

# ZincFive BC Series UPS Battery Cabinets



*ZincFive BC Series UPS  
Battery Cabinet*



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# Introduction

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## Proprietary Information

This document contains information that is confidential and proprietary to ZincFive, Inc. It may not be reproduced, distributed, or translated in any other language, in whole or in part, without written approval from ZincFive and/or its associated partners.

## Support

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### Support Contacts

For technical support, please contact a ZincFive support representative:

Support Phone: 888.517.7776

Support Email: [support@zincfive.com](mailto:support@zincfive.com)

Support Website: [zincfive.com/support](http://zincfive.com/support)

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### Returns

For product returns, please contact a ZincFive support representative to obtain a return material authorization (RMA).

ZincFive, Inc.  
20170 SW 112th Ave.  
Tualatin, Oregon 97062

Returns Email: [support@zincfive.com](mailto:support@zincfive.com)  
Support Phone: 888.517.7776

Customer is responsible to properly package product for return.. ZincFive does not warranty product damage from return shipping unless it is shipped in approved packaging.

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### About this Manual

This manual contains information to help owners and operators understand how to safely and properly prepare, install and operate the ZincFive batteries.

Instructions in this manual must be followed to ensure proper installation, operation and maintenance of the batteries in accordance with the Limited Warranty.

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## Save this Manual

This manual provides guidelines for safe and reliable battery operation. Save this manual, it contains important installation and operating instructions. If you have any questions about the safe installation, operation, or maintenance of the batteries, contact a ZincFive support representative. (visit [zincfive.com/support](https://zincfive.com/support) or call 888-517-7776).

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## Disclaimer

While efforts have been made to ensure the accuracy and validity of information contained in the document, ZincFive assumes no responsibility and disclaims all liability for any errors and/or omissions that may be contained herein.

Due to possible changes and/or updates to component design and software applications, this document, completely or in part may become obsolete or out-of-date until a subsequent revision is released by ZincFive.

## IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

THIS MANUAL CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS FOR ZINC FIVE BC SERIES UPS BATTERY CABINET THAT SHOULD BE FOLLOWED DURING INSTALLATION, OPERATION, STORAGE AND MAINTENANCE OF THE UPS AND BATTERIES. FAILURE TO HEED THESE INSTRUCTIONS AND WARNINGS WILL VOID YOUR WARRANTY.

# Safety

## Safety Symbols

ZincFive BC Series UPS Battery Cabinet are carefully designed and manufactured to ensure that they are safe and reliable products when used properly. To ensure the safe and proper use of ZincFive BC Series UPS Battery Cabinet, the following symbols are used throughout this manual or on the equipment. Operators, buyers, and technicians must observe each occurrence of these symbols as they appear throughout the document. Only qualified personnel should carry out instructions accompanied by these symbols.



*DANGER Symbol*

**DANGER:**

An electrical danger exists in this area. Use extreme caution at all times.

*Symbole de danger*

**DANGER:**

Un danger électrique existe dans ce domaine. Faites preuve d'une extrême prudence en tout temps.



*CAUTION Symbol*

**CAUTION:**

Important information or operating instructions. Follow them exactly.

*Symbole d'attention*

**ATTENTION:**

Informations importantes ou instructions d'exploitation. Suivez-les exactement.



*Protective Earth/Ground Symbol*

Used to designate a connection point to ground.








*Symbole de terre de protection/  
symbole de terre*

Désigne un point de connexion à la terre.

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## Battery Safety

### English

-  This battery must be installed by qualified personnel in accordance with the latest edition of the National Electrical Code ANSI/NFPA 70 and/or Canadian Electrical Code, Part I, CSA C22.1.
-  To prevent accidental shorts, shocks or electrocutions, never let water or any form of liquid touch, surround or enter the batteries.
-  Do not operate the batteries with damaged cables and wires. Defective cables and wires must be replaced before system installation. Prior to system installation, verify that all cables and wires are properly secured and connected. Faulty connections can interrupt operation and cause irreparable damage to this product.
-  Opening or attempting to dismantle the battery case will void the warranty and create a risk of electrical short circuit, burns or other physical harm
-  Do not dispose of batteries in a fire. The batteries may explode.
-  Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
-  A battery can present a risk of electrical shock and high short-circuit current. Contact with any part of a grounded battery can result in electrical shock. The following precautions should be observed when working on batteries:
  - a. Remove watches, rings, or other metal objects.
  - b. Use tools with insulated handles.
  - c. Wear rubber gloves and boots.
  - d. Do not lay tools or metal parts on top of batteries.
  - e. Disconnect charging source and load prior to installing or maintaining the battery.
  - f. Remove battery grounds during installation and maintenance to reduce likelihood of shock.
  - g. Remove the connection from ground if any part of the battery is determined to be grounded.

**Note:** Reference the Z5 13-80 H S F Safety Data Sheet for additional battery safety instructions.  
<https://www.zincfive.com/subc-prismatic-material-safety-data-sheet>

### French

-  Cette batterie doit être installée dans les applications d'utilisation fin par un personnel qualifié dans l'utilisation sécuritaire des alimentations à haute énergie et de leurs batteries. La connaissance du code électrique local et de leur application sécuritaire est également suppose.
-  Pour éviter les shorts, chocs ou électrocutions accidentels, ne laissez jamais l'eau ou toute autre forme de toucher liquide, entourer ou entrer dans les batteries.
-  Ne pas faire fonctionner les batteries avec des câbles et des fils endommagés. Les câbles et les fils défectueux doivent être remplacés avant l'installation du système. Avant l'installation du système, vérifiez que tous les câbles et fils sont correctement fixés et connectés. Les connexions défectueuses peuvent interrompre le fonctionnement et causer des dommages irréparables à ce produit.
-  Le démantèlement ou l'ouverture de l'enceinte de la batterie annulera la garantie du produit et créera un risque de choc électrique.

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## Battery Warnings and Cautions

### English



SHIELD EYES AT ALL TIMES WITH PROTECTIVE GEAR.

NO SPARKS. FLAMES. SMOKING.

ALKALINE ELECTROLYTES.

FLUSH EYES IMMEDIATELY WITH WATER.

WET NON-SPILLABLE.

DO NOT INCINERATE PUNCTURE OR IMPACT.

DO NOT SHORT CIRCUIT.

KEEP OUT OF REACH OF CHILDREN. DO NOT TIP. KEEP LEVEL.

**WARNING:** RISK OF FIRE, EXPLOSION, OR BURNS. DO NOT DISASSEMBLE, HEAT ABOVE 75°C, OR INCINERATE.

### French



PROTÉGER LES YEUX EN TOUT TEMPS AVEC UN ÉQUIPEMENT DE PROTECTION.

PAS D'ÉTINCELLES OU DE FLAMMES. INTERDICTION DE FUMER.

ÉLECTROLYTES ALCALINS.

RINCER LES YEUX IMMÉDIATEMENT AVEC DE L'EAU.

HUMIDE ÉTANCHE.

NE PAS INCINÉRER, PERFORER OU COGNER.

NE PAS COURT-CIRCUITER.

TENIR HORS DE PORTÉE DES ENFANTS. NE PAS RENSERSELER. MAINTENIR À NIVEAU.

**ATTENTION :** RISQUE D'INCENDIE, D'EXPLOSION OU DE BRÛLURES. NE PAS DÉMONTER, CHAUFFER AU-DESSUS DE 75°C, OU INCINÉRER.

## Specifications

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Refer to the ZincFive BC Series UPS Battery Cabinet data sheet for specifications.  
[zincfive.com/zincfive-ups-bc-series](http://zincfive.com/zincfive-ups-bc-series)



# Safety Precautions

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## **DANGER: HAZARD OF ELECTRIC SHOCK, EXPOSITION OR ARC FLASH**

This product must be installed by qualified personnel according to the requirements defined below. This battery cabinet must be installed according to local and national regulations. Install the battery cabinet according to the following standards (depending on your local area):

- **National Electrical Code NFPA 70**
- **Canadian Electrical Code CSA C22.1**

The battery cabinet must be installed in a temperature controlled area free of conductive contaminants. Install on a level, solid surface (e.g. concrete or floor stand) that can support the weight of the system.

Follow all safety precautions when working on this system and always wear proper safety equipment including eye protection.

**Notice:** To limit drift in SOC with extended storage, the batteries must not be stored more than six months without recharging.

If attached to a UPS that remains de-energized for a long period ZincFive recommends you energize the UPS system every six months for a 12 hour period in order to recharge the batteries.

**HIGH VOLTAGE:** The Battery Cabinet Voltage varies by model between **370Vdc - 596Vdc**

**MAXIMUM FAULT RATING (BREAKER):** 50kA (instantaneous trip <10mS for any current  $\geq 7800A$ )

**ARC FLASH DETAILS:** Incident Energy at: 18in, Min. Arc Rating: 20 cal/cm<sup>2</sup>, Arc Flash Boundary: 72.5in

**MAXIMUM SHORT CIRCUIT RATING (BATTERY):** 5400A

## Tools

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Use insulated tools for all installation and maintenance. The batteries and all bolts come pre-torqued and marked. The tools needed for final installation include:

- An insulated Flat Head Screwdriver: For installation of AC wires to terminal block.
- Insulated 8mm or 5/16" Hex driver bit: For DC Breaker termination.
- Long and short #2 Philips head screwdriver.
- Insulated Torque Wrench with 10MM Socket: For Battery bolts.

# Précautions de sécurité

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## **DANGER : RISQUE DE CHOC ÉLECTRIQUE, D'EXPLOSION OU D'ÉCLAT D'ARC ÉLECTRIQUE**

Ce produit doit être installé par un personnel qualifié conformément aux exigences définies ci-dessous. L'armoire de batterie doit être installée conformément aux règlements locaux et nationaux. Installez l'armoire de batterie selon les normes suivantes (en fonction de votre région) :

- **Code national de l'électricité NFPA 70**
- **Code canadien de l'électricité CSA C22.1**

L'armoire de batterie doit être installée dans une zone à température contrôlée exempte de contaminants conducteurs. Installez sur une surface plane, solide (par exemple, support en béton ou au sol) capable de supporter le poids du système.

Suivez toutes les précautions de sécurité lorsque vous travaillez sur le système et portez toujours l'équipement de sécurité approprié, notamment une protection oculaire.

**Avis :** Pour limiter la dérive de l'état de charge lors d'un entreposage de longue durée, il ne faut pas entreposer les batteries plus de six mois sans les recharger.

Si relié à une ASI qui reste inerte pendant une période prolongée, ZincFive vous recommande d'alimenter l'ASI tous les six mois pendant une période de 12 heures afin de recharger les batteries.

**HAUTE TENSION :** La tension d'armoire de batteries varie selon le modèle entre 370 V c.c et 596 V c.c.

**VALEUR ASSIGNÉE DE RUPTURE MAXIMALE (DISJONCTEUR) :** 50 kA (déclenchement instantané < 10 mS pour tout courant  $\geq 7\,800$  A)

**DÉTAILS DE L'ÉCLAT D'ARC ÉLECTRIQUE :** Énergie incidente à : 18 po, Valeur assignée d'arc minimale : 20 cal/cm<sup>2</sup>, Limite d'arc électrique : 72,5 po

**TENUE MAXIMALE AU COURT-CIRCUIT (BATTERIE) :** 5 400 A

## Outils

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Utilisez des outils isolés pour toute tâche d'installation et d'entretien. Les batteries et tous les boulons sont préserrés et marqués. Outils nécessaires pour l'installation finale :

- Un tournevis à tête plate isolé : Pour installer les fils c.a. au bornier.
- Embout de tournevis hexagonal isolé 8 mm ou 5/16 po pour le raccordement du disjoncteur c.c.
- Tournevis cruciforme no 2 long et court.
- Clé dynamométrique isolée avec douille de 10 mm : Pour les boulons de batterie.

# Shipping and Unpacking

The Battery Cabinet comes fully assembled and is shipped in an Air Ride Truck to limit vibrational damage. The cabinet will be shipped upright. It can be shipped with or without a pallet.

**CAUTION:** The Cabinet has a high center of gravity (36.25") – use caution when moving.

Upon arrival follow these steps:

1. Inspect the outside of the cabinet for damage prior to signing for release.

**Visible Damage**

- It is the responsibility of the person receiving the shipment to inventory and fully inspect all materials against the bill of lading or weigh bill IMMEDIATELY while the carrier representative is still present. Ensure that all items are accounted for, including number of skids and quantity of boxes. Also note any visible external damage that may have occurred during transit. Make all applicable notations on the delivery receipt before signing and file a damage report with the carrier.
- Examine the TILT and SHOCK sensor on the cabinet. Both are just notifications to show the unit may have been exposed to excessive forces and that inspection is required to ensure no damage was done. Units received should be accepted from the shipper, but the activation must be noted with the shipper at time of acceptance.

2. Remove foam wrap, protectors, and clear plastic over the battery cabinet.

3. There are NO strap downs on the batteries. Everything will remain secure in place.

4. Perform a visual inspection of the cabinet.

- a. Open the door and examine all the batteries/drawers to make sure everything is still secure and attached. Note: Drawers are locked in place with two bolts and will not pull out without those being removed.

b. Check torque seal markers on batteries

**c. Concealed Damage**

- Immediately unpack the system and check for any concealed damage. Check the materials received against the detailed packing list to verify the quantity and the condition as complete and satisfactory.
- Note observations of any liquid or crystallized electrolyte on the sides of the batteries.

**d. Return of Damaged Goods**

- For product returns, please contact a ZincFive support representative to obtain a return material authorization (RMA).

5. Save the packaging material in the event a return is needed. ZincFive does not warranty product damage from return shipping unless it is shipped in approved packaging. Carefully move the cabinet to the install location using necessary fork lift / pallet jack

- a. Spread forks as wide as possible when lifting.
- b. Keep as low as possible to keep center of gravity as low as possible.
- c. Lower kick-plate is zip tied inside cabinet, install once cabinet has been moved and secured to the floor.
- d. The cabinet has been designed to be movable while fully loaded with batteries.

**NOTES:**

- DO NOT LIFT from the control box as it will not support the frame weight. Cabinet may only be lifted from the bottom of the frame.
- Refer to Appendix A for additional moving details.



*Figure 1. Palletized Battery Cabinet Packaging*

**ZincFive, Inc.**  
20170 SW 112th Ave.  
Tualatin, Oregon 97062

# Placement and Bolt Down

1. The Battery Cabinet has four bolt locations for securing to the floor.
  - Refer to figure below for Bolt Hole location.
2. The cabinet should be placed where it will be mounted, holes marked, and appropriate size bolts placed for anchoring the cabinet.
  - It is not necessary to remove the batteries from the frame to bolt down the cabinet.
3. Re-install the cabinet at install location with anchor bolts installed.
4. Anchor the frame using appropriate size Nut and Bolts for the install location.
  - Anchor bolt hole dimension: 0.875"

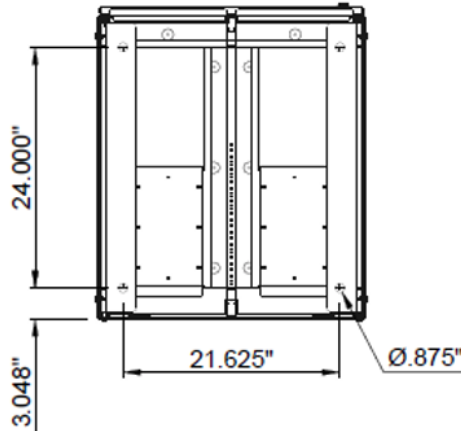


Figure 2. Anchor Bolt hole locations

## Additional Inspection

Once the cabinet has been placed at its final install location perform a final inspection. Follow all safety precautions when working on this system and always wear proper safety equipment including eye protection. The cabinet voltage will exceed 500V between some of the batteries/components.

1. Inspection of the Batteries installed
  - a. Visual inspection of battery strings & cables. Confirm nothing has come loose – torque markings examined. Visually check the torque paint. Image to the right shows an example of a broken torque seal. Recheck torque if this occurs.  
Torque to: 9.1 +/- 0.9 N-m
  - b. Inspect outside of cabinet for damage – do thorough check on the inside.
2. Battery cabinet wiring connections confirmation
  - a. Confirm no loose wiring and all connections still secure.
  - b. Image to the right shows an improperly connected fast-on. Remove and reattach correctly if discovered.
  - c. Check the BMS wiring in the TOP box to confirm nothing has come loose during setting.
3. Battery voltage confirmation
  - Confirm all batteries are within +/-0.3V of one another. Since all batteries ship at 50% SOC State of Charge it is likely the batteries will be around 13.5 +/- 0.3V.



# Field Connections

Below are the final connections required prior to going through the power ON sequence.

1. GROUND: Connect the GROUND wire to the GROUND terminal at the top of the cabinet.
  - Refer to Appendix B for further details.

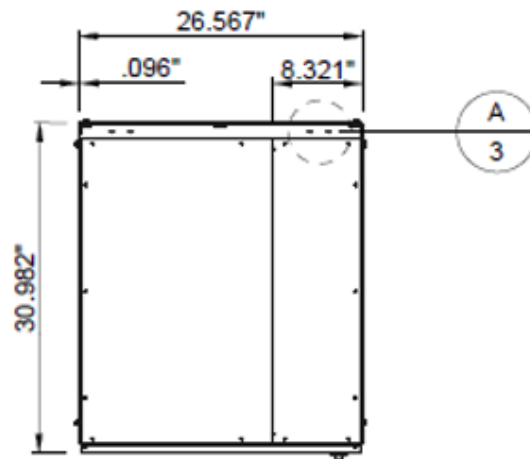


Figure 4. Top of cabinet Grounding Locations (Left and Right sides)

2. DC: Connect the Positive and Negative conductors to the circuit breaker.
  - a. Make sure all power is off before making connection.
  - b. Positive conductor(s) will be attached to Terminal 4 (Bottom of circuit breaker)
  - c. Negative conductor(s) will be attached to Terminal 6 (Top of circuit breaker)
  - d. The circuit breaker torque and wire details:
    - Torque to: 442 in-lb/50N-m
    - Wire Details: Use 90C rated or higher, between #2/0 AWG - 500 kcmil Copper or Aluminum.

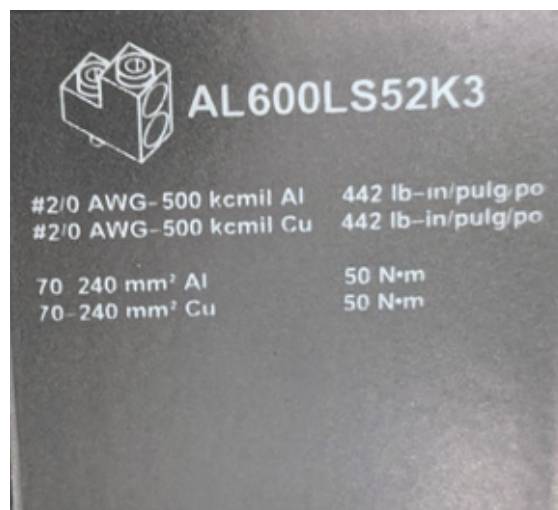


Figure 5. Breaker connection detail

- e. Refer to Appendix C for the circuit breaker connection details.

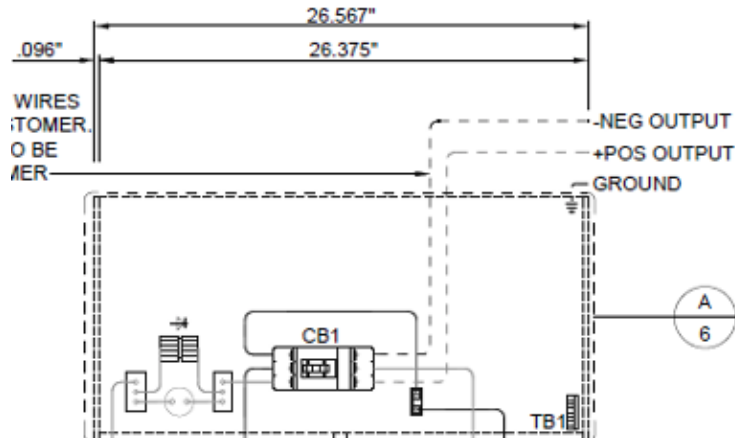


Figure 6. Breaker connection detail

3. AC: Connect the Ground, Neutral and Line to the terminal block for incoming AC. Refer to figures 8 and 9.
  - a. Strip AC wiring to 8mm (5/16") length.
  - b. Insert into the DIN-RAIL Terminal block. Torque screws to 0.6-0.8Nm (5.31-7.08 in-lb).
  - c. Note: The AC power MUST be supplied by a 100Watt UPS backed circuit. This powers the BMS and must remain powered when in backup during a power outage for the system to function.
  - d. The AC is protected downline near the switch by two 5 Amp fuses (Mersen ATQR5). Fuses are provided and will need to be installed prior to power on.
  - e. The ON/OFF Switch turns ON/OFF the BMS.

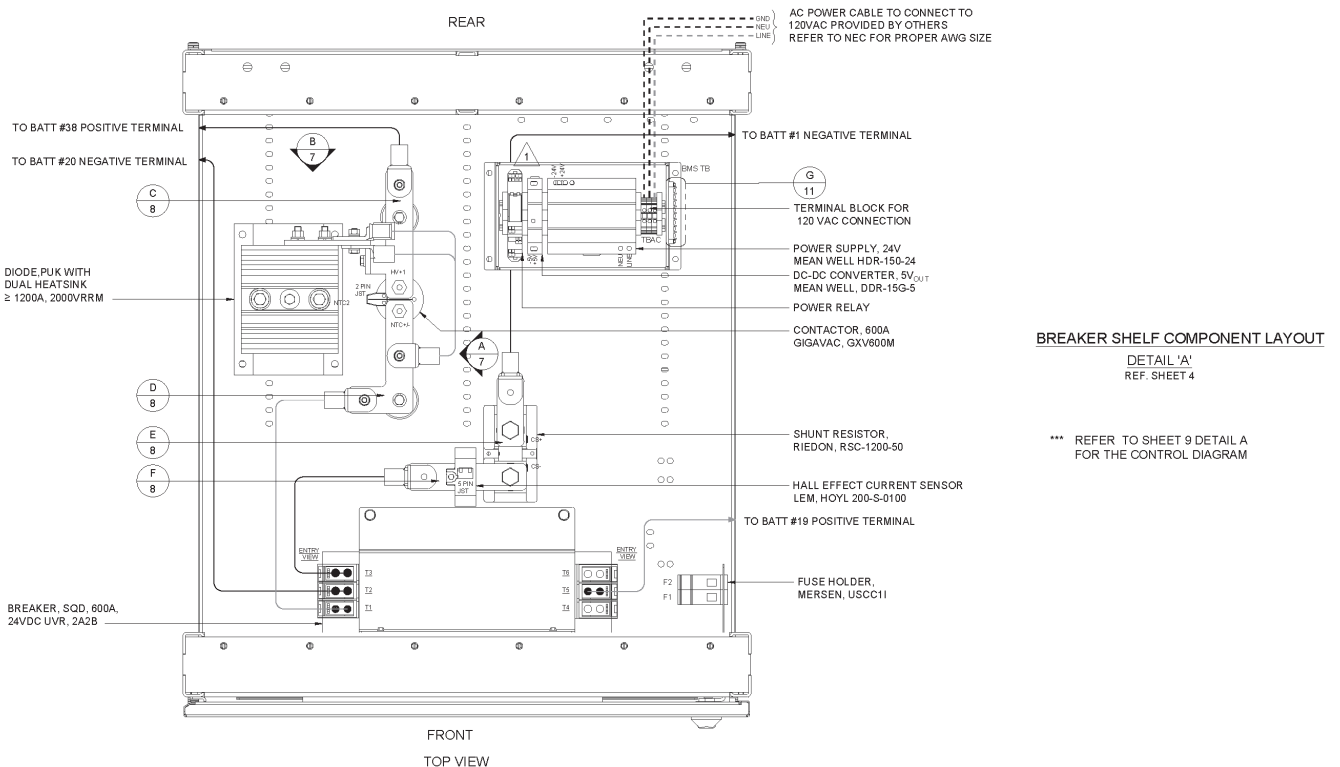


Figure 7. Location of AC into Cabinet

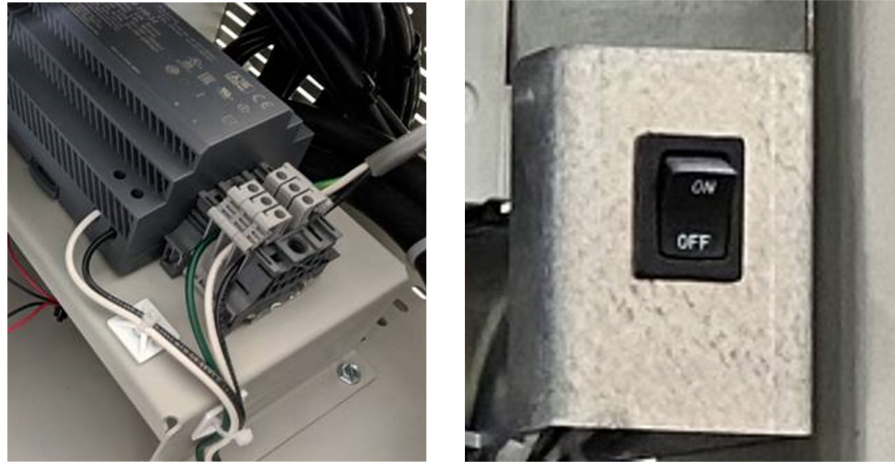


Figure 8. AC Input wiring (on right side at back of cabinet) and ON/OFF Switch

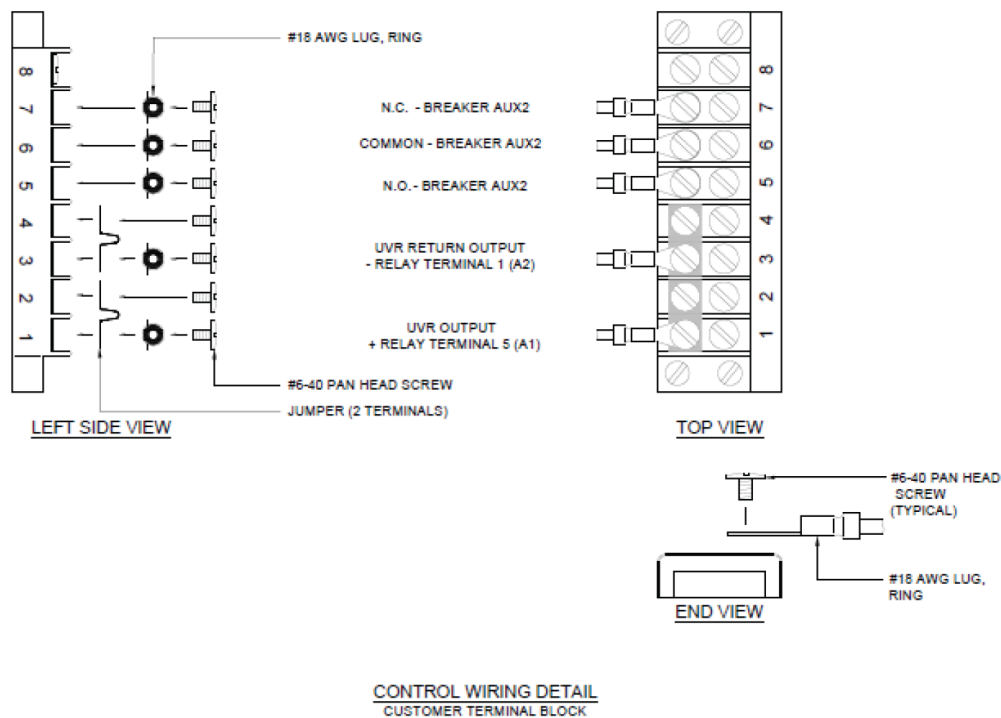


Figure 9. Pins 1,3 - UVR/Shunt Relay Access, Pins 5,6,7 (NO, COM, NC)

4. **UVR/SHUNT and AUX Access:** For UPS Systems that require an interface to the Circuit Breaker a customer accessible Terminal Block has been provided. Utilize 14 – 16 AWG UL approved wire and spade connectors.
  - a. UVR/SHUNT Relay – A relay coil is provided to facilitate external UPS connection to the battery circuit breaker, refer to the Figure. 9 for details. When the battery cabinet is configured with an UVR access, the circuit breaker cannot be turned on until UPS outputs its rated UVR voltage. When the battery cabinet is configured with a shunt access, the circuit breaker will trip when the UPS outputs its rated shunt trip voltage.
  - b. AUX Circuit Breaker Access - Access to the Circuit Breaker status is provided via NO, NC and COM on the terminal block provided, see Figure. 9 for details.
5. Confirm all the harnesses to the BMS (top Box) are connected and secure.



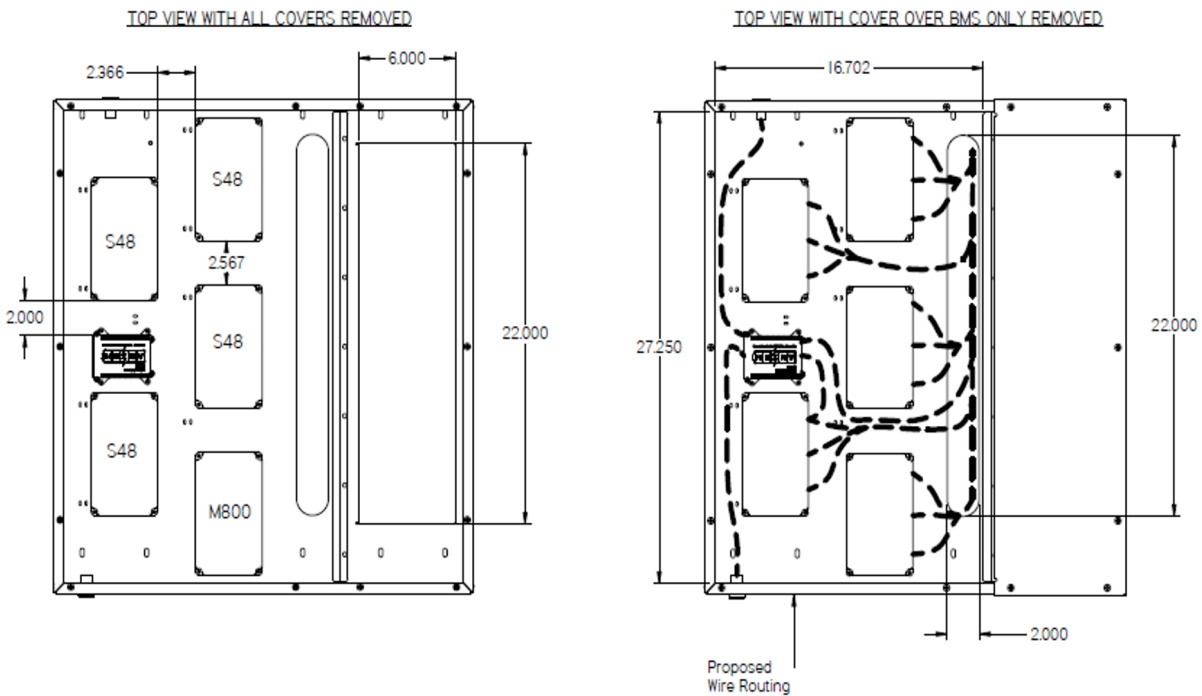


Figure 10. BMS Wiring

6. Connect Ethernet cable to back of the unit if any remote monitoring of the Battery Cabinet is desired.
  - a. Configuration details are provided in the Operations Manual.
7. Apply AC Power to the system
  - a. It will take approximate 1-3 minutes for the BMS/R3000 to initialize and communicate with the server.
    - The network requirements needed for the R3000 to communicate with the Cloud or Local server:
      1. Local DHCP assigned IPv4 address  
Inbound and Outbound permit TCP/443 and TCP/9101 to:  
139.177.197.251  
173.255.231.159  
172.105.103.167  
45.33.95.14
      2. Outbound permit tcp/3030, tcp/9101 to 172.105.23.38
  - b. If using the Cloud server, go to website to verify system is online: <https://manage.anzenbms.com/>
  - c. The system will begin in "Pre-standby state" until DC Power is applied
  - d. Confirm all batteries are within +/-0.3V of one another. Since all batteries ship between 50% State of Charge it is likely the batteries will be around 14.0 +/- 0.3V.
8. Enable the DC Power (UPS/Charger)
  - a. Ensure UPS or battery charger is set properly to manufacturers recommended settings for operation with the battery system.
  - b. Close the Breaker with the system in the "Pre-standby State." The system will immediately go into "Standby state" which means it is ready to function.
  - c. The system will transition immediately into a "Charge State" if the SOC is below 90% and battery temperatures are all 15C to 40C.
9. Perform a full or partial discharge (if possible) to confirm the system is working properly.
  - a. Confirm system shuts down properly with no system errors.



**CAUTION:**

HIGH CENTER OF GRAVITY - USE CAUTION WHEN MOVING CABINET

ONLY PERSONNEL TRAINED TO MOVE HEAVY EQUIPMENT SHOULD HANDLE THESE BATTERY SYSTEMS.

USE A FORKLIFT OR SIMILAR DEVICE WITH A CAPACITATE LIFTING CAPACITY TO LIFT THE CABINET.

NOTE THE CENTER OF GRAVITY MEASUREMENT

MOVE SLOWLY WHEN HANDLING, AVOID BOUNCING THE CABINET WHILE MOVING. THE CABINET COULD FALL FORWARD OR SIDEWAYS IF HANDLED ROUGHLY.

CABINET SYSTEMS ARE HEAVY AND COULD WEIGH AS MUCH AS 9,000 LBS PER CABINET OR MORE.

**STEPS FOR BATTERY CABINET INSTALLATION PROCEDURE**

1. TO HELP PREVENT DAMAGE, ALL PANELS FROM ALL BATTERY CABINETS SHOULD BE LABELED TO THEIR PROSPECTIVE CABINET, REMOVED AND PUT ASIDE IN A SAFE LOCATION WHILE MOVING THE CABINETS TO FINAL INSTALL POSITION.
2. INSTALL AND ALIGN THE FIRST CABINET, THEN EACH CABINET ADJACENT TO EACH OTHER. REFER TO PAGE 3 FOR PROPER LINE UP.
3. ROUTE THE POWER CABLES AS SHOWN ON SHEET 5.
4. INSTALL SIDE PANEL ON TO THE OPEN SIDES OF THE BATTERY CABINET. INSTALL THE DOORS AND LOCK WHEN NOT OPEN FOR MAINTENANCE.
5. THE CABINET MUST BE ANCHORED TO THE FLOOR FOR SEISMIC SENSITIVE AREAS, AND TO MAINTAIN THE SEISMIC INTEGRITY OF THE BATTERY CABINET ANCHORING HARDWARE IS NOT INCLUDED. CONTACT INTRAPACK TO PURCHASE ANCHORING HARDWARE.

- CAUTION: HIGH VOLTAGE, RISK OF ELECTRICAL SHOCK**

  - FOLLOW ALL SAFETY PRECAUTIONS WHEN WORKING ON THIS SYSTEM
  - ALWAYS WEAR PROPER SAFETY EQUIPMENT INCLUDING EYE PROTECTION

**> IMPORTANT <**

- REVIEW THE DRAWINGS AND READ ALL INFORMATION BEFORE DISASSEMBLING AND INSTALLING THESE BATTERY CABINETS

**\*\*\*IBC 2018 SEISMIC RATED**

**\*\*\*MAXIMUM TILT ANGLE PENDING.**

TILT FORK BACK WHEN MOVING THE CABINET TO HELP STABILIZE THE CENTER OF GRAVITY.

NOTE:  
FROM FLOOR TO CABINET LIFTING POINT IS 3.021'-  
SPREAD FORKS AS WIDE AS POSSIBLE WHEN LIFTING CABINETS.

DO NOT LIFT THE CABINET HIGHER THAN NECESSARY TO CLEAR THE FLOOR WHEN MOVING

MOVING A BATTERY CABINET

**SHIPPING INFORMATION:**

LOADED WITH BATTERIES, THE CABINETS WILL BE SHIPPED ON 1 TRUCK LOAD WITHOUT A PALLET IN AN AIR RIDE TRUCK.

DIMENSION PER CABINET IS 31.0" X 27.0" X 82.0".

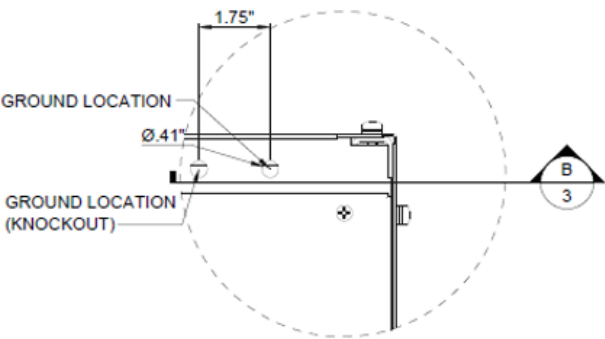
WITHOUT BATTERIES, THE CABINETS WILL BE SHIPPED ON A PALLET DIMENSION PER PALLET IS 42.0" X 43.0" X 88.0" AT 1200 LBS.

CORNER BOARDS ARE USED TO PROTECT THE CABINET CORNERS AND TO PROTECT THE TOP AND STRETCH WRAPS ARE USED TO COVER THE CABINET.

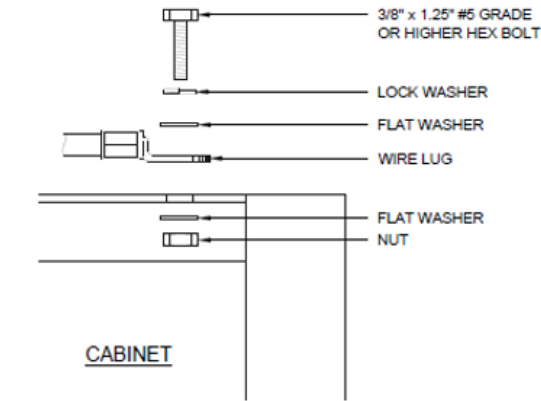
# Appendix B

**CAUTION: HIGH VOLTAGE, RISK OF ELECTRICAL SHOCK**

- FOLLOW ALL SAFETY PRECAUTIONS WHEN WORKING ON THIS SYSTEM
- ALWAYS WEAR PROPER SAFETY EQUIPMENT INCLUDING EYE PROTECTION

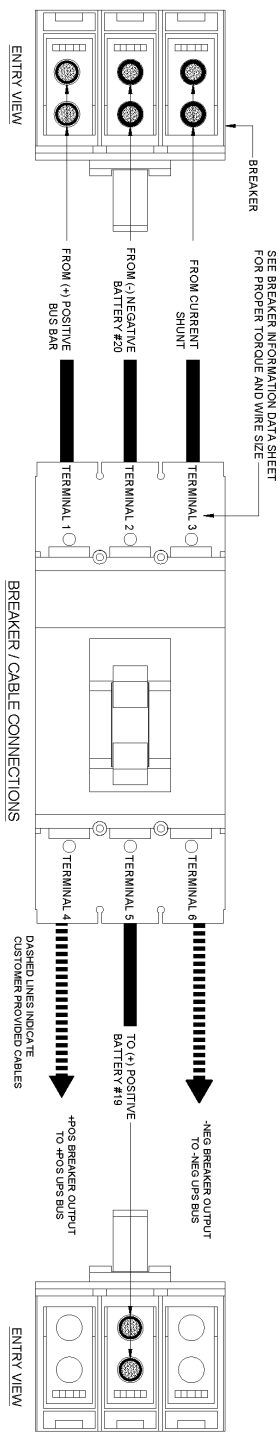


GROUNDING INSTALLATION (TOP OF CABINET)



\*\*\* GROUND WIRE AND CONNECTIONS TO BE SUPPLIED BY CUSTOMER. WIRE LENGTH AND SIZE DETERMINED BY CUSTOMER

DETAIL 'B'



BREAKER INFORMATION			
BREAKER PART NUMBER	AMPS	24 VDC DVR PART NUMBER	2A2B AUX. CONTACTS PART NUMBER
LL137960D3A8U0	600	S29410	S29450

S29450 CHARACTERISTIC			
OPERATIONAL CURRENT	AC	DC	
24 V	6 A	6 A	
48 V	6 A	2.5 A	
110 V	6 A	0.6 A	
220/240 V	6 A	-	

CAUTION: HIGH VOLTAGE, RISK OF ELECTRICAL SHOCK

- FOLLOW ALL SAFETY PRECAUTIONS WHEN WORKING ON THIS SYSTEM
- ALWAYS WEAR PROPER SAFETY EQUIPMENT INCLUDING EYE PROTECTION

LUG INFORMATION				
LUG PART NUMBER	CONDUCTOR SIZE	STRIP LENGTH	TORQUE	NECESSARY TOOLS
AL600LS52K3	2/0 AWG - 500 KCMIL	1.2 INCH	442 LB-IN	TORQUE WRENCH, RATED 500 IN-LBS 8 MM HEX WRENCH
<a href="https://download.schneider-electric.com/files?p=instruction-sheet&amp;_The_Nemesis_1A174748.pdf&amp;_Dc_174748">https://download.schneider-electric.com/files?p=instruction-sheet&amp;_The_Nemesis_1A174748.pdf&amp;_Dc_174748</a>				

# Notes

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