BPS Systems -48V Power

BPS48-19-AC5-PS5-DC1E-LVBD

- 19" wide – 19
  23" wide – 23
- AC input
  AC3 - AC Cords
  AC5 - Ind. Term Block
- # of Power Slots
- # of Distribution Panels
- LVBD option

Caution! **Maximum ambient without derating: 45°C**
Maximum ambient above 45°C: 2%/°C up to 65°C

Important Safety instructions

- Save these instructions.
- Read and follow all safety statements, warnings, and precautions in this manual before installing, maintaining or repairing this equipment.
- This equipment is not suitable for use in locations where children are likely to be present.
- This equipment is intended only for use in restricted access areas.

Consignes de sécurité importantes

- Conservez ces instructions.
- Lisez et suivez toutes les consignes de sécurité, les avertissements et les précautions de ce manuel avant d'installer, d'entretenir ou de réparer cet équipement.
- Cet équipement n'est pas adapté à une utilisation dans des endroits où des enfants sont susceptibles d'être presents.
- Cet équipement est destiné uniquement à être utilisé dans des zones à accès restreint.

Document: 8600481128P

Safety Statements

- Do not install this equipment over combustible surfaces.
- Rules and Regulations - Follow all national and local rules and regulations when making field connections.
- Compression Connectors
  - U. S. or Canada installations - use Listed/Certified compression connectors to terminate Listed/Certified field-wire conductors.
  - All installations - apply the appropriate connector to the correct size conductor as specified by the connector manufacturer, using only the connector manufacturer's recommended or approved tooling for that connector.
- Electrical Connection Securing: Torque to the values specified on labels or in the product documentation.
- Cable Dress - dress to avoid damage to the conductors and undue stress on the connectors.
- Circuit Breakers and Fuses
  - Use only those specified in the equipment ordering guide.
  - Size as required by the National Electric Code (NEC) and/or local codes.
    Safety Tested Limits - Refer to the equipment ratings to assure current does not exceed:
    Continuous Load (List 1) - 60% of protector rating.
    Maximum Load (List 2 - typically end of discharge) - 80% of protector rating.
  - GMT Style Fuses - Use only fuses provided with safety caps.
- Field-wired Conductors - Follow all National Electric Code (NEC) and local rules and regulations.
  - Insulation rating: 90°C minimum; 105°C (minimum) if internal to enclosed equipment cabinets.
  - Size AC field-wired conductors with 75°C ampacity (NEC) equal to or greater than their panel board circuit breaker rating.
- AC and DC input disconnect/protection - Provide accessible devices to remove input power in an emergency.
- Alarm Signals - Provide external current limiting protection. Rating 60V, 0.5A unless otherwise noted.
- Grounding - Connect the equipment chassis directly to ground. In enclosed equipment cabinets connect to the cabinet AC service ground bus. In huts, vaults, and central offices connect to the system bonding network.
- Class I pluggable Type A equipment must be connected to an earthed MAINS socket-outlet. A skilled person must verify earthing continuity to the socket-outlet prior to use.

Déclarations de sécurité

- N'installez pas cet équipement sur des surfaces combustibles.
- Règles et réglementations - Suivez toutes les règles et réglementations nationales et locales lors des connexions sur le terrain.
- Connecteurs à compression
  - Installations aux États-Unis ou au Canada - utilisez des connecteurs de compression homologués/certifiés pour terminer Conducteurs de fils de terrain certifiés.
  - Toutes les installations - appliquez le connecteur approprié au conducteur de taille correcte tel que spécifié par le fabricant de connecteurs, en utilisant uniquement l'outillage recommandé ou approuvé par le fabricant de connecteurs pour ce connecteur.
- Fixation de la connexion électrique : Serrez aux valeurs spécifiées sur les étiquettes ou dans la documentation du produit.
- Habillage de câble - Habillez-vous pour éviter d'endommager les conducteurs et une contrainte excessive sur les connecteurs.
- Disjoncteurs et fusibles
  - Utilisez uniquement ceux spécifiés dans le guide de commande de l'équipement.
  - Taille requise par le National Electric Code (NEC) et/ou les codes locaux.
    Limites de sécurité testées - Reportez-vous aux valeurs nominales de l'équipement pour vous assurer que le courant ne dépasse pas:
    Charge continue (Liste 1) - 60 % de la cote de protection
    Charge maximale (Liste 2 - généralement en fin de décharge) - 80 % de la valeur nominale du protecteur.
  - Fusibles de style GMT - Utilisez uniquement des fusibles fournis avec des capuchons de sécurité.
- Conducteurs câblés sur le terrain - Suivez tous les codes électriques nationaux (NEC) et les règles et réglementations locales.
  - Indice d'isolation : 90°C minimum ; 105°C (minimum) si à l'intérieur des armoires d'équipement fermées.
  - Dimensionnez les conducteurs CA câblés sur place avec un courant admissible de 75°C (NEC) égal ou supérieur à la valeur nominale du disjoncteur du panneau de distribution.
- Déconnexion/protection des entrées CA et CC - Fournir des dispositifs accessibles pour couper l'alimentation d'entrée en cas d'urgence.
- Signaux d'alarme - Fournit une protection de limitation de courant externe. Note 60V, 0.5A sauf indication contraire.
- Mise à la terre - Connectez le châssis de l'équipement directement à la terre. Dans les armoires d'équipement fermées, connectez-vous au bus de terre de service CA de l'armoire. Dans les huttes, les chambres fortes et les bureaux centraux, connectez-vous au réseau de liaison du système.
- Les équipements enfichables de classe I de type A doivent être connectés à une prise de courant SECTEUR mise à la terre. Une personne qualifiée doit vérifier la continuité de la mise à la terre de la prise de courant avant utilisation.

Precautions

- Install, service, and operate equipment only by professional, skilled and qualified personnel who have the necessary knowledge and practical experience with electrical equipment and who understand the hazards that can arise when working on this type of equipment.
- Disconnect batteries from outputs and/or follow safety procedures while working on equipment. Batteries may be connected in parallel with the output of the rectifiers. Turning off the rectifiers will not necessarily remove power from the bus.
- Do not disconnect permanent bonding connections unless all power inputs are disconnected.
- Verify that equipment is properly safety earth grounded before connecting power. High leakage currents may be possible.
- Exercise care and follow all safety warnings and practices when servicing this equipment. Hazardous energy and voltages are present in the unit and on the interface cables that can shock or cause serious injury. When equipped with ringer modules, hazardous voltages will be present on the ringer output connectors.
- Use the following precautions in addition to proper job training and safety procedures:
  - Use only properly insulated tools.
  - Remove all metallic objects (key chains, glasses, rings, watches, or other jewelry).
  - Follow Lock Out Tag Out (LOTO) procedures: customer specified, site specific, or general as appropriate. Disconnect all power input before servicing the equipment. Check for multiple power inputs.
  - Wear safety glasses.
  - Follow Personal Protective Equipment requirements: customer specified, site specific, or general as appropriate.
  - Test circuits before touching.
  - Be aware of potential hazards before servicing equipment.
  - Identify exposed hazardous electrical potentials on connectors, wiring, etc.
  - Avoid contacting circuits when removing or replacing covers.
  - Use a personal ESD strap when accessing or removing electronic components.
- Personnel with electronic medical devices need to be aware that proximity to DC power and distribution systems, including batteries and cables, typically found in telecommunications utility rooms, can affect medical electronic devices, such as pacemakers. Effects decrease with distance.

Précautions

- Installer, mettre en service et utiliser l'équipement uniquement par du personnel professionnel, compétent et qualifié possédant les connaissances et l'expérience pratique nécessaires en matière d'équipement électrique et qui comprennent les dangers qui peuvent survenir lors de l'utilisation de ce type de Équipement.
- Débranchez les piles des sorties et/ou suivez les procédures de sécurité tout en travaillant sur l'équipement. Les batteries peuvent être connectées parallèlement à la sortie des redresseurs. Éteindre les redresseurs n'enlèva pas forcément l'alimentation du bus.
- Ne débranchez pas les raccords de liaison permanents à moins que toutes les entrées d'alimentation ne soient déconnectées.
- Vérifiez que l'équipement est correctement mis à la terre avant de brancher l'appareil. Des courants de fuite élevés peuvent être possibles.
- Exercez des soins et respectez tous les avertissements et pratiques de sécurité lors de l'entretien de cet équipement. L'énergie et les tensions dangereuses sont présentes dans l'unité et sur les câbles d'interface qui peuvent choquer ou causer des blessures graves. Lorsqu'il est équipé de modules de sonnerie, des tensions dangereuses seront présentes sur les connecteurs de sortie de la sonnerie.
- Utiliser les précautions suivantes en plus des procédures appropriées de formation et de sécurité d'emploi:
  - n'utiliser que des outils correctement isolés.
  - Enlevez tous les objets métalliques (porte-clés, lunettes, bagues, montres ou autres bijoux).
  - suivez les procédures de lock out tag out (LOTO): client spécifié, spécifique au site ou général selon le cas. Débranchez toutes les entrées d'alimentation avant d'entretenir l'équipement. Vérifiez l'alimentation de plusieurs entrées.
  - Portez des lunettes de sécurité.
  - respectez les exigences relatives aux équipements de protection individuelle: client spécifié, spécifique au site ou général selon le cas.
  - tester les circuits avant de les toucher.
  - être conscient des dangers potentiels avant d'entretenir l'équipement.
  - identifier les potentiels électriques dangereux exposés sur les connecteurs, le câblage, etc.
  - Évitez de contacter les circuits lors du démontage ou du remplacement des couvercles.
  - utilisez une sangle ESD personnelle lors de l'accès ou de la suppression de composants électroniques.
- Le personnel équipé de dispositifs médicaux électroniques doit être conscient que la proximité des systèmes de distribution et d'alimentation en courant continu, y compris les piles et les câbles, généralement dans les salles de télécommunication, peut affecter les appareils électroniques médicaux, tels que les stimulateurs cardiaques. Les effets diminuent avec la distance.

Information: Tools required

- Cable Crimpers
- Screw Drivers
- Torque wrench (0-240 in-lb / 28 Nm)
- Screw Drivers (#1 Flat & #2 Phillips)
- 5/16," 7/16" and 1/2" nut drivers
- Wire cutters and strippers

Step 1 – Mount the System

Mount the system with a minimum gap of 3 inches behind the system to allow proper airflow.

1. Attach the system to the frame using a minimum of twelve (six on each side) 12-24 screws (provided). Torque to 35 in-lb (4 Nm) – 5/16" socket.

Step 2 – Connect Chassis and DC Reference (CO) Ground

1. Chassis Ground lug – #10 or 1/4" on 5/8" centers (not provided).

   Minimum 10 AWG recommended.

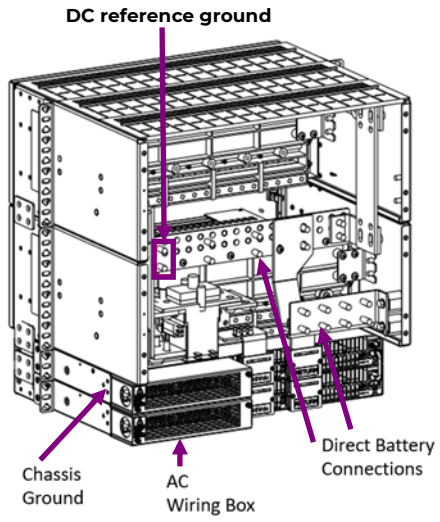
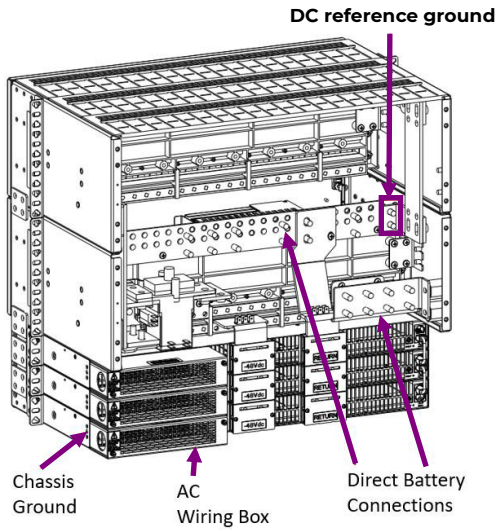
   Torque 10-32 screws to 30 in-lb (3.4 Nm) – 5/16" Socket.

2. DC reference ground lug – 5/16" or 3/8" on 1" centers (not provided).

   Minimum 6 AWG recommended.

   Torque to 160 in-lb (18.07 Nm).

Note: If connecting chassis ground to frame surface remove non-conductive frame coating and apply antioxidant for connection.

19" -48V System (Typical)	23" -48V System (Typical)
	

Step 3 – Connect AC inputs

Connect 120/208/240V_{AC} at rear of each rectifier shelf to either IEC320 C20 receptacles or to the detachable input terminal blocks in the wiring box using ¾" conduit or cord grip.

Danger: Turn OFF and lock-out tag-out the AC source before making AC connections. When connecting to AC mains, follow all local and national wiring rules.

Caution: When routing AC ensure cables do not come in contact with sharp or rough surfaces that may damage insulation and cause a short circuit.

Caution: High touch current may be present.

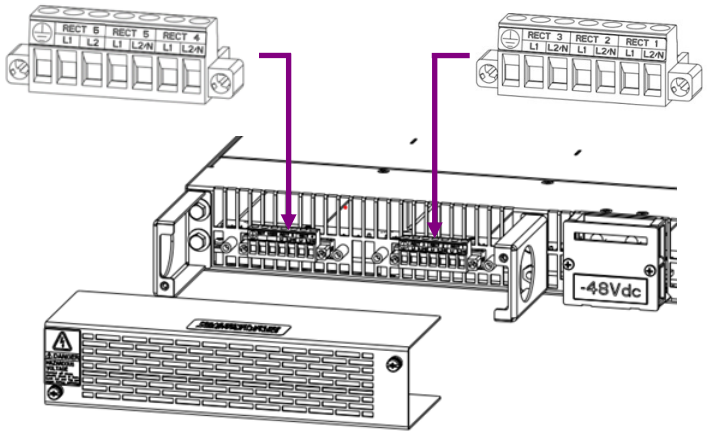
Connect to earth before connecting to supply.

The following maximum protective conductor current values may be present in their corresponding models:

BPS48-19-AC5-PS15: 107 mArms
BPS48-19-AC5-PS10: 70 mArms
BPS48-19-AC5-PS5: 36 mArms

Terminal Blocks – AC5

- Individual AC Input per Rectifier. 5 slots for 19" shelves and 6 slots for 23" shelves
- Maximum branch protection per AC input: 20A
- AC terminal blocks are labeled at each position (L1, L2/N, and Conduit Ground)
- 12 AWG max
- Strip 0.3" (7mm)
- Torque 4.4 in-lb (0.5Nm)
- Pull on wires to verify connection



Terminal Block AC Adapter Kits

AC Adapter Modules allow multiple rectifiers to be fed from a single ac input.

AC Input Wire and Protection:

# Rectifiers	Wire Size	AC Current	AC Breaker
1	12	12A	15A or 20A
2	10	24A	30A
3	8	36A	45A or 50A

Strip and Torque Table:

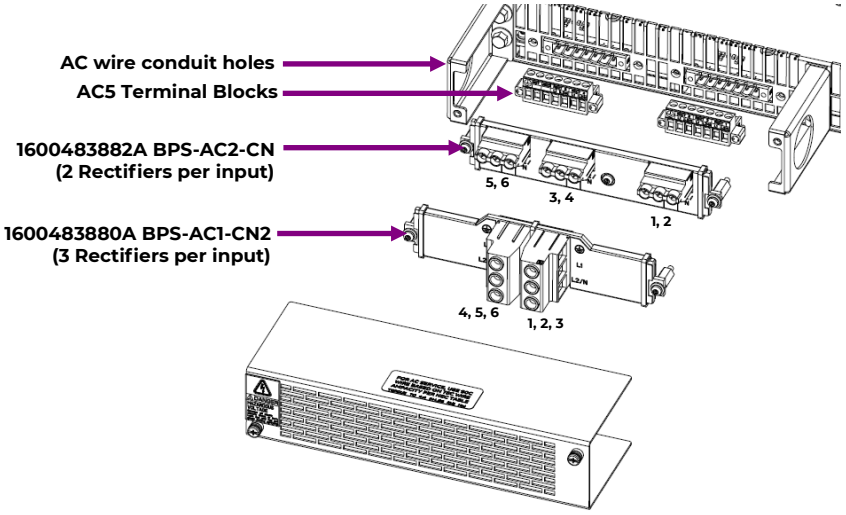
Adapter Kit	# Rectifiers per feed	AWG Max	Strip Wire (mm)	Torque in-lbs (Nm)
1600483882A	1 or 2	10	8	5.5 (0.6)
1600483880A	1, 2 or 3	8	10	12 (1.4)

Step 3 – Connect AC inputs (continued)

Terminal Block AC Adapter Kits (continued)

Installation Procedure:

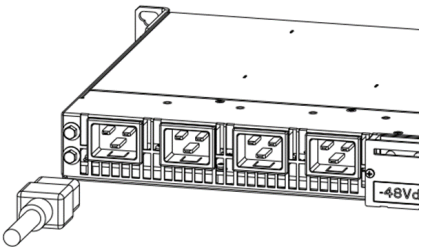
- Remove AC5 terminal blocks
- Install standoffs with ¼" nut driver
- Plug in AC adapter module
- Secure with #4 screws using a Philips screwdriver
- Route AC wire thru knockout for ¾" conduit or cord grip
- Secure to terminal block per strip and torque table
- Pull on wire to verify secure connection
- Reattach AC box cover



AC Cords – AC3

AC receptacles for each rectifier are on the rear (no AC wiring box).

Connect 120V~/200-240~, 50-60Hz AC cords with C19 receptacle to each shelf AC connector – See Information – AC Cord Options. There is one table of ac cords for use in controlled environments (<45°C) and another table for uncontrolled environments where UL Listed cord sets rated for 90°C must be used.



WARNING!: The AC power inlet for this equipment exceeds 70°C at elevated ambient temperatures above 45°C. To reduce risk of fire, this equipment must be used only with an AC supply cord with the following ratings:

UL Listed Cord Set (not just cord jacket);
rated for a minimum temperature of 90°C;
Minimum cord length 2.4 m (8 ft.);
Minimum 12 AWG conductor size; and
Cord sets with C21 appliance coupler for temperatures above 45°C;
Cord sets with C19 appliance coupler for temperatures up to 45°C;
125V_{AC} rated cord sets are to be used for low range applications only.

Information: Rectifier Options

Rectifier	Ordering Code	AC Input		DC Output		Recommended AC Breaker	AC Wiring
		Volts	amps	Volts	amps		
BP040AC48ATEZ	1600420226A	200-240V_{AC}	12A	48V	40A	15A	11 (19") or 13 (23") 12 AWG in 3/4" conduit per shelf
		110-120V_{AC}	12A	48V	24A	15A	

Information: Temperature ratings of system

Maximum ambient without load derating: 45°C

Maximum ambient above 45°C: 2%/°C up to 65°C

Step 4 – Connect Batteries and DC Output to Loads

The figure to the right shows the DC circuit of the system.

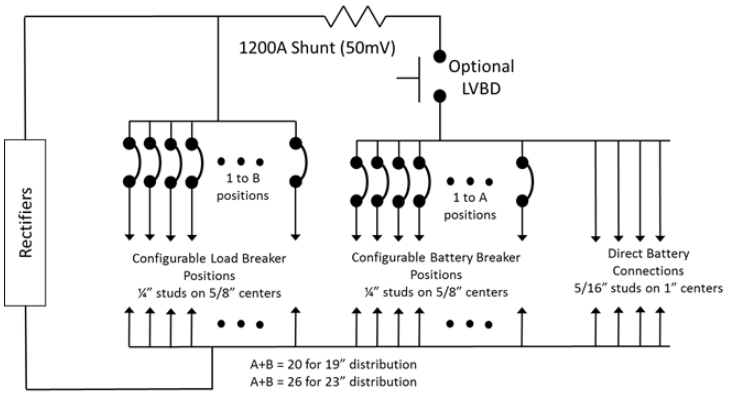
Battery connections may be made to bullet-style distribution positions configured as Battery Breaker Positions or direct to the battery bus.

Caution: Verify battery voltage and polarity with a voltmeter before connecting.

Load connections are made to bullet-style distribution positions configured as Load Breaker Positions.

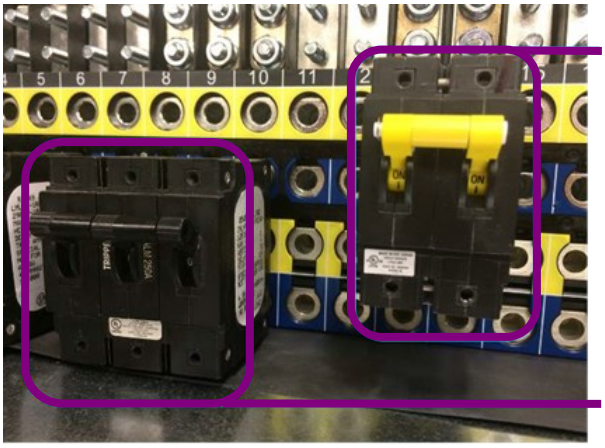
Distribution panels are each equipped with 20 (19" panel) or 26 (23" panel) bullet-style distribution positions. Each position is selectable between battery input or load output.

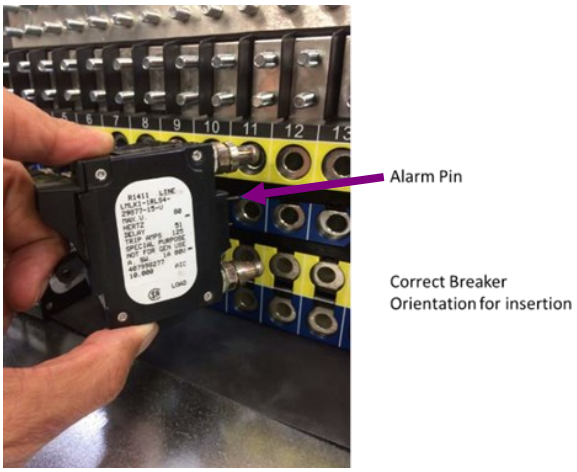
Breaker sizes up to 250A, TPS fuses to 70A and GMT fuses to 12A are available.



Lug Landings

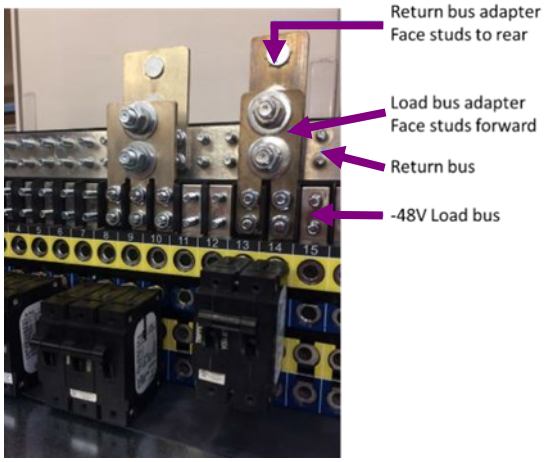
	Distribution	Battery Bus
Landings	1/4-20 studs on 5/8" centers Lug tongue width 0.68" max	5/16-18 studs on 1" centers
Torque	65 in-lb - 7/16" socket	160 in-lb - 1/2" socket





Two multi-pole adapters are required for each multi-pole breaker - see illustration, right

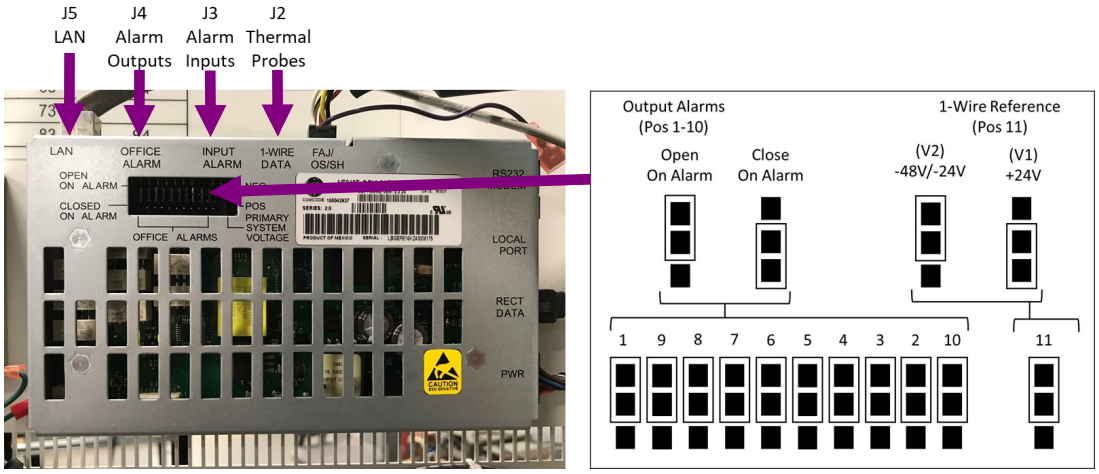
Multi-Pole Adapter Kits – 2 required per breaker			
	CC848756916 	850021775 	850021955 
Poles	2	2	3
Lug Landings	1/4" x 5/8"	3/8" x 1"	3/8" x 1"



Step 5 – Set Controller alarm relay jumpers

Pulsar Plus

Set jumpers 1 thru 10 for the ten alarm relays as Close on Alarm or Open on Alarm; Factory default setting is Open on Alarm.



Step 6 – Controller Connections

Connect per site engineering instructions.

Pulsar Plus – Connect to J2, J3, J4, and J5.

See Information Controller Connections & Information Battery Connections.

Step 7 – Rectifier Installation

Caution: The rectifier latch is not a carrying handle.

1. Open the latch and slide the rectifier into the rectifier slot approximately ¾ of the way.
2. Slide the rectifier into the slot until it engages fully into the backplane connector of shelf.
3. Close the latch to lock rectifier into slot.
4. Alarm LED will blink red as controller identifies the rectifier and begins communication.

1.	2.	3.
		

To remove a rectifier:

1. Open latch fully to release and remove.
2. Controller Menu - Control/Operations - Uninstall Equipment to clear alarm.

Step 8 – Initial Startup

Verify that all AC, DC, GND and Controller connections are complete and secure.

Using a multimeter, verify system reference ground and chassis ground resistance to side ground bar is less than 0.1 Ohms. With rectifiers and converters unplugged as well as all load breakers on and AC breakers off, verify resistance of battery bus to ground is greater than 1MΩ. If being operated as an ungrounded system, verify both positive and negative bus measurement to each other and ground is greater than 1MΩ.

Turn on AC input breakers. If there are no alarms, make required adjustments to the default settings on the controller for this installation.

Step 9 – Configure Controller

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

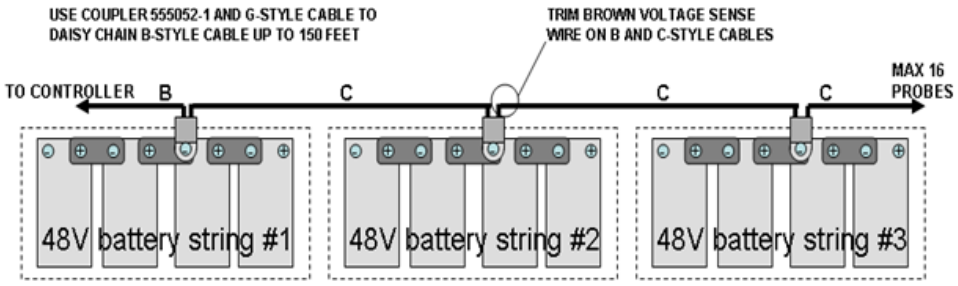
Refer to Galaxy Pulsar Plus Product Manual for additional information.

Information: Controller Default Voltage Settings

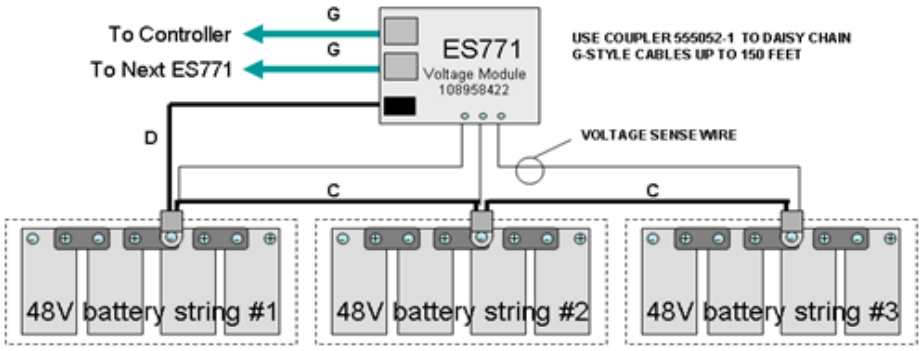
Parameter	Range	Valve-Reg (Default)	Flooded	NiCd
Rectifier Selective High Voltage Shutdown	-50 to -60V	58.50	58.50	58.50
High Voltage Major Alarm	-50 to -60V	57.00	57.00	57.00
High Voltage Minor Alarm	-50 to -60V	56.00	56.00	56.00
Rectifier/System Float Voltage	-42 to -56.5V	54.48	52.08	54.40
Battery on Discharge Alarm	-46 to -55V	51.00	50.00	51.00
Very Low Voltage Alarm	-40 to -51V	46.00	46.00	46.00
Rectifier On Threshold	-40 to -51V	44.00	44.00	44.00

Information: Battery Monitoring Connections

Battery Monitoring is accomplished with a “Daisy Chained” series of probes connected to J2. The Probes monitor battery temperature and voltage (ES771 required to monitor voltage). Bolt the Probe under the “–” terminal connector hardware; NOT under the connecting lug.



Temperature Measurement



Temperature and Voltage Measurement

Information: Battery Monitoring Connections – cables

Temperature Measurement

Ordering Codes	Descriptions	Type
CC109142980	QS873A Thermal Probe	A
CC848817024	10’ controller to thermal probe wireset	B
CC109157434	20’ controller to thermal probe wireset	B
CC848822560	1’ thermal probe to thermal probe wireset	C
848719803	5’ thermal probe to thermal probe wireset	C
CC848822321	10’ thermal probe to thermal probe wireset	C
555052-1	In-line Coupler used to couple B wiresets together up to a max of 150ft	Use with B

Temperature and Voltage Measurement

Ordering Codes	Descriptions	Type
108958422	ES771A Voltage Monitor Card	ES771
CC848791517	2 ½’ ES771A to probe wireset	D
CC848797290	6’ ES771A to probe wireset	D
848719829	10’ ES771A to probe wireset	D
CC848791500	4’ ES771A to ES771A or controller wireset	G
848652947	10’ ES771A to ES771A or controller wireset	G

Information: Controller Connections

Alarm Outputs

Alarm relays are factory set to Open On Alarm. If Close On Alarm is desired adjust controller alarm jumpers. See diagram in step 5 for the location of the controller alarm jumpers. Connector J4 provides access to the primary customer alarm outputs. J4 is a 20-pin latching connector.

Alarm Output Cables	
CC848890137	5 ft
CC109157442	15 ft
CC848817635	50 ft
CC848817643	150 ft

Standard Controller Alarm Output Defaults		Pin	Color
PCR	Power Critical	1	BL
PCR_C	Power Critical_C	11	BL/BK
PMJ	Power Major	2	O
PMJ_C	Power Major_C	12	O/BK
PMN	Power Minor	3	G
PMN_C	Power Minor_C	13	G/BK
R1	Battery On Discharge	4	W
R1_C	Battery On Discharge_C (BD_C)	14	W/BK
R2	Very Low Voltage (VLV)	5	BK
R2_C	Very Low Voltage_C (VLV_C)	15	BK/W
R3	Fuse Alarm Major (FAJ)	6	BL/W
R3_C	Fuse Alarm Major_C (FAJ_C)	16	BL/R
R4	AC Fail (ACF)	7	O/R
R4_C	AC Fail_C (ACF_C)	17	R
R5	Rectifier Fail (RFA)	8	G/W
R5_C	Rectifier Fail_C (RFA_C)	18	R/G
R6	Mult. Rectifier Fail (MRFA)	9	W/R
R6_C	Mult. Rectifier Fail_C (MRFA_C)	19	R/W
R7	High Voltage (HV)	10	BK/R
R7_C	High Voltage_C (HV_C)	20	R/BK

Alarm Inputs

Default alarm descriptions may be changed as needed using web pages. J3 is a 10-pin latching connector.

Alarm Input Cables	
CC848890153	5 ft
CC848865980	15 ft
CC848817651	50 ft
CC848817668	150 ft

Standard Controller Alarm Input Defaults	J3 Pin	Color
Air Con Fail	1	BK
Air Con Fail_Return	8	V
Door Open	2	BR
Door Open_Return	8	V
Aux PMJ Input	3	R
Battery Test/GSTR	4	O
Battery Test_Return	9	S
EPO	5	Y
EPO_Return	10	W
Hi ext. Temp.	6	G
Hi ext. Temp._Return	8	V
Low ext. Temp.	7	BL
Low ext. Temp._Return	8	V

Information: Controller Basic Operation

View and change system parameters from the factory defaults via,

1. Controller Display
2. RS232 port located on the front of controller. Consult technical support for additional information.
3. J5 LAN port web pages using a laptop with browser. LAN port Server mode is for local laptop connection. Set the LAN port to Server:

Controller Alarm Status: The display changes colors; Green=Normal, Amber=Minor Alarm, Red=Critical/Major Alarm

Some alarms may occur during initial installation; eg: thermal probe fail or Major/Minor communication fail.

Clear these alarms: Via Controller Display: follow the menu path;

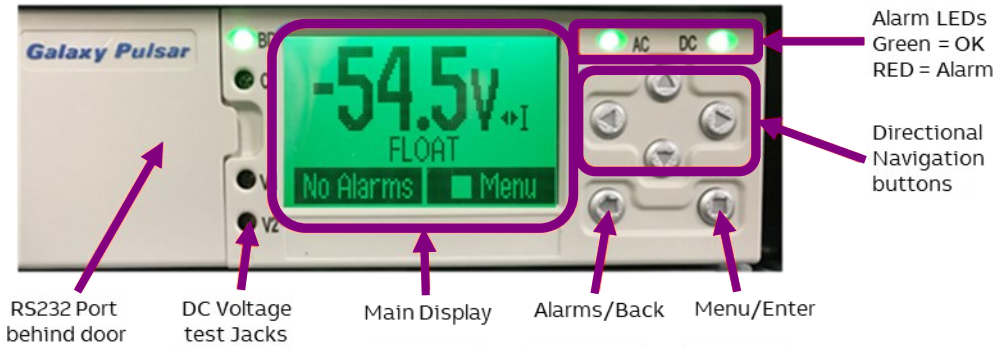
Menu > Control/Operation > Clear Events or Uninstall Equipment.

Verify Basic Installation Settings: Date, Time, Battery Type, number of strings and float voltage

Menu > Configuration > System Settings and Menu > Configuration > Batteries.

Front Panel

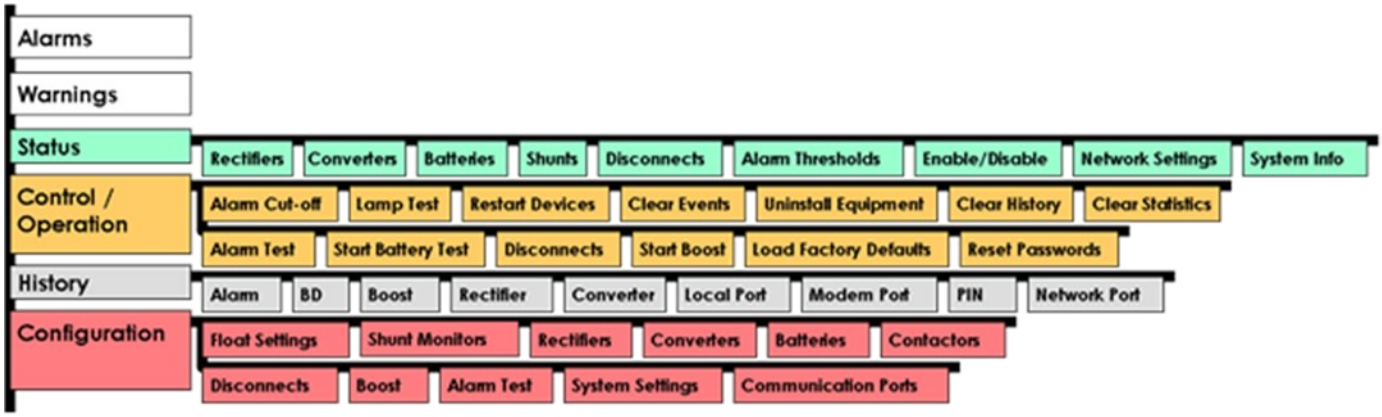
View and change system parameters from the factory defaults via the front panel:



Controller Front Panel Display and Controls

The main menu can be accessed using the Menu/Enter button.

The basic menu structure for navigation is shown below.



Front Panel Menu Structure - Overview

Information: Controller Basic Operation (continued)

Most user configurable parameters can be accessed from the front panel. Additional configuration and user convenience and visibility is enhanced by access through the LAN port using the built-in web pages.

Configuration > Communication Ports > Network Settings > DHCP > mode to SERVER.

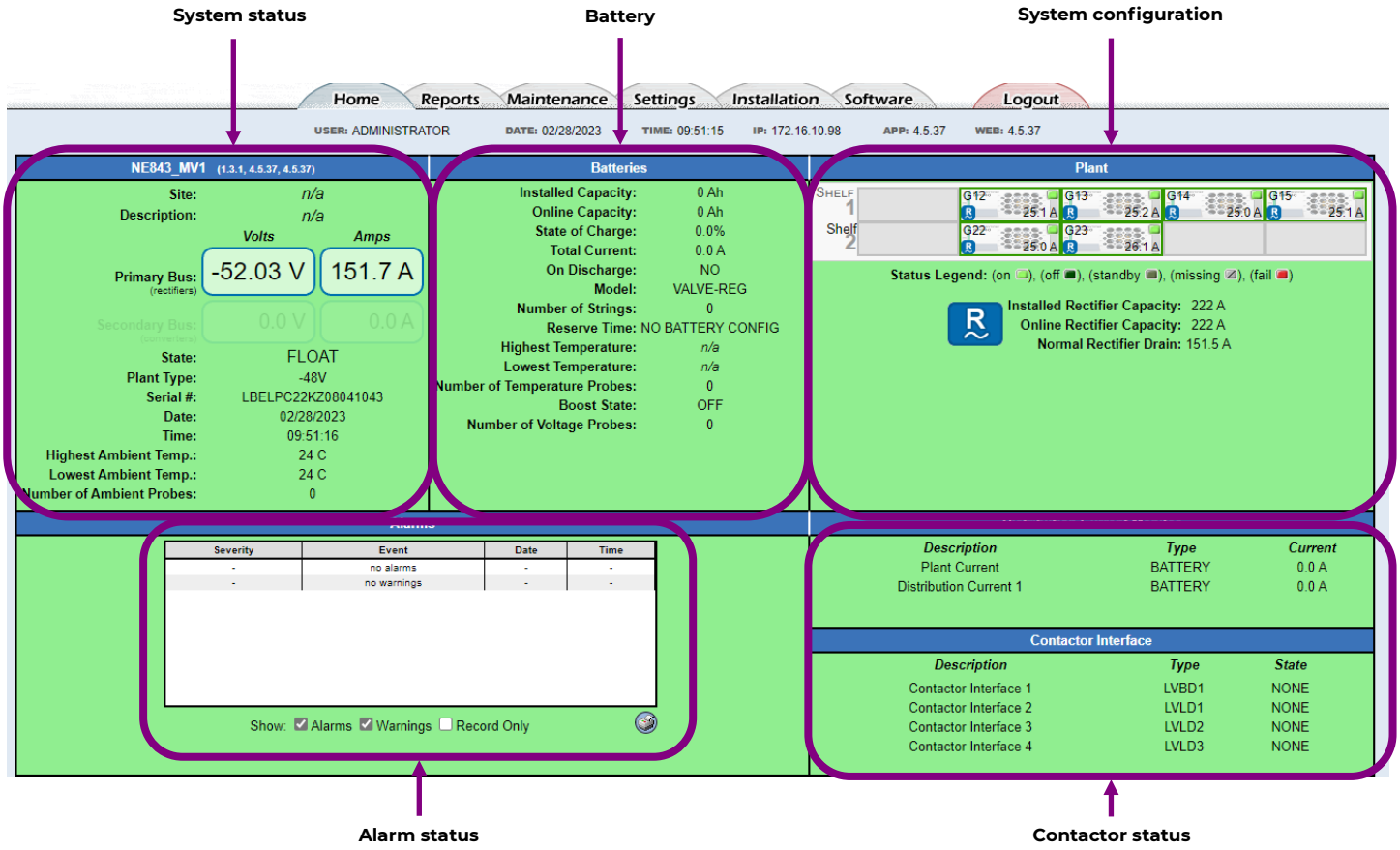
Once the LAN port is configured as a server, the laptop can be connected to the LAN port, using a standard ethernet cable. Use a standard web browser to access the controller web pages at default IP address: 192.168.2.1

Warning!: Do not connect LAN port to a network when set to Server mode. Set the controller LAN port to Client or Static before connecting to the network. Static is the factory default setting and the typical setting for most networks.

Once connected to the controller web server a log on screen should be visible:

Logon Screen - web view

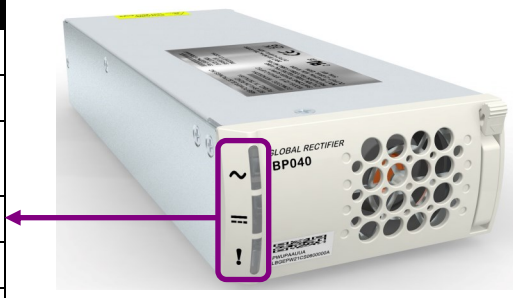
Factory Default password is “Administrator” and should be used for initial logon. It is highly recommended that one of the first activities should be to change the default password(s).



Home Page – Web View

Information: Rectifier Status LEDs

Condition	~ AC OK Green	= DC OK Green	! Fault Red
Normal	ON	ON	OFF
Rectifier Fail	ON	OFF	ON
AC present but not within limits	Blinks	OFF	OFF
AC not present	OFF	OFF	OFF
DC over current	ON	Blinks	OFF
DC standby (remote)	ON	OFF	OFF
Communication failure	ON	ON	Blinks

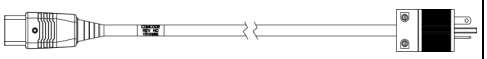


Information: AC Cord Options

C19 Cords for environments up to 45°C

Part Number	Plug	AC Voltage Rating	Length
CC848850792	5-15P	125V_{AC}	8ft
CC848850801	5-20P		8ft
850044361	L5-15P		14ft
850044362	L5-20P		14ft
CC848850826	6-15P	250V_{AC}	8ft
CC848850834	6-20P		8ft
CC848895961	L6-20P		14ft
CC848847368	SJT CORD, 12AWG, No Plug		8ft

C21 Cords for environments above 45°C

AC Input Type	Part Number	Description	Picture
AC3	8600481880P	SJT Cord, 12AWG, 8ft (Min.), 3 conductors, 105°C Termination: Shelf End IEC C21 Other End: NEMA 5-20P, 20A, 125V	
	8600481881P	SJT Cord, 12AWG, 8ft (Min.), 3 conductors, 105°C Termination: Shelf End IEC C21 Other End: NEMA 6-20P, 20A, 250V	
	8600481882P	SJT Cord, 12AWG, 8ft (Min.), 3 conductors, 105°C Termination: Shelf End IEC C21 Other End: NEMA L6-20P, 20A, 250V	

Specifications and Application

Specifications and ordering information are in the BPS Ordering Guide available at **omnionpower.com**.

External Surge Protective Device (SPD) is required on all AC inputs.

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.

Battery return may be either Isolated DC return (DC-I) or Common DC return (DC-C).

Documentation

These documents are available at **omnionpower.com**.

Reference Document	Title
CC848815341	Galaxy Pulsar Plus Product Manual
BPS-SYSTEMS-OG	BPS-SYSTEMS Ordering Guide
BPS-SYSTEMS-AD	BPS-SYSTEMS Assembly Drawing

Scan the 2D barcode to navigate to BPS-SYSTEMS documentation on the OmniOn Power™ website.

Change History (excludes grammar & clarifications)

Revision	Date	Description of the change
1.0	01-19-2023	Initial release
2.0	04-06-2023	Added Rectifier Status LED Table, Added temperature ratings of system
2.1	11-08-2023	Updated as per OmniOn Power™ template
2.2	05-27-2024	Updated “AC Cords – AC3” section, Added “C19 Cords for environments above 45°C”, Added cord set information, Added information in safety statements
2.3	08-21-2024	Added “caution” notes on cover page, Updated length of L5-15P, L5-20P, L6-20P Plugs
3.0	03-24-2025	Update Pictorial on step 3 of 1600483880A BPS-AC1-CN, Correct 2D barcode in documentation

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