electrical

STEP-BY-STEP SPECIFICATION – 8-WIRE ELECTRICAL SYSTEM

Step **1**   **Determine the location of the source power entering the Panel Run.**

1. At the base of the Panel.
  (a) Use CE8FR1 Reversible Floor Power Entry (default to CE8FR1).
  (b) Select the Panel to which the Floor Power Entry will be attached.
  (c) Select the side of the Panel and the receptacle outlet to which the
    Floor Power Entry is to be attached.

  Note: When using Pass Through Connectors in conditions other than a
    straight line, you must use a CE8CI-1 I-Connector along with a
    CE8CP17 Flexible Mesh Jumper Cable through the corner post.

Step **2**   **Determine which Panels are to be powered.**

1. Use CE8PD Power Distribution Housing that corresponds with the width
  of the Panel.

Step **3**   **Connect power to the powered Panels.**

1. Use CE8CP17 Flexible Mesh Jumper Cable between two adjacent
  powered Panels.

2. Use CE8CP17 Flexible Mesh Jumper Cable between two adjacent
  powered Panels separated by a post.

3. Use CE8CP17 Flexible Mesh cable (to turn the post) and a CE8CI-1 "I"
  Connector to attach the CE8CP Pass Through Cable.
  (a) The length of the Pass-Through Cable is calculated by adding together
  the widths of the non-powered Panels that separate the two powered
  Panels and applying an additional 16" to the total. (CE8PD Power Distri-
  bution Housing is positioned 8" in from the ends of the powered Panel.)
  (b) An additional 3" must be added to the Pass-Through Cable for each
  post that the cable passes through.
  (c) Subtract 17" from the total length to find the pass through cable
  length required.

4. From the price list, select the CE8CP Pass-Through Cable that matches
  the calculated length. If the length is between listed sizes, use the next
  size up.

Step **4**   **Determine the location and circuitry of the receptacles.**

1. Each powered Panel has four (4) potential locations for CE8RD Duplex
  Receptacles – 2 per side. (Exception: 24" wide Panel has only two
  potential locations – 1 per side.)

2. At each receptacle location there is a choice of four circuit options.
  Select a circuit option for each location. Circuits one & two are utility
  circuits; circuits A & B are dedicated circuits.

COMPILE'S 8-WIRE ELECTRICAL SYSTEM

Electrical
This modification allows for the integration of the commonly required "2+2" configuration (2 utility circuits, 2 dedicated circuits) found in the source power of most of today's North American buildings.

This system is rated for connection to:

1. A grounded 120/240V, single phase, 20 A, 60Hz

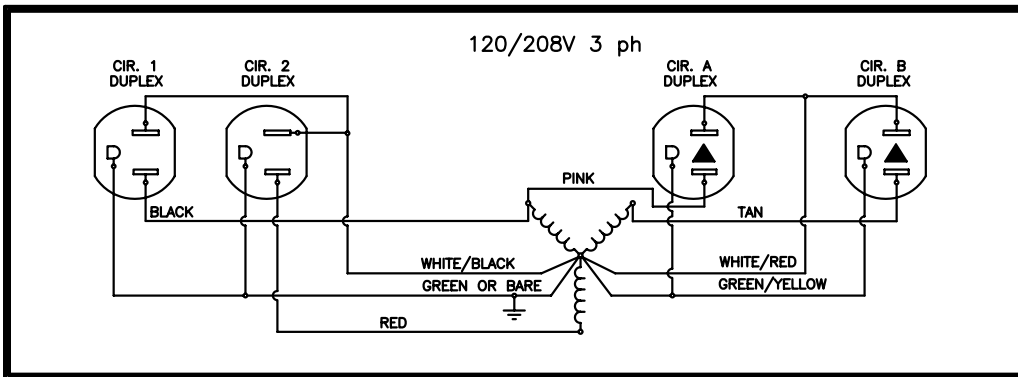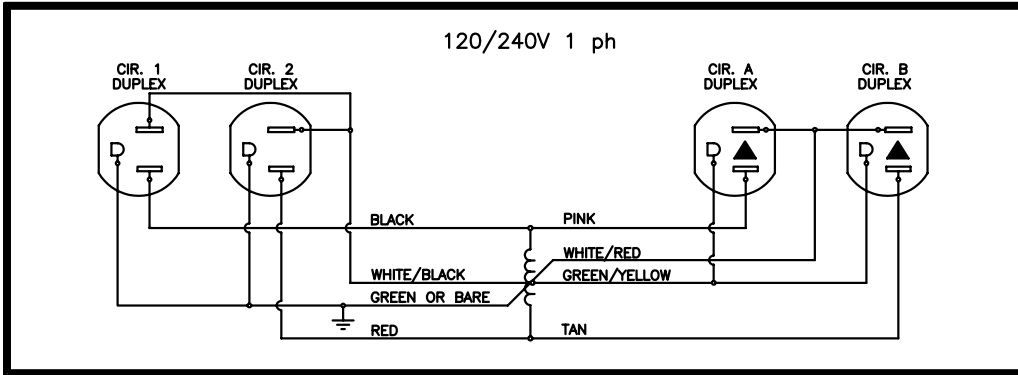2. A 120/208V, 3 phase, 20 A, 60Hz branch circuit

Data/Comm

Compile's duplex receptacle openings (1.345 x 2.80) will conform to the ANSI/TIA/EIA Furniture Opening Standard of 1.38 +/- .035 x 2.71 +/- .04

EQUIPMENT AMPERAGE

Calculator	0.25
Electric Eraser	0.50
Pencil Sharpener	1.00
Radio	0.05
Paper Shredder	4.40 - 13.00
Electric Typewriter	1.20

Personal Computer	2.00 - 4.00
Video Display Terminal	0.08
Draft / Letter Quality Printer	1.20 - 3.00
Laser Printer	5.00 - 8.00
Processor / Disk Unit	1.00 - 10.00

Desk Top Plotter	1.50
Fan	1.00
Heater	8.50 - 12.50
Coffee Pot	15.00
Task Light	1.00
Slide Projector	2.00 - 6.00

Since some equipment, such as large copiers, printers, plotters, heaters and coffee makers would occupy most of the circuit capacity, it is
recommended that such devices be supplied with the power directly from the wall or building receptacle.

Wiring Schematic

120/240V 1 ph

120/208V 3 ph

Defining "2 + 2" Wiring Configurations

2 + 2 Configuration (8 wire, 4 circuit)
Two Utility Circuits [Compile's new #1 & #2 circuits] share one neutral wire and one ground wire.
(2 hot [circuit] wires + 1 neutral wire*** + 1 green ground wire* = 4 wires)

Two Dedicated Circuits [Compile's new "A" & "B" circuits] share one neutral wire and one ground wire.
(2 hot [circuit] wires + 1 neutral wire *** + 1 green/yellow ground wire** = 4 wires)

Note:
It is the ground wire that makes the difference between "Utility" and "Dedicated" circuits. Refer to Wiring Schematics found above.

* A Green ground wire is a "system" ground. This means it could be grounded to any piece of metal, including the Panel.
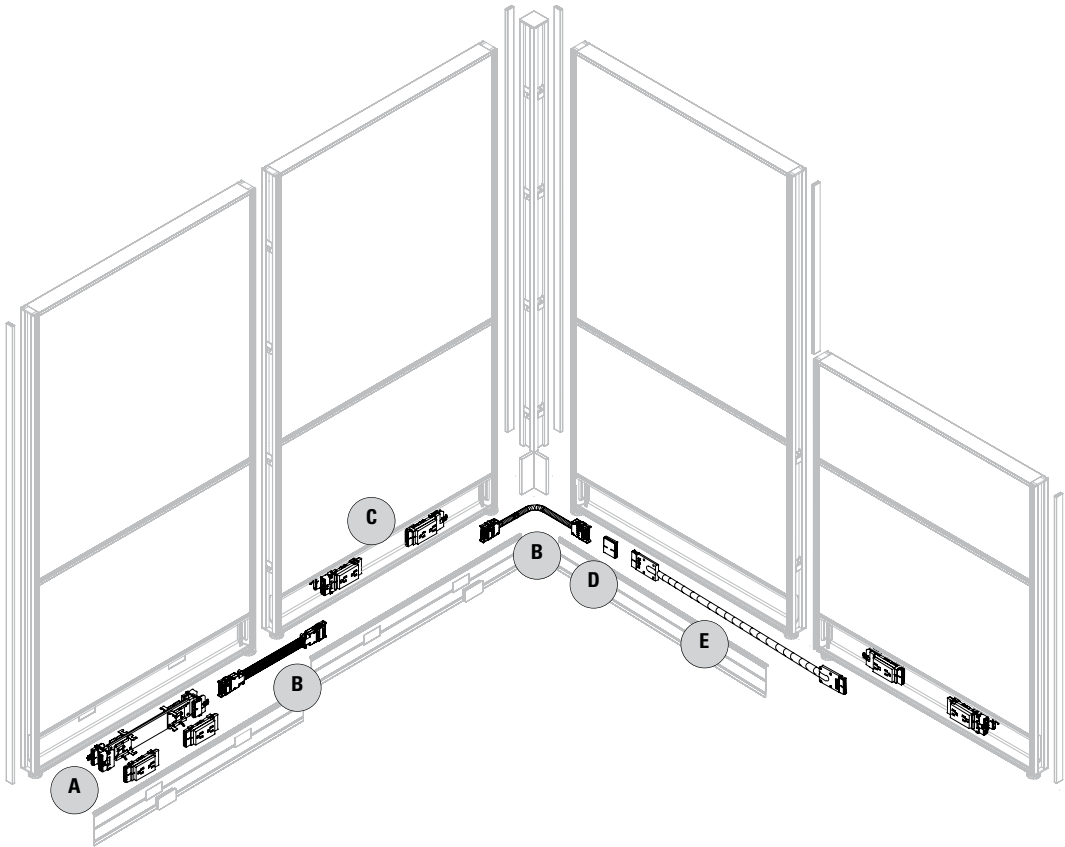** A Green/Yellow ground wire is isolated, within the wiring conduit, all the way back to the box at the source (building ground).
*** All Neutral Wires are 10 gauge rather than 12 gauge meaning they are larger than normal, allowing greater protection against "noise" or interference on the circuit.

This page provides an exploded view of a sample configuration highlighting each **Electrical** component required when specifying this configuration.
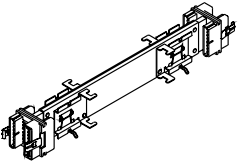
Components

A.   CE8PD36   Power Distribution Housing
                              Note: 8 wire, 4 circuits, 2+2 configuration

B.   CE8CP17   Flexible Mesh Jumper Cable (connects two panels side by side or separated by a post)

C.   CE8RD   Duplex Receptacle

D.   CE8CI-1   "I" Connector

E.   CE8CP   Pass-Through Cable
                              Note: Must run in a straight line application only
                              Note: Pass-Through Extension Cable (CE8CPF154) available – extends power capability beyond 208".
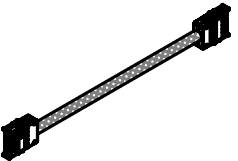
CE8PD - POWER DISTRIBUTION HOUSING

- Power housing is specified per panel size (e.g. CE8PD36 is for use in a 36" panel).
- 8 wire, 4 circuits (4th circuit dedicated).
- Power distribution housing is required for each powered panel, the power distribution housing should equal the width of the panel that it is specified in.
- Provides two duplex receptacle ports per panel side on all panel widths except the 24" wide panel.
- 24" wide panel allows for only one (1) duplex receptacle on one panel side.
- Each power distribution housing supports 15-20 amps.
- Must specify Raceway Cover with Knockouts on panels, where Power Distribution Housings will be utilized.

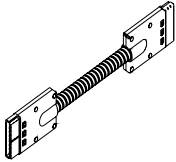|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Power Distribution Housing	CE8PD24	154		6 1⁄4	
		CE8PD30	209		11 1⁄2	
		CE8PD36	219		17 1⁄2	
		CE8PD42	224		23 1⁄2	
		CE8PD48	241		29 1⁄2	
		CE8PD60	244		41 1⁄2	

CE8CP17 - FLEXIBLE MESH JUMPER CABLE

- 17" mesh jumper.
- Jumper cable is used to pass through a post or connect two panels together.

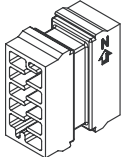|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Flexible Mesh Jumper Cable	CE8CP17	120		17	

CE8CP - PASS THROUGH CABLE

- Flexible metal conduit is used to distribute electrical power through non-powered panels.
- Metal conduit pass through cables should be in used in a straight runs. Metal conduit pass through cables cannot pass through a post.
- Flexible conduit is required to turn a post. This only comes as 17"w. If panels at the posts do not all have power distribution housings, they must be added even if duplexes are not specified.

- To calculate the length of a Pass-Through Cable, add the widths of the non-powered panels separating the powered panels (panels with distribution housing attached). To this add 16" (distance from the edge of the panel to the distribution housing x 2).
- Add additional 3" when passing through a corner post. See the Tips at the beginning of the section for more details.

	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Pass Through Cable	CE8CP28	159		28 1⁄2	
		CE8CP40	167		40 1⁄2	
		CE8CP46	172		46 1⁄2	
		CE8CP52	178		52 1⁄2	
		CE8CP58	187		58 1⁄2	
		CE8CP64	197		64 1⁄2	
		CE8CP70	202		70 1⁄2	
		CE8CP76	205		76 1⁄2	
		CE8CP82	213		82 1⁄2	
		CE8CP88	219		88 1⁄2	
		CE8CP94	225		94 1⁄2	
		CE8CP100	231		100 1⁄2	

CE8CI-1 - "I" CONNECTOR

- Female - Female connector connects two Pass-Through Cables.
- Connects 17" Flexible Jumper Cable or ceiling feeds to pass through cables.

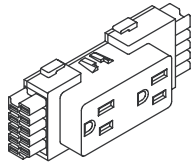|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	"I" Connector	CE8CI-1	88			

CE8RD - DUPLEX RECEPTACLE

- Up to 3 receptacles per circuit
- Up to 6 receptacles per circuit (24 per infeed), not to exceed total of 15 Amps per circuit.
- Duplex Receptacles standard in Black (BLK).

- CE8RD1 = Circuit #1 (utility circuit)
- CE8RD2 = Circuit #2 (utility circuit)
- CE8RDA = Circuit A (dedicated)
- CE8RDB = Circuit B (dedicated)
- CE8RD1 and CE8RD2 (#1 and #2 share common ground)
- CE8RDA and CE8RDB (A and B share common ground)

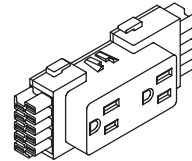| DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
			H	W	D
Duplex Receptacle	CE8RD1	33			
	CE8RD2	33			
	CE8RDA	33			
	CE8RDB	33			

CE8RDXCA - CALIFORNIA CONTROLLED DUPLEX RECEPTACLE

- California Title 24 meets federal and LEED certification guidelines
- Allows circuit to be controlled or switched off when utility is not in use.
- Duplex receptacles are rated for 15 Amps.
- CE8RD1CA = Circuit #1 (utility circuit)
- CE8RD2CA = Circuit #2 (utility circuit)
- CE8RDACA = Circuit A (dedicated)
- CE8RDBCA = Circuit B (dedicated)

NOTE:

- CE8RD1CA and CE8RD2CA (#1 and #2 share common ground)
- CE8RDACA and CE8RDBCA (A and B share common ground)
- Up to 6 receptacles per circuit (24 per infeed), not to exceed total of 15 Amps per circuit.
- Available in BLK finish only.

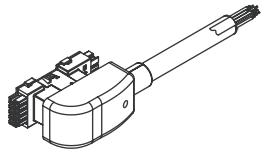| DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
			H	W	D
Duplex Receptacle	CE8RD1CA	38	2	4 5⁄8	1 1⁄4
	CE8RD2CA	38	2	4 5⁄8	1 1⁄4
	CE8RDACA	38	2	4 5⁄8	1 1⁄4
	CE8RDBCA	38	2	4 5⁄8	1 1⁄4

CE8FR1 - REVERSIBLE FLOOR POWER ENTRY

- Takes the place of a duplex receptacle by snapping into the base power way.
- Includes 72" long flexible metal conduit.
- Must be hard wired to source power by a licensed electrician.
- Diameter is 0.85"

CE8FR2 - REVERSIBLE FLOOR POWER ENTRY

- Takes the place of a duplex receptacle by snapping into the base power way.
- Includes 144" long flexible metal conduit.
- Must be hard wired to source power by a licensed electrician.

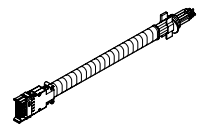|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Reversible Floor Power Entry	CE8FR1	347		72	
		CE8FR2	447		72	

CE8F - FLOOR POWER ENTRY

- Snaps in end of power distribution housing.
- Includes flexible vinyl conduit.
- Must be hard wired to source power by a licensed electrician.
- Diameter is 0.85"

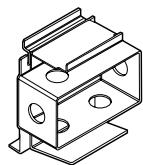|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	L	D
	Reversible Floor Power Entry	CE8F1P	357		72	
		CE8F2P	461		144	

CMEB01 - ELECTRICAL BOX - CHICAGO

- Can be retrofitted in any size of panel at the receptacle location.
- Gives access from one side only at each location.
- Customer to supply conduit, wiring, receptacle, and face plate.
- 2 per panel ,except 24" panel only one
- Note: A licensed electrician must provide hardware connection with the junction box.

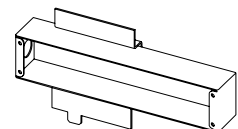|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Electrical Box - Chicago	CMEB01	101			

CMEB02NY - ELECTRICAL BOX - NEW YORK

- Shipped assembled.
- Comes with pig tail electric.
- Use with 30" wide Panel of larger
- Post extension cable capacities: without electric, 30 with electric, 20
- Includes ceiling bezel and screws.

	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Electrical Box - New York	CMEB02NY	444			

CEPEXX - POST EXTENSION

- Same profile as post.
- Includes two post extension brackets, four screws and four trim inserts.
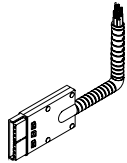- Includes ceiling bezel and screws.

	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Post Extension	CEPE64	192	64		
		CEPE82	241	82		

CE8ECX - CEILING FEED

- Snaps into the end of a Power Distribution Housing.
- Flexible metal conduit extends into the ceiling through a corner post and post extension.
- Must be hard wired to source power by a licensed electrician.
- 4" junction box included.
- Post extension ordered separately

	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Ceiling Feed	CE8EC2	469	144		

CMECC - CABLE COVER

- Attaches to panels vertically between modules to provide enclosures for power or data cords.
- Available in 21" and 36" lengths, 6 per pack.
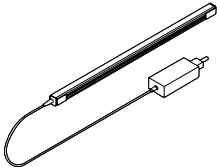- Available in Steel (STL), Black (BLK), Nevada (NEV) only.

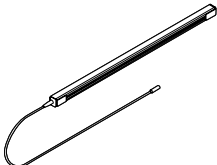|	DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
				H	W	D
	Cord Cover	CMECC21	32	21	0.5	1
		CMECC36	50	36	0.5	1

CMLEDES - STARTER LED TASK LIGHT

- Undercabinet slim profile LED linear light fixture with lens and On/Off switch.
- May be used as stand-alone or extended with add-on section below (CMLEDES_DSC).
- Plug-in power supply with 72" cord length plus 78" DC cable.
- Includes magnet mounting bracket with optional adhesive metal plate.
- Light enclosure in clear anodizing finish. Color temperature cool white 4000K.
- Lifespan rated 30,000 hours.

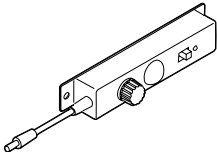| DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
			H	W	D
Led Task Light	CMLEDES24	277	1	22.9	1
	CMLEDES36	308	1	33.5	1
	CMLEDES48	318	1	45.5	1

CMLEDES - ADD-ON LED TASK LIGHT

- Undercabinet slim profile LED linear add-on light fixture with lens.
- Daisy chain unit with 39" linking cable, no power supply.
- Add-on units can only be linked up to a total of 48 watts per power supply; this is equivalent to 10 feet of nominal length of light per power supply.
- Includes magnet mounting bracket with optional adhesive metal plate. Light enclosure in clear anodizing finish. Color temperature cool white 4000K. Lifespan rated 30,000 hours.

DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
			H	W	D
Led Task Light	CMLEDES24DSC	227	1	24	39
	CMLEDES36DSC	267	1	36	39
	CMLEDES48DSC	303	1	48	39

CMLEDESOS - OCCUPANCY SENSOR

- Inline add-on controller for dimming and occupancy sensor.
- Sensor bypass switch.

DESCRIPTION	PRODUCT CODE	LIST PRICE	DIMENSIONS/INCHES		
			H	W	D
Occupancy Sensor	CMLEDESOS	114	6	2.4	2