GE
Critical Power

Quick Start Guide

CP Converter Shelf System –48V

Shelf: J2007001 L014 CC109157657
DC input from left and right
L015 150042727
DC input from left only
Converters: CP2000DC54PEZ CC109162104
CP2500DC54PEZ CC109170528
Controller: CP841_3C3R CC109145331

No vertical spacing is required, allow a minimum 2 inch clearance at back of shelf for rectifier airflow.

Refer to *Compact Power Line (CPL) Brochure* for details and accessories.

Tools required:

Wire cutters and strippers
Cable crimpers
Torque wrench - 0-65 in-lb (0-10Nm)
Sockets - 5/16", 7/16, etc.
Screwdrivers - Philips #1 and #2, Flat small

Step 1 - Mount Shelf

1. Reposition mounting ears as required - 8 screws each.
   Torque to 25 in-lb (2.8Nm) - Phillips screwdriver.
2. Attach shelf to the frame using a minimum of four screws (two on each side) - 12-24 (provided).
   Torque to 35 in-lb (4Nm) - 5/16" socket.

Step 2 - Connect Chassis Ground

Some applications may rely on frame mounting screws for shelf ground omitting the chassis ground cable.

Minimum 6 AWG wire is recommended.

Lugs - 1/4" on 5/8" centers (not provided).
Torque to 65 in-lb (7.3 Nm) - 7/16" socket.

Step 3 - Connect -48V Output and Output Return

Lugs - 1/4" on 5/8" centers (not provided).
Torque to 65 in-lb (7.3 Nm) - 7/16" socket.

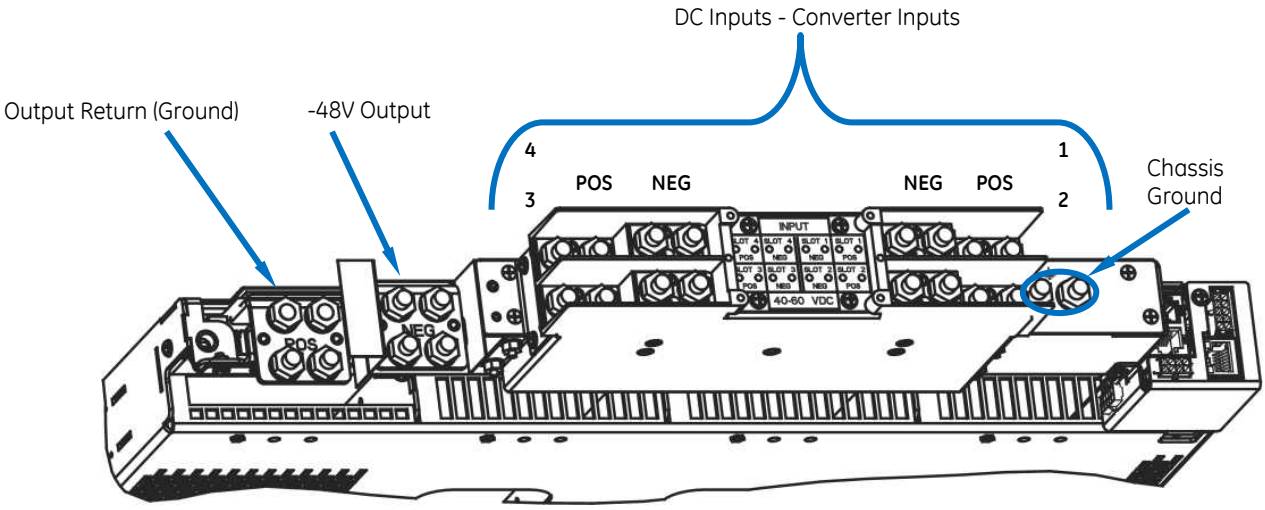
Step 4 - Connect DC Inputs

- Feed each input from 80A breaker (shelf rating limited)

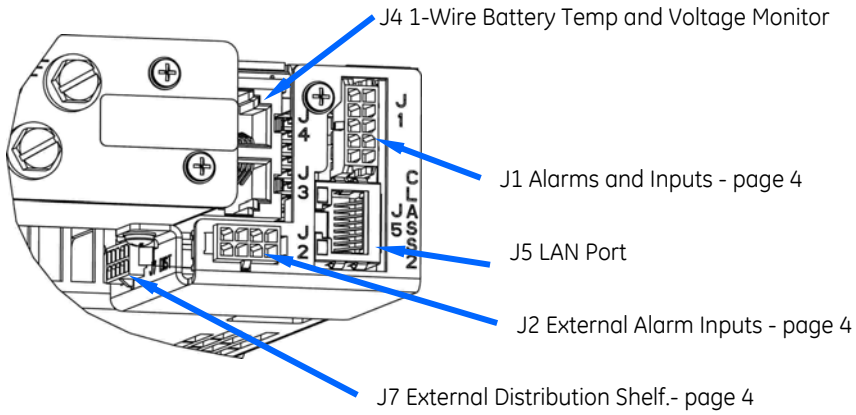
Lugs - 1/4" on 5/8" centers (not provided).
Torque to 65 in-lb (7.3 Nm) - 7/16" socket

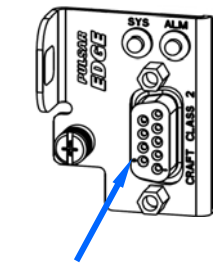
CAUTION: Verify DC Input voltage and polarity with a voltmeter before proceeding.

Note: Input Feed Returns must be externally connected to DC Reference (CO) ground.



L014 shown
(L015 has all DC input feeds from the right as viewed from the rear)





Signal Connections

Step 5 - Set Jumpers - LAN Port and Relay per Galaxy Pulsar Edge Controller Quick Start Guide

Step 6 - Install Controller per Galaxy Pulsar Edge Controller Quick Start Guide

Step 7 - Install Signal and Communications Cables

Connectors are on rear.

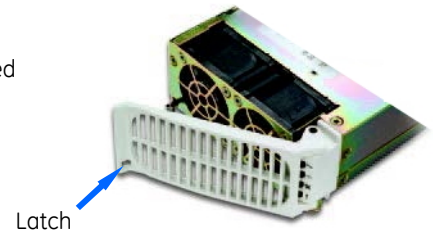
1. J1-2 Alarms and Inputs - Connect to office alarms and signals.
   See *Information: Alarm Connections* for Details
2. J5 LAN - Connect to Ethernet network.
3. J7 DIST - Connect to external distribution - if present.

Step 8 - Install 1-Wire Battery Temp and Voltage Monitor per Galaxy Pulsar Edge Controller Quick Start Guide - Optional

1. Connect 1-Wire Battery Temp and Voltage Monitor to J3

Step 9 - Install Converter s

1. Slide converter into its slot approximately 3/4 of the way.
2. Open the faceplate by sliding the faceplate latch to the left until the faceplate releases and swings outward.
3. Slide the unit into the slot until it engages with the back of the shelf. Swing the faceplate closed to fully seat the converter. Verify the faceplate is latched.



Step 10 - Initial Start Up

Verify that all AC, DC and Alarm connections are complete and secure. Turn on AC input breakers. If there are no alarms, make required adjustments to the default settings on the controller for this installation.

Step 11 - Configure Controller per Galaxy Pulsar Edge Controller Quick Start Guide

Verify and edit controller basic configuration parameters per site engineering instructions.

Information: Alarm Connections

See the *Compact Power Line Brochure* for details.
Alarm connections are on the rear of the shelf - J1 is Alarm Outputs and J2 is Alarm Inputs.
Change alarm descriptions via LAN port (Web pages) or Craft port (EasyView2) when required.

Connector	J1 - Controller Variants					J2 - All Controllers	
Controller / Pin	Color	0I5R_D - 5 Alarm Relays	3C3R - 3 Alarm Relays,	9C0R_USB - 9 Inputs		Color	All
1	BK	Output: R3 = Rtn	Input: PBT/TR	Input: PBT/TR		Y	Input: SPD Fail
2	BR	Output: R2 = Rtn	Input: Hi Ext. Temp.	Input: Hi Ext. Temp.		S	--
3	R	Output: R1 = Rtn	Output: R1 = Rtn	Input: Low Ext. Temp.		O	Input: AUX MAJ
4	O	Output: PMN Rtn	Output: PMN Rtn	Input: Fan Fail		V	Input: Air Cond. Fail
5	Y	Output: PMJ Rtn	Output: PMJ Rtn	Input: Hydrogen Present		W	Input: Door Open
6	G	Output: R3 = ACF	Input: RTNS	Input: Returns		BL	-48V
7	BL	Output: R2 = RFA	Input: Cust. Alrm 1	Input: Cust. Alrm 1		BR	-48V
8	V	Output: R1 = BD	Output: R1 = BD	Input: Cust. Alrm 2		BK	-48V
9	S	Output: PMN	Output: PMN	Input: Cust. Alrm 3			
10	W	Output: PMJ	Output: PMJ	Input: Cust. Alrm 4			

J1:
1. Includes a mixture of Alarm Inputs and / or Alarm Outputs depending on the controller model.
2. Connector Part:
   Cvilux HDR10-CP35H

Alarm Inputs:
1. "dry" contacts, apply no voltage.
2. Return for all alarm inputs is pin 6.

Alarm Outputs: relays contacts.

J2:
1. Includes 4 Alarm Inputs.
2. Connector Parts: Molex
   39-01-2086 Housing
   39-00-0087 Contacts

Alarm Inputs:
1. Contact closures or opens to -48V.
2. Pins 6, 7, and 8 provide -48V for these alarm inputs.

Information: Connections - External Distribution - J7

J7 Pin	Wire Color	Description
1	BK	FAJ
2	BR	Coil Rtn
3	R	LVD_NC
4	O	LVD_NO
5	Y	Shunt -
6	G	OS
7	BL	Coil 1
8	V	Coil 2
9	S	LVD Status Return
10	W	Shunt +

J7:
1. Connector P/N
   Cvilux HDR10-CP35H

Specifications and Application

- Specifications and ordering information are in the Compact Power Line (CPL) Brochure available at www.gecriticalpower.com
- Equipment and subassembly ports: 1. are suitable for connection to intra-building or unexposed wiring or cabling;
  2. can be connected to shielded intra-building cabling grounded at both ends.
- Grounding / Bonding Network – Connect to an Isolated Ground Plane (Isolated Bonding Network) or an Integrated Ground Plane (Mesh-Bonding Network or Common Bonding Network).
- Installation Environment - Install in Network Telecommunication Facilities, OSP, or where NEC applies.
- DC return may be either Isolated DC return (DC-I) or Common DC return (DC-C).

Reference Documents

These documents are available at www.gecriticalpower.com.

Document	Title
850035894	Galaxy Pulsar Edge Quick Start Guide
CC848836981	Galaxy Pulsar Edge Controller Family Product Manual
	Compact Power Line (CPL) Brochure