

Electrical & Data

Stride® — Working with Electrical & Data

Stride features high capacity for cable management, including electrical, voice, and data capabilities. The 8-wire electrical system can be integrated at base pathway and beltline. The open structure of the frame allows voice and data cables to be routed both vertically and horizontally.

Ceiling infeed connects to building electrical supply. Ceiling infeed can also be used at the bottom to feed up into footed panels where exposed flex conduit is permitted by codes. This infeed can be prewired before panels are installed. A877006 and A877012 infeeds must be installed in panel before connecting to building wiring.

Integrated power pole accommodates power infeed and communication/data lines.

Electrical power harnesses have capacity for 2 (1 in a 24"W panel) per panel side when mounted at beltline application.

Cable openings in frame uprights permit cables to be run between frames.

Capacity for lay-in cabling is provided underneath panel top caps.

Fiber optic and other data cabling can be routed through 90° intersections.

Power blocks snap into horizontal frame members.

Beltline area accommodates power and data or communication lines.

Jumper required to connect base pathway power to beltline. Note: no more than one conduit that is connected to a harness mounted to horizontal can be routed through the same cutout in the same horizontal. Attempting to use more will cause binding of conduit and may affect reveals on receptacles.

Base pathway accommodates power and lay-in capacity for data and communication.

Electrical pass-thru harnesses have capacity for one duplex receptacle per panel side.

Electrical power harness accepts up to 2 duplex receptacles per panel side (24"W limited to 1) at base pathway.

Fiber optic cables can follow 90° turns at the intersection of panel runs.

Base pathway power infeed mounts into any receptacle position in the base pathway area and is connected to the building electrical supply.

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Electrical Systems

Stride electrical offers a choice of four electrical systems:

- Four-circuit, 3 + 1
- Four-circuit, 2 + 2
- Three-circuit, separate neutrals
- Eight circuits; two four-circuit systems provided back-to-back.
- See pages 234-235 for a detailed explanation of each electrical system.
- All four systems utilize an 8-wire electrical system, rated at 20 amps per circuit (16 amps plan-able U.S. and 15 amps Canadian).
- Stride panels and electrical components are UL Listed. Electrical components are also CSA certified. PVC-free models are C2C certified.
- Installation and use of the electrical system, the number of receptacles used on a given circuit and connections to the building power supply should be in compliance with all local and national electrical codes.

Caution: Electrical equipment cords or extension cords **MUST NOT BE ROUTED** through cable openings in frame sides.

Note: No more than one conduit that is connected to a harness mounted to horizontal can be routed through the same cut out in the same horizontal. Attempting to use more will cause binding of conduit and may affect reveals on receptacles.

Hardwire New York Code (page 243)

- **Hardwire (New York Code) junction box** (model A871400C) is used when local electrical codes require hardwire entry.
- For use in panels 30"W to 60"W.
- When used in 30"W and 36"W panels, power can be routed only in one direction.
- When used in 42"W, 48"W, and 60"W panels, an electrical pass-thru cable or harness for that panel width can be used to route power back in the opposite direction.
- Unit must connect to a power or pass-thru harness positioned in the base pathway area of an adjacent panel.
- Customer to furnish all cabling and wiring from power entry to power source.
- Junction box can be positioned at any duplex receptacle location.



Hardwire Chicago Code (page 245)

- Wiring harnesses and snap connectors are not allowed in Chicago — base pathways must be comprised of all-metallic components.
- For the base pathway, junction box (model 877600) clips directly into receptacle locations and can be used both single- and double-sided.
- In the beltline location, junction box (model 877550) can only be used single-sided.
- Base pathway model has a larger volume capacity for wiring to allow for dual-sided applications.
- Customer must furnish conduit, wiring, and designer-type receptacles for the base pathway and conduit, wiring, designer-type receptacles, and receptacle covers for the beltline.
- Tiles at the beltline must be field ported.
- Power entry can be routed from the ceiling, via a Stride power pole, or from the floor into a junction box (beltline model 877550; or base pathway model 877600).

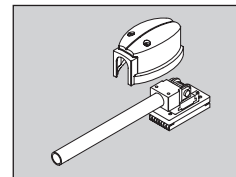


Electrical Infeeds

- **Power infeed cables** deliver power from building to panel's electrical system.
- Infeed cables are housed in conduit to separate electrical system from communications and data lines.
- Select quantity of base or ceiling infeed cables depending on individual power requirements.

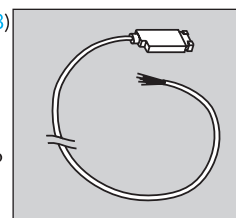
Base Infeed (page 243)

- **Sealtight base pathway power infeed** attaches to any receptacle opening at the base pathway.
- A heavy rubber sheathing shields conduit, allowing infeed to be exposed.
- A jumper is required to connect base pathway power to beltline.



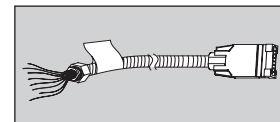
Sealtight Electrical Infeed Cable (page 243)

- **Sealtight electrical infeed cable** is used with footed panels.
- Should not be ordered prior to installation to have prewired as infeed must be routed from inside of panel out to be connected to power.
- Cannot be connected to power harness in panel frame that infeed is brought into unless additional pass-thru harness without power block is used to feed from below beltline to above beltline.



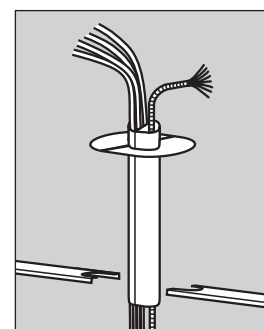
Ceiling Power Infeed (page 243)

- **Ceiling power infeed** connects to a prewired electrical harness in the beltline or base pathway, traverses through an adjacent panel and terminates in the junction box at the top of the integrated power pole.
- For use with integrated power pole models Z235PP and Z265PP.
- Can also be used as infeed for footed panels.
- Most codes permit flex conduit to be exposed after installation. Verify code requirements before ordering for exposed application.



Integrated Power Pole (page 243)

- **Integrated power and communications poles** provide capacity for routing power supply directly through the top of any structural or stacking frame using same width trim/connector kit in place of top cap.
- Power pole has a cavity on each side of a center septum.
- See page 240 for cable capacity.
- When using a ceiling power infeed, consider that the infeed must connect into an electrical harness located in an adjacent panel.
- Integrated power pole will not work with low profile glass stackers, panel mounted glass screens, or panel mounted screens.
- Avoid glass or translucent tiles in upper position of frames with integrated power poles.



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To Order:

1. Determine which electrical system you will use after consulting your electrician and computer support personnel:
 - The Four-circuit system (4-Hot/2-Neutral/2-Ground)
 - 3 + 1 option
 - 2 + 2 option
 - The Three-circuit system (3-Hot/3-Neutral/2-Ground)
 - The Eight-circuit system (back-to-back four-circuit systems)
2. Determine location, quantity, and circuit of duplexes.
3. Determine the appropriate choice and use of Isolated, Isolated/Dedicated, and Separate Neutrals circuits.
4. Specify appropriate Power Harnesses* and Pass-Thru Cables.*
5. Determine the location, quantity, and type of Power Infeeds needed.

* Select Power Harness models (A8712XX), Pass-Thru Cables (A8710XX) and Pass-Thru Harness (A8711XX) with the last two digits corresponding with the panel width into which the component is to be positioned. The initial cable length can be stretched approximately 3" to transverse "T", "X", "L" and Extended Straight Connectors.

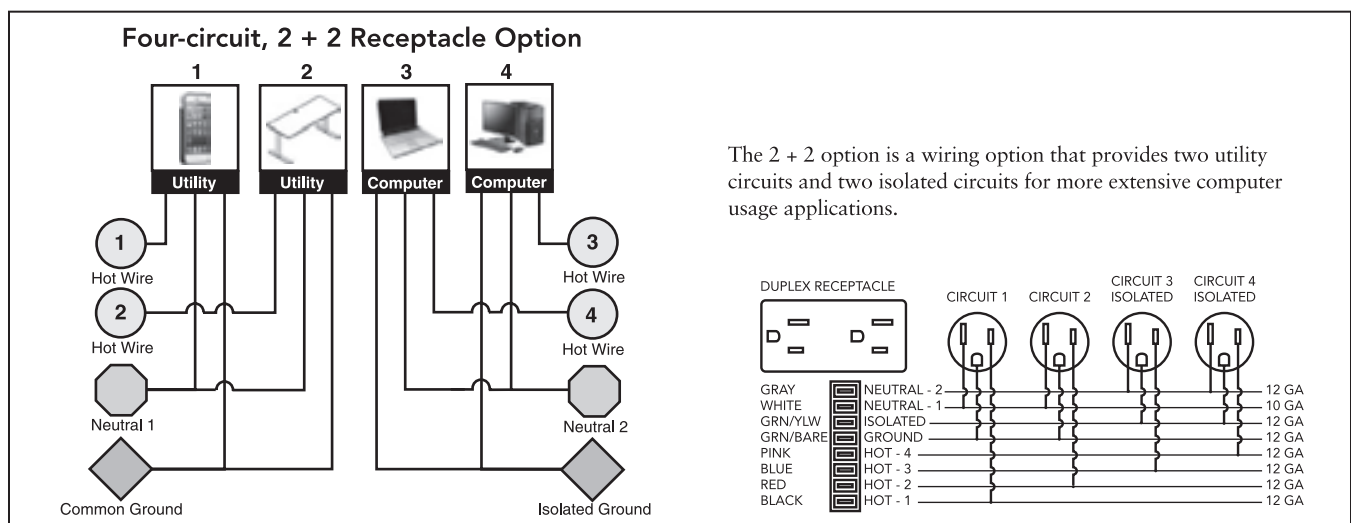
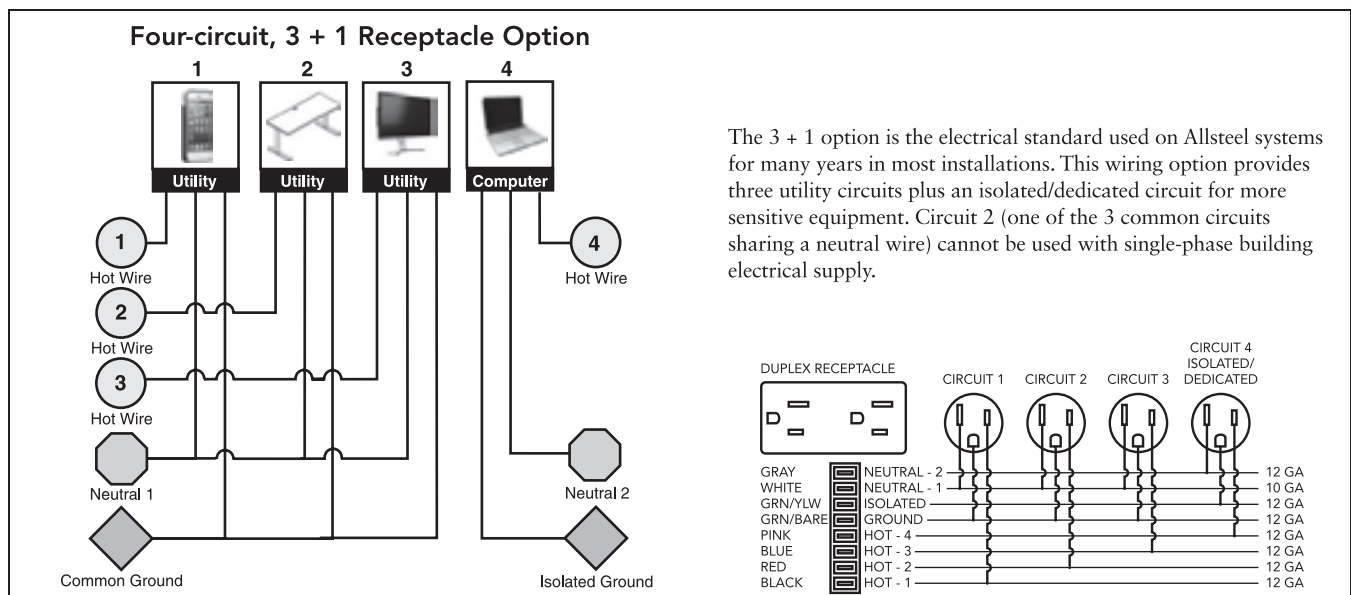
Flexconnect™ Electrical System Options

The four-circuit, eight-wire electrical system is widely specified and trusted by hundreds of thousands of end-users. This proven system delivers four circuits for every power infeed in either a 3 + 1 or 2 + 2 configuration. The isolated/dedicated circuits are ideal for sensitive computing equipment, while the common circuits are suitable for faxes, copiers, task lights and other peripherals. Both the 3 + 1 and 2 + 2 systems use the same prewired components, making it easy to adjust as electrical needs change.

You can also choose a three-circuit, eight-wire system that has a dedicated neutral for every hot circuit. The three-circuit components have model numbers with an "A" suffix.

All three systems utilize an eight-wire electrical system rated at 20 amps per circuit (15 amps Canadian). Concensys panels and electrical components are UL listed and CSA certified.

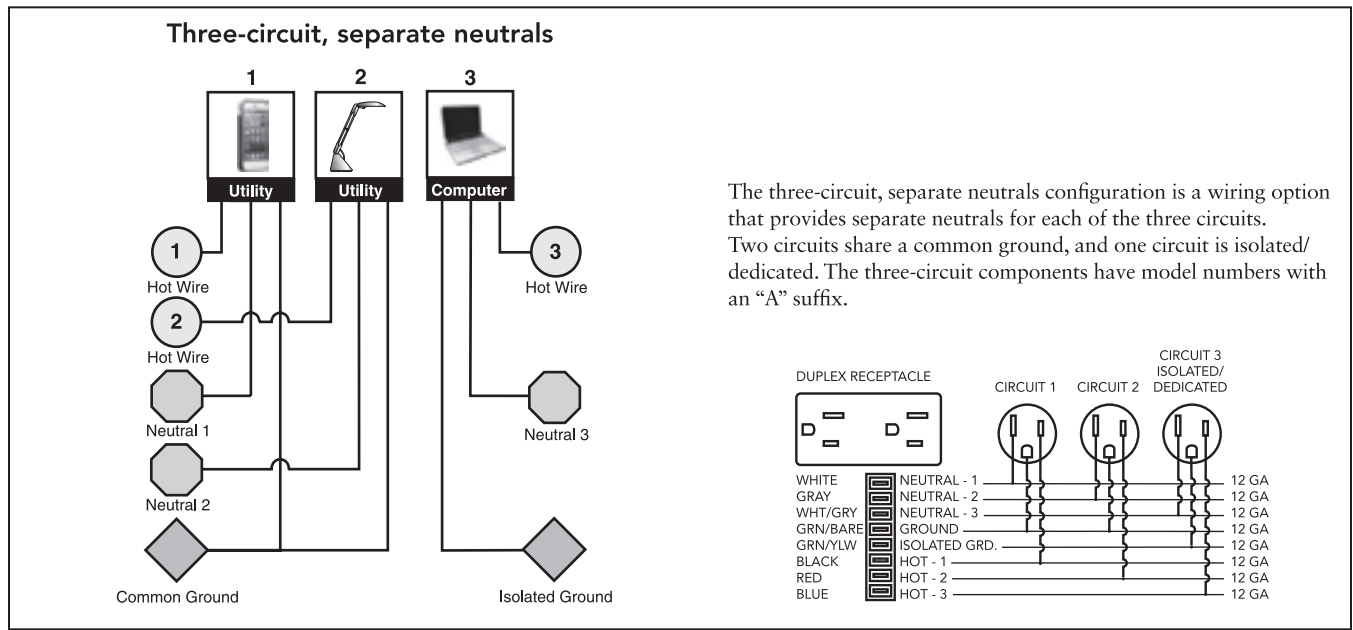
Reference the Office Equipment Typical Load Values matrix on page 242.



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STRIDE



Stride System Receptacle Usage					
Two 8-wire, 20 amp (15 amp Canadian) electrical systems are offered					
Electrical System	Circuitry	Receptacle Capacity			
Four-circuit 4-Hot/2-Neutral/2-Ground	3 + 1	Common Circuit-1 A877501	Common Circuit-2 ⁽¹⁾ A877502	Common Circuit-3 A877503	Iso/Dedicated Circuit-4 A877504
	2 + 2	Common Circuit-1 A877501	Common Circuit-2 A877502	Isolated Circuit-3 A877506	Isolated Circuit-4 A877504
Three-circuit 3-Hot/3-Neutral/2-Ground	w/separate neutrals	Common Circuit-1 A877501A	Common Circuit-2 A877502A	Iso/Dedicated Circuit-3 A877503A	N/A

- Notes:**
- Four-circuit components and three-circuit components (with suffix “A”) cannot be used together.
 - Components of the two systems are keyed differently to prevent components of one system being connected to components of another system.
 - Allsteel Model Numbers are printed on the UL labels, and components are color-coded to provide visual identification of the different components.
 - Four-circuit components have black plastic parts.
 - Three-circuit components have rust-colored terminal ends and receptacle backs are rust colored.

(1) Circuit 2 (one of the 3 common circuits sharing a neutral wire) cannot be used with a single-phase building electrical supply.

Duplex Receptacle



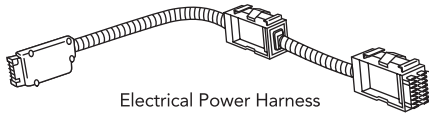
15 amp Receptacle

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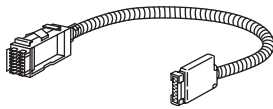
Stride® — Working with Electrical & Data

Power Harnesses, Pass-Thru Cables, and Jumpers

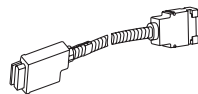
Electrical power harnesses are used to distribute power in Stride panels. Harnesses can be mounted at the base pathway and at 7½" vertical intervals above the base pathway using mounting brackets or power block beltline mounting brackets. **Power blocks** on electrical power harnesses and pass-thru harnesses accept duplex receptacles.



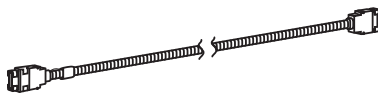
Electrical Power Harness



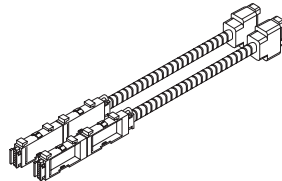
Electrical Pass-Thru Harness



Electrical Pass-Thru Harness
without Power Block



Electrical Jumper Cables

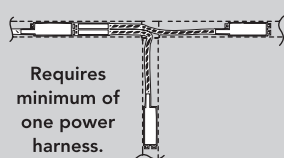


Dual Electrical Eight-circuit
Power Harness Kit

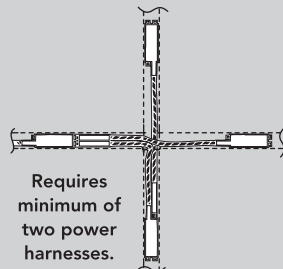
All electrical power harnesses and pass-thru harnesses (except 20"W) will stretch 3½", allowing them to span "T", "X", and "A" intersections and "S" extended straight connections.

Note: "T" intersections require a minimum of one power harness and "X" intersections requires a minimum of two power harnesses.

Use of a ceiling infeed or jumper requires one additional harness.



Requires
minimum of
one power
harness.



Requires
minimum of
two power
harnesses.

Use of a ceiling infeed or
jumper at this location requires
an additional power harness.

Power Harnesses (page 244)

- Specify harness length to match panel width. 24" power harnesses accept one receptacle on each side of the harness when exposed, all other power harnesses have power blocks to accept four duplex receptacles (two on each side of panel).
- Connectors at both ends of power harnesses allow power distribution in either direction.
- Harness power blocks snap directly onto brackets in base pathway; at beltline or other vertical locations harnesses require optional mounting brackets.

Pass-thru Harnesses (page 244)

- Electrical pass-thru harnesses have capacity to handle one duplex receptacle on each side of panel.
- Electrical pass-thru harnesses distribute power in panels — specify harness length to match panel width.
- Electrical pass-thru cables distribute power through any panel where receptacles are not required.
- 20"W frames use 20"W pass-thru cables since they do not have electrical knockouts or ported tiles. Cable length cannot be stretched.

Jumper Cables (page 244)

- Electrical jumper cables connect power from base pathway or beltline to a harness located on any horizontal member as needed.
- Jumper cable plugs into power block end of electrical power harness or electrical pass-thru harness.
- Model A871366 is 66" and connects beltline power harnesses at 90° juncture to adjacent base line power.
- Model A8713108 is 106" to jumper up to 69" vertically — from base rail up to the highest 7½" opening on a 65"H frame.

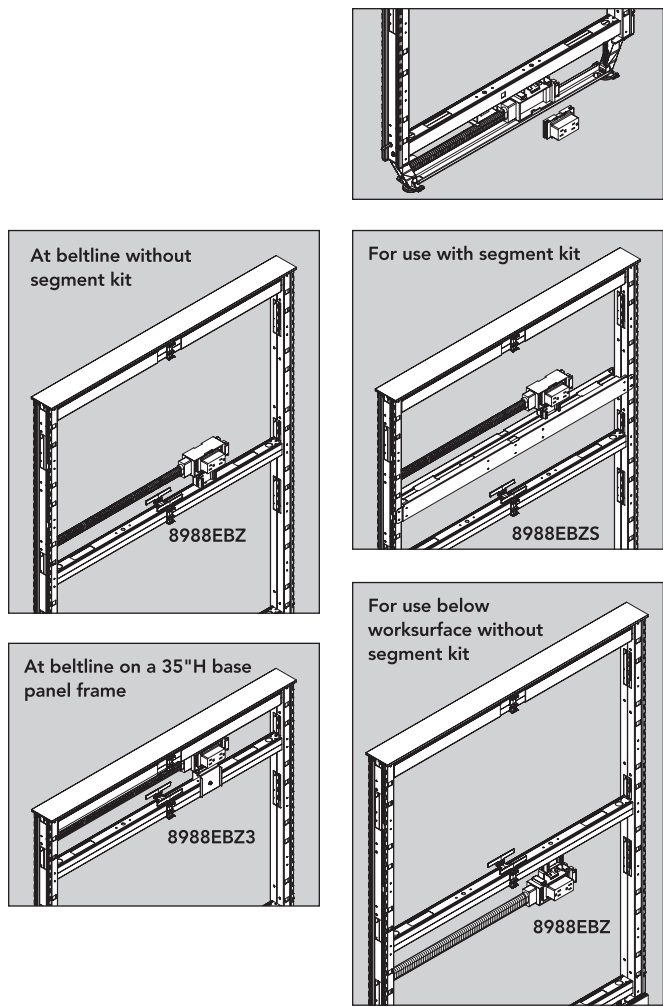
Dual Electrical Eight-circuit Power Harness Kits (page 244)

- Kit provides back-to-back four-circuit systems giving double the capacity of harness and pass-thru cables
- Requires two four-circuit infeeds. Uses four-circuit receptacles.
- Models must be positioned "back-to-back" in the panel — single-side use is not permitted
- Components can only be routed in a single run — a single run cannot branch to multiple panel runs at "T" and "X" junctions.
- Four-circuit jumper cables (A8713xx) can only be connected to a power block at one end of a run. Power cannot be routed between a run in the base pathway and a run in the beltline area, except at one end of the run.
- To connect power between the base pathway and the beltline area, four-circuit jumper cables (A8713xx) must be connected to a power block at one end of a run, routed into an adjacent panel that contains no power harness, then routed back into the panel that contains a power harness (or pass-thru cable), and connected to a power harness in the other pathway.
- Standard four-circuit pass-thru cables (A8710xx) can be used in between power harnesses. Two are required in the back-to-back configurations.
- Models can be connected to standard four-circuit power harnesses and pass-thrus, although it is not recommended because of possible circuit number ambiguity
- Two power infeeds are required to connect the back-to-back runs. Power infeed A8719xx must be connector to a power block at the end of a run.
- Data faceplates and terminals cannot be positioned in a panel into which back-to-back power harnesses are installed
- Power infeeds A8719xx must be routed from a panel wherein no power harness is positioned, into an adjacent panel where a power harness is positioned and connected to the end of a power block.

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Power Blocks



Stride offers multiple options for mounting electrical:

Base Pathway Mounting

- Power blocks snap directly onto brackets in base pathway area and accept receptacles on each side of harness.

Beltline Mounting Brackets (page 245)

- For exposed receptacles at beltline mount power blocks onto electrical mounting bracket (8988EBZ or 8988EBZ3 for 35"H base panel frames — sold separately) which screw into the panel frame or segment kit.
- Port tiles must be used where exposed receptacles will be located.

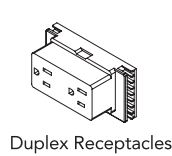
Segment Kit Mounting Brackets (page 245)

- When using segment kits at other locations mount power blocks onto electrical mounting bracket (8988EBZS — sold separately) which screw into segment kit.
- Port tiles must be used where exposed receptacles will be located.

Below Worksurface Mounting Brackets (page 245)

- When using a 22½" ported tile for power below the worksurface, use beltline electrical mounting bracket (8988EBZ — sold separately) and mount the bracket underneath the standard beltline horizontal.

Receptacles



Receptacle Color Recommended to Coordinate with Paint Color	
Paint Color	Receptacle Color
Carob — P52.....	Black — E4
Champagne Metallic — PR5	Muslin — EU
Cinder P7Q.....	Brownstone — EY
Fossil — P28.....	Flint — E9
Gunmetal Metallic — PR3	Brownstone — EY
Pebble P8R.....	Loft — EV
Pewter P8D.....	Flint — E9
Platinum Metallic — PR2.....	Loft — EV
Salt P8C.....	Silver — ES
Titanium P8T.....	Silver — ES

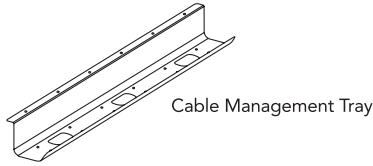
Duplex Receptacles (page 245)

- Duplex receptacles snap into power blocks of power harnesses or pass-through harnesses.
- Duplexes are available in multiple colors. See page 168 for finishes.
- Each receptacle is labeled to indicate which circuit it will be connected to: 1, 2, 3, or 4.
- Duplexes are model specific to support either 3+1 and 2+2 electrical infeed; or have an “A” suffix and are design to support a three-circuit separate neutral electrical infeed.

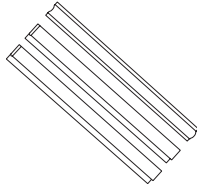
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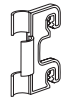
Cable and Wire Management



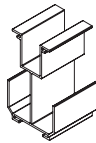
Cable Management Tray



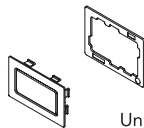
AWRSTRIP



Cord Retainer Clip



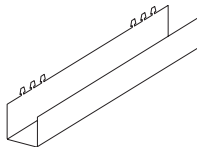
Data Management Organizer



Universal Tile Port Kit



Wireway Grommet



AMPCHASE

Cable Management Tray (page 245)

- Attaches under the worksurface to contain cables.
- Metal tray shelf is 4" deep. Can hold electrical power strip and/or surge protector.
- 24" and 36" lengths, use multiple units for larger worksurfaces.
- Attachment hardware included, paint option is black only.
- Zip tie attachment points located in base of tray. Zip ties not included.
- Limited paint offering. Available in all Grade P1 and Grade P2 paint finishes for Altitude Bases with the exception of Night Bronze (P8B).

Wire Management Strips/Channels (page 245)

- Self adhesive backing to attach to panels and underside of worksurfaces.
- Flexible strips allow cabling to enter/exit and can be contained inside the strips' cavities.
- Includes two wire management profiles. Smaller profile allows for qty. 3, .3" diameter cords, has area of .32 in². Larger "J" shaped profile allows for qty. 10, .3" diameter cords, has area of 1.14 in².

Cord Retainer Clip (page 245)

- Provides confinement of vertical electrical/data wiring.
- 1½"H cord clips snap into vertical panel slots to contain cords.
- 4 clips are provided standard with each task light cord.

Data Management Organizers (page 245)

- **Cable organizers** are made of rigid polymer, and hang from the horizontal cross members or in the base raceway. Can be stacked infinitely.
- Cables can be placed into the extensions of the organizers to keep cables aligned as they pass through the panel frame.
- Commercially available tie-wraps can also be used to strap cables to the organizer extensions.
- Organizers are ordered separately in packs of 20.

Universal Tile Port Kit (page 245)

- Allows field installation of additional data accessories.
- Grommet opening dimension — 1.375"H x 2.700"W.

Wireway Grommet (page 245)

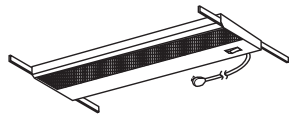
- Fits into any receptacle opening.
- Used when routing wires through receptacle opening.

Panel Mounted Wire Chase (page 245)

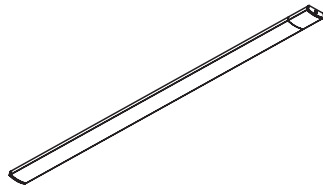
- Attaches between panels on Stride, Terrace, and Optimize via a slotted standard.
- Designed to sit below a worksurface and provide additional cord management from the base rail to beltline/under-worksurface height.
- Available in standard metal paint finishes.

For more power and wire management options, please visit the [Extensions](#) pages.

Lighting



Task Lights



Undercabinet LED Light

Task Lights (page 991)

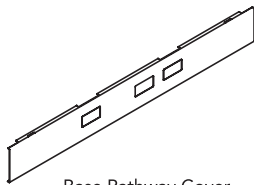
- Task lights can be recessed under storage cabinets or storage shelves, panel-hung, or freestanding.
- Three styles of recessed task lights in four sizes are available to correspond to cabinet or shelf width.
- All styles have 9' power cords in black, connected in the right rear corner.
- All models feature electronic ballast for longer bulb life and cooler operating temperature.
- Task lights with a fused plug to meet Chicago electrical code are also available.

Recommendation: Provide a separate circuit for task lights for proper long-term operation without RF interference to computers that may be in use.

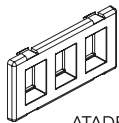
Undercabinet LED Light (page 991)

- Undercabinet LED light can be mounted beneath overhead cabinets with wood screws or magnets.

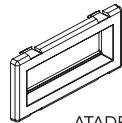
Data



Base Pathway Cover



ATADF3



ATADF4

Base Pathway Covers (page 246)

- Features an additional knockout (offset) for improved utilization of power and data. Knockouts are 2.700" W x 1.377" H.
- Due to panel depth, back-to-back data modules should not be used at beltline or in the base on Stride.

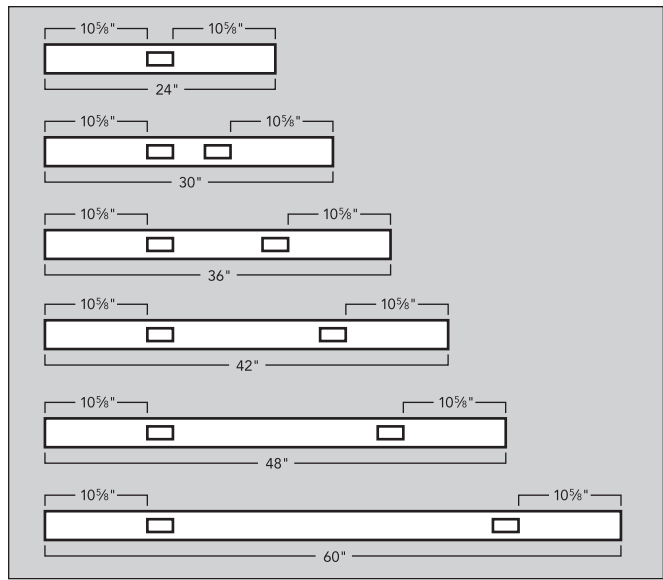
Data Faceplates (page 246)

- Fit into receptacle and data port openings in base raceway covers or into data port (UTP).
- Due to panel depth, back-to-back data modules should not be used at beltline or in the base on Stride.

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Base Pathway Receptacle Locations



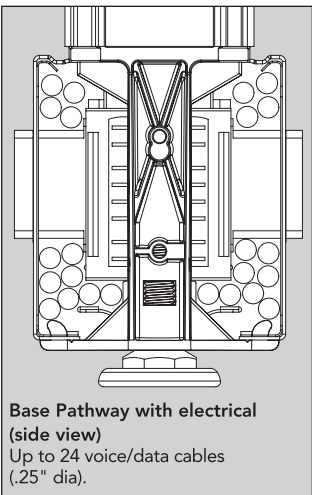
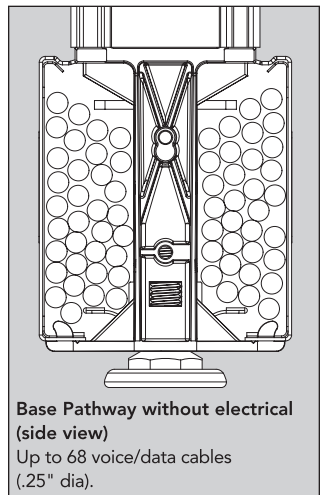
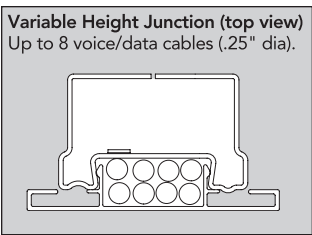
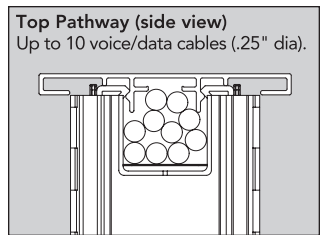
Circuit Usage

- Strategy 1**
Circuits to Equipment
Assign specific uses for each of the circuits. For example, in a four-circuit system:

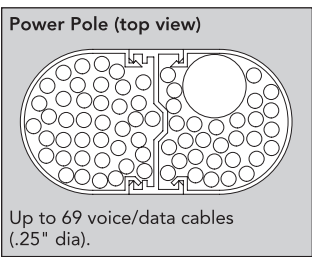
 - Circuit 1 — calculators, fans, etc.
 - Circuit 2 — task lights (could be wired to wall switch)
 - Circuit 3 — CRT or flat screen monitors
 - Circuit 4 — CPUs
- Strategy 2**
Circuits to Workstations
Assign specific workstations to each of the three available circuits. Use circuit 4 for power-sensitive electronic equipment.

Placement of pedestals and lateral files may render some duplex locations inaccessible. Pedestal placement may also affect compatibility with pull-up receptacles.

Lay-in Cable Capacity — Stride cable quantities listed at 60% fill ratio



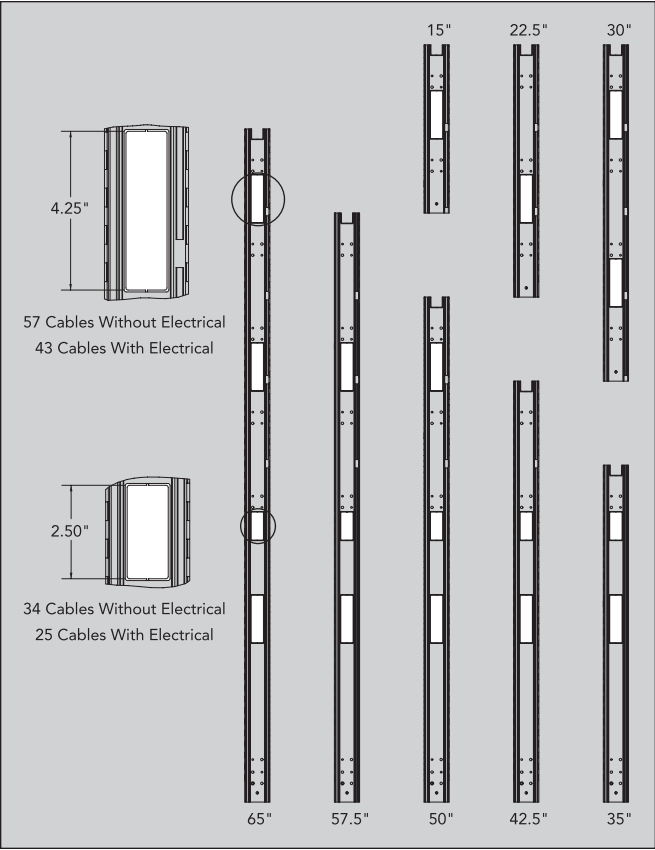
- The top and base pathway allow continuous voice and data lines to run through and between panels without interruption. Lay-in is provided for environments where systems furniture or cabling are subject to frequent change.
- Stride panels top pathway accepts up to 10 voice/data cables (.25" dia).
 - Stride panels variable height junctions accept up to 8 voice/data cables (.25" dia.) with a bend radius of approximately 1/2" to 3/4".
 - Stride panels base pathway accepts up to 68 (5.56 sq. in.) voice/data cables (.25" dia.) when electrical system is located in beltline pathway.
 - When electrical system shares base pathway, the cable capacity in Stride panels is reduced to 24 (1.95 sq. in.) voice/data cables (.25" dia.) Cable quantities listed are at 60% fill ratio.
 - Cable capacity of the Stride power pole, in addition to electrical infeed, is 2.79 sq. in. on one side and 2.91 sq. in. on the other for a total capacity of 69 cables of .25" diameter. Cable quantities listed are at 60% fill ratio.



Electrical & Data

Stride® — Working with Electrical & Data

Horizontal Capacity of Stride Frames

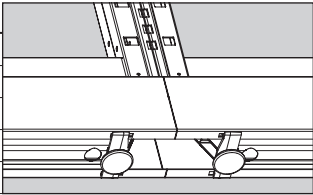


DO NOT run electrical equipment or extension cords through cable openings in frame sides. Use beltline or base-mounted electrical system for all electrical supply.

String-in Capacity

- Openings in frame sides permit data and communication cables to be run between frames at up to five levels in a 65"H Stride frame.
- Using tackable acoustical tiles, each opening accommodates up to 57 cables (.25" dia) and the beltline pathway accommodates 25 cables with electrical components installed.
- Cables can enter/exit panel through underside of base pathway at juncture between frames. Openings are sized as follows::

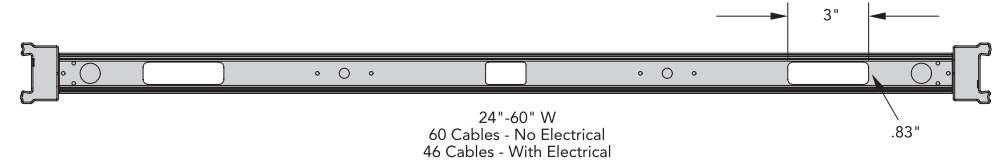
Stride Connections	Sq. In.
Straight	5.4
"S" Extended Straight	12.9
"L" 90°	13.0
"T"	16.6
"X"	20.4



- When leveling glides are fully retracted, panel-to-floor clearance is 7/16". This may affect the volume of cabling that can be fed into the frame from the bottom of the pathway.

Vertical Capacity

Vertical Capacity Through Stride Panel Frames



- A 60% fill ratio is achievable; however, when electrical components are installed in the beltline area, cabling capacity through the beltline area will be limited to approximately 45% fill ratio.

	Panel Width	Qty of .25" Cables at 40% Fill Ratio	Qty of .25" Cables at 60% Fill Ratio	Total Space (sq. in.)
Stride	24" – 60"W	46	60	4.90

Electrical & Data

Office Equipment Typical Load Values

Office Equipment Typical Load Values

Item	*Amps
Desktop Computer/2 Monitors	4
Laptop Computer	1
Laptop/2 Monitors/Docking Station	4
Paper Shredder	1.22
Radio	0.05
Scanner	3
Space Heater (1500 watts)	12
Task Light (equiv. 60-watt bulb)	
Fluorescent	0.12
LED	0.08
USB Charger	0.17
LCD Television (42")	1
LCD Monitor (21")	0.5
Bluetooth Speaker	0.1
Desktop Printer	
Inkjet	0.15
Laser	4 to 10
Multimedia Projector	1.7
Sit-to-Stand Height-Adjustable Desk	Idle 0.01 / Max 4
Office Kitchen	
Coffee Maker	10
Microwave	10
Toaster	12.5
Compact Refrigerator	1.5

*Chart is recommended for planning purposes. Check device specifications for exact amperage. Consult with your electrician regarding the applicable configurations.

Examples of Component Usage based on the *Office Equipment Typical Load Values* Chart

Power Option 3+1

Dedicated Circuit 4: 4 desktop computers with 2 monitors each; or 10 laptop computers
Utility Circuits 1, 2, 3: Height-adjustable tables and ancillary items

Power Option 2+2

Dedicated Circuit 3: 4 desktop computers with 2 monitors each; or 10 laptop computers
Dedicated Circuit 4: 4 desktop computers with 2 monitors each; or 10 laptop computers
Utility Circuits 1, 2: Height-adjustable tables and ancillary items

Power Option 3 (Circuit-separate neutrals)

Dedicated Circuit 3: 4 desktop computers with 2 monitors each; or 10 laptop computers
Utility Circuits 1, 2: Height-adjustable tables and ancillary items