## **Diagnosing Needs**

In determining the electrical needs of any office project, the primary goal should be safely providing power without potentially causing damage to electronic equipment, and providing electrical systems that are portable.

As a rule of thumb, when specifying power and communications components for freestanding workstations there are a number of basic variables to consider that will help you determine the best selection of components for both short and long term end-user needs.

Consider the following:

- 1. What is the nature of the end-user's industry and how often does the end-user move employees? Does it have high churn rates or is it relatively stable? This will help determine how flexible and mobile the electrical systems that support the client's business should be.
- 2. What is the primary function(s) of the end-user's business? What is the extent to which each employee needs to be "wired?"
- 3. Does it rely on extensive electronics and communications devices? Do employees work independently from traditional offices and/or cubicles or are project teams and group spaces also employed regularly?
- 4. Does the client rely on a local area network (LAN) set-up or is the office space hardwired to accommodate individual data and communication needs? Or somewhere in between? This will determine factors such as how much cabling will be needed, and how many networked. Some experts believe that since the costs for cabling will keep increasing, designers and facility managers should consider specifying now for future needs. At this time, the average cable need is two cable lines per person. Is the current infrastructure capable of handling electronics and electrical needs? This and the end-user's plans for electronic usage will help determine how much outside technical assistance from an electrician or other personnel will be needed. It will also help you determine how many hardwired components you need and where corded components can be used.
- 5. What are the electrical codes? Codes vary by locations. Contact a qualified electrical contractor or engineer about local requirements.
- 6. Does the client want power sources above, hidden below, or level with the workstation level? This will help indicate where outlets will need to be installed, and how flexible the workstation design can be.

### **Electrical Basics**

Understanding electrical needs is the start of the process in determining the kind of user and the level of sophistication their needs require. Currently, solutions to creating the necessary outlets for electronics and data systems range from power strips to having an electrician hardwire an entire workspace for the necessary outlets. But when is the power strip a logical solution? When is the cost of an electrician unnecessary? To help shed more light on the topic of specifying electrical systems for today's workstations, here are some basic office and typical home office needs.

Individual small office/home office user - electronics may include one computer, monitor, printer, one or two computer accessories and telephone.

Electrical system needs: five outlets (additional outlets required for lamp, clock, radio and other accessories). Data/communications requirements: one phone jack for computer modem, one for telephone and possibly a fax machine.

#### **Cordset Components**

Retractable Power Centers, Power/Data Centers, Power/Communications Grommets, Power Grommet, Worksurface Power, Tri-Power Electrical/Data Strip

The selection of cordset components provides an easy-to-specify and easy-to-install power/communications system. Cordset components can provide power outlets and voice/data jacks at the worksurface level.

Specifications	15-amp grounded outlets. These components should not be linked or "daisy-chained" in a series.
Application	Use where power or power/communications access is needed at surface level
Power	Plugged into facility's electrical system.

### **Communications:**

Items with Data/Communications provide combinations of RJ11 Communication Category 3 couplers and/or RJ45 Category 5E Data Jacks. RJ11 Couplers are 6-pin female-female connectors that allow the user to connect 2 telephone lines together. RJ45 Jacks are 8-pin Category 5 Enhanced for high-speed data transmission and are "hardwired" to twisted-pair data communication cables.

### **Power/Communications Access**

For power and communications at worksurface level Power Grommet Power/Communications Grommet

For power and communications below worksurfaces Tri-Power Electrical/Data Strip

### Configurations

Many Power and Communication/Data configurations are available. Call for your special application needs.

### **Code Requirements**

Electrical codes vary by location. Specifiers should contact a qualified electrical contractor or engineer about local requirements.

# Components meet the latest edition of the National Electric Code. Components are listed by Underwriters Laboratories and certified by the Canadian Standard Association.

### **Optional Electrical Cutout for Conference Tables:**

\$100 Retail Upcharge per Electrical Cutout - Specify and price Electrical Components separately. Submit drawing with the Conference Table order specifying location, size and type of electrical cutout(s).

Description / Model Retractable Power Center	List Price			Ship wt cubes
P-EC1000RPB	\$ 300			4 / .5
P-EC1000RPS	\$ 300			4 / .5
				H 8 <sup>5</sup> / <sub>8</sub> Bases fro
Double Retractable Power Center				
P-EC2000RP	\$ 445			4 / .5
	11 5			H 8 <sup>1</sup> / <sub>8</sub> Bases fro
Tri-Power Electrical/Data Strip				
P-EC1200TP-72	\$ 186			4 / .5
P-EC1200TP-120	\$ 196			4 / .5
<b>BEEB</b>	Use with Overture technology trough 4-15 amp simplex with switch 72" cord for P-EC1200TP-72, 120" cord for P-EC1200 Data place opening Order data separately	<b>W</b> 12	<b>D</b> 2 <sup>1</sup> / <sub>4</sub>	<b>H</b> 2 <sup>1</sup> / <sub>4</sub>
Retractable Power/Data Center				
P-EC1208RP-72C	\$ 331			6 / .5
P-EC12080RP-120C	\$ 348			6 / .5
No. 10 March	Not for use with Overture technology trough 3-15 amp simplex 72" cord for P-EC1208RP-72C, 120" cord for P-EC1208RP-120C Requires $7^{11}/_{16}$ " x $12^{1}/_{2}$ " rectangular cut out Four data openings Order data separately	<b>W</b> 12 <sup>1</sup> / <sub>2</sub>	<b>D</b> 8	<b>H</b> 3
Retractable Power/Data Center				
P-EC1208RP-72H	\$ 376			6 / .5
Via v	Not for use with Overture technology trough 3-15 amp simplex with hardwire 72" conduit length Requires $7^{11}/_{16}$ " x $12^{1}/_{2}$ " rectangular cut out Four data openings Order data separately	₩ 12 <sup>1</sup> / <sub>2</sub>	<b>D</b> 8	<b>H</b> 3

	List Price			Ship wt / cubes	SIN # 711-2
Round Grommet					
P-EC40GL_	\$ 54			.5 / 1	
	Available in Black (B) or Silver (S) Includes grommet and cover Field installed	₩ 3³/ <sub>8</sub>	<b>D</b> 3³/ <sub>8</sub>	<b>H</b> 2	
NOT ON CONTRACT					
Oval Grommet					
P-EC2040GL	\$ 68			.5 / 1	
	Includes grommet and cover Field installed	₩ 4 <sup>1</sup> / <sub>8</sub>	<b>D</b> 2 <sup>5</sup> / <sub>8</sub>	<b>H</b> 1	
Power Grommets Power/Communications Gromm	iet				
P-EC3100PG	\$ 403			2 / .1	
F <b>O</b> R	Provides power and communications access at worksurface level (2) 15-amp electrical outlets (1) RJ11 coupler (1) RJ45 Cat 5E jack Wire management slot - 3.5" diameter 6' cord with 15-amp plug Field installed Black		<b>D</b> 4		
Large Oval Power Grommet					
P-EC3300PG	\$ 539			6 / .1	
	Provides power and communications access at worksurface level (4) 15-amp circuit breaker protected electrical outlets (3) Data modules containing: (1) RJ11 coupler and (5) RJ45 Cat 5E jack Requires 3 <sup>1</sup> / <sub>2</sub> " x 12" wire management hole 6' cord with 15-amp plug Field installed Black	<b>W</b> 4 <sup>5</sup> / <sub>16</sub>	<b>D</b> 12 <sup>3</sup> / <sub>4</sub>		
Docking Station - Media Card					
P-EC3001PG	\$ 206 Unit consists of 3 USB slots and 2 media card readers Head phone & microphone ports included 37" USB cable & audio card included Fits 3" diameter hole		<b>D</b> 3 <sup>1</sup> / <sub>2</sub>	.6 / .5 H 2 <sup>9</sup> / <sub>16</sub>	

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SIN # 711-2 P-EC3000WP Color Options BL - Black	Description / Model Docking Station - iPad & iPhone P-EC3002PG	List Price \$ 270			Ship wt / cubes .6 / .5
SL - Silver		Unit consists of docking/charging station for iPod & iPhone 96" USB cable & 92" AV cable are also included Fits 3" diameter hole		<b>D</b> 3 <sup>1</sup> / <sub>2</sub>	H 2º/ <sub>16</sub>
	NOT ON CONTRACT Docking Station - Electrical				
	P-EC3003PG	\$ 179 Pop up consists of 3 electrical outlets on vertical riser 10 ft. electrical cord Fits 3″ diameter hole		<b>D</b> 3 <sup>1</sup> / <sub>2</sub>	1 / .5 <b>H</b> 10 <sup>1</sup> / <sub>8</sub>
	Worksurface Power P-EC1000WP	\$ 1361			10/.1
		Provides power and communications access at worksurface level (2) 15-amp circuit breaker protected electrical outlets (3) Data modules containing: (1) RJ11 coupler and (5) RJ45 Cat 5E jack Requires 6 <sup>1</sup> / <sub>8</sub> " x 6 <sup>1</sup> / <sub>8</sub> " wire management hole 9' cord with 15-amp plug Field installed Black	<b>W</b> 6 <sup>1</sup> / <sub>2</sub>	<b>D</b> 6 <sup>1</sup> / <sub>2</sub>	H 3 <sup>3</sup> / <sub>4</sub>
	Large Worksurface Power P-EC2000WP	\$ 1435			10/.1
		Provides power and communications access at worksurface level (4) 15-amp circuit breaker protected electrical outlets (6) Data modules containing: (2) RJ11 coupler and (10) RJ45 Cat 5E jack Requires 6 <sup>1</sup> / <sub>8</sub> " x 10 <sup>3</sup> / <sub>8</sub> " wire management hole 10' cord with 15-amp plug Field installed Black	<b>W</b> 10 <sup>3</sup> / <sub>4</sub>	<b>D</b> 6 <sup>1</sup> / <sub>2</sub>	H 3 <sup>3</sup> / <sub>4</sub>
	Worksurface Power P-EC3000WP	\$ 360			10/.1
		Above worksurface when open (2) 15-amp circuit breaker protected electrical outlets (1) RJ11 coupler (1) RJ45 Cat 5E jack 6' cord Voice/data adapter kit Requires 6" x 4 <sup>1</sup> / <sub>2</sub> " rectangular cut out	<b>W</b> 7	<b>D</b> 5	н 2
	Available colors: P-EC3000WPB-Black P-EC3000WPS-Silver	Field installed Fits worksurface 1" - 1³/₄" thick Black			
	S	pecify color			

Specify selections, left to right: Choose base Color model

P-EC3000WP. BL

P-EC4000WPS \$ 3 P-EC4000WPS \$ 3 P-I (2 (2 (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	<ul> <li>2) 15-amp electrical outlets <ul> <li>) RJ11 coupler</li> <li>) RJ45 Cat 5E jack</li> <li>/ cord</li> <li>pice/data adapter kit will accept jacks from most manufacturers becify with table order for factory installation of 6" x 2<sup>1</sup>/<sub>2</sub>" cut out</li> </ul> </li> <li>90 <ul> <li>exible black plastic</li> <li>eld installed</li> </ul> </li> </ul>	7 	<b>D</b> 3 <b>D</b> 1 <sup>1</sup> / <sub>4</sub>	2 / .5 2 / .5 H 2 1 / 1 H 2 <sup>1</sup> / <sub>2</sub>	
P-EC4000WPS \$ 3 P-EC4000WPS \$ 3 P-I (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	341 EC4000WPB - Black, P-EC4000WPS - Silver 2) 15-amp electrical outlets ) RJ11 coupler ) RJ45 Cat 5E jack ' cord pice/data adapter kit will accept jacks from most manufacturers pice/data adapter kit will accept jacks f	7 	3 D	2 / .5 H 2	
P-I         (2)         (1)         (2)         (1)         (	EC4000WPB - Black, P-EC4000WPS - Silver 2) 15-amp electrical outlets ) RJ11 coupler ) RJ45 Cat 5E jack ' cord pice/data adapter kit will accept jacks from most manufacturers pecify with table order for factory installation of 6" x 2 <sup>1</sup> / <sub>2</sub> " cut out 90 exible black plastic eld installed	7 	3 D	<b>H</b> 2 1 / 1 <b>H</b>	
(2)         (1)         (	<ul> <li>2) 15-amp electrical outlets <ul> <li>) RJ11 coupler</li> <li>) RJ45 Cat 5E jack</li> <li>' cord</li> <li>pice/data adapter kit will accept jacks from most manufacturers becify with table order for factory installation of 6" x 2<sup>1</sup>/<sub>2</sub>" cut out</li> </ul> </li> <li>90 <ul> <li>exible black plastic</li> <li>eld installed</li> </ul> </li> </ul>	7 	3 D	2 1 / 1 <b>H</b>	
Wire Trough P-TL-18-WT \$ 9 Fle Fie Cord Management Strap P-WM7BL \$ 2 NOT ON CONTRACT Vertical Wire Manager P-EC1000WM \$ 1	exible black plastic eld installed	<b>W</b> 18	<b>D</b> 1 <sup>1</sup> / <sub>4</sub>	н	
P-TL-18-WT \$ 9 Fle Fiel Cord Management Strap P-WM7BL \$ 2 NOT ON CONTRACT Vertical Wire Manager P-EC1000WM \$ 1	exible black plastic eld installed	<b>W</b> 18	<b>D</b> 1 <sup>1</sup> / <sub>4</sub>	н	
Fie Cord Management Strap P-WM7BL \$ 2 WM7BL \$ 2 WOT ON CONTRACT Vertical Wire Manager P-EC1000WM \$ 1	eld installed	<b>W</b> 18	<b>D</b> 1 <sup>1</sup> / <sub>4</sub>		
P-WM7BL \$ 2 NOT ON CONTRACT Vertical Wire Manager P-EC1000WM \$ 1	26				
Vertical Wire Manager P-EC1000WM \$1					
Vertical Wire Manager P-EC1000WM \$1					
P-EC1000WM \$ 1					
30 Gu Fie	131			.5 / 1	
ы	0″ length iuides power and communications wire from floor to worksurface eld installed lack only				
NOT ON CONTRACT					
Couplers					
Cat 3, RJ-11, 6-Pin Amp Coupler <b>P-EC01DC</b> \$ 4	48			.5 / 1	
٢					
Cat 3, RJ-45, 8-Pin Amp Coupler <b>P-EC02DC</b> \$ 4	48			.5 / 1	
٢					
Jack Cat 5E, RJ-45 Amp Coupler P-EC03DC \$ c	62			.5 / 1	
6					
How to specify: 1. Choose base 2. Color model					
P-EC3000WP. BL					