

# lighting, electrics & communications

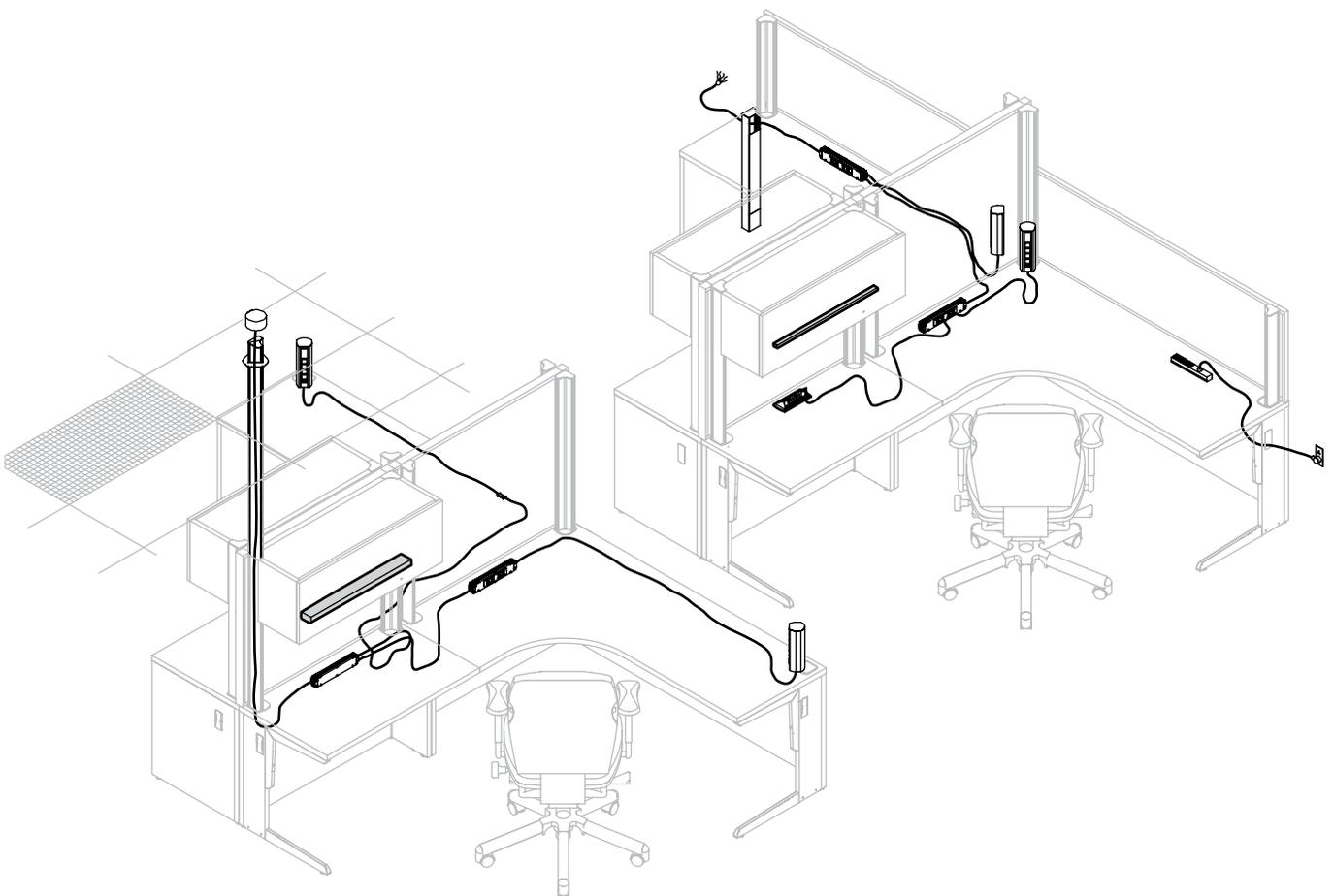
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# lighting, electrics & communications overview

Particular attention should be paid to the correct selection of electrical components. You should follow the steps given on this page.

- 1 Select the workstation configuration (Modular Desks or Spine Desks)
- 2 Select the appropriate power outlets and plug-ins for your particular workstation configuration. A variety of products are available to provide access to power and communications under or above the worksurface
- 3 Choose between the six shielded wiring systems:
  - The four-wire system (4B) has two standard circuits.
  - The five-wire system (5D) has three standard circuits.
  - The seven-wire system (7G) has two standard circuits and one isolated circuit.
  - The eight-wire system (8N) has two standard circuits with separate neutrals and one isolated circuit.
  - The eight-wire system (8T) has three standard circuits and one isolated circuit.
  - The eight-wire system (8K) has two standard circuits and two isolated circuits.
- 4 Determine the number of power sources required and their location, then select the required feed (base or ceiling)
- 5 Select the required products to connect power components

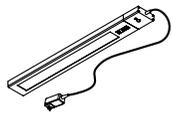
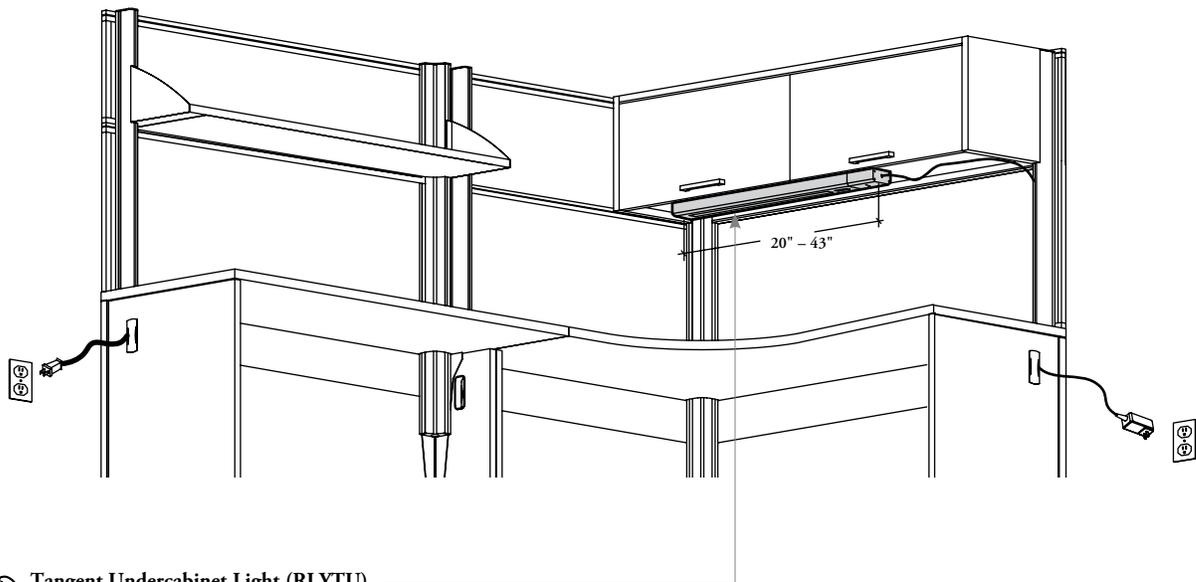


## lighting basics

Expansion Desking's lighting solutions answer all task illumination needs. LED strips provide high quality lighting over the worksurface.

- All dimensions are actual, except for Linear LED Light
- To route power to the worksurface of a Modular Desk, light cords can be affixed to the mounted storage underside using wire clips and then be concealed in the structural column with the provided plastic extrusion
- Check local codes for potential limits or restrictions on products and local authority approval may be required prior to use
- Some jurisdictions require Resettable Breakers. Check local codes

### tangent undercabinet light

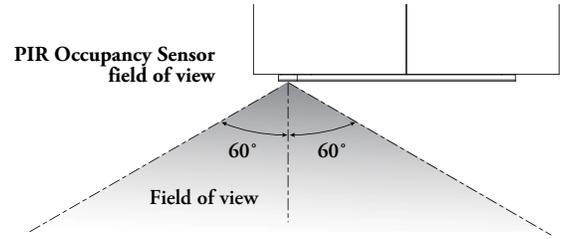
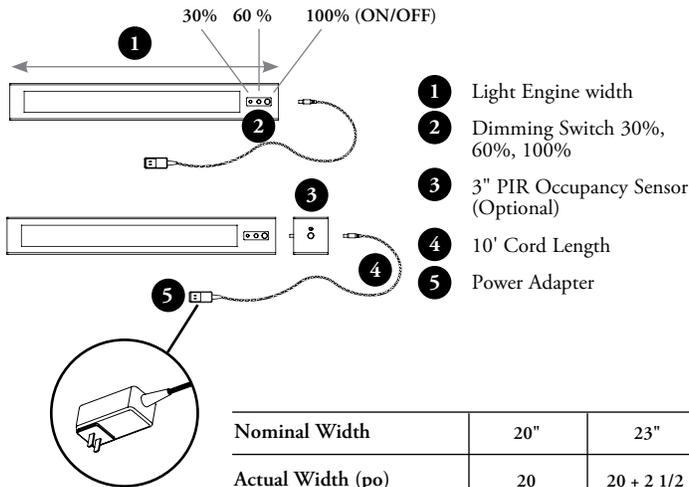


#### Tangent Undercabinet Light (RLYTU)

- Mounts to the underside of Overhead Cabinets (Shown), Solid and Metal Shelves or Elevated Desktop Cabinets
- Can be mounted under the metal shelf of mounted storage, except for solid shelves, magnetic plates with wood screws are provided for non-magnetic application
- This product includes two cord management adhesive clips
- Tangent Light is compatible with controlled wall outlets
- Finished in Clear Anodized (AC) only

# lighting basics (continued)

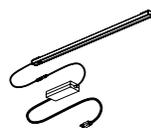
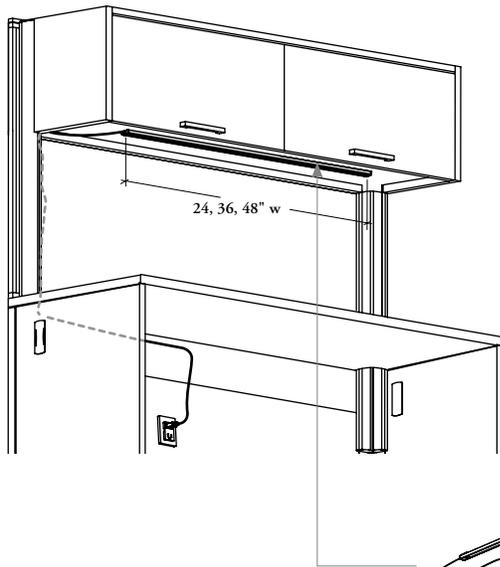
## tangent undercabinet light (continued)



When a temperature change is detected in the field of view, the PIR shut-off timer resets to 20 minutes

Nominal Width	20"	23"	30"	33"	40"	43"
Actual Width (po)	20	20 + 2 1/2	30	30 + 2 1/2	40	40 + 2 1/2
3" PIR Occupancy Sensor	n/a	Yes	n/a	Yes	n/a	Yes
Use with Cabinet Width	24" to 84"	30" to 84"	42" to 84"	42" to 84"	48" to 84"	54" to 84"
Luminosity (lm)	500	500	750	750	900	900
Power Consumption (w)	10	10	15	15	18	18

## linear LED light



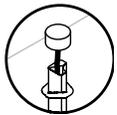
### Linear LED Light (RLED)

- Equipped with an energy-efficient strip of LEDs
- Can be magnetically mounted to the underside of Overhead (Shown), Elevated Desktop Cabinets or Shelves
- For storage products, the specified width should be one size smaller than the width of the cabinet to which it will be attached
- This product includes a 216" cord length
- Made with 95 % of recycled material. Life expectancy of 50 000 hours
- Magnetic plates with shelf-adhesive foam tape are provided for non-magnetic application
- Finished in Clear Anodized (AC) only

## power & data distribution – modular desks

Expansion Desking offers a wide variety of components for efficient and discreet management of electrical wiring and communication cables. Components can be installed to run cables from the ceiling, the floor or the wall, and power outlets and data jacks can be installed on top or under the worksurface.

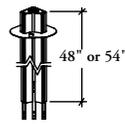
- ❗ Cable Pass-Through or grommets on the gables, full-height modesty panels, 1" Floor or 2" Freestanding Screens, freestanding storage, credenzas, and worksurfaces provide openings for routing cables from one desk to another. A structural beam under the worksurface allows cable management
- Desks and Credenzas must be linked together with appropriate hardware when sharing hard wiring
- In a Modular Desk workstation, the Modular Desk mounting option (M) must be specified for each product to get appropriate harness length or mounting hardware



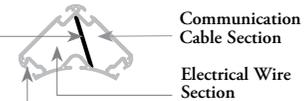
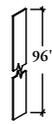
### Ceiling Feed – Modular Desk (RLDFM)

- Used in conjunction with the Power Pole (RLSP or RLPS)
- Feeds building power from the ceiling down to the workstation cluster
- Power Pole height and desk width to which it is being attached must be specified to ensure that correct length of feed is provided
- 48" and 54" lengths are adapted to the Column-Mounted Power Pole, other lengths must be used in a Lateral Power Pole attached to a gable through its grommet hole

### Column-Mounted Power Pole (RLSP)



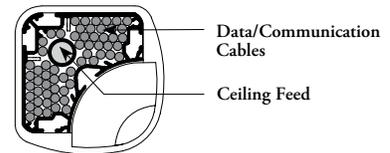
### Power Pole Divider (RLSD)



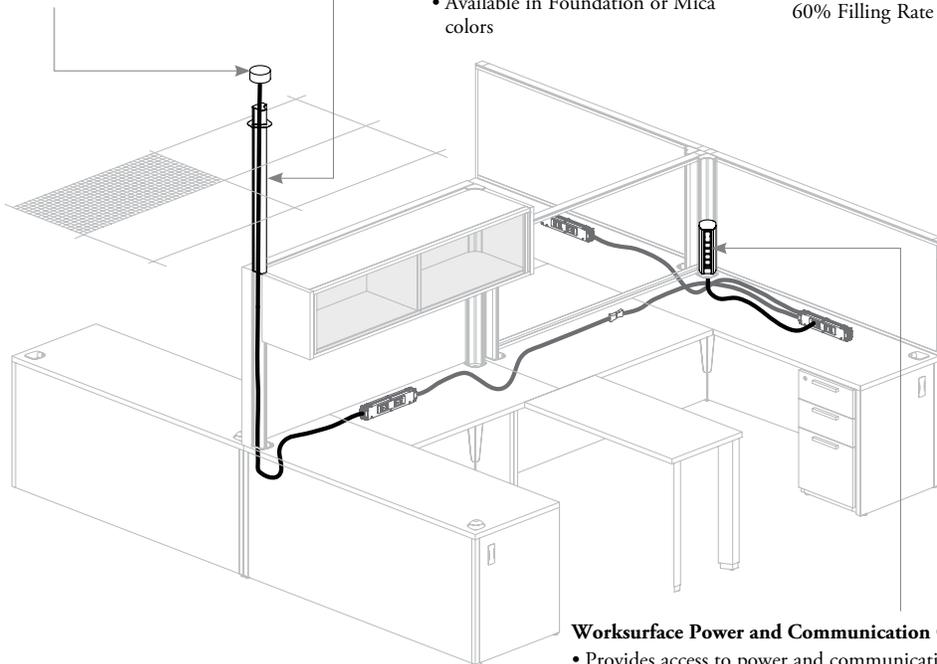
### Column-Mounted Power Pole and Power Pole Divider

- Is a channel through which building electrical and communication cables can be fed from the ceiling to workstations
- Divider can be used to separate electrical wires and communication cables
- Available in Foundation or Mica colors

### Data/Communication Cable Capacity

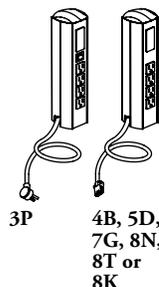


36 Data Cables Cat5 @ 60% Filling Rate



### Worksurface Power and Communication Center (RLDCC)

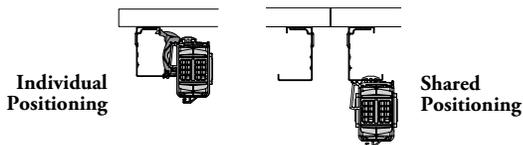
- Provides access to power and communications above worksurface
- Mounts to a desking column grommet only
- Equipped with communication opening (2.71" x 1.38"), blank faceplate and also comes with four power outlets
- The 3P option is a low-cost alternative to the 4B-, 5D-, 7G-, 8N-, 8T- and 8K-wire systems. It plugs directly into standard receptacles
- Voice/data faceplates and jacks are **not** included and must be field supplied and installed
- The 3P option comes with 72", 108" or 144" long cord. The 4B- to 8K-wire option comes with 21" to 144" long shielded wire
- Finished in Anodized Aluminum (top cap is Black)



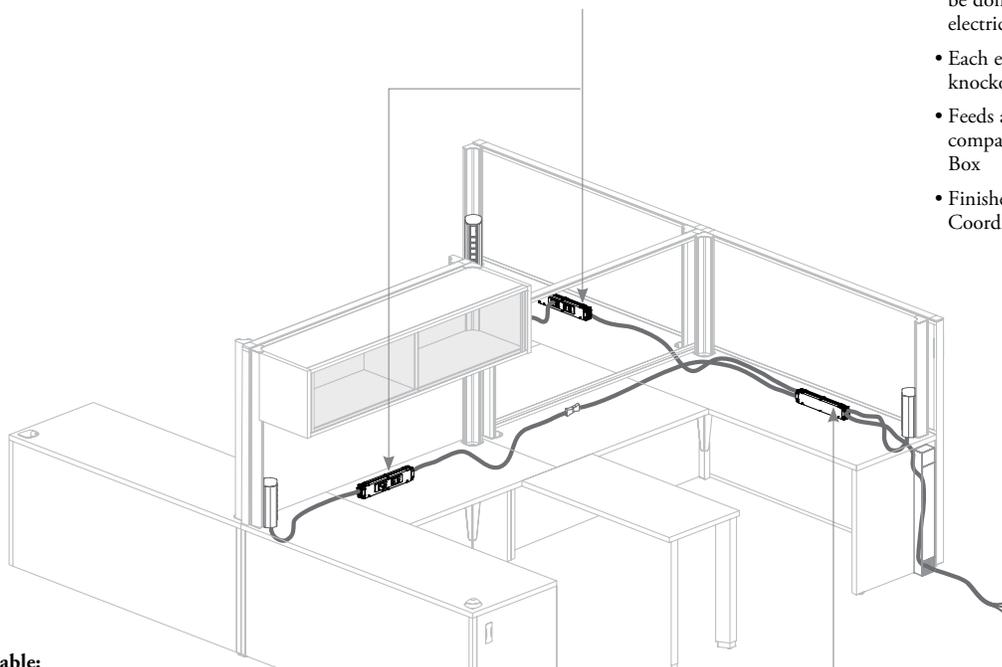
# power & data distribution – modular desks (continued)

## Power Box – Modular Desks (RLDUM, RLCUM)

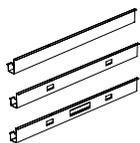
- Provides power access to the workstation
- Compatible with 36" to 84" wide desks
- Available with two black duplexes on each side (as specified). Connects up to four pieces of electrical equipment on each side
- Comes with metal brackets to mount centered on the structural beam
- Available in single- and double-sided versions for individual or shared positioning



- Shared positioning allows shared power between back-to-back desk application
- Full- or 3/4-Height Modesty Panel in top position **cannot** be used when using shared Power Box



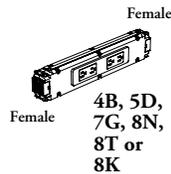
### Also available:



- No Power or Data Access
- With Data Access and No Power
- Power and Data Access

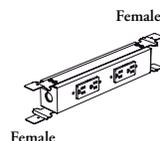
## Beam Cover (RLDEC)

- Used to hide electrical wires and communication cables
- Available with Data Access and No Power, with Power and Data Access, or No Power or Data Access
  - With Data Access and No Power is available with worksurfaces from 24" to 84" widths
  - Power and Data Access option is available from 36" to 84", but 36" width has No Data Access cut-outs
  - No Power or Data Access is available with worksurfaces from 24" to 84" widths
- Two communication openings (2.71" x 1.38") are included on 42" wide and over when specified, blank faceplates are included
- Voice/data faceplates and jacks are **not** included and must be field supplied and installed
- **Cannot** be installed in shared positioning
- Available in Foundation or Mica colors or Coordinate Colors



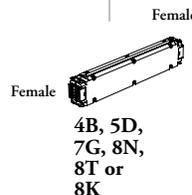
## Power Box – Modular Desks (RLDUM)

- Equipped with four female connectors in order to facilitate 1 "in" and up to 3 "outs" in a non-directional configuration
- Finished in Black



## Chicago Power Box – Modular Desks (RLCUM)

- Includes the outlets but does **not** include any connectors
- Electrical connections must be done on-site by a certified electrician
- Each end has a 1/2" trade size knockout
- Feeds and Harnesses are **not** compatible with Chicago Power Box
- Finished in a Platinum Coordinate

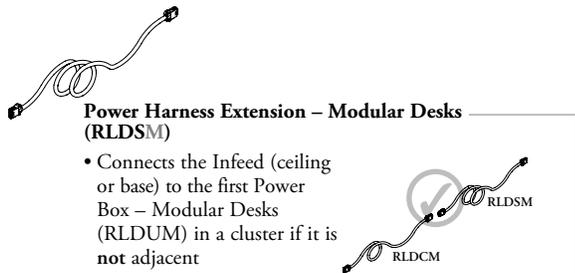


## Distribution Box (RLDSB) (See configuration 2 on page 174)

- Fits on electrical clips centered on the structural beam
- Equipped with four female connectors in order to facilitate 1 "in" and up to 3 "outs" in a non-directional configuration
- May be used as an alternative to the Power Box – Modular Desks (RLDUM) when only worksurface outlets are required (using multiple circuit Worksurface Power and Communication Center (RLDCC))
- Finished in Black

## power & data distribution – modular desks (continued)

⚠ Do not energize from more than one source, it may cause serious injury



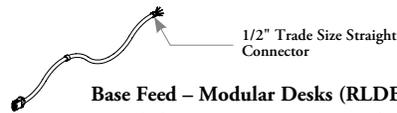
### Power Harness Extension – Modular Desks (RLDSM)

- Connects the Infeed (ceiling or base) to the first Power Box – Modular Desks (RLDUM) in a cluster if it is not adjacent
- Could be used as an extension with Power Harness – Modular Desks (RLDCM), if two Power Box – Modular Desks (RLDUM) are not adjacent and total length exceeds maximum length available
- Available in 3" increments up to a maximum length of 138"



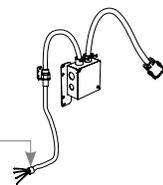
### Power Harness – Modular Desks (RLDCM)

- Connects two Power Box – Modular Desks (RLDUM)
- Available in 3" increments up to a maximum length of 156"



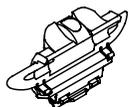
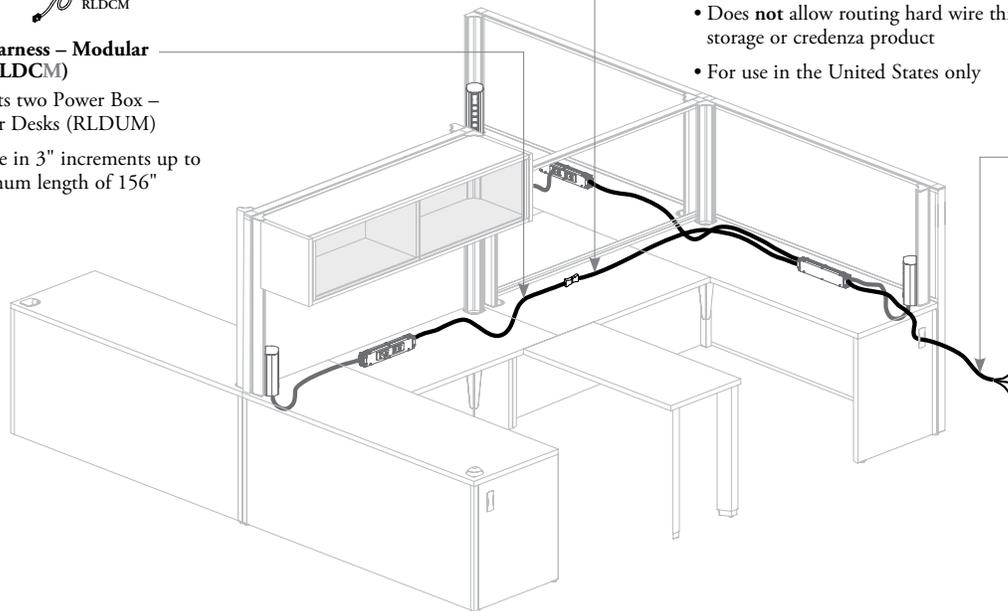
### Base Feed – Modular Desks (RLDBM)

- Used alone or in conjunction with the Lateral Power Pole (RLPS)
- Feeds building power from the floor or wall to the workstation
- Desk width to which it is being attached must be specified to ensure that correct length of feed is provided



### NYC Split Base Feed – Modular Desks (RLBSM)

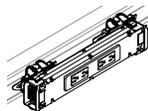
- Same as the Base Feed, except that its hard wire is split in a Junction Box for New York City wiring restrictions
- Junction Box comes with mounting bracket which must be installed underneath the desk
- Allows routing hard wire through a Lateral Power Pole mounted on the outside of the gable
- Does not allow routing hard wire through a storage or credenza product
- For use in the United States only



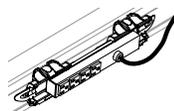
### Electrical Clips

- Come with structural beam that is provided with the desks
- Quantity varies according to the beam width:
  - 24" = 1 clip
  - 30" to 42" = 2 clips
  - 48" to 72" = 4 clips
  - 78" or 84" = 6 clips

- Allow attachment of the Power Box – Modular Desks (RLDUM) or Underworksurface Plug-In Power Bar (RLPP) on the structural beam

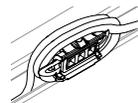


Power Box



Underworksurface Plug-In Power Bar

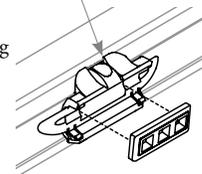
- Feature a provision to wrap the user/data cables



- The communication opening measures 2.71" x 1.38" to accommodate Voice/Data faceplates and jacks (not included)

- Finished in Black

Clip



# specifying correct power harness length – modular desks

- All harnesses can be specified in 4B, 5D, 7G, 8N, 8T and 8K shielded wiring systems
- All Power Harnesses have a nominal length for ease of specification
- When determining the proper length of Power Harness, always calculate from center to center of desk. A nominal sized harness will take into consideration the width of the Power Box
- When determining the proper length of infeed, always specify desk length

## configuration 1 – single-sided power box – modular desks

- 4B, 5D, 7G, 8N, 8T and 8K Power Box – Modular Desks
- 4B, 5D, 7G, 8N, 8T and 8K Worksurface Power and Communication Center

### Worksurface Power and Communication Center (RLDCC)

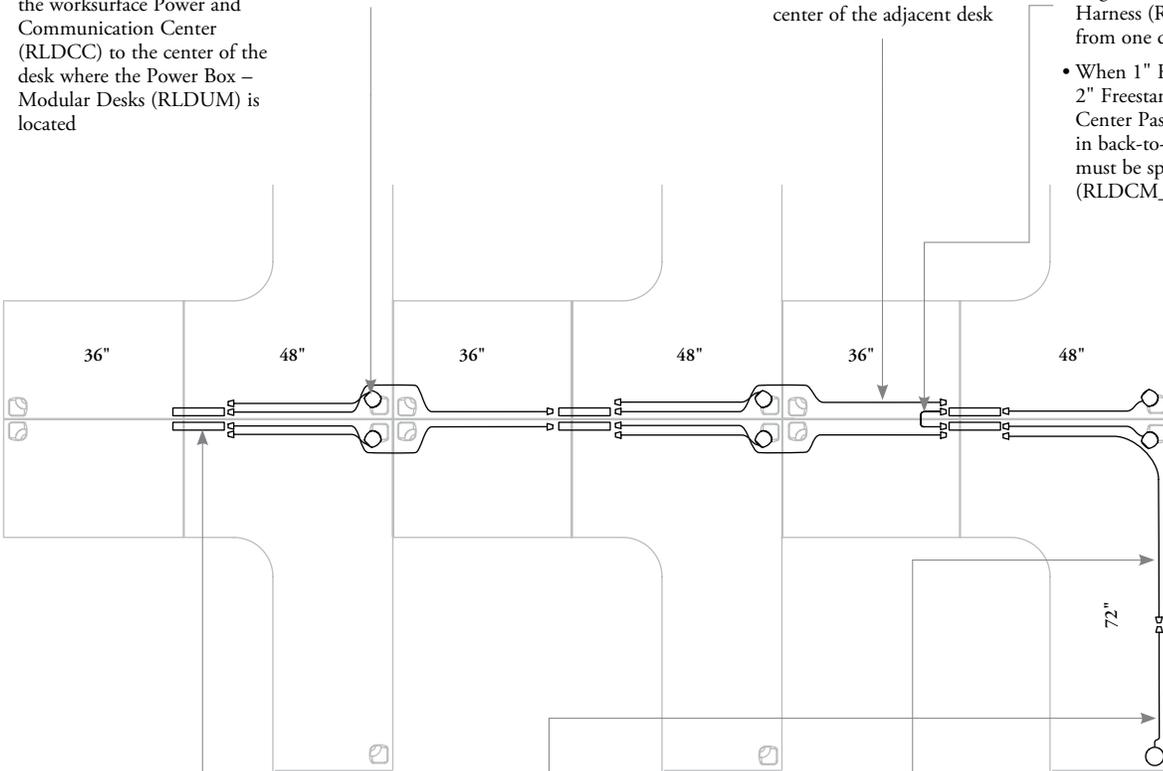
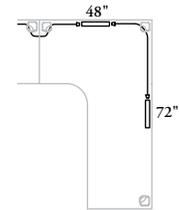
- Power Harness is **not** required to connect the Worksurface Power and Communication Center to the Power Box as this product includes the following cord length: 3P = 72", 108" or 144"; 4B, 5D, 7G, 8N, 8T and 8K = 21" to 144"
- To specify the correct length, calculate the distance from the worksurface Power and Communication Center (RLDCC) to the center of the desk where the Power Box – Modular Desks (RLDUM) is located

- If the cable has to pass through gables grommets, add 6" for every loop
- example:**
- $$(36 + 48) \div 2 = 42$$
- (RLDCC\_42)
- For 36" or 39" wide desks, the 21" cord length (RLDCC\_21) must be specified

### Power Harness – Modular Desks (RLDCM)

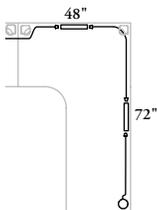
- Connects two Power Box together
- example:**
- $$(48 + 36) \div 2 = 42$$
- $$(48 + 36) \div 2 = 42$$
- 84  
(RLDCM\_84)
- To specify the correct length, calculate the dimension from the center of the desk to the center of the adjacent desk

- The center-to-center length calculation rule is also used when bending around corners
- example:**
- $$48 \div 2 = 24$$
- $$72 \div 2 = 36$$
- 60  
(RLDCM\_60)
- For back-to-back applications with single-sided power box, use Power Harness (RLDCM\_36) to pass from one desk to the other
  - When 1" Floor Screens or 2" Freestanding Screens with Center Pass-Through are used in back-to-back, Power Harness must be specified 60" long (RLDCM\_60)



### Power Box – Modular Desks (RLDUMS)

Single-Sided Outlet Configuration



### Ceiling Feed – Modular Desks (RLDFM), Base Feed – Modular Desks (RLDBM), or NYC Split Base Feed – Modular Desks (RLBSM)

- When specifying the Ceiling or Base Feed, the length of the first desk must also be specified (RLDFM\_72, RLDBM\_72 or RLBSM\_72)
- Will plug directly in Power Box (RLDUM) when power bar is located on the first desk; no Power Harness Extension (RLDSM) is required

### Power Harness Extension – Modular Desks (RLDSM)

- Must be specified to connect the Ceiling or Base Feed to the first Power Box (RLDUM) if not adjacent
  - To specify the correct length, calculate the dimension from the center of the desk to the center of the adjacent desk
- example:**
- $$(36 + 48) \div 2 = 42$$
- $$72 \div 2 = 36$$
- 78  
(RLDSH\_78)

# specifying correct power harness length – modular desks (continued)

## configuration 2 – distribution box

- 4B, 5D, 7G, 8N, 8T and 8K Distribution Box – Modular Desks
- 4B, 5D, 7G, 8N, 8T and 8K Power Box – Modular Desks (Shared Back-to-Back)
- 4B, 5D, 7G, 8N, 8T and 8K Worksurface Power and Communication Center

**Worksurface Power and Communication Center (RLDCC4B to 8K)**

Calculating the length example:

$$\begin{array}{r} 72 \div 2 = 36 \\ \text{(RLDCC\_36)} \end{array}$$

**Power Harness – Modular Desks (RLDCM\_156)**

Calculating the length example:

$$\begin{array}{r} 72 \div 2 = 36 \\ 48 = 48 \\ 48 = 48 \\ 48 \div 2 = 24 \\ \hline 156 \\ \text{(RLDCM\_156)} \end{array}$$

**Power Box – Modular Desks (RLDUMD)**

Double-Sided Outlet Configuration

**Power Harness Extension – Modular Desks (RLDSM\_72)**

Calculating the length example:

$$\begin{array}{r} 72 \div 2 = 36 \\ 72 \div 2 = 36 \\ \hline 72 \\ \text{(RLDSM\_72)} \end{array}$$

**Distribution Box – Modular Desks (RLDSM)**

If access to power is **not** required, the Power Box (RLDUM) may be replaced with a Distribution Box

**Base Feed – Modular Desks (RLDBM\_72) or**

**NYC Split Base Feed – Modular Desks (RLBSM\_72)**

**Worksurface Power and Communication Center (RLDCC4B to 8K)**

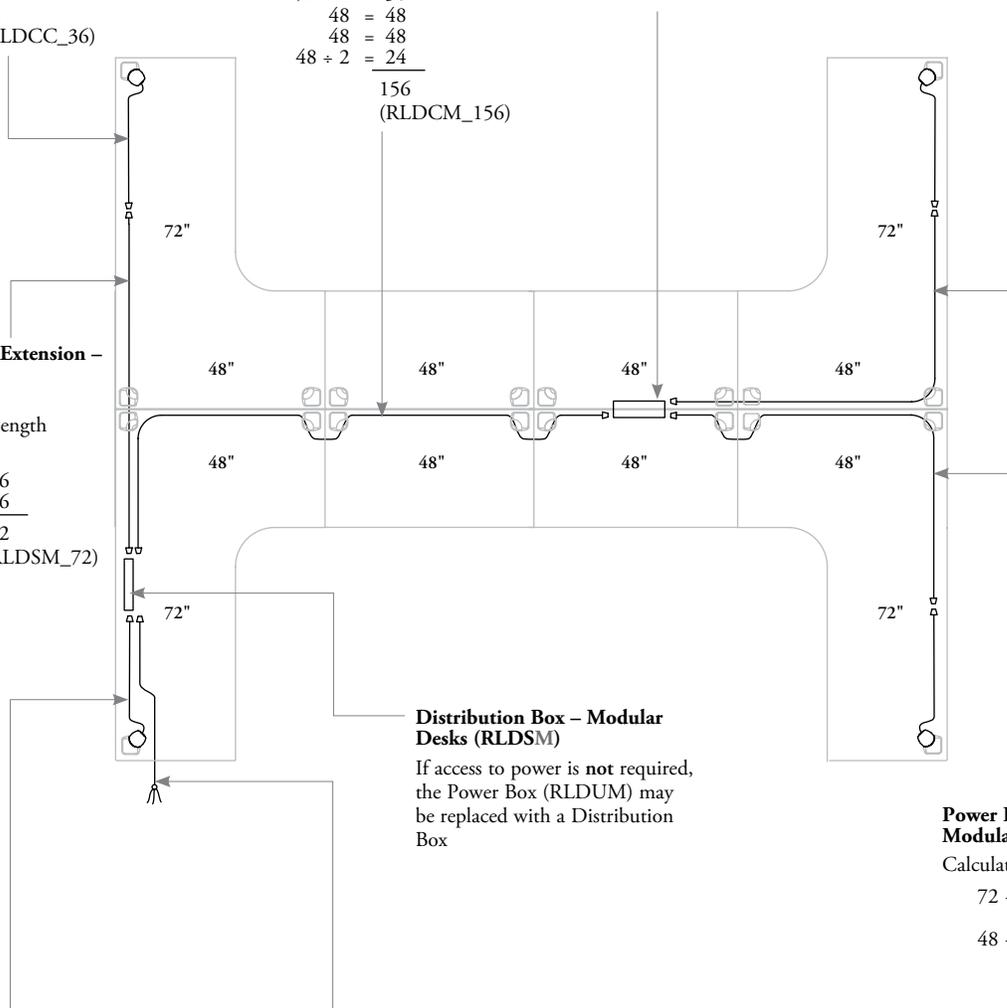
Calculating the length example:

$$\begin{array}{r} 72 \div 2 = 36 \\ \text{(RLDCC\_36)} \end{array}$$

**Power Harness Extension – Modular Desks (RLDSM)**

Calculating the length example:

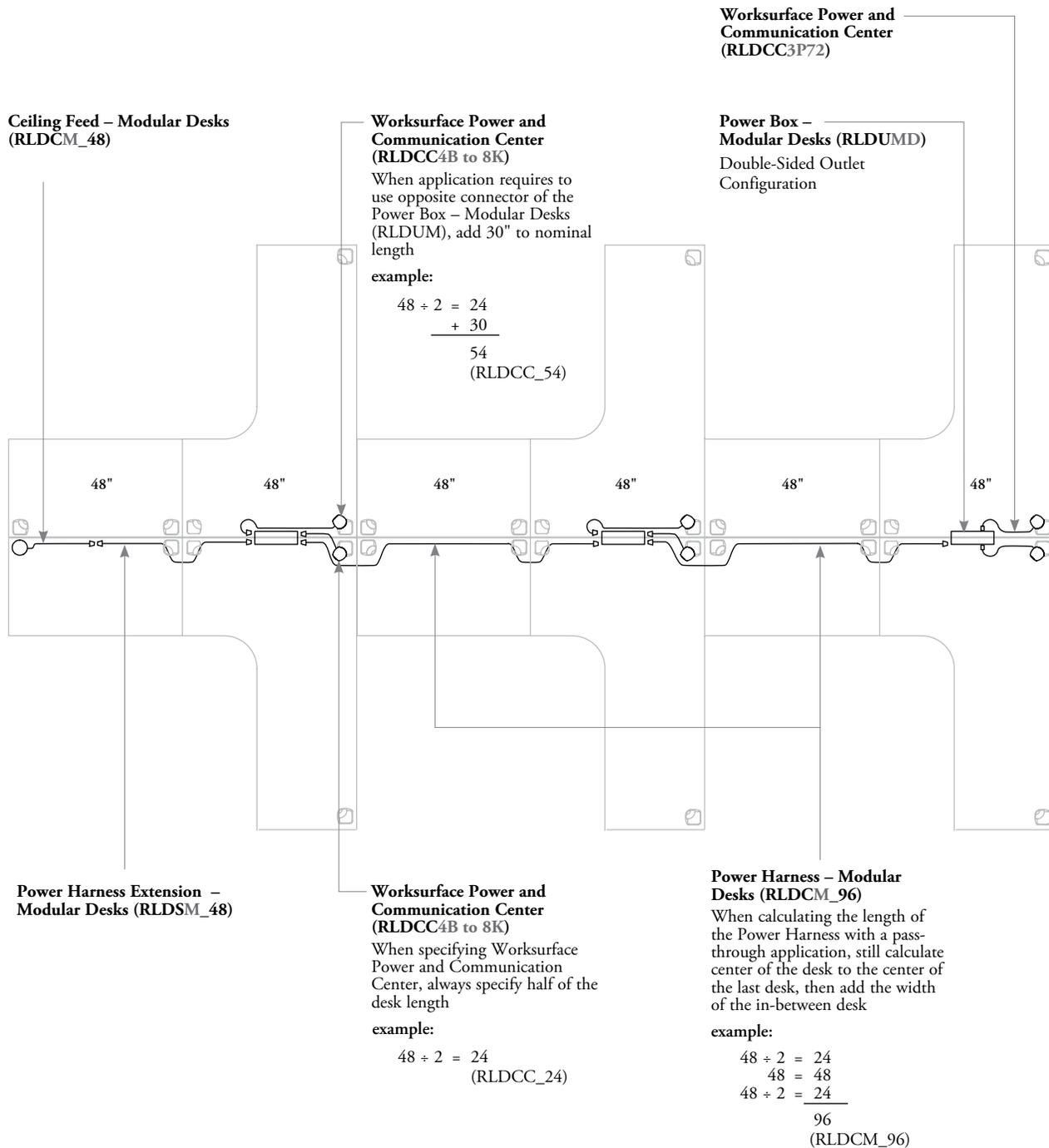
$$\begin{array}{r} 72 \div 2 = 36 \\ 48 = 48 \\ 48 \div 2 = 24 \\ \hline 108 \\ \text{(RLDSM\_108)} \end{array}$$



# specifying correct power harness length – modular desks (continued)

## configuration 3 – double-sided power box – modular desks

- 4B, 5D, 7G, 8N, 8T and 8K Power Box – Modular Desks (Shared Back-to-Back)
- 3P, 4B, 5D, 7G, 8N, 8T and 8K Worksurface Power and Communication Center

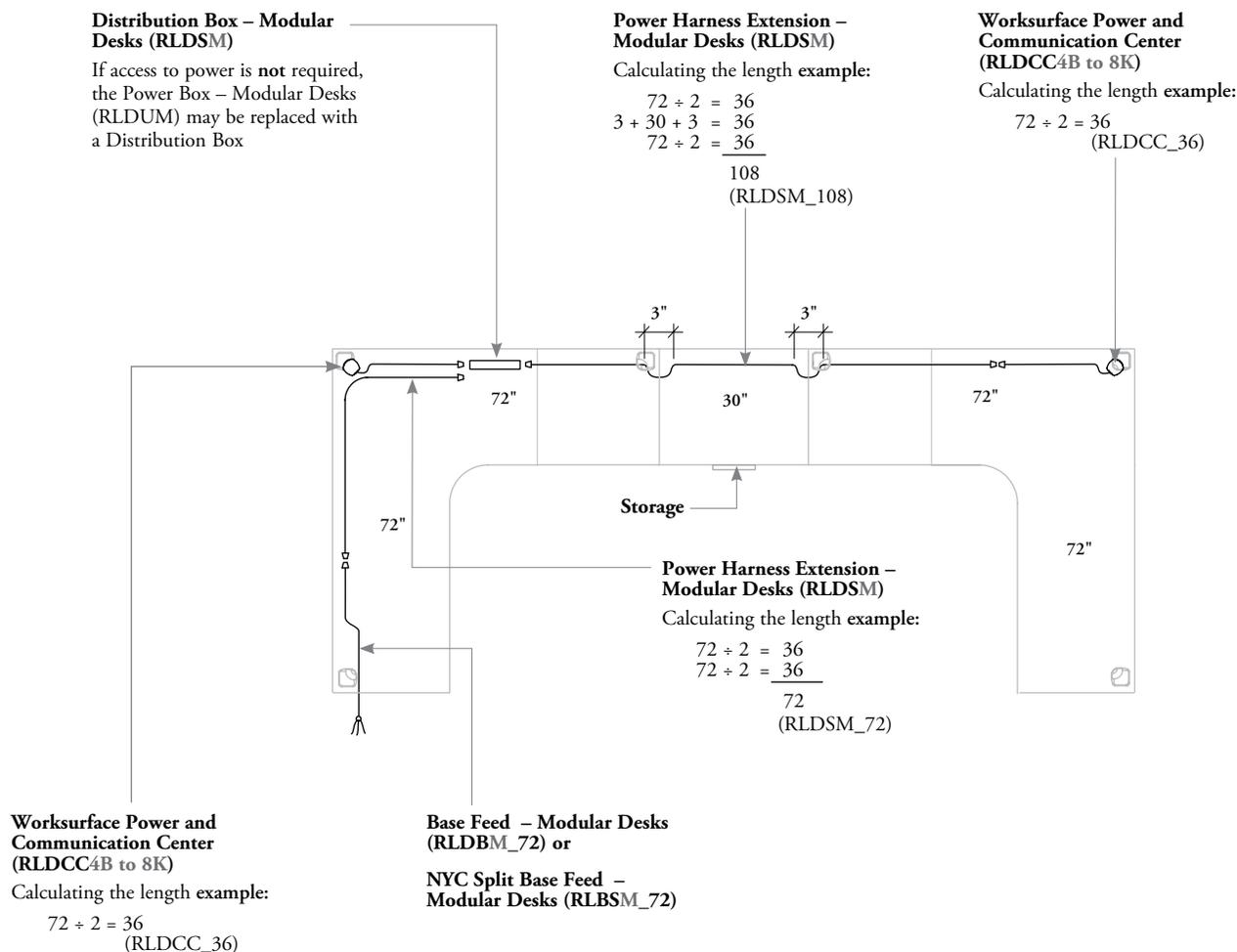


# specifying correct power harness length – modular desks (continued)

⚡ Wiring through credenzas or freestanding storage will require adding 3" for every loop

## configuration 4 – power harness length for credenzas or freestanding storage with grommets/ cable pass-through option

- 4B, 5D, 7G, 8N, 8T and 8K Power Box – Modular Desks
- 3P, 4B, 5D, 7G, 8N, 8T and 8K Worksurface Power and Communication Center





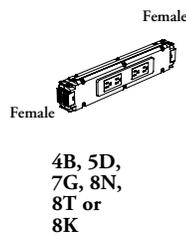
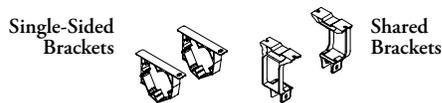
## power & data distribution – spine desks

Expansion Desking offers a wide variety of components for efficient and discreet management of electrical wiring and communication cables. Components can be installed to run cables from the ceiling, floor or wall. Power outlets and data jacks can be installed under the worksurface and still be reachable from above the worksurface through the Access Door.

- ◆ Cable Pass-Through or grommets on gables, 1" Floor or 2" Freestanding Screens, freestanding storage, and credenzas provide openings for routing cables from one desk to another. Cable tray under the worksurface allows cable management
- Desks and Credenzas must be linked together with appropriate hardware when sharing hard wiring
- In a Spine Desk workstation, the Spine Desk mounting option (S) must be specified for each product to select appropriate harness length or mounting hardware

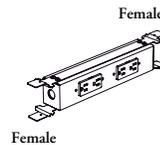
### Power Box – Spine Desks (RLDUS, RLCUS)

- Available in single- and double-sided versions for individual or shared positioning
- Single- or double-sided configuration always comes with two shared brackets to fit on shared desks. However the single-sided configuration also comes with two additional single brackets to fit on single-sided desks



### Power Box – Spine Desks (RLDUS)

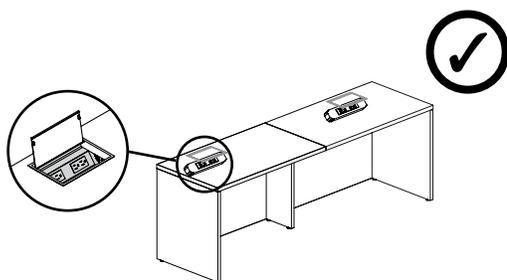
- This Power Box – Spine Desks (RLDUS) comes with the same electrical configurations than the Power Box – Modular Desks (RLDUM). For details, see page 171
- Finished in Black



### Chicago Power Box – Spine Desks (RLCUS)

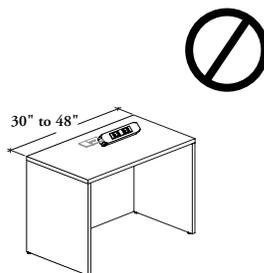
- Includes the outlets but does not include any connectors
- Electrical connections must be done on-site by a certified electrician
- Each end has a 1/2" trade size knockout
- Feeds and Harnesses are not compatible with Chicago Power Box
- Finished in a Platinum Coordinate

### power box position on spine desks



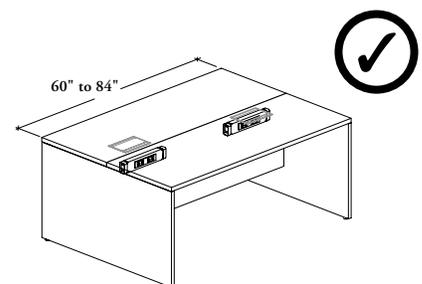
#### Spine Desks with Access Doors (D, E, R, L or M)

The Power Box position must correspond with the Access Door position



#### Spine Desks with Rectangular Grommets (B or C)

Power Box must be centered for desks from 30" to 48" with a centered (C) Rectangular Grommet. Other configurations do not limit the Power Box position



#### Spine Desks with multiple Power Boxes

A Power Box can be mounted at each end of desks from 60" to 84"

# power & data distribution – spine desks (continued)

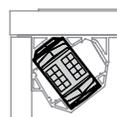
## single-sided spine desk application – individual position

For this application, the Power Box (RLDU or RLCU) must be specified with Spine Desk (S) mounting option and single-sided application (S)

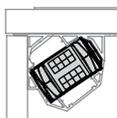


### Single-Sided Brackets

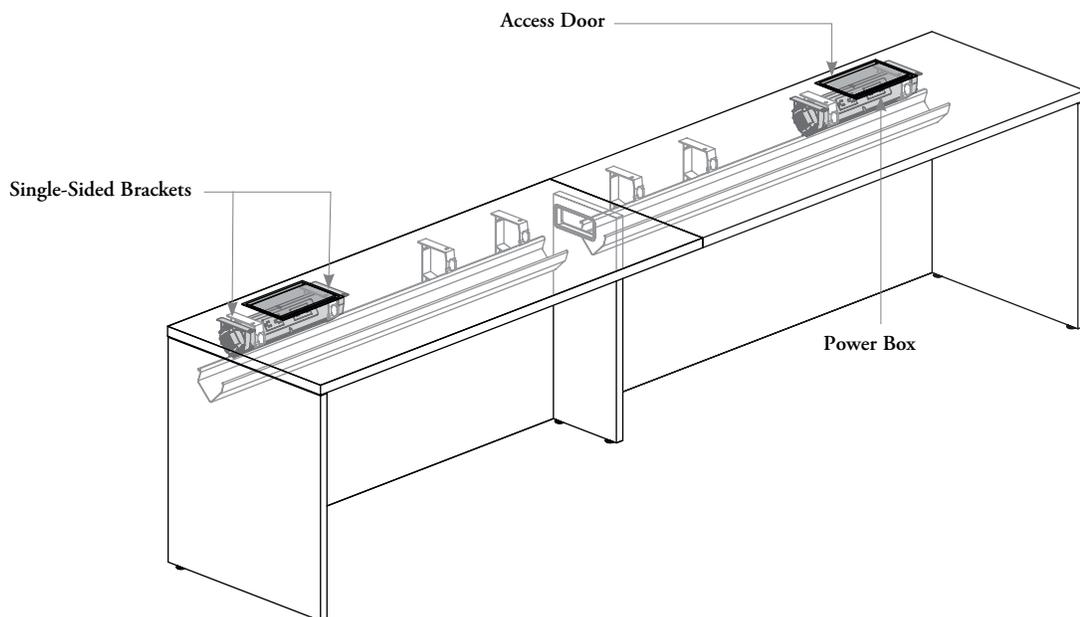
- Only the single-sided brackets must be used for this configuration
- Must be fixed on a full or wall access modesty panel and under the worksurface
- The single-sided brackets allows mounting the Power Box in two orientations:
  - Facing upward (ideal position for Access Doors)
  - Facing downward (ideal position for Rectangular Grommets)
- Finished in a Platinum Coordinate



Up-Mounted Position



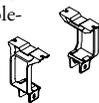
Down-Mounted Position



## power & data distribution – spine desks (continued)

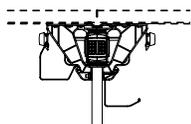
### shared spine desk application – shared position

For this application, the Power Box (RLDU or RLCU) must be specified with Spine Desk (S) mounting option and double-sided application (D)

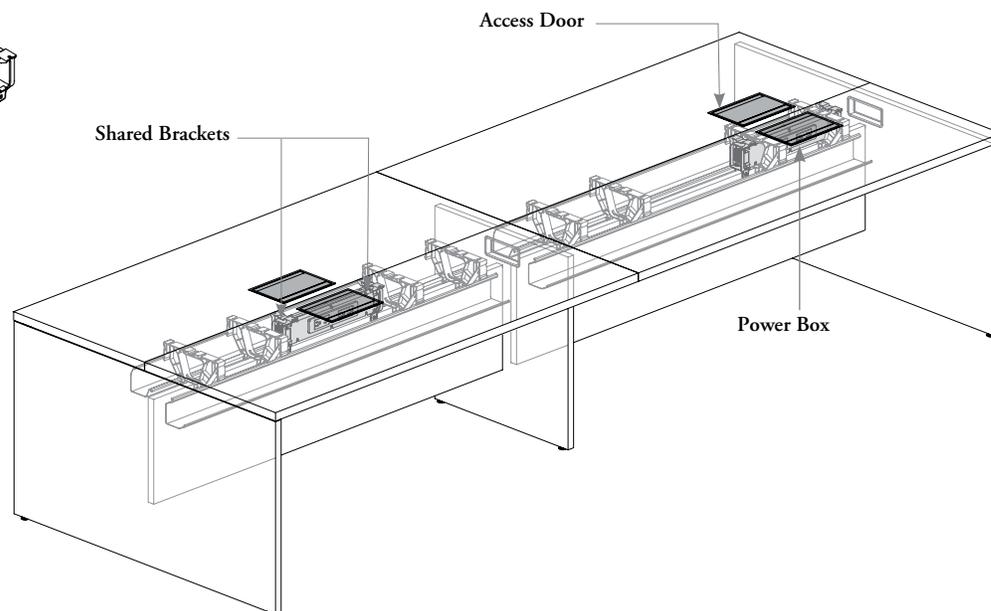


#### Shared Brackets

- Only the shared brackets must be used for this configuration
- Must be fixed on a raised modesty panel and under the worksurface
- The shared brackets allow mounting the Power Box in one orientation only



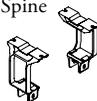
- Available in a Platinum Coordinate



### shared spine desk application – shared position and offset access doors

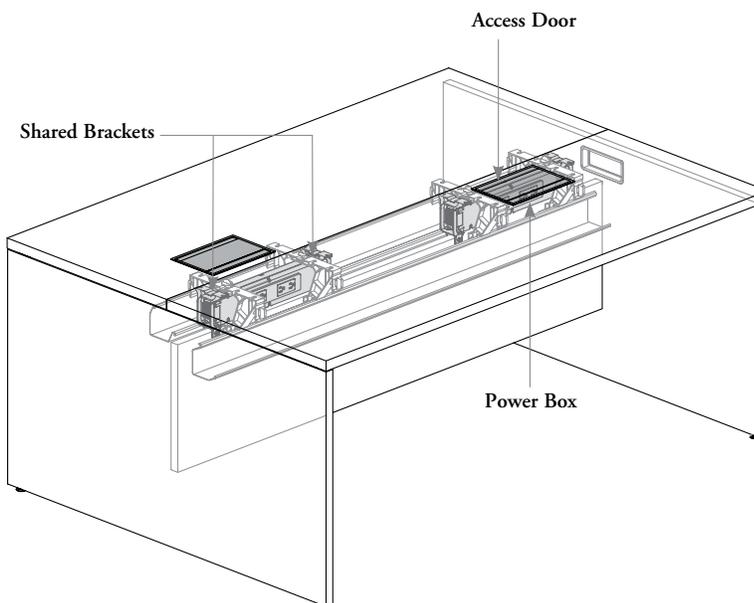
For this application, the Power Box (RLDU or RLCU) must be specified with Spine Desk (S) mounting option and single-sided application (S)

- The single-sided Power Box also comes with shared brackets allowing to mount single-sided Power Box onto Shared Spine Desks



#### Shared Brackets

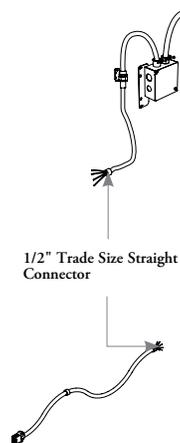
- Only the shared brackets must be used for the configuration where offset Access Doors (Left or Right) are specified
- Must be fixed on a raised modesty panel and under the worksurface
- Available in a Platinum Coordinate





## power & data distribution – spine desks (continued)

⚠ Do not energize from more than one source, it may cause serious injury

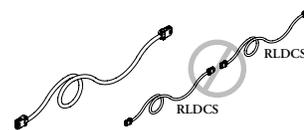


### Base Feed – Spine Desks (RLDBA/C/O)

- Used alone or in conjunction with the Lateral Power Pole (RLPS)
- Feeds building power from the floor or wall to the workstation
- Desk width to which it is being attached and Power Box location (adjacent, center, opposite) from in-feed must be specified to ensure that correct length of feed is provided

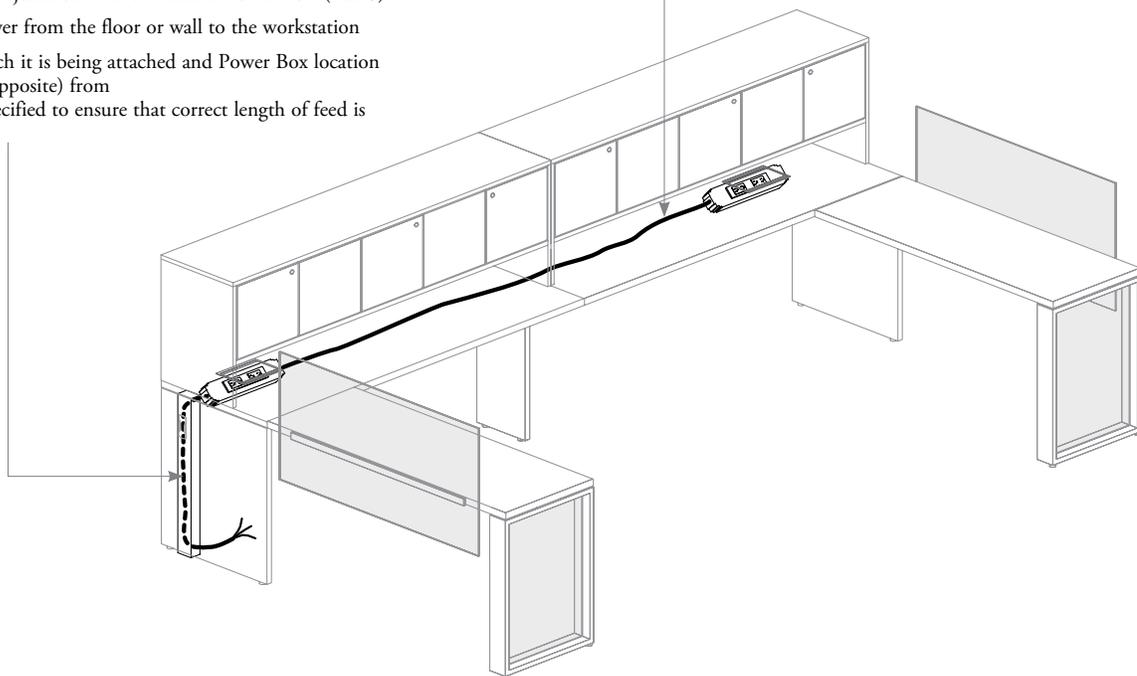
### NYC Split Base Feed – Spine Desks (RLBSA/C/O)

- Same as the Base Feed, except that its hard wire is split in a Junction Box for New York City wiring restrictions
- Junction Box comes with mounting bracket which must be installed underneath the desk
- Allows routing hard wire through a Lateral Power Pole mounted on the outside of the gable
- Does **not** allow routing hard wire through a storage or credenza product
- For use in the United States only
- **Not** compatible with a Lateral Power Pole mounted under the desk



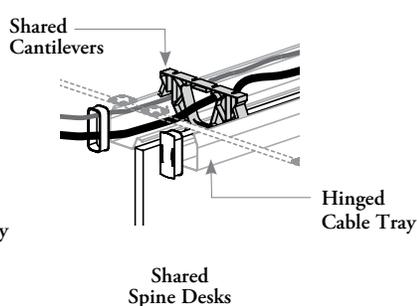
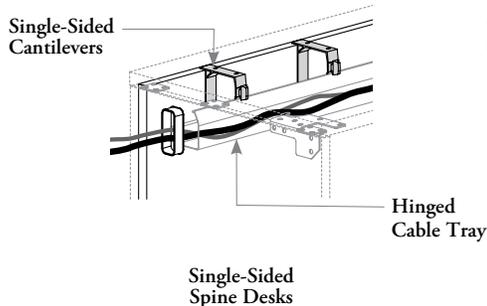
### Power Harness – Spine Desks (RLDCS)

- Connects two Power Box – Spine Desks (RLDUS)
- Available in 3" increments up to a maximum length of 156"

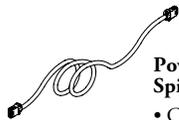


### Cantilevers and Hinged Cable Tray

- Cantilevers come with Spine Desks and are used primarily for desk structure but can also be used for cable management
- Two cantilever styles are available:
  - for Single-Sided Spine Desks
  - for Shared Spine Desks
- A Hinged Cable Tray also comes with Spine Desks to provide cable management and hide electrical wires and communication cables

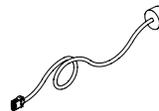
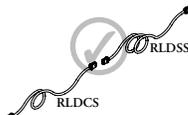


# power & data distribution – spine desks (continued)



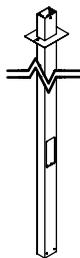
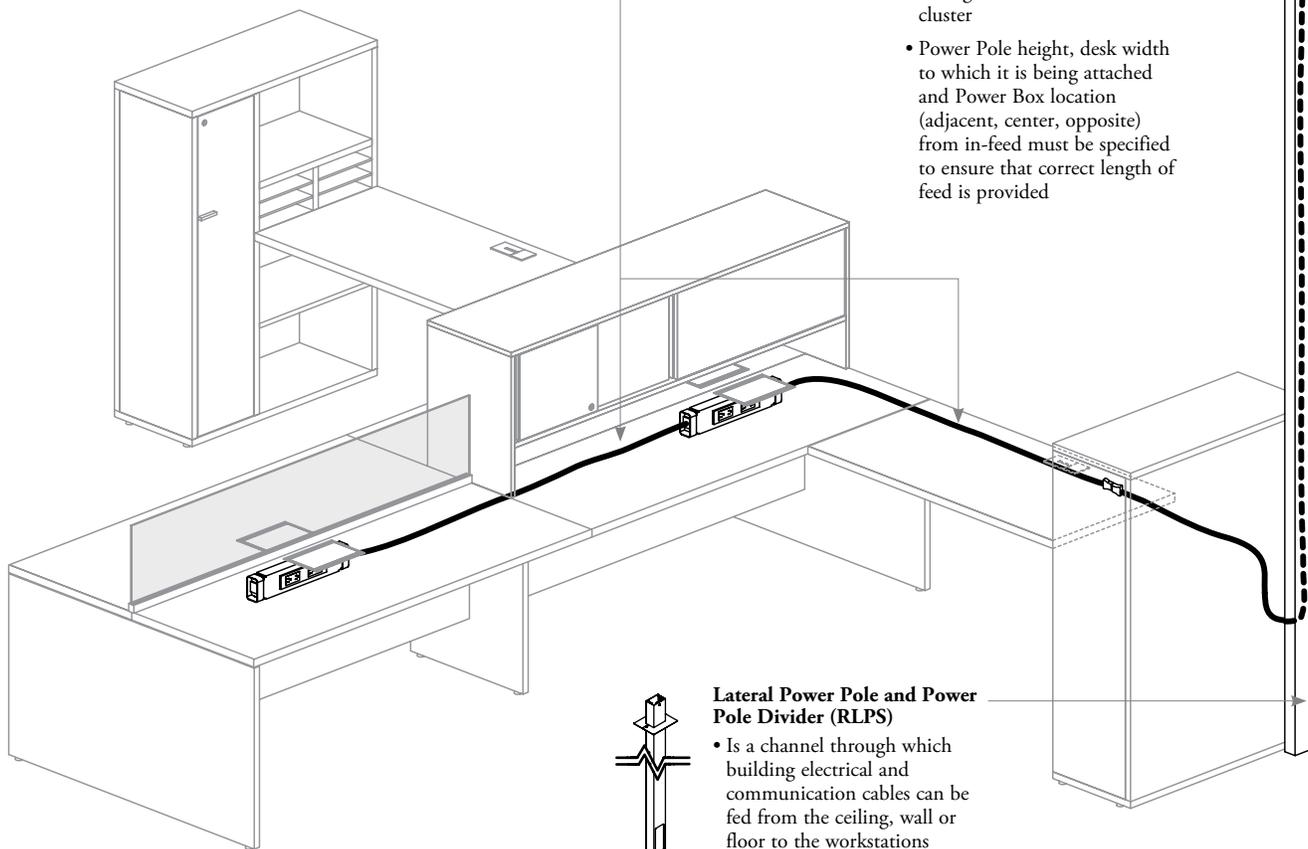
### Power Harness Extension – Spine Desks (RLDSS)

- Connects the Infeed (ceiling or base) to the first Power Box – Spine Desks (RLDUS) in a cluster if it is **not** adjacent
- Could be used as an extension with Power Harness – Spine Desks (RLDCS), if two Power Box (RLDUS) are **not** adjacent and total length exceeds maximum length available
- Available in 3" increments up to a maximum length of 138"



### Ceiling Feed – Spine Desks (RLDFA/C/O)

- Used in conjunction with the Lateral Power Pole (RLPS)
- Feeds building power from the ceiling down to the workstation cluster
- Power Pole height, desk width to which it is being attached and Power Box location (adjacent, center, opposite) from in-feed must be specified to ensure that correct length of feed is provided



### Lateral Power Pole and Power Pole Divider (RLPS)

- Is a channel through which building electrical and communication cables can be fed from the ceiling, wall or floor to the workstations
- Included divider can be used to separate electrical wires and communication cables
- 29" high Lateral Power Pole can only be installed against a gable when mounted under a desk

# specifying correct power harness length – spine desks

- All harnesses can be specified in 4B, 5D, 7G, 8N, 8T and 8K shielded wiring systems
- All Power Harnesses have a nominal length for ease of specification
- When determining the proper length of Power Harness, always calculate from center to center of Power Box. A nominal sized harness will take into consideration the width of the power box
- When determining the proper length of infeed, always specify desk length, except when specifying an adjacent configuration (Base Feed and Ceiling Feed)
- Each Power Box can be located centered or at 15" from the worksurface edge of each end

## configuration 1 – single-sided spine desks & power box

- 4B, 5D, 7G, 8N, 8T and 8K Single-Sided Power Box – Spine Desks

### Power Harness – Spine Desks (RLDCS)

- Connects two Single-Sided Power Box – Spine Desks
- To specify the correct length, calculate the dimension between two Power Box, taking into account that a Power Box is located at 15" from an end when **not** centered

### Linear Power Pole – 29" Base Configuration (RLPS)

Can be specified separately

example 1:

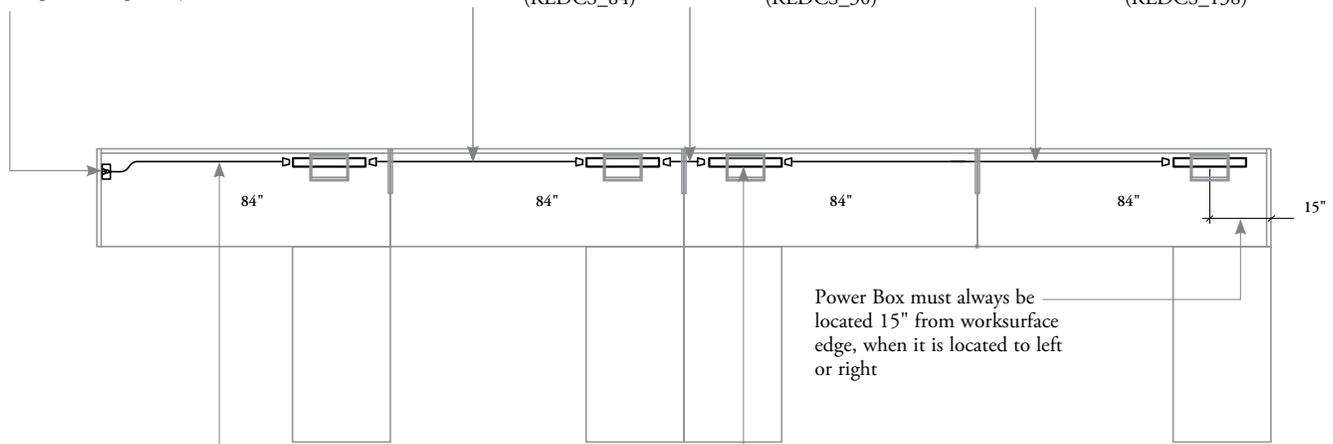
$$15 + (84 - 15) = 84 \quad (\text{RLDCS}_{84})$$

example 2:

$$15 + 15 = 30 \quad (\text{RLDCS}_{30})$$

example 3:

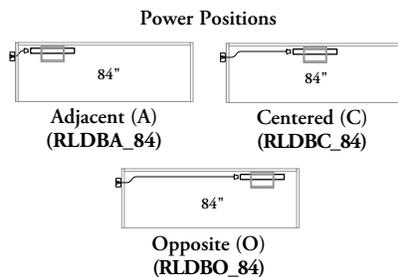
$$(84 - 15) + (84 - 15) = 138 \quad (\text{RLDCS}_{138})$$



### Base Feed – Spine Desks (RLDBO\_84) or

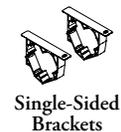
### NYC Split Base Feed – Spine Desks (RLBSO\_84)

- Three Spine Desk mounting options are available:
  - Adjacent Power Position (A)
  - Centered Power Position (C)
  - Opposite Power Position (O)
 and must be specify to get the correct Base Feed harness length
- Centered and Opposite Power Positions require to specify the desk width for in-feeds



### Single-Sided Power Box – Spine Desks (RLDUSS\_)

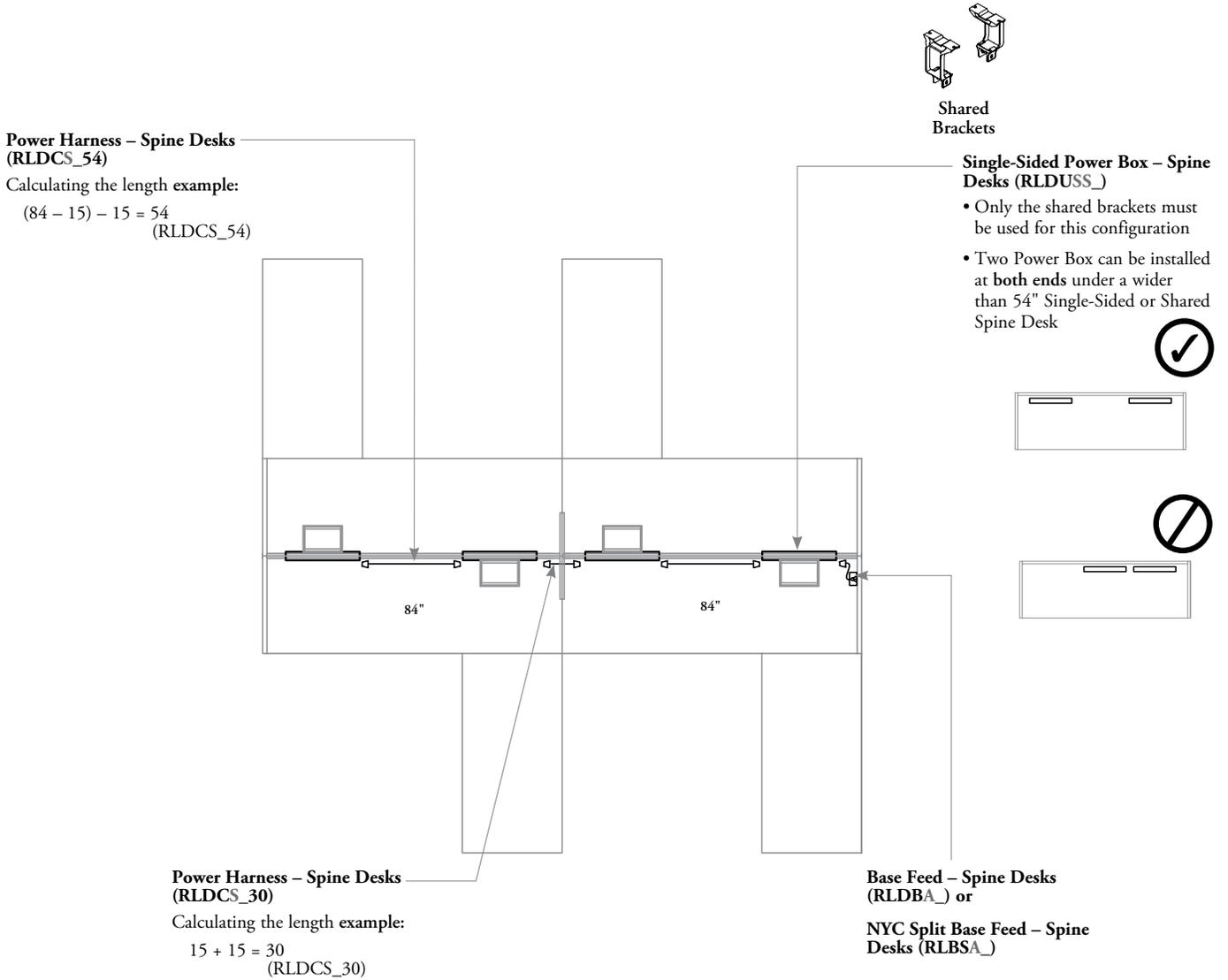
Only the single-sided brackets must be used for this configuration



# specifying correct power harness length – spine desks (continued)

## configuration 2 – shared spine desks & single-sided power box

- 4B, 5D, 7G, 8N, 8T and 8K Single-Sided Power Box – Spine Desks



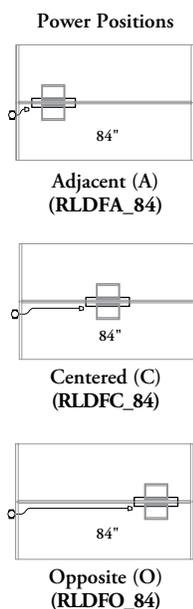
# specifying correct power harness length – spine desks (continued)

## configuration 3 – shared spine desks & double-sided power box

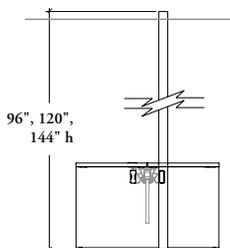
- 4B, 5D, 7G, 8N, 8T and 8K Shared Power Box – Spine Desks (Back-to-Back)

### Ceiling Feed – Spine Desks (RLDFO\_144\_78)

- Three Spine Desk mounting options are available:
  - Adjacent Power Position (A)
  - Centered Power Position (C)
  - Opposite Power Position (O)
- and must be specify to get the correct Ceiling Feed harness length



- The ceiling height must also be specified (96", 120", 144")
- Centered and Opposite Power Positions require to specify the desk width for in-feeds



### Power Harness – Spine Desks (RLDCS\_)

Calculating the length

**example 1:**

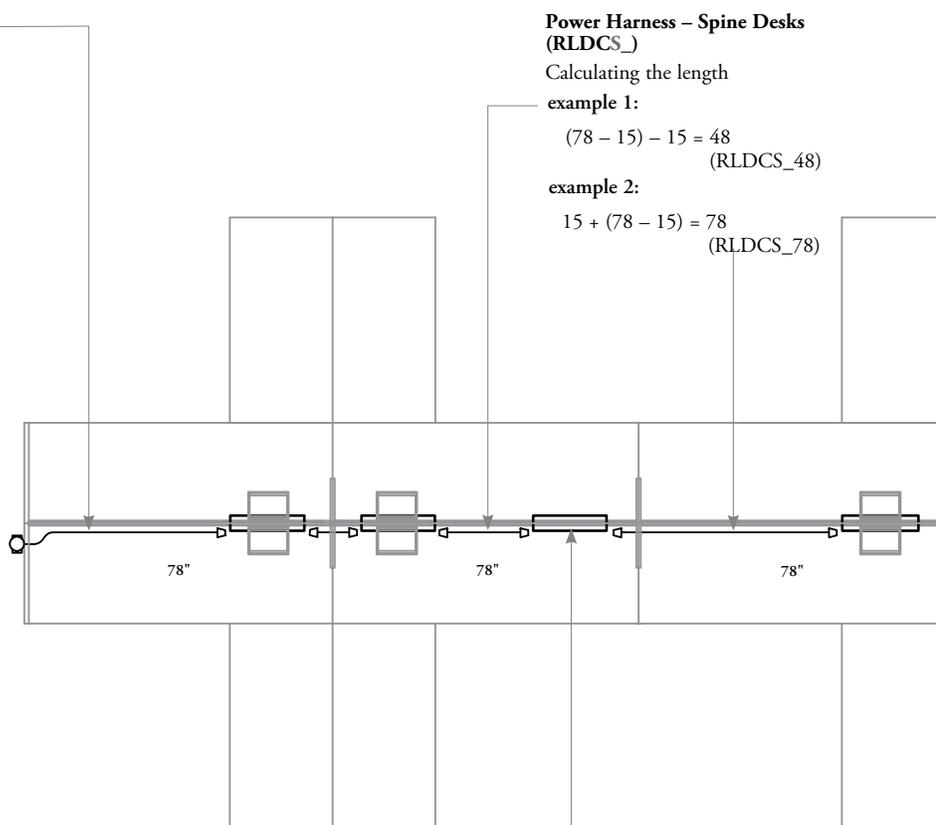
$$(78 - 15) - 15 = 48$$

(RLDCS\_48)

**example 2:**

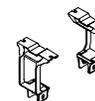
$$15 + (78 - 15) = 78$$

(RLDCS\_78)



### Shared Power Box – Spine Desks (RLDUSD\_)

Only the shared brackets must be used for this configuration



Shared Brackets

# specifying correct power harness length – spine desks (continued)

## configuration 4 – shared spine desks & double-sided power box

- 4B, 5D, 7G, 8N, 8T and 8K Shared Power Box – Spine Desks (Back-to-Back)

### Power Harness – Spine Desks (RLDCS\_96)

If a Power Harness is going through a "non-electrical" desk, then add the width of the in-between desk(s)

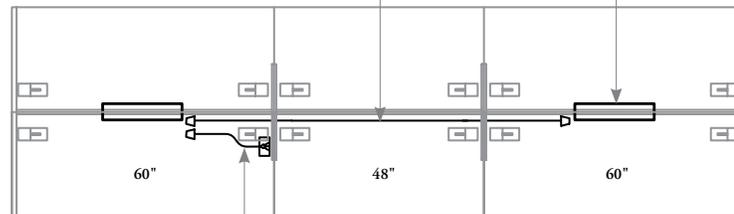
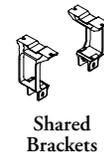
example:

$$(60 \div 2) + 48 + (60 \div 2) = 108$$

(RLDCS\_108)

### Shared Power Box – Spine Desks (RLDUSD\_)

Only the shared brackets must be used for this configuration



### Base Feed – Spine Desks (RLDBC\_60) or

### NYC Split Base Feed – Spine Desks (RLBSO\_60)

Centered and Opposite Power Positions require to specify the desk width for in-feeds

# specifying correct power harness length – spine desks (continued)

⚠ Wiring through credenzas or freestanding storage will require adding a different loop length in Single-Sided Spine Desks than in Shared Spine Desks

## configuration 5 – single-sided spine desks & storage with cable pass-through

- 4B, 5D, 7G, 8N, 8T and 8K Single-Sided Power Box – Spine Desks

### Power Harness – Spine Desks (RLDCS\_138)

Add 3" for every loop when a Power Harness (RLDCS\_) or Power Harness Extension (RLDSS\_) has to pass through storage in a Single-Sided Spine Desk application

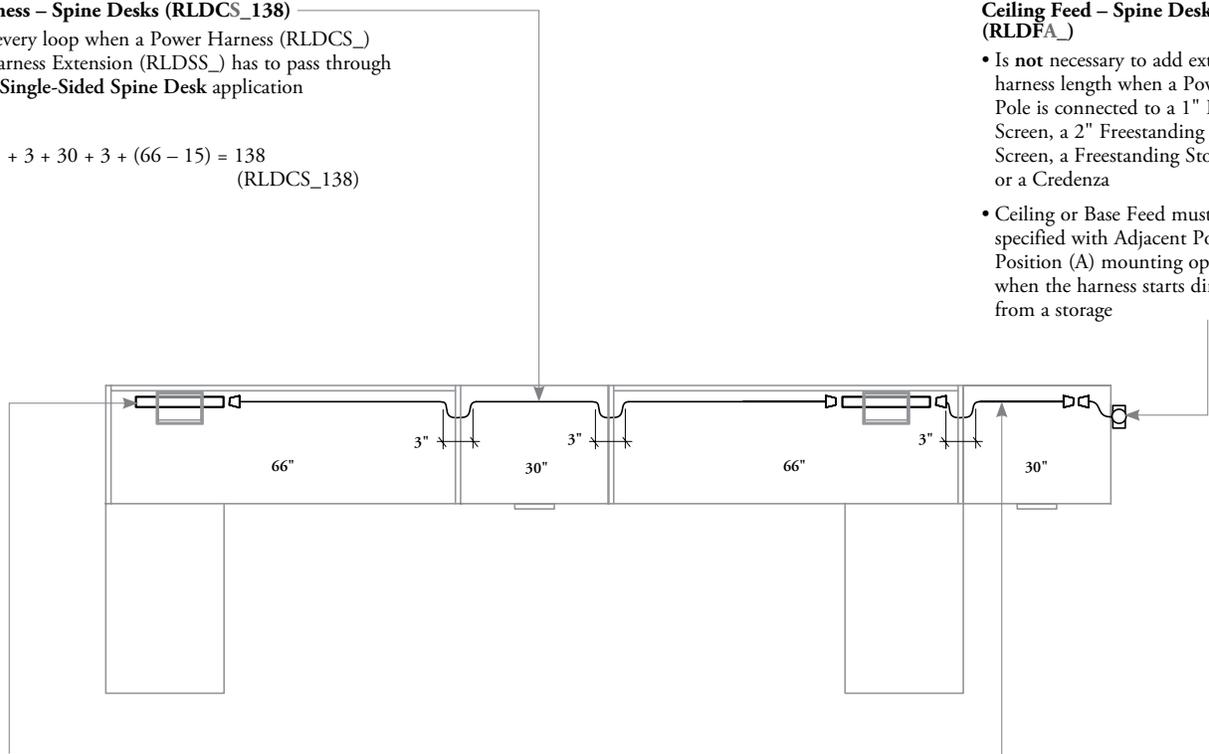
example:

$$(66 - 15) + 3 + 30 + 3 + (66 - 15) = 138$$

(RLDCS\_138)

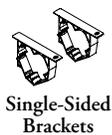
### Ceiling Feed – Spine Desks (RLDFA\_)

- Is **not** necessary to add extra harness length when a Power Pole is connected to a 1" Floor Screen, a 2" Freestanding Screen, a Freestanding Storage or a Credenza
- Ceiling or Base Feed must be specified with Adjacent Power Position (A) mounting option when the harness starts directly from a storage



### Single-Sided Power Box – Spine Desks (RLDUSS\_)

Only the single brackets must be used for this configuration



### Power Harness Extension – Spine Desks (RLDSS\_33)

- Power Harness Extension is used to connect Ceiling or Base Feed to first Power Box (RLDUS) when it is **not** located in the first furniture unit
- Correct length is specified the same way than a Power Harness for a desk with an adjacent Power Box

example:

$$15 + 3 + (30 - 15) = 33$$

(RLDSS\_33)

# specifying correct power harness length – spine desks (continued)

## configuration 6 – shared spine desks & storage with cable pass-through

- 4B, 5D, 7G, 8N, 8T and 8K Shared Power Box – Spine Desks

### Power Harness – Spine Desks (RLDCS\_108)

Add 6" for every loop when a Power Harness (RLDCS\_) or Power Harness Extension (RLDSS\_) has to pass through storage in a Shared Spine Desk application

example:

$$(66 \div 2) + 6 + 30 + 6 + (66 \div 2) = 108$$

(RLDCS\_108)

### Power Harness Extension – Spine Desks (RLDSS\_108)

To specify correct Power Harness Extension length, calculate the distance between in-feed connector and first Power Box

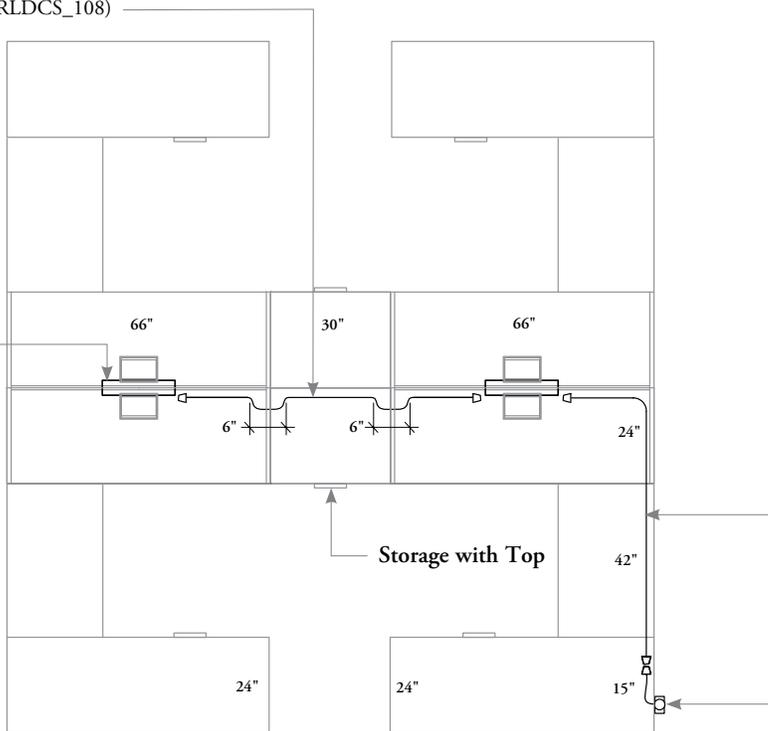
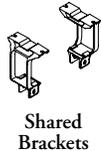
example:

$$(66 \div 2) + 24 + 42 + (24 - 15) = 108$$

(RLDCS\_108)

### Shared Power Box – Spine Desks (RLDUSD\_)

Only the shared brackets must be used for this configuration



### Ceiling Feed – Spine Desks (RLDFA\_)

Always specified with Adjacent Power Position (A) when the Power Box is **not** located in the first furniture unit



### Worksurface Wire Management Clips (YESW)

- Used to easily manage wires underneath the worksurface, must be specified separately
- Data and power cables can be managed separately without tools
- Available from Complements: *Teknion's Ergonomic & Accessories* program

# specifying correct power harness length – spine desks (continued)

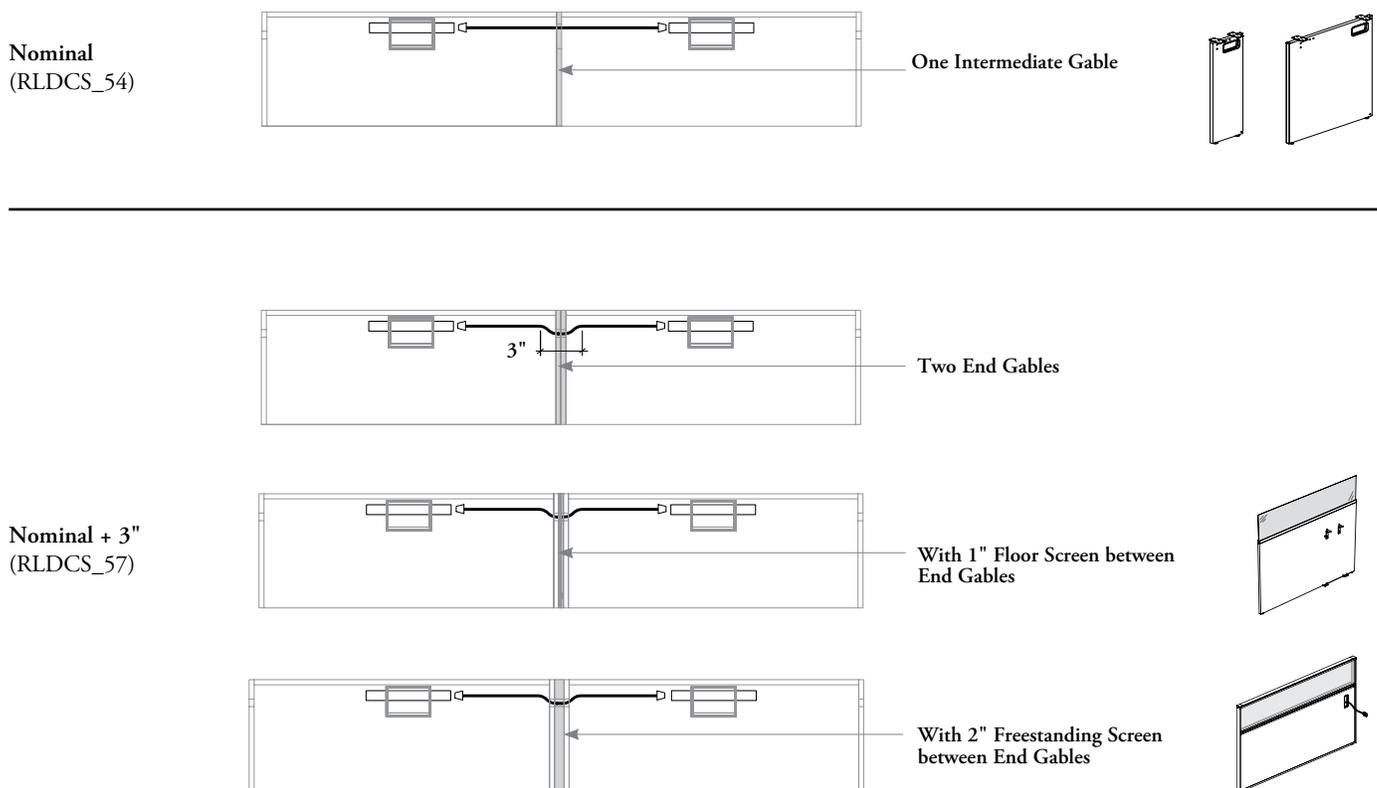
⚠ Wiring through end gables will require adding a different loop length in Single-Sided Spine Desks than in Shared Spine Desks

## configuration 7 – single-sided spine desks & cable pass-through

- 4B, 5D, 7G, 8N, 8T and 8K Single-Sided Power Box – Spine Desks

### Power Harness or Power Harness Extension – Spine Desks (RLDCS\_ or RLDSS\_)

Add 3" for every loop when a harness has to pass through an End Gable, a 1" Floor Screen or a 2" Freestanding Screen in a Single-Sided Spine Desk application



# specifying correct power harness length – spine desks (continued)

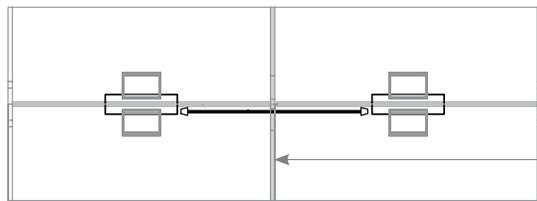
## configuration 8 – shared spine desks & cable pass-through

- 4B, 5D, 7G, 8N, 8T and 8K Shared Power Box – Spine Desks

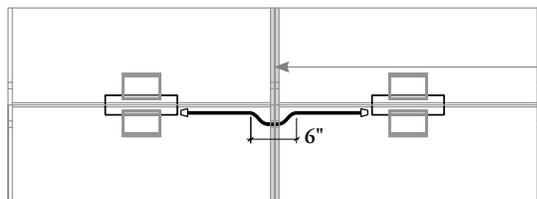
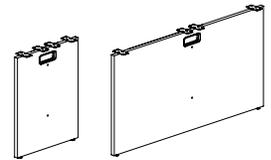
### Power Harness or Power Harness Extension – Spine Desks (RLDCS\_ or RLDSS\_)

Add 6" for every loop when a harness has to pass through an End Gable, a 1" Floor Screen or a 2" Freestanding Screen in a Shared Spine Desk application

Nominal  
(RLDCS\_54)

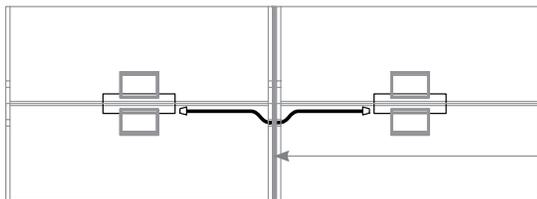


One Intermediate Gable

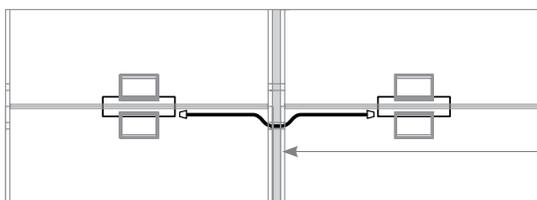
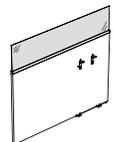


Two End Gables

Nominal + 6"  
(RLDCS\_60)



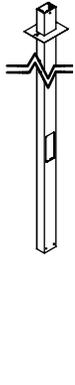
With 1" Floor Screen between End Gables



With 2" Freestanding Screen between End Gables

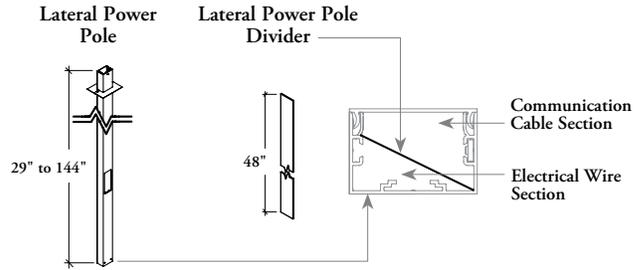


## power & data distribution – modular & spine desks

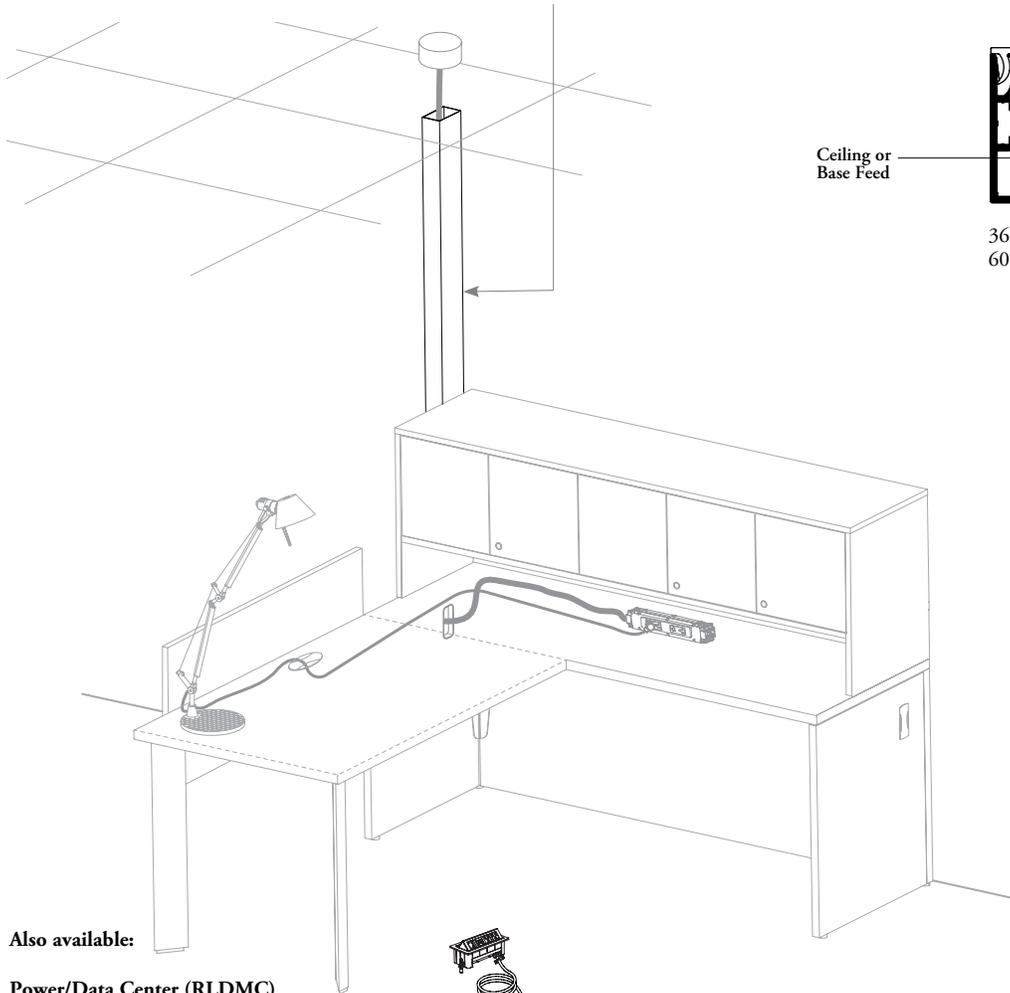
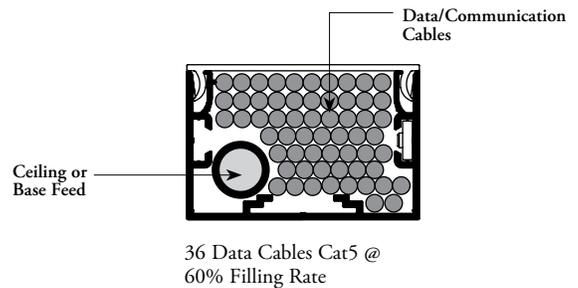


### Lateral Power Pole (RLPS)

- May be used for two applications:
  - **Ceiling Feed:** is a channel through which building electrical and communication cables can be fed from the ceiling to workstations
  - **Base Feed:** feeds building power from the floor or wall the workstation
- In-feeds are **not** included
- Included divider can be used to separate electrical wires and communication cables
- Can be mounted on gables using the Cable Pass-Through or vertical grommet
- Only base feed application can be mounted to the inner side of a gable
- **Cannot** be mounted along a modesty panel
- Can also be mounted on credenzas, freestanding storage, 1" Floor Screen and 2" Freestanding Screen with the Cable Pass-Through option
- Available in Foundation or Mica colors



### Data/Communication Cable Capacity



### Also available:

#### Power/Data Center (RLDMC)

- Opens up through the worksurface to provide power, data and USB access. It closes to allow the use of the entire worksurface
- Must be field-installed as per template included
- Voice/Data jacks are **not** included and must be field supplied and installed
- Plugs directly into standard receptacles
- The USB-A port always supplies 10 Watts maximum at 5 Volts DC when combined
- This product includes a 72" or 120" cord length
- Finished in Ebony (E) or Soft Gris (B)



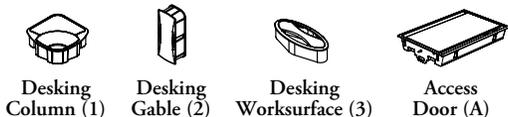
#### Communication Box (RLUDB)

- The communication opening measures 2.71" x 1.38" to accommodate Voice/data jacks and faceplates (**not** included)
- Finished in a Platinum Coordinate

Power Simplex Receptacle	USB	Communication Opening	Configuration
2	2	1	221
3	0	1	301

# power & data distribution – modular & spine desks (continued)

- All products below can be specified separately
- Can also be specified as an option on desks. The surface will come with pre-drilled holes for easy installation on-site
- Only Desking Worksurface Grommet (RAG3) can be interchangeable with Rectangular Grommet (RAGC) and vice versa



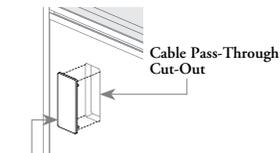
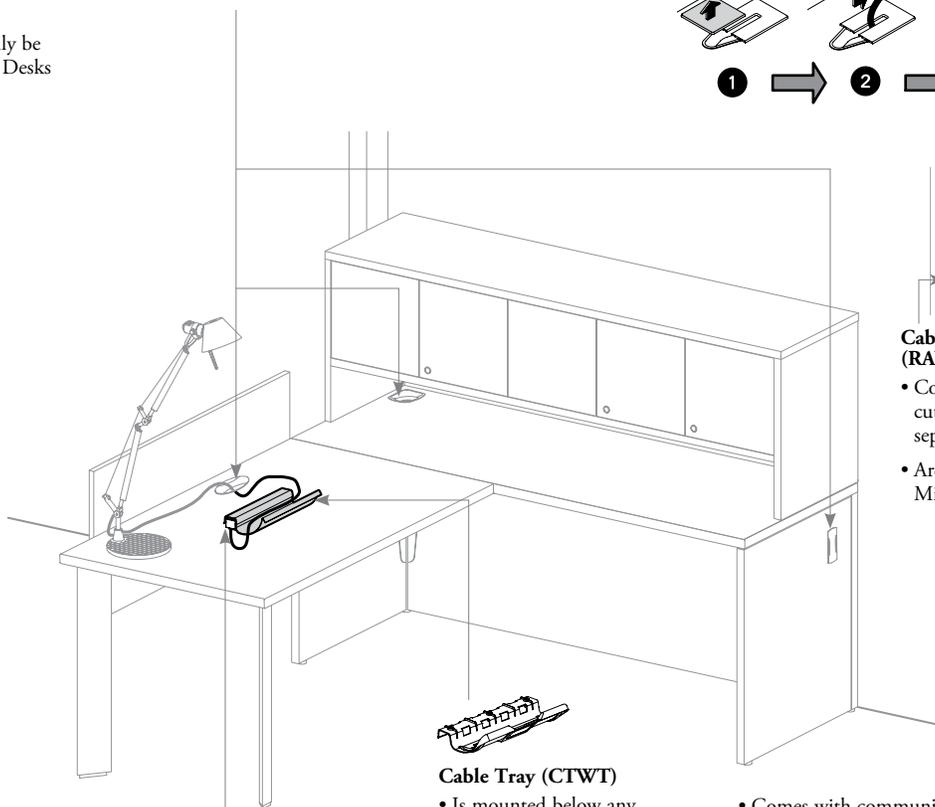
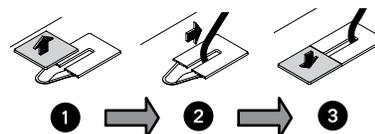
### Desking Grommets (RAG)

- Can be specified separately and four styles are available:
  - Desking Column (1)
  - Desking Gable (2)
  - Desking Worksurface (3)
  - Access Door (A)
- Grommets are available in Foundation, Mica or Source Laminate colors. Access Doors are available in Foundation or Mica colors only
- Access Doors can only be specified with Spine Desks



### Rectangular Grommets (RAGC)

- Are available in Foundation or Mica cover finishes
- Rectangular Grommet Ring is finished in Ebony only
- Rectangular Grommet Applications:



### Cable Pass-Through Covers (RAWPC)

- Covers the cable pass-through cut-out and can be specified separately
- Are available in Foundation, Mica or Coordinate Colors



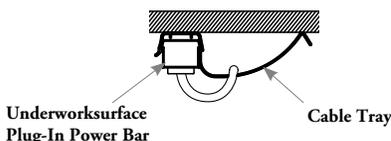
### Cable Tray (CTWT)

- Is mounted below any worksurface to manage cables coming from the worksurface level
- Allows installation of Underworksurface Plug-In Power Bar (RLPP) only
- Comes with communication opening measures 2.71" x 1.38" to accommodate Voice/data jacks and faceplates (not included)
- Finished in Black



### Underworksurface Plug-In Power Bar (RLPP)

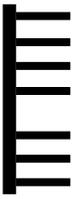
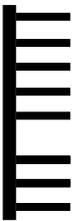
- This product can be clipped on the Structural Beam of Modular Desks or can be dropped in the Hinged Cable Tray of Spine Desks. It can also be mounted underneath worksurfaces using a Cable Tray (ordered separately)
- Provides a 3-wire system that can be used to connect up to four pieces of electrical equipment and includes a resettable breaker
- This product includes a 72" or 180" cord length
- Finished in Clear Anodized



## wiring systems

The following provides general information on the wiring system offering in Expansion Desking.

❖ It is important to specify each power and cable management product according to the wire system in use; see example below

	No. Regular Circuits	No. Isolated Circuits
<b>3-Wire (Plug-in) [3P]</b>  Circuit 1 (Black) Neutral (White) Ground (Green)	1	0
<b>4-Wire (4B)</b>  Circuit 1 (Black) Circuit 2 (Red) Neutral (White) Ground (Green)	2	0
<b>5-Wire (5D)</b>  Circuit 1 (Black) Circuit 2 (Red) Circuit 3 (Blue) Neutral (White) Ground (Green)	3	0
<b>7-Wire Isolated (7G)</b>  Circuit 1 (Black) Circuit 2 (Red) Neutral (White) Ground (Green) Isolated Circuit 5 (Orange) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	2	1
<b>8-Wire Isolated – Separate Neutral (8N)</b>  Circuit 1 (Black) Neutral (White) Circuit 2 (Red) Neutral (White/Red) Ground (Green) Isolated Circuit 5 (Orange) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	2	1
<b>8-Wire Isolated (8T)</b>  Circuit 1 (Black) Circuit 2 (Red) Circuit 3 (Blue) Neutral (White) Ground (Green) Isolated Circuit 5 (Orange) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	3	1
<b>8-Wire Dual Isolated (8K)</b>  Circuit 1 (Black) Circuit 2 (Red) Neutral (White) Ground (Green) Isolated Circuit 5 (Orange) Isolated Circuit 6 (Blue) Isolated Neutral (White/Orange) Isolated Ground (Green/Orange)	2	2

• Example, if the system in use is 7-Wire Isolated (7G), each Base Feed, Ceiling Feed, Power of Harnesses and Distribution Box must be specified for 7G, as follows:

System	Product Name	Product Code
7G	Base Feed	RLDBM7G
	Power Harnesses and Extension	RLDCM7G, RLDSM7G
	Distribution Box	RLDSB7G
	Power Box	RLDUM7G
	Worksurface Power and Communication Center	RLDCC7G

- This specification is **not** required for lighting products. However, **not** all products are available for all wire systems
- Desks include electrical wire and communication cable routing capabilities
- There is a standard color coding for each wiring system and for the connector patterns in conjunction with these:  
 Standard Circuit 1, Hot Wire: Black  
 Standard Circuit 2, Hot Wire: Red  
 Standard Circuit 3, Hot Wire: Blue  
 Isolated Circuit 5, Hot Wire: Orange  
 Isolated Circuit 6, Hot Wire: Blue  
 Standard Neutral Wire: White  
 Standard Ground Wire: Green  
 Isolated Neutral Wire: White/Orange stripe  
 Isolated Ground Wire: Green/Orange stripe
- In wiring systems with more than one incoming hot wire, some or all of the hot wires use the same neutral and ground. For example, in the 5-Wire (5D) system, there are three hot wires. All three hot wires use the same neutral/return wire and the same ground wire. The 8-Wire Separate Neutral (8N) system provides one neutral wire for each hot wire