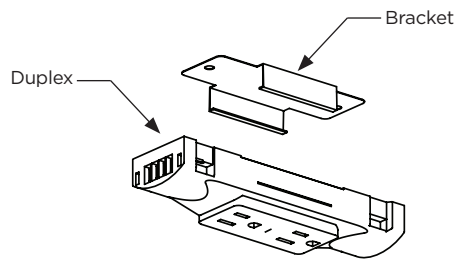


Figure A
2 circuit / 4 wire

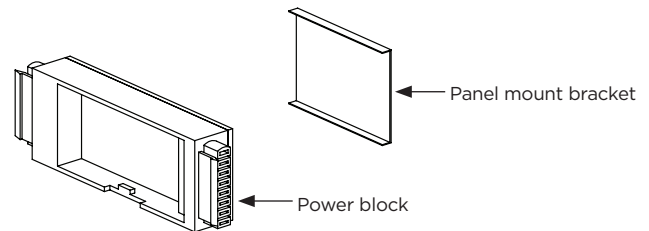


Figure B
3 circuit / 5 wire

Jumper planning

- When planning jumper connections, best practice is to create a continuous jumper chain loop. **(Figure A)**
- PET trays are typically used for undersurface wire management, but they can also be mounted to the panel to manage jumper and data cables along the spine wall. Doing so allows you to completely conceal the jumper and data cables. **(Figure B)**

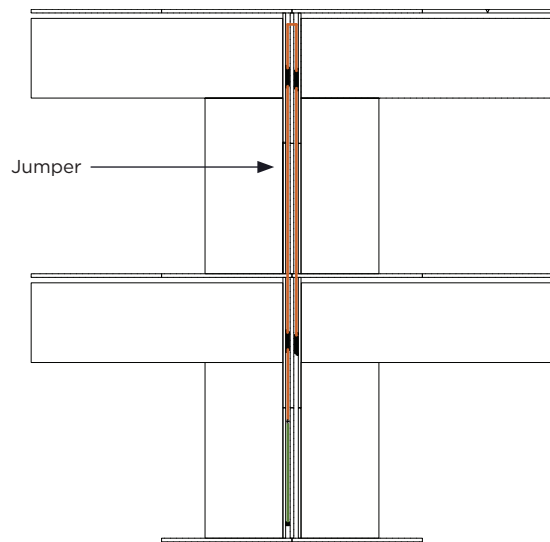


Figure A

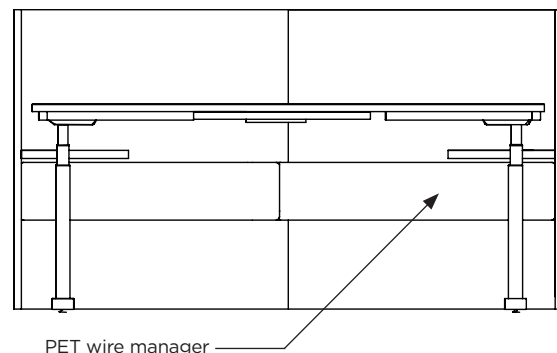


Figure B

Power channel

General

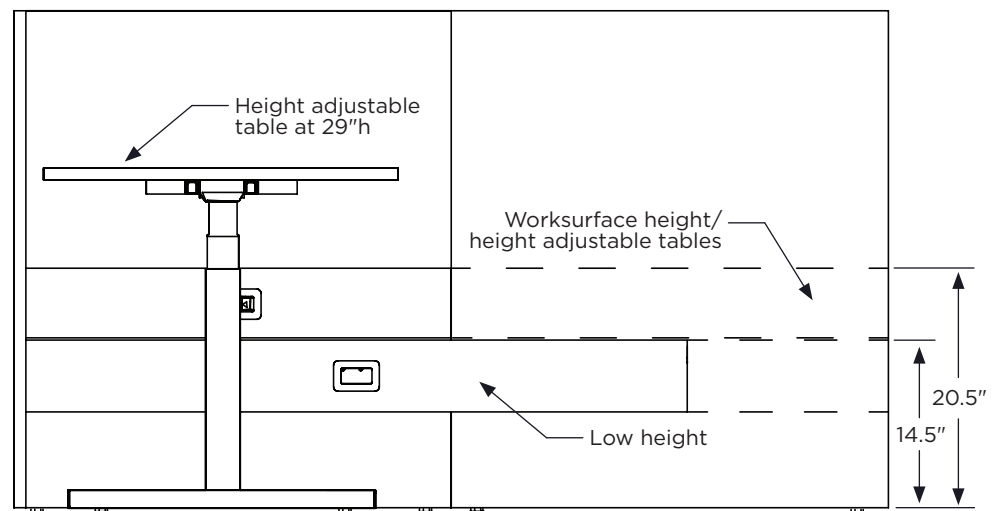
- For 4 circuit/8 wire or Chicago code applications
- **Note:** The power channel is intended to be used when no static surfaces are available, such as a height adjustable application.

Overview

- Power channel sits 2" from the panel wall. Be sure height adjustable components are clear of the area.
- Power channels are available as TFL or veneer, in widths from 11 ½"-59"w.
- **Note:** Width specified is nominal. Power channel actual width will be ⅛" less than the width specified.
- Power channel is standard as pass through channel with no cutouts, or can be specified with single or double cutouts for 4 circuit/8 wire duplexes or single cutouts for Chicago code.
- Optional data port opening available. Data option will include various insert connections. See data [insert section](#) for more information.
- Power channel includes power boxes when duplex cutouts are specified.
- Duplexes, jumpers, and infeeds specified separately.
- All jumpers and data cords are concealed behind the power channel.
- Optional brush strip to conceal power channel top.
- **Note:** To manage jumpers through channels, field cut grommets will be required prior to panel set up. Review the power channel section in the [Staks assembly guide](#) for more information.

Mounting heights

- Desk height or height adjustable worksurface - 20 ½" from floor to channel top
- Low height worksurface - 14 ½" from floor to channel top
- Power channels can span across a panel seam, they are not required to match the panel width.
- **Note:** When specifying power channel with corner shelf supports, the corner shelf support should be installed at the below heights per application type:
 - Desk height power channel, with or without HAWPB height adjustable leg to panel bracket: install corner shelf 13 ½" from bottom of panel.
 - Low height power channel, with HAWPB height adjustable leg to panel bracket: install corner shelf 18 ½" from bottom of panel.
 - Low height power channel, no HAWPB height adjustable leg to panel bracket: install corner shelf 17" from bottom of panel.



Power channel

Jumper planning

- When planning jumper connections, best practice is to create a continuous jumper chain loop. (**Figure A**)
- Jumper lengths must be precise when connecting power channels. Lengths needed vary based on power channel width and cutout locations (**Figure B**). When determining length round to the nearest fraction.
- When a jumper turns a corner, $3\frac{1}{2}$ " of additional length should be added to the A and B measurements (**Figure C**). **Note:** When creating "L" power channel applications for multiple users, additional jumpers and infeeds may be required.

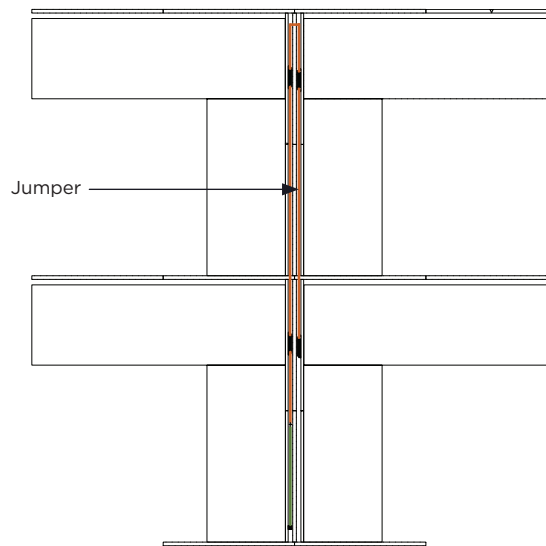
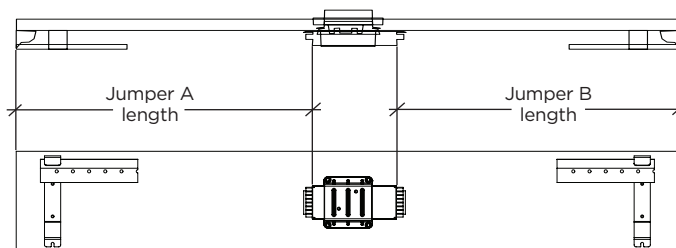
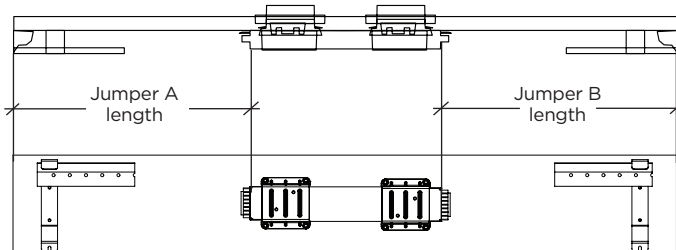


Figure A



Single duplex



Double duplex

Figure B
plan and elevation view

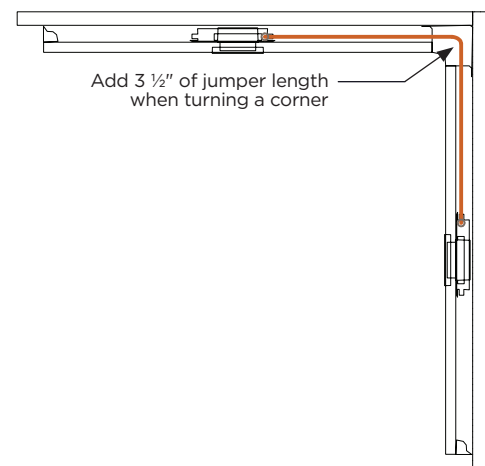


Figure C

Power channel

H block

- An H block is used when power jumpers need to run in different directions at the infeed start location (**Figure A**), or when on the opposing panel sides (**Figure B**).
- When using an H block, the infeed and/or jumpers will connect to one of the four connection points on the H block. The first jumper will connect the H block to the closest power block, a second jumper will connect the H block to the next power block at the opposing end.
- **Note:** When an H block is required to connect power on opposing sides, then a rectangular cutout must be field cut into the panel for the H block. See power channel section in [Staks assembly guide](#).

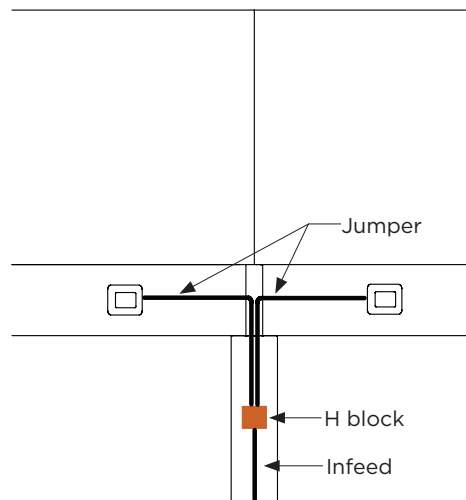


Figure A
shown at corner connection

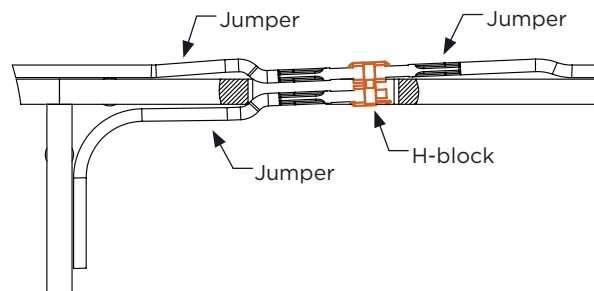


Figure B

Power channel

Cutout location overview

- Power channel is standard with no cutouts. Use these as a pass through channel.
- Single (**Figure A**) and double (**Figure B**) duplex cutout locations are centered on the channel. Double cutout locations are 6" apart, center to center.
- **Note:** Chicago code only available with single cutout.
- Data cutout is located 8" from nearest duplex, center to center. This can be specified on the right (**Figure C**) or left (**Figure D**) side.

Cutout location by channel width

- Data only - any channel width
- Single duplex no data - channel to be at least 18 ½"w
- Single duplex with data - channel to be at least 24 ½"w
- Double duplex no data - channel to be at least 24 ½"w
- Double duplex with data - channel to be at least 30 ½"w

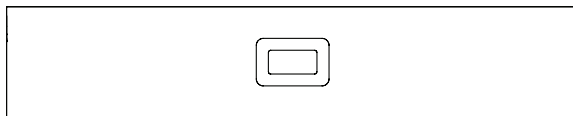


Figure A

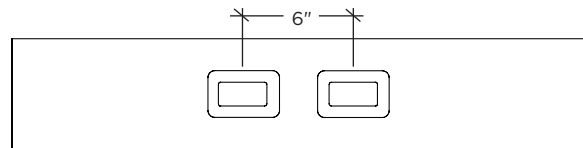


Figure B

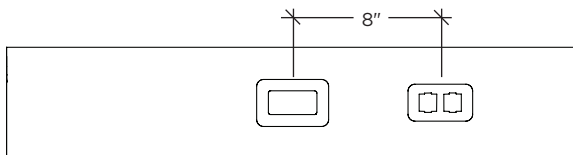


Figure C

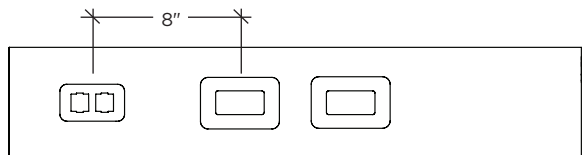


Figure D

Data

- Data can be housed by specifying **WM3-4** wire manager. This is a single 4"w plastic wire manager that will mount to the Staks wall panel, towards the bottom of the channel, using double sided tape. (**Figure A**)
- Two wire managers are recommended per power channel.
- The WM3-4 can house up to 10 data cables. (**Figure B**)
- See [data page](#) for insert types available.

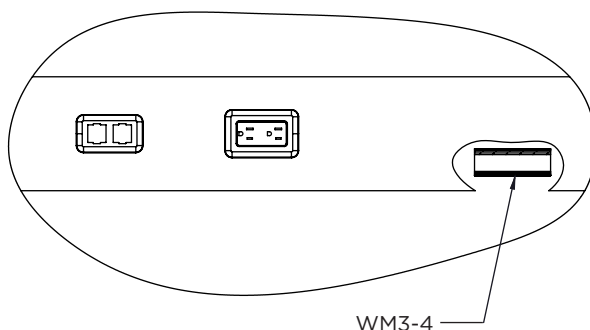


Figure A

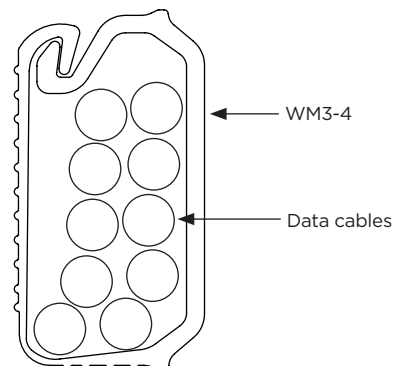
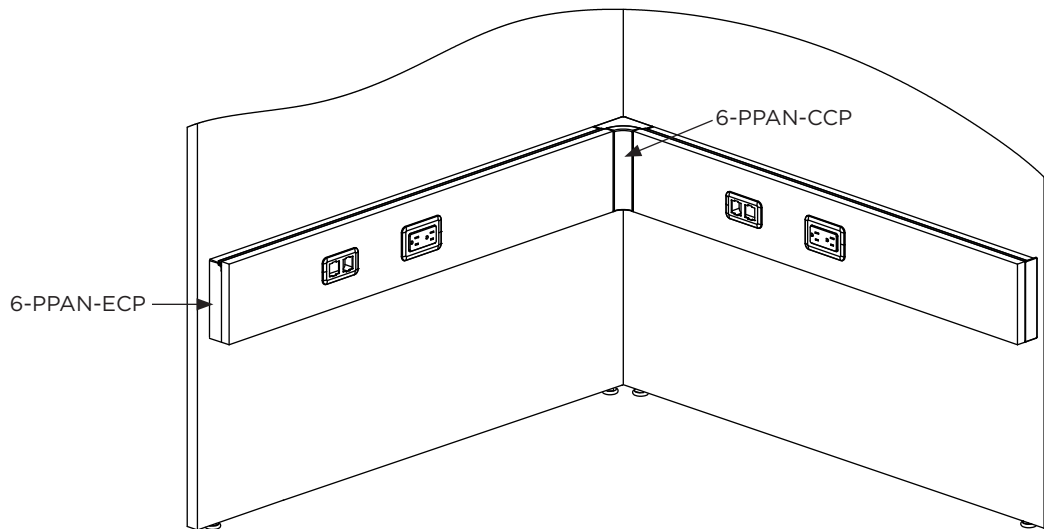


Figure B

Power channel

End and corner caps

- For exposed ends on a power channel, a **6-PPAN-ECP** can be specified. This cap is black and would be flush with the end of the channel.
- To connect power channels at a corner, a **6-PPAN-CCP** can be specified. This cap is black and is 3"x3".



Infeed managers

- When infeeds are located by a corner cap, specify **6-PPAN-CWM** infeed manager. **Note:** This infeed manager can only be used with a 6-PPAN-CCP corner cap.
- For all other infeed locations, specify **6-PPAN-SWM** straight infeed manager. **Note:** This straight infeed manager must be placed at least 4 1/2" from the duplex power box to ensure room for the infeed to connect to the power box end. Otherwise, this wire manager can be placed anywhere along the power channel width.

